

Abstracts

Wide-Band Orthomode Transducers

S.J. Skinner and G.L. James. "Wide-Band Orthomode Transducers." 1991 Transactions on Microwave Theory and Techniques 39.2 (Feb. 1991 [T-MTT]): 294-300.

A summary of the results of a mainly experimental investigation into the development of wide-band orthomode transducers (OMT's) is presented. We show that satisfactory performance for many applications is possible over bandwidths in excess of 2:1. The wide-band return loss and cross-polarization behavior is given where the OMT used is measured in conjunction with a wide-band corrugated horn. Two types of OMT are considered one based on a finline technique and the other on a quad-ridged waveguide geometry. Overall, the latter design gives superior performance.

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