

## GEMINI GLS410



Remote Antenna Feature

## KEY FEATURES

- Covert and Flexible Installation
- Lower Cost of Ownership
- Complete Asset Visibility
- Rugged, Long-lasting Design

# GEMINI GLS410



## SECURE AND FLEXIBLE REMOTE ASSET MANAGEMENT.

Built upon the SkyBitz<sup>®</sup> Gemini GLS400 solution, the GLS410 was designed with the ultimate flexibility and security in mind. The GLS410 provides a small remote antenna that can be attached to any asset. For example, the flexibility of this remote antenna installation allows for the stacking of intermodal containers while maintaining satellite connectivity.

The GLS410 can be mounted inside a trailer or container with an antenna installed externally using mounting brackets. Packaged in a low profile, weatherproof Lexan 943 polycarbonate housing, the GLS410 and its external antenna are built to withstand the harsh operating environments of the transportation and intermodal space. The GLS410 is powered by eight off-the-shelf "AA" lithium batteries, allowing for service in the shop or on the road without the hassles of battery packs or expert installation. The design also accommodates sensors – such as cargo and door sensors – that span a variety of security and other reporting requirements.

## FOR COMPLETE VISIBILITY AND CONTROL.

The GLS410 can be controlled and monitored through the best-in-class SkyBitz InSight Web application for tracking, analyzing and managing a broad range of assets. SkyBitz InSight helps customers reduce capital expenditures, optimize asset utilization, eliminate "lost" assets, track stolen assets and improve customer service.

SkyBitz is the industry leader in remote asset management and employs a variety of intelligent asset tracking solutions and sensors to monitor and report the location and the condition of assets. The GLS410 delivers operational value, helping companies manage their businesses more efficiently, as asset management has direct bottom-line implications. The GLS410 provides:

- **Safety & Security** – SkyBitz provides constant monitoring of the location and status of intermodal containers and trailers. Businesses get enhanced security protection for high-value loads and valuable assets. An additional layer of protection comes from the ability for covert installation.
- **In-Transit Visibility** – SkyBitz helps companies better support just-in-time logistics and increases customer satisfaction and trust by demonstrating continuous visibility of remote assets.
- **Asset Optimization** – SkyBitz provides continuous knowledge of the location and status of un-powered assets anywhere in the world, which quickly translates into reduced capital expenses, cost effective operating efficiencies, added customers and revenues, and increased security.
- **Remote Monitoring & Control** – SkyBitz helps reduce equipment costs, improve maintenance planning, limit liabilities for cargo spoilage and pre-empt operational failures.

## GEMINI GLS410

### HARDWARE SPECIFICATIONS

#### PHYSICAL

**Dimensions (L x W x H):** 12.19 x 5.94 x 1.00 in (309.6 x 150.8 x 25.4 mm)

**Housing Material:** LEXAN 943 Polycarbonate Plastic

**Weight:** 1.50 lb (678 g) with batteries (no mounting brackets)

#### ENVIRONMENTAL (INTERNAL INSTALLATION)

**Operating Temperature:** -40°C to 70°C

**Storage:** -55°C to 85°C (excluding batteries)

**Vibration:** Random vibration from 10 to 500 Hz per Mil-Std 810-F, Figure 514.5C-1 "U.S. Highway Truck Vibration Exposure"

**Humidity:** Mil-Std 810F, Method 5.4 for 6 full cycles as described in Figure 507.4-1

**Shock:** Mil-Std 810-F, Method 516.5 Procedure I using an impact having a shock response spectrum equal to that labeled "Functional Test for Ground Equipment" in Figure 516.5-8 of Mil-Std 810F

**Drop:** Mil-Std 810F, Method 516.5, Procedure IV

**Impact:** ASTM D3029 Method G

**Salt Fog:** Mil-Std 810F, Method 509.4

**Water Spray and Steam Cleaning:** SAE J1455 Section 4.5

**Dust and Sand Bombardment:** Mil Std 810F, Method 510.4

**Solar Load and UV Exposure:** MIL-STD-810F, Method 505.4 Procedure I, Cycle A1 and fifty-six 24-hour cycles per Procedure II

**Dust/Water Ingress Protection:** IP65

**Power:** 8 AA Lithium Iron Disulfide batteries 6 V

#### RADIO PERFORMANCE

**Frequency (MHz):** 1525 to 1559 MHz L Band Receive 1575.42 MHz GLS Receive 1626.5 to 1660.5 MHz L Band Transmit

**Transmit power EIRP:** < 1W

#### INTERFACES

**I/O Connector:** 18 Pin Connector

**Serial Port:** RS485

**Inputs/Outputs:** 2 open/closed switch connections 2 open/closed control lines

**Smart Sensor Tracking (SST):** accelerometer

**Remote Antenna:** SMA-Female

#### CERTIFICATIONS

FCC Part 25, Industry Canada RSS-170, Pb-Free, RoHS Compliant, HERO Certification

#### REMOTE ANTENNA (EXTERNAL INSTALLATION)

**Dimensions (L x W x H):** 2.80 x 2.80 x 0.92 in (71.1 x 71.1 x 23.4 mm)

**Housing Material:** EXL 9330 or LEXAN 943 Polycarbonate Plastic

**Weight:** 0.69 lb (~310 g)

**Operating Temperature:** -40°C to 85°C

**Storage:** -55°C to 85°C

**Dust/Water Ingress Protection:** IP67

**Coaxial Cable:** RG-223/U, 10 foot length, bottom egress, SMA-Male

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Protected by U.S. Patent Nos.  
5955986, 6094162, 6154171,  
6169514, 6243648, 6480788,  
6560536, 6725158, 7010066,  
7020190, 7027486, 7265668,  
7266142, 7327783, 7468927,  
7486174, 7498925, 7505508,  
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