

Abstracts

A Graph of Return Loss Versus Frequency for Quarter-Wavelength Short-Circuited Waveguide Impedance Standards (Correspondence)

R.W. Beatty and B.C. Yates. "A Graph of Return Loss Versus Frequency for Quarter-Wavelength Short-Circuited Waveguide Impedance Standards (Correspondence)." 1969 Transactions on Microwave Theory and Techniques 17.5 (May 1969 [T-MTT]): 282-284.

Formulas and a graph are presented for determining return losses of microwave impedance standards consisting of quarter-wavelength sections of short-circuited waveguide. Most standard sizes of coaxial line and rectangular waveguide are included on the graph, which covers a frequency range from 0.2 to 330 GHz. The graph is based upon a conductivity of 10^{-7} mho/m. Values of return loss read from the graph must then be divided by the square root of the actual conductivity normalized to the above value. A table of bulk conductivities of various metals is given.

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