

**SAMEER: 5G Test bed**

# Specifications

Operating Mode	TDD
TDD switching speed	10 us
Rx Noise figure of Radio Transceiver	13 dB
Tx output power from Radio Transceiver	-25 dBm
Tx gain required to get 20 dBm output	45 dB
Rx gain Required	-
Reciprocity and Linearity Maintenance	TDD Calibration Path and ORx Path to do DPD
To Attenuate Out of band Interferers and Reduce Out of band radiation	Saw Filters

# Sub 6GHz System Requirements

RF front-end – PA, LNA, Antennas, etc.

RF operation at 3.5GHz - 100 MHz bandwidth

ADC, DAC interfacing.

eCPRI interface with BBU.

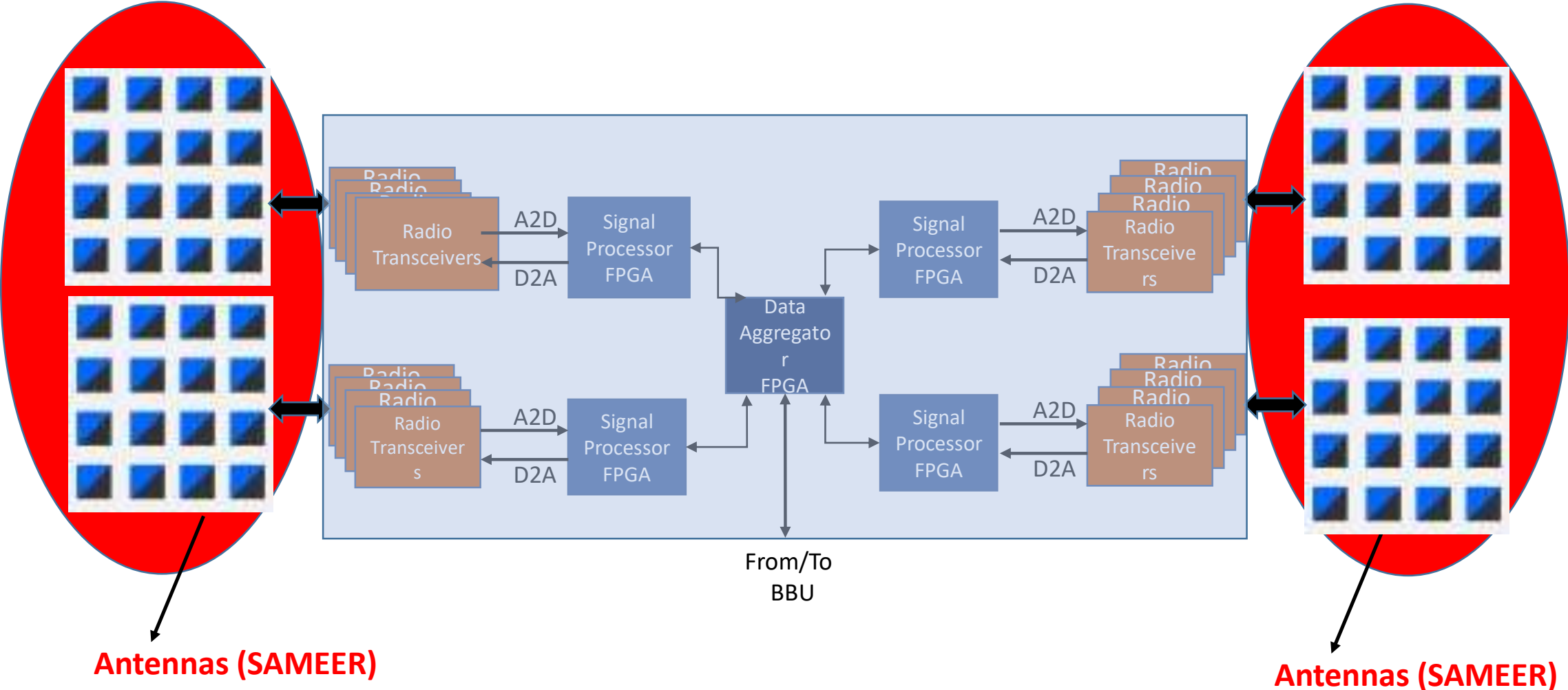
Low PHY processing.

Clock Synchronization.

**Support for Massive MIMO.**

**64 antennas for sub-6 GHz**

# FR1 Sub 6GHz: Antenna System



Massive MIMO : 64 antennas for sub-6 GHz

# mmWave System Requirements

- RF front-end – PA, LNA, Antennas, etc
- RF operation at 28 GHz – 400 MHz bandwidth.
- ADC, DAC interfacing.
- eCPRI interface with BBU.
- Low PHY processing.
- Clock Synchronization.
- **Support for Hybrid beamforming @mmWave.**
- **256 antennas for mmWave (4 streams).**

# FR2 mmWave: Antenna System

