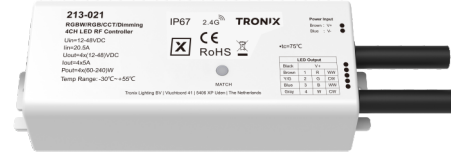


Waterproof 4 Channel Constant Voltage LED RF Controller

Features

- Waterproof 4 channel constant voltage LED RF controller with IP67 rating, suitable for outdoor and damp environment.
- Match with RF 2.4G single zone or multiple zone single color, dual color and RGB/RGBW remote control.
- One RF controller accept up to 10 remote control.
- 4096 levels 0-100% dimming smoothly without any flash.
- When using with RGB/RGBW light, built in 10 dynamic mode, include jump or gradual change style.
- Auto-transmitting function:
Controller automatically transmit signal to another controller with 30m control distance.
- PWM frequency 1KHz, 2KHz, 4KHz or 8KHz selectable.
- Synchronize on multiple number of controllers.
- Fade in and out effect selectable.

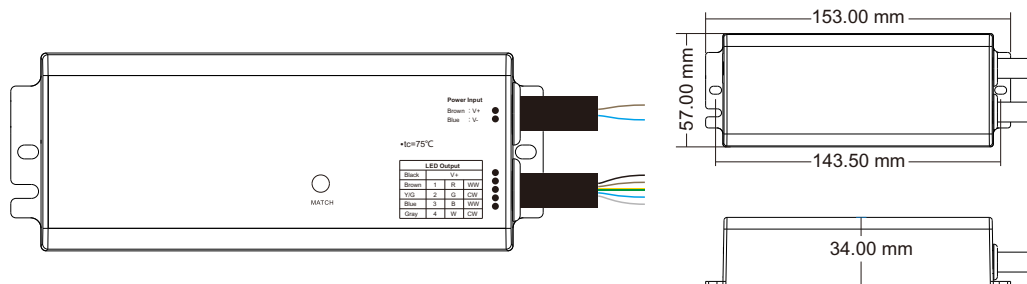


CE RoHS

Technical Parameters

Input and Output		Dimming data		Safety and EMC	
Input voltage	12-48VDC	Input signal	RF 2.4GHz	EMC standard	EN IEC 55015/ EN IEC 61547 ETSI EN 301 489-1/3
Input current	20.5A	Control distance	30m(Barrier-free space)	Safety standard	EN 61347-1/-2
Output voltage	4 x (12-48)VDC	Dimming gray scale	4096 (2^12) levels	Radio equipment	ETSI EN 300 440
Output current	4CH, 5A/CH	Dimming range	0-100%	Certification	CE RoHS
Output power	4x(60-240W)	Dimming curve	Logarithmic	Environment	
Output type	Constant voltage	PWM frequency	1000Hz (default)		
Warranty		Package		Operation temperature	
Warranty	5 years	Size	L165 x W98 x H72mm	Case temperature(Max.)	
		Gross weight	0.492kg	IP rating	
				IP67	

Mechanical Structures and Installations



Match Remote Control (two match ways)

End user can choose the suitable match/delete ways. Two options are offered for selection:

Use the controller's Match key

Match:
Short press match key, immediately press on/off key (single zone remote) or zone key (multiple zone remote) of the remote. The light blinks 3 times means match is successful.

Delete:
Press and hold match key for 5s to delete all match, The light blinks 3 times means all matched remotes were deleted.

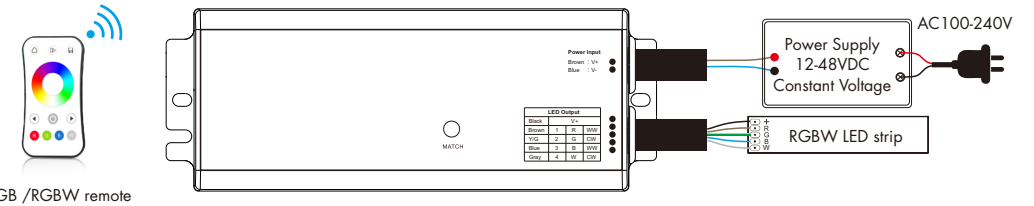
Use Power Restart

Match:
Switch off the power, then switch on power, repeat again. Immediately short press on/off key (single zone remote) or zone key (multiple zone remote) 3 times on the remote. The light blinks 3 times means match is successful.

Delete:
Switch off the power, then switch on power, repeat again. Immediately short press on/off key (single zone remote) or zone key (multiple zone remote) 5 times on the remote. The light blinks 3 times means all matched remotes were deleted.

Wiring Diagram

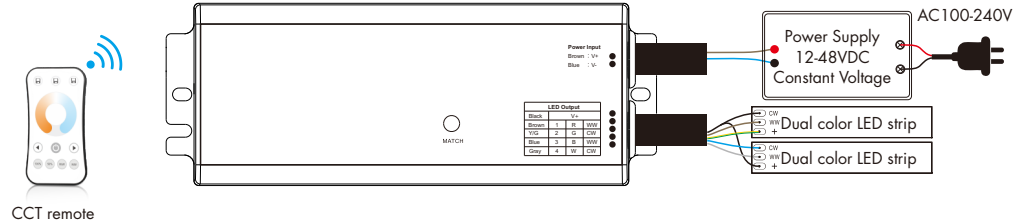
• 213-021 for RGB/RGBW



RGB /RGBW remote

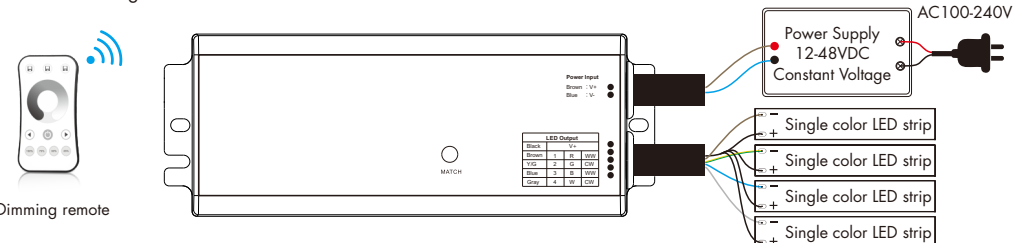
Note: If connect with RGB LED strip, please long press match key for 1.5s, the controller will become RGB type, the light blinks 10 times. (Long press match key for 10s will restore RGBW type)

• 213-021 for dual color



CCT remote

• 213-021 for single color



Note: The output power of a constant voltage power supply should be at least 1.2 times that of the output load (light strip), otherwise the full power output of the load can easily cause automatic flickering or shaking of the light.

PWM Frequency Setting

At the moment of power-up:
Long press the match key for 2s, set the output PWM frequency to 1KHz.
Long press the match Key for 5s, set the output PWM frequency to 2KHz.
Long press the match Key for 10s, set the output PWM frequency to 4KHz.
Long press the match Key for 15s, set the output PWM frequency to 8KHz.
The factory default PWM frequency is 1KHz.
Note: Higher PWM frequency, will cause lower output current, higher power noise, but more suitable for camera(No flickers for video).

PWM frequency and output current mapping:

U_{in} \ I_{out} \ PWM	1 KHz	2KHz	4KHz	8KHz
12/24V	5A	5A	4A	4A
36/48V	5A	5A	4A	3A

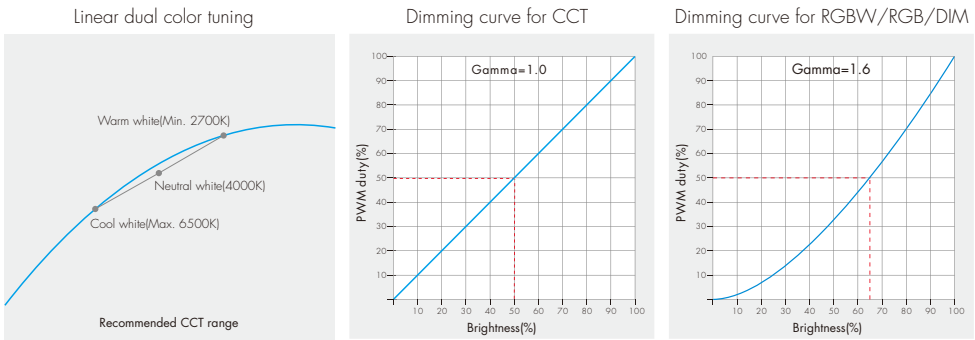
Fade In and Fade Out Setting

Long press match key 5s, then short press match key 3 times, the light on/off time will be set to 3s.
Long press match key 10s, restore factory default parameter, the light blinks 5 times, the light on/off time restores to 0.5s.

Dual Color Control

CH1,CH3=Varm white LED CH2,CH4=Cool white LED
Each channel can supply up to 120W(@24V) and white balance can be controlled as such:

Color temperature	Cool white	Neutral white	Warm white
Power distribution	CH1=0W,CH2=120W CH3=0W,CH4=120W	CH1=60W,CH2=60W CH3=60W,CH4=60W	CH1=120W,CH2=0W CH3=120W,CH4=0W



RGB/RGBW Dynamic Mode List

No.	Name	No.	Name
1	RGB jump	6	RGB fade in and out
2	RGB smooth	7	Red fade in and out
3	6 color jump	8	Green fade in and out
4	6 color smooth	9	Blue fade in and out
5	Yellow cyan purple smooth	10	White fade in and out

Installation Precautions

1. The products shall not be stacked, the distance should be $\geq 20\text{cm}$, so as not to affect lifespan of the products due to poor heat dissipation.
2. The product shall not be installed close to the switching power supply with an interval of $\geq 20\text{cm}$ to avoid radiation interference of the switching power supply.
3. The installation height shall be $\geq 1\text{m}$ from the floor to avoid shortening the remote control distance due to too weak reception signal.
4. The products are not allowed to be close to or covered by metal objects, with an interval of $\geq 20\text{cm}$ to avoid signal attenuation and shorten the remote distance.
5. Avoid installation at the corner of the wall or the corner of the beam, with an interval of $\geq 20\text{cm}$ to avoid signal interference.