CAP ATTACH SURFACE MODIFICATION FOR IMPROVED ADHESION

ABSTRACT

There is disclosed an electronic structure which may be joined to a electronic assembly, such as a chip (50), by use of a structural epoxy adhesive. The electronic structure includes a mineral layer (20) on a metallic plate (10), and an adhesion promoter layer (30) on the mineral layer. The metallic plate includes a metallic substance that includes a pure metal with or without a metal coating. The metallic substance may include such substances as stainless steel, aluminium, titanium, copper, copper coated with nickel, and copper coated with chrome. The mineral layer includes a chemical compound derived from a mineral; eg., silicon dioxide (SiO_2) derived from quartz. Such chemical compounds may include such substances as silicon dioxide, silicon nitride, and silicon carbide. The chemical compound may exist in either crystalline or amorphous form. The adhesion promoter may include such chemical substances as silanes, titanates, zirconates, and aluminates.

FIG 4