Smart Electric Vehicle Product WD-295

WD-295 is a GPS positioning device for smart e-bike. The device has CAN BUS/UART communication capabilities, 4G LTE-CAT1/CAT4 network remote control, GPS real-time positioning, Bluetooth communication, vibration detection, anti-theft alarm and other functions. The GPS terminal uses LTE and Bluetooth to interact with the background and mobile phone APP to control the e-bike and upload the real-time status of the e-bike to the server.

Functions:

--Support OTA
--Smart voice broadcast
--Control the e-bike by APP
--ACC detection
--Vibration detection
--CAN BUS/ UART/485 communication

Specifications:

Unity machine parameters			
Dimension	(111.3.±0.15)mm × (66.8±0.15)mm × (25.9.	**Input voltage range**	12V-72V

	±0.15)mm		
Waterproof level	IP67	**Internal battery**	Rechargeable lithium battery：3.7V，600mAh
Sheathing material	ABS+PC,V0 fire protection grade	**Working temperature**	-20 ℃ ~ +70 ℃
Working humidity	20 ~ 95%	**SIM Card**	Dimensions: Medium card (Micro-SIM card)
Network performance			
Maximum transmit power	LTE-FDD/LTE-TDD：23dBm	**Frequency range**	LTE-FDD:B1/B3/B5/B8
	WCDMA:24dBm		LTE-TDD:B34/B38/B39/B40/B41
	EGSM900:33dBm;DCS1800:30dBm		WCDMA:B1/B5/B8
Support model	LTE-FDD/LTE-TDD/WCDMA/GSM		GSM:900MH/1800MH
GPS performance			
Positioning	Support GPS,Beidou	**Tracking sensitivity**	< -162dBm
Start time	Cold start 35s, hot start 2s	**Positioning accuracy**	10m
Speed accuracy	0.3m/s	**Base station location**	Support, positioning accuracy 200 meters (related to base station density)
Bluetooth Performance			
Bluetooth version	BLE4.1	**Receiving sensitivity**	-90dBm

Maximum receiving distance	30 m, open area	**Loading Receiving Distance**	10-20m, depending on installation environment

Functional Descriptions:

Function list	**Features**
Positioning	Real-time positioning
Lock	In lock mode, if the device detects a vibration signal, wheel motion signal, and ACC signal.it generates a vibration alarm, and when the rotation signal is detected, a rotation alarm is generated.
Unlock	In unlock mode, device won’ t detect the vibration, but the wheel signal and the ACC signal are detected. No alarm will be generated.
433M Remote	Support 433 M remote, can adapt to two remotes.
Uploading data in real-time	The device and the platform are connected through the network to transmit data in real time.
UART/CAN	Through UART/CAN to communication with controller,get controller running state and control.
Vibration detection	If there is a vibration, device would send out a vibration alarm, and buzzer speak-out.
Wheel rotation detection	The device supports the detection of wheel rotation.When the E-bike is in lock mode, the wheel rotation is detected and the alarm of wheel movement will be generated.At the same time, the e-bike won't be locked when the wheeling signal is detected.
ACC detection	The device supports detection of ACC signals. Real-time detection of the vehicle's power-on state.
Lock motor	The device send a command to the controller to lock the motor.

Battery lock	The device support switch battery lock, lock battery to prevent battery theft
Gyroscope (optional)	The device equipped with built-in gyroscope chip, can detect e-bike attitude.
Helmet lock/back wheel lock (optional)	Reserved helmet lock circuit，support external joint lock, or rear wheel lock.