Abstracts

On the Impedance of a Finite Slot (Correspondence)

M.A. Plonus. "On the Impedance of a Finite Slot (Correspondence)." 1966 Transactions on Microwave Theory and Techniques 14.1 (Jan. 1966 [T-MTT]): 48-49.

It is well known that in boundary value problems which involve slots or apertures the analysis becomes easier when the assumption of infinitesimally narrow slots can be made. Doing so however, will usually result in divergent expressions for slot impedance and current across the slot. One ordinarily gets around this by stating that, since in a real or physical problem the slot width must be finite, the impedance of such slot can be obtained by summing the first few terms of the infinitesimal slot series and throwing away the divergent part.

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