

UNIVERSITI TEKNOLOGI MARA

TUNABLE DUAL-BAND BANDPASS
FILTER

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FILTER**

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ABSTRACT

A tunable dual-band bandpass filter is presented. The filter topology consist of a coupled-line connected directly to a line impedance with a same structure connected in parallel producing a dual-path filter design. Four additional capacitors is added to the design in order to shift the frequency response. The filter was designed at a center frequency of 2 GHz and the capacitance value was varied to obtain the maximum shift in the frequency. The capacitor was converted into distributed element for EM simulation. Simulation results are presented to verify the concept.

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TABLE OF CONTENTS

	Page
AUTHOR'S DECLARATION	ii
ABSTRACT	iii
ACKNOWLEDGEMENT	iv
TABLE OF CONTENTS	v
LIST OF FIGURES	viii
LIST OF TABLES	xi
LIST OF ABBREVIATIONS	xii
CHAPTER 1: INTRODUCTION	
1.1 Overview	1
1.2 Problem Statement	2
1.3 Research Objectives	2
1.4 Scope of Work	3
1.5 Thesis Organization	4