design21™

D21WT5 WIFI & RF
5 in 1 LED Controller

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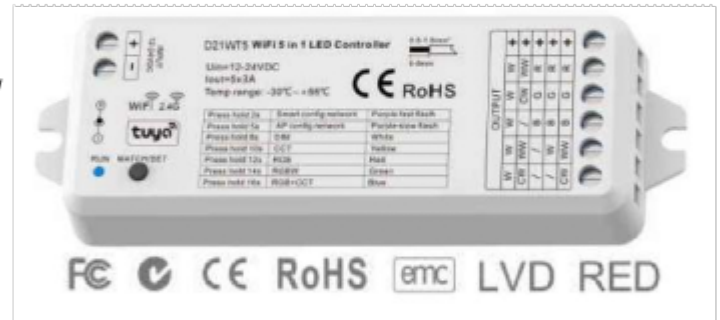Email: sales@design21.ca
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Features

• 5 in 1 functionality, used for controlling RGB, RGBW, RGB+CCT, or single-colour LED strips.

• DC power socket input and 5 channel constant voltage output.

• Companion Tuya App allows for cloud control, RGB colour/colour temperature/brightness adjustment, timer/delay and music functions.

• Voice control support for Amazon Echo and Google Home.

• Optional 2.4G RF remote control.

• Each controller can also work as a WiFi-RF converter, allowing the Tuya App to control one or more RF LED controllers simultaneously.

Technical Parameters

Input and Output

Input and Output	
Input Voltage	12-24VDC
Input Current	15.5A
Output Voltage	5 x (12-24) VDC
Output Current	5CH, 3A/CH
Output Power	5 x (36-72)W
Output Type	Constant Voltage

Dimming Data
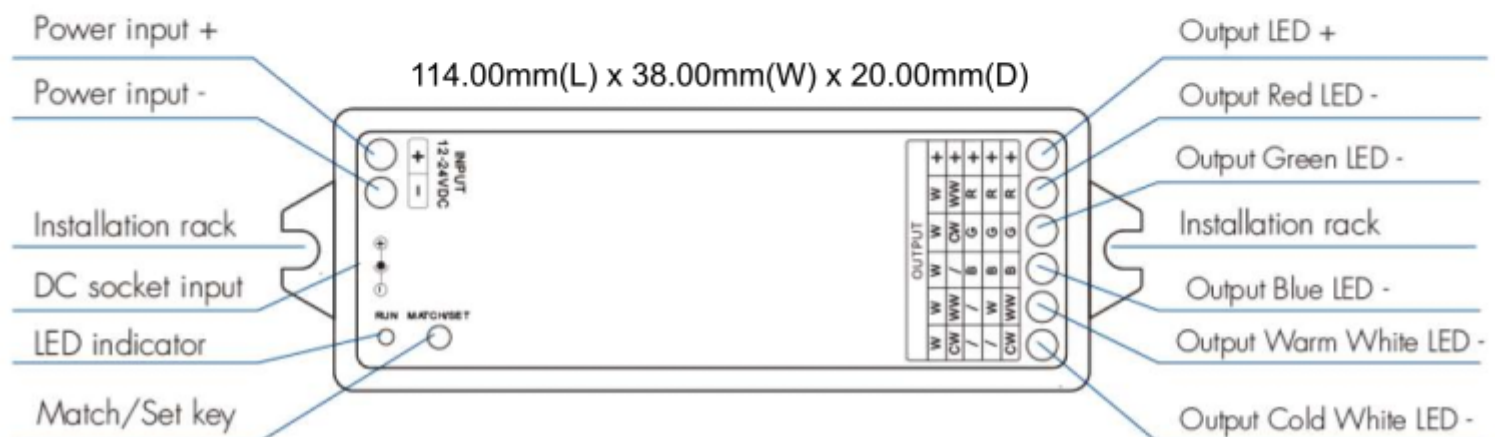
Dimming Data	
Input Signal	Tuya APP + RF 2.4GHz
Control Distance	30m (Barrier-free space)
Dimming Gray Scale	4096 (2^12) levels
Dimming Range	0-100%
Dimming Curve	Logarithmic
PWM Frequency	500Hz (default)

Environment

Environment	
Operation Temperature	Ta: -30°C~ +55°C
Case Temperature (Max.)	Tc: + 85°C
IP Rating	IP20

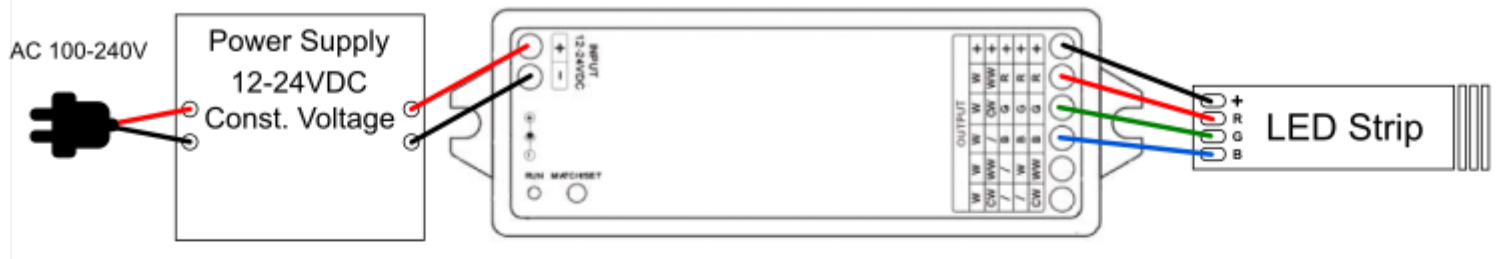### Safety and EMC

Safety and EMC	
EMC Standard (EMC)	EN55015,EN61547
Safety Standard (LVD)	EN61347,EN62493
Radio Equipment (RED)	EN300 440,EN50663,EN301 489
Certification (CE-RED)	Safety + EMC + RF

Warranty and Protection

Warranty and Protection	
Warrantly	1 year
Protection	Reverse Polarity / Over-heat

Mechanical Structures

114.00mm(L) x 38.00mm(W) x 20.00mm(D)

Power input +
Power input -
Installation rack
DC socket input
LED indicator
Match/Set key

Output LED +
Output Red LED -
Output Green LED -
Installation rack
Output Blue LED -
Output Warm White LED -
Output Cold White LED -

Wiring Diagram

Changing the Connection Mode

Before pairing, ensure the LED indicator matches the connected LED type.
You can press and hold the learning button on the D21WT5 to change the LED type.

Press Duration	Control Mode	LED Indicator
Press & hold **2 seconds**	Smart Config Network	Purple Flash (Fast)
Press & hold **5 seconds**	AP Config Network	Purple Flash (Slow)
Press & hold **8 seconds**	DIM	White
Press & hold **10 seconds**	CCT	Yellow
Press & hold **12 seconds**	RGB	Red
Press & hold **14 seconds**	RGBW	Green
Press & hold **16 seconds**	RGB+CCT	Blue

App Downloads

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RF Controller Pairing

1. Ensure your devices learing mode matches the type of connected LED's, then click the learning button on the D21WT5 controller.

2. On the remote, press the corresponding zone key (eg. zone 1) and make an adjustment on the colour wheel.

3. The LED indicator on the controller will flash, indicating a successful pairing The system is now ready!

To delete a pairing, press and hold the learning button on the D21WT5 for 20 seconds. The LED indicator will then flash a few times, indicating the device pairing has been deleted.

Tuya App Pairing

1. Press and hold the learning button on the D21WT5 for 2 seconds, until the LED indicator flashes purple.

2. Ensure your smartphone has Bluetooth enabled and is connected to your WiFi network. Open the Tuya app.

3. Press add device. It should discover and display the device in app. Press add.

4. Enter your WiFi network information and press next. The app will then connect to the controller.

5. Once connected, press done, then press the power button in-app to finish the pairing. The system is now ready!

To delete a pairing, press and hold on the device in the Tuya app and then select Remove Device.