

Single Color LED RF Controller

- 4096 levels 0-100% dimming smoothly without any flash.
- Match with RF 2.4G single zone or multiple zone dimming remote control.
- One RF controller accept up to 10 remote control.
- Auto-transmitting function: Controller automatically transmit signal to another controller with 30m control distance.
- Synchronize on multiple number of controllers.
- Connect with external push switch to achieve on/off and 0-100% dimming function.
- Logarithmic or linear dimming curve selectable.
- PWM frequency 500Hz, 2kHz, 8kHz or 16kHz selectable.
- Over-heat / Over-load / Short circuit protection, recover automatically.
- Light on/off fade time 3s selectable.



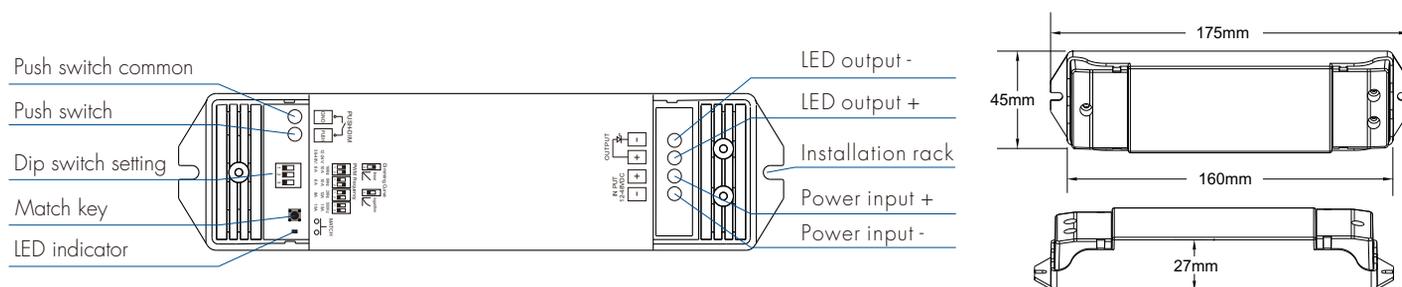
Step-less dimming / Wireless remote control / Push Dim
Four PWM frequency / Linear or logarithmic dimming

CE RoHS RED

Technical Parameters

Input and Output		Dimming data		Safety and EMC	
Input voltage	12-48VDC	Input signal	RF 2.4GHz + Push Dim	EMC standard	ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.2.4
Output voltage	12-48VDC	Control distance	30m(Barrier-free space)	Safety standard	EN 61347-1:2015+A1:2021 EN 61347-2-13:2014+A1:2017
Output current	1.5A@12/24V 1.0A@36/48V	Dimming gray scale	4096 (2 ¹²) levels	Radio Equipment	ETSI EN 300 328 V2.2.2
Output power	180W@12V 360W@24V 360W@36V 480W@48V	Dimming range	0 - 100%	Certification	CE RED
Output type	Constant voltage	Dimming curve	Logarithmic or linear	Environment	
Warranty and Protection		PWM Frequency	500Hz, 2kHz, 8kHz, 16kHz	Operation temperature	T _a : -30°C ~ +55°C
Warranty	5 years	Package		Case temperature (Max.)	T _c : +85°C
Protection	Reverse polarity, Over-heat Over-load, Short circuit	Size	L178 x W50 x H38mm	IP rating	IP20
		Gross weight	0.123kg		

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) on the remote. The LED indicator fast flash a few times means match is successful.

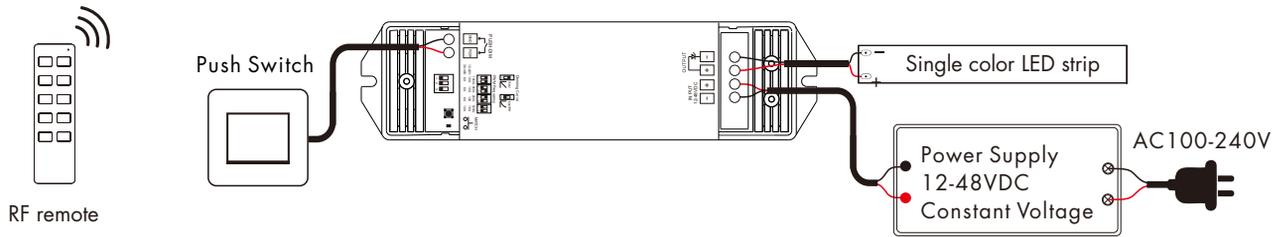
Delete:
Press and hold match key for 5s to delete all match, The LED indicator fast flash a few times means all matched remotes were deleted.

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 5 times means all matched remotes were deleted.

Wiring Diagram



Wire Preparation:

1. The wiring can be solid or stranded with a cross-sectional area of 0.5 to 2 mm².
Conventional 1mm² can withstand 10A output current.
2. When wiring is installed, the terminals must be tightened.
If they are not tightened, the contact point resistance will be too high and the terminals will easily burn due to heat when used at full load for a long time.

0.5-2.0mm²
6-7mm



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.

Push Dim Function

The provided Push-Dim interface allows for a simple dimming method using commercially available non-latching(momentary) wall switches.

- **Short press:** Turn on or off light.
- **Long press (1-6s):** Press and hold to step-less dimming, with every other long press, the light level goes to the opposite direction.
- **Dimming memory:** Light returns to the previous dimming level when switched off and on again, even at power failure.
- **Synchronization:**
If more than one controller are connected to the same push switch, do a long press for more than 10s, then the system is synchronized and all lights in the group dim up to 100%.
This means there is no need for any additional synchrony wire in larger installations.
We recommend the number of controllers connected to a push switch does not exceed 25 pieces,
The maximum length of the wires from push to controller should be no more than 20 meters.

PWM frequency setting

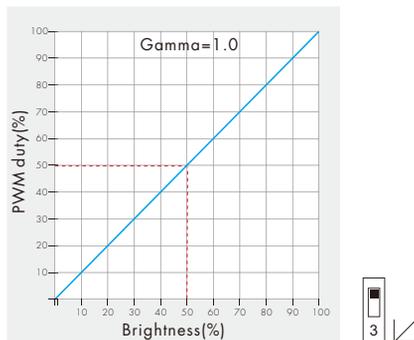
	16KHz	8KHz	2KHz	500Hz
12-24V:	10A	10A	12A	15A
36-48V:	6A	6A	8A	10A

We can select four PWM frequency: 500Hz, 2kHz, 8kHz or 16kHz.

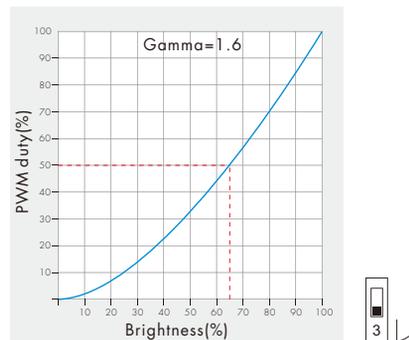
Higher PWM frequency, will cause lower output current, higher power noise, but more suitable for camera(No flickers for video).

Dimming curve setting

Linear dimming curve



Logarithmic dimming curve



Light on/off fade time

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

Installation Precautions

1. The products shall not be stacked, the distance should be ≥ 20 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 ≥ 20 cm to avoid radiation interference of the switching power supply.
3. The installation height shall be ≥ 1 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 ≥ 20 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 ≥ 20 cm to avoid signal interference.