# RF DIM/CCT/RGB/RGBW/RGB+CCT

# 5 Channel LED RF Controller

- 5 in 1 function, used for control RGB, RGBW, RGB+CCT, color temperature or single color LED strip.
- Match with RF 2.4G single zone or multiple zone remote control.
- One RF controller accept up to 10 remote control.
- 4096 levels 0-100% dimming smoothly without any flash.
- 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.
- PWM frequency 500Hz, 2000Hz, 8000Hz or 16000Hz selectable.
- Light on/off fade time 3s selectable.
- Connect with external push switch to achieve on/off and 0-100% dimming function.

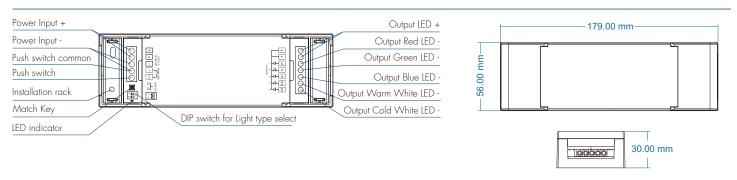




## **Technical Parameters**

Input and Output		Dimming data	Dimming data		Safety and EMC	
Input voltage	12-48VDC	Input signal	RF 2.4GHz + Push Dim	5110	ETSI EN 301 489-1 V2.2.3	
Input current	30.5A	Control distance	30m(Barrier-free space)	- EMC standard (EMC)	ETSI EN 301 489-17 V3.2.4	
Output voltage	5 x (12-48)VDC	Dimming gray scale	4096 (2^12) levels	0.1	EN 61348-1:2015+A1:2021	
Output current	6A/CH@12-24V 4A/CH@36-48V	Dimming range	0 - 100%	– Safety standard	EN 61348-2-13:2014+A1:2017	
		Dimming curve	Logarithmic	Radio Equipment(RED)	ETSI EN 300 328 V2.2.2	
Output type	Constant voltage	PVVM Frequency	2000Hz (default)	Certification	CE,EMC,RED	
Warranty		Environment	Environment		Package	
Warranty	5 years	Operation temperature	Ta: -30 °C ~ +55 °C	Size	L185 x W58 x H36mm	
Protection	Reverse polarity Short circuit Over heat	Case temperature (Max.)	Tc: +85°C	Gross weight	0.186kg	
		IP rating	IP20			
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## Mechanical Structures and Installations



## 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.

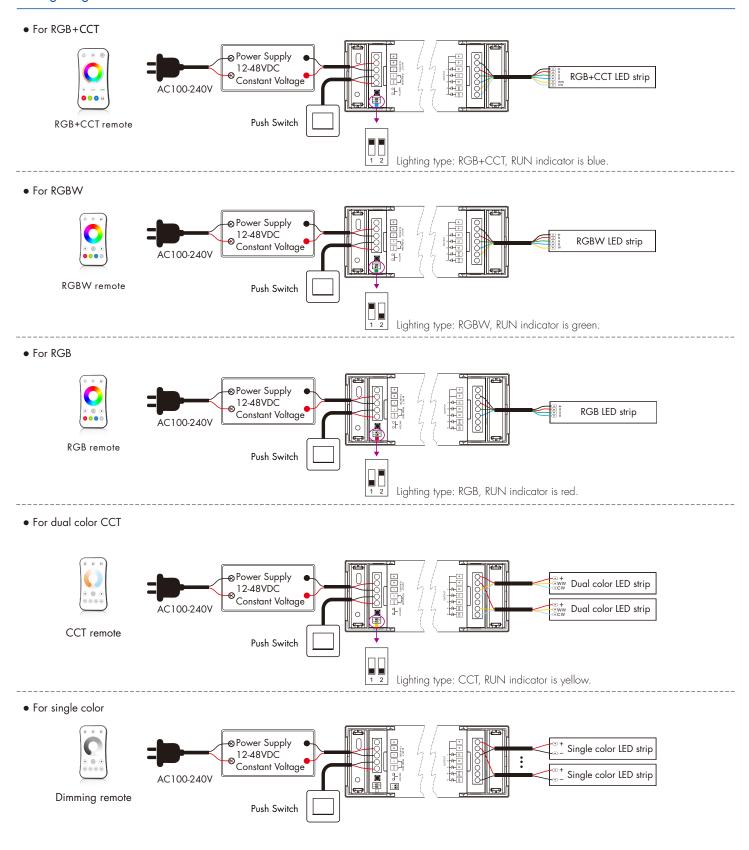
## Use Power Restart

#### 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.



Press and hold MATCH key for 10s, until the RUN LED indicator turn white, then release, the controller will become DIM type, the light on/off time also restore to 0.5s, the output PWM frequency also restore to 2000Hz.

Note: For RGB+CCT or CCT light type, continuous power on and off will change 3 levels color temperature (WW, NW and CW) in sequence.

# Light on/off fade time

Long press match key 5s, then short press match key 3 times, the light on/off time will be set to 3s, the indicator light blink 3 times. Long press match key 10s, restore factory default parameter, the light on/off time also restore to 0.5s.

User Manual Ver 1.1.1

# PWM frequency setting









When power is off, select the DIP switch firstly, then press hold the MATCH key, and power up the controller in the same time, the RUN LED indicator will flash white color two times means PWM frequency setting is successful.

We can select four PWM frequency: 500Hz, 2000Hz, 8000Hz or 16000Hz.

Higher PWM frequency, will cause lower output current, higher power noise, but more suitable for camera(No flickers for video).

#### Push Dim

	Click	ON/OFF			
Single color	Double Click	Turn on at 100% or 10%(night light) and vice-versa			
		0 0			
	Long press(>1s) from OFF	Dimming UP/DOWN			
	Long press(>1s) from ON	Dimming UP/DOWN			
	Click	ON/OFF			
Dual Color	Double Click	Turn on at 100% or 10%(night light) and vice-versa			
200.00.0	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			
	Click	ON/OFF			
	Double Click	Change from color mode to white mode (RGB mixed) and vice-versa			
RGB	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			
	Click	ON/OFF			
	Double Click	Change between color mode, white mode (W channel) and color+W mode			
RGBW	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			
	Click	ON/OFF			
	Double Click	Change from color mode to tunable white mode and vice-versa			
RGB+CCT	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
- $2 \; \text{flash/s means} \; 1 \; \text{minute color rotation}$
- 1 flash/s means 6 minutes color rotation

# Dynamic mode list

## For RGB/RGBW:

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	

#### For RGB+CCT:

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 smoot	10	White fade in and out