

GLOBAL SENTINEL® 5B (GS-5B)

Secure Asset Monitoring You Can Trust



Asset visibility is critical to your organization, and the Cubic Global Sentinel-5B is essential to your enterprise. The GS-5B is a flexible device that provides worldwide infrastructure-free tracking, monitoring and security for dry containers.

The GS-5B device mounted on a container reliably reports anomalies from any region in the world securely and timely, providing you the ability to respond to an unplanned situation. The device communicates using least-cost satellite and cellular technology and provides two-way, encrypted, redundant wireless communications. This allows for continuous global positioning, status reporting, event alerting and remote configuration.

When your organization must stay informed of the security status of your valuable assets, trust the advanced engineering of Cubic's GS-5B. The GS-5B is designed with sensors that monitor door intrusions and an extended battery life of up to 3 years or 5,000 alerts. The device detects and monitors environmental conditions of the container including temperature, humidity, acceleration, tilt, motion and light. Most importantly, if an intrusion or tampering occurs, the device issues an alert and the customer is notified by their preferred mode of communication either by web, text, SMS or email.

Key Features and Benefits:

- Global coverage through satellite and cellular communications
- Immediate reporting for event notification
- Data encryption delivering secure reporting
- Data storage for container manifest history or sensor log history
- Customized reporting based on time, event, or geofencing transitions (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

Actionable Information to Manage Your Operations

Whatever, Wherever, Whenever – You'll Know with Cubic Global Tracking Solutions

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GS-5B Technical Specs

Physical Characteristics

Body Dimensions	11 x 8.25 x 1.75 in.
Antenna Dimensions	5.75 x 2.5 x 2 in.
Weight	7.25 lbs. (3.3 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 Channels	1575.42 MHz
Sensitivity	50
Time to First Fix (typical)	-138 dBm (cold start)
Cold Start	36 sec
Warm Start	36 sec
Aided Start	4 sec
Accuracy (SA Off)	
Position (CEP, 2D)	<5.0 m (unobstructed)

Power (Internal Battery Only)

Battery Type	Permanent Lithium
Battery Life	5,000 reports 3+ yrs (6 hr reporting)

Sensors

Independent Right/Left Door State	Proximity and mechanical
Motion	0.12 – 16 G threshold
Light	350nm to 970 nm
Temperature, ambient air	-40 C - +85 C ± 2.5 C*
Humidity, ambient air	0 – 100 %RH ± 5 %RH

Certifications

FCC Part 15B and 15C IC: YVDGS5B
 IC: 9336A-GS5B
 CE : ETSI EN 300 328 (Emissions),
 ETSI EN 301 489-1 (Immunity)
 SAE J1455 2006, IP-67/NEMA-4
 HERO, HERF, HERP (In Process)

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	+33dBm
SBD Message Size	
Mobile Originated	340 bytes
Mobile Terminated	270 bytes

Global Cellular Radio

GSM/GPRS	Enfora GSM0408-40
<u>GSM 850/900</u>	
Transmit power	2W peak
ERP	+35 dBm
<u>GSM 1800/1900</u>	
Transmit power	1W peak
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	-3.3dB
Modulation	DSSS
DSSS Chip Rate	2 Mchips/sec
Data Rate	250 Kbps
Channels	16
Channel Bandwidth	3 MHz