LDT-RF-4CV-3A-BOX

Wall-Box Four-Channel RF LED Controller

A 4-channel constant-voltage LED controller for DIM / DUO / RGB / RGBW lighting. Configure the lighting type, connect the corresponding LED load and pair a compatible RF control interface in the same mode.

Model specifications

Product function	Constant-voltage PWM LED controller
Lighting modes	DIM / DUO / RGB / RGBW
Input / output voltage	12-24 VDC
LED output channels	4
Maximum output current	3 A/channel
Control inputs	RF 2.4 GHz + momentary Push-Dim
Dimming	0-100%; 4096 levels
PWM frequency	Not specified in the current parameter table
RF distance	Up to 30 m in unobstructed space
Paired remotes	Up to 10
Operating temperature	-30 to +55 °C
Maximum case temperature	+85 °C
IP rating	IP20
Body dimensions	52 x 52 x 26 mm
Protection	Reverse polarity

Set the lighting type with the DIP switches. Verify wall-box clearance and heat dissipation before installation.

The following technical-reference pages retain the complete diagrams, dimensions, settings and installation instructions. Select the lighting variant stated on this cover; family diagrams may also illustrate other variants.

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

Model No.: LDT-RF-4CV-3A-BOX

4 Channels/Push Dim/Wireless remote control/Auto-transmitting/Synchronize/Wall junction box mounting

Features



- RF + Push LED controller, 4 channel constant voltage output.
- Set as single color, dual color, RGB or RGBW controller by DIP switch.
- Match with Lediot's 2.4G single color, dual color and RGB/RGBvv 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.
- Connect with external push switch to achieve on/off and 0-100% dimming function.
- Easy to be placed in standard wall junction box behind a push switch.

FC CE RoHS emc LVD RED

Technical Parameters

Input and Output	
Input voltage	12-24VDC
Input current	12.5A
Output voltage	4 x (12-24)VDC
Output current	4CH,3A/CH
Output power	4 x (36-72)W
Output type	Constant voltage

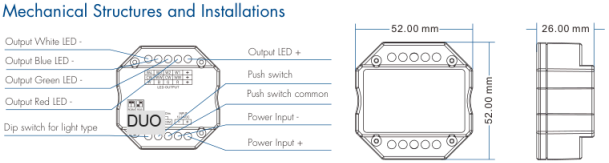
Dimming data	
Input signal	RF 2.4GHz + Push Dim
Control distance	30m(Barrier-free space)
Dimming gray scale	4096 (2^12) levels
Dimming range	0-100%
Dimming curve	Logarithmic

Safety and EMC	
EMC standard (EMC)	EN301 489,EN 62479
Safety standard(LVD)	EN60950
Radio Equipment(RED)	EN300 328
Certification	CE,EMC,LVD,RED

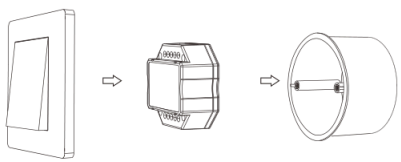
Environment	
Operation temperature	Ta: -30°C ~ +55°C
Case temperature (Max.)	Tc: +85°C
IP rating	IP20

Warranty and Protection	
Warranty	5 years
Protection	Reverse Polarity

Mechanical Structures and Installations

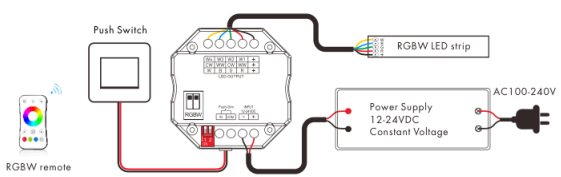


Typical Wall Junction Box Mounting

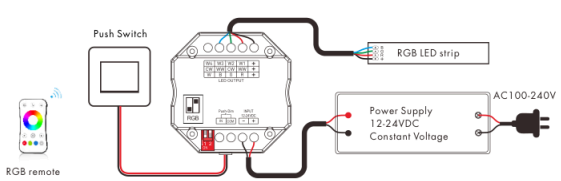


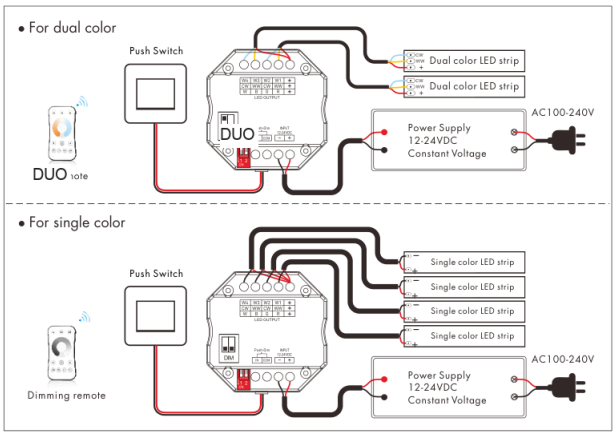
Wiring Diagram

- For RGBW



- For RGB





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 DIP switch

Match:
Change DIP switch setting,
immediately short press on/off key (single zone remote)
or zone key (multiple zone remote) of the remote.

Use Power Restart

Match:
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:
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.

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

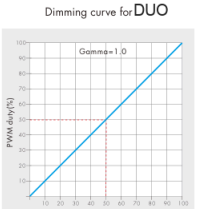
CH1,CH3=Warm white LED
CH2,CH4=Cool white LED
Each channel can supply up to 16W(@24V) and white balance can be controlled as such:

Color temperature	Cool white	Neutral white	Warm white
Power distribution	CH1=0W,CH2=72W CH3=0W,CH4=72W	CH1=36W,CH2=36W CH3=36W,CH4=36W	CH1=72W,CH2=0W CH3=72W,CH4=0W

Linear dual color tuning



Dimming curve for DUO



Dimming curve for RGBW/RGB/DIM

