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FLIP CHIP ATTACH ON FLEXIBLE CIRCUIT CARRIER USING CHIP WITH METALLIC CAP ON SOLDER

ABSTRACT

A structure and method is disclosed for directly attaching a device or package (42) on flexible organic circuit (23) carriers having low cost and high reliability.

IC chips (42) with a new solder interconnect structure, comprised of a layer (43) of pure tin, deposited on the top of high melting Pb- Sn solder balls (41) are employed for joining.

These methods, techniques and metallurgical structures enables direct attachment of electronic devices of any complexity to any substrate and to any level of packaging hierarchy.

Also, devices or packages having other joining technologies, eg. SMT, BGA, TBGA, etc. could be joined onto the flexible circuit carrier.

Fig. 7

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