Outdoor Asset Tracker

Featuring LoRaWAN®

AT101



Milesight AT101 is an exceptional outdoor tracker that utilizes GNSS and Wi-Fi AP MAC Address Scanning to provide highly accurate positioning data. Additionally, it has tilt and temperature sensors for more extensive data collection and application in various scenarios. The device is designed with IP67 and IK09 ratings to cater to different environments.

AT101 collaborates with Milesight LoRaWAN® gateway and mainstream LoRaWAN® network servers with low power consumption, allowing it to operate for over 15 years with twice-daily reports. By integrating with Milesight LoRaWAN® gateway and Milesight IoT Cloud solution, users can remotely and visually manage all sensor data.

AT101 can be used in Patrol Cars in Community, Construction Site, Warehouses, Constructional Bin, Golf cart, Farm Animals, etc.

◆ Features

- Equipped with high-accurate GNSS positioning and cooperate with Wi-Fi positioning
- Built-in 3-axis accelerometer sensor to monitor device tilt status and movement
- Equipped with NTC temperature sensor enabling environmental detection
- Support IP67 and IK09 rating protections for harsh environment application
- Built-in replaceable batteries and works for up to over 15 years without replacement
- Provide integrated structure and anti-theft design for wireless and safe deployment

- Incorporate UV protection to be suitable for outdoor environments
- Support Geofencing for targeted messaging to secure the assets and area
- Multiple and switchable modes provide motion tracking, periodic tracking, and timing tracking
- Store locally historical records and support retransmission to prevent data loss
- Built-in NFC and Bluetooth for easy configuration
- Compliant with standard LoRaWAN® gateways and network servers
- Quick and easy management with Milesight IoT Cloud solution

◆ Specifications

Wireless Transmission	
Protocol	LoRaWAN®
Antenna	Internal Antenna
Frequency	CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4
Tx Power	16 dBm (868 MHz)/20 dBm (915 MHz)/19 dBm (470 MHz)
Sensitivity	-137 dBm @300bps
Mode	OTAA/ABP Class A
Measurement	
GNSS Positioning	
Position Accuracy (CEP)	5.0m (Direct Line of Sight)
Resolution	Longitude/Latitude: 0.000001
Time To First Fix	Cold Start: 37s Average Hot Start: 1s Average
Sensitivity	Tracking: -167dBm Reacquisition: -160 dBm Cold Start: -148dBm Hot Start: -159 dBm
Wi-Fi Positioning	
Wi-Fi Positioning	Indoor asset location using Wi-Fi access point scanning (device does not connect to Wi-Fi)
Wi-Fi Parameters	BSSID, RSSI
Wi-Fi Standard	802.11b/g/n 2.4GHz
Device Motion	
Status	Normal/Tilt

Temperature	
Range	-40 ~ 125°C
Resolution	0.1°C
Others	
Button	1 × Tamper Button
Software	
Power On & Off	NFC, Power Button (Internal)
Configuration	NFC, Bluetooth® 5.3, Downlink
Advanced Feature	Geofence, Tilt Threshold Alarm, Tamper Alarm, Data Storage (1000 entries), Data Retransmission, Data Retrievability
Physical Characteristics	
Power Supply	4 × 2700 mAh ER14505 Li-$SOCl_2$ Replaceable Batteries
Battery Life* (25°C)	Twice Daily Location Updates - 15^+ Years Tenth Daily Location Updates - 8^+ Years Hourly location updates – 4^+ Years
Operating Temperature	-30°C ~ +70°C
Relative Humidity	0 ~ 95% (Non-condensing)
Material & Color	PC, Black
Ingress Protection	IP67
Impact Protection	IK09
Housing & Color	PC & Black
Dimension	110 × 70 × 30 mm (4.33 × 2.76 × 1.18 in)
Weight	202g (Batteries are Included)
Installation	Wall Screw Mounting, 3M Tape Mounting, Cable-tie Mounting
Approvals	
Regulatory	CE, FCC
Environmental	RoHS

* Tested under laboratory conditions and for guideline purposes only.

◆ Dimensions (mm)

