

EXHIBIT 6

(12) **United States Patent**
Iwabuchi et al.

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(54) **COMMUNICATION APPARATUS AND METHOD FOR RECEIVING AN INBOUND VIDEOPHONE CALL NOTICE WHILE DISPLAYING DIGITAL INFORMATION ON THE DISPLAY**

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 This patent is subject to a terminal disclaimer.

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 CPC **H04N 7/17318** (2013.01); **H04L 65/1063** (2013.01); **H04N 7/147** (2013.01);
 (Continued)
 (58) **Field of Classification Search**
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 (Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,467,388 A * 11/1995 Redd, Jr. H04M 1/663
 379/196
 5,473,366 A * 12/1995 Imaeda H04M 1/6505
 348/14.01

(Continued)

FOREIGN PATENT DOCUMENTS

JP 05-056190 3/1993
 JP 05-236472 9/1993

(Continued)

OTHER PUBLICATIONS

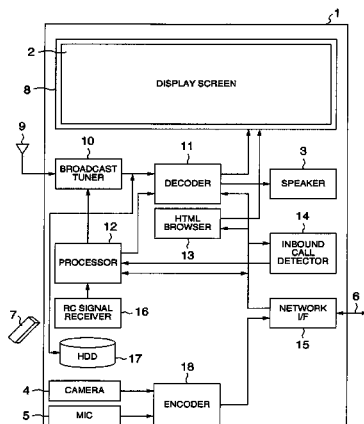
Japanese Office Action received in corresponding Japanese Application No. 2013-230194 dated Mar. 10, 2015.
 (Continued)

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(57) **ABSTRACT**

A videophone system includes a processor which selectively sets a television (TV) broadcast program viewing function mode and videophone function mode in response to manual operation of a remote control, a decoder which performs, in the TV program view mode, a TV program-use decode function for decoding a broadcast program signal received from a TV tuner to thereby display it on a display screen while producing audio sounds by loudspeakers and which performs, in the videophone function mode a videophone-
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US 10,084,991 B2

Page 2

use decode function for decoding a videophone signal received from a distant party to thereby display on the screen an image of the distant party using the screen and speakers, and an encoder which performs a videophone-use encode function for encoding a video signal from a camera and a voice signal from a microphone to generate a videophone signal, which is sent to the distant party via a network.

16 Claims, 10 Drawing Sheets

Related U.S. Application Data

No. 15/215,839, filed on Jul. 21, 2016, now Pat. No. 9,723,268, which is a continuation of application No. 14/811,048, filed on Jul. 28, 2015, now Pat. No. 9,432,618, which is a continuation of application No. 13/723,312, filed on Dec. 21, 2012, now Pat. No. 9,124,758, which is a continuation of application No. 12/457,257, filed on Jun. 4, 2009, now Pat. No. 8,363,087.

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- (58) **Field of Classification Search**
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 USPC 348/14.01, 14.02, 14.03, 14.04, 14.05, 348/14.06, 14.07, 14.08, 14.09, 14.1, 348/14.11, 14.12, 14.13, 14.14, 15.15, 348/14.16; 379/265.03; 455/414.1, 566; 704/270

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,526,037	A *	6/1996	Cortjens	.....	H04N 5/23203	348/14.04
5,528,285	A	6/1996	Morikawa			
5,610,653	A	3/1997	Abecassis			
5,684,918	A *	11/1997	Abecassis	.....	A63F 13/10	348/14.01
5,710,591	A *	1/1998	Bruno	.....	H04M 3/42221	348/14.06
5,771,065	A *	6/1998	Hijikata	.....	H04N 7/147	348/14.01
5,778,053	A *	7/1998	Skarbo	.....	H04M 11/10	348/14.06
6,339,842	B1	1/2002	Fernandez et al.			
6,529,742	B1	3/2003	Yang			
6,859,526	B2 *	2/2005	Macklin	.....	H04M 1/6505	

8,013,938	B2 *	9/2011	Shyu	.....	H04N 7/147	348/14.04
8,325,214	B2 *	12/2012	Hildreth	.....	H04N 7/147	348/14.03
8,326,355	B1	12/2012	Fujisaki			
8,363,087	B2 *	1/2013	Iwabuchi	.....	H04N 7/142	348/14.04
8,676,273	B1	3/2014	Fujisaki			
9,124,758	B2 *	9/2015	Iwabuchi	.....	H04N 7/142	
9,432,618	B2 *	8/2016	Iwabuchi	.....	H04N 7/142	
9,723,268	B2 *	8/2017	Iwabuchi	.....	H04N 7/17318	
2001/0041053	A1 *	11/2001	Abecassis	.....	A63F 13/10	386/291
2002/0019984	A1	2/2002	Rakib			
2003/0041333	A1 *	2/2003	Allen	.....	H04N 5/76	725/106
2003/0206720	A1	11/2003	Abecassis			
2004/0128700	A1 *	7/2004	Pan	.....	H04N 5/76	725/136
2005/0250531	A1 *	11/2005	Takebe	.....	H04W 52/0261	455/550.1
2006/0041926	A1	2/2006	Istvan			
2006/0212920	A1	9/2006	Yamaguchi			
2007/0070188	A1 *	3/2007	Shyu	.....	H04N 7/147	348/14.11
2007/0094691	A1 *	4/2007	Gazdzinski	.....	H04N 7/17318	725/62
2007/0139514	A1	6/2007	Marley			
2007/0186002	A1 *	8/2007	Campbell	.....	H04N 7/142	709/231
2007/0216760	A1	9/2007	Kondo et al.			
2007/0233839	A1	10/2007	Gaos			
2007/0261091	A1 *	11/2007	Tachikawa	.....	H04N 7/163	725/105
2008/0134278	A1	6/2008	Al-Karmi			
2008/0172693	A1	7/2008	Ludvig			
2008/0212949	A1	9/2008	Wachtfogel			
2008/0309759	A1 *	12/2008	Wilson	.....	G08B 13/1968	348/143
2009/0013373	A1	1/2009	Iizuka			
2009/0073253	A1	3/2009	Lee			
2009/0079813	A1 *	3/2009	Hildreth	.....	H04N 7/147	348/14.03
2009/0174762	A1 *	7/2009	Takahashi	.....	H04M 1/72522	348/14.02
2009/0251526	A1 *	10/2009	Book	.....	H04N 7/148	348/14.01
2010/0073455	A1 *	3/2010	Iwabuchi	.....	H04N 7/142	348/14.04
2013/0033561	A1	2/2013	Kwon et al.			
2013/0127977	A1 *	5/2013	Iwabuchi	.....	H04N 7/142	348/14.01
2015/0334352	A1 *	11/2015	Iwabuchi	.....	H04N 7/142	348/14.04
2016/0330409	A1 *	11/2016	Iwabuchi	.....	H04N 7/142	
2017/0289502	A1 *	10/2017	Iwabuchi	.....	H04N 7/17318	

FOREIGN PATENT DOCUMENTS

JP	05-236472	A	9/1993
JP	07-184174		7/1995
JP	08-289280		11/1996
JP	08289280	A *	11/1996
JP	09-083983		3/1997
JP	2000184346	A	6/2000
JP	2001086475	A	3/2001
JP	2003-348510		12/2003
JP	2006-20286		6/2004
JP	2006-157610		6/2006
JP	2007-300594	A	11/2007
JP	2008-079215		4/2008

OTHER PUBLICATIONS

US 10,084,991 B2

Page 3

(56)

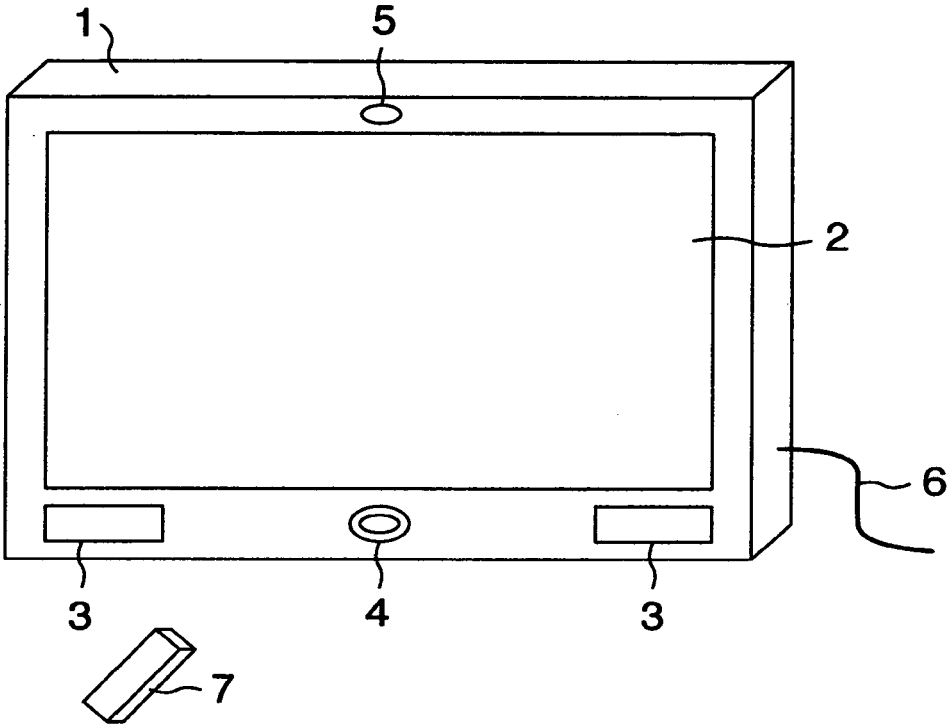
References Cited

OTHER PUBLICATIONS

Domestic technical journal 2007-00349-006—Skype realizes handy video call.

* cited by examiner

FIG. 1



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