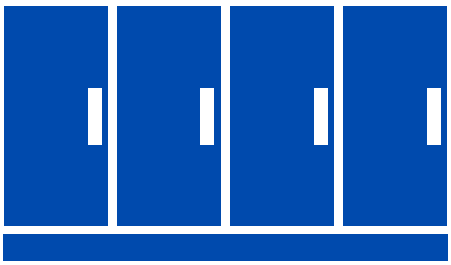
HD Gateway

LTE-M (Cat-M1)/NB-IoT with Bluetooth®, GPS & W-Fi

Long-Range, battery powered Bluetooth® Gateway with geo location capabilities and cellular connectivity. Monitor sensors and tagged assets from anywhere.

8.74 x 3.58 x 1.61 in (222 x 91 x 41 mm)

Use Cases



Refrigeration Monitoring

No wires, Wi-Fi or drills needed. Just attach the HD Gateway in your store and STG stick-on temp/humidity sensors in your cases and you can instantly monitor your case temperatures.

Carts and Non-Powered Assets

Instantly monitor the utilization and on-premise whereabouts of your equipment. No Wi-Fi or wires needed. Can manage asset inventory, location and utilization depending on the number of HD Gateways deployed.

Technical Specifications

Bluetooth® 5.2 Gateway allows up to 100 tagged assets to be scanned by a single HD Gateway.

Cellular communication means no Wi-Fi or wires. Data can be sent directly to 3rd party applications.

Up to 400 ft range, depending on selected sensor and environmental factors.

Replaceable Lithium Thionyl Chloride Batteries can provide up to 10 years of battery life, depending on application.

Connectivity

LTE-M / NB-IoT (supports roaming between networks)	Nordic nRF9160 Modem operates on all major global LTE-M and NB-IoT bands. Supported LTE bands: LTE-M (Cat-M1): B1, B2, B3, B4, B5, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B66 NB-IoT (Cat-NB1/NB2): B1, B2, B3, B4, B5, B8, B12, B13, B17, B19, B20, B25, B26, B28, B66
Bluetooth® 5.2 Gateway	Bluetooth 5.2 gateway reports nearby Bluetooth tags and sensors for affordable tagged asset management and sensor monitoring. **Gateway range influenced by sensors used, Gateway location and environmental interference.**

Location

GNSS Module	SONY CXD5612
Constellation	Concurrent GPS, GLONASS, Galileo, QZSS, Beidou
Tracking Sensitivity	-149dBm cold start / -163dBm hot start
*Location Accuracy	~1m 2D RMS, GPS, -130dBm
GNSS Assistance	GNSS almanac and ephemeris data for greater sensitivity and position accuracy
Low Noise Amplifier	GPS signals filtered and boosted by a low-noise amplifier (LNA) allowing operation where other units fail

* Positioning accuracy specifications are provided by the GNSS supplier and reflect ideal conditions. Device configuration, installation, environmental conditions, augmentation services, and many other factors may lead to variations in positioning accuracy.

Power

Input Voltage	5-16V DC <10uA*
Safety	Reverse Polarity Protection and Fuse Protection

Batteries

User-Replaceable Batteries	2 x D Cell (3.7V per cell). Lithium Thionyl Chloride (LTC)
*Battery Life Estimates	Once Daily location update and Bluetooth Scan Interval– 10 years Hourly location updates and Bluetooth Scan Interval – 5 years

* Battery life estimates are influenced by several factors including temperature, installation and orientation of the device, the frequency of location updates and sensor data uploads, gateway scan intervals and more. STG will advise optimal setup conditions to maximize battery life based on the application.

Mechanics / Design

Dimensions	8.74 x 3.58 x 1.61 inches (222 x 91 x 41 mm)
Weight	1 lbs. (430g)
Housing	Black, glass filled nylon
IP/IK Rating	Ultra-rugged and waterproof IP68 and IK07-rated housing can withstand impact, fine dust, and brief submersion.
Operating Temperature	-22 F to 140 F (-30°C to +60°C)
Diagnostic LED	Diagnostic LED indicates operation status
Flash Memory	Store weeks of records if device is out of cellular coverage. Storage capacity for over 20 days of continuous 30-second logging.
Onboard Temperature	The device reports internal temperature which provides an indication of ambient temperature but may not always be precise

Smarts

Battery Life Monitoring	Battery Meter with “Battery Low” and “Battery Critical” alert levels
Geofence Alerts	QuickTrack Platform can use device location to create geofences and alerts if an asset enters or leaves designated locations.
Onboard Geofencing	Geofences can be downloaded directly to the device for enhanced location-based actions and alerts. Maximum of 500 Geofences with up to 100 points per geofence.
Tagged Asset Scans	Bluetooth scan interval can be adjusted over-the-air to accommodate different tracking applications.
Sleep Mode	Stationary devices enter sleep mode until movement occurs to conserve battery life and optimize data usage
Tamper Alerts	Magnetic tamper switch provides an instant alert if the device is removed.
Theft Recovery	Automated or manual switch to Recovery Mode in the case of theft or loss to activate real-time tracking for asset retrieval

Integration

Third-Party Integration	TCP Direct or HTTPS Webhook

Security

Data Security	Military-level AES-256 Encryption from device to Device Management Platform to protect the integrity and confidentiality of telematics data. Data forwarded to third-party systems is sent via HTTPS for end- to-end security.