

Study of Full Duplex Transceiver

Background

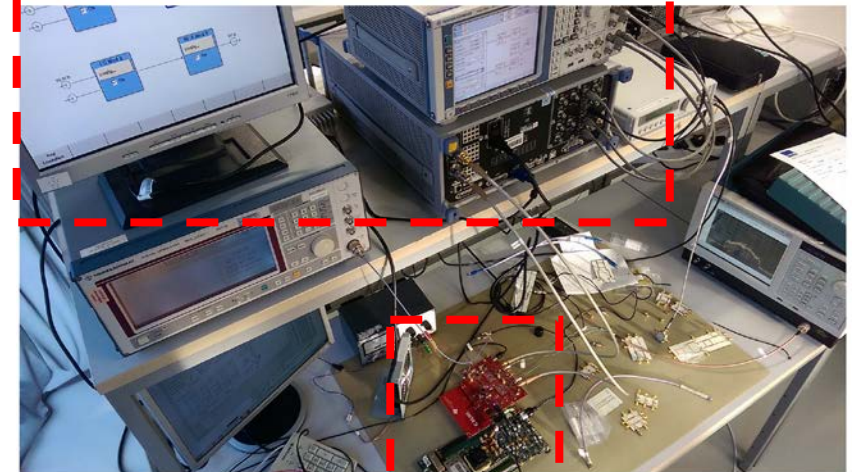
Due to limit of bandwidth, full-duplex transceivers (FDTs) become important recently. Transmitting and receiving signals can simultaneously exist in the same band. There are many methods and RF/analog/digital circuits needed to realise FDTs such as wideband couplers, feedforward networks and more. This topic is going to study the possibilities and compare them. Furthermore, a prototype will be implemented.

Tasks

Paper study, implement and measure a FDT.
The tasks may involve :

- RF circuit design
- Digital signal processing
- Measurement

Baseband gen. and TRX



DAC and FPGA

Contact

Dr. Muh-Dey Wei
Kopernikusstraße 16, 52074 Aachen
ICT cubes, 638
+49 241 80 24658
muh-dey.wei@hfe.rwth-aachen.de
www.hfe.rwth-aachen.de