

Forschungsarbeit / Masterthesis

Nowadays at times of 5G, IoT and autonomous driving systems and subsystems are becoming more and more important in the mmW-range. In order to shrink the size of those systems Globalfoundries delivers with his 22nm process a cutting-edge technology and is leading in performance in the CMOS domain.

Core of this thesis is an integrated design of a low-noise amplifier for an ultra-wideband (up to 90GHz) receiver.

Goals of this work

- design of a low-noise amplifier
- evaluation of different topologies
- investigation of the limits of this technology
- is the system performance reachable?

You are perfectly suited if:

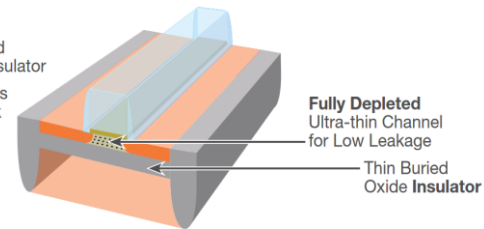
- you are interested in integrated circuit-design
- you have a good knowledge in the RF/mmW domain
- you have already experience with developing tools like Cadence or ADS

If you are interested and need more information just feel free to contact me!

Language: German/English

FD-SOI

- Fully-Depleted Silicon-On-Insulator
- Planar process similar to bulk



source:

<https://www.globalfoundries.com/sites/default/files/product-briefs/pb-22fdx-soi-25-web.pdf>

mmW receiver

