



Abeeway  
Improve your position

## INDUSTRIAL TRACKER

### Solid and long-lasting, built for heavy-duty tracking

The Abeeway Industrial Tracker is a highly versatile multi-mode tracker **with a large battery** and embedded sensors combining GPS, Low-power GPS, Wi-Fi Sniffer and LoRaWAN™ TDoA geolocation technologies, **supporting accurate outdoor and indoor geolocation.**

This tracker is designed to resist **harsh surroundings** enabling you to perform seamless asset tracking **proximity detection** and management in any industrial environment – whether it's for **heavy-duty assets, inventory or livestock**, taking advantage of its extraordinary battery autonomy.



## Applications

- Real-time tracking, status monitoring of heavy and light assets, vehicles, machines and equipment, outdoors or in indoor industrial facilities.
- Activity monitoring based on motion for usage optimization, industrial control and asset management
- Livestock tracking in large farms
- Optimization of supply chain and production, delivery and inventory tracking
- Geofencing applications: receiving zone alerts when leaving/entering specific areas
- Antitheft applications, notification and location trigger when device is moving, at fixed frequency updates or on demand

## 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

- Geofencing zone detection
- Proximity detection
- Temperature monitoring
- LoRaWAN™ Class A radio
- Dust-proof and powerful water jets - (IP 65)
- Firmware upgradable
- Long battery life time

## Physical configuration

Size	145mm x 76 mm x 42 mm (L x l x h)
Weight	240g
Waterproof capability	IP65
Operating temperature	-15°C to 65°C
Charging temperature	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.)
1 GPS position / hour <sup>(2)</sup>	> 1.5 year
1 LPGPS position / hour <sup>(2)</sup>	> 5 years
1 WiFi position / hour	10 years
Standby	> 10 years

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

## Data communication support

LoRaWAN™ Modem	Semtech transceiver SX1272
Protocol	LoRaWAN Class A
LoRaWAN™ Frequency bands <sup>(1)</sup>	EU868MHz / US915MHz / AS923MHz
Configuration supported	OTA or ABP
RF output power <sup>(1)</sup>	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

## Position accuracy

<b>GPS<sup>(2)</sup></b>	Position Accuracy (50%-90%)	10 to 18 meters	
	Time To First Fix	Cold start	30-60 seconds
		Hot start	<5 seconds
Acquisition sensitivity	-140 dBm		
<b>Low power GPS<sup>(2)</sup></b>	Position Accuracy (50%-90%)	15 - 30 meters	
	Time To First Fix	<10 seconds	
	Acquisition sensitivity	-160 dBm	
<b>Wi-Fi<sup>(3)</sup></b>	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

(3) Accuracy depends on the WiFi AP density and physical layout of the premises

## Power management

Rechargeable Battery	19Ah / 3.6V
Battery type	Lithium-thionyl Chloride Type D

## Product references

Product	SKU
ABE INDUSTRIAL TRACKER EU868	DEABE2XX-XXEU
ABE INDUSTRIAL TRACKER US915	DEABE2XX-XXUS
ABE INDUSTRIAL TRACKER AS923	DEABE2XX-XXAS

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. The system makes precise geolocation power-efficient for various environments by combining high-precision GPS, our patented cloud computing technology Low Power GPS and ultra-low-consumption Wi-Fi sniffing technique. 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 LoRa Alliance™ and is part of the Actility Group. Actility Group is a leading provider of LPWA IoT connectivity solutions, tools, business services and applications.