Abstracts

A simple procedure for impedance matching and tuning of microwave couplers for an electron linear accelerator

M.A.R. Franco, V.A. Serrao, C. Fuhrmann and S.B. Herdade. "A simple procedure for impedance matching and tuning of microwave couplers for an electron linear accelerator." 2001 Transactions on Microwave Theory and Techniques 49.3 (Mar. 2001 [T-MTT]): 562-564.

A simple experimental procedure to match and tune "door-knob"-type microwave couplers is presented in this paper. The procedure is suitable for accelerating structures with both input and output couplers and allows a fast convergence to the minimum reflection condition for a cavity coupler with fixed phase shift. The standing-wave ratio and the coupling cavity phase shift as functions of the coupler dimensions and frequency are also reported.

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