

US008155342B2

(12) United States Patent Marlowe

(10) **Patent No.:** (45) **Date of Patent:**

US 8,155,342 B2

*Apr. 10, 2012

(54) MULTIMEDIA DEVICE INTEGRATION SYSTEM

(76) Inventor: Ira Marlowe, Fort Lee, NJ (US)

(*) Notice: Subject to any disclaimer, the term of this

patent is extended or adjusted under 35 U.S.C. 154(b) by 516 days.

This patent is subject to a terminal dis-

claimer.

(21) Appl. No.: 11/475,847

(22) Filed: Jun. 27, 2006

(65) Prior Publication Data

US 2007/0015486 A1 Jan. 18, 2007

Related U.S. Application Data

(63) Continuation-in-part of application No. 11/071,667, filed on Mar. 3, 2005, which is a continuation-in-part of application No. 10/732,909, filed on Dec. 10, 2003, which is a continuation-in-part of application No. 10/316,961, filed on Dec. 11, 2002, now Pat. No. 7,489,786.

(51) **Int. Cl. H04B 1/00** (2006.01)

(52) **U.S. Cl.** **381/86**; 701/36; 455/345

See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

3,940,743 A 2/1976 Fitzgerald 340/172.5 (Continued)

FOREIGN PATENT DOCUMENTS

CN 1474252 A 2/2004 (Continued)

OTHER PUBLICATIONS

Gilroy, Amy, "Blitz Safe Bows New SkyLink," This Week in Consumer Electronics (TWICE), Nov. 24, 2003 (1 page).

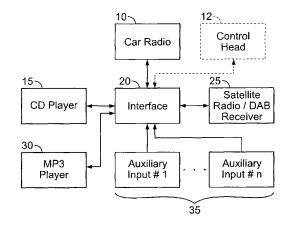
(Continued)

Primary Examiner — Xu Mei (74) Attorney, Agent, or Firm — Anatoly S. Weiser, Esq.; Acuity Law Group

(57) ABSTRACT

An multimedia device integration system is provided. One or more after-market audio or video devices, such as a CD player, CD changer, digital media device (e.g., MP3 player, MP4 player, WMV player, Apple iPod, portable media center, or other device) satellite receiver (e.g., XM or Sirius receiver), DAB receiver, video device (e.g., DVD player), cellular telephone, or any other device or combinations thereof, is integrated for use with an existing OEM or aftermarket car stereo or video system, wherein control commands can be issued at the car stereo or video system and data from the after-market device can be displayed on the car stereo or video system. Control commands generated at the car stereo or video system are received, processed, converted into a format recognizable by the after-market device, and dispatched to the after-market device for execution. Information from the after-market device is converted into a format recognizable by the car stereo or video system, and dispatched to the car stereo or video system for display thereon. One or more auxiliary input sources can be integrated with the car stereo or video system, and selected using the controls of the car stereo or video system. A docking station is provided for docking a portable audio or video device for integration with the car stereo or video system. Wireless integration between the portable audio or video device and a car stereo or video system is provided, and voice recognition and speech synthesis capabilities are provided in the portable audio or video device or the car stereo or video system.

121 Claims, 36 Drawing Sheets





U.S. PATEN	T DOCUMENTS	2003/0156200 A1 8/2003 Romano et al.
	7 Dorey et al 364/200	2003/0215102 A1 11/2003 Marlowe 381/77
	8 Werth et al 179/175.3	2004/0091123 A1 5/2004 Stark et al
	8 Woods et al	2004/0117442 A1* 6/2004 Thielen
	0 Bruce et al 364/200	2004/0145457 A1 7/2004 Schofield et al. 2004/0151327 A1 8/2004 Marlowe
	5 Hodel et al 364/200	2004/0151527 A1 8/2004 Mariowe
	8 Douglas et al 312/257	2005/0021190 A1 1/2005 Worrell et al.
	9 Frimmel, Jr 379/88	2005/0172001 A1 8/2005 Zaner et al.
	0 Rice	2005/0239434 A1 10/2005 Marlowe 455/345
	3 Barnes et al. 4 Frimmel, Jr	2005/0282600 A1 12/2005 Paradice
	4 Harris	2007/0149115 A1 6/2007 White et al.
	5 Shreve et al	2007/0230099 A1 10/2007 Turner et al. 2007/0293183 A1 12/2007 Marlowe
5,537,673 A 7/199	6 Nagashima et al.	2007/0293183 AT 12/2007 Marlowe 2007/0294710 A1 12/2007 Meesseman
	8 Beckert et al 701/1	2008/0123285 A1 5/2008 Fadell et al.
	8 Hamanishi et al.	2008/0125031 A1 5/2008 Fadell et al.
5,859,628 A 1/199 5,897,155 A 4/199	9 Ross et al. 9 Kerner et al.	2009/0017866 A1 1/2009 White et al.
	9 Tuoriniemi et al.	2009/0018682 A1 1/2009 Fadell et al.
	9 Symanow et al 340/825.56	FOREIGN PATENT DOCUMENTS
	0 Kinzalow et al 455/557	
6,058,319 A 5/200	0 Sadler 455/569	JP 11-273321 10/1999
	0 Chen 455/569.2	JP 2000-286874 10/2000 KR 1020010035788 5/2001
	0 Becker	KR 1020010035788 5/2001 KR 1020010059192 7/2001
	0 Miyazaki et al 307/10.1 0 Juntunen et al.	WO WO 2004/053722 6/2004
	1 Beckert et al.	WO WO 2006/094281 9/2006
	1 Abecassis	WO WO 2008/002954 1/2008
	1 Moteki et al 701/211	OTHER BUIDLICATIONS
	 Van Ryzin et al. 	OTHER PUBLICATIONS
	1 Brody et al 370/310	Gilroy, Amy, "XM Exceeds Forecasts," This Week in Consumer
	1 Obradovich	Electronics (TWICE), Nov. 24, 2003 (2 pages).
	1 Chatzipetros et al 343/713 1 Nicholson et al 381/86	"BlitzSafe News," http://www.blitzsafe.com/blitz news/
	2 Fuchs et al	news031124/body_news031124.html, Nov. 24, 2003 (1 page).
	2 Lee et al 701/200	"XM Satellite Radio Introduces XM Direct," http://www.blitzsafe.
6,389,332 B1 5/200	2 Hess et al 701/1	com/blitz_news/news031117/body_news031117.html, Nov. 17,
	2 Chew	2003 (3 pages).
	2 Barnea et al 307/10.1	"Digital Audio Radio," http://www.blitzsafe.com/blitz_news/
	2 Chen 2 Chen	news052003a/body_news052003a.html, 2003 (4 pages).
	3 Draggon et al.	"BlitzSafe Winner of 2003 Autosound Grand Prix Accessories Sup-
	3 Coon et al 704/275	plier of the Year," Audiovideo Magazine, Mar. 3, 2003 (1 page).
	3 Grady 455/42	"BlitzSafe Releases World's First XM Satellite Radio, Auxiliary and
	3 McConnell et al.	CD Interfaces for Landrover Freelander 2003," http://www.blitzsafe.
	3 Knockeart et al.	com/blitz_news/news092002b/body_news09002b.html, Sep. 16,
	3 Bhogal et al	2002 (1 page).
	3 Kunimatsu et al 340/995.19	"BlitzSafe Releases World's First XM Satellite Radio, Auxiliary and
	4 Lavelle et al 725/75	CD Interlaces for Lexus," http://www.blitzsafe.com/blitz_news/
	4 Benyamin et al.	news092002a/body_news09002a.html, Sep. 14, 2002 (1 page).
	4 Lau et al.	Pohlmann, et al. "Satellite Radio A to Z," http://www.blitzsafe.com/
6,816,577 B2 11/200	4 Logan	blitz_news/news072002a/body_news072002a.html, 2002 (7
	5 Baratono et al. 6 Lau et al.	pages).
	6 Falcon 710/303	"BlitzSafe Launches XM and Six Interfaces for the 'Mini Cooper',"
	6 Mella et al	http://www.blitzsafe.com/blitz_news/news062002a/body_
	6 Nakanaga	news062002a.html, Jun. 25, 2002 (1 page).
7,151,950 B1 12/200	6 Oyang et al.	"Digital Connect," Mobile Electronics, May 2002 (1 page).
	7 White et al.	Solomon, Brett, "Selling 12V: OEM Integration," Dealerscope, May
	7 DiStefano	2002 (1 page).
7,324,833 B2 1/200 7,440,772 B2 10/200	8 White et al. 8 White et al.	"XM Xtra:," Mobile Entertainment, Apr./May 2002 (1 page).
7,486,926 B2 2/200		"Blitzsafe Introduces New Line of XM Digital Connect Cables," The
	9 Marlowe	12 Volt News, Feb. 20, 2002 (2 pages).
	9 Tranchina 725/75	"XM Radio Losses Mount As Do Subscribers," http://www.blitzsafe.
	1 Mueller et al 700/94	com/blitz_news/news012002d/body_news012002d.html, Jan. 24,
	2 Dukach et al 455/99	2002 (3 pages).
	2 Owens et al. 2 Holland	"Blitzsafe Expects 3 Mil. XM Subscribers Within Three Years,"
	2 Schug 709/250	http://www.blitzsafe.com/blitz_news/news012002c/body_
	2 Hadland 709/230	news012002c.html, Jan. 2002 (1 page).
2002/0180767 A1 12/200	2 Northway et al 345/698	"XM Signs Over 30,000 Subscribers in First 8 Weeks," XM Radio, Jan. 7, 2002 (4 pages).
2002/0197954 A1 12/200		"BlitzSafe Unveils the First DVD Interface," Automedia, Feb. 1999
	3 Riggs	(1 page).
2003/0026440 A1* 2/200 2003/0053638 A1 3/200		"MBALP V.2A2 CD Changer Converter Mercedes Benz Model for
2003/0053038 A1 3/200 2003/0069000 A1 4/200		1997 and 1996," http://www.blitzsafe.com/blitz_news/pr02111996/
2003/0086699 A1 5/200	3 Benyamin et al	body_pr02111996.html, Jun. 11, 1996 (1 page).
	•	



"CD Changer Converter—Porsche Model Year 1996," http://www.blitzsafe.com/blitz_news/pr02071996/body_pr02071996.html, Feb. 7, 1996 (1 page).

"CD Changer Converter—Mercedes Benz 1996 MY," http://www.blitzsafe.com/blitz_news/pr08231995/body_pr08231995.html, Aug. 23, 1995 (1 page).

Office Action dated Jun. 5, 2006, from co-pending U.S. Appl. No. 10/316,961 (40 pages).

Office Action dated Nov. 14, 2006, from co-pending U.S. Appl. No. 10/316,961 (51 pages).

Office Action dated Apr. 19, 2007, from co-pending U.S. Appl. No. 10/316,961 (69 pages).

Office Action dated Jul. 12, 2007, from co-pending U.S. Appl. No. 10/316,961 (71 pages).

Office Action dated Feb. 20, 2008, from co-pending U.S. Appl. No. 10/316,961 (52 pages).

Interview Summary dated Apr. 9, 2008, from co-pending U.S. Appl. No. 10/316,961 (4 pages).

Interview Summary dated Apr. 21, 2008, from co-pending U.S. Appl. No. 10/316,961 (4 pages).

Office Action dated Aug. 8, 2006, from co-pending U.S. Appl. No. 10/732,909 (29 pages).

Interview Summary dated Dec. 15, 2006, from co-pending U.S. Appl.

No. 10/732,909 (3 pages). Interview Summary dated Jan. 3, 2007, from co-pending U.S. Appl.

No. 10/732,909 (3 pages).
Office Action dated Apr. 20, 2007, from co-pending U.S. Appl. No. 10/732,909 (20 pages).

Office Action dated Oct. 3, 2007, from co-pending U.S. Appl. No. 10/732,909 (28 pages).

Interview Summary dated Oct. 26, 2007, from co-pending U.S. Appl. No. 10/732,909 (3 pages).

International Search Report of the International Searching Authority mailed May 12, 2004, issued in connection with International Patent Appln. No. PCT/US03/39493 (4 pages).

International Search Report of the International Searching Authority mailed Sep. 24, 2007, issued in connection with International Patent Appln. No. PCT/US06/008043 (4 pages).

Written Opinion of the International Searching Authority mailed Sep. 24, 2007, issued in connection with International Patent Appln. No. PCT/US06/008043 (5 pages).

International Preliminary Report on Patentability issued Oct. 16, 2007, issued in connection with International Patent Appln. No. PCT/US06/008043 (1 page).

Russian Official Action with translation, issued by the Patent Office of the Russian Federation on Dec. 24, 2007, in connection with Russian App. No. 2006101060 (21 pages).

Written Opinion, mailed by the Australian Patent Office on Aug. 28, 2007, in connection with Singapore App. No. 200601303-1 (6 pages).

International Search Report of the International Searching Authority mailed Sep. 25, 2008, issued in connection with International Patent Appln. No. PCT/US07/72182 (3 pages).

Written Opinion of the International Searching Authority mailed Sep. 25, 2008, issued in connection with International Patent Appln. No. PCT/US07/72182 (7 pages).

Office Action dated Jul. 9, 2008, from co-pending U.S. Appl. No. 10/732,909 (33 pages).

Notice of Allowance mailed Jul. 31, 2008, issued in connection with co-pending U.S. Appl. No. 10/316,961 (12 pages).

Notice of Allowance mailed Dec. 29, 2008, issued in connection with co-pending U.S. Appl. No. 10/316,961 (8 pages).

Office Action dated Feb. 24, 2009, from co-pending U.S. Appl. No. 10/732,909 (20 pages).

Mobile Electronics: News, "Soundgate to Release New GM and BMW Interfaces," Dec. 2, 2002, ME-Mag.com (1 page).

"Welcome to Ventura Technology," from Venturatechnology.com (2 pages).

Office Action dated Nov. 25, 2009, from co-pending U.S. Appl. No. 10/732,909 (16 pages).

Office Action dated Jun. 23, 2009, from co-pending U.S. Appl. No. 11/071,667 (9 pages).

Office Action dated Mar. 18, 2009, from co-pending U.S. Appl. No. 11/805,799 (10 pages).

Substantive Examination Adverse Report mailed by the Malaysian Patent Office on Mar. 13, 2009 in connection with Malaysian Patent Application No. PI 20060884 (5 pages).

Office Action with English translation, dated May 8, 2009, issued by the Chinese Patent Office in connnection with Chinese Patent Application No. 200610059421.7 (12 pages).

Examiner's First Report dated Mar. 30, 2009, issued by the Australian Patent Office in connection with Australian Patent Application No. 2003297898 (3 pages).

Supplementary European Search Report dated Jun. 30, 2009, issued by the European Patent Office in connection with European Patent Application No. EP03796968 (5 pages).

Office Action mailed by the Japanese Patent Office on Aug. 15, 2008 in connection with Japanese Patent Application No. JP2006-056718 (3 pages).

Office Action mailed by the Japanese Patent Office on Mar. 27, 2009 in connection with Japanese Patent Application No. JP2006-056718 (2 pages).

Office Action dated Dec. 11, 2009, from co-pending Application No. 11/805,799 (14 pages).

Russian Official Action with translation, issued by the Patent Office of the Russian Federation, in connection with Russian App. No. 2006101060 (11 pages).

Official Action dated Dec. 14, 2009, issued by the Canadian Patent Office in connection with Canadian Patent Application No. 2,538,053 (2 pages).

Official Action dated Dec. 25, 2009, issued by the Chinese Patent Office in connection with Chinese Patent Application No. 200610059421.7, with English translation (14 pages).

Official Action dated Jul. 16, 2009, issued by the Mexican Institute of Industrial Property in connection with Mexican Patent Application No. PA/a/2006/002421, with an English translation.(5 pages).

Official Action dated Mar. 19, 2010, issued by the Mexican Institute of Industrial Property in connection with Mexican Patent Application No. PA/a/2006/002421, with an English translation (4 pages).

Office Action dated Mar. 18, 2010, from co-pending U.S. Appl. No. 11/071,667 (13 pages).

Office Action dated Aug. 30, 2010, from co-pending U.S. Appl. No. 11/805,799 (13 pages).

Office Action dated Jul. 20, 2010, from co-pending U.S. Appl. No. 10/732,909 (17 pages).

Examiner's First Report dated Apr. 29, 2010, issued by the Australian Patent Office in connection with Australian Patent Application No. 2006200895 (2 pages).

Office Action of Feb. 2, 2011 in U.S. Appl. No. 10/071,667, 18 pages. Office Action of Apr. 18, 2011 in U.S. Appl. No. 10/732,909, 18 pages.

Official Action of Mar. 29, 2011 in Chinese Patent Application 200610059421.7.

VoiceBox Technologies, printout from website http://www.voiceboxtechnologies.com/auto.php (2 pages), 2001-2006.

"Video: A Dashboard That is Really a PC," printout from website http://news.com.com/1606-2_3-6052333.html (3 pages), 2006.

"Blitz Safe Offers XM Cables for Radios," printout from website http://www.twice.com/article/CA190041.html?text=blitz+safe (2 pages), 2002.

"Integration Products May Impact Satellite Radio," printout from website http://www.twice.com/article/CA200541. html?text=blitz+safe (3 pages), 2002.

"OEM Integration Poised for Strong Growth," printout from website http://www.twice.com/article/CA200523.html?text=blitz+safe (3 pages), 2002.

"Blitzsafe Overview," from Blitzsafe.com website—"The Worldwide Leader in Aftermarket Interfaces and OEM Engineering" (1

"Delphi XM SKYFI(TM) Radio," product description from XM Satellite Radio website (2 pages), 2003.

The New Delphi XM SKYFi Radio Add it to Any Car or Home Audio System, product description from www.xmradio.com(1 page), 2002. "Phatnoise Digital Media Players," product description from http://www.phatnoise.com(2 pages), 1999-2003.



- "Automedia," magazine pages from Jun/Jul. 1996 issue (2 pages). "Automedia," magazine pages from Jan. 1998 issue (2 pages).
- "Automedia," magazine pages from Feb. 1998 issue (2 pages).
- "Automedia," magazine pages from Jul. 1998 issue (2 pages).
- "Automedia," magazine pages from Sep. 1998 issue (2 pages).
 "Automedia," magazine pages from Nov. 1998 issue (12 pages).
- "Automedia," magazine pages from Feb. 1999 issue (2 pages). "Car Stereo Review," magazine pages from Jun. 1998 issue (5 pages).
- "Car Stereo Review," magazine pages from Jan. 1999 issue (2 pages).
- "Car Stereo Review," magazine pages from Apr. 1999 issue (3 pages).
- "Car Audio and Electronics," magazine pages from Dec. 1998 issue (2 pages).
- "Car Audio and Electronics," magazine pages from Apr. 1999 issue (2 pages).
- "Car Audio and Electronics," magazine pages from Jun. 1999 issue (2 pages).
- "Carsound," magazine pages from May/Jun. 1999 issue (3 pages). "Mobile Electronics Retailer," magazine pages from Aug. 1997 issue (4 pages).
- "Mobile Electronics," magazine pages from Jul. 1999 issue (7 pages). "Mobile Electronics," magazine pages from Aug. 2000 issue (2
- "Cesmobile," magazine pages from Jan. 1999 issue (3 pages).
- "The 12 Volt News," magazine pages from Mar. 2002 issue (2 pages). "P.I.E. Millennium Price Guide Make the Precision Decision," Precision Interface Electronics, Inc. (6 pages), 2000.
- "PIE 1999 Price Guide," Precision Interface Electronics, Inc. (4
- "Design & Engineering Showcase Award," award presented to Precision Interface Electronics, Inc. for DPX Technology Digital Protocol Converter FRDN/PC-KNW, 2000 International CES (1 page).
- "Design & Engineering Showcase Award," award presented to Precision Interface Electronics, Inc. for DPX Technology Digital Protocol Converter GM9/PC-KNW, 2000 International CES (1 page).
- Invoice dated Jan. 28, 1998 from Precision Interface Electronics, Inc. for "Ford FCU-Sanyo Protocol," and "Ford RCU Sanyo Protocol" (1 page).
- Invoice dated Jan. 29, 1999 from Precision Interface Electronics, Inc. for "Ford NCU-Sanyo Protocol" (1 page).
- Invoice dated Apr. 26, 1999 from Precision Interface Electronics, Inc. for "9 Pin GM-Kenwood Protocol," and "10 Pin GM-Kenwood Protocol" (1 page).
- Invoice dated Apr. 27, 1999 from Precision Interface Electronics, Inc. for "9 Pin GM-Kenwood Protocol" (1 page).
- Invoice dated May 27, 1999 from Precision Interface Electronics, Inc. for "10 Pin GM-Kenwood Protocol," and "9 Pin GM-Kenwood Protocol" (1 page).
- Invoice dated Mar. 20, 2000 from Precision Interface Electronics, Inc. for "98-2000 Pre-Wired VW 6 DIS" (1 page).
- Invoice dated Mar. 20, 2000 from Precision Interface Electronics, Inc. for "98/2000 Pre-Wired VW 8 DIS," and "1998-2000 Audi to Pan 8 PC" (1 page).
- Invoice dated Dec. 17, 2001 from Precision Interface Electronics, Inc. for "98-02 Ford/Lincoln/Mercury" (1 page).
- Invoice dated May 29, 2002 from Precision Interface Electronics, Inc. for "95-01 GMC/Chev/Pontiac AUX," and "98-02 Ford/Lincoln/ Merc AU" (1 page).
- Toyota/Avox Interface Rev. Eng., Peripheral Model TIAS, created Feb. 15, 1998 (1 page).
- GM/Kenwood Translator diagram, created Feb. 4, 1999 (2 pages).

- Ford/Audiovox Translator diagram, created Dec. 29, 1997 (2 pages). Component Side Silkscreen, created Dec. 31, 1997 (2 pages).
- Component Xray, created Feb. 4, 1992 (2 pages).
- "SoundGate, Ventura Announce Sophisticated OEM-Integration Interfaces," article from The 12 Volt News, Dec. 2002 (1 page).
- "XMDirect Smart Digital Adapter," product description (3 pages), 2001-2004.
- "Breaking Protocol a Look at BlitzSafe's New DMX Protocol Converter Technology," Nov. 1998 printout from http://www.blitzsafe.
- com/blitz_news/news101998/body_news101998.html (2 pages). "PIE Virtual Catalog," printout from http://web.archive.org/web/ 19981205005802/http://www.pie.net/sec12sb1.htm (2 pages), 2005.
- "The UniLink Project," printout from website (2 pages), 1999.
- "CD Changer Interfaces, "printout from http://web.archive.org/web/ 19991012021952/soundgate.com/cd-inter.html (1 page), 1999.
- "Digital Obsessions a Spotlight on Audio Gadgetry, ZDNet Music: The PhatNoise Car Audio System," printout from http://web.archive. org/web/20000815203327/music.zdnet.com/features/phatnoise (3 pages), 2000.
- "Bypassing and Switching With the CD4053 CMOS Analog MUX," printout from website (4 pages), 2000.
- "Device Profile: PhatNoise PhatBox Car MP3 Player," Nov. 1, 2000, printout from http://techupdate.zdnet.com/techupdate/stories/main/ 0,14179,2649276,00.htm (4 pages).
- "The EZ Protoboard," printout from http://web.archive.org/web/ 20010613095105/http://www.ajusd.org/~edward/ezproto (2 pages), 2001
- "TDIClub Forums: Reverse Engineering CD Changer Progress,," Apr. 3, 2001, printout from website (3 pages).
- "TDIClub Forums: Reverse Engineering CD Changer Progress Reports" Apr. 5, 2001, printout from website (8 pages).
- "Multi Technology Equipment—Home of the Neo MP3 Player," from http://web.archive.org/web/20010413222617/ ssiamerica.com/products/neo35/ (1 page), 2005.
- "TDIClub Forums: Reverse Engineering CD Changer Protocol Update," Apr. 18, 2001, printout from website (3 pages).
- "The Car CD Changer Interface Page," printout from website (10 pages), 2001-2002.
- 'SourceForge.net: Project Info-GNUlink," printout from http:// sourceforge.net/projects/gnunilink/ (3 pages), 2005.
- "EZ Protoboard News," printout from website (3 pages), 2001-2002. "GNUnilink—For All Your AUX-IN Needs . . . ,"printout from http://
- gnunilink.sourceforge.net/ (4 pages), 2002. "VWCDPIC News,"printout from http://web.archive.org/web/ 20020701101541/http:/www.ajusd.org/~edward/vwcdpic/
- pages), 2001-2002. "VWCDPIC News,"printout from http://web.archive.org/web/ 20021009014959/http:/www.ajusd.org/~edward/vwcdpic/
- pages), 2001-2002. "Mobile Electronic E-Newsletter" dated Jan. 13, 2005 (4 pages).
- "Axxess Introduces Two iPod Integration Units" product description dated Jan. 19, 2005 (1 page).
- "Even More iPod Adapters on the Way," printout from twice.com website (2 pages), 2005.
- "Alpine Showing First Most-Ready Product," printout from twice. com website (2 pages), 2005.
- "Bluetooth Gradually Enters Car Audio," prinout from twice.com website (2 pages), 2005.
- * cited by examiner



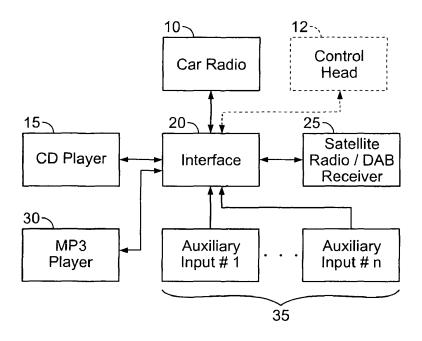


FIG. 1

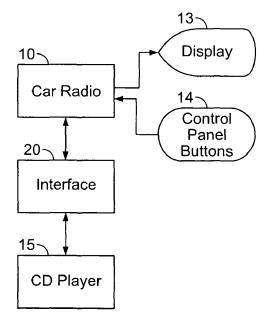


FIG. 2A

DOCKET A L A R M

Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.

