Abstracts

/spl lambda//4 stepped-impedance resonator bandpass filters fabricated on coplanar waveguide

A. Sanada, H. Takehara, T. Yamamoto and I. Awai. "/spl lambda//4 stepped-impedance resonator bandpass filters fabricated on coplanar waveguide." 2002 MTT-S International Microwave Symposium Digest 02.1 (2002 Vol. I [MWSYM]): 385-388 vol.1.

Simple and compact multi-stage microwave bandpass filters (BPFs) using /spl lambda//4 stepped-impedance resonators (SIRs) fabricated on coplanar waveguide (CPW) are presented, which are applicable for MMICs or high-T/sub c/ superconducting filters. An accurate, tuning-free, design method of the /spl lambda//4 SIR-BPF is demonstrated with assistance of full-wave electromagnetic field simulator, which is based on a conventional filter design method using impedance inverters. Full-wave simulation and experimental results for a two-stage Chebyshev BPF designed at 5 GHz agreed well with theoretical results.

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