

1 Channel LED Dimmer

Model No.: DIM0115HF-RF

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

Features

- 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.



Technical Parameters

Input and Output	
Input voltage	12-48VDC
Input current	15A Max.
Output voltage	12-48VDC
Output current	1CH, 15A Max. (@500Hz, 12-24V)
	1CH, 10A Max. (@500Hz, 36-48V)
	1CH, 12A Max. (@2KHz, 12-24V)
	1CH, 10A Max. (@2KHz, 36-48V)
	1CH, 10A Max. (@8K/16KHz, 12-24V)
Output power	1CH, 8A Max. (@8K/16KHz, 36-48V)
	180/360W (@500Hz, 12-24V)
	360/480W (@500Hz, 36-48V)
	144/288W (@2KHz, 12-24V)
	360/480W (@2KHz, 36-48V)
Output power	120/240W (@8K/16KHz, 12-24V)
	288/384W (@8K/16KHz, 36-48V)
Output type	Constant voltage

Safety and EMC	
EMC standard (EMC)	EN55032:2015,
	EN61000-3-2:2014,
	EN61000-3-2:2013,
Safety standard(LVD)	EN55024 :2010/A1:2015
	EN 62368 1:2020+A11:2020
Radio Equipment(RED)	ETSI EN 300 328 V2.2.2
Certification	CE,EMC,LVD,RED

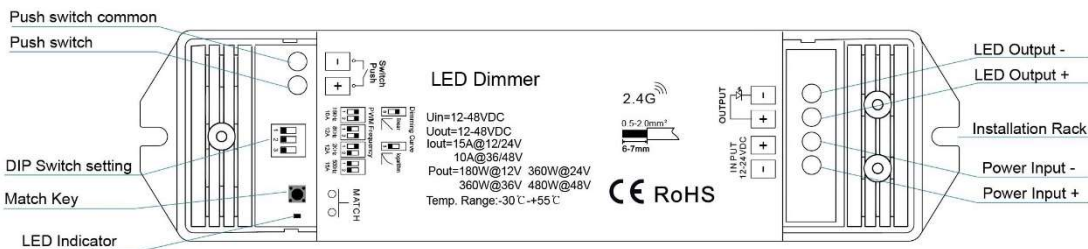
Warranty and Protection	
Warranty	5 years
Protection	Reverse polarity
	Over-heat
	Over-load
	Short circuit

Dimming Data	
Input signal	RF 2.4GHz+Push Dim
Control distance	30m(Obstruction-free)
Dimming gray scale	4096 (2 ¹²) levels
Dimming range	0-100%
Dimming curve	Logarithmic or linear
PWM Frequency	500Hz, 2kHz, 8kHz, 16kHz

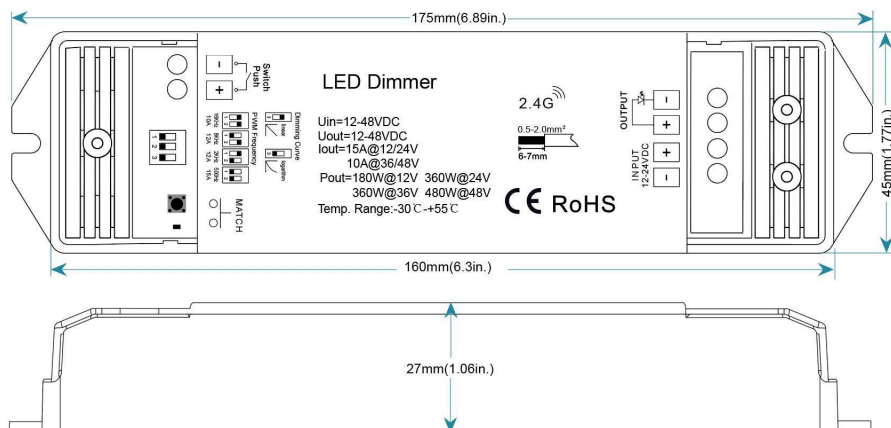
Environment	
Operation temperature	Ta: -30°C ~ +55°C
Case temperature	Max. T c: +85°C
IP rating	IP20

Packing	
Size	L175x W45 x H27mm
G.W	

Mechanical Structures and Installations

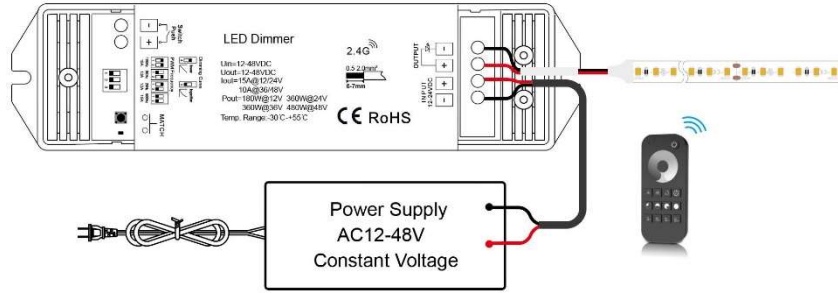


Mechanical Dimensions

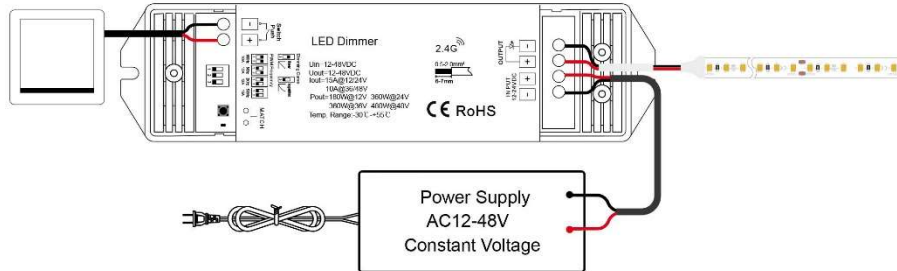


Wiring Diagram

Match with dimming remote



Connect with push switch



Match Remote Control (two match ways)

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

Use 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:

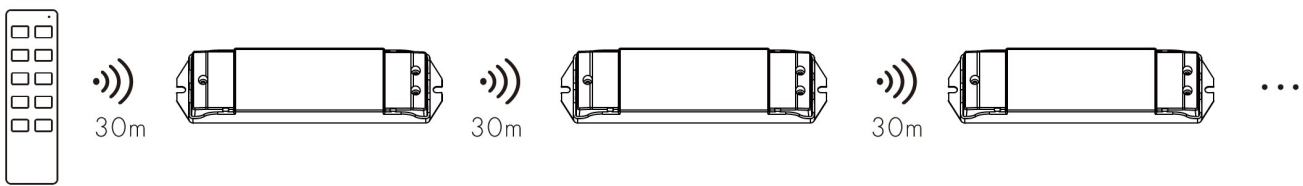
Switch off the power, then switch on power, repeat again.

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.

Application notes

1. All the receivers in the same zone.



RF remote

Auto-transmitting: One receiver can transmit the signals from the remote to another receiver within 30m, as long as there is a receiver within 30m, the remote control distance can be extended.

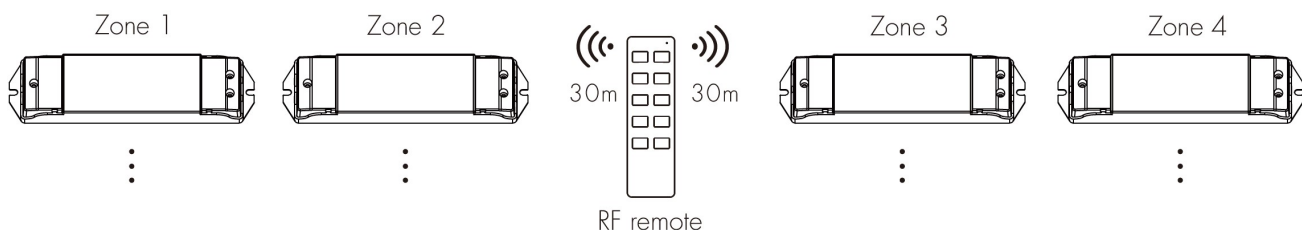
Auto-synchronization: Multiple receivers within 30m distance can work synchronously when they are controlled by the same remote.

Receiver placement may offer up to 30m communication distance. Metals and other metal materials will reduce the range.

Strong signal sources such as WiFi routers and microwave ovens will affect the range.

We recommend for indoor applications that receiver placements should be no further apart than 15m.

2. Each receiver(one or more) in a different zone, like zone 1, 2, 3 or 4.



RF remote

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

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.

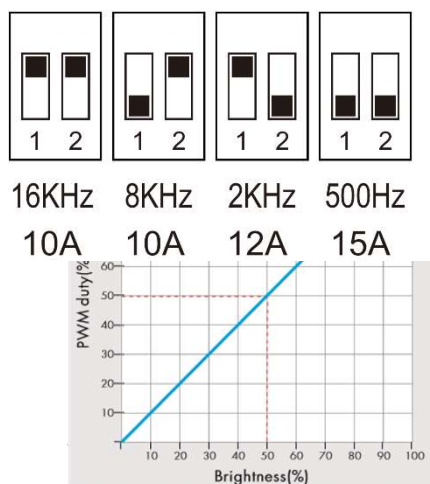
● Synchronization:

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%.

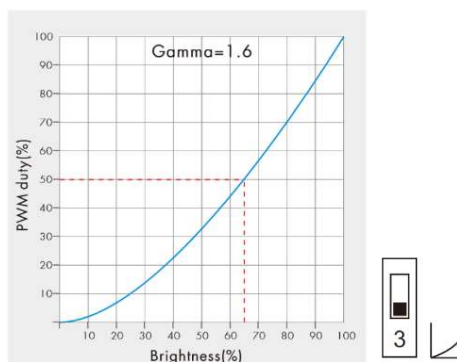
This means there is no need for any additional synchrony wire in larger installations. We recommend the number of controllers connected to a push switch does not exceed 25 pieces,

The maximum length of the wires from push to controller should be no more than 20 meters.

PWM frequency setting



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.

Malfunctions Analysis & Troubleshooting

Malfunctions	Cause	Troubleshooting
No light	1. No power. 2. Wrong connection or insecure.	1. Check the power. 2. Check the connection.
Uneven intensity between front and rear, with voltage drop	1. Output cable is too long. 2. Wire diameter is too small. 3. Overload beyond power supply capability. 4. Overload beyond controller capability.	1. Reduce cable or loop supply. 2. Change wider wire. 3. Replace higher power supply. 4. Add power repeater.