SYRUS TEMPERATURE ASSET TRACKER

CELLULAR 4G LTE-M / NB-IOT

PART NUMBER
S4GTEMP-3000

Robust battery-powered or wired GPS tracking device with inputs/outputs, I²C Sensor Interface, and WiFi Positioning for indoor and outdoor asset tracking and sensor monitoring.

VEHICLE & FLEET TRACKING

BATTERY-POWERED OR WIRED

INPUTS AND OUTPUTS

TRAILERS & MOBILE ASSETS

SHIPPING CONTAINERS & FREIGHT

ANCHORING & SECURITY OF ASSETS

KEY FEATURES

Indoor and Outdoor

High-precision GPS/GLONASS tracking device with WiFi Access Point Scanning

Battery-Powered or Wired

Flexible Power Options – 3 x AA Batteries with up to 7 years battery life or wired to permanent power

Inputs/Outputs

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

Interfaces

I²C Sensor Interface

Ultra-Rugged

Weatherproof and ultra-rugged IP67 Housing

*Sensors Sold Separately

Sensor Monitoring

Connect a range of sensors such as temperature, humidity, moisture, depth, and more for monitoring sensitive environments or assets.

MANAGED BY: Pegasus IoT Cloud

CONNECTED BY: m2m cloudconnect 2G/3G/4G GLOBAL NETWORK

TECHNICAL SPECIFICATIONS

CONNECTIVITY

2G (Optional)	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

BATTERIES

User-Replaceable Batteries	3 x AA
Battery Life	Up to 7 years of battery life at once-daily position updates, 1 year battery life at once-hourly position updates. Enable intelligent movement-based tracking for longer battery life. Battery life calculations based on LTE-M connectivity.
Supported Battery Types	Lithium (LiFeS2) Lithium Thionyl Chloride (LTC) *Please dispose of Lithium batteries in a safe and responsible manner.

LOCATION

Module	uBlox EVA-M8
Constellation	Concurrent GPS / GLONASS
Channels	72 Channel High Sensitivy Receiver
Tracking Sensativity	-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 fallback for positioning when there is no GNSS or WiFi signal
WiFi Positioning	Indoor asset location using Wifi access point scanning

CERTIFICATIONS

LTE-M / NB-IoT - FCC, ISED, CE (Doc), 2G - CE (Doc)

WARRANTY

Manufacturer's Warranty	One year manufacturer's warranty

POWER

Input Voltage	Flexible Power Options: 5 - 16V DC (max) 3 x AA Cell Battery holder fitted Screw terminals for line power
Sleep Current	<10uA* *Average current in lowest power configuration
Backup Battery	If line power is connected and batteries are also installed, device will fall back to the 4 x C cells if external power is disconnected.

MECHANICAL SPECS

Dimensions	135 x 90 x 35 mm
Weight	163 g (5.75 oz) 232 g (8.18 oz) with batteries
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	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.
Operating Temperature	-20°C to +60°C For operation in extreme tempera-tures, the device must be fitted with LTC Batteries
GPS Antenna	Internal
Cellular Antenna	Internal
RF Antenna	Internal
WiFi 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

TECHNICAL SPECIFICATIONS

INTERFACES

Analog Inputs	1 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
Digital Outputs	1 x Switched Ground digtal output Easily wired up to control external devices and circuits, for example to turn a lighting tower on / of
Ignition	Digital inputs can be used as an ignition input to log run hours
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

DEVICE MANAGEMENT

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

INTEGRATION

Third-Party Integration	REST API/JSON Forwards (Pegasus IoT)

SECURITY

Data Security	Military-level AES-256 Encryption from device to Pegasus IoT Cloud Server to protect the integrity and confidentiality of telematics data. Data forwarded to third-party systems is sent via JSON/HTTPS for end-to-end security.

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
Battery Life Monitoring	Built-in Battery Meter for monitoring battery use and remaining life predictions
Environmental Monitoring	Interface with a range of sensors such as temperature, humidity, moisture, depth, and more
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	Maximum of 100 Geofences with up to 100 points per geofence
Impact Detection	Configure impact-detection alerts when g-forces are exceeded by a user-defined threshold
Periodic or Movement-Based Tracking	Configure parameters to send updates based on set time intervals or when movement occurs. Adaptive tracking technology detects when the device is on the move and increases the update rate, providing detail when you need it while conserving battery when stationary.
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.* *Optional when device is externally powered.
Run Hour Monitoring	Capture run hours based on movement and/or distance traveled to understand and optimize asset utilization

Recommended Batteries for Best Performance

ALKALINE

LITHIUM