

Title (en)

CERAMIC MULTILAYER PRINTED CIRCUIT BOARDS WITH EMBEDDED PASSIVE COMPONENTS

Title (de)

KERAMISCHE MEHRSCHICHTIGE GEDRUCKTE SCHALTUNGSPLATTEN MIT EINGEBETTETEN PASSIVEN BAUTEILEN

Title (fr)

PLAQUETTES DE CIRCUITS IMPRIMES EN CERAMIQUE MULTICOUCHE A COMPOSANTS PASSIFS ENCASTRES

Publication

EP 1016106 A4 20071212 (EN)

Application

EP 98910019 A 19980303

Priority

- US 9803270 W 19980303
- US 81215197 A 19970306
- US 81217297 A 19970306
- US 81283297 A 19970306
- US 3174598 A 19980227

Abstract (en)

[origin: WO9839784A1] Passive components such as capacitors, resistors, and RF filters can be made by screen printing suitable inks onto green tapes, completed with conductive layers (14, 15) below and above the component ink layers. The resultant green tape stack is then fired to form embedded capacitors. By laminating the green tape stack onto metal support board substrate, shrinkage in the x and y dimensions is limited and the components can maintain close tolerances. When many green tape layers are to be stacked, improved shrinkage is obtained when green tapes having a moderate amount of oxide fillers, e.g., less than about 15 % by weight of the green tape composition, are interleaved with green tape having higher amounts, e.g., above 25 % by weight, of oxide fillers.

IPC 1-7

H05K 3/46; **H05K 1/16**; **H01G 4/12**; **H01G 4/33**; **H01C 17/065**; **H05K 1/05**; **H01L 23/14**; **H01L 23/64**; **H01C 7/00**

IPC 8 full level

H01C 7/00 (2006.01); **H01C 13/02** (2006.01); **H01C 17/30** (2006.01); **H01G 4/12** (2006.01); **H01G 4/33** (2006.01); **H01G 4/40** (2006.01); **H01L 23/12** (2006.01); **H01L 23/64** (2006.01); **H05K 1/03** (2006.01); **H05K 1/05** (2006.01); **H05K 1/16** (2006.01); **H05K 3/46** (2006.01); **H05K 1/09** (2006.01)

CPC (source: EP KR)

C03C 8/14 (2013.01 - EP); **C03C 8/22** (2013.01 - EP); **H01C 7/003** (2013.01 - EP); **H01C 13/02** (2013.01 - EP); **H01C 17/30** (2013.01 - EP); **H01G 4/06** (2013.01 - KR); **H01L 23/64** (2013.01 - EP); **H05K 1/162** (2013.01 - EP); **H05K 1/167** (2013.01 - EP); **H01L 24/48** (2013.01 - EP); **H01L 2224/48091** (2013.01 - EP); **H01L 2224/48227** (2013.01 - EP); **H01L 2924/00014** (2013.01 - EP); **H01L 2924/01012** (2013.01 - EP); **H01L 2924/01019** (2013.01 - EP); **H01L 2924/0102** (2013.01 - EP); **H01L 2924/01039** (2013.01 - EP); **H01L 2924/01046** (2013.01 - EP); **H01L 2924/01077** (2013.01 - EP); **H01L 2924/01079** (2013.01 - EP); **H01L 2924/09701** (2013.01 - EP); **H01L 2924/19041** (2013.01 - EP); **H05K 1/0306** (2013.01 - EP); **H05K 1/092** (2013.01 - EP); **H05K 3/0061** (2013.01 - EP); **H05K 3/4611** (2013.01 - EP); **H05K 3/4629** (2013.01 - EP); **H05K 3/4688** (2013.01 - EP)

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