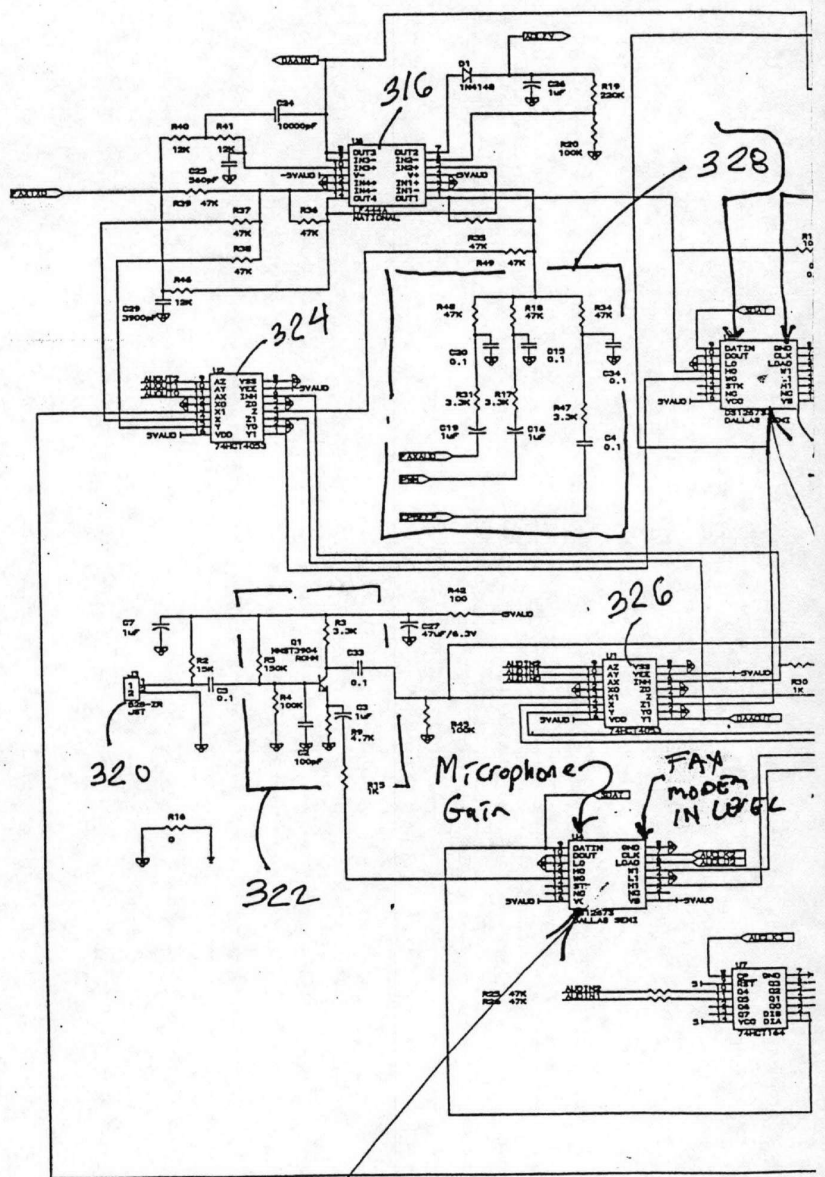
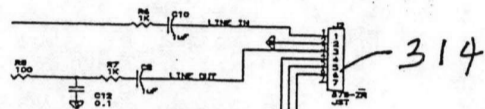


Fig. 8
Part A

PHOTOVOLTAIC CORPORATION		
Remote Image Transmission System		
Copyright (C) 1999		
Created: JUN/28/1999		
Enc: W. HIGGINS		
Title	DRBATT	REV
Rev Document Number	D	1.0
Date	NOVEMBER 18 1997	1 of 1

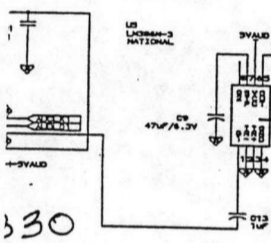


Dual Digital Potentiometer Chip
 (Microphone G



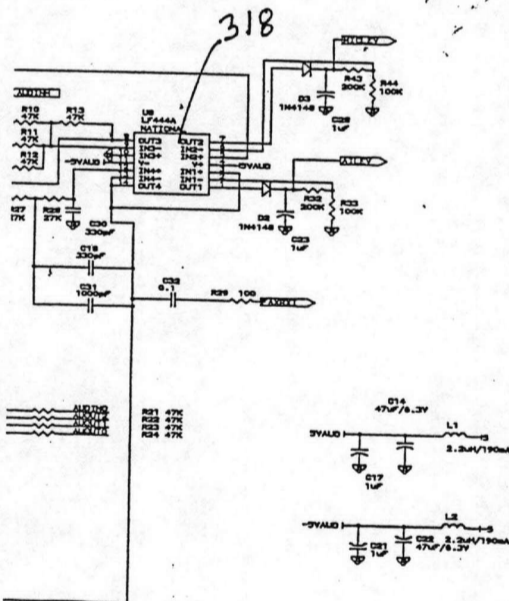
Ear Speaker Gain

Ear Speaker ~~Chip~~ Connector



Ear Speaker ~~Amplifier~~ Amplifier

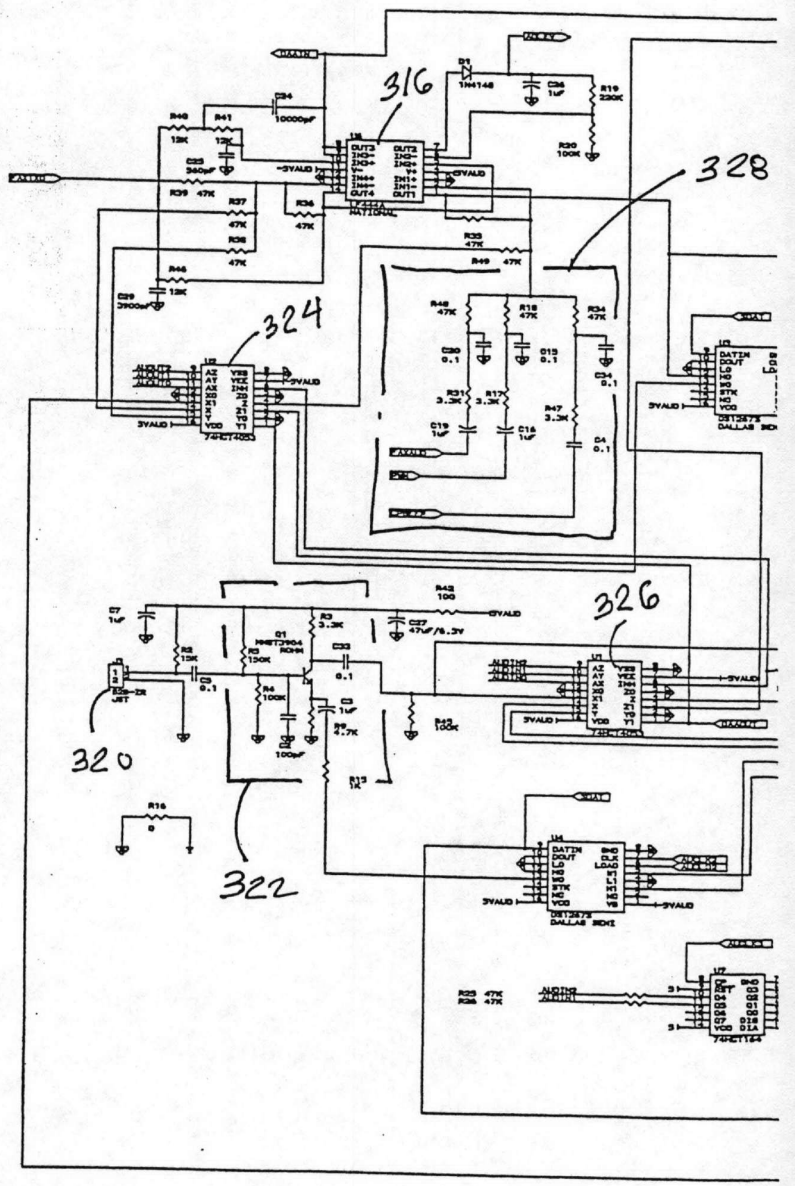
Dual Digital Potentiometer Chip (Data)



n)

Fig 28 Part B

Title	CARIT ALDIO LOGIC
File Document Number	
0	
Date	FEBRUARY 23, 1972



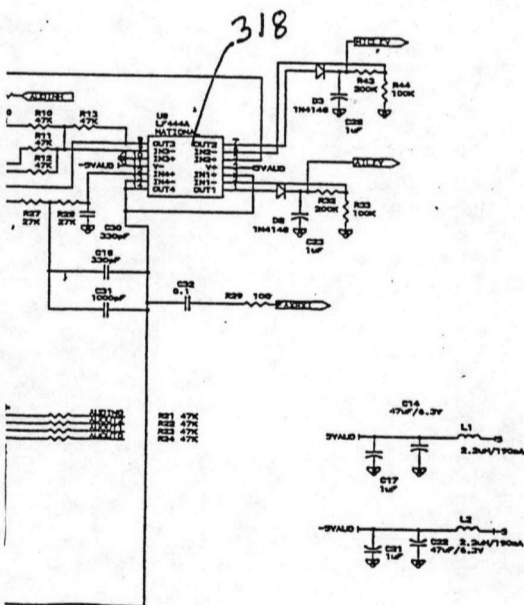
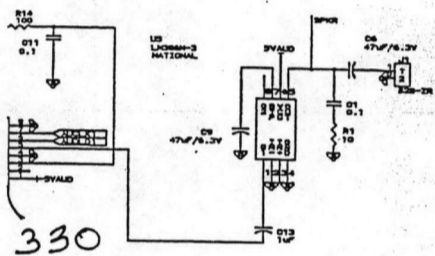
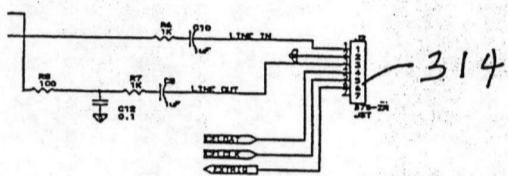
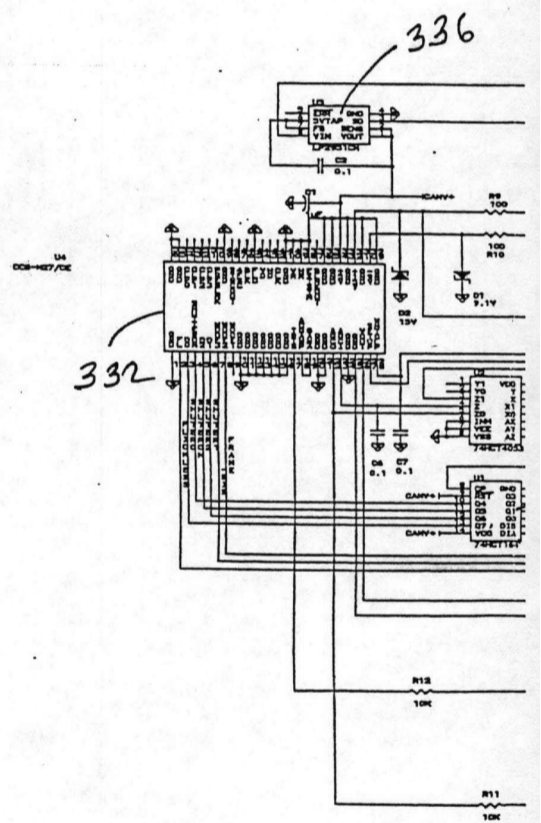
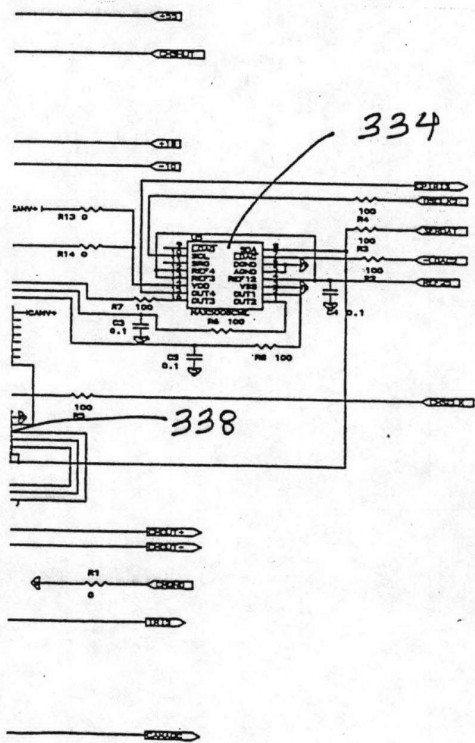


Fig 8
Part B

FIELD	CASSET AUDIO LOWDIS
REVISION	1
DATE	FEBRUARY 21 1972

CAMERA MUST BE ROTATED SUCH THAT PIN 1 IS UP



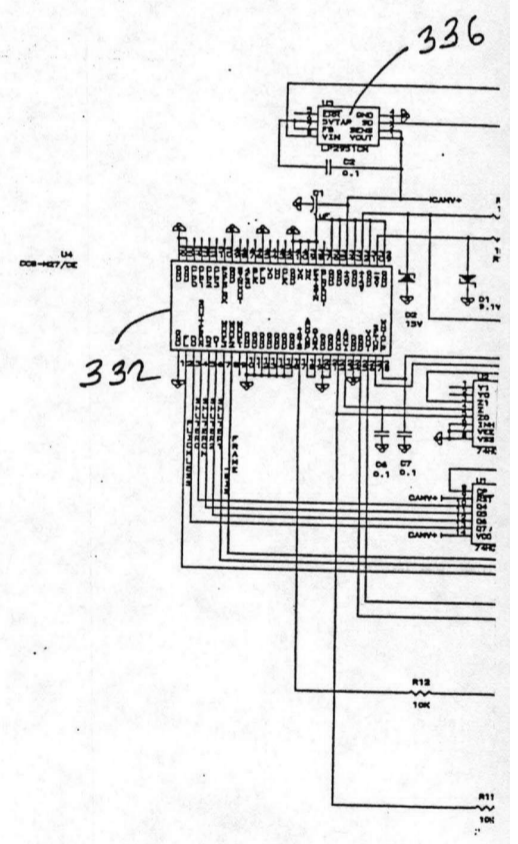


Other early Schematics
 dated prior to
 reference date.
(from 1992)

Fig. 8
 Part c

TITLE	CAMERA	REV
Drawn		
Checked		
DATE	FEBRUARY 18, 1972	1 of 1

CAMERA MUST BE ROTATED SUCH THAT PIN 1 IS UP



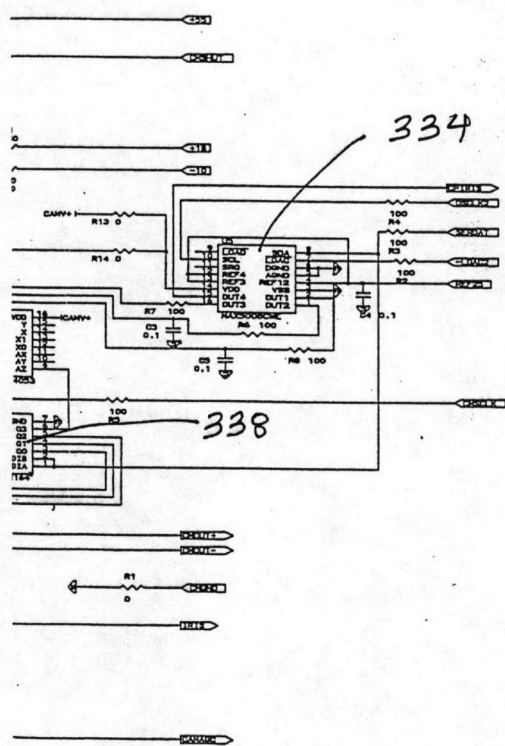
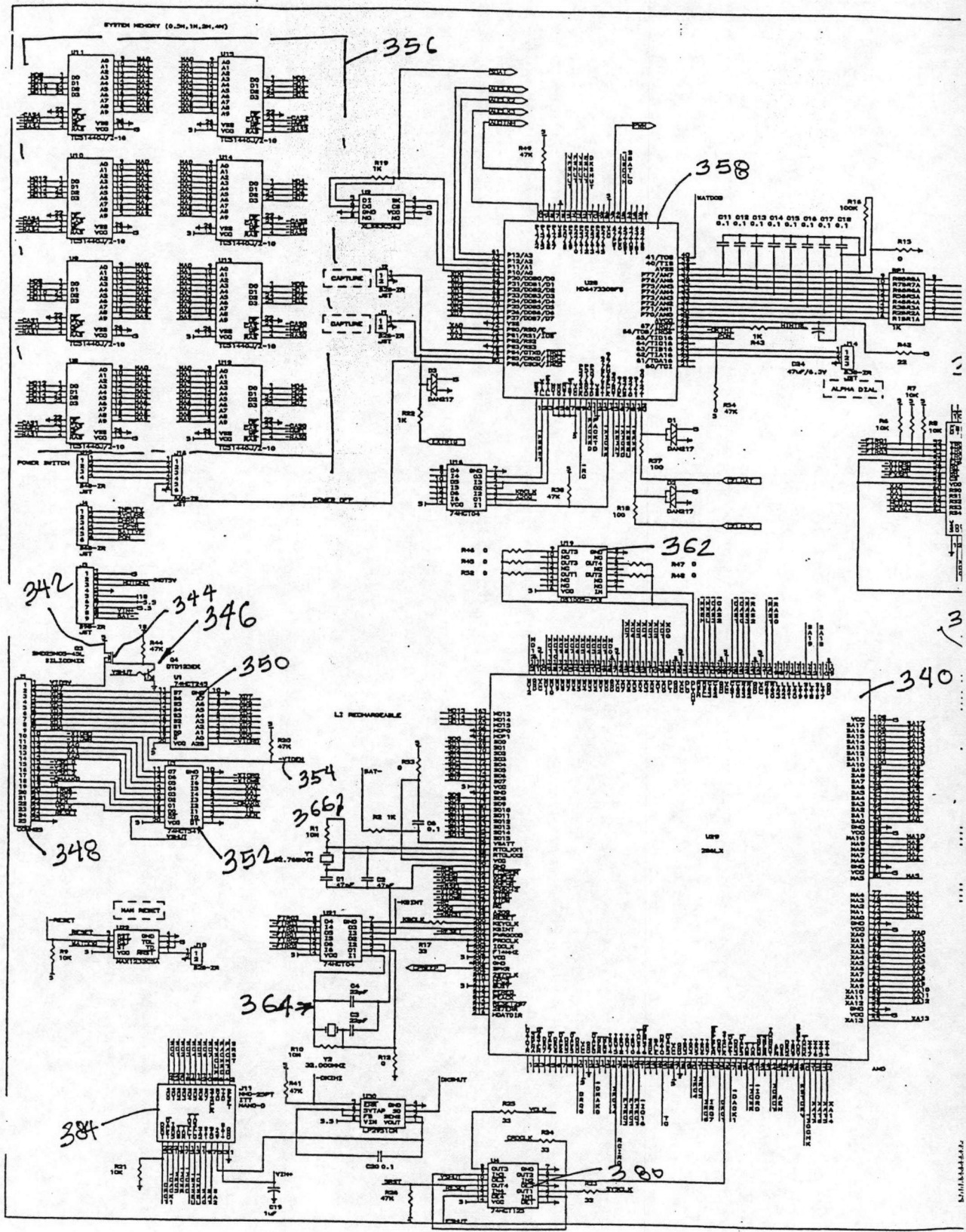


Fig. 28
Part c

Title	CAMERA	REV
Issue Document Number	0	1.0
Date	FEBRUARY 18, 1972 Sheet	1 of



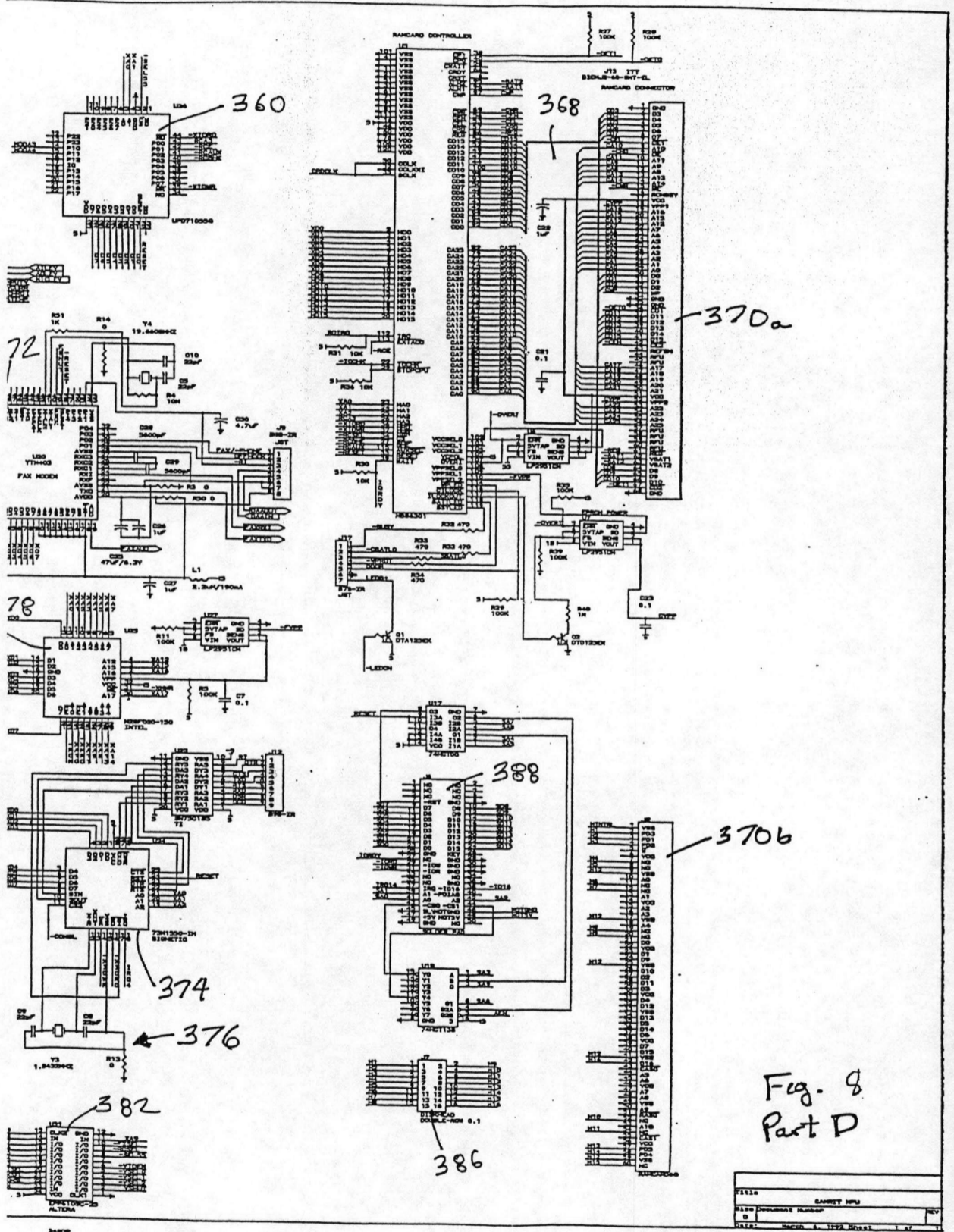
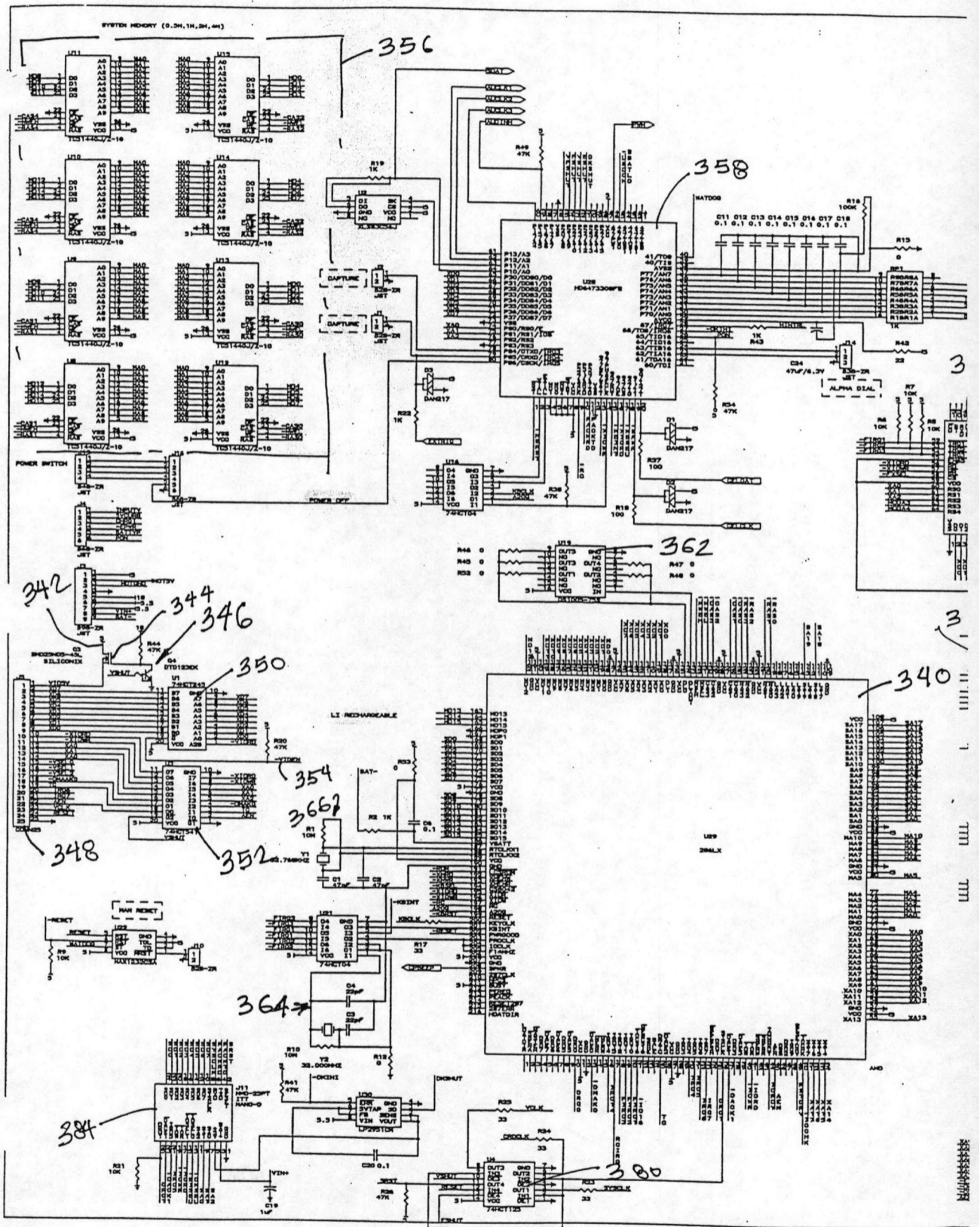


Fig. 8
Part D

FILE NO.	DATE
DESIGNER'S NAME	REV.
DATE	BY



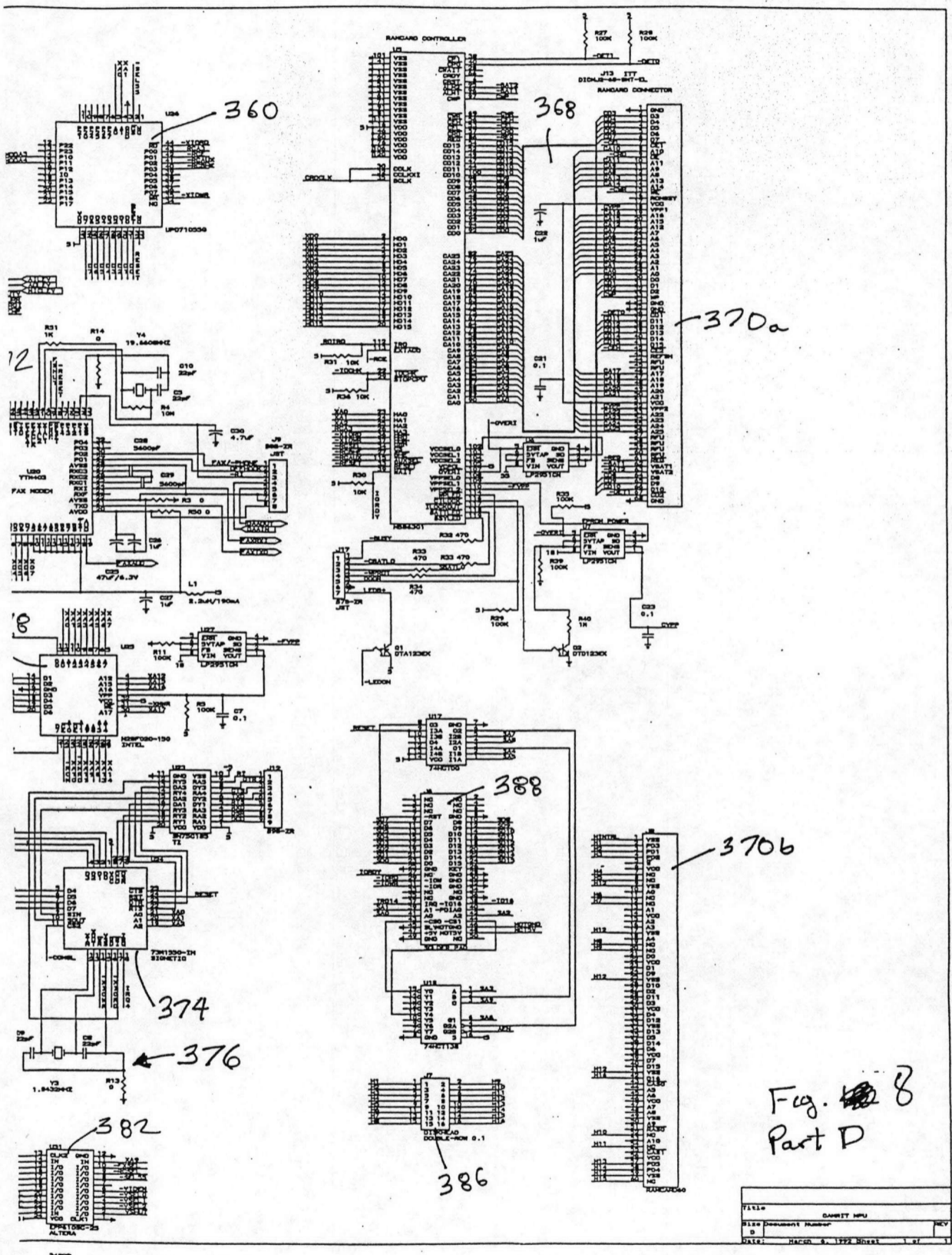
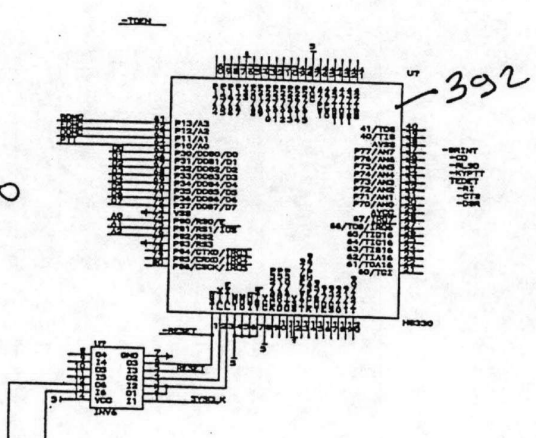
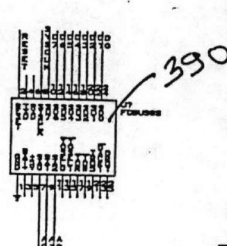
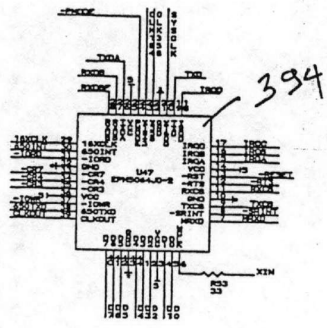
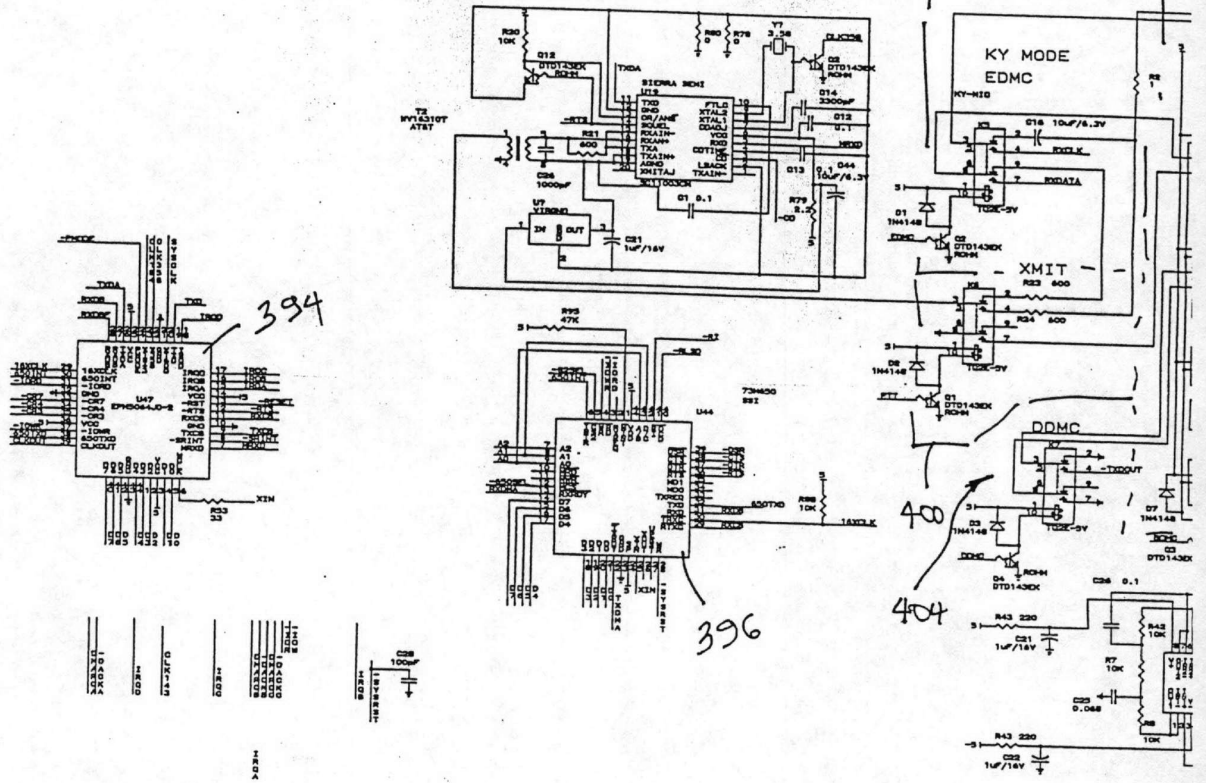


Fig. 8
Part D

FILE#	DAWITT MPU	REV
8150	Document Number	0
DATE:	MARCH 5, 1972	1 of 1

CRYPTO CUTOVER MODEM



408

18

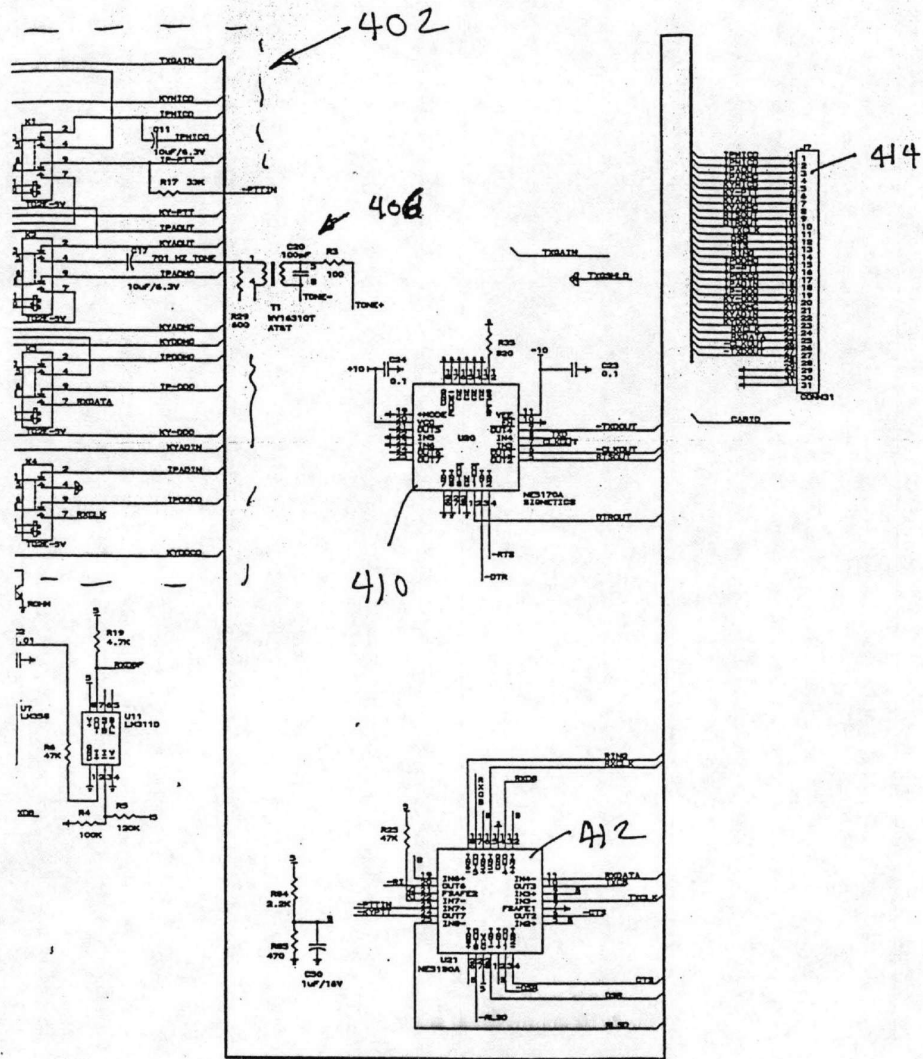
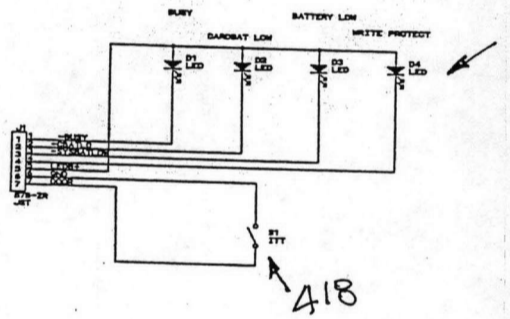


Fig. 8
Part E

PHOTODUPLICATION CORPORATION	
Beatty Image Transmission System	
Copyright (C) 1988	
Created: AUG/30/1991	
Frank V. Hink	
Title	DR-CIS
File Document Number	REV
0	1.0
Date:	FEBRUARY 22, 1992 Sheet 1 of 1



916

Fig. 8
Part F

PHOTOLEXIS CORPORATION	
Remote Image Transmission System	
Copyright (C) 1989	
Created: 08/20/1991	
Exec: W. HIGGS	
Title: CABINET STATUS AND DOOR STATUS	
File Document Number	REV
0	1.0
Date: FEBRUARY 23, 1992 Sheet	1 of 1

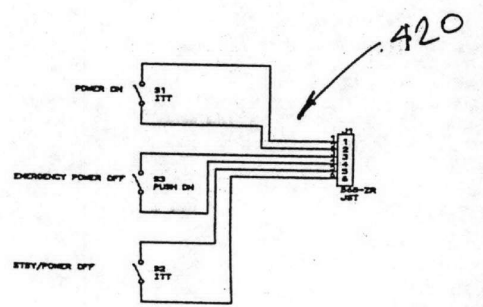
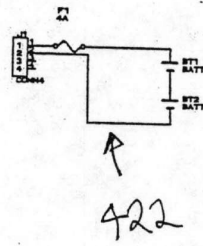


Fig. 8
Part G

PHOTULERIS CORPORATION Remote Image Transmission System Copyright (C) 1999 Created: AUG/20/1999 FOR: M. Hiss		
TITLE CAMBIT POWER ON/OFF PCB		
Size Document Number		REV
0		1.0
Date: FEBRUARY 23, 1992 Sheet	1 of	1

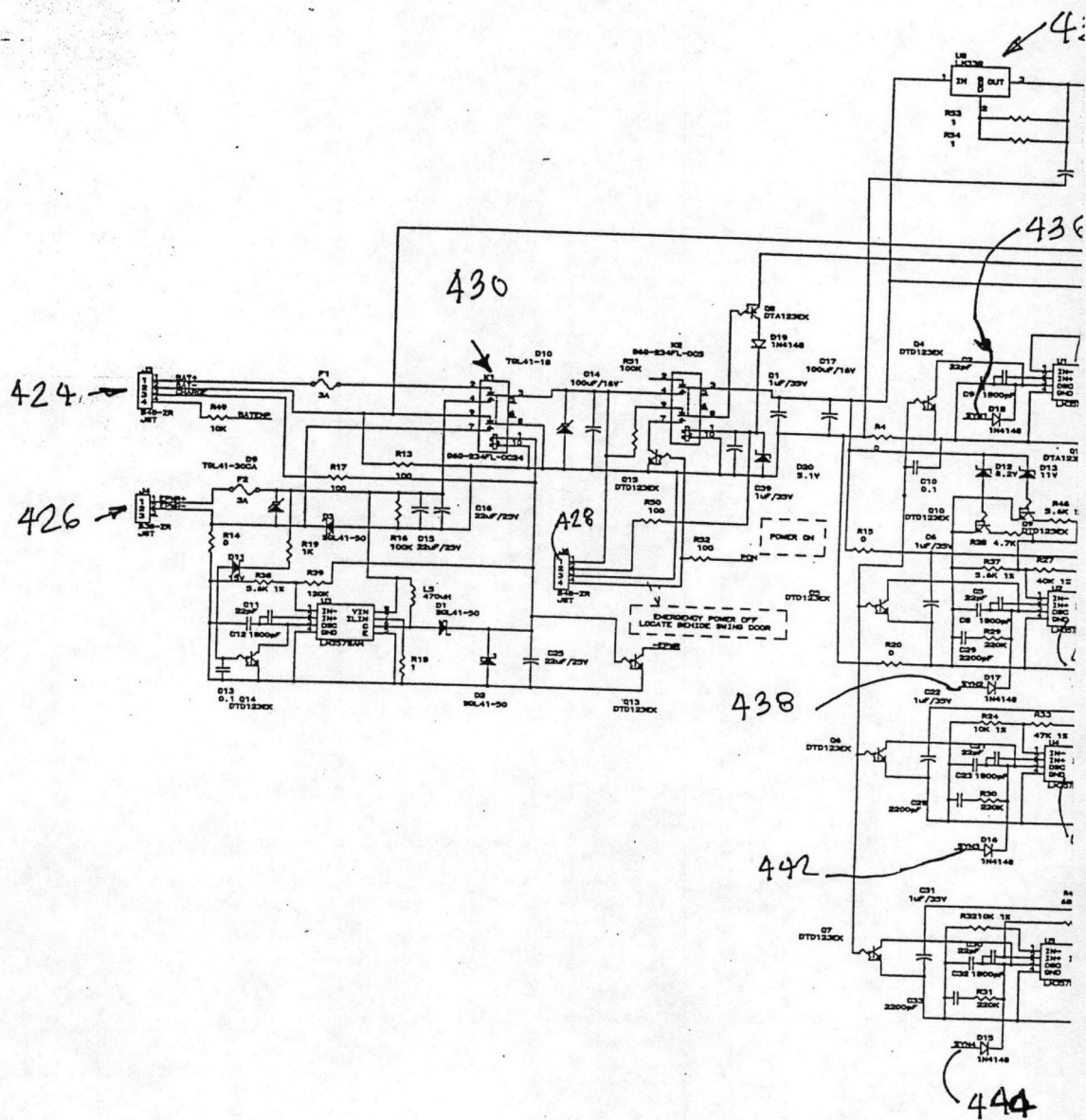


Batteria

Pack

Fig. ~~1~~
Part H

PHOTOGRAPH		
Title	CAR RTY NON RECHARGEABLE BATTERY	
Size	Document Number	REV
D		1.0
Date	FEBRUARY 14, 1952	Sheet 1 of 1



32

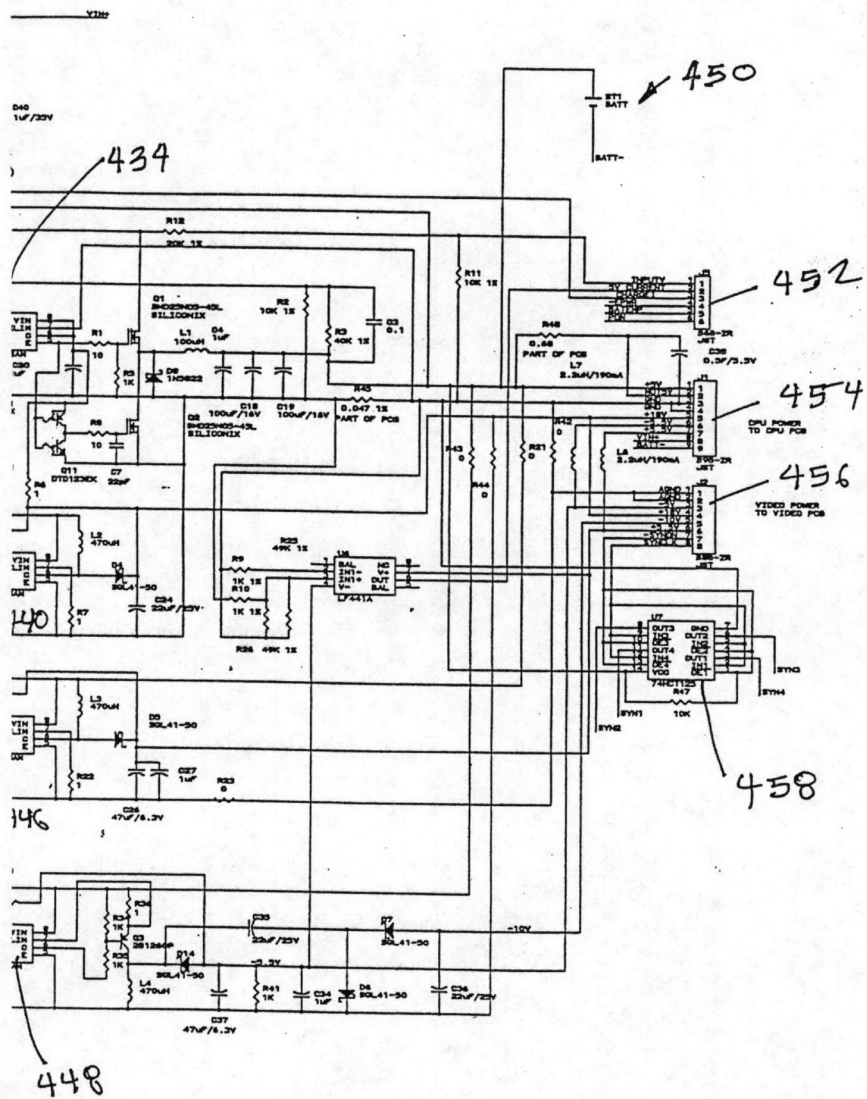
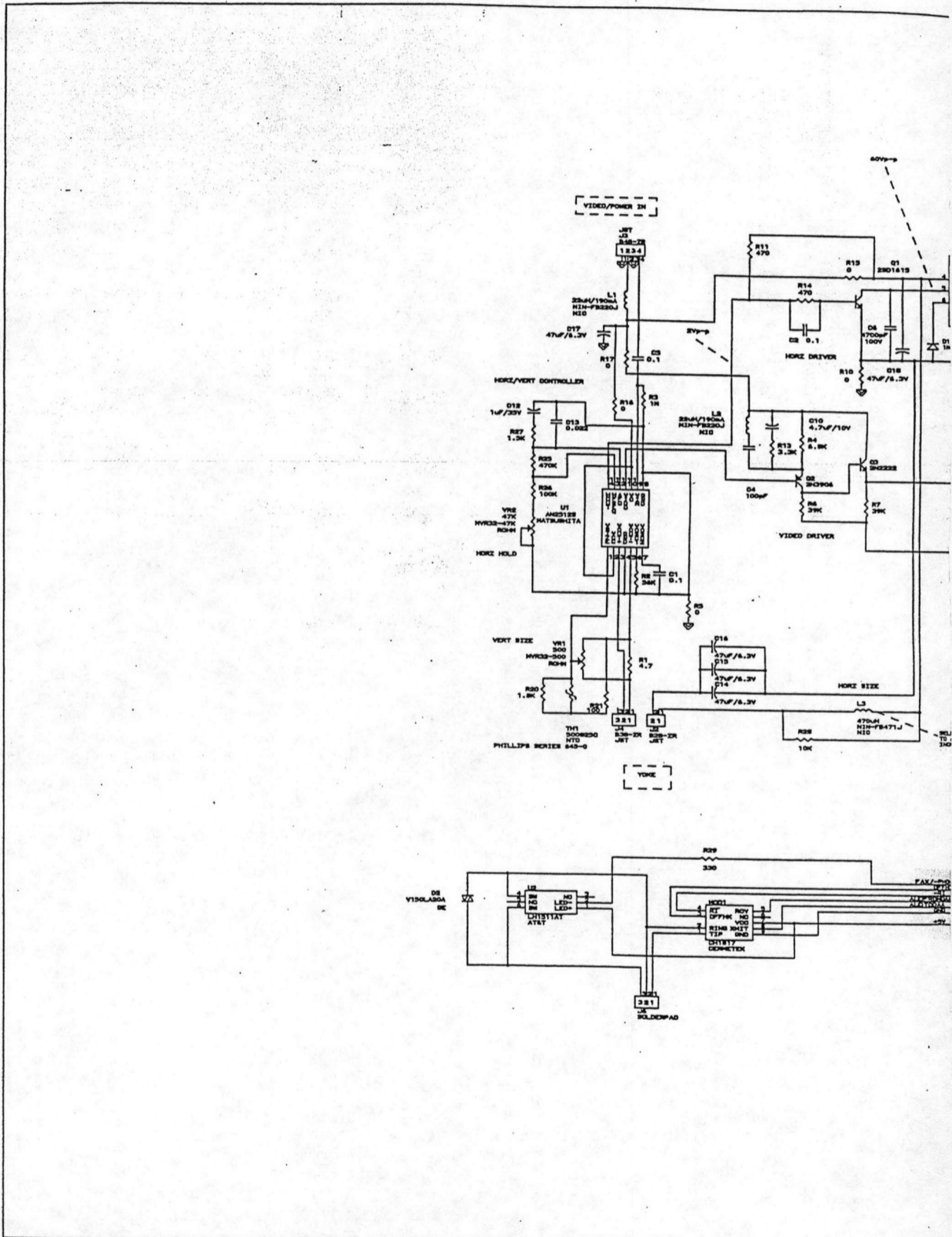
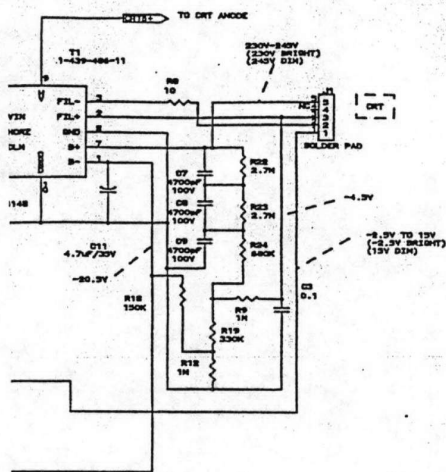


Fig. 8
Part I

PHOTODUPLICATION		
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FILE DOCUMENT NUMBER	REV	REV
0	1	1.0
DATE: FEBRUARY 17, 1962	BY: [signature]	1 of 1





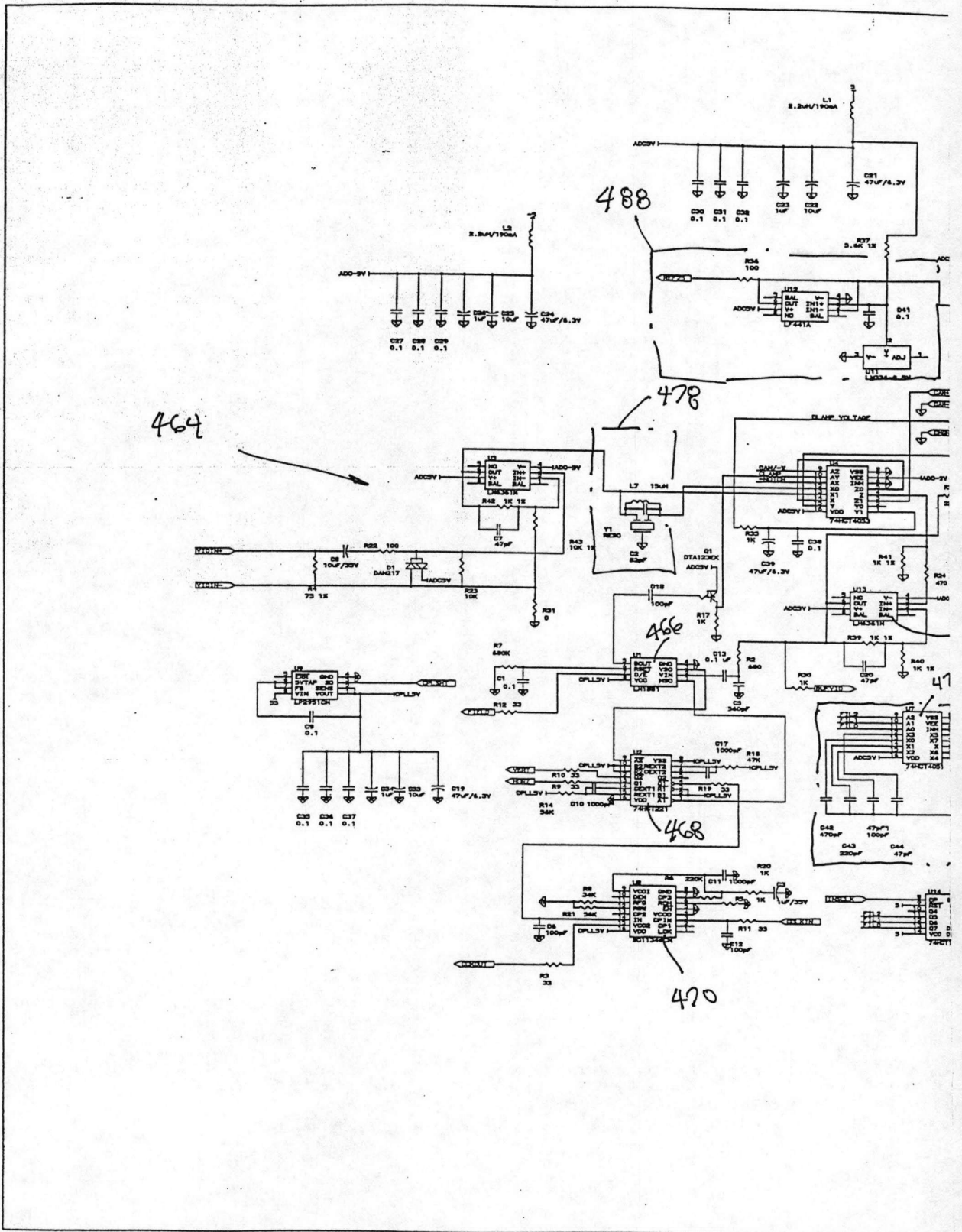
462

ACTIVE COMPONENT
0.1 HORIZ SIZE
EASING INDUCTANCE TO REDUCE HORIZ SIZE

460

Fig. 18
Part J

PHOTOTELEVISION CORPORATION	
Remote Image Transmission Systems	
Copyright (C) 1989	
Created: MAR/20/1991	
CANC. N. 3100	
Title	CAMBIT VIDEO PICKUP
Rev	REV
0	1.0
DATE: FEBRUARY 19, 1992	1 of 1



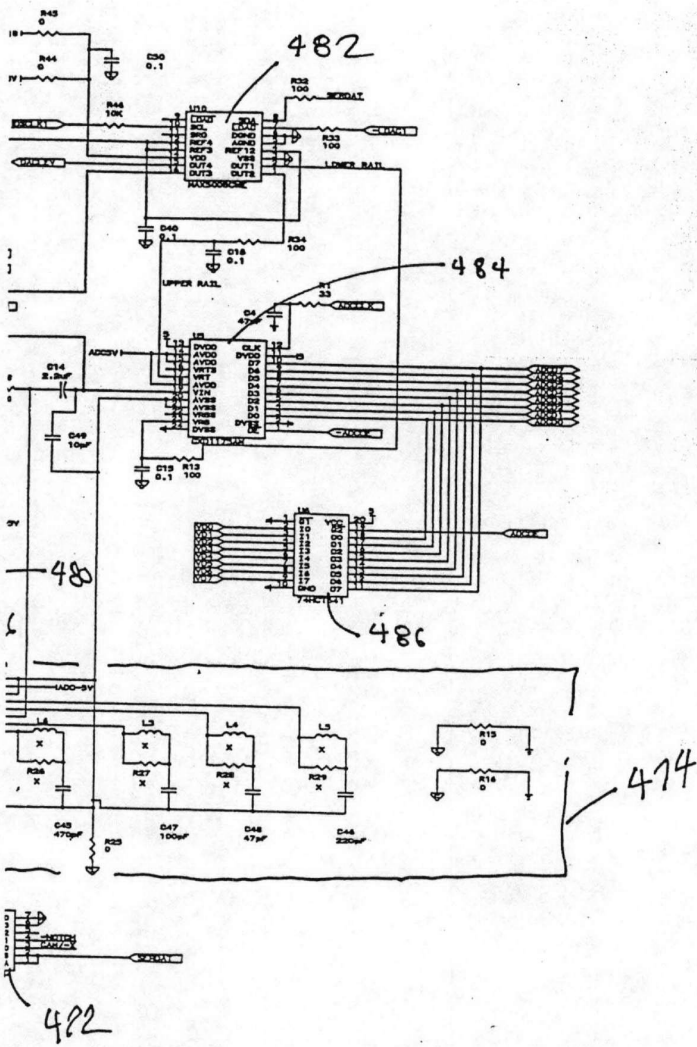


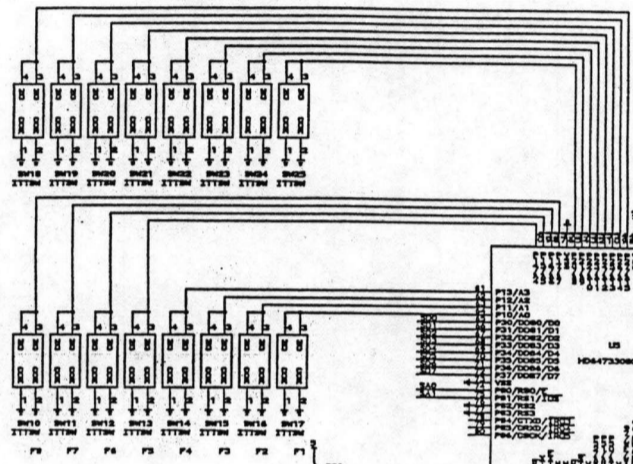
Fig. ~~8~~ 8
Part K

FILE#	GARRETT VIDEO FRONT END	REV
Size	Document Number	1.0
D		
DATE:	FEBRUARY 17, 1972	1 of 1

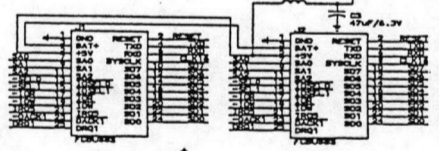
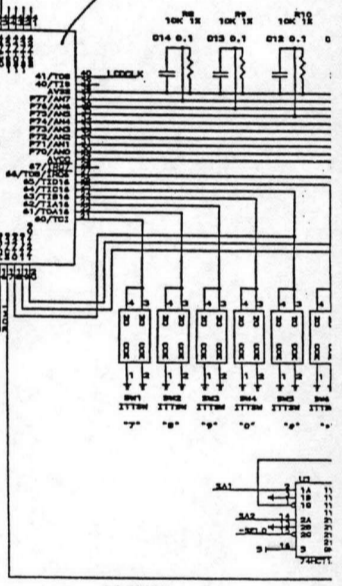
490

IN TOP VIEW

"4" "3" "4" "3" "2" "1" P10 P9



496



494

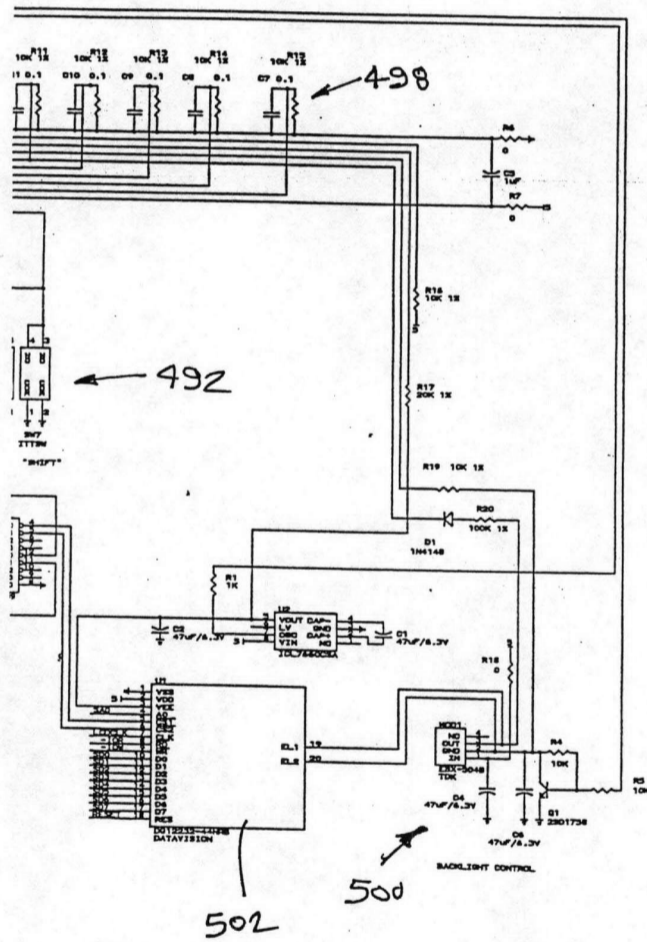
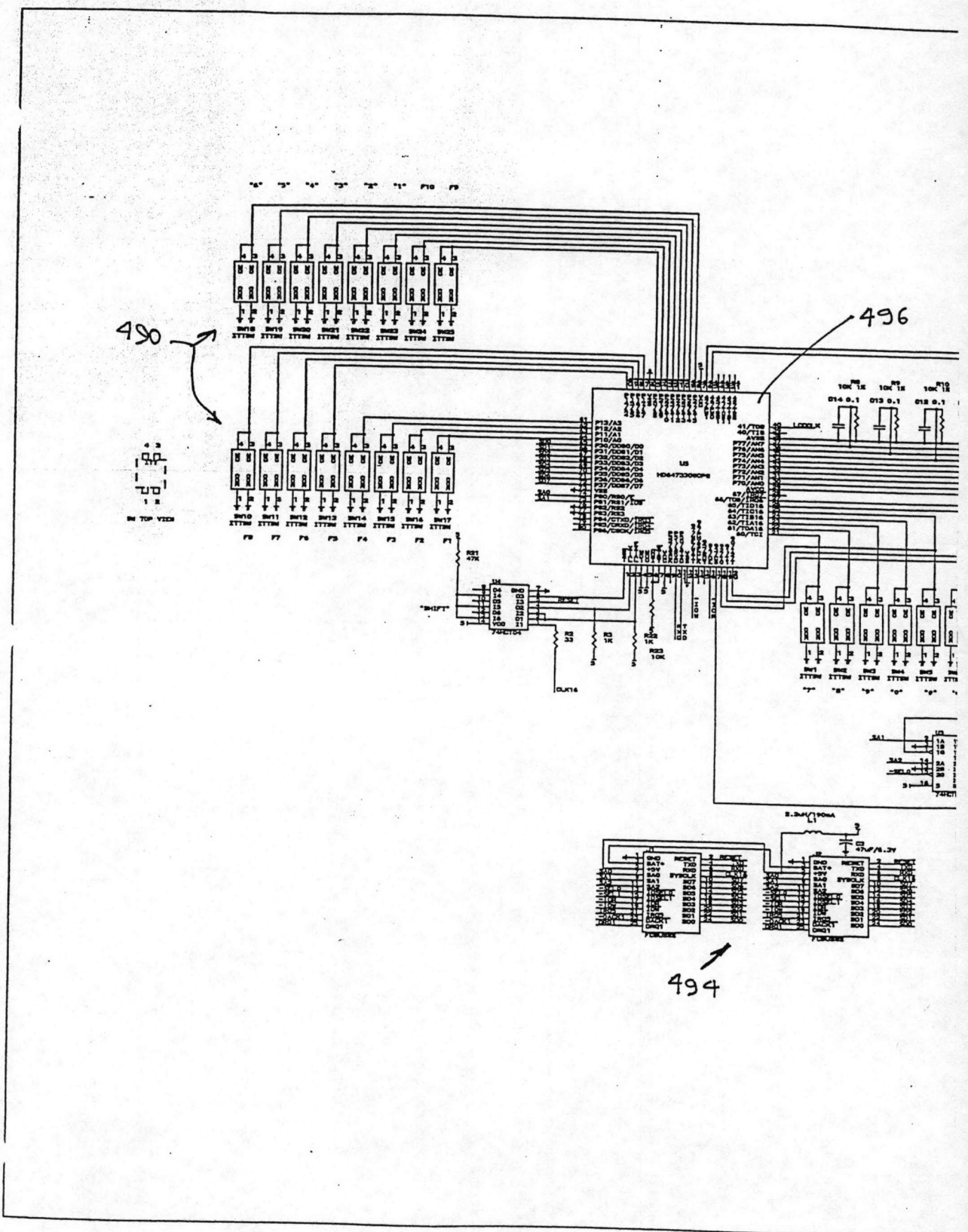


Fig. ~~8~~ 8
Part L

PHOTOTELETYPE		
711-	CAM-RIT LEO MODULE	
REV	REV	REV
0	0	0
DATE: FEBRUARY 23, 1972	Drawn	1 of 1



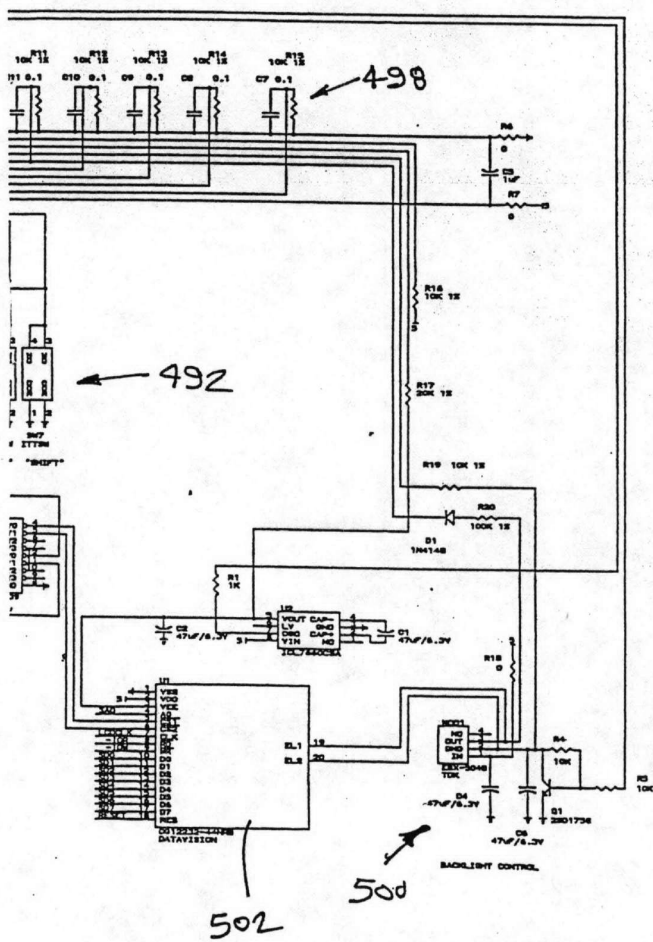
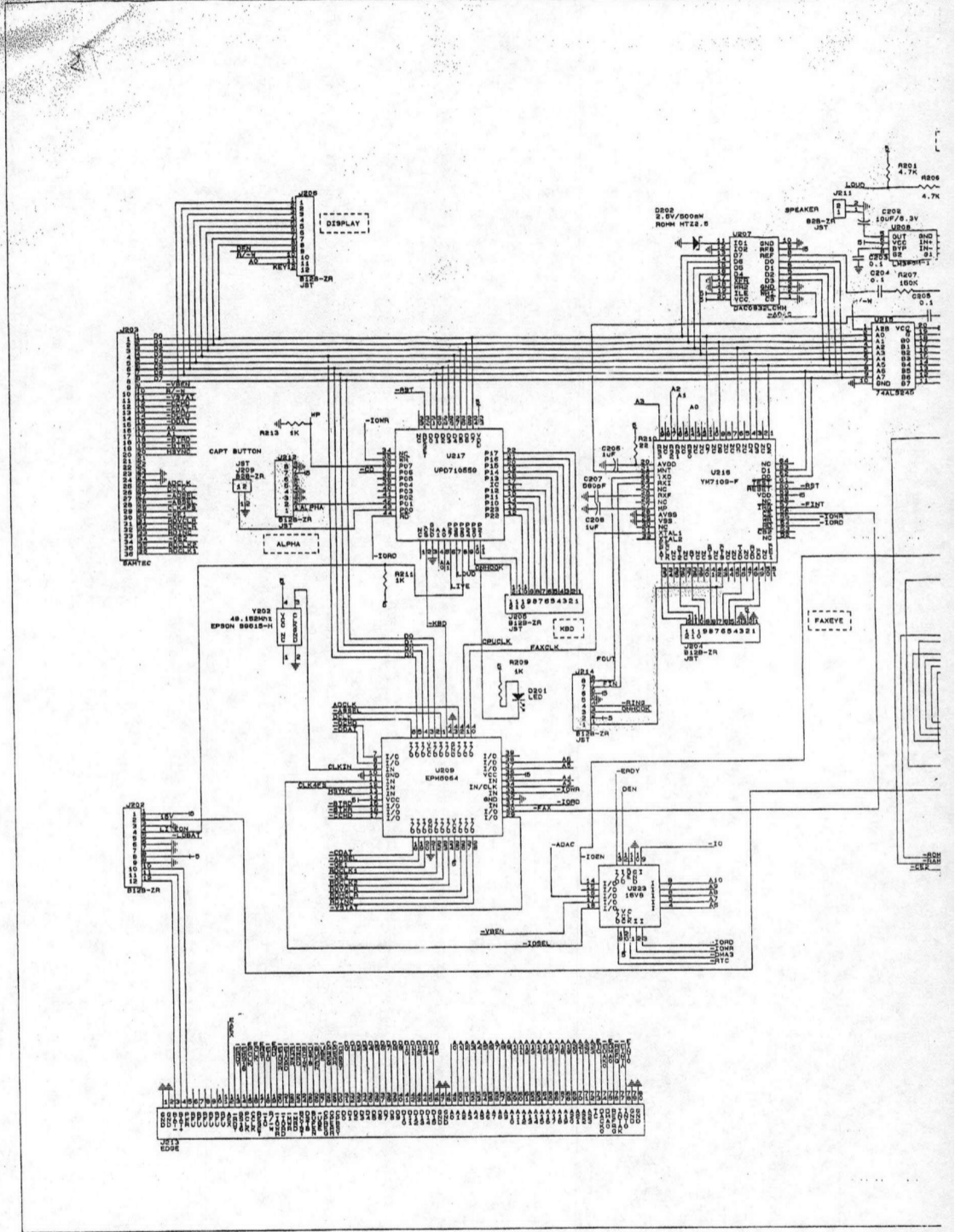
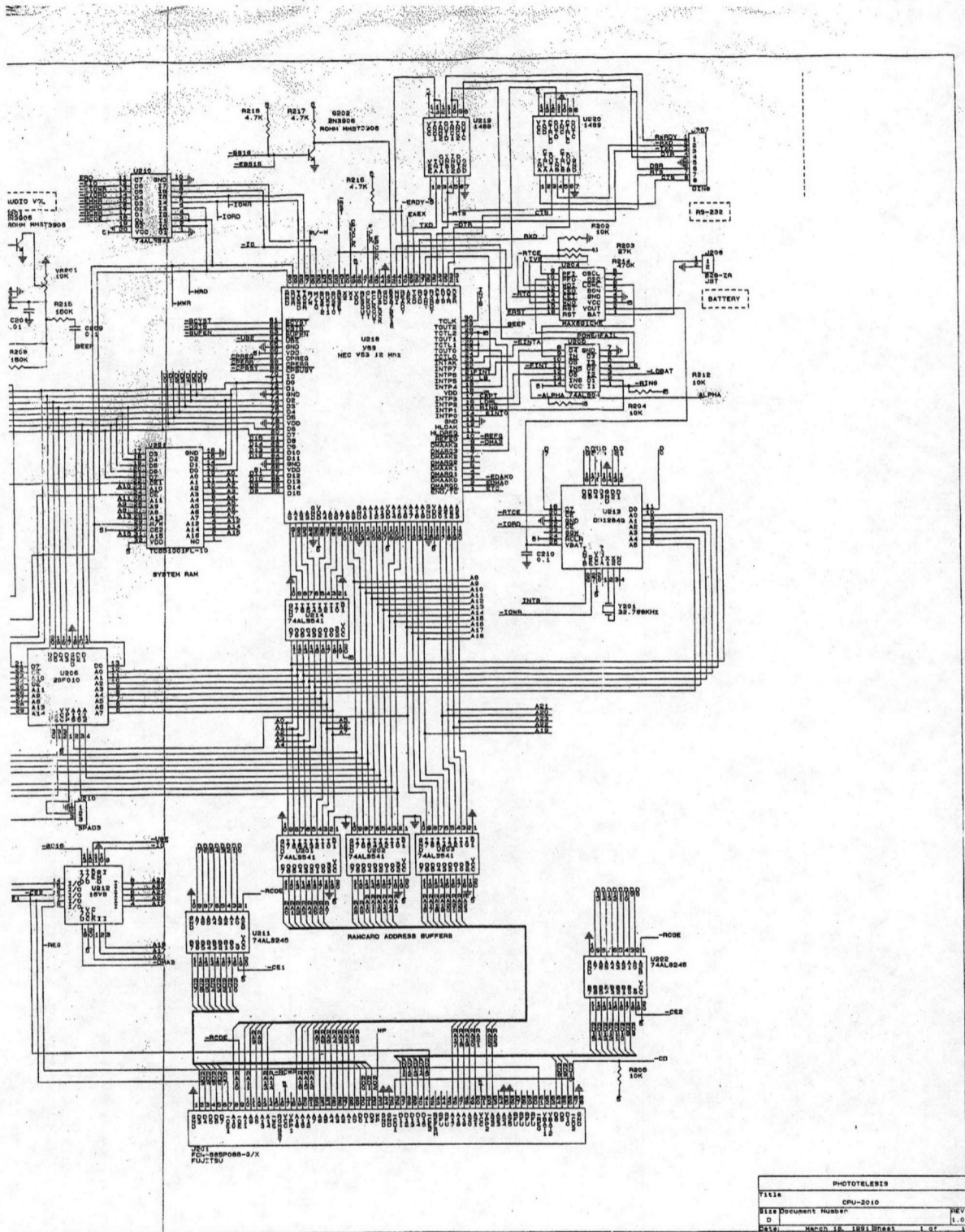


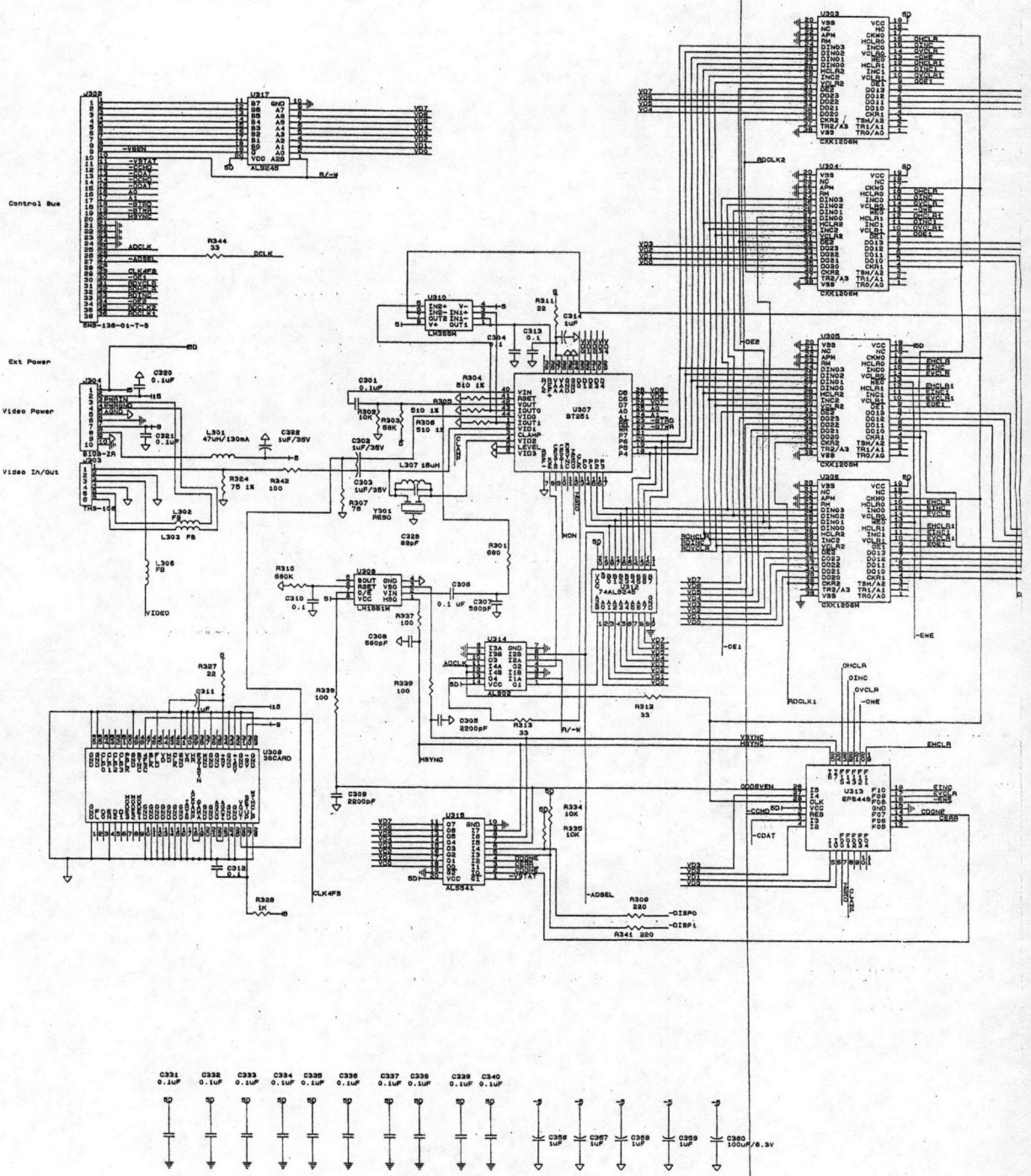
Fig. 8
Part L

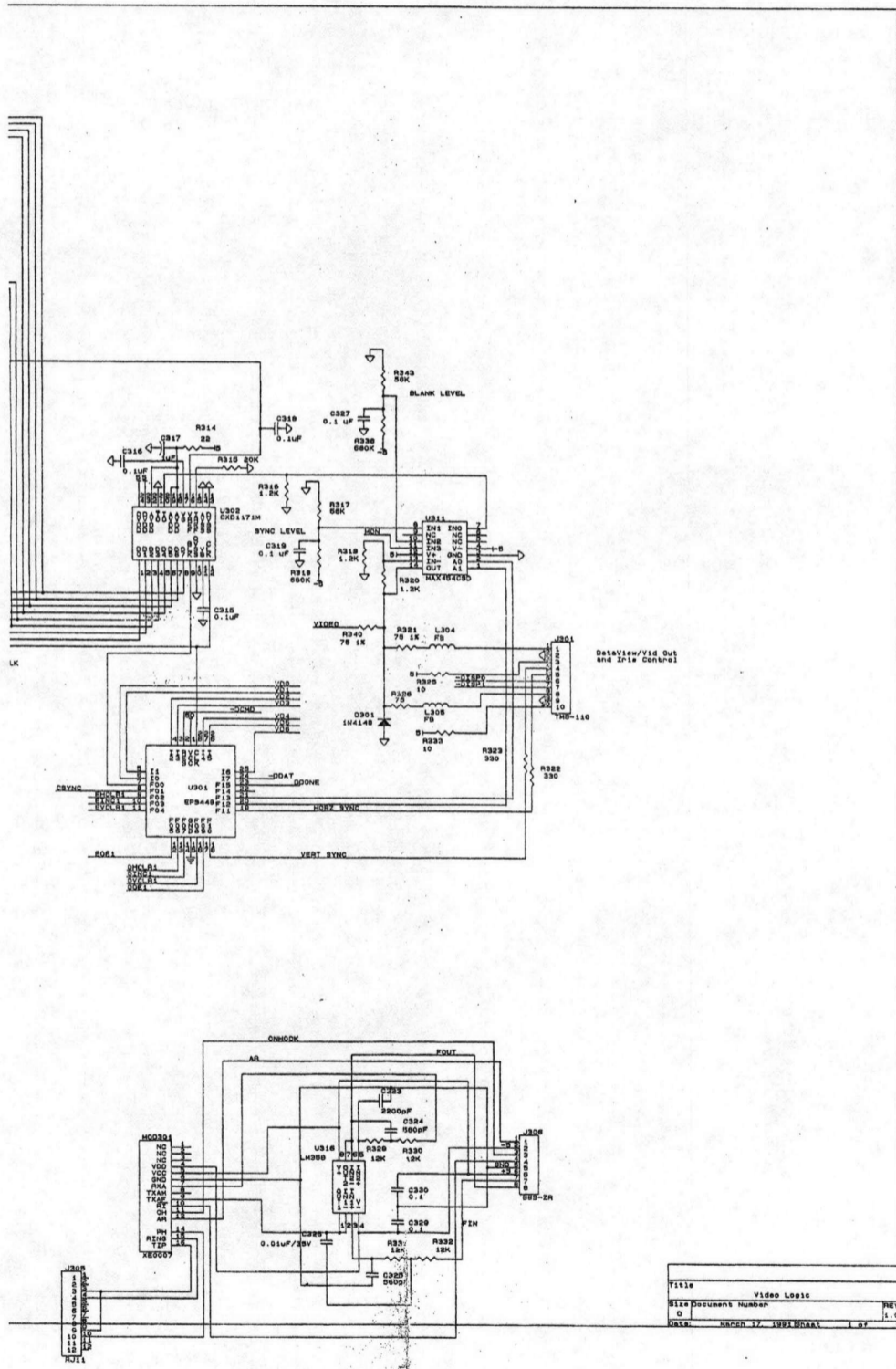
PHOTOCOPIED	
FILE#	CAN-BET LED MODULE
READ	Development Division
DATE	FEBRUARY 21, 1974



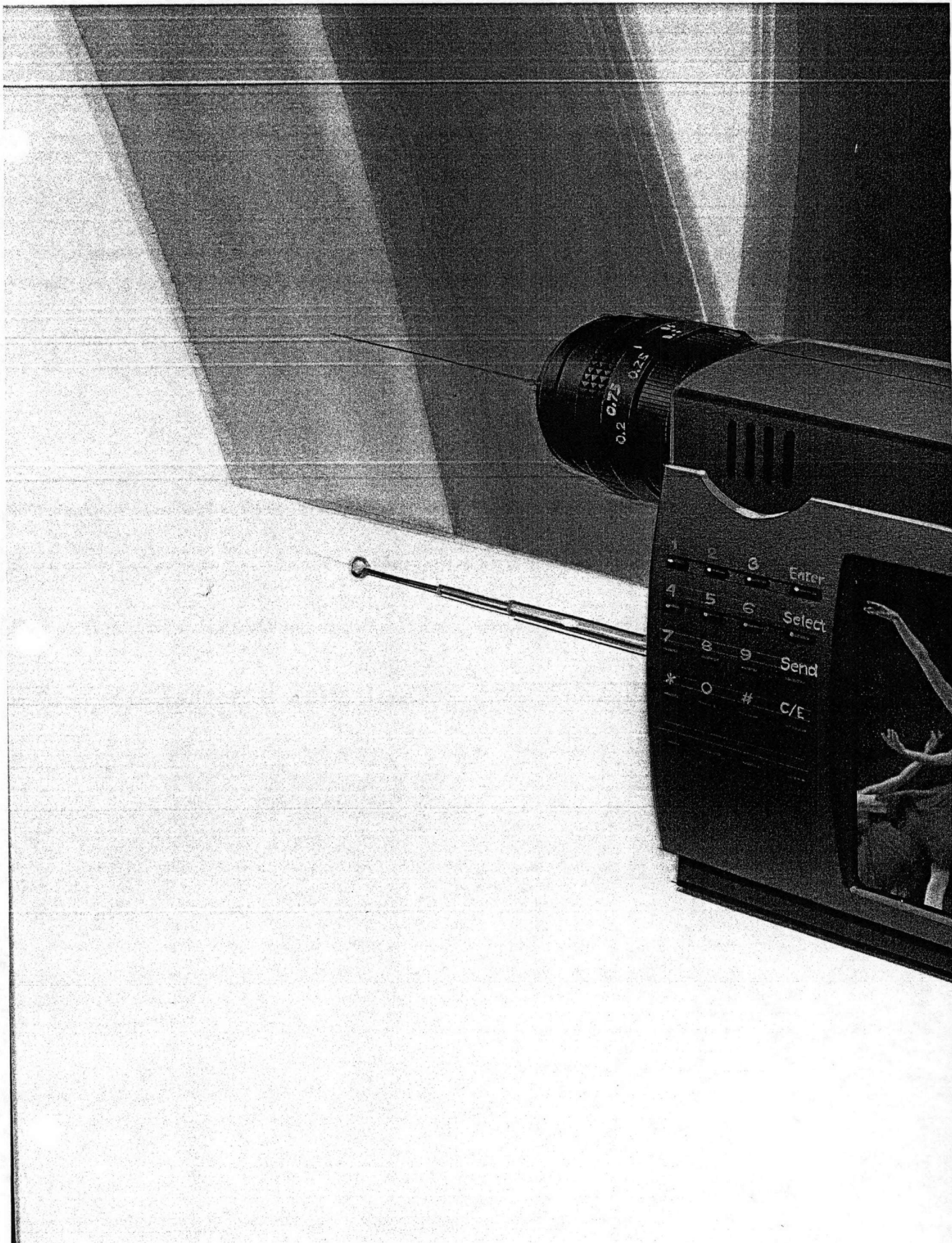


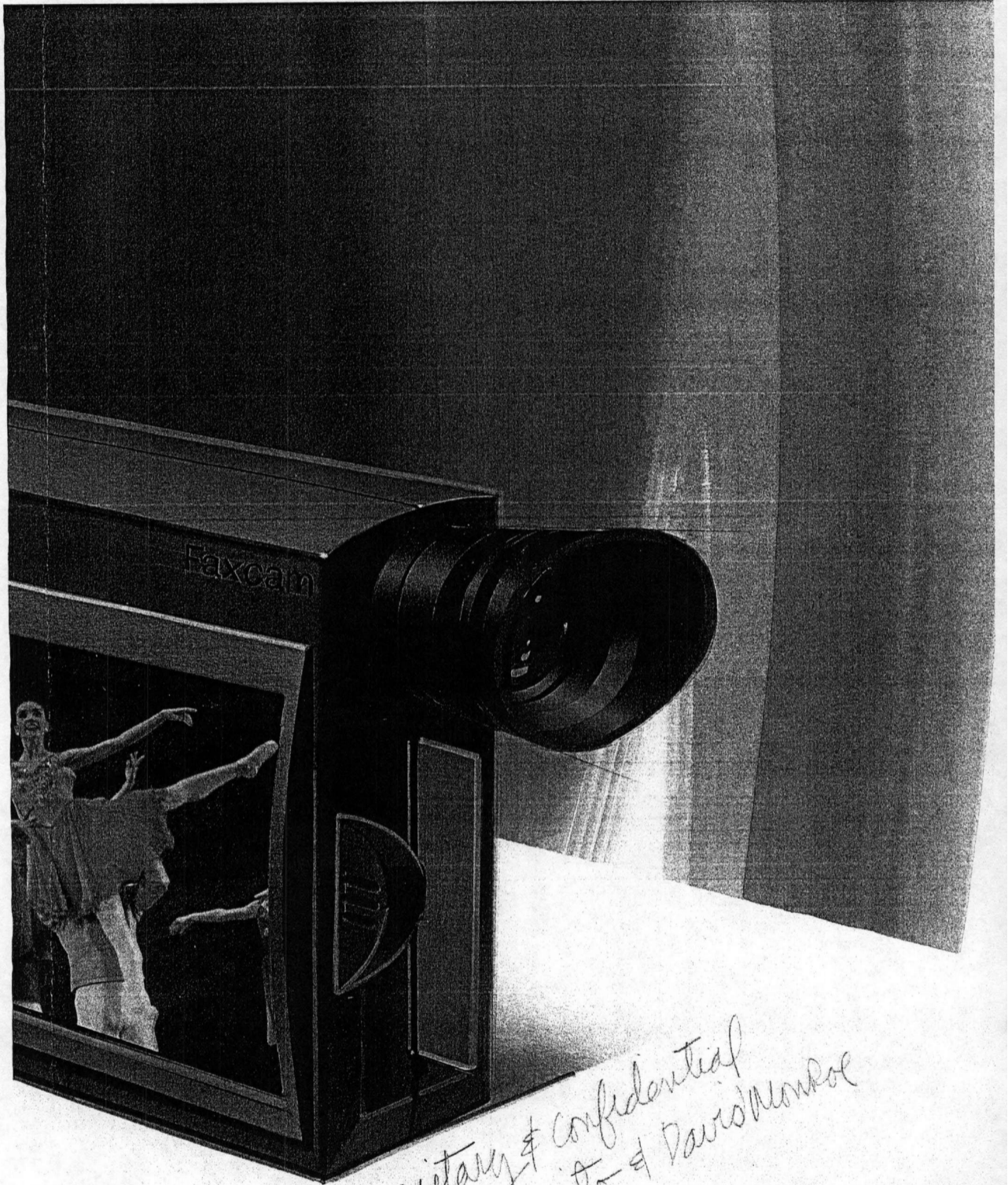
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Title	CPU-2010
Size Document Number	REV
D	1.0
Date	MARCH 18, 1981 Sheet 1 of 1



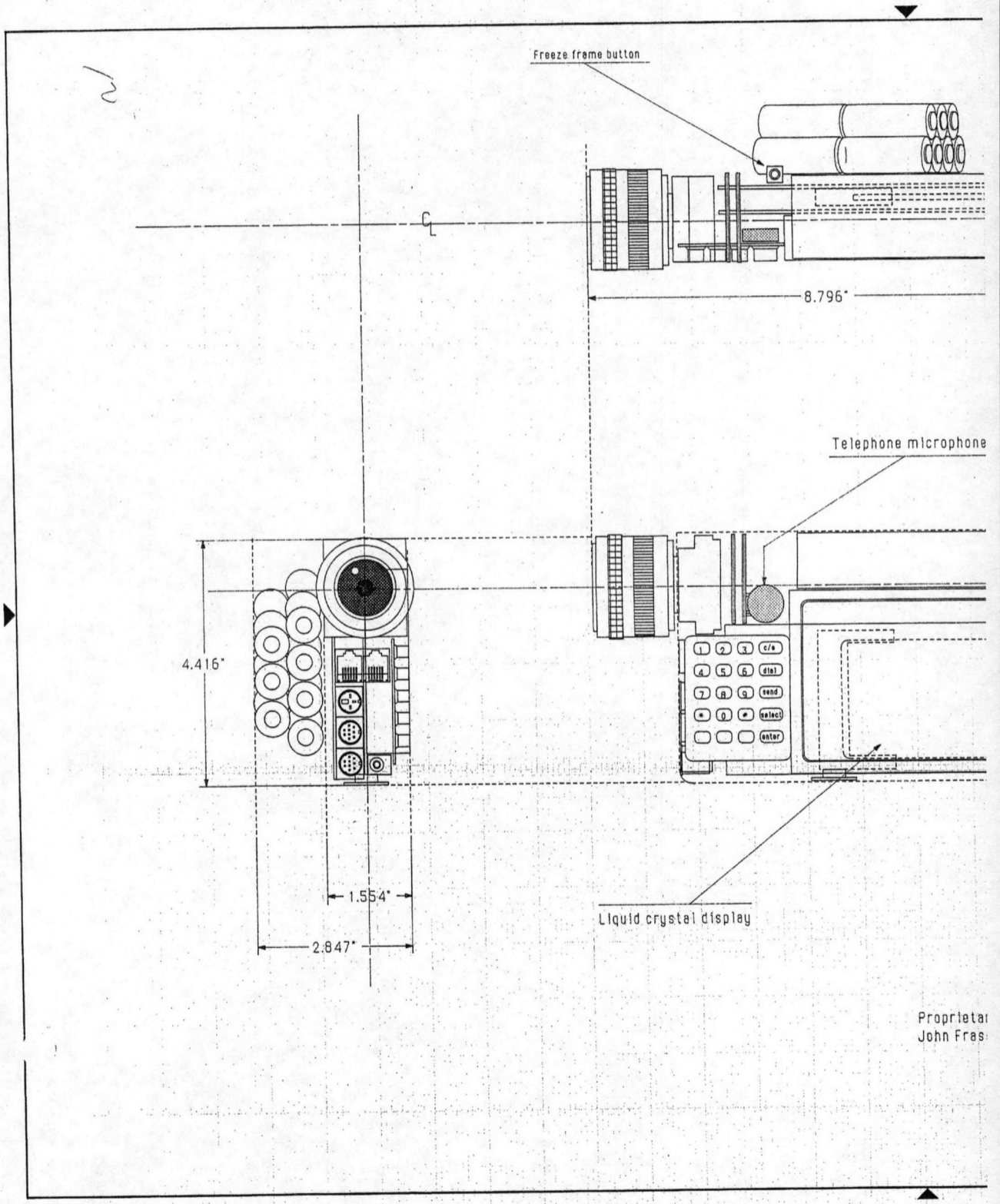


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Size	Document Number	1.0
Date	March 17, 1981	1 of 1

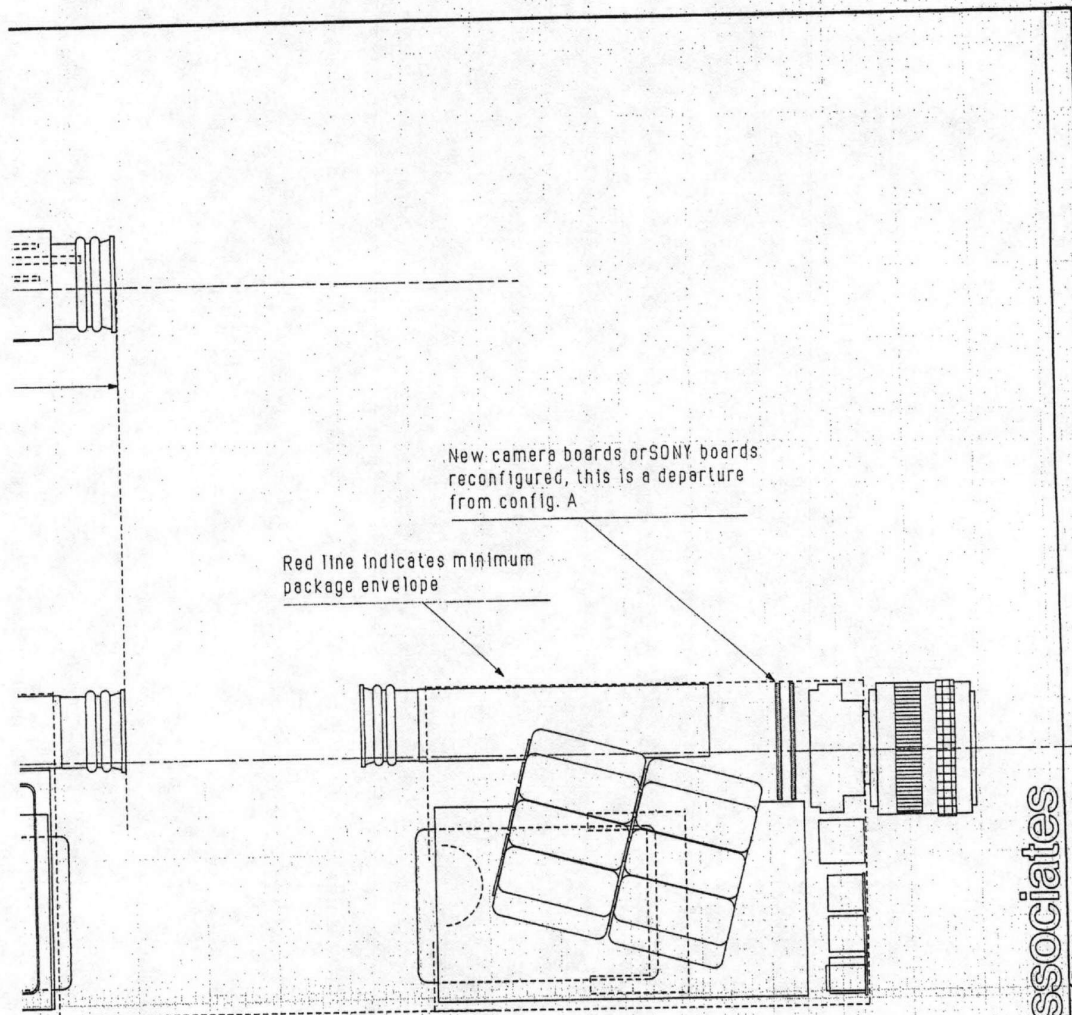




Proprietary & Confidential
John Trassanito & Davis Monroe
Jan 1, 1991



Proprietar
John Fras



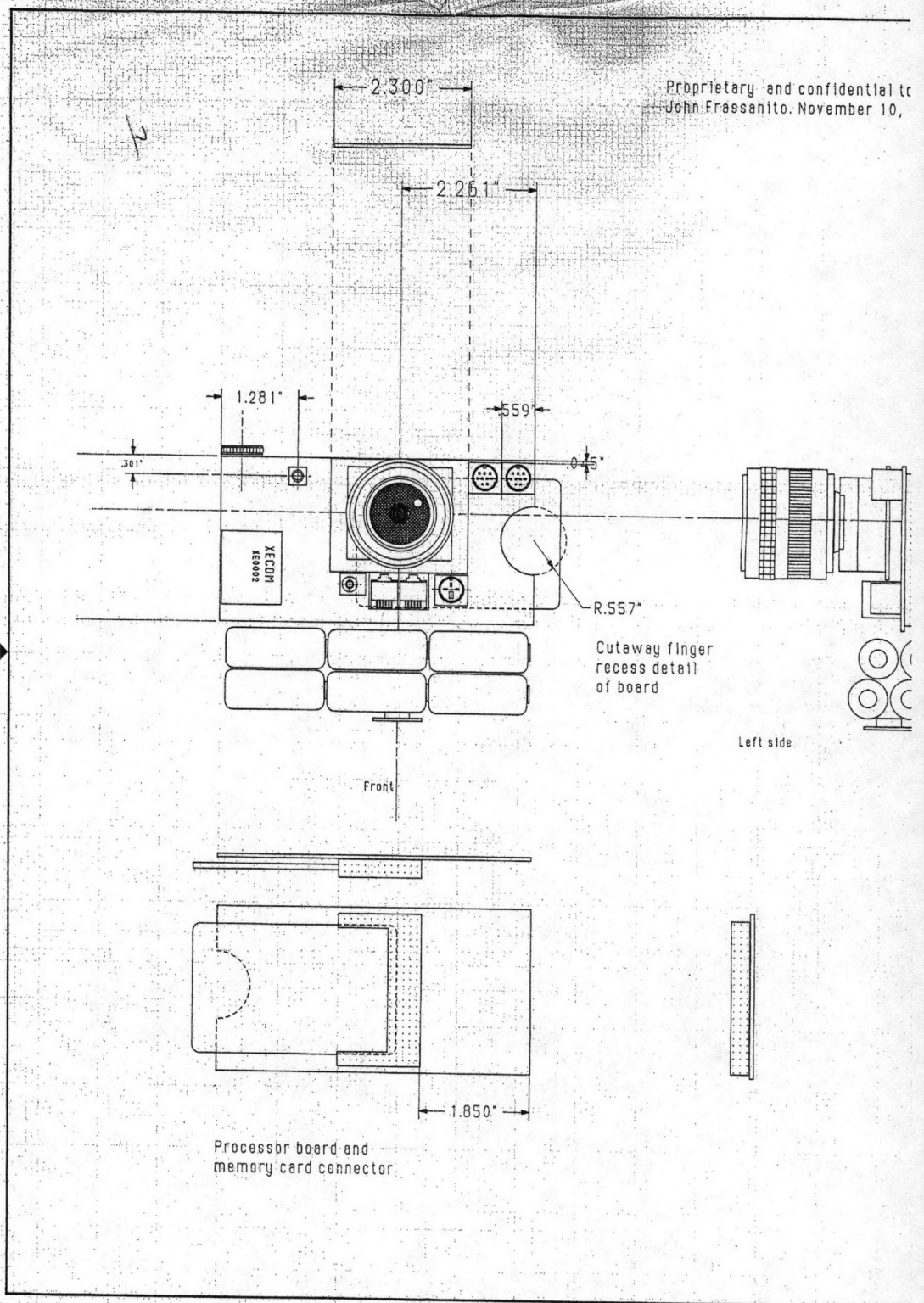
New camera boards or SONY boards reconfigured, this is a departure from config. A

Red line indicates minimum package envelope

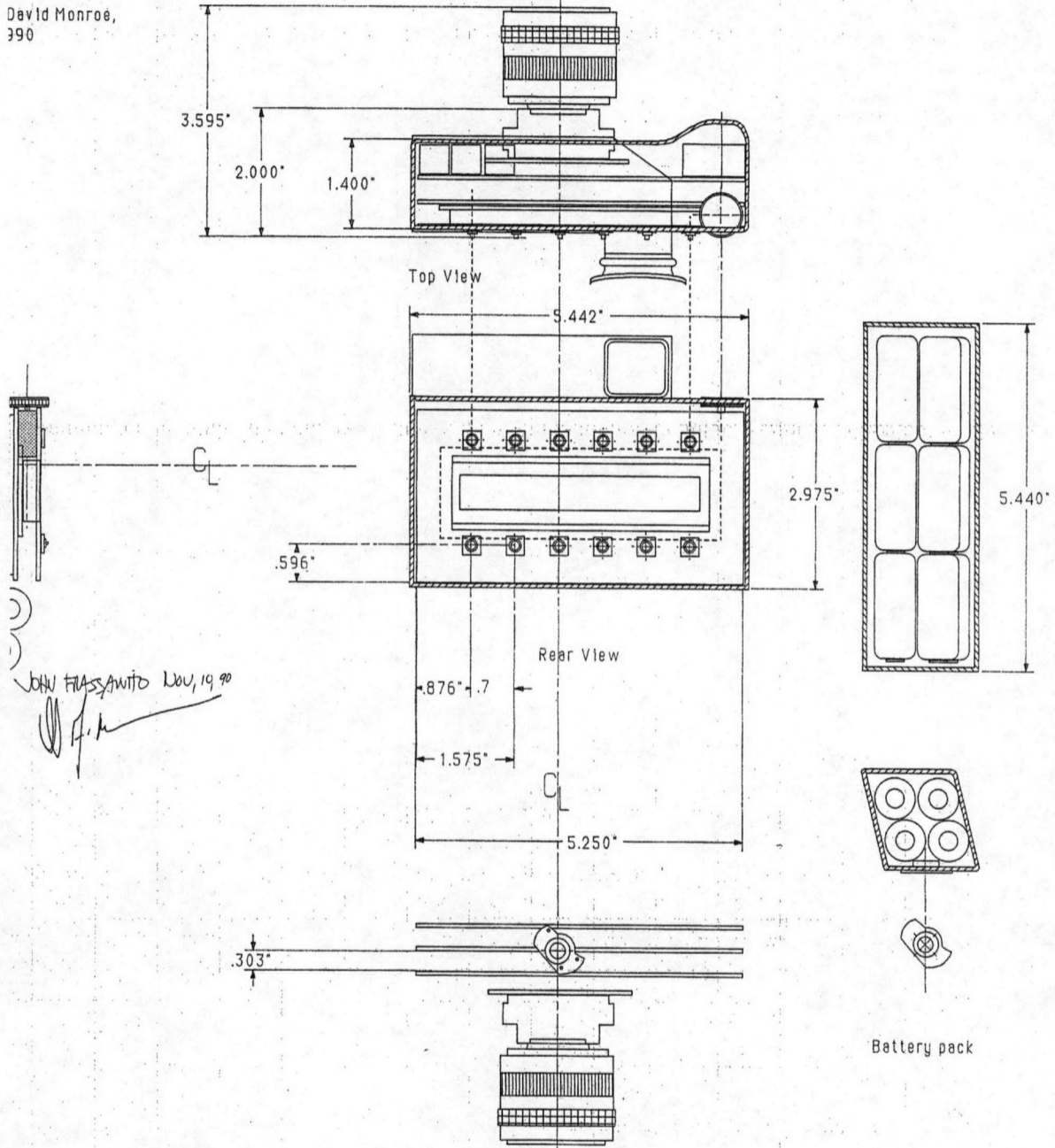
and confidential to David Monroe,
 anito. November 10, 1990

Client / Date
 Project
John Frassanito & Associates

Proprietary and confidential to
John Frassanito, November 10,

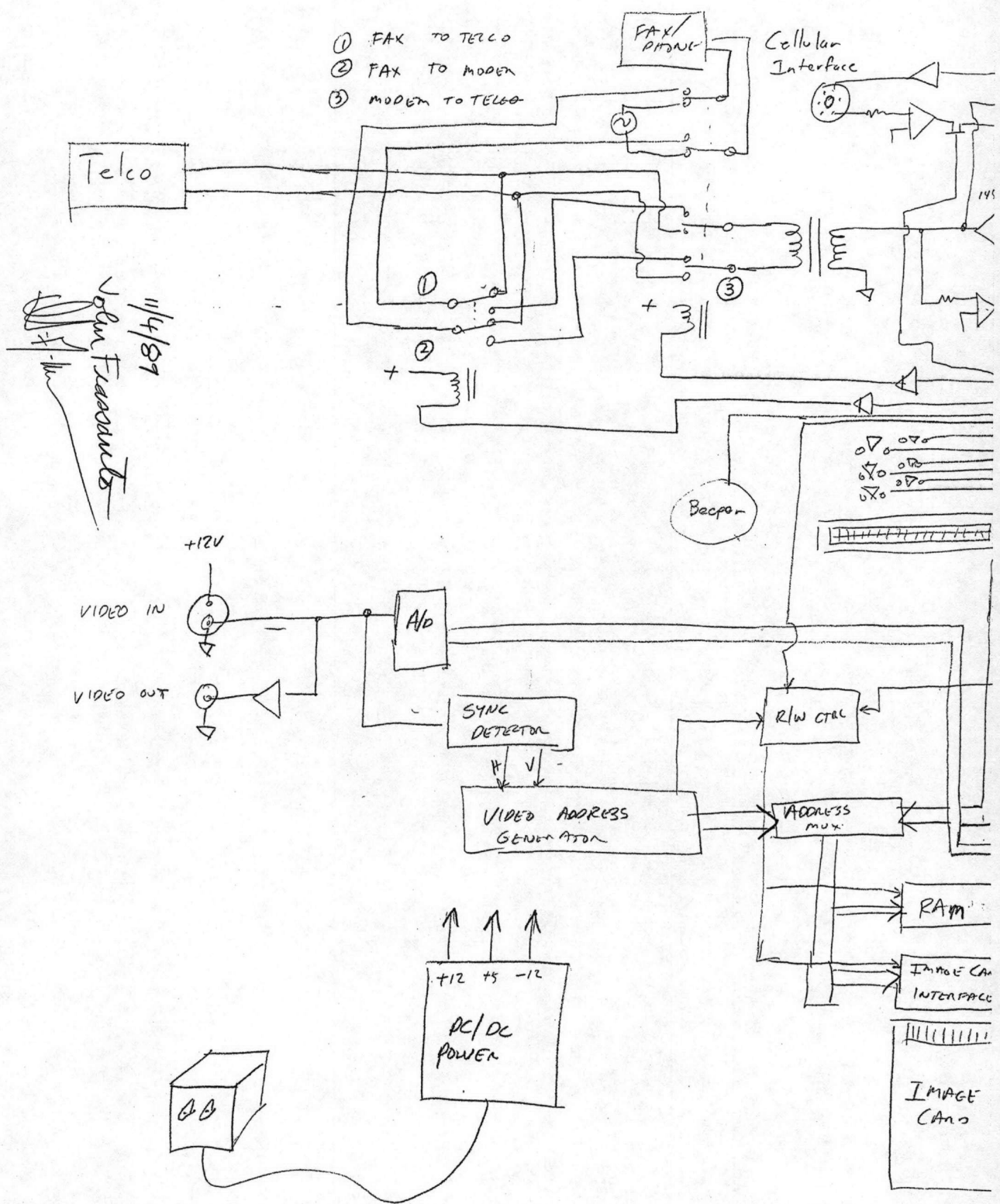


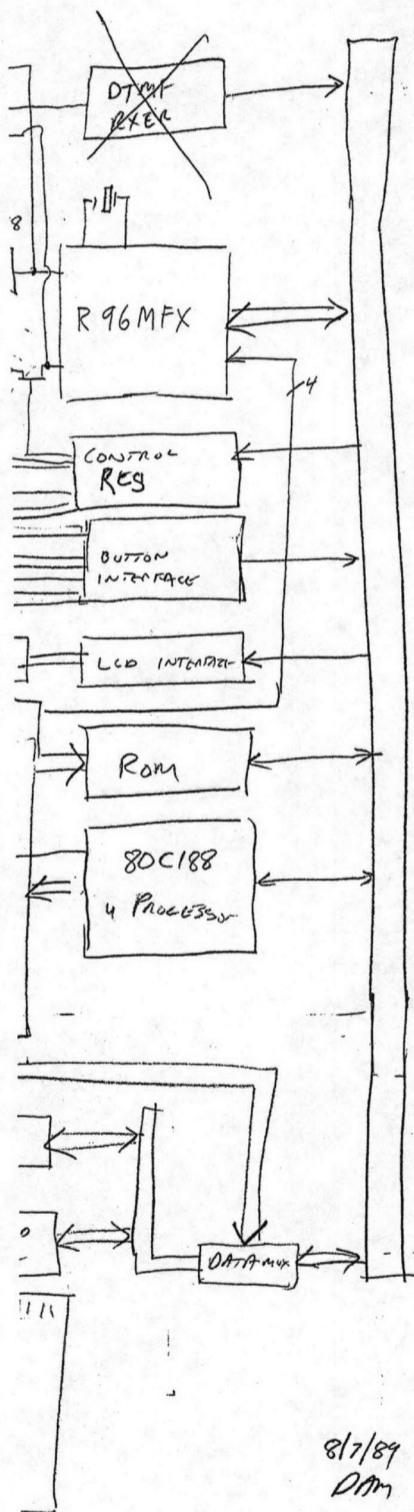
David Monroe,
390



JOHN FRASSANITO Nov, 19 90
[Signature]

John Frassanito & Associates
Client _____ Date _____ Project _____





8/7/89
DAM

622-2115

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 # _____

January 27, 1987

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Signature

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Executive Summary

About the Company

The Market

Competition

Marketing

Technology

Products

TEMPEST

Risks

Contracts and Agreements

Financials

Appendix

PHOTOTELEESIS-CONFIDENTIAL

EXECUTIVE SUMMARY

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.

PHOTOTELESIS-CONFIDENTIAL

EXECUTIVE SUMMARY

The PHOTOTELESIS 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

PHOTOTELESIS 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 C³I) 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 PHOTOTELESIS 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.

PHOTOTELESIS-CONFIDENTIAL

EXECUTIVE SUMMARY

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.

PHOTOTELESIS-CONFIDENTIAL

EXECUTIVE SUMMARY

Product Line Overview

The PHOTOTELESIS 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.

PHOTOTELESIS-CONFIDENTIAL

EXECUTIVE SUMMARY

Financial Overview

PHOTOTELESIS 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.

PHOTOTELESIS-CONFIDENTIAL

Notes

PHOTOTELEESIS-CONFIDENTIAL

The Company

ABOUT THE COMPANY

History

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

Strategy

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.

PHOTOTELESIS

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

Contract Personnel

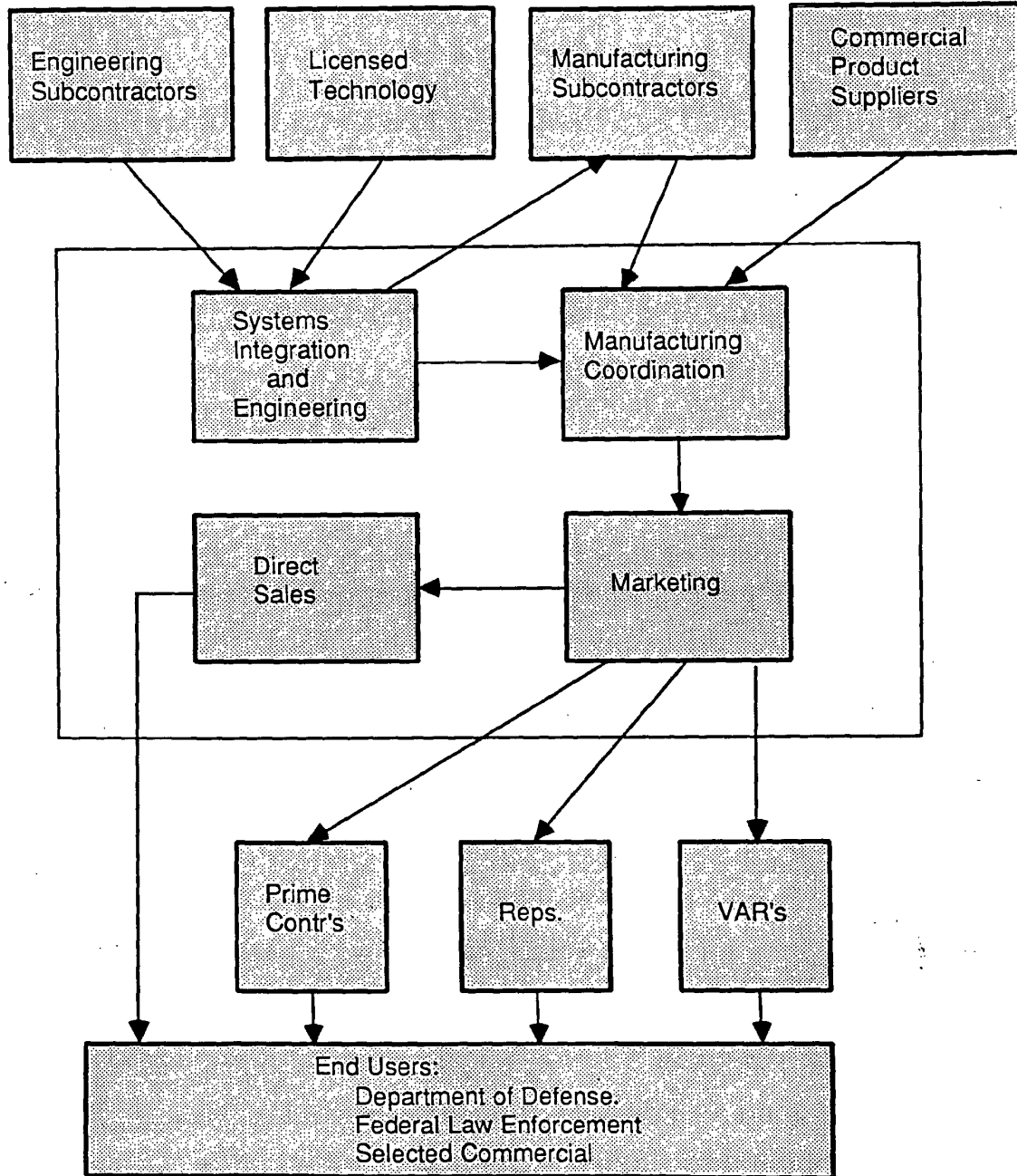
We use contract professionals where possible. In particular, this is appropriate for legal work; certain engineering work, technical publications, documentation, advertising, and manufacturing.

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

Organization

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

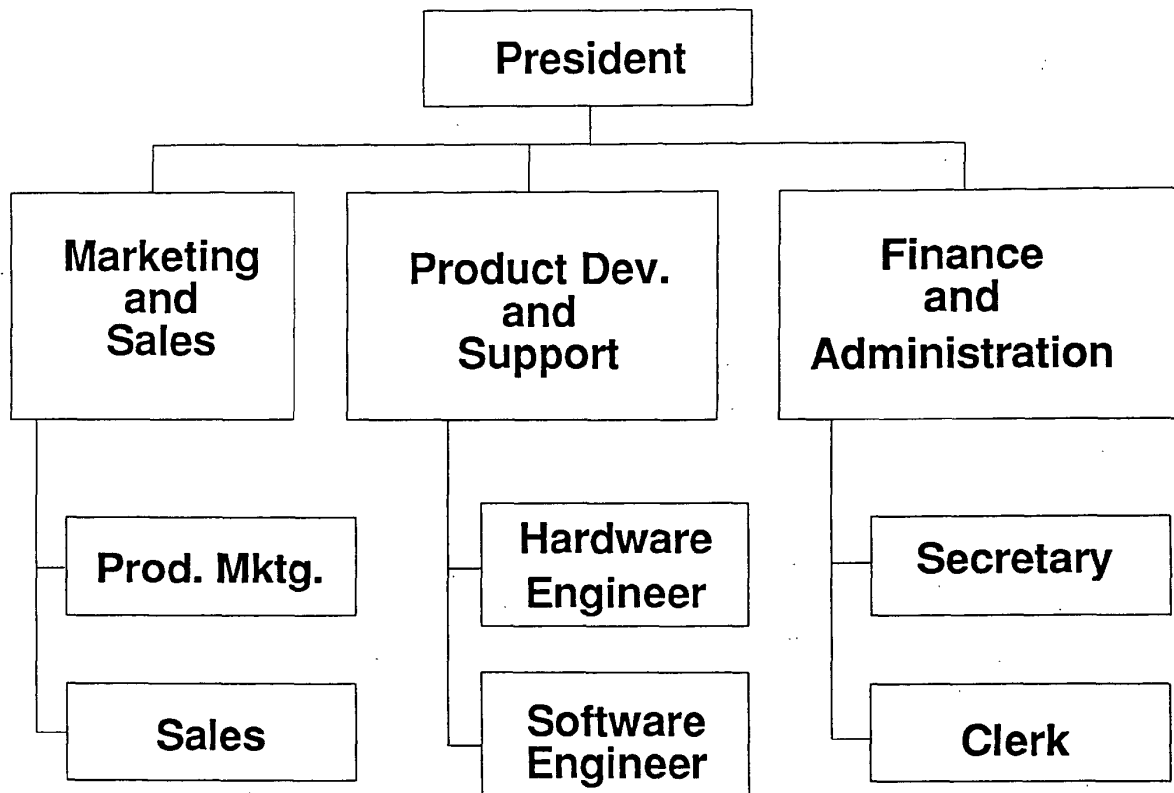
These functions will be handled by contract personnel:

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

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ABOUT THE COMPANY

Organization Chart



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ABOUT THE COMPANY

Management Profiles

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

Management Profiles

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

Management Profiles

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

Management Profiles

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 PHOTOTELEESIS 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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The Market

THE MARKET

Background

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.

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THE MARKET

Background

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.

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THE MARKET

Test Marketing

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

Test Marketing

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

Test Marketing

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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