

METHOD OF MANUFACTURING INTEGRATED CIRCUIT MODULES

ABSTRACT OF THE DISCLOSURE

A method of manufacturing IC modules is provided. This method involves the use of the advanced chip-array package technique that can allow the resultant IC modules to be made compact and help reduce the complexity of the overall manufacturing process for the IC modules. The manufacturing cost of the IC modules can thus be significantly reduced. This method includes a first step of preparing a printed circuit board; a second step of mounting a plurality of IC chips on the printed circuit board; a third step of performing a wire bonding process; a fourth step of performing an encapsulation process so as to coat an encapsulation layer over the entire top surface of the printed circuit board, covering all of the IC chips and associated bonding wires; a fifth step of performing a photolithographic and etching process for selective removal of the encapsulation layer; and a sixth step of mounting an assembly of auxiliary circuit elements on the exposed areas on the printed circuit board. Moreover, the method includes the steps of performing a pre-cut testing process on the IC modules; then cutting the IC modules apart from the printed circuit board; and finally performing a post-cut module testing process on the cut-apart IC modules.

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[FIG. 4]