NEXT-OBP
for Heinrich-Hertz-Satellite Mission

Highlights
◊ Advanced technology demonstration on German Heinrich-Hertz-Satellite
◊ FPGA and DSP processing unit
◊ Geostationary application

NEXT-OBP is an advanced technology demonstration system to be operated on the future German Heinrich-Hertz-Communication-Satellite. The SDR concept is based on FPGA and DSP processing units and an RF transceiver offering L band interface. Advanced communication technologies and experiments will be implemented and tested on the geostationary Heinrich-Hertz-Satellite in cooperation with DLR-IKN Oberpfaffenhofen.

Key Specifications
RX / TX frequency: 1,500 MHz (L Band)
Data rate (Payload): Up to 10 Mbps
RF Bandwidth: 10 MHz
RF Power Output: -20 dBm
Modulation: BPSK, QPSK
FEC: Turbo-Code
Power Consumption: <25 W
Dimensions: 110 x 160 x160 mm³
Orbit: geostationary

SMALLGEO TELECOMMUNICATIONS SATELLITES HEINRICH HERTZ SATELLITE MISSION

Within the framework of the Heinrich Hertz mission of the DLR e.V., the ambitious goal is to test new technologies for satellite communications for their space application. In cooperation with the Institute for Communication and Navigation, Oberpfaffenhofen, IQ wireless GmbH develops and implements a regenerative on-board processor for conducting communication experiments with advanced, high-performance radio transmission schemes.