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日期 Date: 2021.10.28

Xiamen Hongfa Automotive Electronics Co.,Ltd.

KEY FOB

User manual

Version: V 1.0

Time of revision: 2021/10/28

Reviser: Software Section





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1 System Overview

The KEY FOB communicates bidirectional with the BCM by receiving LF signal and sending RF signal. When the LF signal is received by the KEY FOB, the contents of the RF message sent include encrypted data, field intensity, the minimum Byte of the KEY FOBIDE, battery low voltage indicator bit and check code; When the KEY FOB receives a valid KEY, the contents of the RF message sent include encrypted data, counter, function code, minimum Byte of the KEY FOB IDE, battery low voltage indicator bit and check code.



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2 System Parameters

2.1 Operating voltage

Rated voltage: 3VDC

Operating voltage: 2.7VDC~3.3VDC

2.2 Temperature Range

Operating temperature: -20°C to $+60^{\circ}\text{C}$ Storage temperature: -30°C to $+60^{\circ}\text{C}$

2.3 Static Current

Static current≤20uA@(3V、25°C)

2.4 LF Parameters (Receiving)

Number	project	parameter
1	1 Carrier frequency 125KHz±5KHz	
2	Data encoding mode	Manchester Encoding with 50% Duty Cycle
3	Mode of modulation	ASK

2.5 UHF Parameters (transmission)

序号	项目	参数	
Number	project	parameter	
1	Carrier frequency	433.92MHz±150KHz	
2	Data encoding mode	Manchester Encoding with 50% Duty Cycle	
3	Mode of modulation	FSK	



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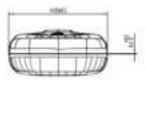
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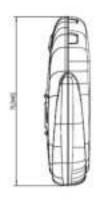
3 System Functions

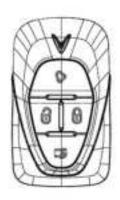
Key combination	Key press operation	Function	
Lock	Short press	Door lock	
Unlock	Short press	Door unlock	
Suitcase unlock	Short press	Suitcase unlock	
Car search	Short press	Car search alarm	
Lock & Unlock	Long press 4s	KEY FOB learning	

4 Appearance

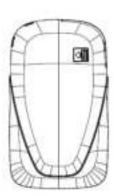
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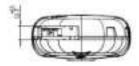














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5 Product information

custom PN	hongfa PN	Product color	Color code
	40137580028	red	REC
	40137580029	white	WHA
	40137580030	silver	SIA
FFD202000F0	40137580031	gray	GYA
EEP30209059	40137580032	black	BKA
	40137580033	green	GNB
	40137580034	blue	BLE
	40137580035	orange	ORB



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FCC Statement

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the Federal Communications Commission (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.

Changes or modific ations to this equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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, and (2) this device must accept any interference received, including interference that may cause undesired operation. Privacy of communications may not be ensured when using this device.

IC Statement

This device complies with Industry Canada licence-exempt RSS standard(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.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même i le brouillage est susceptible d'en compromettre le fonctionnement.