

## GLOBAL SX1 TRACKING MODULE

### SATELLITE GPS TRACKER

#### SX1 Engine Overview



#### OEM Satellite Module

The SX1 Engine is a lightweight circuit, containing all components necessary to perform and enable a wide variety of location based reporting, sensor, and alarm applications. This revolutionary hardware offers data delivery services from Numerex's highly reliable and fully redundant multilocation server configuration.

The SX1 Engine operates as either an SPI or USB device. Integrators can satellite enable their technology applications cost-effectively and with total confidence that their application technology can be made operationally global within weeks, not years. The integrated GPS receiver and satellite transmitter make the engine a stand alone tracker, sensor monitor interface, local controller with communications, or security tag. The modes of operation are configurable, making the engine suitable for inclusion in a wide variety of end user applications.

This small-outline board is the result of years of product development and miniaturization, representing the state of the art design in global satellite location based communicator. The SX1 Engine measures just 2.94 x 2.7 x 0.5in. (75 x 69 x 13mm) and weighs only 2.2 ounces (62g).

It is easily integrated, independently or with support, into application assemblies using the on-board USB or SPI interface and DC power. The SX1 Engine is also perfect for integration into dual-mode applications blending satellite with terrestrial communications.

Numerex works with product integrators to ensure the simple inclusion of the SX1 Engine and associated data into a wide variety of applications. The SX1 Engine operates through the Globalstar Simplex Data Service, a LEO satellite system that is designed using widely distributed constellations that provide such benefits as: shading avoidance, out of the box uniform functionality, and near-global availability.

The SX1 Engine is the core technology incorporated into the SX1, Numerex's rugged satellite tracking device. The SX1 Engine is available today to value added resellers and solution integrators. Please contact Numerex for product and service pricing. Call 1-877-M2M-XTRA.

### SPECIFICATIONS

- Size: 2.94 x 2.7 x 0.5in ; (75 x 69 x 13mm)
- Weight: 2.2oz (62g)
- Connectors: USB, SPI, power
- Functionality: microcontroller engine that manages GPS, satellite transmit, power management and sensor functionality
- Integrated Power Regulation
- Configurability: Integrates with OEM hardware, custom sensors, or security devices
- GPS receiver: uBlox LEA-5Q
- Antennas: Dual Mode (Satellite-GPS)
- Easy to use configuration tool

## GLOBAL SX1 TRACKING MODULE

SATELLITE GPS TRACKER

SX1 ENGINE SPECIFICATIONS	
<b>PHYSICAL</b> Dimensions Weight	<ul style="list-style-type: none"> <li>• 2.94 x 2.7 x 0.5" (75 x 69 x 13mm)</li> <li>• 2.2 ounces (62 g)</li> </ul>
<b>APPROVALS</b> Digital Emissions Modular Device	<ul style="list-style-type: none"> <li>• FCC Part 25</li> <li>• Industry Canada</li> </ul>
<b>TRANSMITTER</b> Frequency Protocol Modulation Maximum Tx Time Antenna Packet Size	<ul style="list-style-type: none"> <li>• 1611.25 to 1618.75 MHz</li> <li>• Simplex</li> <li>• Direct Sequence Spread Spectrum (DSSS)</li> <li>• 1.4 Seconds/9 Bytes</li> <li>• Dual Mode (Satellite-GPS)</li> <li>• 9 Bytes</li> </ul>
<b>UNIT IDENTIFICATION</b> Electronic Serial Number	<ul style="list-style-type: none"> <li>• Each unit uniquely serialized</li> </ul>
<b>DIGITAL COMMUNICATIONS</b> Programming Interfaces	<ul style="list-style-type: none"> <li>• USB HID</li> <li>• SPI</li> </ul>
<b>SENSOR INFORMATION</b> Motion Sensor Interface Type	<ul style="list-style-type: none"> <li>• Internal</li> <li>• USB HID Device and SPI</li> <li>• Dry Contact</li> </ul>
<b>POWER</b> Voltage Sleep Current GPS Fix Current Satellite TX Current External Power Required	<ul style="list-style-type: none"> <li>• 4-6VDC</li> <li>• 40mA (@6VDC)</li> <li>• 50mA (@6VDC)</li> <li>• 500mA (@6VDC)</li> <li>• Standard, via USB Interface</li> </ul>

1877 - M2M - XTRA

[www.numerex.com](http://www.numerex.com)

