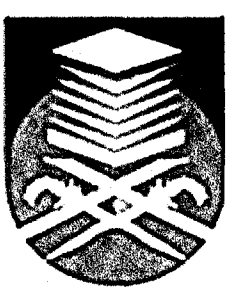
COUPLE RING RESONATOR FOR DUAL BAND BANDPASS FILTER

Thesis is presented in partial fulfillment for the award of the

Bachelor of Electrical Engineering (Hons.)

UNIVERSITI TEKNOLOGI MARA



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ABSTRACT

This thesis describes the design, simulation and analysis of a coupled ring resonator for dual bandpass filter for wireless application. The operating frequencies are 5 GHz and 8.25 GHz. Single bandpass approach was used in designing the filter and the simulation was carried out using CAD simulation software. The performance of the filter was simulated based on FR4 with dielectric substrate (Єr) is 5.4 with substrate thickness of 1.6mm . The filter was then fabricated and measurements were made using VNA. The measurement results show good agreement with the filter specifications.

Keywords- microstrip, dual bandpass filters, couple ring resonator, CAD simulation software.

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