Design and Research of Coupled Line Filter

林枝伸、吳俊德

E-mail: 9510968@mail.dyu.edu.tw

ABSTRACT

In this dissertation, a new parallel-coupled-line microstrip bandpass filter is presented to suppress spurious passband of the second harmonic signal. Furthermore,the desired passband performance is improved by using this filter. The present filter can be easily realized by inserting periodic patterns in the coupled-line combined with the conventional design methodology. A third order chebyshev filter with a centered frequency at 2.5 ghz and a 20% fractional bandwidth (FBW) is used to test the performance of the present structure. Both simulation and experiment show that the present structure suppresses more then 30 db on the second harmonic.

Keywords : PARALLEL-COUPLED-LINE ; design ; FILTER

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