

HIGH PERFORMANCE DIRECTIONAL COUPLER FOR PLANAR TECHNOLOGY

Description:

Directional couplers are one of the most important components in optical communication systems and microwave circuits. The present invention, based on the technology of slot-coupled directional couplers, makes it possible to overcome the main drawbacks associated with the directional couplers currently used in planar technologies, such as multisection directional couplers based on TEM lines, or couplers. non-uniform directionals. To do this, the proposed technology compensates for the parasitic effects introduced by the existing discontinuities in the propagation of the two even and odd modes of the coupler, taking advantage of the orthogonality between the even and odd modes on the one hand, and the transparency of the slot on the other. to the odd mode. In this way, the procedure used allows the design of high-performance directional couplers, capable of working at high frequencies, and with a variable bandwidth and coupling level depending on the needs and requirements of each application.

Keywords:

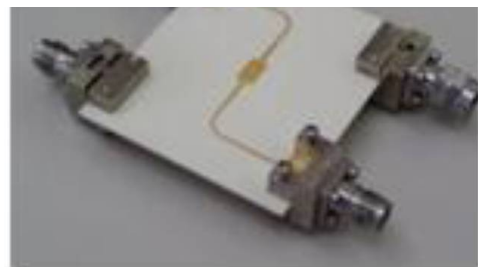
[Electronic Components](#), [Planar Technology](#), [Embeddable Devices](#), [Couplers](#), [Tic](#)

Sectors:

[ICT](#)

Areas:

[Hardware / Devices / Components](#)



Advantages:

Among the advantages of this technology, in addition to those mentioned above, the following stand out: • Minimization of the use of surface mount components. • Improved reliability of equipment. • Reduction of cost and assembly time. • Direct integration (no need for connectors).

Uses and Applications:

This technology is useful in measurement equipment, in power monitoring, amplifiers and balanced mixers, modulators, receivers, antenna array power networks, etc., within the field of optical communications systems and in the microwave band.

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Applicants: Universidad De Málaga, At4 Wireless. Centro De Tecnología De Las Comunicaciones, S.A.

Inventors: Álvaro Moscoso Mártir, Iñigo Molina Fernandez

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