



Industrial LoRaWAN Asset Tracker

LORA ASSET MANAGEMENT TRACKER

PRODUCT DESCRIPTION

The LoRa Asset Management Tracker is a robust and energy-efficient IoT tracking device designed for reliable asset tracking and monitoring in industrial environments.

The device combines GNSS positioning, Bluetooth Low Energy technology, and LoRaWAN communication to enable seamless indoor and outdoor tracking. It supports indoor positioning via nearby BLE beacons and outdoor positioning using GNSS satellite systems.

Configurable positioning intervals, heartbeat reporting, motion-based tracking, and flexible LoRaWAN operating modes ensure optimal adaptability for asset management, logistics, warehouse monitoring, and industrial IoT applications.

APPLICATIONS

- Industrial Equipment Monitoring
- Outdoor Asset Localization
- Industrial IoT Applications

FEATURES

- GNSS and BLE hybrid positioning
- LoRaWAN communication for long-range data transmission
- OTAA and ABP activation support
- Bluetooth 5.0 with iBeacon support
- Integrated accelerometer for motion-based tracking
- Periodic, Autonomous and On-Demand reporting modes
- Heartbeat monitoring for device status and network connectivity
- AES128 encryption
- NFC support
- FOTA over Bluetooth support
- Rugged housing for industrial asset management applications

TECHNICAL DATA

POSITIONING & LOCATION

Technology	GNSS, Bluetooth Low Energy
GNSS Systems	GPS, BDS, GALILEO, GLONASS, QZSS, SBAS
Accuracy	< 2.5 m CEP50
Cold Start	30 to 120 s
Positioning Logic	BLE positioning with GNSS fallback
BLE Scanning	Up to 3 strongest beacons, 3 s scan duration

LORAWAN

Protocol Version	LoRaWAN 1.0.2B, Class A
Activation Mode	OTAA / ABP
Frequency Bands	US915, AU915, EU868, EU433, AS923, RU864, KR920, IN865, KZ865, CN470
TX Power	0 to 20 dBm
Sensitivity	-137 dBm
Communication Distance	> 1 km in urban area
Encryption	AES128

BLUETOOTH

Technology	Bluetooth 5.0
Protocol	iBeacon
TX Power	-20 dBm to +4 dBm
Sensitivity	-96 dBm
Configurable BLE Parameters	UUID, Major, Minor, Interval, TX Power

POWER

Battery	2 × Li/SOCI2 4000 mAh
Charging	Do not charge this product or battery
Operating Current	15 µA
Max. Current	20 µA

OPERATING ENVIRONMENT

Operating Temperature	-45 °C to +85 °C
Storage Temperature	-60 °C to +90 °C
Operating Humidity	5 % to 95 %, non-condensing

INTERFACE & FEATURES

Configuration	Bluetooth mobile app
Communication	LoRaWAN network
Uplink Messages	Registration, heartbeat, GNSS position, beacon, alarm
Sensors	Built-in accelerometer
Tracking Modes	Periodic Autonomous On-Demand
Alarm Function	SOS Fall Detection
FOTA	Over Bluetooth
NFC	Support

PHYSICAL SPECIFICATIONS

Dimensions	78 × 79 × 35 mm
Weight	133 g
Housing	PC and ABS
Switch	Physical button
Protection Class	IP66

ORDER CODES

VERSIONEN

LoRa Asset Management Tracker

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IOT-TR-LO-AT-4201