RF and microwave bandpass filters are key components for most of the recent communication systems. A conventional hairpin-line resonator size is normally very large. A Multi-folded hairpin line resonator filter helps to reduce the size, if the required selectivity characteristics are not critical. This paper presents the design, simulation, optimization and test results of a new class of a 4-pole multi-fold hairpin line microstrip resonator filter with 60-65% reduction in size and moderate selectivity compared to the conventional hairpin line resonator filters for L/S band communication systems.
Design and Development of a Multi-Fold Microstrip Hairpin Line Bandpass Filter at 1400 MHz for Communication Systems

Resonator Filters with Reduced Size and improved Stopband Characteristics; ETRI Journal, Vol. 28 No. 5, October 2006.

- ADS Agilent-make Softwares for Design and Simulation

Index Terms
- Computer Science
- Communication Systems

Keywords
- Hairpin Line Filter
- Multi-fold Hairpin Line Resonator
- Dielectric Constant
- Coupling Coefficients
- Selectivity
- Insertion Loss
- Quality Factor
- Bandwidth
- Ads Software
- Ie3d Zealand Software
- Computed Response