

MX100 Receiver

TECHNICAL SPECIFICATIONS

The World's First Tri-frequency L1/L2/XPS Receiver for Real-time Positioning

The MX100 Receiver is an integral part of Novariant's Terralite™ XPS System developed for high-precision machine control and guidance applications which require continuous, low-latency positioning information.

When used in conjunction with a constellation of ground-based Terralite XPS Transmit Stations, the MX100 Receiver tracks both GPS and Novariant's proprietary XPS signals to provide seamless positioning data to an unlimited number of operators in the pit.

The MX100 Receiver utilizes GPS + XPS signals in combination to provide maximum available position information. The MX100 Receiver is compatible with all leading GPS-enabled applications that accept standard positioning inputs.



Standard Features

- ▶ 12-channel L1/L2 plus 6 channels XPS tracking
- ▶ AX100: Tri-frequency L1/L2/XPS antenna
- ▶ Up to 5Hz position updates
- ▶ 8 status LEDs
- ▶ 2 RS-232 serial ports
- ▶ Ethernet port
- ▶ Configurable via TCP/IP
- ▶ Compatible with leading brand radio systems

Performance

GPS Satellite Tracking	12 channels L1 C/A code, L1/L2 full cycle carrier. Fully operational during P-code encryption.
Terralite XPS Tracking	6 channels XPS tracking
Initialization	Automatic OTF (on-the-fly) while moving
Time Required	< 1 min, typical
Communications	1 Ethernet 10MB Base T 2 RS-232 ports. Baud rates up to 57,600.
Configuration	Configurable via TCP/IP
Output Formats	Modified NMEA and customized formats available. Contact Novariant for details

RTK + XPS Hybrid Mode (L1/L2 + XPS)

Accuracy (see notes below)	Horizontal: 10cm, 1 sigma Vertical: 30cm, 1 sigma
Data Output Rate	Configurable up to 5 Hz

Technical Data

Dimensions & Weights

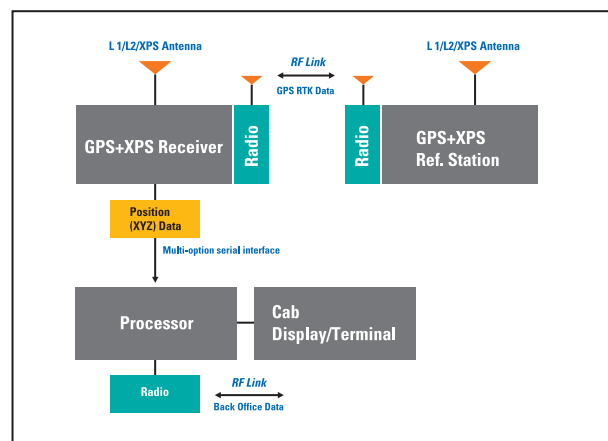
Size	10.90" (L) x 6.80" (W) x 2.48" (H) 277mm (L) x 173 mm (W) x 63 mm (H)
Weight	4.5 lbs (2.0 kg)

Specifications subject to change without notice.

Accuracy notes:

• Assumes PDOP < 4.0

• Achieving stated accuracy requires six (6) Terralite Transmit Stations set up around the rim of the pit. 100% positioning coverage is not guaranteed. Overall position availability and accuracy is dependent on several factors, including number of operational Terralites visible, the location and directionality of Terralites, pit configuration, etc.



Power Requirements

Power	24W, 10 to 14 VDC
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Environmental

Temperature

Operating: -20° C to +60° C

Storage: -30° C to +80° C

Humidity

Humidity 100% condensing

Sealing

Dustproof, weather sealed enclosure

Vibration

8.9g RMS

Mechanical Shock

Operating: ± 30g **Survival:** ± 45g

Contact Information

Tucson, Arizona **+1 520-792-0162**
 Santiago, Chile **+569 9099-5018**
 Australia **+61 (0) 429 199764**
www.novariant.com/mining



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