

LE 325 MiniProject

Objective To have an experience on wave filter design.

Detail Design {high-pass, band-pass or band-stop} filters with three filter responses (Butterworth, Chebyshev, Bessel-Thomson) using the insertion-loss method.

Procedure

1. Determine the specifications (cut-off frequency, bandwidth, order, etc.)
2. Obtain the low-pass filter prototype.
3. Do the filter transformation (impedance scaling and frequency transformation)
4. Determine the components for the filters.
5. Plot the frequency response for each filter.

Report Write a short report including the following topics:

1. Filter specifications.
2. Your design procedure (how to obtain your design)
3. Frequency response plots (Use matlab, pspice or other tools to **plot both gain and phase** of the filter versus frequency.)
4. Summary

Due The end of April 2016.