





# Satellite Enable Your Product

An intelligent, Iridium-based platform for integrating into custom hardware to create satellite enabled solutions.

# What is the GSatMicro OEM?

The GSatMicro OEM is an incredibly customizable device which combines telematics and onboard intelligence in a way no other satellite device has before. Starting with an engineering challenge to design the smallest possible satellite tracking device, the GSatMicro OEM not only delivers, it includes extremely advanced functionality in an astonishingly small package.

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#### Markets

Custom Tracking Solutions Vessel Tracking Fuel Monitoring & Logistics Fleet Management Container Tracking Security Services Recrational M2M & IoT Integrations Transportation Telematics

#### Sectors

Aerospace Enterprise Government Maritime

#### Includes

eLua Scripting Language Wireless Connectivity AES 256-bit Encryption Latest SIRFstarV GPS USB & RS232 Interface

# Completely Customizable Telemetry Device

The GSatMicro OEM allows the ability to satellite enable unique projects

to solve or develop strategic missic Wireless Module customizable telemetry device with m Processor to tie in a host of sensors capable of behaving.

## Get Started!

- ♥ Create Unique Terminals
- Satellite Enable Any Project
- Completely Integrable
- Define Your Own Form Factors









#### Small design for greater results

The GSatMicro OEM board clips directly onto the Iridium 9602 modem providing a platform for developers to integrate into their own projects. Every component of the GSatMicro OEM was designed to fit into a dense vertical stack, providing extremely advanced functionality in an astonishingly small package. It is capable of being fully integrated into a customized form factor designed to meet specialized demands of any project imaginable.

#### 1) Processor

Using the latest 32-bit ARM Cortex technology, the GSatMicro is both fast and very power efficient. The processor itself consumes only a few microamps when sleeping, and wakes up to full power mode in a millisecond to process high speed data.

#### 2) Wireless Module

GSatMicro interfaces with other devices, including Android and iOS based products; allowing two-way communication using the GSatMicro application.

# 3) Accelerometer &4) Magnetic Compass

With its accelerometer and magnetic compass paired with onboard intelligence and I/O technology the GSatMicro eliminates restrictions to position information. Instead, the GSatMicro offers you the freedom to truly understand the behavior of your asset. The GSatMicro lets you control how and why the device is going to report.

#### 5) I/O Ports

Two flex circuit connectors on the GSatMicro OEM provide all of the I/O functionality and can be easily interfaced to with the I/O Board. The I/O Board provides both common connectors and solderable pins for your project. It includes Micro USB, DB9 RS232, DC power, 2 analog inputs, 2 relay outputs, 5 LEDs, and 3 N/O push buttons.

#### 6) GPS Chip

SiRFstarV GPS with an amazing sensitivity: The GSatMicro is capable of sending and receiving data anywhere in the world, this include positional data such as latitude, longitude and altitude.

#### 7) Antenna Port

Dual band antenna with U.FL/IPEX connector. The GSatMicro uses a shared antenna design to utilize a single antenna for Iridium and GPS connectivity. We have multiple antenna options available including helical or flat ceramic, or integrate your own antenna design.



# **Specification Overview**



#### Interfaces

USB DC Input (4.5V to 5.5V) High Voltage DC Input (7.5V to 36V) - (protected to 40V DC) USB Interface RS232 Interface 2 Relay Outputs @ 2A 2 Analog Inputs (0V to 30V DC) Optional SMA antenna connector

#### Communication

UART - NMEA (Default)

## NMEA message Switchable

GGA, RMC, GSA, GSV, VTG, GLL, ZDA

Channels 48

# Correlators ~ 400.000

400,000

Frequency LI - 1,575 MHz

#### Sensitivity

Tracking: - 163 dBm Navigation: - 160 dBm Aquisition (cold start): - 148 dBm

Position Accuracy
< 2.5 m CEP (autonomous)</pre>

< 2.0 m CEP SBAS (horizontal)

#### Time To First Fix

Hot Start: < 1 s, Warm Start: < 32 s Cold Start: < 35 s

#### Dimensions:

1.61" x 1.77" x 0.67" (41mm x 45mm x 17mm)

Weight: 1.5 ounces (42.5243 grams)

