

Abstracts

An Analysis of a Broad-Band Coaxial Hybrid Ring

V.J. Albanese and W.P. Peyser. "An Analysis of a Broad-Band Coaxial Hybrid Ring." 1958 Transactions on Microwave Theory and Techniques 6.4 (Oct. 1958 [T-MTT]): 369-373.

This paper describes a broad-band coaxial hybrid ring which has excellent isolation and balance characteristics. The ring differs from the conventional hybrid in that the fourth arm has a series-type balun feed and is positioned so that a plane of symmetry exists through two of the arms. Isolation between these arms and balance between the output arms are theoretically independent of frequency. The admittance and VSWR of the input arms are computed by bisecting the ring about the plane of symmetry and employing standard Smith Chart techniques. Corresponding experimental data are included. A comparison is made with the conventional coaxial hybrid ring.

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