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(12) **United States Patent**
Lee et al.

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(45) **Date of Patent:** **Oct. 16, 2007**

(54) **METHOD OF FABRICATING RIGID-FLEXIBLE PRINTED CIRCUIT BOARD**

(58) **Field of Classification Search** 29/846, 29/847, 852; 174/262, 254, 255; 427/97.1, 427/97.7

See application file for complete search history.

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(57) **ABSTRACT**

The present invention is related to a method of fabricating a rigid-flexible printed circuit board. Specifically, this invention relates to a method of fabricating a rigid-flexible printed circuit board, in which an internal circuit pattern exposed for use in an external pad and a mounting pad is protected from external environments using a resist cover by window etching the base copper foil of a flexible region upon formation of an external circuit pattern as opposed to using a resist cover. Thus the number of fabrication processes and the fabrication costs are decreased and the increase in defect rates due to contamination is prevented, resulting in maximized reliability.

(21) Appl. No.: **11/253,973**

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(65) **Prior Publication Data**

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(30) **Foreign Application Priority Data**

Oct. 28, 2004 (KR) 10-2004-0086731

(51) **Int. Cl.**
H01K 3/10 (2006.01)

(52) **U.S. Cl.** **29/852; 29/846; 29/847; 174/254; 174/262; 427/97.1; 427/97.7**

5 Claims, 7 Drawing Sheets

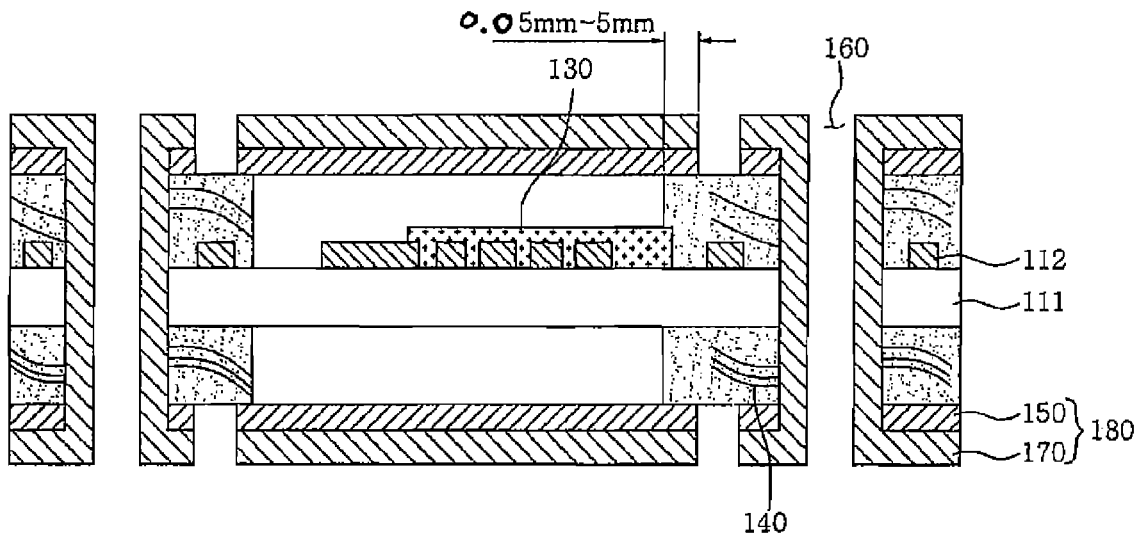


FIG. 1A
Prior Art

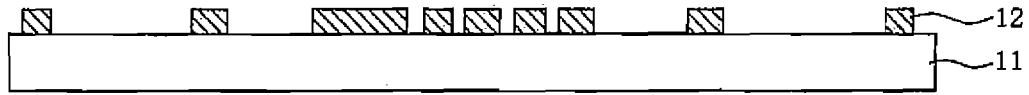


FIG. 1B
Prior Art

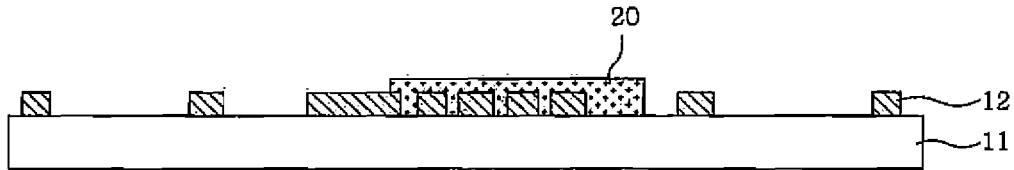


FIG. 1C
Prior Art

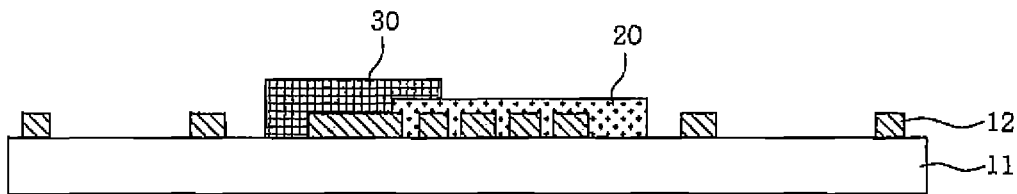


FIG. 1D
Prior Art

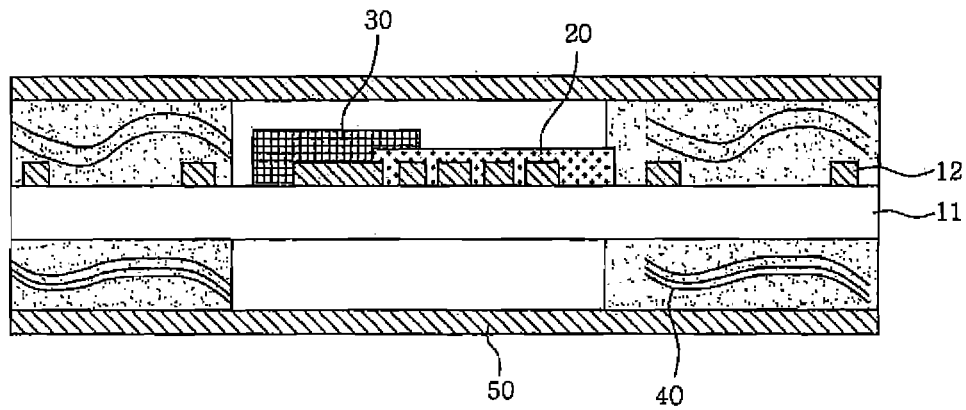


FIG. 1E
Prior Art

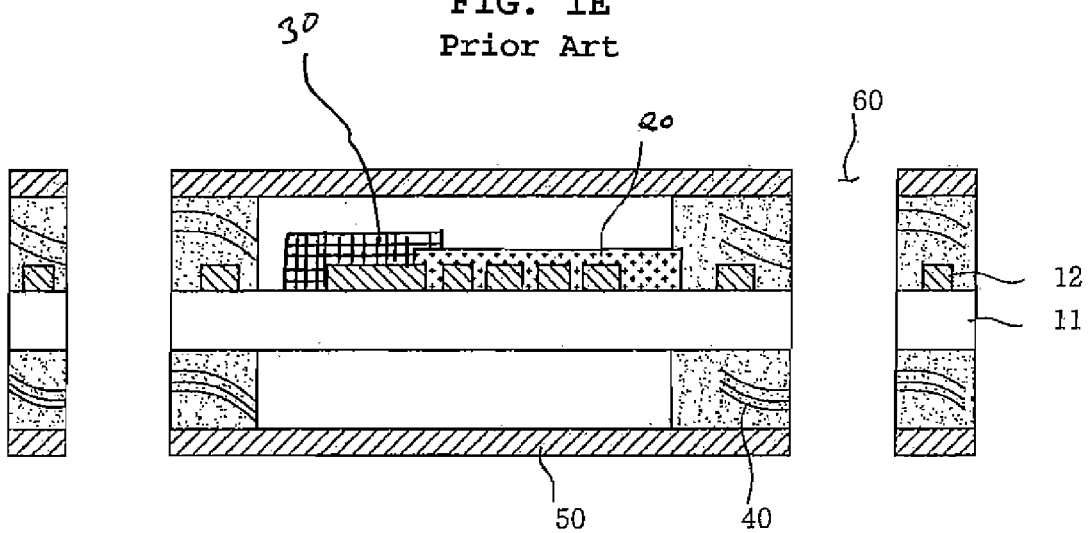


FIG. 1F
Prior Art

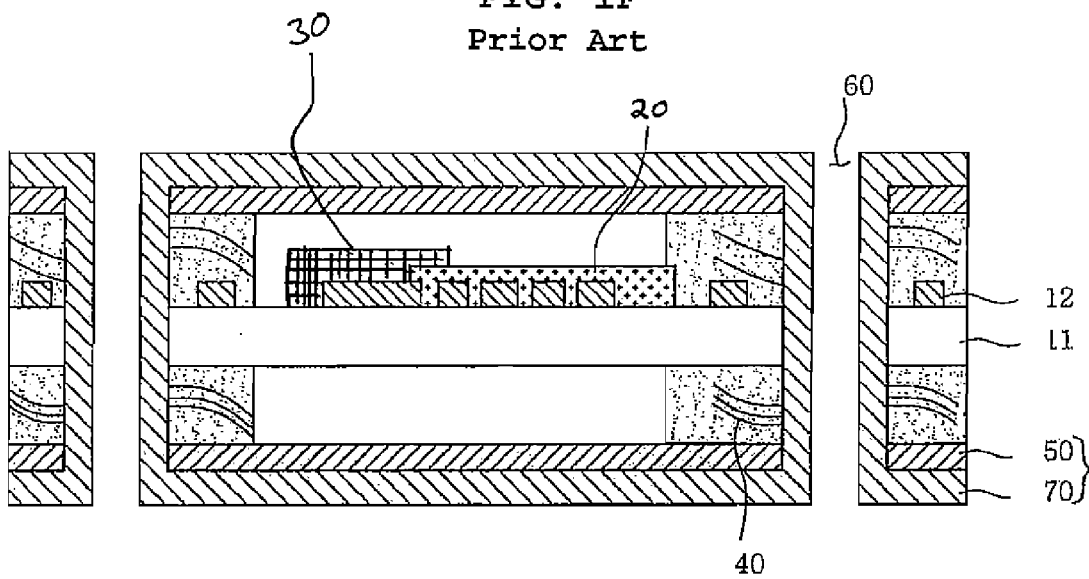


FIG. 1G
Prior Art

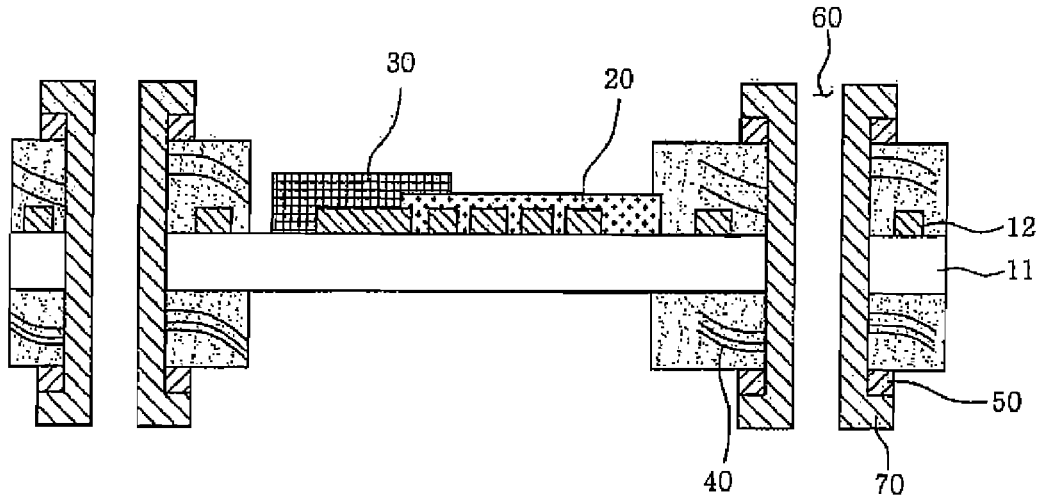


FIG. 1H
Prior Art

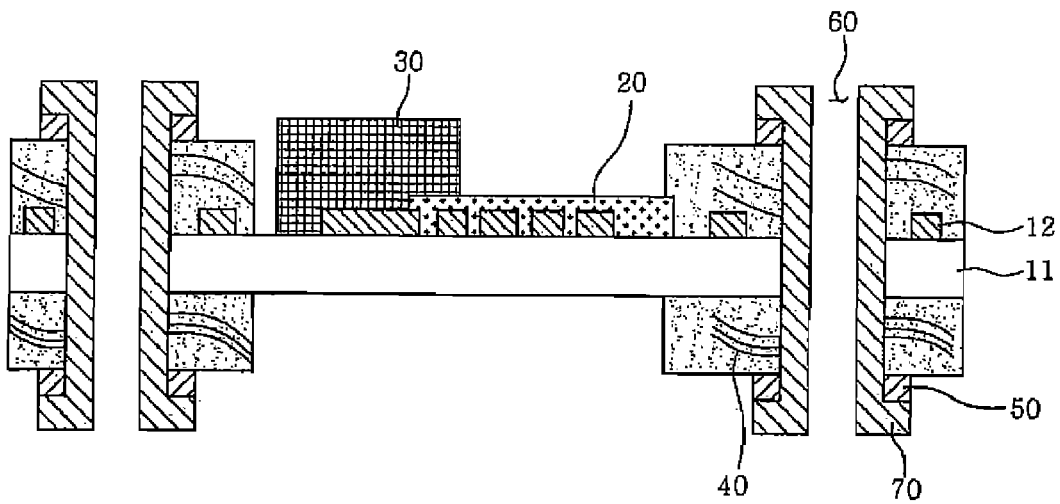


FIG. 1I
Prior Art

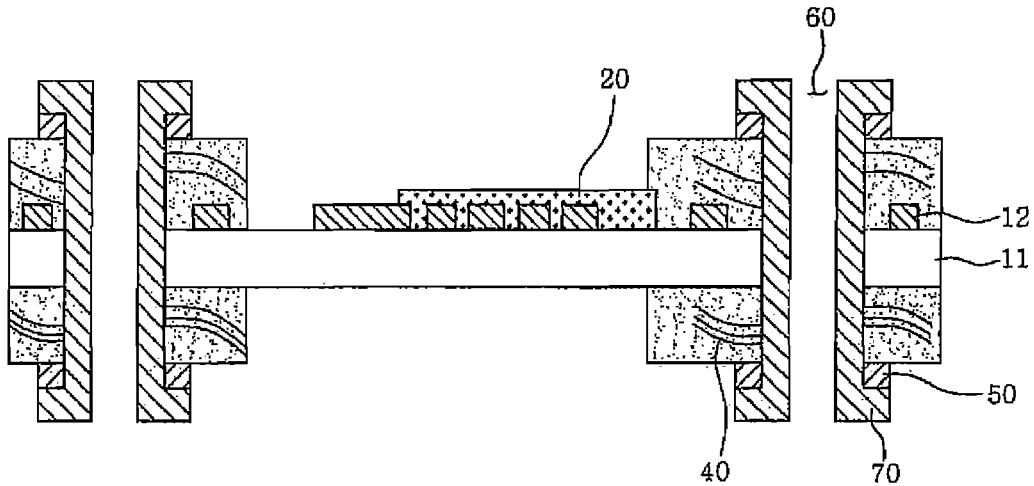


FIG. 2A

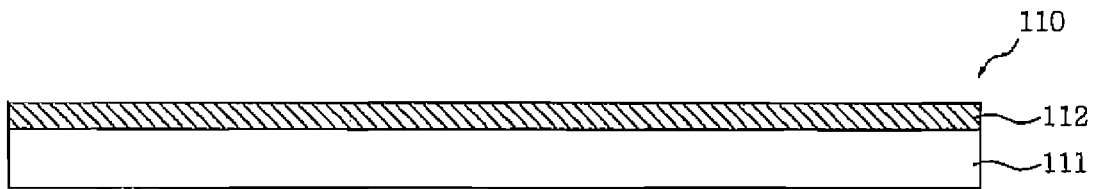


FIG. 2B

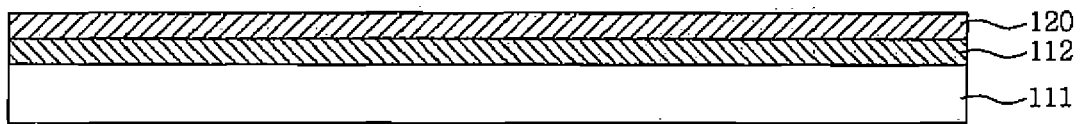


FIG. 2C

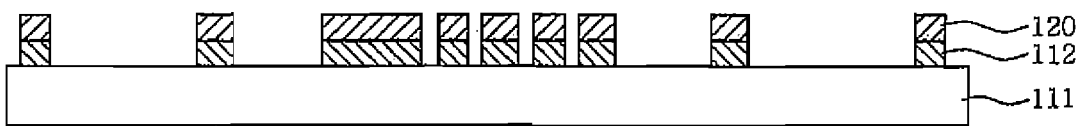
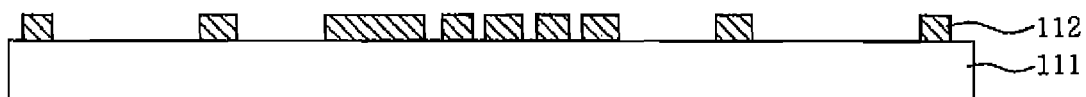


FIG. 2D



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