

(21) Application No: 1021002.9
(22) Date of Filing: 11.05.2009
(30) Priority Data:
(31) 20085443 (32) 12.05.2008 (33) FI
(86) International Application Data:
PCT/FI2009/050383 Fi 11.05.2009
(87) International Publication Data:
WO2009/138560 En 19.11.2009

(51) INT CL:
H01L 23/538 (2006.01) H01L 23/00 (2006.01)
H05K 1/18 (2006.01)
(56) Documents Cited by ISA:
EP 1259103 A EP 0380289 A
WO 2006/056643 A US 6396148 B1
US 4246595 A
(58) Field of Search by ISA:
INT CL H01L
Other: EPO-Internal

(71) Applicant(s):
Imbera Electronics Oy
(Incorporated in Finland)
Ruukintie 2, Espoo FI-02330, Finland
(72) Inventor(s):
Petteri Palm
Risto Tuominen
Antti Iihola
(74) Agent and/or Address for Service:
Keltie
Fleet Place House, 2 Fleet Place, LONDON,
EC4M 7ET, United Kingdom

(54) Title of the Invention: **Circuit module and method of manufacturing the same**
Abstract Title: **Circuit module and method of manufacturing the same**

(57) Manufacturing method and circuit module, which comprises an insulator layer (1) and, inside the insulator layer (1), at least one component (6), which comprises contact areas (7), the material of which contains a first metal. On the surface of the insulator layer (1) are conductors (22), which comprise at least a first layer (12) and a second layer (32), in such a way that at least the second layer (32) contains a second metal. The circuit module comprises contact elements between the contact areas (7) and the conductors (22) for forming electrical contacts. The contact elements, for their part, comprise, on the surface of the material of the contact area (7), an intermediate layer (2), which contains a third metal, in such a way that the first, second, and third metals are different metals and the contact surface area (A_{CONTI}), between the intermediate layer (2) and the contact area (7) is less than the surface area (A_{PAD}) of the contact area (7).

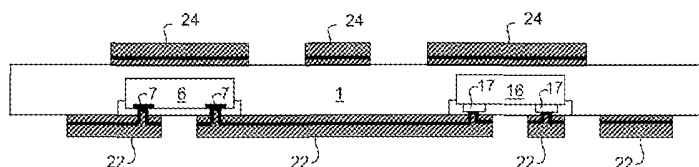


Fig. 8