

# Multibeam 60GHz systems

According to the focus application, different system configurations have been identified. In the project, there are identified by different milestones

➤ **MS2.3 : Rx 60 GHz front-end for MISO communication**

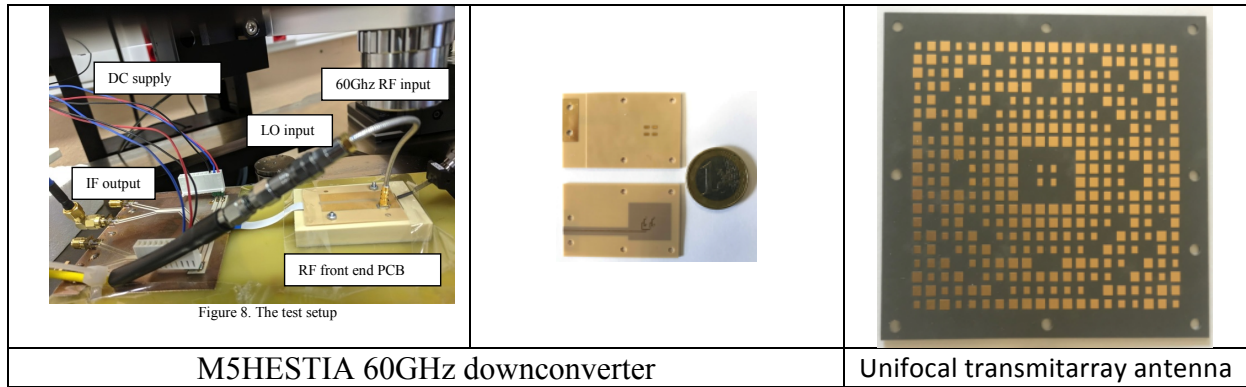


Figure 1: RX for MISO communication

- **MS2.2 : Rx 60 GHz front-end for SIMO channel sounding with analog beamforming**
- **MS2.5 : Rx 60 GHz front-end for SIMO channel sounding with digital beamforming**

For the channel sounding, two versions are possible:

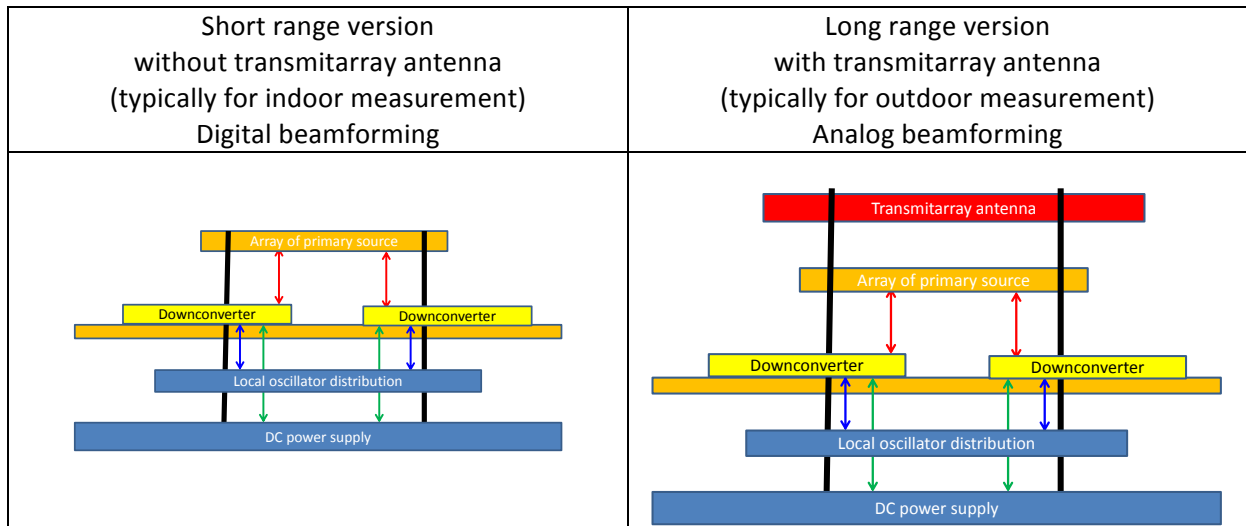


Figure 2: 60GHZ RX module for channel sounding application

➤ **MS2.4 : Tx 60 GHz front-end with N=8 IQ links for M-MIMO communication**

To realise a simultaneous communication with 2 “user” equipments, the B-COM platform will integrate the array of primary sources and the transmitarray antenna to generate 8 isolated beams allowing to create a wireless communication link in the 8 angular sector.

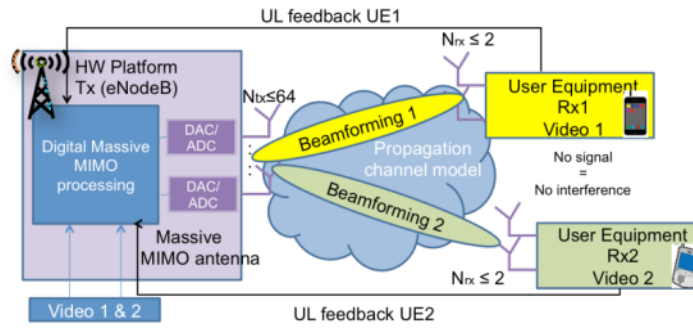


Figure 3: Simultaneous communication with 2 “user” equipments

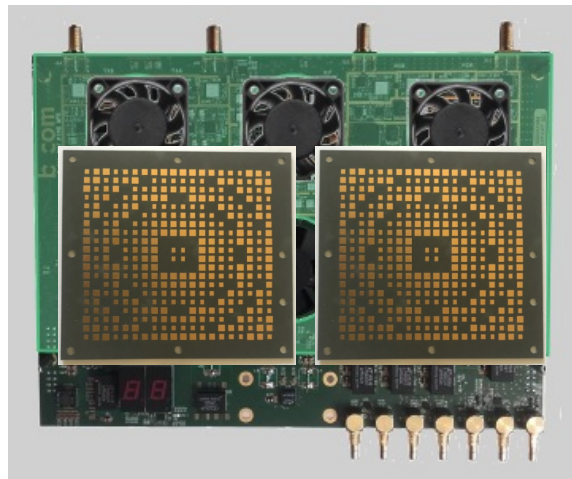


Figure 4: Integration of the transmitarray antenna in the B-COM platform