

Title (en)

A front resonator for a speaker of a wireless device

Title (de)

Frontresonator für einen Lautsprecher einer drahtlosen Vorrichtung

Title (fr)

Résonateur avant pour haut-parleur de dispositif sans fil

Publication

EP 2595409 A3 20130807 (EN)

Application

EP 13154777 A 20090820

Priority

- EP 13154777 A 20090820
- EP 09168256 A 20090820

Abstract (en)

[origin: EP2288177A1] A front resonator (400) for a speaker (134) of a wireless device (100), comprising: an enclosure (410) mounted over the speaker (134) and forming with an upper surface (1100) of the speaker (134) a front volume (900) for the front resonator (400); and, a horizontal or approximately horizontal tube (910) formed or mounted on a surface (411) of the enclosure (410), the tube (910) coupled to the front volume (900), and the tube (910) having at least one end (430, 440) to emit sound generated by the speaker (134) and passing through the front volume (900) and tube (910) from the wireless device (100).

IPC 8 full level

H04R 1/28 (2006.01)

CPC (source: EP)

H04R 1/2842 (2013.01); **H04R 1/2849** (2013.01); **H04R 2499/11** (2013.01)

Citation (search report)

- [XI] US 6785395 B1 20040831 - ARNESON THEODORE R [US], et al
- [XDAI] US 2007147646 A1 20070628 - KLEIN ERICH [AT]
- [XI] US 2004198239 A1 20041007 - PATTERSON GREGORY S [US]
- [Y] US 2003100273 A1 20030529 - PEDERSEN PER [DK], et al
- [Y] US 6339649 B1 20020115 - CHEN WATERSON [TW], et al
- [A] US 2008268793 A1 20081030 - NELSON GLENN R [US], et al
- [XI] US 6658110 B1 20031202 - ANDERSEN MORTEN KJELDSEN [DK]
- [XI] EP 1865690 A1 20071212 - NEC CORP [JP]

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DOCDB simple family (publication)

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