

Rosella

Cellular LTE-M / NB-IoT

Compact and affordable vehicle tracking device featuring simple plug-and-play installation and backup battery for real-time fleet management, driver safety and behavior monitoring, theft recovery, and more



Real-Time Tracking

High-precision GPS/GLONASS tracking device plugs into existing OBDII ports



Backup Battery

Internal backup battery – if the device is removed from power it will continue to track for a period of time



Critical Alerts

Unplugged/power loss alerts to notify users of device removal, tampering, unauthorized trips, or theft



Driver Behavior

Speeding, harsh braking and cornering, accident and rollover detection



Run Hour Monitoring

Electronic Odometer Calculations



Movement-Based Tracking

Accelerometer for adaptive and movement-based tracking



Plug-and-Play

Plug and play or splitter installation options for covert install

Connectivity

LTE-M / NB-IoT	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
SIM Size & Access	Internal Nano 4FF SIM

Location

GNSS Module	UBLOX EVA-M8Q with TCXO
Constellation	Concurrent GPS / GLONASS
Channels	72 Channel High Sensitivity Receiver
Tracking Sensitivity	-167dBm industry-leading tracking performance
GNSS Assistance	GNSS almanac data for greater sensitivity and position accuracy
Low Noise Amplifier	GPS signals are boosted by a unique low-noise amplifier (LNA) allowing operation where other units fail
Cell Tower Location	Cell tower location fallback for positioning when GPS can't get a fix

Power

Input Voltage	8-36V DC (max). OBDII connector draws power from vehicle's OBD port
Self-Resetting Fuse	Built-in self-resetting fuse makes installation simple and safe. Stringent automotive power "load dump" tests are conducted to ensure operation in the harshest electrical systems.
Operating Current	~25/50mA when moving
Sleep Current	<1mA
Backup Battery	200mA LiPo internal backup battery pack

Mechanics / Design

Dimenions	71 x 46 x 24 mm (2.8 x 1.81 x 0.94")
Weight	48 g (1.69 oz)
Housing	ABS Polycarbonate Plastic
Installation	OBDII standard connector draws power from the OBDII port to operate
Operating Temperature	-20°C to +60°C
GPS Antenna	Internal
Cellular Antenna	Internal
RF Antenna	Internal
3-Axis Accelerometer	3-Axis Accelerometer to detect movement, high G-force events, and more
Diagnostic LED	Diagnostic LED signifies operation status
Flash Memory	Store weeks of records if device is out of cellular coverage. Storage capacity for over 10 days of continuous 30-second logging.

Smarts

Auto-APN	Auto-APN allows the device to analyze the SIM card and select the correct APN details from a list that is pre-loaded in the device's firmware.
Accident & Rollover Detection	Configure accident and rollover alerts triggered by extreme changes in velocity and orientation of vehicle or equipment. Second-by-second GPS data is saved on the device's flash memory, with a capacity of approximately 2 hours of data. In the event of an accident, a subset of the data (60 seconds before / 10 seconds after) is uploaded to the server automatically (if configured) or can be requested manually for a detailed reconstruction of the incident.
Driver Safety & Behavior	Monitor speeding, harsh acceleration, braking, cornering, idling, and more to improve safety and prevent unnecessary wear on vehicles
Geofence Alerts	The server can use device location to create geofences and alerts if an asset enters or leaves designated locations
Preventative Maintenance	Set reminders based on distance traveled 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
Run Hour Monitoring	Calculate run hours and distance traveled (odometer) to understand and optimize asset utilization
Tamper/Removal Detection	Critical 'unplugged/power loss' alerts to notify users of device removal, tampering, unauthorized trips, or theft
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 DMLink 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 OEM Server to protect the integrity and confidentiality of telematics data. Data forwarded to third-party systems is sent via HTTPS for end-to-end security.
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Warranty

Manufacturer's Warranty	One year manufacturer's warranty
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Certifications

Visit support.digitalmatter.com for device certifications