

Integrated High Frequency Circuits, Systems and Applications

You will be required to draw derivations, sketches, etc. from the lecture materials. He really asks about "everything", so please learn more than the questions mentioned here. Yet, the exam situation is very pleasant, and he also gives assistance when it is needed. You can do it!

Note that these are recollections and not official exam questions.

- QPSK: Drawing the constellation diagram and what does it mean?
- Show three variants of errors in the IQ diagram and what do you call the errors when you look at them at system level?
- Phase shifter
 - Draw vector modulator and explain how it works
 - With what angle can the input vector be influenced and how can the angular range be increased?
 - Can a phase shifter be built using damping elements?
 - Differences between vector modulator and the switched line
- Derive the Telegraphers equations
- Heavyside condition: name them and explain what is interesting about it
- FMCW Radar: function, how can the resolution be increased?
- VNA: draw the block diagram and explain it
- Shunt Shunt Feedback Amplifier: draw the circuit diagram and explain it