

ED8945

LoRaWAN GPS Tracker User manual

V1.0.0

Document Revision Record

Version	Time	Description	Remark
V1.0.0	2018-09-10	Preliminary version	Michael

1. Description

ED8945 is a LoRaWAN compliant GPS tracking device equipped with a rechargeable battery for asset tracking, and outdoor adventure.



Application

- Outdoor Adventure: Stay connected in remote areas when cell service is down, share gps locations and send SOS if you get into trouble.
- Locate and track children, elderly and disabled people, prevent them from missing, send SOS in emergency.
- Asset tracking: such as pets, vehicle, fleet , parcels or bags .

Product variants

No.	Model	Description	Remark
1	ED8945-W	433MH , Suitable for China &Europe	
2	ED8945-C	470~510MHz , Suitable for China	
3	ED8945-E	863~870MHz , Suitable for Europe	
4	ED8945-U	902~928MHz , Suitable for America, Australia, Asia, Korea, Japan etc...	

Table 1.1 Product variants

2. Specification

Parameters	Specification
Frequency Band	EU868MHz/US915MHz/AS923MHz/ CN470MHz, optional
Battery Specs	Build in recharge Li-ion battery,1100mAh
Battery Life	8 hours, standby time 40h
Operating Temperature	-20~65°C
Dimensions	100*33*20mm (Weight 80g)
Modulation	LoRa Modulation Patented by Semtech
Transmit Power	+27dBm
Bluetooth	BT 4.0
GPS positioning solution	REALTEK MG1009R, Sensitive down to -148dB
GPS accuracy	5 ~ 10 Meters
Communication range	1~5KM in dense environment , 6 ~ 15KM LoS
Data upload rate	Customized

3. Features

- ✓ Communicate Via LoRa, no SIM card required
- ✓ Long Battery life and communication range.
- ✓ Easy to install on any object

4. Housing

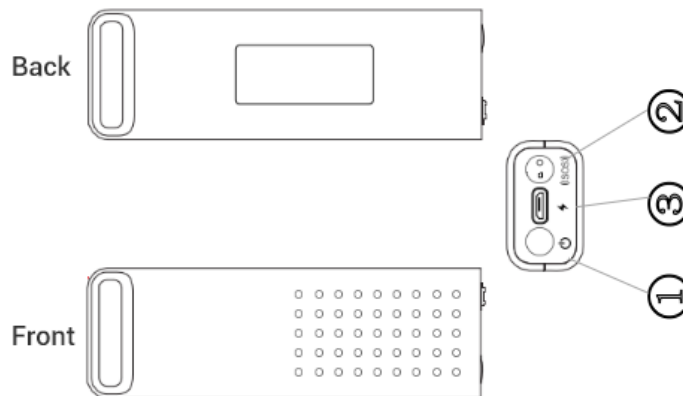
4.1 LED Indicator



Indicator	State	LED	Remark
Power indicator	Power off	All Indicators not lit	
	Charging	Red blinking	
	Low power	Red blinking quickly	
	Full of charge	Red constantly lit	
Bluetooth indicator	Bluetooth disabled	Blue blinking quickly	
	Bluetooth enabled	Blue constantly lit	
LoRa indicator	Data transmitting	Green blinking quickly	
	LoRaWAN™ network connected	Green constantly lit	

Table2.1 Indicator description

4.2 Buttons



No,	Function	Description
1	Power button	Power on: Press the power button 1 seconds, red indicator lit Power off: Press and hold power button 3 seconds, all indicators extinguish
2	SOS button	Press and hold SOS button 5 seconds to send SOS message
3	USB port	Charging through Micro-USB cable Upgrade through Micro-USB cable

Table2.2 Button description

5. Operation Guide (LoRaWAN™)

1.1 Activation method

- OTAA(Over-The-Air Activation) (by Default)
- ABP(Activation By Personalisation)

1.2 Payload protocol

Pls take reference to the DOC 《ED8945 Payload protocol V1.3.0 》

2. Package

Model	Package	QTY	Dimensions	G.W	Accessories
ED8945	Gift box Package	1pcs/box	12*5*3CM	80g	Micro USB cable