

Abstract

A semiconductor device has a substrate formed on a first carrier. A semiconductor die is mounted on the substrate. An interconnect structure is formed on a second carrier. A copper pillar is formed on the substrate or interconnect structure. The interconnect structure is disposed over the substrate with the copper pillar and semiconductor die between the substrate and interconnect structure. The first carrier and second carrier are removed after disposing the interconnect structure over the substrate. A system-in-package (SiP) is mounted to the substrate opposite the semiconductor die after removing the first carrier.

(Fig. 21)