Product specification

Product description: RF 2.4G Remote Control

Model: HX-RFBT02

Version: V1.1

Release date: 2021/06/16

Product Name	RF 2.4G Remote Control		
Series	RFBT		
Version Record			
Version	**Change description**	**Release date**	**Compatibility with the previous version**
V1.1	Original version	2021/06/16	

Customer confirms, Company name:

Test	Confirm	Audit

Complete model no according customer's demand:

NO 1		NO 2	
NO 3		NO 4	

1. Product photo

2. Features:

1) Working voltage: 3V (AAA*2);

2) Adopts RF 2.4GHz wireless control, remote control distance up to 30m and no directional;

3) Unique interface, and easy to operate;

4) RFBT02A for RGB/RGBW/RGBCW, RFBT02B for DIM/CCT.

5) Come with holder, easier access and keeping;

6) Two way for accessories installation, flexible choice;

7) Compatible with MINI001, D002, DLV003,DLV004,DLV005, D015, D016 controllers;

8) 3 years warranty.

3. Technical Parameters

| Working temperature	0-40℃	Working voltage	3V （AAA*2PCS）
Sleep current	<20uA	Emission current	<20mA
Sleep power consumption	<60uW	Emission power consumption	<60mW
Net weight	30g	Dimension	L108*W36*H22 (mm)
RF distance	≤30m	RF frequency	2.4GHz
Accessories	bracket 1pc, 3M foam sponge glue 1pc, screw 2pcs, expansion tube 2pcs.		

Series

Item	Picture	Function
RFBT02A		RGB RGBW/RGB+W RGBCW/RGB+CCT
RFBT02B		Single color CCT/CW+WW

4. Direction for use

The remote control function keys are composed of 1 color ring and 8 buttons. It is a 5-in-1 type remote control, which can be used to control DIM/CCT/RGB/RGBW/RGBCW LEDs. The functions are as follows:

Type 1: RGB
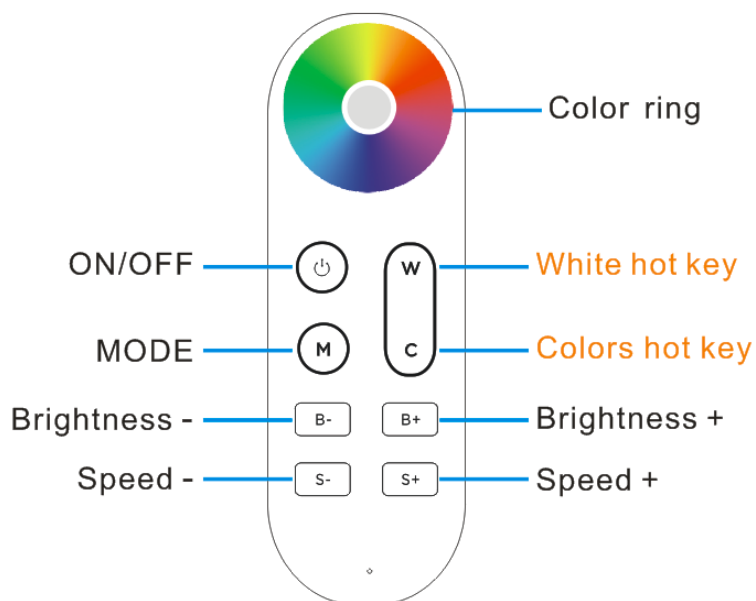
Name of key	Description
⏻	ON/OFF in any time
🌈	Static color options, 64 colors in total.
Ⓜ	Dynamic modes, 8 modes in total.
W	Hot key for white color
C	Hot key for static colors(red, green, blue, yellow, purple, cyan)
B-	Brightness – for static colors by 1024 levels. Long-press can get fast adjusting.
B+	Brightness + for static colors by 1024 levels. Long-press can get fast adjusting.
S-	Speed down for dynamic mode (100 levels). Long-press can get fast adjusting.
S+	Speed up for dynamic mode (100 levels). Long-press can get fast adjusting.

8 dynamic modes as below:

No	Patterns	Remarks	No	Patterns	Remarks
1	White breathe	Speed is adjustable, brightness is unadjustable	5	7 color fade	Speed is adjustable, brightness is unadjustable
2	3 color jumpy		6	R/G cross fade	

3	7 color jumpy		7	R/B cross fade	
4	3 color fade		8	G/B cross fade	

Type 2: RGBW/RGB+W
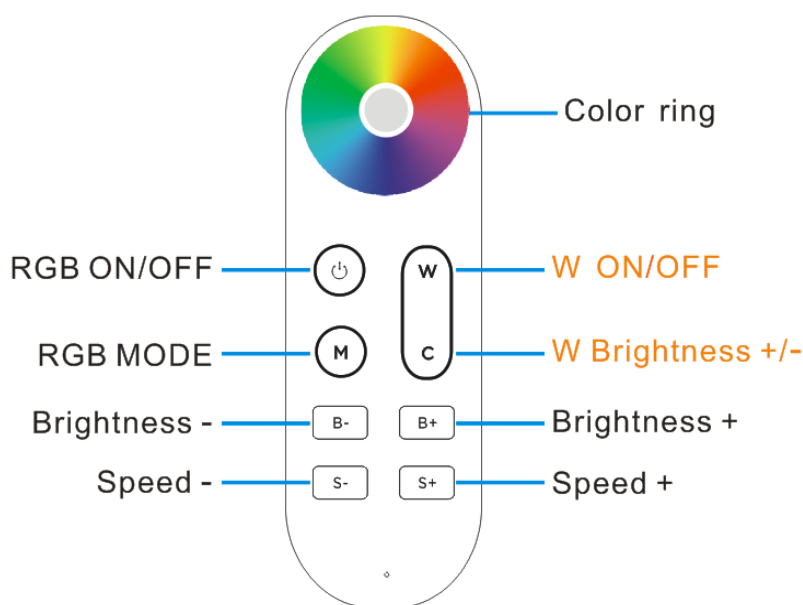
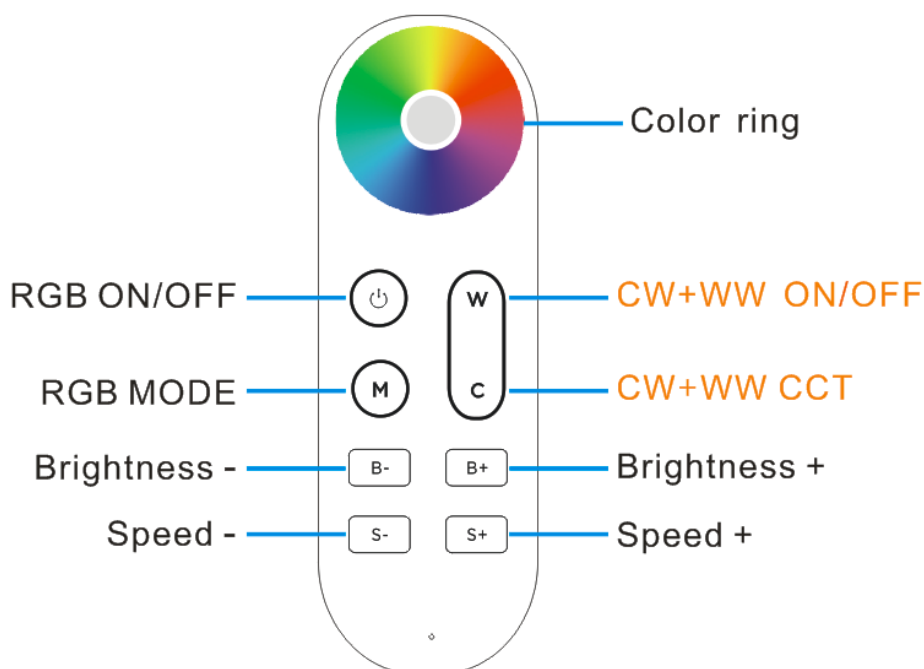| Name of key	Description
⏻	RGB channels ON/OFF in any time
🌈	RGB channels Static color options, 64 colors in total.
Ⓜ	RGB channels Dynamic modes, 8 modes in total.
W	W channel: Turn ON/OFF
C	W channel: Brightness +/-, 1024 levels, long-press can get fast adjusting.
B-	Brightness – for static colors by 1024 levels. Long-press can get fast adjusting.
B+	Brightness + for static colors by 1024 levels. Long-press can get fast adjusting.
S-	Speed down for dynamic mode (100 levels). Long-press can get fast adjusting.
S+	Speed up for dynamic mode (100 levels). Long-press can get fast adjusting.

Tips: RGB channels and W channel are controlled independently.

8 dynamic modes as below:

No	Patterns	Remarks	No	Patterns	Remarks
1	White breathe	Speed is adjustable, brightness is unadjustable	5	7 color fade	Speed is adjustable, brightness is unadjustable
2	3 color jumpy		6	R/G cross fade	
3	7 color jumpy		7	R/B cross fade	
4	3 color fade		8	G/B cross fade	

Type 3: RGBCW/RGB+CCT

Name of key	Description
⏻	RGB channels ON/OFF in any time
🌈	RGB channels Static color options, 64 colors in total.
M	RGB channels Dynamic modes, 8 modes in total.
W	CCT channels: Turn ON/OFF
C	CCT channels: color temperature +/-, short-press can get 3 quick levels, long-press can get stepless adjustment.
B-	Brightness – for RGB/CCT static colors. Long-press can get fast adjusting.

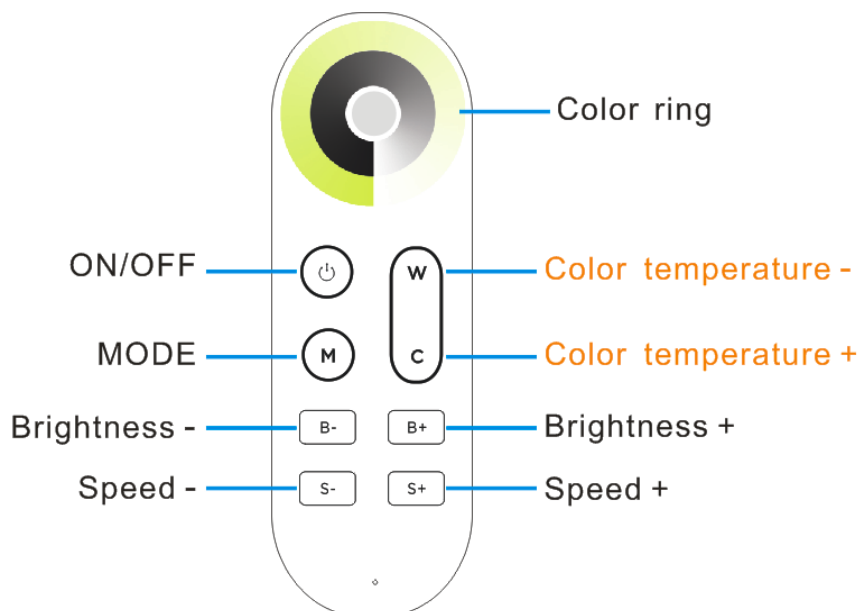|	
B+	Brightness + for RGB/CCT static colors. Long-press can get fast adjusting.
S-	Speed down for dynamic mode (100 levels). Long-press can get fast adjusting.
S+	Speed up for dynamic mode (100 levels). Long-press can get fast adjusting.

Tips: RGB channels and CW+WW channels are controlled independently.

8 dynamic modes as below:

No	Patterns	Remarks	No	Patterns	Remarks
1	White breathe	Speed is adjustable, brightness is unadjustable	5	7 color fade	Speed is adjustable, brightness is unadjustable
2	3 color jumpy		6	R/G cross fade	
3	7 color jumpy		7	R/B cross fade	
4	3 color fade		8	G/B cross fade	

Type 4: CCT(CW+WW)

Name of key	Description
⏻	ON/OFF in any time

(color wheel)	Static color temperature options,127 levels in total.
(M)	Dynamic modes, 4 modes in total: all flash, flash in turn, all fade, fade in turn.
W	Color temperature +, short-press can get 5 quick levels, long-press can get stepless adjustment.
C	Color temperature -, short-press can get 5 quick levels, long-press can get stepless adjustment.
B-	Brightness down for static status, long-press can get fast adjusting.
B+	Brightness up for static status, Long-press can get fast adjusting.
S-	Speed down for dynamic mode (100 levels). Long-press can get fast adjusting.
S+	Speed up for dynamic mode (100 levels). Long-press can get fast adjusting.

Type 5: DIM(Single color)
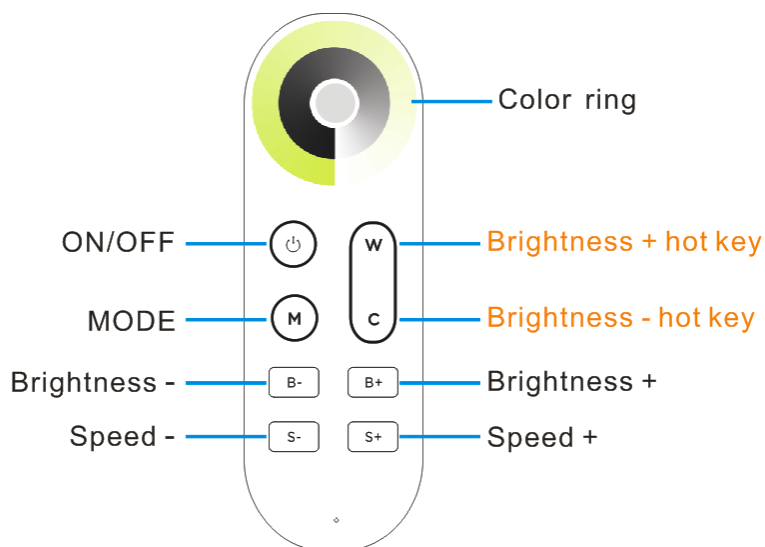
Name of key	Description
(power)	ON/OFF in any time
(color wheel)	Static brightness options,127 levels in total.
(M)	Dynamic modes, 2 modes in total: flash, fade.
W	Brightness + by 5 quick levels(1%, 10%, 30%, 70%, 100%)
C	Brightness – by 5 quick levels(100%, 70%, 30%, 10%, 1%)

B-	Brightness down for static status, long-press can get fast adjusting.
B+	Brightness up for static status, long-press can get fast adjusting.
S-	Speed down for dynamic mode (100 levels). Long-press can get fast adjusting.
S+	Speed up for dynamic mode (100 levels). Long-press can get fast adjusting.

5. Wireless remote control code value setting method

The number of controllers and remote controls in one system is unlimited. 2.4G Smart system has one unique RF code for communication. Each controller and each remote control can remember only one RF code, recorded in the first programing. New RF code can be recorded after delete the old one.

Code matching operation: the receiver will only be controlled by the value code remote control.

Step	Operation	Instructions
1	Connecting the load to the receiver and power on it.	1.It is necessary to clear the code first, if the receiver was coded before. 2.Batch operation can be performed within the remote control range. 3. Please remember to cut off other un-code zones power, or will be paired together.
2	Press and hold ☉ (RGB ON/OFF key) on the remote control for 5 seconds	1. The color ring light on the remote control should be Red (if green color light up, please press any key to exit and re-operate this step after then). 2. The RF indicator on the remote control will flash quickly, see the load light flashes 3 times and return to the initial state, means matching coding is finished successfully
3	Press any key to exit and end the operation	Also will automatically exit code transmission status after 60 seconds

Code clearing operation: that the original code value of the receiver will be cleared and returned to the factory state. Then it can be controlled by any compatible remote control, also can be paired to a new code.

Step	Operation	Instructions
1	Connecting the load to the receiver and power on it.	1. The clearing operation should be finished within 1 minute after the receiver is powered on. 2. Batch operation can be performed within the remote control range.
2	Press and hold "M" key on the	1. The indicator of the remote control will flash quickly, see the load light flashes 3

	remote control for 5 seconds	times and return to the initial state, means clearing coding is finished successfully. 2. If the original remote control is lost, the new remote control can be used for clearing operations.
3	Press any key to exit and end the operation	Also will automatically exit code transmission status after 60 seconds.

Code learning operation between remote controls: Used to unify system code values or copy a new remote control.
Since each remote control has its own unique RF code at the time of delivery, when there are multiple remote controls in one system, one of them must be selected as a main, and other remote controls should copy its RF code.
1) **Main** remote control: Press ☉ and hold (RGB ON/OFF key) for 5 seconds (the color of color ring light on the remote control can be red or green). The RF indicator of the remote control will flash quickly, means it enters the sending code transmission status.
2) **New** remote control: Press and hold "W" key for 5 seconds, indicator will turn from 100% to off and the color of color ring light on the remote control will be blue, means it enters learning code status.
3) The RF Indicator of the new remote control flash 3 times after successful code learning.

Remote control RF code learning from controllers
1) Turn off the power supply of the controllers.
2) Press and hold "W" key for 5 seconds until indicator of remote control turns off.
3) Turn on the power supply of the controllers. The RF indicator of the remote control flashes 3 times after successful code learning.
Note: The distance from controllers to remote controls should be less than 2 meters.

Restoring factory settings of remote control
1) Press and hold "W" key for 30 seconds until the RF indicator of remote control process the state as 100% -off-100%(the color ring light state as off-blue-off at the meanwhile).
2) Press "M" key to submit and finish the operation. Indicator of the remote control will flash three times after successful operation.

About installation of remote control's bracket:

1.Accessories include: bracket 1pc, 3M foam sponge glue 1pc, screw 2pcs, expansion tube 2pc.
2. There are 2 options for bracket installation:
1) Using screw and expansion tube make drilling installation (suitable for uneven and ash surface);
2) Using 3M foam sponge glue make free drilling installation (suitable for flat no ash surface).

6. Compatible family

Remote control	Receiver	Other compatible remote control	Compatible repeater
HX-RFBT02A (RGB/RGBW/RGBCW 3 in 1)	MINI001-RGB, MINI001-RGBW D002(4 in 1), DLV003(4 in 1),DLV004 D015(RGB), D016(RGBW), DLV005(5 in 1) DLC006(4 in 1)	HX-RFBK-RGB-2.4G(5 in 1) HX-SWC-2.4G (DIM/CCT/RGB/RGBW) HX-HWP86-2.4G(DIM/CCT/RGB/RGBW/RGBCW)	WP86-AP (RF signal repeater)
HX-RFBT02B (DIM/CCT 2 in 1)	MINI001-DIM, MINI001-CCT, D002(4 in 1), DLV003(4 in 1) DLV005(5 in 1) DLC006(4 in 1)	HX-RFBK-RGB-2.4G(5 in 1) HX-SWC-2.4G (DIM/CCT/RGB/RGBW) HX-HWP86-2.4G(DIM/CCT/RGB/RGBW/RGBCW)	WP86-AP (RF signal repeater)

Product information for placing order

Product name	Item number
RF 2.4G Remote Control	HX-RFBT02A, for RGB/RGBW/RGBCW(3 in 1) HX-RFBT02B, for DIM/CCT(2 in 1)