

Abstract

A semiconductor device comprises a first semiconductor package including a conductive layer. A substrate including an interconnect structure is disposed over the conductive layer. The interconnect structure of the substrate with the conductive layer of the first semiconductor package are self-aligned. A plurality of openings is formed in the substrate. An adhesive is disposed between the substrate and the first semiconductor package and in the openings of the substrate. A redistribution layer (RDL) is formed over the first semiconductor package opposite the substrate. A pitch of the substrate is different from a pitch of the RDL. The adhesive extends to the interconnect structure of the substrate. A second semiconductor package is disposed over the substrate and the first semiconductor package.

(Fig. 5j)