



ALL 868MHZ & 915MHZ LORAWAN® REGIONS SUPPORTED

### **OVERVIEW**

Ultra-rugged, feature-rich LoRaWAN® vehicle and heavy equipment tracking device with customizable inputs/outputs for fleet management and equipment monitoring.

LoRaWAN®

### **APPLICATIONS**









**FEATURES** 

(**-**a)

High-precision GPS/GLONASS

Housing with compact and

Weatherproof and ultra-rugged IP67

Internal Backup Battery in case of loss

1 x Analog Inputs, 2 x Digital Inputs, 1 x Switched Ground Digital Output, 1 x

tracking device

ergonomic design

of power or tampering

Ignition Digital Input

Hour Monitoring

On-device Odometer and Run



Heavy Equipment Tracking Theft Recovery

Run Hours Monitoring

Preventative Maintenance

## CONNECTIVITY

LoRaWAN®	Highly sensitive radio receiver available in 868MHz and 915MHz versions for global LoRaWAN® connectivity.
LoRaWAN® REGIONS	AU915 AS923 EU868 IN865 KR920 RU864 US915

## LOCATION

MODULE	uBlox EVA-M8
CONSTELLATION	Concurrent GPS / GLONASS
CHANNELS	72 Channel High Sensitivity Receiver
TRACKING SENSITIVITY	-167dBM tracking performance
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
BACK-UP BATTERY	1100mAh LiPo internal backup battery pack

# MECHANICS/DESIGN

DIMENSIONS	L 125 x W 80 x H 25 mm
WEIGHT	171g
HOUSING	Ultra-Rugged Nylon Glass
IP RATING	IP67 rated housing ensures device can withstand fine dust, high-pressure spray, submersion for 30 mins in 1m of water, and extreme temperatures.
INSTALLATION	7 wire harness 1m Length
OPERATING TEMPERATURE	-20°C to +60°C
GPS ANTENNA	Internal
3-AXIS ACCELEROMETER	3-Axis Accelerometer to detect movement.
DIAGNOSTIC LED	Diagnostic LED signifies operation status.

## INTERFACES

ANALOG INPUTS	1 x 0-30V Analog Input, Auto Ranging, 12-bit ADC O-5V range: 1.22mV precision O-30V range: 7.32mV precision
DIGITAL INPUTS	2 x Digital Inputs with configurable pull-up/down O-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
DIGITAL OUTPUTS	1 x Switched Ground Digital Output Can be toggled via downlink.
IGNITION	$1\mathrm{x}$ dedicated ignition digital input O-48V DC 5V on/off threshold

# SMARTS

GEOFENCING	Create custom geofences and alerts if an asset enters or leaves specific locations.
RUN HOUR MONITORING	Calculate run hours and distance traveled (odometer) to understand and optimize asset utilization.

## **DEVICE MANAGEMENT**

FLEXIBLE CONFIGURATION	Configure device parameters such as heartbeat rate, movement and accelerometer settings, and more to fit any tracking application.
CONFIGURATION APP	Manage device firmware updates and parameters via a USB configuration cable and app. Some parameters can be changed via downlink.

## INTEGRATION

THIRD-PARTY INTEGRATION	Easy integration with comprehensive documentation
	and a flexible and open payload format.

# SECURITY

DATA SECURITY	LoRaWAN® networks use AES-128 Encryption so
	your data is protected.

## WARRANTY

MANUFACTURER'S WARRANTY	ne year manufacturer's warranty.
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## CERTIFICATIONS

Please contact us for a full list of	CE (Doc)
compliance specifications and	
documentation for your region.	