RFIC Study Guide #10 2 June 2015

This week topics: Final Scale Model project. Using your Midterm project, sketch a scaled design that could be built quickly as a proof-of-concept. Or, if your midterm project is at a lower frequency, you may scale it to a higher frequency.

The final assignment in ECE510 RFIC design is due in class during the Final Exam period on Tuesday June 9. We will discuss your designs in class and exchange critiques on practicality, etc. Prepare a 4 page report on your scale model with the 4 pages as follows:

Page 1. Overview of the original circuit from your Midterm: specifications, functional schematic, frequency range, some component values etc.

Page 2. Scaled schematic showing which components are changed and which stay the same for the scale model, including details on scaling.

Page 3. Proposed measurements of the scale model to confirm that it works as designed. Block diagrams of test setups are appropriate, and particular details of measurements that are possible on the scale model that would be impractical or impossible on the original circuit, e.g. oscilloscope waveforms.

Page 4. Discussion of what you expect will scale well and what you expect will be significantly different between the original and scale model.