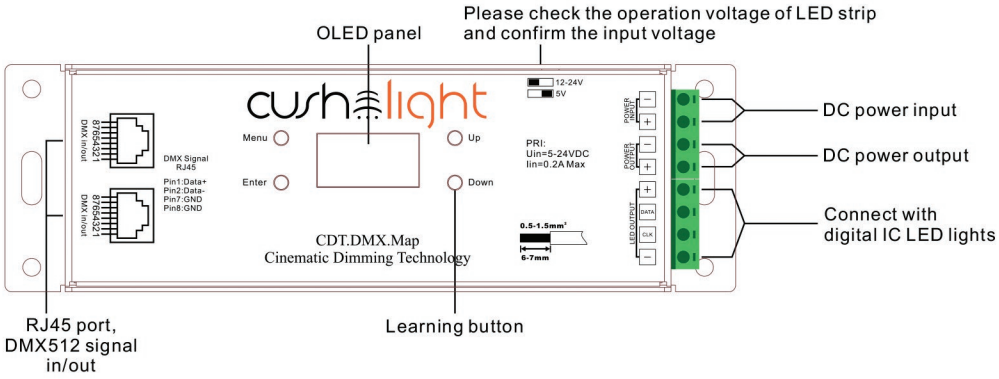
Smart SPI Controller User Manual

Important: *Read All Instructions Prior to Installation*

Function introduction



Product Data

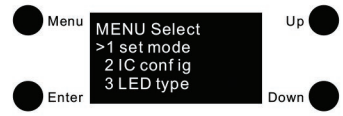
Input Voltage	DC5V/DC12-24V
Input Current	0.2A Max.
Input Signal	RF + DMX512
Output Signal	SPI
Radio frequency	869.5/916.5/434MHz
DMX Decoding Channels	512 Channels
Driving Pixels	Max. 1020
Product Dimension	164x51x29.3mm
Working Temperature	-20℃ to 50℃
Waterproof Grade	IP20

- SPI signal output for control of RGB/RGBW pixel lights
- DMX512 controllable and RF/WiFi remote controllable
- Capable of addressing up to 1020 pixels at the same time
- Addressing up to 170 RGB pixels or 128 RGBW pixels individually
- The built-in, backlit OLED panel allows for easy configuration of most settings
- Four push buttons available for control of the OLED functions
- Supports 38 types of driving IC
- RGB/RGBW color order configurable
- 512 DMX decoding channels
- Support max. 3060 output channels configurable
- 35 built-in sequencing, chasing, changing and static colors under RF mode
- Compatible with a variety of RGB/RGBW RF remotes
- Works with PC interface DMX consoles and sequencing software

Safety & Warnings

- DO NOT install the device with power applied.
- DO NOT expose the device to moisture.

Function Introduction



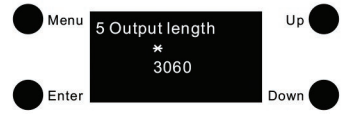
There are four buttons for configuration of settings with the OLED display: “Menu”, “Enter”, “Up” and “Down”, Click “Menu” button to enter the menu selection interface, and keep clicking “Up” and “Down” buttons you will get 5 settings one by one as follows:

1.Set mode: to select an operation mode, click “Enter” button to enter the configuration interface, then click “Up” and “Down” buttons to choose RF or DMX mode, click “Menu” button to confirm the setting and return to menu selection interface.

2.IC config: to set driving IC type, click “Enter” button to enter the configuration interface, click “Up” and “Down” buttons to choose a IC type that drives your LED lights, click “Menu” button to confirm and return to menu selection interface. Total 38 kinds of driving IC available.

3.LED type: to set RGB/RGBW color order, click “Enter” button to enter the configuration interface, click “Up” and “Down” buttons to choose a color order, click “Menu” button to confirm and return to menu selection interface. Total 7 kinds of color order available.

4.DMX address: to set DMX address under DMX mode, click “Enter” button to enter the configuration interface, the cursor will be on the “hundreds” position of the start address, click “Up” and “Down” buttons to change the number, click “Enter” button to confirm and move the cursor to “tens” position and set, then “units” position, and then the end address, and click “Menu” button to confirm the setting and return to menu selection interface.



5.Output length: to configure total output channels, click “Enter” button to enter the configuration interface, the asterisk is on the “thousands” position, click “Up” and “Down” buttons to change the number, click “Enter” button to confirm and move the asterisk to “hundreds” position and set, then “tens” position and “units” position, and click “Menu” button to confirm and return to menu selection interface. The SPI controller supports max. 3060 output channels.

Set mode

The controller has two working modes: RF and DMX. Follow the instructions to choose a mode you would like. Under RF mode, it converts RF signal to SPI signal, and shall be paired to a RF remote. Under DMX mode, it converts standard DMX signal to SPI signal, and can be controlled by universal DMX consoles.

IC config (Setting Pixel Protocol)

This SPI controller works with all common pixel protocols, make sure that the pixel protocol used by your lights is compatible with the controller. See the exact 38 protocol types supported as follows:

• WS2801	• LPD1101	• TM1804H	• TM1829L	• UCS1912	• UCS6912	• APA104
• WS2803	• LPD6803	• TM1809L	• TM1829H	• UCS2903	• P9813	• SK6812
• WS2811L	• LPD8803	• TM1809H	• UCS1903L	• UCS2909L	• D705	
• WS2811H	• LPD8806	• TM1812	• UCS1903H	• UCS2909H	• TLS3001	
• WS2812	• TM1803	• TM1825L	• UCS1909L	• UCS2912	• TLS3002	
• WS2813	• TM1804L	• TM1825H	• UCS1909H	• UCS6909	• APA102	