Abstracts

Coupling to a Desired Wave (Correspondence)

J. Van Bladel. "Coupling to a Desired Wave (Correspondence)." 1967 Transactions on Microwave Theory and Techniques 15.4 (Apr. 1967 [T-MTT]): 268-269.

Technical situations often arise where a wave of given characteristics must be propagated from a transmitting antenna to a receiving antenna. An example is shown in Fig. 1, where a Goubau wave must be launched along a dielectric-clad metallic conductor. The problem then arises of finding out how efficiently the wave is launched, i.e., how much of the total radiated power is propagated in the desired form. In this correspondence we attempt to give a very general definition of this coupling coefficient. Figure 2 illustrates a typical structure in which a radiating system is bounded by a surface S/sub 1/ consisting of a conducting wall S/sub 1/ and a radiating aperture S'.

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