

(43) International Publication Date
27 September 2012 (27.09.2012)(51) International Patent Classification:
H04R 1/10 (2006.01)

(21) International Application Number:

PCT/GB2012/000478

(22) International Filing Date:

28 May 2012 (28.05.2012)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

1104924.4 24 March 2011 (24.03.2011) GB

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, 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).

[Continued on next page]

(54) Title: IMPROVEMENTS IN HEADPHONES

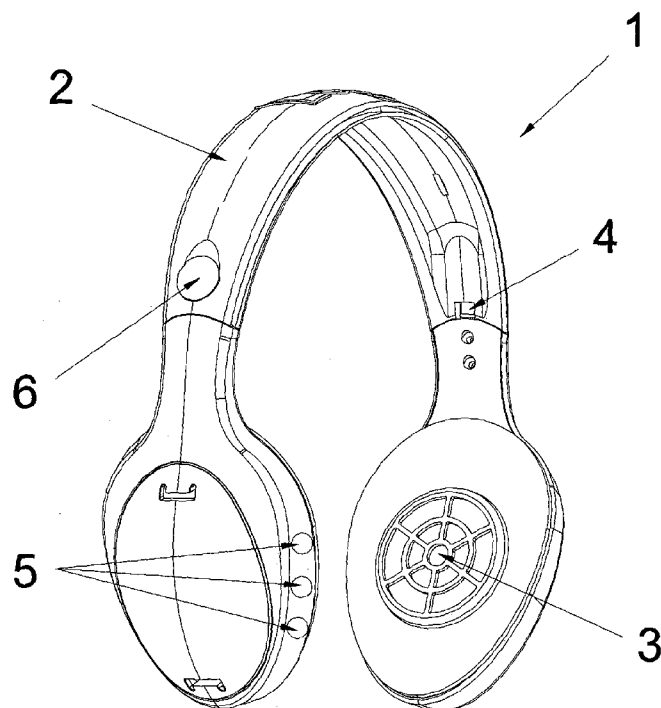


FIGURE 1

(57) Abstract: A headphone with status feedback (1); comprising at least one or more integral buttons (5) that may be user activatable, at least one or more integral speakers (3), a headband (2) with at least one or more integral illumination devices (4), means of receiving at least one or more audio or audiovisual channels by means of transmissions from at least one or more integral and/or remote transmitting sources and means of transmitting headphone status feedback to at least one or more remote receiving sources, and whereby whenever the status of any parameter within interactive die headphone with status feedback (1) may change by means of the user activation of the one or more integral buttons (5) and/or whenever the status of any parameter within the interactive headphone with status feedback (1) may change over time due to a change in operational conditions outside of the control of a user, the parameter status and/or change of parameter status may be displayed locally as status feedback by means of a change in illumination, colour and/or hue of the one or more illumination devices (4) integral to the headband (2) and/or the parameter status and/or change of parameter status may be transmitted as status feedback to a remote receiving source. The interactive headphone may include an integral transmitting source that allows a user to store, retrieve, change the order of play, delete or play audio and/or audiovisual tracks. The interactive headphone may include one or more user viewable displays.

**Published:****(88) Date of publication of the international search report:**

24 January 2013

- *with international search report (Art. 21(3))*
- *with information concerning request for restoration of the right of priority in respect of one or more priority claims (Rules 26bis.3 and 48.2(b)(vii))*

INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2012/000478

A. CLASSIFICATION OF SUBJECT MATTER
INV. H04R1/10
ADD.

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)
H04R

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)

EPO-Internal, COMPENDEX, INSPEC, PAJ, IBM-TDB, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2008/260169 A1 (REUSS EDWARD L [US]) 23 October 2008 (2008-10-23) page 4, paragraph 55 - page 6, paragraph 74 page 7, paragraph 74 - page 9, paragraph 93 page 14, paragraph 131 page 15, paragraph 141 figures 1-7A,14,16	1-18
A	US 2010/166208 A1 (KATO TOMONORI [JP]) 1 July 2010 (2010-07-01) page 4, paragraph 86 - page 7, paragraph 166 figures 1A,1B,4-10,13-16	1-18



Further documents are listed in the continuation of Box C.



See patent family annex.

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Date of the actual completion of the international search

20 September 2012

Date of mailing of the international search report

28/09/2012

Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/GB2012/000478

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2008260169	A1	23-10-2008	NONE

US 2010166208	A1	01-07-2010	CN 101771909 A 07-07-2010
			JP 2010157896 A 15-07-2010
			US 2010166208 A1 01-07-2010
