Abstract

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.

References

- Prayoot Akkaraekthalin and Jaruek Jantree &quot;Microstrip Slow Wave Open-Loop
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