MULTILAYER INTERDIGITAL - HAIRPIN BANDPASS FILTER

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ABSTRACT

This paper presents multilayer interdigital-hairpin bandpass filter with six pole of resonator. The multilayer six pole interdigital-hairpin resonators centred at 2.58 GHz was designed using FR-4 substrate ($\epsilon r = 4.6$, $\tan \delta = 0.025$).The return loss, S_{11} and insertion loss, S_{21} in the passband are 34.046 dB and 1.636 dB respectively. Six pole of resonator make the bandwidth wider where the fractional bandwidth obtained is 25.89%. The CST software was used to simulate and optimize the filter.

TABLE OF CONTENTS