



Abeeway
Improve your position

INDUSTRIAL TRACKER

Robust - Versatile - Precise

The Abeeway Industrial Tracker is the most versatile device to protect your assets. Designed to withstand harsh environment combines high performance GPS and Wi-Fi receivers as well as a Semtech LoRa™ transceiver making it ideal for low-power industrial indoor and outdoor tracking applications. Improving operational efficiency is key for all businesses, the Abeeway Industrial Tracker tracks your inventory, your valuables, your live stock. It will deliver never available information about your supply chain and provide precise and accurate data to help make informed decisions. An accelerometer detector associated with proprietary low power GPS technology extends significantly battery life time, reducing significantly the total cost of ownership.

The Abeeway Industrial Tracker opens a whole new world of possibilities.



Applications

- Asset and vehicle tracking at fixed frequency updates or on demand
- Anti-theft; notify and locate when device is moving
- Activity monitoring
- Geofencing applications

Product Highlights

Multiple operating modes:

- Motion Tracking: Real-time position when motion is detected
- Permanent tracking: Regular interval real time position
- Start/End motion tracking: Receive position messages during motion start and end events
- Fix on demand: Obtain tracker position when needed (very low power operating mode)
- Activity tracking: Monitor activity rate with embedded sensors

Geolocation technologies:

- GPS: Precise outdoor position
- Low power GPS: Fast Time To First Fix in outdoor and daylight indoor conditions
- Wi-Fi: Position in indoor and urban area

Other features

- Temperature monitoring
- Embedded antennas
- LoRa Class A radio
- Dust-proof and powerful water jets - (IP66)
- Firmware upgradable via micro-USB port
- Long battery life time

Physical configuration

Size	145mm x 76 mm x 42 mm (L x l x h)
Weight	240g
Waterproof capability	IP66
Operating temperatures	-15°C to 65°C
Charging temperatures	0°C to 45°C
Storage temperature	10°C to 30°C (recommended)
Time storage max	6 months
Humidity	< 95% non-condensing

Standards and Certifications:

LoRa Alliance EU868, US915, AS923
Radio regulatory certification: EC, FCC, IC, TELEC

Estimated lifetime

Use Case	Battery Life (Approx.)
Movement detection (120 positions per day)	Up to 3 years
Standby mode	10 years at 20°C

Position accuracy

GPS⁽²⁾	Position Accuracy (50%-90%)	10 to 18 meters	
	Time To First Fix	Cold start	50-210 seconds
		Hot start	15 seconds
Acquisition sensitivity	-140 dBm		
Low power GPS⁽²⁾	Position Accuracy (50%-90%)	15 - 30 meters	
	Time To First Fix	10 - 30 seconds	
	Acquisition sensitivity	-160 dBm	
Wi-Fi	Indoor Position Accuracy	20 - 50 meters	
	Time to get a position	3 seconds	
	Sensitivity	-86 dBm	

(2) Assuming 5 satellites at -130 dBm input power

Power management

Rechargeable Battery	19Ah / 3.6V
Battery type	Lithium-thionyl Chloride Type D
Power consumption	Stand-by: 0,01mA/h
	GPS tracking in cold start(3): 1,5mAh (per position)
	Low power GPS tracking(3): 0,3mAh (per position)
	WiFi tracking: 0,1mAh (per position)

(3) 5 satellites or more at -130 dBm

Product references

Product	SKU
ABE INDUSTRIAL TRACKER EU868 with Single GPS antenna and Wi-Fi - include tropicalization option	DEABE202-152EU
ABE INDUSTRIAL TRACKER US915 with Single GPS antenna and Wi-Fi - include tropicalization option	DEABE203-162US
ABE INDUSTRIAL TRACKER AS923 with Single GPS antenna and Wi-Fi - include tropicalization option	DEABE203-163AS

Abeeway is the market leader in low-power geolocation and a provider of disruptive IoT tracking solutions worldwide. Abeeway offers the most energy-efficient, reliable and flexible geolocation solutions using unique tracking devices and a smart multi-technology location system optimized for long-range and low-power-consumption LoRaWAN™ connectivity. Offering the fastest time-to-market, Abeeway delivers a complete end-to-end solution for mass-market IoT sectors for asset tracking and management, process and decision optimization and personal safety.

Abeeway is a member of the LoRa Alliance™ and part of the Actility Group. Actility Group is a leading provider of LPWA IoT connectivity solutions, tools, business services and applications.

Data communication support

LoRaWAN™ Modem	Semtech transceiver SX1272
Protocol	LoRaWAN v1.0.2 Class A
LoRaWAN™ Frequencies bands ⁽¹⁾	EU 868MHz / US 915MHz / AS 923MHz
Configuration supported	OTA or ABP
RF output power ⁽¹⁾	14 dBm (EU) 18.5 dBm (max)
Min sensitivity of LoRaWAN™ receiver	-132 dBm in SF10
Wi-Fi Frequency band	2412 – 2472MHz
Wi-Fi sniffer max emission	3 dBm
GNSS band	1559 – 1610MHz

(1) Channel frequencies and Transmit output power level are country specific and controlled by the operator