Abstracts

Design of Nonradiative Dielectric Waveguide Filter

T. Yoneyama, F. Kuroki and S. Nishida. "Design of Nonradiative Dielectric Waveguide Filter." 1984 MTT-S International Microwave Symposium Digest 84.1 (1984 [MWSYM]): 243-244.

An efficient design technique of nonradiative dielectric waveguide filter circuits for use at millimeter wavelengths is developed. A 3-pole, 0.1-dB Chebyshev ripple bandpass filter with 2-percent bandwidth at center frequency of 49.5 GHz was designed and fabricated with Teflon dielectric according to this theory. The calculated and measured filter responses agree quite well, and the excess insertion loss is found to be as small as 0.3 dB.

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