

Title (en)

EARPHONE WITHOUT IMPULSE NOISE FOR PROTECTION AGAINST CONDUCTIVE HEARING LOSS

Title (de)

KOPFHÖRER OHNE RAUSCHIMPULS ZUM SCHUTZ GEGEN LEISTENDEN HÖRVERLUST

Title (fr)

ECOUTEUR EXEMPT DE BRUIT IMPULSIF ET SERVANT A LA PROTECTION CONTRE LA SURDITE DE CONDUCTION

Publication

**EP 1068771 A4 20060705 (EN)**

Application

**EP 99906740 A 19990205**

Priority

- CN 98100529 A 19980216
- US 9902446 W 19990205

Abstract (en)

[origin: WO9941946A1] An earphone without impulse noise for protection against conductive hearing loss includes an earphone housing (40) and a loudspeaker (50) mounted in a sound chamber (43) therein. A front end of the earphone housing has an earplug (41) adapted to be hanged between the tragus and the antitragus of the external ear while a rear end thereof has a hood (42) with a hollow sound chamber (43). A loudspeaker is supported in the hollow sound chamber of the hood around which a plurality of sound holes (44) are distributed, wherein a sound output end of the loudspeaker must be positioned facing to the hood and opposite to the earplug. A conductive cord (60) is connected at the bottom end of the earphone housing for transmitting electric current to the loudspeaker.

IPC 1-7

**H04R 25/00**

IPC 8 full level

**H04R 1/10** (2006.01); **H04R 25/00** (2006.01)

CPC (source: EP KR)

**H04R 1/10** (2013.01 - KR); **H04R 1/1016** (2013.01 - EP)

Citation (search report)

- [X] US 4736435 A 19880405 - YOKOYAMA YOSHIHIRO [JP], et al
- [XY] PATENT ABSTRACTS OF JAPAN vol. 010, no. 027 (E - 378) 4 February 1986 (1986-02-04)
- [XY] PATENT ABSTRACTS OF JAPAN vol. 1995, no. 09 31 October 1995 (1995-10-31)
- [X] PATENT ABSTRACTS OF JAPAN vol. 012, no. 167 (E - 610) 19 May 1988 (1988-05-19)
- See references of WO 9941946A1

Cited by

US9131310B2

Designated contracting state (EPC)

CH DE FI FR GB IT LI NL SE

DOCDB simple family (publication)

**WO 9941946 A1 19990819**; AU 2657999 A 19990830; AU 752648 B2 20020926; BR 7903454 Y1 20130917; BR 9907948 A 20001107; CA 2320214 A1 19990819; CA 2320214 C 20060425; CN 1138447 C 20040211; CN 1226797 A 19990825; DE 69939931 D1 20090102; EP 1068771 A1 20010117; EP 1068771 A4 20060705; EP 1068771 B1 20081119; HK 1033408 A1 20010824; ID 25924 A 20001109; JP 3091406 U 20030131; KR 100615827 B1 20060825; KR 20010034308 A 20010425; NO 20004074 D0 20000815; NO 20004074 L 20000815; NO 326615 B1 20090119; RU 2232486 C2 20040710

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**US 9902446 W 19990205**; AU 2657999 A 19990205; BR 7903454 U 19990205; BR 9907948 A 19990205; CA 2320214 A 19990205; CN 98100529 A 19980216; DE 69939931 T 19990205; EP 99906740 A 19990205; HK 01103407 A 20010516; ID 20001540 A 19990205; JP 2000600016 U 19990205; KR 20007008026 A 20000721; NO 20004074 A 20000815; RU 2000122777 A 19990205