Abstracts

Small filters based on slotted cylindrical ring resonators (2001 Vol. III [MWSYM])

R.F. Mostafavi, D. Mirshekar-Syahkal and Y.C.M. Lim. "Small filters based on slotted cylindrical ring resonators (2001 Vol. III [MWSYM])." 2001 MTT-S International Microwave Symposium Digest 01.3 (2001 Vol. III [MWSYM]): 1795-1798 vol.3.

The realization of a small four-pole Chebyshev filter using four matched slotted cylindrical ring (SCR) resonators, is explained. This filter, which does not need tuning screws, is low-cost to manufacture and suitable for mobile communications. The filter has a bandwidth of 75 MHz centered at 1.73 GHz. To obtain the coupling distances between the resonators, a new technique based on the quasi-magneto-static finite-difference method, is also reported.

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