F2-D(WT)+RC2

3-Button WiFi & IR CCT LED Controller

● WiFi & IR 2 channel constant voltage CCT LED controller.

● 2A per channel, output connects with 5 meters CCT LED strip.

● 3 button operation with on/off, CCT and brightness adjustment.

● Tuya smart APP cloud control, support on/off, color temperature
   and brightness adjust, delay turn on/off light, timer run, scene edit function.

● Voice control, support for Amazon Alexa, Google Assistant, Tmall Genie
   and Xiaodu voice assistant.

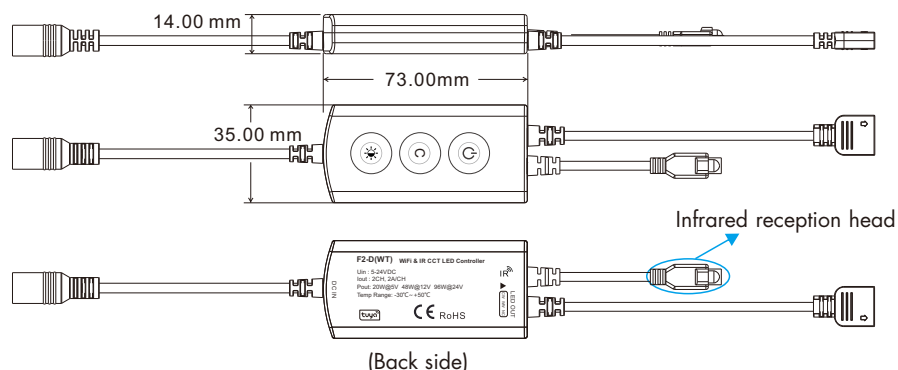● 4096 levels 0-100% dimming smoothly without any flash.
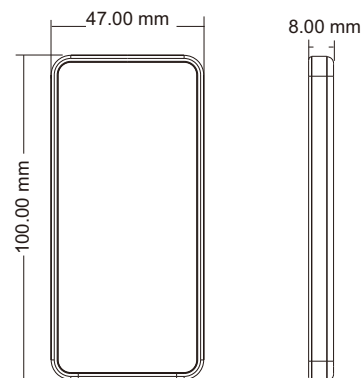
CE RoHS

Technical Parameters

Input and Output		Dimming data		Safety and EMC	
Input voltage	5-24VDC	Input signal	WiFi + IR + 3 button	EMC standard	ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.2.4
Output voltage	5-24VDC	Control distance	10m(Barrier-free space)		
Output current	2CH,2A/CH	Dimming gray scale	4096 (2^12) levels	Safety standard	EN 61347-1:2015+A1:2021 EN 61347-2-13:2014+A1:2017
Output power	20W@5V 48W@12V 96W@24V	Dimming range	0-100%		
		Dimming curve	Linear	Certification	CE
Environment		PWM Frequency	2KHz (default)	**Package**	
Operation temperature	Ta: -30°C ~ +50°C	Warranty	5 years	Size	L110 x W57 x H28mm
Case temperature (Max.)	Tc: +85°C	Protection	Over heat	Gross weight	0.086kg

Mechanical Structures and Installations

Controller size:

Remote size:

14.00 mm

73.00mm

35.00 mm

F2-D(WT)   WiFi & IR CCT LED Controller
Uin : 5-24VDC
Iout : 2CH, 2A/CH
Pout: 20W@5V 48W@12V 96W@24V
Temp Range: -30℃~+50℃
tuya CE RoHS

Infrared reception head

(Back side)

47.00 mm   8.00 mm

100.00 mm

Wiring Diagram

Inner diameter 2.1mm

Outer diameter
5.5mm

Power Adapter
12VDC

IR remote

V+ CW WW
1 2 3 4

5m CCT LED strip

V+
CW
WW

NOTE: ⇨ Below is the fourth wiring port with no output.

System wiring

3G/4G/5G WiFi

Tuya Cloud

Wired connection

Wireless connection

Mobile Phone

WiFi

WiFi Router

15m

Smart Speaker

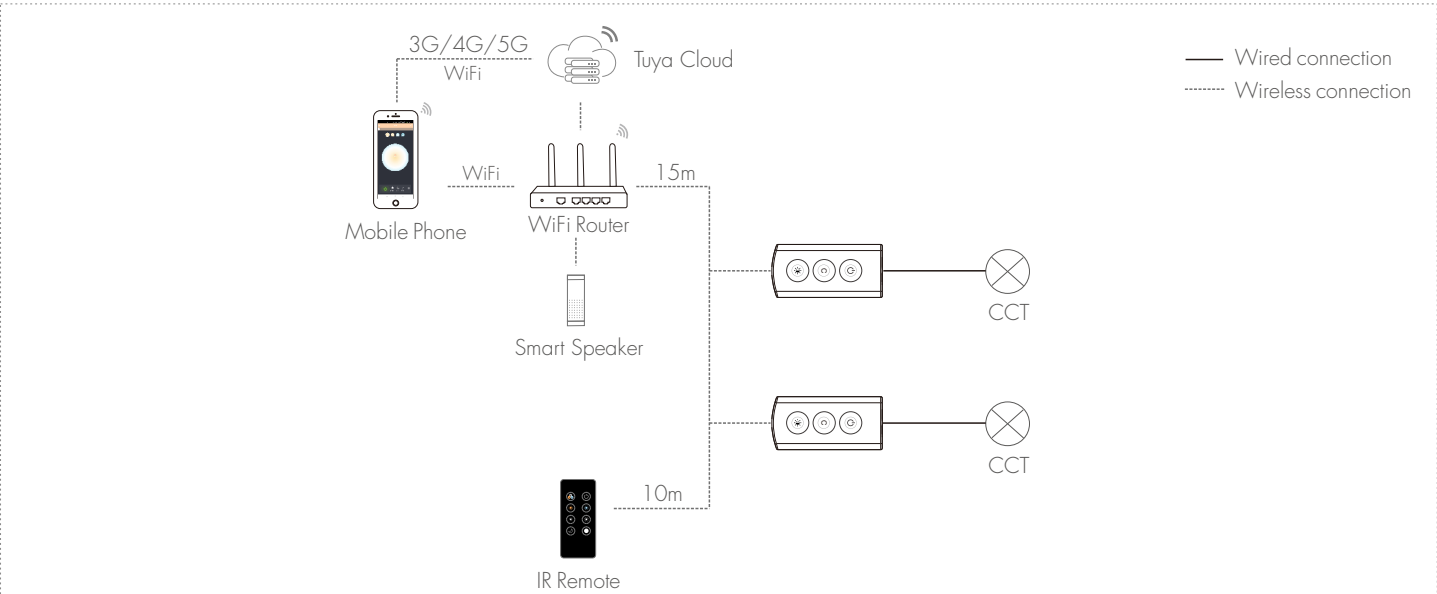IR Remote

10m

CCT

CCT

Note:
1. The above distance is measured in spacious (no obstacle) environment, Please refer to the actual test distance before installation.
2. Please check if the WiFi router net in 2.4G band, the 5G band is not available, and do not hide your router network.
3. Please keep the distance between F2-D(WT) devices and router close, and check the WiFi signals.
4. WiFi signal strength detection: open the main interface of social security, click ✎ enter the device interface, click "check device network" for testing.

Button function

⏻ : Turn on or off light.

C : Adjust color temperature,
    short press to switch between 3 color temperatures (WW, NW and CW), long press 1-6s for continuous 256 levels adjustment.

☀ : Adjust brightness, short press 10 levels, long press 1-6s for continuous 256 levels adjustment.

Note:
1. Press and hold the ⏻ and ☀ button for 2s, output LED flashes 3 times, the light on/off fade time will change between 3s and 0.5s.
2. Press and hold the ⏻ , c and ☀ button for 2s, output LED flashes multiple times, switch between"+, CW, WW" (flashes 1 times)
   and "+, WW CW" (flashes 2 times) output sequences, default is "+, CW, WW" order.

Key function of IR remote controller

⏻ : Turn on/off the light.

☷ : Short press switch between 3 color temperature (warm white, neutral white, cool white).

☀ ☀ : Color temperature +/-, short press 10 levels, long press 1-6s for continuous 256 levels adjustment.

☀ ☀ : Brightness-/+, short press 10 levels, long press 1-6s for continuous 256 levels adjustment.

☾ : Brightness 10%.

● : Brightness 100%.

Notes:
1. The IR remote control does not need to be paired and can be controlled directly.
2. When the remote control distance is far, the infrared remote control needs to be aimed at the infrared reception head of the dimmer.

Tuya Smart APP network connection

Please download the corresponding tuya/smart life app according to your region.

Press and hold (⏻) and (C) button for 2s:
clear previous network connection, enter Smart config mode, the output LED will flash 10 times.

Press and hold (⏻) and (C) button for 5s:
Clear previous network connection, enter AP config mode, the output LED will flash 5 times.
If smart config failed, please try AP config.
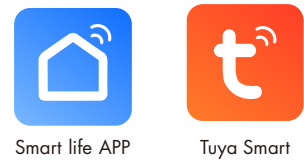
Repeat power on and off for 5 consecutive times, also clear previous network connection,
enter Smart config mode, the output LED will flash 10 times.

If Tuya smart APP network connection succeed, the output LED will stop flash,
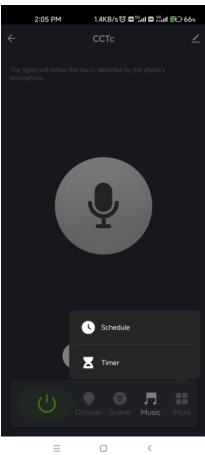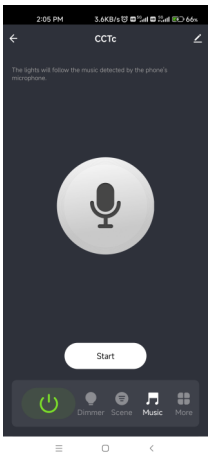and in Tuya smart APP, you can find CCTc device .

Smart life APP   Tuya Smart

Tuya Smart APP interface
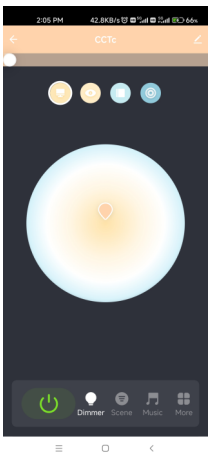
CCT interface
Touch color circle to adjust the color temperature.
Touch brightness slide to adjust brightness.
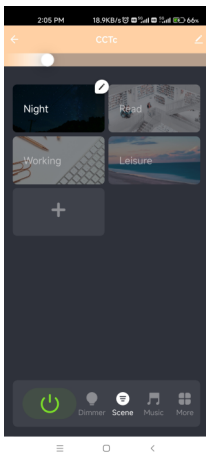
Scene interface
The 1-4 scene is static color.
the inner color of these scene can be editable.

Music, Schedule, Timer

The music play can use smart phone music player or micro-phone as music signal input.

The Schedule key can add multiple timers to turn on or turn off light according to different time periods.

The Timer key can turn on or turn off light in the next 24 hours.

Dimming Curve

Linear dual color tuning

Warm white(Min. 2700K)

Neutral white(4000K)

Cool white(Max. 6500K)

Recommended CCT range

Dimming curve

Gamma=1.0

PWM duty(%)

Brightness(%)