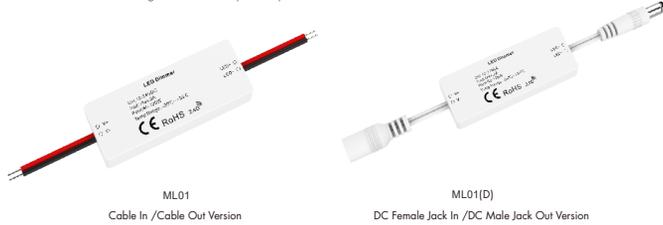


# Single Color LED Mini RF Controller

1 channel constant voltage/Max 5A output/Stepless dimming/Wireless remote control



## Model List

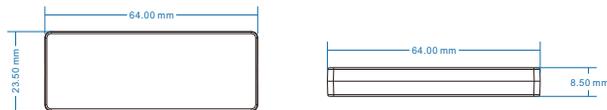
FC CE RoHS EMC LVD RED

Model	Photo	Power Connector	LED Connector
ML01	 V1-M LED Dimmer Unit: 12-24VDC Load: 50W-500W Power: 60-120W Temp. Range: -30°C ~ +55°C CE RoHS 2x20	Red/Black Cable 10cm	Red/Black Cable 10cm
ML01(D)	 V1-M LED Dimmer Unit: 12-24VDC Load: 50W-500W Power: 60-120W Temp. Range: -30°C ~ +55°C CE RoHS 2x20	5.5mm DC Female Jack	5.5mm DC Male Jack

## Features

- 1 channel constant voltage single color LED mini RF controller.
- 5A output, connect with 5 meters single color LED strip.
- Match with 2.4G single zone or multiple zone dimming remote control.
- One RF controller accept up to 10 remote control.
- 4096 levels 0-100% dimming smoothly without any flash.
- Auto-transmitting function: Controller automatically transmit signal to another controller with 30m control distance.
- Synchronize on multiple number of controllers.

## Dimension



## Technical Parameters

Input and Output	
Input voltage	12-24VDC
Output voltage	12-24VDC
Output current	Max. 5A
Output type	Constant voltage

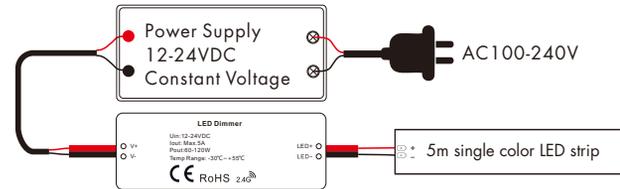
Safety and EMC	
EMC standard [EMC]	EN301 489, EN 62479
Safety standard[LVD]	EN60950
Radio Equipment[RED]	EN300 328
Certification	CE, EMC, LVD, RED

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

Dimming data	
Input signal	RF 2.4GHz
Control distance	30m(Barrier-free space)
Dimming gray scale	4096 (2 <sup>12</sup> ) levels
Dimming range	0-100%
Dimming curve	Logarithmic
PWM Frequency	500Hz (default)

Environment	
Operation temperature	T <sub>a</sub> : -30°C ~ +55°C
Case temperature (Max.)	T <sub>c</sub> : +85°C
IP rating	IP20

## Wiring Diagram



Dimming remote

## Match Remote Control

### Match:

Switch off the power, then switch on power 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 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 limitless.

**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.

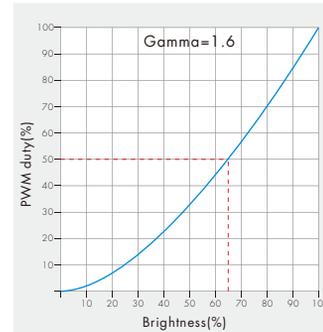
Strong signal sources such as WiFi routers and microwave ovens will affect the range.

We recommend for indoor applications that receiver placements should be no further apart than 1.5m.

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



## Dimming Curve



## Malfunctions analysis & troubleshooting

Malfunctions	Causes	Troubleshooting
No light	<ol style="list-style-type: none"> <li>1. No power.</li> <li>2. Wrong connection or insecure.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the power.</li> <li>2. Check the connection.</li> </ol>
No response from the remote	<ol style="list-style-type: none"> <li>1. The battery has no power.</li> <li>2. Beyond controllable distance.</li> <li>3. The controller did not match the remote.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace battery.</li> <li>2. Reduce remote distance.</li> <li>3. Rematch the remote.</li> </ol>