Abstracts

Design of tunable ferroelectric filters with a constant fractional band width

I. Vendik, O. Vendik, V. Pleskachev, A. Svishchev and R. Wordenweber. "Design of tunable ferroelectric filters with a constant fractional band width." 2001 MTT-S International Microwave Symposium Digest 01.3 (2001 Vol. III [MWSYM]): 1461-1464 vol.3.

The main principle of design of tunable ferroelectric filters with a constant fractional band width in the tuning range are discussed. Lumped ferroelectric capacitors are used as the tunable components of the microstrip filter. The limitation of the filter performance is determined by the commutation quality factor of the ferroelectric varactor. The influence of the loss factor of the ferroelectric capacitor is analyzed. The 3-pole 1% fractional band pass filter with a 3 band width tuning range without a degradation of the characteristics is designed.

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