

Title (en)  
MULTI-LAYER PRINTED CIRCUIT BOARD HAVING A PRINTED COIL AND METHOD FOR THE PRODUCTION THEREOF

Title (de)  
MULTILAYER-PLATINE MIT GEDRUCKTER SPULE UND VERFAHREN ZU DEREN HERSTELLUNG

Title (fr)  
CARTE DE CIRCUITS IMPRIMÉS MULTICOUCHE À BOBINES IMPRIMÉES ET PROCÉDÉ DE FABRICATION DE LADITE CARTE

Publication  
**EP 3375261 A1 20180919 (DE)**

Application  
**EP 16810237 A 20161109**

Priority  

- DE 102015222400 A 20151113
- DE 2016200512 W 20161109

Abstract (en)  
[origin: WO2017080554A1] The invention relates to a multi-layer printed circuit board, comprising vertically superimposed flat coils (1-6) which are electrically connected in series or in parallel to form a first solenoid coil (20). In order to improve the heat dissipation of the multi-layer printed circuit board, it is proposed that in each case two vertically adjacent flat coils (1,2) are arranged laterally offset relative to each other in such a manner that conductor track sections (26) of one flat coil (2) are arranged vertically in a partial overlap with two conductor track sections (7) of the other flat coil (1) in a cross section (8) perpendicular to the surface of the multi-layer printed circuit board.

IPC 8 full level  
**H05K 1/02** (2006.01); **H01F 27/08** (2006.01); **H01F 27/28** (2006.01); **H05K 1/16** (2006.01)

CPC (source: CN EP US)  
**H01F 27/2804** (2013.01 - CN EP US); **H01F 27/2876** (2013.01 - CN EP US); **H01F 41/041** (2013.01 - CN US); **H02K 33/18** (2013.01 - CN US);  
**H05K 1/0204** (2013.01 - CN EP US); **H05K 1/0206** (2013.01 - CN EP US); **H05K 1/0207** (2013.01 - CN EP US); **H05K 1/0298** (2013.01 - CN);  
**H05K 1/165** (2013.01 - CN EP US); **H05K 3/429** (2013.01 - CN US); **H01F 2027/2809** (2013.01 - CN US); **H05K 1/0298** (2013.01 - EP US);  
**H05K 2201/066** (2013.01 - CN US); **H05K 2201/09227** (2013.01 - CN US); **H05K 2201/09672** (2013.01 - CN EP US);  
**H05K 2201/09709** (2013.01 - CN EP US); **H05K 2201/09781** (2013.01 - CN EP US)

Citation (search report)  
See references of WO 2017080554A1

Designated contracting state (EPC)  
AL 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 RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**WO 2017080554 A1 20170518**; CN 108353494 A 20180731; CN 108353494 B 20210709; CN 113490325 A 20211008;  
DE 102015222400 A1 20170608; EP 3375261 A1 20180919; US 10638596 B2 20200428; US 2018317313 A1 20181101

DOCDB simple family (application)  
**DE 2016200512 W 20161109**; CN 201680062506 A 20161109; CN 202110589978 A 20161109; DE 102015222400 A 20151113;  
EP 16810237 A 20161109; US 201615770504 A 20161109