

# RGB LED Controller for DigiRibbon SC- WC9-V1/ V2



LC-0RGB-D5-04

## Features

- It is designed to control digital RGB LED strips.
- Be free to set up the length of LED strips from 1m to 99m.
- Meet DMX512(1990) protocol. Can be used as a DMX512 decoder.
- A LCD screen shows controller current working status.
- Wireless RF control is optional.
- 36 normal color changing patterns and 1 DMX operating.
- 60 speed adjustment levels for dynamic change.
- Automatic parameter memory.
- XLR3 Male and Female interface.
- Aluminum housing with black wire drawing finish.

## Technical Parameter

Input Voltage: DC 12V~24V

Input Signal: DMX512(1990)

Output Channel: 4 groups for simultaneous output

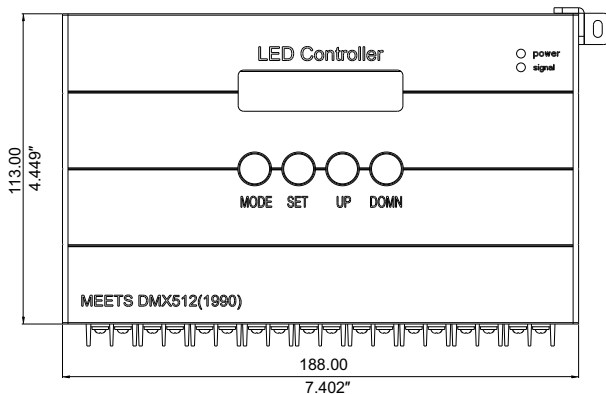
Control distance: more than 20m



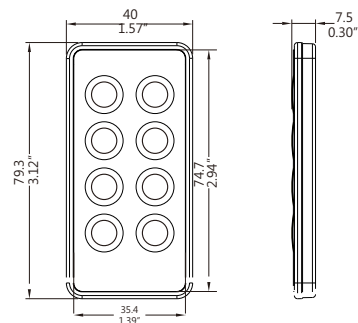
Model	Chip	Grayscale levels
WC9-V1	LPD 6803	32
WC9-V2	TM 1803	256

## Dimensions (Unit: mm/inch)

SC-WC9-V1/V2 Weight:560g



LC-0RGB-D5-04 Weight:20g



## Color Patterns

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### 1 7 colors flowing forward without grounding

- red color flowing
- green color flowing
- blue color flowing
- yellow color flowing
- Cyan color flowing
- purple color flowing
- white color flowing

### 2 A group of dots running in come-and-go way, without grounding

- red running backward
- red running forward
- green running backward
- green running forward
- blue running backward
- blue running forward
- yellow running backward
- yellow running forward
- cyan running backward
- cyan running forward
- purple running backward
- purple running forward

### 3 A group of dots running in come-and-go way, with another color of grounding

- red running backward, with yellow grounding
- red running forward, with yellow grounding
- green running backward, with white grounding
- green running forward, with white grounding
- blue running backward, with green grounding
- blue running forward, with green grounding
- yellow running backward, with purple grounding
- yellow running forward, with purple grounding
- purple running backward, with red grounding
- purple running forward, with red grounding
- cyan running backward, with blue grounding
- cyan running forward, with blue grounding

### 4 7 colors flowing forward and backward ,without grounding

- red flowing backward
- red flowing forward
- green flowing backward
- green flowing forward
- blue flowing backward
- blue flowing forward
- yellow flowing backward
- yellow flowing forward
- cyan flowing backward
- cyan flowing forward
- purple flowing backward
- purple flowing forward
- white flowing backward
- white flowing forward

### 5 7 colors running from middle to the two ends,and then running in the opposite direction, without grounding

- red flowing from middle to 2 ends
- red flowing from 2 ends to middle
- green flowing from middle to 2 ends
- green flowing from 2 ends to middle
- blue flowing from middle to 2 ends
- blue flowing from 2 ends to middle
- yellow flowing from middle to 2 ends
- yellow flowing from 2 ends to middle
- cyan flowing from middle to 2 ends
- cyan flowing from 2 ends to middle
- purple flowing from middle to 2 ends
- purple flowing from 2 ends to middle
- white flowing from middle to 2 ends
- white flowing from 2 ends to middle

**6 7 colors flowing forward with another color of grounding**

- red flowing with green grounding
- green flowing with yellow grounding
- blue flowing with cyan grounding
- yellow flowing with red grounding
- cyan flowing with blue grounding
- purple flowing with blue grounding
- white flowing with purple grounding

**7 7 colors flowing backward with grounding**

- red flowing backward with green grounding
- green flowing backward with yellow grounding
- blue flowing backward with cyan grounding
- yellow flowing backward with red grounding
- cyan flowing backward with blue grounding
- purple flowing backward with blue grounding
- white flowing backward with purple grounding

**8 7 colors flowing in come-and-go way with grounding**

- red flowing in come-and-go way with green grounding
- green flowing in come-and-go way with yellow grounding
- blue flowing in come-and-go way with cyan grounding
- yellow flowing in come-and-go way with red grounding
- cyan flowing in come-and-go way with blue grounding
- purple flowing in come-and-go way with blue grounding
- white flowing in come-and-go way with purple grounding

**9 7 colors running from middle to the 2 ends, and then running in the opposite direction, with grounding**

- red flow from middle to 2 ends, with cyan grounding
- red flowing from 2 ends to middle, with cyan grounding
- green flowing from middle to 2 ends, with purple grounding
- green flowing from 2 ends to middle, with purple grounding
- blue flowing from middle to 2 ends, with yellow grounding
- blue flowing from 2 ends to middle, with yellow grounding
- yellow flowing from middle to 2 ends, with blue grounding
- yellow flowing from 2 ends to middle, with blue grounding
- cyan flowing from middle to 2 ends, with red grounding
- cyan flowing from 2 ends to middle, with red grounding
- purple flowing from middle to 2 ends, with green grounding
- purple flowing from 2 ends to middle, with green grounding
- white flowing from middle to 2 ends, without color grounding
- white flowing from 2 ends to middle, without color grounding

**10 7 single colors jumping ( speed adustable)**

11 Static red

12 Static green

13 Static blue

14 Static yellow

15 Static purple

16 Static cyan

17 Static white

18 6 colors in one LED dots running

19 6 colors in two LED dots running

20 gradual color changing of the mixture of RGB

21 2 sections of red trailing dots chasing in come-and-go way with gradual dimming

22 2 sections of green trailing dots chasing in come-and-go way with gradual dimming

23 2 sections of blue trailing dots chasing in come-and-go way with gradual dimming

24 2 sections of yellow trailing dots chasing in come-and-go way with gradual dimming

25 2 sections of purple trailing dots chasing in come-and-go way with gradual dimming

26 2 sections of cyan trailing dots chasing in come-and-go way with gradual dimming

27 2 sections of white trailing dots chasing in come-and-go way with gradual dimming

28 Red color flowing backward with gradual dimming

29 Green color flowing backward with gradual dimming

30 Blue color flowing backward with gradual dimming

- 31 Yellow color flowing backward with gradual dimming
- 32 Purple color flowing backward with gradual dimming
- 33 Cyan color flowing backward with gradual dimming
- 34 White color flowing backward with gradual dimming
- 35 6 Sections of 6 individual colors chasing in come-and-go way with gradual dimming
- 36 Automatic reply of the all 35 modes
- 37 DMX 512 control mode

## Working as a normal controller (no connection to DMX console)

### Set speed

The speed level range is 0-60. Bigger data responds to bigger speed.

Press key "SET" to find the speed-set interface. Adjust speed by pressing keys "UP" and "DOWN". After the speed is set, press "SET" five times or "MODE" to confirm and exit.

### Set brightness

Press key "SET" 2 times to enter the brightness-set interface. Adjust brightness by pressing keys "UP" and "DOWN".

Press "SET" 4 times or "MODE" to confirm and exit.

### Set DigiRibbon™ length

The length range is 1-99 meters. Set the data according to the real length of DigiRibbon™.

Press key "SET" 3 times to enter the length-set interface. Set the length by pressing keys "UP" and "DOWN".

Press "SET" 3 times again or press "MODE" to confirm the set then exit.

### Pause Power Mode

step 1: press "SET" key five times enter into This Mode, press "UP" you can switch pause/play the LED strip, press "DOWN" you can turn on/turn off the LED strip. step 2: press "SET" key again or press "MODE" key, you can exit this Mode

## Working with DMX512 console

1、 Individual controller works with console, if the address code is set as X, the corresponding channels on console will be CHX to CH(X+3). CHX is for dynamic color changing patterns. CH(X+1) is for speed adjustment. CH(X+2) is for length-set and CH(X+3) is for brightness adjustment

2、 To achieve: Multiple controllers work with console. All controllers have the synchronous dynamic color changing patterns, speed and brightness adjustment. If controller 1 address code is set as X, then the other controllers are also set as X. CHX on console will be responding to dynamic color changing and CH(X+1) responds to speed adjustment. CH(X+1) responds to speed adjustment. CH(X+2) is for length-set and CH(X+3) responds to brightness adjustment.

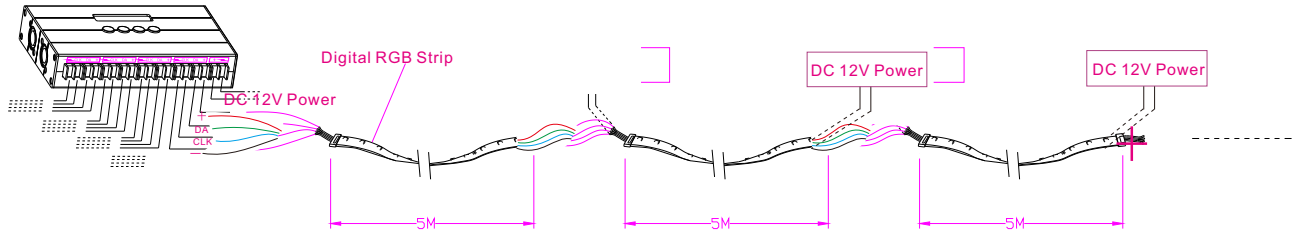
3、 To achieve: Multiple controllers work with console. Each controller has different dynamic color changing patterns and speed adjustment. If controller 1 address code is set as X, then controller 2 will be set as X+4 and controller 3 set as X+8.

## Function of the key board keys



- 1. power Power on / off
- 2. pause Freeze the status when fade or jump, invalid under static mode
- 3. mode+ Mode +
- 4. mode- Mode -
- 5. speed+ Speed+, invalid under static mode
- 6. speed- Speed-, invalid under static mode
- 7. BRT+ Brightness+, invalid under light fade mode except pause is enabled
- 8. BRT- Brightness-, invalid under light fade mode except pause is enabled

## Connection drawing



## Cautions

1. User should make sure the controller and running LED lights have the same working voltage 12V DC.
2. This controller can only work with Signcomplex DigiRibbon™ series products.
3. The controller is not water resistant so it is not allowed to be applied to outdoor circumstances.
4. An extra 12V DC power supply is recommended to inter-connect DigiRibbon™ every 5 meters so adequate power is provided for the light.
5. When installing the controller, first cut off the power of controller, connect well the LED light with controller, then connect the controller with power supply.