ABSTRACT

AMETHOD OF FABRICATING COPPER METAL BUMPS FOR FLIP-CHIP OR CHIP-ON-BOARD IC BONDING ON TERMINATING COPPER PADS

A semiconductor chip having an exposed metal terminating pad thereover, and a separate substrate having a corresponding exposed metal track thereover are provided. A metal bump is formed over the exposed metal terminating pad. A photosensitive resin plug is formed over the metal bump. The metal bump of the semiconductor chip is aligned with the corresponding metal track on the separate substrate. The photosensitive resin plug over the metal bump is mated with the corresponding the metal track. The photosensitive resin plug is exposed to UV light to cure the photosensitive resin plug, permanently attaching the metal bump of the semiconductor chip to the corresponding metal track of the separate substrate.

Figure 4