



APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/617,509	01/05/2010	7643168	06-0719	4247

67589 7590 12/16/2009  
MOORE LANDREY  
1609 SHOAL CREEK BLVD  
SUITE 100  
AUSTIN, TX 78701

### ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

#### **Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)** (application filed on or after May 29, 2000)

The Patent Term Adjustment is 134 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional applicants):

David A Monroe, San Antonio, TX;

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** Mail Stop ISSUE FEE  
 Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 or **Fax** (571)-273-2885

**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (from US Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

**Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

	(Depositor's name)
	(Signature)
	(Date)

07589 7590 08/20/2009

MOORE LANDREY  
 1609 SHOAL CREEK BLVD  
 SUITE 100  
 AUSTIN, TX 78701

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/617,569	12/28/2006	David A Monroe	06-0719	4247

TITLE OF INVENTION: APPARATUS FOR CAPTURING, CONVERTING AND TRANSMITTING A VISUAL IMAGE SIGNAL VIA A DIGITAL TRANSMISSION SYSTEM

APPL. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	00	\$1810	11/20/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
SAPAIDOUK, HOUSHANG	2825	358-474000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.353).

Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

"Fee Address" indication (or "Fee Address" Indication form PTO/SB/47, Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively, \_\_\_\_\_ 1

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. \_\_\_\_\_ 2

\_\_\_\_\_ 3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE \_\_\_\_\_

(B) RESIDENCE (CITY and STATE OR COUNTRY) \_\_\_\_\_

Please check the appropriate assignee category or categories (will not be printed on the patent):  Individual  Corporation or other private group entity  Government

4a. The following fee(s) are submitted:

Issue Fee

Publication Fee (No small entity discount permitted)

Advance Order - # of Copies 4

4b. Payment of Fee(s). (Please first reapply any previously paid issue fee shown above)

A check is enclosed.

Payment by credit card. Form PTO-2028 is attached.

The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number 50-9122 (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above):

a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant, a registered attorney or agent, or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature [Signature] Date Nov. 19 2009

Typed or printed name Jeffrey D. Hunt Registration No. 38,189

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 15 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	11617509
<b>Filing Date:</b>	28-Dec-2006
<b>Title of Invention:</b>	APPARATUS FOR CAPTURING, CONVERTING AND TRANSMITTING A VISUAL IMAGE SIGNAL VIA A DIGITAL TRANSMISSION SYSTEM
<b>First Named Inventor/Applicant Name:</b>	David A Monroe
<b>Filer:</b>	Jeffrey Darryl Hunt/Jacob Cowart
<b>Attorney Docket Number:</b>	06-0719

Filed as Large Entity

### Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				
Utility Appl issue fee	1501	1	1510	1510
Publ. Fee- early, voluntary, or normal	1504	1	300	300

Kyocera Ex. 1004

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Extension-of-Time:</b>				
<b>Miscellaneous:</b>				
<b>Total in USD (\$)</b>				<b>1810</b>



## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	6496890
<b>Application Number:</b>	11617509
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	4247
<b>Title of Invention:</b>	APPARATUS FOR CAPTURING, CONVERTING AND TRANSMITTING A VISUAL IMAGE SIGNAL VIA A DIGITAL TRANSMISSION SYSTEM
<b>First Named Inventor/Applicant Name:</b>	David A Monroe
<b>Customer Number:</b>	67589
<b>Filer:</b>	Jeffrey Darryl Hunt/Jacob Cowart
<b>Filer Authorized By:</b>	Jeffrey Darryl Hunt
<b>Attorney Docket Number:</b>	06-0719
<b>Receipt Date:</b>	20-NOV-2009
<b>Filing Date:</b>	28-DEC-2006
<b>Time Stamp:</b>	15:01:10
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$1810
RAM confirmation Number	1289
Deposit Account	504128
Authorized User	

### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part (if appl.)	Pages (if appl.)

1	Issue Fee Payment (PTO-85B)	feetrans.pdf	332913	no	1
			3f6a1b7d298ed561825a0d84402d4e9b8c25b2ff		

**Warnings:**

**Information:**

2	Fee Worksheet (PTO-875)	fee-info.pdf	32169	no	2
			2895ed43e36b56673d47cc9ea335def7da67049a		

**Warnings:**

**Information:**

<b>Total Files Size (in bytes):</b>			365082		
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**This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.**

**New Applications Under 35 U.S.C. 111**

**If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.**

**National Stage of an International Application under 35 U.S.C. 371**

**If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.**

**New International Application Filed with the USPTO as a Receiving Office**

**If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.**



NOTICE OF ALLOWANCE AND FEE(S) DUE

67589 7590 11/16/2009

MOORE LANDREY
1609 SHOAL CREEK BLVD
SUITE 100
AUSTIN, TX 78701

EXAMINER
SAFAIPOUR, HOUSHANG
ART UNIT PAPER NUMBER

2625
DATE MAILED: 11/16/2009

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.

11/617,509 12/28/2006 David A Monroe 06-0719 4247

TITLE OF INVENTION: APPARATUS FOR CAPTURING, CONVERTING AND TRANSMITTING A VISUAL IMAGE SIGNAL VIA A DIGITAL TRANSMISSION SYSTEM

Table with 7 columns: APPLN. TYPE, SMALL ENTITY, ISSUE FEE DUE, PUBLICATION FEE DUE, PREV. PAID ISSUE FEE, TOTAL FEE(S) DUE, DATE DUE

nonprovisional NO \$1510 \$300 \$0 \$1810 02/16/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

**PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE  
 Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 or Fax (571)-273-2885**

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CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

67589 7590 11/16/2009

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**Certificate of Mailing or Transmission**

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(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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11/617,509 12/28/2006 David A Monroe 06-0719 4247

TITLE OF INVENTION: APPARATUS FOR CAPTURING, CONVERTING AND TRANSMITTING A VISUAL IMAGE SIGNAL VIA A DIGITAL TRANSMISSION SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional NO \$1510 \$300 \$0 \$1810 02/16/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
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SAFAIPOUR, HOUSHANG 2625 358-474000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 \_\_\_\_\_
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 \_\_\_\_\_
- 3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY AND STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) :  Individual  Corporation or other private group entity  Government

4a. The following fee(s) are submitted:

- Issue Fee
- Publication Fee (No small entity discount permitted)
- Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- A check is enclosed.
- Payment by credit card. Form PTO-2038 is attached.
- The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.
- b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_ Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_ Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P. O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
11/617,509 12/28/2006 David A Monroe 06-0719 4247

67589 7590 11/16/2009
MOORE LANDREY
1609 SHOAL CREEK BLVD
SUITE 100
AUSTIN, TX 78701

EXAMINER

SAFAIPOUR, HOUSHANG

ART UNIT PAPER NUMBER

2625

DATE MAILED: 11/16/2009

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 134 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 134 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

**Notice of Allowability**

<b>Application No.</b> 11/617,509	<b>Applicant(s)</b> MONROE, DAVID A	
<b>Examiner</b> HOUSHANG SAFAIPOUR	<b>Art Unit</b> 2625	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- 1.  This communication is responsive to RCE filed on 10/20/2009.
- 2.  The allowed claim(s) is/are 43-73.
- 3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All   b)  Some\*   c)  None   of the:
    - 1.  Certified copies of the priority documents have been received.
    - 2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    - 3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

- 4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  - 5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
    - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
- 6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- 1.  Notice of References Cited (PTO-892)
- 2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3.  Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
- 4.  Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5.  Notice of Informal Patent Application
- 6.  Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_.
- 7.  Examiner's Amendment/Comment
- 8.  Examiner's Statement of Reasons for Allowance
- 9.  Other \_\_\_\_\_.

/Houshang Safaipour/  
Primary Examiner, Art Unit 2625

## ***EXAMINER'S AMENDMENT***

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of issue fee.

Authorization to amend the claims was given in telephone interview with Jeffrey D. Hunt (Registration No. 38,189) on August 12, 2009.

In the claims:

62. (currently amended) The apparatus according to claim ~~62~~ 61 and further comprising: the first housing section being supported for pivotal movement relative to the second housing section about a pivot axis.

74. Canceled

75. Canceled

76. Canceled

/Houshang Safaipour/  
Primary Examiner, Art Unit 2625

Art Unit: 2625

### **DETAILED ACTION**

#### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114.

Applicant's submission filed on 10/20/2009 has been entered.

#### **Reasons for Allowance**

2. Claims 1-42 and 74-76 are canceled.
3. Claims 43-73 are allowed.
4. This is examiner's statement of reasons for allowance.

Regarding claims 43-73, the prior art, either singularly or in combination, does not teach or suggest an apparatus comprising:

a portable housing, the portable housing being wireless:

an image collection device supported by the portable housing, the image collection device being operable to provide visual image data of a field of view;

memory supported by the portable housing, the memory being suitable to receive visual image data in digital format, the memory being suitable to retain the visual image data in digital format,



Art Unit: 2625

an input device supported by the portable housing, the input device being operable by the user;

operation of the input device by the user enabling the memory to retain the visual image data in digital format, the memory being suitable to provide retained visual image data in digital format;

media supported by the portable housing, the media being suitable to embody at least one compression algorithm;

at least one processing platform supported by the portable housing, the at least one processing platform being operable to execute the at least one compression algorithm, the at least one processing platform being provided the retained visual image data in digital format, execution of the at least one compression algorithm providing compressed visual image data;

a display supported by the portable housing, the display being operable to display for viewing by a user a perceptible visual image of the field of view, the perceptible visual image being generated from the visual image data in digital format;

a mobile phone supported by the portable housing, the mobile phone being operable to send to a remote recipient a wireless transmission, the wireless transmission conveying the compressed digital image data; and

movement by the user of the portable housing commonly moving the image collection device,

movement by the user of the portable housing commonly moving the display.

The features identified, in combination with other claim limitations, are neither suggested nor discussed by the prior art of record.

Art Unit: 2625

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOUSHANG SAFAIPOUR whose telephone number is (571)272-7412. The examiner can normally be reached on Mon.-Fri. from 6:00am to 2:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571)272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Houshang Safaipour/  
Primary Examiner, Art Unit 2625

<b>Notice of References Cited</b>	Application/Control No. 11/617,509	Applicant(s)/Patent Under Reexamination MONROE, DAVID A	
	Examiner HOUSHANG SAFAIPOUR	Art Unit 2625	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A US-6,035,212	03-2000	Rostoker et al.	455/552.1
*	B US-6,243,056	06-2001	Jachimowicz et al.	345/82
*	C US-6,036,086	03-2000	Sizer et al.	235/375
*	D US-5,550,646	08-1996	Hassan et al.	358/442
	E US-			
	F US-			
	G US-			
	H US-			
	I US-			
	J US-			
	K US-			
	L US-			
	M US-			


**FOREIGN PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N				
	O				
	P				
	Q				
	R				
	S				
	T				

**NON-PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)				
	U				
	V				
	W				
	X				

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

<b>Index of Claims</b>  	<b>Application/Control No.</b>  11617509	<b>Applicant(s)/Patent Under Reexamination</b>  MONROE, DAVID A
	<b>Examiner</b>  HOUSHANG SAFAIPOUR	<b>Art Unit</b>  2625

✓	<b>Rejected</b>
=	<b>Allowed</b>


-	<b>Cancelled</b>
÷	<b>Restricted</b>

N	<b>Non-Elected</b>
I	<b>Interference</b>

A	<b>Appeal</b>
O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47

CLAIM		DATE							
Final	Original	12/06/2008	08/15/2009	11/07/2009					
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	2	-	-	-					
	3	-	-	-					
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	5	-	-	-					
	6	-	-	-					
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	35	-	-	-					
	36	-	-	-					

<b>Index of Claims</b> 	<b>Application/Control No.</b> 11617509	<b>Applicant(s)/Patent Under Reexamination</b> MONROE, DAVID A
	<b>Examiner</b> HOUSHANG SAFAIPOUR	<b>Art Unit</b> 2625

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=	<b>Allowed</b>


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Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47

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27	69	✓	=	=					
28	70	✓	=	=					
29	71	✓	=	=					
30	72	✓	=	=					

<b>Index of Claims</b>  	<b>Application/Control No.</b> 11617509	<b>Applicant(s)/Patent Under Reexamination</b> MONROE, DAVID A
	<b>Examiner</b> HOUSHANG SAFAIPOUR	<b>Art Unit</b> 2625

✓	<b>Rejected</b>
=	<b>Allowed</b>


-	<b>Cancelled</b>
÷	<b>Restricted</b>

N	<b>Non-Elected</b>
I	<b>Interference</b>

A	<b>Appeal</b>
O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47


CLAIM		DATE							
Final	Original	12/06/2008	08/15/2009	11/07/2009					
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	74	✓	-	-					
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<b>Issue Classification</b> 	<b>Application/Control No.</b> 11617509	<b>Applicant(s)/Patent Under Reexamination</b> MONROE, DAVID A
	<b>Examiner</b> HOUSHANG SAFAIPOUR	<b>Art Unit</b> 2625

ORIGINAL					INTERNATIONAL CLASSIFICATION											
CLASS		SUBCLASS			CLAIMED				NON-CLAIMED							
358		1.15			H	0	4	N	1 / 00 (2006.01.01)							
<b>CROSS REFERENCE(S)</b>					G	0	6	F	3 / 12 (2006.01.01)							
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)															
358	402	403	407													

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant																<input type="checkbox"/> CPA		<input type="checkbox"/> T.D.		<input type="checkbox"/> R.1.47	
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	5		21		37		11		53		27		69								
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	13		29		3		45		19												
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	16		32		6		48		22												

NONE		<b>Total Claims Allowed:</b>	
		31	
(Assistant Examiner) /HOUSHANG SAFAIPOUR/ Primary Examiner.Art Unit 2625 (Primary Examiner)	(Date) 11/7/2009 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 6A & 6B

<b>Search Notes</b>  	<b>Application/Control No.</b>  111617509	<b>Applicant(s)/Patent Under Reexamination</b>  MONROE, DAVID A
	<b>Examiner</b>  HOUSHANG SAFAIPOUR	<b>Art Unit</b>  2625

<b>SEARCHED</b>			
<b>Class</b>	<b>Subclass</b>	<b>Date</b>	<b>Examiner</b>
358	1.15, 402, 403, 407, 442, 468, 474	12/5/08	HS

<b>SEARCH NOTES</b>		
<b>Search Notes</b>	<b>Date</b>	<b>Examiner</b>
East	12/5/08	HS
Inventor search performed	8/15/09	HS
Interference search performed	8/15/09	HS

<b>INTERFERENCE SEARCH</b>			
<b>Class</b>	<b>Subclass</b>	<b>Date</b>	<b>Examiner</b>
358	1.15, 402, 403, 407	8/15/09	HS

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		11617509
	Filing Date		2006-12-28
	First Named Inventor	David A Monroe	
	Art Unit		2625
	Examiner Name	Houshang Safaipoor	
	Attorney Docket Number		06-0719

U.S.PATENTS							Remove
Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	
	1	5136628		1992-08-04	Araki et al.		
	2	5164979		1992-11-17	Choi et al.		
	3	5400068		1995-03-21	Ishida et al.		
	4	7372447		2008-05-13	Jacobson et al.		
	5	5042061		1991-08-20	Kaneke et al.		
	6	5485504		1996-01-16	Ohnsorge		
	7	7310072		2007-12-18	Ronzani		
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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number	11617509	11617509 - GAU: 2625
	Filing Date	2006-12-28	
	First Named Inventor	David A Monroe	
	Art Unit	2625	
	Examiner Name	Houshang Safaipour	
	Attorney Docket Number	06-0719	

Examiner Initial*	Cite No	Publication Number	Kind Code <sup>1</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1					

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**FOREIGN PATENT DOCUMENTS**

Examiner Initial*	Cite No	Foreign Document Number <sup>3</sup>	Country Code <sup>2</sup>	Kind Code <sup>4</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T <sup>5</sup>
	1	JP03089691			1991-04-15	Yamamoto		<input type="checkbox"/>

If you wish to add additional Foreign Patent Document citation information please click the Add button.

**NON-PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>5</sup>
	1	Copy of Office Action issued on October 4, 2007 in Appl. No. 11/617,509 (present application).	<input type="checkbox"/>
	2	Copy of Office Action issued on December 12, 2008 in Appl. No. 11/617,509 (present application).	<input type="checkbox"/>
	3	Copy of Office Action issued on September 27, 2004 in Appl. No. 10/336,470 (the parent of the present application).	<input type="checkbox"/>
	4	Copy of Office Action issued on August 9, 2005 in Appl. No. 10/336,470 (the parent of the present application).	<input type="checkbox"/>

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number	11617509	11617509 - GAU: 2625
	Filing Date	2006-12-28	
	First Named Inventor	David A Monroe	
	Art Unit	2625	
	Examiner Name	Houshang Safaipour	
	Attorney Docket Number	06-0719	

5	Copy of Office Action issued on December 16, 2005 in Appl. No. 10/336,470 (the parent of the present application).	<input type="checkbox"/>
6	Copy of Office Action issued on July 27, 2006 in Appl. No. 10/336,470 (the parent of the present application).	<input type="checkbox"/>
7	Copy of Office Action issued on March 8, 2007 in Appl. No. 10/366,470 (the parent of the present application).	<input type="checkbox"/>

If you wish to add additional non-patent literature document citation information please click the Add button

**EXAMINER SIGNATURE**

Examiner Signature	/Houshang Safaipour/	Date Considered	11/07/2009
--------------------	----------------------	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> See Kind Codes of USPTO Patent Documents at [www.USPTO.GOV](http://www.USPTO.GOV) or MPEP 901.04. <sup>2</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>3</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>4</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>5</sup> Applicant is to place a check mark here if English language translation is attached.

**REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL  
(Submitted Only via EFS-Web)**

Application Number	11/617,509	Filing Date	2006-12-28	Docket Number (if applicable)	06-0719	Art Unit	2625
First Named Inventor	David A Monroe			Examiner Name	Houshang Safaipour		

**This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.**  
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

**SUBMISSION REQUIRED UNDER 37 CFR 1.114**

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

Consider the arguments in the Appeal Brief or Reply Brief previously filed on \_\_\_\_\_

Other \_\_\_\_\_

Enclosed

Amendment/Reply

Information Disclosure Statement (IDS)

Affidavit(s)/ Declaration(s)

Other \_\_\_\_\_

**MISCELLANEOUS**

Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months \_\_\_\_\_  
(Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

Other \_\_\_\_\_

**FEES**

**The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.**

The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No 504128

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED**

Patent Practitioner Signature

Applicant Signature

Signature of Registered U.S. Patent Practitioner			
Signature	/Jeffrey D. Hunt/	Date (YYYY-MM-DD)	2009-10-20
Name	Jeffrey D. Hunt	Registration Number	39189

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

## Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Applicant:	§	
	§	
DAVID A. MONROE	§	
	§	
Filed:        December 28, 2006	§	Art Unit:    2625
	§	
Serial No.:   11/617,509	§	Examiner:   H. Safaipour
	§	
For:	§	Docket No.:  06-0719
APPARATUS FOR CAPTURING,	§	
CONVERTING AND	§	
TRANSMITTING A VISUAL	§	
IMAGE SIGNAL VIA A DIGITAL	§	
TRANSMISSION SYSTEM	§	
	§	

**REQUEST FOR CONTINUED EXAMINATION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Applicant gratefully acknowledges the Notice of Allowance mailed August 20, 2009. In response to the Notice of Allowance, Applicant respectfully submits this Request for Continuing Examination (RCE) and the accompanying Information Disclosure Statement (IDS). Applicant respectfully requests consideration of the IDS and issuance of a Notice of Allowance for claims 43-73. Applicant acknowledges that claims 62, 74, 75 and 76 were canceled by the Examiner's Amendment.

The Commissioner is authorized to withdraw or credit any fees, or any underpayment of fees, associated with this application from Moore Landrey LLP Deposit Account No. 50-4128. The undersigned is available by phone at (512) 499-8900 to discuss any issue concerning this application at the convenience of the Examiner.

Respectfully submitted,

/Jeffrey D. Hunt/

---

Jeffrey D. Hunt, Reg. No. 38,189

Date: October 20, 2009

CUSTOMER # 67589  
Moore Landrey, L.L.P.  
1609 Shoal Creek Blvd., Ste. 100  
Austin, Texas 78701  
Telephone: (512) 499-8900  
Facsimile: (512) 320-8906



<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number	11617509
	Filing Date	2006-12-28
	First Named Inventor	David A Monroe
	Art Unit	2625
	Examiner Name	Houshang Safaipoor
	Attorney Docket Number	06-0719

U.S.PATENTS							Remove
Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	
	1	5136628		1992-08-04	Araki et al.		
	2	5164979		1992-11-17	Choi et al.		
	3	5400068		1995-03-21	Ishida et al.		
	4	7372447		2008-05-13	Jacobson et al.		
	5	5042061		1991-08-20	Kaneke et al.		
	6	5485504		1996-01-16	Ohnsorge		
	7	7310072		2007-12-18	Ronzani		
If you wish to add additional U.S. Patent citation information please click the Add button.							Add
<b>U.S.PATENT APPLICATION PUBLICATIONS</b>							Remove

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

Application Number	11617509
Filing Date	2006-12-28
First Named Inventor	David A Monroe
Art Unit	2625
Examiner Name	Houshang Safaipour
Attorney Docket Number	06-0719

Examiner Initial*	Cite No	Publication Number	Kind Code <sup>1</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Published Application citation information please click the Add button.

**FOREIGN PATENT DOCUMENTS**

Examiner Initial*	Cite No	Foreign Document Number <sup>3</sup>	Country Code <sup>2</sup> i	Kind Code <sup>4</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T <sup>5</sup>
	1	JP03089691			1991-04-15	Yamamoto		<input type="checkbox"/>

If you wish to add additional Foreign Patent Document citation information please click the Add button.

**NON-PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>5</sup>
	1	Copy of Office Action issued on October 4, 2007 in Appl. No. 11/617,509 (present application).	<input type="checkbox"/>
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	3	Copy of Office Action issued on September 27, 2004 in Appl. No. 10/336,470 (the parent of the present application).	<input type="checkbox"/>
	4	Copy of Office Action issued on August 9, 2005 in Appl. No. 10/336,470 (the parent of the present application).	<input type="checkbox"/>

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

Application Number	11617509
Filing Date	2006-12-28
First Named Inventor	David A Monroe
Art Unit	2625
Examiner Name	Houshang Safaipour
Attorney Docket Number	06-0719

5	Copy of Office Action issued on December 16, 2005 in Appl. No. 10/336,470 (the parent of the present application).	<input type="checkbox"/>
6	Copy of Office Action issued on July 27, 2006 in Appl. No. 10/336,470 (the parent of the present application).	<input type="checkbox"/>
7	Copy of Office Action issued on March 8, 2007 in Appl. No. 10/366,470 (the parent of the present application).	<input type="checkbox"/>

If you wish to add additional non-patent literature document citation information please click the Add button

**EXAMINER SIGNATURE**

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> See Kind Codes of USPTO Patent Documents at [www.USPTO.GOV](http://www.USPTO.GOV) or MPEP 901.04. <sup>2</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>3</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>4</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>5</sup> Applicant is to place a check mark here if English language translation is attached.

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

Application Number	11617509
Filing Date	2006-12-28
First Named Inventor	David A Monroe
Art Unit	2625
Examiner Name	Houshang Safaipour
Attorney Docket Number	06-0719

**CERTIFICATION STATEMENT**

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

**OR**

That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

None

**SIGNATURE**

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Jeffrey d Hunt/	Date (YYYY-MM-DD)	2009-10-06
Name/Print	Jeffrey D Hunt	Registration Number	38,189

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

## Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : **03-089691**

(43)Date of publication of application : **15.04.1991**

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(51)Int.Cl.

H04N 7/14

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(21)Application number : **01-225686**

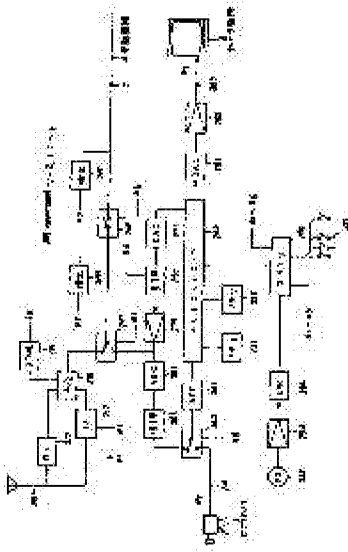
(71)Applicant : **SONY CORP**

(22)Date of filing : **31.08.1989**

(72)Inventor : **YAMAMOTO TADAHISA**

---

(54) **VIDEO TELEPHONE SET**



(57)Abstract:

**PURPOSE:** To improve operability and convenience of use by dividing a video telephone set into a handset and a base unit, adopting the wireless system for the handset and mounting externally a video camera and a display device to the base unit.

**CONSTITUTION:** A video telephone set is divided into a handset 100 and a base unit 200, and a camera 5 and a television receiver 6 are integrated with the base unit 200. Then it is devised that processings such as an outgoing call, an incoming call, talking, pickup of a picture to be sent to a party opposite, transmission of a picture data and display of picture data from the party opposite are executed from the handset 100. Since an opposite picture is displayed on a television receiver 6 with a large screen size, detailed communication is realized. Moreover, since the camera 5 is mounted externally, various

kinds of cameras such as a camera with an automatic iris mechanism can be used and the picture quality is improved.

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	11617509
<b>Filing Date:</b>	28-Dec-2006
<b>Title of Invention:</b>	APPARATUS FOR CAPTURING, CONVERTING AND TRANSMITTING A VISUAL IMAGE SIGNAL VIA A DIGITAL TRANSMISSION SYSTEM
<b>First Named Inventor/Applicant Name:</b>	David A Monroe
<b>Filer:</b>	Jeffrey Darryl Hunt/Jacob Cowart
<b>Attorney Docket Number:</b>	06-0719

Filed as Large Entity

### Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				
<b>Extension-of-Time:</b>				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Miscellaneous:</b>				
Request for continued examination	1801	1	810	810
<b>Total in USD (\$)</b>				<b>810</b>



## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	6292084
<b>Application Number:</b>	11617509
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	4247
<b>Title of Invention:</b>	APPARATUS FOR CAPTURING, CONVERTING AND TRANSMITTING A VISUAL IMAGE SIGNAL VIA A DIGITAL TRANSMISSION SYSTEM
<b>First Named Inventor/Applicant Name:</b>	David A Monroe
<b>Customer Number:</b>	67589
<b>Filer:</b>	Jeffrey Darryl Hunt/Jacob Cowart
<b>Filer Authorized By:</b>	Jeffrey Darryl Hunt
<b>Attorney Docket Number:</b>	06-0719
<b>Receipt Date:</b>	20-OCT-2009
<b>Filing Date:</b>	28-DEC-2006
<b>Time Stamp:</b>	12:39:18
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$810
RAM confirmation Number	7598
Deposit Account	504128
Authorized User	

### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part (if appl.)	Pages (if appl.)

1	Request for Continued Examination (RCE)	rce1.pdf	797447 fa4a4d71410fe6b8c3625f4741a0a475569131d7	no	3
<b>Warnings:</b>					
<b>Information:</b>					
2	Transmittal Letter	RCETransmittal.pdf	23700 91ef5eb9ec62a67b917b30e17f376f16c5437158	no	2
<b>Warnings:</b>					
<b>Information:</b>					
3	Information Disclosure Statement (IDS) Filed (SB/08)	ids.pdf	788050 0e42889095b8ad92f2fc37b07c7784f43cf13f54	no	5
<b>Warnings:</b>					
<b>Information:</b>					
4	NPL Documents	10336470.pdf	3343207 e5e069acef3a713f368b2c5eefa0dbaf74997769	no	82
<b>Warnings:</b>					
<b>Information:</b>					
5	NPL Documents	11617509.pdf	1228228 7ecccce41c7eea4498c0b549af2f5d7c263f1164	no	32
<b>Warnings:</b>					
<b>Information:</b>					
6	Foreign Reference	Yamamoto.pdf	36974 21be08011bc00c2fb27e1edee9ce9dd1ca42d	no	1
<b>Warnings:</b>					
<b>Information:</b>					
7	Fee Worksheet (PTO-875)	fee-info.pdf	30594 d86f46d0d0066cece576b09979630832824d6a3f	no	2
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			6248200		

**This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.**

**New Applications Under 35 U.S.C. 111**

**If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.**

**National Stage of an International Application under 35 U.S.C. 371**

**If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.**

**New International Application Filed with the USPTO as a Receiving Office**

**If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.**



NOTICE OF ALLOWANCE AND FEE(S) DUE

67589 7590 08/20/2009

MOORE LANDREY
1609 SHOAL CREEK BLVD
SUITE 100
AUSTIN, TX 78701

EXAMINER: SAFAIPOUR, HOUSHANG
ART UNIT: 2625 PAPER NUMBER:
DATE MAILED: 08/20/2009

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.

11/617,509 12/28/2006 David A Monroe 06-0719 4247

TITLE OF INVENTION: APPARATUS FOR CAPTURING, CONVERTING AND TRANSMITTING A VISUAL IMAGE SIGNAL VIA A DIGITAL TRANSMISSION SYSTEM

Table with 7 columns: APPLN. TYPE, SMALL ENTITY, ISSUE FEE DUE, PUBLICATION FEE DUE, PREV. PAID ISSUE FEE, TOTAL FEE(S) DUE, DATE DUE

nonprovisional NO \$1510 \$300 \$0 \$1810 11/20/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

**PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE  
 Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

67589 7590 08/20/2009

**MOORE LANDREY**  
 1609 SHOAL CREEK BLVD  
 SUITE 100  
 AUSTIN, TX 78701

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

**Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

11/617,509 12/28/2006 David A Monroe 06-0719 4247

TITLE OF INVENTION: APPARATUS FOR CAPTURING, CONVERTING AND TRANSMITTING A VISUAL IMAGE SIGNAL VIA A DIGITAL TRANSMISSION SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional NO \$1510 \$300 \$0 \$1810 11/20/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
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SAFAIPOUR, HOUSHANG 2625 358-474000

<p>1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).</p> <p><input type="checkbox"/> Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.</p> <p><input type="checkbox"/> "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. <b>Use of a Customer Number is required.</b></p>	<p>2. For printing on the patent front page, list</p> <p>(1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____</p> <p>(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____</p> <p>3 _____</p>
---	---

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY AND STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) :  Individual  Corporation or other private group entity  Government

<p>4a. The following fee(s) are submitted:</p> <p><input type="checkbox"/> Issue Fee</p> <p><input type="checkbox"/> Publication Fee (No small entity discount permitted)</p> <p><input type="checkbox"/> Advance Order - # of Copies _____</p>	<p>4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)</p> <p><input type="checkbox"/> A check is enclosed.</p> <p><input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.</p> <p><input type="checkbox"/> The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).</p>
---	--

5. Change in Entity Status (from status indicated above)

a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.  b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_ Date \_\_\_\_\_  
 Typed or printed name \_\_\_\_\_ Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P. O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO., EXAMINER, ART UNIT, PAPER NUMBER. Includes application details for David A. Monroe and examiner SafaiPour, Houshang.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 134 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 134 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

**Notice of Allowability**

<b>Application No.</b> 11/617,509	<b>Applicant(s)</b> MONROE, DAVID A	
<b>Examiner</b> HOUSHANG SAFAIPOUR	<b>Art Unit</b> 2625	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- 1.  This communication is responsive to RCE filed on 5/6/09.
- 2.  The allowed claim(s) is/are 43-73.
- 3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All   b)  Some\*   c)  None   of the:
    - 1.  Certified copies of the priority documents have been received.
    - 2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    - 3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

- 4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  - 5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
    - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
- 6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- 1.  Notice of References Cited (PTO-892)
- 2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3.  Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
- 4.  Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5.  Notice of Informal Patent Application
- 6.  Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_.
- 7.  Examiner's Amendment/Comment
- 8.  Examiner's Statement of Reasons for Allowance
- 9.  Other \_\_\_\_\_.

/Houshang Safaipour/  
Primary Examiner, Art Unit 2625

## ***EXAMINER'S AMENDMENT***

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of issue fee.

Authorization to amend the claims was given in telephone interview with Jeffrey D. Hunt (Registration No. 38,189) on August 12, 2009.

In the claims:

62. (currently amended) The apparatus according to claim ~~62~~ 61 and further comprising: the first housing section being supported for pivotal movement relative to the second housing section about a pivot axis.

74. Canceled

75. Canceled

76. Canceled

/Houshang Safaipour/  
Primary Examiner, Art Unit 2625



Art Unit: 2625

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114.

Applicant's submission filed on 05/06/2009 has been entered.

**Reasons for Allowance**

2. Claims 1-42 and 74-76 are canceled.
3. Claims 43-73 are allowed.
4. This is examiner's statement of reasons for allowance.

Regarding claims 43-73, the prior art, either singularly or in combination, does not teach or suggest an apparatus comprising:

a portable housing, the portable housing being wireless:

an image collection device supported by the portable housing, the image collection device being operable to provide visual image data of a field of view;

memory supported by the portable housing, the memory being suitable to receive visual image data in digital format, the memory being suitable to retain the visual image data in digital format,

an input device supported by the portable housing, the input device being operable by the user;

Art Unit: 2625

operation of the input device by the user enabling the memory to retain the visual image data in digital format, the memory being suitable to provide retained visual image data in digital format;

media supported by the portable housing, the media being suitable to embody at least one compression algorithm;

at least one processing platform supported by the portable housing, the at least one processing platform being operable to execute the at least one compression algorithm, the at least one processing platform being provided the retained visual image data in digital format, execution of the at least one compression algorithm providing compressed visual image data;

a display supported by the portable housing, the display being operable to display for viewing by a user a perceptible visual image of the field of view, the perceptible visual image being generated from the visual image data in digital format;

a mobile phone supported by the portable housing, the mobile phone being operable to send to a remote recipient a wireless transmission, the wireless transmission conveying the compressed digital image data; and

movement by the user of the portable housing commonly moving the image collection device,

movement by the user of the portable housing commonly moving the display.

The features identified, in combination with other claim limitations, are neither suggested nor discussed by the prior art of record.

Art Unit: 2625

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOUSHANG SAFAIPOUR whose telephone number is (571)272-7412. The examiner can normally be reached on Mon.-Fri. from 6:00am to 2:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571)272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Houshang Safaipour/  
Primary Examiner, Art Unit 2625

<b>Notice of References Cited</b>	Application/Control No. 11/617,509	Applicant(s)/Patent Under Reexamination MONROE, DAVID A	
	Examiner HOUSHANG SAFAIPOUR	Art Unit 2625	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,035,212	03-2000	Rostoker et al.	455/552.1
*	B	US-6,243,056	06-2001	Jachimowicz et al.	345/82
*	C	US-6,036,086	03-2000	Sizer et al.	235/375
*	D	US-5,550,646	08-1996	Hassan et al.	358/442
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			


**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

<b>Index of Claims</b>  	<b>Application/Control No.</b> 11617509	<b>Applicant(s)/Patent Under Reexamination</b> MONROE, DAVID A
	<b>Examiner</b> HOUSHANG SAFAIPOUR	<b>Art Unit</b> 2625

✓	<b>Rejected</b>
=	<b>Allowed</b>


-	<b>Cancelled</b>
÷	<b>Restricted</b>

N	<b>Non-Elected</b>
I	<b>Interference</b>

A	<b>Appeal</b>
O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47

CLAIM		DATE							
Final	Original	12/06/2008	08/15/2009						
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	2	-	-						
	3	-	-						
	4	-	-						
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	35	-	-						
	36	-	-						

<b>Index of Claims</b>  	<b>Application/Control No.</b>  11617509	<b>Applicant(s)/Patent Under Reexamination</b>  MONROE, DAVID A
	<b>Examiner</b>  HOUSHANG SAFAIPOUR	<b>Art Unit</b>  2625

✓	<b>Rejected</b>
=	<b>Allowed</b>


-	<b>Cancelled</b>
÷	<b>Restricted</b>

N	<b>Non-Elected</b>
I	<b>Interference</b>

A	<b>Appeal</b>
O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47

CLAIM		DATE							
Final	Original	12/06/2008	08/15/2009						
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26	68	✓	=						
27	69	✓	=						
28	70	✓	=						
29	71	✓	=						
30	72	✓	=						

<b>Index of Claims</b>  	<b>Application/Control No.</b>  11617509	<b>Applicant(s)/Patent Under Reexamination</b>  MONROE, DAVID A
	<b>Examiner</b>  HOUSHANG SAFAIPOUR	<b>Art Unit</b>  2625

✓	<b>Rejected</b>
=	<b>Allowed</b>


-	<b>Cancelled</b>
÷	<b>Restricted</b>

N	<b>Non-Elected</b>
I	<b>Interference</b>

A	<b>Appeal</b>
O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47

CLAIM		DATE							
Final	Original	12/06/2008	08/15/2009						
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	74	✓	-						
	75	✓	-						
	76	✓	-						


<b>Issue Classification</b> 	<b>Application/Control No.</b> 11617509	<b>Applicant(s)/Patent Under Reexamination</b> MONROE, DAVID A
	<b>Examiner</b> HOUSHANG SAFAIPOUR	<b>Art Unit</b> 2625

ORIGINAL					INTERNATIONAL CLASSIFICATION									
CLASS		SUBCLASS			CLAIMED				NON-CLAIMED					
358		1.15			H	0	4	N	1 / 00 (2006.01.01)					
<b>CROSS REFERENCE(S)</b>					G	0	6	F	3 / 12 (2006.01.01)					
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)													
358	402	403	407											

<input type="checkbox"/> <b>Claims renumbered in the same order as presented by applicant</b> <input type="checkbox"/> <b>CPA</b> <input type="checkbox"/> <b>T.D.</b> <input type="checkbox"/> <b>R.1.47</b>															
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	2		18		34		8		50		24		66		
	3		19		35		9		51		25		67		
	4		20		36		10		52		26		68		
	5		21		37		11		53		27		69		
	6		22		38		12		54		28		70		
	7		23		39		13		55		29		71		
	8		24		40		14		56		30		72		
	9		25		41		15		57		31		73		
	10		26		42		16		58				74		
	11		27		1		43		17				75		
	12		28		2		44		18				76		
	13		29		3		45		19						
	14		30		4		46		20						
	15		31		5		47		21						
	16		32		6		48		22						

NONE	<b>Total Claims Allowed:</b>	
(Assistant Examiner)	(Date)	31
/HOUSHANG SAFAIPOUR/ Primary Examiner.Art Unit 2625	8/15/09	O.G. Print Claim(s) 1
(Primary Examiner)	(Date)	O.G. Print Figure 6A & 6B



<b>Search Notes</b>  	<b>Application/Control No.</b>  11617509	<b>Applicant(s)/Patent Under Reexamination</b>  MONROE, DAVID A
	<b>Examiner</b>  HOUSHANG SAFAIPOUR	<b>Art Unit</b>  2625

<b>SEARCHED</b>			
<b>Class</b>	<b>Subclass</b>	<b>Date</b>	<b>Examiner</b>
358	1.15, 402, 403, 407, 442, 468, 474	12/5/08	HS

<b>SEARCH NOTES</b>		
<b>Search Notes</b>	<b>Date</b>	<b>Examiner</b>
East	12/5/08	HS
Inventor search performed	8/15/09	HS
Interference search performed	8/15/09	HS

<b>INTERFERENCE SEARCH</b>			
<b>Class</b>	<b>Subclass</b>	<b>Date</b>	<b>Examiner</b>
358	1.15, 402, 403, 407	8/15/09	HS

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
 Address: COMMISSIONER FOR PATENTS  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 www.uspto.gov

BIB DATA SHEET

CONFIRMATION NO. 4247

<b>SERIAL NUMBER</b> 11/617,509	<b>FILING or 371(c) DATE</b> 12/28/2006	<b>CLASS</b> 358	<b>GROUP ART UNIT</b> 2625	<b>ATTORNEY DOCKET NO.</b> 06-0719	
<b>APPLICANTS</b> David A Monroe, San Antonio, TX;					
<b>** CONTINUING DATA *****</b> This application is a CON of 10/336,470 01/03/2003 PAT 7,365,871					
<b>** FOREIGN APPLICATIONS *****</b>					
<b>** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **</b> 02/01/2007					
Foreign Priority claimed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 35 USC 119(a-d) conditions met <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Verified and /HOUSHANG SAFAIPOUR/ Acknowledged Examiner's Signature	<input type="checkbox"/> Met after Allowance HS Initials	<b>STATE OR COUNTRY</b> TX	<b>SHEETS DRAWINGS</b> 73	<b>TOTAL CLAIMS</b> 20	<b>INDEPENDENT CLAIMS</b> 1
<b>ADDRESS</b> MOORE LANDREY 1609 SHOAL CREEK BLVD SUITE 100 AUSTIN, TX 78701 UNITED STATES					
<b>TITLE</b> Apparatus for Capturing, Converting and Transmitting a Visual Image Signal Via A Digital Transmission System					
<b>FILING FEE RECEIVED</b> 1840	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit		

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL  
 (Submitted Only via EFS-Web)**

Application Number	11/617,509	Filing Date	2006-12-28	Docket Number (if applicable)	06-0719	Art Unit	2625
First Named Inventor	David A Monroe			Examiner Name	Houshang Safaipour		

**This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.**  
 Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

**SUBMISSION REQUIRED UNDER 37 CFR 1.114**

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

Consider the arguments in the Appeal Brief or Reply Brief previously filed on \_\_\_\_\_

Other \_\_\_\_\_

Enclosed

Amendment/Reply

Information Disclosure Statement (IDS)

Affidavit(s)/ Declaration(s)

Other \_\_\_\_\_

**MISCELLANEOUS**

Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months \_\_\_\_\_  
 (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

Other \_\_\_\_\_

**FEES**

**The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.**

The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to  
 Deposit Account No 504128

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED**

Patent Practitioner Signature

Applicant Signature

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Signature of Registered U.S. Patent Practitioner			
Signature	/Jeffrey D. Hunt/	Date (YYYY-MM-DD)	2009-05-06
Name	Jeffrey D. Hunt	Registration Number	38189

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

## Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	11617509
<b>Filing Date:</b>	28-Dec-2006
<b>Title of Invention:</b>	Apparatus for Capturing, Converting and Transmitting a Visual Image Signal Via A Digital Transmission System
<b>First Named Inventor/Applicant Name:</b>	David A Monroe
<b>Filer:</b>	Jeffrey Darryl Hunt/Jacob Cowart
<b>Attorney Docket Number:</b>	06-0719

Filed as Large Entity

### Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				
<b>Extension-of-Time:</b>				
Extension - 1 month with \$0 paid	1251	1	Kyocera Ex. 1004 <sup>130</sup>	130

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Miscellaneous:</b>				
Request for continued examination	1801	1	810	810
<b>Total in USD (\$)</b>				<b>940</b>

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	5286675
<b>Application Number:</b>	11617509
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	4247
<b>Title of Invention:</b>	Apparatus for Capturing, Converting and Transmitting a Visual Image Signal Via A Digital Transmission System
<b>First Named Inventor/Applicant Name:</b>	David A Monroe
<b>Customer Number:</b>	67589
<b>Filer:</b>	Jeffrey Darryl Hunt/Jacob Cowart
<b>Filer Authorized By:</b>	Jeffrey Darryl Hunt
<b>Attorney Docket Number:</b>	06-0719
<b>Receipt Date:</b>	06-MAY-2009
<b>Filing Date:</b>	28-DEC-2006
<b>Time Stamp:</b>	14:59:02
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$940
RAM confirmation Number	1130
Deposit Account	
Authorized User	

### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part (if appl.)	Pages (if appl.)



1	Request for Continued Examination (RCE)	rce.pdf	37376	no	3
			5fc6ce31e1433628d931e3388a937356d6fd8b84		

**Warnings:**

This is not a USPTO supplied RCE SB30 form.

**Information:**

2	Fee Worksheet (PTO-875)	fee-info.pdf	32154	no	2
			185605e87ae671474d0d9d9876d88c6fbc9a6633		

**Warnings:**

**Information:**

<b>Total Files Size (in bytes):</b>	69530
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**This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.**

**New Applications Under 35 U.S.C. 111**

**If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.**

**National Stage of an International Application under 35 U.S.C. 371**

**If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.**

**New International Application Filed with the USPTO as a Receiving Office**

**If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Applicant:	§		
	§		
DAVID A. MONROE, ET AL	§		
	§		
Filed:        December 28, 2006	§	Art Unit:    2625	
	§		
Serial No.:   11/617,509	§	Examiner:   Houshang Safaipour	
	§		
For:  APPARATUS FOR	§	Docket No.:  06-0719	
CAPTURING, CONVERTING	§		
AND TRANSMITTING A	§		
VISUAL IMAGE SIGNAL VIA	§		
A DIGITAL TRANSMISSION	§		
SYSTEM	§		
	§		

**RESPONSE TO FINAL OFFICE ACTION DATED DECEMBER 12, 2008**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Responsive to the Final Office Action Mailed December 12, 2008, please enter and consider the “Affidavit of David A. Monroe Under 37 CFR 1.131”, which is submitted herewith. A request for one month extension of time is requested in this submission via EFS-Web.

Amendments begin on page 2.

Remarks begin on page 14.

## AMENDMENTS

### **Amendments to Claims**

This listing of claims shall replace all previous versions, and listings, of claims in the application.

#### **Listing of Claims:**

1- 42. (canceled).

43. (currently amended) Apparatus comprising:

a portable housing, the portable housing being wireless;

an image collection device supported by the portable housing, the image collection device being operable to provide visual image data of a field of view;

a display supported by the portable housing, the display being operable to display for viewing by a user a perceptible visual image, the perceptible visual image being generated from the visual image data;

memory supported by the portable housing, the memory being suitable to receive visual image data in digital format, the memory being suitable to retain the visual image data in digital ~~format~~ format,

an input device supported by the portable housing, the input device being operable by the user;

operation of the input device by the user enabling the memory to retain the visual image data in digital format, the memory being suitable to provide retained visual image data in digital format;

media supported by the portable housing, the media being suitable to embody at least one compression algorithm;

at least one processing platform supported by the portable housing, the at least one processing platform being operable to execute the at least one compression algorithm, the at least one processing platform being provided the retained visual image data in digital format, execution of the at least one compression algorithm providing compressed visual image data; and

a mobile phone supported by the portable housing, the mobile phone being operable to send to a remote recipient a wireless transmission, the wireless transmission conveying the compressed digital image data; and

movement by the user of the portable housing commonly moving the image collection device,

movement by the user of the portable housing commonly moving the display.

44. (previously presented) The apparatus according to claim 43 and further comprising:

the processing platform including at least one processor.

45. (previously presented) The apparatus according to claim 43 and further comprising:

the portable housing including a handset.

46. (previously presented) The apparatus according to claim 43 and further comprising:

a microphone supported by the portable housing, the microphone being associated with the mobile phone;

a speaker supported by the portable housing, the speaker being associated with the mobile phone.

47. (previously presented) The apparatus according to claim 43 and further comprising:

the mobile phone being selectively operable to send to a remote recipient a wireless transmission, the wireless transmission conveying a voice transmission.

48. (previously presented) The apparatus according to claim 43 and further comprising:

the mobile phone being selectively operable to receive from a remote sender an incoming wireless transmission. the incoming wireless transmission conveying at least one of:

incoming compressed digital image data,

an incoming voice transmission, and

both incoming compressed digital image data and an incoming voice transmission.

49. (previously presented) The apparatus according to claim 43 and further comprising:

a camera supported by the portable housing, the camera including the image collection device.

50. (previously presented) The apparatus according to claim 43 and further comprising:

the image collection device being suitable to provide the visual image data in digital format.

51. (previously presented) The apparatus according to claim 43 and further comprising:

the image collection device being suitable to provide the visual image data in analog format:

an analog to digital converter supported by the portable housing, the analog to digital converter being suitable to receive the visual image data in analog format, the being suitable to provide the visual image data in digital format.

the display including an LCD, the LCD being operable to display for viewing by a user a perceptible visual image, the perceptible visual image being generated from the visual image data.

52. (previously presented) The apparatus according to claim 43 and further comprising:

the display including a viewfinder, the viewfinder being suitable to receive the visual image data, the viewfinder being operable to display for viewing by a user a perceptible visual image, the perceptible visual image being generated from the visual image data.

53. (previously presented) The apparatus according to claim 52 and further comprising:

the viewfinder being suitable to receive the visual image data in digital format.

54. (previously presented) The apparatus according to claim 52 and further comprising:

the viewfinder being suitable to receive the visual image data in analog format.

55. (previously presented) The apparatus according to claim 43 and further comprising:

the display including a display screen, the display screen being defined apart from a viewfinder, the display screen being operable to display for viewing by a user a perceptible visual image, the perceptible visual image being generated from the visual image data.

56. (previously presented) The apparatus according to claim 55 and further comprising:

the display including an LCD, the LCD being operable to display for viewing by a user a perceptible visual image, the perceptible visual image being generated from the visual image data.

57. (previously presented) The apparatus according to claim 56 and further comprising:

the LCD being suitable to receive the visual image data in digital format.

58. (previously presented) The apparatus according to claim 43 and further comprising;

at least one transmission protocol algorithm embodied in suitable media;  
a processing platform associated with the at least one transmission protocol algorithm, the associated processing platform being operable to execute the at least one transmission protocol algorithm, the associated processing platform being provided the compressed visual image data, execution of the at least one transmission protocol algorithm providing the compressed visual image data in a transmission format, the visual image data in a transmission format being compatible with the mobile phone for wireless transmission by the mobile phone.

59. (previously presented) The apparatus according to claim 58 and further comprising:

the mobile phone being operable according to a specified wireless transmission protocol, the at least one transmission protocol algorithm providing the visual image data in a compatible data transmission format, the compatible data transmission format being compatible with the specified wireless transmission protocol.

60. (previously presented) The apparatus according to claim 59 and further comprising:

- at least one transmission protocol algorithm embodied in suitable media;
- a processing platform associated with the at least one transmission protocol algorithm, the associated processing platform being operable to execute the at least one transmission protocol algorithm, execution of the at least one transmission protocol algorithm providing compressed visual image data in a compatible format, the compatible format being compatible with at least one transmission protocol, the compressed visual image data in a compatible format being suitable for transmission by the mobile phone according to at least one wireless transmission protocol.

61. (previously presented) The apparatus according to claim 43 and further comprising:

- the portable housing including a first housing section, the image collection device being supported by the first housing section,
- the portable housing including a second housing section, the display being supported by the second housing section,
- the first housing section being adjoined to the second housing section,
- the second housing section being movable in common with the first housing section when the first housing section is moved by the user,
- the first housing section being movable in common with the second housing section when the second housing section is moved by the user,
- the first housing section being supported for movement relative to the second housing section,
- the image collection device being movable in common with the first housing section relative to the display when the first housing section is moved relative to the second housing section.

62. (previously presented) The apparatus according to claim 62 and further comprising:

the first housing section being supported for pivotal movement relative to the second housing section about a pivot axis.

63. (previously presented) The apparatus according to claim 43 and further comprising:

the image collection device being supported by the portable housing in fixed relation to the display.

64. (previously presented) Apparatus comprising:

a portable housing, the portable housing being wireless:

an image collection device supported by the portable housing, the image collection device being operable to provide visual image data of a field of view;

memory supported by the portable housing, the memory being suitable to receive visual image data in digital format, the memory being suitable to retain the visual image data in digital format,

an input device supported by the portable housing, the input device being operable by the user;

operation of the input device by the user enabling the memory to retain the visual image data in digital format, the memory being suitable to provide retained visual image data in digital format;

media supported by the portable housing, the media being suitable to embody at least one compression algorithm;

at least one processing platform supported by the portable housing, the at least one processing platform being operable to execute the at least one compression algorithm, the at least one processing platform being provided the retained visual image data in digital format, execution of the at least one compression algorithm providing compressed visual image data;

a display supported by the portable housing, the display being operable to display for viewing by a user a perceptible visual image of the field of view, the perceptible visual image being generated from the visual image data in digital format;



a mobile phone supported by the portable housing, the mobile phone being operable to send to a remote recipient a wireless transmission, the wireless transmission conveying the compressed digital image data; and

movement by the user of the portable housing commonly moving the image collection device,

movement by the user of the portable housing commonly moving the display.

65. (previously presented) The apparatus according to claim 64 and further comprising:

the display including at least one of:

a viewfinder, and

a display screen apart from the viewfinder.

66. (previously presented) Apparatus comprising:

a portable housing, the portable housing being wireless:

an image collection device supported by the portable housing, the image collection device being operable to provide visual image data of a field of view;

memory supported by the portable housing, the memory being suitable to receive visual image data in digital format, the memory being suitable to retain the visual image data in digital format,

an input device supported by the portable housing, the input device being operable by the user;

operation of the input device by the user enabling the memory to retain the visual image data in digital format, the memory being suitable to provide retained visual image data in digital format;

media supported by the portable housing, the media being suitable to embody at least one compression algorithm;

at least one processing platform supported by the portable housing, the at least one processing platform being operable to execute the at least one compression algorithm, the at least one processing platform being provided the retained visual image data in digital format, execution of the at least one compression algorithm providing compressed visual image data;

a display supported by the portable housing, the display being operable to display for viewing by a user a perceptible visual image of the field of view, the perceptible visual image being generated from the retained visual image data in digital format;

a mobile phone supported by the portable housing, the mobile phone being operable to send to a remote recipient a wireless transmission, the wireless transmission conveying the compressed digital image data; and

movement by the user of the portable housing commonly moving the image collection device,

movement by the user of the portable housing commonly moving the display,

67. (previously presented) The apparatus according to claim 66 and further comprising:

the display including at least one of:

a viewfinder, and

a display screen apart from the viewfinder.

68. (previously presented) A mobile handset comprising:

a portable housing, the portable housing being wireless;

an image collection device supported by the portable housing, the image collection device being operable to provide visual image data of a field of view;

a display supported by the portable housing, the display being operable to display for viewing by a user a perceptible visual image, the perceptible visual image being generated from the visual image data;

memory supported by the portable housing, the memory being suitable to receive visual image data in digital format, the memory being suitable to retain the visual image data in digital format,

an input device supported by the portable housing, the input device being operable by the user;

operation of the input device by the user enabling the memory to retain the visual image data in digital format, the memory being suitable to provide retained visual image data in digital format;

media supported by the portable housing, the media being suitable to embody at least one compression algorithm;

at least one processing platform supported by the portable housing, the at least one processing platform being operable to execute the at least one compression algorithm, the at least one processing platform being provided the retained visual image data in digital format, execution of the at least one compression algorithm providing compressed visual image data; and

a mobile phone supported by the portable housing, the mobile phone being operable to send to a remote recipient a wireless transmission, the wireless transmission conveying the compressed digital image data.

69. (previously presented) Apparatus comprising:

a portable housing, the portable housing being wireless;

an image collection device supported by the portable housing, the image collection device being operable to provide visual image data of a field of view;

memory supported by the portable housing, the memory being suitable to receive visual image data in digital format, the memory being suitable to retain the visual image data in digital format,

an input device supported by the portable housing, the input device being operable by the user;

operation of the input device by the user enabling the memory to retain the visual image data in digital format, the memory being suitable to provide retained visual image data in digital format;

media supported by the portable housing, the media being suitable to embody at least one compression algorithm;

at least one processing platform supported by the portable housing, the at least one processing platform being operable to execute the at least one compression algorithm, the at least one processing platform being provided the retained visual image data in digital format, execution of the at least one compression algorithm providing compressed visual image data;

a display supported by the portable housing, the display being operable to display for viewing by a user a perceptible visual image of the field of view, the perceptible visual image being generated from the retained visual image data in digital format;

a mobile phone supported by the portable housing, the mobile phone being selectively operable to send to a remote recipient a wireless image transmission, the wireless transmission conveying the compressed digital image data, the mobile phone. being selectively operable to send to a remote recipient a wireless voice transmission, the mobile phone being selectively operable to receive from a remote sender an incoming wireless image transmission; and

the display being operable to display for viewing by a user a perceptible visual image of the incoming wireless image transmission.

70, (previously presented) The apparatus according to claim 69 and further comprising:

the display including at least one of:

a viewfinder. and

a display screen apart from the viewfinder.

71. (previously presented) Apparatus comprising:

a portable housing, the portable housing being wireless;

an image collection device supported by the portable housing, the image collection device being operable to provide in digital format visual image data of a field of view;

memory supported by the portable housing, the memory being suitable to receive the visual image data in digital format, the memory being suitable to retain the visual image data in digital format,

an input device supported by the portable housing, the input device being operable by the user;

operation of the input device by the user enabling the memory to retain the visual image data in digital format, the memory being suitable to provide retained visual image data in digital format;

at least one compression algorithm embodied at least in part in suitable programmed media, the media being supported by the portable housing;

at least one processor supported by the portable housing, the at least one processor being operable to execute the at least one compression algorithm, the at least one processor being provided the retained visual image data in digital format,

execution of the at least one compression algorithm providing compressed visual image data;

at least one display supported by the portable housing, the at least one display being operable to display for viewing by a user a perceptible visual image of the field of view, the perceptible visual image being generated from at least one of:

the visual image data in digital format, and  
the retained visual image data in digital format;

a mobile phone supported by the portable housing, the mobile phone being operable to send to a remote recipient a wireless transmission, the wireless transmission conveying the compressed .digital image data.

72. (previously presented) Apparatus according to claim 71 and further comprising:

the image collection device including an analog to digital converter, the analog to digital converter being operable to provide the visual image data in digital format.

73. (previously presented) The apparatus according to claim 71 and further comprising:

the at least one display including at least one of:  
a viewfinder; and  
a display screen apart from the viewfinder.

74. (previously presented) Apparatus comprising:

a mobile phone, the mobile phone having a housing;  
an image capture device supported by the housing, the image capture device providing a captured image;  
a display supported by the housing, the display being operable to display the captured image;  
a processor supported by the housing, the processor being operable to process digital image data of the captured image, the processor being operable to provide processed image data;  
memory associated with the processor for storing the processed image data;  
and a user interface enabling a user to select for transmission a captured image, the respective processed image data being provided to the mobile phone for transmission to a recipient.

75. (previously presented) The apparatus according to claim 74 and further comprising:

removable memory apart from the memory, said removable memory being suitable to be removably housed in the housing for storing processed image data, the processed image data corresponding to a plurality of the captured images.

76. (previously presented) The apparatus according to claim 74 and further comprising:

the display being operable to display as images generated from incoming processed image data received via the mobile phone.

## REMARKS

Claims 43-76 are pending. Claim 43 has been amended herein. Claims 1-42 were previously canceled. Applicant requests reconsideration in view of these Remarks.

Submitted herewith is the "Affidavit of David A. Monroe Under 37 CFR 1.131" dated December 27, 2004, which was previously filed in parent Application 10/336,470. The instant application is a continuation of 10/336,470, as shown by the Preliminary Amendment and Application Data Sheet filed in the instant application. Applicant respectfully submits that the "Affidavit of David A. Monroe Under 37 CFR 1.131" establishes conception of the subject matter specified in claims 43-76 not later than March 18, 1993, and diligence in reducing to practice the claimed subject matter.

### **Rejections Under 37 CFR §103(a)**

Applicant respectfully submits that, in view of the accompanying "Affidavit of David A. Monroe Under 37 CFR 1.131", the subject matter specified in claims 43-76 overcomes the rejections under 37 CFR §103(a). This is because the "Affidavit of David A. Monroe Under 37 CFR 1.131" clearly establishes that the subject matter specified in claims 43-76, and supported in the specification, predates each of the cited references (Hassan, Sizer, Jachimowicz, Rostoker). Accordingly, these references do not form a proper basis to reject claims 43-76, because each one has an effective date as a reference which is later than March 18, 1993. Accordingly, Applicant respectfully submits that claims 43-76, as herein amended, are allowable.

Applicant requests issuance of a Notice of Allowance for claims 43-76 in view of these Remarks. The undersigned is available by phone to discuss any issue regarding this application at (512) 499-8900. The Commissioner is authorized to deduct any fee, or any underpayment, from Moore Landrey Deposit Account 50-4128.

Respectfully submitted,

/Jeffrey D. Hunt/

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Jeffrey D. Hunt, Reg. 38,189

Date: March 13, 2009

CUSTOMER # 67589  
MOORE LANDREY, L.L.P.  
1609 Shoal Creek Blvd., Ste. 100  
Austin, Texas 78701  
Telephone: (512) 499-8900  
Facsimile: (512) 320-8906



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

David A. Monroe

Serial No.: 10/336,470

Filed: January 3, 2003

For: APPARATUS FOR CAPTURING,  
CONVERTING AND  
TRANSMITTING A VISUAL  
IMAGE SIGNAL VIA A DIGITAL  
TRANSMISSION SYSTEM

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Group Art Unit: 2622

Examiner: Joseph R. Pokrzywa



AFFIDAVIT OF DAVID A. MONROE UNDER 37 CFR 1.131

David A. Monroe, being duly sworn, states as follows:

1. I am over 21 years of age and am competent to make this declaration.
2. I am the named inventor of the applications for patent, U.S. Serial Nos. 10/326,503 and 10/338,470, each of which have an effective filing date of January 12, 1998.
3. During the prosecution of these applications I have become aware of a number of patents and publications which may be relevant to the scope of my invention. These patents and publications (the "131 Prior Art") have an effective prior art date which is earlier than my filing date but later than the date of the invention in each of the respective applications.
4. Some, but not all of the 131 Prior Art has been cited by the Examiner during prosecution of each of the subject applications. However, in the interest of thoroughness I desire to disclose all of the 131 Prior Art known to me at this time. The relevant 131 Prior Art is as follows:

<u>Patent/Publication</u>	<u>Earliest Effective Date</u>	<u>Cited by Examiner</u>
U.S. Pat. No. 5,546,194	March 23, 1994	SN 10/336,470
U.S. Pat. No. 5,550,654	May 13, 1994	SN 10/336,470
U.S. Pat. No. 5,689,300	November 18, 1997	SN 10/336,470
U.S. Pat. No. 5,754,227	September 28, 1994	NOT CITED

U.S. Pat. No. 5,854,694	October 17, 1995	NOT CITED
U.S. Pat. No. 5,893,037	December 9, 1994	NOT CITED
U.S. Pat. No. 5,517,683	January 18, 1995	NOT CITED
U.S. Pat. No. 5,711,013	January 18, 1995	NOT CITED
U.S. Pat. No. 5,666,159	April 24, 1995	SN 10/336,470
U.S. Pat. No. 5,793,416	December 29, 1995	SN 10/326,503
U.S. Pat. No. 5,825,408	March 18, 1994	SN 10/326,503
U.S. Pat. No. 5,893,037	December 9, 1994	SN 10/326,503
U.S. Pat. No. 5,929,901	October 6, 1997	NOT CITED
U.S. Pat. No. 5,995,041	December 30, 1996	SN 10/336,470
U.S. Pat. No. 5,969,750	September 4, 1996	SN 10/326,503
U.S. Pat. No. 6,072,600	January 30, 1996	SN 10/336,470
U.S. Pat. No. 5,806,005	May 10, 1996	SN 10/326,503
U.S. Pat. No. 5,864,766	August 13, 1996	NOT CITED
U.S. Pat. No. 6,043,839	January 12, 1998	NOT CITED
U.S. Pat. No. 6,085,112	November 7, 1996	NOT CITED
U.S. Pat. No. 6,111,863	December 29, 1995	SN 10/326,503
U.S. Pat. No. 6,122,526	April 24, 1997	NOT CITED
PCT Publication WO 97/26744	July 24, 1997	SN 10/326,503
U.S. Pat. No. 6,181,954	January 12, 1998	SN 10/326,503
U.S. Pat. No. 6,452,626	October 6, 1997	NOT CITED

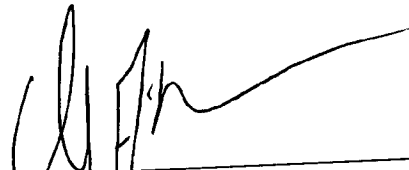
5. The earliest effective date of any of the 131 Prior Art is March 18, 1994. My invention date for each of the inventions shown and described in the subject applications is more than one year earlier than the earliest effective date of any of the 131 Prior Art, namely, earlier than March 18, 1993. This is supported by the schematic drawings Exhibits 10 and 11, that are dated earlier than March 18, 1993, and by the design renderings and sketches contained in Exhibits 7, 8, and 9, all of which are dated earlier than March 18, 1993.
6. During the period from the date of the inventions to the filing date of January 12, 1998 I was diligent in pursuing the invention and did not abandon the inventions. During this period the invention conceived and shown in Exhibits 6-16 was continually refined and revised, primarily in an effort to achieve a viable commercial product that met all the requirements of the inventions while at the same time being feasible. Commercial success demanded meeting both acceptable performance criteria and financial (cost) criteria.
7. I began working with the concept of sending image data over transmission systems as early as 1983. In 1983 I developed the "PhotoPhone™", a pioneering desktop device ultimately was extensively used and thrived as an early "tele-radiology" system for the transmission of medical X-Ray images, see Exhibit 1.
8. In 1985 I started a company called PhotoTelesis that focused on extending the PhotoPhone to specific Government applications. In 1986 I extended this desktop technology to enable transmission over radio circuits, including cellular. This was done by the addition of a cellular/radio interface circuit board called "CIS", see Exhibit 2. On May 26, 1986, a press release was released that discussed several new products that were announced at the Armed Forces Communication and Electronics Associations in Washington, D.C. The Com-RIT™ product included the CIS board and provided image transmission from a desktop unit over mobile telephones and portable satellite terminals, see Exhibit 3.
9. Over the next several years, I developed several Remote Image Transceivers or R.I.T.'s for the United States Military, see Exhibit 4, and as shown and described in the 1987 Business Plan of my company PhotoTelesis, see Exhibit 5. In 1989 I conceived the circuitry for a concept model R.I.T. which could be handheld, see Exhibit 6. Over the next several years I continued to develop the handheld R.I.T. while continuing to work on, develop and build the military R.I.T. systems such as those shown in the 1986 Business Plan, Exhibit 5. Evidence of this continuing effort is the design concept drawings of Exhibits 7 and 8, dated 1990. Additional concepts were generated during 1991 (Exhibit 9). In addition, in 1991, the first detailed schematic was generated (Exhibit 10), which would permit a prototype circuit to be built.

10. I perceived that a small, handheld image RIT was needed and in 1989 I conceived the circuit architecture for a concept model R.I.T. that could be handheld, see Exhibit 6. This design, although functionally viable, was in practice power hungry and slow in performance. Over the next several years I continued my efforts to develop the handheld R.I.T. while continuing to work on, develop and build the larger specialized tactical military R.I.T. systems such as those shown in the 1987 Business Plan, Exhibit 5. Evidence of this continuing effort are the design concept drawings generated in corroboration with an industrial designer shown in Exhibits 7 and 8, dated 1990. In addition, in 1991 I developed the enhanced architecture that enabled the first detailed schematic (Exhibit 10), which would permit a higher performance and low-power prototype circuit to be built.
11. In 1992, the first comprehensive circuit was completed for a handheld R.I.T., as shown in Exhibit 11. This circuit became Fig. 8 of U.S. Application No. 10/336,470. Continued work done in 1992 on a packaging modification that would be more desirable to Government Customers, as is shown in Exhibits 12 and 13. Some of the design concepts of the 1992 and earlier period were also included in the Government model as was shown in the Application. Compare, for example, Fig. 6 in the application to the 1992 concept drawings Exhibits 12 and 13.
12. Over the next several years, 1993-1997, Photo-Telesis became the standard R.I.T. for Government tactical image transmission. The tactical systems developed and commercialized by PhotoTelesis were employed by the U.S. Government in many systems. Many of the products developed and sold by PhotoTelesis followed the concepts shown and described in the 1987 Business Plan (Exhibit 5).
13. During this time, I continued to be interested in and continued to develop the concept of a true handheld R.I.T. product. In fact, I came up with a formal proposal of a handheld R.I.T. in 1995 and put together a concept proposal in November, 1995 (Exhibit 14), using secure radio transmission. Ultimately this project was never Government funded, I went on to fund and develop a commercially feasible handheld R.I.T. that was first publicly disclosed in late 1997 and first sold to the Government in 1998.
14. While the proposal shown in Exhibit 14 did not feature a cellular telephone compatible R.I.T., it was architecturally consistent and a development stepping-stone toward that goal. The final product incorporated my design concepts of 1993 and earlier, and did include cellular telephone compatibility. A first prototype of this product is embodied in physical Exhibit 15. Physical Exhibit 15, which was shown to the Examiner in charge of prosecution of each subject cases during an interview, is a prototype of the first commercial embodiment of the invention. This was completed in mid-1997 and was first publicly disclosed sometime early 1998. Photographs of this one-of-a-kind prototype are contained in this record as Exhibit 15.
15. The circuitry for supporting the product resulting from the 1995 proposal is provided in the schematics of Exhibit 16, which ultimately became Fig. 5 of Application No. 10/326,503.

16. The product based on the prototype (Exhibit 15 and Exhibit 16) was put into production and sold to the Government. One of the production units, Physical Exhibit 17 as is photographed in Exhibit 17, was demonstrated transmitting over cellular telephone to the Examiner.
17. As shown by the Exhibits attached hereto, I conceived the invention at least as early as March 18, 1993 and worked diligently in developing a commercially viable product culminating in the first commercial handheld R.I.T. in late 1997. This handheld R.I.T. used cellular telephone transmission technology, as evidenced by Exhibits 15-17 as first conceived and document as early as March 18, 1993, see Exhibits (6 -13).
18. The subject applications were timely filed, being within one year of the first public disclosure of the inventions, and in fact, prior to any public disclosure.
19. The above facts establish reduction to practice prior to the earliest effective dates of the 131 Prior Art, or as a minimum, establish conception of the invention prior to the earliest effective date of the 131 Prior Art coupled with due diligence from prior to this date to a subsequent reduction of practice culminating in the prototype of the commercial embodiment Exhibit 15 in mid-1997.

Further affiant sayeth naught.

Executed this 27<sup>th</sup> day of December, 2004, by:

  
\_\_\_\_\_  
David A. Monroe

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:	§	
	§	
David A. Monroe	§	Group Art Unit: 2622
	§	
Serial No.: 10/336,470	§	Examiner: Joseph R. Pokrzywa
	§	
Filed: January 3, 2003	§	
	§	
For: <b>APPARATUS FOR CAPTURING,</b>	§	
<b>CONVERTING AND</b>	§	
<b>TRANSMITTING A VISUAL</b>	§	
<b>IMAGE SIGNAL VIA A DIGITAL</b>	§	
<b>TRANSMISSION SYSTEM</b>	§	

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- Exhibit 2    Circuit Board**
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- Exhibit 6    Circuitry Sketch for a Concept Model R.I.T. – Handheld - 1989**
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5/26/86

# PHOTOTELEESIS

Remote Image Transmission Systems

OK DAM  
OK [Signature]

Press Release  
For Immediate Release

## PhotoTelesis and Image Data Sign Agreement

### *Secure Remote Image Transmission over Telephone & Tactical Transceivers*

May 26, 1986. San Antonio, TX. Secure video image transmission between any remote sites over telephone, wireless radio and satellite circuits are now possible through an agreement between Image Data Corporation, makers of the commercial Photophone, and PhotoTelesis.

PhotoTelesis is a San Antonio based video systems integration company supplying video teleconferencing rooms, video teleconferencing equipment and specializing in image transmission equipment for government applications. The agreement makes PhotoTelesis the official vendor of Photophones specially adapted for Government applications.

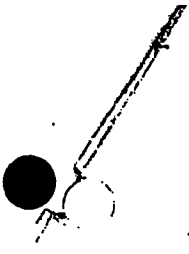
PhotoTelesis introduced three new product lines at the Armed Forces Communcation and Electronics Association annual Convention and Exposition May 27, 28, and 29 at the Washington D.C. Convention Center. Three special versions of the commercially successful Photophone are produced and marketed by PhotoTelesis. All enable freeze frame monochrome video pictures to be transmitted in seconds over various carriers. They are called RITs - for Remote Image Transceivers.

Tac-RIT™ transmits images over secure tactical line of sight and satellite receivers. Since the units are compatible with current standard military radio transceivers, fast reliable visual communication can now be added to tactical communication and command centers.

Sec-RIT™ is compatible with secure (encrypted) COMSEC gear, including STU II, STU III, and PSV (Personal Secure Voice) secure telephones over common dial-up lines.

801 Lincoln Center 7800 IH 10 West San Antonio, Texas 78230 (512) 349-2020





# PHOTOTELESIS

*Remote Image Transmission Systems*

**News Release**

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Page Two

The PhotoTelesis units offer the additional advantages of allowing voice and video over the same channel, enabling discussion of the picture. An interactive pointer controlled by either party allows discussion of the document as though the two parties were across the table from each other rather than half-way around the world.

PhotoTelesis will introduce three new product lines of RITs at the Armed Forces Communication and Electronics Association annual Convention and Exposition May 27, 28, and 29 at the Washington D.C. Convention Center.

**Tac-RIT™** transmits images over secure tactical line of sight and satellite receivers. Since the units are compatible with current standard military radio transceivers, fast reliable visual communication can now be added to tactical communication and command centers.

**Sec-RIT™** is compatible with secure (encrypted) COMSEC gear, including STU II, STU III, and PSV (Personal Secure Voice) secure telephones over common dial-up lines.

**Com-RIT™** provides compatibility with non-secure mobile cellular telephones and private portable carrier satellite communication systems.

PhotoTelesis is a San Antonio based video systems integration company supplying video teleconferencing rooms, video teleconferencing equipment and specializing in image transmission equipment for government applications.

**PHOTOTELEESIS**  
***Business Plan***

1987

**PHOTOTELEESIS Business Overview Copy #\_\_\_\_\_**

**January 27, 1987**

The information contained in this memorandum concerning image transmission products for government applications is furnished to the recipient on a confidential basis for the recipient's exclusive use. By acceptance of this confidential memorandum the recipient agrees not to transmit, divulge, reproduce, or make available to anyone other than himself, this confidential memorandum and any exhibits and documents supplied in connection therewith. *Violation of this confidentiality requirement may place the recipient and the preparers of this document in violation of the Texas and Federal securities laws and the applicable securities laws of other states.*

Any decision to invest in this enterprise should be deferred until the recipient has had the opportunity to review a confidential private placement memorandum now in the process of completion which will describe the specific terms under which an investment may be made and the substantial risks involved in any such investment in addition to any risks which may be described herein.

Prior to the sale of any securities related to the corporation described herein, the preparers of this memorandum will undertake to make available to the recipient hereof the same kind of information that is specified in Schedule A of the Securities Act of 1933, to the extent such persons possess such information or can acquire it without unreasonable effort or expense.

Signature

**PHOTOTELEESIS Business Overview Copy # \_\_\_\_\_**

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Signature

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# EXECUTIVE SUMMARY

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## ***Overview***

The charter of PHOTOTELESIS is to provide advanced image communications and processing systems to the U.S. Federal Government market. These systems are being developed using proprietary technology and integration of industry-standard components. The company provides total solutions to its customers including development, integration, manufacturing, marketing, support and training, using resources within the company as well as external contract resources.

The PHOTOTELESIS product line permits the capture, manipulation, storage and communication of images, documents and graphics using advanced techniques which permit communication to take place over ordinary voice grade telephone lines or specialized radio or satellite circuits.

The company specializes in providing products which may be connected to U.S. Government approved encryption devices, permitting secure (scrambled) operation over a variety of existing equipment designed for secure voice communications. PHOTOTELESIS also provides specialized packaging of its products to meet needs in desktop, airborne, naval and vehicular environments.

The company's objective is to develop its business to achieve annual revenues of over \$7 million by the end of fiscal 1991, with pre-tax earnings of \$1.6 million.

## ***Company Background***

PHOTOTELESIS was founded in September, 1985 to address specific vertical markets with image communications product needs. The company conducted extensive test marketing before selecting the Federal Government sector as the most promising area to develop. After consulting many high-level users within policy-making groups, the company generated product requirements which it felt would address broad needs within selected government departments and agencies.

The products developed from these requirements were announced at a major trade conference in May of 1986, and active marketing began. Initial product shipments commenced in June of 1986.

In the fall of 1986 the company completed development of its business strategy, assembled the executive team, and began work on a business plan to solicit funding for a significant expansion of marketing and manufacturing activities.

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# EXECUTIVE SUMMARY

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The PHOTOTELEESIS management team brings together broad skills in the management of high technology companies, as well as specific expertise in the development and marketing of image communications and processing systems. The company intends to focus its personnel on the key activities of marketing, product development, and administration, while utilizing outside contractors for manufacturing, certain specialized engineering, contract development and technical publications.

## *Market Potential*

PHOTOTELEESIS conducted intensive market research in 1986 in selected segments of the Federal Government market, and concluded that a significant opportunity exists for the company's products. Key indicators in forming this conclusion include:

- An identified and unfulfilled need for low cost image communications to support the development of major program-level initiatives in Communications, Command, Control and Intelligence systems (known as C<sup>3</sup>I) for defense-related applications. The current budget calls for expenditures of \$17.4 billion in fiscal 1987 to support major programs.
- The planned deployment of a new generation of secure and mobile communications equipment for the D.O.D. arena, with program-level expenditures on the order of billions of dollars in the next five years.
- The burgeoning market for products designed to government standards for handling classified information, called TEMPEST, presently estimated at \$350 million and expected to double or triple in size by 1990.
- The absence of significant entrenched competition in providing packaged image systems to Department of Defense and related markets.
- The trend toward use of commercial equipment as opposed to high cost procurement of MIL-SPEC components.

The above indicators prompted PHOTOTELEESIS management to test market reaction to its image communications technology and determine the applications, feature requirements and price points necessary for success in the targeted markets.

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# EXECUTIVE SUMMARY

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These activities resulted in the identification of highly receptive user groups in the following government departments:

- Department of Defense
- Executive Office of the President
- Department of Energy
- Department of Justice
- Department of Treasury
- NASA

PHOTOTELESIS has made revenue shipments of evaluation quantities to target customers during 1986 and has received orders for additional equipment for delivery in 1987. In addition, high-level user groups have been identified in each of the above departments who are prospects for sale in 1987.

### ***Marketing Strategy***

PHOTOTELESIS sells its products directly to major accounts in its target markets through government purchasing contracts, and plans to offer its products on the G.S.A. (General Services Administration) price lists. The company will also develop indirect marketing channels through Prime Contractors, Sales Representatives, and Value Added Resellers who specialize in government electronics marketing.

The company markets "top down" by identifying major program initiatives in high-level policy-making groups, and selling "seed units" to elite users who can set requirements for large volume contracts in the future.

PHOTOTELESIS management believes that rapid deployment of its image communications technology in high-level user groups will lead to the company's products becoming a defacto standard, as new users develop who require compatible technology. This strategy will provide a significant barrier to future competition in the image communications arena.



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# EXECUTIVE SUMMARY

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## ***Product Line Overview***

The PHOTOTELEESIS products are known as Remote Image Transceivers, or R.I.T.'s. The RIT is based on technology and components purchased on an O.E.M. basis from Image Data Corporation, who markets their product as The Photophone™.

The company has developed three versions of the RIT which are specialized for its target markets:

- Desktop Products**     The company provides desktop RIT's which offer specialized communications options for secure, radio, or cellular operation, and provides an advanced high-resolution camera and shipping cases as standard features. A version of the desktop secure product is being developed for use in classified applications which require special design features and certification by the National Security Agency.
- ATR-RIT Products**     This product is a repackaging of the desktop technology into an industry standard Aircraft Transport Racking (ATR) form factor suitable for mounting in aircraft, marine or mobile environments. The ATR-RIT is offered with both secure and non-secure communications options and may be powered by an optional battery pack or available DC power. The ATR-RIT permits image communications to take place from field locations such as battlefields, airspace or intelligence monitoring sites where conventional packaging techniques would be impractical.
- Briefcase Products**     Test marketing has uncovered a great interest in a portable or "briefcase" version of the RIT for both secure and non-secure applications where portability is a necessity. The packaging technology for the ATR-RIT will be adapted for the briefcase products, yielding a package that will fit inside a standard briefcase form factor, including display, keypad, electronics, battery pack and communications interface. This product will significantly increase the market potential of the RIT technology and push the product into applications in which image communications has not heretofore been available. Target field applications include infantry, disaster recovery, paramedic, construction, surveillance and security.

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# EXECUTIVE SUMMARY

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## ***Financial Overview***

PHOTOTELEESIS anticipates that revenues from its presently identified markets will be in excess of \$13 million over the next three years, with near break-even profitability achieved during 1987 on revenue of \$1.6 million. Pretax profits are planned to grow to \$1.6 million by the end of calendar 1989 on revenues of \$7.2 million. These forecasts assume penetration of presently identified markets only and do not include substantial potential for the company's products in other markets which have been tested.

The company's financial projections assume that the corporation is funded with \$750,000 by the end of May, 1987. The funds will be used to expand marketing and product development activities, and to ramp up volume manufacturing through a subcontractor.

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Notes

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## ***The Company***

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# ABOUT THE COMPANY

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## History

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### ***Founded***

PHOTOTELESIS was founded in SEPTEMBER 1985 and was chartered as a Texas Corporation in January 1987. The business purpose of the corporation is to address specific vertical markets with customized video transmission products.

### ***Test Marketing***

Specific product concepts were successfully test marketed at policy-making levels within NASA, the Pentagon, and Federal law enforcement agencies. User groups within each market sector were also consulted, and specific product specifications were derived.

### ***Product Announcement***

The first products were announced at the Armed Forces Communication & Electronics Association (AFCEA) 1986 International Conference & Exhibition in Washington, D.C. in May of 1986.

### ***Development***

The first product prototypes, Sec-RIT and ATR-RIT, were completed in January of 1987.

### ***Orders and Shipments***

Shipment of the Com-RIT product to the FBI occurred in June of 1986. Initial orders for Sec-RIT and ATR-RIT were taken in October and November of 1986, respectively.

### ***Organization***

Additional marketing and financial expertise were added when it became apparent the business opportunity was there. In December of 1986, a corporate strategy and business plan were developed.

NOTE: See product literature in this package for more details about specific products.

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# ABOUT THE COMPANY

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## Strategy

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### ***Our business strategy***

Our business strategy is to take commercially available, "off-the-shelf" products, add our own technology, packaging, and marketing expertise, then sell to our customers. We will make use of contract personnel when appropriate to keep overhead costs down. Here's how it works:

### ***Suppliers***

Suppliers provide us with commercially available products, such as

- Image communication subassemblies
- Video equipment
- PC's and PC peripheral equipment.

### ***PHOTOTELEESIS***

Then we add our own technology and packaging to create our product. And we market these products to our vertical market sector.

### ***Contract Personnel***

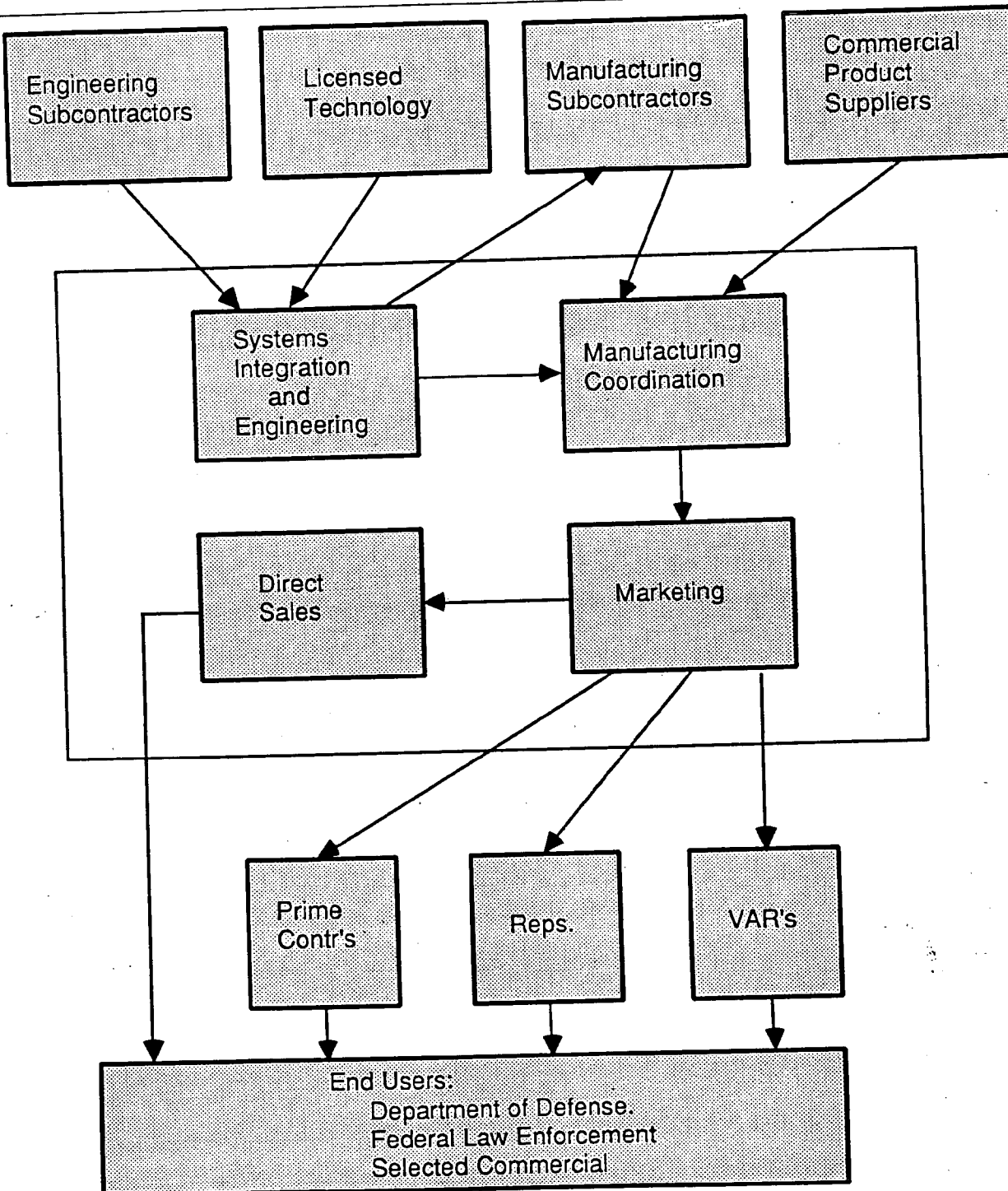
We use contract professionals where possible. In particular, this is appropriate for legal work; certain engineering work, technical publications, documentation, advertising, and manufacturing.

As a result, we can produce specialized products from off-the-shelf products at very competitive prices. We offer these products through a variety of distribution channels. By using contractors where possible for our needs, we greatly reduce overhead costs.

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# ABOUT THE COMPANY

## Strategy Illustration



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# ABOUT THE COMPANY

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## Organization

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### ***Present Organization***

Presently our staff includes:

- David Monroe, President
- Larry Glidewell, Marketing and Sales
- George Leonard, Marketing and Sales
- Mike Huffman, Finance and Administration
- Eric Schweppe, Engineering

### ***Planned Expansion***

During 1987, we plan to add these staff functions:

- Hardware Engineer
- Software Engineer
- Secretary
- Clerk

### ***External Functions***

These functions will be handled by contract personnel:

- Manufacturing
- Government Contract Development
- Customer Service
- Accounting and Legal
- Technical Publications and Documentation
- Engineering Services

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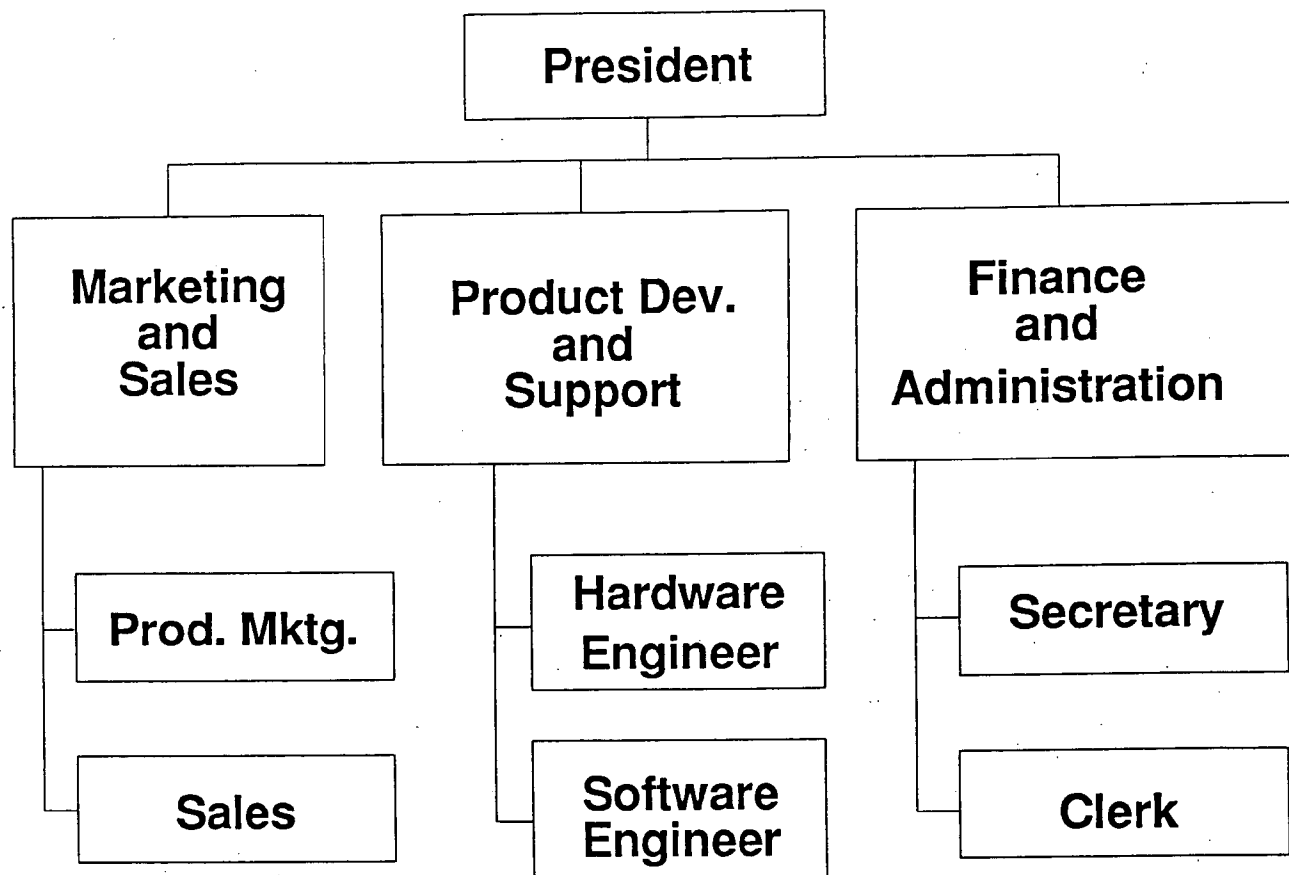
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# ABOUT THE COMPANY

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## Organization Chart

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PHOTOTELEESIS-CONFIDENTIAL

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# ABOUT THE COMPANY

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## Management Profiles

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The PHOTOTELESIS executive team contains the key strengths in management, finance, engineering and marketing that are required for success in the high technology systems field. This section presents brief profiles of each individual on the team.

### **David A. Monroe**

David Monroe, 34, has worked as an engineer and scientist throughout his career, from individual contributor positions progressing to President and Founder of PHOTOTELESIS Corporation.

Prior to starting PHOTOTELESIS, Mr. Monroe was Vice President and Co-Founder of Image Data Corporation, where he developed the PHOTOPHONE video telephone product from concept through manufacturing startup and product introduction.

Mr. Monroe was previously Vice President of Office Graphics Systems of Datapoint Corporation, where he was responsible for the management of several of Datapoint's most complex development programs, including the company's Laser Printer, Color Graphics System, Impact Printers and Facsimile products. Prior to Datapoint, Mr. Monroe was Principal Engineer with Mnemonics, Inc., a San Antonio and Sunnyvale-based startup in the field of solid state memory systems.

As President, Mr. Monroe brings vital skills in management of high-technology startups, including research and development, product and market strategy, and general management of electronics and computer products companies.

Mr. Monroe's educational background includes Undergraduate curricula in Physics and Computer Science, University of Kansas, 1970-1973, Wharton Short Course on Finance, 1979, and AMA Management Course, 1980.

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# ABOUT THE COMPANY

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## Management Profiles

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### **Larry P. Glidewell**

Mr. Glidewell, 35, has a varied professional background in communications, organizational development, training, and marketing. Mr. Glidewell created the marketing function at PHOTOTELESIS to conduct the market research and test marketing required to define the business opportunities for the company's technology.

Prior to PHOTOTELESIS, Mr. Glidewell was a partner in Interactive Video Solutions in San Antonio, where he developed the marketing opportunity for computer controlled laser videodisc technology in the military and government markets. Mr. Glidewell previously was Founder and President of MAP Development in Houston, which was a pioneer in the use of interactive video and computer aided instruction for the oil and gas industry. Prior to this, Mr. Glidewell held management positions at NL Industries and Modern Management Methods in industrial and business training and development.

Mr. Glidewell's background provides the company with key strengths in management, business and marketing, as well as specific expertise in the application of high technology videodisk and teleconferencing systems in business.

Mr. Glidewell's educational background includes a B.S. in Communication, 1973, and an M.A. in Organizational Development, 1975, both from Oklahoma State University.

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# ABOUT THE COMPANY

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## Management Profiles

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### **Michael L. Huffman**

Mr. Huffman, 37, has an extensive background in finance, accounting, administration, and planning. Mr. Huffman joined PHOTOTELESIS to assume the management of the financial and administrative operations for the company.

Prior to this, he was Director of Finance and Administration for Network Standards Corporation in San Antonio, where he managed all financial, accounting and administrative operations for the company. Previously, Mr. Huffman held management positions in finance and administration at Datapoint Corporation, where he was actively involved in both marketing and product development functions. Prior to this, he held positions in financial analysis and business development with Duncan Smith Co. and Electronic Data Systems.

Mr. Huffman brings excellent credentials and experience to the company in the management of finance, accounting and planning functions, with specific expertise in high technology businesses.

Mr. Huffman's educational background includes a Bachelor of Arts and a Bachelor of Science in Civil Engineering from Bucknell University, 1972, and an MBA in Finance and Management from the University of Texas, 1978.

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# ABOUT THE COMPANY

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## Management Profiles

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### **George L. Leonard**

Mr. Leonard, 37, has a varied background in high technology electronic systems that includes product development, product management, marketing and sales. He joined PHOTOTELESIS to provide additional emphasis in the marketing and sales of the company's products.

Prior to joining the company, Mr. Leonard was Director of Marketing and Sales, Advanced Products Division, for Datapoint Corporation, where he managed the market research, introduction and marketing activities for a new generation of desktop networked video conferencing equipment. Previously, Mr. Leonard held various management positions in product marketing, product development and planning for Datapoint's office automation product line. Prior to this, Mr. Leonard was engaged in product development and engineering management at Basic Four Corporation, Panhandle Eastern Pipeline, and GeoSource International.

Mr. Leonard brings key skills to the company in sales, marketing, and product management, with specific expertise in the field of desktop video conferencing.

Mr. Leonard's educational background includes a Bachelor of Science, Electrical Engineering, 1972, and a Master of Electrical Engineering, 1973, both from Rice University.

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# Notes

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**PHOTOTELEESIS-CONFIDENTIAL**

## ***The Market***

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# THE MARKET

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## Background

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### ***Initial Marketing Contacts***

In the fall of 1985 PHOTOTELESIS became interested in the possible application of video telephone technology in the Department of Defense. Through an association with General Doyle Larson, USAF (Ret.), introductions were made to Donald Latham, Assistant Secretary of Defense, Communication, Command, Control, and Intelligence.

After an initial briefing on the product in Washington, Mr. Latham was sufficiently impressed with the product that he arranged a briefing with General Rice, Chief of Joint Special Operations Command, and General Perroots, Director of the Defense Intelligence Agency, and their staffs, to introduce them to the image transmission capabilities that PHOTOTELESIS had to offer. This meeting, although scheduled for only twenty minutes, lasted for two and a half hours.

### ***What We Learned***

The need for image transmission was well known at the policy levels represented in the briefings, and there was significant interest expressed for products which could provide this need. Mr. Latham was a strong proponent for the military buying and, if necessary, modifying existing commercial equipment rather than incurring the time and expense of developing specifications for bid with large companies that specialize in custom government products. Our product not only fit his model of acquisition and cooperation with the corporate sector, but also fulfilled a need within the C3I (Communication, Command, Control, and Intelligence) community, which is involved in communications across all branches of the military.

We learned that several changes to the standard desktop product would be necessary for widespread use within the C3I arena. First, the unit would have to be made compatible with standard encryption devices (known as COMSEC, for Secure Communications), already in use in the military. Second, the product would have to be modified to meet a government standard known as TEMPEST, in order to permit it to handle classified information in a manner that could not be detected electronically by enemy groups.

We also presented a prototype of a portable image transceiver which fit in a briefcase. There was a great deal of interest in this product for use in the field where small size, battery power and radio or satellite communications is required.

**PHOTOTELESIS-CONFIDENTIAL**



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# THE MARKET

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## Background

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### ***Results***

Based on the positive reception to our product concept, we were given points of contact within specific user groups and encouraged to discuss our capabilities and their requirements for image transmission products. We concluded that discussions and demonstrations with these groups would allow us to test whether there was indeed a market opportunity for our products.

**PHOTOTELEESIS-CONFIDENTIAL**

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# THE MARKET

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## Test Marketing

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### ***Objectives***

The enthusiastic reception to our products in the C3I market convinced us that a project should be initiated to test the overall market firsthand. The use of image transmission technology in this market was so new that there was no market research data readily available, but we determined that collecting primary market data from potential users would be even more valuable. The objectives of the market test were to determine

- the user needs and potential volume for image transmission products
- how the government would go about purchasing the products
- what competitive products might already exist
- what features and pricing would be required

### ***Initial Product Demonstrations***

Initial user groups that were contacted within the C3I community included the National Security Agency, Joint Chiefs of Staff, Special Operations Command Atlantic (SOCLANT), FBI, NASA, Secret Service, White House Communications, Defense Communications Agency, Defense Intelligence Agency, and groups from the Department of the Army. We held additional briefings in Washington with Army Intelligence, Drug Enforcement Administration, U.S. Postal Investigation Service, Voice of America, Joint Special Operations Agency, and Army Psychological Operations.

The information that was collected from presenting the product to these user groups confirmed that there was a substantial market opportunity for off-the-shelf image transmission equipment. The requirements for COMSEC compatibility and TEMPEST certification were also validated by these groups. We also collected additional information on the need for units that could operate in mobile or portable applications, communicating imagery back to a central "base station" Many groups indicated that the product concept and price range was superior to other imaging products available to the government, and that in fact there was no incumbent product in widespread use.

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# THE MARKET

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## Test Marketing

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### ***Placement of First Units***

The test marketing activities led directly to purchases of initial units from the FBI and Army groups located at Ft. Eustis and Ft. Belvoir. Ft. Bragg SOCLANT, who provided valuable information in defining product features and assistance in compatibility testing, took delivery of the first two prototype encryption-compatible units, which would later become the Sec-RIT. The FBI purchased two units for evaluation, including the first delivery of a unit later called the Com-RIT that could transmit images from a vehicle over cellular telephone. An Army group awarded us a contract for a unit that could be mounted on an aircraft and transmit images over satellite-based secure voice equipment to a distant command center.

### ***Conclusions - the Opportunity***

Several conclusions were evident from the market test. First, there appeared to be a substantial immediate market opportunity in the groups that were sampled for a relatively low-cost, off the shelf image transceiver. Although the purpose of our test marketing was to gather information, we received orders in addition. There did not appear to be substantial entrenched competition for encryption-compatible image transceivers that could operate over existing voice communications facilities. Although more market data was needed to properly measure the total opportunity, there was enough primary data available from talking to prospects and initial customers to justify moving ahead with a major product announcement.

### ***Conclusions - Product Requirements***

Second, specific product modifications in the packaging and communications areas were mandatory to allow interested groups to use even evaluation quantities of units. We concluded that three product families would be required:

- desktop units, for command centers and other stationary installations
- mobile units, for use in vehicle, aircraft or marine platforms
- portable units, for personal use anywhere in the field

Each of these families had to operate over existing secure voice communications systems, and at least the desktop units would have to meet TEMPEST standards to address the broad market. We also saw needs for networking these products together, to allow for multi-site briefings or access to remote image databases.

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# THE MARKET

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## Test Marketing

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We concluded that this product line could meet broad-based needs in defense or federal law enforcement markets, where, combined with existing communications, complete image networks could be constructed. This concept is illustrated in the accompanying diagram.

### ***Conclusions - Applications***

Many of the applications that we found for our products are in the intelligence community for use by analysts who deal with image-based information on a daily basis. While the specific applications of our users are classified, some of the areas of use include :

- real-time collection and dissemination of reconnaissance imagery from video or radar-based sources
- remote access to documents, drawings, maps, or technical illustrations
- multi-site briefings with graphic support
- communication of images from stationary imaging systems to remote sites
- remote access to image archives for personnel identification, medical records, or intelligence files
- real-time visual access for remote expert consultation and problem solving

### ***Conclusions - Marketing***

We discovered that the user community that was interested in our products was tightly knit because of common requirements, so that initial success in one group could spread by word of mouth to other groups with similar needs. *As a result, it looked like a small but highly focused marketing effort could be highly productive.*

We also discovered that interoperability, a term for the ability of different communications or computer equipment to work together, is a key factor for market success. Because of the different custom imaging systems we found installed, there is no widespread interoperability in place between groups. *We concluded that marketing*

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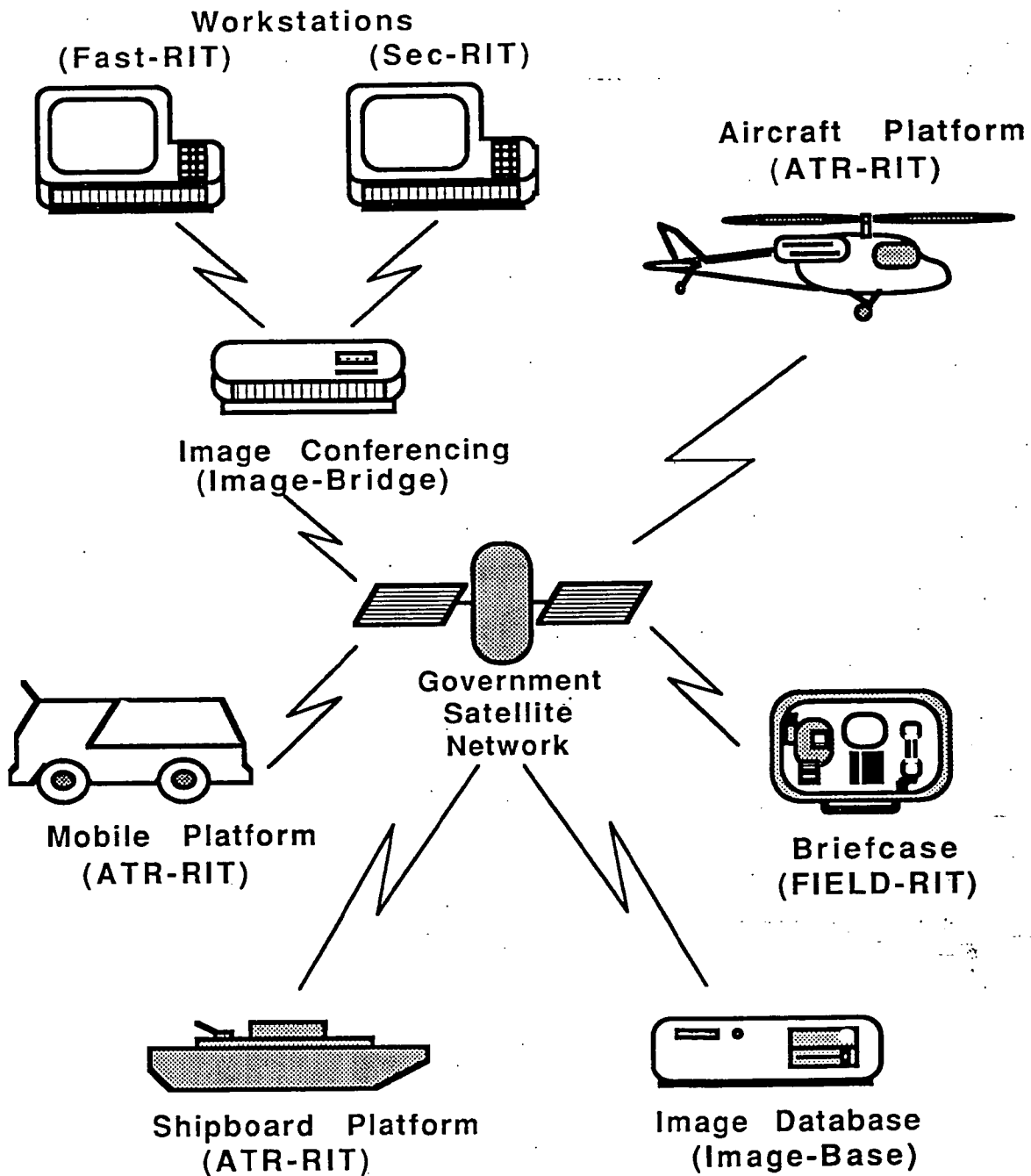
# THE MARKET

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## Test Marketing

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This diagram illustrates our products in a typical customer application.



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# THE MARKET

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## Test Marketing

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*success with one group could lead to requirements for new groups to have compatible equipment.*

*We also concluded that our marketing success depended on working through a triangular relationship of policy makers, user groups, and contracting officers or acquisition groups. Understanding the overall direction of government programs and gaining the support of the policy makers allows us to select key user groups to address. Placing evaluation, or "seed" units in these groups gains us influence in the development of specifications for future volume contracts. Finally, working through the acquisition groups to win major contracts for our products can create substantial barriers to future competition.*

In short, we had found a market niche that had immediate requirements, had funds available to spend, and could be successfully penetrated by a small, aggressive company that could be more responsive to user needs than the established government contractors.

During the test marketing project we demonstrated our products to over thirty user groups who have an application which they are interested in pursuing. These groups form the basis for our 1987 forecast, which is detailed in the Marketing section that follows.

### ***Announcement***

In May of 1986, PHOTOTELESIS announced the Sec-RIT and Com-RIT product lines, as well as future directions in portable and TEMPEST qualified units. The products were announced at a major military trade show known as AFCEA (Armed Forces Communications and Electronics Association). There was strong user interest at the show, resulting in over fifty qualified leads for future business. Press releases were published in magazines targeted at both defense and communications audiences which have to date resulted in over 250 leads for Com-RIT and Sec-RIT products. Copies of our press releases may be found in the Appendix.

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# THE MARKET

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## Market Statistics

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### ***Introduction***

During the test marketing campaign, we concluded that additional data should be gathered on the size of the markets we were interested in, and on major policy directions in the Department of Defense that were influencing the market and might be advantageous to us in the future. Since no research reports on image communications equipment in the military was readily available to us, we began to collect statistics through a variety of sources, including books, articles, newspaper stories and personal interviews with highly placed individuals in the military.

Our primary focus remained the C3I market: Command, Control, Communications and Intelligence. Within that umbrella term for all D.O.D. communications programs, we identified three major government programs that were relevant to our market thrust:

- TEMPEST qualified products
- STU-III Secure Telephone Units
- Mobile Subscriber Equipment

Each of these programs is described on the following pages, including forecasts of future market opportunity. Then we will draw conclusions about their importance to our marketing direction.

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# THE MARKET

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## Market Statistics

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### ***Command, Control, Communications and Intelligence (C3I)***

Programs that involve D.O.D secure communications in all branches of the Military are grouped into this classification for administrative control. The Assistant Secretary for C3I reports to the Secretary of Defense, and oversees all policies and budgets regarding agencies, programs, and acquisitions of equipment.

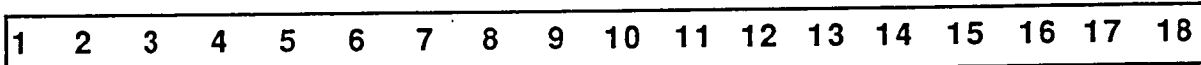
Deployment is accomplished through the Joint Chiefs of Staff to all Military service Command, Control, Communications and Intelligence branches through their world-wide organizational structure composed of CINC's (Commanders in Chief) representing regional and strategic commands. Departments of Army, Navy, Air Force, and Marines may have individual programs, but C3I seeks to ensure inter-service and NATO compatibility.

The growth of budgets for C3I programs provides a broad market opportunity for adding our secure image communications products to D.O.D secure communications systems.

**FY '86 C3I Budgets (\$14.298)**



**FY '87 C3I Budgets (\$17.406)**



***Billions of Dollars***

Source: C3I Handbook, P. 262, Defense Electronics, 1986.



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# THE MARKET

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## Market Statistics

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### **TEMPEST**

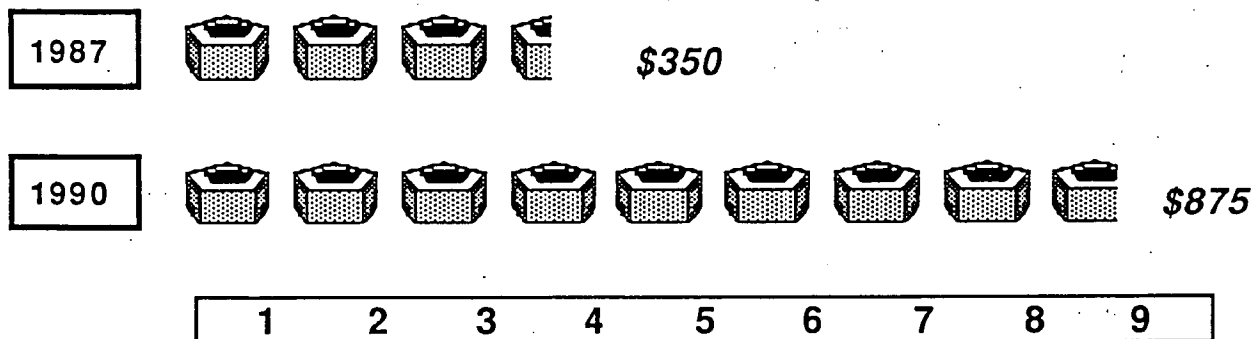
TEMPEST is the Federal government's word for the countermeasures taken on electronic and data processing equipment to prevent them from emitting electronic signals that can be detected by unauthorized persons. TEMPEST requirements are quite common in the Federal government, thus creating an opportunity for TEMPEST qualified image transmission systems.

TEMPEST equipment is required in many office environments in the U.S. Federal government which deal with classified information, and for almost all non-tactical applications outside the U.S. TEMPEST-qualified products command a high price premium in the market compared to comparable commercial versions.

"Government and industry officials are forecasting a steady demand for TEMPEST equipment and services over the next five to ten years.

Current expenditures are \$350 million, a number that might easily double or triple by the end of the decade."

We will provide TEMPEST-compatible desktop and portable Remote Image Transceivers to take advantage of the tremendous growth in this market area.



*Millions of Dollars*

Source: C3I Handbook, Pp 181-200, Defense Electronics, 1986.

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# THE MARKET

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## Market Statistics

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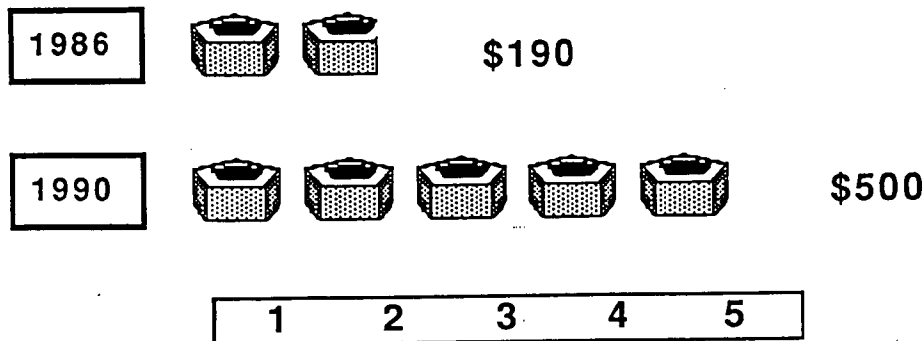
### **Secure Telephone Units**

STU-III is the acronym for the third-generation Secure Telephone Unit program. This program extends to all Federal agencies and contractors, creating a tremendous market opportunity for encryption-compatible desktop image transceivers.

Special Secure Telephone Units (STU's) are being developed and produced under a National Security Agency sponsored program. Initial contracts let in 1986 worth \$190 million will allow the secure telephone market to expand from the current STU-II's to up to 50,000 new STU-III's. Ten thousand units will be produced per month and will sell for around \$2000. Initial contracts were let to RCA (\$84.7M), AT&T (\$55.2M) and Motorola (\$50.1M). Industry estimates forecast a market size of \$500 million by 1990, resulting in an installed base of up to 500,000 units over the next ten years.

Our Sec-RIT product is designed for compatibility with STU-III, opening a vast new market for us as these telephone systems come into use. ***For example, if five percent of the expected STU-III desktops are candidates for image transmission, that represents a total available market of 25,000 units over the next ten years.***

### **Contracts in Place and Future Growth**



**Millions of Dollars**

Source: The New York Times, Tuesday, July 8, 1986  
Defense Electronics, March, 1987.

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# THE MARKET

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## Market Statistics

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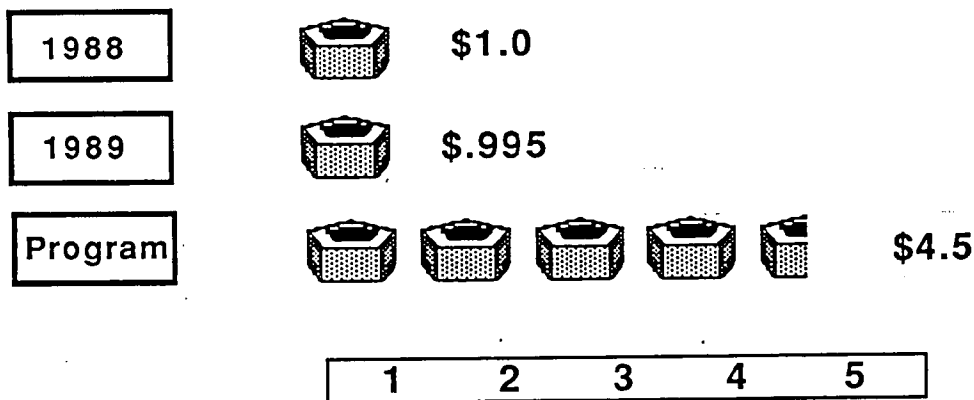
### **Mobile Subscriber Equipment**

The Mobile Subscriber Equipment (MSE) program is a new U.S. Army program which provides vehicular and man-portable communications equipment.

The largest procurement of tactical communications equipment in history, MSE is often described as "the Army's Cellular System". With initial operation scheduled for 1988, the program will provide a worldwide secure switched network for voice, data, teletype, and facsimile communications for digital radio telephone users, switched system subscribers, information processing facilities, and combat-net radio users. This program is slated for expenditures of \$1.0 billion in Fiscal 1988 and \$995 million in Fiscal 1989. Total program expenditures are expected to top \$4.5 billion.

Our ATR-RIT and briefcase product families will be compatible with these new cellular systems. *If the market for image transmission is only one percent the size of the total MSE market, it represents a \$10 million opportunity for us in 1988 alone.*

### **MSE Program Expenditures**



Source: C3I Handbook, P.119, Defense Electronics, 1986; Microwave Journal, February 1987.

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# THE MARKET

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## Market Statistics

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### **Conclusions**

Our investigation into these major programs has yielded several important conclusions:

**First**, the overall C3I market is receiving major funding for communications equipment and is projected to have strong future growth. We have developed direct contacts to policy makers in this arena who are enthusiastic supporters for our products. Moreover, C3I has the organizational focus across all branches to allow us to market our products using a top-down approach without needing a large direct sales force.

**Second**, the market for TEMPEST equipment is growing at a rapid pace and is projected to continue to do so over the next five to ten years. This indicates a ready market for TEMPEST-compatible versions of our products, important because the broad market opportunities for us are in applications which demand TEMPEST certification.

**Third**, the STU-III market indicates a major shift in thinking about COMSEC, or Secure Communications, in the Federal Government, from a few expensive units in limited locations to a broad deployment across all branches of the government that deal in classified information. Since these units are just now beginning to appear in the market and are being manufactured in very large quantities, we are well positioned with our COMSEC and future TEMPEST-compatible product line on the leading edge of an important new market.

**Fourth**, the projected growth in the Mobile Subscriber Equipment market points to a vastly increased emphasis on world-wide military communications in the field. We are well positioned to take advantage of this new market with our secure mobile and portable products.

**Taken in total, we have concluded that these programs point to a major market being formed for products which are compatible with the new generation of secure communications equipment.** Our research points to strong growth in this market over the next five years, creating a total available market measured in the billions of dollars, and tens of thousands of "sockets" into which we can plug our products. We have already made significant strides in developing compatible products for this market and have focused our marketing resources on tracking and penetrating major contract opportunities for our image-based product line.

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Notes

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**PHOTOTELEESIS-CONFIDENTIAL**

# ***Competition***

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# COMPETITION

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## Products

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### ***Introduction***

A key factor in assessing the market opportunity for the PHOTOTELESIS product line is the presence of competition, particularly in the areas of image transmission systems that offer COMSEC compatibility, can operate over existing voice communications facilities, and are offered in TEMPEST versions. One of our best sources of competitive information is our own customers, who have consistently told us that our product concept is unique in the market.

We realize, however, that there are many communications products and systems in the federal government that are competing for contract dollars, even though they may cover a wide diversity of features and price points. This section takes a look at the competitive environment that currently exists and draws several conclusions that influence our marketing strategy.

### ***Video Conferencing Products***

Currently, video transmission in the Federal arena is primarily confined to full-motion (i.e. closed circuit television) systems. These systems are installed in expensive, custom conference rooms for use between high-level management groups. The cost per room is usually in the range of \$100-250 thousand, and the cost per hour of use ranges from \$250-750. Communications lines which can handle the high speed video information between rooms are highly specialized and in short supply. Although some of these rooms operate over encrypted circuits, security remains a significant problem. Some rooms utilize lower-cost freeze-frame equipment which can send still pictures over standard telephone lines, but the equipment is customized for each installation and, like the full-motion systems, complex to operate.

### ***Tactical Imaging Requirements***

Many groups within the Federal government deal with image-based information on a routine basis. Military and law enforcement groups who collect images in the field often record the images on video tape, which must then be delivered by courier. Alternately, they use conventional camera technology, which must be developed and printed before the images can be couriered to their destination or sent by facsimile.

The advantages of video transmission are that any image, whether it be a document, object, person, or scene, can be captured instantly from any video camera source. Once captured, the image, now in digital form, is compressed and sent over a standard voice-grade communications circuit.

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# COMPETITION

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## Products

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Key factors in applying this technology are:

- the resolution, or clarity, of the image received, including documents, objects, persons, or scenes
- the speed at which an image can be transmitted
- the ability of the transmission device to achieve error-free communication
- the ability to use all types of voice communications circuits, including telephone, radio, and satellite, in both secure and non-secure modes
- the ability to operate the device in fixed, mobile and portable environments
- the ability to transmit classified information without risk of electronic detection
- ease of use to minimize training time
- low cost to acquire and operate
- reliability
- off-the-shelf availability

### ***Freeze-Frame Video Transmission Systems***

There are two principal vendors providing commercial video image transmission systems to the Federal Government: Interrand Corporation and Colorado Video. There are also two main vendors providing military equipment: Dalmo-Victor (division of Singer), and E-Systems. Detailed comparisons of these products against the PHOTOTELESIS products are presented in tabular form at the end of this section. A few salient points are worth noting here:

- The commercial products, which have been used mainly in conference room applications, are not known to have government-supplied encryption interface capabilities, operate only on standard telephone circuits, are not offered in TEMPEST form, and are not available in versions which can be used in mobile or portable applications.



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# COMPETITION

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## Products

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- The military products are very expensive, not available off-the-shelf, do not operate in a network which permits multi-point briefings or remote image database retrieval, are difficult to use, and are not offered in compatible desktop versions.

In short, although some competitive features are offered by each product, no one product meets all the required characteristics defined above.

### ***Facsimile Products***

Facsimile technology provides a way to electronically scan flat images, such as documents or photographs, and send them over ordinary telephone lines. Facsimile technology is capable of high resolution, or image clarity, for black and white images, but suffers in comparison to video techniques where the image has many intermediate levels of gray, such as images of objects, people, or scenes. Facsimile devices attempt to accommodate for this deficiency by using a technique called *half-toning*, which uses closely spaced patterns of black and white dots to simulate shades of gray.

Two military facsimile devices currently in use are the Tactical Field Fax, available from various manufacturers under D.O.D. contract, and the MDFT, manufactured under federal contract by Video Masters. These devices are compared to the PHOTOTELESIS products in a table at the end of this section. The main conclusions of this comparison are as follows:

- Facsimile devices are the preferred alternative for the transmission of documents only, where their high resolution and low cost are significant advantages.
- Facsimile is poorly suited to other kinds of imagery, since the image must first be captured and printed by some other means before it can be fed into the facsimile scanner, a time-consuming process which also degrades the image. Facsimile transfer does not faithfully reproduce the shades of gray in an image, which is vital in many tactical applications including personnel identification, reconnaissance imagery, etc. Therefore, video techniques will be preferred when one device must be usable with a variety of image sources.
- Facsimile protocols are sensitive to communications line quality; "drop-outs" on the line can cause portions of the image to be destroyed, necessitating resending the entire image. The PHOTOTELESIS products use a coding technique known as forward error correction for error-free transmission over a wide range of line quality.

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# COMPETITION

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## Products

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### *Desktop Products*

Feature	PHOTOTELEESIS	INTERRAND	COLORADO VID.
Resolution (pixels)	592x440x128	640X480X256	512x480x256
Speed (seconds)	10-40	10 for partial resolution 80 for full resolution	25
Error Correction	block transmission forward error correction	error checked	no
Transmission	telephone, radio, cellular, satellite	telephone	telephone
Encryption Compatible	yes, programmable	unknown	unknown
Packaging	desktop, mobile, portable	desktop or console	rack mount
Ease of Use	menu based, helps	manual controls	manual controls
Cost	\$10,000-24,500	\$11,000-75,000	\$15,000 est.
Availability	off-the-shelf	off-the-shelf	off-the-shelf

*Note: Data sheets are included in the Appendices.*

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# COMPETITION

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## Products

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### *Military Products*

Feature	PHOTOTELEESIS	DALMO-VICTOR	E-SYSTEMS
Resolution (pixels)	592x440x128	256x256X256	512X480X256
Speed (seconds)	10-40	3-180	120
Error Correction	block transmission forward error correction	yes	none specified
Transmission	telephone, radio, cellular, satellite	radio, satellite	radio, satellite
Encryption Compatible	yes, programmable	yes	yes
Packaging	desktop, mobile, portable	mobile	two man portable
Ease of Use	menu, help screens	manual controls	manual controls
Cost	\$18,500-24,500	\$50-100,000	unknown
Availability	off-the-shelf	special order	unknown

*Note: Data sheets are included in the Appendices.*

# COMPETITION

## Products

### *Facsimile Products*

Feature	PHOTOTELEESIS	FIELD FAX	MDFT
Resolution (pixels)	592x440 per image	204x19per inch	75-300 per inch
Gray Scale	128 levels	4-16 levels	5-33 levels
Input Medium	high res. camera	flat scanner	flat scanner
Speed (seconds)	10-40	7-15	15
Error Correction	block transmission forward error correction	none	none
Transmission	telephone, radio, cellular, satellite	radio, satellite	radio, satellite
Encryption Compatible	yes, programmable	yes	yes
Packaging	desktop, mobile, portable	rack mount, 110v.	two suitcase portable
Ease of Use	menu, help screens	manual controls	manual controls
Cost	\$18,500-24,500	\$7800-16,800	unknown
Availability	off-the-shelf	D.O.D. contract	unknown

*Note: Data Sheets are included in the Appendices.*

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# COMPETITION

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## Conclusions

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We have drawn several conclusions from our analysis of the competition:

**First**, the PHOTOTELEESIS approach to image transmission is clearly different and superior to other solutions on the market. We believe that we uniquely meet all the requirements for success stated earlier:

- we offer high resolution combined with full gray-scale capability that gives excellent image clarity with a variety of subject material
- our transmission protocols achieve error-free communication even with marginal communications channel quality
- we can send a typical image over encrypted circuits in 20-30 seconds, and over standard telephone lines in under 10 seconds
- we use a wide variety of voice communications circuits and encryption devices
- we can operate in fixed, mobile and portable environments
- our TEMPEST version will permit us to transmit classified information without risk of electronic detection
- we offer ease of use through simplified control panels and menu-based operation
- our products are low cost to acquire and operate
- our design has proven reliability
- we offer off-the-shelf availability

**Second**, although there are different, incompatible products available which meet some of the needs above, our product line meets them all in one family of interoperable products.

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# COMPETITION

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## Conclusions

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**Third**, we believe that we can minimize competitive threats from other companies with substantially greater resources than ours by

- offering products which are tailored to meet specific user needs by providing compatibility with a wide range of communications systems and encryption devices
- offering a range of compatible product solutions which can work together
- providing products at attractive price points
- concentrating on penetrating key applications early and establishing our products as the standard, thus locking out competition with incompatible communications protocols

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# Notes

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**PHOTOTELEESIS-CONFIDENTIAL**

# ***Marketing***



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# MARKETING

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## Sales Process

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### ***Customer Model***

We view our customers and prospects in groups which may be represented as a market pyramid. In an emerging market, penetration occurs at the top of the pyramid where there are a limited number of innovative groups who are eager to purchase state-of-the-art technology. Moving down the pyramid we find larger groups of users, but they are more risk-averse and depend on a more established market before they will commit to purchase. Relating this model to our own customers, we see the market pyramid in four broad groupings:

#### **Advocates**

Product advocates are willing to take standard products for Test & Evaluation, then upgrade to meet full requirements. Purchase volumes: 2 units per order.

#### **Early initiators**

These users must have encryption-compatible units, but do not need to meet all feature requirements initially. Their applications are limited to CONUS (Continental U.S.) operations, since TEMPEST qualification is required for most work off-shore. Purchase volumes: 2-6 units per order

#### **Test bed users**

These groups must prove their products through their own testing and evaluation. Then they will use them in a "test bed" or representative tactical application. They will do their own TEMPEST testing if required. Purchase volumes: 6-30 units per order.

#### **Large groups with established requirements**

Volume orders (30-500 units) over a period of time on open contract, through GSA schedule, or in conjunction with a large contract for other equipment. Many applications will require full TEMPEST certification. Contracts are usually associated with a major program, e.g. STU III, MSE etc.

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# MARKETING

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## Sales Process

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### ***The Role of Product Advocates***

The product advocates mentioned at the top of the market pyramid are extremely important to us as we penetrate new application areas for our products. These users are well known for their expertise in communications and have sufficient "clout" to purchase test and evaluation units. They make their reputation by being the first to use a product in a new area, and are eager to participate in product demonstrations to other user groups. They become "inside salesmen" for the product and are invaluable in establishing early successes. We have developed such champions in each of the initial user groups we have sold into and view their role as an important element of our marketing strategy.

### ***Sales Process***

We have found that successful sales of our products follow this pattern:

- We identify a potential user group through referrals from policy makers or other user groups. They might be identified by their function within a service group or their association with a major communications program.
- Our customers must meet the following qualifications:
  - funds presently budgeted for imaging systems, either on a line-item or discretionary basis
  - defined requirements in place which either fit our products or can be influenced
  - a high priority assigned to the project
  - active involvement of a contracting officer or acquisition group
  - a visible product advocate
- After initial contact by telephone, and assuming the group meets our qualification criteria, we send out a letter and documentation package tailored to their application.
- A follow-up call after the literature is delivered tests interest and identifies specific applications and requirements. A demonstration and briefing is arranged, at headquarters or the customer site.
- The demonstration briefing is held, with participation from key decision makers and their staff. The demonstration is tailored to their applications. We ask for an order for test and evaluation (T&E) units.
- Based on immediate funds availability, the T&E units are purchased and used internally to evaluate the group's broader requirements.

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# MARKETING

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## Sales Process

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- Based on use of the T&E units, the user groups develop written requirements and assign a contracting officer to develop the contract. Key issues involving contract type, price, quantity, contract options for future purchases, and options for other groups to purchase from the same contract are negotiated. More information about contract development is contained in a later section.

Our strategy is to use the above process as a model for our direct marketing activities, tracking the progress of each account through the steps outlined above. In this way we plan to minimize unproductive use of our marketing resources and maximize our focus on accounts that can be developed into volume contracts for our products.

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# MARKETING

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## Pricing

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### ***Pricing Strategy***

We have set our product pricing based on a value-added premium to the commercial PHOTOPHONE product offered by Image Data Corporation, and our analysis of the competition in our market segment. Our goal is to achieve high product gross margins while offering our products at a substantial price advantage to present competition. Our ability to achieve these opposing goals of high margins and price leadership reflects our belief that we have developed and can defend a market niche that has very attractive potential profitability.

Our financial model assumes that our pricing declines by 10% in the second year after product introduction, and 5% per year thereafter, to account for the effects of emerging competition and continued price reductions in the commercial market. We believe that our gross margins will not be eroded by this price reduction due to manufacturing cost efficiencies as our shipment volumes increase.

### ***Commercial Product***

Our Fast-RIT product is priced competitively with the PHOTOPHONE at \$10,000, including high-resolution solid state camera and shipping case.

### ***Secure Desktop Products***

Our Sec-RIT product is priced at \$18,500. We do not offer the secure interface as an optional upgrade to the Fast-RIT since the price premium is greater than the market would bear for an encryption interface alone. We estimate that the TEMPEST Sec-RIT, when introduced in 1988, will have a list price of \$28,000, reflecting the substantial premium that TEMPEST products command in the marketplace.

### ***Mobile Products***

The ATR Sec-RIT carries a list price of \$24,480. Although a high margin product, this price is much lower than anything presently offered in today's market.

### ***Briefcase Products***

We estimate that the Field Sec-RIT, when introduced in 1988, will have a list price of \$18,500, slightly higher than the 1988 price for the Sec-RIT of \$16,650. We believe that offering this product at only a slight price premium to our desktop product, while providing substantial additional functionality, will serve to stimulate this new segment

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# MARKETING

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## Pricing

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of our market. This product will be introduced in a TEMPEST version in 1989 for \$28,000.

### *Options and Spare Parts*

Each of our products are offered with optional features such as encryption interface cables and video printers. Many of our customers also require on-site quantities of spare parts. While these contribute to our revenues and profitability, our financial model does not include them.

### *Discounting*

Our published pricing does not include discounts for volume purchases. We anticipate that all volume purchases of our units will be by contract, and prefer to negotiate these on a case-by-case basis. We believe we can minimize volume discounting in the initial years due to the lack of substantial direct competition and the relatively small size of anticipated purchase contracts during the Test and Evaluation and Test Bed phases of our market development.

### *Price and Gross Margin Summary*

Product	List Price	Gross Margin %
<i>Fast-RIT</i>	\$10,000	41
<i>Sec-RIT</i>	\$18,500	67
<i>ATR Sec-RIT</i>	\$24,480	81
<i>Field Sec-RIT</i>	\$18,500 (est.)	75
<i>TEMPEST Sec-RIT</i>	\$28,000 (est.)	70
<i>TEMPEST Field Sec-RIT</i>	\$28,000 (est.)	70

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# MARKETING

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## Sales Status

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### ***Background***

During our test marketing project we demonstrated our products to a number of user groups, some of whom became customers or placed orders in 1986. We started 1987 with a sales backlog and a growing list of groups who are interested in purchasing our products now that they have reached production status. We also have a list of groups who are interested in our products and are waiting for a product demonstration. Additional prospects have been identified who have received our literature, read a press release, or seen us at a conference. We are well positioned as our marketing activities expand in 1987 with an existing customer base and a database of qualified prospects to address.

This is our sales status as of the end of March, 1987:

### ***Current Customers***

We have three customer accounts presently in our target markets.

### ***Groups with Orders Pending***

A total of five customers have orders presently in progress, one of which is presently booked.

### ***Qualified Prospects***

We have demonstrated our products to 42 user groups who have applications for and interest in our products.

### ***Target Organizations***

Our database contains over 70 organizations in our target market known to have applications for imaging products. We believe that many of these organizations will yield multiple interested user groups as we address them.

### ***Press Release Responses***

We presently have 67 responses from our **Sec-RIT** press release to pursue.

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# MARKETING

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## Forecasts

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### ***Introduction***

In this section we will discuss our model of the sales cycle for our products, how we develop our forecasts from this model, the prospect list we are targeting, and our detailed forecasts. We will present our a monthly forecast by product for 1987 and yearly for 1988-1991.

### ***Sales Cycle Model***

Purchasing practices in the Federal Government market differ substantially from the commercial market. We have already described the sales process in a previous section. The sales cycle model takes each step of this process and maps it against an approximate timeframe to complete each step. This model has been tested against our experience over the last year and by consultation with individuals who are experienced with government procurement, both on the user and vendor sides:

### ***Prospect Identification***

We have at present over 70 groups identified in the Department of Defense, Executive Office of the President, Department of Energy, Department of Justice, Department of the Treasury, and NASA.

### ***Step 1: Prospect Qualification***

We qualify the prospect through an initial telephone call before and after sending our product literature. *Elapsed time: one to two weeks.*

### ***Step 2: Demonstration Briefing***

Setting up and conducting the demonstration for the key decision makers and their staffs. *Elapsed time: two to four weeks.*

*Note: In many cases the first two steps may occur without our direct involvement, as present customers interest related user groups in our products.*

### ***Step 3: Test and Evaluation Units***

We close an order for two test and evaluation units and ship to the customer. *Elapsed time: three months.*

### ***Step 4: Contract for Test Bed***

Once the test and evaluation units are in place, we work with the user group to define their requirements, begin a dialog with the acquisition group who issues the contract, and then go through the contract submission and evaluation process. During this step

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# MARKETING

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## Forecasts

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we strive to influence the requirements and work toward a streamlined method of contracting (sole source or limited competition). *Elapsed time: five months.*

### **Step 5: Delivering Test Bed Units**

This step involves our lead times and the delivery schedule specified on the contract. *Elapsed time: three months.*

### **Step 6: Volume Contract**

A large contract, or Basic Ordering Agreement, is a lengthy process that results in a competitive contract. This type of contract may involve volumes in the hundreds of units. *Elapsed time: one year.*

In summary, we plan on a four month process with a new account to close and ship our first order for two units, and an additional five months to turn on a contract for ten additional units. A year later we have the opportunity to win a large contract for volumes in the hundreds of units.

### **Forecast Development Assumptions**

We have made the following assumptions in the development of our forecasts:

- We have developed our forecasts by mapping the sales cycle model defined above against our prospect list.
- We expect that approximately forty percent of our revenues for 1987 will come from "test bed" contracts from a few key customers who presently have test and evaluation units in place. We expect that the other sixty percent will come from initial shipments of test and evaluation units to new customers.
- During 1988 we expect the initial seed units to develop into test beds, and additional test and evaluation units for new accounts.
- We have not forecasted large contract volumes until 1989.
- Our forecasts assume that our first year revenues are entirely generated through direct sales.
- During 1987 we will develop indirect channels of distribution which we expect to contribute to our revenues in 1988-1991.



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# MARKETING

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## Forecasts

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- Our forecasts are for our primary encryption-compatible image transceivers for the government market. Sale of networking products, or sale of non-secure versions of our products into the commercial market, are not included. Spare parts and options, such as cables or video printers, are also not included. Therefore we believe that there is upside potential in our forecasts.

### ***Prospect List***

Although we have a large prospect list already generated, we expect from past history that we will add many new prospects through customer referrals, trade shows, advertising, and future marketing partnerships with companies who will represent or resell our products. During our test marketing, we developed a list of over thirty qualified prospects for our products, by agency, department, and contact point. This list is highly proprietary and is therefore not presented here.

The following organizations within the Federal Government represent the market from which our present and future prospects are taken:

- **Department of Defense**
  - Joint Chiefs of Staff
  - National Military Command System
  - Joint Special Operations Agency
  - Joint Special Operations Command
  - Joint Tactical Command, Control, & Communications Agency
  - Unified and Specified Commands (Commanders in Chief)
    - CINCLANT
    - CINCPAC
    - CINCEUR
    - US SOUTHCOM
    - NORAD
    - Space Command
    - Strategic Air Command
    - Tactical Air Command
    - Military Airlift Command
  - National Security Agency
  - Defense Intelligence Agency
  - Defense Communications Agency
  - **Department of the Army**
    - Army Intelligence
    - Army Special Operations
    - Information Systems Command
    - Training & Doctrine Command
    - CECOM

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# MARKETING

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## Forecasts

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- **Department of the Navy**
  - Navy Intelligence
  - Information Systems Command
  - SEALS
  
- **Department of the Air Force**
  - Information Systems Command
  - Command, Communications, Control and Computers
  - Air Force Intelligence
  - Air Force Special Operations
  
- **Department of the Marine Corps**
  - Marine Intelligence
  
- **Executive Office of the President**
  - White House Communications Agency
  - Central Intelligence Agency
  
- **Department of Energy**
  - Los Alamos Labs
  - Sandea Labs
  
- **Department of Justice**
  - Federal Bureau of Investigation
  - Drug Enforcement Administration
  
- **Department of the Treasury**
  - Secret Service
  
- **N A S A**
  - N A S A Headquarters
  - Johnson Space Center
  - Goddard Space Flight Center
  - Jet Propulsion Laboratories
  - Kennedy Space Center
  - Vandenberg AF
  - White Sands Test Facility
  - Ames Research Center
  - International Tracking Stations
    - Goldstone Tracking Station
    - Madrid Tracking Station
    - Australia Tracking Station

# MARKETING

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## Forecasts

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### ***Shipment Forecast - 1987***

The accompanying chart presents our forecast for 1987. We have made additional assumptions in developing this forecast:

- Shipments for January-May reflect units to present customers and prospects who have been waiting for test and evaluation units. No active marketing occurs during this interval, pending availability of funding to expand marketing activities.
- Shipments of 10 units per month for June-August assume that we are awarded a contract for a "test bed" for our **ATR-RIT**.
- Shipments of 8 units per month for August-November are test and evaluation units placed in 20 user groups that are presently identified. It is assumed that active marketing to these groups begins in May, 1987 after the corporation is funded to expand marketing activities.
- Shipment volumes are forecasted for two products only: the **Sec-RIT** and the **ATR-RIT**.

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# MARKETING

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## Forecasts

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### PHOTOTELEESIS 1987 SHIPMENT FORECAST

Prod.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Sec RIT	0	1	2	2	1	3	3	7	8	8	18	0	53
ATR RIT	0	1	0	1	0	7	7	11	0	0	0	0	27
Total	0	2	2	3	1	10	10	18	8	8	18	0	80
Cum.	0	2	4	7	8	18	28	46	54	62	80	80	80

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# MARKETING

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## Forecasts

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### ***Shipment Forecast for 1987-1991***

Our five-year shipment forecast is presented in the accompanying chart, including the summary from the 1987 results. Assumptions specific to this forecast are as follows:

- In 1988 we assume that the test and evaluation units placed in 1987 grow into test bed units, yielding approximately 200 units from the initial 20 customers. In addition, we develop 20 new customers who order initial test and evaluation units.
- No major contract volumes are forecasted for 1988, but it is assumed that contracts are bid starting in 1988 which will account for significant growth in volumes from 1989 through 1991.
- We begin shipments of our **Field Sec-RIT**, or military briefcase product, the first quarter of 1988.
- Our TEMPEST desktop units begin shipments mid-year in 1988. This is followed by our briefcase TEMPEST unit in the first quarter of 1989. Shipments of our non-TEMPEST **Sec-RIT** declines as the TEMPEST units become dominant.
- Shipments of the **Fast-RIT** product are flat over the forecast period, reflecting a modest level of non-secure product demand, predominately through listing on the Government Services Administration price lists.

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# MARKETING

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## Forecasts

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### PRODUCT SHIPMENTS 1987-1991

Product/Year	87	88	89	90	91	Total
Fast-RIT	0	50	50	50	50	200
Sec-RIT	53	150	100	50	0	353
ATR Sec-RIT	27	100	250	500	700	1577
Field Sec-RIT	-	70	150	300	500	1020
TEMPEST Sec-RIT	-	30	150	500	1000	1680
TEMPEST Field-RIT	-	-	100	200	300	600
Total Shipments	80	400	800	1600	2550	5783

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# MARKETING

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## Distribution

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### *Distribution Strategy*

Our distribution strategy combines direct sales methods using our own personnel and indirect methods using resellers.

### *Direct Sales*

PHOTOTELESIS personnel are responsible for direct sales. We intend for direct sales to provide the bulk of our business in 1987 because

- our technology is new and complex
- we can provide closer customer contact and better support
- we realize greater profits

### *Indirect Sales*

We will use indirect sales channels to increase our market penetration without a large increase in marketing and sales overhead. We will select resellers who are well known in our markets, can support our volume requirements, and are willing to provide the level of support and service our customers demand. These indirect channels include

- Manufacturers Representatives
- Value-Added Resellers
- Prime Contractors

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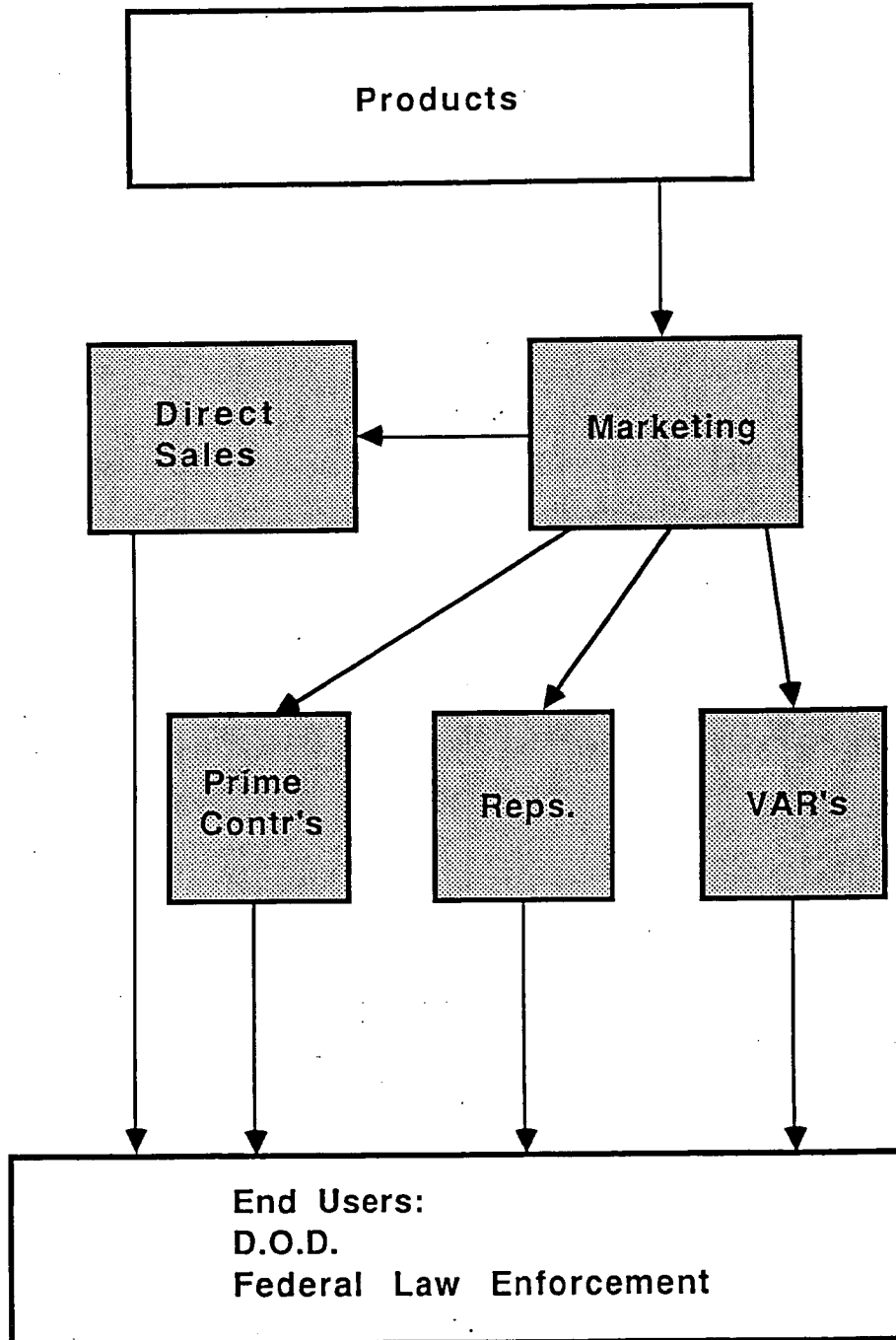
# MARKETING

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## Distribution

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This diagram illustrates our distribution strategy:





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# MARKETING

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## Government Contracts

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### ***Small Department of Defense Contracts***

Department of Defense purchases for \$25,000 or less are handled through oral or brief written requests, known as Request for Quotations (RFQ's). The successful quoter is issued a purchase order, and compliance with the order constitutes contract acceptance and fulfillment. The contracting officer has the discretion to choose how widely the RFQ is solicited.

This procedure can be used by our prospects and customers on a limited basis when purchasing test and evaluation units, although two of our encrypted Sec-RIT or ATR-RIT products exceed the \$25,000 order maximum.

### ***Bids and Proposals***

However, although these purchase orders represent nearly 98 percent of DOD's contract actions, they are only 20 percent of the procurement dollars spent. The other 80 percent involve formal solicitation procedures that require written offers called sealed bids or competitive proposals. Sealed bids are sought by means of **Invitations for Bids (IFBs)**; competitive proposals are sought by **Requests for Proposals (RFPs)**.

Because major RFPs and IFBs are complex to administer, it may take up to a year for a large contract to be awarded. Shortcuts have been developed which permit the timeframe to be shortened for situations where there is only one source or a limited number of sources for the product or service.

***Competitive Unpublished Contracts:*** Some contracts which have a value under \$1 million can avoid publishing the proposed procurement in the government's Commerce Business Daily newspaper. This shortens the procurement cycle and also limits the number of possible responses.

***Sole Source Contracts:*** In very limited circumstances, where a contract requirement can only be filled by one vendor, the contracting office can greatly speed up the purchase by soliciting only one contractor. This method is usually restricted to contracts of \$125,000 or less.

We expect that most contracts for our products will be IFBs or RFPs; based on experience, we believe that our product uniqueness will allow many contracts for test and evaluation units or test beds to use a streamlined process.

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# MARKETING

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## Government Contracts

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### ***Unsolicited Proposals***

Some contracts result from unsolicited proposals submitted by groups who feel they have an innovative and unique method or approach to accomplish a DOD mission. We have used this approach in one instance during our test marketing and plan to continue its use as our marketing activities expand.

### ***General Services Administration Contracts***

A special type of contract is administered through the General Services Administration (GSA), which provides catalog purchasing abilities on a pre-negotiated basis to government and government-related groups. Many groups who are interested in our products have expressed a desire to be able to purchase limited quantities through the GSA. Orders under GSA are typically limited to \$50,000, although this ceiling can be waived under selected circumstances. We plan to introduce our product on the GSA's New Products Listing this year and have applied for a new listing category for image transmission products for future use.

The following chart summarizes the types of contracts described above, the approximate contract lead time, and the typical per order dollar ceiling.

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# MARKETING

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## Government Contracts

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This chart summarizes the types of contracts that the government will use to purchase our products.

<b>Contract Type</b>	<b>Lead Time</b>	<b>Per Order Limit</b>
Purchase Order	2-3 months	\$25,000
Bid and Proposal -SoleSource	3-6 months	\$125,000
Bid and Proposal -Competitive Unpublished	3-6 months	\$1 million
Bid and Proposal - Competitive Published	up to 1 year	no limit
General Services Administration	none - prenegotiated	\$50,000

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# Notes

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# *Technology*

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# TECHNOLOGY

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## PHOTOTELESIS Proprietary

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### ***Proprietary Technology***

We have developed proprietary technology which enables us to meet the needs of our customers for image communications products. Our investment in market research, and our products which reflect that research, represent our uniqueness in the market and the principal barrier to future competition.

### ***We presently own the following proprietary technology:***

- COMSEC (secure communications) interface designs which enable us to connect with government-supplied encryption devices
- RF-shielded packaging, which enables us to work in environments which process sensitive information
- Radio interface designs, which enable us to connect to non-secure radios and cellular telephones
- Low-power-consumption electronics designs, which enable us to work with DC and battery power
- ATR (Aircraft Transport Racking) packaging, which enables us to work in vehicular environments such as aircraft, ships, and land vehicles.

### ***We are presently developing technology for...***

- briefcase packaging
- image database systems
- TEMPEST qualification.

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# TECHNOLOGY

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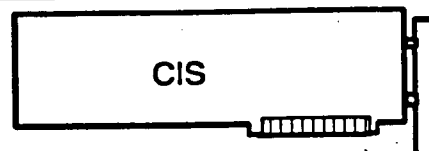
## PHOTOTELESIS Proprietary

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Our proprietary technology is contained in these subsystems and products:

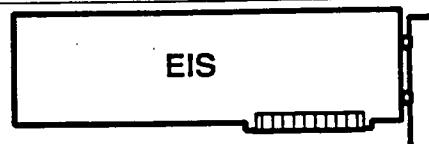
### ***Communication Interface Subsystem***

Cellular  
Satellite  
Two-way Radio



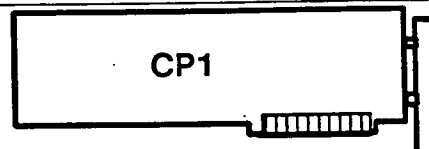
### ***Encryption Interface Subsystem***

Ground to Air  
Satellite  
Line of Sight



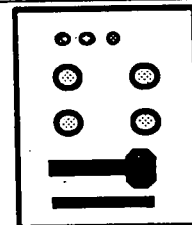
### ***Control Processor I***

Forward Error Correction  
Custom communications software  
Remote control capability



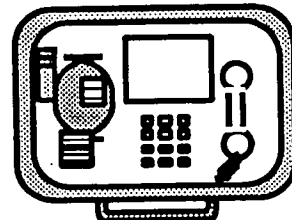
### ***ATR Package***

Aircraft Transport Racking spec.  
DC or battery power  
Ruggedized  
Cellular or  
Secure



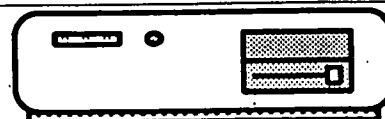
### ***Field Package***

Briefcase Portable  
Battery powered  
Cellular or  
Secure



### ***Image Data Base***

Software Database  
Multi-user  
Telephone or Secure



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# TECHNOLOGY

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## Licensed

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We buy certain off-the-shelf equipment and license certain technology from Image Data Corporation.

Specific technology we presently license from Image Data includes:

- Processor design
- Video subsystem design
- Software design.

Our unique value added lies in:

- Communications subsystems
- Packaging
- Specialized software.

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# Notes

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# ***Products***

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# PRODUCTS

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## Introduction

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In this section of the business plan we will introduce our products. We will provide a rationale as to how we arrived at our product mix. Then we will give you specific information about each of the products. Finally, we will provide a product availability schedule showing our product timetable.

Promotional literature containing further information about our products is included in this package for your information.

### ***About our products***

Basically, our products consist of a matrix of packaging and communications options. Not all combinations are offered because not all combinations make sense. Essentially, we provide configurations to suit the practical requirements of the government's various combinations of applications and communications requirements.

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# PRODUCTS

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## Strategy

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### ***Our product strategy***

Our product strategy begins with commercially available products, to which we add significant proprietary value. These enhanced products become our product line.

### ***Core Technology***

We begin with standard, "off-the-shelf" technology from Image Data Corporation:

- PHOTOPHONE™
- PHOTOBRIDGE™
- PHOTOGATE™

### ***Added Technology***

Then, after acquiring off the shelf base units, we develop new designs based on technology licensed from Image Data, integrate off-the-shelf OEM components, and then add our proprietary technology.

### ***Result***

The resulting products and systems comprise the PHOTOTELESIS product family. This strategy is illustrated on the facing page.

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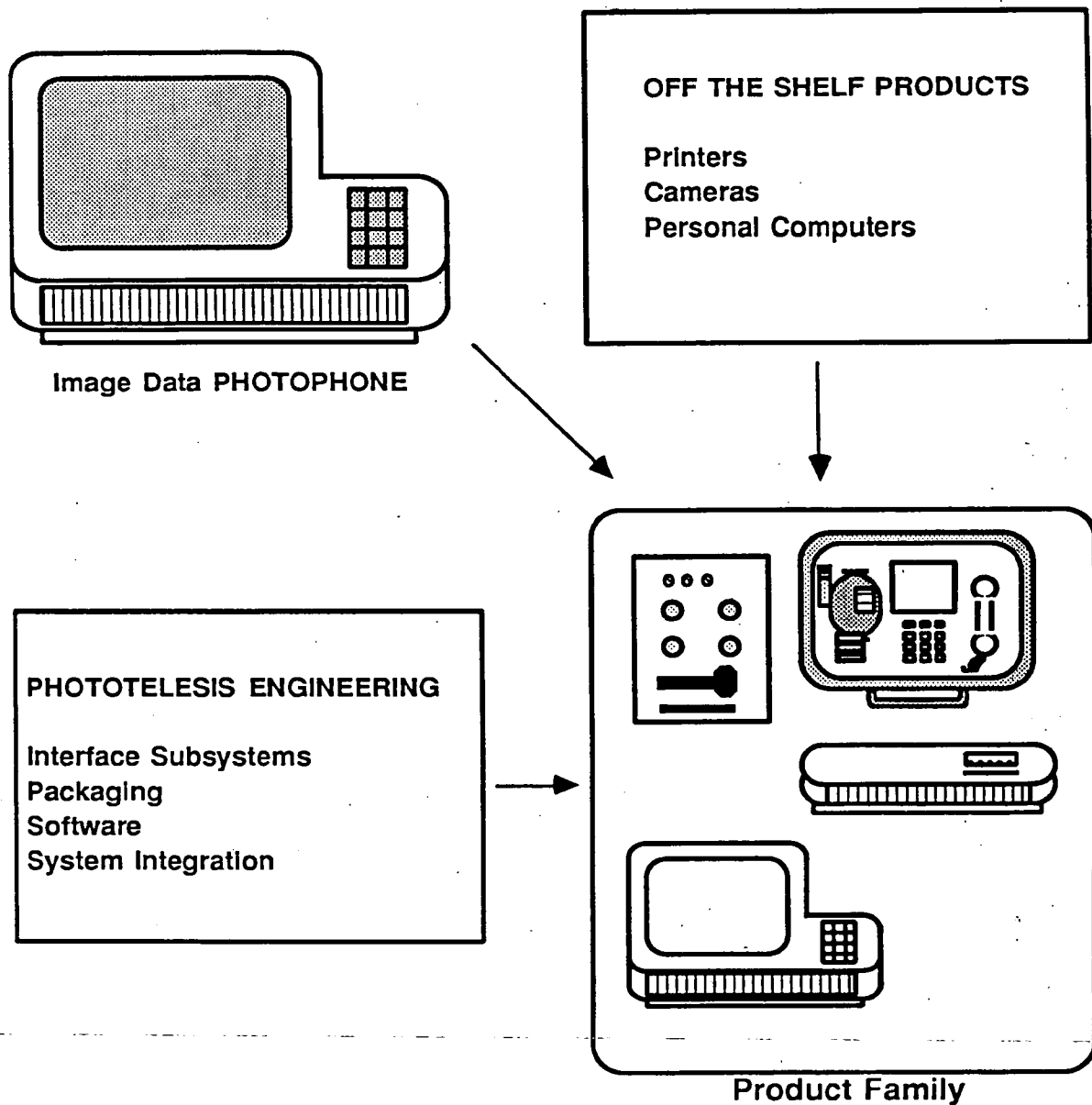
# PRODUCTS

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## Strategy Illustration

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Here, in graphic form, is the product strategy discussed on the previous page.



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# PRODUCTS

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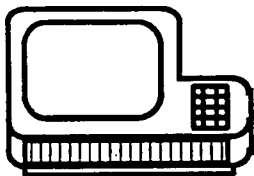
## Packaging Options

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Different applications require different packages; our product line meets those requirements.

### *Desktop Products:*

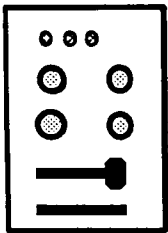
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Our desktop family allows image communications in the office, acting as a "base station" for remote units located in the field.

### *ATR Products*

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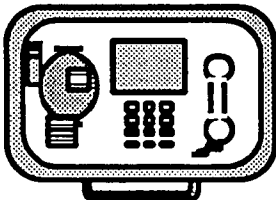
Our ATR family puts image communications to work in the field, where it may be mounted on:

- aircraft,
- shipboard, or
- in a vehicle.

We offer both secure and non-secure versions for many types of existing communications systems.

### *Briefcase Products*

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Our briefcase family is the ultimate in portable image communications, with battery operation and a full range of secure and non-secure communications options.

### *Network Products*

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We meet needs for networking images with:

- ImageBridge, for image conferencing, and



- ImageBase, for remote image storage and retrieval.

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**PHOTOTELEESIS—CONFIDENTIAL**

# MicroRIT™ Proposal

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- 1.1 Texas Instruments Background
- 1.2 The Combined Team
- 1.3 Program Background

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- 2.1 Video Demodulation
- 2.2 Image Compression
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- 2.4 Communications
- 2.5 User Interface
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  - 2.6.1 Packaging
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# SECTION 1

## EXECUTIVE SUMMARY



# MicroRIT™ Proposal

2 November 1995

## EXECUTIVE SUMMARY

This unsolicited proposal describes a state-of-the-art image transmitter that is specifically designed for field agent applications with handheld and vehicle mounted digital/secure radios. The MicroRIT image transmitter will capture and transmit high quality monochrome or color images over typical radio circuits, such as the Government Saber Secure Radio on the B-Radio net or commercial cellular phone circuits. The MicroRIT is unique because it can transmit a high quality image in ten to twenty seconds from a unit that is small, low power, and *low cost*. This unique capability is currently unavailable and is crucial for field law enforcement applications.

This MicroRIT miniaturized image transmitter proposal is submitted by PhotoTelesis, a Business of Texas Instruments Incorporated. The PhotoTelesis group is a world leader in Tactical Image Transmission technology, and Texas Instruments (TI) is a world leader in Digital Signal Processing technology and Micro Electronics technology. The proven track records and technology bases of the PhotoTelesis/TI combined team places this technically challenging program well within reach.

### 1.0 The PhotoTelesis Organization Background:

PhotoTelesis has a 10 year history of specialization in Government tactical image transmission. PhotoTelesis is the leader in tactical transmission of monochrome or color imagery, captured from either television or digital cameras over Government secure radios, Government satellite circuits, and commercial cellular and satellite radios.

The company has installed more than 1000 systems within the Army, Navy, Air Force, Special Operations, Federal Law Enforcement, and Intelligence groups. These systems have been used in classified and unclassified operations. The PhotoTelesis name has become well known as the leader in the tactical image transmission field.

The PhotoTelesis comprehensive product line provides users with a full complement of hardware and software, to support operation from various platforms, including:

- ⇒ Man Portable Applications
- ⇒ Covert Operations
- ⇒ Aircraft Platforms
- ⇒ Ground Vehicle Platforms
- ⇒ Portable Base Stations
- ⇒ Fixed Base Stations

The tactical communications functions of the PhotoTelesis products include:

- ⇒ Distribution of images, text and data over all government secure voice bandwidth circuits.
- ⇒ Database Archiving of stored images and text data.
- ⇒ Traditional Data Processing activities in MS-DOS and Windows
- ⇒ Interoperability with Government NITFS 2.0 "National Imagery Transmission Systems"

### *Distinctive Competence*

A unique blend of Independent Research and Development, combined with commercial off-the-shelf technology, has allowed PhotoTelesis to offer products with innovative designs and superior performance at competitive prices. The modular construction of products allows easy technology insertion of hardware and software enhancements lowering life cycle costs.

The success of PhotoTelesis can be attributed to a commitment to service and providing solutions to our customer problems. Our reputation has been earned by focusing our expertise in the following key areas:

- **Reliable/Dependable Transmission of Data.** Imagery and Data can be sent from a harsh tactical environment where air time for transmissions is limited. Users depend upon their equipment to transmit images and data reliably over wideband SATCOM or narrowband communication channels. To compensate for natural and man-made noise, PhotoTelesis' proprietary protocols incorporate error correction techniques and compression algorithms that provide both efficient and reliable transmissions. These message and image transmission protocols are specifically designed for noisy narrow-band radio communications, and are currently heavily used in operations involving Command, Control, Communications, and Intelligence (C4I) applications.
- **Ease of Operation for the User.** The operational simplicity and versatility of both hardware and software design allow non-technical user compatibility with a wide range of cryptologic devices, secure telephones, and radios. The systems are designed to be automatically configured by cable connections reducing hardware damage by operator error. The equipment is built with user friendly interfaces (GUI) or a menu driven screen.
- **Products for Various Platforms.** The company has focused on customer requirements to develop, with IR&D funds, products used on various platforms, i.e., vehicle, aircraft, and man-portable units. This has resulted in building a repertoire of off-the-shelf products for Aircraft, Special Operations, and Law Enforcement.
- **Rapid Product Development.** PhotoTelesis has reduced the time and cost of product development, from product definition through design, development, and pilot production. This is accomplished by significant technology re-use, in conjunction with strong specialized skill sets of the engineering team. The majority of the PhotoTelesis products have been sold as Non-

Developed-Items on Indefinite Delivery Order or Fixed Priced Contracts, thus reducing customer financial and technical risks.

### **1.1 Texas Instruments (TI) Incorporated Background:**

Texas Instruments has diverse capability in micro-electronics, Government, commercial, and consumer products. TI is a high technology company with sales or manufacturing operations in more than 30 countries; a major supplier of integrated high performance EO based fire control systems, high performance processors, thermal sensors, missile systems, and radar components to the U.S. Department of Defense (DoD). The MicroRIT program will utilize several key TI capabilities:

TI is a world leader in Digital Signal Processing (DSP) technology. The DSP is key to the MicroRIT's small size, low power, and low cost. Commercial technology and the capability for high volume production also provide opportunity for significant unit cost reductions, allowing for *extensive* deployment of the technology at a *very affordable* cost.

### **1.2 The Combined PhotoTelesis/Texas Instruments Team:**

On August 18, 1995, PhotoTelesis Corporation was acquired by Texas Instruments Incorporated. PhotoTelesis' expertise with tactical image transmission combined with the financial strength of Texas Instruments offer our customers innovative and cost effective tactical imaging product solutions.

PhotoTelesis and Texas Instruments have a two year continuing history of cooperation and teaming on other Government imagery programs, including the US Army Hunter Sensor Suite program and the Lightweight Video Reconnaissance System (LVRS) program.

PhotoTelesis/Texas Instruments is excited about the opportunity to provide new state-of-the-art capability through more closely integrated efforts on the part of all team members.

### **1.3 The Program Background:**

Tactical Imagery has proven to be the most efficient and quickest means to distribute critical information to the decision maker. Imagery in the field can provide agents with near-real time secure surveillance that improves their situational awareness, suspect identification capability, and thus, reduces allocation of limited personnel resources. Unfortunately, both military and commercial products used for transmission of Tactical Imagery are currently unsuitable for law enforcement because the military products are too large and too expensive, and the commercial products are too large and are not capable of operation over Government tactical radio circuits.

Current-generation-Remote-Image-Transceivers (RIT's) manufactured by PhotoTelesis are in operation over the Motorola digital radio systems owned by the Government for the purpose of transmitting secure (encrypted) imagery from mobile platforms to fixed sites.

Still Imagery is being transmitted using the SABER II, with the Secure INDICTOR option, at 12Kbps. A primary requirement of maintaining minimum data transmission times and a quick restoration of the radio-to-voice communications have been met in product demonstrations of this capability. At a recent test, using the PhotoTelesis man-pack TAC-RIT, monochrome images at a resolution 592 by 440, 8-bit pixels were transmitted in 8 seconds using Wavelet compression, and 21 seconds using industry standard JPEG compression.

This proposal describes an engineering program that miniaturizes the PhotoTelesis current capability into a very small, covert, low power Remote Image Transmitter (MicroRIT) *specifically* designed for agent use. The primary goals for field agent use are:

- ⇒ Very Small Size (Cellular phone size)
- ⇒ Low Power (2-4 watts)
- ⇒ Simple User Interface
- ⇒ Fast Transmission Time
- ⇒ Monochrome or Color Use

# **SECTION 2**

## **TECHNICAL APPROACH**

## TECHNICAL APPROACH

Until the advent of small, low power digital signal processor (DSP) semiconductors, the MicroRIT was unfeasible. Now, however, such DSP's allow the design of very small, but highly sophisticated data acquisition and processing devices. In fact, the DSP component is the heart of the MicroRIT, controlling all aspects of its operation from video acquisition, to image compression, to tactical communications protocol, to user interface.

A digital signal processor, or DSP, is a special type of microprocessor that has been highly optimized for numerical computations (namely digital signal processing) which involve long sequences of multiplication and addition operations. Digital filters, spectrum analyzers, and data compression algorithms fall squarely in this category. While the DSP is not often used as a generalized host processor (such as an 80486, Pentium, or 68000), it can certainly be used as a host CPU. Because of the particular hardware optimizations that were implemented for digital signal processing, a DSP tends to have smaller address spaces (under 1 megabyte) and less support for string-oriented operations (for handling character strings). However, several DSP variants can quite easily be used as an embedded controller and signal processor - obviating the need for two separate processors. This often simplifies the hardware design and interprocessor communications mechanisms.

The MicroRIT was conceptualized specifically with a DSP as the system controller in mind to reduce the size and power requirements of the unit. In addition, to controlling the overall system function, the DSP is responsible for controlling the digitization of video, the compression of this captured video, and the communications protocol and link-layer interface. These functions would occur serially. That is, it would not be possible to be capturing video while sending a compressed image at the same time. This one-at-a-time restriction is due to two problems. The first is the limited amount of multi-tasking support in the DSP architecture. Few DSP operating systems are available that support preemptive multi-tasking. The second is the limited address space of the DSP. Many DSP's have a fairly limited address space - often under 64K words! This will require that both the codespace and the dataspace be page-swapped. Page-swapping essentially means that only one software function can be active at a time - which implies the serial nature of the major functions.

### 2.0 Capturing Video

A conventional frame grabber contains a great deal of circuitry necessary for demodulating the video signal, identifying and triggering off the vertical sync signal, stripping the sync signals from the image data, digitizing the demodulated data, and storing it in a dual-ported RAM. This is required because the host processor has neither access to the raw video signal, nor the processing power to execute these functions in a real-time fashion. The DSP used in the MicroRIT approach, will however, be controlling the video digitization while itself does the vertical sync identification. External analog-to-digital converters (ADC) will still be used to digitize the video signal, rather than using any onboard ADC capabilities of the DSP chip, because most DSP ADC's are not fast enough to digitize at video rates (at least those DSP's that can meet our low-power requirements). Another subtle point about this approach is that video need only be digitized on user demand. This implies that the video ADC circuitry only has to be energized for 1-2 frame times to acquire the image. Video ADC's can consume several watts if left free running. The non-requirement for video output allows this digitization-on-demand

approach that should significantly help reduce size, weight, and heat dissipation, as well as extend battery life.

## 2.1 Video Demodulation

A color video signal, in particular a composite color video signal, carries the luminance and color (chrominance) information in different frequency bands. Usually, an analog filter is used to separate these signals into two analog channels that can then be digitized separately. In order to save power and space in the MicroRIT, we will perform this demodulation in software running on the DSP after a frame's worth of video data has been captured. Even an S-Video signal carries two color channels on the chrominance signal (which is physically separated from the luminance channel). The same type of *software* demodulation will be done on the S-Video chrominance channel for S-Video. The video demodulation is performed after a frame acquisition, not during. This is significant because it restricts the MicroRIT to performing system functions in a serial fashion. That is, one high level function after another is performed by the central processor (the DSP). There is no multitasking of system functionality in the MicroRIT. This is due in part to the lack of multitasking DSP operating systems as well as the somewhat limited addressing capability of today's DSP's (under 1 megabyte of codespace). Thus, after the user specifies that an image is to be acquired, the video digitization circuitry powers up, acquires a frame of video data, and passes control to the video demodulation software which then separates luminance from the color signal by a digital filter.

## 2.2 Image Compression

After the image has been digitized, separated, and demodulated by the system DSP, it will be compressed with either the JPEG or PhotoTelesis wavelet image compressor. This choice is user selectable (via the set of buttons and alphanumeric display). The wavelet compressor is well suited to the S-Video type of input since it was designed to work on L/Cr/Cb video data. Like all other PhotoTelesis implementations of the wavelet codec, the user will be able to select several choice of compression ratio and/or "quality". PhotoTelesis is constantly improving its image compression technology. These improvements affect compression/decompression time and image quality. They also affect compression features such as, quality specification (Q-Factor), multiresolution compression, and industry standardization. The contractor will strive to incorporate image compression improvements into the MicroRIT product, subject to the program schedule.

## 2.3 Image Storage

There will be enough battery-backed SRAM within the MicroRIT to hold 40 wavelet compressed color images. These can be held on-board until downloaded to a host computer via an RS-232 port. Originally, it was conceived to use a PCMCIA SRAM card for this image storage. However, the physical size of the mechanical PCMCIA slot and the extra interface circuitry was not justified. If the images are stored within the MicroRIT, the user will have to bring back something, be it the MicroRIT or a PCMCIA card, in order to offload the images to some sort of Base-Station unit. Thus, the SRAM memory was chosen over PCMCIA.

## 2.4 Communications

The MicroRIT will be able to connect to all standard COMSEC equipment including STU-III's, SINCGAR's, SABER and RACAL (MHSR) radios, KY-57, KY-58, and Sunburst. The DSP processor will run the PTAC and PTAC-2 (required for file pull capability) protocols in order to

be backward compatible with existing PhotoTelesis equipment. The DSP will also directly control all COMSEC control lines (PTT, BDMC, etc.) as well. The DSP and some glue logic will essentially replace the original EIS card of the PhotoTelesis ACT product line.

Note that this version of the MicroRIT will not include the NITFS TACO-2 protocol. There is an assumption that the MicroRIT will be communicating with other PhotoTelesis equipment (i.e., Base Stations) which do have the TACO-2 capability.

Note that the automatic voice/data cutover modes for the KY-57 and KY-58 will not be implemented. Manual data switching will be used.

## 2.5 User Interface

The user will be able to interface to the MicroRIT two ways: 1) the set of onboard pushbuttons, 2) an RS-232 cable linking the MicroRIT to a host computer. There will be five (5) buttons on the MicroRIT to control normal operation of the system. There will also be an alphanumeric display for status and menu information. The functions on the MicroRIT will include power (on/off), capture, send, and menu. The menu will allow the specification of compression type, compression ratio, protocol, call sign information, send/hold modes, etc.

The RS-232 interface to the MicroRIT will be used for 3 functions: 1) Update system software (stored in FlashRAM on the MicroRIT), 2) download configuration information to the MicroRIT (call sign lists, compression defaults, etc.), and 3) download compressed/stored images from the MicroRIT to a workstation (such as an MIT-301). This will be a very simple RS-232 interface with a subminiature connector on the MicroRIT to the standard 9-pin COM connector on a PC.

## 2.6 Hardware

**2.6.1 Packaging.** The MicroRIT is designed to utilize standard snap on cellular telephone batteries. Several battery sizes and capacities are available from telephone retail outlets. The MicroRIT's overall size approximates that of a hand-held cellular flip-phone. High capacity battery life is estimated at 1 hour of full operation, with standby time approaching 30 hours.

The initial design and packaging will be implemented with an aluminum machined case. The finish will be black anodized for cosmetic finish. High volume applications could be done with a plastic injected molded case, but these costs are not included in the funding proposals submitted. A conceptual drawing is shown in Figure 1. The display and interface panel will allow system status and operational menus to be displayed to the operator. There is a recessed subminiature-D connector on the bottom edge of the unit that provides all input/output connections. If this unit is used in embedded system applications, external power can also be provided through this same connector. The connector is recessed to prevent damage to the connector by accidental dropping or striking other objects. The connector is installed on the bottom edge to provide best comfort to the operator when the cable is installed.

This MicroRIT package design will also include the ability to embed this device in higher capability equipment. Examples include radios, portable video equipment, or other equipment including cameras and radio transmission capabilities. This concept is similar to equipment with font cartridges, game cartridges, etc. The operator interface and display panel will not be included on these embedded applications. Power will be supplied through the external I/O connector.



**2.6.2 Hardware Implementation.** The MicroRIT architecture is based on the Texas Instruments TMS320 series of Digital Signal Processors. This DSP is the core of the design, with additional components providing the input/output interfaces to the operator, external power source, radios/Cryptos, and external computer links. There is one D-subminiature connector that provides these I/O functions. There are 5 control buttons, along with an alpha-numeric LED display for operator control and feedback status. The Overall block diagram is shown in Figure 2.

**2.6.3 Memory.** The memory implemented in the MicroRIT consists of low-power Static Rams (S-Rams). These memories are page partitioned to provide both program storage, raw video data workspace, as well as compressed video image storage. The design goal is to provide the capability to store a minimum of 40 images of 32K each in compressed image size. The architecture provides one memory page per image when storing compressed images.

**2.6.4 I/O Ports.** There are 2 input/output Serial ports incorporated into the design. One is designated for communication over radios, Crypto's, and STU type telephone devices. The other is intended for interfacing to other standard RS-232 computer devices such as Global Positioning Systems, some camera devices, and personal computer links for downloading image data or downloading operating program software. If the system needs to be reprogrammed for different mission requirements, the planned mechanism is to download from any serial computer device, the operating parameters and program software. If the user elects to save images, rather than send them immediately, these saved images could also be downloaded from the internal S-RAM memory via this serial port.

**2.6.5 Power Sources.** The MicroRIT is powered from either an attached cellular phone compatible battery, or via external power input through the I/O connector. For extended operating times, the external power mode is used. The input DC voltage range is 5.5-8.0 volt.

# SECTION 3

**COST**

## COST

The project represents a significant development effort with a medium level of risk. The contractor is keenly aware of the budget constraints and has taken steps to reduce the government's cost. The proposed cost has been reduced by the contractor's program investment of \$576K and utilization of the contractor's Image Compression and Communication Software, which was previously developed with IR&D funds.

The development effort is allocated into hardware engineering and software engineering as follows:

Hardware	\$661,093.80
Software	<u>\$984,492.21</u>
Total Development Effort	\$1,645,586.01
Less: Contractor's Investment	<u>(\$645,586.01)</u>
Cost to government	\$1,000,000.00

Upon completion of the project the government will receive 2 prototypes. The production cost per unit is targeted to be \$3,000.00-\$4,000.00 in lot sizes of 100. Cost reductions are possible by tooling the cage for plastic injection molding based upon higher volumes.

### 3.0 Schedule

The contractor anticipates the project will require 12 months from inception to prototype delivery. After prototype delivery, unit production could begin immediately. Attached are program schedules for Hardware and Software.

### 3.1 GFE

The contractor will require two SABRE II radios for testing during the program.

### 3.2 Personnel

The contractor will assign two Engineering managers and one program manager to this project. Their resumes are attached:

#### SOFTWARE

Dr. Bruce Mather.....Manager of Software Engineering

#### ELECTRONICS HARDWARE

Roger Vest.....Manager of Hardware Engineering

#### PROGRAM MANAGEMENT

Bill Kidd.....Program Manager

### 3.3 Attachments:

1. Micro-RIT Technical Specifications
2. Block Diagram
3. Drawing
4. Program Schedule
5. Detail Costs

# **SECTION 4**

## **PRODUCT SPECIFICATIONS**

## MicoRIT Functional & Physical Specifications

Video Input:	Color/Monochrome Composite/S-Video 640 x 480 x 16-bit color (8-bit grayscale) 768 x 512
Image Storage:	Onboard flash (or battery-backed SRAM) for 40 + compressed color images (@32K)
Video Output:	None
Audio:	Digitized voice annotation will be provided
Comms:	PTAC (KY-57, Sunburst/STU-III, Sincgars, Saber)
RS-232 Interface:	External GPS receiver, S/W update, offload images, system configuration (call sign download, etc.)
User Controls:	Five (5) buttons - (1) On/Off and (4) controls: On/Off switch, Call Sign Select, Grab Image, Send Image, Settings (scrolls menus)
Display:	5x7 dot alpha-numeric low power green LED's (like cellular phones) One (1) flashing "battery low" LED
* User Controls & Display are optional for embedded applications (i.e., RIT can be built without them)	
Power:	2-4 watts @ full operation (idle mode when not doing imaging portion)
Battery:	Internal battery and/or external power 30 hours idle, 1 hour operational Disposables or Rechargeable (like cellular phone)
Weight:	1 pound (plastic) 1.5 pounds (metal)
Size:	1" x 4" x 3" (Hand-Held Cellular Size)
Temperature:	-20° to 50° C

System does only one function at a time:

Grab image	one frame at a time
Color demodulation	
Image Compression	< 5 seconds (to grab, demodulate, and compress)
Store image ( 40+)	< 1 second per image
Send Image	12Kbit line - 15 seconds goal for image xmit; up to 64Kbit comm link

Modem functions - built in FEC

Remote Control (configure) capability:

- New call signs
- Set compression ratio
- Snap picture
- Retrieve image

# **SECTION 5**

## **DRAWING AND BLOCK DIAGRAM**

Figure 1 - Micro™ Drawing

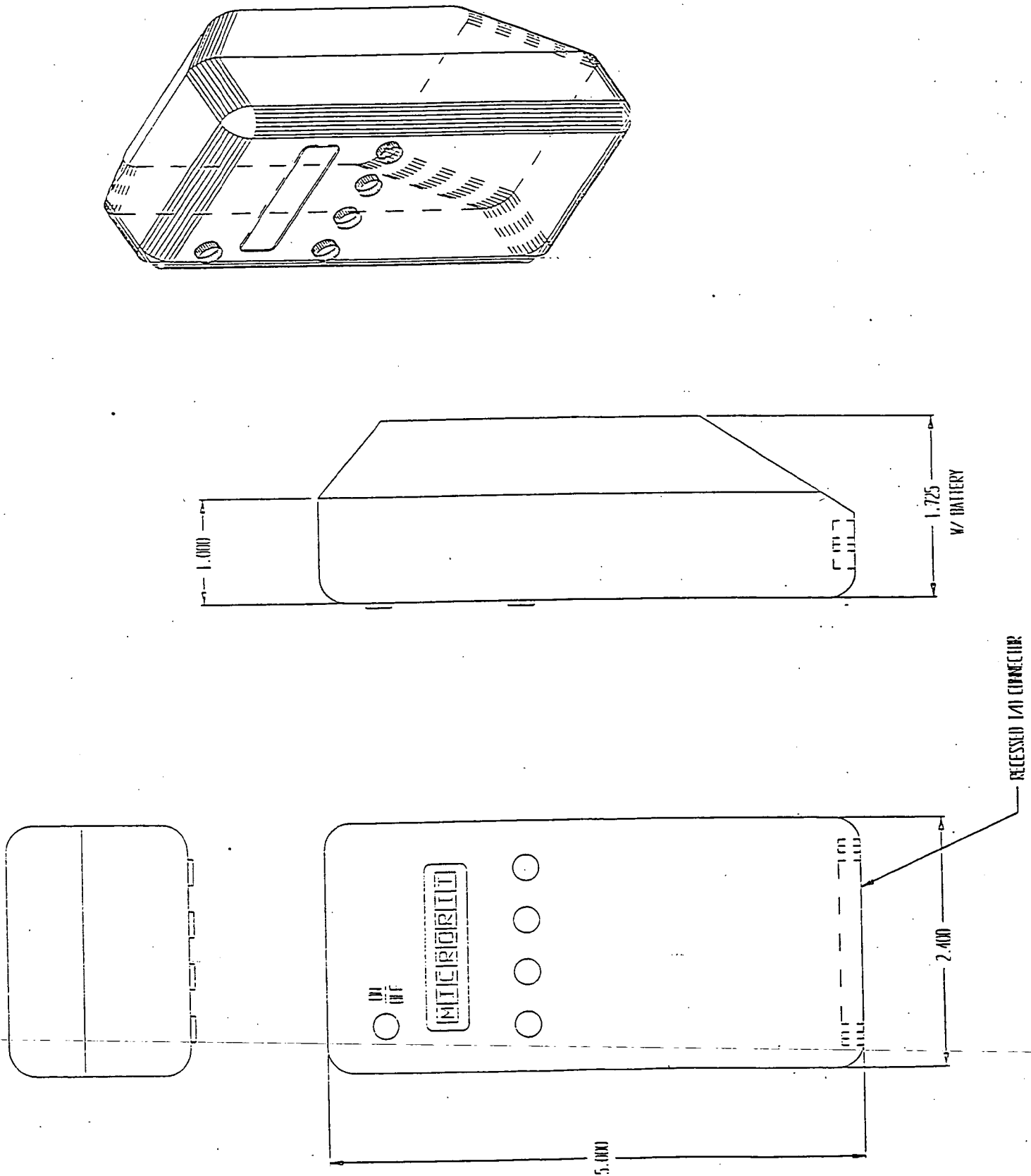
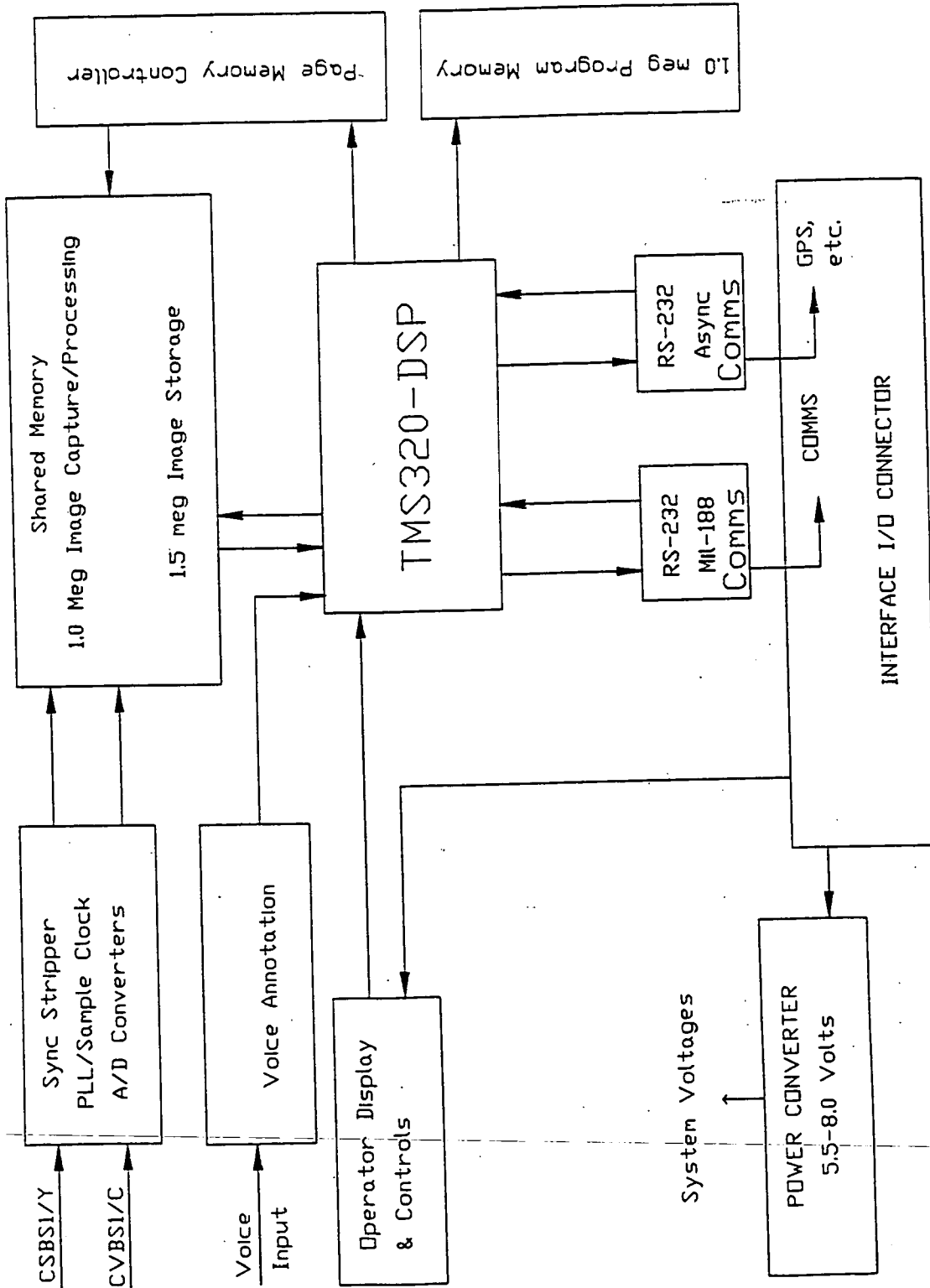


Figure 2 - MicroRIT™ Block Diagram



MICRO-RIT™ BLOCK DIAGRAM



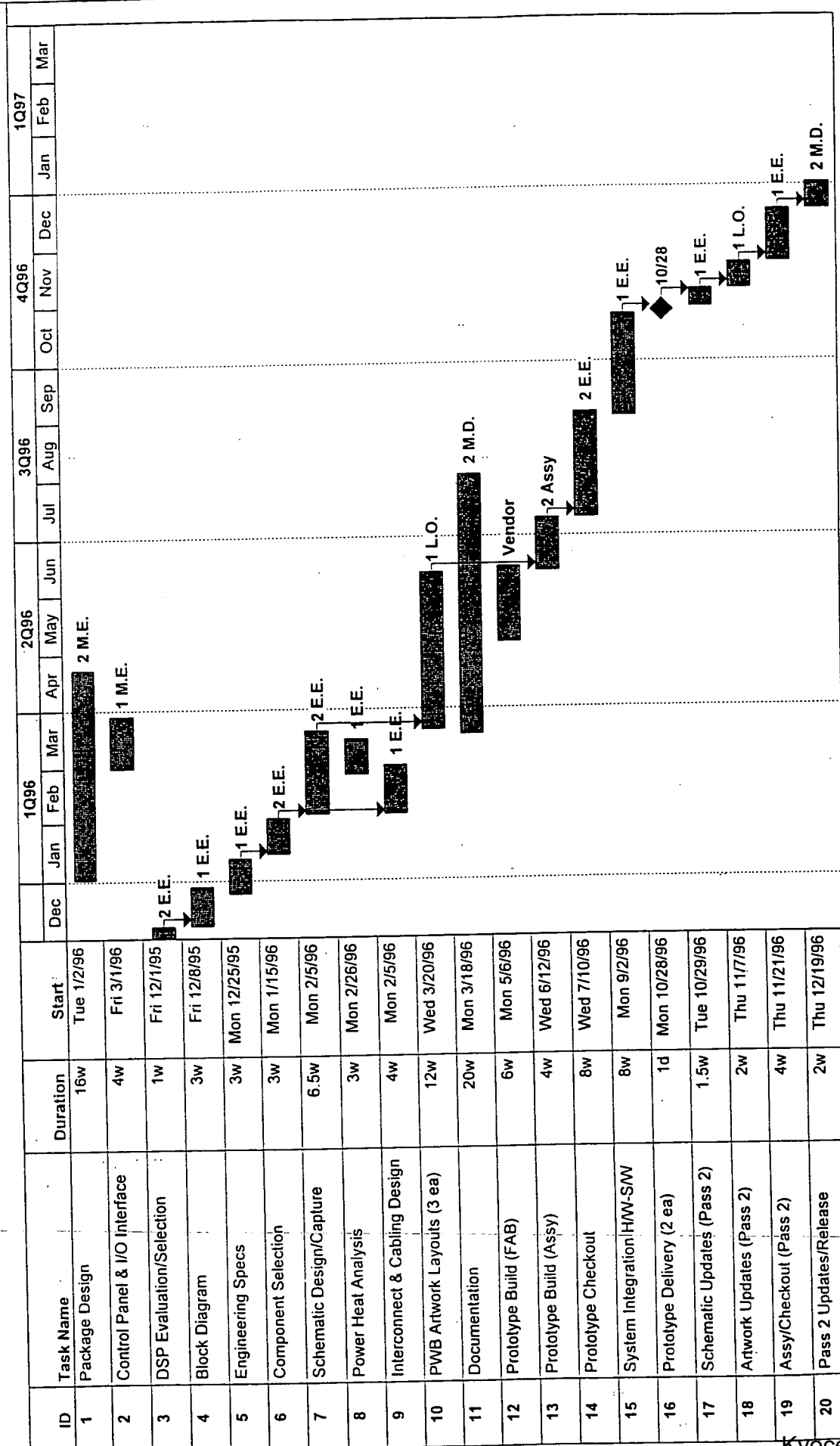


# SECTION 6

# SCHEDULE

ID	Task	29
1	Pro	
2	Wri	
3	Eva	
4	Eva	
5	Eva	
6	DSF	
7	O/S	
8	Orde	
9	Writ	
10	Syst	
11		
12		
13		
14		
15		
16		
17		
18	Vide	
19		
20		
21		
22	F	
23	F	
24		
25	Comm	
26	A	
27	S	
28	P	
29	P	
30	Audio	
31	A	
32	A	
33	A	
34	A	
35	User I	
36	LI	
37	Pe	
38	M	
39	Remot	
40	Rc	
41	Dc	
42	Hardwa	
43	System	
44	User M	
45	System	
46	Writs A	
47	Custom	
48	Montly	
51	Custom	
58	Delivery	
Project: micronit		
Date: Thu 11/2/9		

# MicroRit Hardware Development



# SECTION 7

## COST DETAIL

MICR. RIT  
PHOTOTELEESIS

Micro-Rit

Hardware	Hours	Rates	Labor \$	Materials	Overhead	Total Cost
Mechanical design, Packaging Control Panel & I/O Interface	1040 160	\$26.62 \$27.47	\$27,684.80 \$4,395.20		\$69,212.00 \$10,988.00	\$96,896.80 \$15,383.20
Electrical design DSP Evaluation /Selection Block Diagram Engineering Specifications/ Updates Component Selection Power/Heat Analysis Interconnect/Cabling Design Schematic Design/Capture Schematic update Pass2 (3 each) PWB artwork design/layout (3 each) PWB layout Pass 2 (2 each) Documentation	80 120 240 180 120 160 520 80 480 120 800	\$30.52 \$30.52 \$30.52 \$30.52 \$42.19 \$26.62 \$30.56 \$30.56 \$22.92 \$22.92 \$19.53	\$2,441.60 \$3,662.40 \$7,324.80 \$5,493.60 \$5,062.80 \$4,259.20 \$15,891.20 \$2,444.80 \$11,001.60 \$2,750.40 \$15,624.00		\$6,104.00 \$9,156.00 \$18,312.00 \$13,734.00 \$12,657.00 \$10,648.00 \$39,728.00 \$6,112.00 \$27,504.00 \$6,876.00 \$39,060.00	\$8,545.60 \$12,818.40 \$25,636.80 \$19,227.60 \$17,719.80 \$14,907.20 \$55,619.20 \$8,556.80 \$38,505.60 \$9,626.40 \$54,684.00
Prototype Assembly /Checkout labor Materials & Fab	960	\$21.93	\$21,052.80	\$30,000.00	\$52,632.00	\$73,684.80 \$30,000.00
H/W Project Management Project review	480 320	\$42.19 \$42.19	\$20,251.20 \$13,500.80		\$50,628.00 \$33,752.00	\$70,879.20 \$47,252.80
Development Equipment DSP Development station DSP Evaluation Kit	320 160	\$27.47 \$27.47	\$8,790.40 \$4,395.20	\$15,000.00	\$21,976.00 \$10,988.00	\$45,766.40 \$15,383.20
Total Hardware	6340		\$176,026.80	\$45,000.00	\$440,067.00	\$661,093.80

MICRO-RIT  
PHOTOTELEESIS

Software	Hours	Rates	Labor \$	Materials	Overhead	Total Cost
Specification Document	80	\$32.81	\$2,624.80		\$6,562.00	\$9,186.80
Evaluate and select DSP	80	\$32.81	\$2,624.80		\$6,562.00	\$9,186.80
Evaluate and Select Operating system	170	\$31.51	\$5,356.70		\$13,391.75	\$18,748.45
Evaluate and Select Compiler	170	\$31.51	\$5,356.70		\$13,391.75	\$18,748.45
Other Development O/S compiler				\$15,000.00	\$0.00	\$15,000.00
Software Specification	170	\$32.81	\$5,577.70		\$13,944.25	\$19,521.95
System Management Functions						
Memory Management Routines	320	\$30.21	\$9,667.20		\$24,168.00	\$33,835.20
Code Space Manager	320	\$32.81	\$10,499.20		\$26,248.00	\$36,747.20
Data Space Manager	160	\$25.00	\$4,000.00		\$10,000.00	\$14,000.00
Refresh Interface	160	\$32.81	\$5,249.60		\$13,124.00	\$18,373.60
Interrupt Handling	320	\$25.00	\$8,000.00		\$20,000.00	\$28,000.00
Power Management						
Video System	420	\$28.91	\$12,140.10		\$30,350.25	\$42,490.35
Video Frame Grabber SW	160	\$32.81	\$5,249.60		\$13,124.00	\$18,373.60
Video Demodulation SW S-Video	160	\$32.81	\$5,249.60		\$13,124.00	\$18,373.60
Video Demodulation SW Composite	240	\$32.81	\$7,874.40		\$19,686.00	\$27,560.40
Port Wavelet compressor	240	\$25.00	\$6,000.00		\$15,000.00	\$21,000.00
Port JPEG compressor	80	\$30.21	\$2,416.80		\$6,042.00	\$8,458.80
Image Storage Handler						
Communications System	60	\$25.00	\$1,500.00		\$3,750.00	\$5,250.00
Asynch Port Interface	120	\$25.00	\$3,000.00		\$7,500.00	\$10,500.00
Synch Port Interface	1650	\$28.91	\$47,693.25		\$119,233.13	\$166,926.38
Port PTAC	240	\$25.00	\$6,000.00		\$15,000.00	\$21,000.00
Port PTAC-2	545	\$32.64	\$17,791.00		\$44,477.50	\$62,268.50
Audio System	160	\$30.21	\$4,833.60		\$12,084.00	\$16,917.60
User Interface	60	\$25.00	\$1,500.00		\$3,750.00	\$5,250.00
LED Display Driver	60	\$25.00	\$1,500.00		\$3,750.00	\$5,250.00
Push Button Interface	120	\$25.00	\$3,000.00		\$7,500.00	\$10,500.00
Menuing Interface						
Remote Control/Host Mode	480	\$30.21	\$14,500.80		\$36,252.00	\$50,752.80
Remote Control Interface	320	\$30.21	\$9,667.20		\$24,168.00	\$33,835.20
Docking Station Interface						

CONFIDENTIAL DATA

MICRO-RIT  
PHOTOTELEESIS

	Hours	Rates	Labor \$	Materials	Overhead	Total Cost
Software	1200	\$28.26	\$33,906.00		\$84,765.00	\$118,671.00
System Integration	280	\$21.10	\$5,906.60		\$14,766.50	\$20,673.10
User Manuals	475	\$25.72	\$12,217.30		\$30,543.24	\$42,760.54
System Checkout & rework	120	\$38.91	\$4,668.60		\$11,671.50	\$16,340.10
Write acceptance test plan	14	\$45.84	\$641.76		\$1,604.40	\$2,246.16
Customer Acceptance test Plan Management	277.2	\$38.91	\$10,784.47		\$26,961.17	\$37,745.63
Total Software	9431.2		\$276,997.77	\$15,000.00	\$692,494.43	\$984,492.21
Combined	15771.2		\$453,024.57	\$60,000.00	\$1,132,561.43	\$1,645,586.01

# **SECTION 8**

## **PERSONNEL RESUMES**



## **BRUCE C. MATHER**

Manager of Software Engineering  
PhotoTelesis...a business of Texas Instruments Incorporated

Dr. Mather joined PhotoTelesis Corporation in December 1993, as Director of Software Engineering. Prior to joining PhotoTelesis, he was a Senior Research Engineer at Southwest Research Institute where he was employed for seven years. He also serves as an Adjunct Professor at St. Mary's University where he teaches a course in Digital Speech Processing.

Among Dr. Mather's technical areas of expertise are robotic systems, image processing, machine perception, neural networks, virtual reality, multimedia database systems and digital signal processing. He is a member of the Institute of Electrical and Electronic Engineers (IEEE), the Society of Manufacturing Engineers (SME), and the International Neural Network Society (INNS).

Dr. Mather attended the University of Illinois in Champaign, Urbana, where he earned his BSEE degree in 1980, his MSEE in 1983, and his PhD in Electrical Engineering in 1986. He graduated with highest honors and received the Eta Kappa Nu Senior Honor Award for academic excellence. His PhD dissertation involved advanced, multidimensional digital signal processing (DSP) of synthetic aperture radar (SAR) data.

At Southwest Research Institute, while working in their Advanced Robotics Department, he designed and developed interprocess and intercomputer communication and synchronization in the C programming language under the Unix operating system.

In 1991, Bruce joined the Advanced Training Concepts Section at SWRI and was instrumental in the development of the Visual Information System multimedia database product which runs under Windows 3.1. He also worked on an IR&D project involving a Virtual Environment system for multidimensional data visualization. His other areas of interest include speech recognition, position sensing, and holographic sound.

**ROGER D. VEST**  
Manager of Hardware Engineering  
PhotoTelesis...a business of Texas Instruments Incorporated

Mr. Vest joined PhotoTelesis Corporation in January of 1994 as Director of Hardware Engineering. Previously, he was Manager of Engineering for CompuAdd Express Corporation in Austin, Texas. In that position, he reported to the President and was responsible for all phases of product development and product sourcing. During his time there, three portable computer (notebook) products were introduced.

Prior to CompuAdd Express, Mr. Vest was employed by Texas Instruments, also in Austin, for over fifteen years. When he resigned to accept the CompuAdd Express position, he was a Senior Member of the Technical Staff. During his last year with TI, Mr. Vest managed a PWB design/layout center for their Custom Manufacturing Group. This effort included initial layout, prototype PWB fabrication, PWB assembly, and prototype checkout of customer products for several high volume computer suppliers. He has an extensive background in surface-mount technology, including footprint design, PWB layout guidelines and automatic test compatibility. He has published several articles on surface-mount technology design rules and footprint requirements.

Mr. Vest graduated from Texas Tech University in Lubbock, Texas, with a Bachelor of Science degree in Electrical Engineering. He was on the Dean's list at the time of his graduation.

## **WILLIAM A. KIDD**

Program Manager

PhotoTelesis...a business of Texas Instruments Incorporated

Mr. Kidd joined Texas Instruments in June 1988. While assigned to the Airborne department of the Defense Systems and Electronics Group, Mr. Kidd was a member of the Light Helicopter program where he was the Program Control manager and cost account manager for several hundred data item submittals. Follow-on assignments included management support to numerous projects. Most recently Mr. Kidd was transferred to PhotoTelesis, a business of Texas Instruments, where he was assigned the program management responsibility for the U.S. Army's Light Weight Video Reconnaissance System (LVRS).

Mr. Kidd developed an excellent understanding of DoD acquisition while on active duty with the U.S. Air Force from 1967-1988. During his military career he gained more than 20 years direct experience in DoD Systems Acquisition Management. At the time of his retirement, Mr. Kidd was the Commander of Air Force Systems Command's, Systems Acquisition School. Previous Air Force program management assignments included the Pave Tack Pod program, the Pave Tack Forward Looking Infrared (FLIR) subsystem, and the Pave Tiger Mini-Drone program. Other relevant Air Force assignments include schedule planning and control for launch, on-orbit support, and recovery of satellite payloads, and Air Force Plant Representative Officer at a defense contractor's facility, responsible for on-site engineering management of DEM/VAL and production programs.

Mr. Kidd has an MS degree in Engineering Management from Arizona State University, Tempe, AZ. His undergraduate BS degree in Mechanical Engineering, was received from Grove City College, Grove City, PA.

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	11617509
<b>Filing Date:</b>	28-Dec-2006
<b>Title of Invention:</b>	Apparatus for Capturing, Converting and Transmitting a Visual Image Signal Via A Digital Transmission System
<b>First Named Inventor/Applicant Name:</b>	David A Monroe
<b>Filer:</b>	Jeffrey Darryl Hunt
<b>Attorney Docket Number:</b>	06-0719

Filed as Large Entity

### Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				
<b>Extension-of-Time:</b>				
Extension - 1 month with \$0 paid	1251	1	Kyocera Ex. 1004 <sup>130</sup>	130

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Miscellaneous:</b>				
<b>Total in USD (\$)</b>				<b>130</b>

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	5143936
<b>Application Number:</b>	11617509
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	4247
<b>Title of Invention:</b>	Apparatus for Capturing, Converting and Transmitting a Visual Image Signal Via A Digital Transmission System
<b>First Named Inventor/Applicant Name:</b>	David A Monroe
<b>Customer Number:</b>	67589
<b>Filer:</b>	Jeffrey Darryl Hunt
<b>Filer Authorized By:</b>	
<b>Attorney Docket Number:</b>	06-0719
<b>Receipt Date:</b>	13-APR-2009
<b>Filing Date:</b>	28-DEC-2006
<b>Time Stamp:</b>	16:34:41
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$130
RAM confirmation Number	2681
Deposit Account	
Authorized User	

### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part (if appl.)	Pages (if appl.)

1	Amendment After Final	ResptoFinalOA04132009.pdf	63018 7bab390ec5cca0c947c8f33da760efed7027d123	no	15
<b>Warnings:</b>					
<b>Information:</b>					
2	Rule 130, 131 or 132 Affidavits	AffidavitMonroe10336470.pdf	5233293 4ecd2b8888475ae768ac42d7e4f4f413aa5be9c7	no	115
<b>Warnings:</b>					
<b>Information:</b>					
3	Fee Worksheet (PTO-06)	fee-info.pdf	30043 8beca9f2aaf7a575b4d1afde0cd9c621d80bb22	no	2
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			5326354		

**This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.**

**New Applications Under 35 U.S.C. 111**

**If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.**

**National Stage of an International Application under 35 U.S.C. 371**

**If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.**

**New International Application Filed with the USPTO as a Receiving Office**

**If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.**

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875	Application or Docket Number <b>11/617,509</b>	Filing Date <b>12/28/2006</b>	<input type="checkbox"/> To be Mailed
---	---	----------------------------------	---------------------------------------

APPLICATION AS FILED – PART I			OTHER THAN SMALL ENTITY			
	(Column 1)	(Column 2)	SMALL ENTITY <input type="checkbox"/>	OR		
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)	RATE (\$)	FEE (\$)
<input type="checkbox"/> BASIC FEE <small>(37 CFR 1.16(a), (b), or (c))</small>	N/A	N/A	N/A		N/A	
<input type="checkbox"/> SEARCH FEE <small>(37 CFR 1.16(k), (l), or (m))</small>	N/A	N/A	N/A		N/A	
<input type="checkbox"/> EXAMINATION FEE <small>(37 CFR 1.16(o), (p), or (q))</small>	N/A	N/A	N/A		N/A	
TOTAL CLAIMS <small>(37 CFR 1.16(i))</small>	minus 20 =	*	X \$ =		X \$ =	
INDEPENDENT CLAIMS <small>(37 CFR 1.16(h))</small>	minus 3 =	*	X \$ =		X \$ =	
<input type="checkbox"/> APPLICATION SIZE FEE <small>(37 CFR 1.16(s))</small>	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).					
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT <small>(37 CFR 1.16(j))</small>						
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL		TOTAL	

APPLICATION AS AMENDED – PART II					OTHER THAN SMALL ENTITY			
	(Column 1)	(Column 2)	(Column 3)		SMALL ENTITY	OR		
AMENDMENT	04/13/2009	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	RATE (\$)	ADDITIONAL FEE (\$)
	Total <small>(37 CFR 1.16(i))</small>	* 34	Minus	** 42 = 0	X \$ =		OR	X \$52= 0
	Independent <small>(37 CFR 1.16(h))</small>	* 7	Minus	***3 = 4	X \$ =		OR	X \$220= 880
	<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>						OR	
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>						OR	
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE <b>880</b>

APPLICATION AS AMENDED – PART II					OTHER THAN SMALL ENTITY			
	(Column 1)	(Column 2)	(Column 3)		SMALL ENTITY	OR		
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	RATE (\$)	ADDITIONAL FEE (\$)
	Total <small>(37 CFR 1.16(i))</small>	*	Minus	** =	X \$ =		OR	X \$ =
	Independent <small>(37 CFR 1.16(h))</small>	*	Minus	*** =	X \$ =		OR	X \$ =
	<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>						OR	
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>						OR	
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.					Legal Instrument Examiner: /DIANE JOHNSON/			
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".								
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".								
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.								

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**  
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<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875	Application or Docket Number <b>11/617,509</b>	Filing Date <b>12/28/2006</b>	<input type="checkbox"/> To be Mailed
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APPLICATION AS FILED – PART I			OTHER THAN SMALL ENTITY				
	(Column 1)	(Column 2)	SMALL ENTITY <input type="checkbox"/>	OR			
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)	OR	RATE (\$)	FEE (\$)
<input type="checkbox"/> BASIC FEE <small>(37 CFR 1.16(a), (b), or (c))</small>	N/A	N/A	N/A			N/A	
<input type="checkbox"/> SEARCH FEE <small>(37 CFR 1.16(k), (l), or (m))</small>	N/A	N/A	N/A			N/A	
<input type="checkbox"/> EXAMINATION FEE <small>(37 CFR 1.16(o), (p), or (q))</small>	N/A	N/A	N/A			N/A	
TOTAL CLAIMS <small>(37 CFR 1.16(i))</small>	minus 20 =	*	X \$ =		OR	X \$ =	
INDEPENDENT CLAIMS <small>(37 CFR 1.16(h))</small>	minus 3 =	*	X \$ =			X \$ =	
<input type="checkbox"/> APPLICATION SIZE FEE <small>(37 CFR 1.16(s))</small>	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT <small>(37 CFR 1.16(j))</small>							
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	

APPLICATION AS AMENDED – PART II					OTHER THAN SMALL ENTITY				
	(Column 1)	(Column 2)	(Column 3)		SMALL ENTITY	OR			
AMENDMENT	<b>04/13/2009</b>	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR	RATE (\$)	ADDITIONAL FEE (\$)
	Total <small>(37 CFR 1.16(i))</small>	* 34	Minus ** 42	= 0	X \$ =		OR	X \$52=	0
	Independent <small>(37 CFR 1.16(h))</small>	* 7	Minus *** 7	= 0	X \$ =		OR	X \$220=	0
	<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>								
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>						OR		
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	0

	(Column 1)	(Column 2)	(Column 3)		SMALL ENTITY	OR			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR	RATE (\$)	ADDITIONAL FEE (\$)
	Total <small>(37 CFR 1.16(i))</small>	*	Minus **	=	X \$ =		OR	X \$ =	
	Independent <small>(37 CFR 1.16(h))</small>	*	Minus ***	=	X \$ =		OR	X \$ =	
	<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>								
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>						OR		
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

\* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.  
 \*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".  
 \*\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".  
 The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Legal Instrument Examiner:  
 /SHIRELL m. CARMICHAEL/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
11/617,509 12/28/2006 David A Monroe 06-0719 4247

67589 7590 12/12/2008
MOORE LANDREY
1609 SHOAL CREEK BLVD
SUITE 100
AUSTIN, TX 78701

EXAMINER

SAFAIPOUR, HOUSHANG

ART UNIT PAPER NUMBER

2625

MAIL DATE DELIVERY MODE

12/12/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 11/617,509	<b>Applicant(s)</b> MONROE, DAVID A	
	<b>Examiner</b> HOUSHANG SAFAIPOUR	<b>Art Unit</b> 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on 04 January 2008.
- 2a)  This action is **FINAL**.
- 2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4)  Claim(s) 43-76 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 43-76 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:
  - 1.  Certified copies of the priority documents have been received.
  - 2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5)  Notice of Informal Patent Application
- 6)  Other: \_\_\_\_\_.

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## **DETAILED ACTION**

### ***Response to Amendment***

Applicant's amendment has been entered. Applicant has canceled claims 1-42 and has added new claims 43-76.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 43-51, 64, 66, 68, 69, 71, 72 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hassan (US 5,550,646), and further in view of Sizer, II (US 6,036,086).

Regarding claims 43, 64, 66, 68, 69, 71 and 74 Hassan discloses apparatus comprising:

a portable housing, the portable housing being wireless (110, fig. 1);

an image collection device supported by the portable housing, the image collection device being operable to provide visual image data of a field of view (col. 2, lines 39-49);

a display supported by the portable housing, the display being operable to display for viewing by a user a perceptible visual image, the perceptible visual image being generated from the visual image data (col. 4 lines 18-31);

memory supported by the portable housing, the memory being suitable to receive visual image data in digital format, the memory being suitable to retain the visual image data in digital format (col. 4 lines 32-64),

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an input device supported by the portable housing, the input device being operable by the user (col. 4 lines 1-17);

operation of the input device by the user enabling the memory to retain the visual image data in digital format, the memory being suitable to provide retained visual image data in digital format (col. 4 lines 54-64);

media supported by the portable housing, the media being suitable to embody at least one compression algorithm (col. 4 lines 46-48);

at least one processing platform supported by the portable housing, the at least one processing platform being operable to execute the at least one compression algorithm, the at least one processing platform being provided the retained visual image data in digital format, execution of the at least one compression "algorithm providing compressed visual image data (col. 3 lines 47-54 and col. 4 lines 43-48); and

Hassan indicates that if image capture device is "provided with a cellular telephone capability" (col. 3 line 1017) pictures stored in the camera can be transmitted to any conventional facsimile machine. Sizer, by the same assignee as Hassan, discloses a cellular telephone (110) as an portable image capture device with scanning capability. Therefore it would have been obvious to a person of ordinary skill in the art to combine the image capture device 110 as disclosed by Hassan with the image capture device (cellular telephone 110) as disclosed by Sizer to read and transmit to a remote recipient a wireless transmission.

movement by the user of the portable housing commonly moving the image collection device, movement by the user of the portable housing commonly moving the display (the

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combined image capture device (cellular phone 10) includes the display and the image collection device (cell phone, camera and scanner) .

Regarding claim 44, Hassan discloses the apparatus according to claim 43 and further comprising:

the processing platform including at least one processor (microcontroller 205, col. 3 lines 25-27).

Regarding claim 45, Hassan discloses the apparatus according to claim 43 and further comprising:

the portable housing including a handset (cell phone 110).

Regarding claim 46, combination of Hassan and Sizer discloses the apparatus according to claim 43 and further comprising:

a microphone supported by the portable housing, the microphone being associated with the mobile phone; a speaker supported by the portable housing, the speaker being associated with the mobile phone (Sizer, col. 5 lines 21-35).

Regarding claim 47, combination of Hassan and Sizer discloses the apparatus according to claim 43 and further comprising:

the mobile phone being selectively operable to send to a remote recipient a wireless transmission, the wireless transmission conveying a voice transmission (Sizer, col. 5 lines 49-60).

Regarding claim 48, Hassan discloses the apparatus according to claim 43 and further comprising:

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the mobile phone being selectively operable to receive from a remote sender an incoming wireless transmission, the incoming wireless transmission conveying at least one of:

incoming compressed digital image data,

an incoming voice transmission (Sizer col. 5 lines 29-35), and

both incoming compressed digital image data and an incoming voice transmission.

Regarding claim 49, Hassan discloses the apparatus according to claim 43 and further comprising:

a camera supported by the portable housing, the camera including the image collection device (Hassan, fig. 1, camera 110).

Regarding claim 50, Hassan discloses the apparatus according to claim 43 and further comprising:

the image collection device being suitable to provide the visual image data in digital format (abstract).

Regarding claims 51 and 72, Hassan discloses the apparatus according to claim 43 and further comprising:

the image collection device being suitable to provide the visual image data in analog format; an analog to digital converter supported by the portable housing, the analog to digital converter being suitable to receive the visual image data in analog format, the being suitable to provide the visual image data in digital format (abstract and col. 1 lines 47-52);

the display including an LCD, the LCD being operable to display for viewing by a user a perceptible visual image, the-perceptible visual image being generated from the visual image data (col. 4 lines 18-31).

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Claims 52-63, 65, 67, 70 and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hassan (US 5,550,646), in view of Sizer, II (US 6,036,086) and further in view of Jachimowicz (US 6,243,056).

Regarding claims 52, 65, 67, 70 and 73 combination of Hassan and Sizer does not explicitly disclose a view finder. Jachimowicz discloses a cell phone with a display including a viewfinder, the viewfinder being suitable to receive the visual image data, the viewfinder being operable to display for viewing by a user a perceptible visual image, the perceptible visual image being generated from the visual image data (fig. 10, col. 6 lines 30-37). Therefore it would have been obvious to a person of ordinary skill in the art to include this feature in combined cell phone of Hassan and Sizer to add capability of viewing images by an operator.

53. The apparatus according to claim 52 and further comprising: the viewfinder being suitable to receive the visual image data in digital format (Jachimowicz, col. 4 lines 7-10).

54. The apparatus according to claim 52 and further comprising: the viewfinder being suitable to receive the visual image data in analog format (Jachimowicz, col. 4 lines 7-10).

55. The apparatus according to claim 43 and further comprising:  
the display including a display screen, the display screen being defined apart from a viewfinder, the display screen being operable to display for viewing by a user a perceptible visual image, the perceptible visual image being generated from the visual image data (Jachimowicz, col. 6 lines 30-37).

56. The apparatus according to claim 55 and further comprising:



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the display including an LCD, the LCD being operable to display for viewing by a user a perceptible visual image, the perceptible visual image being generated from the visual image data (Hassan, col. 5 line 37).

57. The apparatus according to claim 56 and further comprising: the LCD being suitable to receive the visual image data in digital format (Hassan Abstract).

58. The apparatus according to claim 43 and further comprising: at least one transmission protocol algorithm embodied in suitable media (Hassan col. 4 line 54 to col. 5 line 10);

a processing platform associated with the at least one transmission protocol algorithm, the associated processing platform being operable to execute the at least one transmission protocol algorithm, the associated processing platform being provided the compressed visual image data, execution of the at least one transmission protocol algorithm providing the compressed visual image data in a transmission format, the visual image data in a transmission format being compatible with the mobile phone for wireless transmission by the mobile phone (please refer to claim 43).

59. The apparatus according to claim 58 and further comprising:

the mobile phone being operable according to a specified wireless transmission protocol, the at least one transmission protocol algorithm providing the visual image data in a compatible data transmission format, the compatible data transmission format being compatible with the specified wireless transmission protocol (Hassan col. 4 line 54 to col. 5 line 10).

60. The apparatus according to claim 59 and further comprising:

at least one transmission protocol algorithm embodied in suitable media;

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a processing platform associated with the at least one transmission protocol algorithm, the associated processing platform being operable to execute the at least one transmission protocol algorithm, execution of the at least one transmission protocol algorithm providing compressed visual image data in a compatible format, the compatible format being compatible with at least one transmission protocol, the compressed visual image data in a compatible format being suitable for transmission by the mobile phone according to at least one wireless transmission protocol (please refer to claim 43 and also (Hassan col. 4 line 54 to col. 5 line 10 and col. 4 lines 43-64).

61. The apparatus according to claim 43 and further comprising:

the portable housing including a first housing section, the image collection device being supported by the first housing section,

the portable housing including a second housing section, the display being supported by the second housing section,

the first housing section being adjoined to the second housing section (fig. 1),

the second housing section being movable in common with the first housing section when the first, housing section, is moved by the user (fig. 1),

the first housing section being movable in common with the second housing section when the second housing section is moved by the user (fig. 1),

the first housing section being supported for movement relative to the second housing section (fig. 1),

the image collection device being movable in common with the first housing section relative to the display when the first housing section is moved relative to the second housing

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section (Jachimowicz discloses the structure of the cell phone as shown in fig. 1 with reference to bodies 11 and 12 being hingably or pivotally attached. Col. 2 lines 43 to col. 3 line 24).

62. The apparatus according to claim 62 and further comprising:

the first housing section being supported for pivotal movement relative to the second housing section about a pivot axis (Jachimowicz, fig. 1).

63. The apparatus according to claim 43 and further comprising:

the image collection device being supported by the portable housing in fixed relation to the display (combination of Hassan, Sizer and Jachimowicz) .

Claims 75 and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hassan (US 5,550,646), in view of Sizer, II (US 6,036,086) and further in view of Rostoker (US 6,035,212).

Regarding claim 75, combination of Hassan and Sizer does not disclose a removable memory. Rostoker discloses such feature (col. 9, lines 17-35). Therefore it would have been obvious to a person of ordinary skill in the art to include this feature in combination cell phone of Hassan and Sizer to provide additional memory.

Regarding claim 76, the combination of Hassan and Sizer disclose a display as discussed previously.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Houshang Safaipour whose telephone number is (571)272-7412. The examiner can normally be reached on Mon.-Fri. from 6:00am to 2:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571)272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Houshang Safaipour/  
Primary Examiner, Art Unit 2625

<b>Notice of References Cited</b>	Application/Control No. 11/617,509	Applicant(s)/Patent Under Reexamination MONROE, DAVID A	
	Examiner HOUSHANG SAFAIPOUR	Art Unit 2625	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A US-6,035,212	03-2000	Rostoker et al.	455/552.1
*	B US-6,243,056	06-2001	Jachimowicz et al.	345/82
*	C US-6,036,086	03-2000	Sizer et al.	235/375
*	D US-5,550,646	08-1996	Hassan et al.	358/442
	E US-			
	F US-			
	G US-			
	H US-			
	I US-			
	J US-			
	K US-			
	L US-			
	M US-			


**FOREIGN PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N				
	O				
	P				
	Q				
	R				
	S				
	T				

**NON-PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)				
	U				
	V				
	W				
	X				

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

<b>Index of Claims</b>  	<b>Application/Control No.</b>  11617509	<b>Applicant(s)/Patent Under Reexamination</b>  MONROE, DAVID A
	<b>Examiner</b>  HOUSHANG SAFAIPOUR	<b>Art Unit</b>  2625

✓	<b>Rejected</b>
=	<b>Allowed</b>


-	<b>Cancelled</b>
÷	<b>Restricted</b>

N	<b>Non-Elected</b>
I	<b>Interference</b>

A	<b>Appeal</b>
O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47

CLAIM		DATE							
Final	Original	12/06/2008							
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<b><i>Index of Claims</i></b>  	<b>Application/Control No.</b> 11617509	<b>Applicant(s)/Patent Under Reexamination</b> MONROE, DAVID A
	<b>Examiner</b> HOUSHANG SAFAIPOUR	<b>Art Unit</b> 2625

✓	<b>Rejected</b>
=	<b>Allowed</b>

-	<b>Cancelled</b>
÷	<b>Restricted</b>

N	<b>Non-Elected</b>
I	<b>Interference</b>

A	<b>Appeal</b>
O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47

CLAIM		DATE							
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	42	-							
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	72	✓							



<b>Index of Claims</b>  	<b>Application/Control No.</b> 11617509	<b>Applicant(s)/Patent Under Reexamination</b> MONROE, DAVID A
	<b>Examiner</b> HOUSHANG SAFAIPOUR	<b>Art Unit</b> 2625

✓	<b>Rejected</b>
=	<b>Allowed</b>


-	<b>Cancelled</b>
÷	<b>Restricted</b>

N	<b>Non-Elected</b>
I	<b>Interference</b>

A	<b>Appeal</b>
O	<b>Objected</b>

Claims renumbered in the same order as presented by applicant
  CPA
  T.D.
  R.1.47

CLAIM		DATE							
Final	Original	12/06/2008							
	73	✓							
	74	✓							
	75	✓							
	76	✓							

<b>Search Notes</b>  	<b>Application/Control No.</b>  11617509	<b>Applicant(s)/Patent Under Reexamination</b>  MONROE, DAVID A
	<b>Examiner</b>  HOUSHANG SAFAIPOUR	<b>Art Unit</b>  2625

<b>SEARCHED</b>			
<b>Class</b>	<b>Subclass</b>	<b>Date</b>	<b>Examiner</b>
358	1.15, 402, 403, 407, 442, 468, 474	12/5/08	HS

<b>SEARCH NOTES</b>		
<b>Search Notes</b>	<b>Date</b>	<b>Examiner</b>
East	12/5/08	HS

<b>INTERFERENCE SEARCH</b>			
<b>Class</b>	<b>Subclass</b>	<b>Date</b>	<b>Examiner</b>

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**INFORMATION DISCLOSURE  
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Sheet 2

of 7

**Complete if Known**

Application Number	11/617,509
Filing Date	December 28, 3006
First Named Inventor	David A Monroe
Art Unit	2625
Examiner Name	
Attorney Docket Number	06-0719

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		US- 5,463,595	10-31-1995	Rochall, et al	
		US- 5,497,149	03-05-1998	Fast	
		US- 5,530,440	06-25-1996	Denzer, et al	
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		US- 5,612,668	03-18-1997	Scott	
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		US- 5,712,679	01-27-1998	Coles	
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		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
		EP613,110	08-31-1994	Hoover		
		EP613,111	08-31-1998	Tenpei		
		EP744,630	11-27-1996	Atul		
		WO90/04242	04-19-1990	Norman, et al		
		WO98/52174	11-19-1999	Hatjassalo		
		EP532,110	03-17-1993	Raimondi		

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/Houshang Safaipoor/

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		US- 6,246,320	06-12-2001	Monroe	
		US- 6,356,625	03-12-2002	Casteiani	
		US- 6,570,610	05-27-2003	Kipust	
		US- 6,698,021	02-24-2004	Amini	
		US- 5,553,609	09-10-1996	Chen, et al	
		US- 6,067,571	05-23-2000	Igarashi, et al	
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		US- 6,476,858	11-05-2002	Ramirez Diaz, et al	
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		US-			
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Examiner Signature	/Houshang Safaipoor/	Date Considered	12/08/2008
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		US- 6,100,964	08-08-2000	De Cremiers	
		US- 5,714,948	02-03-1998	Farmakis, et al	
		US- 5,627,753	05-06-1997	Brankin, et al	
		US- 4,857,912	08-15-1989	Everett, Jr. et al	
		US- 6,259,475	07-10-2001	Ramachandran, et al	
		US- 5,440,337	08-08-1995	Henderson, et al	
		US- 6,282,488	08-28-2001	Castor, et al	
		US- 5,508,736	04-16-1996	Cooper	
		US- 5,469,371	11-21-1995	Bess	
		US- 5,243,530	09-07-1993	Stanifer, et al	
		US- 5,268,698	12-07-1993	Smith, Sr. et al	
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		US- 5,938,706	08-17-1999	Feldman	
		US- 6,078,850	06-20-2000	Kane, et al	
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		US- 5,091,780	02-25-1992	Pomerleau	

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		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
		JP-A-10-155040	06-09-1998	Nisshin Denki		
		JP-HEI-10-66058	03-06-1998	Masanobu Kujirada		

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		US- 6,504,479	01-07-2003	Lemons	
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		EP209,397	07-07-1993	Murga, et al		
		EP220,752	05-06-1987	Julin, et al.		

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## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	1	"5191601".pn.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/11/26 12:05
S2	25	("4258387"   "4330797"   "4856045"   "4928300"   "5036390").PN. OR ("5191601").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/02/05 12:18
S3	42	(cell cellular mobile video) adj (phone telephone) and ((memory stor\$3 buffer) near3 (image text picture)) near5 (display\$3 near3 (trasmit\$4 forward \$3 send\$3))	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/02/08 16:00
S4	0	((cellular adj telephone) and signals and visual and compatible and housing and integral and camera and within and display and memory).clm.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/11/26 12:07
S5	1	"7365871".pn.	US-PGPUB; USPAT; USOCR	OR	ON	2008/12/01 10:11
S6	1	"5550646".pn.	US-PGPUB; USPAT; USOCR	OR	ON	2008/12/01 10:45
S7	9976	(cell portable cellular) near5 (camera ccd scan \$4) and @ad<"19980112"	US-PGPUB; USPAT; USOCR	OR	ON	2008/12/01 12:01
S8	300	((cell portable cellular) adj (phone telephone)) near5 (camera ccd scan\$4) and @ad<"19980112"	US-PGPUB; USPAT; USOCR	OR	ON	2008/12/01 12:01
S9	7	((cell portable cellular) adj (phone telephone)) near5 ((camera ccd scan\$4) near5 (within inside integral)) and @ad<"19980112"	US-PGPUB; USPAT; USOCR	OR	ON	2008/12/01 12:08



S10	62	("4654514"   "4835372"   "4857716"   "4937853"   "4952785"   "5047614"   "5057677"   "5157687"   "5171977"   "5288976"   "5289378"   "5299116"   "5324922"   "5334824"   "5359182"   "5465291"   "5594226"   "5661291"). PN. OR ("6036086"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2008/12/01 12:52
S11	19	S10 and @ad<"19980112"	US-PGPUB; USPAT; USOCR	OR	ON	2008/12/01 12:53
S12	10	((cell portable cellular) adj (phone telephone)) near5 ((display\$3 lcd) near5 (within inside integral)) and @ad<"19980112"	US-PGPUB; USPAT; USOCR	OR	ON	2008/12/02 09:14
S13	15	((cell portable cellular) adj (phone telephone)) near5 (display\$3 near3 image) and @ad<"19980112"	US-PGPUB; USPAT; USOCR	OR	ON	2008/12/02 09:17
S14	657	((cell portable cellular) adj (phone telephone)) and (flash removable) near3 (memory storage) and @ad<"19980112"	US-PGPUB; USPAT; USOCR	OR	ON	2008/12/02 13:55
S15	26	((cell portable cellular) adj (phone telephone)) with (flash removable)) near3 (memory storage) and @ad<"19980112"	US-PGPUB; USPAT; USOCR	OR	ON	2008/12/02 13:55

12/ 8/ 2008 10:12:44 AM

C:\Documents and Settings\hsafaipour\My Documents\EAST\Workspaces\10336470.  
wsp

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Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		<b>Complete if Known</b>	
		Application Number	11/617,509
		Filing Date	December 28, 3006
		First Named Inventor	David A Monroe
		Art Unit	2625
		Examiner Name	
Sheet	7	of	7
		Attorney Docket Number	06-0719

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		April, 1966, Apollo Unified S-Band System, NASA-Goddard Space Flight Center, Greenbelt, Maryland	
		November 24, 1976, TELEXIS ViaNet General Information Booklet Version 1.3	
		2000, ViaNet 3000 Administrator's Manual Version 1.1- NetXpress Video by TELEXIS, Kanata, Ontario, Canada	
		1999 Vianet 3000 Operator Manual Version 1.0 - NetXpress Video by TELEXIS, Kanata, Ontario, Canada	
		1999 ViaNet 3000 Administrator Manual Version 1.0 - NetXpress Video by TELEXIS, Kanata, Ontario, Canada	
		1999 ViaNet 3000 Instruction Manual Operator's Revision 1 - NetXpress Video by TELEXIS, Kanata, Ontario, Canada	

Examiner Signature	/Houshang Safaipour/	Date Considered	12/08/2008
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.  
 1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.  
 This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:  
**Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 3

of 7

**Complete if Known**

Application Number	11/617,509
Filing Date	December 28, 3006
First Named Inventor	David A Monroe
Art Unit	2625
Examiner Name	
Attorney Docket Number	06-0719

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		US- 5,867,804	02-02-1999	Pilley, et al	
		US- 5,917,405	06-29-1999	Joso	
		US- 5,926,210	07-20-1999	Hackett, et al	
		US- 5,974,158	10-26-1999	Auty. et al	
		US- 5,983,161	11-09-1999	Lemelson, et al	
		US- 5,999,116	12-07-1999	Evers	
		US- 6,084,510	07-04-2000	Lemelson, et al	
		US- 6,092,008	07-18-2000	Bateman	
		US- 6,154,658	11-28-2000	Caci	
		US- 6,157,317	12-05-2000	Walker	
		US- 6,181,373	1-30-2001	Coles	
		US- 6,195,609	02-27-2001	Pilley, et al	
		US- 6,226,031	05-01-2001	Barraciough, et al	
		US- 6,275,231	08-14-2001	Obradovich	
		US- 6,278,965	08-21-2001	Glass, et al	
		US- 6,282,488	08-28-2001	Castor, et al	
		US- 6,462,697	10-08-2002	Klamer, et al	
		US- 5,933,098	08-03-1999	Haxton	
		US- 5,689,442	11-18-1997	Swanson	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	† <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
		EP785,536	07-23-1997	Ferri, et al		
		WO97,37336	10-08-1997	Auty. et al		
		EP232,031	08-12-1987	Hale		
		EP613,109	08-31-1994	Hoover		
		WO96/12265	04-25-1996	Milgard		
		WO95/27910	10-19-1995	Wallis		

Examiner  
Signature

/Houshang Safaipoor/

Date  
Considered

12/08/2008

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND**

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If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /H.S./

Kyocera Ex. 1004

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	11617509
<b>Filing Date:</b>	28-Dec-2006
<b>Title of Invention:</b>	Apparatus for Capturing, Converting and Transmitting a Visual Image Signal Via A Digital Transmission System
First Named Inventor/Applicant Name:	David A Monroe
<b>Filer:</b>	Jeffrey Darryl Hunt
<b>Attorney Docket Number:</b>	06-0719

Filed as Large Entity

### Utility Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
Independent claims in excess of 3	1201	4	210	840

### Miscellaneous-Filing:

**Petition:**

**Patent-Appeals-and-Interference:**

Post-Allowance-and-Post-Issuance:

**Extension-of-Time:**

Kyocera Ex. 1004

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Miscellaneous:</b>				
<b>Total in USD (\$)</b>				<b>840</b>

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	2821392
<b>Application Number:</b>	11617509
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	4247
<b>Title of Invention:</b>	Apparatus for Capturing, Converting and Transmitting a Visual Image Signal Via A Digital Transmission System
<b>First Named Inventor/Applicant Name:</b>	David A Monroe
<b>Customer Number:</b>	67589
<b>Filer:</b>	Jeffrey Darryl Hunt
<b>Filer Authorized By:</b>	
<b>Attorney Docket Number:</b>	06-0719
<b>Receipt Date:</b>	06-FEB-2008
<b>Filing Date:</b>	28-DEC-2006
<b>Time Stamp:</b>	14:00:25
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$ 840
RAM confirmation Number	7932
Deposit Account	
Authorized User	

### File Listing:

Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part (.zip (if appl.))	Pages (if appl.)

1	Fee Worksheet (PTO-06)	fee-info.pdf	8190	no	2
			d2e6adccc70e96284504a7b94881f96ff02c88b0		

**Warnings:**

**Information:**

<b>Total Files Size (in bytes):</b>	8190
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**This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.**

**New Applications Under 35 U.S.C. 111**

**If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.**

**National Stage of an International Application under 35 U.S.C. 371**

**If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.**

**New International Application Filed with the USPTO as a Receiving Office**

**If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.**



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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/617,509	12/28/2006	David A Monroe	06-0719	4247

67589 7590 01/30/2008  
MOORE LANDREY  
1609 SHOAL CREEK BLVD  
AUSTIN, TX 78701

EXAMINER

SAFAIPOUR, HOUSHANG

ART UNIT PAPER NUMBER

2625

MAIL DATE DELIVERY MODE

01/30/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



<b>NOTICE REQUIRING EXCESS CLAIMS FEES</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	11/617,509	MONROE, DAVID A	<b>Art Unit</b>
		1648	

The excess claim(s) filed on 04 January, 2008 is not accompanied by the appropriate payment of excess claims fees set forth in 37 CFR 1.16(h)-(j) or 1.492(d)-(f). Excess claims fees are required for each claim in independent form in excess of three (§ 1.16(h)), each claim (whether dependent or independent) in excess of twenty (note that § 1.75(c) indicates how multiple dependent claims are considered for fee calculation purposes) (§ 1.16(i)), and each application that contains a multiple dependent claim (§ 1.16(j)).

Since the application is not under a final rejection, applicant is given a time period of **ONE (1) MONTH or THIRTY (30) DAYS** from the mailing date of this notice, whichever is longer, to submit either: (1) the fee payment of \$ \_\_\_\_\_, or (2) an amendment in compliance with 37 CFR 1.121 that cancels the excess claim(s), in order to avoid **ABANDONMENT**. Extensions of this time period may be granted under 37 CFR 1.136, unless the excess claim(s) was presented in a preliminary amendment.

- 1. The funds in Deposit Account No. \_\_\_\_\_ are insufficient to cover the entire fee due. The balance is due within the time period set forth in this notice. See note below regarding the appropriate service charge.
- 2. The Credit Card payment to cover the entire fee due to Account \_\_\_\_\_ (Card type + last 4 digits ONLY) was refused. The balance is due within the time period set forth in this notice. See note below regarding the appropriate service charge.
- 3. The amendment that includes the excess claim(s) has not been entered, since applicant has failed to remit (or authorize charge to a Deposit Account or Credit Card) the fee as indicated on the attached Patent Application Fee Determination Record (PTO/SB/06). Remittance or authorization is due within the time period set forth in this notice.
- 4. The fee submitted in this application is insufficient. A balance of \$ \_\_\_\_\_ is due for presentation of excess claims (37 CFR 1.16(h)-(j) or 1.492(d)-(f)).
- 5. Other.

Explanation (*Provide specific details of the required correction in order to assist the applicant. Indicate whether a service charge has been added to the fee due*): **EXCESS INDEPENDENT CLAIMS FEES AMOUNTING TO \$840.00 IS REQUIRED. SEE WORKSHEET ATTACH.**

**THE AMOUNT OF THE FEE(S) DUE IS SUBJECT TO CHANGE, GENERALLY ON OCTOBER 1 OF EACH YEAR (37 CFR 1.16, 1.21 & 1.492). THE AMOUNT OF THE FEE(S) DUE IS DETERMINED AS OF THE DATE A COMPLETE REPLY WITH THE APPROPRIATE FEE(S) IS RECEIVED BY THE OFFICE (37 CFR 1.8 & 1.10). BECAUSE THE AMOUNT DUE IS SUBJECT TO CHANGE, IT IS RECOMMENDED THAT APPLICANT CHECK THE CURRENT FEE SCHEDULE WHICH IS AVAILABLE ON THE USPTO'S WEBSITE AT: <http://www.uspto.gov/web/offices/ac/qs/ope/fees.htm>**

**Service Charges:** There is a \$50 service charge for processing each payment refused (including a check returned "unpaid") or charged back by a financial institution (37 CFR 1.21(m)). There is a \$25.00 service charge for each month when the balance of a deposit account is below \$1000 at the end of the month (37 CFR 1.21(b)(2)).

Technical Support Staff (TSS): Carolyn E. Thomas Phone Number: 5712720558

**Note to TSS: Please do NOT use this notice if the application is under a final rejection.**



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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/617,509	12/28/2006	David A Monroe	06-0719	4247

EXAMINER	
SAFAIPOUR, HOUSHANG	

ART UNIT	PAPER NUMBER
2625	

MAIL DATE	DELIVERY MODE
01/30/2008	PAPER

67589 7590 01/30/2008  
MOORE LANDREY  
1609 SHOAL CREEK BLVD  
AUSTIN, TX 78701

Please find below and/or attached an Office communication concerning this application or proceeding.  
The time period for reply, if any, is set in the attached communication.

<b>NOTICE REQUIRING EXCESS CLAIMS FEES</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	11/617,509	MONROE, DAVID A	<b>Art Unit</b>
		1648	

The excess claim(s) filed on 04 January, 2008 is not accompanied by the appropriate payment of excess claims fees set forth in 37 CFR 1.16(h)-(j) or 1.492(d)-(f). Excess claims fees are required for each claim in independent form in excess of three (§ 1.16(h)), each claim (whether dependent or independent) in excess of twenty (note that § 1.75(c) indicates how multiple dependent claims are considered for fee calculation purposes) (§ 1.16(i)), and each application that contains a multiple dependent claim (§ 1.16(j)).

Since the application is not under a final rejection, applicant is given a time period of **ONE (1) MONTH or THIRTY (30) DAYS** from the mailing date of this notice, whichever is longer, to submit either: (1) the fee payment of \$ 840.00, or (2) an amendment in compliance with 37 CFR 1.121 that cancels the excess claim(s), in order to avoid **ABANDONMENT**. Extensions of this time period may be granted under 37 CFR 1.136, unless the excess claim(s) was presented in a preliminary amendment.

- 1. The funds in Deposit Account No. \_\_\_\_\_ are insufficient to cover the entire fee due. The balance is due within the time period set forth in this notice. See note below regarding the appropriate service charge.
- 2. The Credit Card payment to cover the entire fee due to Account \_\_\_\_\_ (**Card type + last 4 digits ONLY**) was refused. The balance is due within the time period set forth in this notice. See note below regarding the appropriate service charge.
- 3. The amendment that includes the excess claim(s) has not been entered, since applicant has failed to remit (or authorize charge to a Deposit Account or Credit Card) the fee as indicated on the attached Patent Application Fee Determination Record (PTO/SB/06). Remittance or authorization is due within the time period set forth in this notice.
- 4. The fee submitted in this application is insufficient. A balance of \$ \_\_\_\_\_ is due for presentation of excess claims (37 CFR 1.16(h)-(j) or 1.492(d)-(f)).
- 5. Other.

Explanation (*Provide specific details of the required correction in order to assist the applicant. Indicate whether a service charge has been added to the fee due*): AN EXCESS CLAIM FEE FOR FOUR(4) ADDITIONAL INDEPENDENT CLAIMS (LARGE ENTITY) IS DUE, AMOUNTING TO \$840.00. SEE ATTACHMENT.

THE AMOUNT OF THE FEE(S) DUE IS SUBJECT TO CHANGE, GENERALLY ON OCTOBER 1 OF EACH YEAR (37 CFR 1.16, 1.21 & 1.492). THE AMOUNT OF THE FEE(S) DUE IS DETERMINED AS OF THE DATE A COMPLETE REPLY WITH THE APPROPRIATE FEE(S) IS RECEIVED BY THE OFFICE (37 CFR 1.8 & 1.10). BECAUSE THE AMOUNT DUE IS SUBJECT TO CHANGE, IT IS RECOMMENDED THAT APPLICANT CHECK THE CURRENT FEE SCHEDULE WHICH IS AVAILABLE ON THE USPTO'S WEBSITE AT: <http://www.uspto.gov/web/offices/ac/qs/ope/fees.htm>

**Service Charges:** There is a \$50 service charge for processing each payment refused (including a check returned "unpaid") or charged back by a financial institution (37 CFR 1.21(m)). There is a \$25.00 service charge for each month when the balance of a deposit account is below \$1000 at the end of the month (37 CFR 1.21(b)(2)).

Technical Support Staff (TSS): Carolyn E. Thomas Phone Number: 5712720558

**Note to TSS: Please do NOT use this notice if the application is under a final rejection.**

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<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875	Application or Docket Number <b>11/617,509</b>	Filing Date <b>12/28/2006</b>	<input type="checkbox"/> To be Mailed
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APPLICATION AS FILED – PART I				OTHER THAN SMALL ENTITY					
(Column 1)		(Column 2)		SMALL ENTITY <input type="checkbox"/>		OR		OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)	RATE (\$)	FEE (\$)	RATE (\$)	FEE (\$)	
<input type="checkbox"/> BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A		N/A		N/A		
<input type="checkbox"/> SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A		N/A		N/A		
<input type="checkbox"/> EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A		N/A		N/A		
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X \$ =		X \$ =		X \$ =		
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X \$ =		X \$ =		X \$ =		
<input type="checkbox"/> APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).								
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))									
* If the difference in column 1 is less than zero, enter "0" in column 2.									

APPLICATION AS AMENDED – PART II						OTHER THAN SMALL ENTITY					
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY		OR		OTHER THAN SMALL ENTITY	
AMENDMENT	<b>01/04/2008</b>	CLAIMS REMAINING AFTER AMENDMENT	MINUS	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	RATE (\$)	ADDITIONAL FEE (\$)		
		Total (37 CFR 1.16(i))	* 34	Minus	** 42	= 0	X \$ =		OR	X \$50=	0
		Independent (37 CFR 1.16(h))	* 7	Minus	***3	= 4	X \$ =		OR	X \$210=	840
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))										
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))											
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	<b>840</b>	

APPLICATION AS AMENDED – PART II						OTHER THAN SMALL ENTITY					
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY		OR		OTHER THAN SMALL ENTITY	
AMENDMENT	Total (37 CFR 1.16(i))	CLAIMS REMAINING AFTER AMENDMENT	MINUS	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	RATE (\$)	ADDITIONAL FEE (\$)		
		*	Minus	**	=	X \$ =		OR	X \$ =		
		Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$ =		OR	X \$ =	
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))										
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))											
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE		

\* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.  
 \*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".  
 \*\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".  
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Legal Instrument Examiner:  
Carolyn E. Thomas

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

David A. Monroe

Serial No.: 11/617,509  
Filed: December 28, 2006

Docket No. 06-0719

for: **APPARATUS FOR CAPTURING,  
CONVERTING AND TRANSMITTING  
A VISUAL IMAGE SIGNAL VIA A  
DIGITAL TRANSMISSION SYSTEM**

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**AMENDMENT IN RESPONSE TO NON-FINAL OFFICE ACTION MAILED**

**OCTOBER 4, 2007**

In response to the Non-final Office Action Mailed October 4, 2007, applicant respectfully requests entry of this Amendment in the application. Applicant submits that this amendment presents no new matter. Applicant respectfully submits that this Amendment places the claims in condition for allowance, or in better condition for appeal. Submitted herewith is an Information Disclosure Statement.

Amendments begin on page 2 of this paper.

Remarks begin on page 24 of this paper.

## AMENDMENTS

### Amendments to Specification

Replace paragraph 0049, which reads:

[0049] Turning now to Fig.1, the simplest embodiment of the invention incorporates a standard analog or digital camera device 10 for capturing a visual image in the typical fashion. The camera 10 may be operator activated as indicated at 12, or may be programmed to be activated at selected intervals or in response to certain conditions. For example, a motion detector may be utilized to activate the camera 10 in a surveillance installation. Once activated, the camera 10 captures a visual image in typical fashion through a lens (see lens 192, for example, in Fig. 7A). In the illustrated embodiment, the captured image is then transmitted to a gray scale bit map memory device 16, from which it is output to a half-tone conversion scheme 18 to be input into a binary bit map 20 for formatting the captured image in a configuration suitable for transmission via a Group-III facsimile system. The signal generated at 22 by the binary bit map 20 is input into a Group-III encoding and compression network 24 for generating an input signal at 26 which is introduced into a Group III protocol transmission device 28. The output at 30 of the transmission device 28 is then transmitted into any standard transmission interface such as, by way of example, hard line telephonic transmission, cellular transmission, radio signal, satellite transmission or other transmission system 32 via a modem or similar device, as needed (as diagrammatically illustrated at 29), to be received via a compatible interface by a remote Group-III receiving system 34. The Group III receiving system 34 is a typical Group-III facsimile system comprising a Group-III receiver 36, decoder and decompressor 38 and binary bit map 40, from which a facsimile hard copy such as plain paper copy may be generated.

with the following new paragraph:

[0049] Turning now to Fig.1, the simplest embodiment of the invention incorporates a standard analog or digital camera device 10 for capturing a visual image in the typical fashion. The camera 10 may be operator activated as indicated at 12, or may be programmed to be activated at

selected intervals or in response to certain conditions. For example, a motion detector may be utilized to activate the camera 10 in a surveillance installation. Once activated, the camera 10 captures a visual image in typical fashion through a lens (see lens 192, for example, in Fig. 7A). In the illustrated embodiment, the captured image is then transmitted to a gray scale bit map memory device 16, from which it is output to a half-tone conversion scheme 18 to be input into a binary bit map 20 for formatting the captured image in a configuration suitable for transmission via a Group-III facsimile system. The signal generated at 22 by the binary bit map 20 is input into a Group-III encoding and compression network 24 for generating an input signal at 26 which is introduced into a Group III protocol transmission device 28. The output at 30 of the transmission device 28 is then transmitted into any standard transmission interface such as, by way of example, hard line telephonic transmission, cellular transmission, radio signal, satellite transmission or other transmission system 32 via a modem or similar device, as needed (as diagrammatically illustrated at 29), to be received via a compatible interface by a remote Group-III receiving system 34. The Group III receiving system 34 is a typical Group-III facsimile system comprising a Group-III receiver 36, decoder and decompressor 38 and binary bit map 40, from which a facsimile hard copy such as plain paper copy may be generated.

Replace paragraph 51 which reads:

[0051] The embodiment of Fig. 2 is similar to Fig. 1, but incorporates a memory and optional operator viewer system. The image is captured by the camera 10 and conditioned by the gray scale bit map 16, as in Fig. 1. In this embodiment, the output 44 of the bit map 16 is input into a standard digital memory device 46 for later recall. This configuration is particularly well suited for applications where near real time transmission of the image either is not required or is not desirable. It will be noted that with the exception of the insertion of the memory device 46 and the optional viewer device 48, the capture and transmission system of Fig. 2 is identical to that shown and described in Fig. 1. Once the image is captured by the camera 10 and is presented at 44 to the memory device 46, it is stored for later recall and transmission. The specific type of memory device is optional and may include, for example, an SRAM device, a DRAM, Flash RAM, hard drive, floppy disk, PCMCIA format removable memory (see, for example, the PCMCIA card 50 in Fig. 7A), writeable optical media or other storage device. The memory may

selectively capture images, as indicated by the operator interface/capture interface 52, or may be programmed to selectively capture periodic images or all images. In the embodiment in Fig. 2, an optional viewer device 48 is provided. This permits the operator to recall and view all or selective images before transmission, as indicated by the operator interface/recall interface 54. This permits the operator to review all images retained in the memory 46 and transmit selective images, as desired, to the Group-III transmission system. The remainder of the system of Fig. 2 operates in the same manner as the configuration shown and described in Fig. 1.

with the following new paragraph:

[0051] The embodiment of Fig. 2 is similar to Fig. 1, but incorporates a memory and optional operator viewer system. The image is captured by the camera 10 and conditioned by the gray scale bit map 16, as in Fig. 1. In this embodiment, the output 44 of the bit map 16 is input into a standard digital memory device 46 for later recall. This configuration is particularly well suited for applications where near real time transmission of the image either is not required or is not desirable. It will be noted that with the exception of the insertion of the memory device 46 and the optional viewer device 48, the capture and transmission system of Fig. 2 is identical to that shown and described in Fig. 1. Once the image is captured by the camera 10 and is presented at 44 to the memory device 46, it is stored for later recall and transmission. The specific type of memory device is optional and may include, for example, an SRAM device, a DRAM, Flash RAM, hard drive, floppy disk, PCMCIA format removable memory (see, for example, the PCMCIA card [50] 72 in Fig. 7A), writeable optical media or other storage device. The memory may selectively capture images, as indicated by the operator interface/capture interface 52, or may be programmed to selectively capture periodic images or all images. In the embodiment in Fig. 2, an optional viewer device 48 is provided. This permits the operator to recall and view all or selective images before transmission, as indicated by the operator interface/recall interface 54. This permits the operator to review all images retained in the memory 46 and transmit selective images, as desired, to the Group-III transmission system. The remainder of the system of Fig. 2 operates in the same manner as the configuration shown and described in Fig. 1.



Replace paragraph 53 which reads:

[0053] Fig. 4 illustrates the use of the image capture and/or retention configured in any of the optional embodiments of Figs. 1-3 and adapted for use in combination with any of a variety of transmitting and receiving schemes such as, by way of example, the Group-III system shown in Figs. 1-3, a modem, direct connection to a personal computer, serial or parallel transmission, or any selected transmitting/receiving protocol. This illustration demonstrates the versatility of the system once the image has been captured, converted and conditioned by the image capture device of the subject invention. Specifically, once the image is captured by the camera 10 and conditioned by the gray scale bit map 16, it may be stored and transmitted, or transmitted "real time" via any transmitting and receiving scheme. As shown in Fig. 4 the image capture device includes the memory device 46 and the optional viewer 48 for incorporating maximum capability. However, any of the schemes of Fig. 1-3 would be suitable for producing a transmittable signal. In the embodiment shown, a format select interface switch 60 is positioned to receive the fully conditioned signal on line 59. This would permit either automated or manual selection of the transmitting protocol, including the Group-III facsimile system previously described in connection with Figs. 1-3, as indicated by selecting format select switch 60 position A; or PC modem protocol as illustrated by the JPEG compressor 62 and protocol generator 64, as indicated by selecting format select switch position B; or the wavelet compressor and PC modem protocol, as illustrated by the wavelet compressor 66 and PC modem protocol generator 68 by selecting switch position C, or any selected conversion network 65, (if needed) with a compatible compressor 67 (if needed) and compatible protocol generator 75 (if needed), as indicated by switch position D; or a serial protocol scheme 77, with serial drivers 79 directly to a hardwired personal computer 81 by selecting switch position E. Of course, it will be readily understood by those skilled in the art that one or a plurality of transmitting protocols may be simultaneously selected. Depending on the protocol selected, the signal output is generated at the selected output module and introduced to a communication interface module 83 via a modem or other device, as needed, for transmission via a transmission system to a compatible receiving station such as the Group-III facsimile device 34, the personal computer 85, the video telephone 89, and/or other server or receiving device 91 for distribution.

with the following new paragraph:

[0053] Fig. 4 illustrates the use of the image capture and/or retention configured in any of the optional embodiments of Figs. 1-3 and adapted for use in combination with any of a variety of transmitting and receiving schemes such as, by way of example, the Group-III system shown in Figs. 1-3, a modem, direct connection to a personal computer, serial or parallel transmission, or any selected transmitting/receiving protocol. This illustration demonstrates the versatility of the system once the image has been captured, converted and conditioned by the image capture device of the subject invention. Specifically, once the image is captured by the camera 10 and conditioned by the gray scale bit map 16, it may be stored and transmitted, or transmitted "real time" via any transmitting and receiving scheme. As shown in Fig. 4 the image capture device includes the memory device 46 and the optional viewer 48 for incorporating maximum capability. However, any of the schemes of Fig. 1-3 would be suitable for producing a transmittable signal. In the embodiment shown, a format select interface switch 60 is positioned to receive the fully conditioned signal on line 59. This would permit either automated or manual selection of the transmitting protocol, including the Group-III facsimile system previously described in connection with Figs. 1-3, as indicated by selecting format select switch 60 position A; or PC modem protocol as illustrated by the JPEG compressor 62 and protocol generator 64, as indicated by selecting format select switch position B; or the wavelet compressor and PC modem protocol, as illustrated by the wavelet compressor 66 and PC modem protocol generator 68 by selecting switch position C, or any selected conversion network 65, (if needed) with a compatible compressor 67 (if needed) and compatible protocol generator 75 (if needed), as indicated by switch position D; or a serial protocol scheme 77, with serial drivers 79 directly to a hardwired personal computer [81] 181 by selecting switch position E. Of course, it will be readily understood by those skilled in the art that one or a plurality of transmitting protocols may be simultaneously selected. Depending on the protocol selected, the signal output is generated at the selected output module and introduced to a communication interface module [83] 183 via a modem or other device, as needed, for transmission via a transmission system to a compatible receiving station such as the Group-III facsimile device 34, the personal computer 85, the video telephone 89, and/or other server or receiving device 91 for distribution.

Replace paragraph 66 which reads:

[0066] In order to send a facsimile transmission over a typical Group-III Facsimile system, the multiplexer 82 is switched to the processor 86 such that the RAM address is generated by the processor 82 instead of the video address generator signal. In the facsimile transmitting mode, the processor addresses the RAM and manipulates the data representing each frame image. For example, the processor will perform the gray scale to half tone conversion described in connection with Fig. 1-4 to prepare the signal for facsimile transmission. The processor can also perform image compression and output the image as a gray scale. In the facsimile transmission mode, once the half-tone conversion is completed, the processor executes a code for performing a bi-level compression of the data and the signal representing the frame data is output over line 90, through the multiplexer 81 and over the processor bus 87 to the processor 86, then to modem 104 for transmission. Other memory and processor configurations could be used without departing from the scope and spirit of the invention, as will be recognized by those skilled in the art.

with the following new paragraph:

[0066] In order to send a facsimile transmission over a typical Group-III Facsimile system, the multiplexer 82 is switched to the processor 86 such that the RAM address is generated by the processor [82] 86 instead of the video address generator signal. In the facsimile transmitting mode, the processor 86 addresses the RAM and manipulates the data representing each frame image. For example, the processor 86 will perform the gray scale to half tone conversion described in connection with Fig. 1-4 to prepare the signal for facsimile transmission. The processor 86 can also perform image compression and output the image as a gray scale. In the facsimile transmission mode, once the half-tone conversion is completed, the processor 86 executes a code for performing a bi-level compression of the data and the signal representing the frame data is output over line 90, through the multiplexer 81 and over the processor bus 87 to the processor 86, then to modem 104 for transmission. Other memory and processor configurations could be used without departing from the scope and spirit of the invention, as will be recognized by those skilled in the art.

**Amendments to Claims**

This Listing of Claims replaces all listings, and versions, of claims in the application.

**LISTING OF CLAIMS**

Claims 1-42 are canceled.

43. (new) Apparatus comprising:

a portable housing, the portable housing being wireless;

an image collection device supported by the portable housing, the image collection device being operable to provide visual image data of a field of view;

a display supported by the portable housing, the display being operable to display for viewing by a user a perceptible visual image, the perceptible visual image being generated from the visual image data;

memory supported by the portable housing, the memory being suitable to receive visual image data in digital format, the memory being suitable to retain the visual image data in digital format,

an input device supported by the portable housing, the input device being operable by the user;

operation of the input device by the user enabling the memory to retain the visual image data in digital format, the memory being suitable to provide retained visual image data in digital format;

media supported by the portable housing, the media being suitable to embody at least one compression algorithm;

at least one processing platform supported by the portable housing, the at least one processing platform being operable to execute the at least one compression algorithm, the at least one processing platform being provided the retained visual image data in digital format, execution of the at least one compression algorithm providing compressed visual image data; and

a mobile phone supported by the portable housing, the mobile phone being operable to send to a remote recipient a wireless transmission, the wireless transmission conveying the compressed digital image data; and

movement by the user of the portable housing commonly moving the image collection device, movement by the user of the portable housing commonly moving the display.

44. (new) The apparatus according to claim 43 and further comprising:

the processing platform including at least one processor.

45. (new) The apparatus according to claim 43 and further comprising:

the portable housing including a handset.

46. (new) The apparatus according to claim 43 and further comprising:

a microphone supported by the portable housing, the microphone being associated with the mobile phone;

a speaker supported by the portable housing, the speaker being associated with the mobile phone.

47. (new) The apparatus according to claim 43 and further comprising:

the mobile phone being selectively operable to send to a remote recipient a wireless transmission, the wireless transmission conveying a voice transmission.

48. (new) The apparatus according to claim 43 and further comprising:

the mobile phone being selectively operable to receive from a remote sender an incoming wireless transmission, the incoming wireless transmission conveying at least one of:  
incoming compressed digital image data,  
an incoming voice transmission, and  
both incoming compressed digital image data and an incoming voice transmission.

49. (new) The apparatus according to claim 43 and further comprising:

a camera supported by the portable housing, the camera including the image collection device.

50. (new) The apparatus according to claim 43 and further comprising:

the image collection device being suitable to provide the visual image data in digital format.

51. (new) The apparatus according to claim 43 and further comprising:

the image collection device being suitable to provide the visual image data in analog format;

an analog to digital converter supported by the portable housing, the analog to digital converter being suitable to receive the visual image data in analog format, the being suitable to provide the visual image data in digital format.

the display including an LCD, the LCD being operable to display for viewing by a user a perceptible visual image, the perceptible visual image being generated from the visual image data.

64. (new) Apparatus comprising:

a portable housing, the portable housing being wireless;

an image collection device supported by the portable housing, the image collection device being operable to provide visual image data of a field of view;

memory supported by the portable housing, the memory being suitable to receive visual image data in digital format, the memory being suitable to retain the visual image data in digital format,

an input device supported by the portable housing, the input device being operable by the user;

operation of the input device by the user enabling the memory to retain the visual image data in digital format, the memory being suitable to provide retained visual image data in digital format;

media supported by the portable housing, the media being suitable to embody at least one compression algorithm;

at least one processing platform supported by the portable housing, the at least one processing platform being operable to execute the at least one compression algorithm, the at least one processing platform being provided the retained visual image data in digital format, execution of the at least one compression algorithm providing compressed visual image data;

a display supported by the portable housing, the display being operable to display for viewing by a user a perceptible visual image of the field of view, the perceptible visual image being generated from the visual image data in digital format;

a mobile phone supported by the portable housing, the mobile phone being operable to send to a remote recipient a wireless transmission, the wireless transmission conveying the compressed digital image data; and

movement by the user of the portable housing commonly moving the image collection device,  
movement by the user of the portable housing commonly moving the display.

65. (new) The apparatus according to claim 64 and further comprising:

the display including at least one of:

a viewfinder, and

a display screen apart from the viewfinder.



52. (new) The apparatus according to claim 43 and further comprising:

the display including a viewfinder, the viewfinder being suitable to receive the visual image data, the viewfinder being operable to display for viewing by a user a perceptible visual image, the perceptible visual image being generated from the visual image data.

53. (new) The apparatus according to claim 52 and further comprising:

the viewfinder being suitable to receive the visual image data in digital format.

54. (new) The apparatus according to claim 52 and further comprising:

the viewfinder being suitable to receive the visual image data in analog format.

55. (new) The apparatus according to claim 43 and further comprising:

the display including a display screen, the display screen being defined apart from a viewfinder, the display screen being operable to display for viewing by a user a perceptible visual image, the perceptible visual image being generated from the visual image data.

56. (new) The apparatus according to claim 55 and further comprising:

the display including an LCD, the LCD being operable to display for viewing by a user a perceptible visual image, the perceptible visual image being generated from the visual image data.

57. (new) The apparatus according to claim 56 and further comprising:

the LCD being suitable to receive the visual image data in digital format.

58. (new) The apparatus according to claim 43 and further comprising:

at least one transmission protocol algorithm embodied in suitable media;

a processing platform associated with the at least one transmission protocol algorithm, the associated processing platform being operable to execute the at least one transmission protocol algorithm, the associated processing platform being provided the compressed visual image data, execution of the at least one transmission protocol algorithm providing the compressed visual image data in a transmission format, the visual image data in a transmission format being compatible with the mobile phone for wireless transmission by the mobile phone.

59. (new) The apparatus according to claim 58 and further comprising:

the mobile phone being operable according to a specified wireless transmission protocol, the at least one transmission protocol algorithm providing the visual image data in a compatible data transmission format, the compatible data transmission format being compatible with the specified wireless transmission protocol.

60. (new) The apparatus according to claim 59 and further comprising:

at least one transmission protocol algorithm embodied in suitable media;

a processing platform associated with the at least one transmission protocol algorithm, the associated processing platform being operable to execute the at least one transmission protocol

algorithm, execution of the at least one transmission protocol algorithm providing compressed visual image data in a compatible format, the compatible format being compatible with at least one transmission protocol, the compressed visual image data in a compatible format being suitable for transmission by the mobile phone according to at least one wireless transmission protocol.

61. (new) The apparatus according to claim 43 and further comprising:

the portable housing including a first housing section, the image collection device being supported by the first housing section,

the portable housing including a second housing section, the display being supported by the second housing section,

the first housing section being adjoined to the second housing section,

the second housing section being movable in common with the first housing section when the first housing section is moved by the user,

the first housing section being movable in common with the second housing section when the second housing section is moved by the user,

the first housing section being supported for movement relative to the second housing section,

the image collection device being movable in common with the first housing section relative to the display when the first housing section is moved relative to the second housing section.

<sup>62</sup>  
~~61~~. (new) The apparatus according to claim 62 and further comprising:

the first housing section being supported for pivotal movement relative to the second housing section about a pivot axis.

63. (new) The apparatus according to claim 43 and further comprising:

the image collection device being supported by the portable housing in fixed relation to the display.

66. (new) Apparatus comprising:

a portable housing, the portable housing being wireless;

an image collection device supported by the portable housing, the image collection device being operable to provide visual image data of a field of view;

memory supported by the portable housing, the memory being suitable to receive visual image data in digital format, the memory being suitable to retain the visual image data in digital format,

an input device supported by the portable housing, the input device being operable by the user;

operation of the input device by the user enabling the memory to retain the visual image data in digital format, the memory being suitable to provide retained visual image data in digital format;

media supported by the portable housing, the media being suitable to embody at least one compression algorithm;

at least one processing platform supported by the portable housing, the at least one processing platform being operable to execute the at least one compression algorithm, the at least one processing platform being provided the retained visual image data in digital format, execution of the at least one compression algorithm providing compressed visual image data;

a display supported by the portable housing, the display being operable to display for viewing by a user a perceptible visual image of the field of view, the perceptible visual image being generated from the retained visual image data in digital format;

a mobile phone supported by the portable housing, the mobile phone being operable to send to a remote recipient a wireless transmission, the wireless transmission conveying the compressed digital image data; and

movement by the user of the portable housing commonly moving the image collection device,  
movement by the user of the portable housing commonly moving the display.

67. (new) The apparatus according to claim 66 and further comprising:

the display including at least one of:

a viewfinder, and

a display screen apart from the viewfinder.

68. (new) A mobile handset comprising:

a portable housing, the portable housing being wireless;

an image collection device supported by the portable housing, the image collection device being operable to provide visual image data of a field of view;

a display supported by the portable housing, the display being operable to display for viewing by a user a perceptible visual image, the perceptible visual image being generated from the visual image data;

memory supported by the portable housing, the memory being suitable to receive visual image data in digital format, the memory being suitable to retain the visual image data in digital format,

an input device supported by the portable housing, the input device being operable by the user;

operation of the input device by the user enabling the memory to retain the visual image data in digital format, the memory being suitable to provide retained visual image data in digital format;

media supported by the portable housing, the media being suitable to embody at least one compression algorithm;

at least one processing platform supported by the portable housing, the at least one processing platform being operable to execute the at least one compression algorithm, the at least one processing platform being provided the retained visual image data in digital format, execution of the at least one compression algorithm providing compressed visual image data; and

a mobile phone supported by the portable housing, the mobile phone being operable to send to a remote recipient a wireless transmission, the wireless transmission conveying the compressed digital image data.

69. (new) Apparatus comprising:

a portable housing, the portable housing being wireless;

an image collection device supported by the portable housing, the image collection device being operable to provide visual image data of a field of view;

memory supported by the portable housing, the memory being suitable to receive visual image data in digital format, the memory being suitable to retain the visual image data in digital format,

an input device supported by the portable housing, the input device being operable by the user;

operation of the input device by the user enabling the memory to retain the visual image data in digital format, the memory being suitable to provide retained visual image data in digital format;

media supported by the portable housing, the media being suitable to embody at least one compression algorithm;

at least one processing platform supported by the portable housing, the at least one processing platform being operable to execute the at least one compression algorithm, the at least one processing platform being provided the retained visual image data in digital format, execution of the at least one compression algorithm providing compressed visual image data;

a display supported by the portable housing, the display being operable to display for viewing by a user a perceptible visual image of the field of view, the perceptible visual image being generated from the retained visual image data in digital format;

a mobile phone supported by the portable housing, the mobile phone being selectively operable to send to a remote recipient a wireless image transmission, the wireless transmission conveying the compressed digital image data, the mobile phone being selectively operable to send to a

remote recipient a wireless voice transmission, the mobile phone being selectively operable to receive from a remote sender an incoming wireless image transmission; and

the display being operable to display for viewing by a user a perceptible visual image of the incoming wireless image transmission.

70. (new) The apparatus according to claim 69 and further comprising:

the display including at least one of:

a viewfinder, and

a display screen apart from the viewfinder.



71. (new) Apparatus comprising:

a portable housing, the portable housing being wireless;

an image collection device supported by the portable housing, the image collection device being operable to provide in digital format visual image data of a field of view;

memory supported by the portable housing, the memory being suitable to receive the visual image data in digital format, the memory being suitable to retain the visual image data in digital format,

an input device supported by the portable housing, the input device being operable by the user;

operation of the input device by the user enabling the memory to retain the visual image data in digital format, the memory being suitable to provide retained visual image data in digital format;

at least one compression algorithm embodied at least in part in suitable programmed media, the media being supported by the portable housing;

at least one processor supported by the portable housing, the at least one processor being operable to execute the at least one compression algorithm, the at least one processor being provided the retained visual image data in digital format, execution of the at least one compression algorithm providing compressed visual image data;

at least one display supported by the portable housing, the at least one display being operable to display for viewing by a user a perceptible visual image of the field of view, the perceptible visual image being generated from at least one of:

the visual image data in digital format, and

the retained visual image data in digital format;

a mobile phone supported by the portable housing, the mobile phone being operable to send to a remote recipient a wireless transmission, the wireless transmission conveying the compressed digital image data.

72. (new) Apparatus according to claim 71 and further comprising:

the image collection device including an analog to digital converter, the analog to digital converter being operable to provide the visual image data in digital format.

73. (new) The apparatus according to claim 71 and further comprising:

the at least one display including at least one of:

a viewfinder, and  
a display screen apart from the viewfinder.

74. (new) Apparatus comprising:

a mobile phone, the mobile phone having a housing;

an image capture device supported by the housing, the image capture device providing a captured image;

a display supported by the housing, the display being operable to display the captured image;

a processor supported by the housing, the processor being operable to process digital image data of the captured image, the processor being operable to provide processed image data;

memory associated with the processor for storing the processed image data; and

a user interface enabling a user to select for transmission a captured image, the respective processed image data being provided to the mobile phone for transmission to a recipient.

75. (new) The apparatus according to claim 74 and further comprising:

removable memory apart from the memory, said removable memory being suitable to be removably housed in the housing for storing processed image data, the processed image data corresponding to a plurality of the captured images.

76. (new) The apparatus according to claim 74 and further comprising:

the display being operable to display as images generated from incoming processed image data received via the mobile phone.

### REMARKS

Claims 1-42 are canceled. Claims 43-76 are new. Applicant respectfully requests examination and allowance of claims 43-76 in view of these Remarks. No new matter is introduced by the requested amendment. The amendments are believed to place the claims in condition for allowance, or in better condition for appeal.

#### **Replacement Drawing**

Responsive to the objections to the drawings, one (1) sheet of Replacement Drawings and a respective marked up drawing sheet is submitted to show corrections made in FIG. 4. FIG. 4 has been amended to clarify reference characters 68, 181 and 183. Paragraphs 51 and 53 have been amended to correspond correctly with FIG. 4 as amended.

The Examiner also objected to reference characters 81 and 83 in FIG. 5. Paragraph 66 has been amended to correspond correctly to FIG. 5, and FIG. 4 has been amended as described in the previous paragraph to clarify that only the data multiplexer identified by reference character 81 in FIG. 5 remains correct.

#### **Amendments to Specification**

Paragraphs 0049, 0051, 0053 and 0066 have been amended to correct the inaccuracies cited by the Examiner.

#### **Objections for Informalities**

The informalities in claims 3 and 5 are moot, because these claims are canceled.

#### **Rejections Under 35 USC §102**

Claims 1, 2, 4-12, 21, 23-27 and 30-36 are rejected under 35 USC §102(b) as anticipated by Hassan 5,550,646. Claims 1-3 are rejected under 35 USC §102(e) as anticipated by Wertsberger

6,072,600. Claims 1, 21, and 36-42 are rejected under 35 USC §102(e) as anticipated by Parulski 5,666,159.

Claims 1-42 are canceled, which renders moot these rejections.

### Rejections Under 35 USC §103

Claims 13-18, and 29 are rejected under 35 USC §103(a) as obvious over Hassan 5,550,646 in view of Ross 5,546,194. Claims 19 and 20 are rejected under 35 USC §103(a) as obvious over Hassan 5,550,646 in view of Ross 5,546,194 and further in view of Wertsberger 6,072,600.

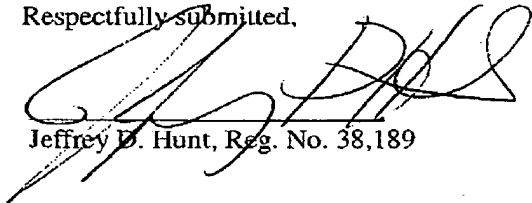
Claim 22 is rejected under 35 USC §103(a) as obvious over Hassan 5,550,646 in view of Shibata 5,689,300. Claim 28 is rejected under 35 USC §103(a) as obvious over Hassan 5,550,646 in view of Bradley 5,995,041.

Claims 1-42 are canceled, which renders moot these rejections.

### Conclusion

Applicant respectfully requests examination and allowance of claims 43-76. The undersigned is available to discuss any issue regarding this application at 512-499-8900.

Respectfully submitted,



Jeffrey D. Hunt, Reg. No. 38,189

Date: January 4, 2008

Customer Number 67589  
Moore Landrey LLP  
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JAN 04 2008

PTO/SB/21 (01-08)

Approved for use through 01/31/2008. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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<b>TRANSMITTAL FORM</b>  <i>(to be used for all correspondence after initial filing)</i>	Application Number	11/817,509
	Filing Date	12/28/2006
	First Named Inventor	David A Monroe
	Art Unit	2625
	Examiner Name	Satalpour, Houshang
Total Number of Pages in This Submission	Attorney Docket Number	06-0719

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement  <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input checked="" type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): 1 Sheet Redlined Drawings Certificate of Transmission - 1 sheet
Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	Moore Landrey LLP (Customer # 67589)		
Signature			
Printed name	Jeffrey D. Hunt		
Date	January 4, 2008	Reg. No.	38,189

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Signature	
Typed or printed name	Jeffrey D. Hunt
Date	January 4, 2008

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38,189  
Registration Number, if applicable

512-499-8900  
Telephone Number

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*Amendment in 11/617,509 - 25 pages Transmittal form - 1 sheet*  
*Replacement Drawings - 1 sheet*  
*Redlined Drawings - 1 sheet*  
*This Certificate of Transmission - 1 sheet*

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CORRECTION ILLUSTRATED/REDLINED VERSION

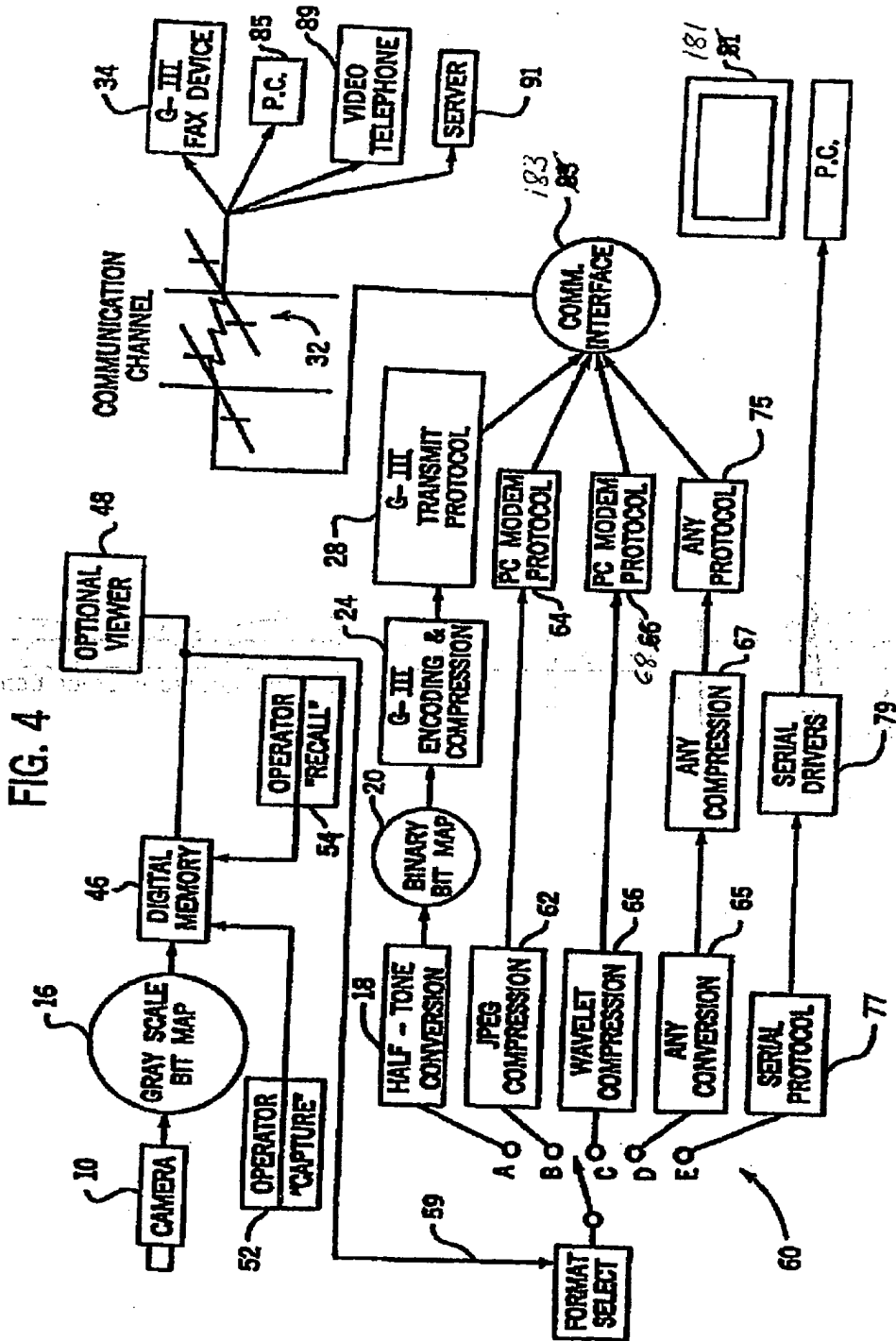
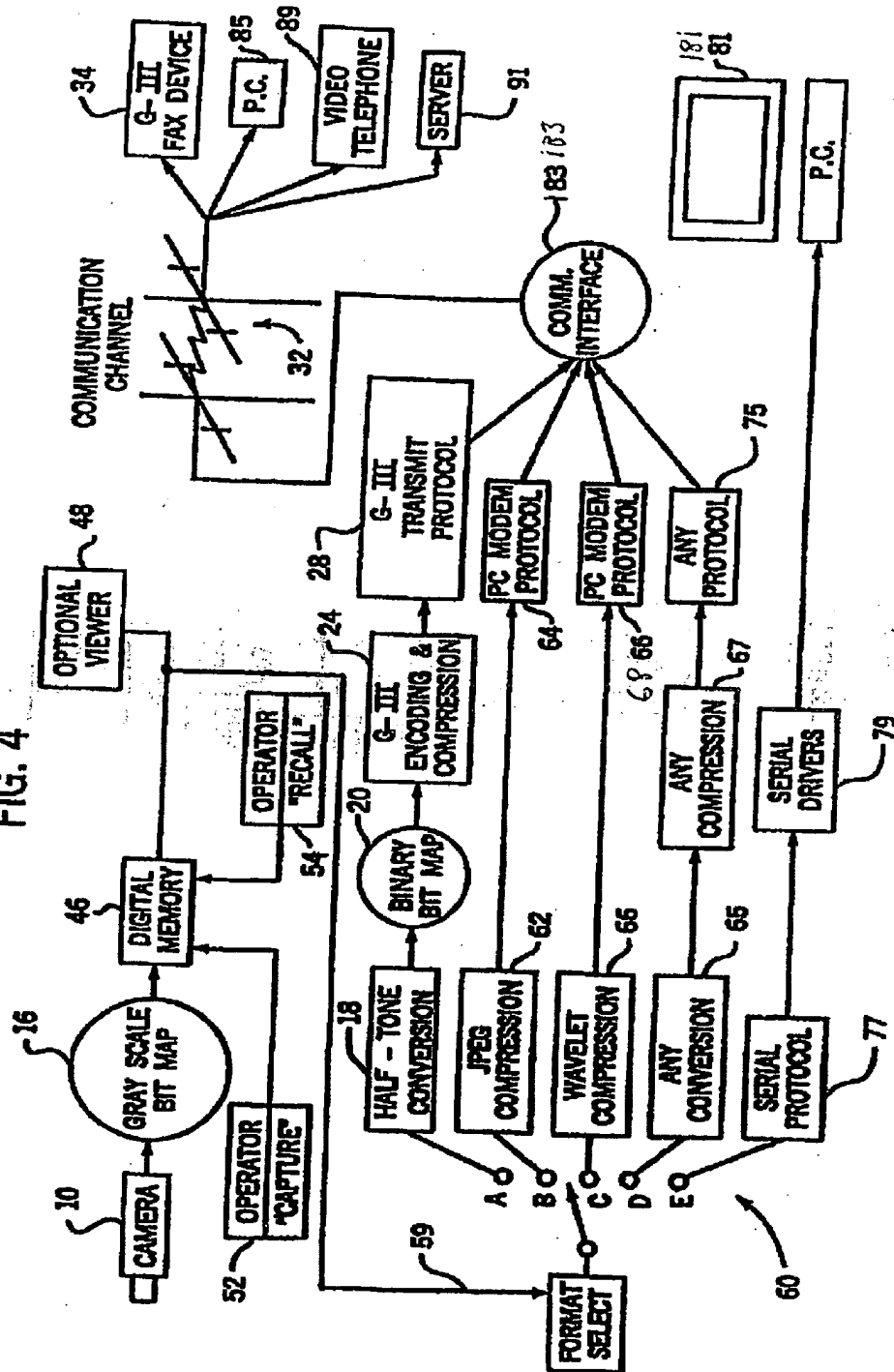


FIG. 4



"REPLACEMENT SHEET"

FIG. 4



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<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875	Application or Docket Number <b>11/617,509</b>	Filing Date <b>12/28/2006</b>	<input type="checkbox"/> To be Mailed
---	---	----------------------------------	---------------------------------------

APPLICATION AS FILED – PART I			OTHER THAN SMALL ENTITY				
	(Column 1)	(Column 2)	SMALL ENTITY <input type="checkbox"/>	OR			
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)	OR	RATE (\$)	FEE (\$)
<input type="checkbox"/> BASIC FEE <small>(37 CFR 1.16(a), (b), or (c))</small>	N/A	N/A	N/A			N/A	
<input type="checkbox"/> SEARCH FEE <small>(37 CFR 1.16(k), (l), or (m))</small>	N/A	N/A	N/A			N/A	
<input type="checkbox"/> EXAMINATION FEE <small>(37 CFR 1.16(o), (p), or (q))</small>	N/A	N/A	N/A			N/A	
TOTAL CLAIMS <small>(37 CFR 1.16(i))</small>	minus 20 =	*	X \$ =		OR	X \$ =	
INDEPENDENT CLAIMS <small>(37 CFR 1.16(h))</small>	minus 3 =	*	X \$ =			X \$ =	
<input type="checkbox"/> APPLICATION SIZE FEE <small>(37 CFR 1.16(s))</small>	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT <small>(37 CFR 1.16(j))</small>							
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	

APPLICATION AS AMENDED – PART II					OTHER THAN SMALL ENTITY				
	(Column 1)	(Column 2)	(Column 3)		SMALL ENTITY	OR			
AMENDMENT	01/04/2008	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR	RATE (\$)	ADDITIONAL FEE (\$)
	Total <small>(37 CFR 1.16(i))</small>	* 34	Minus	** 42 = 0	X \$ =		OR	X \$50=	0
	Independent <small>(37 CFR 1.16(h))</small>	* 7	Minus	***3 = 4	X \$ =		OR	X \$210=	840
<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>									
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>							OR		
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	<b>840</b>

	(Column 1)	(Column 2)	(Column 3)					
AMENDMENT	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR	RATE (\$)	ADDITIONAL FEE (\$)
	Total <small>(37 CFR 1.16(i))</small>	*	Minus	**	=		X \$ =	
	Independent <small>(37 CFR 1.16(h))</small>	*	Minus	***	=		X \$ =	
<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>								
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>							OR	
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE

\* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.  
 \*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".  
 \*\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".  
 The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Legal Instrument Examiner:  
 Carolyn E. Thomas

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Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1 of 7

**Complete if Known**

Application Number	11/617,509
Filing Date	December 28, 3006
First Named Inventor	David A Monroe
Art Unit	2625
Examiner Name	
Attorney Docket Number	06-0719

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		US- 4,163,283	07-31-1979	Darby	
		US- 4,179,695	12-18-1979	Levine, et al	
		US- 4,179,536	04-08-1980	Levine	
		US- 4,516,125	05-07-1989	Schwab, et al	
		US- 4,831,438	05-16-1989	Bellman Jr. et al	
		US- 4,845,629	07-04-1989	Murge	
		US- 4,891,650	01-02-1990	Sheffer	
		US- 5,027,104	06-25-1991	Reid	
		US- 5,027,114	06-25-1991	Kawashime, et al	
		US- 5,166,746	11-24-1992	Sato, et al	
		US- 5,218,367	06-08-1993	Sheffer, et al	
		US- 5,243,340	09-07-1993	Norman, et al	
		US- 5,283,643	02-10-1994	Fujimoto	
		US- 5,321,615	06-14-1994	Frisbie, et al	
		US- 5,334,982	08-02-1994	Owen	
		US- 5,341,194	09-27-1994	Rose, et al	
		US- 5,400,031	03-21-1995	Fitts	
		US- 5,408,330	04-18-1995	Squicciarini, et al	
		US- 5,448,243	09-05-1995	Bethke, et al	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	† <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
		JP9-251599	04-16-1999	Mastake, et al		
		JP11-160424	06-18-1999	Tenpei		
		JP6-301898	10-28-1994	Hoover		
		JP9-282600	10-31-1997	Hasegawa, et al		
		EP209,397	07-07-1993	Murga, et al		
		EP220,752	05-06-1987	Julin, et al.		

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Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		<b>Complete if Known</b>	
		<b>Application Number</b>	11/617,509
		<b>Filing Date</b>	December 28, 3006
		<b>First Named Inventor</b>	David A Monroe
		<b>Art Unit</b>	2625
		<b>Examiner Name</b>	
<b>Sheet</b>	7	<b>of</b>	7
		<b>Attorney Docket Number</b>	06-0719

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		April, 1966, Apollo Unified S-Band System, NASA-Goddard Space Flight Center, Greenbelt, Maryland	
		November 24, 1976, TELEXIS ViaNet General Information Booklet Version 1.3	
		2000, ViaNet 3000 Administrator's Manual Version 1.1- NetXpress Video by TELEXIS, Kanata, Ontario, Canada	
		1999 Vianet 3000 Operator Manual Version 1.0 - NetXpress Video by TELEXIS, Kanata, Ontario, Canada	
		1999 ViaNet 3000 Administrator Manual Version 1.0 - NetXpress Video by TELEXIS, Kanata, Ontario, Canada	
		1999 ViaNet 3000 Instruction Manual Operator's Revision 1 - NetXpress Video by TELEXIS, Kanata, Ontario, Canada	

<b>Examiner Signature</b>	<b>Date Considered</b>	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.  
 1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.  
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## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	11617509			
<b>Filing Date:</b>	28-Dec-2006			
<b>Title of Invention:</b>	Apparatus for Capturing, Converting and Transmitting a Visual Image Signal Via A Digital Transmission System			
First Named Inventor/Applicant Name:	David A Monroe			
<b>Filer:</b>	Jeffrey Darryl Hunt			
<b>Attorney Docket Number:</b>	06-0719			
Filed as Large Entity				
<b>Utility Filing Fees</b>				
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
Post-Allowance-and-Post-Issuance:				
<b>Extension-of-Time:</b>				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Miscellaneous:</b>				
Submission- Information Disclosure Stmt	1806	1	180	180
<b>Total in USD (\$)</b>				<b>180</b>

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	2329311
<b>Application Number:</b>	11617509
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	4247
<b>Title of Invention:</b>	Apparatus for Capturing, Converting and Transmitting a Visual Image Signal Via A Digital Transmission System
<b>First Named Inventor/Applicant Name:</b>	David A Monroe
<b>Customer Number:</b>	67589
<b>Filer:</b>	Jeffrey Darryl Hunt
<b>Filer Authorized By:</b>	
<b>Attorney Docket Number:</b>	06-0719
<b>Receipt Date:</b>	17-OCT-2007
<b>Filing Date:</b>	28-DEC-2006
<b>Time Stamp:</b>	01:44:36
<b>Application Type:</b>	Utility under 35 USC 111(a)

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Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part /.zip	Pages (if appl.)
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1	Information Disclosure Statement (IDS) Filed	pg1.pdf	54074	no	1
			5b165559a33ea9b564daa6f71ee232fc9dd67d5e		
<b>Warnings:</b>					
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This is not an USPTO supplied IDS fillable form					
2	Information Disclosure Statement (IDS) Filed	pg2.pdf	53810	no	1
			d59a7d741b65e92a3b18126272a98a2cf07d8a9e		
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3	Information Disclosure Statement (IDS) Filed	pg3.pdf	53982	no	1
			8ba30a7918cf60faa368ba19d37b4062e6f65e33		
<b>Warnings:</b>					
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This is not an USPTO supplied IDS fillable form					
4	Information Disclosure Statement (IDS) Filed	pg4.pdf	53592	no	1
			0720d462fbf003bb6a905abfa07c33ebd1fb3238		
<b>Warnings:</b>					
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			e1242af797baf96d4df1363b298223735e3ffb5		
<b>Warnings:</b>					
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This is not an USPTO supplied IDS fillable form					
7	Information Disclosure Statement (IDS) Filed	pg7.pdf	57891	no	1
			799fef080deb7e42ac53aa5f079b6026b604c6e43		
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<b>Information:</b>					



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8	Foreign Reference	001-9251599.pdf	408788	no	8
			19d60787e5fb9a5a3af8aeb5f2678c867e3c3120		
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9	Foreign Reference	002-11160424.pdf	661133	no	11
			b7174469b13f747e72e38ea0692536933a5355c6		
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<b>Information:</b>					
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<b>Warnings:</b>					
<b>Information:</b>					
11	Foreign Reference	004-9282600.pdf	3423609	no	48
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12	Foreign Reference	005-209397.pdf	2690310	no	39
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<b>Information:</b>					
14	Foreign Reference	007-613110.pdf	1309223	no	24
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<b>Warnings:</b>					
<b>Information:</b>					
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<b>Warnings:</b>					
<b>Information:</b>					
16	Foreign Reference	009-744630.pdf	578271	no	10
			98a0feab330c69a325fc200ea3ea00518ef1a1e1		

<b>Warnings:</b>					
<b>Information:</b>					
17	Foreign Reference	010-90-04242.pdf	1092430 4e561e207474a7c8c6fdd2d90f789327a8bd047c	no	28
<b>Warnings:</b>					
<b>Information:</b>					
18	Foreign Reference	011-98-52174.pdf	922275 c5dc65cdebfab5562f48eeaed5f9c97c822fdaf5	no	23
<b>Warnings:</b>					
<b>Information:</b>					
19	Foreign Reference	012-532110.pdf	498298 e480ef519e8c094030b49fad87b8cfad0551152f	no	10
<b>Warnings:</b>					
<b>Information:</b>					
20	Foreign Reference	013-785536.pdf	625920 95ae3d1950f909bad37f914c076be0bbe31b14de	no	10
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21	Foreign Reference	014-97-37336.pdf	2317594 9a843a4ad2266f948f5f1b2c0eb377625a6e8d7	no	75
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22	Foreign Reference	015-232031.pdf	359370 6ffae3860995050465348e6351db43177db61441	no	7
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23	Foreign Reference	016-613109.pdf	1690368 7fe1e76029a1cb41703aef0dbf45b50685f457eb	no	33
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31	NPL Documents	024-ViaNetOp1999.pdf	1547477 62d1b7ad5cddb032bd86629a0c3991f0fce293	no	73
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<b>Information:</b>					
33	NPL Documents	026-ViaNetRev11999.pdf	1356032 79775694e0f206434dc356f69800c27c1aa0ca90	no	89
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<b>Information:</b>					
34	Fee Worksheet (PTO-06)	fee-info.pdf	8203 2d18f9952123714661787c0f1c994a530f68402	no	2

**Warnings:**

**Information:**

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**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

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**INFORMATION DISCLOSURE  
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Sheet 3

of 7

**Complete if Known**

Application Number	11/617,509
Filing Date	December 28, 3006
First Named Inventor	David A Monroe
Art Unit	2625
Examiner Name	
Attorney Docket Number	06-0719

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
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		US- 5,917,405	06-29-1999	Joso	
		US- 5,926,210	07-20-1999	Hackett, et al	
		US- 5,974,158	10-26-1999	Auty. et al	
		US- 5,983,161	11-09-1999	Lemelson, et al	
		US- 5,999,116	12-07-1999	Evers	
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		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
		EP785,536	07-23-1997	Ferri, et al		
		WO97,37336	10-08-1997	Auty. et al		
		EP232,031	08-12-1987	Hale		
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Sheet 4

of 7

**Complete if Known**

Application Number	11/617,509
Filing Date	December 28, 3006
First Named Inventor	David A Monroe
Art Unit	2625
Examiner Name	
Attorney Docket Number	06-0719

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		US- 5,714,948	02-03-1998	Farmakis, et al	
		US- 5,627,753	05-06-1997	Brankin, et al	
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		US- 5,091,780	02-25-1992	Pomerleau	

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		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
		JP-A-10-155040	06-09-1998	Nisshin Denki		
		JP-HEI-10-66058	03-06-1998	Masanobu Kujirada		

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Sheet <b>5</b> of <b>7</b>													

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		US- 5,666,157	09-09-1997	Avid	
		US- 6,424,370	07-23-2002	Courtney	
		US- 6,504,479	01-07-2003	Lemons	
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		US- 6,646,676	11-11-2003	DeGrace	
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		US- 6,246,320	06-12-2001	Monroe	
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		US- 5,463,595	10-31-1995	Rochall, et al	
		US- 5,497,149	03-05-1998	Fast	
		US- 5,530,440	06-25-1996	Denzer, et al	
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		EP613,110	08-31-1994	Hoover		
		EP613,111	08-31-1998	Tenpei		
		EP744,630	11-27-1996	Atul		
		WO90/04242	04-19-1990	Norman, et al		
		WO98/52174	11-19-1999	Hatjassalo		
		EP532,110	03-17-1993	Raimondi		

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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11/617,509	12/28/2006	David A Monroe	06-0719	4247
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EXAMINER
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SAFAIPOUR, HOUSHANG

ART UNIT	PAPER NUMBER
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2625

MAIL DATE	DELIVERY MODE
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10/04/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 11/617,509	<b>Applicant(s)</b> MONROE, DAVID A	
	<b>Examiner</b> Houshang Safaipour	<b>Art Unit</b> 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on \_\_\_\_\_.
- 2a)  This action is **FINAL**.                      2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4)  Claim(s) \_\_\_\_\_ is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 1-42 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on 28 December 2006 is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \*    c)  None of:
1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5)  Notice of Informal Patent Application
- 6)  Other: \_\_\_\_\_

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities:

In paragraph 0051, line 13, PCMCIA card 50" should read PCMCIA card 72".

Appropriate correction is required.

### *Drawings*

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "81" has been used to designate both the hardwired personal computer in Fig. 4 and the data multiplexer circuit in Fig. 5, and reference character "83" has been used to designate both the communications interface module in Fig. 4 and the sync signal in Fig. 5. Corrected drawing sheets in compliance with 37 CFR 1.121 (d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: reference numeral "29", in paragraph 0049, line 18. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended

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replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to because in Fig. 4, PC modem protocol box "66" should read "68", as read in paragraph 0053, lines 20 and 21. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

5. Claims 3 and 5 are objected to because of the following informalities:

In claim 3, line 1, "claim 1" should read "claim 2", as reference is made to "said memory", introduced in claim 2;

In claim 5, line 1, "claim 1" should read "claim 4", as reference is made to "the digital signal", introduced in claim 4. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2, 4-12, 21, 23-27, and 30-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Hassan et al. (U.S. Patent Number 5,550,646).

Regarding claim 1, Hassan discloses a self-contained image processing system (device 110 in Figs. 1 and 2) for capturing a visual image and transmitting it to a remote receiving station (see abstract, column 1, lines 47 through 52, column 2, lines 43 through 61, and column 3, lines 10 through 20), with the system comprising an image capture device (CCD 203, column 3, lines 21 through 67), a processor (microcontroller 205) for generating a data signal representing the image (column 3, lines 21 through 67), a communications device (facsimile interface 219) adapted for transmitting the data signal to the remote receiving station (column 4, line 65 through

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column 5, line 9), and a wireless transmission system between the communications device and the compatible receiving station (column 2, lines 4 through 54, and column 3, lines 10 through 20, with the fax modem 240, being "applied as an input to the transmitter section of a cellular telephone", as read in column 5, lines 7 through 9).

Regarding claim 2, Hassan discloses the system discussed above in claim 1, and further teaches of a memory for receiving and storing the data signal (RAM 207), and wherein the communications device is adapted for recalling the stored data signal from memory (column 4, lines 24 through 64).

Regarding claim 4, Hassan discloses the system discussed above in claim 1, and further teaches of the image capture device is an analog camera (lens assembly 201 on a CCD 203) for generating an analog image signal (column 3, lines 21 through 67), and there is further included an analog to digital converter for converting the analog image signal to a digital signal (column 3, line 47 through column 4, line 67).

Regarding claim 5, Hassan discloses the system discussed above in claim 4 (as understood by the examiner), and further teaches of a subprocessor for generating a Group-III facsimile compatible signal representing the digital signal (column 4, line 65 through column 5, line 9).

Regarding claim 6, Hassan discloses the system discussed above in claim 1, and further teaches that the subprocessor comprises a gray scale bit map, a halftone converter, and a binary bit map (see abstract, column 1, lines 54 through 63, and column 3, lines 47 through 67).

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Regarding claim 7, Hassan discloses the system discussed above in claim 1, and further teaches of an integrated wireless telephone associated with the communications device (column 2, lines 4 through 54).

Regarding claim 8, Hassan discloses the system discussed above in claim 1, and further teaches of a housing for housing all of the elements of the system in an integrated body (column 2, lines 39 through 66).

Regarding claim 9, Hassan discloses the system discussed above in claim 1, and further teaches that the image capture device is a digital camera (column 2, lines 39 through 67, and column 3, lines 21 through 46).

Regarding claim 10, Hassan discloses the system discussed above in claim 1, and further teaches of a view screen for viewing the captured and stored image (LCD display 215, column 4, lines 19 through 64).

Regarding claim 11, Hassan discloses the system discussed above in claim 5, and further teaches of a facsimile receiving device associated locally with the system for providing a local printer for reproducing the captured image in hard copy (column 2, line 66 through column 3, line 4, and column 4, line 65 through column 5, line 22).

Regarding claim 12, Hassan discloses the system discussed above in claim 1, and further teaches that the processor is adapted for generating a signal in any of a plurality of selected protocols and wherein the communications device is adapted for transmitting the signal in the proper protocol to a remote, compatible receiving station (column 4, line 65 through column 5, line 10).



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Regarding claim 21, Hassan discloses the system discussed above in claim 1, and further teaches that the system is of modular construction (see Fig. 2), and the camera (CCD 203), the processor (microcontroller 205), and the communications device (fax interface 219) are each independent, functional units (column 3, line 21 through column 5, line 9) which may be coupled to one another for defining the assembled system (see Fig. 2).

Regarding claim 23, Hassan discloses the system discussed above in claim 1, and further teaches of a data processor for creating a text data signal associated with the image data signal (column 4, lines 19 through 64).

Regarding claim 24, Hassan discloses the system discussed above in claim 23, and further teaches of an input device for providing text data to the data processor (keypad 211, column 4, lines 1 through 64).

Regarding claim 25, Hassan discloses the system discussed above in claim 24, and further teaches that the input device is user controlled (column 4, lines 1 through 64).

Regarding *claim 26*, Hassan discloses the system discussed above in claim 25, and further teaches that the user controlled input device is an integral keyboard (keypad 211, column 4, lines 1 through 18).

Regarding claim 27, Hassan discloses the system discussed above in claim 24, and further teaches that the input device comprises a real time clock (column 4, lines 24 through 42).

Regarding *claim 30*, Hassan discloses the system discussed above in claim 2, and further teaches that the image data signal, is stored in a compressed format (column 3, lines 47 through 54).

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Regarding claim 31, Hassan discloses the system discussed above in claim 2, and further teaches that the image data signal is stored in a half-tone format (column 3, lines 37 through 67).

Regarding claim 32, Hassan discloses the system discussed above in claim 1, and further teaches that the remote receiving station is a standard bi-level facsimile machine and the image data signal is generated in a gray-scale format and protocol (column 3, lines 50 through 67, column 4, line 65 through column 5, line 9, and column 6, line 62 through column 7, line 2).

Regarding claim 33, Hassan discloses the system discussed above in claim 1, and further teaches that the remote receiving station is a gray-scale facsimile machine and the image data signal is generated in a gray-scale format and protocol (column 3, lines 50 through 67, column 4, line 65 through column 5, line 9, and column 6, line 62 through column 7, line 2).

Regarding claim 34, Hassan discloses the system discussed above in claim 1, and further teaches that the remote receiving station is a color facsimile machine and the image data signal is generated in a full color format and protocol (column 3, lines 50 through 67, column 4, line 65 through column 5, line 9, and column 6, line 62 through column 7, line 2).

Regarding claim 35, Hassan discloses the system discussed above in claim 1, and further teaches that the remote receiving station is a digital device and the image data is digital (column 2, line 45 through column 3, line 33, and column 4, line 65 through column 5, line 9).

Regarding claim 36, Hassan discloses the system discussed above in claim 1, and further teaches of a self-contained power source for powering the system (column 5, lines 23 through 25).

8. Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Wertsberger (U.S. Patent Number 6,072,600).

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Regarding claim 1, Wertsberger discloses a self-contained image processing system (see Figs. 1 and 2) for capturing a visual image and transmitting it to a remote receiving station (see abstract, column 2, line 50 through column 3, line 25), with the system comprising an image capture device (CCD image sensor 1, column 4, lines 5 through 47), a processor (CPU 16) for generating a data signal representing the image (column 4, lines 20 through 58), a communications device (fax modem circuitry 13) adapted for transmitting the data signal to the remote receiving station (column 4, lines 48 through 67), and a wireless transmission system (telephone interface circuitry 15) between the communications device and the compatible receiving station (column 5, lines 1 through 6).

Regarding claim 2, Wertsberger discloses the system discussed above in claim 1, and further teaches of a memory for receiving and storing the data signal (memory means 11, and secondary storage 20), and wherein the communications device is adapted for recalling the stored data signal from memory (column 4, lines 48 through 67, and column 5, lines 24 through 27).

Regarding *claim 3*, Wertsberger discloses the system discussed above in claim 2 (as understood by the examiner), and further teaches that the memory is a removable RAM and wherein the system is adapted for selectively charging and discharging the memory (column 5, lines 24 through 27).

9. Claims 1, 21, and 36-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Parulski *et al.* (U.S. Patent Number 5,666,159).

Regarding claim 1, Parulski discloses a self-contained image processing system (see Figs. 1, 2, and 7-9) for capturing a visual image and transmitting it to a remote receiving station (see abstract), with the system comprising an image capture device (camera module 10, column

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3, lines 6 through 40), a processor (pen-based computer 12) for generating a data signal representing the image (column 3, lines 27 through column 4, line 6), a communications device (RF transmitter module 14) adapted for transmitting the data signal to the remote receiving station (column 4, lines 4 through 25), and a wireless transmission system between the communications device and the compatible receiving station (column 4, lines 7 through 25).

Regarding claim 21, Parulski discloses the system discussed above in claim 1, and further teaches that the system is of modular construction (see Fig. 1), and the camera (camera module 10), the processor (pen-based computer 12), and the communications device (RF transmitter module 14) are each independent, functional units which may be coupled to one another for defining the assembled system (see Figs. 1-3).

Regarding claim 36, Parulski discloses the system discussed above in claim 1, and further teaches of a self-contained power source for powering the system (column 3, lines 41 through 60).

Regarding claim 37, Parulski discloses the system discussed above in claim 36, and further teaches that the communications device is adapted to be used independently of the image capture device and the processor, and wherein the power supply is adapted for isolating the power to the communications device from the power to the image capture device and processor (column 3, lines 41 through 56).

Regarding claim 38, Parulski discloses the system discussed above in claim 37, and further teaches of a power initiation device associated with the image capture device and the processor, wherein the power to the image capture device and the processor is off when the initiation device is not activated (column 3, lines 41 through 56).

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Regarding claim 39, Parulski discloses the system discussed above in claim 38, and further teaches that the power initiation device is user controlled (column 3, lines 41 through 56).

Regarding claim 40, Parulski discloses the system discussed above in claim 38, and further teaches of a trigger device for activating the power initiation device (column 3, lines 41 through 56).

Regarding claim 41, Parulski discloses the system discussed above in claim 40, and further teaches that the trigger device is a timer (see Fig. 5, and column 3, lines 33 through 60, whereby the flash 24 is equivalent to a timer, as it waits a predetermined amount of time to charge before firing).

Regarding *claim 42*, Parulski discloses the system discussed above in claim 40, and further teaches that the trigger device is triggered by the presence of an image to be captured (column 3, lines 41 through 60).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 13-18, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hassan *et al.* (U.S. Patent Number 5,550,646 and further in view of Ross (U.S. Patent Number 5,546,194).

Regarding claim 13, Hassan discloses the system discussed above in claim 1, but fails to expressly disclose if the image capture device is an analog video camera for generating a video

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signal. Ross discloses a self-contained image processing system (see Fig. 1) for capturing a visual image and transmitting it to a remote receiving station, with the system comprising an image capture device (video camera 10, column 3, lines 4 through 5), a processor (control system 22 in Fig. 1, or CPU 44 in Fig. 2) for generating a data signal representing the image (column 3, lines 20 through 29, and column 3, line 63 through column 4, line 20), a communications device (Group III fax transmitter 20 in Fig. 1, and fax modem 50 in Fig. 2) adapted for transmitting the data signal to the remote receiving station (column 2, lines 15 through 29, wherein the remote receiving station is inherently included in the system), and a subprocessor (Group III formatter 18) for generating a Group-III facsimile compatible signal representing the data signal (column 3, lines 30 through 52). Continuing, Ross teaches that the image capture device is an analog video camera for generating a video signal (column 3, lines 4 through 9). Further Ross teaches that the processor comprises a sync detector (sync separator 24, column 3, lines 53 through 62) and a video address generator (address multiplexer 43, column 4, lines 6 through 11) for synchronizing the digital signal with the analog signal for defining the beginning and end of the signal to define a still frame (column 3, lines 20 through 62), a random access memory (RAM 38) for receiving and storing the converted, synchronized signal frame-by-frame (column 4, lines 3 through 22), a processor routine for converting the signals stored in the memory to a protocol adapted for transmission (column 4, lines 22 through 36) to a remote, compatible protocol receiving station (inherently included), and a communications device (FAX modem 50) for transmitting the signal in the proper protocol to the compatible receiving station (column 5, lines 7 through 16).

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Hassan & Ross are combinable because they are from the same field of endeavor, that being systems that transmit images from a camera to a destination via facsimile transmission. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the analog video camera that transmits a video signal, which is taught by Ross, in the system of Hassan. The suggestion/motivation for doing so would have been that Hassan's system would become usable in more formats, as recognized by Ross in column 1, thereby increasing the system's desirability. Therefore, it would have been obvious to combine the teachings of Ross with the system of Hassan to obtain the invention as specified in claim 13.

Regarding claim 14, Hassan and Ross disclose the system discussed above in claim 13, and Hassan further teaches that the processor routine converts the signals to a Group-III facsimile protocol, the system further including a facsimile modem for accepting the signal and transmitting to the compatible receiving station (column 4, line 65 through column 5, line 9).

Regarding *claim 15*, Hassan and Ross disclose the system discussed above in claim 13, and Hassan further teaches of a hardwired transmission system associated with the modem and a switching device for selecting in the alternative either the hardwired or the wireless transmission system (column 3, lines 10 through 17, and column 4, line 65 through column 5, line 9).

Regarding claim 16, Hassan and Ross disclose the system discussed above in claim 13, and Hassan further teaches of a local facsimile receiving system associated with the modem for providing local hard copy of the stored image signals in the memory (column 4, line 65 through column 5, line 22, and column 6, lines 10 through 21).

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Regarding claim 17, Hassan and Ross disclose the system discussed above in claim 16, and Hassan further teaches of a switching device for selectively activating and deactivating the local facsimile receiving system (column 6, lines 10 through 21).

Regarding claim 18, Hassan and Ross disclose the system discussed above in claim 13, and Hassan further teaches of an integral viewer for viewing the images stored in the memory (LCD display 215, column 4, lines 19 through 64).

Regarding claim 29, Hassan discloses the system discussed above in claim 2, but fails to expressly disclose if the image data signal is stored in a raw video format.

Ross discloses a self-contained image processing system (see Fig. 1) for capturing a visual image and transmitting it to a remote receiving station, with the system comprising an image capture device (video camera 10, column 3, lines 4 through 5), a processor (control system 22 in Fig. 1, or CPU 44 in Fig. 2) for generating a data signal representing the image (column 3, lines 20 through 29, and column 3, line 63 through column 4, line 20), a communications device (Group III fax transmitter 20 in Fig. 1, and fax modem 50 in Fig. 2) adapted for transmitting the data signal to the remote receiving station (column 2, lines 15 through 29, wherein the remote receiving station is inherently included in the system), and a subprocessor (Group III formatter 18) for generating a Group-III facsimile compatible signal representing the data signal (column 3, lines 30 through 52). Continuing, Ross teaches of a memory for receiving and storing the data signal (RAM 38, column 3, line 65 through column 4, line 11), and that the image data signal is stored in a raw video format (column 3, line 63 through column 4, line 51).

Hassan & Ross are combinable because they are from the same field of endeavor, that being systems that transmit images from a camera to a destination via facsimile transmission.



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At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the analog video camera that transmits a video signal, which is taught by Ross, in the system of Hassan.

The suggestion/motivation for doing so would have been that Hassan's system would become usable in more formats, as recognized by Ross in column 1, thereby increasing the system's desirability.

Therefore, it would have been obvious to combine the teachings of Ross with the system of Hassan to obtain the invention as specified in claim 29.

12. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hassan *et al.* (U.S. Patent Number 5,550,646), in view of Ross (U.S. Patent Number 5,546,194) and further in view of Wertsberger (U.S. Patent Number 6,072,600).

Regarding claims 19 and 20, Hassan and Ross disclose the system discussed above in claim 13, but fail to expressly disclose if the memory is a removable memory medium which may be selectively removed from the system, with the removable memory medium comprising a PCMCIA card memory.

Wertsberger discloses a self-contained image processing system (see Figs. 1 and 2) for capturing a visual image and transmitting it to a remote receiving station (see abstract, column 2, line 50 through column 3, line 25), with the system comprising an image capture device (CCD image sensor 1, column 4, lines 5 through 47), a processor (CPU 16) for generating a data signal representing the image (column 4, lines 20 through 58), a communications device (fax modem circuitry 13) adapted for transmitting the data signal to the remote receiving station (column 4, lines 48 through 67), and a wireless transmission system (telephone interface circuitry 15)

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between the communications device and the compatible receiving station (column 5, lines 1 through 6). Continuing, Wertsberger teaches of a memory for receiving and storing the data signal (memory means 11, and secondary storage 20), and wherein the communications device is adapted for recalling the stored data signal from memory (column 4, lines 48 through 67, and column 5, lines 24 through 27). Further, Wertsberger teaches that the memory is a removable memory medium which may be selectively removed from the system (column 5, lines 24 through 27), with the removable memory medium comprises a PCMCIA card memory (column 5, lines 24 through 27).

Hassan, Ross & Wertsberger are combinable because they are each from the same field of endeavor, that being systems that transmit images from a camera to a destination via facsimile transmission.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the removable PCMCIA card memory, which is taught by Wertsberger, in the system of Hassan and Ross.

The suggestion/motivation for doing so would have been that the system of Hassan and Ross would become more user-friendly, since allowing a user to load data on a portable, removable memory would aid the user's options of data storage, as recognized in column 5 by Wertsberger.

Therefore, it would have been obvious to combine the teachings of Wertsberger with the system of Hassan and Ross to obtain the invention as specified in claims 19 and 20.

13. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hassan *et al.* (U.S. Patent Number 5,550,646) in view of Shibata *et al.* (U.S. Patent Number 5,689,300).

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Regarding claim 22, Hassan discloses the system discussed above in claim 1, but fails to expressly disclose if an audio signal capture device adapted for capturing an audio signal in correlation with the captured video signal.

Shibata discloses a self-contained image processing system for capturing a visual image and transmitting it to a remote receiving station (see Figs. 1, 8A, and 8B, and abstract), which includes an audio signal capture device adapted for capturing an audio signal in correlation with a captured video signal (column 17, lines 12 through 51).

Hassan & Shibata are combinable because they are from the same field of endeavor, that being systems that transmit images from a camera to a destination via facsimile transmission.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the teachings of capturing an audio signal, recognized by Shibata, in the system of Hassan.

The suggestion/motivation for doing so would have been that Hassan's system would become more convenient for a user, as the user would be able to communicate audio information along with video information, as recognized by Shibata in column 17.

Therefore, it would have been obvious to combine the teachings of Shibata with the system of Hassan to obtain the invention as specified in claim 22.

14. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hassan *et al.* (U.S. Patent Number 5,550,646) in view of Bradley *et al.* (U.S. Patent Number 5,995,041).

Regarding claim 28, Hassan discloses the system discussed above in claim 24, but fails to expressly disclose if the input device comprises a global positioning system.

Art Unit: 2625

Bradley discloses a self-contained image processing system for capturing a visual image and transmitting it to a remote receiving station (column 2, line 42 through column 3, line 6, and column 7, line 43 through column 8, line 30), with the system comprising an image capture device (column 7, line 43 through column 8, line 24), a processor (500, column 8, line 64 through column 10, line 2), a communications device adapted for transmitting a data signal to the remote receiving station (column 2, line 57 through column 3, line 6), and a wireless transmission system between the communications device and the compatible receiving station (see Figs. 1-3). Further, Bradley teaches that an input device comprises a global positioning system (column 2, lines 42 through 61).

Hassan & Bradley are combinable because they are from the same field of endeavor, that being systems that transmit images from a camera to a destination via facsimile transmission. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Bradley's teachings of using a global positioning system in the system of Hassan.

The suggestion/motivation for doing so would have been that Hassan's system would become more user-friendly with the addition of Bradley's GPS teachings, since the user would automatically know the coordinates of where he is located, as recognized by Bradley in column 2.

Therefore, it would have been obvious to combine the teachings of Bradley with the system of Hassan to obtain the invention as specified in claim 28.

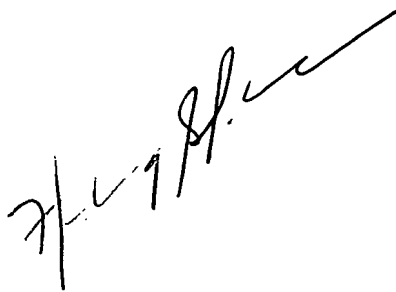
**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Houshang Safaipour whose telephone number is (571)272-7412. The examiner can normally be reached on Mon.-Fri. from 6:00am to 2:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571)272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Houshang Safaipour  
Patent Examiner  
September 24, 2007



<b>Notice of References Cited</b>	Application/Control No. 11/617,509	Applicant(s)/Patent Under Reexamination MONROE, DAVID A	
	Examiner Houshang Safaipour	Art Unit 2625	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A US-5,517,683	05-1996	Collett et al.	455/575.1
*	B US-4,688,244	08-1987	Hannon et al.	377/58
*	C US-5,550,646	08-1996	Hassan et al.	358/442
*	D US-6,072,600	06-2000	Wertsberger, Shalom	358/479
*	E US-5,666,159	09-1997	Parulski et al.	348/211.2
*	F US-5,995,041	11-1999	Bradley et al.	342/357.1
*	G US-5,546,194	08-1996	Ross, Jay B.	358/445
*	H US-5,689,300	11-1997	Shibata et al.	348/14.07
	I US-			
	J US-			
	K US-			
	L US-			
	M US-			

**FOREIGN PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N				
	O				
	P				
	Q				
	R				
	S				
	T				

**NON-PATENT DOCUMENTS**

*	Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U
	V
	W
	X

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
 Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

**Index of Claims**



Application/Control No.

11/617,509

Examiner

Houshang Safaipoor

Applicant(s)/Patent under Reexamination

MONROE, DAVID A

Art Unit

2625

√	Rejected
=	Allowed

-	(Through numeral) Cancelled
+	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

Claim		Date									
Final	Original	9/26/07									
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**Search Notes**



Application/Control No.

11/617,509

Examiner

Houshang Safaipour

Applicant(s)/Patent under Reexamination

MONROE, DAVID A

Art Unit

2625

SEARCHED			
Class	Subclass	Date	Examiner
358	1.15	9/20/2007	HS
	402		
	403		
	407		
	442		
	468		
	474		

INTERFERENCE SEARCHED			
Class	Subclass	Date	Examiner

SEARCH NOTES (INCLUDING SEARCH STRATEGY)		
	DATE	EXMR
Used search and references from parent application 10/330,470	9/20/2007	HS





APPLICATION NUMBER	FILING OR 371(c) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/617,509	12/28/2006	David A Monroe	06-0719

**CONFIRMATION NO. 4247**

67589  
MOORE LANDREY  
1609 SHOAL CREEK BLVD  
AUSTIN, TX78701

**Title:** Apparatus for Capturing, Converting and Transmitting a Visual Image Signal Via A Digital Transmission System

**Publication No.** US-2007-0109594-A1

**Publication Date:** 05/17/2007

### NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

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APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/617,509	12/28/2006	David A Monroe	60719

67589  
 MOORE LANDREY  
 1609 SHOAL CREEK BLVD  
 AUSTIN, TX 78701

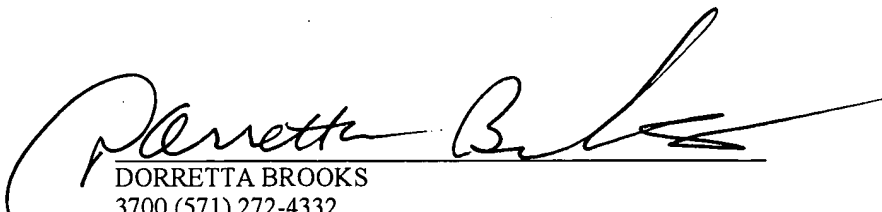
**CONFIRMATION NO. 4247**  
**\*OC000000022708498\***  
 \*OC000000022708498\*

Date Mailed: 03/01/2007

### NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 02/13/2007.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

  
 DORRETTA BROOKS  
 3700 (571) 272-4332

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FEB 13 2007

PAGE 25/47 \* RCVD AT 2/13/2007 3:11:23 PM [Eastern Standard Time] \* SVR:USPTO-EFXXRF-5/22 \* DNIS:2738300 \* CSID:5123208906 \* DURATION (mm-ss):08-32

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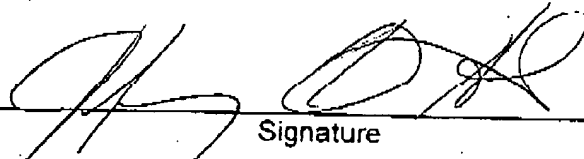
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38,189

Registration Number, if applicable

512-499-8900

Telephone Number

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I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 2.73(b).

I hereby appoint:

Practitioner(s) associated with the Customer Number:

67589

OR

Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number	Name	Registration Number

as attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignment documents attached to this form in accordance with 37 CFR 2.73(b).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 2.73(b) to:

The address associated with Customer Number:

67589

OR

Firm or Individual Name

Address: \_\_\_\_\_  
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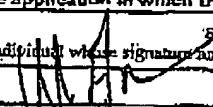
Assignee Name and Address:

E-watch, Inc.  
 Lincoln Center, Ste 730  
 7800 IH 10 West  
 San Antonio TX 78230

A copy of this form, together with a statement under 37 CFR 2.73(b) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 2.73(b) may be completed by one of the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.

SIGNATURE of Assignee of Record

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

Signature		Date	12/22/2006
Name	David A. Monroe	Telephone	210-349-2000
Title	President		

The collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 26 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing the burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**STATEMENT UNDER 37 CFR 3.73(b)**

Applicant/Patent Owner: David A. Monroe

Application No./Patent No.: 11/617,509 Filed/Issue Date: 12/28/06

Entitled: Apparatus for Capturing, Converting and Transmitting a Visual Image Signal Via a Digital Transmission System

E-Watch, Inc., a corporation,  
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

- 1.  the assignee of the entire right, title, and interest, or
- 2.  an assignee of less than the entire right, title and interest  
(The extent (by percentage) of its ownership interest is \_\_\_\_\_ %)

in the patent application/patent identified above by virtue of either:

A.  An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

OR

B.  A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

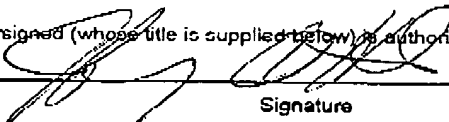
- 1. From: The Tefesis Group, Inc. To: E-Watch, Inc.  
The document was recorded in the United States Patent and Trademark Office at Reel 016824, Frame 0514, or for which a copy thereof is attached.
- 2. From: David A. Monroe To: The Tefesis Group, Inc.  
The document was recorded in the United States Patent and Trademark Office at Reel 016722, Frame 0239, or for which a copy thereof is attached.
- 3. From: \_\_\_\_\_ To: \_\_\_\_\_  
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(NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08)

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

	January 30, 2007
Signature	Date
<u>Jeffrey D. Hunt, Reg. No. 38,189</u>	512-499-8900
Printed or Typed Name	Telephone Number
<u>Attorney Moore Landrey, L.L.P., Customer #67589</u>	
Title	

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 36 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Table with 8 columns: APPLICATION NUMBER, FILING or 371(c) DATE, GRP ART UNIT, FIL FEE REC'D, ATTY.DOCKET.NO, DRAWINGS, TOT CLAIMS, IND CLAIMS. Row 1: 11/617,509, 12/28/2006, 2625, 1000, 60719, 73, 20, 1

CONFIRMATION NO. 4247

FILING RECEIPT

67589
MOORE LANDREY
1609 SHOAL CREEK BLVD
AUSTIN, TX78701

Date Mailed: 02/02/2007

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

David A Monroe, San Antonio, TX;

Assignment For Published Patent Application

E-Watch Inc., San Antonio, TX

Power of Attorney:

Robert Curfiss--26540 Cline White--45213
Mark Miller--29197 Richard Ruble--45720
Thomas Sisson--29348
Daniel Chapman--32726
William Nash--33743

Domestic Priority data as claimed by applicant

This application is a CON of 10/336,470 01/03/2003

Foreign Applications

If Required, Foreign Filing License Granted: 02/01/2007

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is US11/617,509

Projected Publication Date: 05/17/2007

Non-Publication Request: No

Early Publication Request: No

**Title**

Apparatus for Capturing, Converting and Transmitting a Visual Image Signal Via A Digital Transmission System

**Preliminary Class**

358

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		Application Number	
Title of Invention	APPARATUS FOR CAPTURING, CONVERTING AND TRANSMITTING A VISUAL IMAGE SIGNAL VIA A DIGITAL TRANSMISSION SYSTEM		
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**Application Information:**

<b>Title of the Invention</b>	APPARATUS FOR CAPTURING, CONVERTING AND TRANSMITTING A VISUAL IMAGE SIGNAL VIA A DIGITAL TRANSMISSION SYSTEM		
<b>Attorney Docket Number</b>	60719	<b>Small Entity Status Claimed</b>	<input type="checkbox"/>
<b>Application Type</b>	Nonprovisional		
<b>Subject Matter</b>	Utility		
<b>Suggested Class (if any)</b>		<b>Sub Class (if any)</b>	
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**APPARATUS FOR CAPTURING, CONVERTING AND TRANSMITTING  
A VISUAL IMAGE SIGNAL VIA A DIGITAL TRANSMISSION SYSTEM**

**Inventor: David A. Monroe**

## **APPARATUS FOR CAPTURING, CONVERTING AND TRANSMITTING A VISUAL IMAGE SIGNAL VIA A DIGITAL TRANSMISSION SYSTEM**

[0001] This application is a divisional application of and claims priority from a non-provisional United States Application entitled Apparatus For Capturing, Converting And Transmitting A Visual Image Signal Via A Digital Transmission System, Serial No. 09/006,073, having a filing date of January 12, 1998; the specification and drawings of which are hereby incorporated by reference.

### **BACKGROUND OF THE INVENTION**

#### **FIELD OF THE INVENTION**

[0002] The invention is generally related to image capture and transmission systems and is specifically directed to an image capture, compression and transmission system for use in connection with land line and wireless telephone systems.

#### **DISCUSSION OF THE PRIOR ART**

[0003] Industry has developed and continues to develop and enhance techniques for scanning, compressing, transmitting, receiving, decompressing, viewing and printing documents. This technology, encompassing the full body of facsimile transmission and reception, is currently in widespread use. The current standards, CCITT Group III and Group IV, define methods to scan and transmit high quality, bi-level images with a high degree of success and has become commercially acceptable throughout the world. However, gray scale documents are not easily transmitted because the scanners and algorithms are not tailored to the function. Three dimensional objects will not fit into the flat document scanners and cannot be transmitted.

[0004] Examples of systems that have addressed some of these issues are shown in U.S. Patent No. 5,193,012 which shows a video to facsimile signal converter, and U.S. Patent No. 3,251,937 which discloses a system for transmitting still television pictures over a telephone line.

[0005] Wire photography, and its extension, radio photography, have long been used by the news media. The most common form involves an input device that converts photographs into encoded signals for communication over telecommunications facilities or radio. At the receiving end, reproducing equipment reconverts the encoded image signals by exposing photographic film or other sensitized paper. The term facsimile is often used with these products.

[0006] Still video equipment has recently become available from vendors such as Kodak, Canon and Sony, and is again primarily used by television and print media, although applications are expanding rapidly in such areas as insurance investigations and real estate transactions. A still video camera captures a full color still video image that can be reproduced using a special video printer that converts the still video image data into hard copy form. For applications requiring communication of the still video image, transmit/receive units are available wherein the image begins and ends as a video image.

[0007] The Photophone from Image Data Corporation is an example of a specialty product that combines a video camera, display and storage facility in a terminal package. One terminal can send a real time or stored still video image to another for display or storage, or printing on special video printers. Again, the signal begins and ends as a video image.

[0008] Another example of a specialty product is peripheral equipment available for personal computers that enables the input/output, storage and processing of still video images in digitized formats. For instance, the Canon PV-540 is a floppy disk drive that uses conventional still video disks, digitizing and a still video image using a conventional format, and communicates with the computer through a standard communications I/O port.

[0009] U.S. Patent No. 5,193,012 discloses a still-video to facsimile conversion system for converting the still-video image frame into a half-tone facsimile reproduction without having to store an entire intermediated gray scale image frame by repeatedly transmitting the still-video image frame from a still-video source to an input circuit with a virtual facsimile page synchronization module. This system permits image to facsimile conversion by utilizing a half tone conversion technique.

[0010] While the various prior art systems and techniques provide limited solutions to the problem of transmitting visual images via a facsimile transmission system, all fall short of providing a reliable and convenient method and apparatus for readily capturing, storing, transmitting and printing visual images in a practical manner.

### **SUMMARY OF THE INVENTION**

[0011] The subject invention is an image capture, compression and transmission system that is specifically designed to permit reliable visual image transmission over land line or wireless communications using commercially available facsimile transmission techniques. The invention incorporates a camera and signal converter into an integrated unit wherein the converted signal may be transmitted on a real time basis or may be stored in memory for later recall and transmission. The design of the invention permits maximum flexibility, with the camera/converter/telephone or other transmission device being designed in a modular configuration wherein any or all of the devices may exist as integrated or independent units.

[0012] The preferred embodiment permits capture of a video image using a digital camera, an analog camera, or a video camera such as a camcorder. The captured video image is then converted into still frame digitized format for transmission over any of a variety of transmission systems ranging from Group-III facsimile to computer, or to a like device at a remote location, in any protocol desired. The invention recognizes that once the signal is digitized, the transmission protocols are virtually endless.

[0013] For example, the present invention, permits a still frame visual image to be



captured at a remote location and sent immediately, over wireless communication systems, to a remote location such as, by way of example, a computer system wherein the image could be merged directly into newsprint. The image may also be sent to and printed as a hard copy using any Group-III facsimile machine, anywhere in the world. Where desired, the images may be stored in memory for later recall, and may be archived on a portable medium such as a memory card or the like.

**[0014]** The system of the subject invention is particularly useful for applications where immediate transmission of visual images of scenes, people and objects is desirable and sophisticated equipment is not always available for receiving the information. The system also provides a unique and reliable means for transmitting visual data to and from remote locations, such as, by way of example, law enforcement and emergency vehicles and the like.

**[0015]** In the preferred embodiment of the invention, the system includes a video camera and an integral cellular telephone, wherein the telephone using the standard audio mode or future digital modes, can be used to transmit and receive visual image signals. A desk model is also disclosed and permits connection to a standard land line telephonic system. A mobile console model is disclosed for use in law enforcement vehicles, and the like. Other communication systems are also supported by the subject invention, including hardwired networks, radio and satellite transmission and the like.

**[0016]** A local facsimile machine may be incorporated with the unit and can serve as a printer for providing hard copy of the captured image at the point of capture, as well as being adapted for receiving facsimile transmissions in the standard fashion.

**[0017]** The circuitry is disclosed for supporting any of the preferred configurations from a basic real time transmission system via Group-III fax to a comprehensive system supporting both land line and wireless transmission of image, audio and documentary data at both a local and remote station.

**[0018]** The subject invention also permits digitized collection of audio signals through

the use of an internal microphone, and external input device, a cellular telephone, land line telephone, wireless radio or other communication system, and digitized audio playback, as well. The playback can be via an internal speaker, out an external outjack to a remote device or via a cellular telephone, land line telephone, wireless radio or other communication system.

[0019] The digitized image and audio capture features permit association of audio with an image, as well as data with the image. Useful data associated with the image includes GPS from either internal or external GPS devices, range information from ranging devices, date and time, and text which may be input from an integrated keyboard or from a remote device.

[0020] It is an important feature of the invention that the system supports storage of images in an interim storage format including raw video, compressed video, interim gray scale format and/or half tone format. The image can also be stored in the selected output mode, such as by way of example, a Group III facsimile mode. The versatile capability of the system permits transmission of captured data to a standard bi-level facsimile machine such as Group III, to gray scale facsimile systems or full color facsimile systems, as well as to other remote receiving devices such as, by way of example, personal computers and network servers. The data may be transferred in any of a variety of formats and protocols including JPEG, FAX, wavelets, emerging imagery formats, FAX and computer data protocols. The invention is adapted to operate in multiple modes, with a unitary capture and send mode or separate capture and store, and send modes.

[0021] In the preferred embodiment, the system is adapted for tagging a collected image, video, audio, and other data such as a GPS information, with geospatial information and real time clock and added text. This permits the complete historical data to be transmitted simultaneously with the image signal.

[0022] It is contemplated that the system of the invention would be self-contained with an integral power unit such as a disposable battery, rechargeable battery source or the

like. Therefore, the system is adapted to power up when in use and power down or “sleep” when not activated, preserving power during idle time. The power systems for the video camera, the video input circuits and converters, the modem or other transmission devices and other high drain components may be isolated and only powered when needed. This also permits use of ancillary functions, such as use as a cellular telephone, to proceed without draining the power source by powering idle components. The processor clock rate may also be slowed down during idle mode to further conserve power.

**[0023]** Where desired, the system also includes camera operation control capability through the use of digital/analog circuits for converting digital commands to analog signals for controlling the gain, pedestal, setup, white clip, lens focus, white balance, lens iris, lens zoom and other functions of the camera from a local input device, a remote device or as automatic or programmed functions. The central processor may also be used to control camera shutter rate. Other camera features and parameters which may be controlled in this manner are compressor resolution ( such as high, medium, low user settings) corresponding to compression rate parameters, field/frame mode, color or monochrome, image spatial resolution (640x420 pixels, 320x240 pixels, for example), lens and camera adjustments, input selection where multiple cameras or video sources are used and the like.

**[0024]** When an integrated communications device is used, such as by way of example, a cellular telephone, the telephone can be isolated from the rest of the system to permit independent use, and independent power up and power off and other cellular phone functions.

**[0025]** In operation, the system permits not only the manual capture, dial (select) and send of images, but may also be fully automated to capture, dial and send, for example, on a timed sequence or in response to a sensor such as a motion sensor, video motion detection, or from a remote trigger device. The remote trigger also may be activated by an incoming telephone signal, for example.

[0026] The remote device may also be used for remote loading and downloading of firmware, and for setting of the programmable parameters such as to provide remote configuration of sampling modes during capture, compression rates, triggering methods and the like.

[0027] The triggering function permits a multitude of sampling schemes for a simple triggered activation for capturing an image upon initiation to a trigger signal to more complicated schemes for capturing and transmitting images prior to and after receipt of the trigger signal. The trigger function can be set to operate, for example, on a time per sample and number of sample basis, or time per sample and total sample time basis, or number of samples and total time basis. Depending on application, the trigger can sample in a prior to and after signal mode, using in combination the time per sample and number of samples prior and after signal basis, a total time basis, a percent prior versus percent after trigger basis, time per sample basis, time prior to and time after trigger basis, and other combination. For example, if the image capture device is positioned to monitor traffic accidents at a specific location, and an audio signal sensor identifying a crash were used as the trigger, it would be desirable to collect image sample both prior to and after the trigger signal. The number of samples, total sample time, and percentage of samples prior to and after trigger would be controlled by the specific application.

[0028] Circular sampling techniques are supported by the data capture system of the present invention. This is particularly useful when triggering events are used to initiate transmission of collected image data over the communications system. For example, if a triggering event is motion detected at a motion sensor, it may be useful to look at the images captured for a period of time both prior to and after the actual event. The circuitry of the subject invention permits any circular sampling technique to be utilized depending upon application, such as prior to an after trigger, only after trigger or only before trigger or prior to and after the trigger point. Again, as an example, it may be desirable to look primarily at images captured before a triggering event if the event is a catastrophic event such as an explosion or the like. Other circular sampling techniques may be employed, as well,

incorporating multiple cameras, for example, wherein different fields are sampled depending upon the time frame in a sequence of events.

[0029] It is, therefore, an object and feature of the invention to provide an apparatus for capturing, converting and transmitting a visual image via standard facsimile transmissions systems.

[0030] It is another object and feature of the invention to provide an apparatus for compressing the visual image data in order to minimize the capacity requirements of the data capture and storage system.

[0031] It is an additional object and feature of the invention to provide an apparatus for capturing and storing a visual image for later recall and review and/or transmission.

[0032] It is yet another object and feature of the invention to provide an apparatus for storing a captured video image in digital format on a portable storage medium.

[0033] It is an additional object and feature of the invention to provide an apparatus capable of sending and receiving telephonic audio messages, facsimile documents and captured visual images to and from standard, readily available remote stations.

[0034] It is a further object and feature of the invention to provide the means and method for capturing images prior to, prior to and after, or after a triggering event.

[0035] It is also an object and feature of the invention to provide for multiple triggering events and/or optional viewing or review of the captured images prior to printing or transmission.

[0036] It is another object and feature of the invention to provide an apparatus which may be activated from a remote location for initiating the capture of images by the device.

[0037] Other objects and features will be readily apparent from the drawings and detailed description.

### **BRIEF DESCRIPTION OF THE DRAWINGS**

[0038] Fig. 1. is a block diagram of a basic facsimile camera configuration for capturing an image via a camera and transmitting it via Group III facsimile transmission to a standard hard copy medium.

[0039] Fig. 2 is similar to Fig. 1, but incorporates a memory storage capability, permitting storage and optional review or viewing of the image prior to transmission.

[0040] Fig. 3 is similar to Figs. 1 and 2, but incorporates a data compression scheme for increasing the capacity of the memory and for increasing efficiency of transmission.

[0041] Fig. 4 includes the capture and transmission configuration of Fig. 2, with multiple transmission format capability including Group-III facsimile, personal computer, modem, parallel and serial transmission schemes.

[0042] Fig. 5 is an exemplary schematic diagram supporting the configurations shown in each of Figs. 1-4.

[0043] Figs. 6A, 6B, and 6C, are block diagrams of the physical components of desktop, portable and comprehensive console embodiments of the invention, respectively.

[0044] Fig. 7A and 7B are perspective drawings of a hand held device for capturing, storing and transmitting an image in accordance with the invention (new drawings to replace Frassinio design).

[0045] Figs. 8A-8L (Formerly Fig. 12) comprises a schematic diagram for an exemplary embodiment of the circuit for supporting the subject invention.

[0046] Fig. 9 is a diagram of the various triggering sequence options.

### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0047] The image capture and transmission system of the subject invention is suited for capturing one or more single frame analog image or a digital image data signal and transmitting the captured signal via any of a plurality of transmission schemes to a remote receiving station where the image is downloaded in a suitable format for viewing and printing on hard paper copy, a CRT screen image, or other medium. The system is particularly well suited for sending and/or receiving images via a standard Group III facsimile transmission system and permits capture of the image at a remote location using an analog or digital camera. Two generic configurations are shown and described, the first, where each image is transmitted as it is captured, and the second, which permits capture, storage, and selective recall of captured images for transmission. The invention also contemplates a portable storage medium, wherein the captured stored medium may be removed from the capture device and archived for later use. While a system for black and white (gray tones) for Group-III facsimile transmission is described in detail herein, the invention could be readily adapted to transmission of color images utilizing the teachings of the present invention using industry standard color video standards and circuits. Both portable, or hand held, and stationary, or desktop, units are described. The circuitry utilized for both configurations is *identical* , but *stationary configurations do not need a battery.*

[0048] Figs. 1-5 are circuit configuration diagrams for the various capture, storage and transmission schemes. The physical embodiments utilized to employ the teachings of the schemes taught in Figs. 1-5 are not limited. Figs. 6-10 are exemplary physical embodiments of the subject invention.

[0049] Turning now to Fig. 1, the simplest embodiment of the invention incorporates a standard analog or digital camera device 10 for capturing a visual image in the typical

fashion. The camera 10 may be operator activated as indicated at 12, or may be programmed to be activated at selected intervals or in response to certain conditions. For example, a motion detector may be utilized to activate the camera 10 in a surveillance installation. Once activated, the camera 10 captures a visual image in typical fashion through a lens (see lens 192, for example, in Fig. 7A). In the illustrated embodiment, the captured image is then transmitted to a gray scale bit map memory device 16, from which it is output to a half-tone conversion scheme 18 to be input into a binary bit map 20 for formatting the captured image in a configuration suitable for transmission via a Group-III facsimile system. The signal generated at 22 by the binary bit map 20 is input into a Group-III encoding and compression network 24 for generating an output signal at 26 which is introduced into a Group III protocol transmission device 28. The output at 30 of the transmission device 28 is then transmitted into any standard transmission interface such as, by way of example, hard line telephonic transmission, cellular transmission, radio signal, satellite transmission or other transmission system 32 via a modem or similar device, as needed (as diagrammatically illustrated at 29), to be received via a compatible interface by a remote Group-III receiving system 34. The Group III receiving system 34 is a typical Group-III facsimile system comprising a Group-III receiver 36, decoder and decompressor 38 and binary bit map 40, from which a facsimile hard copy such as plain paper copy 42 may be generated.

**[0050]** This configuration is particularly well suited where real near time transmission is desired, for example when the system is operator controlled and a “real time” image is desired at a remote location. An example of such a system may be a photo identification confirmation of an apprehended suspect in law enforcement use, or transmission of images of damaged assets for insurance purposes, or transmission of images of construction job site conditions. This configuration is also well suited for use in those applications where a sensor activates the system and real time transmission of the sensed condition is desired. An example of such a system would be a motion activated camera in a surveillance location, where the image is immediately transmitted to a remote monitoring station. Of course, it will be readily understood by those who are skilled in the art that tagging a transmitted image with information such as, by way



of example, date, time and location, can be incorporated in the transmitted signal so that a receiving station could monitor a plurality of remote image data capture systems. This is also useful for reviewing a body of previously stored or printed images to determine the time and location of such image.

[0051] The embodiment of Fig. 2 is similar to Fig. 1, but incorporates a memory and optional operator viewer system. The image is captured by the camera 10 and conditioned by the gray scale bit map 16, as in Fig. 1. In this embodiment, the output 44 of the bit map 16 is input into a standard digital memory device 46 for later recall. This configuration is particularly well suited for applications where near real time transmission of the image either is not required or is not desirable. It will be noted that with the exception of the insertion of the memory device 46 and the optional viewer device 48, the capture and transmission system of Fig. 2 is identical to that shown and described in Fig. 1. Once the image is captured by the camera 10 and is presented at 44 to the memory device 46, it is stored for later recall and transmission. The specific type of memory device is optional and may include, for example, an SRAM device, a DRAM, Flash RAM, hard drive, floppy disk, PCMCIA format removable memory (see, for example, the PCMCIA card 50 in Fig. 7A), writeable optical media or other storage device. The memory may selectively capture images, as indicated by the operator interface/capture interface 52, or may be programmed to selectively capture periodic images or all images. In the embodiment shown in Fig. 2, an optional viewer device 48 is provided. This permits the operator to recall and view all or selective images before transmission, as indicated by the operator interface/recall interface 54. This permits the operator to review all images retained in the memory 46 and transmit selective images, \* as desired, to the Group-III transmission system. The remainder of the system of Fig. 2 operates in the same manner as the configuration shown and described in Fig. 1.

[0052] The configuration of Fig. 3 incorporates all of the features of Figs. 1 and 2, and additionally, includes an interim data compression and decompression scheme to permit increased utilization of the memory or storage medium 46. As shown in Fig. 3, an interim format compressor 56 is inserted between the gray scale bit map 16 and the memory device 46. This permits compression and reduction of the data required to

store the image, effectively increasing the capacity of the storage device. It is an objective of the storage device to preserve the gray scale quality of the image for viewing at the location of capture. An interim format decompression device 58 is inserted between the output of the memory device 46 and the rest of the system, whether the optional viewer 48 is utilized, or the output is entered directly into the half-tone convertor 18. The interim compression/decompression scheme is particularly useful when all of the image data is to be permanently archived, or when limited capacity portable media are used, such as, by way of example, floppy disks or a portable PCMCIA card. It will be noted that the remainder of the system shown in Fig. 3 is identical to the system shown and described in Fig. 2.

[0053] Fig. 4 illustrates the use of the image capture and/or retention configured in any of the optional embodiments of Figs. 1-3 and adapted for use in combination with any of a variety of transmitting and receiving schemes such as, by way of example, the Group-III system shown in Figs. 1-3, a modem, direct connection to a personal computer, serial or parallel transmission, or any selected transmitting/receiving protocol. This illustration demonstrates the versatility of the system once the image has been captured, converted and conditioned by the image capture device of the subject invention. Specifically, once the image is captured by the camera 10 and conditioned by the gray scale bit map 16, it may be stored and transmitted, or transmitted "real time" via any transmitting and receiving scheme. As shown in Fig. 4 the image capture device includes the memory device 46 and the optional viewer 48 for incorporating maximum capability. However, any of the schemes of Figs. 1-3 would be suitable for producing a transmittable signal. In the embodiment shown, a format select interface switch 60 is positioned to receive the fully conditioned signal on line 59. This would permit either automated or manual selection of the transmitting protocol, including the Group-III facsimile system previously described in connection with Figs. 1-3, as indicated by selecting format select switch 60 position A; or PC modem protocol as illustrated by the JPEG compressor 62 and protocol generator 64, as indicated by selecting format select switch position B; or the wavelet compressor and PC modem protocol, as illustrated by the wavelet compressor 66 and PC modem protocol generator 68 by selecting switch position C; or any selected conversion network 65, (if needed)

with a compatible compressor 67 (if needed) and compatible protocol generator 75 (if needed), as indicated by switch position D; or a serial protocol scheme 77, with serial drivers 79 directly to a hardwired personal computer 81 by selecting switch position E. Of course, it will be readily understood by those skilled in the art that one or a plurality of transmitting protocols may be simultaneously selected. Depending on the protocol selected, the signal output is generated at the selected output module and introduced to a communications interface module 83 via a modem or other device, as needed, for transmission via a transmission system to a compatible receiving station such as the Group-III facsimile device 34, the personal computer 85, the video telephone 89, and/or other server or receiving device 91 for distribution.

[0054] An exemplary circuit supporting the configurations of Figs. 1-4 is shown in Fig. 5. With specific reference to Fig. 5, an analog camera is indicated by the “video in” signal at 70. Typically, the video signal is a composite video/sync signal. The diagram shows all of the signal processing necessary to sync up to an NTSC signal 70 coming out of the analog camera and processed for introduction into an integral RAM memory 71 and/or a portable RAM memory via interface 73. An analog to digital (A/D) converter 74 converts the video portion of the analog signal from the camera and produces the digital signal for output at line 76. The digital output data on path 76 is introduced into a data multiplexer circuit 81 and into the RAM memory unit(s) 71, 72. In the exemplary embodiment, the portable RAM memory 72 is an image card such as, by way of example, a PCMCIA SRAM card or a PCMCIA Flash RAM card. However, it will be readily understood that any suitable RAM memory configuration can be used within the teachings of the invention. It is desirable to store compressed rather than raw data in card 72 because of space and transmission speed factors.

[0055] As the signal at 70 is introduced into the circuit, the sync detector 78 strips the sync signal portion off of the video signal. The sync signal drives the video address generator 80 for providing a signal used to generate an address signal at the address multiplexer circuit 82 for synchronizing the scanned in video signal with the locations in RAM to define each frame to be captured. The read/write control 84 controls the coordination of the sync signal 93 with the video signal to define a full frame.

Basically, when the camera is activated either by the operator or by automation, the system processor 86 detects the initiation of the camera and capture sequence and sends a signal via line 88 to the read/write control 84. The read/write control then monitors the incoming video signal 83 to find the horizontal and vertical sync pulse to identify the beginning of a frame. The read/write control then initiates writing to memory at the RAM devices to initiate capture of the frame. The read/write control continues to “write” to memory until the appropriate sync signal is received, indicating the end of the frame. At this point a single frame is captured in RAM 71 and/or on the portable medium RAM 72.

[0056] This frame may now be output from the system via any of the available transmitting schemes. In the exemplary embodiment, the processor 86 may be any processor or such as a microprocessor or DSP, with sufficient capability to perform the described functions. The processor bus is indicated at 87. The circuitry supporting the processor comprises the processor chip 86 and the control store memory (ROM, Flash RAM, PROM, EPROM or the like) 92 for storing the software program executed by the processor. It will be understood that other memory devices could be utilized without departing from the spirit of the invention. For example, a Flash RAM would permit flexibility and replacement of the program for upgrades and enhancements. The user interface commands are generated and interpreted by the software that is being executed by the processor 86.

[0057] The display unit 94 is connected through a typical interface 96, and provides visual user interface at the camera body to give the operator a visual read-out of the status of the collection and transmission of a selected frame. In the exemplary embodiment, the display unit is a two line, multi-character LCD display, but other sizes or technology displays could be readily incorporated, depending, for example, on the amount of graphics desired in the display module. The bank of operator buttons and/or switches 98 are connected to the system through the button interface 100.

[0058] The general purpose control register 102 serves as a latch and permits control bits to be introduced from the processor 86 to the transmitting systems or to transfer

status bits from the transmitting systems back to the processor in the well known manner. The modem 104 may be any of a variety of widely available modems or modem chip sets currently in commercial use. The modem should support CCITT Group III fax format for transmission to Group III fax machines. Once the signal is introduced into the modem 104, it is handled in typical fashion to provide input/output transmissions: (1) from the subject device to a hardwired telephonic line as indicated at 114, (2) from the subject device to the external facsimile machine as indicated at 116, or (3) from the subject device to an external wireless device telephone as indicated at 130. The specific selection is controlled by the user at button module 98 in conjunction with the processor 86.

[0059] An isolation transformer 110 is provided to isolate the circuitry connected to external communications circuit from the circuitry of the subject device. The relays at 108 and 112 permit patching directly into the hardwired telephonic line and to the telephone company system as indicated at 114, to an external handset or fax machine at 116, or to the modem 104, whereby facsimile data can be sent and received via the modem. These relays could be mechanical or solid state. The relay 118 is connected to a tone source 120 for providing an audible tone signaling to the user that the system is being used for transmitting or receiving a captured image.

[0060] With specific reference to the circuitry associated with relay 112, it will be noted that when the handset is switched away from the phone line to the tone source, the modem transformer 110 is switched to the telephone line 114. This blocks normal audio telephone service and permits the transmission of an image signal from the RAM devices 71 or 72, through the modem 104, and to the telephone line 114.

[0061] In the exemplary embodiment, a stand alone facsimile machine can be connected through the external handset jack at 116. With relay 112 set to activate telephone service and the tone generator 120 disconnected, the relay 108 can be set in either of two positions. The first position, as drawn, connects the facsimile machine at jack 116 to the telephone line, permitting standard facsimile transmission. The second or alternative position permits the modem 104 to transmit the image data signal

directly to the facsimile machine at jack 116, for providing an archive copy or the like. In this configuration, the facsimile machine will operate as a local printer for printing the captured images. Signal source 120 may be used as a ringing voltage generator for signaling such facsimile machine prior to connection.

[0062] The system of the present invention also contemplates wireless transmission over a cellular telephone, radio frequency, satellite transmission or the like. In the exemplary embodiment, the specific configuration for a cellular telephone interface is shown in detail. The amplifiers 122, 124 amplify the input of the modem 104 and are controlled by the FETs 126, 128, respectively. The FETs are controlled by the control register 102 and allow selection of the audio either coming in from the cellular interface 130 or from the telephone line 104 to the modem. This permits the cellular phone to be used for three distinct functions: (1) as an audio telephone, (2) as a transmitting system for transmitting the captured image and related signals via a cellular system, and (3) for receiving incoming transmissions to the processor. such as remote control, remote configuration, or images.

[0063] In the exemplary embodiment, the image card 72 is a DRAM card or non volatile storage card such as a Flash RAM or the like and provides a removable medium for storing the image data as either raw or compressed data. The card can also be used to store compressed data sent into the system via external facsimile transmission. As illustrated, the system is capable of both sending and receiving image data via Group-III fax or other protocol. By incorporating the digital to analog (D/A) converter into the system and pulling the signal from the RAM 71 (or portable RAM 72), the signal can be displayed right at the camera viewfinder 134 or other display device connected at port 138. A sync generator 136 is incorporated to provide synchronization of incoming data in the same manner. The sync detector 78 is utilized to define a frame-by-frame correlation of the data generated by the camera at the video input 70 for storage to memory 71 or 72.

[0064] Any standard power source may be utilized, including replaceable or rechargeable batteries 141, or an AC adapter 142. The AC adapter is particularly

suitable for desktop applications.

[0065] The exemplary embodiment includes a speaker or other audio transducer 144 for emitting a detectable signal whenever the user interface merits its use, such as user induced errors, system errors, user attention getting and the like.

[0066] In order to send a facsimile transmission over a typical Group-III Facsimile system, the multiplexer 82 is switched to the processor 86 such that the RAM address is generated by the processor 82 instead of the video address generator signal. In the facsimile transmitting mode, the processor accesses the RAM and manipulates the data representing each frame image. For example, the processor will perform the gray scale to half tone conversions described in connection with Figs. 1-4 to prepare the signal for facsimile transmission. The processor can also perform image compression and output the image as a gray scale. In the facsimile transmission mode, once the half tone conversion is completed, the processor executes a code for performing a bi-level compression of the data and the signal representing the frame data is output over line 90, through the multiplexer 81 and over the processor bus 87 to the processor 86, then to modem 104 for transmission. Other memory and processor configurations could be used without departing from the scope and spirit of the invention, as will be recognized by those skilled in the art.

[0067] Various physical configurations of the invention are shown in Figs. 7A & 7B. Figs. 6A, 6B and 6C are block diagrams for desktop and portable units. Figs. 7A and 7B illustrate the subject invention as incorporated in a standard 35 millimeter type camera housing.

[0068] A basic desktop system is shown in Fig. 6A, and includes a console unit having a telephone jack 152, an external telephone connection 154 and a video input/camera power jack 156 for connecting the analog camera 10. A facsimile machine may be also connected at jack 154 to provide local printer capability. The configuration shown in Fig. 6B is a basic portable system, with a battery powered portable module 160 having a self-contained power source 162. The system may include an integral RAM and/or

the removable memory module as indicated by the image card 72. The camera 10 may be an integral feature of the portable module 160, or may be a detached unit, as desired. In this embodiment, a cellular telephone 164 is provided with a data jack 166 for connecting to the output jack 168 of the module, whereby the image data signal may be transmitted via the cellular telephone to a remote facsimile machine over standard cellular and telephone company facilities. When incorporating the circuitry of Fig. 5, the cellular phone may be used as both an input and an output device, and incoming data or stored images may be viewed through the viewfinder 170.

[0069] Fig. 6C shows a comprehensive desk or stationary configuration incorporating all of the features supported by the circuitry of Fig. 5. As there shown, the control module 172 is adapted for receiving the image card 72 and is powered by an AC power adapter as indicated at 142. The camera 10 is connected to the module via a hardwired connection at jack 174. A monitor 176 is provided for viewing data images. A video cassette recorder 178 is provided and may be used as an auxiliary input device for the images transmitted from the system. The facsimile machine 180 can be used as a local printer, or can be used to send facsimiles transmissions in the well-known manner. Direct connections to the telephone line system are provided at jack 182. The FAX/phone jack 186 can be connected to a facsimile machine 180 and/or a standard telephone 184, where the public telephone system can be accessed. A data jack 188 is used to connect to a cellular telephone or the cellular modem, or other wireless device for transmission or reception of image data.

[0070] Turning now to Figs. 7A and 7B, the camera body 190 is similar to a standard 35 millimeter camera housing and is adapted to receive a standard lens 192 with a viewfinder 194. The electronics are housed in the casing in the area normally occupied by the film and film advancing implements. The operator interface button keys 98 are housed within the housing and may be positioned on the back plate 196 of the body. Fig. 8. The LCD unit may be positioned to be visible through the viewfinder 194 or may be in a separate back window 198. The memory card 72 is positioned in a slot 200 provided in a sidewall of the camera body. This camera has the appearance of a standard SLR 35 millimeter camera. In addition, where desired, an integral cellular



phone can be incorporated in the camera housing and transmission can be sent directly from the camera housing to a remote receiving station. The keypad for the telephone is indicated at 202.

[0071] Fig. 8 is an illustration of an exemplary schematic diagram for the circuit of a system according to the teaching of the invention as specifically taught in the diagram of Fig. 5. Pin numbers, wiring harnesses and components are as shown on the drawing. Fig. 8, part A, is the system interconnect and shows the central processor board 300, the video board 302, the power board 304 and the CRT electronic interconnect board 306. The telephone interface is provided at 307. Board 308 is the audio connector board. Board 310 is the serial connector board and board 312 is the video connector board. Fig. 8, part B contains the audio logic, with audio I/O at 314. The audio amplifiers are designated 316 and 318. A microphone connector is provided at 320, with preamplifier circuit 322. Audio switches are provided at 324 and 326. Summing circuit 328 provides audio summing. The serial RAM for audio is designated 330. Fig. 8, part C includes the camera module 332 and the camera control digital to analog convertor 334. Amplifier 336 is the video buffer. Module 338 is the camera shutter control resistor.

[0072] Fig. 8, part D contains the central processor unit 340. Voltage in is at 342, with the power switch at FET 344. Power shutdown is provided at the video shutdown bit 346. The video connector is designated at 348. Pin I is switched five volts out to video logic. Pins 2-9 are connected to the video data bus and pins 10-22 are video control signals. Buffers 350 and 352 are the video board I/O isolation buffers. As shown, pin 19 of buffer 352 is the output enable and is connected to the video shutdown bit 346. Line 354 is bus enable. Pin A0 of buffer 350 is the direction control signal and pins A1 A7 are connected to the processor data bus. Pins 10-17 of buffer 352 are also connected to the processor bus.

[0073] The system DRAM memory is designated 356. The processor I/O module is designated 358 and the I/O decoder is provided at 360. A non-volatile RAM 362 provides system parameters. The processor oscillator is shown at 364 and a real time clock at 366. Controller 368 is the RAM card controller. The PCMCIA socket for the

RAM card is shown at 370a and 370b. The modem is designated 372. The serial controller is shown at 374 with serial controller oscillator 376. Module 378 is a memory module. A signal buffer is provided at 380, and an address decoder at 382. Connectors are designated at 384, 386 and 388.

[0074] Fig. 8, part E shows the modem board connector at 390, the glue logic PLD at 392 and the glue logic module at 394. Module 396 is the synchronous/asynchronous serial controller. Circuit 398 is the signal multiplex relay and circuit 400 is the transmit/PTT relay. Bypass relays are shown at 402. Relay 404 is the digital mode relay. Transformer 406 is the audio isolation transformer. Circuit 408 provides a low speed data filter. The line drivers are designated 410 and the line rectifiers are designated 412, respectively. Connector 414 provides radio/serial data connection.

[0075] Fig. 8, part F shows the status LED's 416 and the PCMCIA door open switch 418. Fig. 8, part G shows the power switches 420. Fig. 8, part H is the battery pack 422.

[0076] Fig. 8, part I is the power supply. The rechargeable battery connection is shown at 424, with DC power input at 426. An internal battery/external DC input transfer relay is provided at 430. The signal for the power switch on the removable disk drive access door is on pins 3,4 of connector 428. The voltage IN regulator is designated at 432, with the processor voltage regulator designated 434. The processor power control bit is at 436. The system power control bit is at 438, with the system voltage regulator at 440. The video power control bits are at 442 and 444, with the video voltage regulators at 446 and 448, respectively. Battery 450 is the real time clock battery. Connector 452 is the battery charger connector. Connector 454 connects processor power, system power, regulated battery power and real time clock power, as shown. Connector 456 connects video power. The power sequencer circuit is at 458.

[0077] Fig. 8, part J shows the direct access arrangement to a land line telephone at 460 and the video viewfinder circuitry (CRT electronics) at 462.

[0078] Fig. 8, part K is the video control circuitry. The video input amplifier is designated at 464. The composite video sync stripper is designated at 466. The video H/V timing pulse generator is at 468 and the video phase lock loop at 470. The register 472 is the video control register. Circuit 474 provide programmable video filters--edge enhancers, with the FET switch designated at 476. The video filter circuit is at 478 and the video filter is at 480. The video reference digital to analog circuit-is shown at 482, with the video analog to digital circuit at 484 and the video analog to digital data out buffer at 486. The voltage reference circuit is designated at 488.

[0079] Fig. 8, part L shows the push button control switches as 490 and 492. The keyboard display is designated 494, and the microcontroller 496 is the keyboard and keyboard display microcontroller. The backlight circuitry is designated at 498, with the back light control at 500. Module 502 is the LCD module.

[0080] The circuitry supports any of the preferred configurations from a basic real time transmission system via Group-III fax to a comprehensive system supporting both land line and wireless transmission of image, audio and documentary data at both a local and remote station.

[0081] The subject invention also permits digitized collection of audio signals through the use of an internal microphone, and external input device, a cellular telephone, land line telephone, wireless radio or other communication system, and digitized audio playback, as well. The playback can be via an internal speaker, out an external out jack to a remote device or via a cellular telephone, land line telephone, wireless radio or other communication system.

[0082] The digitized image and audio capture features permit association of audio with an image, as well as data with the image. Useful data associated with the image includes GPS from either internal or external GPS devices, date and time, and text which may be input from an integrated keyboard or from a remote location.

[0083] It is an important feature of the invention that the system supports storage of

images in an interim storage format including raw video, interim gray scale format and/or half tone format. The image can also be stored in the selected output mode, such as by way of example, a Group III facsimile mode. The versatile capability of the system permits transmission of captured data to a standard bi-level facsimile machine such as Group III, to gray scale facsimile systems or full color facsimile systems, as well as to other remote receiving devices such as, by way of example, personal computers and network servers. The data may be transferred in any of a variety of formats and protocols including JPEG, FAX, emerging imagery formats, wavelets and data protocols. The invention is adapted to operate in multiple modes, with a unitary capture and send mode or separate capture and store, and send modes.

In the preferred embodiment, the system is adapted for tagging a collected image, video, audio, and other data such as a GPS signal, with a real time clock and added text. This permits the complete historical data to be transmitted simultaneously with the image signal.

[0084] It is contemplated that the system of the invention would be self-contained with an integral power unit such as a rechargeable battery source or the like. Therefore, the system is adapted to power up when in use and power down when not activated, preserving power during idle time. The power systems for the video camera, the video input circuits and converters, the modem or other transmission devices and other high drain components may be isolated and only powered when needed. This also permits use of ancillary functions, such as use as a cellular telephone, to proceed without draining the power source by powering idle components. The processor clock rate may also be slowed down during idle mode to further conserve power.

[0085] Where desired, the system also includes camera operation control capability through the use of a digital/analog network for converting digital commands to analog signals for controlling the gain, pedestal, setup, white clip, lens focus, and other functions of the camera from a local input device, a remote device or as programmed functions. The central processor may also be used to control camera shutter rate. Other camera features and parameters which may be controlled in this manner are compressor resolution (high, medium, low), field/frame mode, color or monochrome, image spatial

resolution (640x430, 320x240, for example), lens and camera adjustments, input selection where multiple cameras are used and the like.

[0086] When an integrated communications device is used, such as by way of example, a cellular telephone, the telephone can be isolated from the rest of the system to permit independent use, and independent power up and power off and other cellular phone functions.

[0087] In operation, the system permits not only the manual capture, dial (select) and send of images, but may also be fully automated to capture, dial and send, for example, on a timed sequence or in response to a sensor such as a motion sensor or from a remote trigger device. The remote trigger may be activated by an incoming telephone signal, for example. The remote device may also be use for remote loading and downloading of firmware, and of the programmable devices, as well as to provide remote configuration of sampling modes during both the capture and the send functions.

[0088] Circular sampling techniques are supported by the data capture system of the present invention. Fig. 9 is a diagram illustrating exemplary sampling techniques in accordance with the teachings of the invention. As shown in Fig. 9, the time sequence is indicated by the Time Line:  $t_1, t_2 \dots t_n$ , with a sample at each time interval, as indicated by  $S_1 \dots S_n$ . For purposes of illustration, the triggering event occurs at time interval  $t_{10}$ . Based on the predetermined programming of the system, images will start to be collected upon triggering event, as shown at 210, for a predetermined period prior to and after trigger, as shown at 212, or immediately preceding the trigger, as shown at 214. This permits "circular image storage" without requiring that all images be collected and stored in order to look at events surrounding a triggering event. The technique is also very useful when multiple overlapping zones are monitored by multiple devices and it is desirable to sequence from device to device without losing any critical images.

[0089] This is particularly useful when triggering events are used to initiate transmission of collected image data over the communications system. For example,

if a triggering event is motion detected at a motion sensor, it may be useful to look at the images captured for a period of time both prior to and after the actual event. The circuitry of the subject invention permits any circular sampling technique to be utilized depending upon application, such as prior to an after trigger, only after trigger or only before trigger. Again, as an example, it may desirable to look primarily at images captured before a triggering event if the event is a catastrophic event such as an explosion or the like. Other circular sampling techniques may be employed, as well, incorporating multiple cameras, for example, wherein different fields are sampled depending upon the time frame in a sequence of events.

[0090] Other configurations are contemplated and are within the teachings of the invention. While specific embodiments have been shown and described herein, it will be understood that the invention includes all modifications and enhancements within the scope and spirit of the claims.

## CLAIMS

What is claimed is:

467 8006

1. A self-contained image processing system for capturing a visual image and transmitting it to a remote receiving station, the image processing system comprising:
  - a. An image capture device;
  - b. A processor for generating a data signal representing the image;
  - c. A communications device adapted for transmitting the data signal to the remote receiving station;
  - d. A wireless transmission system between the communications device and the compatible receiving station.
2. The image processing system of claim 1, further including a memory for receiving and storing the data signal, and wherein the communications device is adapted for recalling the stored data signal from memory.
3. The image processing system of claim 1, wherein said memory is a removable random access medium and wherein the system is adapted for selectively charging and discharging the memory.
4. The image processing system of claim 1, wherein the image capture device is an analog camera for generating an analog image signal and there is further included an analog to digital converter for converting the analog image signal to a digital signal.
5. The image processing system of ~~claim 1~~, further including a subprocessor for generating a Group-III facsimile compatible ~~signal~~ representing the digital signal.
6. The image processing system of ~~claim 1~~, wherein the subprocessor comprises:
  - a. A gray scale bit map;
  - b. A half tone converter; and
  - c. A binary bit map.

7. The image processing system of claim 1, wherein there is further included an integrated wireless telephone associated with the communications device.
8. The image processing system of claim 1, further comprising a housing for housing all of the elements of the system in an integrated body.
9. The image processing system of claim 1, wherein said image capture device is a digital camera.
10. The image processing system of claim 2, further including a view screen for viewing the captured and stored image.
11. The image processing system of claim 5, further including a facsimile receiving device associated locally with the system for providing a local printer for reproducing the captured image in hard copy.
12. The image processing system of claim 1 wherein the processor is adapted for generating a signal in any of a plurality of selected protocols and wherein the communications device is adapted for transmitting the signal in the proper protocol to a remote, compatible receiving station.
13. The image processing system of claim 1, wherein:
  - a. The image capture device is an analog video camera for generating a video signal;
  - b. The processor further comprises:
    - i. An analog to digital converter;
    - ii. A sync detector and a video address generator for synchronizing the digital signal with the analog signal for defining the beginning and end of the signal to define a still frame;
    - iii. A random access memory for receiving and storing the converted, synchronized signal frame-by-frame;



- iv. A processor routine for converting the signals stored in the memory to a protocol adapted for transmission to a remote, compatible protocol receiving station;
  - c. A communications device for transmitting the signal in the proper protocol to the compatible receiving station.
- 14. The image processing system of claim 13, wherein the processor routine converts the signals to a Group III facsimile protocol, the system further including a facsimile modem for accepting the signal and transmitting to the compatible receiving station.
- 15. The image processing system of claim 13, further including a hardwired transmission system and a wireless transmission system associated with the modem and a switching device for selecting in the alternative either the hardwired or the wireless transmission system.
- 16. The image processing system of claim 13, further including a local facsimile receiving system associated with the modem for providing local hard copy of the stored image signals in the memory.
- 17. The image processing system of claim 16, further including a switching device for selectively activating and deactivating the local facsimile receiving system.
- 18. The image processing system of claim 13, further including an integral viewer for viewing the images stored in the memory.
- 19. The image processing system of claim 13, wherein the memory is a removable memory medium which may be selectively removed from the system.
- 20. The image processing system of claim 19, wherein the removable memory medium comprises a PCMCIA card memory.
- 21. The image processing system of claim 1, wherein the system is of modular construction, and the camera, the processor and the communications device are each independent, functional

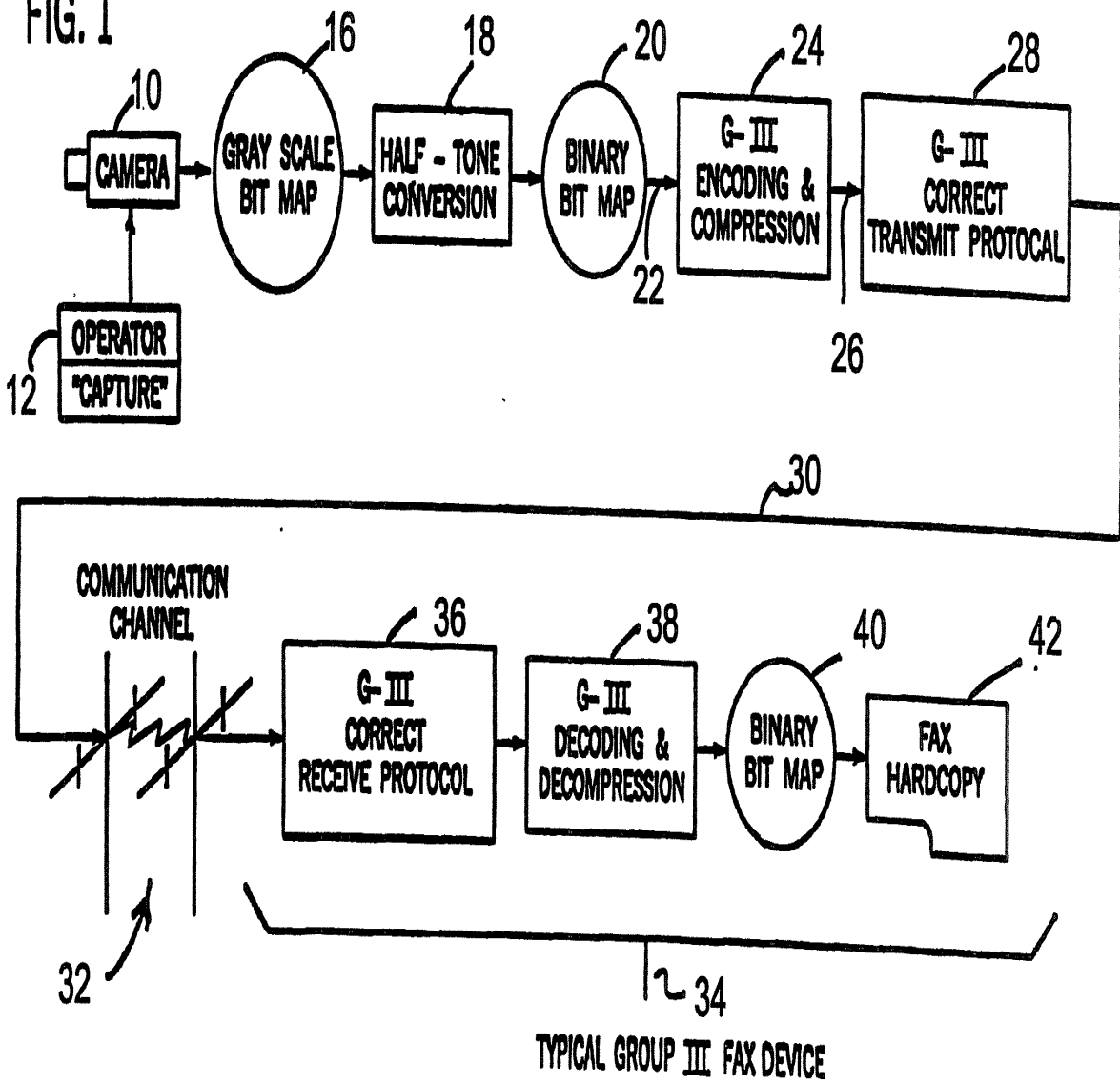
units which may be coupled to one another for defining the assembled system.

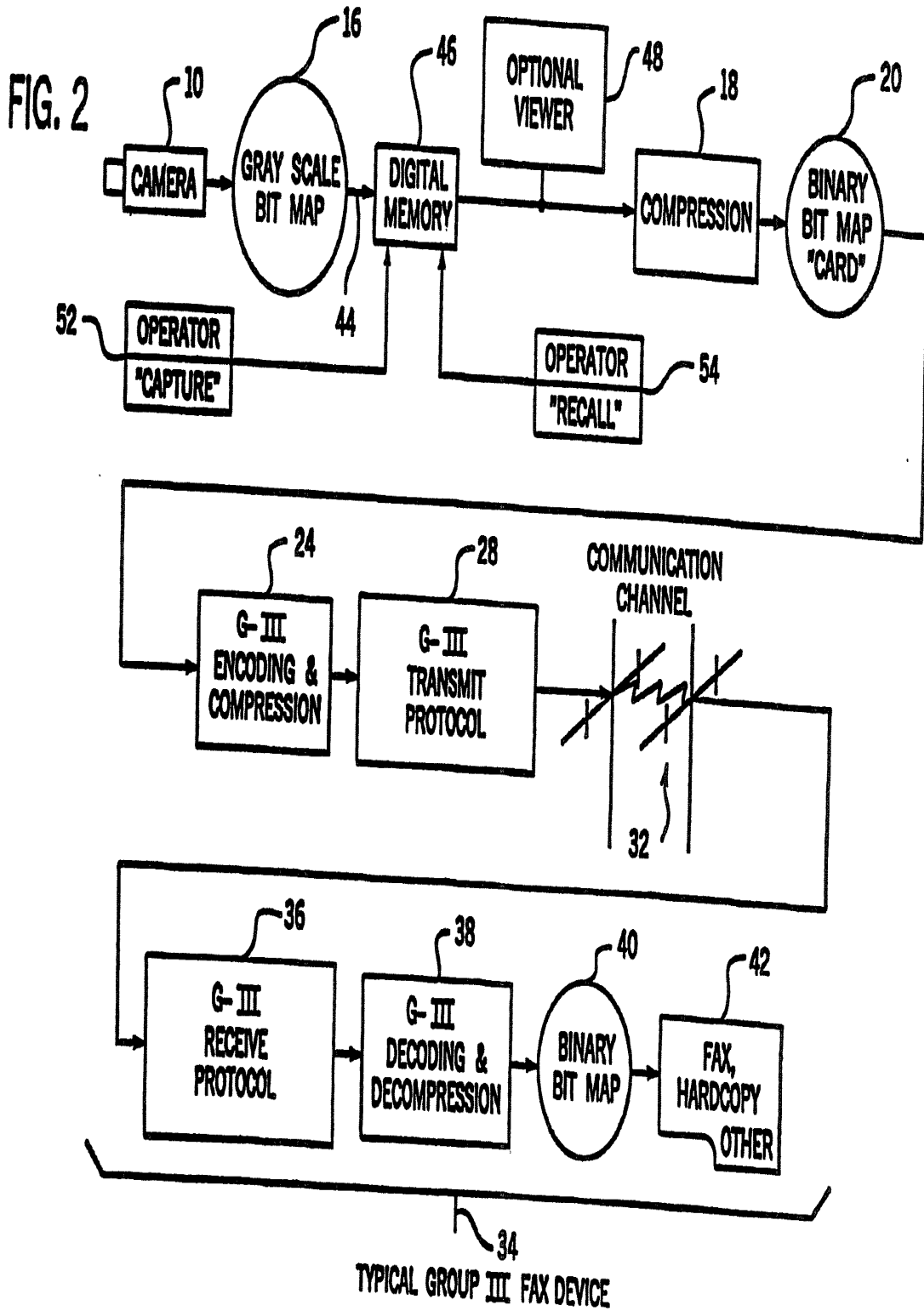
22. The image processing system of claim 1, further comprising an audio signal capture device adapted for capturing an audio signal in correlation with the captured video signal.
23. The image processing system of claim 1, further comprising a data processor for creating a text data signal associated with said image data signal.
24. The image processing system of claim 23, further including an input device for providing text data to the data processor.
25. The image processing system of claim 24, wherein said input device is user controlled.
26. The image processing system of claim 25, wherein said user controlled input device is an integral keyboard.
27. The image processing system of claim 24, said input device comprising a real time clock.
28. The image processing system of claim 24, said input device comprising a global positioning system.
29. The image processing system of claim 2, wherein said image data signal is stored in a raw video format.
30. The image processing system of claim 2, wherein said image data signal is stored in a compressed format.
31. The image processing system of claim 2, wherein said image data signal is stored in a half-tone format.

32. The image processing system of claim 1, wherein the remote receiving station is a standard bi-level facsimile machine and the image data signal is generated in a standard bi-level facsimile machine format and protocol.
33. The image processing system of claim 1, wherein the remote receiving station is a gray-scale facsimile machine and the image data signal is generated in a gray-scale format and protocol.
34. The image processing system of claim 1, wherein the remote receiving station is a color facsimile machine and the image data signal is generated in a full color format and protocol.
35. The image processing system of claim 1, wherein the remote receiving station is a digital device and the image data is digital.
36. The image processing system of claim 1, further comprising a self-contained power source for powering the system.
37. The image processing system of claim 36, wherein said communications device is adapted to be used independently of the image capture device and the processor, and wherein the power supply is adapted for isolating the power to the communications device from the power to the image capture device and processor.
38. The image processing system of claim 37, further including a power initiation device associated with the image capture device and the processor wherein the power to the image capture device and the processor is off when the initiation device is not activated.
39. The image processing system of claim 38, wherein the power initiation device is user controlled.
40. The image processing system of claim 38, further including a trigger device for activating the power initiation device.
41. The image processing system of claim 40, wherein the trigger device is a timer.

42. The image processing system of claim 40, wherein the trigger device is triggered by the presence of an image to be captured.

FIG. 1





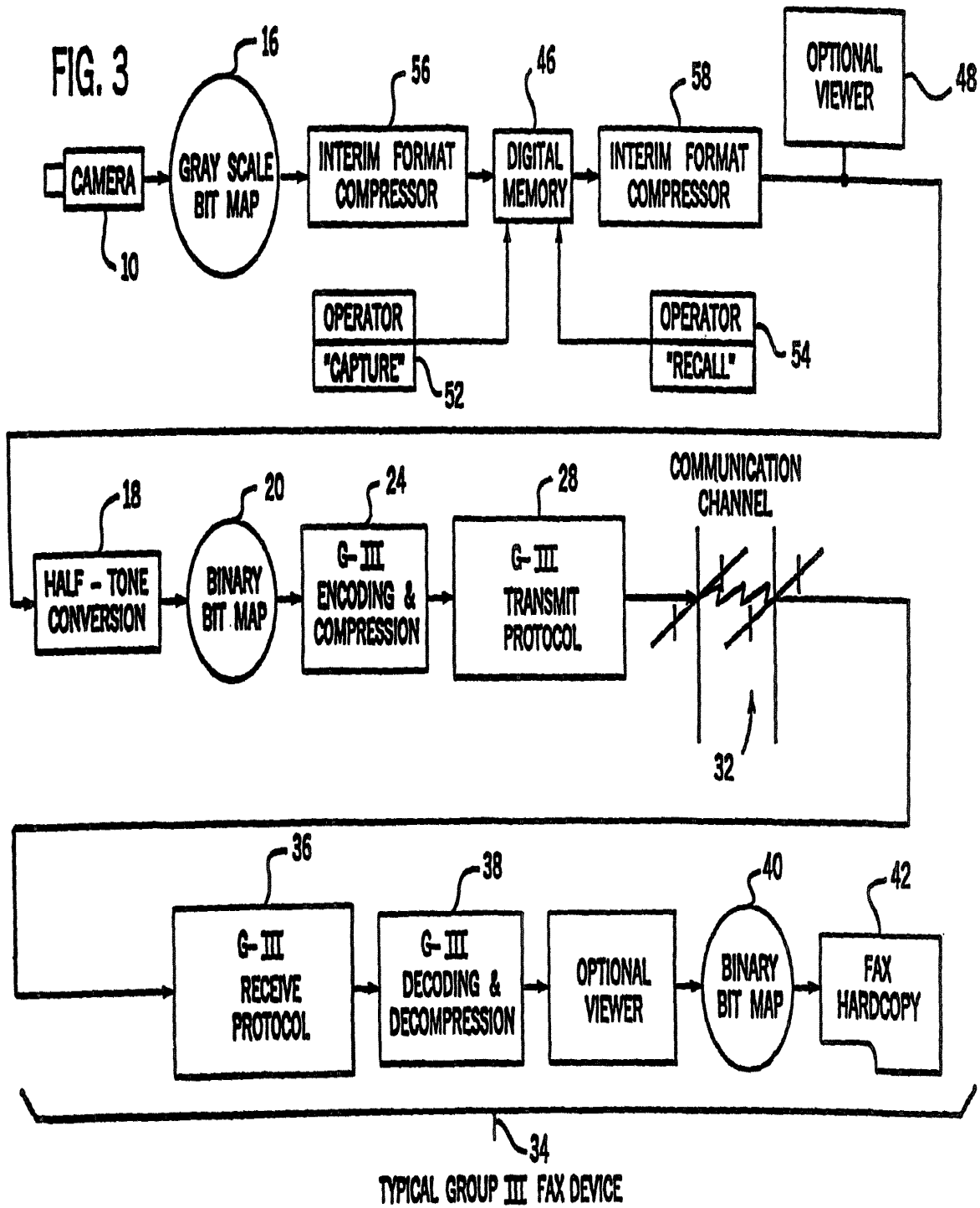
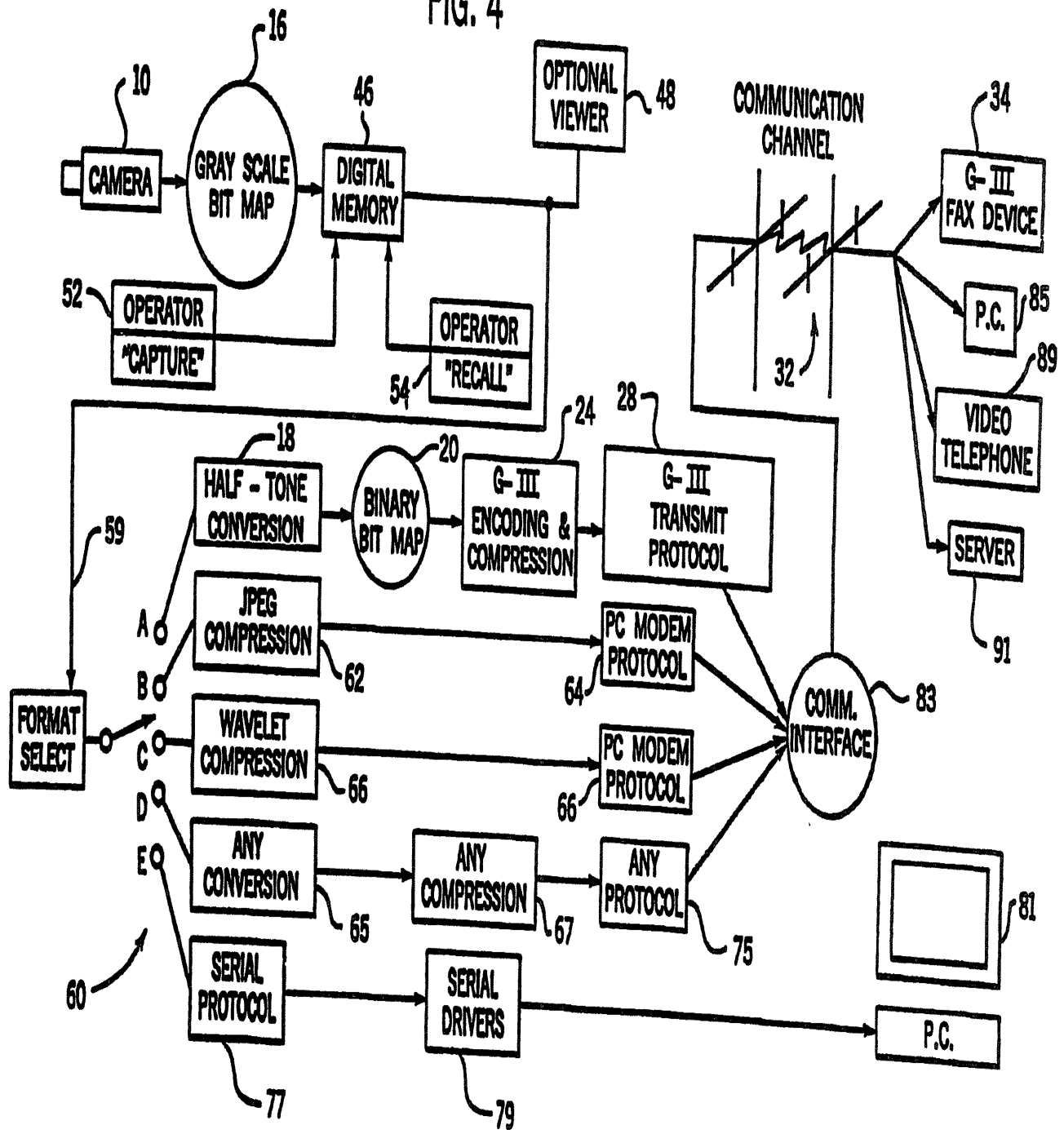


FIG. 4





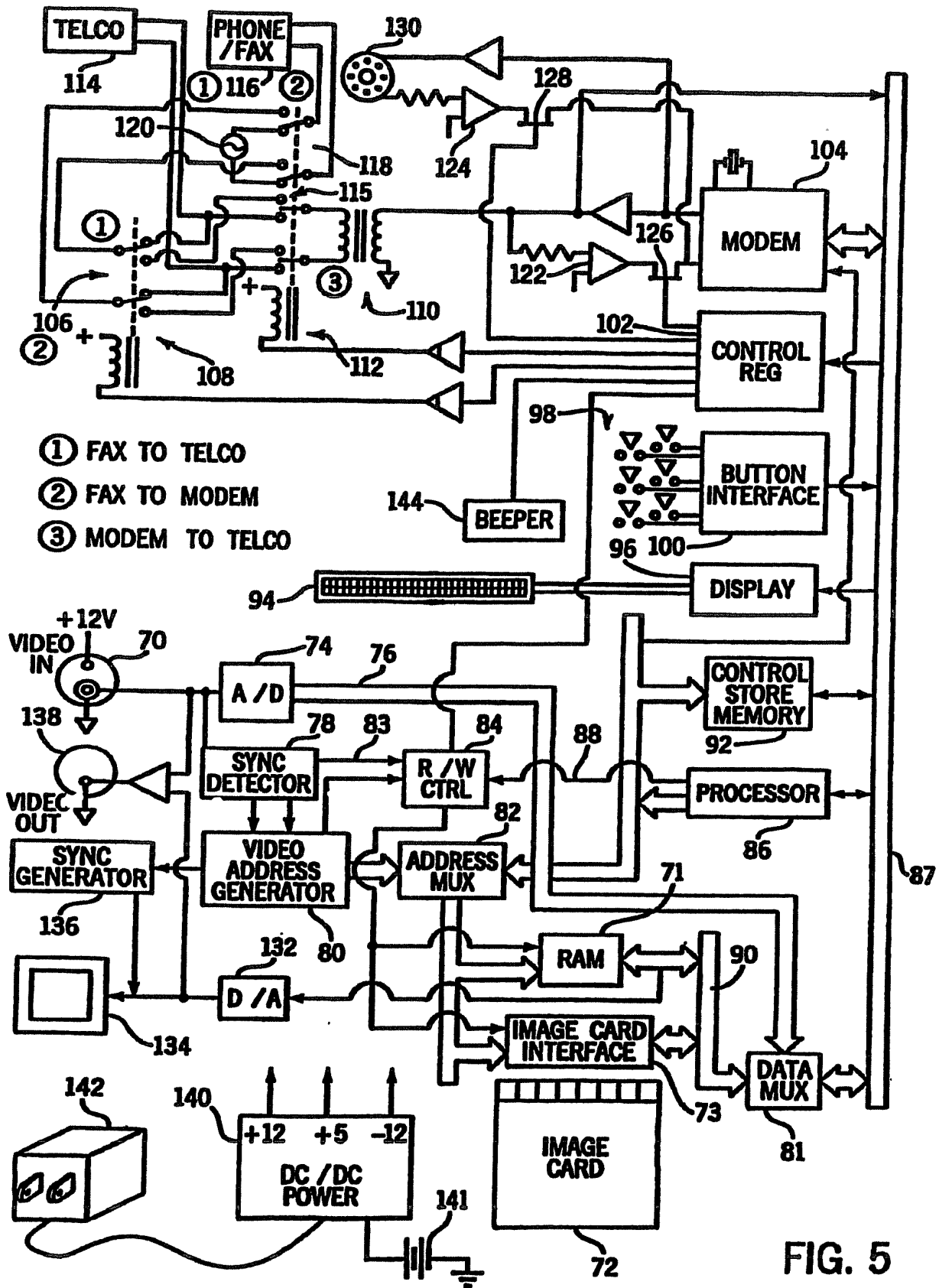


FIG. 5

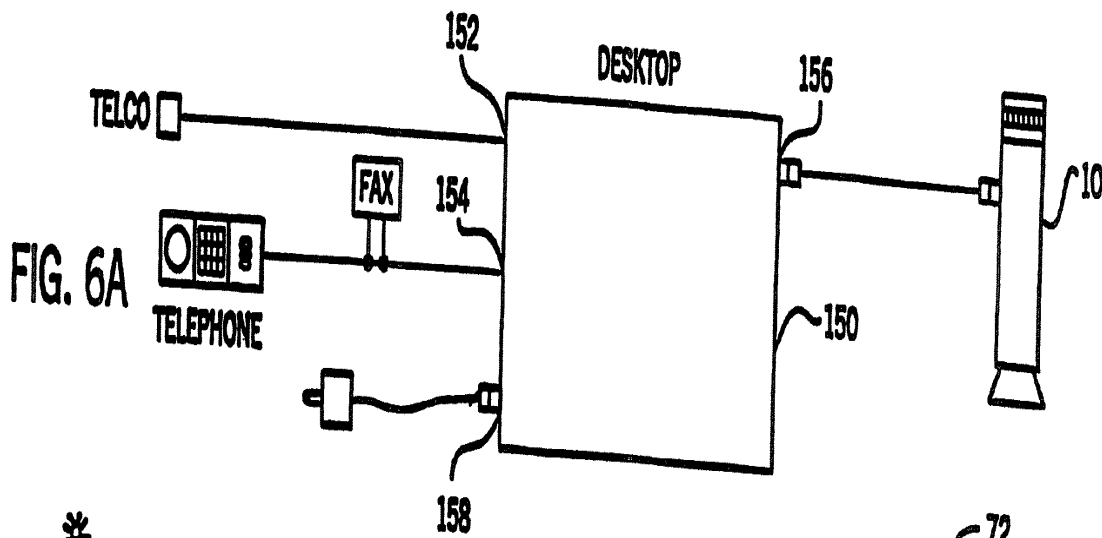


FIG. 6A

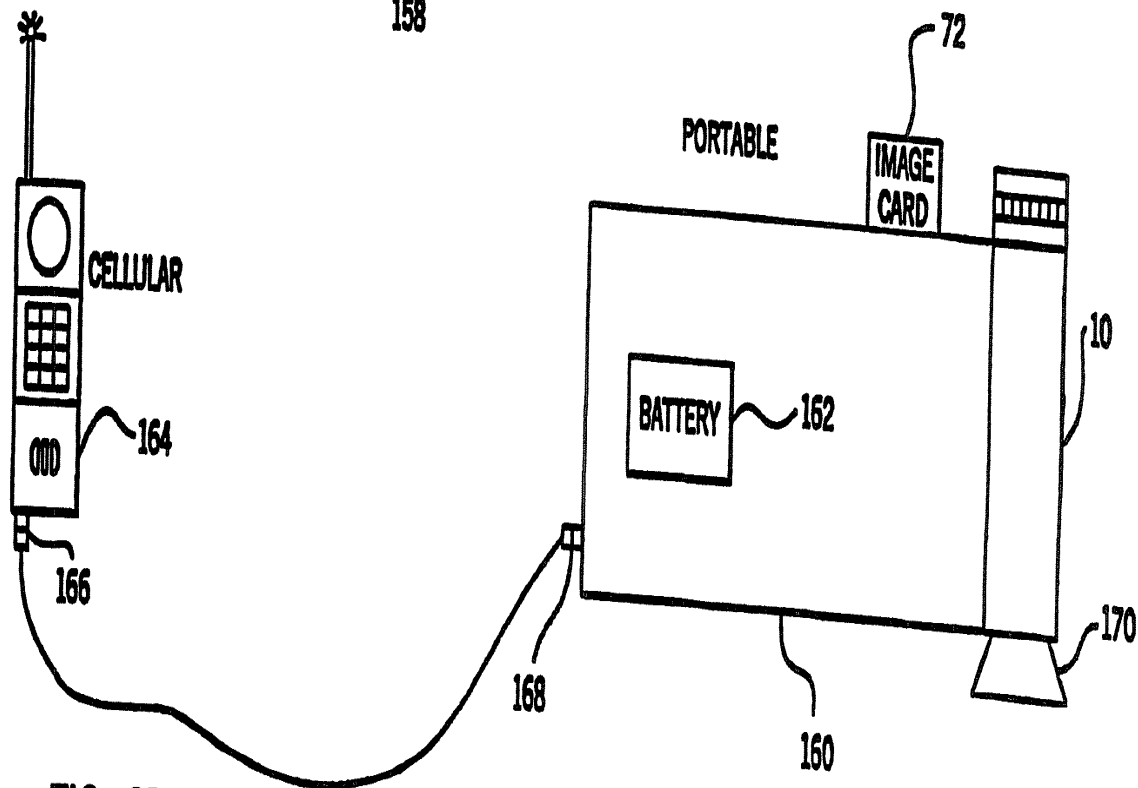


FIG. 6B

FIG. 6C

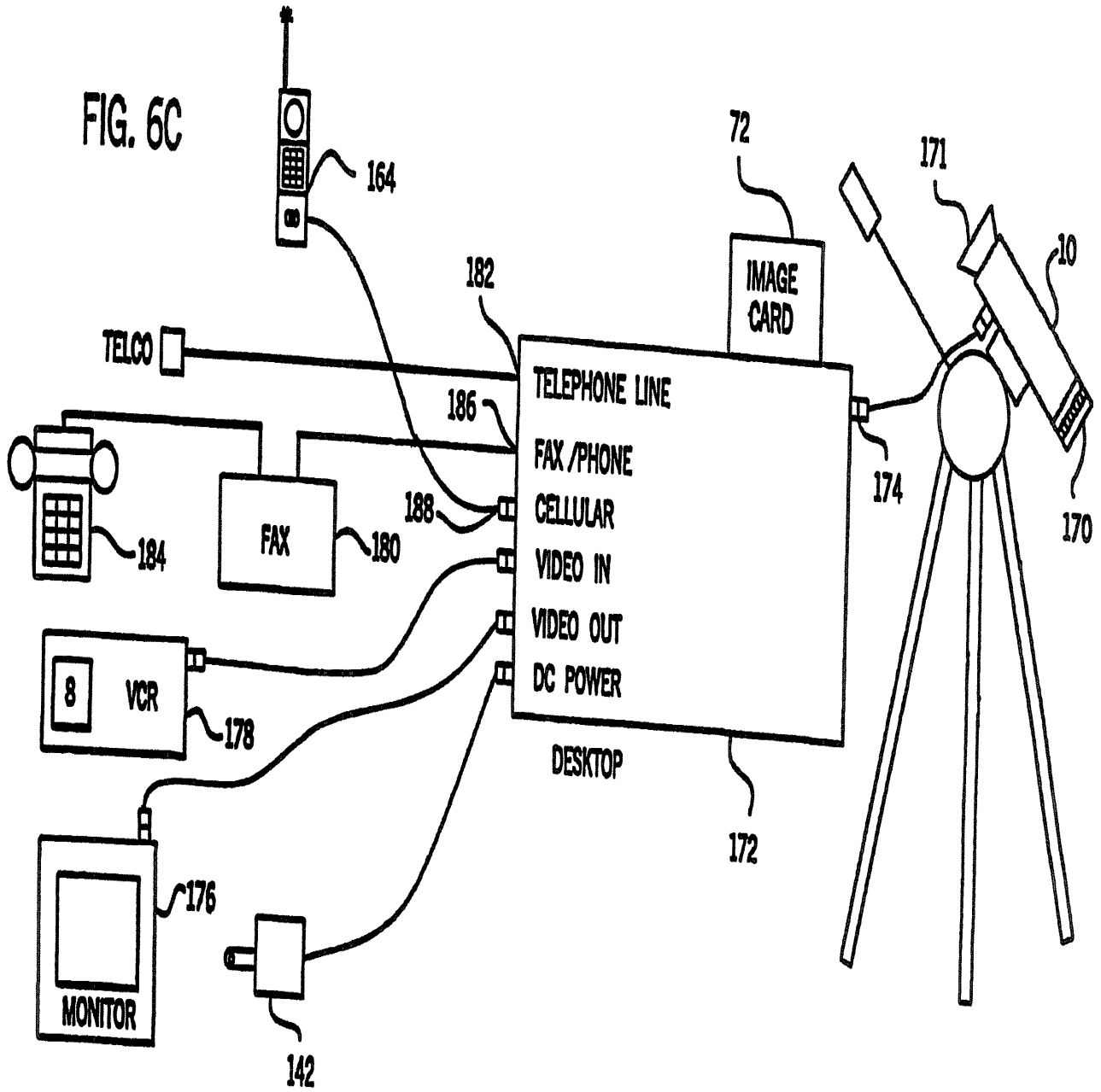


FIG. 7A

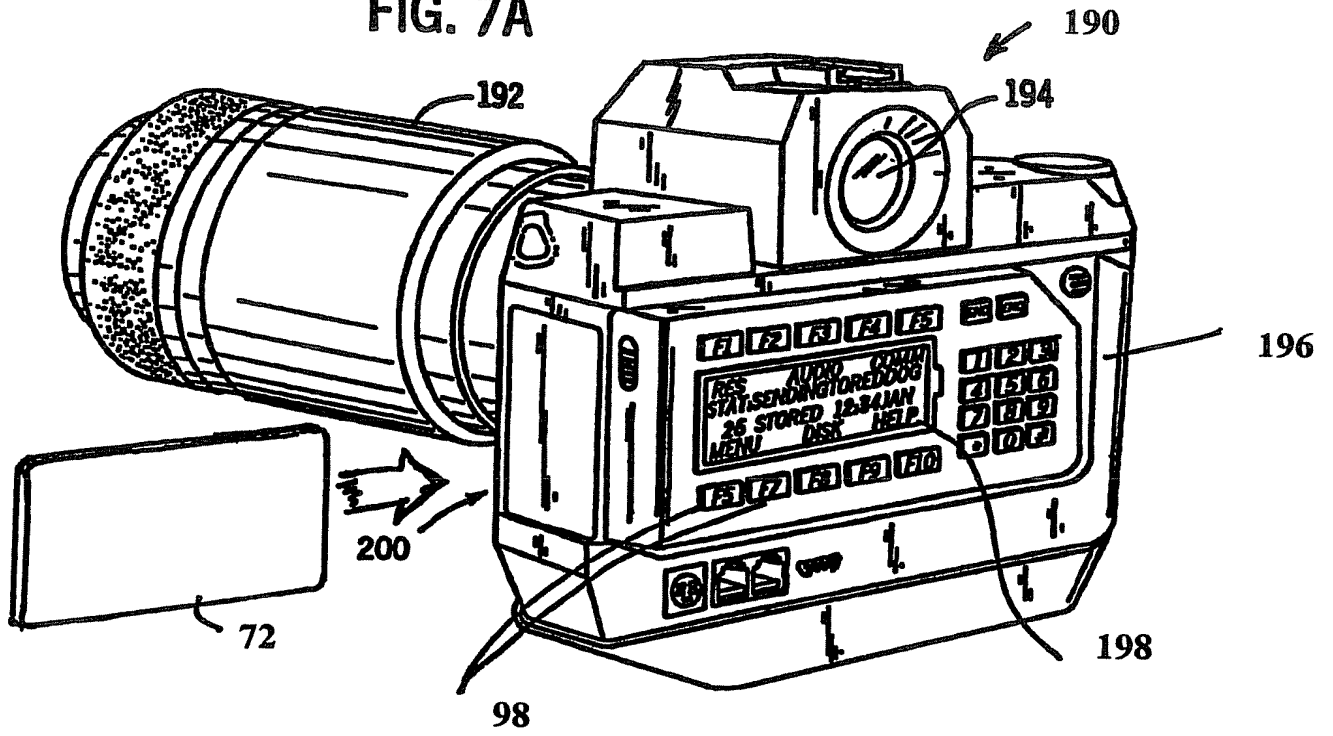


FIG. 7B

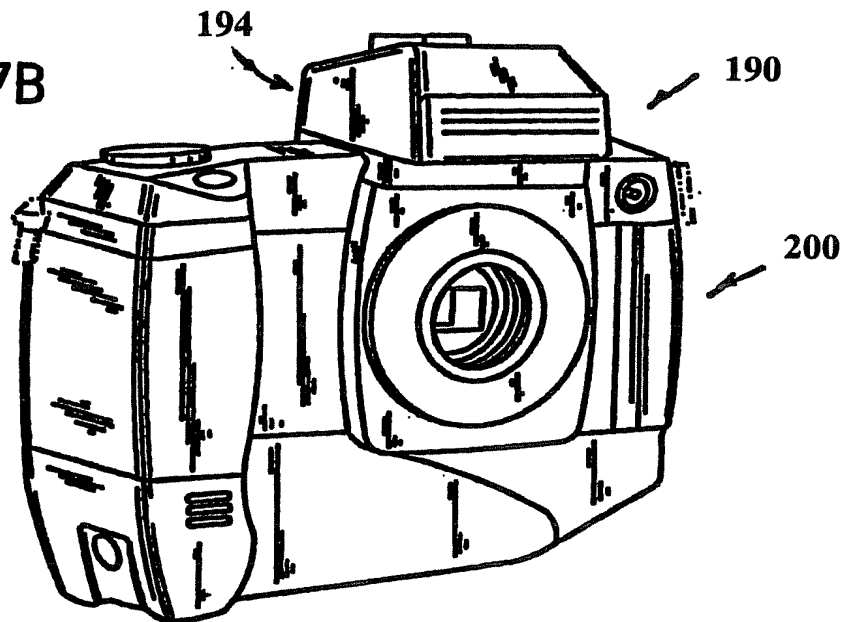


FIG. 8A-1

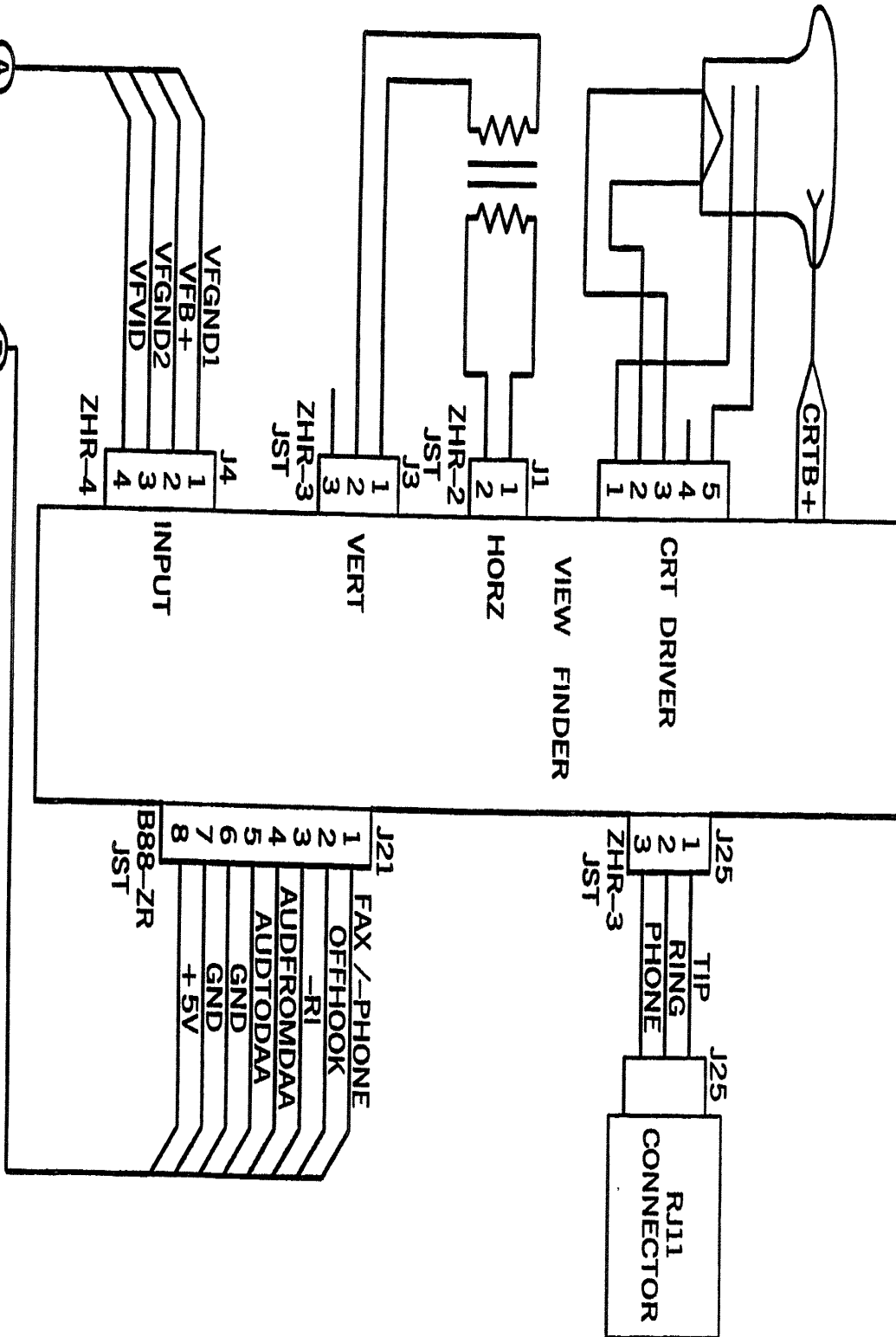
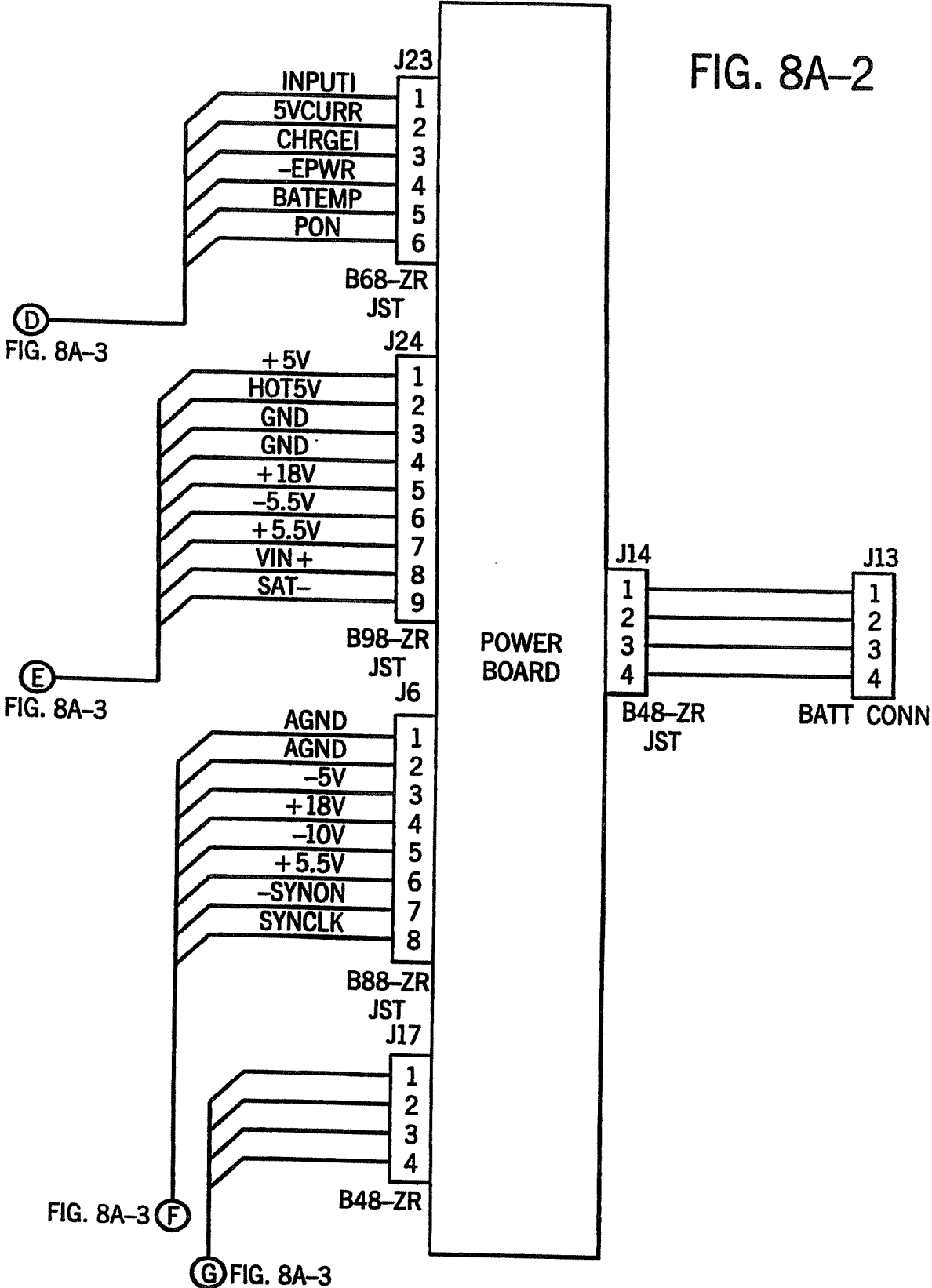


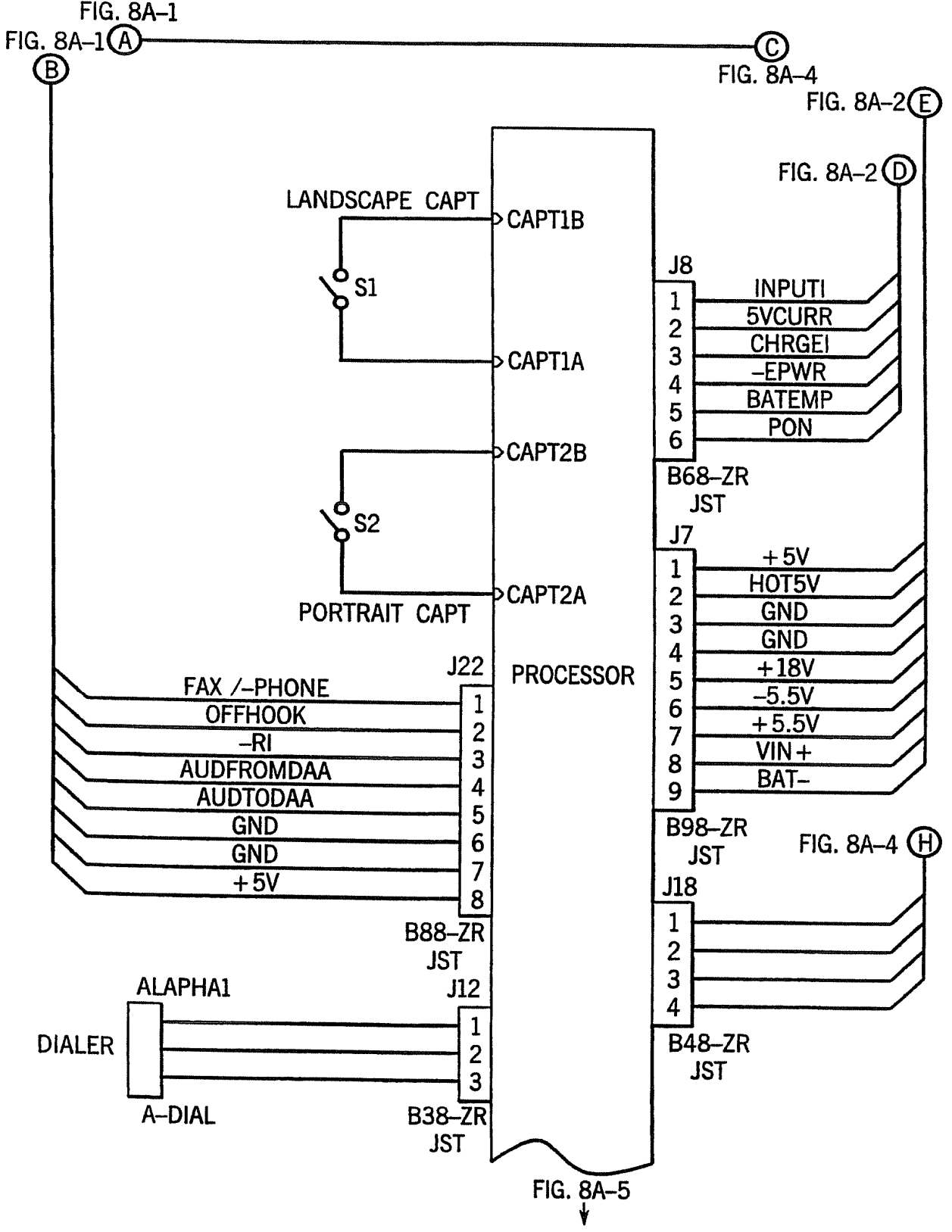
FIG. 8A-3

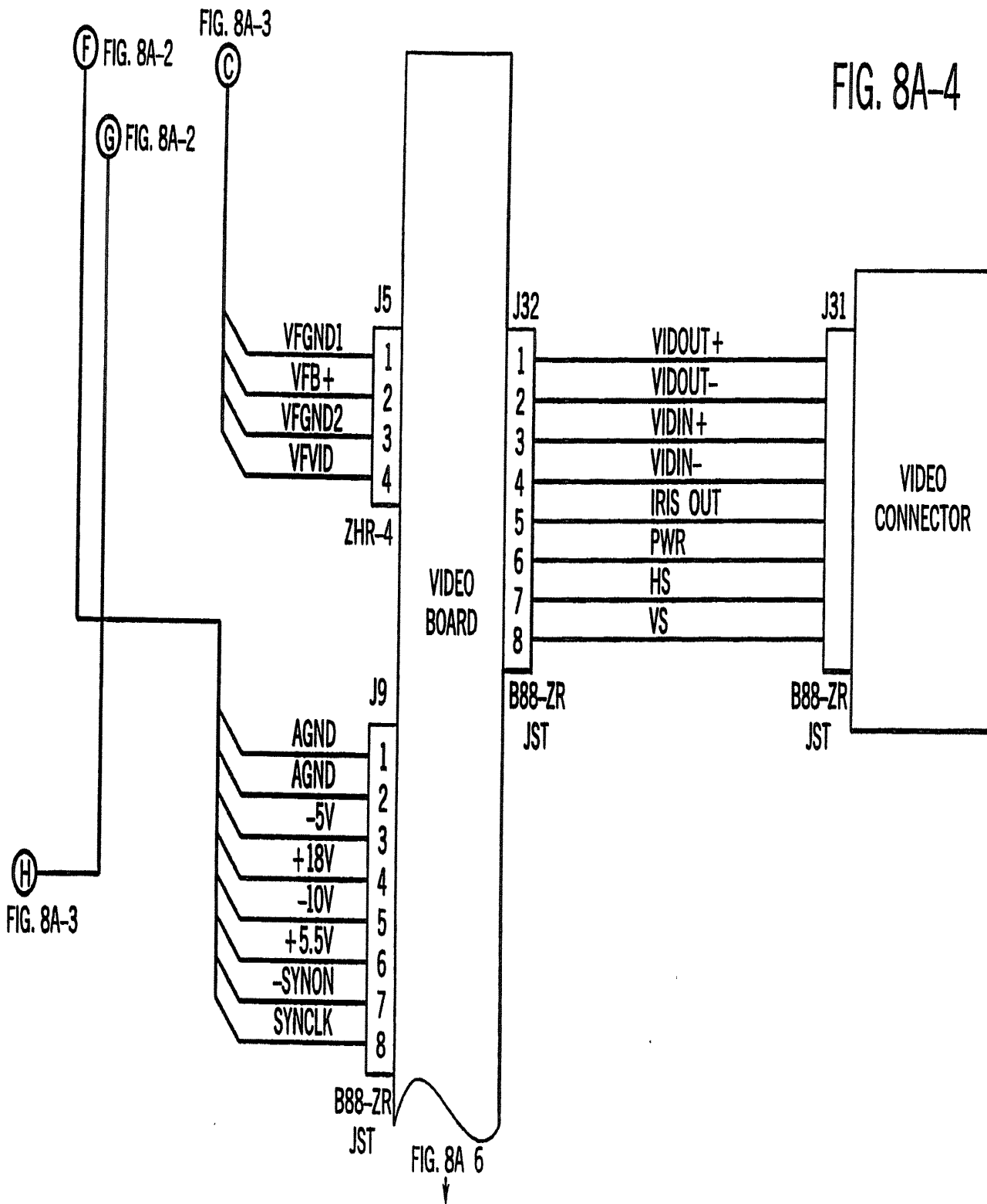
FIG. 8A-3

FIG. 8A-2



# FIG. 8A-3

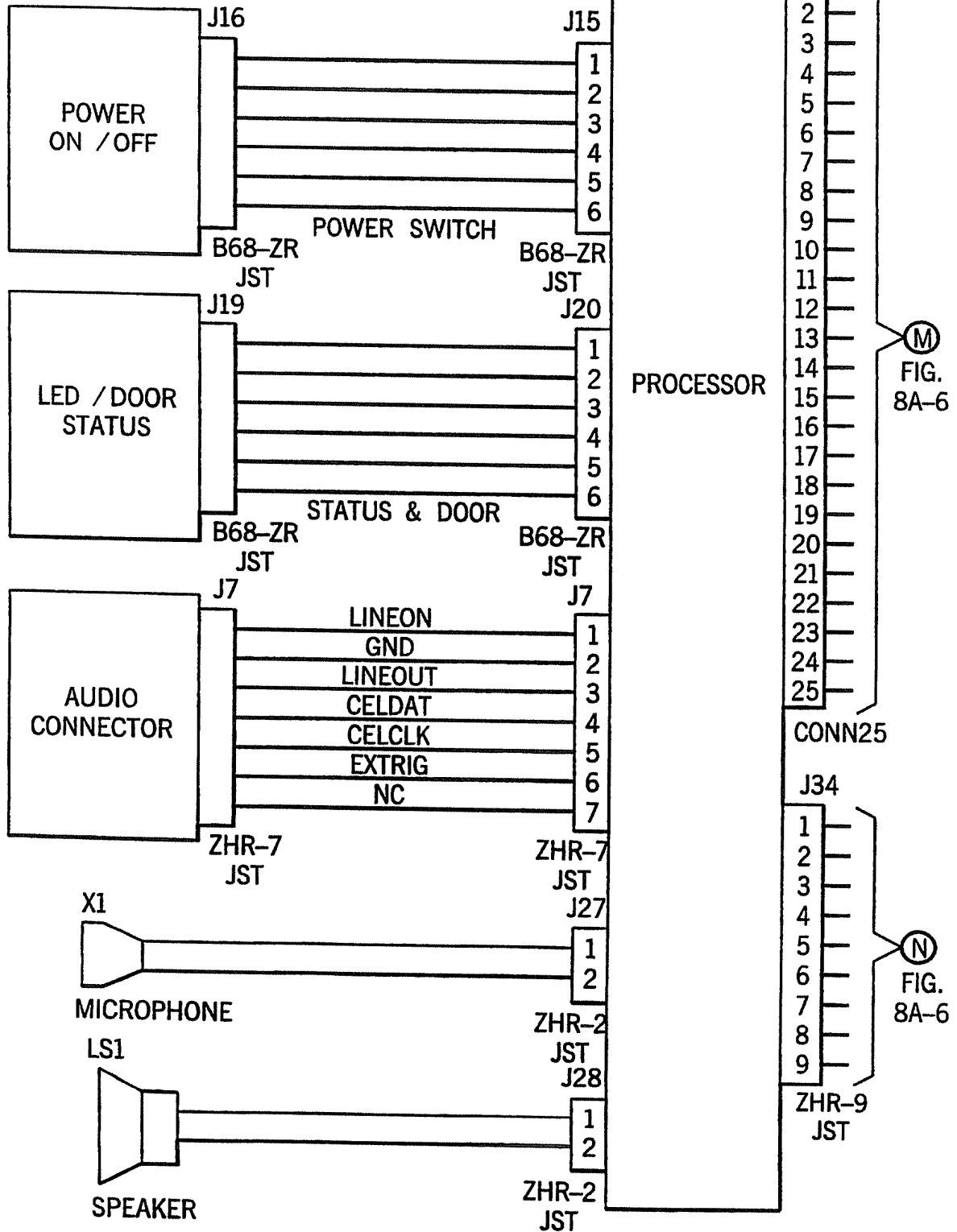






↑  
FIG. 8A-3

FIG. 8A-5



(M)  
FIG. 8A-6

(N)  
FIG. 8A-6

FIG. 8A-6

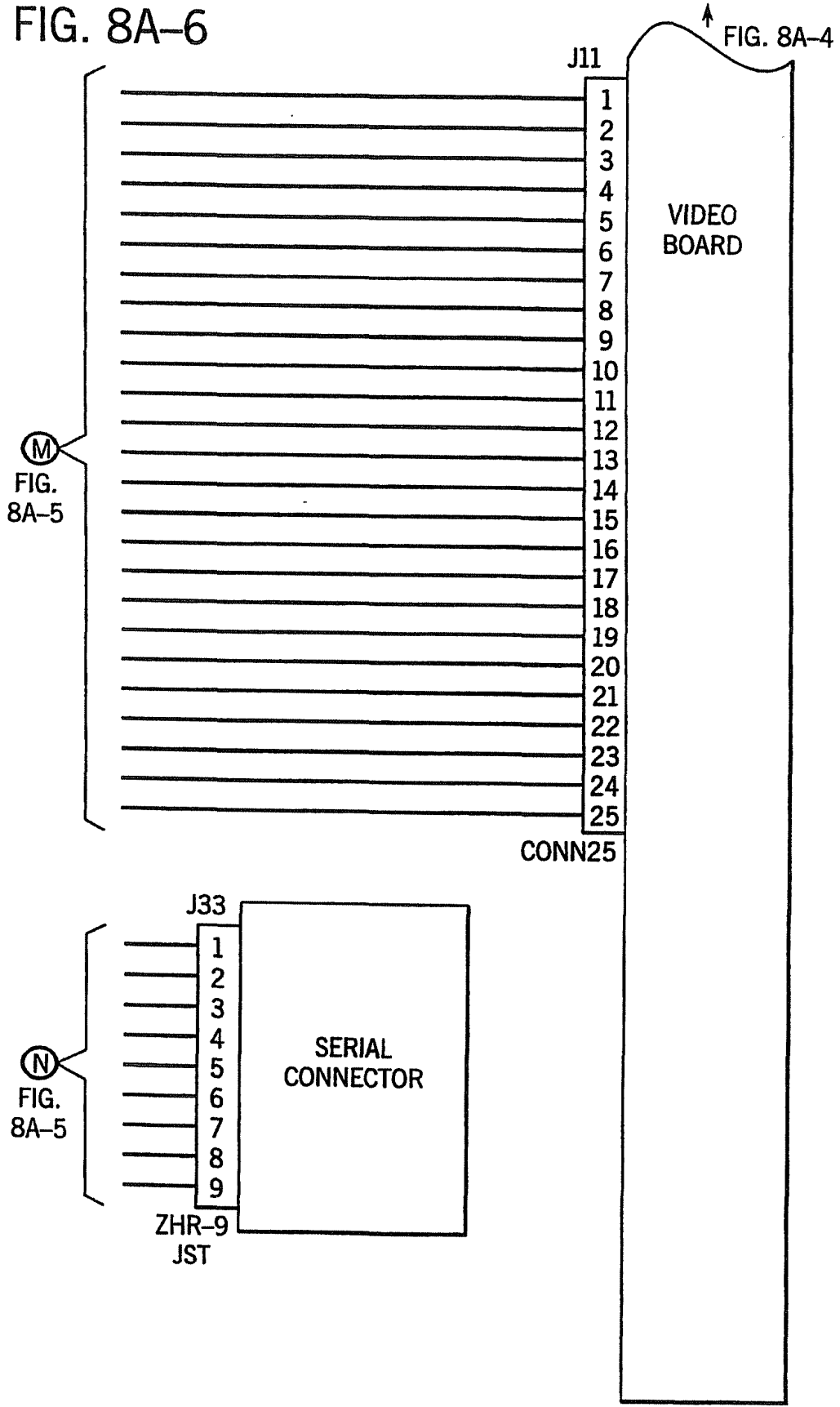
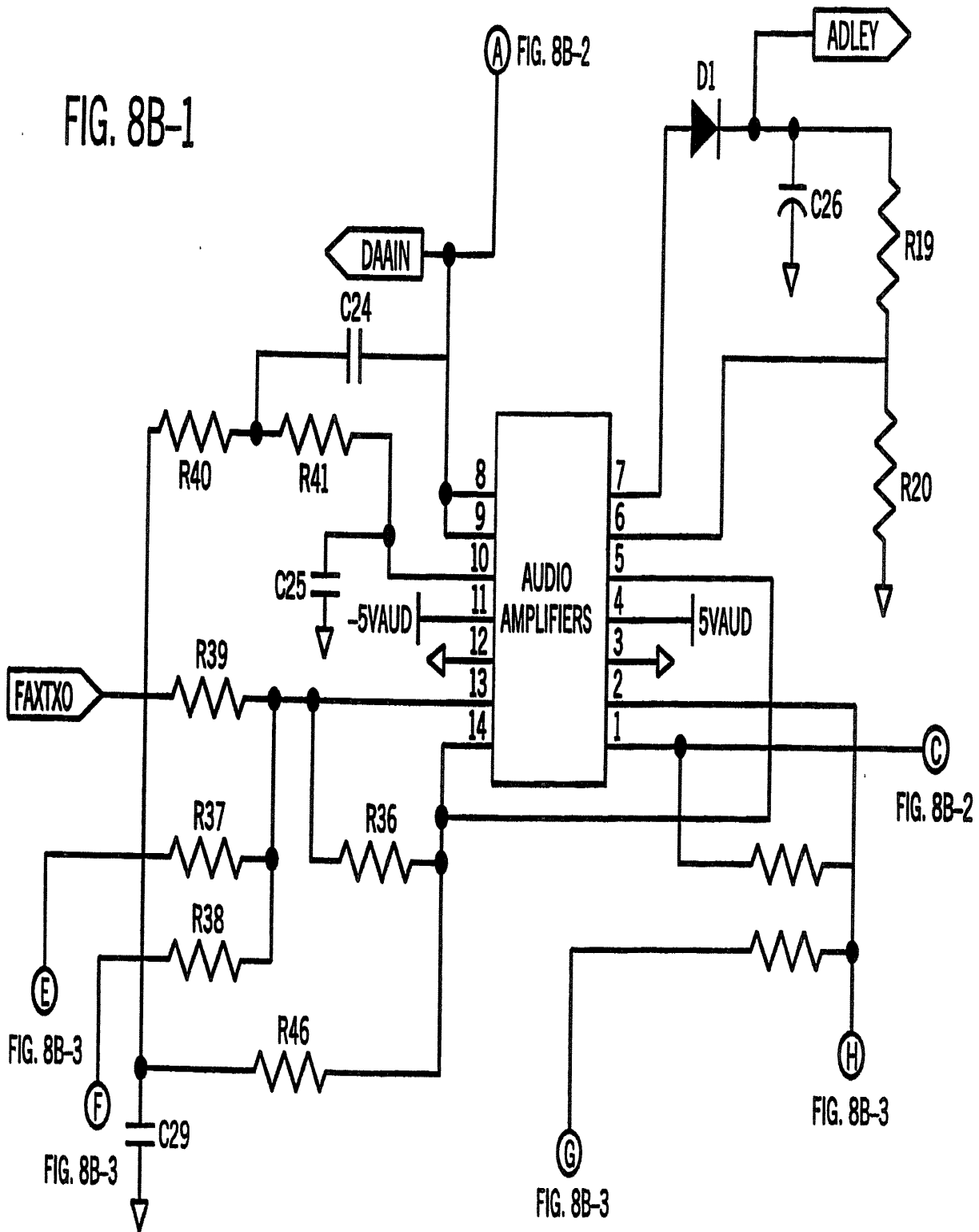


FIG. 8B-1



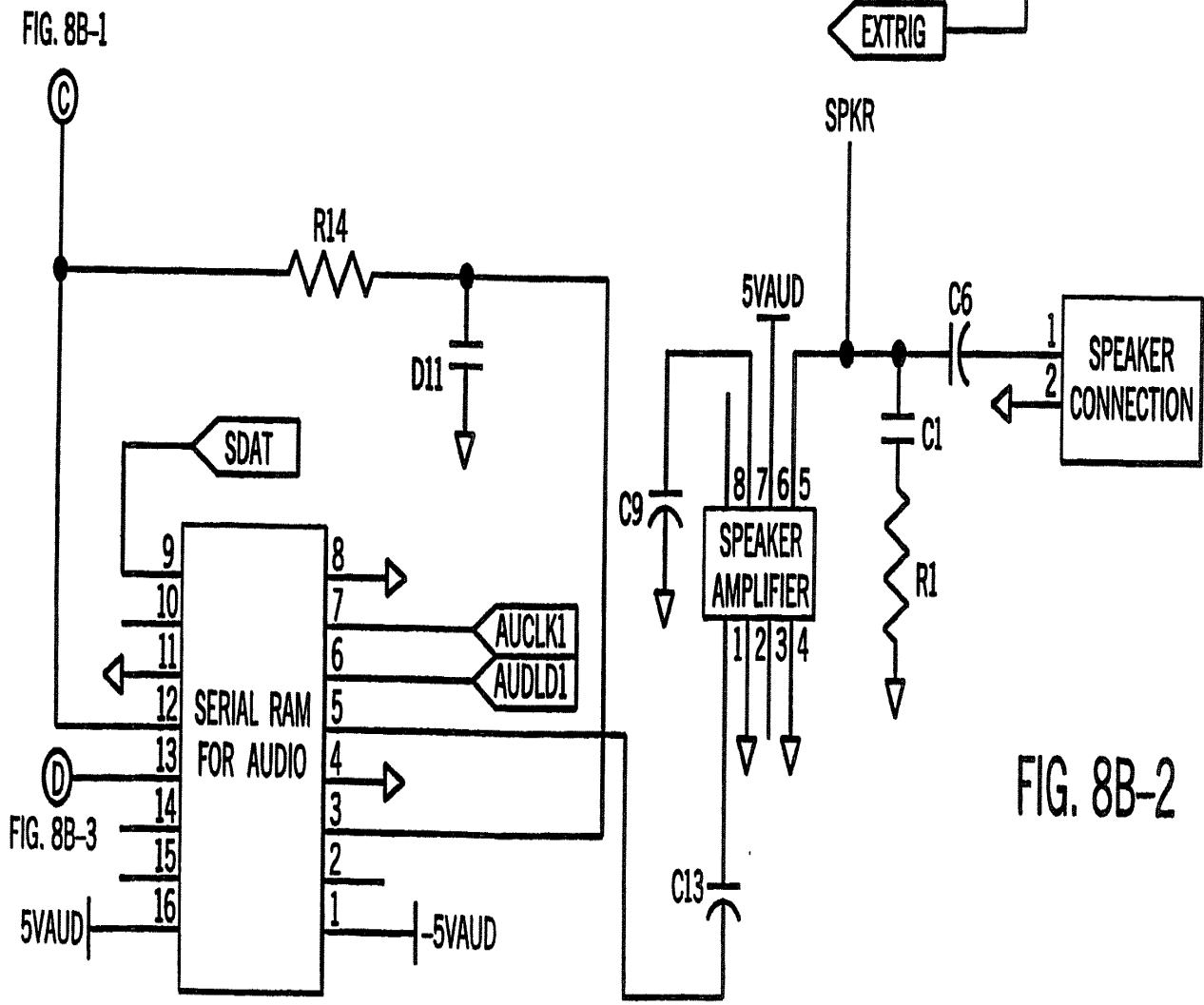
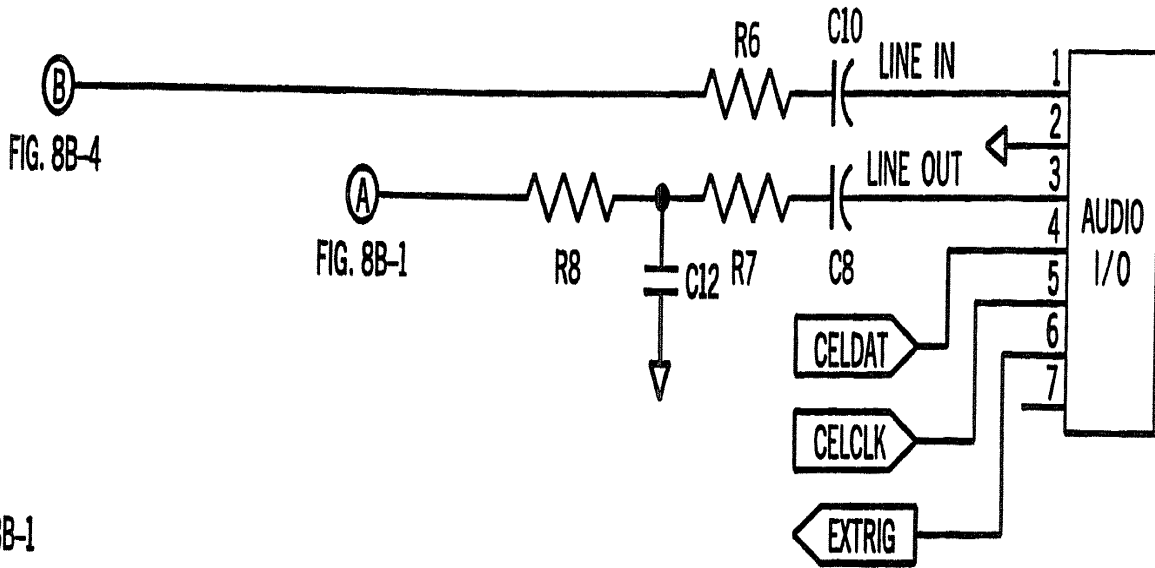


FIG. 8B-3

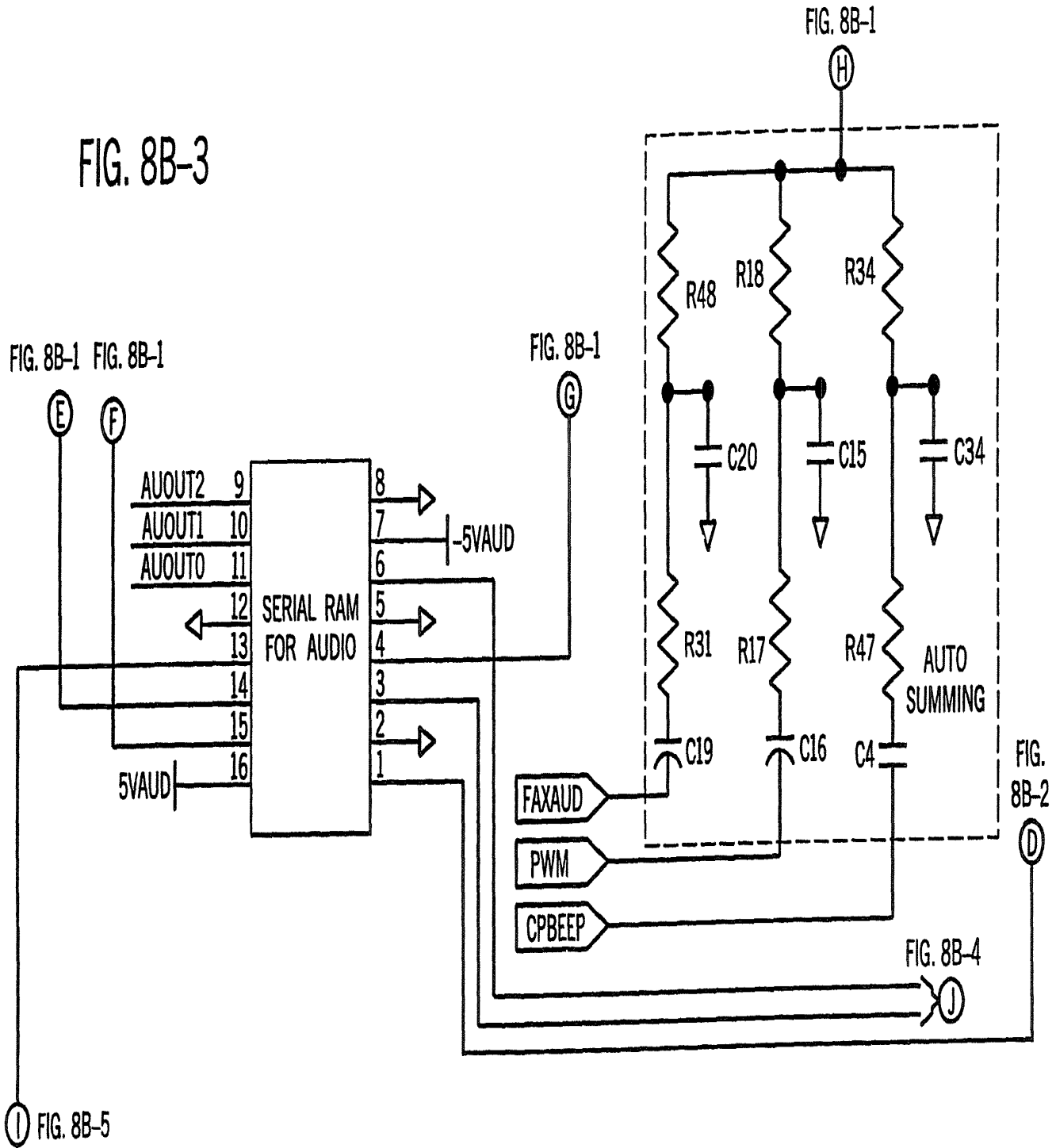


FIG. 8B-4

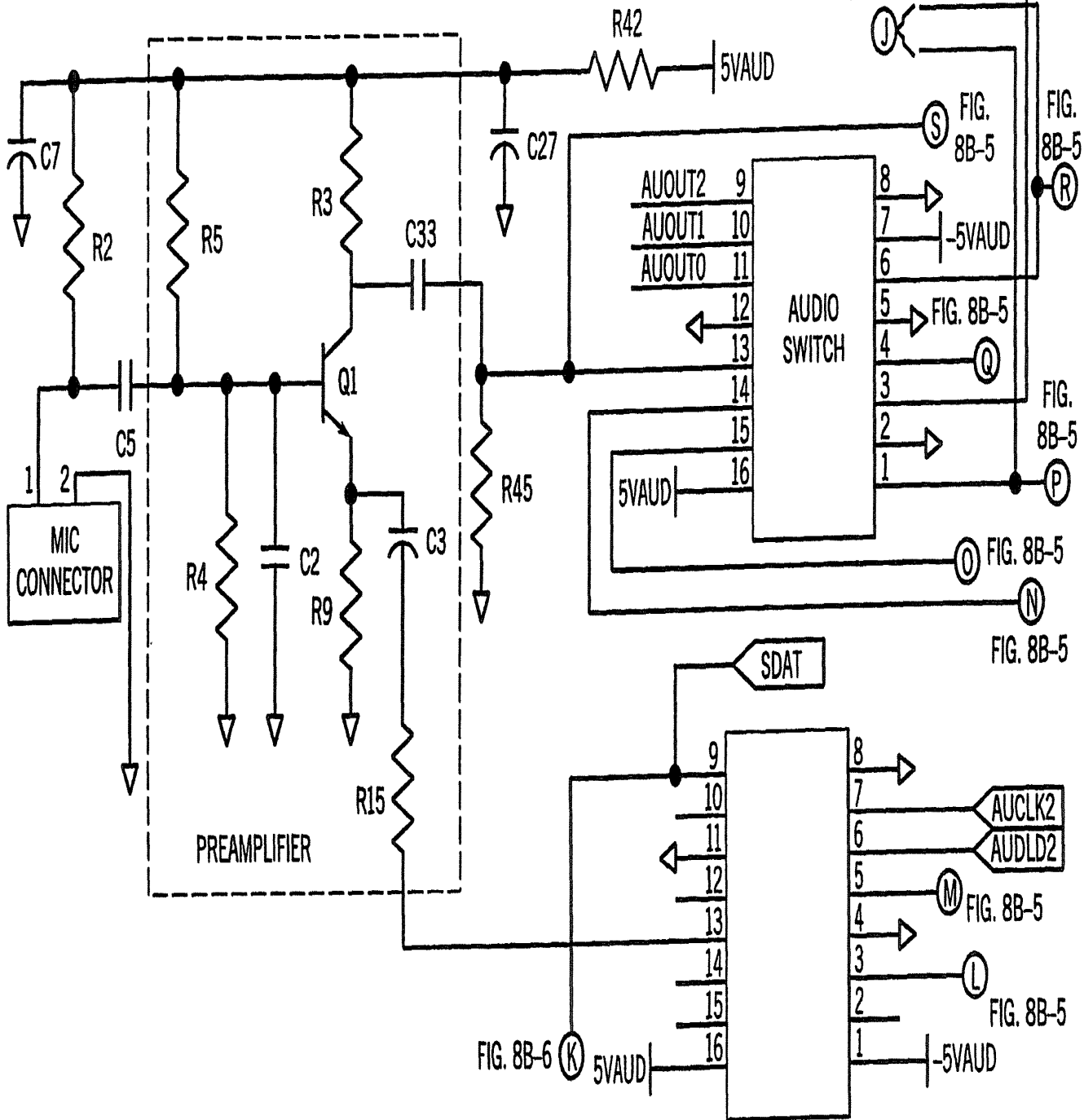


FIG. 8B-5

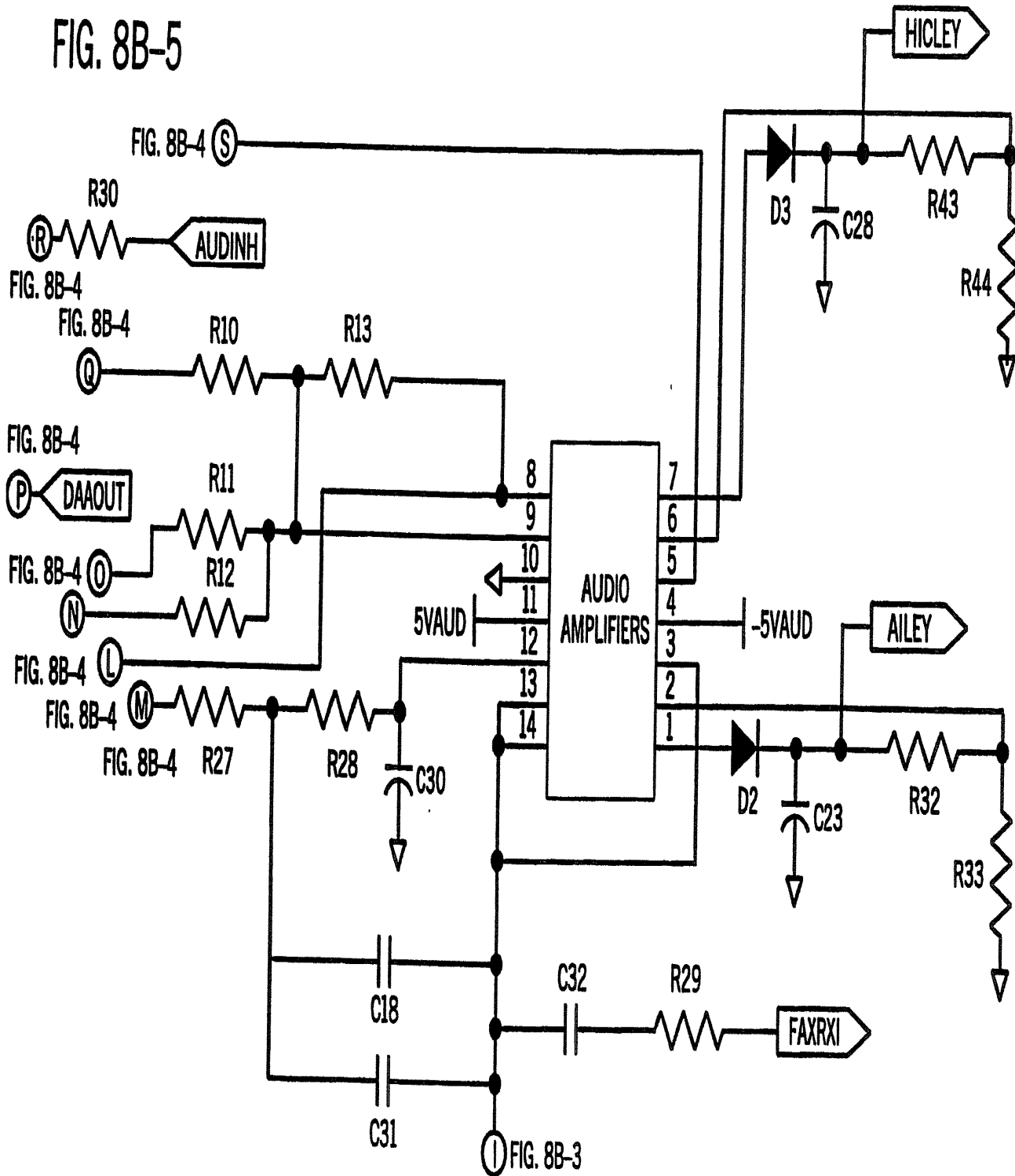


FIG. 8B-6

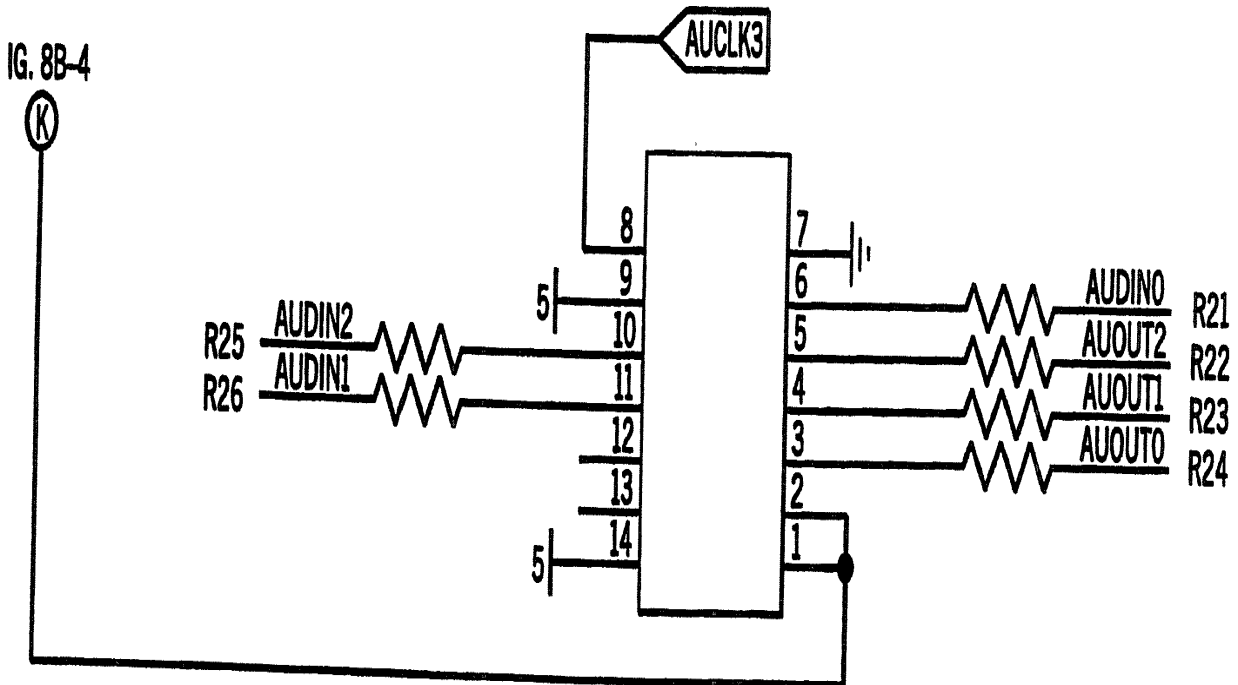




FIG. 8C-1

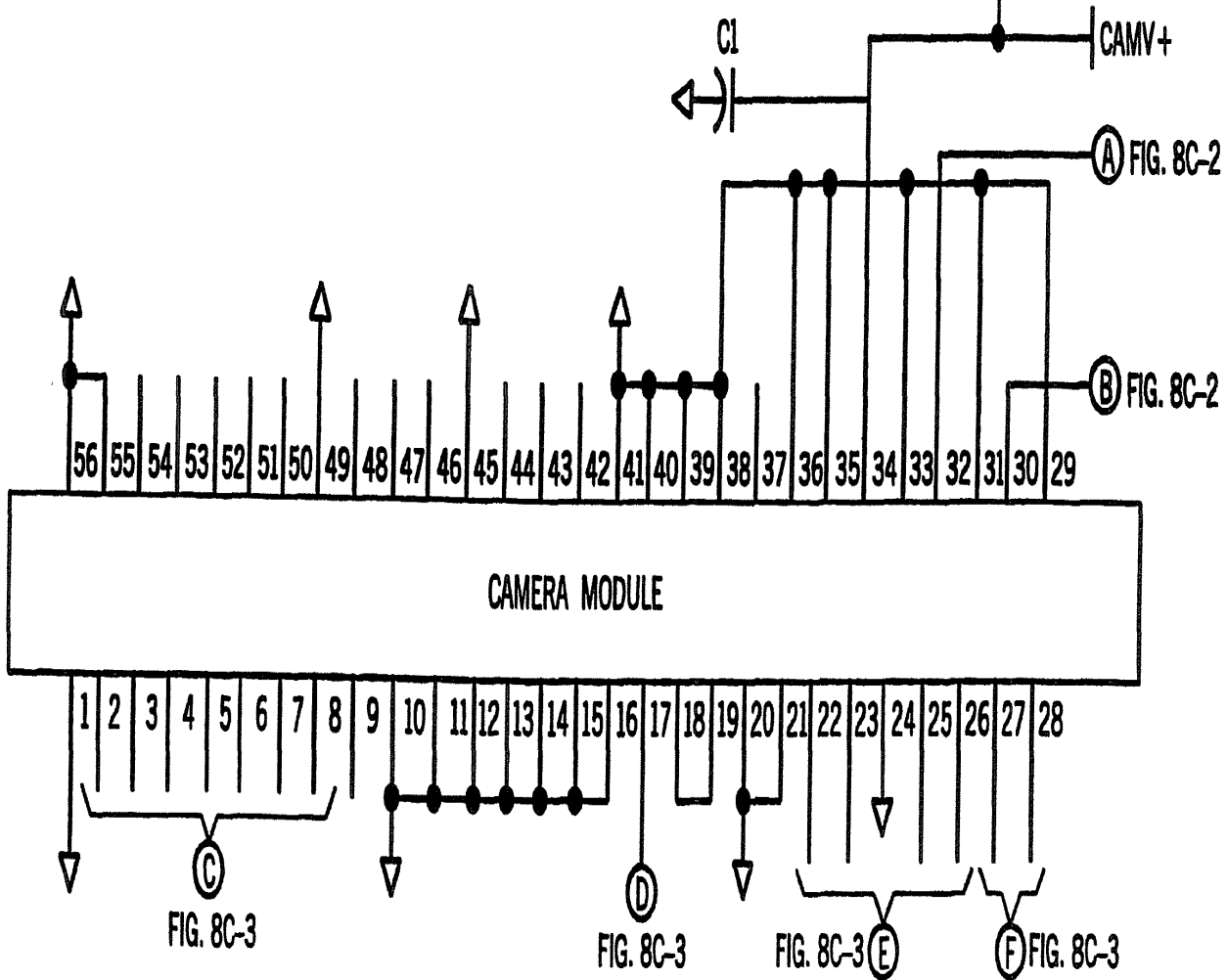
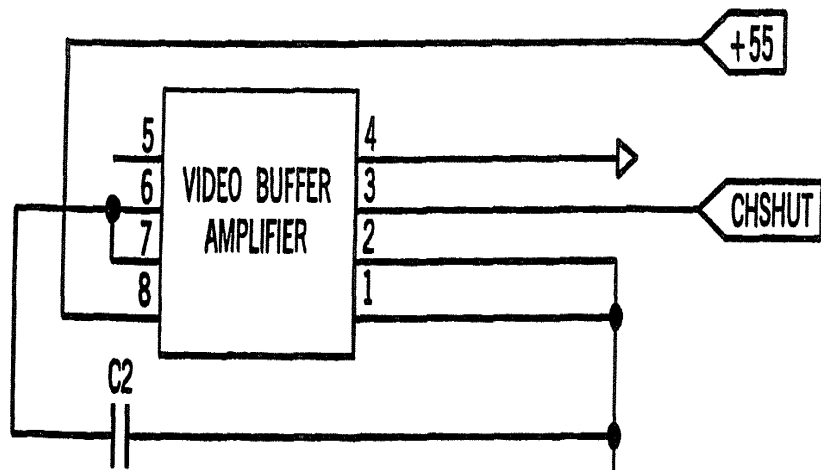
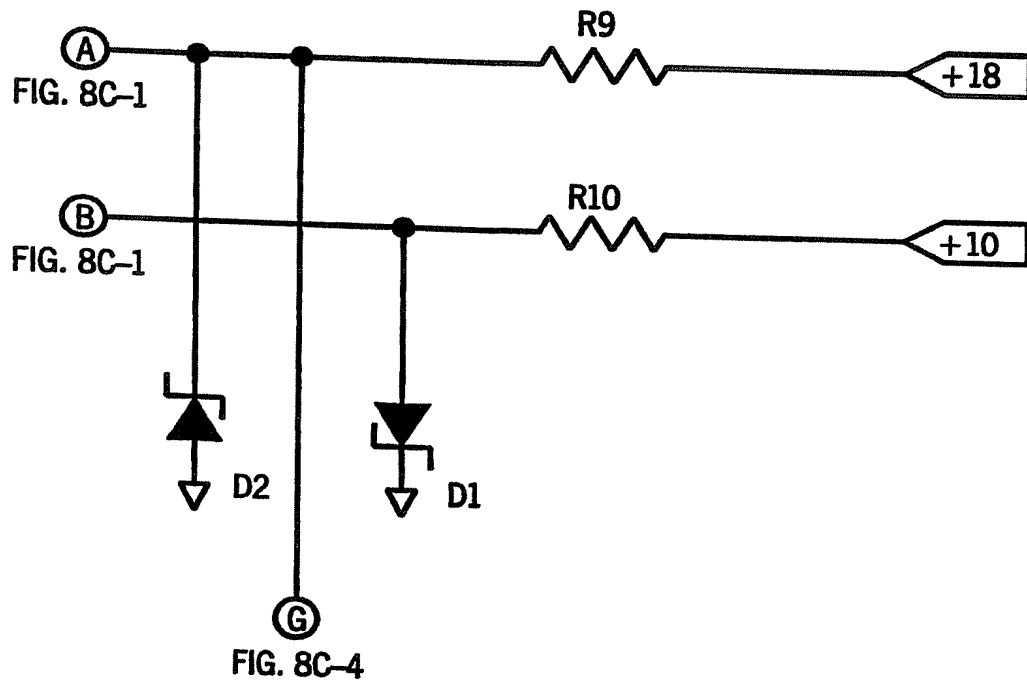


FIG. 8C-2



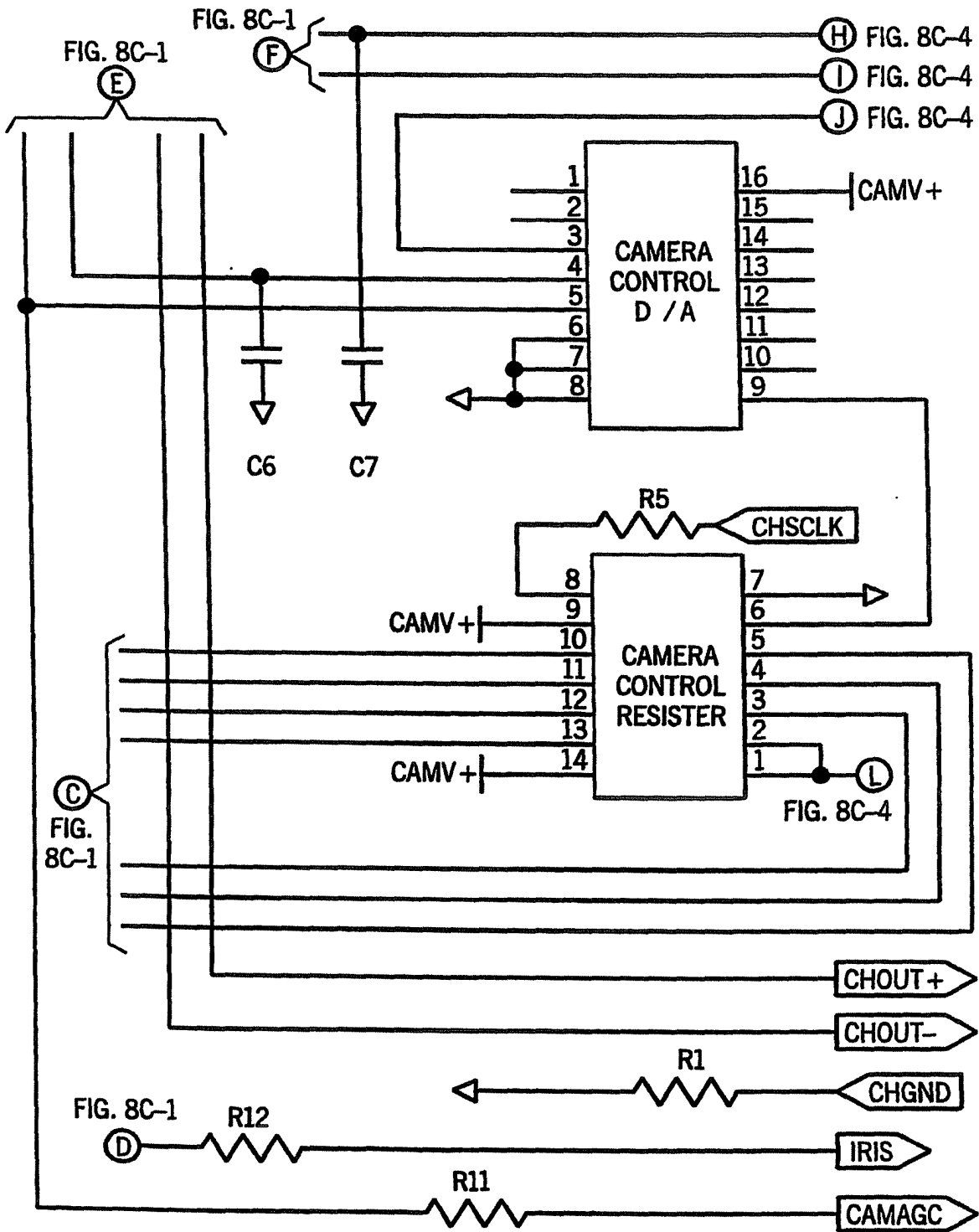


FIG. 8C-3

FIG. 8C-4

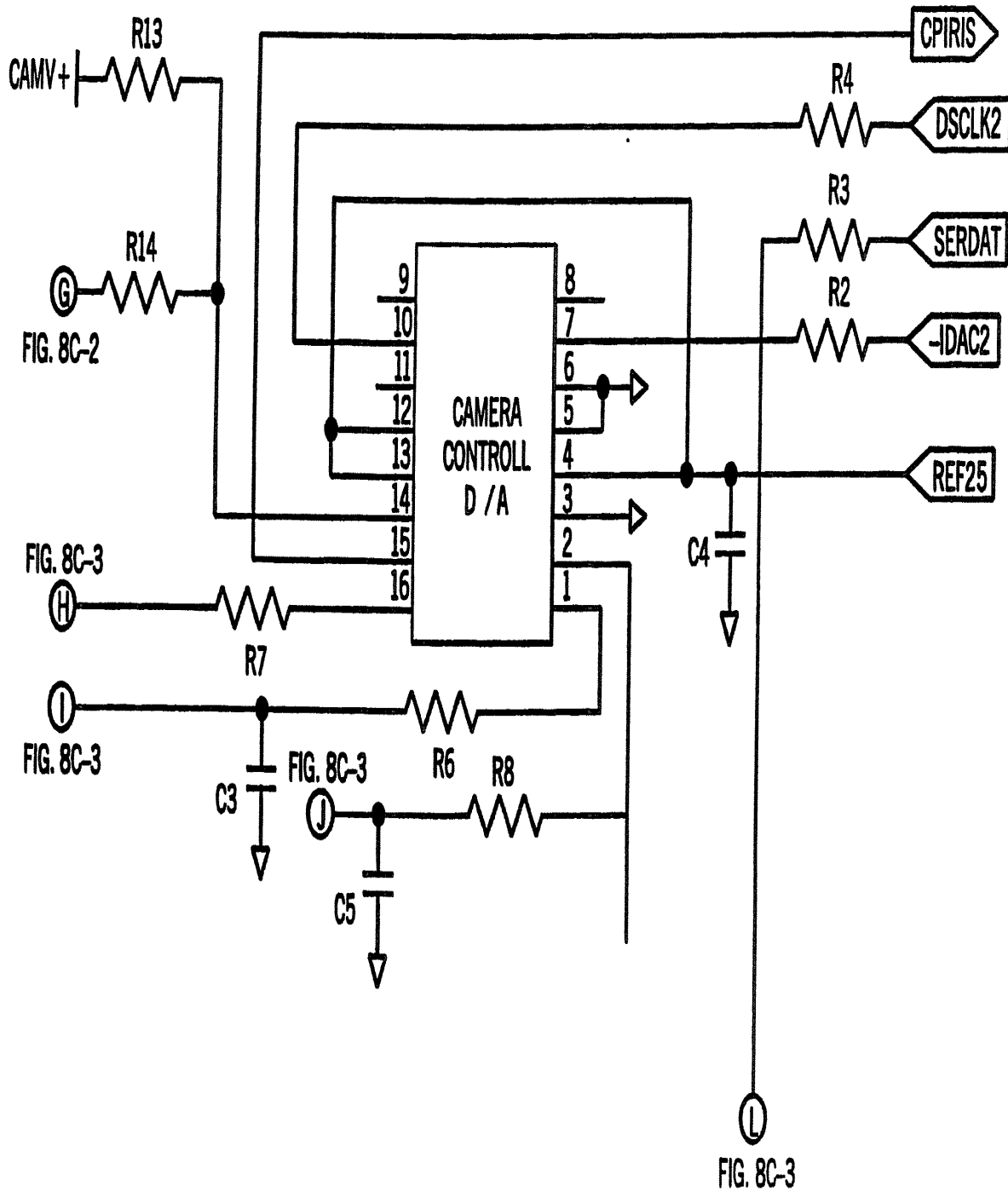


FIG. 8D-1

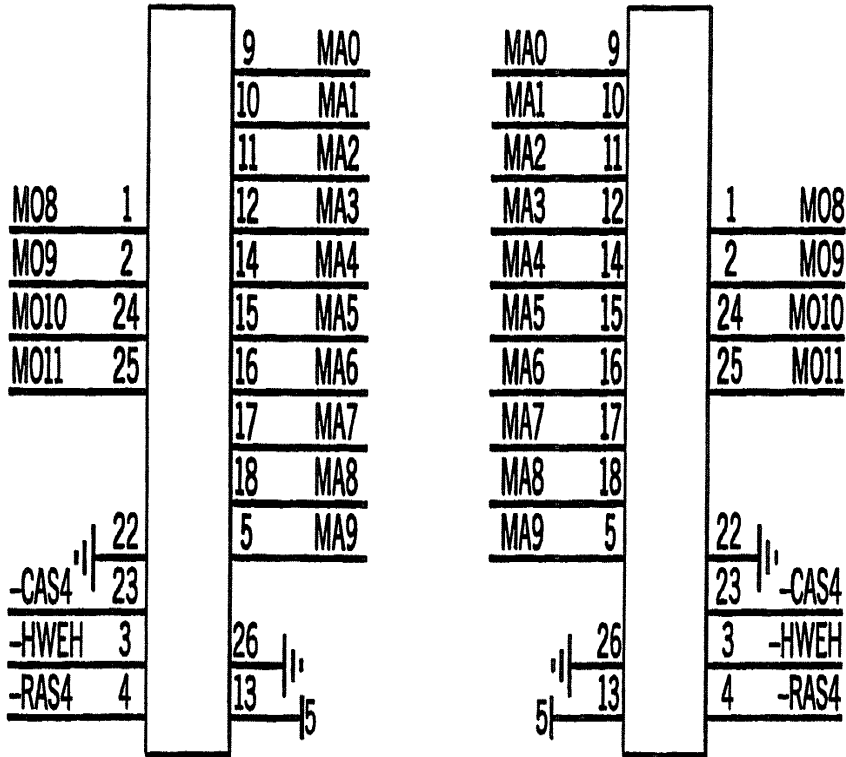
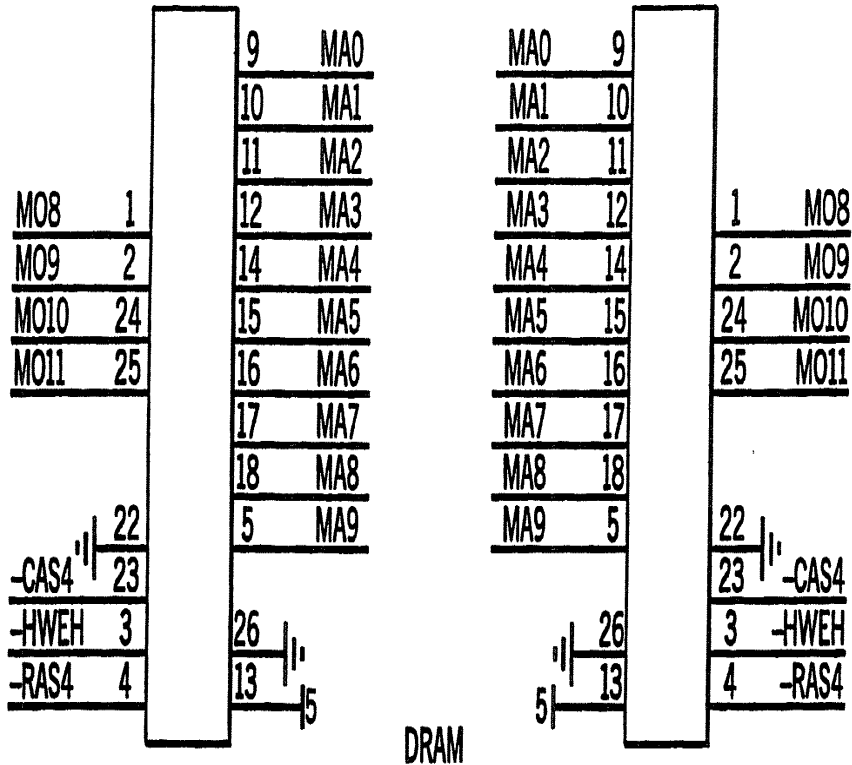
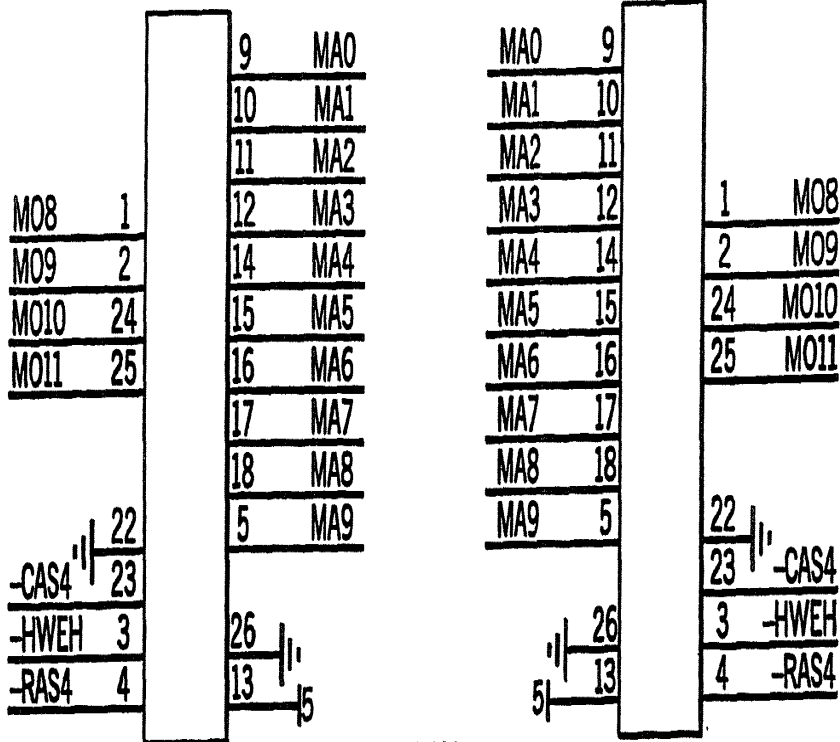


FIG. 8D-2



DRAM

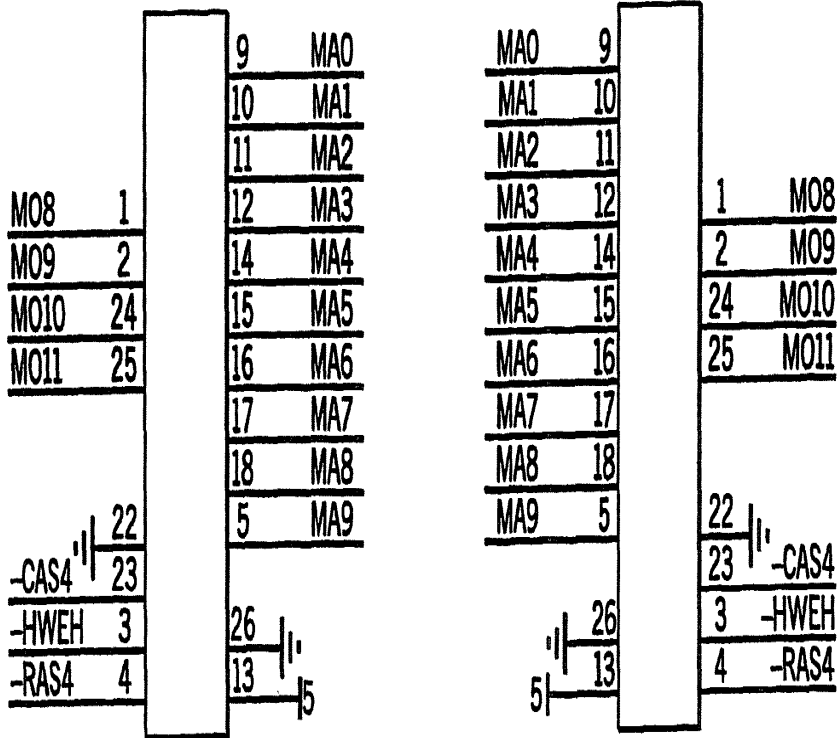


FIG. 8D-3

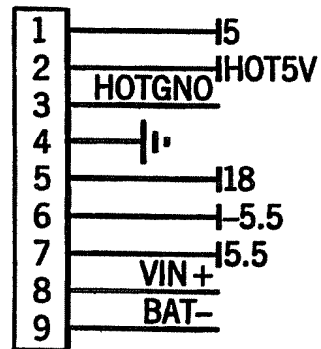
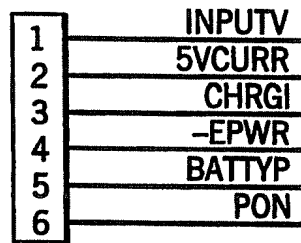
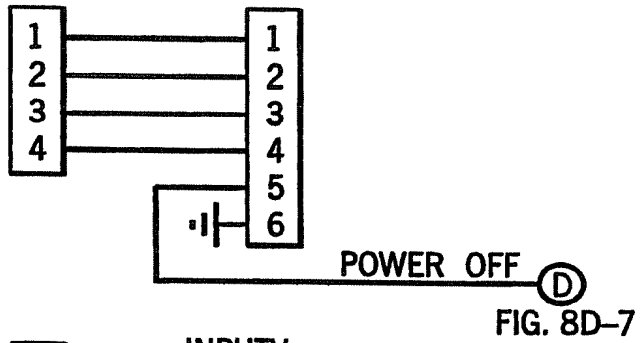


FIG. 8D-4

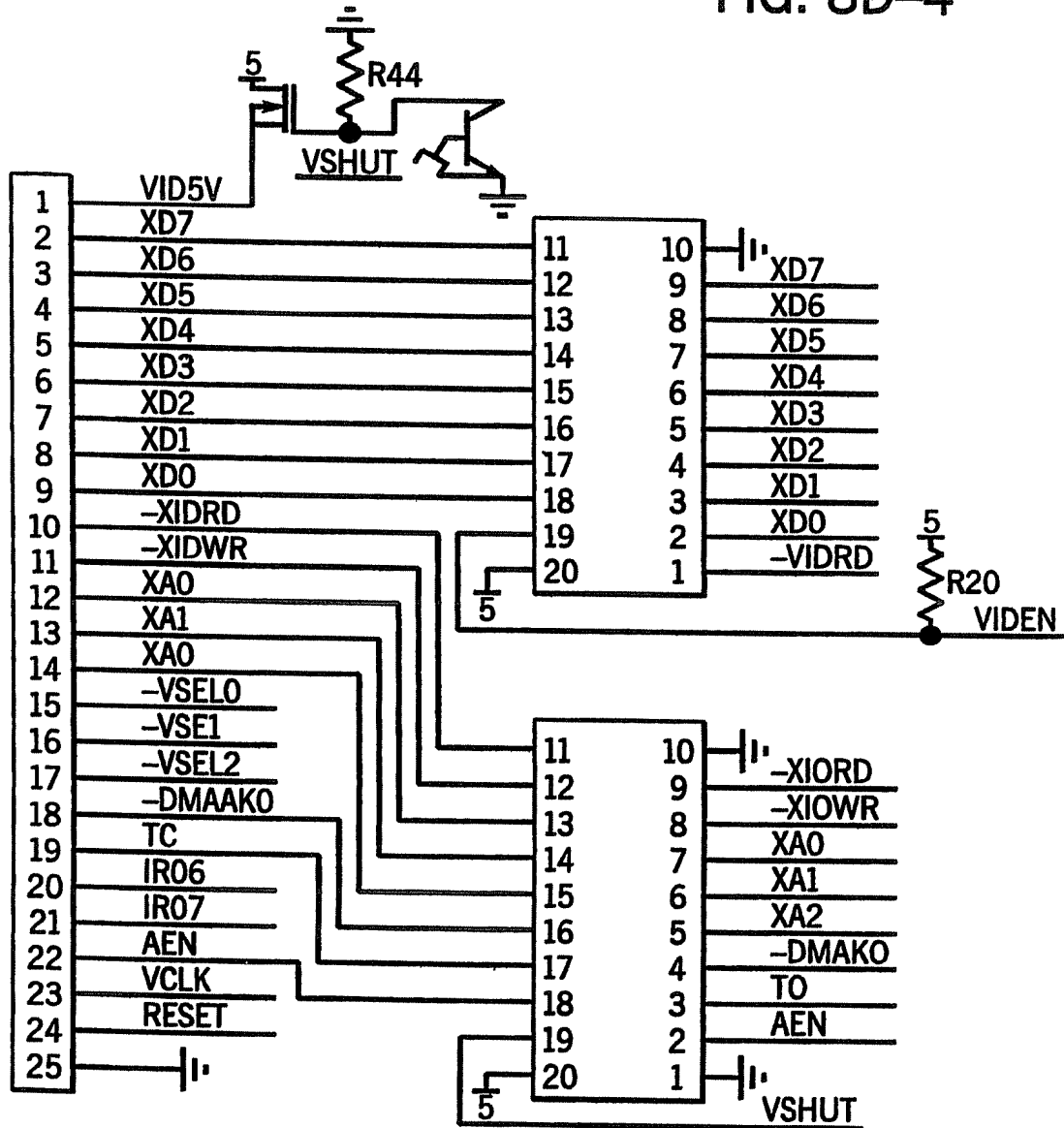




FIG. 8D-5

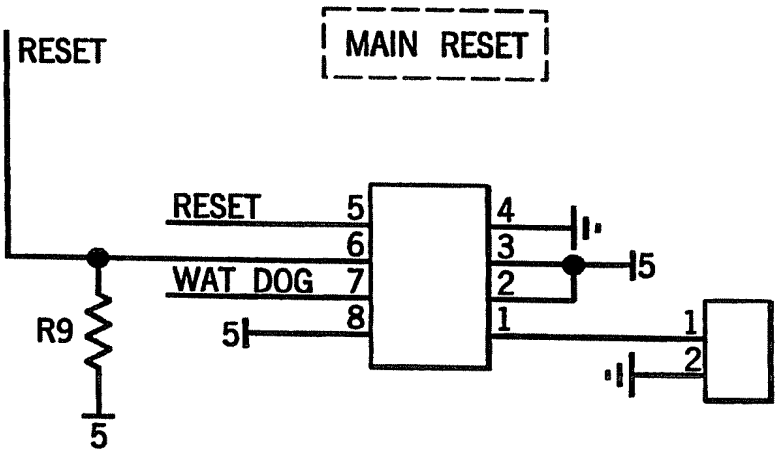


FIG. 8D-6

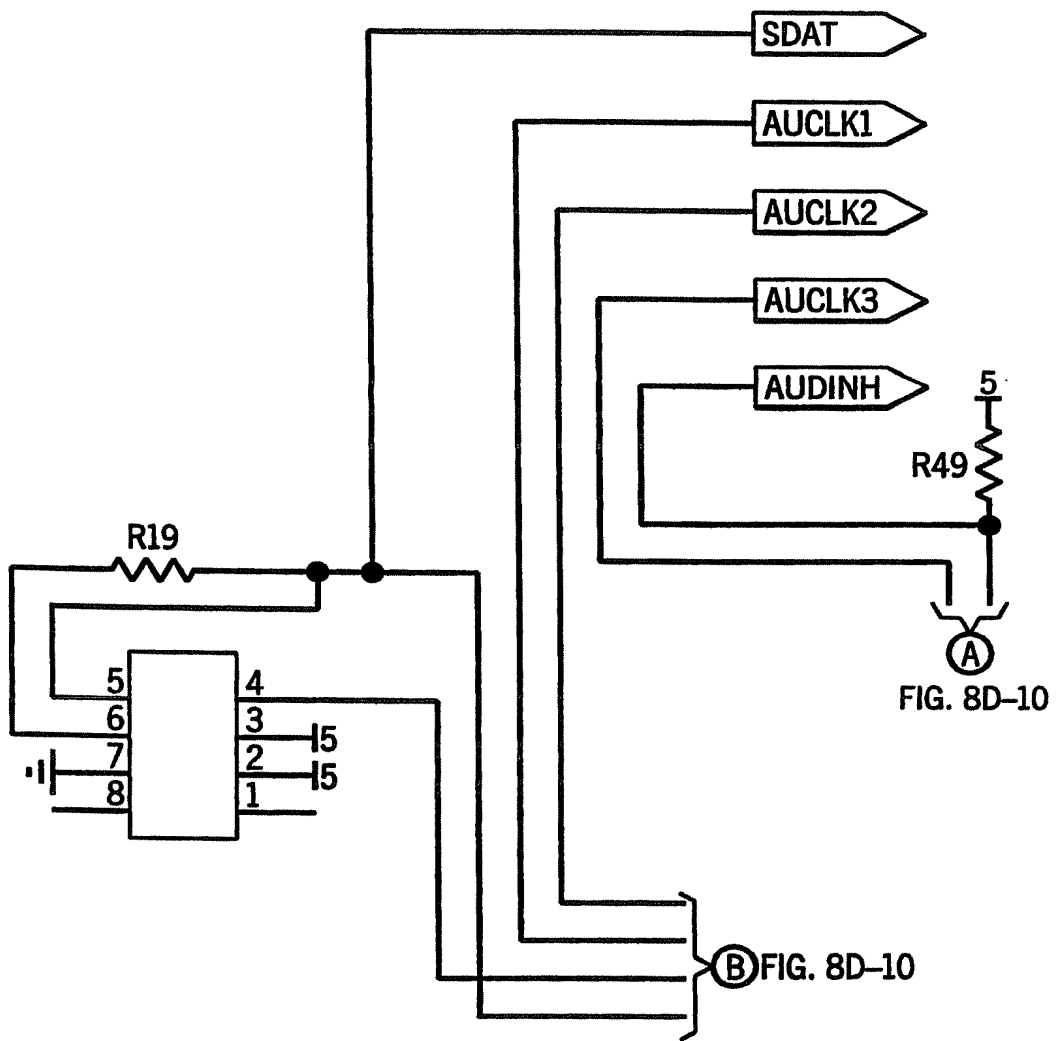


FIG. 8D-7

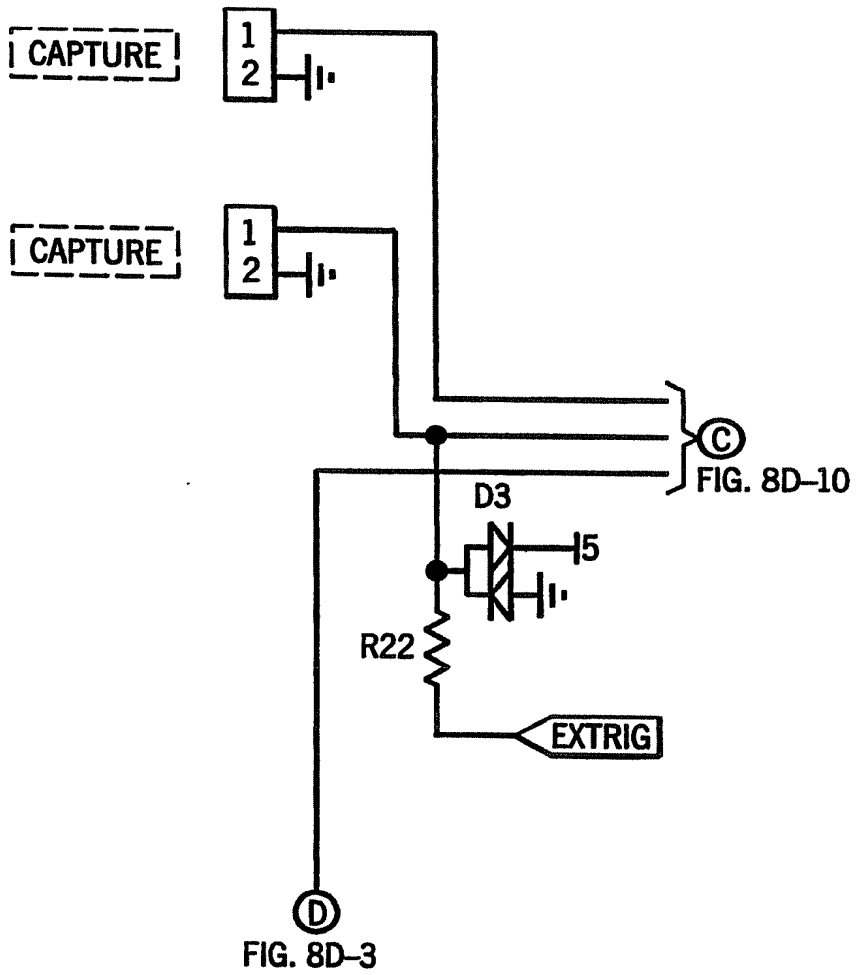


FIG. 8D-8

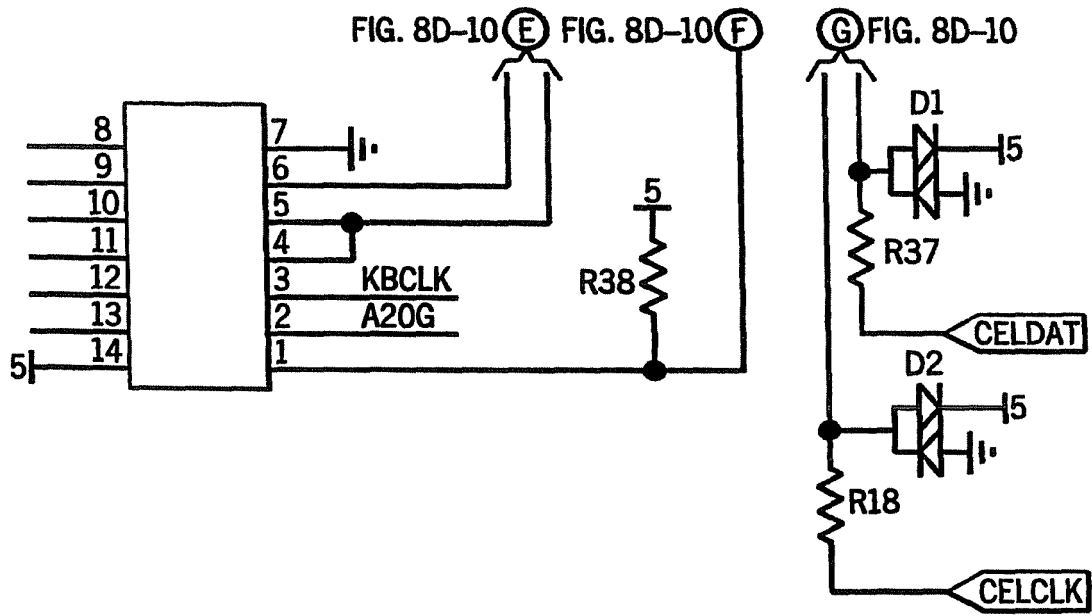


FIG. 8D-9

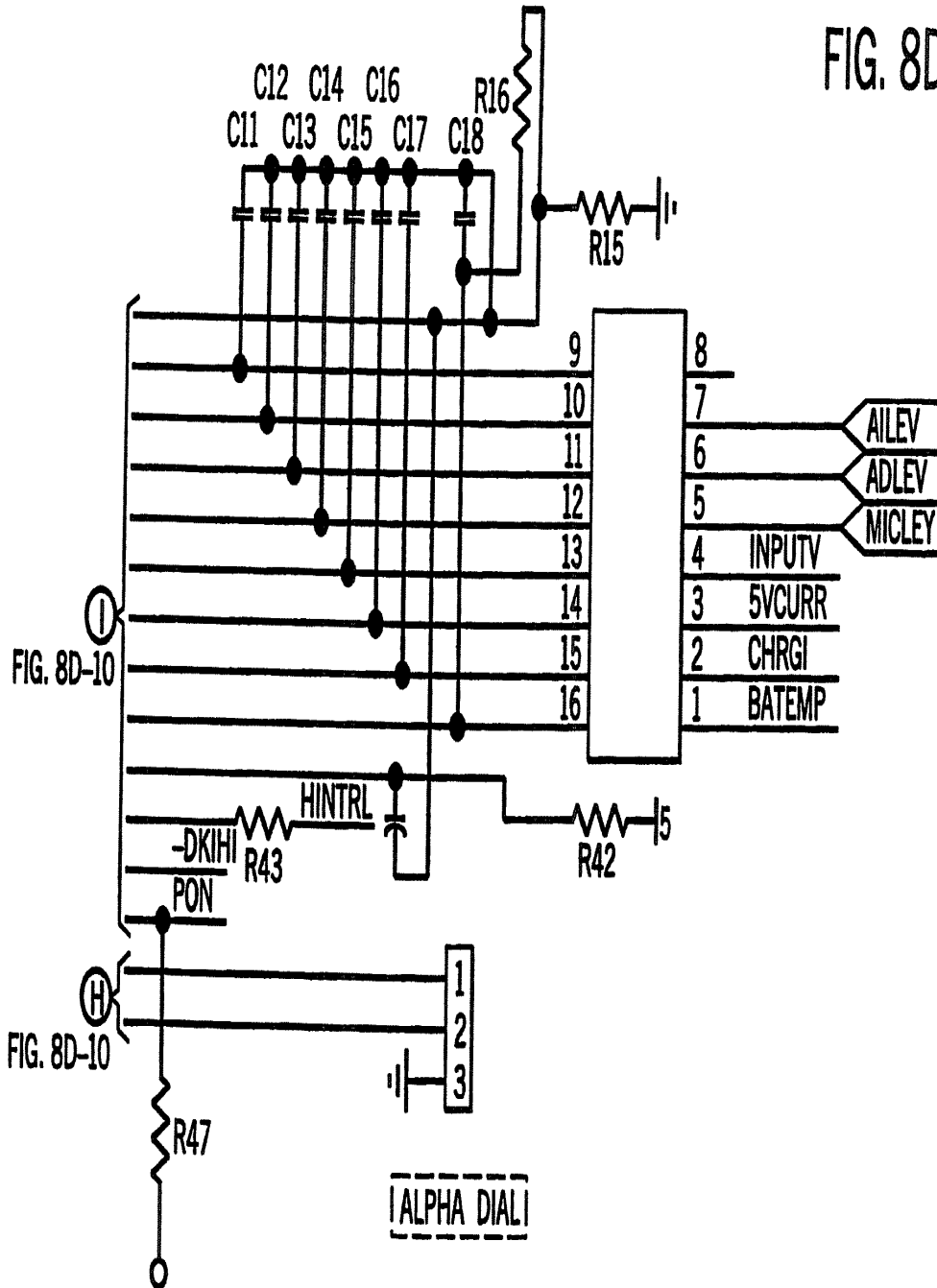


FIG. 8D-10

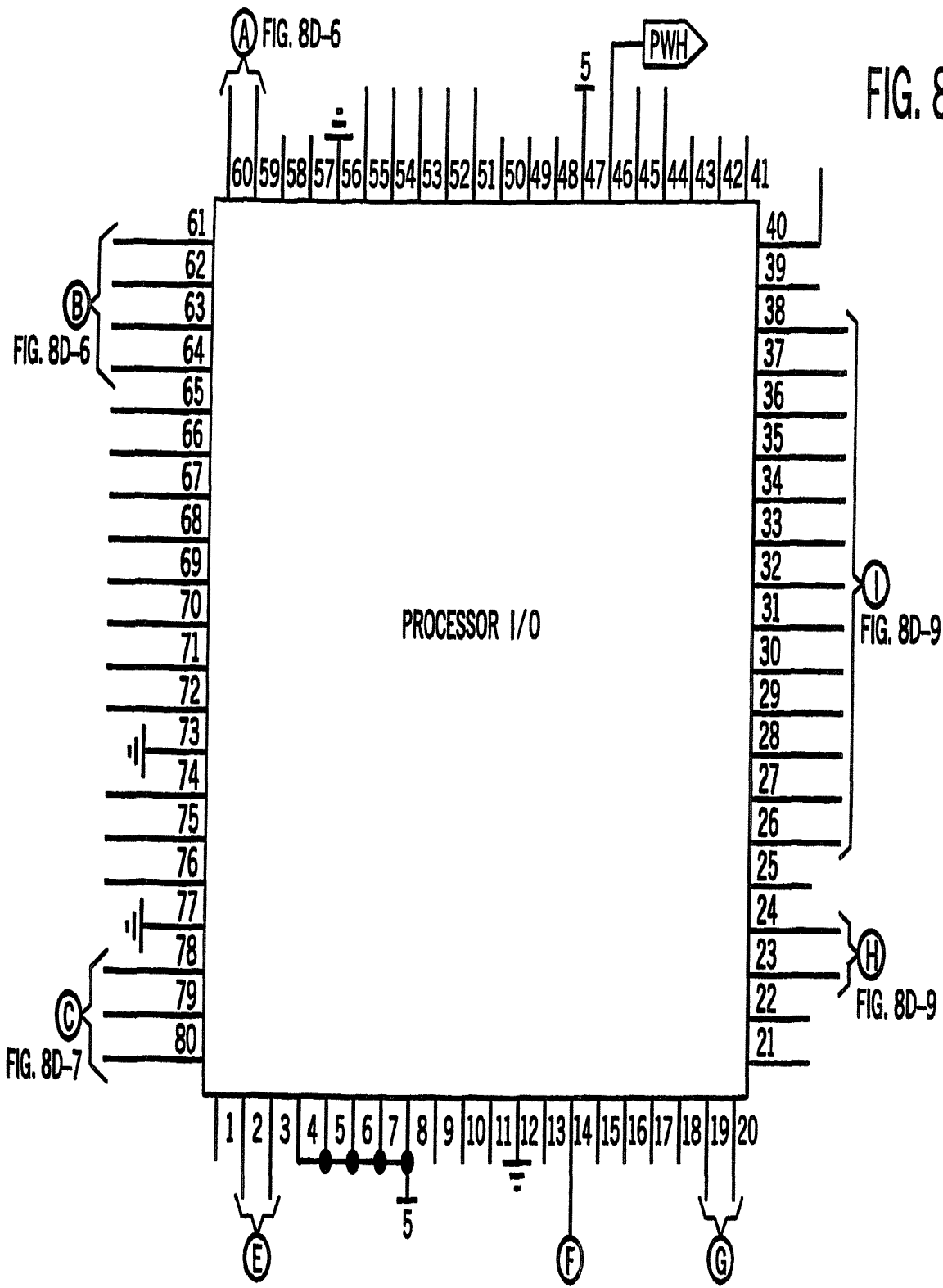


FIG. 8D-11

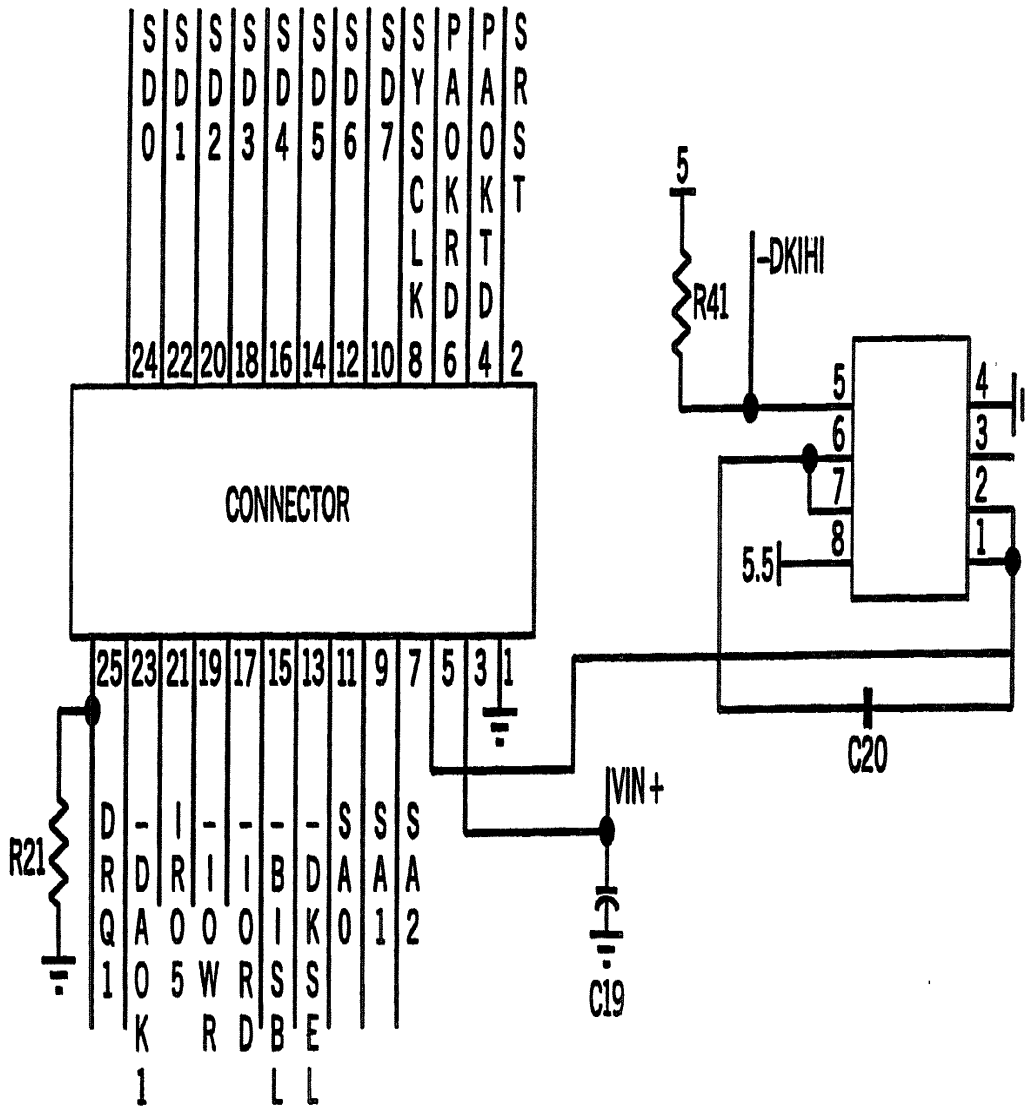


FIG. 8D-12

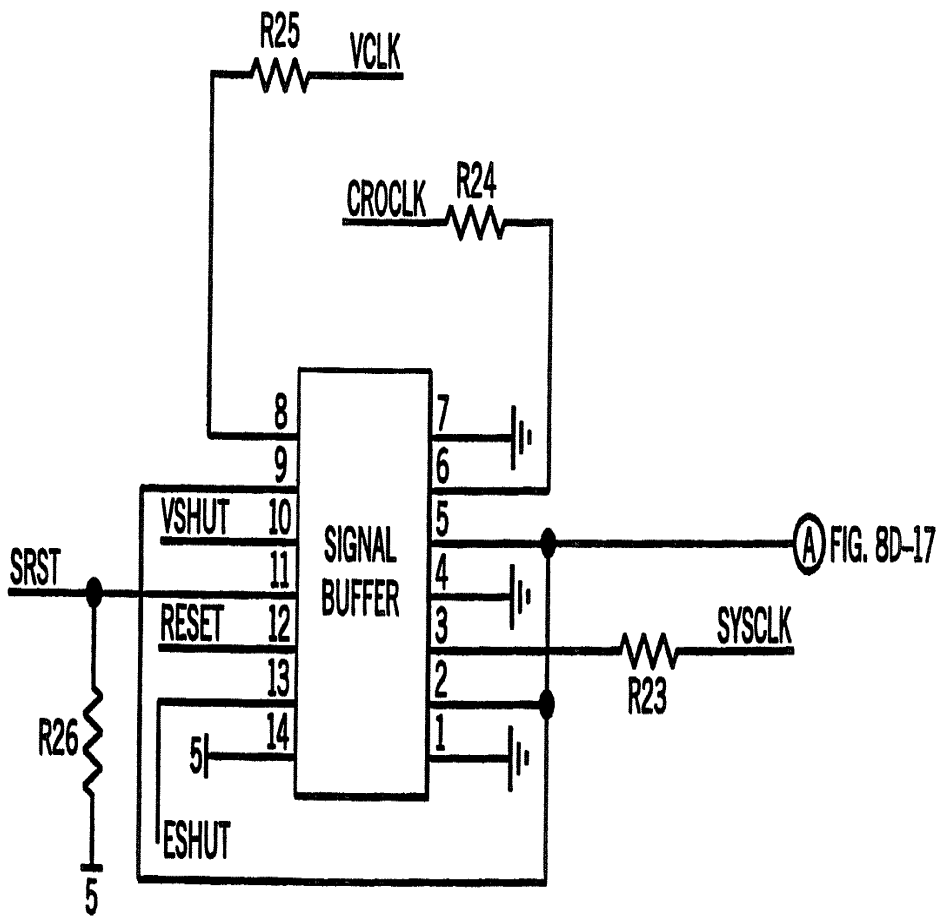




FIG. 8D-13

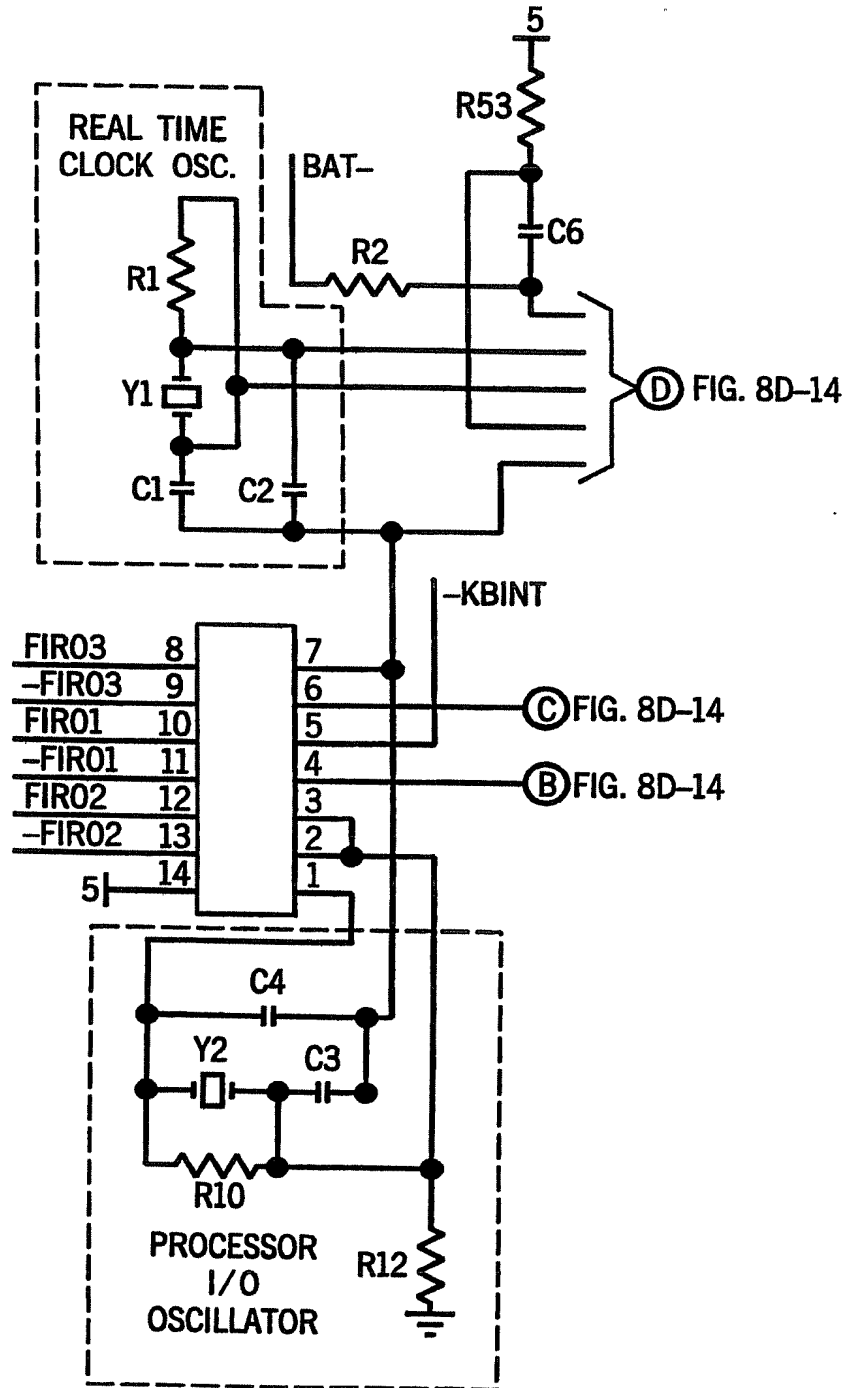


FIG. 8D-14

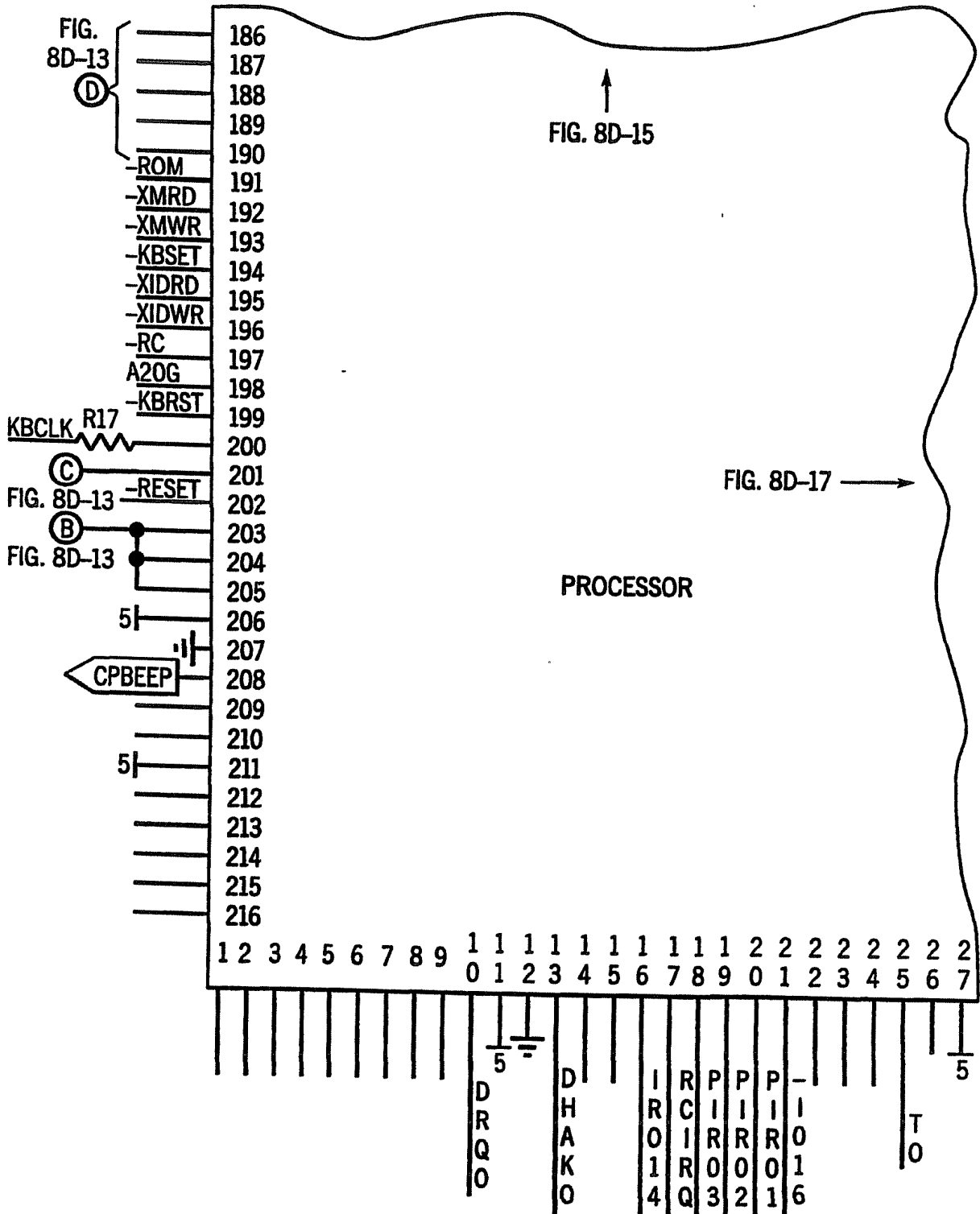


FIG. 8D-15

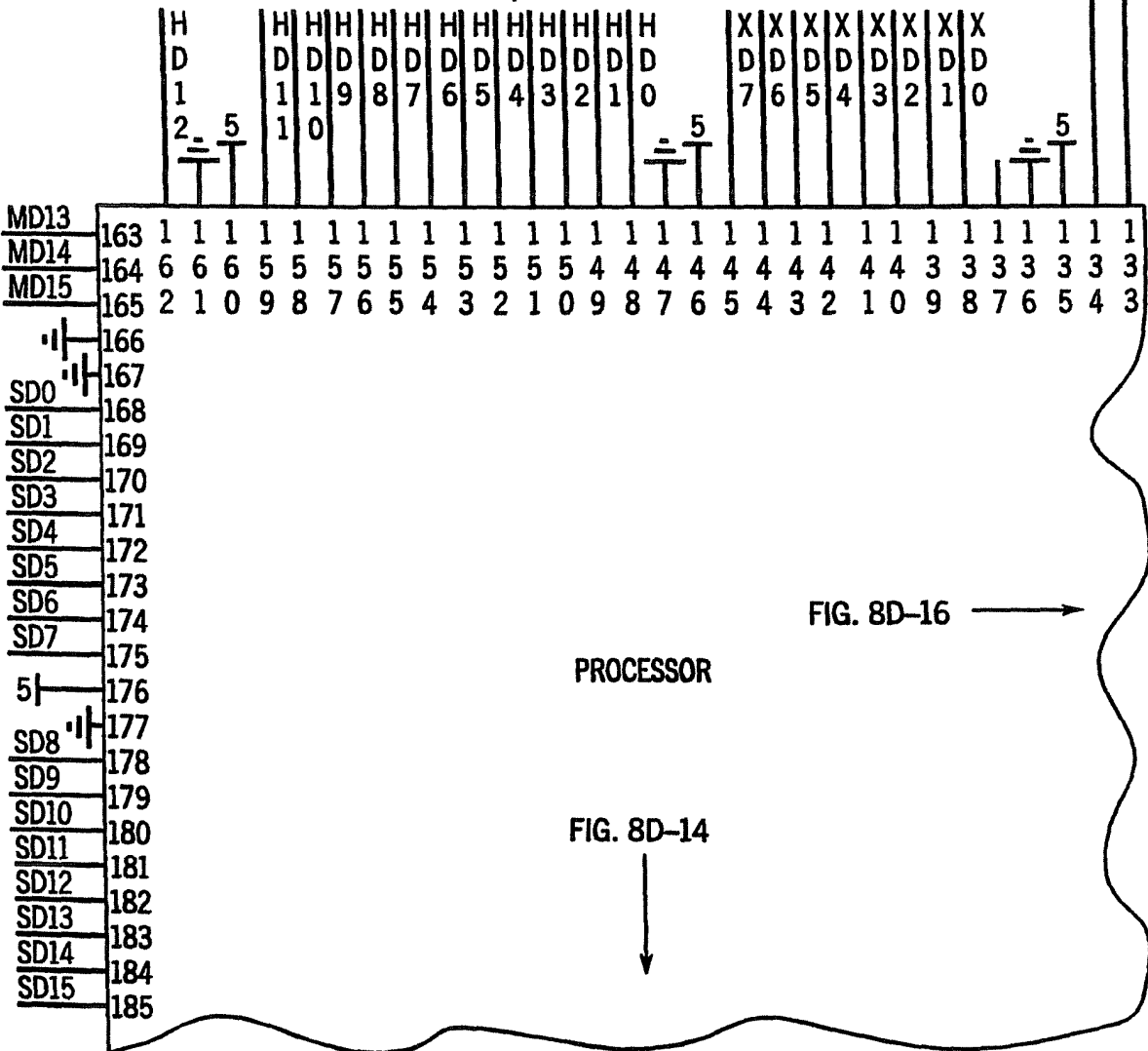
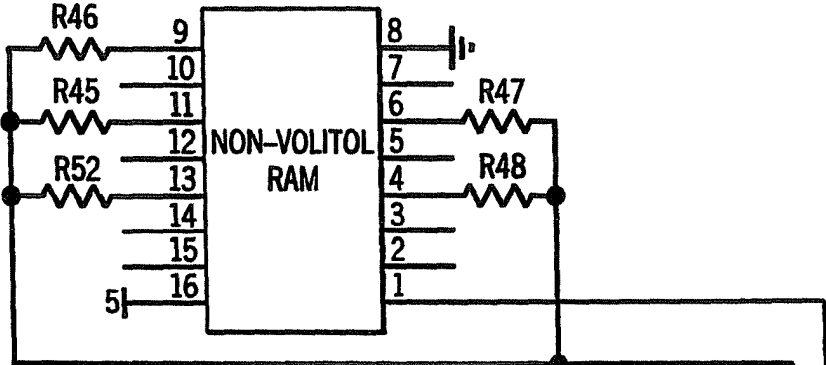


FIG. 8D-16

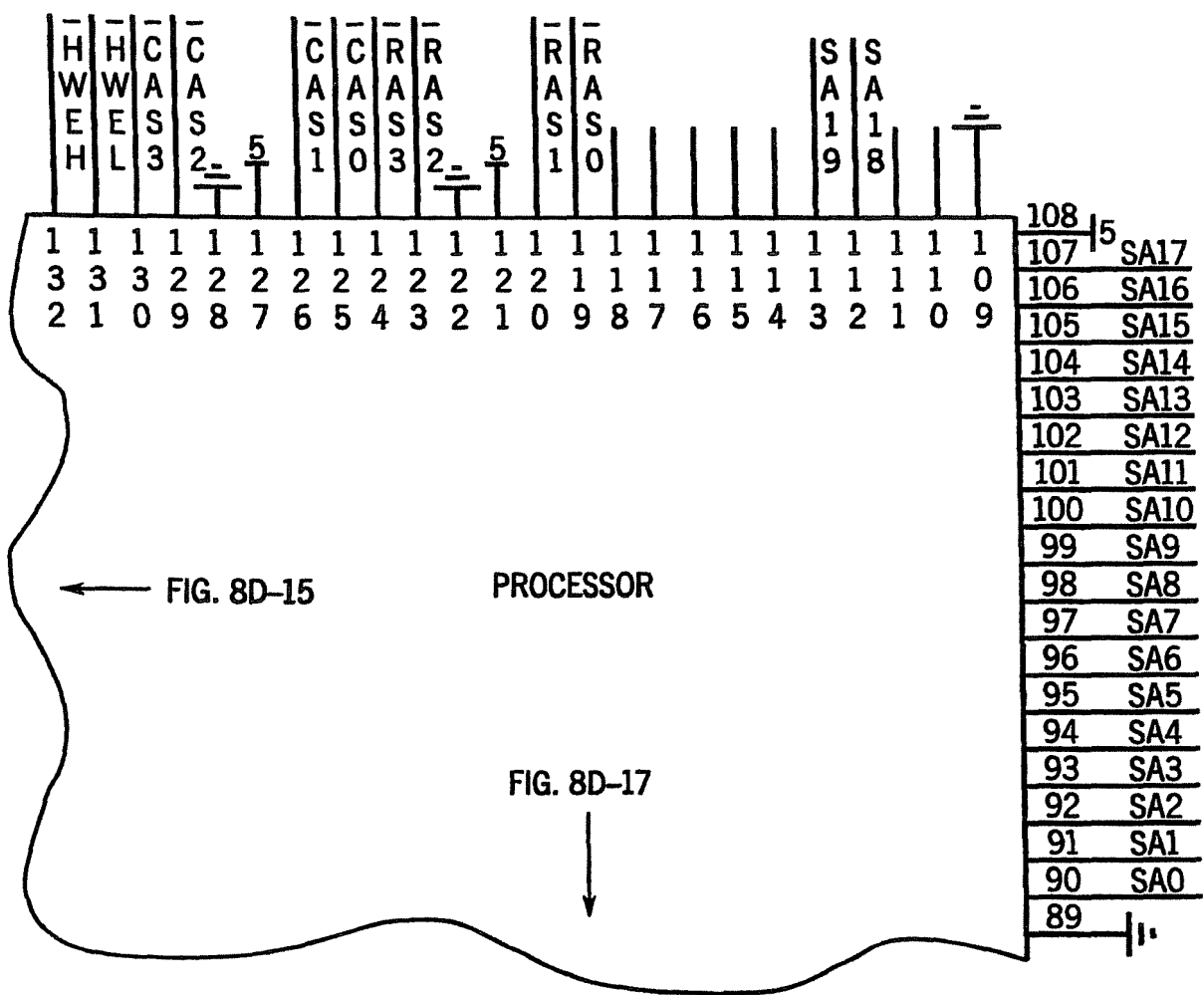
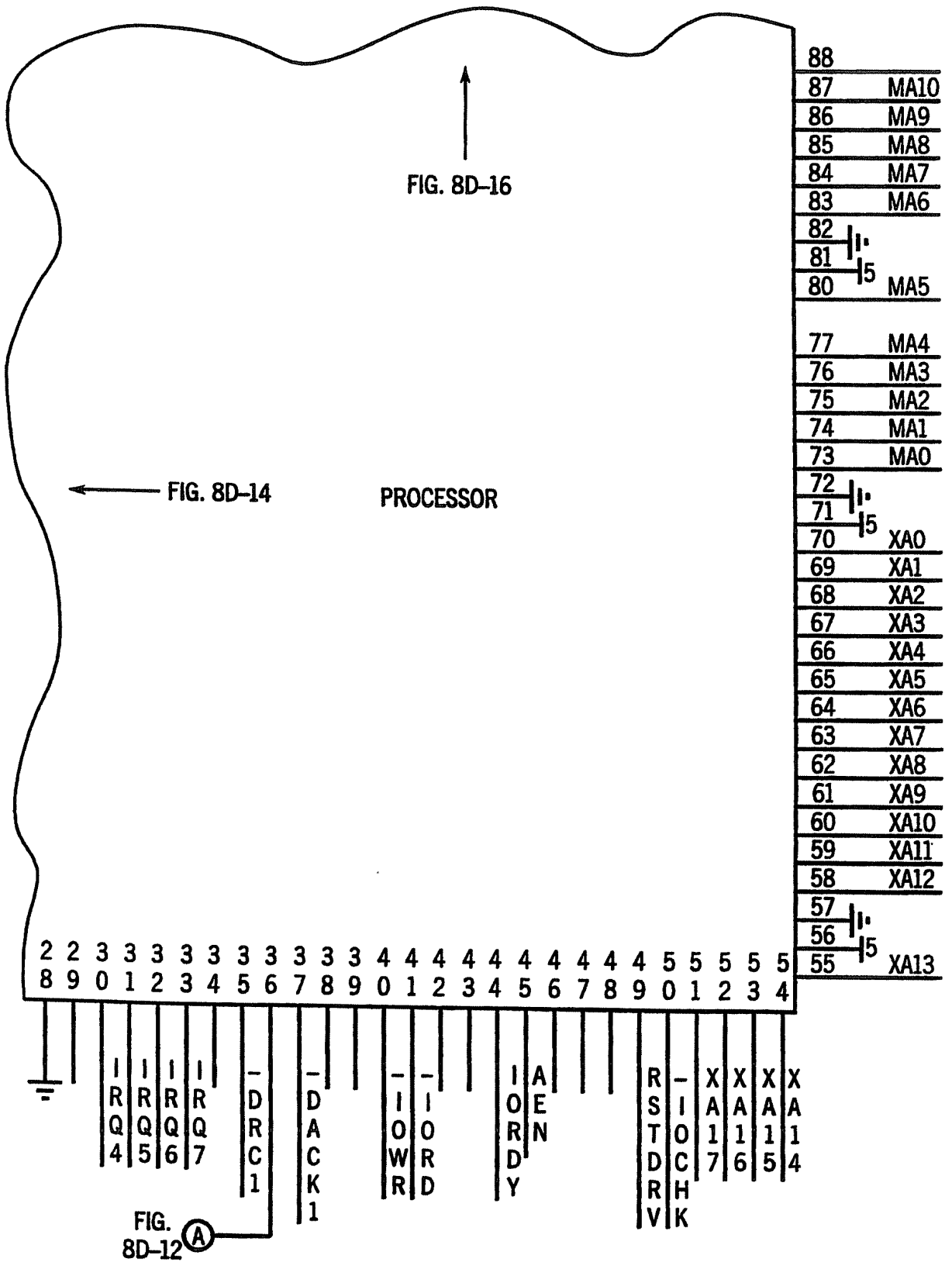


FIG. 8D-17



# FIG. 8D-18

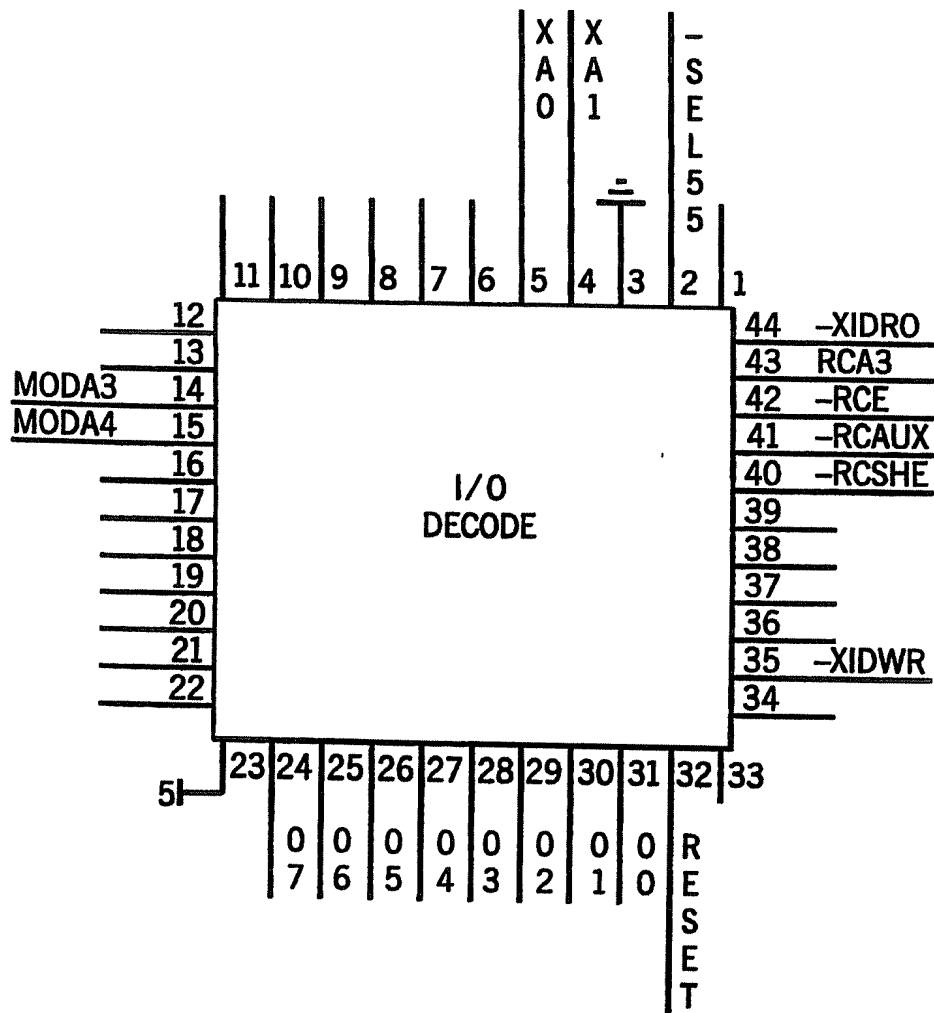
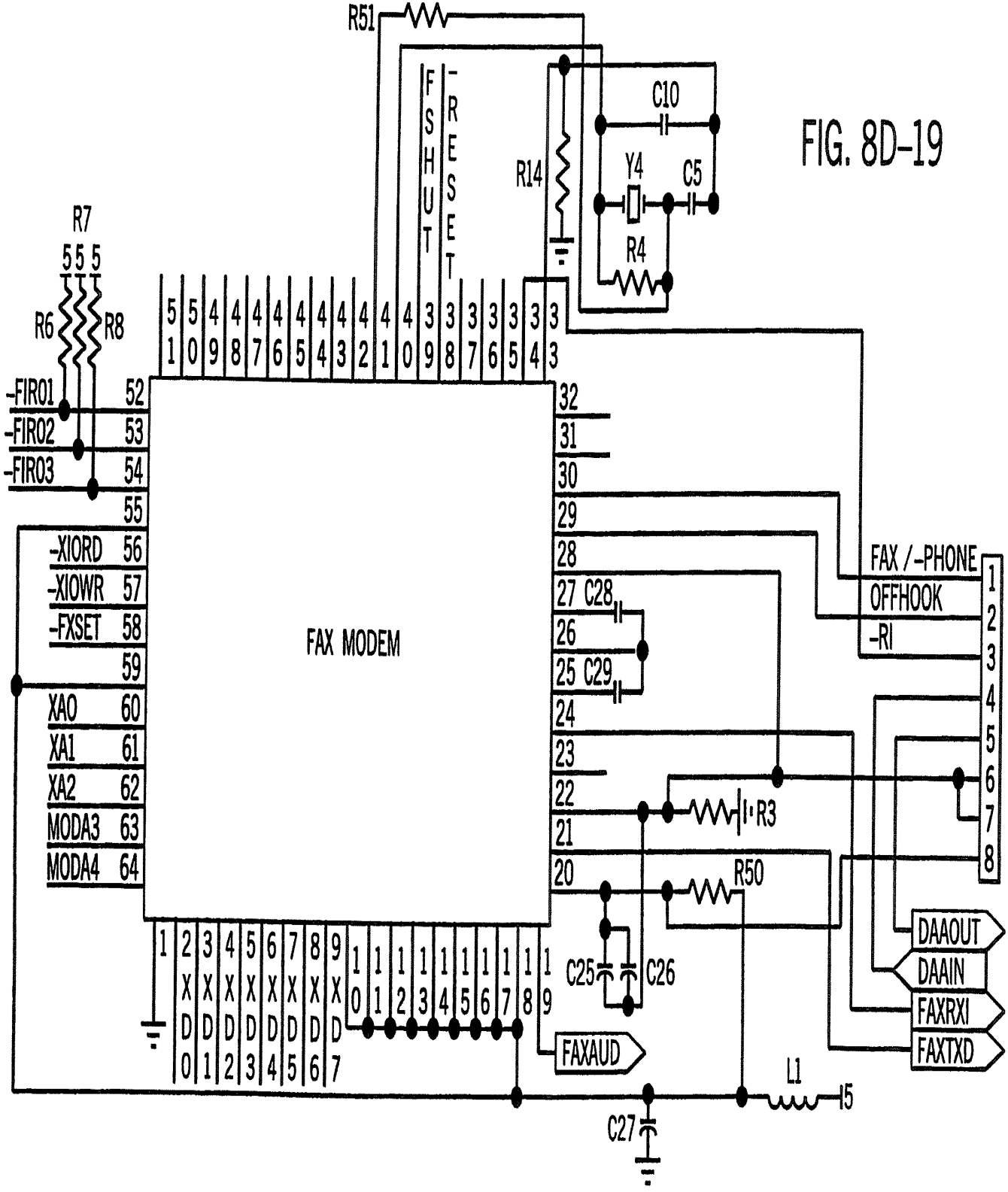


FIG. 8D-19



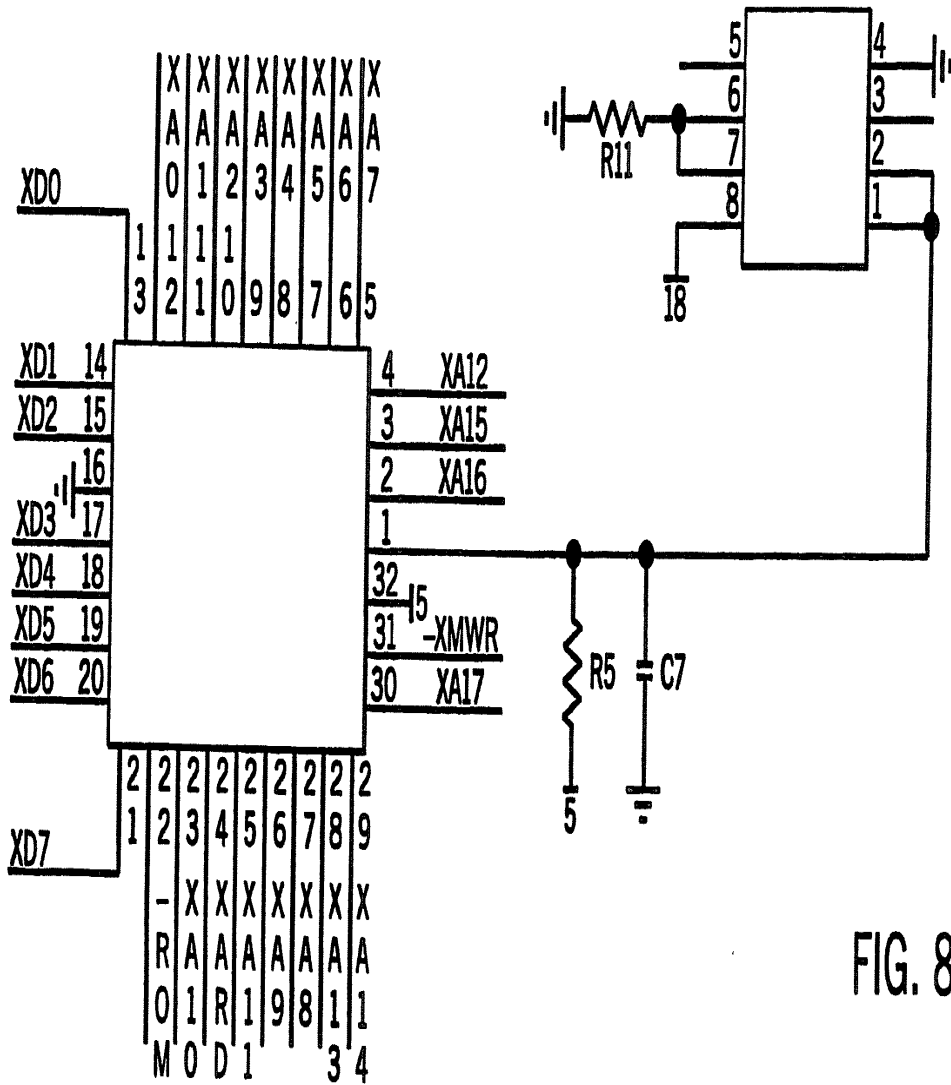


FIG. 8D-20



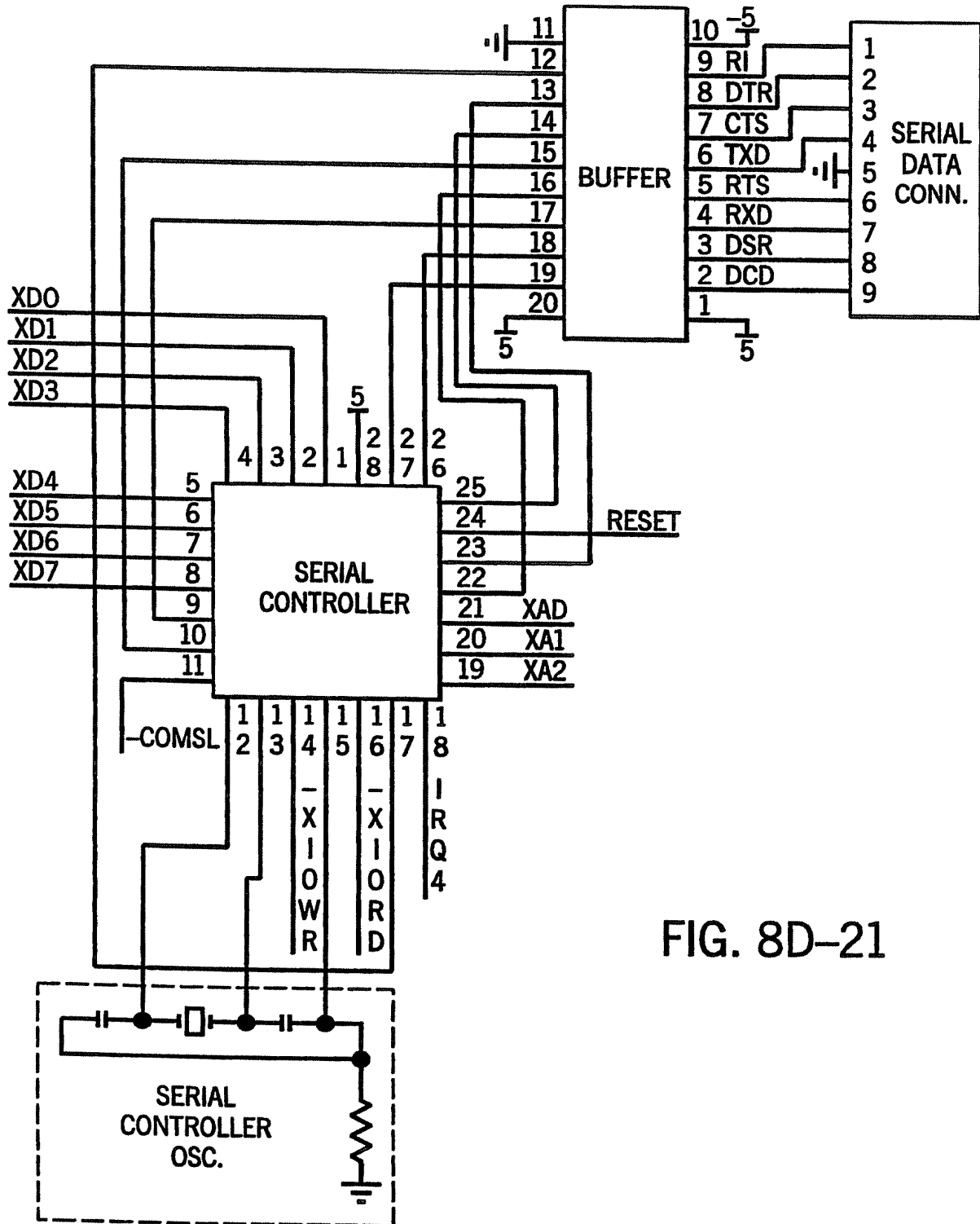


FIG. 8D-21

FIG. 8D-22

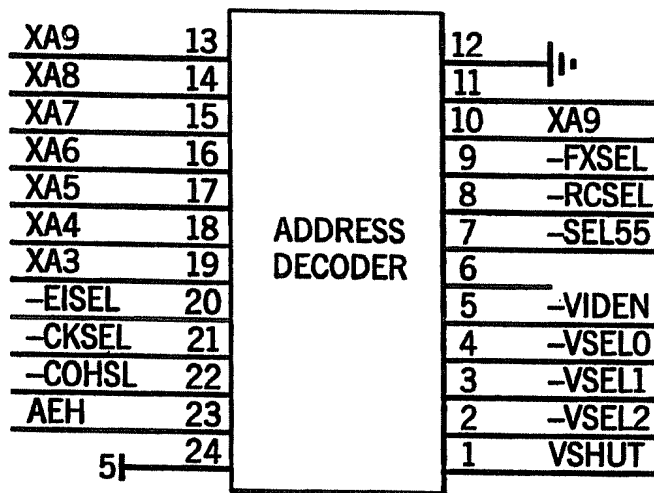


FIG. 8D-23

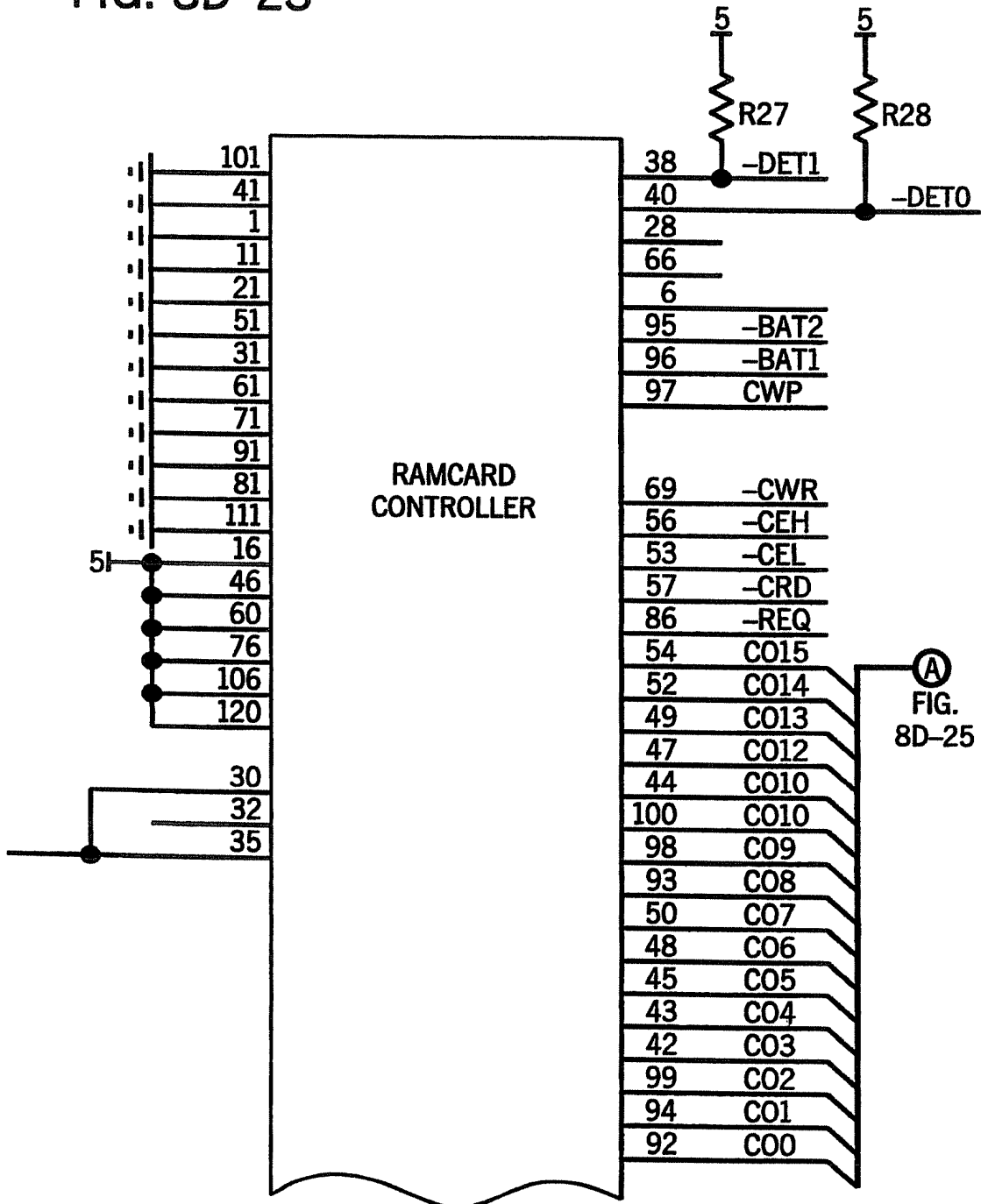


FIG. 8D-24



(A)  
FIG.  
8D-25

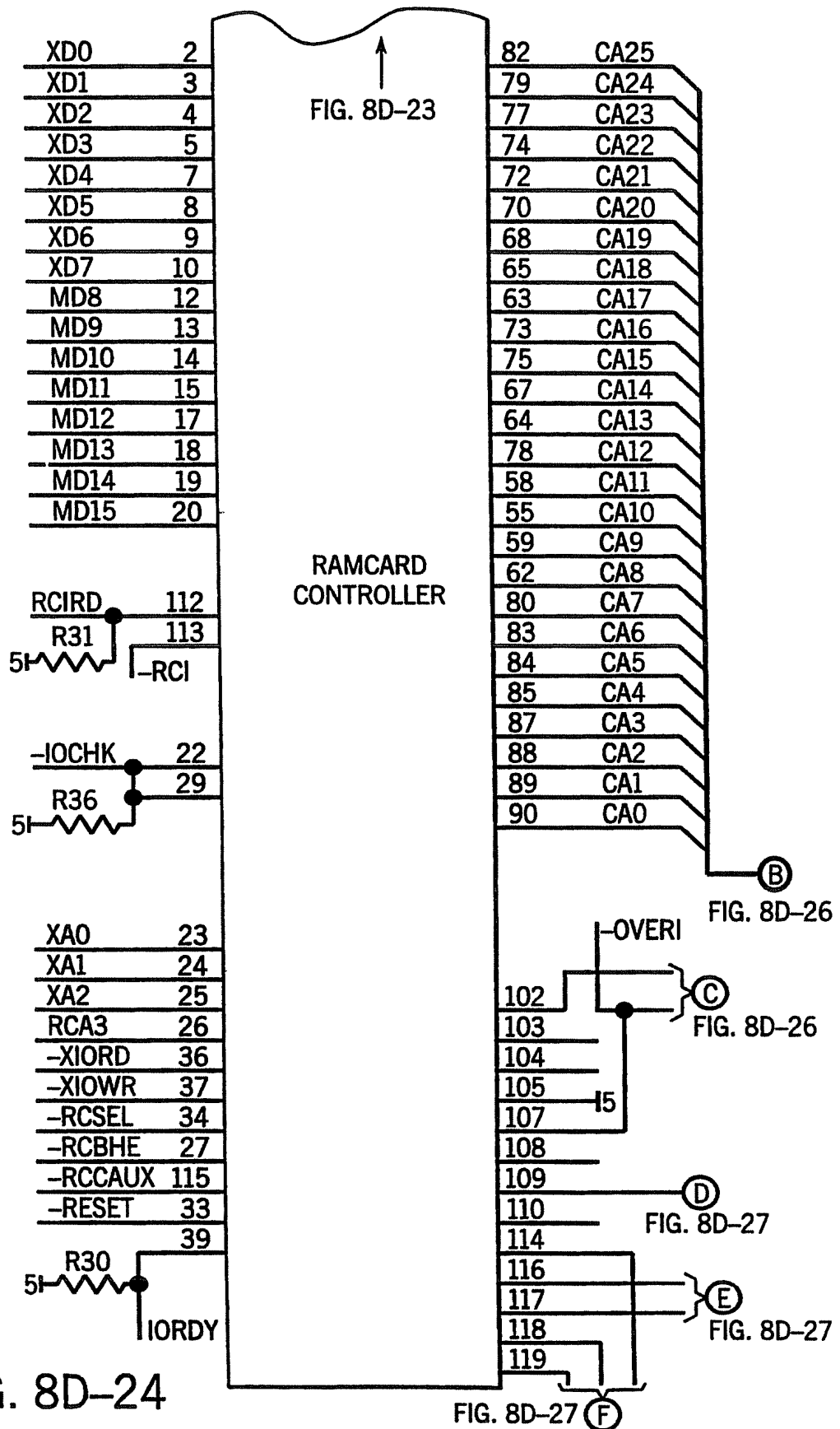


FIG. 8D-24

FIG. 8D-27

FIG. 8D-25

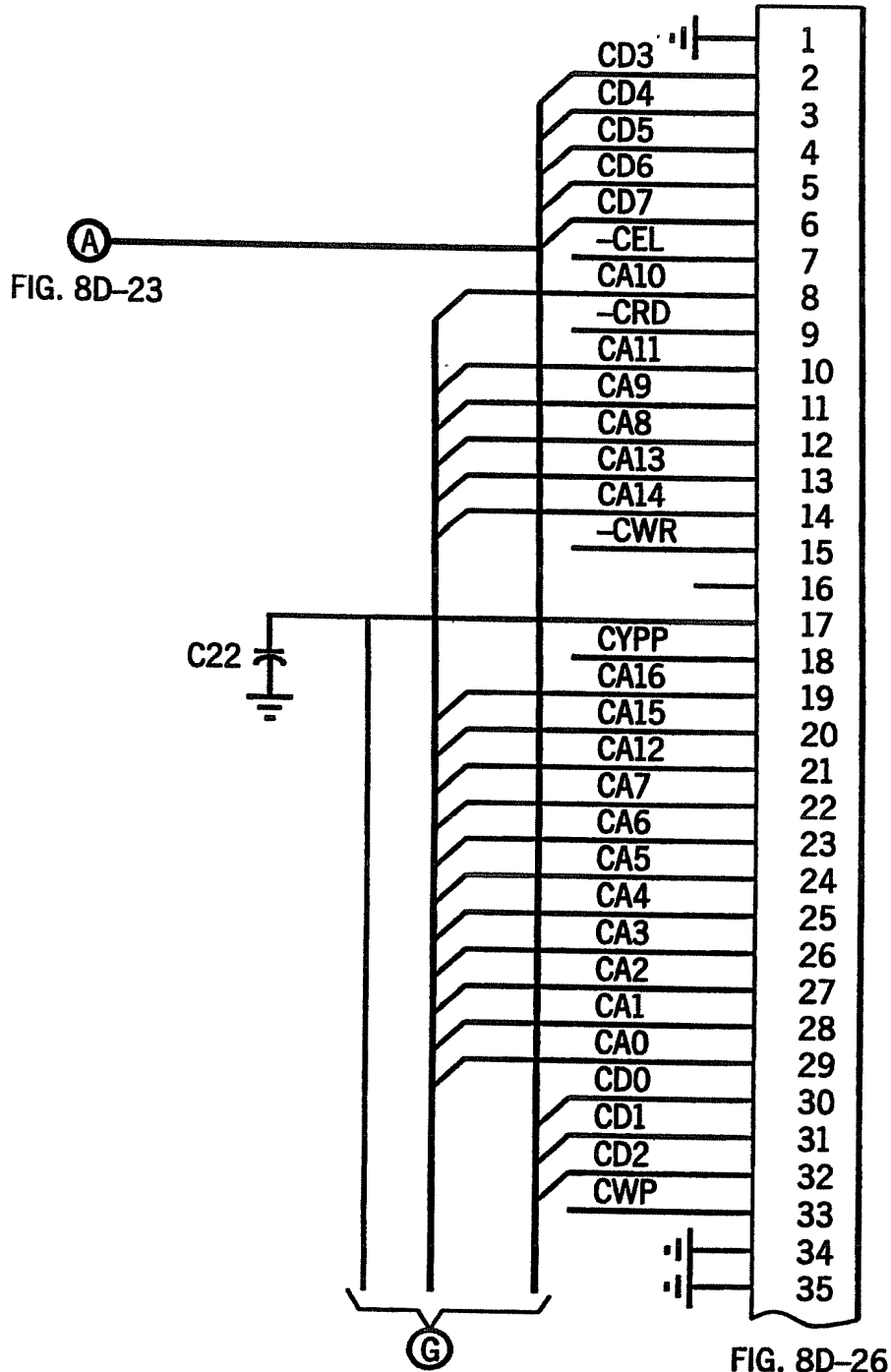


FIG. 8D-26

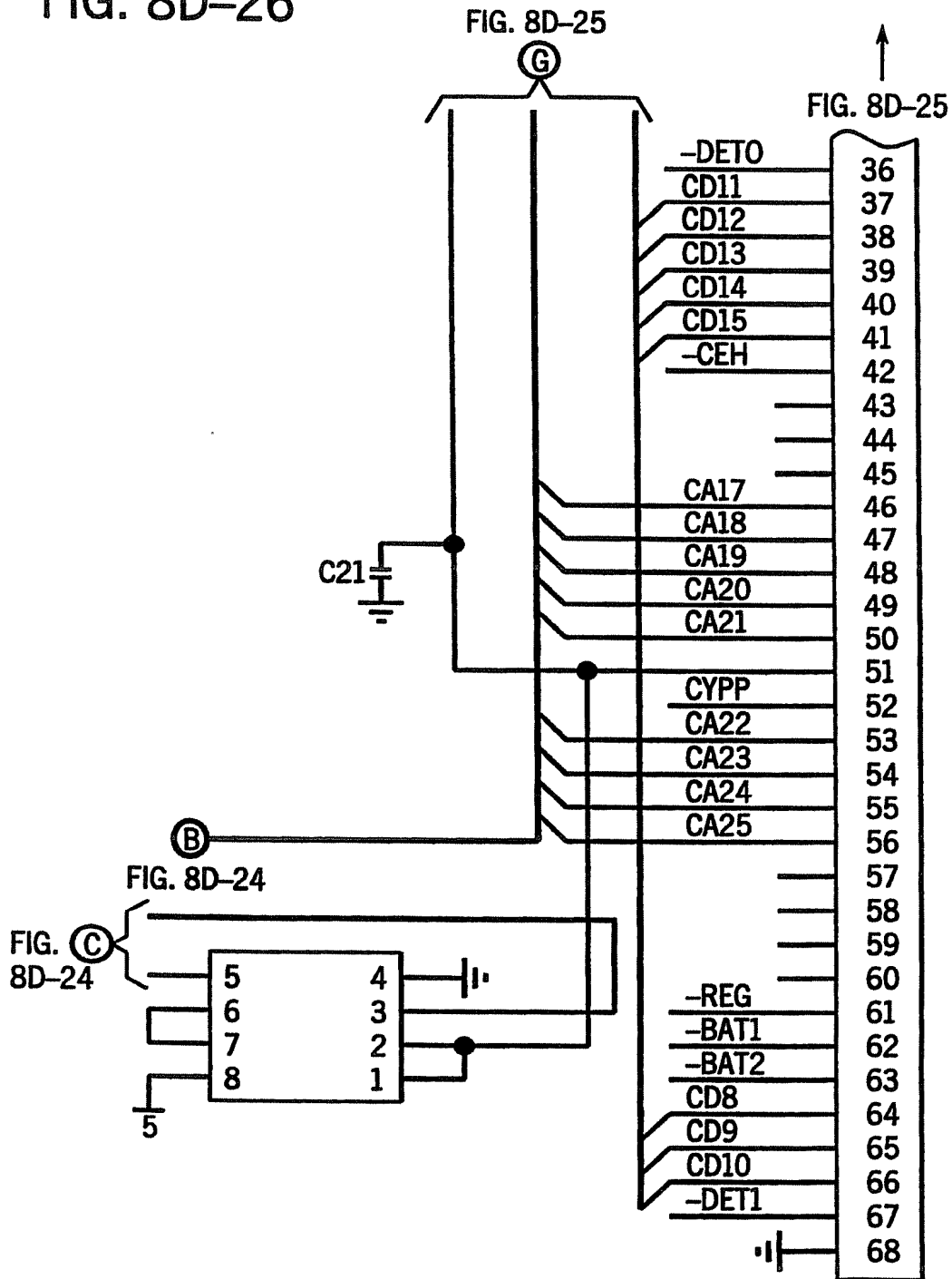


FIG. 8D-27

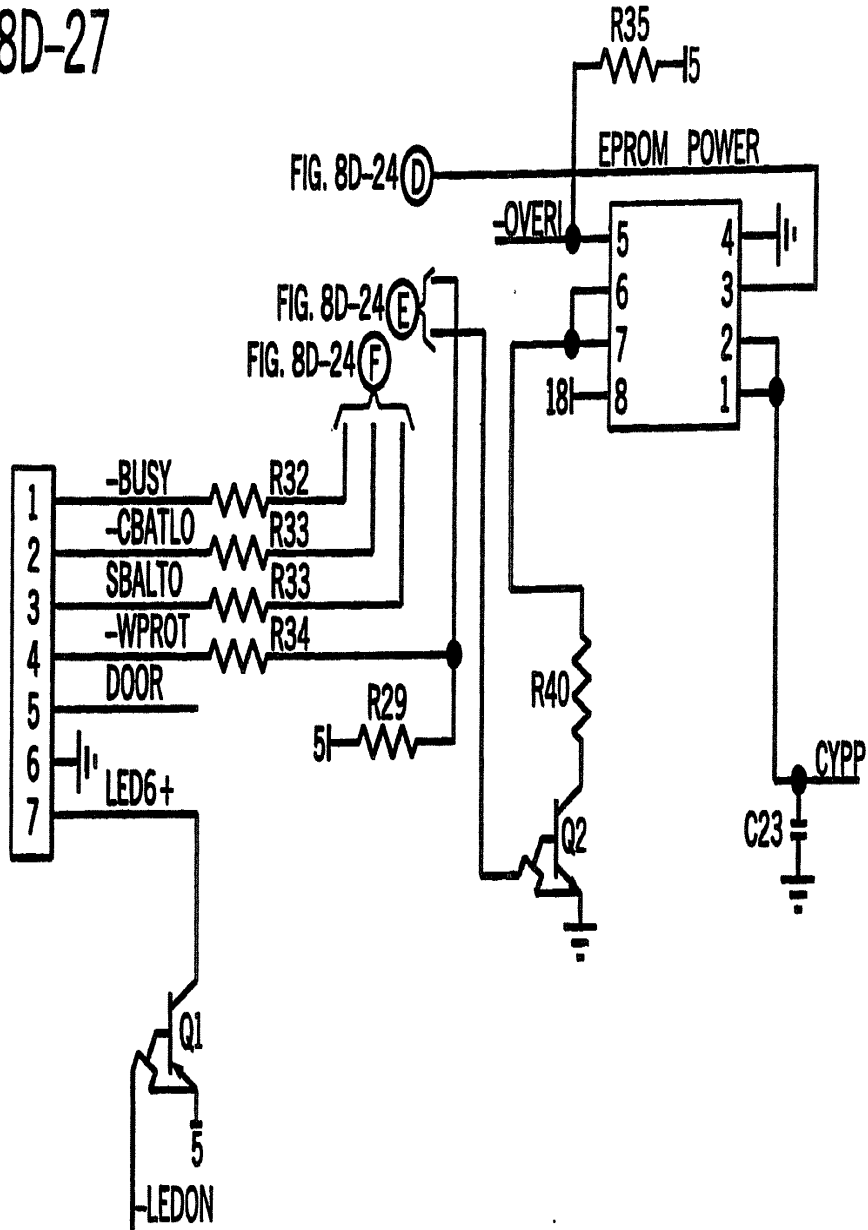


FIG. 8D-28

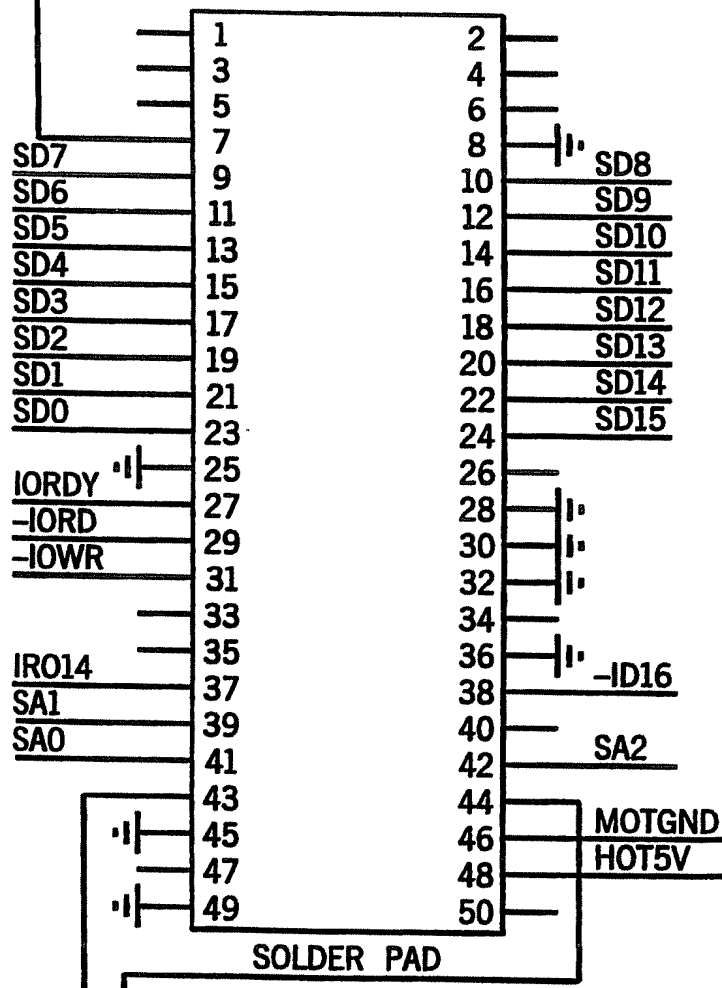
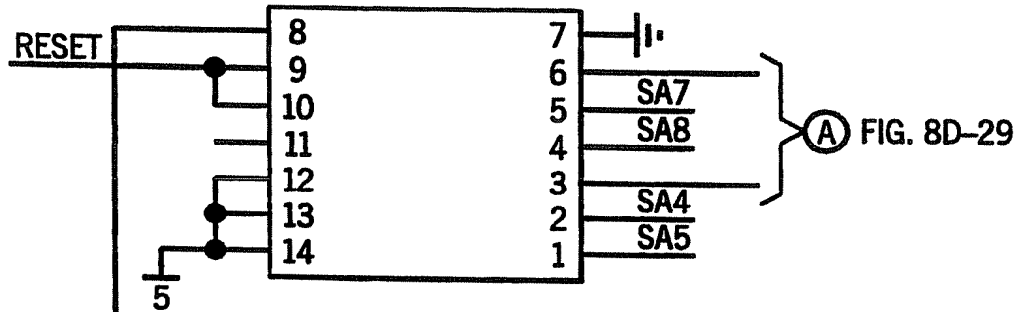


FIG. 8D-29 (B)



# FIG. 8D-29

FIG. 8D-28

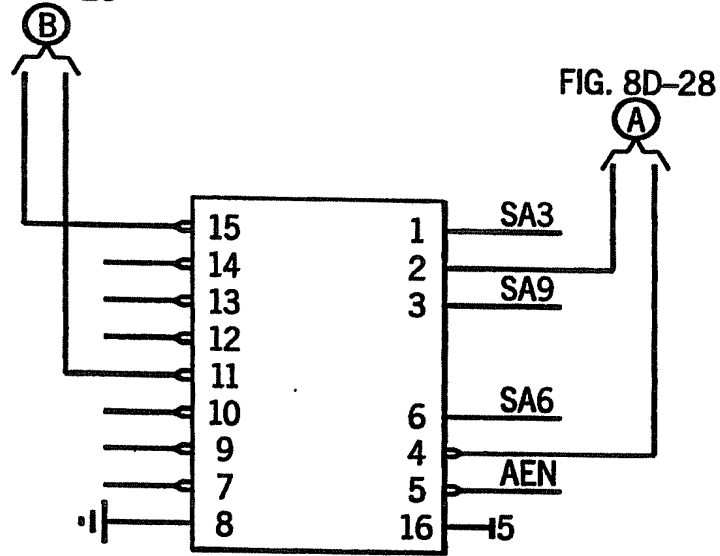


FIG. 8D-28

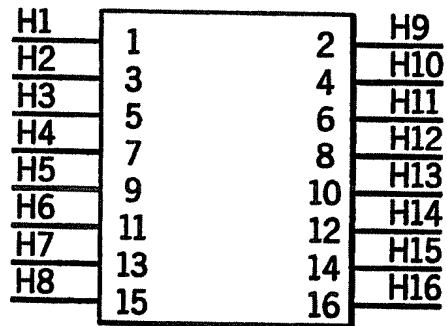


FIG. 8D-30

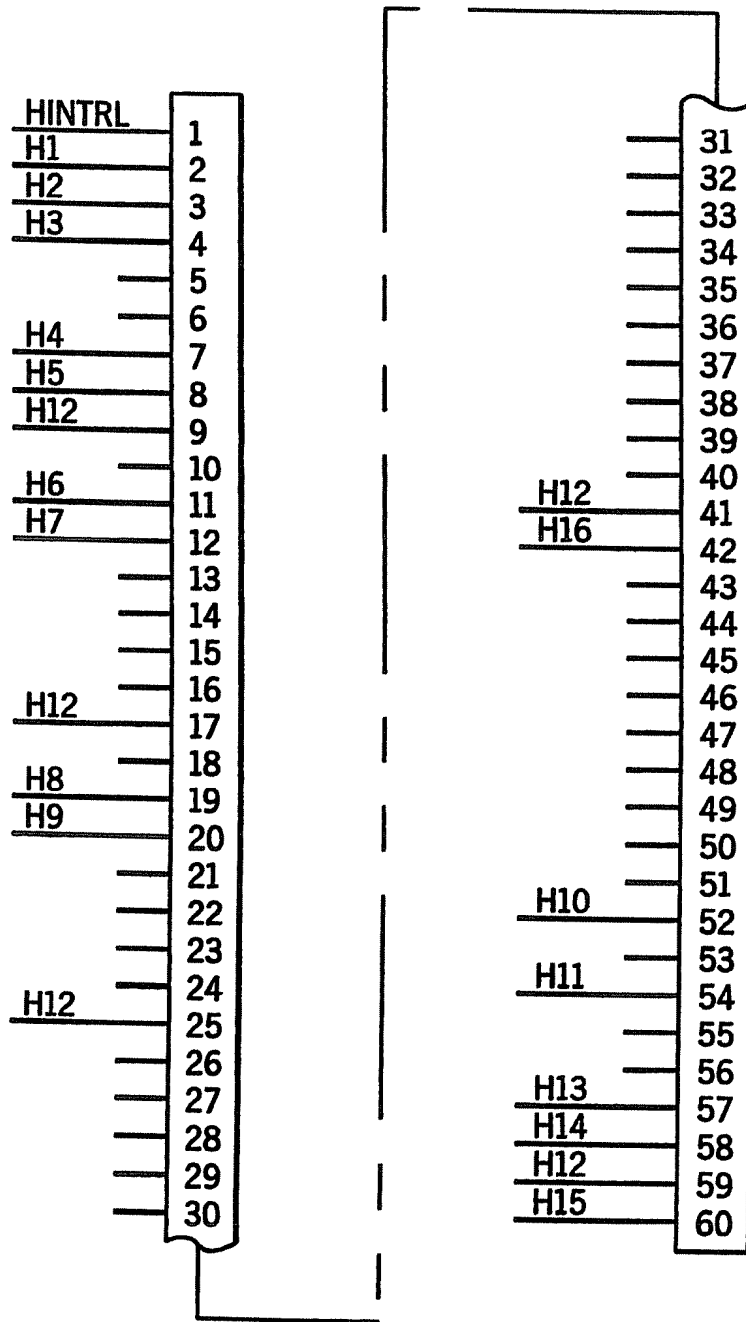


FIG. 8E-1

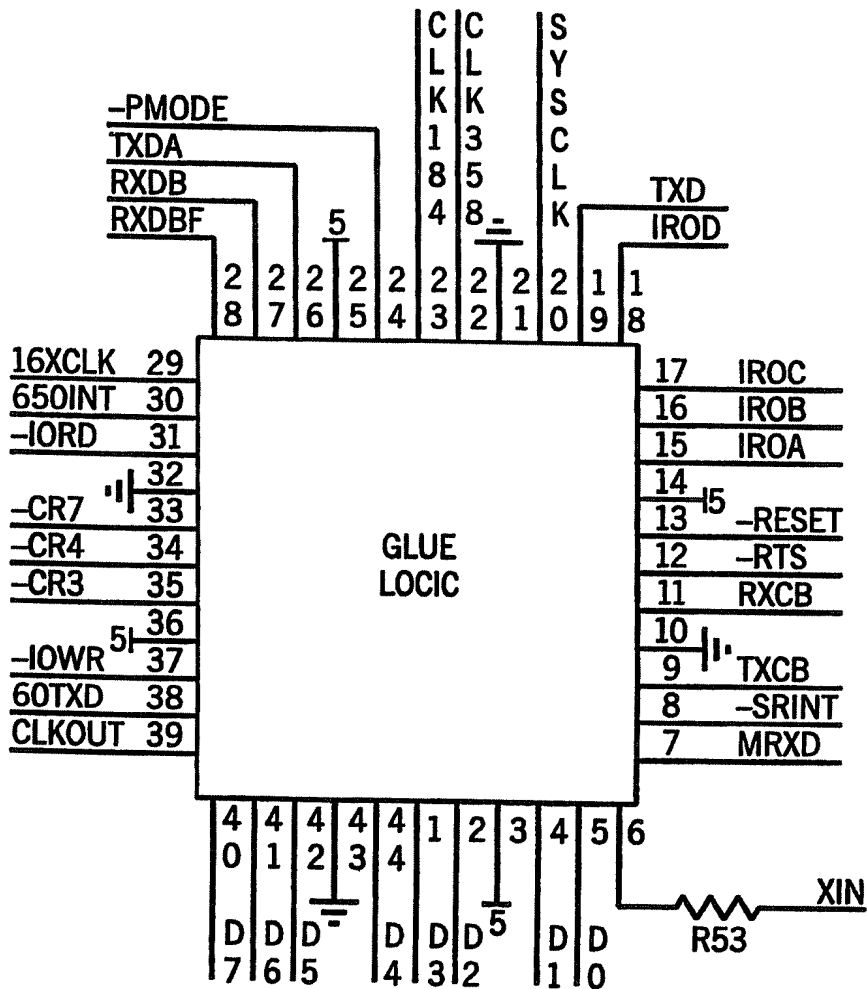


FIG. 8E-2

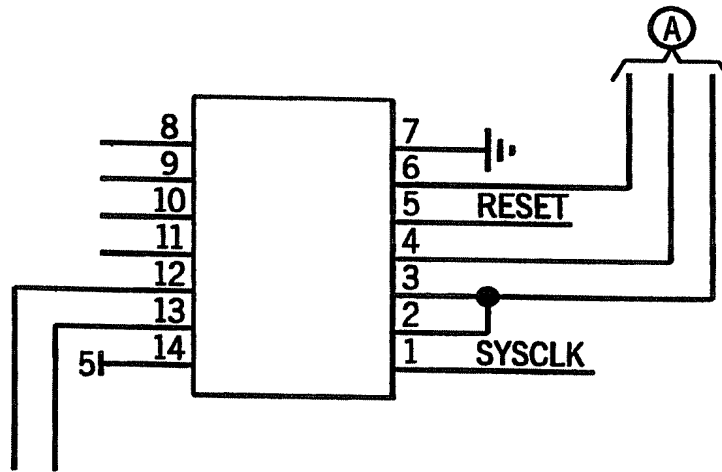


FIG. 8E-3

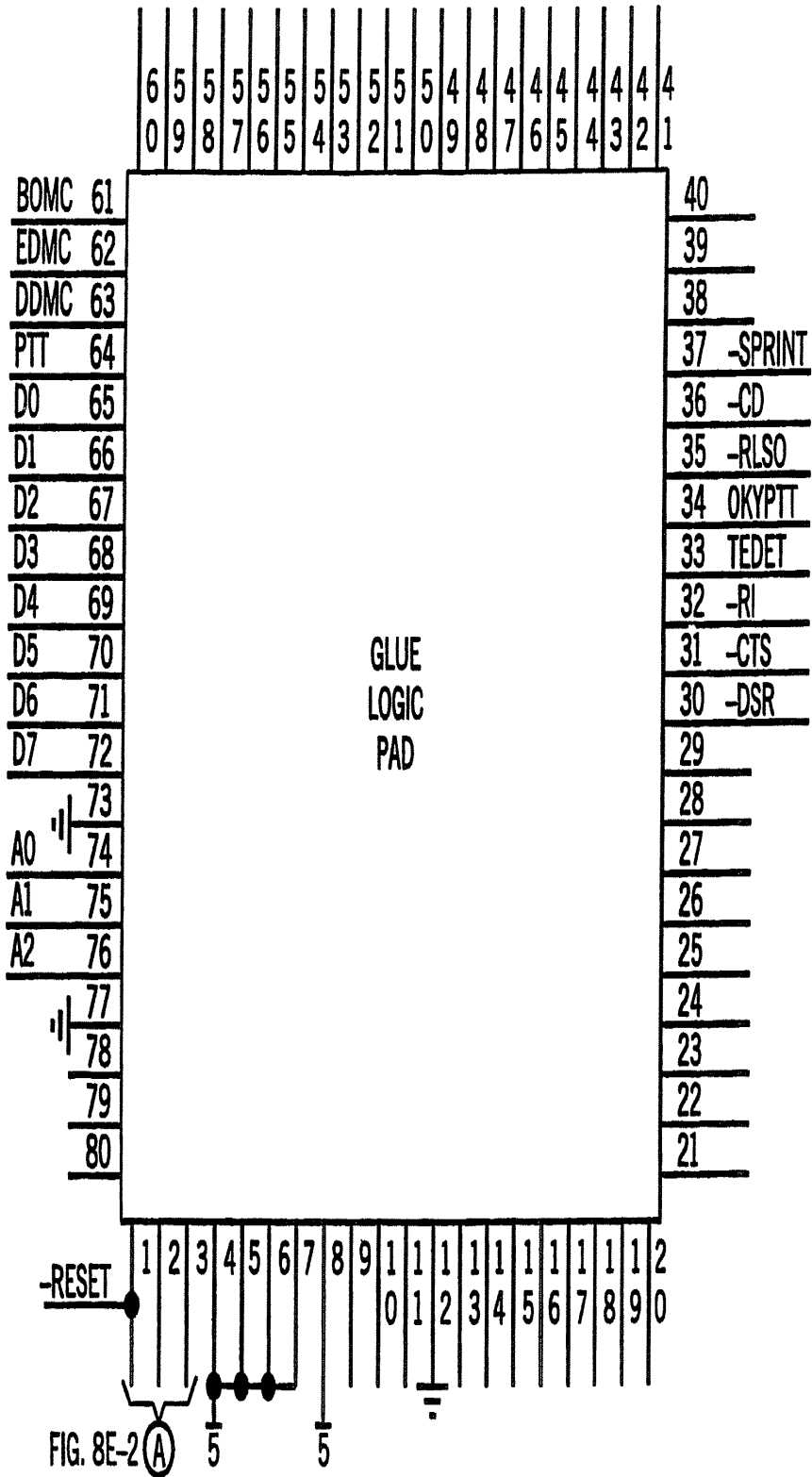


FIG. 8E-4

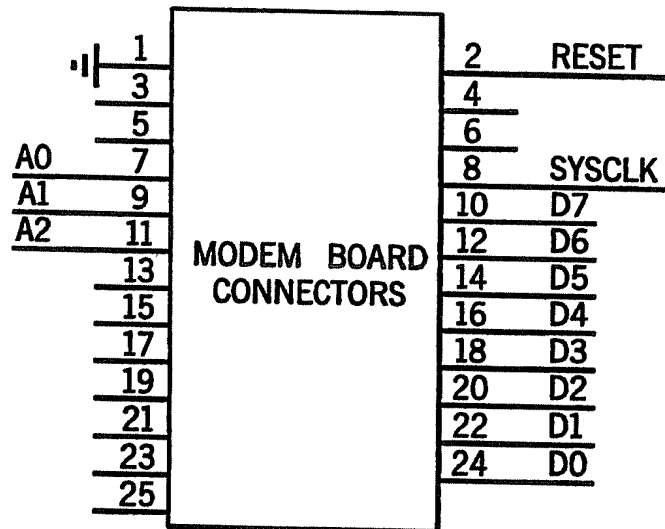
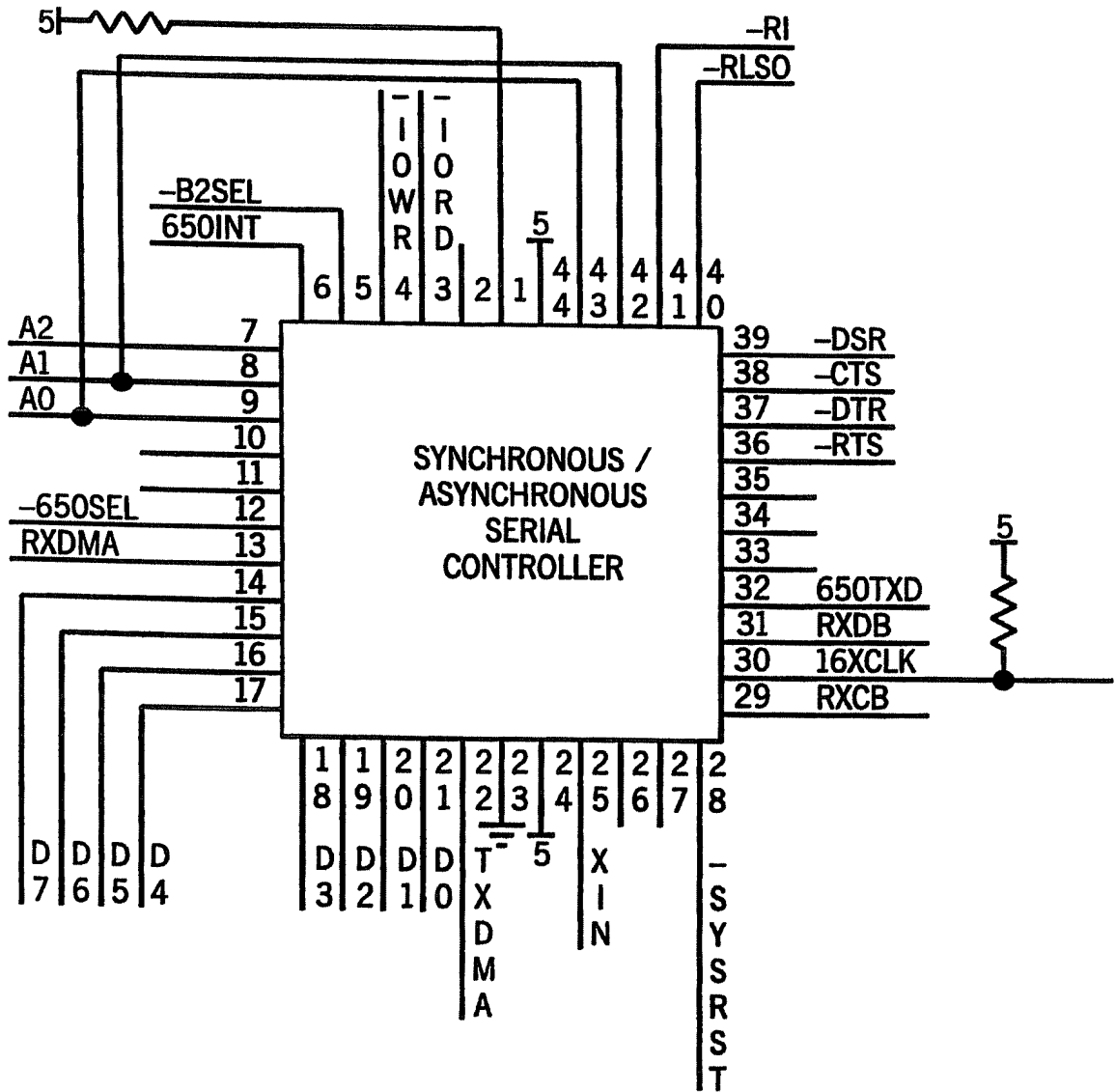


FIG. 8E-5



CRYPTO CUTOVER MODEM

FIG. 8E-6

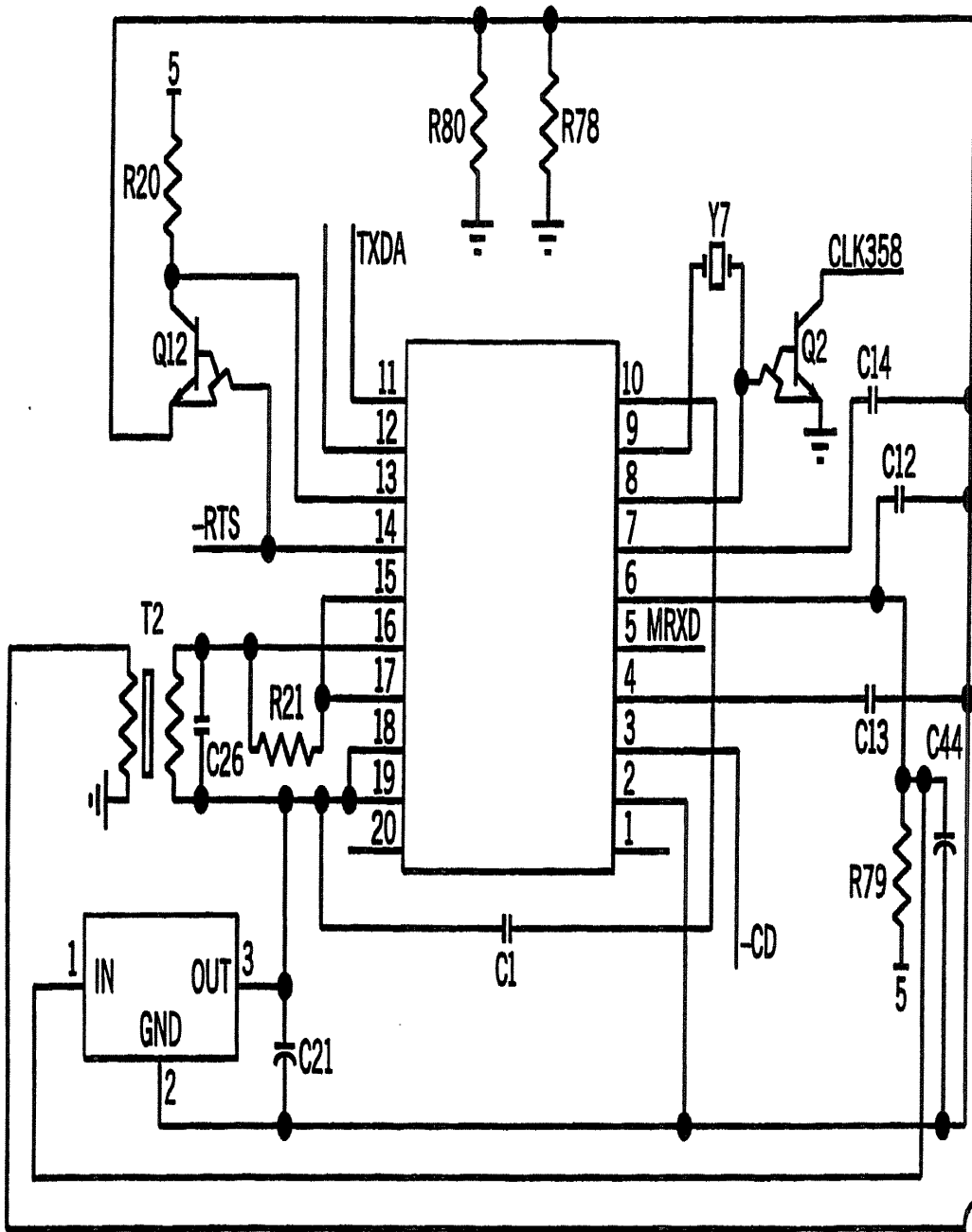
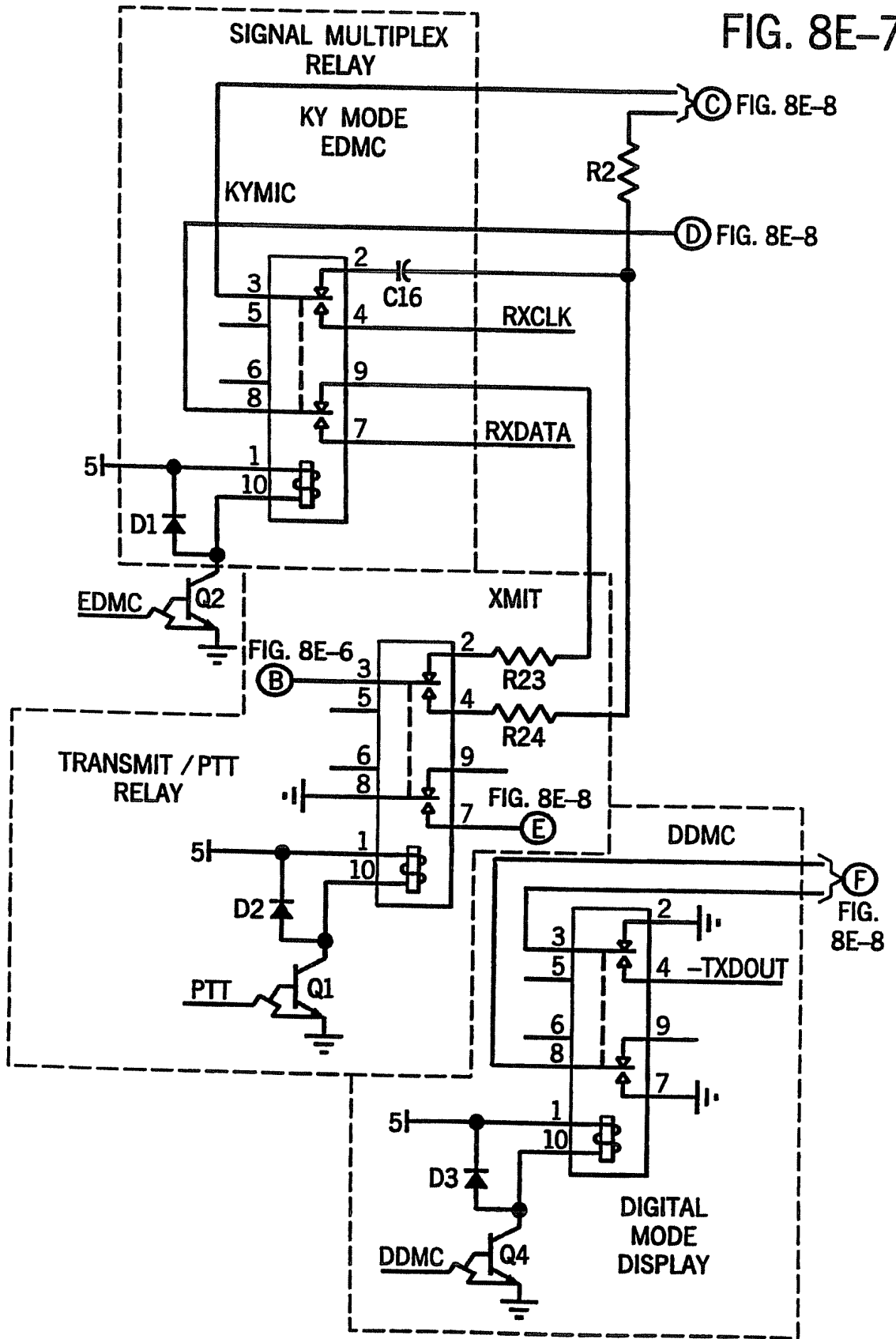


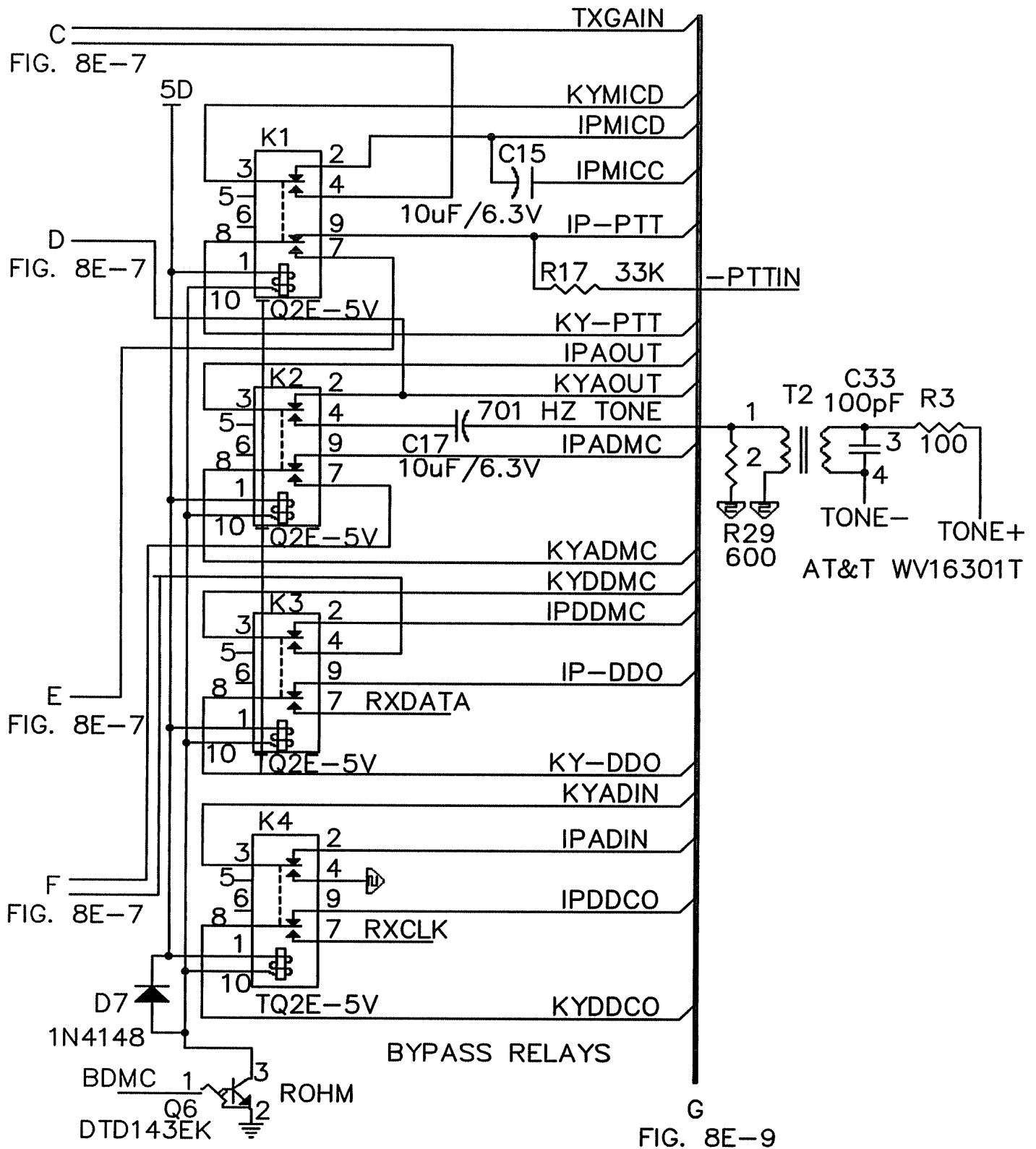
FIG. 8E-7



FIG. 8E-7



+



+

Ⓒ FIG. 8E-8

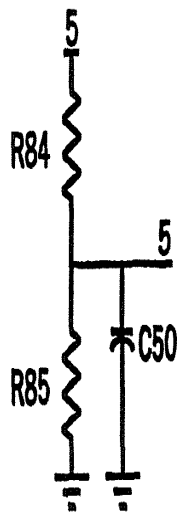
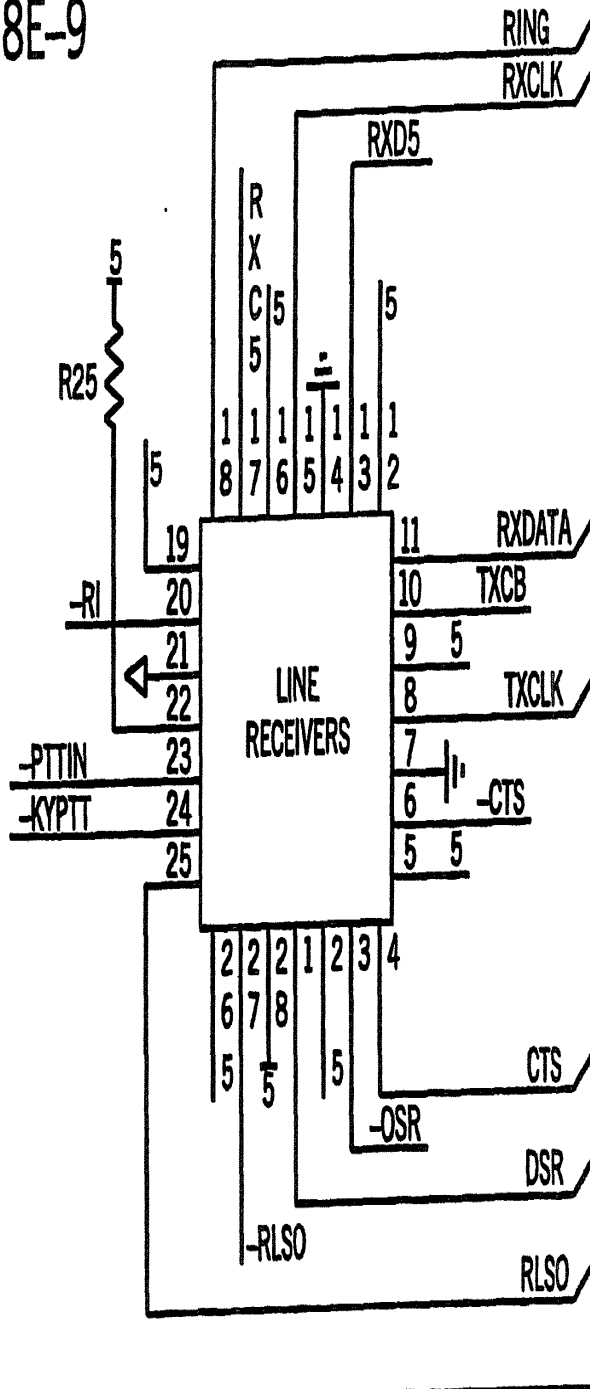


FIG. 8E-9



Ⓓ FIG. 8E-10

FIG. 8E-10

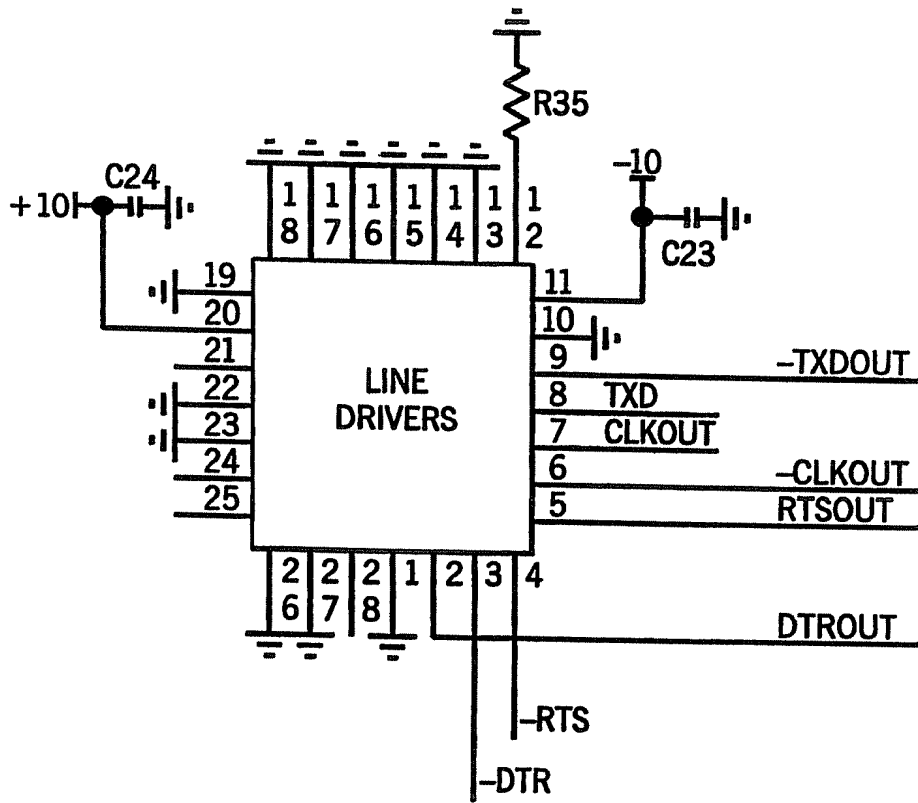


FIG. 8E-11



FIG. 8E-9

FIG. 8E-11

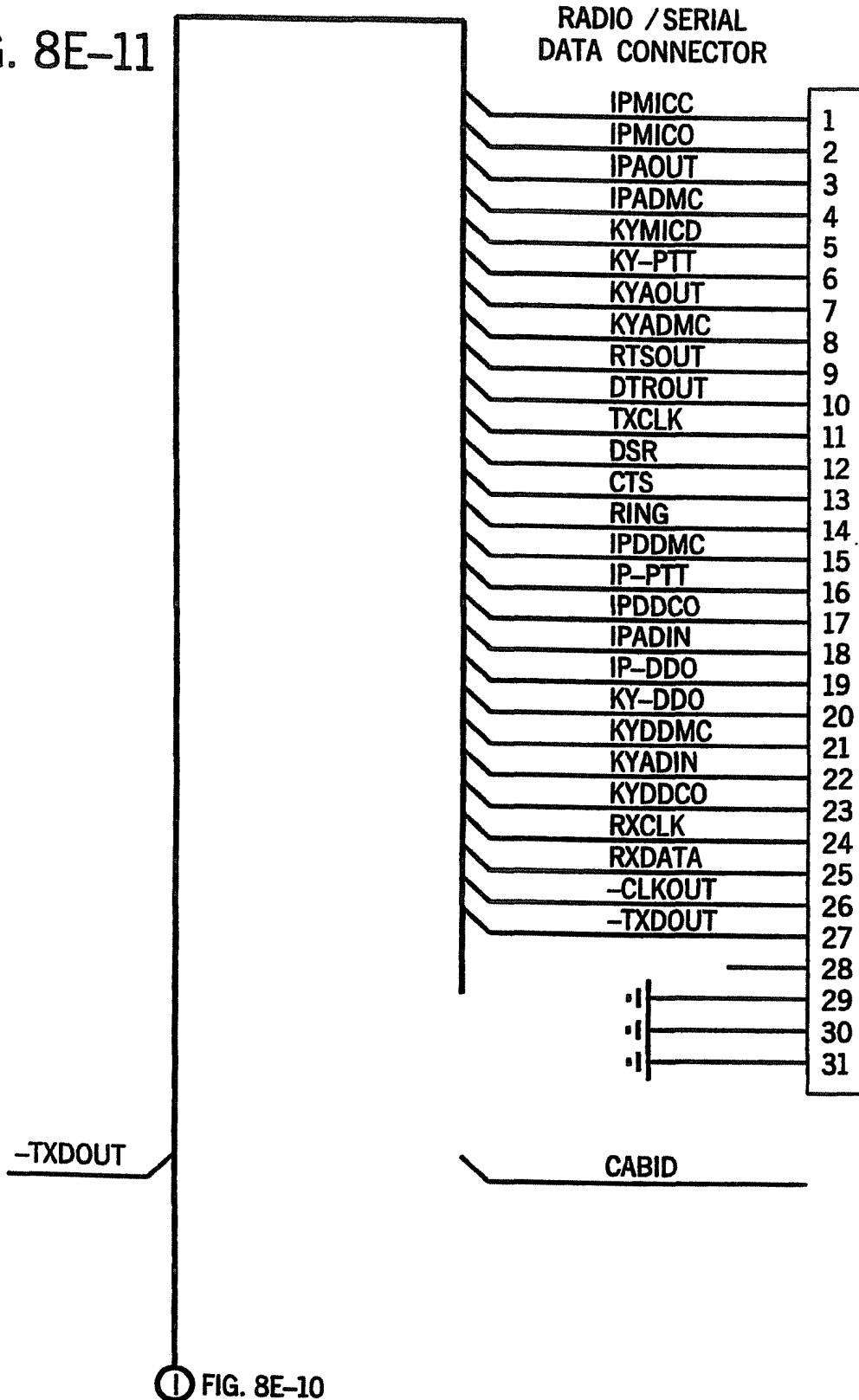
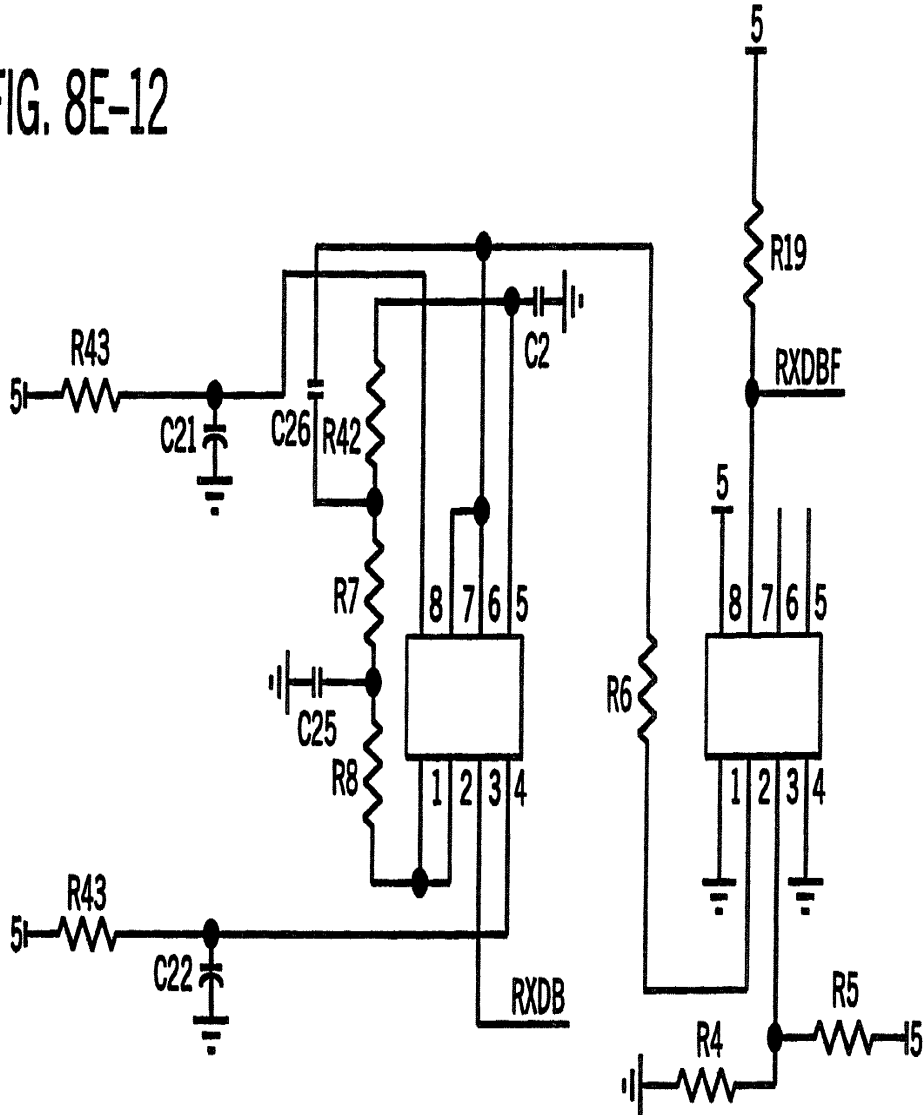


FIG. 8E-12



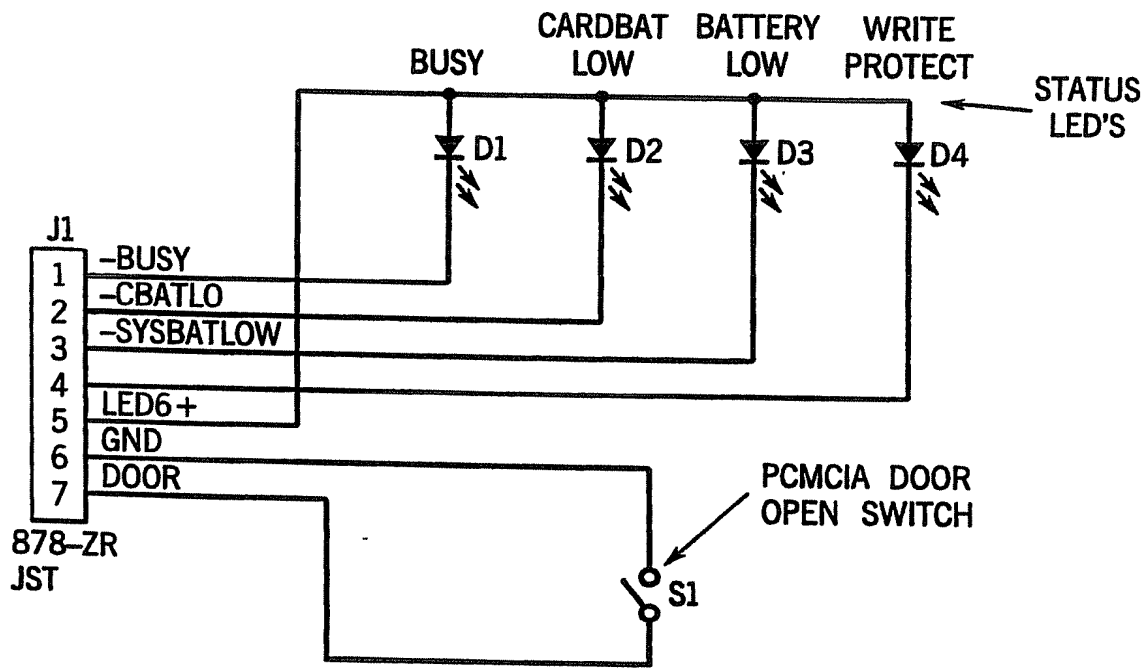


FIG. 8F

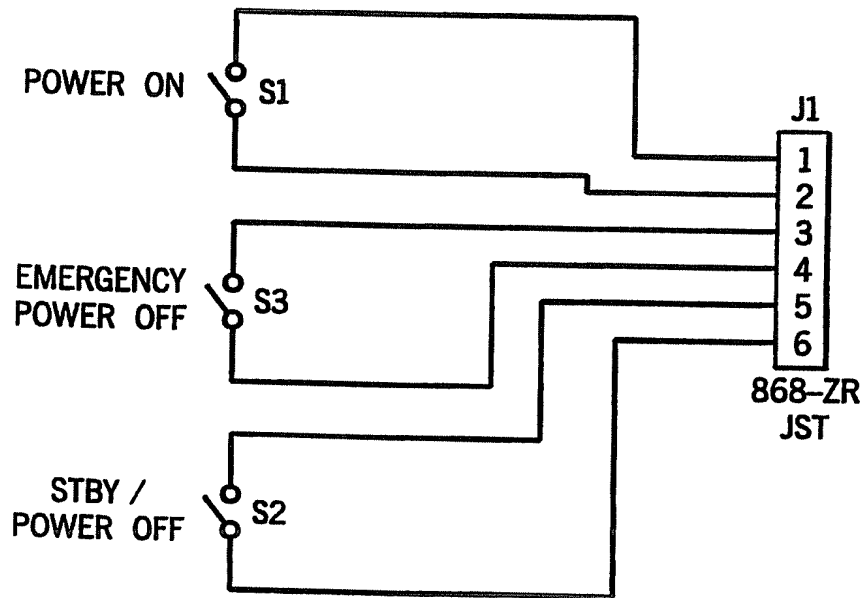


FIG. 8G

PUSH BUTTON SWITCHES

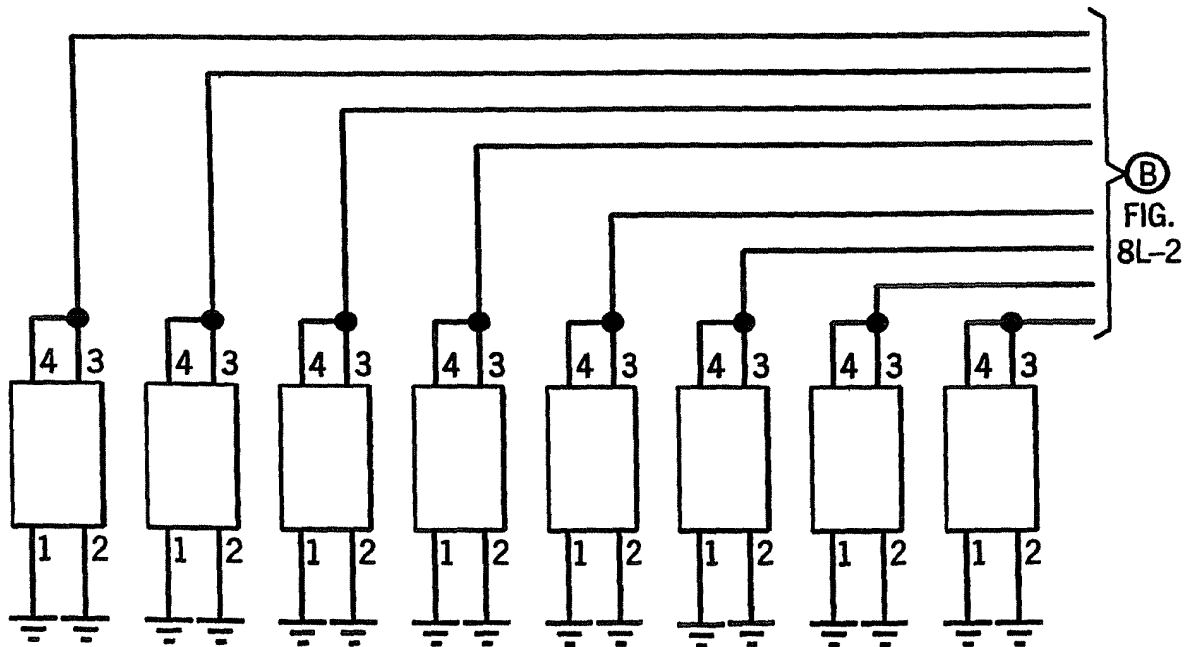
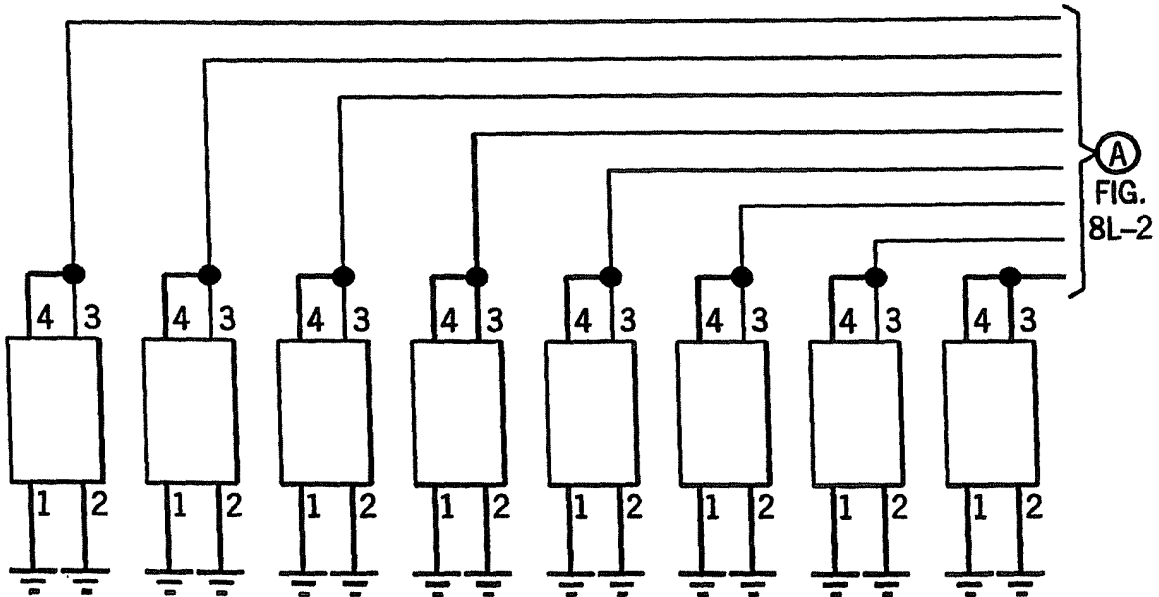


FIG. 8L-1



FIG. 8L-2

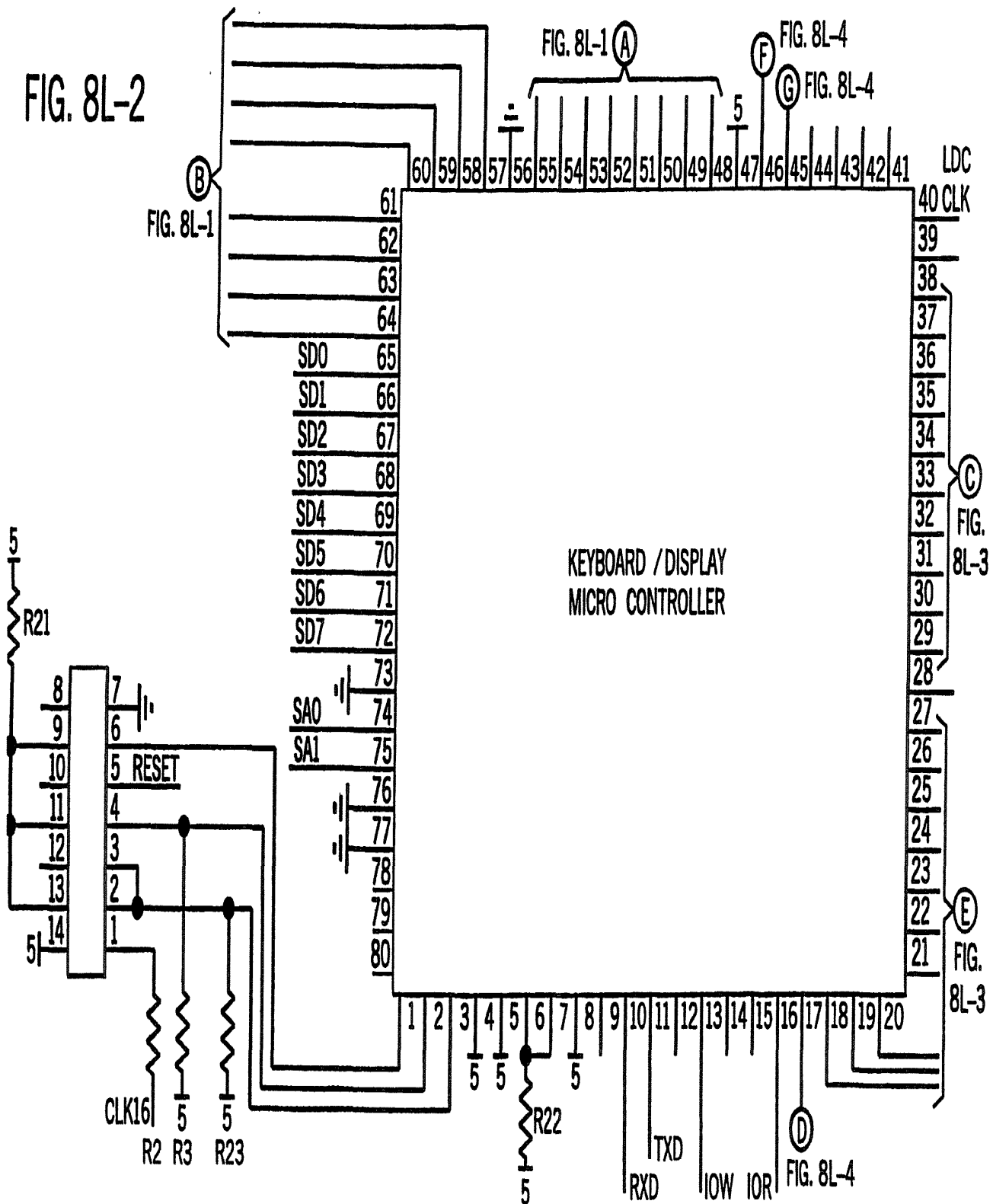
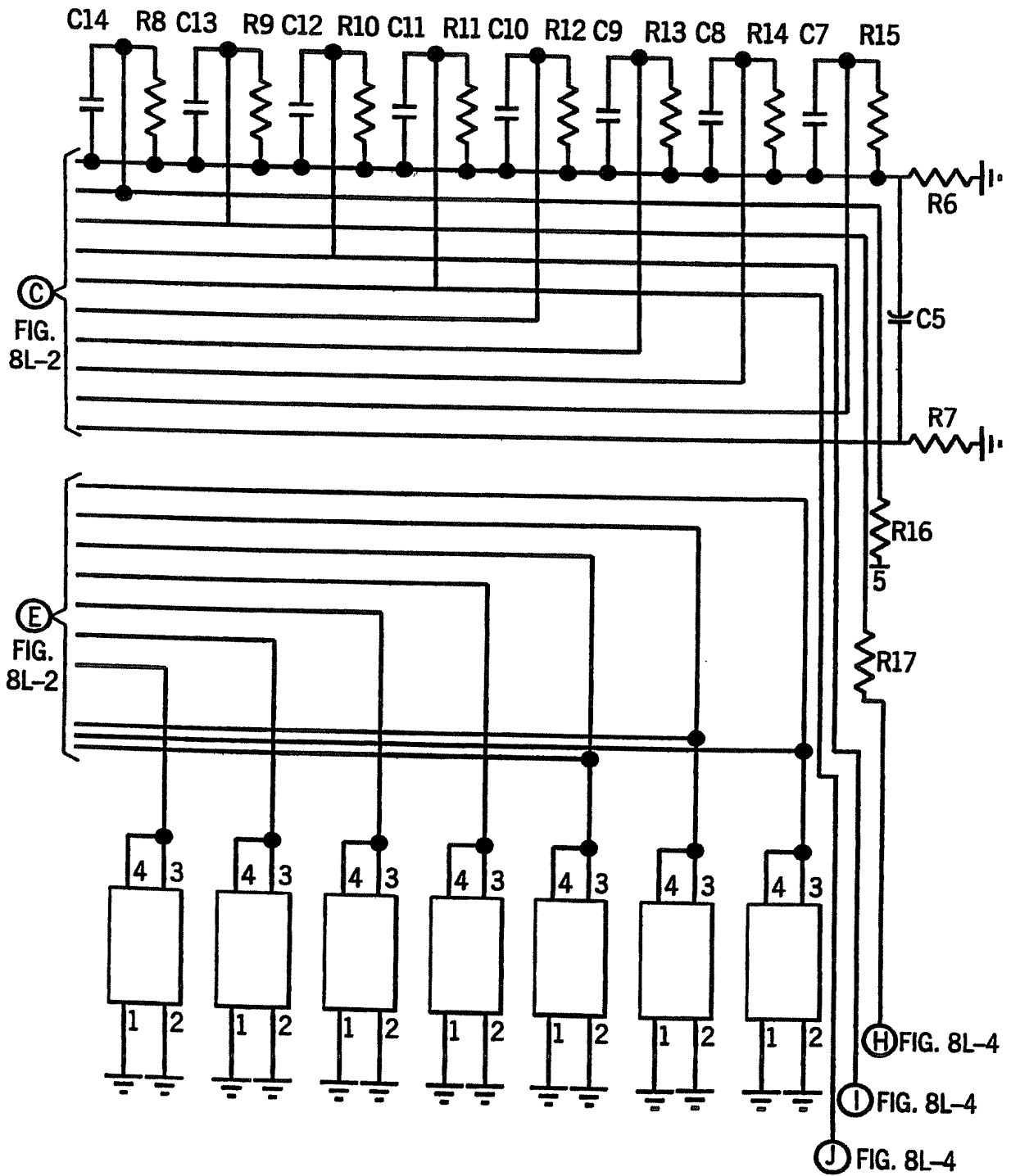


FIG. 8L-3



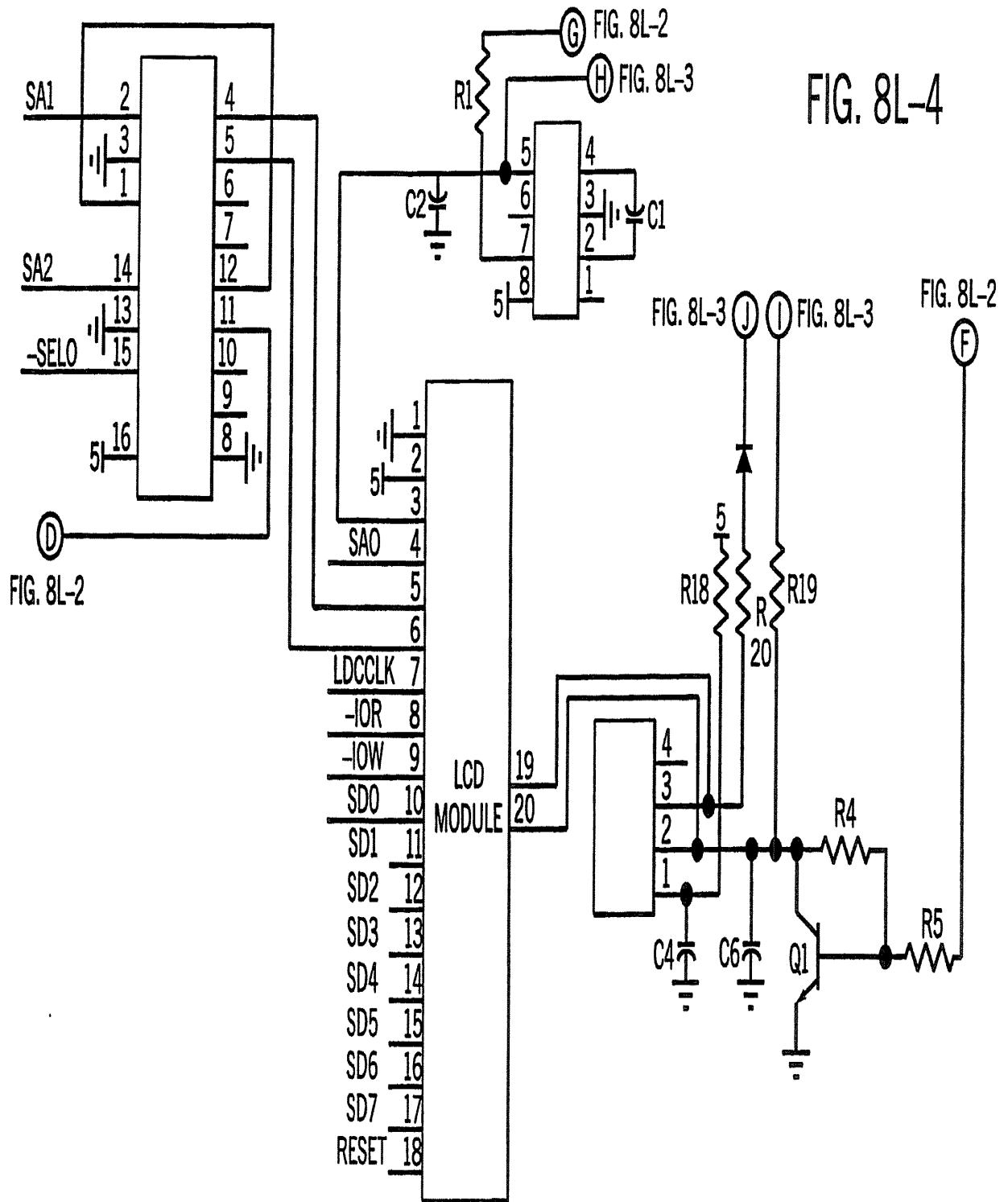
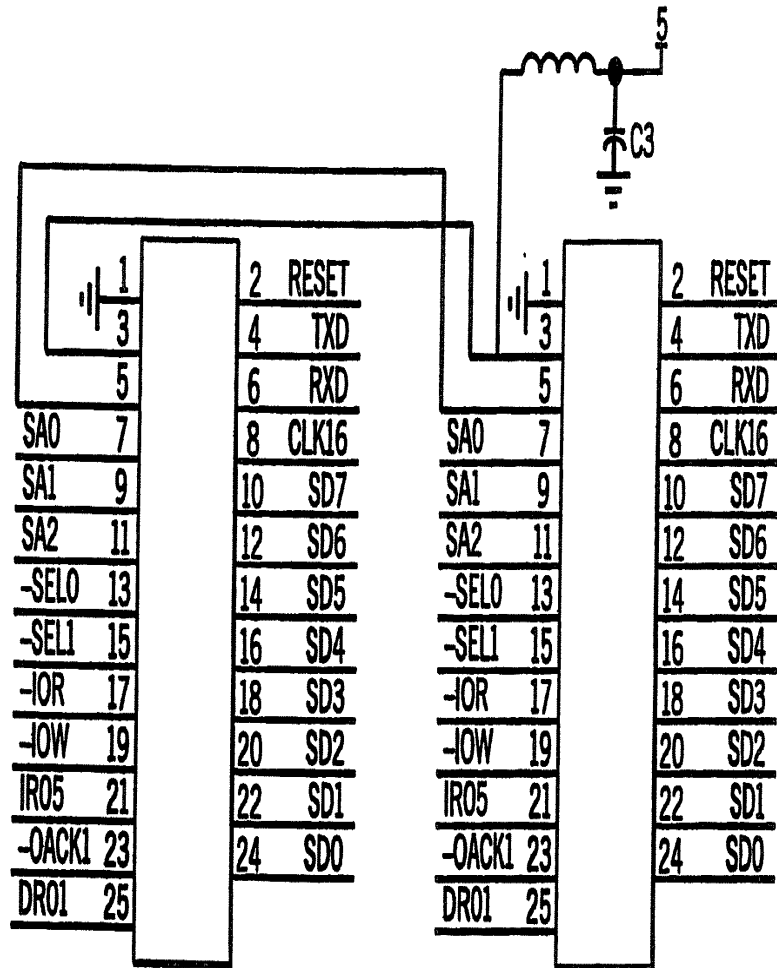


FIG. 8L-5



KEYBOARD / DISPLAY  
INTERFACE CONNECTORS



FIG. 9

## ABSTRACT

[0091] An image capture, conversion, compression, storage and transmission system provides a data signal representing the image in a format and protocol capable of being transmitted over any of a plurality of readily available transmission systems and received by readily available, standard equipment receiving stations. In its most comprehensive form, the system is capable of sending and receiving audio, documentary and visual image data to and from standard remote stations readily available throughout the world.

Attorney Docket No. P-121817.2,<sup>42</sup>43(DIV)

**COMBINED DECLARATION AND POWER OF ATTORNEY**

As a below-named inventor, I hereby declare that:

This is a divisional application.

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled APPARATUS FOR CAPTURING, CONVERTING AND TRANSMITTING A VISUAL IMAGE SIGNAL VIA A DIGITAL TRANSMISSION SYSTEM, the specification of which is attached hereto.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge my duty to disclose information which is material to the examination and patentability of this application in accordance with Title 37, Code of Federal Regulations, §1.56.

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application.

U.S. Application Serial No. 09/006,073, filed January 12, 1998

**POWER OF ATTORNEY**

I hereby appoint the following attorneys to prosecute this application and transact all business in the Patent and Trademark Office connected therewith:

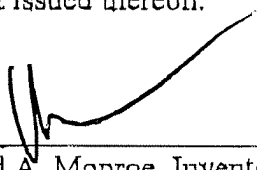
Richard R. Ruble, Reg. #45,720;  
Mark H. Miller, Reg. #29,197;  
William B. Nash, Reg. #33,743;  
Thomas E. Sisson, Reg. #29,348.

Robert C. Curfiss, Reg. #26,540;  
Daniel D. Chapman, Reg. #32,726;  
Cline H. White, Reg. #45,213;

Direct all correspondence and telephone calls to:

Robert C. Curfiss  
JACKSON WALKER L.L.P.  
112 E. Pecan Street, Suite 2100  
San Antonio, Texas 78205  
(210) 978-7700

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

  
\_\_\_\_\_, Inventor  
David A. Monroe, Inventor

Date: 1/3/02

Residence: San Antonio, Texas  
Citizenship: United States  
Post Office Address: 740 Lincoln Center, 7800 IH-10 West, San Antonio, Texas 78230



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

David A. Monroe

For: **APPARATUS FOR CAPTURING,  
CONVERTING AND TRANSMITTING  
A VISUAL IMAGE SIGNAL VIA A  
DIGITAL TRANSMISSION SYSTEM**

Docket No. 60719

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

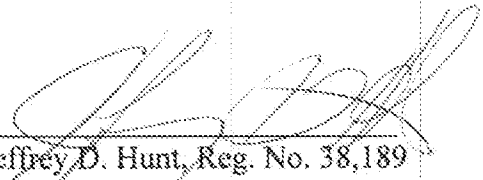
**PRELIMINARY AMENDMENT**

Applicant submits this Preliminary Amendment to the accompanying Continuation Application submitted herewith.

In specification, paragraph 0001, before the first sentence, insert, "This application is a continuation of co-pending Patent Application Serial No. 10/336,470 filed on January 3, 2003 entitled APPARATUS FOR CAPTURING, CONVERTING AND TRANSMITTING A VISUAL IMAGE SIGNAL VIA A DIGITAL TRANSMISSION SYSTEM."

Cancel claims 21-42.

Respectfully submitted,

  
Jeffrey D. Hunt, Reg. No. 38,189

Date: December 27, 2006

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>				
<b>Filing Date:</b>				
<b>Title of Invention:</b>	Apparatus for Capturing, Converting and Transmitting a Visual Image Signal Via A Digital Transmission System			
First Named Inventor/Applicant Name:	David A Monroe			
<b>Filer:</b>	Jeffrey Darryl Hunt			
<b>Attorney Docket Number:</b>	60719			
Filed as Large Entity				
<b>Utility Filing Fees</b>				
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>
<b>Basic Filing:</b>				
Utility application filing	1011	1	300	300
Utility Search Fee	1111	1	500	500
Utility Examination Fee	1311	1	200	200
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Post-Allowance-and-Post-Issuance:				
<b>Extension-of-Time:</b>				
<b>Miscellaneous:</b>				
<b>Total in USD (\$)</b>				<b>1000</b>

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	1405387
<b>Application Number:</b>	11617509
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	4247
<b>Title of Invention:</b>	Apparatus for Capturing, Converting and Transmitting a Visual Image Signal Via A Digital Transmission System
<b>First Named Inventor/Applicant Name:</b>	David A Monroe
<b>Customer Number:</b>	67589
<b>Filer:</b>	Jeffrey Darryl Hunt
<b>Filer Authorized By:</b>	
<b>Attorney Docket Number:</b>	60719
<b>Receipt Date:</b>	28-DEC-2006
<b>Filing Date:</b>	
<b>Time Stamp:</b>	17:43:37
<b>Application Type:</b>	Utility

### Payment information:

Submitted with Payment	yes
Payment was successfully received in RAM	\$ 1000
RAM confirmation Number	694
Deposit Account	

### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)	Multi Part /.zip	Pages (if appl.)
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1	Application Data Sheet	60719_ADS.pdf	37493	no	4
<b>Warnings:</b>					
<b>Information:</b>					
This is not an USPTO supplied ADS fillable form					
2	Specification	60719_spec.pdf	1625090	no	26
<b>Warnings:</b>					
<b>Information:</b>					
3	Claims	60719_clm.pdf	243986	no	6
<b>Warnings:</b>					
<b>Information:</b>					
4	Drawings	60719_drw.pdf	2177038	no	73
<b>Warnings:</b>					
The page size in the PDF is too large. The pages should be 8.5 x 11 or A4. If this PDF is submitted, the pages will be resized upon entry into the Image File Wrapper and may affect subsequent processing					
<b>Information:</b>					
5	Abstract	60719_abst.pdf	17585	no	1
<b>Warnings:</b>					
<b>Information:</b>					
6	Oath or Declaration filed	60719_oath.pdf	101139	no	2
<b>Warnings:</b>					
<b>Information:</b>					
7	Preliminary Amendment	60719_pa.pdf	313243	no	1
<b>Warnings:</b>					
<b>Information:</b>					
8	Fee Worksheet (PTO-06)	fee-info.pdf	8394	no	2
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			4523968		

**This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.**

**New Applications Under 35 U.S.C. 111**

**If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.**

**National Stage of an International Application under 35 U.S.C. 371**

**If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.**

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875	<b>11/617,509</b>
---	-------------------

APPLICATION AS FILED – PART I			SMALL ENTITY		OTHER THAN SMALL ENTITY	
(Column 1)                      (Column 2)			RATE (\$)	FEE (\$)	RATE (\$)	FEE (\$)
FOR	NUMBER FILED	NUMBER EXTRA				
BASIC FEE (37 CFR 1.16(a), (b), or (c))						<b>300</b>
SEARCH FEE (37 CFR 1.16(k), (l), or (m))						<b>500</b>
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))						<b>200</b>
TOTAL CLAIMS (37 CFR 1.16(i))	<b>20</b>	minus 20 =	X\$25=		X\$50	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	<b>1</b>	minus 3 =	X\$100=		X\$200=	
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR					
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))			N/A		N/A	
			TOTAL		TOTAL	<b>1000</b>

\* If the difference in column 1 is less than zero, enter "0" in column 2.

APPLICATION AS AMENDED – PART II					SMALL ENTITY		OTHER THAN SMALL ENTITY		
(Column 1)                      (Column 2)                      (Column 3)					RATE (\$)	ADDI- TIONAL FEE (\$)	RATE (\$)	ADDI- TIONAL FEE (\$)	
<b>AMENDMENT A</b>	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA					
	Total (37 CFR 1.16(i))	*	Minus	**	=	X	=	X	=
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X	=	X	=
	Application Size Fee (37 CFR 1.16(s))					N/A		N/A	
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					TOTAL ADD'T FEE		TOTAL ADD'T FEE	

(Column 1)                      (Column 2)                      (Column 3)					RATE (\$)	ADDI- TIONAL FEE (\$)	RATE (\$)	ADDI- TIONAL FEE (\$)	
<b>AMENDMENT B</b>	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA					
	Total (37 CFR 1.16(i))	*	Minus	**	=	X	=	X	=
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X	=	X	=
	Application Size Fee (37 CFR 1.16(s))					N/A		N/A	
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					TOTAL ADD'T FEE		TOTAL ADD'T FEE	

- \* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
- \*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
- \*\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
- The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875	<b>11/617,509</b>
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APPLICATION AS FILED – PART I			SMALL ENTITY		OTHER THAN SMALL ENTITY	
(Column 1)      (Column 2)			RATE (\$)	FEE (\$)	RATE (\$)	FEE (\$)
FOR	NUMBER FILED	NUMBER EXTRA				
BASIC FEE (37 CFR 1.16(a), (b), or (c))						300
SEARCH FEE (37 CFR 1.16(k), (l), or (m))						500
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))						200
TOTAL CLAIMS (37 CFR 1.16(i))	20	minus 20 =	X\$25=		X\$50	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	1	minus 3 =	X\$100=		X\$200=	
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR					
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))			N/A		N/A	
			TOTAL		TOTAL	1000

\* If the difference in column 1 is less than zero, enter "0" in column 2.

APPLICATION AS AMENDED – PART II					SMALL ENTITY		OTHER THAN SMALL ENTITY	
(Column 1)      (Column 2)      (Column 3)					RATE (\$)	ADDITIONAL FEE (\$)	RATE (\$)	ADDITIONAL FEE (\$)
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA				
	Total (37 CFR 1.16(i))	20	Minus	42	X	=	X	=
	Independent (37 CFR 1.16(h))	1	Minus	2	X	=	X	=
	Application Size Fee (37 CFR 1.16(s))				N/A		N/A	
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					TOTAL		TOTAL	
					ADD'T FEE		ADD'T FEE	

AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))		Minus	**	X	=	X	=
	Independent (37 CFR 1.16(h))		Minus	***	X	=	X	=
	Application Size Fee (37 CFR 1.16(s))				N/A		N/A	
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					TOTAL		TOTAL	
					ADD'T FEE		ADD'T FEE	

- \* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
- \*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
- \*\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
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