

SensorData LoRaWAN®

All 868, 902-928MHz LoRaWAN®
regions supported

Robust and rugged LoRaWAN® datalogger with GPS, inputs/
outputs, SD1-12, I²C Sensor Interfaces for asset tracking, agtech,
and sensor monitoring. **Manufactured for volume orders
only.**



GPS/GLONASS

High-precision GPS/GLONASS
tracking device



Battery-Powered or Wired

Flexible Power Options – 4 x C
Batteries or wired to power



Ultra-Rugged

Weatherproof and ultra-rugged IP67
Housing



Inputs/Outputs

1 x Analog Inputs, 2 x Digital Inputs



Interfaces

SD1-12, I²C, Switched Power Out,
Switched Sensor Power Interfaces

Connectivity

LoRaWAN	Highly sensitive radio receiver is available in 868 or 902 - 928 MHz versions. External SMA connector fitted and elbow antenna supplied as standard. A high gain antenna can be sourced and fitted if desired.
LoRaWAN Regions	AU915 AS923-1 AS923-2 AS923-3 EU868 IN865 KR920 RU864 US915

Batteries

User-Replaceable Batteries	4 x C
Supported Battery Types	Alkaline

Location

Module	uBlox SAM8-M8Q GP
Constellation	Concurrent GPS / GLONASS
Channels	72 Channel High Sensitivity Receiver
Tracking Sensitivity	-165 dBm tracking performance
Low Noise Amplifier	GPS signals are boosted by a unique low-noise amplifier (LNA) allowing operation where other units fail
LoRaWAN Gateway Geolocation Fallback	LoRaWAN gateway geolocation fallback when there is no GNSS

Power

Input Voltage	Flexible Power Options: 4-6V DC (max) 4 x C Cell Battery holder fitted Screw terminals for line power
Sleep Current	<10uA* *Average current in lowest power configuration

Mechanics / Design

Dimensions	183 x 145 x 40 mm (7.2 x 5.7 x 1.57")
Weight	579 g (20.42 oz)
Housing	ABS Polycarbonate Plastic
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	Multiple installation options for covertly and easily securing the device to assets with screws, bolts, cable ties, rivets, and more. Caters for a number of cable glands (2 fitted as standard) to allow for water-proof cable entry to the housing.
Operating Temperature	-20°C to +60°C
GPS Antenna	Internal
Diagnostic LED	Diagnostic LED signifies operation status

Interfaces

Analog Inputs	1 x 0-30V Analog Input, Auto Ranging, 12-bit ADC 0-5V range: 1.22mV precision 0-30V range: 7.32mV precision
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
I ² C	I ² C (inter-IC communications) is an interface commonly used in sensor modules
SDI-12	Features SDI-12, commonly used in agricultural sensors and measurement devices for soil moisture probes, temperature, electrical conductivity (EC) of soils, water levels/pressures, other SDI-12 probes and sensors
Switched Power Out	Used to control the 3.3V power to external sensors and peripherals. Load limited and short circuit protected.
Switched Sensor Power	Sensor Power (Vout) Used to control the battery power to external sensors and peripherals. Load limited and short circuit protected. 6V or boosted 12V supply (configurable via jumper on PCB)

Smarts

Environmental Monitoring	Interface with a range of sensors such as temperature, humidity, moisture, depth, and more
--------------------------	--------------------------------------------------------------------------------------------

Device Management

Flexible Configuration Configure sensors and polling rate

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 One year manufacturer's warranty

Certifications

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