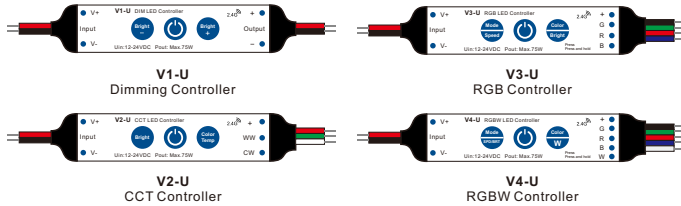# DIM/CCT/RGB/RGBW 1-4 Channel Mini LED Controller

Model No.: V1-U, V2-U, V3-U, V4-U

1-4 color/3-key/Max 75W/Step-less dimming/Wireless remote control

V1-U
Dimming Controller

V3-U
RGB Controller

V2-U
CCT Controller

V4-U
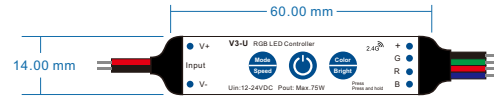RGBW Controller

FC ℃ CE RoHS emc LVD RED

Features

● 1-4 channel constant voltage mini LED controller with 3 key.
● Match with Skydance's 2.4G single color, dual color and RGB/RGBW remote control.
● One RF controller accept up to 10 remote control.
● 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.

Technical Parameters

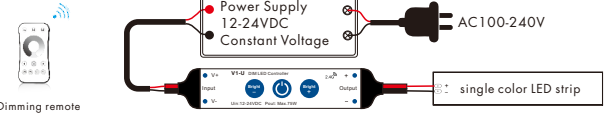### Input and Output

Input voltage	12-24VDC
Output voltage	12-24VDC
Output power	Max. 75W
Output type	Constant voltage

Environment

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

Warranty and Protection

Warranty	5 years
Protection	Reverse Polarity

Dimming data

Input signal	RF 2.4GHz + 3 key
Control distance	30m
Dimming level	4096 levels
Dimming range	0 -100%
Dimming curve	Logarithmic
PWM Frequency	500Hz

Safety and EMC

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

Dimension

60.00 mm
14.00 mm

Wiring Diagram

● V1-U for single color

Dimming remote — Power Supply 12-24VDC Constant Voltage — AC100-240V — single color LED strip

● V2-U for dual color

CCT remote — Power Supply 12-24VDC Constant Voltage — AC100-240V — Dual color LED strip

● V3-U for RGB

RGB remote — Power Supply 12-24VDC Constant Voltage — AC100-240V — RGB LED strip

● V4-U for RGBW

RGBW remote — Power Supply 12-24VDC Constant Voltage — AC100-240V — RGBW LED strip
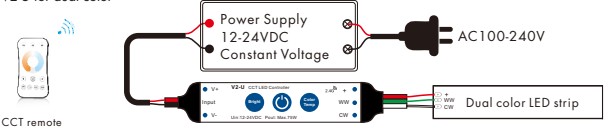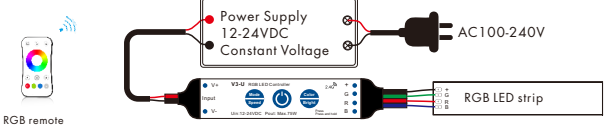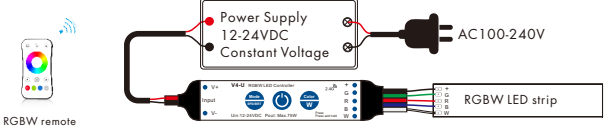
Match Remote Control (two match ways)

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

Use the controller's Power key

Match:

Long press power key 2s, immediately press on/off key (single zone remote) or zone key (multiple zone remote) of the remote.

Delete:

Press and hold power key for 10s to delete all match, The light blinks 5 times means all matched remotes were deleted.

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.

Application notes

1. All the receivers in the same zone.

30m   30m   30m   …

RF remote

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, under same dynamic mode and with same speed (V4-U without auto-syncchronization function).
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 than 15m.

2. Each receiver(one or more) in a different zone, like zone 1, 2, 3 or 4.

Zone 1   Zone 2   30m 30m   Zone 3   Zone 4

RF remote

RGB/RGBW Dynamic mode list

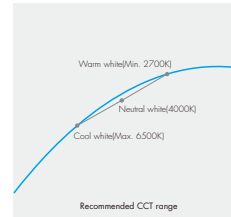| No.	Name	No.	Name
1	RGB jump	6	RGB fade in and out
2	RGB smooth	7	Red fade in and out
3	6 color jump	8	Green fade in and out
4	6 color smooth	9	Blue fade in and out
5	Yellow cyan purple smooth	10	White fade in and out

Dual color control

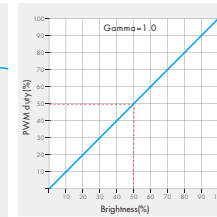CH1=Warm white LED
CH2=Cool white LED
Each channel can supply up to 75W(@24V) and white balance can be controlled as such:

Color temperature	Cool white	Neutral white	Warm white
Power distribution	CH1=0W,CH2=75W	CH1=37W,CH2=37W	CH1=75W,CH2=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 RGB/RGBW/DIM

Gamma=1.6

PWM duty(%)

Brightness(%)
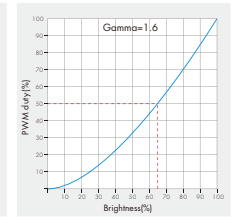
Malfunctions analysis & troubleshooting

Malfunctions	Causes	Troubleshooting
No light	1. No power. 2. Wrong connection or insecure.	1. Check the power. 2. Check the connection.
Wrong color	1. Wrong connection of R/G/B/W wires.	1. Reconnect R/G/B/W wires.
No response from the remote	1. The battery has no power. 2. Beyond controllable distance. 3. The controller did not match the remote.	1. Replace battery. 2. Reduce remote distance. 3. Re-match the remote.