NanoCom
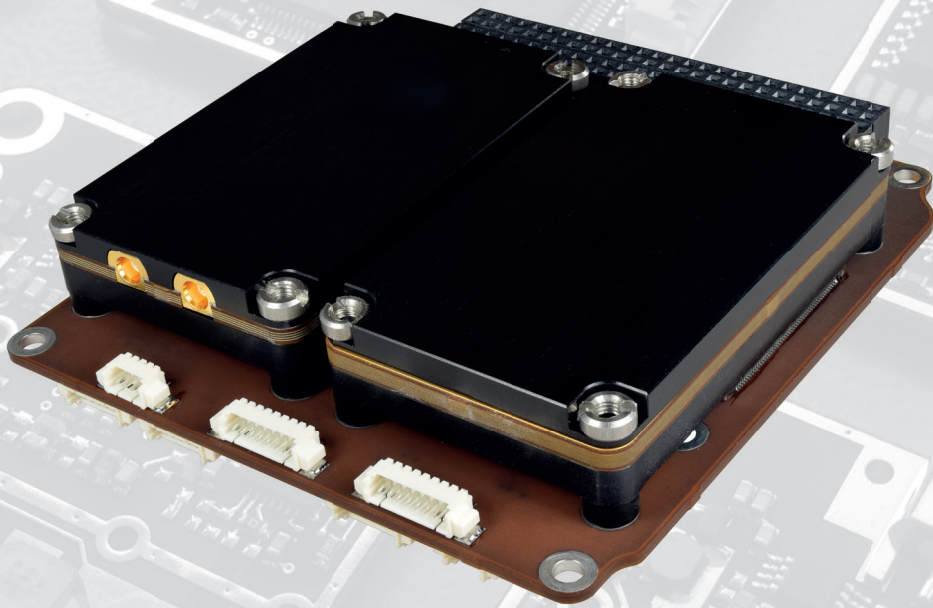## SDR

NanoCom SDR

Space Qualified Software Defined Radio Platform for Sensing and Communication Applications

- Based on powerful FPGA: reconfigurable in orbit
- Flexible RF front end module for 0-6GHz operation
- Combined on a single PC104-board

Highlighted Technical Features

System Features:
- Flight proven Software Defined Radio platform
- Standard GomSpace Motherboard – Daughterboard concept, up to 4 modules
- FPGA module and RF front end modules
- Programmable in orbit

NanoMind Z7000:
- Dual ARM Cortex A9 MPCore up to 1GHz
- 1GB DDR3 RAM and 4GB storage
- Powerful FPGA module – 125K logic cells
- Linux operating system

NanoCom TR600:
- Tunable in the range: 70MHz to 6GHz
- Up to 56MHz bandwidth
- 2 x TX/RX channels

Mechanical and Interface Features:
- Fits in less than 0.3U volume in a nanosatellite
- Heat sink for both FPGA and RF front end modules
- Interfaces: CAN, LVDS, I2C and MCX antenna connectors
- Compliant with GomSpace CSP

The SDR platform can be delivered in versions for high-speed S-band ground link and for inter-satellite links utilizing S or K band in a highly miniaturized radio system using advanced technics for long distance communication.
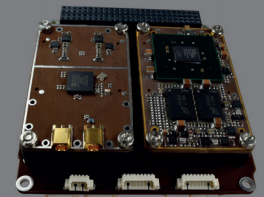
On GOMX-3, the SDR platform is used for signal sensing with an L-band antenna for spectrum characterization. Significant calculation capacity for advanced signal processing and detection techniques is available in a very compact design.
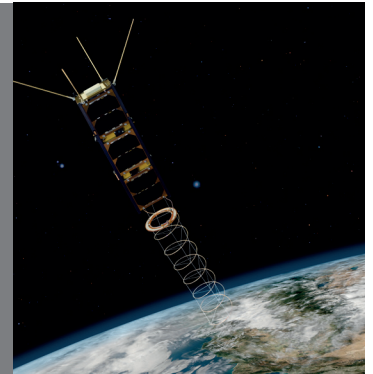
The FPGA module can be available for other advanced processing requirements such as image processing etc. utilizing the high capacity of the system on a chip technology. Software available for in-orbit programming or applying scripting tools limiting the size of program uploads.