

Abstracts

A Broad-Band High-Power Vacuum Window for X Band

H.J. Shaw and L.M. Winslow. "A Broad-Band High-Power Vacuum Window for X Band." 1958 Transactions on Microwave Theory and Techniques 6.3 (Jul. 1958 [T-MTT]): 326-330.

Recent developments in high-power tubes for the 3-cm wavelength region have created a need for waveguide output windows which are capable of transmitting peak power in excess of 1 megw and average power in the neighborhood of 1 kw, and which have frequency bandwidths of about 15 per cent. This paper describes a structure which is designed to meet these electrical requirements, and which also has desirable physical and fabricational properties. A dielectric plug, which forms the vacuum seal, is used as one element of a three-element filter. The design procedure and experimental results are discussed.

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