AT A GLANCE

- Flexible Software Defined Radio platform consisting of stacked digital interface card and radio frequency front-end
- Optical baseband interface
- 2 radio frequency transceivers
- AMC form factor

Features

- Supporting CPRI 4.1
- Optical SFP baseband interface
- 2-antenna duplex operation
- Wide carrier frequency range
- Different reference clock sources
- FDD and TDD operation
- Variable bandpass RF filter

Applications

- SDR platform supporting different communication standards with variable signal bandwidths, carrier frequencies and transmit power
- Multiband, MIMO and beam-forming operation using several radio units connected and synchronized via optical fiber
Specifications

- Baseband CPRI data rate of 2457.6 Mbit/s
- Xilinx Spartan-6 FPGA
- Configurability via RS232 and terminal program or with vendor data from CPRI
- 2-antenna duplex operation with variable RF signal bandwidth ranging from 3 MHz to 50 MHz
- 400 MHz – 4000 MHz carrier frequency range
- Maximal output power (RMS, CW) of 31 dBm at 2.6 GHz
- Duplex components (filters, diplexers and/or TDD switches) on extra plug-on modules

Block diagram of the SDR transceiver

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The Fraunhofer HHI

One of the prime research and development focus of the Fraunhofer Heinrich Hertz Institute lies in the development of mobile and fixed broadband communication networks and multimedia systems.

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