

mm-Wave Circuit Design beyond 200 GHz

Background

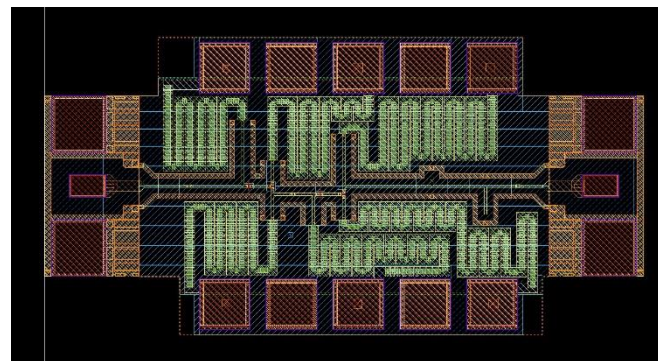
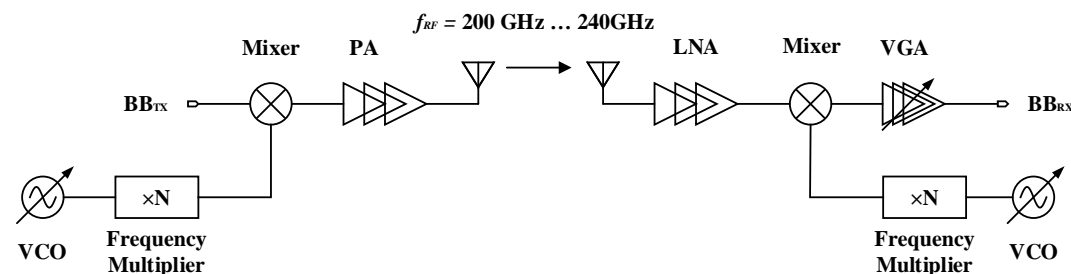
The increasing demand of high-speed and broadband communication is pushing the IC and system research towards frequency range beyond 200 GHz. The operation in such frequencies provides data rates in the range of tens of Gbits/s, which could be superior solution to applications requiring very fast data transmission within short distances, such as wireless chip-to-chip communication.

For broadband circuit design, the matching is mainly done with microstrip. Proper layout is crucial due to the high power loss at such high frequencies.

Tasks

The students' task is the design of a specific mm-wave circuit according to consultation. The students can gain insights into RFIC design in a state-of-the-art IC technology. The tasks can be adjusted to fit the requirements of the bachelor or master thesis.

- Literature review
- Learning of industrial circuit design tools
- IC design including layout and verification by EM simulation
- Documentation of all results in the bachelor or master thesis



Contact

Xun Chen
Kopernikusstraße 16, 52074 Aachen
ICT cubes, 5th Floor, Room 539
+49 241 80 24644
xun.chen@hfe.rwth-aachen.de
www.hfe.rwth-aachen.de