AMPERE®

Acrux Weather Resistant Permanent Station

Multi-frequency GNSS Reference Receiver for Active National Geodetic Network

In collaboration with Septentrio, Ampere introduces Acrux the versatile and robust all-in-one multi-frequency GNSS reference receiver Permanent Station. It provides measurements with the lowest noise and cycle slip rate on the market while continuously monitoring and protecting against heavy seas or powerful jets of water, interference, multipath and other environmental effects.

KEY FEATURES

- Septentrio PolaRx5 multi-frequency GNSS receiver
- Tracks all visible signals (GPS, GLONASS, Galileo, BeiDou, NAVIC, QZSS and SBAS)
- High precision, low noise measurements
- AIM+ interference monitoring and mitigation system
- Low and scalable power consumption
- Smart telemetry system (SYNC+)
- IP Rating IP66
- GNSS antenna cable
- Intelligent battery charger (Optional)
- AC Power strip with surge protection (Optional)
- RS232 Surge protection (Optional)
- Sealed 7 Ah battery
- LED voltage indicator (Optional)

BENEFITS

Tracking all visible signals

Septentrio´s PolaRx5 tracks all visible signals generating ultra low- noise measurements. It produced the lowest number of cycle slips to offer the highest number of observations per slip during independent competitive testing.

GNSS+ technology

AIM+ can suppress the widest variety of interferers, from simple continuous narrowband signals to the most complex wideband and pulsed jammers. APME+ multipath estimator, unique in its ability to tackle short-delay multipath, enhances measurement quality while LOCK+ guarantees robust tracking of rapid signal dynamics during scintillation events or earthquakes.

SIMONETT W S.A. DE C.V.

| México: | Chile: | Perú: | Argentina: | Colombia: | EUA |
| +52 (55) 84212648 | +56 (22) 570 9442 | +51 (1) 7052216 | +54 (11) 51685857 | +57 (1) 5086969 | +1 (720) 243-5779 |

Storage integrity

Automatic transfer of data from a receiver to a remote server can result in lost data or the unnecessary retransmission of complete data files. Specifically developed to minimize network usage for telemetry, the PolaRx5 features SYNC+, a fast differencing algorithm that analyses data files at the remote location and transfers only the missing parts.

Full compatibility

Communication and (remote) management of the PolaRx5 is made easy with a robust metal built-in enclosure, sealed 7 Ah battery for a continuous operation and a powerful Web UI which features secured access to all receiver settings and status information, data storage and fast firmware upgrading.

GNSS Technology	Conectivity	Data Formats & Storgae
544 Hardware channels for simultaneous tracking of all visible satellite signals **P-code tracking on L1 and L2 to avoid CA-P biases** **Independent tracking of L2C (GPS)** **Up to 100 Hz raw data output (code, carrier, navigation data) (optional feature)**	**1 Ethernet port RJ-45** **Integrated WiFi (802.11b/g/n)** **Power over ethernet** **1 Full-speed USB port** **1 USB host socket for external disk** **HTTP/HTTPS**	**Septentrio Binary Format (SBF), fully documented with sample parsing tools RINEX (obs, nav, meteo) v2.x, 3.x** **BINEX** **NMEA v2.30 and v4.10 output** **RTCM output (All MSM messages supported) CMR 2.0 output** **Support for standard MET/Tilt sensors** **Sample rate 10 msec, 20 msec, 40 msec, 50 msec, 100 msec, 200 msec, 500 msec, 1 s, 2 s, 5 s, 10 s, 15 s, 30 s, 60 s, 2 min, 5 min, 10 min , 15 min, 30 min.**
Visible signals **GPS: L1C/A, L2C, P code 10, L1C, L5.** **GLONASS: L1 C/A, L2 C/A, P code.** **GALILEO: E1, E5a, E5b, E5AltBOC, E6.** **BEIDOU: B1I,B1C, B2I, B2a, B3I.**	**Septentrio RxTools: complete and intuitive GUI tool set for receiver control, monitoring, data analysis and conversion. It is available for both Windows and Linux** **Integrated FTP server for data access with user authentication, allows to set parameters as hostname, IP address, user key and password** **FTP push, SFTP, SYNC+, CloudIT NTRIP (v1 and v2) client, server and caster Point-to-Point communication protocol**	**16 GB Standard on-board logging** **Up to 40 logging jobs (8 independent sessions x 5 data formats)** **Download of data from the receiver locally (USB) and remotely (Ethernet).** **Stores configuration parameters despite power loss.** **Ability to start and continue its operation after a recovery of the power supply automatically.** **Download the cycle memory without stopping the taking of measurements.**

PHYSICAL AND ENVIRONMENTAL

Power consumption 1.9 - 4.8 W
Size H:40 cm, W: 40cm, D: 21cm
Weight 5 kg
IP Rating IP66
Receiver Operating temperature -40°C to +65°C
Battery Sealed 7 Ah

* For more information on the GNSS technology, Data formats, Connectivity, Measurement precision and tracking performance look into Septentrio´s PolaRx5 datasheet.

https://www.septentrio.com/en/products/gnss-receivers/reference-receivers/polarx-5

SIMONETT W
S.A. DE C.V.

México: +52 (55) 84212648   Chile: +56 (22) 570 9442   Perú: +51 (1) 7052216   Argentina: +54 (11) 51685857   Colombia: +57 (1) 5086969   EUA +1 (720) 243-5779