METHOD FOR PREPARING A CONDUCTIVE PAD FOR ELECTRICAL CONNECTION AND CONDUCTIVE PAD FORMED

ABSTRACT

A method for preparing a copper pad surface (14) for electrical connection that has superior diffusion barrier and adhesion properties is provided. The copper pad surface (14) is first provided that has been cleaned by an acid solution, a protection layer (16) of a phosphorus or boron-containing metal alloy is then deposited on the copper pad surface (14), and then an adhesion layer (18) of a nobel metal is deposited on top of the protection layer. The present invention futher discloses a conductive pad (12) for forming an electrical connection thereon which includes a copper pad surface (14), a protection layer (16) of a phosphorus or boron-containing metal alloy, an adhesion layer (18) of a noble metal deposited on top of the protection layer. The present invention is futher directed to an electrical structure which includes theconductive pad(12) with an elcetrical connnection integrally formed with and on top of the adhesion layer.

Figure 1.