Abstract

SEMICONDUCTOR PACKAGE AND METHOD OF REDUCING ELECTROMAGNETIC INTERFERENCE BETWEEN DEVICES

A wafer level semiconductor package has a substrate and an RF module and baseband module coupled to the substrate with solder bumps. An underfill material is disposed under the RF module and baseband module. A first shielding layer is applied to a first surface of the substrate. A seed layer is deposited on the substrate and RF module and baseband module. A second shielding layer is plated over the seed layer, except over the contact pads on the substrate. The second shielding layer can be made from copper, gold, nickel, or aluminum. The first and second shielding layers substantially cover the wafer level semiconductor package to isolate the baseband module from electromagnetic interference generated by the RF module. The first and second shielding layers are grounded through the substrate. (Fig. 2c)