

# dimLED WTM1K6A

## WiFi & RF Dimming LED Controller

- Mini WiFi+RF dimming single channel constant voltage LED controller.
- Tuya Smart APP cloud control, support on/off, brightness adjust, delay turn on/off light, timer run and scene edit function.
- Voice control, support for Amazon Alexa, Google Assistant, Tmall Genie and Xiaodu smart speakers.
- Match with RF 2.4G single-zone or multi-zone dimming remote controller option.
- Each controller can also work as WiFi+RF converter, then use Tuya smart APP to control one or more RF LED controller or RF LED dimming driver synchronously.
- Connect with external push switch to achieve on/off, and brightness 0-100% adjustment function.
- Logarithmic or linear dimming curves are available.
- 500Hz, 2KHz, 8KHz or 16KHz output PWM frequency selectable.
- 3s on/off fade can be set.
- Overheat/reverse/short circuit protection.



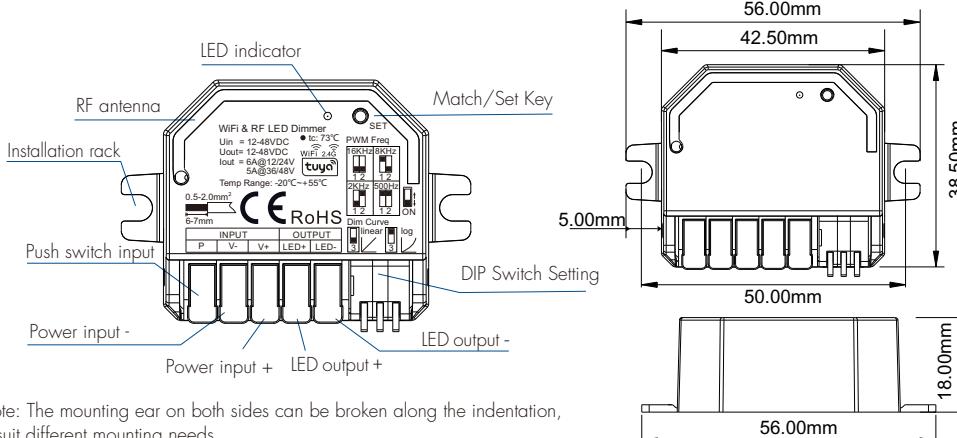
CE RoHS

WiFi+RF

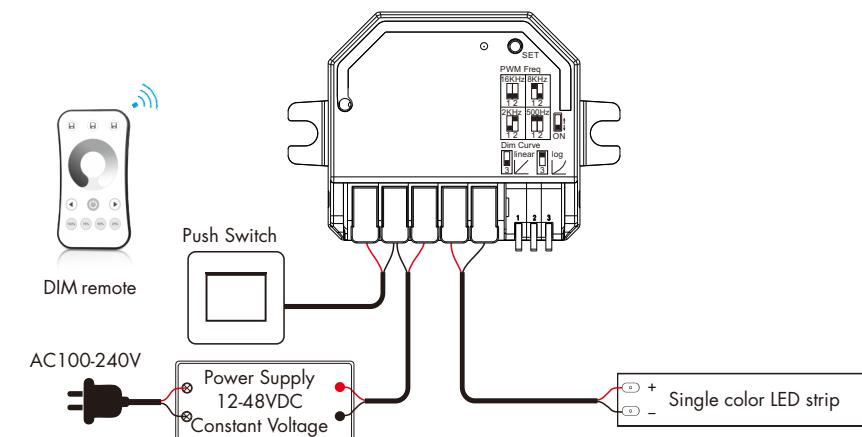
### Technical Parameters

Input and Output		Dimming data		Safety and EMC	
Input voltage	12-48VDC	Input signal	WiFi + RF 2.4GHz + Push-DIM	EN IEC 55015/	
Output voltage	12-48VDC	Control distance	30m (Barrier-free space)	EN IEC 61547-1/2	
Output current	6A@12/24V 5A@36/48V	Dimming gray scale	4096 [2^12] levels	ETSI EN 301 489-1/17	
Output power	72W@12V 144W@24V 180W@36V 240W@48V	Dimming range	0-100%	Safety standard	EN 61347-1/2
Environment		Dimming curve	Linear/Logarithmic	Radio equipment	ETSI EN 300 328 ETSI EN 300 440
Operation temperature	Ta: -20°C ~ +55°C	PWM frequency	500Hz/2KHz/8KHz/16KHz	Certification	CE RoHS
Case temperature (Max.)	Tc: +73°C	Warranty and Protection		Package	
IP rating	IP20	Warranty	3 years	Size	160 x W60 x H40mm
		Protection	Anti-reverse, overheat, short circuit	Gross weight	0.043kg

### Mechanical Structures and Installations



### Wiring Diagram

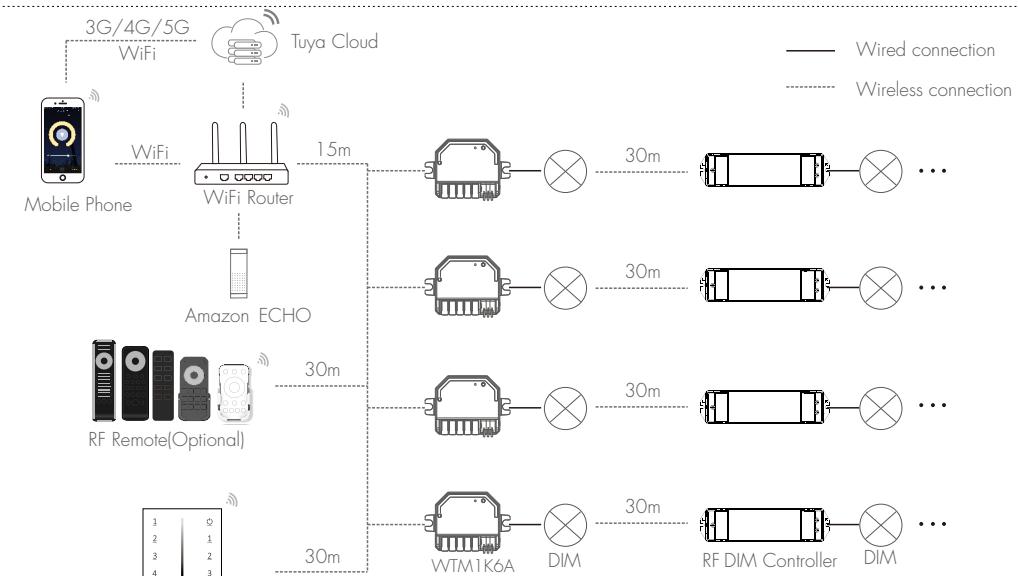


### Wire preparation:

1. The wiring can be solid or stranded with a cross-sectional area of 0.5 to 2.0 mm<sup>2</sup>. Conventional 1mm<sup>2</sup> 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.

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

### System Wiring



**Note:** Panel RF Remote(Optional)

1. The above distance is measured in spacious (no obstacle) environment, please refer to the actual test distance before installation.
2. Please check if the WiFi router net in 2.4G band, the 5G band is not available, and do not hide your router network.
3. Please keep the distance between WTM1K6A devices and router close, and check the WiFi signals.

## Push Switch Dimming

The push switch interface can be connected to push panel switch or push button for dimming.

- **Short press:** Turn the light on or off.
- **Double-click:** Switch between 10% and 100% brightness.
- **Long press (1-6s):** Continuously increase or decrease the brightness, long press again after each release, the brightness changes in the opposite direction.
- **Dimming memory:** The brightness value has been set by long-pressing Push, with power-down memory.
- **Synchronize:** If multiple controllers are connected to the same self-reset switch, please long press for 10s first to synchronize all lights to 100% brightness. It is recommended that the number of controllers connected to the same push switch does not exceed 25, and the length of the connecting wire does not exceed 20m.

## Tuya Smart APP Network Connection

### • Download and open APP

Search for "Tuya Smart/Smart Life APP" in the app store, or scan the QR code on the right to download the APP.

Register and login after installation.



### • APP Pairing Network

Push twice SET key fastly, or press and hold SET key for 5s, or repeat power off and on for 5 consecutive times fastly, enter WiFi config mode, RUN LED indicator flash fastly, the output LED strip blinks 10 times. If Tuya smart APP network connection succeed, RUN LED indicator will stop flash. You can find DIM device in Tuya smart APP.

When controlling the light with Tuya Smart/Smart Life APP, if the network connection is poor, you can control the light with Bluetooth connection within the Bluetooth control range. But the light can not be directly controlled by Bluetooth without WiFi configuration.



## Match with RF Remote Control

There are two ways to match/delete:

### Use match key

Match:

Short press match key, enter the match state. immediately press on/off key (single zone remote) or zone key (multiple zone remote) of the remote, The LED indicator fast flash means match is successful.

Delete:

Press and hold match key for 10s to delete all match, The LED indicator fast flash 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 output light flashes 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 output light flashes 5 times means all matched remotes were deleted.

## Work as WiFi-RF Converter

WVTM1K6A can work as WiFi-RF converter, matched with RF LED controller or RF dimmable LED driver, There are two ways to match/delete:

### Use Controller's key

Match:

Short press controller's match key, immediately press the on/off button on the Tuya Smart APP. The LED indicator fast flash means match is successful.

Delete:

Long press controller's match key for 5s to delete all match. The LED indicator fast flash means all matched remotes were deleted.

### Use Power Restart(optional)

Match:

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

Immediately press the on/off button on the Tuya Smart APP 3 times. The light flashes 3 times means match is successful.

Delete:

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

Immediately press the on/off button on the Tuya Smart APP 5 times. The light flashes 5 times means all matched remotes were deleted.

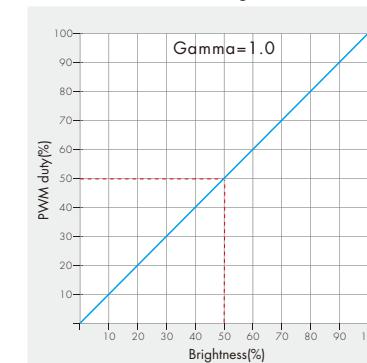
## PWM Frequency Setting



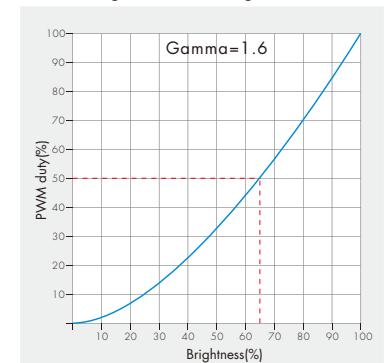
Four PWM frequencies can be selected: 500Hz, 2KHz, 8KHz or 16KHz. Higher PWM frequency will result in lower output current, higher power supply noise, more suitable for camera shooting (video without flicker).

## Dimming Curve Setting

### Linear Dimming Curve



### Logarithmic Dimming Curves



## On/Off Fade Time Setting

Press and hold the SET key for 1.5s to restore the default parameters, factory default parameters: light on/off fade time is 0.5s.

Press and hold the SET key for 20s, the light on/off fade time is set to 3s.

## 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 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.