

Title (en)  
Coaxial loudspeaker with waveform diaphragm

Title (de)  
Koaxiallautsprecher mit wellenförmiger Membran

Title (fr)  
Haut-parleur coaxial avec membrane de forme ondulée

Publication  
**EP 1646263 A3 20080813 (DE)**

Application  
**EP 05020885 A 20050926**

Priority  
DE 202004015635 U 20041007

Abstract (en)  
[origin: EP1646263A2] The loud speaker has a wave shaped membrane (12) in front of a closed rear chamber in an oscillation system with at least one high energy permanent magnet, a front plate (16) and a coil arrangement which excites the magnet. The loud speaker also has a plate shaped axially magnetized magnetic element (10). The front plate is arranged in front of the membrane and has slits formed in it.

IPC 8 full level  
**H04R 1/24** (2006.01); **H04R 9/02** (2006.01)

CPC (source: EP)  
**H04R 1/24** (2013.01); **H04R 9/025** (2013.01)

Citation (search report)

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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 LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA HR MK YU

DOCDB simple family (publication)  
**EP 1646263 A2 20060412; EP 1646263 A3 20080813; EP 1646263 B1 20100721**; AT E475271 T1 20100815; DE 202004015635 U1 20041202;  
DE 502005009938 D1 20100902

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**EP 05020885 A 20050926**; AT 05020885 T 20050926; DE 202004015635 U 20041007; DE 502005009938 T 20050926