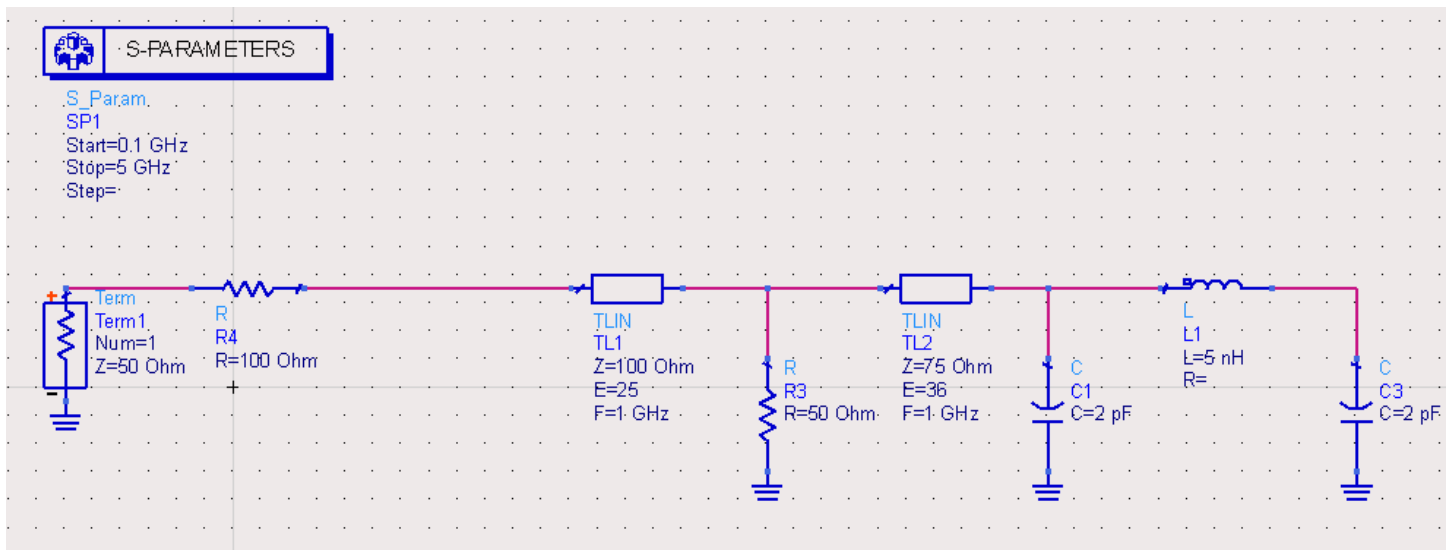
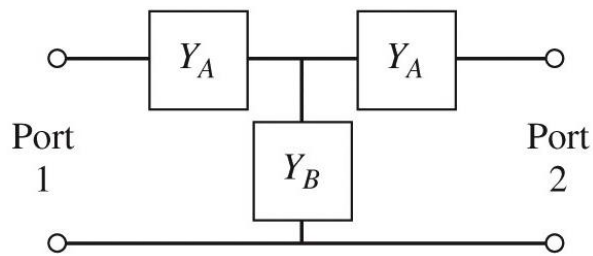


HW9 due to 12/7 (submit online at NTUCOOL before 9 am)

- For the following circuit, find the input impedance and reflection coefficient spectrums at the input port between term1 and the resistor of 100 Ohms (R4) via (a) admittance-based analytical analysis and (b) ADS simulation. The operation frequency of the transmission line is at 1 GHz.



- Derive the $[Z]$ and $[Y]$ matrices for the two-port networks including the T and π network



- Find the scattering parameters for the shunt loads. Assume a characteristic impedance Z_0

