

Title (en)
ULTRASONIC PROBE HAVING HEAT SINK

Title (de)
ULTRASCHALLSONDE MIT KÜHLKÖRPER

Title (fr)
SONDE ULTRASONIQUE AVEC DISSIPATEUR THERMIQUE

Publication
EP 2309930 A4 20111005 (EN)

Application
EP 09800515 A 20090706

Priority
• KR 2009003677 W 20090706
• KR 20080071290 A 20080722

Abstract (en)
[origin: WO2010011034A1] The present invention provides an ultrasonic probe which includes a heat sink (150) provided in a rear layer (140) to dissipate heat. The heat sink is coupled to a rear surface (141) of the rear layer such that contact area there between are increased. The heat sink includes a plurality of heat conductive protrusions (151) on one surface thereof. The heat conductive protrusions are inserted into respective heat conductive depressions (142) formed in the rear layer. Each heat conductive depression has a shape corresponding to the respective heat conductive protrusion. Preferably, each heat conductive protrusion has a bar shape.

IPC 8 full level
A61B 8/00 (2006.01)

CPC (source: EP KR US)
A61B 8/00 (2013.01 - EP US); **A61B 8/4483** (2013.01 - EP US); **A61B 8/546** (2013.01 - EP US); **G01N 29/00** (2013.01 - KR); **G01N 29/24** (2013.01 - KR); **G10K 11/004** (2013.01 - EP US)

Citation (search report)
• [X] EP 0727259 A2 19960821 - HEWLETT PACKARD CO [US]
• [X] EP 0782125 A2 19970702 - GEN ELECTRIC [US]
• [X] US 2004002655 A1 20040101 - BOLORFOROSH MIRSAID S [US], et al
• [X] US 5545942 A 19960813 - JASTER HEINZ [US], et al
• See references of WO 2010011034A1

Citation (examination)
EP 1671588 A1 20060621 - MATSUSHITA ELECTRIC IND CO LTD [JP]

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

DOCDB simple family (publication)
WO 2010011034 A1 20100128; CN 102098965 A 20110615; EP 2309930 A1 20110420; EP 2309930 A4 20111005; JP 2011528929 A 20111201; KR 101018626 B1 20110303; KR 20100010358 A 20100201; US 2011114303 A1 20110519

DOCDB simple family (application)
KR 2009003677 W 20090706; CN 200980128512 A 20090706; EP 09800515 A 20090706; JP 2011519975 A 20090706; KR 20080071290 A 20080722; US 200913054092 A 20090706