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[Continued on next page]

(54) Title: AUDIO ACCESSORY TYPE DETECTION AND CONNECTOR PIN SIGNAL ASSIGNMENT

(57) Abstract: An electronic audio host device has an audio accessory connector with multiple pins. An ultrasonic test signal source has an output coupled to a first pin of the connector. A programmable switch circuit couples a second or third pin of the connector, to a ground of the audio host device. A controller measures a signal on one of the pins of the connector while the test signal source is on, and compares the measured signal to a predetermined, stored signature. The signature is associated with one of several different accessory plug pin assignments for the connector, which can be configured using the programmable switch circuit. Other embodiments are also described and claimed.

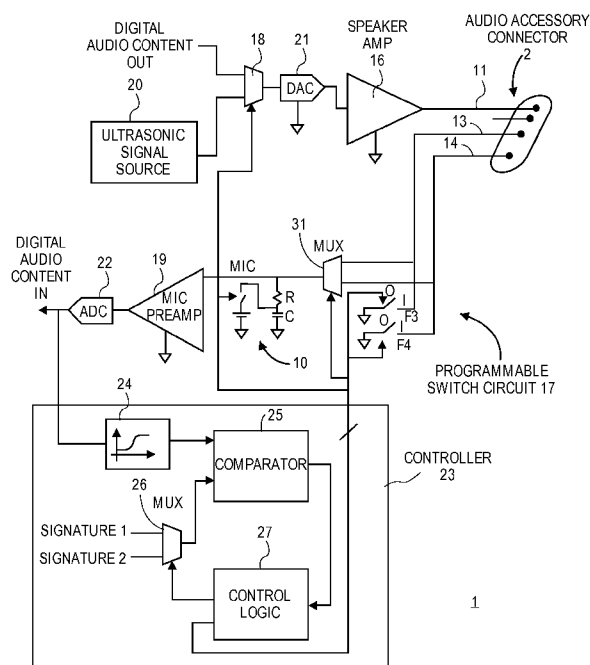


FIG. 1



GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G06F 13/10 (2012.01)

USPC - 701/15

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8) - G06F 3/00, 13/00, 10, 12; G10K 11/16; H04R 1/00, 10, 5/00, 04 (2012.01)

USPC - 381/1, 71.1; 701/10, 15, 16, 62, 104

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Orbit, Google Patents, ProQuest

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2010/0260341 A1 (SANDER et al) 14 October 2010 (14.10.2010) entire document	1-21
Y	US 7,836,216 B2 (KASHI et al) 16 November 2010 (16.11.2010) entire document	1-21
Y	US 7,633,963 B1 (ANDERSON et al) 15 December 2009 (15.12.2009) entire document	6, 16
Y	US 6,266,571 B1 (FADO et al) 24 July 2001 (24.07.2001) entire document	7, 8, 17, 18

☐ Further documents are listed in the continuation of Box C.

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