E157 Lecture 13 Day Plan

Any questions before quiz

Quiz + Team Quiz + Talk through solution

Loaded reflection coefficient -- Gamma_in = $S11 + S21*S12*\Gamma_L/(1-\Gamma_L*S22)$

Look at some minicircuits modules

- See links below for my examples
- RF chokes and bypass caps
- Unconditional stability
- Typical frequency ranges and the THz gap

Negative resistance loads are outside the unit circle


https://www.minicircuits.com/pdfs/ZHL-5W-422+.pdf – unconditionally stable, open/short protection

https://www.analog.com/media/en/technical-documentation/data-sheets/AD8317.pdf
-- cool S11 Smith Chart
-- inductive choke example on page 14.  (Also coupling caps, decaps, and a directional coupler)