

OPTONICA

RGBW/RGB/Dimming 4 Channel LED RF Controller

SKU: 6343

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



FC CE RoHS LVD RED

Features

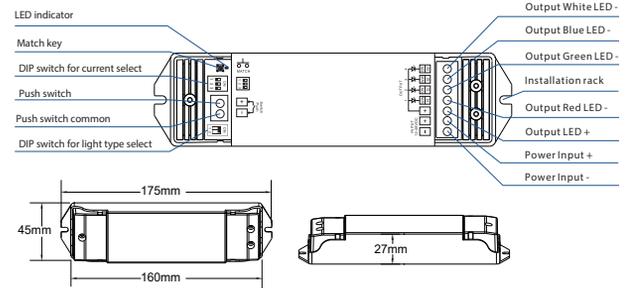
- Set as single color, dual color, RGB or RGBW controller by DIP switch.
- DC to DC constant current output, multiple output current settings.
- Match with RF 2.4G single zone or multiple zone single color, dual color and RGB/RGBW remote control.
- One RF controller accept up to 10 remote control.
- 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		Dimming data	
Input voltage	12-48VDC	Input signal	RF 2.4GHz + Push Dim
Output voltage	4 x (3-45)VDC	Control distance	30m(Barrier-free space)
Output current	4CH,150-500mA or 350-1200mA/CH	Dimminggray scale	4096 (2^12) levels
Output power	4 x (0.45-22.5)W (150-500mA) 4 x (1.05-54)W (350-1200mA)	Dimmingrange	0-100 %
Output type	Constant current	Dimming curve	Logarithmic
Environment		Safety and EMC	
Operation temperature	Ta:-30 °C~+55 °C	EMC standard (EMC)	ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.2.4
Case temperature(Max.)	Tc: +85 °C	Safety standard(LVD)	EN 62368-1:2020+A11:2020
IP rating	IP20	Radio Equipment(RED)	ETSI EN 300 328 V2.2.2
		Certification	CE,EMC,LVD,RED
Warranty and Protection		Weight	
Warranty	5 years	Net weight	0.120 kg
Protection	Reverse Polarity Short circuit	Gross weight	0.140 kg

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Mechanical Structures and Installations

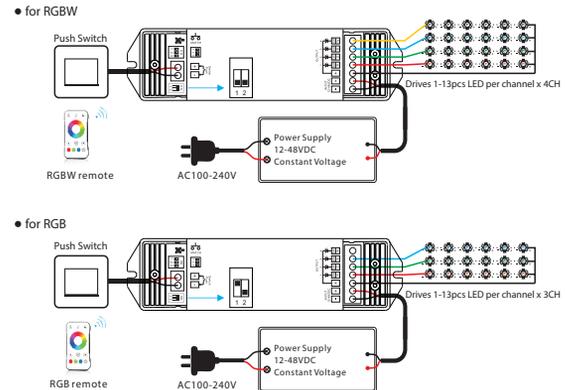


LED Current Selection

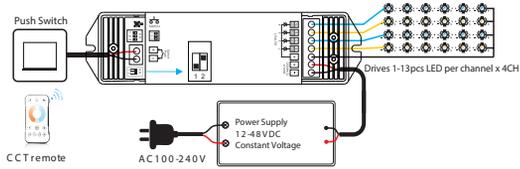
Note: Please select the correct current through the DIP switch on the PCB board when the power is off.

DIP Switch	0000	0001	0010	0011	0100	0101	0110	0111	1000	ON/OFF
(150-500mA)	Output Current	150mA	200mA	250mA	300mA	350mA	400mA	450mA	500mA	ON/OFF
	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	0000	0001	0010	0011	0100	0101	0110	0111	1000	ON/OFF
(350-1200mA)	Output Current	350mA	500mA	600mA	700mA	800mA	900mA	1050mA	1200mA	ON/OFF
	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	

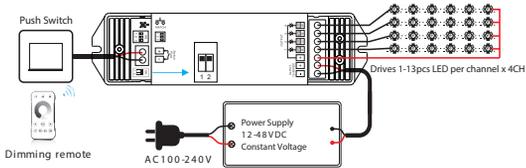
Wiring Diagram



• for dual color



• for single color



Note:

- 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.
- The controller works on buck mode, the voltage of power supply should be greater than the total voltage of the series LEDs.

Push Dim

Single color	Click	ON/OFF
	Double Click	Turn on at 100 % or 10 % (nightlight) and vice-versa
	Long press(>1s) from OFF	Dimming UP/DOWN
Dual Color	Click	ON/OFF
	Double Click	Turn on at 100 % or 10 % (nightlight) and vice-versa
	Long press(>1s) from OFF	Color temperature UP/DOWN (turn of f and turn on to return dimming)
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
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
RGBW	Click	ON/OFF
	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 shot 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 shot 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

N o.	Name	N o.	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

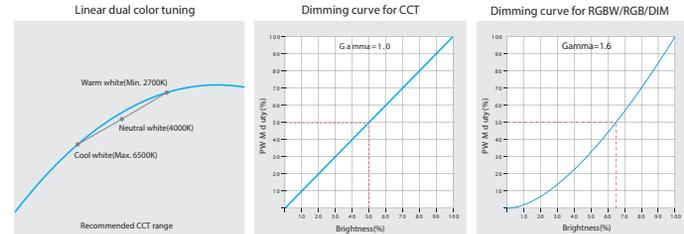
Dual color control

C H 1, C H 3 = Warm white LED

C H 2, C H 4 = 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



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.

IMPORTER: Prima Group 2004 LTD, Bulgaria, 1784 Sofia, Mladost 1, bl. 144, Ground Floor; Phone: +359 2 988 45 72;