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(54) Title: USE OF METALLIC TREATMENT ON COPPER FOIL TO PRODUCE FINE LINES AND REPLACE OXIDE
PROCESS IN PRINTED CIRCUIT BOARD PRODUCTION

(57) Abstract: The invention relates to the manufacture of printed circuit boards having enhanced etch uniformity and resolution. The process eliminates the need for a black oxide treatment to improve adhesion and improves the ability to optically inspect the printed circuit boards. The process is performed by conducting steps (a) and (b) in either order: a) depositing a first surface of an electrically conductive layer onto a substrate, which electrically conductive layer has a roughened second surface opposite to the first surface. b) depositing a thin metal layer onto the roughened second surface of the electrically conductive layer, which metal layer comprises a material having a different etch resistance property than that of the electrically conductive layer. Thereafter one deposits a photoresist onto the metal layer, imagewise exposes and develops the photoresist, thereby revealing underlying portions of the metal layer. The one removes the revealed underlying portions of the metal layer, thereby revealing underlying portions of the conductive layer and removes the revealed underlying portions of the conductive layer, to thereby produce a printed circuit layer.

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