

Abstract

SEMICONDUCTOR DEVICE AND METHOD OF FORMING RF BALUN HAVING REDUCED CAPACITIVE COUPLING AND HIGH CMRR

A semiconductor device has an RF balun formed over a substrate. The RF balun 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. A first capacitor is 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 first conductive trace is formed completely within the second conductive trace. The first conductive trace and second conductive trace can have an oval, circular, or polygonal shape separated by 50 micrometers. A second capacitor is coupled between the first and second ends of the second conductive trace.

(Fig 6)