

SP110E Bluetooth Smart LED Mini Controller for LED Strip

The **SP110E Bluetooth Smart LED Mini Controller** is a compact, powerful, and user-friendly control solution designed for modern LED strip lighting systems. Built to support a wide range of **digital and analog LED strips**, the SP110E allows users to control colors, brightness, effects, and animations directly from a smartphone via Bluetooth. Its small size, advanced compatibility, and intuitive app-based control make it an ideal choice for DIY lighting projects, smart home installations, decorative lighting, and professional LED applications.

Designed for flexibility and ease of use, the SP110E eliminates the need for complex wiring, programming knowledge, or external control hardware. With simple plug-and-play installation and wireless control, users can transform ordinary LED strips into dynamic, intelligent lighting systems.

Official product overview:

<https://www.ledcontrolcard.com/sp110e>

Bluetooth App Control for Convenient Operation

The SP110E features **Bluetooth connectivity**, allowing seamless control through a dedicated mobile application available for both **Android and iOS devices**. Once paired, users can control their LED strips directly from their smartphone without requiring Wi-Fi, hubs, or additional gateways.

Through the app interface, users can:

- Change colors and brightness levels
- Select built-in lighting effects
- Adjust animation speed and direction
- Turn lights on or off remotely
- Save favorite scenes and settings

Bluetooth control provides fast response times and stable communication, making the SP110E ideal for personal lighting setups, decorative projects, and portable installations.

More on Bluetooth LED controllers:

<https://www.ledsupply.com/blog/bluetooth-led-controllers/>

Wide Compatibility with LED Strip Types

One of the key advantages of the **SP110E Smart LED Controller** is its **broad compatibility**. It supports both **addressable (digital) LED strips** and **non-addressable (analog) RGB/RGBW strips**, depending on configuration and firmware version.

Supported LED types typically include:

- WS2811 / WS2812 / WS2812B
- SK6812 / SK6812 RGBW
- APA102
- TM1809 / TM1812
- Other popular single-line or dual-line LED protocols

This wide compatibility allows users to control different LED strip models with a single controller, making it an excellent choice for multi-project environments and installers working with various LED technologies.

General reference on addressable LED protocols:

<https://learn.adafruit.com/adafruit-neopixel-uberguide/what-is-neopixel>

Multiple Lighting Effects and Custom Animations

The SP110E includes a large selection of **pre-programmed lighting effects**, such as color fades, chasing patterns, flowing effects, rainbow cycles, breathing modes, and flashing animations. These effects can be easily selected and customized through the mobile app.

Users can fine-tune parameters such as:

- Effect speed
- Brightness level
- Color combinations
- Direction and transition style

This level of customization allows the controller to be used in a wide range of environments, from subtle ambient lighting to dynamic entertainment displays.

Compact Mini Design for Easy Installation

With its **miniature form factor**, the SP110E controller is easy to install in tight spaces, behind furniture, inside enclosures, or within LED aluminum profiles. Its lightweight design makes it suitable for both permanent and temporary installations.

The controller connects directly between the **power supply and LED strip**, minimizing wiring complexity. Clear input and output labeling helps prevent installation errors, making it accessible even for beginners.

Installation basics for LED controllers:

<https://www.sparkfun.com/tutorials/426>

Wide Voltage Support

The SP110E typically supports **DC 5V, 12V, and 24V LED strips**, depending on the LED type being controlled. This wide voltage compatibility allows it to be used with common LED power supplies and a variety of LED strip configurations.

Proper power matching and current capacity are essential to ensure safe operation and consistent brightness across the LED strip.

More on selecting LED power supplies:

<https://www.meanwell.com/serviceFAQ.aspx>

Reliable Performance and Stable Output

The controller is designed to deliver **stable signal output and consistent performance**, even when controlling long LED strips. Advanced signal processing ensures smooth animations and accurate color reproduction without flickering or lag.

The SP110E is suitable for continuous operation and performs reliably in residential, commercial, and decorative environments.

Wide Range of Applications

The **SP110E Bluetooth Smart LED Mini Controller** is widely used in:

- Smart home lighting systems
- Decorative and architectural lighting

- Gaming room and PC lighting
- Retail displays and signage
- Event, stage, and entertainment lighting
- DIY electronics and maker projects
- Automotive ambient lighting

Its portability and ease of control make it especially popular for custom lighting designs and personal projects.

Key Specifications Overview

- Product type: Bluetooth smart LED controller
 - Model: SP110E
 - Control method: Smartphone app (Bluetooth)
 - Supported LED types: Addressable and analog LED strips
 - Input voltage: DC 5V / 12V / 24V (model-dependent)
 - Control features: Color, brightness, effects, animations
 - Design: Compact mini controller
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Why Choose the SP110E Bluetooth Smart LED Controller?

The **SP110E** offers an excellent combination of **flexibility, simplicity, and advanced lighting control**. Its wide LED compatibility, intuitive mobile app, and compact design make it an ideal solution for anyone looking to add smart control to LED strip lighting without complex setups or programming. Whether for home décor, entertainment, or professional lighting projects, the SP110E delivers reliable performance and creative freedom.