

Title (en)  
METHOD AND STRUCTURES FOR ENHANCED TEMPERATURE CONTROL OF HIGH POWER COMPONENTS ON MULTILAYER LTCC AND LTCC-M BOARDS

Title (de)  
VERFAHREN UND STRUKTUREN ZUR ERWEITERTEN TEMPERATURREGELUNG VON HOCHLEISTUNGSKOMPONENTEN AUF MEHRSCICHTIGEN LTCC- UND LTCC-M-LEITERPLATTEN

Title (fr)  
PROCEDE ET STRUCTURE POUR AMELIORER LA REGULATION DE LA TEMPERATURE DE COMPOSANTS A GRANDE PUISSANCE SUR DES CARTES LTCC OU LTCC-M

Publication  
**EP 1568070 A4 20080507 (EN)**

Application  
**EP 03783173 A 20031106**

Priority  
• US 0335317 W 20031106  
• US 42559902 P 20021112

Abstract (en)  
[origin: WO2004045016A2] A multilayer ceramic circuit board comprises a core of high conductivity material such as metal and an overlying layer of electrically insulating ceramic having an outer surface. In accordance with the invention, a circuit board for receiving a high power component is provided with a thermal spreading layer on or near the outer surface and one or more thermal vias through the ceramic to thermally couple the spreading layer to the core. The vias and the spreading layer comprise electrically insulating thermally conductive materials. The resulting structure provides rapid heat dissipation for a high power component formed or mounted on or near the spreading layer.

IPC 8 full level  
**H01L 23/367** (2006.01); **H05K 1/02** (2006.01); **H05K 1/05** (2006.01); **H05K 1/16** (2006.01); **H05K 3/40** (2006.01); **H05K 3/46** (2006.01)

CPC (source: EP KR)  
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**H01L 2924/0002 + H01L 2924/00**

Citation (search report)  
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• See references of WO 2004045016A2

Designated contracting state (EPC)  
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DOCDB simple family (publication)  
**WO 2004045016 A2 20040527; WO 2004045016 A3 20050707**; AU 2003291243 A1 20040603; AU 2003291243 A8 20040603; EP 1568070 A2 20050831; EP 1568070 A4 20080507; JP 2006506810 A 20060223; KR 20050086589 A 20050830

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