

Specification

Customer Name: Dingwei
Material No.:
Product Name: RF Remote Transmitter
Submission Date: 2026-06-23

Company Approval Seal		
Technical Department Approval	Quality Department Approva	Sales Department Approva

Zhongshan Xinya Technology Co., Ltd.

Product Specification Sheet			
No.	Item		Specification
1	Product Executive Standard		GB/T14960-1994
2	Operating& Storage	Ambient Temperature	-10℃～40℃
3		Relative Humidity	45%～75% RH
4		Atmospheric Pressure	86～106Kpa
5			
6	Product Composition (Standard Configuration, Excluding Special Custom Requirements)	Nameplate Material	-
7		Plastic Housing Material	475
8		Coating Material	-
9		Button Material	PET
10		Circuit Board Material	94HB
11			
12		Remote Transmitting Signal Source	RF
13		Remote Control Encoding Format	See attached coding sheet
14		Remote Control Code Table	See attached code table
15		Product Appearance Design	See attached drawings (for reference only, subject to actual product)
16		Battery Type	Eco-friendly Alkaline Dry Battery
17		Battery Spec	AAA Battery
18		Rated Operating Voltage	DC 3V
19		Operating Voltage Range	DC 2.6V-3.5V
20		Operating Current	≤20mA
21		Standby Current	≤3μA
22	Test Standard (Tamb=25℃ unless otherwise stated))	Carrier Frequency	433.92mHz±75KHZ
23		Transmit Power	20 ~45mAV per transmission
24		Transmitting Distance	≥ 15m (Unobstructed, matched standard receiver)
25		Directivity Transmitting Angle	No angle restriction
26		Directional Transmitting Distance	≥ 10m(unobstructed)
27		Voltage Transmitting Distance	≥ 6m (2.5V, unobstructed)
28		Button Free Travel	≤3mm
29		Button Actuating Force	120±30g
30		Button Service Life	≥100,000 presses
31		Free Drop Test Height	80cm (Wooden Floor)
32		Drop Test Times	6 times (one drop per surface)
33		Vibration Test (30min)	3-axis vibration; Amplitude 1.5mm; 500-3300 cycles/sec
34		High-Temp Storage Test	60℃ (72h)
35		Low-Temp Storage Test	-20℃ (72h)
36		Constant Temperature & Humidity Test	40℃, 90% RH

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Remote Control Code Table			
Address Code,	Rolling Code	Total Frames	3 frames
			

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Remote Controller Design Drawing



(Subject to physical produc)

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Remote Control Encoding Format

* The transmitter outputs a 1kHz signal. One valid BIT consists of high level + low level = 1ms.

Logic 1: 3TH + 1TL

Logic 0: 1TH + 3TL

1T = 250 μ s

* Frame Format Description

1. Frame Structure Definition

BYTE0 + BYTE1 + upper 4 bits of BYTE2 = Customer Code

Lower 4 bits of BYTE2 = Upper 4 bits of key value (Bit 4 to Bit 1 of key value)

Bit 7 of BYTE3 = Bit 0 of function code (the key value is 5 bits in total)

Bits 6 to 4 of BYTE3 = PID

Lower 4 bits of BYTE3 = Check Code

2. Total frame length: 4 BYTES (32 bits)

Bits 0–19 (first 20 bits): Customer Rolling ID

Bits 21–25 (5 bits): Function Code

Bits 26–28 (3 bits): PID

Bits 29–32 (last 4 bits): Check Code

3. PID Rule

Bits 6 to 4 of BYTE3 represent PID, which increments by 1 every time a key is pressed.

4. Check Code Calculation Rule

The 4-bit check code is calculated as follows:

Take every consecutive 4-bit group from the first 28 bits, perform XOR operation on all groups sequentially, then XOR the result with 0xA.

FCC Statement

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. Changes or modifications 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.

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.