RGBW/RGB/CCT/Dimming 4 Channel LED RF Controller

Model No.: C4(150-500mA) / C4(350-1200mA)

4 Channels/Multiple current/Push Dim/Wireless remote control/Auto-transmitting/Synchronize

FC C CE RoHS emc LVD RED

Features

● Set as single color, dual color, RGB or RGBW controller by DIP switch.
● DC to DC constant current output, multiple output current settings.
● Match with RF 2.4G single zone or multiple zone single color, dual color and RGB/RGBW remote control.
● One RF controller accept up to 10 remote control.
● 4096 levels 0-100% dimming smoothly without any flash.
● When using with RGB/RGBW light, built in 10 dynamic mode, include jump or gradual change style.
● Auto-transmitting function: Controller automatically transmit signal to another controller with 30m control distance.
● Synchronize on multiple number of controllers.
● Fade in and out effect selectable.
● Connect with external push switch to achieve on/off and 0-100% dimming function.

Technical Parameters

Input and Output

Input voltage	12-48VDC
Output voltage	4 x (3-45)VDC
Output current	4CH,150-500mA or 350-1200mA/CH
Output power	4 x (0.45-22.5)W (150-500mA) 4 x (1.05-54)W (350-1200mA)
Output type	Constant current

Environment

Operation temperature	Ta: -30°C ~ +55°C
Case temperature (Max.)	Tc: +85°C
IP rating	IP20

Warranty and Protection

Warranty	5 years
Protection	Reverse Polarity Short circuit

Dimming data

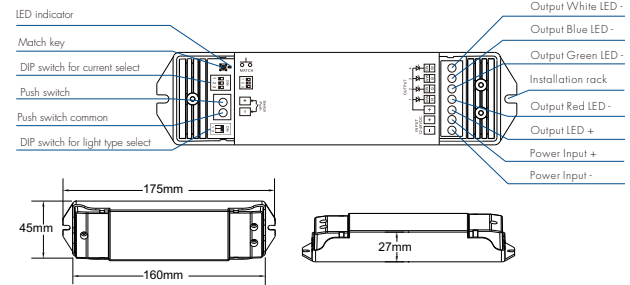| Input signal	RF 2.4GHz + Push Dim
Control distance	30m(Barrier-free space)
Dimming gray scale	4096 (2^12) levels
Dimming range	0 -100%
Dimming curve	Logarithmic

Safety and EMC

EMC standard (EMC)	ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.2.4
Safety standard(LVD)	EN 62368-1:2020+A11:2020
Radio Equipment(RED)	ETSI EN 300 328 V2.2.2
Certification	CE,EMC,LVD,RED

Weight

Net weight	0.120kg
Gross weight	0.140kg

Mechanical Structures and Installations

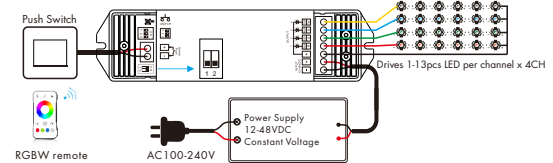
LED Current Selection

Note: Please select the correct current through the DIP switch on the PCB board when the power is off.
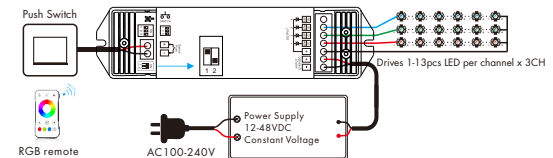
DIP Switch								
C4 (150-500mA) Output Current	150mA	200mA	250mA	300mA	350mA	400mA	450mA	500mA
Output Voltage	3-45V	3-45V	3-45V	3-45V	3-45V	3-45V	3-45V	3-45V
Output Power/CH	0.45-6.75W	0.6-9W	0.75-11.25W	0.9-13.5W	1.05-15.75W	1.2-18W	1.35-20.25W	1.5-22.5W

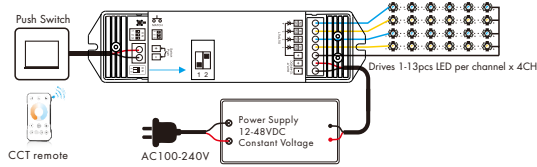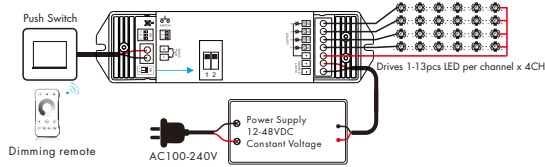| DIP Switch								
C4 (350-1200mA) Output Current	350mA	500mA	600mA	700mA	800mA	900mA	1050mA	1200mA
Output Voltage	3-45V	3-45V	3-45V	3-45V	3-45V	3-45V	3-45V	3-45V
Output Power/CH	1.05-15.75W	1.5-22.5W	1.8-27W	2.1-31.5W	2.4-36W	2.7-40.5W	3.15-47.25W	3.6-54W

Wiring Diagram

● C4 for RGBW

● C4 for RGB

● C4 for dual color

Push Switch

Drives 1-13pcs LED per channel x 4CH

CCT remote   AC100-240V

Power Supply
12-48VDC
Constant Voltage

● C4 for single color

Push Switch

Drives 1-13pcs LED per channel x 4CH

Dimming remote   AC100-240V

Power Supply
12-48VDC
Constant Voltage

Note:
1. The LED quantity at each channel can be different, the controller could auto check and output a proper voltage to each channel
   according to its LED quantities.
2. The controller works on buck mode, the voltage of power supply should be greater than the total voltage of the seried LEDs.

Push Dim

Single color	Click	ON/OFF
	Double Click	Turn on at 100% or 10%(night light) and vice-versa
	Long press(>1s) from OFF	Dimming UP/DOWN
	Long press(>1s) from ON	Dimming UP/DOWN
Dual Color	Click	ON/OFF
	Double Click	Turn on at 100% or 10%(night light) and vice-versa
	Long press(>1s) from OFF	Color temperature UP/DOWN (turn off and turn on to return dimming)
	Long press(>1s) from ON	Dimming UP/DOWN
RGB	Click	ON/OFF
	Double Click	Change from color mode to white mode (RGB mixed) and vice-versa
	Long press(>1s) from OFF	If on color mode change rotation speed; If on white mode dimming UP/DOWN
	Long press(>1s) from ON	If on color mode start/stop color rotation; If on white mode dimming UP/DOWN
RGBW	Click	ON/OFF
	Double Click	Change between color mode, white mode (W channel) and color+W mode
	Long press(>1s) from OFF	If on color mode change rotation speed; If on white mode or color+W mode, W dimming UP/DOWN
	Long press(>1s) from ON	If on color mode start/stop color rotation; If on white mode or color+W mode, W 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.

Match Remote Control (two match ways)

End user can choose the suitable match/delete ways. Two options are offered for selection:

Use the controller's Match key

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.

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.

Use Power Restart

Match:
Switch off the power, then switch on power, repeat 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:
Switch off the power, then switch on power, repeat 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.

RGB/RGBW dynamic mode list

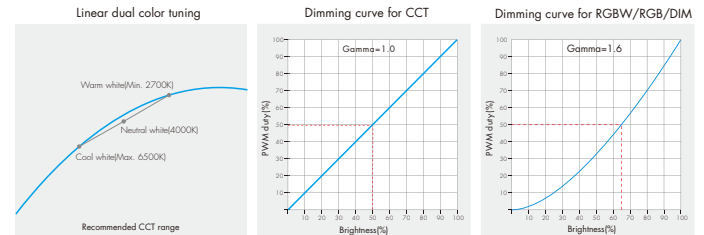| No.	Name	No.	Name
1	RGB jump	6	RGB fade in and out
2	RGB smooth	7	Red fade in and out
3	6 color jump	8	Green fade in and out
4	6 color smooth	9	Blue fade in and out
5	Yellow cyan purple smooth	10	White fade in and out

Dual color control

CH1,CH3=Warm white LED
CH2,CH4=Cool white LED
Each channel can supply up to 10W(@350mA, 30V) and white balance can be controlled as such:

Color temperature	Cool white	Neutral white	Warm white
Power distribution	CH1=0W,CH2=10W CH3=0W,CH4=10W	CH1=5W,CH2=5W CH3=5W,CH4=5W	CH1=10W,CH2=0W CH3=10W,CH4=0W

Linear dual color tuning

Warm white(Min. 2700K)

Neutral white(4000K)

Cool white(Max. 6500K)

Recommended CCT range

Dimming curve for CCT

Gamma=1.0

PWM duty(%)

Brightness(%)

Dimming curve for RGBW/RGB/DIM

Gamma=1.6

PWM duty(%)

Brightness(%)

Fade in and Fade out Setting

Long press match key 5s, then short press match key 3 times,
The lighting effect will be set to the fade in and fade out in 3s, the indicator light of LED controller blinks 3 times.
Long press match key 10s, restore factory default parameter, the light on/off time restores to 0.5s.