BUTTERWORTH BAND-PASS FILTER USING PARALLEL COUPLED LINE

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Bachelor of Engineering (Hons) (Electrical)

Universiti Teknologi MARA

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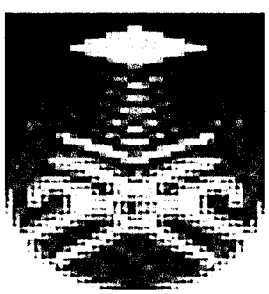

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ABSTRACT

This thesis presents the design, simulation and analysis of a Butterworth Band-pass filter using parallel coupled line for microwave application. Butterworth approach was used in designing the filter and the simulation was carried out using two commercial simulation software. The performance of the filter was simulated based on low-k and high-k material with different dielectric substrate ($\square_r$). The operating frequency range is 4 - 6 GHz with cut-off frequency of 5 GHz with the consideration of 40 % fractional bandwidth. It was observed that both the simulated and measured values were very close except for the insertion loss

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