

UNIVERSITI TEKNOLOGI MARA

**DUAL BAND BANDPASS FILTER WITH INPUT
COUPLE LINES**

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ABSTRACT

This paper concentrates on designing a dual band bandpass filter suitable for wireless application. The filter is using multilayer technique by connecting two-quarter wavelength parallel coupled-lines to two half-wavelength lines through vias mode. The impact of the topology proposed, showing influence of the different impedance such as line impedance; Z_r , even mode impedance; Z_{oe} and odd-mode impedance; Z_{oo} . Those parameters were analysed thoroughly. The filter was designed using TRF45 (Taconic) with reference frequency of 2 GHz by using multilayer technique. Observations on the controlling parameters are conducted to investigate the effect of the transmission zeros.

Keywords: Dual band, Bandpass filter, Taconic.

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