Electronics4All's AT-105 Asset Tracker

Stay connected, informed, and in control – track your assets and environments with precision, wherever they are.

The AT-105 Asset Tracker is a cutting-edge Bluetooth 5.0 location tracking beacon designed to provide seamless monitoring and management of assets, while also offering advanced environmental sensing capabilities.

Compact and lightweight, the AT-105 is equipped with a robust 6-axis accelerometer to capture movement and orientation data, making it ideal for tracking the position and behavior of valuable assets. In addition to its tracking capabilities, this versatile device features an integrated temperature and humidity sensor, allowing for real-time monitoring of environmental conditions, and an ambient light sensor to provide further context for asset environments. Powered by a long-lasting CR2450 coin cell, it offers reliable performance for inventory management and condition monitoring. With Bluetooth 5.0 connectivity, the AT-105 keeps you connected, informed, and in control.

Simple.

Intelligent.

Easy to Install.

Asset Location

Quickly locate assets in expansive industrial environments, reducing downtime and increasing operational efficiency. With Bluetooth 5.0 technology, you can easily pinpoint asset locations, even in large facilities.

Inventory Tracking

Keep precise and real-time tabs on your valuable assets, ensuring nothing is misplaced or lost. This enables more efficient asset management and reduces the time spent searching for equipment.

Real-Time Data and Alerts

Receive instant notifications when environmental conditions deviate from safe thresholds, allowing you to take immediate action and prevent costly damage or losses.

Temperature Exposure Awareness

Monitor temperature fluctuations to ensure assets are not exposed to conditions that could compromise their integrity or functionality, such as overheating or freezing.
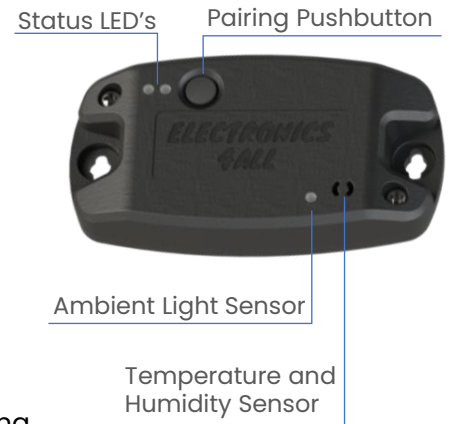
Environmental Monitoring

Track the conditions of storage environments by monitoring temperature, humidity, and light levels. This helps ensure that assets, particularly sensitive equipment, are stored under optimal conditions, preventing damage or degradation.
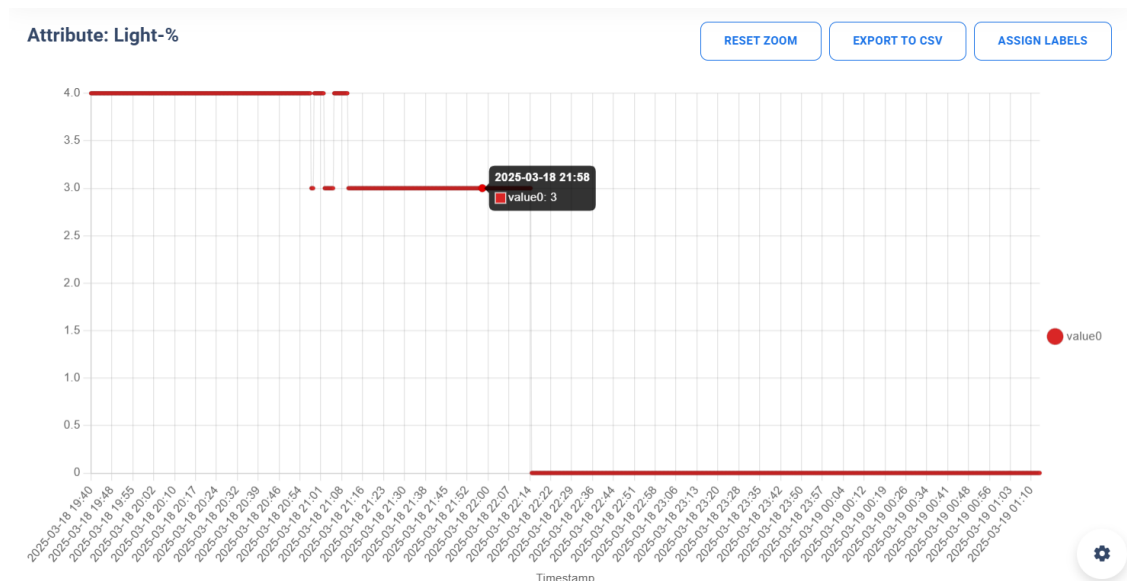
Asset Tracker Sensor Features

- **24/7 Alarm Notifications:** Continuous alerts for immediate awareness of unexpected issues
- **6-Axis Accelerometer:** Tracks motion and orientation, providing detailed insights into the asset's movement and behavior
- **Gyroscope:** Measures rotation and angular velocity, offering enhanced data for precise tracking and asset monitoring.
- **User-Defined Reporting Interval:** Customizable intervals for generating reports
- **Simple Installation:** Compact design mounts easily utilizing screws or magnetic mounting, simplifying installation and reducing setup time
- **Ambient Light Sensing:** Measures the percentage of light exposure, helping to monitor environmental conditions affecting your assets.
- **Wireless Data Transmission:** Utilizes Bluetooth 5.0, eliminating the need for pulling cables to the sensor
- **Customizable Alarm Limits:** Allows users to set specific thresholds for alerts
- **Ambient Temperature and Humidity Monitoring:** Continuously measures and reports both the surrounding temperature and humidity

Status LED's — Pairing Pushbutton — Ambient Light Sensor — Temperature and Humidity Sensor

Visualization Software

Real-Time Alarm Level Display and Historical Data

E4A's IoT Manager software provides a fully customizable interface, allowing users to focus on the specific data points that matter most to them. Whether it's location, ambient light, temperature, or humidity, the software enables easy monitoring and visualization of key metrics. Users can tailor the dashboard to display real-time data in the most intuitive way and set up alerts and alarms to notify them if any sensor readings fall outside of pre-defined specifications, ensuring prompt action can be taken. With seamless customization and proactive monitoring, this software is designed to keep your assets secure and within optimal conditions at all times.

Technical Specifications

Power Supply	
Main Power	Integrated CR2450 Coin Cell battery
Nominal Voltage	3VDC
Typical Capacity	600mAh
Average Current	24µA

Operating Specifications	
Operating Temperature	-20ºC to +60ºC
Storage Temperature	-30ºC to +60ºC (battery installed) -40ºC to +85ºC (battery not installed)
Permissible Humidity	20-85% (operating and storage)
Ingress Protection Rating	IP30
Pollution Degree	2

Measurement Characteristics	
Accelerometer	6 axis, ±16g FSR
Ambient Light	0-100% relative light (appr. 0 to 220 lux)
Temperature	-40ºC to +120ºC (±0.5ºC, 15ºC to 40ºC)
Humidity	0-100% relative humidity (±3.5% RH accuracy)

Interface	
Indicators	Status LED (red, green)
User Interface	1 push button (pairing)

Physical Characteristics	
Housing Material	ABS plastic
Physical Dimensions	Height: 15mm / 4.7 inches Width: 75mm / 1.9 inches Depth: 50mm / 3.5 inches
Weight	35g
Mounting	Screw Mounting Magnetic Mounting Double Sided Adhesive

Communication	
Wireless Module	2.4GHz Bluetooth 5.0 transceiver
Communication Range	125m line of sight
Communication Interval	User programmable, 5 min. default interval
Output Power	Up to +5dBm with temp. compensation
Receiver Sensitivity	-105dBm, 125kbps
Security	• AES 128 and 256-bit crypto accelerator • ECC and RSA public key accelerator (PKA) • SHA2 accelerator (full suite up to SHA-512) • True Random Number Generator (TRNG)

Certifications	
FCC	2AXVKWAT01
Industry Canada	26661-WAT01
Safety	61010-1

Accessories and Spare Parts List

Part Description	E4A Part Number
CR2450 Coin Cell Battery	E4A-BAT-00001-00
Magnetic Mounting Feet	E4A-FAS-00049-00
Double Sided Adhesive Mounting	E4A-ADH-00011-00

Certifications

Distributors

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Trust the industry leaders who understand your needs - our comprehensive gateway infrastructure, coupled with our extensive sensor portfolio enables a shift from time-based to condition-based maintenance, allowing your organization to focus on high priority work.