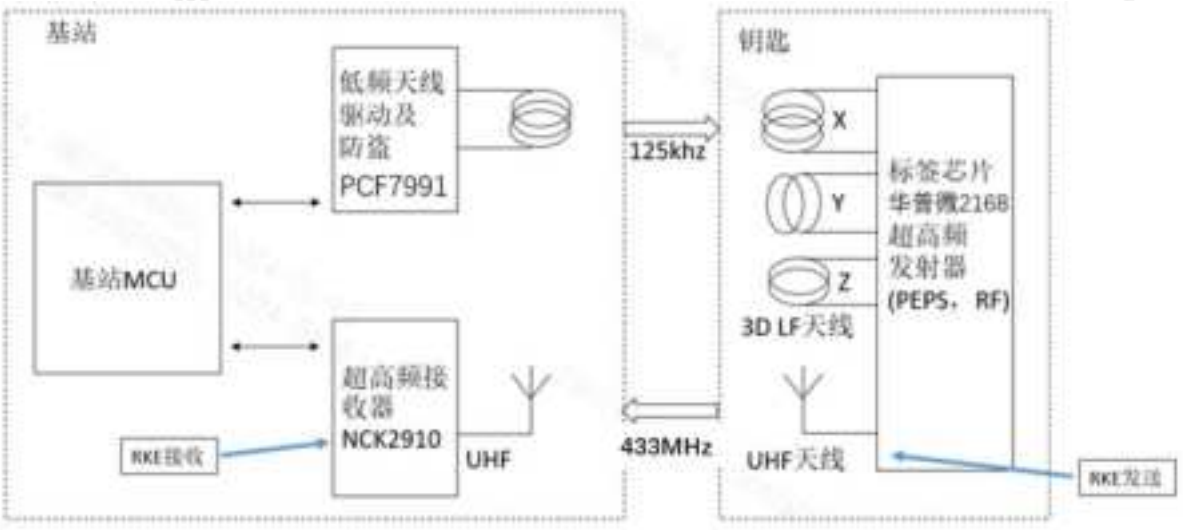
G050L product specification

1.1.1 Function Logic Description

1.1.1.1 Key Function Overview

The composition of PEPS module is shown in the figure. The remote control key sends data to the base station through 433MHz, and the base station receives high-frequency data through NCK2910 and parses the message content. At the same time, the base station can actively send a 125KHz low-frequency signal to the key through PCF7991.



The requirements for the key are shown in the following table:

编号 No.	产品特性 Product Feature	参数 Parameter	单位 Unit
1	High frequency remote control distance	≥30m（空旷地区）	M
2	RF	433.92MHz±0.1MHz	Hz
3	LF	125KHz±3%	Hz
4	LF Receiving success rate	1.2 米以内，成功率 100%	%
5	Key force	10N±3N（待定）	N
6	Key key life	> 10 万次	Time
7	battery life	> 2 年	Year
8	Key key response time	≤300ms	ms

1.1.1.2 Remote Key Mode

The remote key module has two operating states: RKE and PKE.

RKE means that the key detects that the key is pressed, and actively sends instructions to the BCM (such as unlocking, locking) to remotely control the vehicle. PKE refers to the working mode of the key to reply to the BCM after receiving the data request from the BCM. PKE includes two working modes: PE (keyless entry) and PS (keyless start).

1.1.1.3 Key Active Operation

When the vehicle is in the OFF state, when the action of key press is received (remote control lock, one-key window lift, remote control unlock, one-key window drop, long press the tail door unlock, short press the key to find the car), the corresponding function request command is output.

1) Enable conditions（a）：

a) /

2) Trigger conditions（a）：

a) The key button is pressed (the relevant operation of the corresponding key is valid, and the falling edge is triggered)

3) Closing condition（a）：

a) /

4) Execute the output：

The remote key outputs the high-frequency signal corresponding to the required function to the BCM (communication format refer to 1.1.1.1.4, key value refer to the table below).

paraphrase	definition
Remote key key command information	0x0：No Command 0x1：Short Press Lock（短按，遥控闭锁） 0x2：Long Press Lock（长按超过 2S，一键升窗） 0x3：Short Press Unlock（短按，遥控解锁） 0x4：Long Press Unlock（长按超过 2S，一键降窗）

	0x5：Short Press Trunk Key（短按，Not Used） 0x6：Long Press Trunk Key（长按超过 2S，尾门解锁） 0x7：Double Press Lock（短按两次，遥控寻车）

1.1.1.4 Passive Key Operation

When the vehicle power supply is OFF, when the driver or other legal persons approach the vehicle with the key, or press the micro-switch ON the door handle, or when the vehicle power supply is in ON gear, the key is detected in the car and other scenarios.

1) Enable conditions（a | b）：

a) /

2) Trigger conditions（a）：

a) Receive low frequency signal from BCM

3) Closing condition（a）：

a) /

4) Execute the output：

The feedback corresponds to the high-frequency signal to the BCM and responds to the BCM request

Federal Communications Commission (FCC) Statement. This device complies with part 15 of the FCC Rules. Operation is subject to the following twoconditions:

(1) This device may not cause harmful interference, and

(2) this device must accept any interference received,

including interference that may cause undesired operation. 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 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 ormore 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.

Warning: Changes or modifications made to this device not expressly approved by **Guangzhou Meimotor Electronic Techology Co.,Ltd** may void the FCC authorization to operate this device.Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

RF exposure statement:

This device complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. The device is installed and operated without restriction.