



NAVX®-RPS – GNSS RECEIVER PROFESSIONAL SERIES

| EXCELLENCE IN SATELLITE NAVIGATION |

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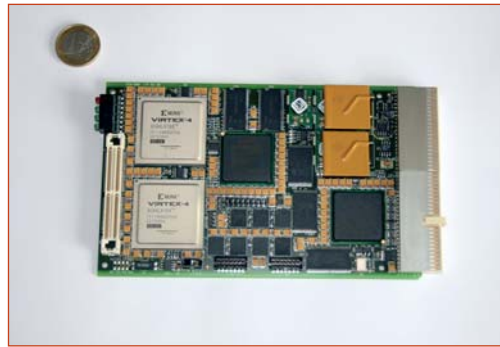
With the NavX®-RPS GNSS receiver, a powerful and flexible receiver technology platform is available for maximum scalability and extendability, suited to master the evolving multi-constellation and multi-signal GNSS environment of the coming years, supporting GPS, Galileo and more, customizable to meet your requirements.

NavX®-RPS Receiver Platform

The NavX®-RPS GNSS receiver is a platform for high-end applications. The NavX®-RPS architecture concept is based on integrated analog/digital boards containing a novel RF-ASIC and a flexible baseband FPGA. It is optimized for

- Flexibility (FPGA baseband)
- Scalability (up to six receiver slots)
- Configurability (every slot can be fully configured for certain signals)
- Customization through add-on boards

The NavX®-RPS receiver platform targets professional monitoring and reference applications, requiring high-precision multi-frequency and multi-constellation measurements.



Current NavX®-RPS Applications

The NavX®-RPS receiver is in operational usage for the **GATE** (Galileo test range) system as monitor and user receiver.

The NavX®-RPS monitor receivers are in permanent operations, disciplined with a Rb-atomic clock. It is configured to receive the GATE (up to 6 Galileo) and the future 4 Galileo IOV satellite signals, but also GPS L1.

The NavX®-RPS in user receiver configuration is additionally providing user navigation data processing.

Current NavX®-RPS Customizations

The NavX®-RPS on the other side is the basic platform for the official Galileo payload verification receiver of the Galileo Payload Test System (**PTS**).

To verify the correct implementation of the Galileo signal generation payload on ground, the NavX®-RPS platform was customized with special capabilities through add-on boards for the Galileo Security interfaces.



NavX®-RPS Overview

- + Up to six receiver slots
- + PXI interface technology
- + 10 MHz external input
- + 19" form factor
- + Power: 9 - 28 VDC

NavX®-RPS Baseband

- + Flexible FPGA upgrades
- + 30 channels per frequency
- + User-configurable memory-based codes
- + User-configurable modulations (BPSK, BOCs/c (m,n), MBOC, AltBOC)

NavX®-RPS RF Front-End

- + RF-ASIC on-board
- + Max. RF-Bandwidth: 72 MHz
- + Noise figure: 1.5 dB
- + Frequencies:
 - GPS L1, L2, L5
 - Galileo E1, E5, E6
 - Additional configurable
- + Antenna power selectable: 3.3 & 5 VDC
- + SMA antenna connector

Control Software

- + PC-based Control Software
- + Microsoft Windows XP and Vista compatible
- + 512 MB RAM
- + Pentium 4 or Core Duo
- + TCP/IP and USB 2.0 Port

Compliances

- + RoHS compliant
- + CE compliant



Currently the GPS and Galileo constellations are supported. A typical configuration is:

- Slot 1: GPS L1/Galileo L1
- Slot 2: GPS L5/Galileo E5ab
- Slot 3: GPS L2
- Slot 4: Galileo E6

Upgrades to further constellations like GLONASS and QZSS are on the development roadmap, through adaptation of the signal processing in the FPGA driven flexible base-band boards. E.g. with Slot 5 and 6, GLONASS L1 and L2 can be realized.

Contact

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