

Abstract of Disclosure

SEMICONDUCTOR PACKAGE STRUCTURE

A semiconductor device includes a first wafer having a deep trench capacitor and a second wafer bonded to the first wafer, in which the second wafer includes a first active device on a first silicon-on-insulator (SOI) substrate and a first metal interconnection connected to the first active device and the deep trench capacitor. The first wafer further includes the deep trench capacitor disposed in a substrate, a first inter-layer dielectric (ILD) layer on the deep trench capacitor, a first inter-metal dielectric (IMD) layer on the first ILD layer, and a second metal interconnection in the first ILD layer and the first IMD layer.

Figure 1