BanlanX SP328E Bluetooth Mesh SPI Addressable RGB LED Strip Controller Instructions

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Contents

Brief

SP328E Group & Sync SPI RGB LED Controller. Equipped with flexible Mesh grouping management capabilities, it can achieve ultra-long -distance lighting effect frame synchronization, making it an ideal device for smart wireless lighting control.

Features

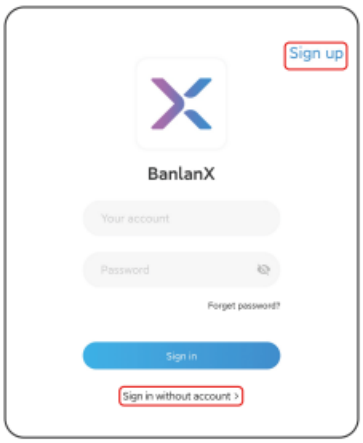
- It uses BT Mesh networking technology for flexible device grouping and unified management. Even if some devices fail, it won't affect overall communication, ensuring the stability of the entire lighting system.
- Wide wireless communication range:
  In a Mesh network, any two devices can be up to 30 meters apart.
  With RF amplification chips, the synchronization signal can reach up to 260 meters, allowing all devices to sync their lighting effects.
- BanlanX App:
  Scene-based App UI design allows for visual previews of lighting effects and supports personalized scene favorites.
- Includes highly creative dynamic effects, versatile DIY options, and lively music effects.
- Supports OTA updates, ensuring your device stays with the latest features and improvements.

BanlanX App

- SP328E supports App control for iOS and Android devices.
- Apple devices require iOS 10.0 or higher, and Android devices require Android 4.4 or higher.
- Yon can search "BanlanX" in App Store or Google Play to find the App, or scan the QR code to download and install.

Register and Login:

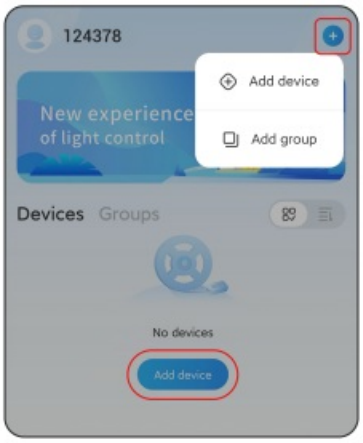
Click on the upper right corner of the page “Sigh up” → Fill in the required information → Registration success → Login



Note:
Click “Sign in without account” → Enter Guest Mode (some features may be limited).

Add Device

After registering successfully, Add device in Add device or → Searching page → Select the device → Finish adding.



Note:

The Blue and green indicator lights will flash simultaneously when adding a device.

Color Correction

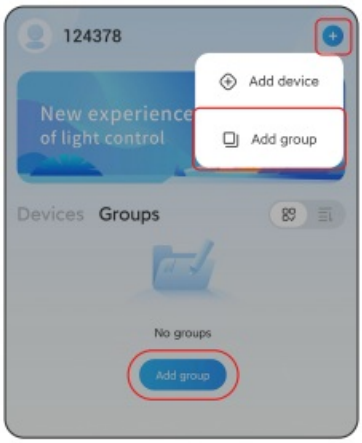
Click the icon in the upper right corner of the control interface → Color Correction → Select the corresponding color button based on the actual color shown by the LED → Correction completed.

Note:

Due to differences in the LED, if the UI color does not match the actual light, calibration is required.

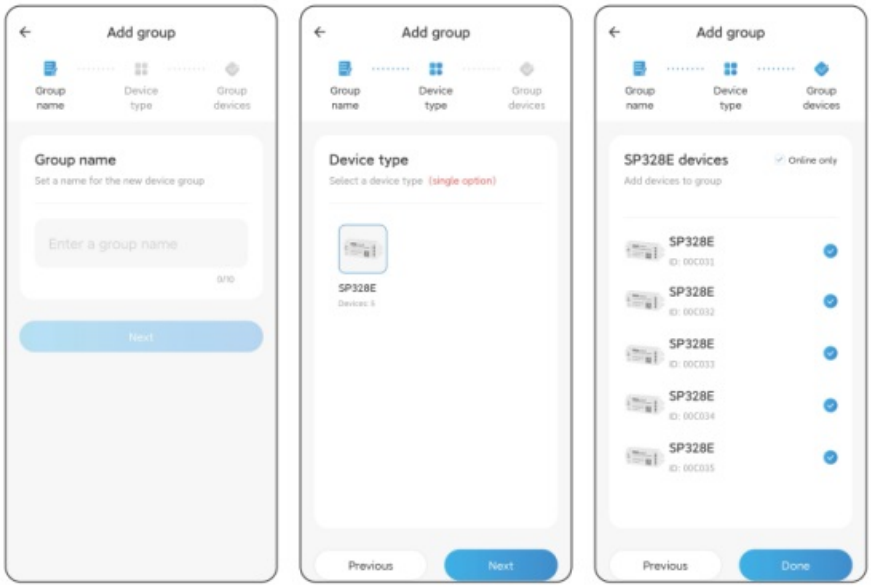
Add Group:

After registering successfully, Add group in Add group or → Create and name a group → Select device type(SP328E) → Select device → Finish adding.



Note:

The devices within the group are automatically configured by the system as either master or slave roles.



Note:

1. Devices need to be added to the device list one by one before they can be grouped. A controller can be assigned to a maximum of 10 groups simultaneously.
2. Lighting effects:
   When adding or deleting a group. On success (White light breath 1 time). On failure (White light breaths 2 times).

Wireless frame synchronization:

After grouping is complete, devices within the group automatically acquire wireless frame synchronization functionality (music lighting effects do not have frame synchronization), without any manual operation required.

Single control / Group control switch

Single control:

In the Devices list (Figure 1), click on the controller tab to enter single control mode, at which point the device's blue indicator light will remain on.

(Figure 1)

Group control:

In the Groups list (Figure 2), click on the group tab to enter group control mode. At this point, devices within the group automatically have frame synchronization, with the master controller's green indicator light remaining on and the slave controller's green indicator light flashing.

(Figure 2)

Delete / Edit and Reset

Delete group

Long press the group tab (Figure 2) → Select delete → Dissolve the entire group. At this point, all devices in the group will revert to an ungrouped state, and the blue indicator light will remain on.

Edit devices within the group:

Long press the group tab (Figure 2) → Select edit → Check / uncheck devices → Done.

Device deletion and reset:

Software reset (Method 1): Long press the device label in the device list (Figure 1) → Remove → Reset complete.

Button reset (Method 2): Within 20 seconds of powering on the device, long press the switch button for 5 seconds → Blue and green indicator lights will flash simultaneously → Release, and the blue indicator light will remain on → Reset complete.

Technical Parameters

Working Voltage	**Working Current**
DC5V ~ 24V	15mA ~ 60mA
Working Temp	**Data Type**
IC Type	**MAX Pixels**
Single-wire RZ RGB LED driver IC	900

Wireless distance (Open space)

In a Mesh network, two devices in a group can be up to 30 meters apart, and the frame synchronization signal reaches 260 meters.

Network characteristics

BLE Mesh network supports up to 200 devices per group, with devices able to span across 10 groups.

Dimension

118mm × 45mm × 15mm

Indicator light status description

1. ON / OFF
2. Indicator Light
3. MIC
4. DC Power Jack

Green light on

Device as the master role.

Blue light on

Device is ungrouped / Single control mode.

Both the green and blue lights are off

Device as a slave role.

Green light flashing

Slave device has received the synchronization signal.

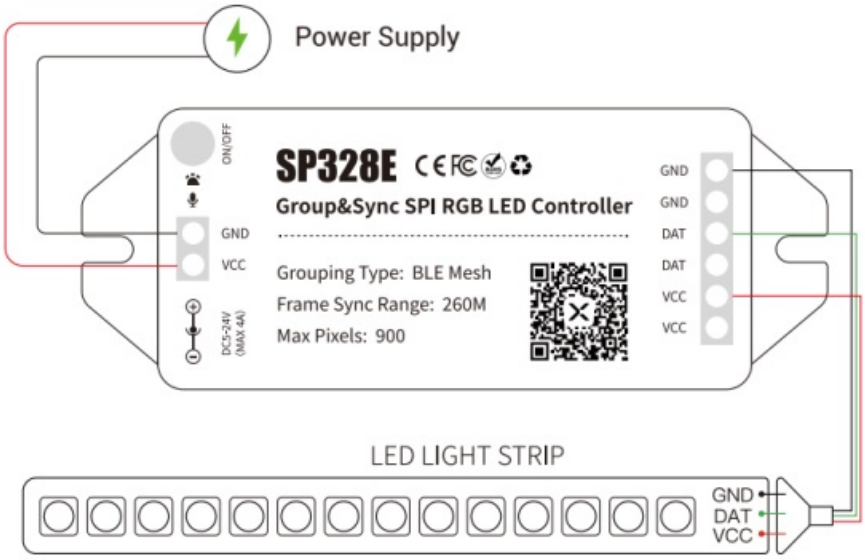
Blue and green lights flashing together

Device is about to be reset / During network configuration.

Blue and green lights on

When not configured.

Wiring



Documents / Resources

	BanlanX SP328E Bluetooth Mesh SPI Addressable RGB LED Strip Controller [pdf] Instructions SP328E, SP328E Bluetooth Mesh SPI Addressable RGB LED Strip Controller, Bluetooth Mesh SPI Addressable RGB LED Strip Controller, SPI Addressable RGB LED Strip Controller, RGB LED Strip Controller, Strip Controller

References

- User Manual