



AL100 E-Mobility Tracker



E-Bike

The AL100 is an ideal waterproof tracker for monitoring E-mobility and rider behavior, making it suitable for managing E-mobility rental businesses or for personal use. Optional CAN BUS functionality allows for the retrieval of detailed E-mobility motor data via a customized protocol. The AL100 also supports optional Bluetooth connectivity, enabling it to connect with wireless sensors for various IoT applications.



E-Scooter

The AL100 enables remote monitoring of E-mobility mileage, speed, cadence, torque, battery level, battery and motor temperature, and other data. This information helps users understand the E-mobility's performance during rides and monitor its status in real time.



Application

- E-Bike
- E-Scooter

Features

- LTE Cat.1 connectivity
- Ruggedized enclosure, compliant to IP67
- Supports CAN Bus for getting detail of E-mobility motor data
- Driving behavior monitoring
- Bluetooth for wireless sensors or Mobile App connectivity

Ordering Information

Model	Region	Connectivity	Features			
			USB Type-C	CANBus	WiFi	Bluetooth
AL100-LECCX-AT10	EMEA/APAC	LTE Cat. 1	●	●	●	●
AL100-MGCCX-AT10	Global	LTE Cat. M	●	●	●	●

Last updated: 24-April-2025

Specifications

CELLULAR

AL100-MG (Global)	LTE FDD/TDD Cat.M B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B25, B26, B27, B28, B31, B66, B85
AL100-LE (EMEA/APAC)	LTE FDD/TDD Cat.1 B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B18, B19, B20, B25, B26, B28
Data Support	GSM: B3, B5, B8
Antenna	UDP / IP, TCP / IP, Embedded cellular antenna

POSITIONING

GNSS Receiver	33 Tracking channels 99 Acquisition channels
GNSS Engine	GPS & GLONASS
Other Location Technology	Wi-Fi Scan
SBAS Support	WAAS, EGNOS, GAGAN, MSAS
Tracking Sensitivity	-167dBm
Acquisition Sensitivity	-149dBm
Location Accuracy	2.5m CEP 50%
Antenna	Internal

WIRELESS

Bluetooth	Low Energy v5.0, Class 2
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INPUTS/OUTPUTS

CAN BUS	1 E-Bike CAN H/L (Proprietary)
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SENSORS

Accelerometer	3-axis $\pm 16g$
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ELECTRICAL

Operating Voltage	E-Bike 12V / 48V system
Current Consumption	Operating: 50-100mA@12v Deep Sleep Mode: 2.1mA@12V
Backup Battery Type	3.7V, Li-Ion, 650mAh

MEMORY

Internal Flash Memory	16 Mbit (10,000 queues)
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ENVIRONMENTAL

Operating Temperature	-20° C to 60° C
Humidity	95%RH @ 50° C non-condensing
Vibration/Shock	MIL-STD-810H
Solar Radiation	MIL-STD-810H
IP Rating	IP67

PHYSICAL

Dimension	118 x 38 x 43.76 mm (4.65"x1.5"x1.72")
Weight	120g
Enclosure	Flame Retardant PC
Mounting Method	Mounting bracket

CONNECTORS

Connection	JTWP-M604-6110
SIM Card Socket	(Molded Power Input, CAN H/L)
USB	NanoSIM (4FF) Type-C

CONFIGURATION

Firmware Update	ADM (ATrack Device Management), FOTA
Configuration Update	ADM (ATrack Device Management), FOTA

CERTIFICATIONS

Standards	FCC, CE, NCC, RoHS
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