Abstract

SEMICONDUCTOR DEVICE AND METHOD OF FORMING IPD IN FAN-OUT WAFER LEVEL CHIP SCALE PACKAGE

A semiconductor wafer contains semiconductor die. A first conductive layer is formed over the die. A resistive layer is formed over the die and first conductive layer. A first insulating layer is formed over the die and resistive layer. The wafer is singulated to separate the die. The die is mounted to a temporary carrier. An encapsulant is deposited over the die and carrier. The carrier and a portion of the encapsulant and first insulating layer is removed. A second insulating layer is formed over the encapsulant and first insulating layer. A second conductive layer is formed over the first and second insulating layers. A third insulating layer is formed over the second insulating layer and second conductive layer. A third conductive layer is formed over the third insulating layer and second conductive layer. A fourth insulating layer is formed over the third insulating layer and third conductive layer. (Fig. 3m)