

ABSTRACT

In this final project a bandpass filter that works on dual band frequency has been realized. The filter was made with Interdigital Stepped Impedance Resonator method. By using Interdigital Stepped Impedance Resonator (SIR), the harmonic frequency can be shifted, shifting away to the fundamental frequency or shifting close to the fundamental frequency, to form a dual band bandpass filter according to the desired design requirements.

From the measurement results, this filter has a first centre frequency of 890.3 MHz (34 MHz shifted downward from specification) and the second centre frequency of 1750.57 MHz (42 MHz shifted downward from the specification) with a bandwidth of 84.45 MHz and 39,28 MHz. Insertion losses are in the middle of the first frequency and the second frequency respectively of 1.21 dB and 2.9 dB.

Keyword : *Dual Band Bandpass Filter, Interdigital Stepped Impedance Resonator*