DAKTECH

Dart2

Cellular 2G or LTE-M / NB-IoT

Robust and affordable vehicle tracking device with inputs/outputs, remote immobilization for fleet management, driver ID, driver safety and behavior monitoring, theft recovery, and more

Real-Time Tracking

High-precision GPS/GLONASS wired vehicle tracking device / Optional OBDII or cigarette lighter power harness available for plug-and-play installation

Inputs/Outputs

2 x Digital Inputs, 1 x Switched Ground Digital Output, 1 x Ignition Digital Input, Switched Power Out

Backup Battery

Internal Backup Battery in case of loss of power or tampering

Driver ID

Configure iButton® and RFID readers for Driver ID

Driver Behavior

Accident and rollover detection, speeding, harsh braking, and more

Remote Immobilization

Immobilization option to safely disable assets remotely

Connectivity

2G	2G: SARA-G350-02S-01 850/900/1800/1900 MHz
LTE-M / NB-IoT	uBlox SARA-R410M Modem operates on all major global LTE-M and NB-IoT bands. Supported LTE bands: 1*, 2, 3, 4, 5, 8, 12, 13, 18, 19, 20, 26*, 28 (*roaming bands)
SIM Size & Access	Internal Micro 3FF SIM

Location

Module	uBlox EVA-M8
Constellation	Concurrent GPS / GLONASS
Channels	72 Channel High Sensitivy 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

Power

Input Voltage	8-36V DC (max).
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 ~150mA battery charging
Sleep Current	<1mA
Backup Battery	200mA LiPo internal backup battery pack

Mechanics / Design

Dimensions	95 x 55 x 17 mm (3.74 x 2.17 x 0.67”)
Weight	79 g (2.79 oz)
Housing	ABS Polycarbonate Plastic
Operating Temperature	-20°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.
GPS Antenna	Internal
Cellular Antenna	Internal

Mechanics / Design *(continued)*

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.

Interfaces

Digital Inputs	2 x digital inputs with configurable pull-up/down 0-48V DC input range On/Off thresholds: Pull-up enabled: low at 0.8V, high at 1.0V Pull-down enabled: low at 2.0V, high at 2.4V Can be used for pulse counting.
Digital Outputs	1 x Switched Ground digital output Easily wired up to switch external lights, relays, buzzers, etc Can be used to immobilize a vehicle
Ignition	1 x dedicated ignition digital input 0-48V DC 5V on/off threshold
Switched Power Out	3.5-4.5Vout Max current 200mA
TTL Interface	Serial interface used to connect a Digital Matter RFID reader for Driver ID
1-Wire® or iButton®	1-Wire® or iButton® can be used to read Driver ID tags. Readers available to suit multiple card formats.

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 ID Options	RFID reader or iButton® interface for Driver ID, access control, and logbooking
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
Geofence Download to Device	Geofences can be downloaded directly to the device from Telematics Guru for enhanced location-based actions and alerts. Maximum of 20 Geofences with up to 30 points per geofence.
GPS Jamming Detection	GPS Jamming or Interference can be detected and alerted on

Smarts *(continued)*

In-Vehicle Alerts	Can be wired up to external buzzers or lights for in-vehicle alerts
Lone Worker Safety	Interface a variety of duress pendants to enable man-down alerts for lone worker safety monitoring.
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
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 traveled (odometer) to understand and optimize asset utilization.
Sensor Monitoring	Interface with a range of devices and switches for seatbelt detection, duress and panic buttons, lights, in-cab warning buzzers, and more
Tamper Alerts	Instant alert if the device is removed from your asset or 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 retreival

Device Management

Flexible Configuration	Configure device parameters such as position update rate, movement and accelerometer settings, and more to fit any tracking application
OEM Server	Manage, monitor, configure, debug, update, and restart devices remotely from our cloud-based device management system

Integration

Third-Party Integration	TCP Direct or HTTPS Webhook

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.

Warranty

Manufacturer's Warranty	One year manufacturer's warranty

Certifications

Please contact us for a full list of compliance specifications and documentation for your region.	**LTE-M / NB-IoT** - FCC, ISED, ACMA (DoC), PTCRB, AT&T, CE (Doc) **2G** - ICASA, CE (Doc)