

Abstracts

A Diplexer Using Hybrid Junctions

L.J. Ricardi. "A Diplexer Using Hybrid Junctions." 1966 Transactions on Microwave Theory and Techniques 14.8 (Aug. 1966 [T-MTT]): 364-371.

A diplexer is a filter which connects a transmitter and a receiver to a common antenna so that both the transmitter and the receiver may be operated simultaneously when their frequencies are not identical. The diplexer described in this report uses hybrid junctions, is easily tuned, and can be designed in a simple, straight-forward manner. Its maximum power-handling capacity is the same as that of the connecting transmission line, and its insertion loss is unusually low. An analysis of this filter and a long-stub filter is presented, in addition to the design procedure for, and the experimental results obtained with, a specific model.

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