SPI-16S

Mini   **LED Fantastic Controller**

📶 **RF** WIRELESS

Wall-mounted

FC CE RoHS warranty 5 years SGS UKAS ISO9001:2008

SPI-16S is a Mini LED pixel controller, equipped with RF remote M16S, almost able to control all IC-driven LED lights. Compact and powerful, various built-in changing effects and customized scene modes can bring you fantastic color!

By RF remote control M16S, you can select from a variety of dynamic lighting effects, set controlled pixels quantity, adjust the changing speed and brightness, change the lighting moving direction, adjust RGB sequence, select the IC type, store and play customized scene etc.

1. Product parameter:

SPI-16S Controller:

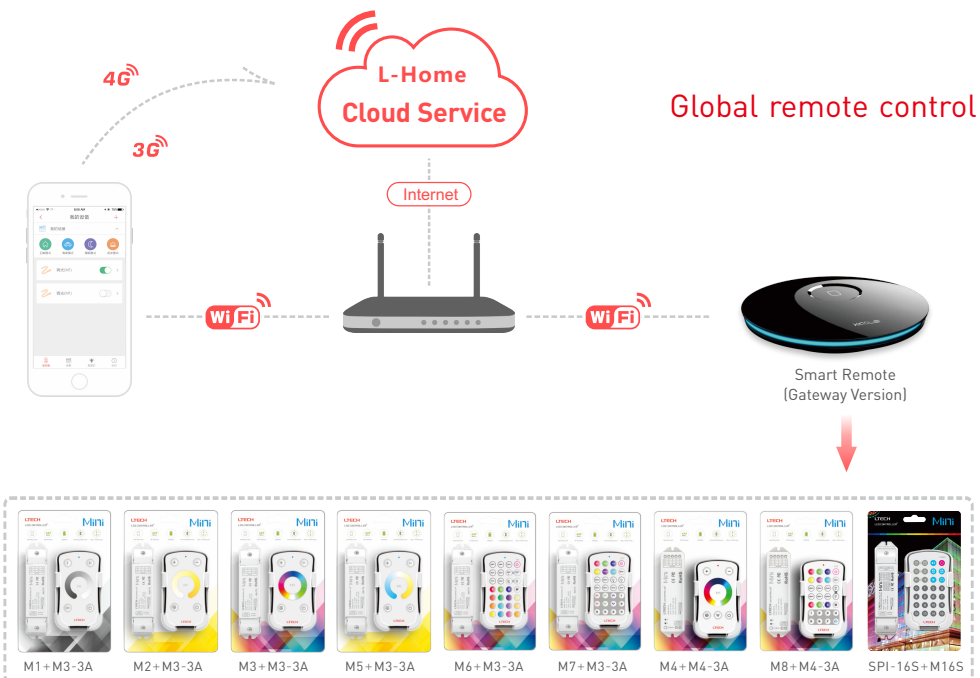|	
Power Input:	5~24Vdc
Output:	SPI
Wireless Signal:	RF 2.4GHz
Working Temperature:	-30°C~55°C
Dimensions:	L135×W30×H20(mm)
Weight(N.W.):	52g
Compatible driving IC:	any kinds, can be customized also.

M16S Remote:

Working Voltage:	3V (battery CR2032)
Wireless Signal:	RF 2.4GHz
Changing Mode:	16 kinds
Working Temperature:	-30°C~55°C
Dimensions:	L104×W58×H9(mm)
Weight(N.W.):	42g

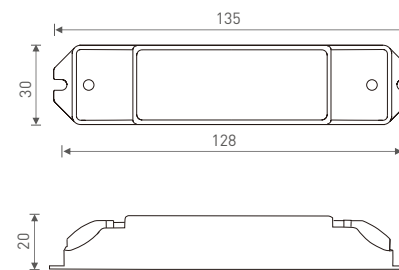**Package size: L132×W198×H22(mm)**   **Total weight(G.W.): 145g**

★ Connect power supply to pixel LEDs separately, in case of overvoltage, overcurrent to the receiver. Receiver only supply a signal to the LEDs.
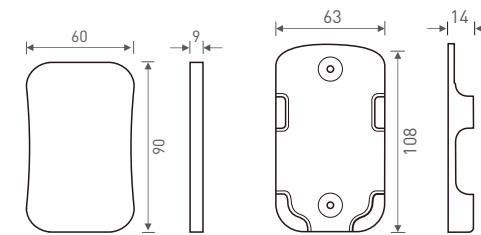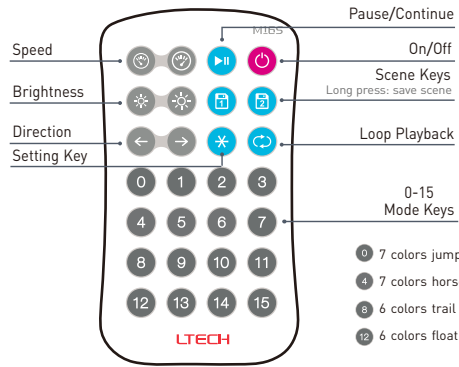
---

2. System diagram:

4G 3G **L-Home Cloud Service**   Global remote control

Internet

WiFi   WiFi

Smart Remote (Gateway Version)

M1+M3-3A   M2+M3-3A   M3+M3-3A   M5+M3-3A   M6+M3-3A   M7+M3-3A   M4+M4-3A   M8+M4-3A   SPI-16S+M16S

3. Product dimension:

Unit: mm

Controller   Remote   Remote Holder

4. The remote instruction:

- Pause/Continue
- On/Off
- Scene Keys — Long press: save scene
- Loop Playback
- 0-15 Mode Keys
- Speed
- Brightness
- Direction
- Setting Key

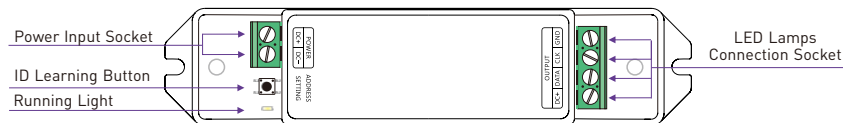|			
0 7 colors jump	1 7 colors flash	2 7 colors fade	3 7 colors smooth
4 7 colors horse race	5 7 colors circle horse race	6 7 colors flow	7 7 colors gradients flow
8 6 colors trail	9 6 colors circle trail	10 Gradients trail	11 White meteor
12 6 colors float	13 6 colors double trail	14 Color white float	15 Bi-color float

The Learning ID Method:

The receiver and remote are Pre-synced at factory. If deleted accidentally, the sync method is as follows (multiple remotes could be synced to one receiver):

Learning ID:

Short press "ID learning button" on SPI-16S receiver, the running light is on. Then press any key on M16 remote , the running light flicker several times, activated.

Canceling ID:

Press "ID learning button" on SPI-16S receiver for 5s, the running light flicker several times, canceled.

Other Setting Instructions of Remote

1. Loop playback: Short press ✳ key, then continuous press any 0-15 numeric keys, last press ↻ key to finish. Controller will play cycle the corresponding mode of the numeric key.

2. Method for selecting IC / RGB sequence:
   By factory default, controller works with TM1809IC pixel light. If work with different IC model, please setting follow below instructions. This controller is compatible with following IC models::

   TM1803/TM1804/TM1809/TM1812/TM1814/TM1914/TM1914A/UCS1903/UCS1909/UCS1912/UCS2903/UCS2904B/UCS2909/UCS2912/UCS5603A/UCS6909/UCS6912/WS2801/WS2803/WS2811/WS2812/WS2812B/WS2821/APA102/APA104/KL590/KL592D/LPD6803/LPD1101/LPD8803/LPD8806/P9813/TLS3001/TLS3002/P943/SK6812(RGB)/GS8206(BGR)/GS8208/SM16703 in factory default.

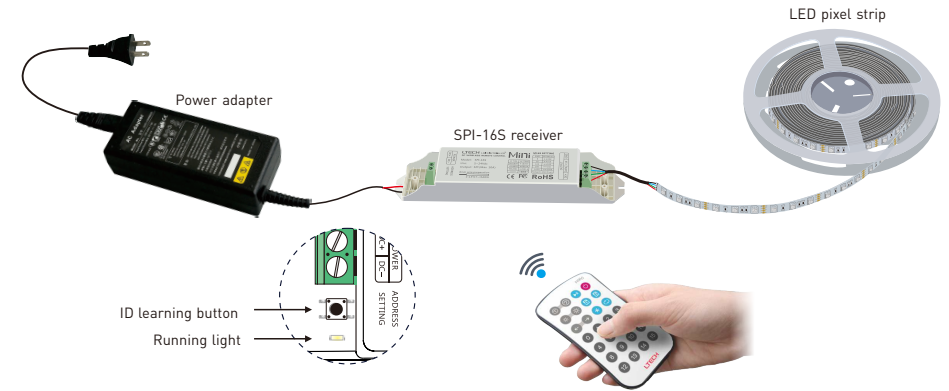   Manipulate table for choosing ICs, RGB order or pixel No..

IC Type	Setting e.g.
TM1809	✳1809✳
LPD6803	✳6803✳
KL590	✳0590✳
KL592D	✳0592✳
APA102	✳0102✳
⋯⋯	✳□□□□✳

Pixel	Setting e.g.
8	✳✳008
16	✳✳016
100	✳✳100
160	✳✳160
1020	✳✳1020
Range: 8-1020 pixels	

RGB Order	Setting
RGB	✳123✳
RBG	✳132✳
GRB	✳213✳
GBR	✳231✳
BRG	✳312✳
BGR	✳321✳

[Attn]: The running light of SPI-16S controller flashes 2s means set completed.

When setting IC type, pixel number and RGB order, select multiple keys at uniformed speed. Not too fast.
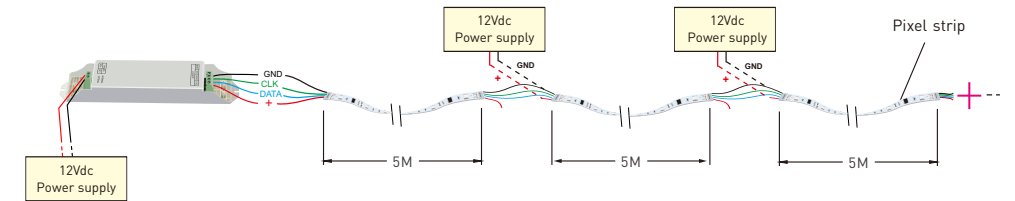
5. Terminal description:

- Power Input Socket
- ID Learning Button
- Running Light
- LED Lamps Connection Socket

---

6. Wiring diagram:

- LED pixel strip
- Power adapter
- SPI-16S receiver
- ID learning button
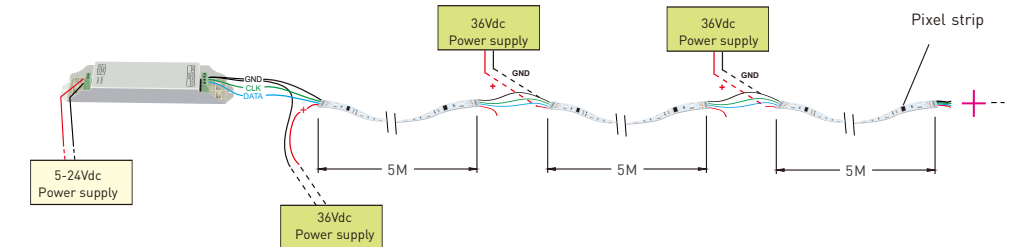- Running light

LED pixel strip wiring diagram:

a. Conventional connection method.

b. Light fixtures and controller using different operating voltages.

✳ No further notice if any changes in the manual.
  Product function depends on the goods.
  Please feel free to contact your supplier if any question.