

# ARROW BLE GLOBAL

Cellular 4G LTE Cat 1bis and 2G fallback



- High-performance, high-precision GPS tracking device
- Wire into power for real-time vehicle and fleet tracking
- Bluetooth® gateway to report on BLE tags and sensors
- Flexible Input Monitoring - 1 x Ignition/Digital Input, 1 x Digital Input, 1 x Analog Input, 1 x Switched Ground Digital Output, 1Wire®/iButton®
- 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



End-to-End Security



Highly Configurable



Global 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 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.

## \*Backup Battery

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

FLEET MANAGEMENT | VEHICLES | EQUIPMENT | LEASING | INSURANCE | COMPLIANCE

\*Planned in future firmware release.

## Connectivity

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Cellular Module	Quectel EG912 operates on all major global 4G LTE Cat 1bis and 2G bands. Supported 4G LTE Cat 1bis bands: B1, B2, B3, B4, B5, B7, B8, B12, B13, B17, B18, B19, B20, B25, B26, B28, B34, B38, B39, B40, B41, B66  Quad-band 2G support for global 2G networks: B34, B38, B39, B40, B41
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Bluetooth®	Bluetooth 4.2 gateway reports nearby Bluetooth tags and sensors.
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SIM Size and Access	Internal Nano 4FF SIM
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## Location

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GNSS Module	Quectel LC76G
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Wi-Fi Positioning	Disabled at firmware level for future implementation.
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Constellations	Concurrent GPS, GLONASS, Galileo, BeiDou, QZSS
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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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Location Accuracy*	~1.5m 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

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Input Voltage	10-30V 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.
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	200mAh LiPo internal backup battery pack.

## Mechanics / Design

Dimensions	98 x 45 x 14 mm (3.86 x 1.77 x 0.55 in)
Installation	8 wire harness / 600mm length supplied as standard.
Temperature Range	<p>Operating: -30°C to +60°C (connected to external power)</p> <p>At &lt; 0°C and &gt; +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
GPS Antenna	Internal
3-Axis Accelerometer	3-Axis accelerometer to detect movement, acceleration, high-g events, and more.
Diagnostic LED	Diagnostic LED indicates operation status.
Flash Memory	Store records if device is out of cellular coverage. <a href="#">View storage capacity here.</a>
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	1 x Analog Input 0-30V
Digital Input	1 x Digital Input Configurable pull-up/down 0-50V DC Input Range
Digital Outputs	1 x Switched Ground Digital Output – 2A max Easily wired up to switch external lights, relays, buzzers, etc. Can be used to immobilize a vehicle.
Ignition	1 x Shared Ignition Digital Input 0-50V DC 2V on threshold May be used as a digital input if not required (fixed pull-down)
1-Wire® or iButton®	1-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	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. <a href="#">View storage capacity here.</a>
GPS Jamming Detection	GPS jamming or interference can be detected and alerted on.

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In-Vehicle Alerts	Can be wired up to external buzzers or lights for in-vehicle alerts.
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 <a href="#">cloud-based device management system</a> .
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

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Manufacturer's Warranty

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

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## Certifications

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

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## Forward-Looking and Cautionary Statements

All new product statements contained herein that are not statements of historical fact, including statements that use the words "to become," "will," "designed to" or other similar words or expressions, that describe Digital Matter's hardware, software or its management's future plans, including hardware features, components, housing and stock availabilities, are "forward-looking statements."

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