

G150 GLOBAL



Cellular 4G LTE Cat 1bis and 2G fallback
Optional Iridium Satellite

- High-performance, high-precision GPS tracking device
- Wire into power for real-time tracking
- Waterproof and ultra-rugged (IP68)
- Bluetooth® gateway to report on BLE tags and sensors, wireless Driver ID
- Flexible Input Monitoring - 4 x Digital Inputs, 1 x Analog Input, 2 x Switched Ground Digital Outputs, 1 x Ignition Digital Input, Switched Power Out, RS232
- Supports Accident Detection, Driver ID, Driver Behavior, Remote Immobilization
- Backup battery in case of loss of power or tampering
- Connects to all major 4G LTE Cat 1bis and 2G bands for global asset visibility



Real-Time
Tracking



Inputs/Outputs



Ultra-Rugged
& Waterproof



Highly
Configurable



Future Proof
Connectivity



White-Label
& Integration
Ready

Asset Visibility & Recovery

Monitor location and movement with the option to activate real-time tracking in case of loss or theft.

Accident Detection

Alerts for accidents and rollovers, activated by significant changes in velocity and orientation.

Remote Immobilization

Digital outputs can be connected to a relay to enable remote immobilization.

Real-Time Tracking

Device remains continuously connected while on the move for real-time vehicle tracking.

Driver ID

Configure Bluetooth®, RFID reader, iButton®, or Wiegand interface for Driver ID.

Flexible Input Monitoring

Interface with a range of devices and switches for seatbelt detection, duress buttons, lights, warning buzzers, and more.

BLE Tag & Sensor Monitoring

Integrate with any third-party Bluetooth accessory for customizable sensor and condition monitoring.

Driver Safety & Behavior

Monitor speeding, harsh acceleration, braking, cornering, and more.

Out of Cellular Coverage

Support for Iridium Edge® Satellite to track assets in remote areas outside of cellular coverage.

FLEET MANAGEMENT | VEHICLES | EQUIPMENT | MINING | INSURANCE | COMPLIANCE

Connectivity

Cellular Module	u-blox LENA R8 operates on all major global 4G Cat 1bis and 2G bands Supported 4G Cat 1bis bands: B1, B2, B3, B4, B5, B7, B8, B12, B20, B28, B38, B40, B41, B66 Quad-band 2G support for global 2G networks
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Bluetooth®	Bluetooth 5.2 gateway reports nearby Bluetooth tags and sensors.
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SIM Size and Access	Internal Nano 4FF SIM
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Location

GNSS Module	u-blox M10
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Constellations	Concurrent GPS, GLONASS, Galileo, BeiDou
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GNSS Assistance	GNSS almanac and ephemeris data for greater sensitivity and position accuracy.
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Low Noise Amplifier	GPS signals are filtered and boosted by a SAW filter and low-noise amplifier (LNA) allowing operation where other units fail.
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Cell Tower Location	Cell tower fallback for positioning when there is no GNSS signal.
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Location Accuracy*	~2m CEP
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* Positioning accuracy specifications are provided by the module 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	8-33V DC (max)
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High-Performance Automotive Power Supply	Stringent power “load dump” tests are conducted to ensure operation in the harshest automotive electrical systems. Built-in self-resetting fuse makes installation simple and safe.
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Intelligent Power Management	Device enters sleep mode when vehicle is inactive to prevent battery drain.
Sleep Current	<1mA (no peripherals supplied and battery fully charged)
Backup Battery	3500mAh LiPo rechargeable battery.

Mechanics / Design

Dimensions	180 x 119 x 39 mm (7.1 x 4.7 x 1.5 in)
Housing	Non-branded housing is suitable for white labeling.
IP/IK Rating	Ultra-rugged and waterproof IP68 and IK08-rated housing ensures the device can withstand impact, fine dust, and brief submersion.
GORE® Vent	Allows for pressure equalization while protecting against water and dust ingress.
Installation	Device supplied with one 10-wired harness (1m). Secondary harness required to access full set of I/Os. For pin out and further details, see G150 Harness Definition .
Temperature Range	<p>Operating: -30°C to +60°C (connected to external power)</p> <p>At < 0°C and > +40°C the internal backup battery will not be charged as a safety precaution due to the dangers associated with charging batteries at extreme temperatures.</p> <p>Recommended Storage: 10°C to 30°C, Humidity 30%. Store in a cool, dry place.</p>
Cellular Antenna	Internal. Option to add high-gain external antenna.
GPS Antenna	Internal
3-Axis Accelerometer	3-Axis accelerometer to detect movement, high-g events, and more.
Diagnostic LED	Diagnostic LED indicates operation status.
Flash Memory	Store records if device is out of cellular coverage. View storage capacity here .

Internal Buzzer	Internal buzzer fitted for audible alerts for speeding, harsh driving, driver ID reminders, error conditions, input feedback, and other events.
Onboard Speed and Heading	The device continuously monitors speed and heading, allowing for over-speed alerts as well as updates on speed and heading changes.
Onboard Temperature	The device reports internal temperature and prevents the internal battery from charging in extreme temperatures. May not be suitable for precise temperature logging purposes.

Interfaces

Analog Input	<p>1 x 0 - 30V Analog Input Auto Ranging, 12-bit ADC 0 - 5V range: 1.22mV resolution 0 - 30V range: 7.32mV resolution</p>
Digital Inputs	<p>4 x Digital Inputs Configurable pull-up/down 0-48V DC Input Range</p>
Digital Outputs	<p>2 x Switched Ground Digital Outputs Easily wired up to switch external lights, relays, buzzers, etc. Can also be used to immobilize a vehicle.</p>
Ignition	<p>1 x dedicated ignition Digital Input 0-48V DC 2.2V on threshold May be used as a digital input if not required</p>
RS232	<p>Can be used to connect Iridium Edge[®] Module or interface with controllers and other sensors.</p>
Switched Power Out	<p>Outputs are either 5V (external power connected) or Vbatt (no external power) Max Current: 400mA The G150 can provide power to external peripherals, eliminating the need for additional external power supplies.</p>
TTL Interface	<p>Serial interface used to connect a Digital Matter RFID reader for Driver ID.</p>
Wiegand	<p>Wiegand Interface enables easy integration with a variety of RFID card types and readers.</p>

1-Wire® or iButton®

1-Wire® or iButton® can be used to read Driver ID tags. Readers available to suit multiple card formats.

Smarts

Accident and Rollover Detection

Configure accident and rollover alerts, triggered by extreme changes in the velocity and orientation of the vehicle or equipment. Up to 2 hours of second-by-second 'black box' data is stored to provide critical accident reconstruction data.

Driver ID Options

Bluetooth®, RFID reader, iButton®, or Wiegand interface for Driver ID, access control, and log booking.

Driver Safety and Behavior

Monitor speeding, harsh acceleration, braking, cornering, idle times and more to improve safety and prevent unnecessary wear on vehicles.

Flexible Input Monitoring

Interface with a range of devices and switches for seatbelt detection, duress and panic buttons, lights, in-cab warning buzzers, and more.

Geofencing

The server can use device location to create geofences and alerts if an asset enters or leaves designated locations. Geofences can also be downloaded directly to the device for enhanced location-based actions and alerts. [View storage capacity here.](#)

GPS Jamming Detection

GPS jamming or interference can be detected and alerted on.

In-Vehicle Alerts

Can be wired up to external buzzers or lights for in-vehicle alerts.

Out of Cellular Coverage Tracking

Fit the G150 with an optional Iridium Edge® Module using the RS232 connection to track assets in remote areas outside of cellular coverage.

Preventative Maintenance

Set reminders based on distance travelled and run hours to reduce maintenance and repair costs.

Real-Time Tracking

Device remains continuously connected while on the move for real-time asset tracking.

Remote Immobilization

Digital outputs can be connected to a relay to enable remote immobilization of vehicles and equipment in the case of theft, abuse, or unauthorized usage.

Remote Worker Safety	Interface a variety of duress pendants to enable man-down alerts for remote (out-of-coverage) worker safety monitoring. Requires Iridium Edge® Module.
Run Hour Monitoring	Capture run-hours based on movement to understand and optimize asset utilization.
Tamper Alerts	Instant alert if the device is disconnected from its power source.
Theft Recovery	Switch to Recovery Mode in the case of theft or loss to activate real-time tracking for asset retrieval.

Device Management

Flexible Configuration	Configure device parameters such as position update rate, movement and accelerometer settings, and more to fit any tracking application.
Device Management Platform	Manage, monitor, configure, debug, update, and restart devices remotely from our cloud-based device management system .
Configuration App	Configurable with DM-Link provisioning tool.

Integration

Third-Party Integration	TCP Direct or HTTPS Webhook
API	Command and configure the device via rich API functionality.

Security

Data Security	Military-grade AES-256 Encryption from device to Device Manager to protect the integrity and confidentiality of your data. Data forwarded to third-party systems is sent via HTTPS for end-to-end security.
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Warranty

Manufacturer's Warranty

Two-year manufacturer's warranty. [Exclusions apply.](#)

Certifications

Please view our knowledge base for [regulatory and network certifications.](#)
