

Title (en)

THERMAL REGULATION PASSIVE DEVICE WITH FLUID MICRO LOOP AND CAPILLARY PUMPING

Title (de)

PASSIVE WÄRMEREGLERVORRICHTUNG MIT FLÜSSIGKEITSMIKROKREISLAUF UND KAPILLARPUMPUNG

Title (fr)

DISPOSITIF PASSIF DE REGULATION THERMIQUE A MICRO BOUCLE FLUIDE A POMPAGE CAPILLAIRE

Publication

**EP 2181301 B1 20120912 (FR)**

Application

**EP 08826914 A 20080711**

Priority

- FR 2008051326 W 20080711
- FR 0705769 A 20070808

Abstract (en)

[origin: WO2009019380A1] The device (20) includes an evaporator (22) and a condenser (28) connected by an outer tube (21) in which extends at least one inner tube (31) having one end leading into the condenser (28) and another end connected to an end of a central duct (25) for collecting the vapours of a heat-carrier fluid, in a microporous mass (23) provided in the outer tube (21) and pumping by capillarity the liquid-phase fluid flowing in at least one outer duct (34) between the outer (21) and inner (31) tubes from the condenser (28) to the evaporator (22), while the vapour-phase fluid flows from the evaporator (22) to the condenser (28) in at least one inner duct (35) inside said at least one inner tube (31). The invention can be used for the thermal energy transfer from an electronic component or circuit in relation with the evaporator (22) to a cold source (30) in relation with the condenser (28).

IPC 8 full level

**F28D 15/04** (2006.01)

CPC (source: EP US)

**F28D 15/043** (2013.01 - EP US)

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

DOCDB simple family (publication)

**WO 2009019380 A1 20090212**; EP 2181301 A1 20100505; EP 2181301 B1 20120912; ES 2394053 T3 20130116; FR 2919922 A1 20090213; FR 2919922 B1 20091030; US 2010263836 A1 20101021

DOCDB simple family (application)

**FR 2008051326 W 20080711**; EP 08826914 A 20080711; ES 08826914 T 20080711; FR 0705769 A 20070808; US 70096610 A 20100205