

ABSTRACT

The presence of an filter at communication system is very important, because it serves as a used to pass certain frequency by allowing the wanted signal (pass band) and attenuating the unwanted signal (stop band).

In this final project has been designed and realized a bandpass filter Triangular Stepped-Impedance Resonators based on microstrip with Epoxy FR-4 substrate that has $\epsilon_r = 4.4$ and 1.65 mm height. The shape of BPF attenuation characteristic was designed based on mathematical approximation Chebychev. Filter was tested by using Network Analyzer.

The result of measureent from BPF characteristics are : center frequency 2345 MHz with bandwidth 180 MHz (at -10,678 dB), transmission coefficient 7.678 dB, return loss 31.518, VSWR at input 1.117 and 1.054 at output.

Key words: *Triangular Stepped-Impedance bandpass filter, microstrip, Chebyshev*