

Global Asset Tracking - Intelligent Remote Monitoring

The SX1 represents a breakthrough in satellite-based asset monitoring and tracking technology. Operating on Globalstar's Low Earth Orbit (LEO) simplex satellite data network, the SX1 provides GPS visibility, event monitoring and remote asset data on a near global basis. Ideal for low volume messaging with mission critical data, the SX1 provides commercial and government customers with the most cost-effective satellite solution available for both fixed and mobile applications such as intermodal shipping containers, trailers, buoys and barges.



Key Features

Small compact profile

Rugged design for extreme environments

Exceeds IP68 and NEMA 6P & MILSTD 810 requirements

Totally self contained unit Includes :

- GPS with antenna
- Satellite transmitter with antenna
- Motion detector
- Multi-year battery
- USB Serial Interface
- Line Power Capable
- Magnet reed switch (on/off/alarm)

Multiple mounting options available

Open data architecture for easy OEM integration

Operates globally out of the box

Optional "Total Asset Visibility" application

Optional 3-Year Warranty

Innovative, Compact, Rugged Design

With the industry's smallest footprint of only 7.25 x 3.25 x 1 inch (184 x 83 x 25 mm) and weighing only 13 ounces (369 g), the rugged SX1 carries the highest environmental ratings available for any satellite or terrestrial tracking device.

Long-Life, Low Maintenance, Easy Install

Delivering up to seven years of uninterrupted service on a single and easily field-replaceable lithium battery, the SX1 can be installed, activated and operational in less than one minute. The SX1 is able to track and monitor any asset nearly instantly. The SX1 is the product of choice for applications requiring low-maintenance, long-life solutions.

Reliability, Expansion, Integration

The pinpoint accuracy of the SX1 GPS chipset and satellite communications provides more reliable tracking of remote assets than cellular LBS systems or proximity RFID tags because it communicates dependably via satellite extending its range far beyond cellular and RFID coverage.

For expansion, the functionality of the SX1 is enhanced through the serial USB port. Supporting up to eight external sensors, the SX1 provides additional capabilities to meet the demands of real-time security, alarm reporting and asset conditions. The internal motion sensor and highly configurable event alarms help customers manage their security concerns when high-value assets are at risk. For VARs and integrators the OrbitOne SX1 is available as an application ready device or as an OEM module for integration. The open architecture allows complete and secure data integration and is compatible with virtually any legacy supply chain, logistics or tracking application.

Cost-Effective Global Coverage



Satellite communications provide near-global coverage and the Simplex Data Network provides the most cost-effective solution available for monitoring assets from continent to continent and across urban and remote areas. Not only are LEO satellite communications more reliable for data transmission than terrestrial systems, they also offer substantial benefits over Geostationary Earth Orbit (GEO) satellites. The advantages include lower power requirements, reduced latency, less shadowing from buildings, stacked containers, etc. and, more importantly the redundancy and increased reliability of single satellite failure. The SX1 operates globally out of the box and does not require re-programming before tracking assets moving to other global locations.

The Solution: Total Asset Visibility



The SX1 with its associated satellite network offering and optional web-based mapping and asset management software allows customers to obtain Total Asset Visibility from any internet connection worldwide. The web-based solution requires no downloads and provides mapping, display, and management tools for many tens of thousands of assets.

SX1 Product Specifications

Physical

- Dimensions • 7.25" x 3.25" x 1"(184 x 83 x 25mm)
- Weight • 13 ounces(369g)

Approvals

- Radiated Emissions • FCC Part 15 and Part 25, ESD, Industry Canada, COFETEL, ETSI EN 301 489-1, and ETSI EN 301 489-3 (CE Mark)
- ESD Compliance • EN61000-4-2
- Safety Approval • U.S. UL913, Class 1, Division 1 (Groups A, B, C, D) INTRINSIC SAFE OPERATION
- Ordinance • HERO Certification (Pending)

Environmental

- Temperature • -40 C (-40 F) to +85 C (+185 F) Operating
- Humidity • 100% at 50 C, Salt, Fog Testing per MIL STD 810
- Vibration & Shock • Testing per MIL STD 810, SAE J1455, and EIC 60521
- Type • Exceeds IP68 and NEMA 6P

L-Band Transmit

- Frequency • 1.615 GHz
- Protocol • Simplex
- Modulation • Direct Sequence Spread Spectrum (DSSS)
- Maximum Tx Power • 22dBm EIRP
- Maximum Tx Time • 1.4 Seconds
- Antenna • Internal Ceramic Patch
- Packet Size • 9 Bytes

Unit OTA Identification

- Electronic Serial Number • Each unit uniquely serialized

Digital Communications

- Programming Interface • USB Serial

Sensor Information

- Motion • Internal
- Sensor Interface • USB Serial
- Sensors Supported • 8(Cascaded)
- Type • Dry Contact, Custom Serial, Universal Multimode Sensor

Power

- Battery • Internal, Ultrasonically Welded Lithium Pack - Primary 5200 mAHr, 6VDC
- Battery Life • Up to 7 Years
- Replacement • Field replaceable without device removal from asset
- Line Power Capable • Standard, via USB Interface

Mounting Options

- Tape, Magnet, Windshield, Mounting Sled, Screw, Velcro

Accessory Types

- Programming Tools and Cables, Mounting Accessories, Sensor Cables, Line Power Cables, Security Screw and Tools