



PolaRxS PRO

Main features:

- * 136 hardware channels
- * Up to 100 Hz data output rate
- * Multi-frequency L1/L2/L5/E5abAltBoc code/carrier tracking of GPS, GLONASS and GALILEO signals
- * 136 hardware channels
- * Ultra Low noise Oven Controller Crystal Oscillator (OCXO)
- * GNSS+ pack containing: APME+ A Posteriori Multipath Estimation, LOCK+ Ultra stable tracking of highly dynamic signals, AIM+ interference monitoring and adaptive and interference mitigation
- * 100 Hz measurements
- * On-Board data logging (2GB)
- * 1 Ethernet port
- * 1 full speed USB port
- * Includes intuitive GUI (RxControl) and ISMR specific logger

Physical and environmental

| | |
|---------------------------------|--------------------|
| Size | 140 x 37 x 250 mm |
| Weight | 980g |
| Input voltage | 9.00VDC - 30.00VDC |
| Antenna LNA Power Output | |
| voltage | +5.00VDC |
| maximum current | 200mA |
| Power consumption | 6.00W typical |
| Operating temperature | -40°C - 85°C |
| Humidity | 5% - 95% |

Performance

Position accuracy

| | Horizontal | Vertical |
|------------|------------|----------|
| Standalone | 1.30m | 1.90m |
| SBAS | 0.60m | 0.80m |
| DGPS | 0.50m | 0.90m |

RTK performance

Velocity accuracy

| | Horizontal | Vertical |
|--|------------|------------|
| | 0.80cm/sec | 1.30cm/sec |

Maximum update rate

100Hz

Time accuracy

| | |
|----------------|------------|
| 1PPS | 10.00nsec |
| Event accuracy | <10.00nsec |

Time to first fix

| | |
|----------------|-------------|
| Cold start | <45.00sec |
| Warm start | <20.00sec |
| Re-acquisition | avg.1.20sec |

Measurement precision

| | |
|------------------------|------------------|
| C/A pseudoranges | 5.00cm (GPS) |
| | 0.16m (GPS) |
| | 7.00cm (GLONASS) |
| | 0.25m (GLONASS) |
| GPS P2pseudoranges | 0.10m |
| GLONASS P pseudoranges | 0.10m |
| L1 carrier phase | <1.00mm |
| L2 carrier phase | 1.00mm |
| L1/L2 doppler | 0.1000Hz |
| L5/E5a carrier phase | 1.3mm |
| L1 doppler | 0.10Hz |
| L1/L5 doppler | 0.10Hz |

Tracking Performance (C/N0 threshold)

| | |
|--------------|------------|
| Tracking | 26.00dB-Hz |
| Acquisition | 33.00dB-Hz |
| Acceleration | 10g |
| Jerk | 4g/sec |