

HX-T7/T6/T6-BLE

Category: RGB Controllers

Source model: HX-T7/T6/T6-BLE

Internal reference: HOION-CTRL-094

Product Overview

HX-T6/T7/T6-BLE is a low-voltage controller that uses advanced PWM control technology to control various dual white temperature constant-voltage LED lamps, such as: CCT LED strips, line lights, panel lights, etc., The LEDs can be dimmed or toned according to the needs of the application to make the environment more harmonious; this product adopts 2.4G wireless remote control and excellent synchronization technology, which can realize the wireless synchronization of all controllers.

Technical Details

RF 2.4GHz CCT controller for 2-wire CCT LED strips

HX-T6/T7/T6-BLE is a low-voltage controller that uses advanced PWM control technology to control various dual white temperature constant-voltage LED lamps, such as: CCT LED strips, line lights, panel lights, etc., The LEDs can be dimmed or toned according to the needs of the application to make the environment more harmonious; this product adopts 2.4G wireless remote control and excellent synchronization technology, which can realize the wireless synchronization of all controllers.

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T7 (linked to RC) |

T6 (unlinked to RC) |

T6-BLE (with TUYA-BLE mesh)

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

T7 : can be controlled by any compatible remote control as default; if unique-control is needed, please matching the code before installation and using.

T6 : cannot be controlled by remote control, please pair it to the remote control when remote control is required.

T6-BLE : Integrate TUYA Bluetooth mesh function based on T6, also can be controlled by remote control after pairing.

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

Product Feature

1. It is a constant voltage controller for CCT LEDs, working voltage is DC12-24V;
2. With power-off memory storage function;
3. The PWM frequency is adjustable, 500Hz-15.6KHz, the factory default is 2KHz;
4. With high power watt output, the maximum current is 17A/CH, 12V200W/24V400W;
5. Adopt 2.4G wireless synchronous remote control, long distance, penetrability, good synchronization, which can realize synchronous control of countless controllers; the external antenna on the receiver can be extended out of the metal shell if needed;
6. Support knob dimming, the digital tube can display the brightness percentage, and can accurately select the desired brightness or color temperature;
7. The T7 version can be controlled by the remote control by default, and the T6 version cannot be controlled by the remote control by default, which is more convenient to adapt to the needs of different scenarios;
8. T6-BLE Bluetooth controlled by Tuya Application to achieve smart control like group control, scene control, timer control and so on.
9. With short circuit protection function;
10. 3-year warranty.

Technical Parameters

| Working temperature | -20-60℃ | Supply voltage | DC12-24V

| Output | 2 channels | Static power consumption | <1W

| Max. output current | 17A*2CHs | Short circuit protection | Yes

| Net weight | 80g | External dimension | L103*W40*H24 mm

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| Gross weight | 100g | Packing size | L110*W42*H28mm

| Brightness range | 0-100% | CCT range | 100%WW-100%CW

| RF frequency | 2.4GHz | Control method | Knob, remote control, TUYA-APP

| Memory function | Yes | PWM frequency | 2KHz (factory default), 500Hz, 1KHz, 4KHz, 7.8KHz, 15.6KHz

| Max. output current | PWM<=2KHz: 17A

PWM=4/7.8KHz: 13A

PWM=15.6KHz: 10A | Max. output power | PWM<=2KHz: 200W/12V; 400W/24V

PWM=4/7.8KHz: 150W/12V; 300W/24V

PWM=15.6KHz: 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;

The built-in button knob of the dimmer can realize the functions of dimming and color temperature, and the two functions can be switched by short pressing the knob button;

1) When dimming, the digital tube brightness display: d***, from d000 to d100, means 0%-100%;

2) When adjusting the color temperature, the color temperature display of the digital tube: C***, total 100 levels, from C000 to C100, means 100%WW-100%CW;

The PWM frequency can be adjusted through the remote control or the knob button, and the digital tube PWM display: P***, there are 6 frequencies (the maximum load current value will also be relatively adjusted), as shown below:

| PWM frequency | Digital display | Max. output current/watt

| 500Hz | P005 | 17A 200W/12V | 17A 400W/24V

| 1KHz | P010 | 17A 200W/12V | 17A 400W/24V

| 2KHz | P020 | 17A 200W/12V | 17A 400W/24V

| 4KHz | P040 | 13A 150W/12V | 13A 300W/24V

| 7.8KHz | P078 | 13A 150W/12V | 13A 300W/24V

| 15.6KHz | P156 | 10A 120W/12V | 10A 240W/24V

Tips: The factory default of PWM frequency is 2KHz.

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) within 10 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) within 10 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 □/□ 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 controller: long press the knob button for 5 seconds to enter PWM adjustment, the digital tube of the dimmer will display

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P***, then turn the knob to select PWM, and then short press the knob to save after selection.

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 T6-BLE

Bluetooth 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 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 statues for each other, so multiple receivers in same zone will wireless-sync-work completely.

Compatible remote control

| Item#HX-RW12i# 1 zone#new | Item#HX-RW42 (4 zone) new | Item#HX-RFBT02Bi# 1 zone#new

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| Item#HX-RFBT-2.4Gi# 1 zone# | Item#HX-RFBT10-2.4G (4 zone) | Item#HX-RFBT12-2.4Gi# 1 zone#

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| Item: HX-RFBT15i# 1 zone# | Item: HX-HWP86-CCT-2.4Gi# 1 zone# | Item: HX-HWP86-CCT-4Si# 4 zone#

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| Item: HX-HWP86-XSPi# 4 zone# | Item: HX-WP86-AP (RF signal repeater) | Item: HX-TUYA-2.4G-CCT

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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. 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 CCT controller for

2-wire CCT LED strips |

HX-T7 (can be controlled by any compatible remote control as default)

HX-T6 (cannot be controlled by remote control, need to pair if needed)

HX-T6-BLE (with TUYA-BLE mesh function based on T6)

Source reference: <https://www.hoionlighting.com/products/LEDdiaoguangqi/RGBkongzhiqi/2025/1010/427.html>