Abstracts

Metal Mesh Couplers Using Evanescent Waves at Millimeter and Submillimeter Wavelengths

J. Bae, J.-C. Chiao, K. Mizuno and D.B. Rutledge. "Metal Mesh Couplers Using Evanescent Waves at Millimeter and Submillimeter Wavelengths." 1995 MTT-S International Microwave Symposium Digest 95.2 (1995 Vol. II [MWSYM]): 597-600.

A metal mesh evanescent wave coupler which makes use of coupling of evanescent waves between a metal mesh and a tuning dielectric plate, has been developed as a quasi-optical component for millimeter and submillimeter wavelengths. The coupling coefficient of the capacitive evanescent wave coupler can be changed more than 70% by moving the silicon plate only 60 µm at around 53 GHz. The transmission properties of the evanescent wave couplers depending on the mesh period and the silicon plate thickness have been studied.

❑ Return to main document.