

(12) **United States Patent**  
**Monroe**

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(54) **APPARATUS FOR CAPTURING, CONVERTING AND TRANSMITTING A VISUAL IMAGE SIGNAL VIA A DIGITAL TRANSMISSION SYSTEM**

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(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 134 days.

4,891,650 A 1/1990 Sheffer  
4,910,692 A 3/1990 Outram  
5,027,104 A 6/1991 Reid  
5,027,114 A 6/1991 Kawashime et al.  
5,042,061 A 8/1991 Kaneko et al.  
5,091,780 A 2/1992 Pomerleau  
5,111,291 A 5/1992 Erickson  
5,136,628 A 8/1992 Araki et al.  
5,164,979 A 11/1992 Choi et al.  
5,166,746 A 11/1992 Sato et al.

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(Continued)

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FOREIGN PATENT DOCUMENTS

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OTHER PUBLICATIONS

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Apr. 1966, Apollo Unified S-Band System, NASA-Goddard Space Flight Center, Greenbelt, Maryland.

(52) **U.S. Cl.** ..... **358/1.15**; 358/402; 358/403; 358/407

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(58) **Field of Classification Search** ..... 358/1.15, 358/402, 403, 407, 442, 468, 474  
See application file for complete search history.

*Primary Examiner*—Houshang Safaipoor

(56) **References Cited**

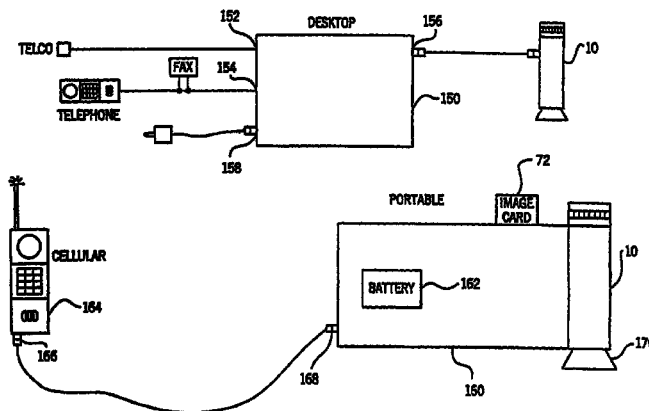
(57) **ABSTRACT**

U.S. PATENT DOCUMENTS

4,163,283 A 7/1979 Darby  
4,179,695 A 12/1979 Levine et al.  
4,197,536 A 4/1980 Levine  
4,516,125 A 5/1985 Schwab et al.  
4,688,244 A \* 8/1987 Hannon et al. .... 377/58  
4,831,438 A 5/1989 Bellman, Jr. et al.  
4,845,629 A 7/1989 Murge  
4,857,912 A 8/1989 Everett, Jr. et al.

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.

**31 Claims, 73 Drawing Sheets**



U.S. PATENT DOCUMENTS

5,218,367 A 6/1993 Sheffer et al.  
 5,243,340 A 9/1993 Norman et al.  
 5,243,530 A 9/1993 Stanifer et al.  
 5,268,698 A 12/1993 Smith, Sr. et al.  
 5,283,643 A 2/1994 Fujimoto  
 5,321,615 A 6/1994 Frisbie et al.  
 5,334,982 A 8/1994 Owen  
 5,351,194 A 9/1994 Ross et al.  
 5,400,031 A 3/1995 Fitts  
 5,400,068 A 3/1995 Ishida et al.  
 5,408,330 A 4/1995 Squicciarini et al.  
 5,432,838 A 7/1995 Purchase  
 5,440,337 A 8/1995 Henderson et al.  
 5,440,343 A 8/1995 Parulski  
 5,448,243 A 9/1995 Bethke et al.  
 5,463,595 A 10/1995 Rochall et al.  
 5,469,371 A 11/1995 Bess  
 5,485,504 A 1/1996 Ohnsorge  
 5,497,149 A 3/1996 Fast  
 5,508,736 A 4/1996 Cooper  
 5,517,683 A \* 5/1996 Collett et al. .... 455/575.1  
 5,530,440 A 6/1996 Danzer et al.  
 5,546,194 A \* 8/1996 Ross ..... 358/445  
 5,550,646 A \* 8/1996 Hassan et al. .... 358/442  
 5,553,609 A 9/1996 Chen et al.  
 5,557,254 A 9/1996 Johnson et al.  
 5,557,278 A 9/1996 Piccirillo et al.  
 5,598,167 A 1/1997 Zjderhand  
 5,612,668 A 3/1997 Scott  
 5,627,753 A 5/1997 Brankin et al.  
 5,629,691 A 5/1997 Jain  
 5,636,122 A 6/1997 Shah et al.  
 5,642,285 A 6/1997 Woo  
 5,666,157 A 9/1997 Avid  
 5,666,159 A \* 9/1997 Parulski et al. .... 348/211.2  
 5,670,961 A 9/1997 Tomita et al.  
 5,677,979 A 10/1997 Squicciarini  
 5,689,300 A \* 11/1997 Shibata et al. .... 348/14.07  
 5,689,442 A 11/1997 Swanson  
 5,712,679 A 1/1998 Coles  
 5,712,899 A 1/1998 Pace, II  
 5,714,948 A 2/1998 Farmakis et al.  
 5,742,336 A 4/1998 Lee  
 5,751,346 A 5/1998 Dozler  
 5,777,551 A 7/1998 Hess  
 5,777,580 A 7/1998 Janky et al.  
 5,793,416 A 8/1998 Rostoker et al.  
 5,835,059 A 11/1998 Nadell et al.  
 5,850,180 A 12/1998 Hess  
 5,867,804 A 2/1999 Pilley et al.  
 5,917,405 A 6/1999 Joso  
 5,926,210 A 7/1999 Hackett et al.  
 5,933,098 A 8/1999 Haxton  
 5,938,706 A 8/1999 Feldman  
 5,974,158 A 10/1999 Auty et al.  
 5,983,161 A 11/1999 Lemelson et al.  
 5,995,041 A \* 11/1999 Bradley et al. .... 342/357.1  
 5,999,116 A 12/1999 Evers  
 6,002,427 A 12/1999 Kipust  
 6,009,356 A 12/1999 Monroe  
 6,035,212 A \* 3/2000 Rostoker et al. .... 455/552.1  
 6,036,086 A \* 3/2000 Sizer et al. .... 235/375  
 6,067,571 A 5/2000 Igarashi et al.  
 6,069,655 A 5/2000 Seeley  
 6,072,600 A \* 6/2000 Wertsberger ..... 358/479  
 6,078,850 A 6/2000 Kane et al.  
 6,084,510 A 7/2000 Lemelson et al.  
 6,092,008 A 7/2000 Bateman  
 6,100,964 A 8/2000 De Cremiers

6,157,317 A 12/2000 Walker  
 6,181,373 B1 1/2001 Coles  
 6,195,609 B1 2/2001 Pilley et al.  
 6,226,031 B1 5/2001 Barraciough et al.  
 6,243,056 B1 \* 6/2001 Jachimowicz et al. .... 345/82  
 6,246,320 B1 6/2001 Monroe  
 6,259,475 B1 7/2001 Ramachandran et al.  
 6,275,231 B1 8/2001 Obradovich  
 6,278,965 B1 8/2001 Glass et al.  
 6,282,488 B1 8/2001 Castor et al.  
 6,292,098 B1 9/2001 Ebata  
 6,356,625 B1 3/2002 Casteiani  
 6,385,772 B1 5/2002 Courtney  
 6,424,370 B1 7/2002 Courtney  
 6,462,697 B1 10/2002 Klamer et al.  
 6,476,858 B1 11/2002 Ramirez Diaz et al.  
 6,504,479 B1 1/2003 Lemons  
 6,522,532 B2 2/2003 Liao et al.  
 6,525,761 B2 2/2003 Sato et al.  
 6,549,130 B1 4/2003 Joso  
 6,556,241 B1 4/2003 Yoshimura et al.  
 6,570,610 B1 5/2003 Kipust  
 6,628,835 B1 9/2003 Brill  
 6,646,676 B1 11/2003 DeGrace  
 6,662,649 B1 12/2003 Knight et al.  
 6,675,386 B1 1/2004 Hendricks et al.  
 6,698,021 B1 2/2004 Amini  
 6,720,990 B1 4/2004 Walker et al.  
 7,113,971 B1 9/2006 Ohi et al.  
 7,310,072 B2 12/2007 Ronzani  
 7,372,447 B1 5/2008 Jacobsen et al.  
 2003/0071899 A1 4/2003 Joso  
 2005/0055727 A1 3/2005 Creamer et al.  
 2005/0130803 A1 6/2005 Rastegar

FOREIGN PATENT DOCUMENTS

EP 232031 8/1987  
 EP 532110 3/1993  
 EP 209397 7/1993  
 EP 613109 8/1994  
 EP 613110 8/1994  
 EP 744630 11/1996  
 EP 785536 7/1997  
 EP 613111 8/1998  
 JP 03089691 4/1991  
 JP 6-301898 10/1994  
 JP 9-282600 10/1997  
 JP HEI-10-66058 3/1998  
 JP A-10-155040 6/1998  
 JP 9-251599 4/1999  
 JP 11-160424 6/1999  
 WO WO90/04242 4/1990  
 WO WO95/27910 10/1995  
 WO WO96/12265 4/1996  
 WO WO97/37336 10/1997  
 WO WO98/52174 11/1998

OTHER PUBLICATIONS

Nov. 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.  
 Office Action issued on Oct. 4, 2007 in U.S. Appl. No. 11/617,509 (present application).

## US 7,643,168 B2

Page 3

---

Office Action issued on Sep. 27, 2004 in U.S. Appl. No. 10/336,470  
(the parent of the present application).

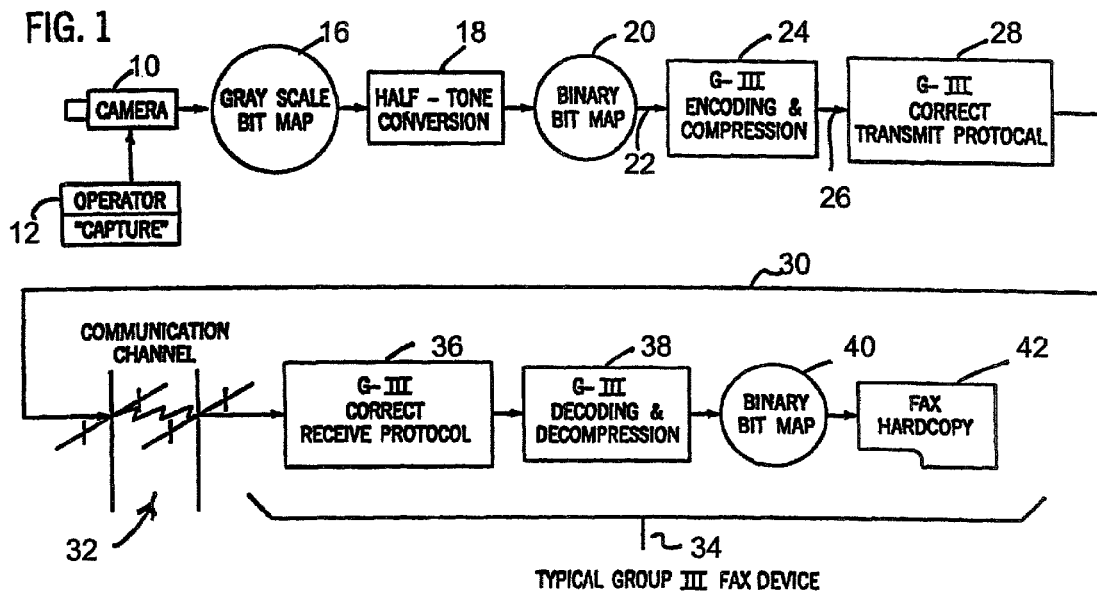
Office Action issued on Aug. 9, 2005 in U.S. Appl. No. 10/336,470  
(the parent of the present application).

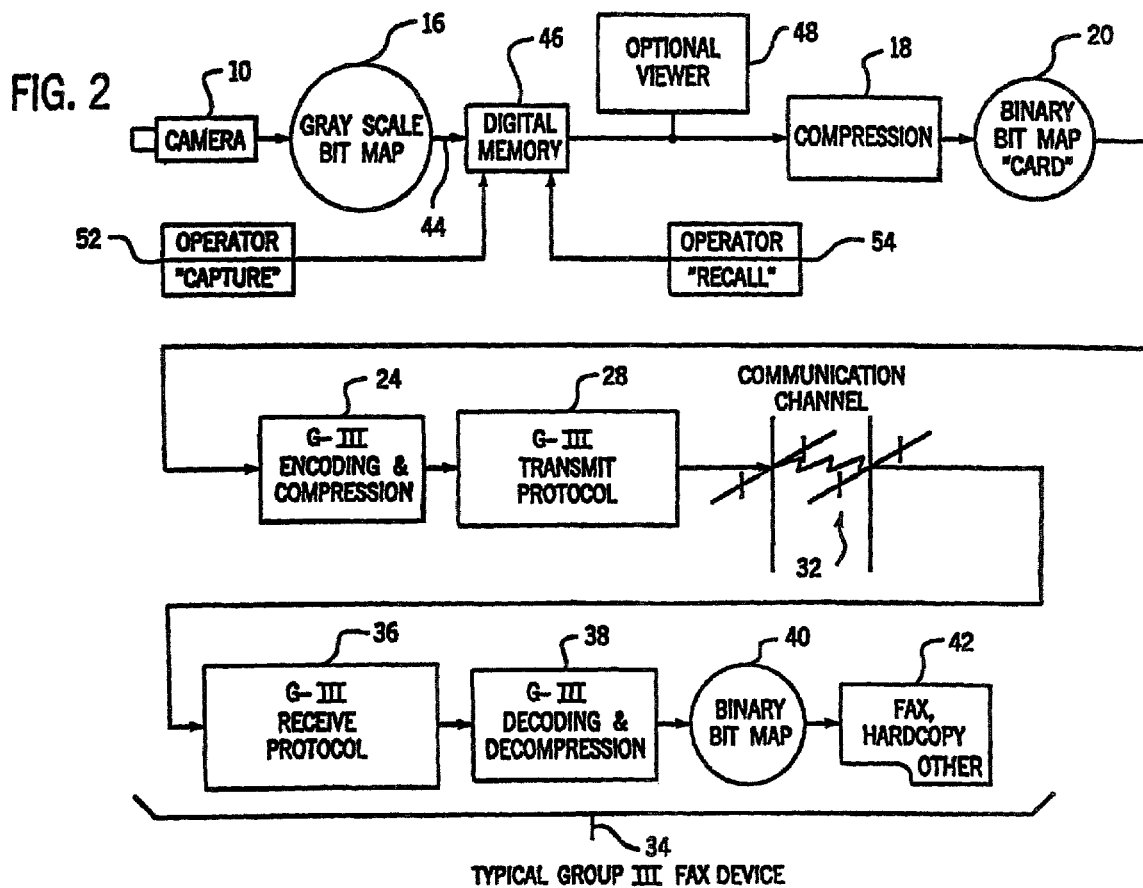
Office Action issued on Dec. 16, 2005 in U.S. Appl. No. 10/336,470  
(the parent of the present application).

Office Action issued on Jul. 27, 2006 in U.S. Appl. No. 10/336,470  
(the parent of the present application).

Office Action issued on Mar. 8, 2007 in U.S. Appl. No. 10/366,470  
(the parent of the present application).

\* cited by examiner





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