

Abstract

SEMICONDUCTOR DEVICE AND METHOD OF FORMING HIGH-ATTENUATION BALANCED BAND-PASS FILTER

A semiconductor device has a substrate and band-pass filter formed over the substrate. The band-pass filter includes a first conductive trace wound to exhibit inductive properties with a first end coupled to a first terminal of the semiconductor device and second end coupled to a second terminal of the semiconductor device, and first capacitor coupled between the first and second ends of the first conductive trace. A second conductive trace is wound to exhibit inductive properties with a first end coupled to a third terminal of the semiconductor device and second end coupled to a fourth terminal of the semiconductor device. The second conductive trace has a different size and shape as the first conductive trace. A second capacitor is coupled between the first and second ends of the second conductive trace. A third conductive trace is wound around the first and second conductive traces to exhibit inductive properties.

(Fig 7)