

Title (en)
Headphone and sound emitting device

Title (de)
Kopfhörer und Schallausgabevorrichtung

Title (fr)
Écouteur et dispositif d'émission acoustique

Publication
EP 2750406 A1 20140702 (EN)

Application
EP 13020137 A 20131220

Priority
JP 2012280813 A 20121225

Abstract (en)
A headphone includes a sound emitting device, a signal supply portion, and either one of an ear hook portion and a headband portion. The sound emitting device includes a body portion and first and second driver units. The body portion has a first air chamber, a second air chamber communicating with the first air chamber, and a duct opened in the second air chamber and opened to an external space. The first driver unit is disposed on the body portion so that an output sound is directly emitted to the external space. The second driver unit is disposed on the body portion so that the output sound is emitted into the first air chamber. The signal supply portion supplies an audio signal to the first and second driver units. The ear hook portion or the headband portion is connected to the sound emitting device.

IPC 8 full level
H04R 1/28 (2006.01); **H04R 5/033** (2006.01); **H04R 1/10** (2006.01); **H04R 1/24** (2006.01)

CPC (source: EP)
H04R 1/2819 (2013.01); **H04R 5/033** (2013.01); **H04R 1/10** (2013.01); **H04R 1/24** (2013.01)

Citation (search report)

- [XY] CN 102333259 A 20120125 - AAC ACOUSTIC TECH SHENZHEN CO, et al & US 2013016867 A1 20130117 - XI LI-SHU [CN], et al
- [X] US 2007195984 A1 20070823 - YANG BILL [TW]
- [X] US 2009147981 A1 20090611 - BLANCHARD MARK A [US], et al
- [XY] JP 2002291081 A 20021004 - AIWA CO
- [Y] GB 2235852 A 19910313 - SONY CORP [JP]
- [A] JP 3180194 U 20121206 & EP 2587835 A1 20130501 - PAN CHIEN-CHUAN [TW]
- [A] US 2008253604 A1 20081016 - YAMAGISHI MAKOTO [JP], et al

Cited by
CN111918180A; CN106658257A; US2023007383A1; US11891211B2; EP3952326A1; CN114071297A; US11611823B2

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

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