ABSTRACT

Stacked Wafer for 3D Integration

A method of forming a stacked wafer device comprising the steps of : providing a first wafer; forming a plurality of copper pads in a first surface of the first wafer; forming at least one embedded vertical connector in the first wafer in isolation from the copper pads of the first wafer; providing a second wafer; forming a plurality of copper pads in a first surface of the second wafer, the placement of the copper pads to coincide with the location of the copper pads of the first wafer; forming at least one embedded vertical connector in the second wafer in isolation from the copper pads of the second wafer; bringing the first surfaces of the wafers into contact, so as to contact the copper pads; applying a force to the wafers at a pre-determined pressure and at a pre-determined temperature until the copper pads are bonded, and so forming the stacked wafer device from the bonded first and second wafer.

FIGURE 6



