RGB+CCT LED Strip Controller/Remote | Specification

CR5-GBA
CK5-GBA

Indoor | CE | RoHS

【Features】

● 4096 levels 0-100% dimming smoothly without any flash.

● Match with RF 2.4G single zone RGB+CCT remote control.

● One RF controller accept up to 10 remote control.

● Auto-transmitting function: Controller automatically transmit signal to another
   controller with 30m control distance.

● Synchronize on multiple number of controllers.

● Connect with external push switch to achieve on/off and 0-100% dimming function.

● Built in 10 dynamic mode, include jump or gradual change style.

● Over-heat / Short circuit protection, Reverse polarity.

● Certification: CE, RoHS.

● Warranty: 5 years.

【Technical Parameters】

Name	Item	Parameter
Controller	Mode NO.	CR5-GBA
	Input voltage	DC12-48V
	Input current	Max 30.5A
	Output voltage	DC12-48V
	Output current	Max30A@12/24V,5x6A/CH; Max20A@36/48V,5x4A/CH;
	Output power	Max 360W@12V Max 720W@24V Max 720W@36V Max 960W@48V
	Input singal	RF2.4GHz+ Push Dim
	Control distance	30m(Barrier-free space)
	Dimming gray scale	4096 (2^12) levels
	Dimming range	0-100%
	Protection	Reverse polarity,Over-heat, Over-load, Short circuit
	Production size	L179*W56*H30mm
	Ta	-30℃— +55℃
	IP rating	IP20
	Certification	CE，RoHS
	Warranty	5 years

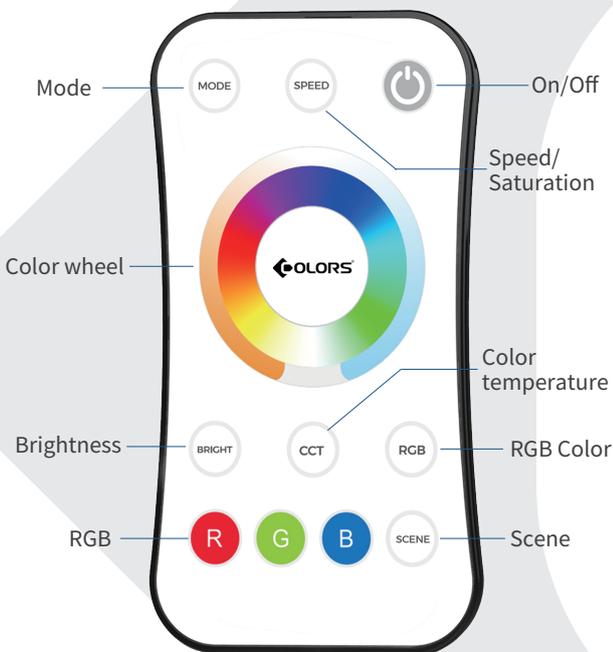| Name	Item	Parameter
Remote	Mode NO.	CK5-GBA
	Output singal	RF(2.4GHz)
	Working voltage	3VDC(2032 Battery)
	Working current	＜5mA
	Standby current	＜10uA
	Standby time	1 years
	Remote distance	30m(Barrier-free space)
	Zone	1 zone
	Size	L107*W58.5*H9mm
	IP rating	IP20
	Ta	-30℃— +55℃
	Tc	Max 60℃
	Certification	CE、RoHS
	Warranty	5 years

Remarks：

1、The above parameters are based on the standard test；

2、The above parameters are typical values.

【Operation identification description】

1、CR5-GBA:

Push-Dim Wiring Area
Power Input +
Power Input -
Push switch
Push switch common
Installation rack
Match key
LED indicator
PMW Frequency Dip switch

RF2.4G Wiring Area
Output LED +
Output Red LED -
Output Green LED -
Output Blue LED -
Output Warm White LED -
Output Cold White LED -

2、CK5-GBA:

Mode
On/Off
Speed/Saturation
Color wheel
Color temperature
Brightness
RGB Color
RGB
Scene
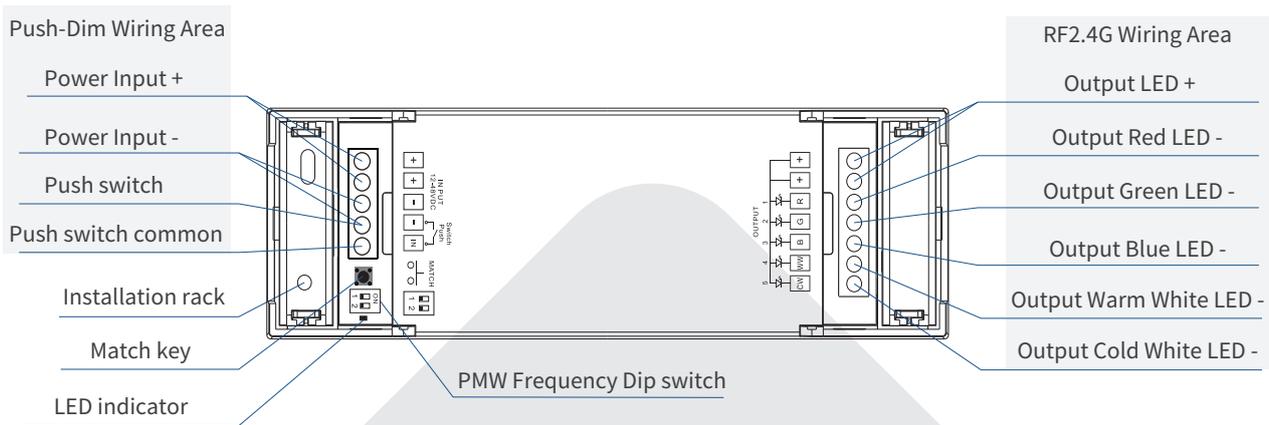
On/Off: Short press turn on/off light.

Mode: Switch dynamic mode, short press run the next mode,long press 2s run mode cycle.

Speed/Saturation: For dynamic mode, adjust mode speed,short press 10 levels, long press 2s get the default speed.For static RGB color, adjust saturation,namely change current static color to mixed white slowly,short press 11 levels,long press 1-6s for continuous 256 levels adjustment.
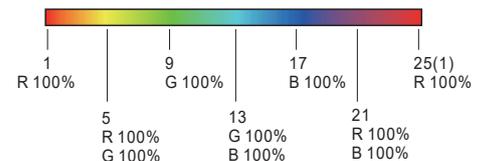
Brightness: Adjust brightness, short press 11 levels,long press 2s get max or min brightness.at the same time, multi-color wheel become brightness wheel.

CCT: Adjust color temperature, short press 11 levels, long press adjust WW+CW brightness.at the same time, multi-color wheel become color temperature wheel.
Adjust color temperature by WW/CW channel.

1	6	11
暖白	正白	冷白
WW 100%	WW 100%	WW 0%
CW 0%	CW 100%	CW 100%

RGB: Adjust static RGB color, short press get 24 kinds static color. at the same time, multi-color wheel become RGB color wheel.

| 1	5	9	13	17	21	25(1)
R 100%	R 100% G 100%	G 100%	G 100% B 100%	B 100%	R 100% B 100%	R 100%

R/G/B: Short press get red, green or blue color directly.long press 1-6s adjust R/G/B brightness continuously to achieve millions of colors.

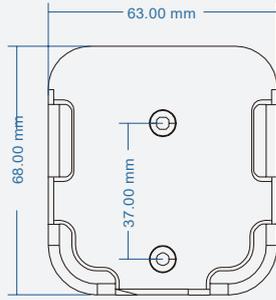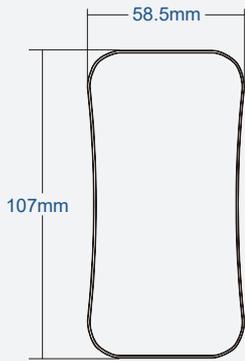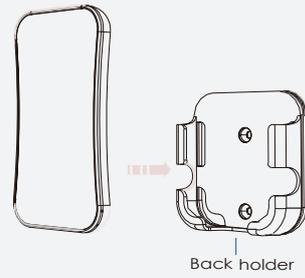Scene: Short press recall the scene, long press 2s save the current color into scene.

【Dimensions】

1、CR5-GBA:

179.00 mm
56.00 mm
30.00 mm

2、CK5-GBA:

58.5mm

107mm

63.00 mm

68.00 mm

37.00 mm

CR2032
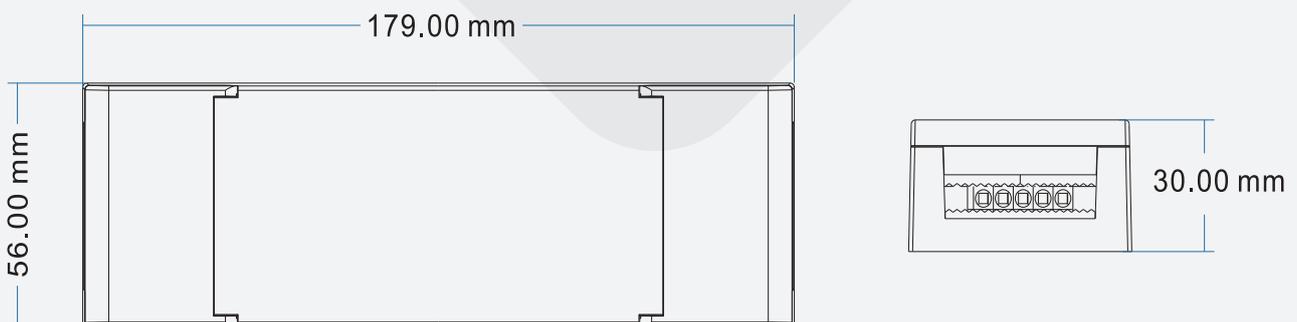
Note: Before the first use, please remove the protective film on the battery.

58.5mm

9mm

Note: If the LED indicator is not on when press key,it is due to dead battery or bad contact caused by multiple plugging, please replace the battery, or raise the battery shrapnel with a screwdrive.
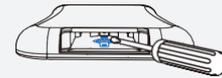
Back holder

To fix the remote, two options are offered for selection:
Option 1:
  fix the remote' back holder on the wall with two screws.
Option 2:
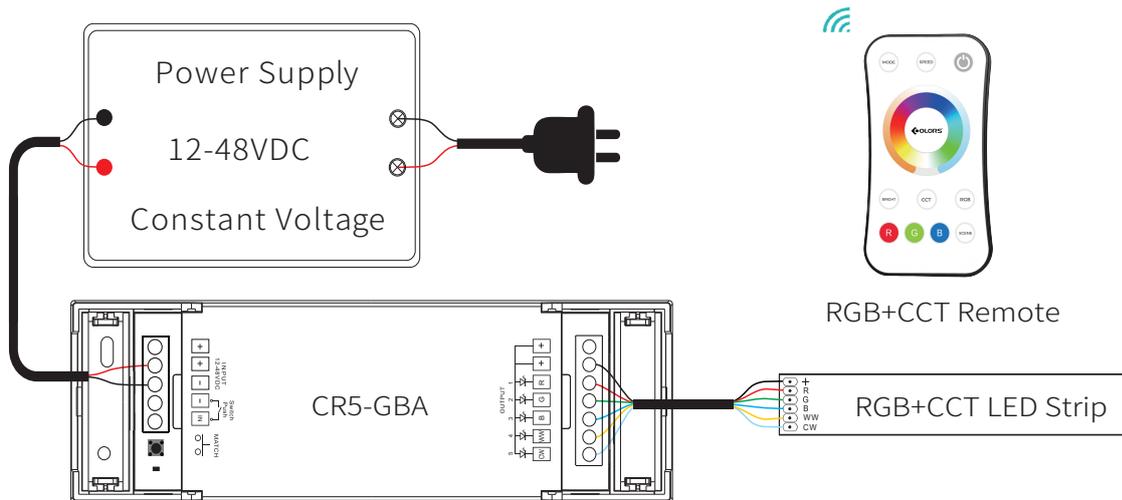Stick the remote' back holder to the wall with tape.

【RF2.4G Wiring Introduction】

1、RF2.4G Wiring Diagram：

Power Supply

12-48VDC

Constant Voltage

CR5-GBA

RGB+CCT Remote

RGB+CCT LED Strip

2、RF2.4G: Match Remote Control(2 match ways)：

Operation	Use the controller's Match key	Use Power Restart
Match	Short press match key, immediately press on/off key (single zone remote) or zone key (multiple zone remote) on the remote. The LED indicator fast flash a few times means match is successful.	Switch off the power, then switch on power again, immediately short press on/off key (single zone remote)or zone key (multiple zone remote) 3 times on the remote. The light blinks 3 times means match is successful.
Delete	Press and hold match key for 5s to delete all match, The LED indicator fast flash a few times means all matched remotes were deleted.	Switch off the power, then switch on power again, immediately short press on/off key (single zone remote) or zone key (multiple zone remote) 5 times on the remote. The light blinks 5 times means all matched remotes were deleted.

3、Application notes：

RF Remote 30m 30m 30m ...
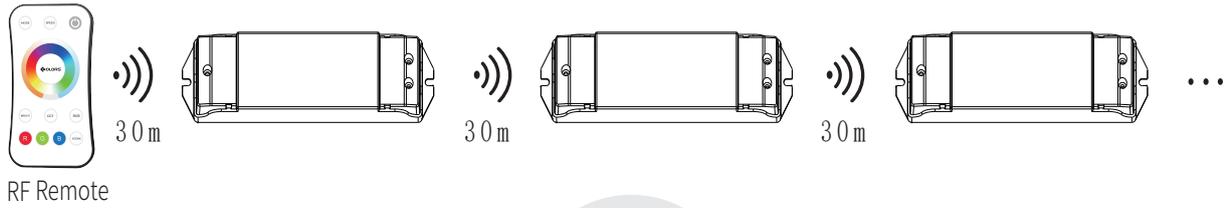
Auto-transmitting: One receiver can transmit the signals from the remote to another receiver within 30m, as long as there is a receiver within 30m, the remote control distance can be limitless.

Auto-synchronization: Multiple receivers within 30m distance can work synchronously when they are controlled by the same remote.

4、Light on/off decay time description：

Long press the match key for 5s, then short press the match key 3 times,The on/off time of the light will be set to 3s and the indicator light will flash 3 times.
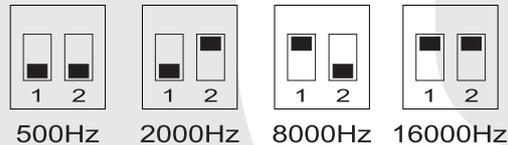
Light on/off decay time:

Press and hold the match button for 10s to restore the factory default parameters，the on/off time of the light is also restored to 0.5s.

匹配键
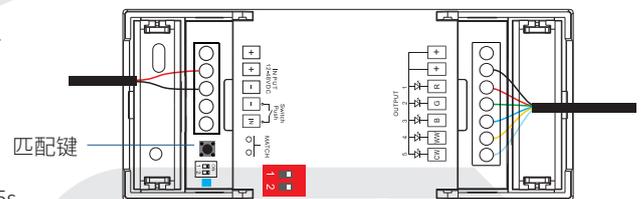
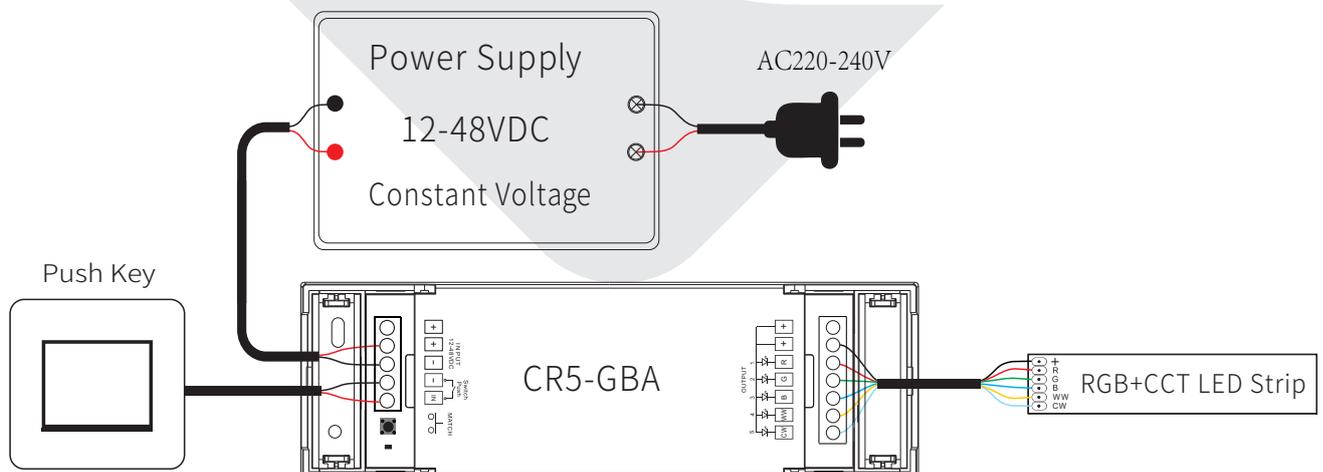## 5、PWM frequency setting function description：

When the power is off, first select the DIP switch, then press and hold the match key, and power on the controller at the same time, the running LED indicator will flash twice in white, indicating that the PWM frequency is successfully set.

1. We can choose from four PWM frequencies: 500Hz, 2000Hz, 8000Hz or 16000Hz.
2. The higher the PWM frequency, the lower the output current and the more power noise, but it is more suitable for cameras (video flicker free).

500Hz 2000Hz 8000Hz 16000Hz

【 Push-Dim Wiring Introduction 】

1. Wiring Diagram:

Power Supply 12-48VDC Constant Voltage

AC220-240V

Push Key

CR5-GBA

RGB+CCT LED Strip

Note: Long press match key for 10s, RGB and CCT light can not be on at the same time.
Long press match key for 15s, RGB and CCT light can be on at the same time.
above operation will also restore the factory setting.

2. Push Dim Function

Click	ON/OFF
Double Click	Change from color mode to tunable white mode and vice-versa.
Long press(>1s) from OFF	If on color mode change rotation speed; If on tunable white mode color temperature UP/DOWN (turn off and turn on to return dimming).
Long press(>1s) from ON	If on color mode start/stop color rotation; If on tunable white mode dimming UP/DOWN.

Color rotation:
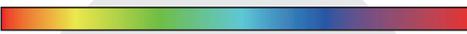
We can select 4 rotation speed:
10 flash/s means 6 seconds color rotation
5 flash/s means 30 seconds color rotation
2 flash/s means 1 minute color rotation
1 flash/s means 6 minutes color rotation

3. Dynamic mode list

NO.	Name	NO.	Name
1	RGB jump	6	RGB fade in and out
2	RGB smooth	7	Red fade in and out
3	6 color jump	8	Green fade in and out
4	6 color smooth	9	Blue fade in and out
5	Color temperature smooth	10	White fade in and out

4. Dual color control

CH4=Warm white LED,CH5=Cool white LED,Each channel can supply up to 144W@24V and white balance can be controlled as such：

Color temperature	Cool white	Neutral white	Warm white
Power distribution	CH4=0W,CH5=144W	CH4=144W,CH5=144W	CH4=144W,CH5=0W

【Packing】

1、Packing list:

Model	Controller/Remote	Manual	Back support	Double-sided tape	Self-tapping screws	PE Bag	Individual box
CR5-GBA	1PCS	1PCS	/	1PCS	/	1PCS	1PCS
CK5-GBA	1PCS	1PCS	1PCS	/	2PCS	2PCS	1PCS

2、Packaging Information:

Model	Individual box size	Quantity/box	Number /Box	net weight (kg)	Net weight per carton (kg)	Gross weight (kg)	Carton size (mm)
CR5-GBA	L185*58*36 mm	1PCS	100PCS	0.160	16	19.2	535*375*210
CK5-GBA	L114*65*20 mm	1PCS	100PCS	0.037	3.7	8.2	350*240*230

【Reliability Test Information】

Test items	Testing requirements	Guideline	Test method or condition（streamline）
Performance Testing	No load	Colors	Intput 48Vdc,Output 48Vdc.
	Short circuit protection	Colors	The output positive and negative poles are short-circuited, Then input 48V, the controller should be able to self.
	Load capacity	Colors	DC48V input, output full load, controlThe controller should work normally.
	Remote control distance temperature	Colors	The remote 30m should be able to connect normally Pairing, normal function; wireless signal relay connection is normal.
	Push-Dim Fuction	Colors	Push-Dim function should be normal,off and dimming functions.
High temperature aging test	Work stability	Colors	Input voltage: 48VDC, load LED current: 10.01A (full load); Conditions: temperature 55℃, aging time 24H.

【Precautions】

1. Receiver placement may offer up to 30m communication distance. Metals and other metal materials will reduce the range. Strong signal sources such as WiFi routers and microwave ovens will affect the range.We recommend for indoor applications that receiver placements should be no further apart than15m.

2. The number of controllers controlled by one remote control should not be too many to avoid mutual interference of remote control signals. It is recommended to replace the controllers with power expanders as much as possible.

3. When installing batteries in the remote control, pay attention to the positive and negative poles of the batteries. Please remove the battery when not in use for a long time; when the remote control distance becomes smaller or the remote control fails frequently, please replace the battery in time.

4. If no response from the receiver, please re-match the remote.

5. Gently handle remote, be ware of falling .

6. For indoor and dry location use only.