

SLXg3

Selected Features

- Integral 12-channel GPS engine
- SBAS, OmniSTAR, and *Beacon differential receiver
- Dual serial ports for NMEA, RTCM, GPS, and diagnostic messages
- Front panel LED status indicators show GPS, differential, power, and position accuracy
- External cable provides RTCM, NMEA, receiver diagnostics, and binary GPS via RS-232 connectors
- NMEA messages: GGA, GSA, GLL, GSV, VTG, ZDA, RMC
- Warm start – typically less than 1 second after up to 5 seconds of signal loss
- Subscriber access permits remote activation via satellite uplink (OmniSTAR only)
- Automatic station search in *Beacon mode
- ***Sub-meter accuracy



The Satloc SLXg3 is a DGPS receiver designed for multiple applications, including air, ground, marine, and GIS. SLXg3 supports the following differential types: Satellite-Based Augmentation Systems (SBAS), such as WAAS or EGNOS, OmniSTAR, *Beacon, and Satloc's patented e-Dif.



Specifications

Power

Voltage Input: 10 – 32 V
 Power Consumption: 5 W
 Current Consumption: < 400 mA @ 12VDC

Mechanical

Receiver (SLXg3)

Dimensions: 2.0 H x 4.9 W x 7.5 D in.
 (5.1 H x 12.4 W x 19.0 D cm)
 Weight: 1.6 lbs (0.73 kg)
 Display: 4 LED indicators

Antenna

Dimensions: 3.6 H x 5.4 Dia in.
 (9.1 H x 13.7 Dia cm)
 Weight: 1.2 lbs (0.54 kg)

Antenna

GPS Frequency Range: L1 (1575 MHz ± 20 MHz)
 GPS LNA Gain: 27 dB
 OmniSTAR Frequency Range: 1525 - 1585 MHz
 OmniSTAR LNA Gain: 28 dB
 *Beacon Frequency Range: 283.5 - 325 kHz
 *Beacon LNA Gain: 34 dB

GPS Sensor

Receiver type:

Channels: 12-channel, parallel tracking
 SBAS Tracking: 2-channel, parallel tracking
 Update Rate: 1 Hz default, 5 Hz max
 Horizontal Accuracy: < 1 m 95% confidence (**DGPS)
 < 5 m 95% confidence (**autonomous, no SA)

Cold Start Time: < 1 min typical
 Reacquisition Time: < 2 s
 Antenna Input Impedance: 50 Ω

*Beacon Receiver Sensor

Channels: 2-channel, parallel tracking
 Frequency Range: 283.5 - 325.0 KHz
 Channel Spacing: 500 Hz
 Operating Modes: Manual, automatic, semi-automatic

Communications

Serial Ports: 2 full duplex
 Interface Level: RS-232C
 Baud Rates: 4800, 9600, 19200

Correction: RTCM SC-104
 Input/Output Protocol: NMEA 0183
 Data Input/Output Protocol: Proprietary binary timing
 Raw Measurement Data: 1 PPS (HCMOS, active high, rising edge sync, 10 kΩ, 10 pF load)
 Output: manual mark input

*Beacon is only available on the SLXg3 Combo

**Results may vary with differential correction source and conditions

***Dependent upon ionospheric activity and multipath