



## ACKNOWLEDGEMENT



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May Allah Bless Us,

## ABSTRACT

This thesis is presents the study of microstrip side-couple ring filter using the same concept as dual-band ring resonator. The basic structure of the filter designed is the dual-mode ring resonator cascaded with quarter-wavelength side-coupled lines. The filter is designed at 1.8 GHz as central frequency with 10% bandwidth. The microstrip filter is implemented with  $\epsilon_r=5.4$  and 1.6mm thickness. The main component such circuit layout, simulation and measurement are presented in this paper.



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