digital matter

FEATURES

- High-precision GPS/GLONASS tracking device
- 2 x Analog Inputs, 2 x Digital Inputs
- I²C Sensor Interface
- Flexible Power Options – 3 x AA Batteries with up to 5 years battery life or wired to permanent power
- Weatherproof and ultra-rugged IP67 Housing with compact and ergonomic design

SensorNode LoRaWAN®

ALL 868MHZ, 915MHZ & 923MHZ LORAWAN® REGIONS SUPPORTED

OVERVIEW

Rugged and feature-rich LoRaWAN® datalogger with customizable inputs/outputs and I²C sensor interface for asset and sensor monitoring applications.

APPLICATIONS

Sensor Monitoring

Tank Level Monitoring

Pulse Counting

CONNECTIVITY

LoRaWAN®	Highly sensitive radio receiver is available in 868, 915 and 923MHz versions for global LoRaWAN® connectivity.
LoRaWAN® REGIONS	AU915 AS923 EU868 IN865 KR920 RU864 US915

BATTERIES

USER-REPLACEABLE BATTERIES	3 x AA
BATTERY LIFE	Up to 5 years of battery life at once-daily heartbeats / 2 year battery life at once hourly heartbeats.
SUPPORTED BATTERY TYPES	Alkaline Lithium (LiFeS2) - recommended

LOCATION

MODULE	uBlox SAM8-M8Q GP
CONSTELLATION	Concurrent GPS / GLONASS
CHANNELS	72 Channel High Sensitivity Receiver
TRACKING SENSITIVITY	-165dBM 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	Flexible Power Options: 4-6V DC (max) 3 x AA Cell Battery holder fitted. Screw terminals for line power.
SLEEP CURRENT	<10uA* *Average current in lowest power configuration

MECHANICS/DESIGN

DIMENSIONS	L 135 x W 90 x H 35 mm
WEIGHT	218g
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.
OPERATING TEMPERATURE	-20°C to +60°C
INSTALLATION	Compact and Concealable. 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 waterproof cable entry to the housing.
GPS ANTENNA	Internal
DIAGNOSTIC LED	Diagnostic LED signifies operation status.

INTERFACES

ANALOG INPUTS	2 x 0-30V Analog Inputs, 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.
I²C	I²C (inter-IC communications) is an interface commonly used in sensor modules.
SWITCHED POWER OUT	Used to control the 3.3V power to external sensors and peripherals. Load limited and short circuit protected. Can be toggled via downlink

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)

SensorNode LoRaWAN®