

ULTRATHIN BURIED DIE MODULE AND METHOD OF MANUFACTURING THEREOF

ABSTRACT

A method of forming a buried die module includes providing an initial laminate flex layer and forming a die opening through the initial laminate flex layer. A first uncut laminate flex layer is secured to the first surface of the initial laminate flex layer by way of an adhesive material and a die is positioned within the die opening of the initial laminate flex layer and onto the adhesive material. A second uncut laminate flex layer is secured to the second surface of the initial laminate flex layer by way of an adhesive material and the adhesive material between the first uncut laminate flex layer and the initial laminate flex layer and between the second uncut laminate flex layer and the initial laminate flex layer is cured. A plurality of vias metal interconnects are formed in and on the first and second uncut laminate flex layers, with each of the metal interconnects extending through a respective via and being directly metalized to a metal interconnect on the initial laminate flex layer or a die pad on the die.

Figure 1