



GLOBAL SENTINEL® 5L (GS-5L)

ASSET VISIBILITY YOU CAN RELY ON

When asset visibility is essential to your organization, and it is vital for you to know the location and condition of your assets, then rely on the Global Sentinel-5L. The GS-5L is an adaptable device that does not require a fixed infrastructure to provide global monitoring and tracking of your valuable assets. It also serves as a mobile mesh gateway for mist®, advanced wireless sensor mesh networks.

The GS-5L device mounted on a ship, truck or break bulk cargo, reports the position of your assets, detects unplanned events and identifies variances. This provides you timely information on the status of your assets and allows you to respond to unexpected circumstances. Business rules on the device determine the least costly communication mode. The options include: satellite, cellular and mesh technology, allowing for two-way, encrypted, redundant wireless communications. With the GS-5L, you have continuous global positioning, status reporting, event alerting and remote configuration.

The advanced technology of RSAE Labs' GS-5L keeps your organization informed on the security of your assets, and with an extended battery life of up to three years or 5,000 reports you can trust the device to maintain communications. When your assets are important to your organization, rely on the GS-5L to monitor position and environmental conditions including: temperature, humidity, and acceleration. If the device detects a situation outside of your pre-determined routing or sensor threshold, you will receive notification of the anomaly by web, text, SMS or e-mail.



Key Features and Benefits

- Global coverage through satellite, cellular and mesh communications
- Immediate reporting for event notification
- Data encryption delivering secure reporting
- Data storage for sensor event and position history
- Customized reporting based on time, event, or Geofencing transition (up to 2,000)
- Position status updates at timed intervals or driven by an event
- Remote reconfiguration for re-routing, cargo profile changes and firmware updates
- Requires no fixed infrastructure
- Self-sufficient device minimizes man-power costs
- Optional magnetic mount for easy installation

Physical Characteristics

- Body Dimensions 12.44" x 5.375" x 1.44"
- Weight..... 3.03 lbs. (1.37 kg)

Environmental

- Temperature -40 C to +85 C
- Humidity..... 100% @ 40 C
- Vibration..... SAE J1455 2006
6 G RMS all axis
- Shock (survival)..... 1 meter drop 6-sided
- Ingress Protection Rating..... IP-67/NEMA-4

GPS

- Receive..... 1575.42 MHz
- Channels..... 50
- Sensitivity..... -138 dBm (cold start)
- Time to First Fix (typical)
 - Cold Start 36 sec
 - Warm Start 36 sec
 - Aided Start..... 4 sec
- Accuracy (SA Off)
 - Position (CEP, 2D) <8.0 m (unobstructed)

Power (Internal Battery Only)

- Sleep/Operating..... 250 uA/500 uA
- Battery Type Lithium-thionyl Chloride
LS-17500 or equivalent
- Battery Quantity..... 12 ea
- Battery Life..... 5,000 reports 3+ yrs
3+ yrs (6 hr reporting)

Sensors

- IMotion 0.12 – 16 G threshold
- GS-5LH Only
 - Humidity, ambient air 0 – 100% RH ±5% RH
 - Temperature, ambient air -40°C - +85°C ±2.5°

Certifications

- FCC Part 15B and 15C ID: YVDGS5L
- IC: 9336A-GS5L
- CE : ETSI EN 300 328 (Emissions),
ETSI EN 301 489-1 (Immunity)
- SAE J1455 2006, IP-67/NEMA-4
- HERO, HERF, HERP

Indicators

- LED Red/Green
- Audible..... 2.3 kHz

Functional

- Global Coverage SATCOM and cellular
- Low Latency Reporting <2 minutes
- Encryption..... AES-128/CCM
- Data Storage..... 1 Mbyte
- Reporting Timed, event driven,
Geofencing transition
- Geofencing 2,000 user-defined
zones on device
- Position Timed or event driven
- Configuration & Upgrade..... Remote via comm.

Satellite Radio

- Radio Type Iridium 9602
- Radio Standard Short Burst Data (SBD)
- Transmit/Receive..... 1616 MHz - 1626.5 MHz
- ERP +33 dBm
- SBD Message Size
 - Mobile Originated..... 340 bytes
 - Mobile Terminated 270 bytes

Global Cellular Radio

- GSM/GPRS Enfora GSM0408-40
 - GSM 850/900
 - Transmit power 2W peak
 - Transmit Duty Cycle 12.5%
 - ERP +35 dBm
 - GSM 1800/1900
 - Transmit power 1W peak
 - Transmit Duty Cycle 12.5%
 - ERP +31 dBm

Mesh Radio

- Radio Type TI CC2530
- Radio Standard 802.15.4 Phy only
- Transmit 2402 MHz – 2480 MHz
- Receive..... 2402 MHz – 2480 MHz
- ERP -3.3 dBm
- Modulation DSSS
- DSSS Chip Rate..... 2 Mchips/sec
- Data Rate 250 Kbps
- Channels..... 16
- Channel Bandwidth..... 3 MHz