# 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.

## ◆ 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 1000 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

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|---|---|
| **Wireless Transmission** | |
| Protocol | LoRaWAN® |
| 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<br>Hot Start: 1s Average |
| Sensitivity | Tracking: -167dBm<br>Reacquisition: -160 dBm<br>Cold Start: -148dBm<br>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 |

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|---|---|
| **Operation** | |
| Power On & Off | NFC, Power Button (Internal) |
| Configuration | NFC, Bluetooth® 5.3 |
| **Physical Characteristics** | |
| Power Supply | 4 × 2700 mAh ER14505 Li-$SOCl_2$ Replaceable Batteries |
| Battery Life*<br>(25°C) | Twice Daily Location Updates - 15+ Years<br>Tenth Daily Location Updates - 8+ Years<br>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 |
| 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 |

* Tested under laboratory conditions and for guideline purposes only.