

# G70 BLE

Cellular LTE-M (Cat-M1)/NB-IoT



- High-performance, high-precision GPS tracking device
- Waterproof and ultra-rugged (IP68)
- Wire into power for real-time tracking
- Bluetooth® gateway to report on BLE tags and sensors, wireless Driver ID
- 1x Ignition Digital Input, 3 x Digital Inputs, 1x Analog Input, 1x Switched Ground Digital Output, Switched Power Out
- Supports Accident Detection, Driver ID, Driver Behavior, Remote Immobilization
- Backup battery in case of loss of power or tampering



Real-Time Tracking



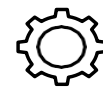
Inputs/Outputs



Waterproof & Ultra-Rugged



Future-Proof 4G/5G Connectivity



Highly Configurable



White-Label & Integration-Ready

## Asset Visibility

Monitor the location and movement of your assets.

## Asset Recovery

Activate real-time tracking for asset retrieval in case of loss or theft.

## Accident Detection

Set up alerts for accidents and rollovers, activated by significant changes in velocity and orientation.

## Driver ID

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

## Driver Safety & Behavior

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

## Remote Immobilization

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

## Onboard Geofencing

The device can adapt its behavior based on downloaded geofence data.

## Flexible Input Monitoring

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

## Backup Battery

Features an internal backup battery in case of loss of power or tampering.

## Connectivity

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Cellular Module	Nordic nRF9160 Modem operates on all major global LTE-M and NB-IoT bands (supports roaming across networks – roaming SIM required).
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Supported LTE bands:

LTE-M (Cat-M1): B1, B2, B3, B4, B5, B8, B12, B13, B14, 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

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Bluetooth® Gateway	Bluetooth 5.2 gateway reports nearby Bluetooth tags and sensors.
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SIM Size and Access	Internal Micro 3FF SIM
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## Location

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GNSS Module	u-blox M1A-M10Q
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Constellations	Concurrent GPS, GLONASS, Galileo, BeiDou, QZSS
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Tracking Sensitivity	-167 dBm industry-leading tracking performance.
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Location Accuracy*	1.5m CEP
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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 location fallback for positioning when GPS can't get a fix.
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\* Positioning accuracy specifications are provided by the GNSS 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

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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.
Operating Current	~70mA – Average (max)
Sleep Current	<1mA (no peripherals supplied and battery fully charged).
Backup Battery	3.7V 1100mAh LiPo internal backup battery pack.

## Mechanics / Design

Dimensions	126 x 80 x 27 mm (4.96 x 3.15 x 1.06 in)
Housing	Non-branded nylon glass 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.
Installation	10 wire harness 1m length
Temperature Range	Operating: -30°C to +60°C (connected to external power) 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. Recommended Storage: 10°C to 30°C, Humidity 30%. Store in a cool, dry place.
Cellular Antenna	Internal
GPS Antenna	Internal
3-Axis Accelerometer	3-Axis Accelerometer to detect movement, high G-force events, and more.
Diagnostic LED	Diagnostic LED indicates operation status.
Flash Memory	Store records if device is out of cellular coverage.
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	Provides ambient temperature but may not be suitable for precise temperature logging purposes.

## Interfaces

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Analog Input	1x Analog Input 0-40V
Digital Inputs	3* x Digital Inputs with configurable pull-up/down 0-48V DC input range On/Off thresholds: Pull-up enabled: low at 0.4V, high at 1.9V Pull-down enabled: low at 0.8V, high at 2.2V. Can be used for pulse counting *Digital Input 3 pin shared with Driver ID. Cannot be used in conjunction with Wiegand or TTL readers.
Digital Outputs	1x Switched Ground Digital Output – 2A max Easily wired up to switch external lights, relays, buzzers, etc. Can be used to immobilize a vehicle.
Ignition	1x dedicated ignition Digital Input 0-48V DC 2.2V on/off threshold May be used as a digital input if not required.
Switched Power Out	3-5Vout Max current 500mA
TTL Interface	Serial interface used to connect a Digital Matter RFID reader for Driver ID.
Wiegand	Wiegand Interface enables easy integration with a variety of RFID card types and readers. Existing employee access badges or IDs can be used with a Wiegand reader for driver ID, permission-based actions, and theft prevention, eliminating the hassle of issuing additional ID cards or fobs.
I-Wire® or iButton®	I-Wire® or iButton® can be used to read Driver ID tags. Readers available to suit multiple card formats.

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## Smarts

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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.

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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.
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.
Onboard Geofencing	Geofences can be downloaded directly to the device for enhanced location-based actions and alerts. <a href="#">View storage capacity here.</a>
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.
Run Hour Monitoring	Calculate run hours and distance travelled (odometer) 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 <a href="#">device management system</a> .
Configuration App	Configurable with DM-Link provisioning tool.

## Integration

Third-Party Integration	TCP Direct or HTTPS Webhook.
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**Security**

Data Security

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

**Warranty**

Manufacturer's Warranty

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

**Certifications**

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

