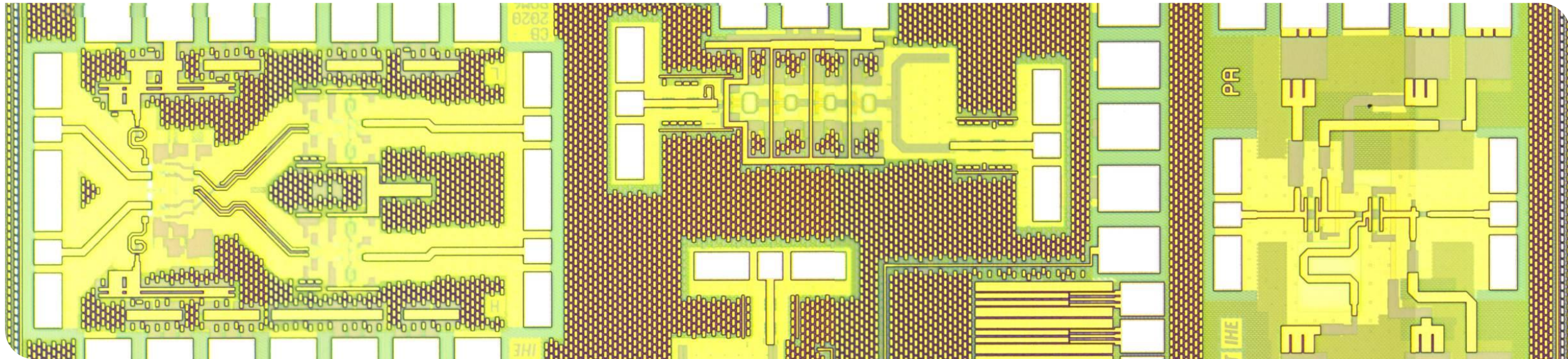
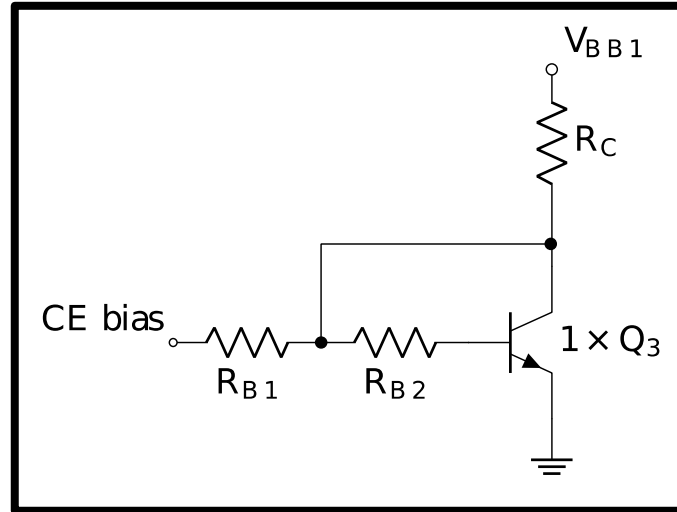
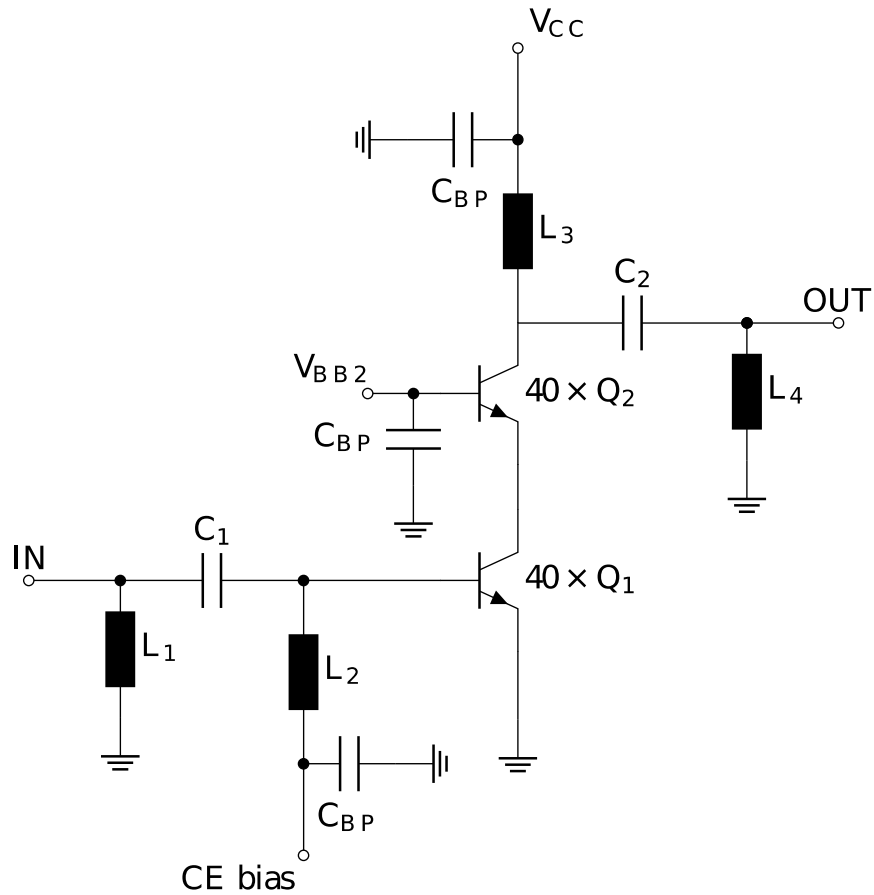


A 28 GHz Cascode Power Amplifier

Henning Poensgen



Schematic of the PA

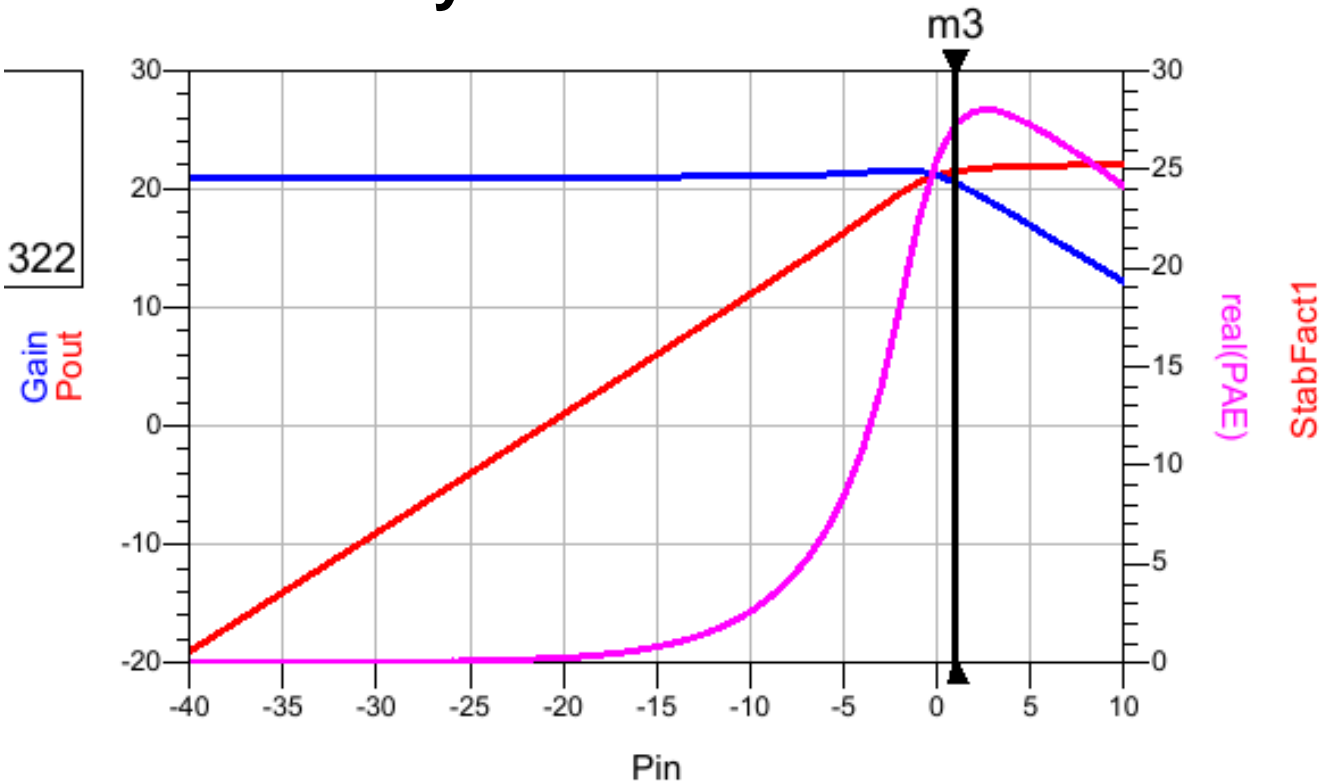


Design Goals:

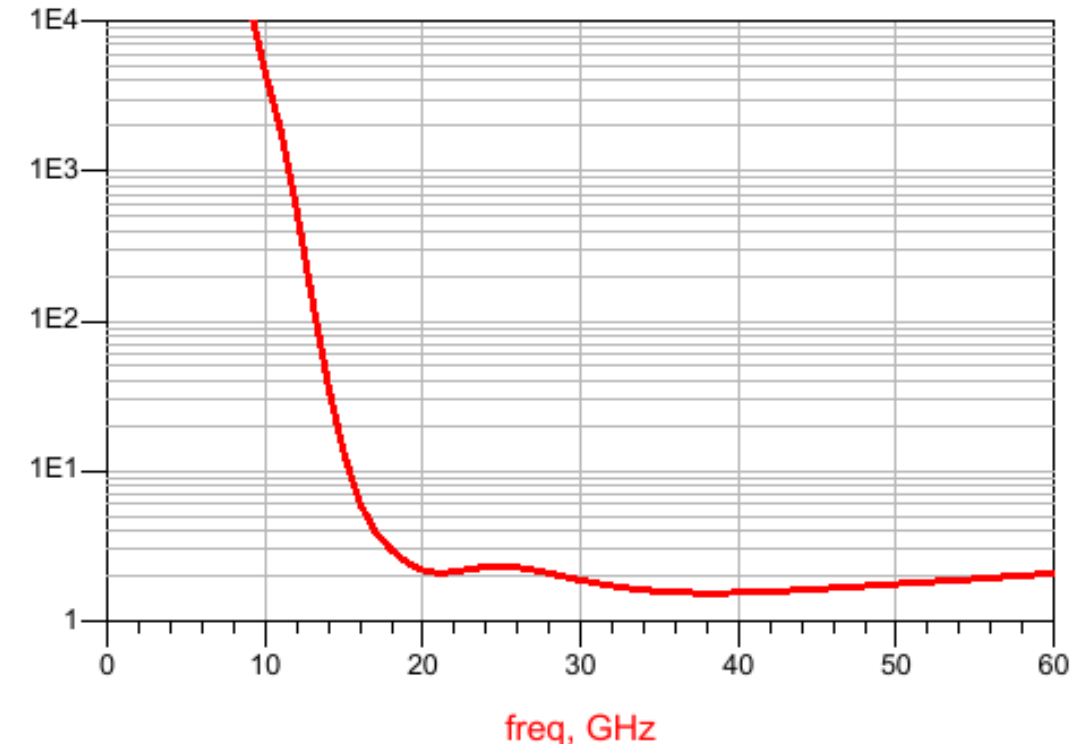
- High Output Power
- Few stages as possible
- single ended design

Simulation – Linearity & Stability

Linearity & Gain

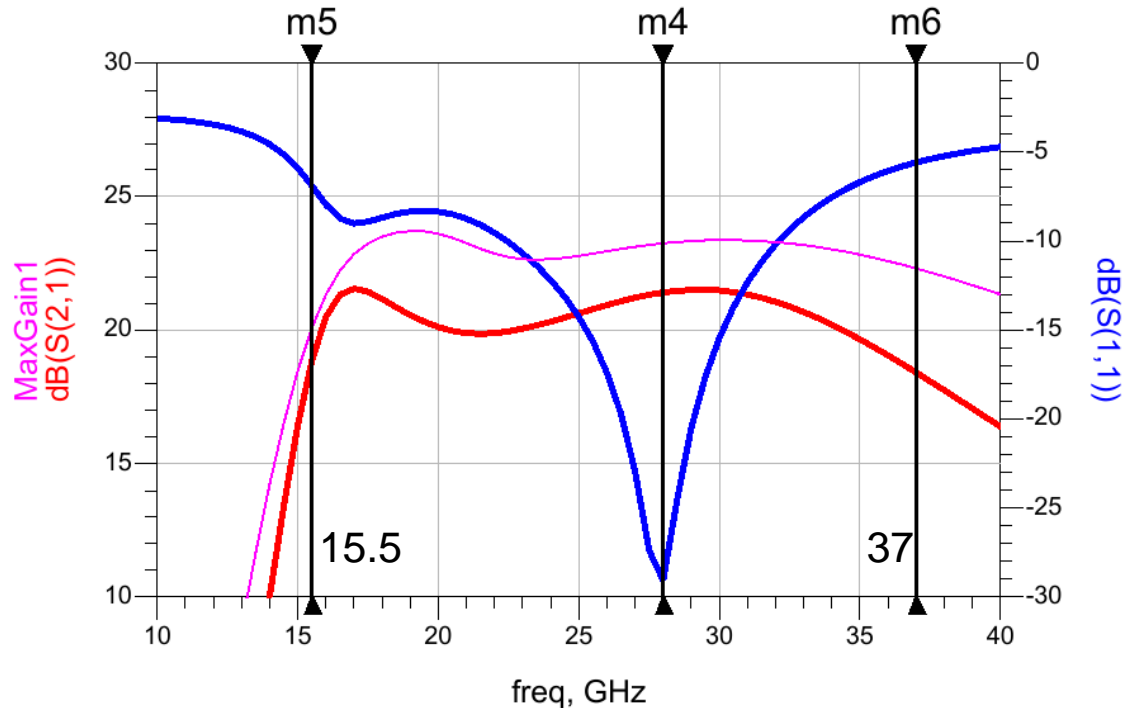


Stability

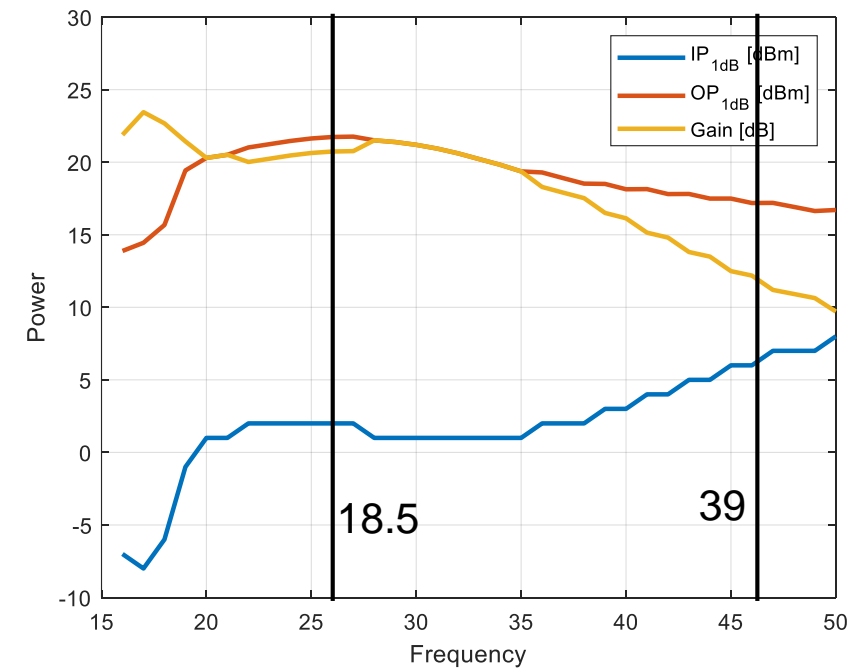


Simulation – Frequency Behavior

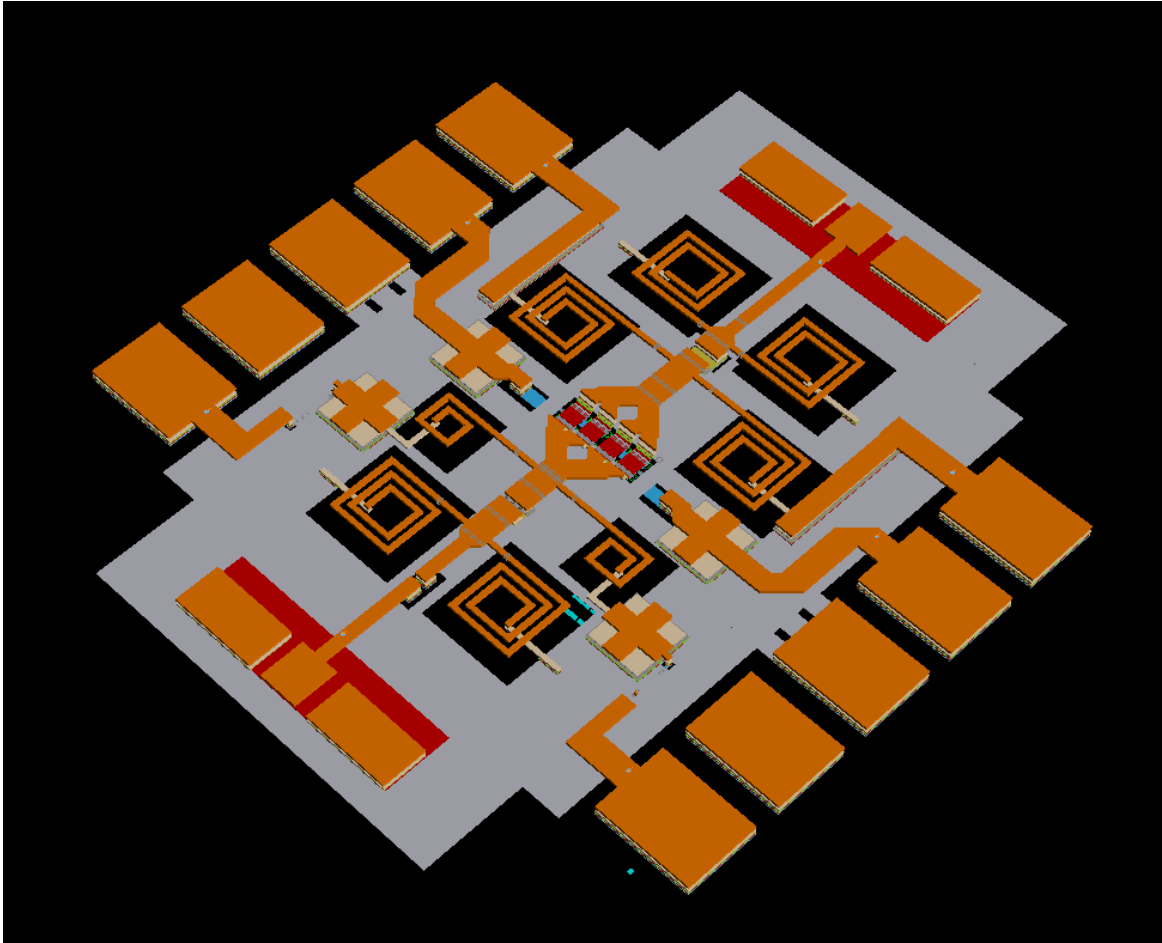
Small Signal



Large Signal



Proposed Power Amplifier



- Size without pads:
 $500 \times 410 \mu\text{m}$
- Size with pads:
 $760 \times 725 \mu\text{m}$