

HX-T2/T3/T3-BLE/T3-WIFI

RF Single Color Dimmer

Single color dimmer can achieve stepless and smooth dimming. It adopts both knob control manner and remote control. The digital tube displays the brightness percentage, users can transfer the light to the appropriate brightness.



T2 (linked to RC)



T3 (unlinked to RC)



T3-BLE (TUYA Bluetooth Mesh control)



T3-WIFI (TUYA WIFI control)

This product supports both manual knob dimming and remote control dimming.

T2: can be controlled by any compatible remote control as default; if unique-control is needed, please matching the code before installation and using.

T3: cannot be controlled by remote control, please pair it to the remote control when remote control is required.

T3-BLE: Integrate TUYA Bluetooth mesh function based on T3, also can be controlled by remote control after pairing.

T3-WIFI: Integrate TUYA WIFI function based on T3, also can be controlled by remote control after pairing.

Please refer to the corresponding remote-control manual for operation instruction in details.

Product Feature

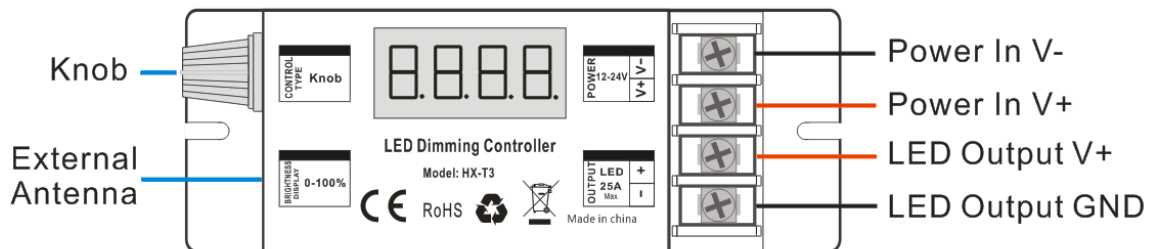
- Working voltage: DC12-24V, Max. output current up to 25A, 300W/12V, 600W/24V.
- RF frequency 2.4GHz, Wireless-sync-control.
- Supports both manual knob dimming and remote control.
- PWM frequency is adjustable (6 levels: 500Hz, 1KHz, 2KHz, 4KHz, 7.8KHz, 15.6KHz).
- Adopt the knob control manner, soft dim function, display the brightness.
- According to actual needs, users can transfer the light to the appropriate brightness.
- External antenna, convenient to extend the antenna outside the metal case when needed.
- The T2 version can be controlled by the remote control by default, and the T3 version cannot be controlled by the remote control by default, which is more convenient to adapt to the needs of different scenarios.
- T3-BLE Bluetooth / T3-WIFI controlled by Tuya Application to achieve smart control like group control, scene control, timer control and so on.
- Short-circuit protection.
- 3-year warranty.

Technical Parameters

Working temperature	-20-60°C	Supply voltage	DC12-24V
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Output	1 channel	Static consumption power	<1W
Max. output current	25A	Max. output power	300W/12V; 600W/24V
Net weight	70g	External dimension	L103*W40*H24 mm
Gross weight	80g	Packing size	L110*W42*H28mm
RF frequency	2.4GHz	Control method	Knob, remote control, TUYA-APP
RF distance	Up to 30 meters	Short circuit protection	Yes
Memory function	Yes	PWM frequency	2KHz (factory default),500Hz,1KHz, 4KHz, 7.8KHz, 15.6KHz
Max. output current	PWM<=2KHz: 25A PWM=4/7.8KHz: 15A PWM=15.6KHz: 10A	Max. output power	PWM<=2KHz:300W/12V; 600W/24V PWM=4/7.8KHz:180W/12V; 360W/24V PWM=15.6KH:120W/12V; 240W/24V

Connection port instruction



Direction for use

- Connect the load wire at first, followed by the power wire; Please ensure short circuit can not occur between connecting wire before turning on the power;
- Adopt rotary button, function as follows:
Clockwise rotation to brighten up brightness to 100% as the maximum; Counterclockwise rotation to dim down the brightness to 0% as the minimum.
The button-type knob that comes with the dimmer can realize the dimming function, and 5 levels of brightness (10%, 30%, 50%, 70%, 100%) can be achieved by short pressing the knob button.
- PWM display: P005=500Hz; P010=1KHz; P020=2KHz (factory default); P040=4KHz, P078= 7.8KHz; P156=15.6KHz.

PWM Frequency Adjustment operation :

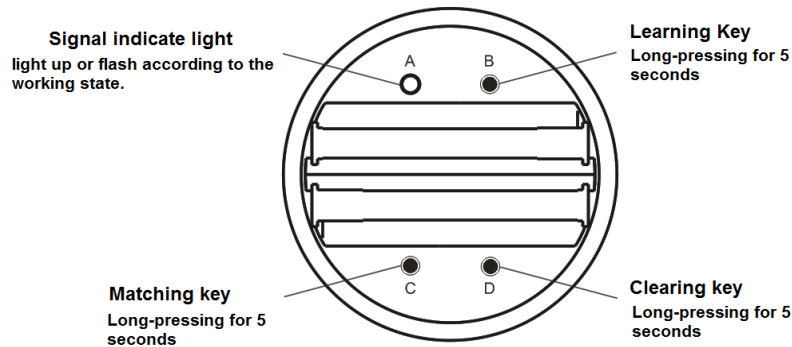
1) by HX-RFBT-2.4G remote control: Press and hold the remote control “Set” for 5 seconds after switch off the dimmer by remote control(the dimmer is in off state) within10 seconds, display will show as: P***. Means enter “PWM adjusting” state. Pressing ◀/▶ to adjust the PWM frequency, pressing “Set” button again to save it after finish the setting operation. Then the dimmer return to power on state automatically.

2) by HX-RFBT10-2.4G remote control: Press and hold the remote control “Set” for 5 seconds after switch off the dimmer by remote control(the dimmer is in off state) within10 seconds, display will show as: P***. Means enter “PWM adjusting” state. Press Brightness +/- keys to adjust the PWM frequency, pressing “Set” button again to save it after finish the setting operation. Then the dimmer return to power on state automatically.

3) by HX-RFBT12-2.4G remote control: Pressing DIY1->DIY2-> DIY1->DIY2-> DIY1->DIY2 (3 times for each) within 5 seconds after switching off the dimmer by remote control, display will show as: P***. Means enter “PWM adjusting” state.; press Λ/V to adjust the PWM, pressing “DIY1” button again to save it after finish the setting operation. Then the dimmer return to power on state automatically.

4) by HX-RFBT15-2.4G remote control: Pressing C->D->C->D->C->D (3 times for each, C-matching key, D-clearing key) within 5 seconds after switching off the dimmer by remote control, display will show as: P***.

Means enter “PWM adjusting” state. Rotating the knob to adjust the PWM frequency, pressing “C” button again to save it after finish the setting operation. Then the dimmer return to power on state automatically.



5) by Knob button on dimmer: long press the knob button for 5S to enter PWM adjustment, display will show as: P***, means enter “PWM adjusting” state. Rotating the knob to adjust the PWM frequency, short press the knob to save it after finish the setting operation. Then the dimmer return to power on state automatically. (new release in 07/2022)

Please note: PWM setting operation should be finished within 1 minute, Will automatically exit PWM adjusting status without save it after 60 seconds.

Bluetooth Control Direction of Use for T3-BLE, T3-WIFI

Bluetooth controlled / WIFI controlled by Tuya Application to achieve smart control like group control, scene control, timer control and so on.

Scan QR code from controller to download Tuya application:  (Tuya) and register it to get your home account.

Reading operation instruction of App, or following the pop-up prompt message with the APP, to finish the rest connection operation.

And compatible with voice control via Amazon Alexa, Google Assistant, Yandex Alice and so on.

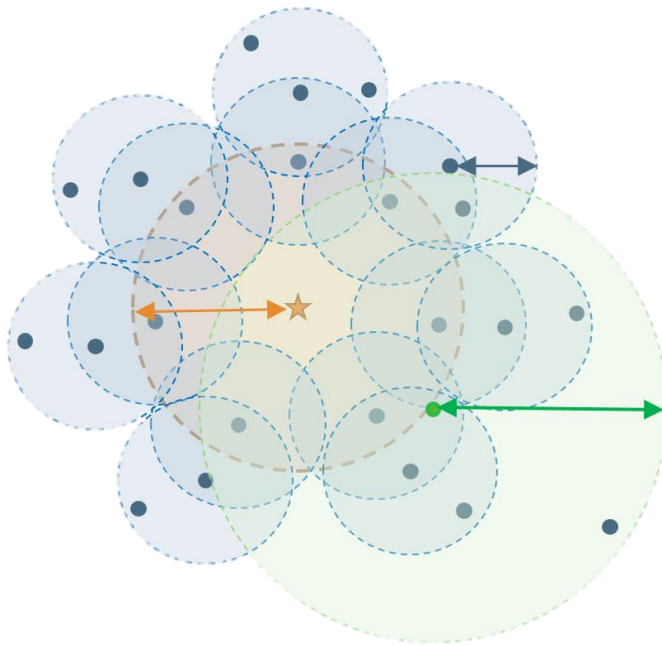
Bluetooth connection reset:

Power-on and power-off 5 times (power off within 10s each time), the WIFI/ Bluetooth module will be reset, the load light will flash quickly, and enters the state of connection.

Tips: If the driver is not reconnected after resetting, it will automatically connect to the last device when it is powered off and on again.










Wireless-synchronization function

Receivers will transmit the control signals from the remote control and self-inspection the work statuses for each other, so multiple receivers in same zone will wireless-sync-work completely.



- Receiver (10m)
- ★ RF remote control (20m)
- RF signal repeater (30m)

Compatible remote control

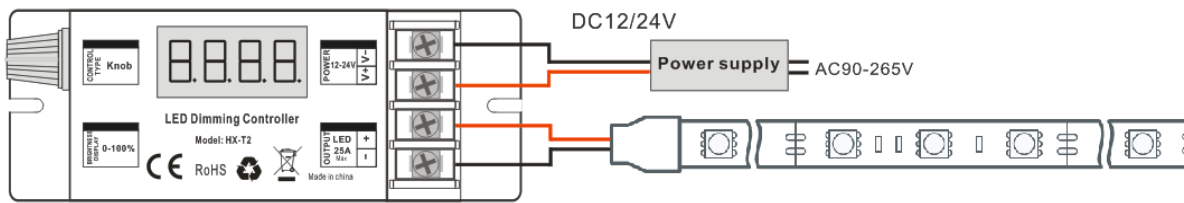
Item : HX-RFBT-2.4G (1 zone)	Item : HX-RFBT10-2.4G (4 zone)	Item : HX-RFBT12-2.4G (1 zone)
		
Item: HX-RFBT15 (1 zone)	Item: HX-RFBT02B (1 zone)	Item: HX-HWP86-DIM-4S (4 zone)
		
Item: HX-HWP86-XSP (4 zone)	Item: HX-WP86-AP (RF signal repeater)	Item: HX-HWP86-DIM-2.4G (1 zone)
		

Remark:

1. Compatible with various types of remote controllers at the same time, and can be combined according to the project situation.
2. The T2 version can be controlled by the remote controller by factory default, T3 and T3-BLE cannot be controlled by the remote controller by default (it can be used after the code pairing operation).

Typical Applications

Application Circuit:



Precautions

- 1.The working voltage is DC12V~24V, and it must not be connected to other voltages;
- 2.Ensure that the wiring is correct and no short circuit before power-on;
- 3.It supports wireless-sync-dimming by remote control, please refer to the remote control setting manual for details;
- 4.PWM dimming frequency is adjustable via remote control. The maximum output load power corresponding to different PWM frequencies is different. Please do not overload it.
- 5.Warranty of this product is 3 years, exclude the artificial situation of damaged or overload working.

Product information for placing order

Product name	Item number
RF Single Color Dimmer	HX-T2 (can be controlled by any compatible remote control as default)
	HX-T3 (cannot be controlled by remote control, need to pair if needed)
	HX-T3-BLE (with TUYA-BLE mesh function based on T3)
	HX-T3-WIFI (with TUYA WIFI function based on T3)