

Title (en)  
Electronic device with electret electro-acoustic transducer

Title (de)  
Elektronische Vorrichtung mit elektroakustischem Elektretwandler

Title (fr)  
Dispositif électronique avec transducteur électro-acoustique à électret

Publication  
**EP 2182737 A1 20100505 (EN)**

Application  
**EP 09169282 A 20090902**

Priority  
TW 97141921 A 20081031

Abstract (en)  
An electronic device is provided. The electronic device includes a housing and an electro-acoustic transducer disposed on the inner surface of the housing. The electro-acoustic transducer includes an electret diaphragm, a conductive plate and at least one spacer. The electret diaphragm is positioned on the inner surface of the housing and has a film body and an electrode layer. The film body has static charges and the electrode layer is formed on the lower surface of the film body. The conductive plate has a plurality of openings and is stacked on the upper surface of the film body. The spacer is positioned between the electret diaphragm and the conductive plate to keep a predetermined distance therebetween.

IPC 8 full level  
**H04R 19/01** (2006.01)

CPC (source: EP)  
**H04R 19/013** (2013.01); **H04R 2499/11** (2013.01)

Citation (applicant)  
• WO 2004062318 A1 20040722 - GORE W L & ASS GMBH [DE], et al  
• US 4160882 A 19790710 - DRIVER MICHAEL L  
• US 3084229 A 19630402 - SELSTED WALTER T, et al  
• US 3935397 A 19760127 - WEST ROGER A  
• JP 2008005439 A 20080110 - YAMAHA CORP

Citation (search report)  
• [XAY] WO 2004062318 A1 20040722 - GORE W L & ASS GMBH [DE], et al  
• [YA] US 4160882 A 19790710 - DRIVER MICHAEL L  
• [YA] US 3084229 A 19630402 - SELSTED WALTER T, et al  
• [Y] US 3935397 A 19760127 - WEST ROGER A  
• [X] JP 2008005439 A 20080110 - YAMAHA CORP  
• [PA] US 2009060233 A1 20090305 - LIOU CHANG-HO [TW], et al  
• [PA] US 2009060234 A1 20090305 - LIOU CHANG-HO [TW], et al

Cited by  
DE102011050924B4; US8472650B2; US8379890B2; US8243965B2; US11228844B2; WO2018213781A1; WO2014188297A1; EP2178311B1

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 MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)  
AL BA RS

DOCDB simple family (publication)  
**EP 2182737 A1 20100505; EP 2182737 B1 20140305**; EP 2369855 A2 20110928; EP 2369855 A3 20120404; EP 2369855 B1 20140507; JP 2010109979 A 20100513; JP 5054749 B2 20121024; TW 201018252 A 20100501; TW I454156 B 20140921

DOCDB simple family (application)  
**EP 09169282 A 20090902**; EP 11162045 A 20090902; JP 2009241546 A 20091020; TW 97141921 A 20081031