

MULTI-CHANNEL SMART LED CONTROLLER (MATTER OVER WIFI + 2.4GHZ RF)

DESCRIPTION:

The Multi-Channel Smart LED Controller enables advanced wireless lighting control across multiple platforms. Featuring Matter over WiFi and 2.4GHz RF protocol, this controller ensures wide compatibility with leading smart home ecosystems. Designed for flexible scene setting, voice control, and remote operation, it's ideal for both residential and commercial lighting projects. With dynamic modes, auto signal extension, and synchronization features, the controller offers intelligent and scalable lighting solutions.



FEATURES:

- **Matter Certified:** Fully supports Matter over WiFi for seamless interoperability across supported ecosystems.
- **Platform Integration:** Works with Apple HomeKit, Amazon Alexa, Google Home, SmartThings, and Tuya Smart.
- **Easy Setup:** Fast pairing using a QR code.
- **Voice Control:** Compatible with Siri, Google Assistant, and Alexa for hands-free operation.
- **Scene Customization:** Configure forecast scenes to match different lighting moods and environments.
- **Dynamic Modes:** 18 built-in dynamic effects (jumping, fading) controllable via RF remote.
- **Remote Control Pairing:** Supports up to 12 remote controllers with a range of up to 98 ft.
- **Auto Transmission:** Automatically relays signals to other units for extended control distance.
- **Auto Synchronization:** Dynamic lighting modes remain synchronized across connected controllers.
- **DND Power-Save Mode:** Ideal for areas with unstable power to minimize energy usage.



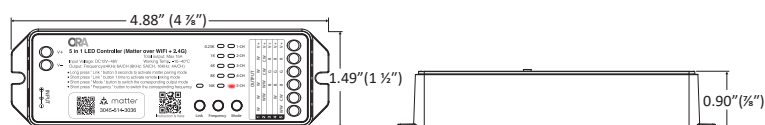
APPLICATIONS:

- Smart home lighting automation
- Commercial and architectural lighting control
- LED strip installations requiring multi-zone operation
- Voice and app-controlled lighting systems
- Lighting projects requiring Matter ecosystem compatibility

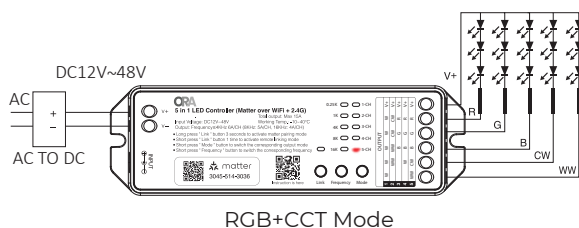
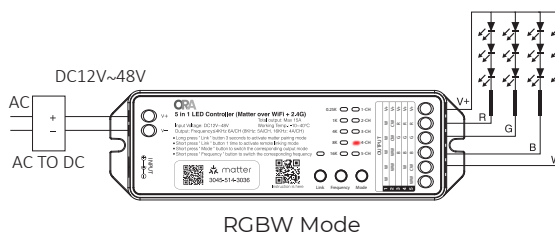
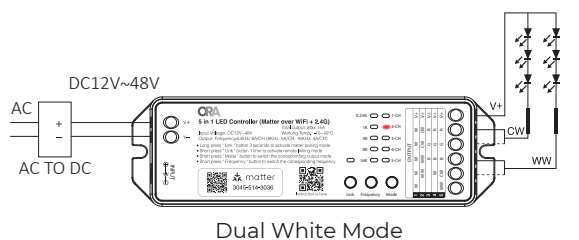
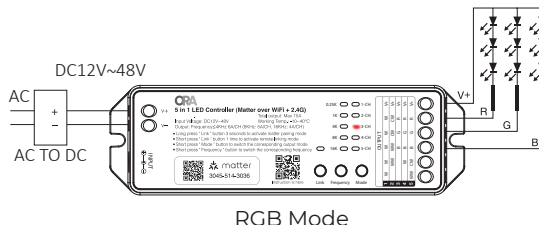
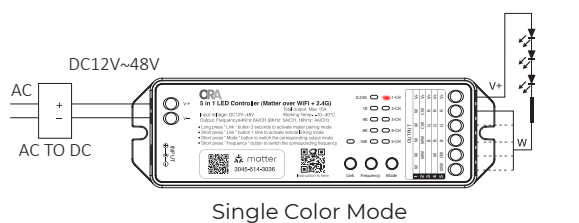
TECHNICAL SPECIFICATIONS:

Input Voltage	DC 12-48V
Output Current	6A per channel
Total Output	Max 15A
Protocol	WiFi + 2.4GHz RF
WiFi Standard	IEEE 802.11b/g/n (2.4GHz)
Control Distance (RF)	Up to 98 ft
Ingress Protection	IP20
Operating Temperature	14°F to 104°F
EMC Standards	ETSI EN 301 489-1 V2.2.3 , ETSI EN 301 489-3 V2.1.1
Safety Standards (LVD)	EN 61347-1:2015 + A1:2021 , EN 61347-2-11:2001 + A1:2019 , EN 62493:2015 + A1:2022
Radio Equipment (RED)	ETSI EN 300 440 V2.2.1
Certifications	CE, EMC, LVD, RED
Dimensions	4.88" x 1.49" x 0.90"

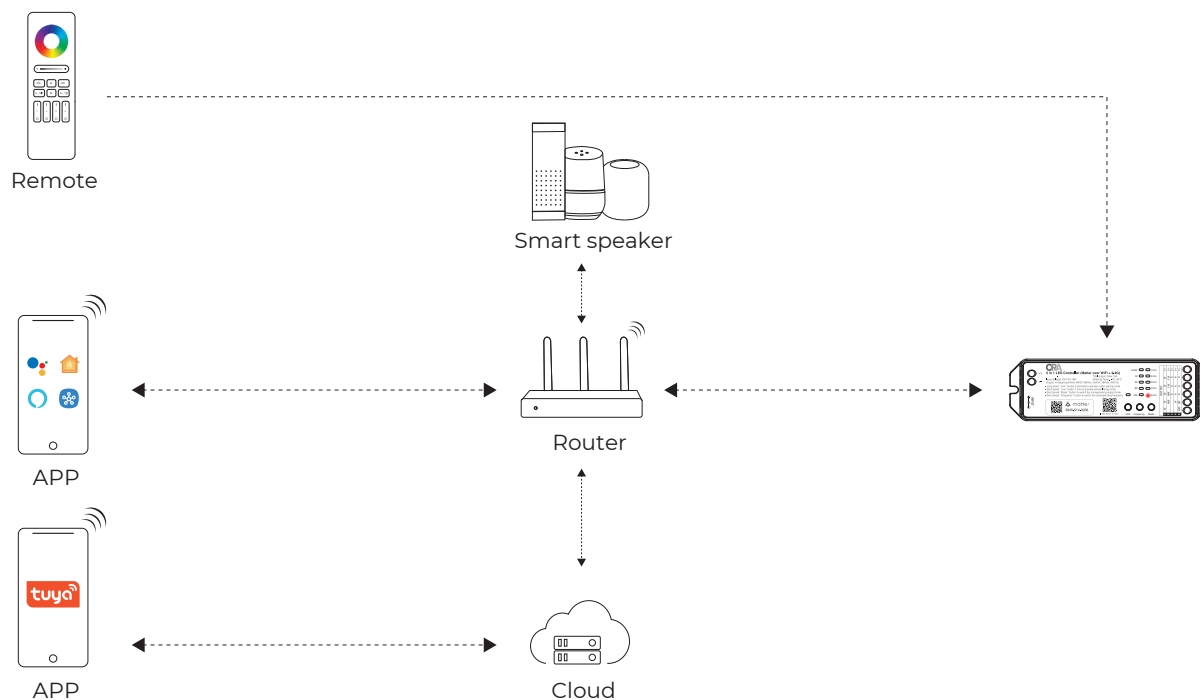
DIMENSION:



WIRING DIAGRAM:



APPLICATION LAYOUT:



SETTING THE OUTPUT MODE:

The output mode must match the type of connected LED lights.

To switch output modes: Short press the "Mode" button to cycle through available modes.

Note: If no action is taken within 3 seconds, the setting will automatically exit.

Refer to the **Output Mode Table** to select the correct mode.

The illuminated indicator shows the active output mode.

Indicator Color	1-CH	2-CH	3-CH	4-CH	5-CH
Output	Single Color Mode	Dual White Mode	RGB Mode	RGBW Mode	RGB+CCT Mode

SWITCHING PWM FREQUENCY:

Short press the "Frequency" button to toggle between available frequencies:

0.25kHz, 1kHz, 4kHz, 8kHz, and 16kHz.

Frequency	<8K	8K	16K
Current	6A	5A	4A

DO NOT DISTURB (DND) MODE:

DND Mode helps conserve energy in areas prone to frequent power outages by preserving the light's last known state.

To Enable DND Mode: 1. Short press the "OFF" button 3 times within 3 seconds. 2. Immediately short press the "ON" button 3 times. 3. The light will flash 4 times quickly to confirm DND Mode is enabled. Result: After a power outage, the light will return to its previous state (on or off) when power is restored.	To Disable DND Mode: 1. Short press the "ON" button 3 times within 3 seconds. 2. Immediately short press the "OFF" button 3 times. 3. The light will flash 4 times slowly to confirm DND Mode is disabled. Result: After a power outage, the light will turn on by default when power is restored.
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2.4G RF REMOTE CONTROL INSTRUCTIONS:

Linking the Remote to the Controller:



Power Cycle the Controller:
Power off for at least 10 seconds, then
power on again
OR
Short press the "Link" button once

or



1



Initiate Pairing:
Short press the "I" button on the remote
3 times within 3 seconds

Link / Unlink
button

2



Confirmation:
Light blinks slowly 3 times to indicate
successful linking

3

Note:
If the light does not blink, linking has failed. Please repeat the steps. Lights that are already linked cannot be linked again unless first unlinked.

Unlinking the Remote from the Controller:



Power Cycle the Controller:
Power off for at least 10 seconds, then
power on again
OR
Short press the "Link" button once

or



1



Initiate Unlinking:
Short press the "I" button on the remote
5 times within 3 seconds

Link / Unlink
button

2



Confirmation:
Light blinks quickly 10 times to indicate
successful unlinking

3

Note:
If the light does not blink, unlinking has failed. Please repeat the steps. Lights that were never linked do not need to be unlinked.

AUTO TRANSMITTING & SYNCHRONIZATION (REMOTE CONTROL ONLY):

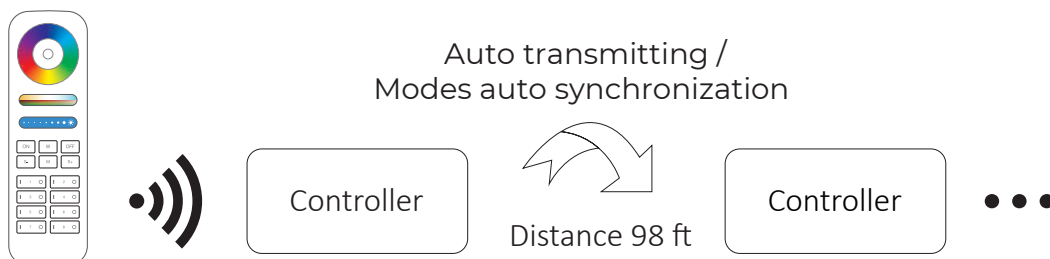
Remote Signal Auto Transmitting:

One light can automatically relay the remote control signal to another light within a 98 ft range.
As long as each light is within 98 ft of the next, the control distance can extend indefinitely.

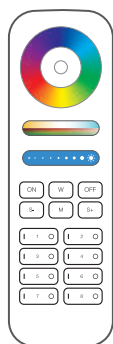
Dynamic Mode Auto Synchronization:

Multiple lights can synchronize their dynamic effects if they are:

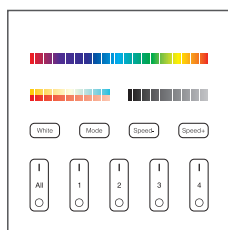
- Set to the same dynamic mode
- Linked to the same remote control
- Positioned within 98 ft of each other



COMPATIBLE WITH 2.4G RF REMOTE CONTROLS (SOLD SEPARATELY):



RGB+CCT 8 Zone Remote
SKU: MILI-REM-RGBWW-8Z



4 Zone RGB+CCT Smart Panel
SKU: MILI-REM-RGBWW-WALL-4Z



RGBW 4 Zone Remote
SKU: MILI-REM-RGBW



ORA RGB+CCT 100 Zone Remote
SKU: MILI-REM-RGBCCT-100Z



RGB+CCT 8 Zone Touch Panel
Wall Remote
SKU: MILI-REM-RGBWW-WALL-8Z

DYNAMIC MODE TABLE SELECTION (REMOTE CONTROL ONLY):

Select Dynamic Mode Table 1:

While the light is in static mode, short press the “S+” button 5 times quickly.
The blue indicator light will flash slowly 3 times to confirm successful activation.

Select Dynamic Mode Table 2:

While the light is in static mode, short press the “S-” button 5 times quickly.
The yellow indicator light will flash slowly 3 times to confirm successful activation.

Dynamic mode table 1 (default)

Number	Dynamic Mode	Brightness / Saturation / Speed
1	Mardi Gras	Adjustable
2	Automatic color change	
3	Sam	
4	Gemstone	
5	Twilight	
6	American	
7	Fat Tuesday	
8	Party	
9	Slow Color Splash	

Dynamic mode table 2 (need to switch manually)

Number	Dynamic Mode	Brightness / Saturation / Speed
1	Seven colors gradual change	Adjustable
2	White light Gradual change	
3	RGB gradual change	
4	Seven colors jump to change	
5	Jump to change randomly	
6	Red light gradual change +Flash 3 times	
7	Green light gradual change +Flash 3 times	
8	Blue light gradual change +Flash 3 times	
9	White light gradual change +Flash 3 times	

IMPORTANT SAFETY PRECAUTIONS:

- Turn off the power supply before installation to prevent electrical shock or injury.
- Ensure the input voltage matches the device's rated requirements before powering on.
- Do not disassemble the device unless you are a qualified technician, as improper handling may cause damage.
- Avoid installing the device near large metal surfaces or strong electromagnetic fields, as these can significantly reduce the effective remote control range.

PAIRING CODE SETUP: MULTI-CHANNEL SMART LED CONTROLLER

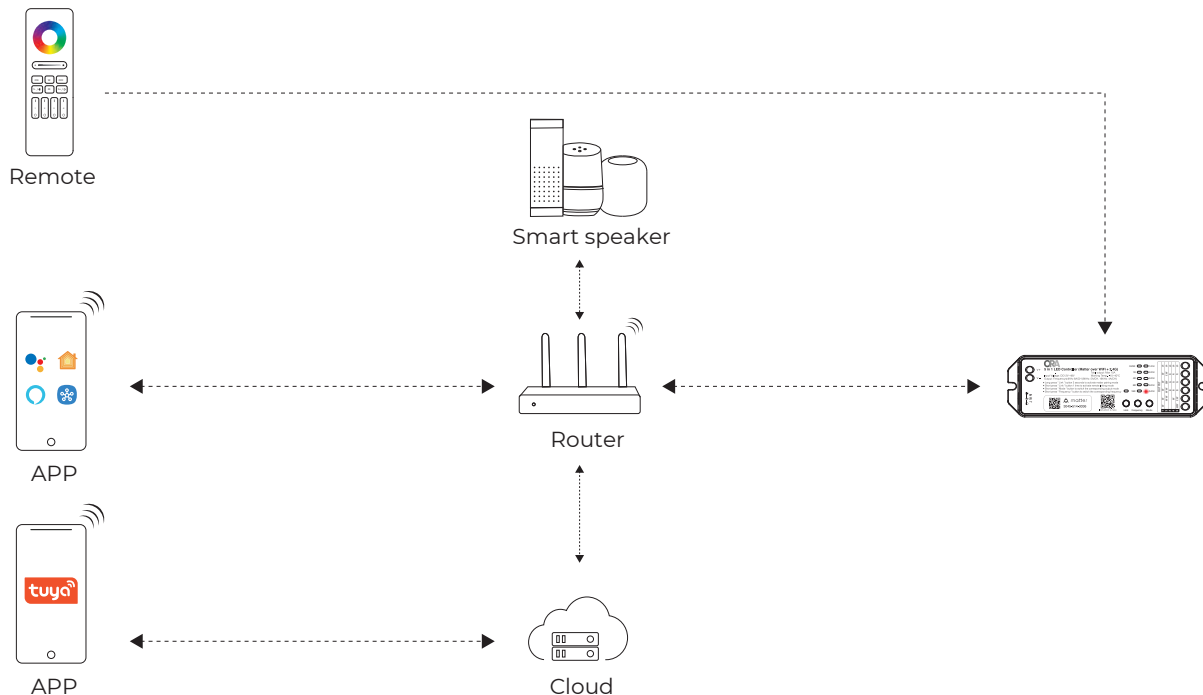
MATTER DEVICES OVERVIEW:

- You can add this Matter-over-WiFi device to any Matter-compatible smart home ecosystem for seamless smart control.
- Below are the configuration steps for pairing with platforms such as Tuya Smart, Amazon Alexa, Google Home, and SmartThings.

IMPORTANT NOTES:

- The original Matter configuration code can only be used to pair the device with the first platform.
To add the device to a second platform, you must generate a new configuration code from the original (first) platform.
Note: A maximum of 4 shared codes is allowed for cross-platform use.
- Ensure your mobile device is connected to a stable 2.4GHz WiFi network. The network must be functioning normally during the setup process.
- The WiFi router must have IPv6 enabled in order for Matter devices to be configured properly.

APPLICATION LAYOUT:



IMPORTANT SAFETY INSTRUCTIONS:

- Disconnect power before installation to ensure safety.
- Verify input voltage before wiring; it must match the device's rated voltage.
- Do not disassemble the device unless you are a qualified technician, improper handling may cause damage.
- Avoid installing near metal objects or strong electromagnetic fields, as this may reduce remote control range.

TUYA SMART:

Note: This device supports only 2.4GHz WiFi networks. 5GHz networks are not compatible.

Step-by-Step Pairing Instructions:

1. Download the App:
Search "Tuya Smart" in your mobile app store or scan the provided QR code.
Register for a new account or log in if you already have one.



2. Power the Controller:
Connect the controller to a power source.

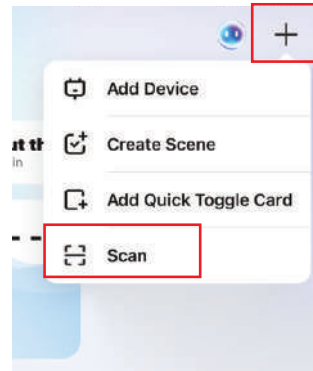
3. Check the Indicator Light:
The status indicator should be flashing rapidly (twice per second).
If it's not flashing, try either of the following:
i. Long press the "Link" button for 3 seconds
ii. Power off and on the controller 6 times

4. Connect to WiFi:
Ensure your phone is connected to your 2.4GHz home WiFi network.

5. Add the Device in the App:
Open the Tuya Smart app, tap "+", and select "Scan".

6. Scan the QR Code:
Use your phone to scan the QR code located on the product.

7. Complete Configuration:
Follow the on-screen instructions to finish setup.

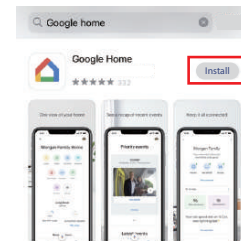


GOOGLE HOME:

Note: Ensure your phone is connected to a stable 2.4GHz WiFi network. 5GHz is not supported.

Step-by-Step Pairing Instructions:

1. Download the Google Home App:
For Android: Download from the Google Play Store
For iOS: Download from the Apple App Store



2. Power the Controller:
Connect the controller to a power source.

3. Check the Indicator Light:
The status light should be flashing rapidly (twice per second).
If it isn't flashing:
i. Long press the "Link" button for 3 seconds
ii. Power off and on the controller 6 times

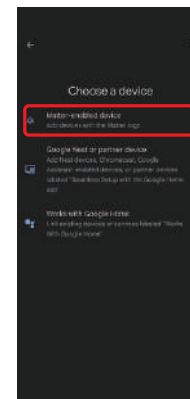
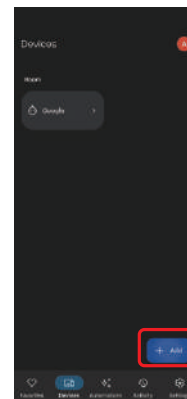
4. Connect to WiFi:
Ensure your mobile device is connected to your 2.4GHz home WiFi.

5. Open the Google Home App:
Tap the "+" icon to begin setup.

6. Select Device Type:
Choose "Matter-enabled device" from the setup options.

7. Scan the QR Code:
Use your phone to scan the QR code located on the product.

8. Complete Setup:
Follow the on-screen instructions to finish configuration.

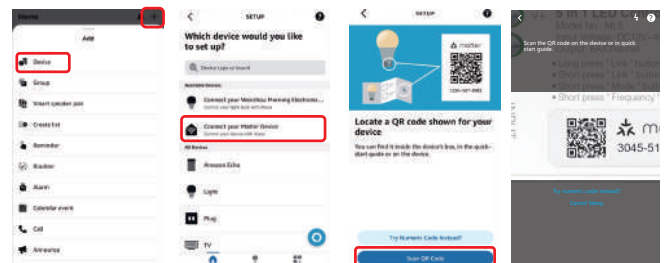
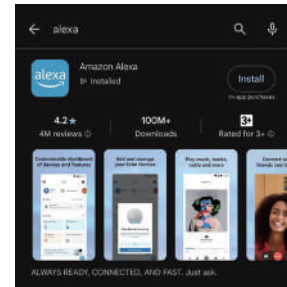


AMAZON ALEXA:

Note: Make sure your phone is connected to a stable 2.4GHz WiFi network. 5GHz is not supported.

Step-by-Step Pairing Instructions:

1. Download the Amazon Alexa App:
For Android: Download from the Google Play Store
For iOS: Download from the Apple App Store
2. Power the Controller:
Connect the controller to a power source.
3. Check the Indicator Light:
The indicator should be flashing rapidly (twice per second).
If it's not flashing:
 - i. Long press the "Link" button for 3 seconds
 - ii. Power off and on the controller 6 times
4. Connect to WiFi:
Make sure your phone is connected to your 2.4GHz home WiFi network.
5. Open the Alexa App:
Tap the "+" icon and select "Add Device".
6. Select Device Type:
Choose "Connect a Matter Device".
7. Scan the QR Code:
Use your phone to scan the QR code located on the product.
8. Complete Setup:
Follow the prompts in the app to complete configuration.

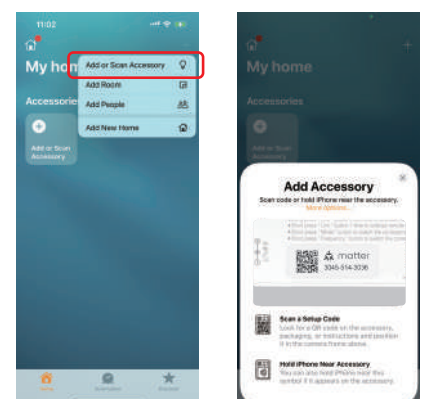
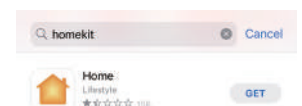


APPLE HOMEKIT:

Note: Note: Ensure your iPhone is connected to a stable 2.4GHz WiFi network. 5GHz is not supported. Apple Home is only available on iOS devices.

Step-by-Step Pairing Instructions:

1. Download the Apple Home App:
For iOS: Download from the Apple App Store
2. Power the Controller:
Connect the controller to a power source.
3. Check the Indicator Light:
The LED indicator should be flashing rapidly (twice per second).
If it's not flashing:
 - i. Long press the "Link" button for 3 seconds
 - ii. over the controller off and on 6 times
4. Connect to WiFi:
Ensure your phone is connected to your 2.4GHz home WiFi network.
5. Open the Apple Home App:
Tap the "+" icon and select "Add or Scan Device".
6. Scan the QR Code:
Use your iPhone to scan the QR code on the product label.
7. Complete Setup:
Follow the in-app instructions to finish configuration.



SMARTTHINGS:

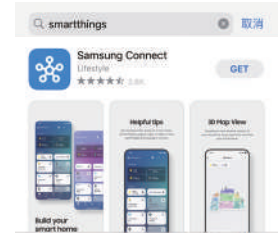
Note: Make sure your mobile device is connected to a stable 2.4GHz WiFi network. 5GHz networks are not supported.

Step-by-Step Pairing Instructions:

1. Download the SmartThings App:

For Android: Download from the Google Play Store

For iOS: Download from the Apple App Store



2. Power the Controller:

Connect the controller to a power supply.

3. Check the Indicator Light:

The LED indicator should be flashing rapidly (twice per second).

If it's not:

- i. Long press the "Link" button for 3 seconds
- ii. Power the controller off and on 6 times

4. Connect to WiFi:

Ensure your phone is connected to your 2.4GHz home WiFi.

5. Open the SmartThings App:

Tap the "+" icon and select "Add Device".

6. Scan the QR Code:

Choose "Scan QR Code" and use your phone to scan the code on the product.

7. Complete Setup:

Follow the on-screen instructions to finish the configuration process.

