



# Teralux S Series **F3 RGB** **Controller LED** User Manual

3 Channel RGB LED Controller



**CE RoHS emc RED**

**Teralux Office**

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# Teralux S Series – F3

## Zigbee Protocol Magnetic & Linear Light Driver

The Teralux RGB LED Controller is a 3-channel constant-voltage driver designed for RGB lighting installations that require flexible control via Tuya Smart App, IR remote, or onboard buttons. It supports smooth step-less dimming, multiple dynamic scenes, and full voice assistant integration.

### Features

Wi-Fi and IR-controlled 3-channel constant-voltage RGB LED controller.

Tuya Smart App cloud control supporting on/off, RGB color selection, brightness adjustment, fade/delay options, timer scheduling, scene editing, and music-sync mode.

Voice control compatible with Amazon Alexa, Google Assistant, Tmall Genie, and Xiaodu smart speakers.

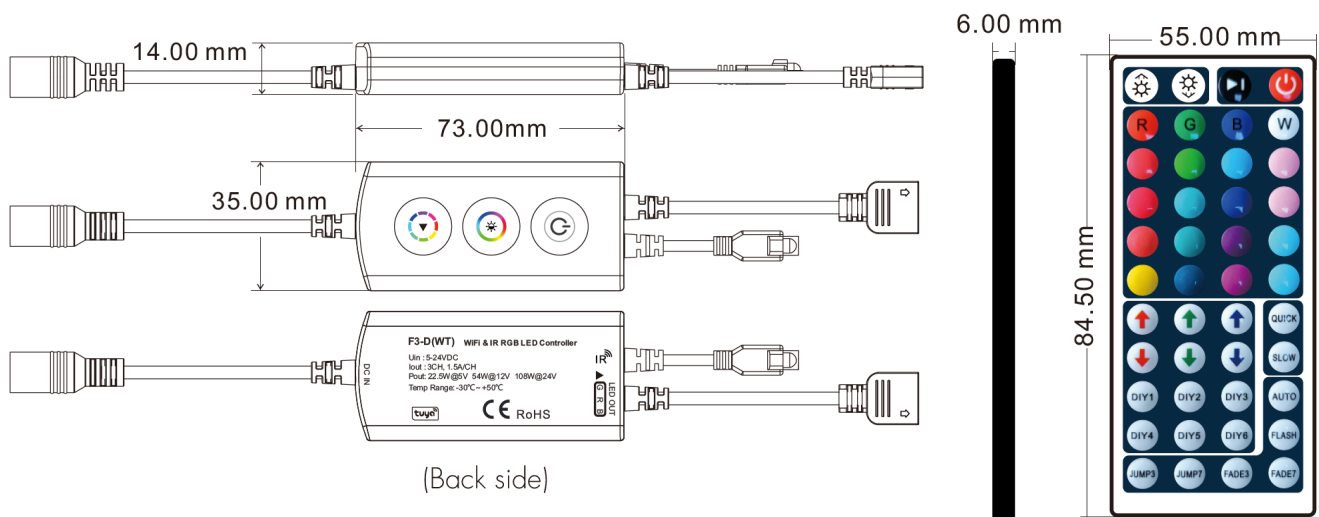
1.5 A output per channel, suitable for up to 5 meters of RGB LED strip.

Three physical buttons for power on/off, mode selection, and color adjustment.

4096-level smooth dimming from 0–100% without flicker or artifacts.

Embedded with 10 dynamic lighting modes including jump and gradual transitions.

### Dimension




## Technical Parameter

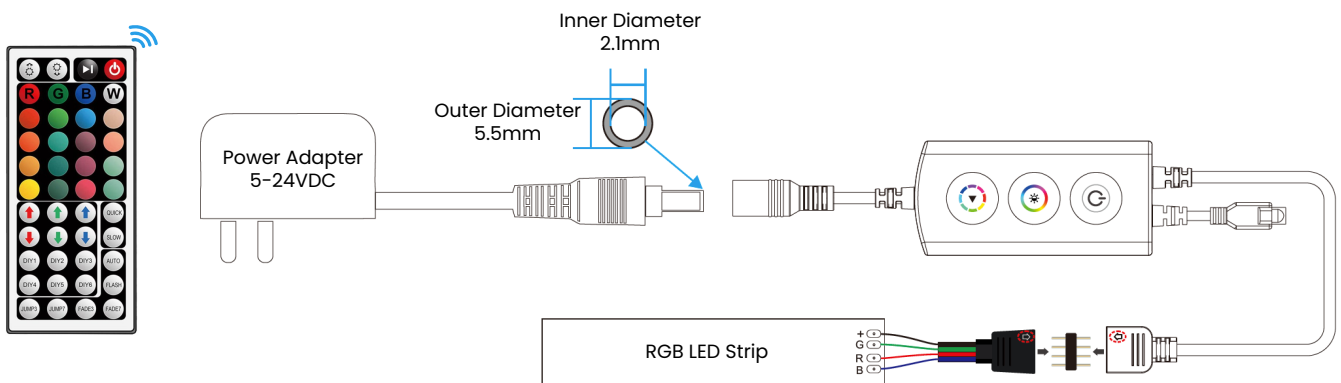
### Zigbee Protocol Magnetic & Linear Light Driver

Engineered for modern smart lighting, this controller delivers smooth and accurate adjustment



Category	Item	Specification
Input and Output	Input voltage	5–24VDC
	Output voltage	5–24VDC
	Output current	3CH, 1.5A/CH
	Output power	22.5W@5V
		54W@12V
		108W@24V
Environment	Operation temperature	Ta: –30°C ~ +50°C
	Case temperature (Max.)	Tc: +85°C
Dimming Data	Input signal	Tuya APP + IR + 3 button
	Control distance	10m (Barrier-free space)
Dimming Data	Dimming gray scale	256 level
	Dimming range	0–100%
	Dimming curve	Logarithmic
	PWM Frequency	2KHz (default)
	Protection	Over heat




Category	Item	Specification
Safety and EMC	Input voltage	ETSI EN 301 489-1 V2.2.3
		ETSI EN 301 489-17 V3.2.4
	Safety standard	EN 62368-1:2020 + A11:2020
	Radio Equipment (RED)	ETSI EN 300 328 V2.2.2
	Certification	CE RoHS  RED
Package	Size	W130 × L60 × H26mm

## Wiring Diagram

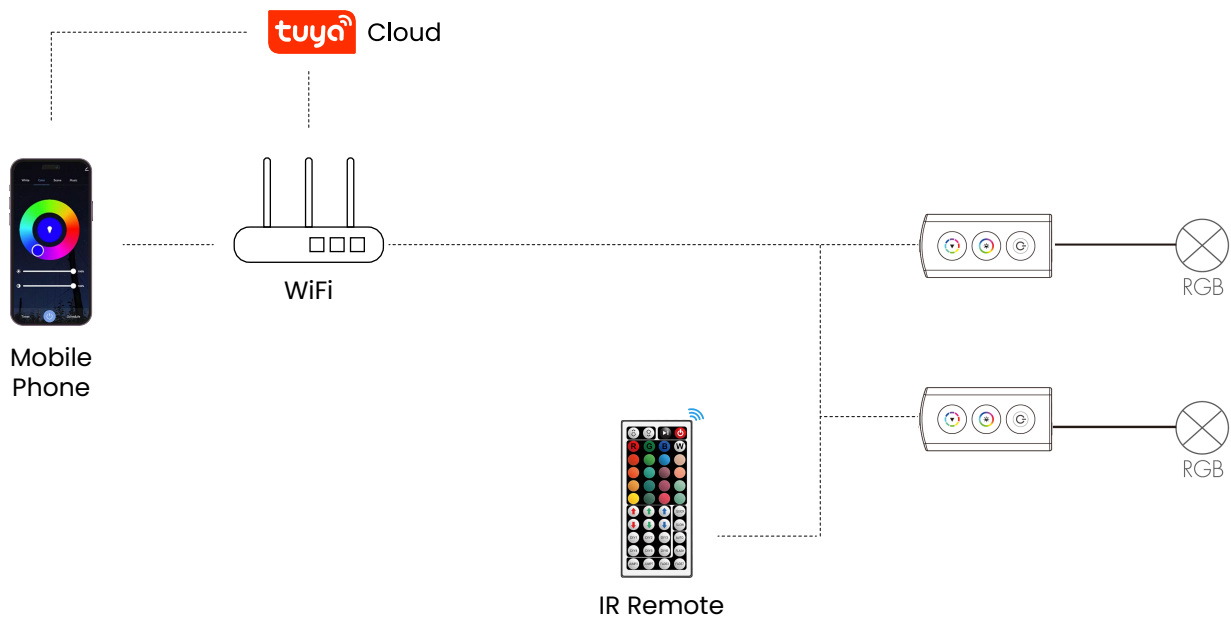


### Note:




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.

Press and hold the , , and  button for 2s, output LED flashes multiple times, switch between "GRB" (flashes 1 times), "RGB" (flashes 2 times), "BRG" (flashes 3 times), and "BGR" (flashes 4 times) output sequences, default is RGB



## System Wiring






## Button Function

-  Turn on or off light
-  Short press to change 24 static RGB color, long press 1/6s to adjust 256 levels brightness continuously.
-  Short press to change 10 dynamic mode, long press 2s to adjust speed, 10 levels.

## Tuya App and Network Connection

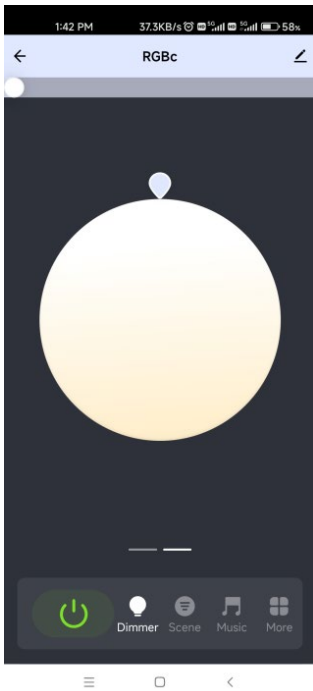
Press and hold the  and  button for 2s, output LED flashes 3 times, the light on/off fade time will change between 3s and 0.5s.

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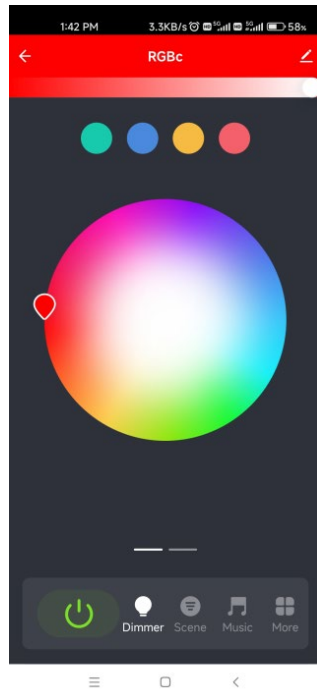
Repeat power on and off for 6 constructive times, also clear previous network connection, enter smart config mode, the output LED will flash 5 times.

If Tuya App network connection succeed, the output LED will stop flashi, and in Tuya app, you can find the device.

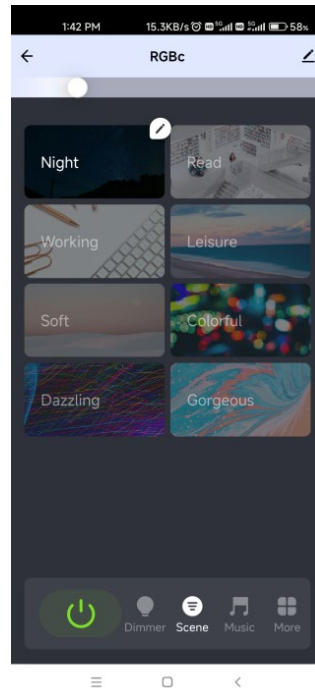
# Tuya App Interface



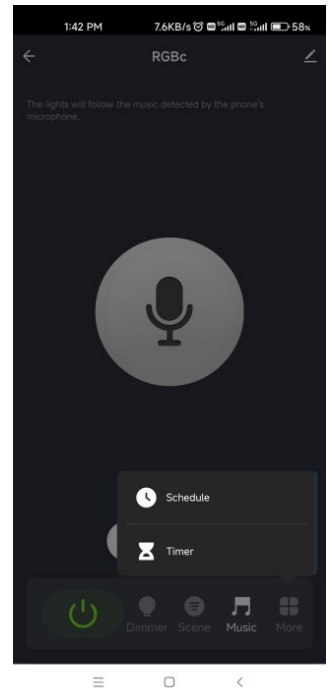
White Interface



RGB Interface

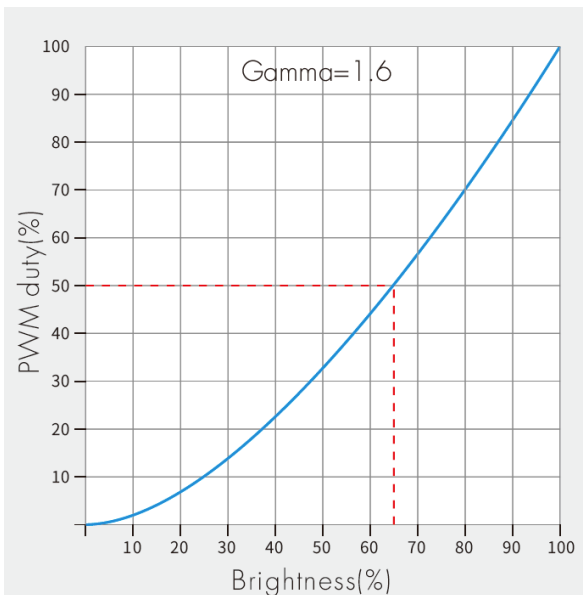


Scene Interface

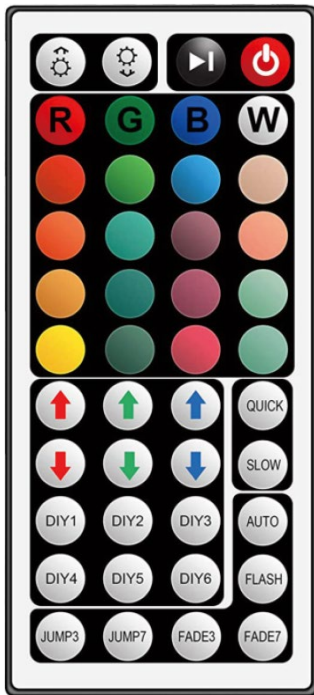


Music, Timer, Schedule

# Dimming Curve



# Key Function of IR Remote Controller



Turn on/off light.



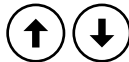
Pause/run dynamic mode; Short press for pause dynamic mode; Short press again to make dynamic mode continue running.



Brightness Adjustment.



Direct Adjustment.



R/G/B Brightness Adjustment



Get white light directly.

\*Short press for adjust brightness, long press for continuous adjustment.



Speed Adjustment



Dynamic Mode

\*Short press for adjust speed, long press for fastest or slowest.



DIY Scene Control



Direct static color.

\*Short press for recall scene, long press to save current color into DIY 1/2/3/4/5/6.



RGB Jump Mode



RGB Fade In/Out



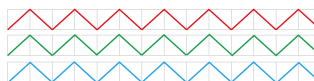
6 Color Smooth



6 Color Jump



White Fade In/Out





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