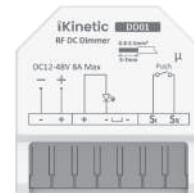


# SPECIFICATION DOCUMENT

iKinetic®

## DD01 Series DC 12V-48V PWM Dimmer

Made in China.



DD01 & DD01-MW& DD01-WF

### DESCRIPTION

- 1 way PWM dimming, Max 8A/CH, mounted in.
- A compact Matter/Tuya & RF433Mhz DC dimmer offers high flexibility for LED lighting controls.
- Screw-free terminal as standard to provide fast installation.
- Push dim function is also allowed by using standard push type switch.
- 12-48Vdc input is typically suitable for LED strip, furniture lighting and other low voltage DC LED products.

### FEATURES

1. Encrypted RF transmission, anti-interference ability.
2. 0.1-100% logarithmic dimming curve.
3. Minimum dimming level is adjustable.
4. Power cut memo function available.
5. Built-in overcurrent protection.
6. Smart and RF control works interactively.

### SPECIFICATION

RF VERSION	
Model	DD01
Type	DC PWM Dimmer
Channel	1CH
Input Voltage	12V-48V
Output Voltage	12V-48V
Output Current	Max 8A
Load Power	12V<96W;24V<192W ;36V<288W;48V<384W
Radio frequency	RF433Mhz
PWM	4KHz
Dimming Curve	0.1-100% Logarithmic
Memory Capacity	Maximum 10 switches
Wall switch Compatible	YES
Housing Material	UL 94-V0
IP Rating	IP20
Operating Temperature	-20°C -+40°C
Ta/Tc	Ta: 40°C Tc: 85°C
Dimensions	42mm*42mm*16.5mm
Warranty	5 years

## SMART VERSION (RF433Mhz+Matter Over WiFi)

Model	DD01-MW
Protocol	2.4Ghz for Matter Over Wi-Fi
Wi-Fi Security Protocol	WEP, WPA/WPA2, WPA/WPA2 PSK (AES), WPA3
Wireless Frequency	2.400-2.480GHz
APP	Homekit, Google Home, Alexa, Smarthings, Tuya Smart Life, Yandex

**\*Note:**

- Smart receivers supports RF function which is based on RF433Mhz.
- Matter is an open protocol that relies on local communication, and works even when the internet is disconnected.
- To enable Matter device operation, a compatible third-party smart speaker corresponding to your chosen app is required. Remote control is supported, excluding Tuya Smartlife.
- Matter devices using the Tuya Smartlife app support local control only and certain functions on Smartlife app may not be fully available or display due to Tuya-Matter compatibility issues.

## SMART VERSION (RF433MHZ+TUYA OVER WIFI)

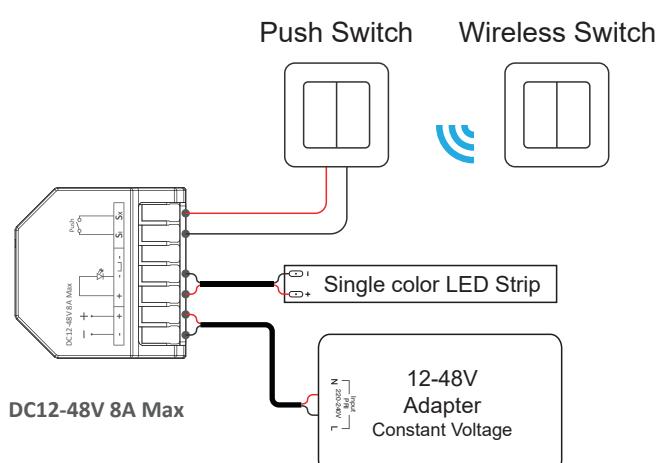
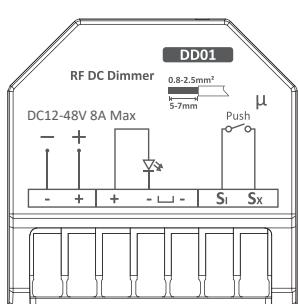
Model	DD01-WF
Protocol	2.4Ghz for Tuya Over Wi-Fi
Wi-Fi Security Protocol	WEP, WPA/WPA2, WPA/WPA2 PSK (AES), WPA3
Wireless Frequency	2.400-2.480GHz
APP	Tuya Smartlife, Google Home, Amazon Alexa

**\*Note:**

Smart receivers supports RF protocol function which is based on RF433Mhz.

To work with Smart Speaker or Home automation system, please check Tuya official website for further information.

## WIRING DIAGRAM



**\*Note:** One receiver can be configured with up to 10 wireless switches.

## DC PWM DIMMER APPLICATION

### Controller Installation Method

Small size, mounted in.

### Application Scenarios

Widely used in smart home ,residential,office ,classrooms, hotel,commercial space,etc.

Suitable for smart lighting control DIY retrofits, wireless switch can be placed at will.

### Product Composition

\*Transmitter need to be purchased separately

#### Kinetic Switch

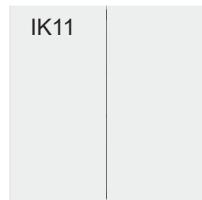


Every Key works independently

On/ OFF: Press Once

Dimming: Press twice to enter dimming cycle,  
another press to set brightness

Optional: 1G/2G/3G+Color



Every Key works independently

On/ OFF: Press Once

Dimming: Push Dimming

Optional: 1G/2G/3G+Surface  
(Plastic/Glass/Metal)+Color

#### Battery Switch



Every Key works independently

On/ OFF: Press Once

Dimming: Long press

Optional: 1G/2G/3G+Surface (Plastic/ Polished/ Brushed)+ Color

#### Battery Remote (TR)



On/ OFF Key: Press Once

Dimming +/- Key: Long press

Optional: 2 key/4 key+1channel/4channel+PC/Glass+Color

#### Battery Remote (BR)



On/ OFF Key: Press Once

Dimming +/- Key: Long press

Optional: 1channal/4channal



\*Note: Refer to the USER MANUAL for application and pairing methods.

## TEST DATA

### Max.Output Current TR Data

DD01	INPUT VOLTAGE=24(V) ;INPUT CURRENT=8.2(A); Ta: 31°C; TEST TIME: 2H				
Data Channel	CH01	CH02	CH03	CH04	CH05
Key component	Mos 1	Mos 2	Capacitor	Terminal	Case
Temperature(°C)	68.7	69	65.9	53.7	53.6
Temperature Limit(°C)	150	150	105	105	105



Fig. 1:Power Supply



Fig. 2:Multi-channel Temperature recorder

DD01	INPUT VOLTAGE=47.1(V) ;INPUT CURRENT=8.1(A); Ta: 33.1°C; TEST TIME: 2H				
Data Channel	CH01	CH02	CH03	CH04	CH05
Key component	Mos 1	Mos 2	Capacitor	Terminal	Case
Temperature(°C)	65.4	71.4	69.1	54	54.8
Temperature Limit(°C)	150	150	105	105	105

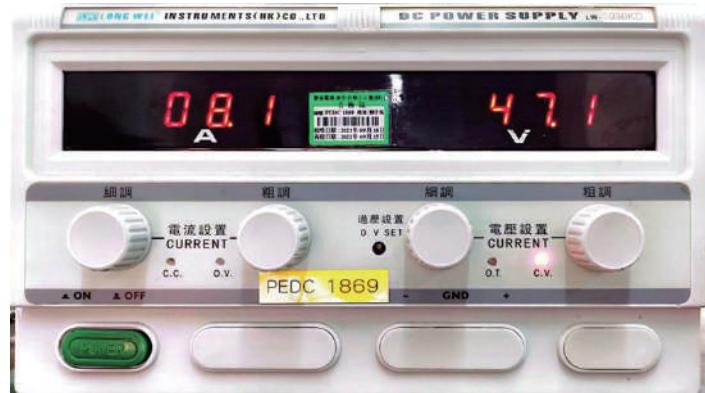
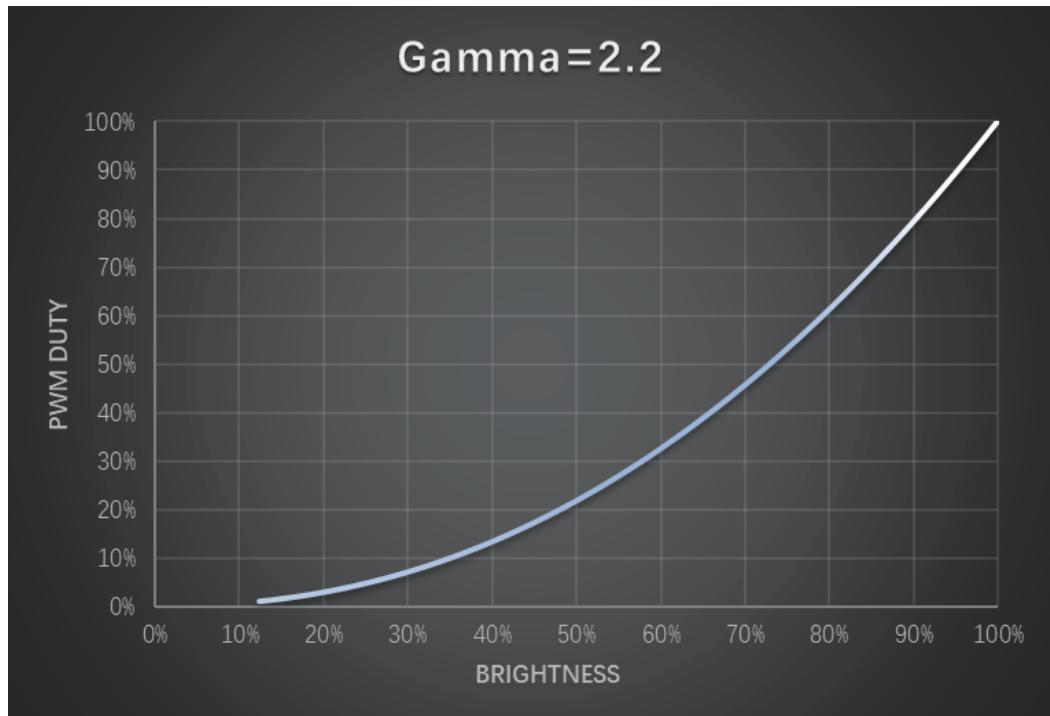


Fig. 1:Power Meter



Fig. 2:Multi-channel Temperature recorder

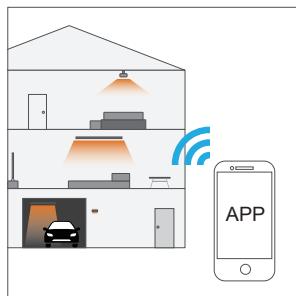
### Dimming curve setting



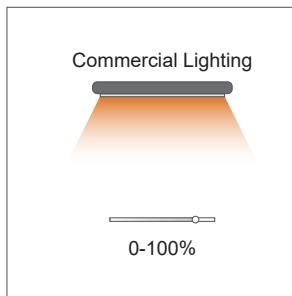
Logarithmic dimming curve

## IKINETIC SMART LIGHTING SOLUTION

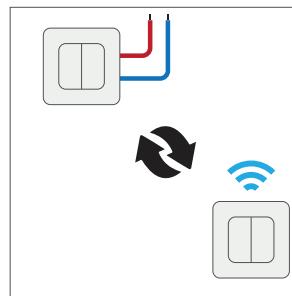
- **Smart Home Lighting Upgrade:** Supports Matter over Wi-Fi, allowing seamless integration into smart home ecosystems with app control, voice activation, and scheduled dimming.
- **Energy-Efficient Commercial & Office Lighting:** Enables 0-100% precise dimming, optimizing energy use based on ambient lighting conditions, reducing power consumption.
- **Indoor Lighting Retrofit Solutions:** Compatible with Ikinetic wiredless switches (433MHz), making it ideal for both new installations and retrofitting existing lighting systems without additional wiring.
- **Compact Installation for Various Fixtures:** The small form factor allows easy integration into recessed lighting, linear lights, track lights, and panel lights.



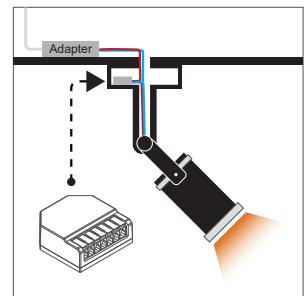
Smart Home Lighting Upgrade



Energy-Efficient Commercial & Office Lighting



Indoor Lighting Retrofit Solutions



Compact Installation for Various Fixtures

## NOTE

- Please supply with correct DC power supply between 12-48Vdc.
- Kindly note the maximum load rating of the controller before installation.
- You might need smart speaker to allow Matter over WiFi working. Please check with smart speaker manufacturer if the matter is supported.
- Transmission distance refer to transmitter user manual.
- The DC dimmer and RF switch shall be installed 20cm away from any metal surface and strong electromagnetic wave nearby to give better performance.
- Damage caused by incorrect installation and operation are not covered under warranty.

## ⚠ CAUTIONS

- Ensure that the power is turned off before carrying out electrical installation.
- Do not short-circuit and over-load, it may cause permanent damage to the receiver.
- If a fault occurs, please seek advice from a local supplier.