Abstracts

An Adjustable-Slot-Length UHF Coaxial Coupler with Decade Bandwidth (Correspondence)

P.A. Hudson and L.F. Saulsbery. "An Adjustable-Slot-Length UHF Coaxial Coupler with Decade Bandwidth (Correspondence)." 1971 Transactions on Microwave Theory and Techniques 19.9 (Sep. 1971 [T-MTT]): 781-783.

A coaxial directional coupler has been developed which allows adjustment of the length of the coupling slot to lambda/4 or 3lambda/4 throughout the frequency range 0.3 to 8.5 GHz. Coupling is flat to within 0.05 dB from 0.3 to 3 GHz (lambda/4 mode) and 0.1 dB from 0.9 to 8.5 GHz (3lambda/4 mode). The coupler has 50-dB coupling, 30- to 40dB directivity and was designed primarily for high power measurement (1 to 1000 W) using a low-power meter on the sidearm. The VSWR for the two modes of operation is 1.02 to 1.05. Five octave bandwidth-type couplers would be required to cover this same frequency range.

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