

Title (en)
Speaker and method of manufacturing the same

Title (de)
Lautsprecher und Herstellungsverfahren dafür

Title (fr)
Haut-parleur et son procédé de fabrication

Publication
EP 2056623 A2 20090506 (EN)

Application
EP 09153772 A 20040419

Priority
• EP 04252290 A 20040419
• JP 2003154744 A 20030530
• JP 2003192968 A 20030707

Abstract (en)
A speaker (100, 700, 100A, 100B) includes a magnet main body (210, 810, 210A, 210B) and a yoke (220, 230, 820, 830, 220A, 220B, 230A, 230B) magnetically linked to a first magnetic pole of the magnet main body. The speaker also includes a diaphragm (400, 400A, 400B) having a vibratory section (410, 410A, 410B), an edge section (430, 430A, 430B), and a rising section (420, 420A, 420B) between the vibratory section and the edge section. A magnetic body (300, 900, 300A, 300B) of the speaker is magnetically linked to the yoke, facing the magnet main body and a voice coil (500, 500A, 500B) is wound around the rising section of the diaphragm. The magnetic body includes an inner shell (330, 330A, 330B), an outer shell (310, 310A, 310B) and a bridge section (320, 320A, 320B) between the inner shell and the outer shell to cover the edge section of the diaphragm. The inner shell of the magnetic body extends from the bridge section along the rising section and the vibratory section of the diaphragm within the inner shell. A magnetic gap (G) is formed between the inner shell of the magnetic body and the magnet main body and the rising section passes through the magnetic gap.

IPC 8 full level
H04R 9/02 (2006.01); **H04R 1/00** (2006.01); **H04R 7/12** (2006.01); **H04R 9/00** (2006.01); **H04R 9/06** (2006.01); **H04R 31/00** (2006.01); **H04R 9/04** (2006.01)

CPC (source: EP)
H04R 9/025 (2013.01); **H04R 7/22** (2013.01); **H04R 9/045** (2013.01); **H04R 31/00** (2013.01); **H04R 2400/03** (2013.01); **H04R 2499/11** (2013.01)

Citation (applicant)
• JP S5853299 A 19830329 - SEIKO INSTR & ELECTRONICS
• US 4317965 A 19820302 - TOYODA MITSURU

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
EP 1482762 A2 20041201; **EP 1482762 A3 20060125**; CN 1575040 A 20050202; EP 2056623 A2 20090506; EP 2056623 A3 20090701; EP 2056623 B1 20110525; JP 2005051283 A 20050224; JP 4219225 B2 20090204

DOCDB simple family (application)
EP 04252290 A 20040419; CN 200410046216 A 20040531; EP 09153772 A 20040419; JP 2003192968 A 20030707