

Microwave Filter Design – Term Project 2011

Specifications and Requirements

- The filter must be of bandpass type with defined passband and stopband.
(passband: 2850 MHz – 3150 MHz, insertion loss < 4 dB, return loss > 15 dB;
stopband at 3600 MHz, attenuation > 30 dB; 5900 MHz – 6000 MHz,
attenuation > 35 dB; 9000 MHz – 9100 MHz, attenuation > 30 dB)
- Filter must be planar (FR4 substrate is preferred) with SMA connectors.

Figure of merit and criteria for judgement

- Lowest insertion loss in the passband
- Highest isolation in the stopband
- Smaller filter size
- Theoretical derivation and explanation
- Agreement between experiment and simulation

Note

- Final report and presentation are both required.
- The deadline for the final report is June 28.