

Title (en)

Circuit board stack with novel cross-over cells.

Title (de)

Leiterplattenstapel mit neuen cross-over-Zellen.

Title (fr)

Empilement de circuits imprimés avec interconnexions crasées.

Publication

**EP 0558855 A2 19930908 (EN)**

Application

**EP 92311248 A 19921210**

Priority

US 84409992 A 19920302

Abstract (en)

Two substrates 11, 13 are mounted on opposite sides of a structural frame 12. On the exterior side of each substrate are mounted one or more discrete clusters of chips 22. The frame includes interior passages through which cooling fluid is conducted. The frame also includes an array of cross-over cell cavities 16, each being aligned with a corresponding cross-over cell pad array on the adjacent substrate. Slugs of elastomeric one-directional conductive material are placed in each cavity. The slugs nominally are substantially the same volume as the cavity; but until compressed fit only loosely in the cavity. The two substrates are mated, which compresses the elastomeric material a predetermined amount. The slugs expand to fill and firmly lodge in their cavities, and make vertical electrical connection to the pad arrays. The result is an assembly of two (or more) multi-chip module boards with internal cross-over cells which are sealed from contaminant and stabilized in their electrical conductivity by the close control over compressive forces and internal temperatures made possible by the invention. <IMAGE>

IPC 1-7

**H05K 1/14**

IPC 8 full level

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CPC (source: EP)

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Cited by

US7286365B2; US6080596A; EP0889678A1; US5891761A; CN113178421A; US6124633A; US5657206A; US5661087A; US5675180A; US5837566A; US5675397A; GB2290159B; US5698895A; US6188126B1; US6255726B1; US6183272B1; US6486528B1; WO02065588A1; US6969622B1; US7323712B2

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