Phil Bolger quote of the week: “There’s a lot to be learned from studying this design, but to apply the lessons you have to start over with a blank sheet.”

Tasks for this week: Surf the webpage http://web.cecs.pdx.edu/~campbell/

For review/introduction to Smith Chart and Reflections, see
Short Course Notes
  Short Course 1:
    Reflections
    Scattering Parameters

Use a circuit simulator to explore a simple RFIC Wilkenson Power Splitter

Follow link on web page to High Frequency Electronics article archive and read the reference paper by Campbell and White: Monolithic GaAs Passive Lowpass 3 dB In-Phase Splitter/Combiner.

Follow link on web page to High Frequency Electronics article archive and read the reference paper by Campbell: An Integrated I-Q Mixer for Software Defined Radio Applications.

Design a basic circuit model environment in LTSpice or other simulator.

Ungraded Exercise -- Wilkenson Splitter -- due in class April 9

Simulate a Wilkenson Splitter, including a basic package model, at 100 MHz, 1 GHz, 10 GHz and 100 GHz.