

Title (en)  
Headphone with surround-sound effect

Title (de)  
Kopfhörer mit Raumklangwirkung

Title (fr)  
Casque d'écoute à effet spatial

Publication  
**EP 1542502 A3 20090422 (DE)**

Application  
**EP 04029072 A 20041208**

Priority  
DE 10358141 A 20031210

Abstract (en)  
[origin: EP1542502A2] The device has two sound transducers (3,17;7,8) per hearing capsule (1,6) for left and right arranged non-centrally relative to the normal central sound transducer position in front of the ear canal and a sound signal feed device (9-11,16) for supplying the sound transducers with stereo sound signals and for conditioning the signals relative to each other in relation to phase angle and/or level so that an original signal is fed to one of the two sound transducers while the other signal is fed to the other transducer with phase rotated and/or level reduced.

IPC 8 full level  
**H04S 3/00** (2006.01); **H04R 5/033** (2006.01); **H04S 5/00** (2006.01)

CPC (source: EP)  
**H04R 5/033** (2013.01); **H04S 3/004** (2013.01); **H04S 5/005** (2013.01); **H04S 2400/01** (2013.01)

Citation (search report)

- [X] EP 0705053 A2 19960403 - MARIKON RESOURCES INC [US]
- [Y] DE 19635888 A1 19980305 - KOENIG FLORIAN MEINHARD [DE]
- [Y] DE 19514105 A1 19951019 - KOENIG FLORIAN MEINHARD [DE]
- [Y] EP 0959644 A2 19991124 - CENTRAL RESEARCH LAB LTD [GB]
- [Y] WO 9859525 A2 19981230 - BE4 LTD [IL], et al
- [Y] DE 19950319 A1 20000420 - CENTRAL RESEARCH LAB LTD [GB]

Cited by  
EP1833277A3

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA HR LV MK YU

DOCDB simple family (publication)  
**EP 1542502 A2 20050615; EP 1542502 A3 20090422**; CN 1681358 A 20051012; DE 10358141 A1 20050721

DOCDB simple family (application)  
**EP 04029072 A 20041208**; CN 200410094250 A 20041210; DE 10358141 A 20031210