



GNSS Test Receiver

Flexibility | Scalability | Usability

Turning our test expertise into your success.

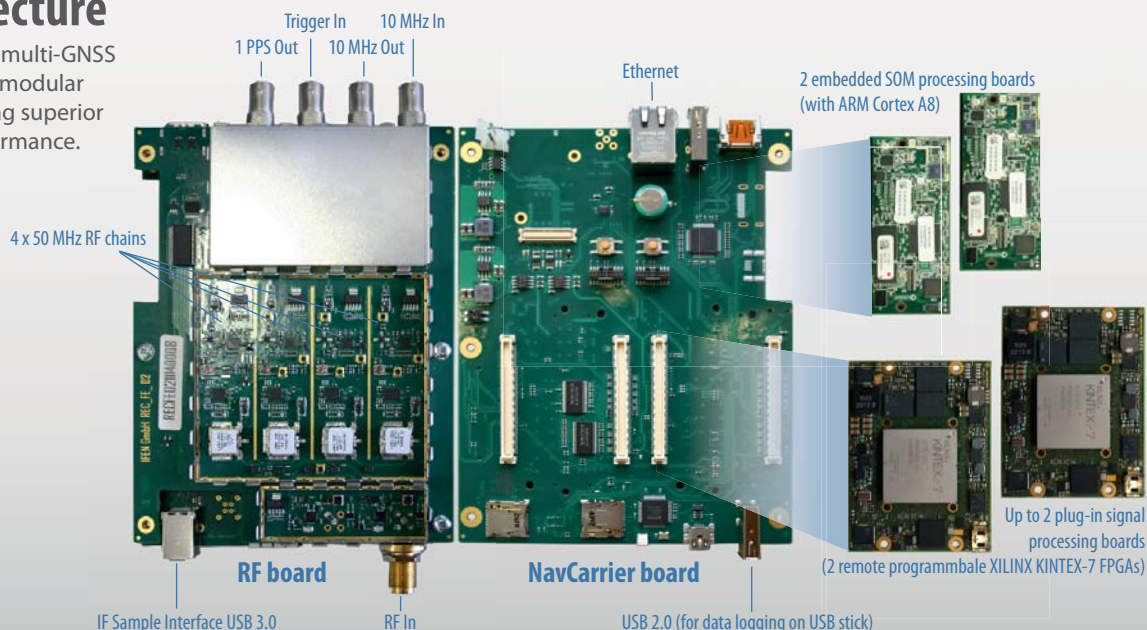
IFEN's flexible software defined Multi-GNSS test receiver solution.

NavX[®]-NTR

Navigation Test Receiver

HW Architecture

The NavX[®]-NTR is a multi-GNSS test receiver with a modular architecture, offering superior flexibility and performance.



Features

Signal Capability

- GPS L1, L2P & L2C, L5 and SBAS L1
- Galileo E1, E5a, E5b, E5ab AltBOC and E6
- GLONASS G1, G2
- BeiDou B1, B2
- IRNSS L5 and S-band

RF Front-End

- 4 RF chains simultaneously with 50 MHz RF bandwidth each
- Supports all L-Band GNSS frequencies simultaneously
- Design optimised to minimise inter-frequency HW bias
- Support of S-Band on request

Correlation Engine

- Up to 2 plug-in FPGA signal processing boards
- Up to 40 channels for I&Q signals per FPGA board
- Remote upgrade of correlation engine (FPGA bit file)

Acquisition & Tracking Engine

- Plug-in A&T processing board (ARM 8 Cortex, 1 GHz)
- Powerful software based A&T engine
- Remote upgrade of A&T engine (firmware & software)

Navigation Engine

- Plug-in navigation processing board (ARM 8 Cortex, 1 GHz)
- Remote upgrade of navigation engine (firmware & software)

Feature Expansion Slot

- Special connector with direct access to all stages of signal processing
- For customer specific solutions, e.g. crypto modules

Specification

Measurements

- Update rate 0.02 - 5 Hz
- Latency (output) < 300 msec

Tracking Performance

- Code accuracy (typical) < 2 ... 20 cm
- Carrier accuracy < 1.5 mm
- TTFF (cold) < 60 s
- TTFF (hot) < 5 s

Dynamics

- Velocity 515 m/s

Physical

- Weight 5 kg (1.8 kg DC version)
- Size 19" housing with 1 HU

Electrical

- Input voltage 115 / 230 VAC or 12 VDC
- Power < 50 W (AC) or < 40 W (DC)

I/O Ports

- 1 IF samples output interface USB 3.0
- 1 RF in TNC female (50 Ohm)
- 1 PPS out BNC female (LVTTTL)
- 1 external trigger in BNC female
- 10 MHz external oscillator in BNC female (50 Ohm)
- 10 MHz internal reference out BNC female
- 1 Ethernet RJ45 10/100Mbps



Notes

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Disclaimer:
All specifications subject to change without prior notice

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