Ev2-G series intelligent central control Installation and operation instructions

Catalogue

Specification

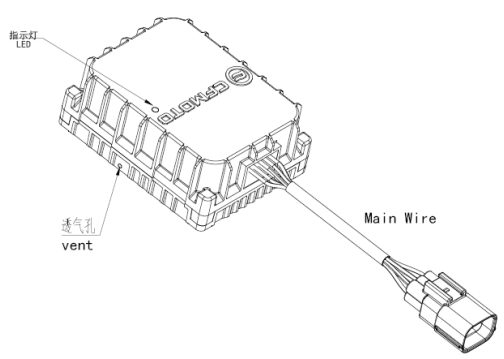
Summary

Ev2-G is a 4G version of intelligent central control terminal which is installed on the vehicles . it provides remote communication interface for the whole vehicle, and can provide services such as driving data acquisition, driving track recording, vehicle positioning (GPS, Beidou), vehicle fault monitoring,BLE communication and so on.

TBOX shall be installed in a position with good stability and concealment. Avoid the position next to high-temperature heating parts such as mailbox, engine, and avoid the position of cyclists and passengers.

Dimension and Drawing

Body size: 90.2mm*70.2mm*36.5mm



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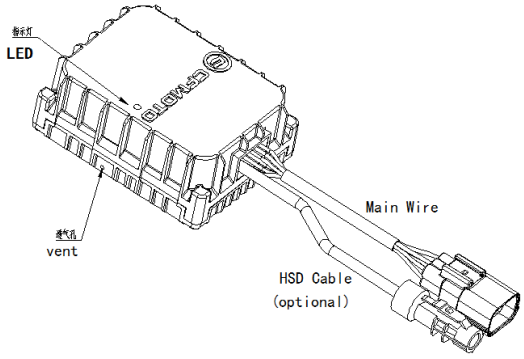


The main parameters

operating temperature range	-40℃ ~ +60℃
storage temperature range	-40℃ ~ +60℃
Battery Charge temperature range*	- 10℃ ~ +60℃
Operating Voltage	DC12V
Typical working current	< 300mA@12V
Quiescent current during sleep	< 0.5mA@12V
Average operating current	< 300mA@12V
MAX. output power	BT: -1.95 dBm GSM: 33 dBm WCDMA: 24 dBm LTE = 23 dBm
Frequency Stability	BT: ±30 ppm

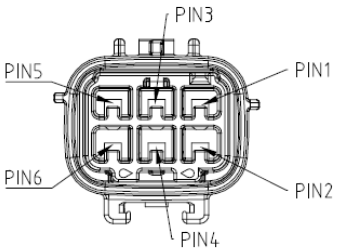
Receiver Sensitivity	BT: -94 dBm
Modulation	GFSK (BT), GMSK,8PSK (GSM), BPSK, QPSK,16QAM,64QAM (WCDMA), QPSK,16QAM (LTE)

Wireless parameters

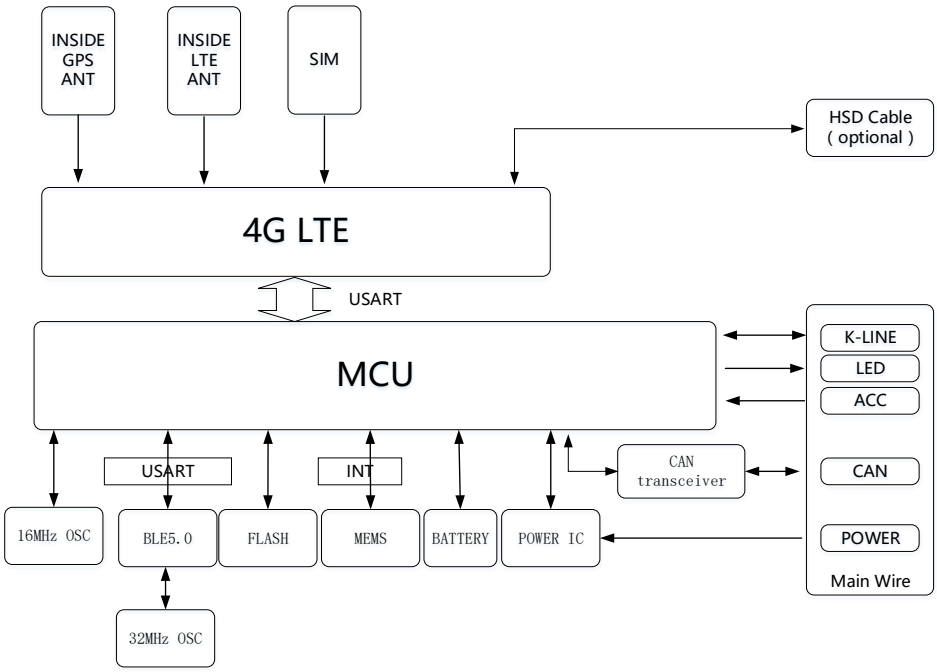
modular	frequency	Maximum transmit power	Minimum transmit power
GSM	EGSM900	33dBm±2dB	5dBm±5dB
	DCS1800	30dBm±2dB	0dBm±5dB
	GSM850	33dBm±2dB	5dBm±5dB
	PCS1900	30dBm±2dB	0dBm±5dB
WCDMA	WCDMA B1	24dBm+1/-3dB	<-49dBm
	WCDMA B3	24dBm+1/-3dB	<-49dBm
	WCDMA B4	24dBm+1/-3dB	<-49dBm
	WCDMA B5	24dBm+1/-3dB	<-49dBm
	WCDMA B8	24dBm+1/-3dB	<-49dBm
LTE FDD	LTE FDD B1	23dBm±2dB	<-39dBm
	LTE FDD B2	23dBm±2dB	<-39dBm
	LTE FDD B3	23dBm±2dB	<-39dBm
	LTE FDD B4	23dBm±2dB	<-39dBm
	LTE FDD B5	23dBm±2dB	<-39dBm
	LTE FDD B7	23dBm±2dB	<-39dBm
	LTE FDD B8	23dBm±2dB	<-39dBm
	LTE FDD B28	23dBm±2dB	<-39dBm
BT	2400~2483.5MHz	0dBm±2dB	/
GNSS	GPS/GLONASS/BeiDou/Galileo/ QZSS	/	/

Connection

PIN	Function	Remark
1	VBAT	DC12V
2	KL15	ACC
3	CAN_H	
4	CAN_L	
5	K_LINE	
6	GND	



Block diagram



Indicator status

Led status	equipment status	Remark
Slow flash	Network searching	200ms on, 1800ms off
Slow flash	Standby	1800ms on, 200ms off
Fast flash	Data transmission	125ms on, 125ms off
OFF	Deep sleep	

Warning

- Please confirm that the TBOX and connecting wire are correct before powering up the TBOX to prevent damage to the vehicle or TBOX. Don`t install or disassemble TBOX when it is powered on. If there is omission or misconnection, cut off the power supply before operation.
- This equipment is a wireless communication equipment. Please cut off the power

supply before entering the oil depot and dangerous goods place.

- This equipment is a wireless communication equipment. It will not work normally when the wireless network is artificially shielded or in the blind area of coverage.
- If any abnormality is found during use, please go to the designated place for maintenance or contact the dealer.
- Disposal of a battery into fire or hot oven ,or mechanically crushing or cutting of a battery ,that can result in an explosion .
- Leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas.
- A battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas.

Note

Please note that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) this device must accept any interference received, including interference that may cause und esired operation.

This equipment complies with radio frequency exposure limits set forth by the FCC for an uncontrolled environment.

This equipment should be installed and operated with a minimum distance of 20 cm between the device and the user or bystanders.

This device must not be co-located or operating in conjunction with any other antenna or transmitter.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference; and

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

The unlicensed transceivers included in this device comply with the NRC of innovation, science and Economic Development Canada for unlicensed radios. It is allowed to operate under the following two conditions:

(1) The equipment shall not produce interference;

(2) The equipment shall accept any radio interference, even if the interference may endanger its function.

This equipment complies with radio frequency exposure limits set forth by the Innovation, Science and Economic Development Canada for an uncontrolled environment.

This equipment should be installed and operated with a minimum distance of 20 cm between the device and the user or bystanders.

This device must not be co-located or operating in conjunction with any other antenna or transmitter.

The device complies with the uncontrolled environmental RF exposure limits set by innovation, science and Economic Development Canada.

The installation and use of the equipment shall be kept at least 20 cm away from the user or a third party.

The device must not be close to any other antenna or transmitter.

Manufacturer information

Product Name: TBOX.

Product type: Transceiver

Model: EV2-G

Manufacturer Name: Hangzhou Zhiyuan Electronic Co., Ltd

Manufacturer Address: No.10, Naxian Street, Dalu Industrial Park, 311113 Hangzhou City, Zhejiang, P.R. China

Brand: (AllyTech)