# LDT-WIFI-RF-2CV-5A

## Wi-Fi & RF Two-Channel DIM / DUO Controller

App, RF and wired push-button control for compatible constant-voltage LEDs. Select the lighting mode before network commissioning and pair an RF remote with the same mode. A multi-mode controller supports one selected lighting configuration at a time.

### Model specifications

| | |
|---|---|
| Supply voltage | 12-36 VDC |
| LED output | 2-channel constant-voltage PWM |
| Lighting modes | DIM / DUO |
| Maximum current | 2 x 5 A |
| Maximum output power | 2 x (60-180) W |
| Control inputs | Wi-Fi + 2.4 GHz RF + Push-Dim |
| Dimming | 0-100%; 4096 levels |
| PWM frequency | 2 kHz |
| RF distance | Up to 30 m, unobstructed |
| Output channels | 2 |
| Dimming curve | Logarithmic |
| Operating temperature | -30 to +55 °C |
| Maximum case temperature | +85 °C |
| IP rating | IP20 |
| Dimensions | 114 x 38 x 20 mm |
| Protection | Reverse polarity and overheat; see reference for model-specific protection |

Voltage and PWM frequency affect permitted load. The published peak current is not available at every setting.

The following technical-reference pages retain the complete diagrams, dimensions, settings and installation instructions. Select the lighting variant stated on this cover; family diagrams may also illustrate other variants.

**Wi-Fi + RF**

# WiFi & RF 2CH LED Controller

- Used for control single color or color temperature LED strip.
- DC power socket input and 2 channel constant voltage output.
- **Control app cloud control, support on/off, color temperature and brightness adjust,** delay turn on/off light, timer run, scene edit function.
- Voice control, support for Amazon Alexa, Google Assistant, Tmall Genie and Xiaodu voice assistant.
- Match with RF 2.4G remote control optional.
- **User need set light type by press key before Control app network connection and** match RF remote of the same light type.
- **Each DUO controller can also work as WiFi-RF converter, then use Control 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 0-100% dimming function.
- Light on/off fade time 3s selectable.



CE RoHS

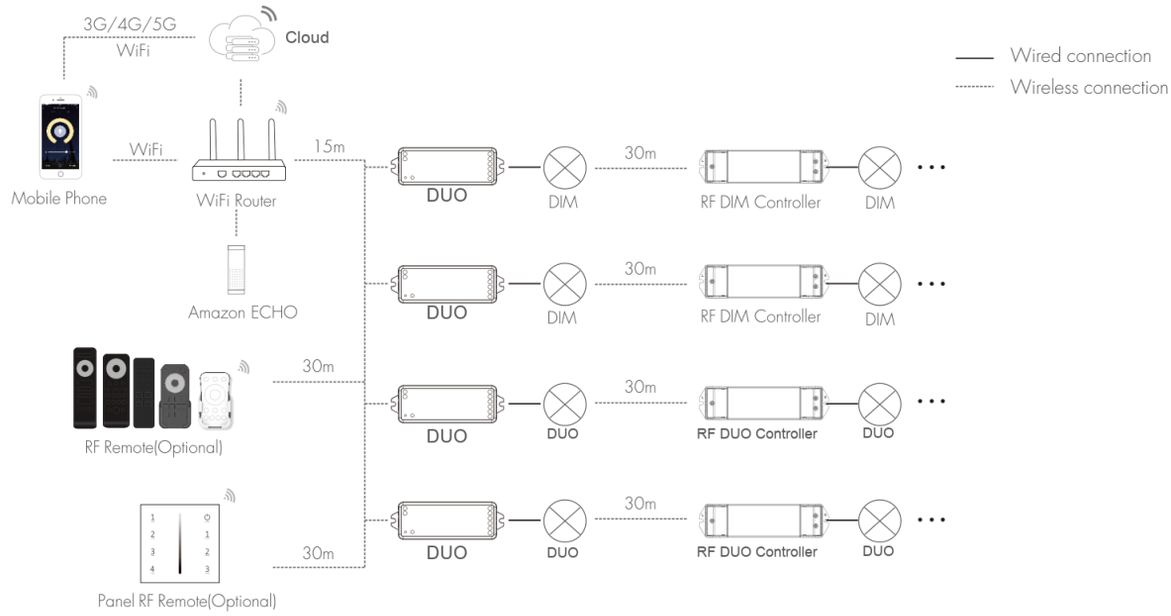
## Technical Parameters

| Input and Output | |
|---|---|
| Input voltage | 12-36VDC |
| Input current | 10.5A |
| Output voltage | 2 x (12-36)VDC |
| Output current | 2CH,5A/CH |
| Output power | 2 x (60-180)W |
| Output type | Constant voltage |
| **Environment** | |
| Operation temperature | Ta: -30°C ~ +55°C |
| Case temperature (Max.) | Tc: +85°C |

| Dimming data | |
|---|---|
| Input signal | WiFi + RF 2.4GHz + Push Dim |
| Control distance | 30m(Barrier-free space) |
| Dimming gray scale | 4096 (2^12) levels |
| Dimming range | 0 -100% |
| Dimming curve | Logarithmic |
| PWM frequency | 2000Hz (default) |
| **Warranty and Protection** | |
| Warranty | 5 years |
| Protection | Reverse polarity<br>Over-heat<br>Short circuit |

| Safety and EMC | |
|---|---|
| EMC standard | EN IEC 55015/EN IEC 61547<br>ETSI EN 301 489-1/-3/-17 |
| Safety standard | EN 61347-1/-2 |
| Radio Equipment | ETSI EN 300 440<br>ETSI EN 300 328 |
| Certification | CE RoHS |
| **Package** | |
| Size | L120 x W43 x H27mm |
| Gross weight | 0.073kg |

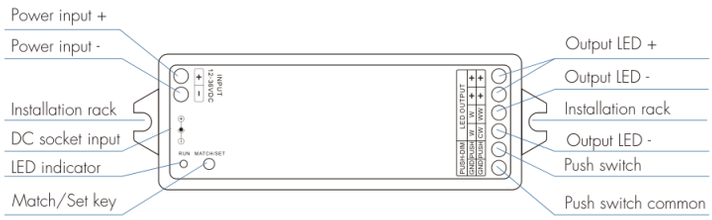
## System Wiring

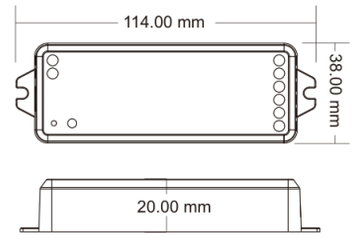



Note:

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 DUO devices and router close, and check the WiFi signals.**

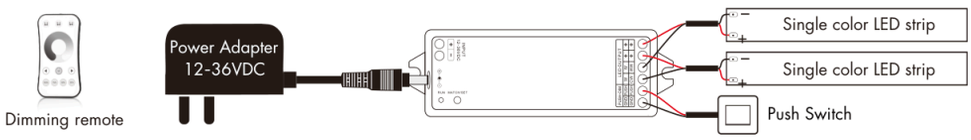
## Mechanical Structures and Installations



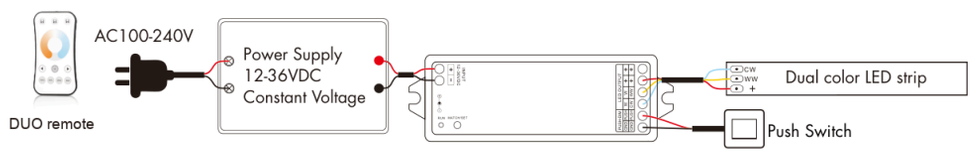

## Wiring Diagram

- For single color




Press and hold match/set key for 8s, until the RUN LED indicator turn white, then release, the controller will become DIM type, then do smart conEg by Control app, or short press match key to match with dimming RF remote.

- For dual color DUO




Press and hold match/set key for 10s, until the RUN LED indicator turn yellow, then release, the controller will become DUO type, then do smart conEg by Control app, or short press match key to match with DUO RF remote.

Note:
1. User can connect constant voltage power supply or power adapter as power input.
2. Press and hold Match/Set key for 2s, switch 2 kinds light type in sequence.
3. Switch off the power, then switch on power, repeat again.
Immediately short press match key 3 times, the light on/off time will change between 3s and 0.5s.
4. For DUO light, continuous power off and on will change 3 levels color temperature (WW, NW and CW) in sequence.

## Push Dim

| | | |
|---|---|---|
| DIM Single color | Click | ON/OFF |
| | Double Click | Turn on at 100% or 10%(night light) and vice-versa |
| | Long press(>1s) from OFF | Dimming UP/DOWN |
| | Long press(>1s) from ON | Dimming UP/DOWN |
| DUO Dual Color | Click | ON/OFF |
| | Double Click | Turn on at 100% or 10%(night light) and vice-versa |
| | Long press(>1s) from OFF | Color temperature UP/DOWN (turn off and turn on to return dimming) |
| | Long press(>1s) from ON | Dimming UP/DOWN |

## Control app Network Connection

● Download and open APP
Search for “Smart Life app” in the app store, or scan the QR code on the right to download the APP.
Register and login after installation.

Smart Life

● APP Pairing Network
Push twice Match/Set key fastly, or when press and hold Match/Set key for 8 or10s to set 2 kinds light type:
Clear previous network connection, enter WiFi config mode, the LED indicator flash fastly,
the output LED will flash 10 times.

Press and hold Match/Set key for 2s:
Switch 2 kinds light type in sequence, notice this operation does not automatically clear previous network connection.

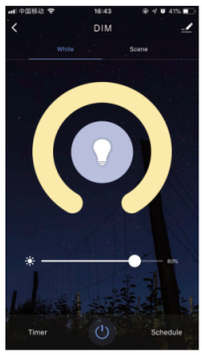
Press and hold Match/Set key for 5s:
Clear previous network connection, enter WiFi config mode, the LED indicator flash fastly.

Repeat power on and off for 5 consecutive times, also clear previous network connection, enter WiFi config mode, the output LED will flash 10 times.

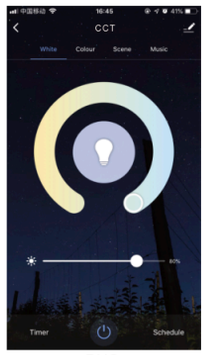
If Control app network connection succeed, the RUN LED indicator will stop flash purple, and turn corresponding light type color (White: DIM, Yellow: DUO. and in Control app, you can find DIM or DUO device.

When controlling the light with Smart Life app, if the network connection is poor,
you can control the light with Bluetooth connection within the Bluetooth control range.
Note: The light can not be directly controlled by Bluetooth without WiFi configuration.

## Control app Interface



DIM



DUO

DIM:
Touch brightness slide to adjust brightness.

DUO:
Touch color wheel to adjust color temperature.
Touch brightness slide to adjust brightness.

## DUO Match Remote Control (Optional)

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

Use the DUO’s Match key

Match:
Short press match key of DUO,
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 of DUO for 15s 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 of DUO, 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 of DUO, 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.

## DUO Work as WiFi-RF Converter to Match RF LED Controller or Dimming Driver

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 of the controller,
immediately press on/off key on the Control app.
The LED indicator fast flash a few times means match is successful.

Delete:
Press and hold match key of the controller for 5s,
The LED indicator fast flash a few times means match was deleted.

Use Power Restart

Match:
Switch off the power of the controller, then switch on power, repeat again.
Immediately short press on/off key 3 times on the Control app.
The light blinks 3 times means match is successful.

Delete:
Switch off the power of the controller, then switch on power, repeat again.
Immediately short press on/off key 5 times on the Control app.
The light blinks 5 times means match was deleted.