

Title (en)
DRIVE UNIT FOR A LOUDSPEAKER

Title (de)
ANTRIEBSEINHEIT FÜR EINEN LAUTSPRECHER

Title (fr)
UNITÉ DE COMMANDE POUR UN HAUT-PARLEUR

Publication
EP 4120694 A1 20230118 (EN)

Application
EP 21186045 A 20210716

Priority
EP 21186045 A 20210716

Abstract (en)
A drive unit (200) for a loudspeaker (100) comprises a first magnet (210) and a second magnet (220) arranged along a longitudinal axis (201) of the drive unit (200) with a gap (230) between the first and second magnets (210, 220). Each magnet of the first and second magnets (210, 220) has, along the longitudinal axis (201), a first end (211, 221) with a first magnetic polarity (N) and an opposing second end (212, 222) with a second magnetic polarity (S). The first and second polarities being different. At the gap (230), the first end (211) of the first magnet (210) faces the first end (221) of the second magnet (220). The drive unit (200) comprises a voice coil (240) movable along the longitudinal axis (201) and positionable at least between the first end (211) of the first magnet (210) and the first end (221) of the second magnet (220), and at least one additional magnetic member (250, 260, 291, 295) providing at least one additional magnetic pole located at a radial distance (253) to the longitudinal axis (201) greater than a radial distance (246) of the voice coil (240) to the longitudinal axis (201). The at least one additional magnetic pole has the second magnetic polarity (S).

IPC 8 full level
H04R 9/02 (2006.01); **H04R 9/06** (2006.01)

CPC (source: EP)
H04R 9/025 (2013.01); **H04R 9/06** (2013.01)

Citation (search report)
• [X] US 2007147649 A1 20070628 - TAKASE TOMOYASU [JP], et al
• [Y] WO 2006082874 A1 20060810 - MATSUSHITA ELECTRIC IND CO LTD [JP], et al
• [Y] JP S5797797 A 19820617 - NIPPON TELEGRAPH & TELEPHONE
• [A] US 2009161905 A1 20090625 - KONUMA SINSUKE [JP], et al
• [A] US 2017280248 A1 20170928 - KUZE MITSUKAZU [JP], et al
• [X] MERIT BENOIT ET AL: "Magnet-Only Loudspeaker Magnetic Circuits: A Solution for Significantly Lower Current Distortion", JAES, AES, 60 EAST 42ND STREET, ROOM 2520 NEW YORK 10165-2520, USA, vol. 63, no. 6, 30 June 2015 (2015-06-30), pages 463 - 474, XP040672122, DOI: 10.17743/JAES.2015.0051

Designated contracting state (EPC)
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BA ME

Designated validation state (EPC)
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