Abstract

SEMICONDUCTOR SUBSTRATE AND METHOD OF FORMING CONFORMAL SOLDER WET-ENHANCEMENT LAYER ON BUMP-ON-LEAD SITE

A semiconductor substrate includes a first conductive layer formed over the semiconductor substrate. The first conductive layer has first and second portions which are electrically isolated during formation of the first conductive layer. A solder resist layer is formed over the first conductive layer and semiconductor substrate. An opening is formed in the solder resist layer to expose the first conductive layer. A seed layer is formed over the semiconductor substrate and first conductive layer within the opening. A second conductive layer is formed over the seed layer within the opening. The opening may expose the second portion of the first conductive layer due to solder resist registration shifting causing a defect condition. The second conductive layer electrically contacts the first and second portions of the first conductive layer. By testing the first and second portions of the first conductive layer, the defect condition can be identified.

(Figure 5e)