

Title (en)

Hearing aid using an inductive switching regulator as a radio transmitter

Title (de)

Hörvorrichtung mit Nutzung eines induktiven Schaltreglers als Funksender

Title (fr)

Prothèse auditive utilisant un régulateur de commutation inductif en tant qu'émetteur radio

Publication

**EP 2053878 A3 20130327 (DE)**

Application

**EP 08164390 A 20080916**

Priority

- DE 102007051307 A 20071026
- US 98276907 P 20071026

Abstract (en)

[origin: EP2053878A2] The device has a transmitting device (16) including an antenna for wireless sending of electromagnetic data. A switching regulator (14) includes an inductor (15) for power supply of the device and the transmitting device. The inductor is identical with the antenna of the transmitting device, and includes a ring core, which is partially opened. Pulse width modulation, pulse frequency modulation or amplitude modulation is used in the switching regulator for the power supply, and frequency modulation or phase modulation is used in the transmitting device for data transmission.

IPC 8 full level

**H04R 25/00** (2006.01)

CPC (source: EP US)

**H04R 25/554** (2013.01 - EP US); **H04R 25/353** (2013.01 - EP US); **H04R 2225/61** (2013.01 - EP US)

Citation (search report)

- [Y] WO 2005081583 A1 20050901 - OTICON AS [DK], et al
- [Y] US 6265100 B1 20010724 - SAASKI ELRIC W [US], et al
- [Y] WO 8910030 A1 19891019 - UNISCAN LTD [AU], et al
- [Y] EP 0473569 A2 19920304 - MIKRON GES FUER INTEGRIERTE MI [AT]
- [A] EP 1389035 A2 20040211 - SIEMENS AUDIOLOGISCHE TECHNIK [DE]

Cited by

EP3151585A1; WO2013135307A1; US9426588B2; US10021495B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA MK RS

DOCDB simple family (publication)

**EP 2053878 A2 20090429; EP 2053878 A3 20130327; EP 2053878 B1 20140723**; DE 102007051307 A1 20090430;  
DE 102007051307 B4 20110217; DK 2053878 T3 20141020; US 2009110221 A1 20090430; US 8224003 B2 20120717

DOCDB simple family (application)

**EP 08164390 A 20080916**; DE 102007051307 A 20071026; DK 08164390 T 20080916; US 28805508 A 20081016