

Ultrawideband quadrature power divider employing double wireless via

Abstract

The article reports the design of an ultrawideband quadrature power divider in uniplanar microstrip technology. The proposed device uses the conventional Wilkinson power divider with one of its output arms equipped with a double wireless via acting as a phase adjusting circuit. The device is manufactured showing a wide bandwidth in terms of return loss, isolation, power division, and a differential phase shift of 90° across the frequency band of 3-8 GHz. Its compact size and good performance makes it suitable for use in wideband-balanced amplifiers.