LDT-PNL-DMXRF-4Z-RGBW-WH

Four-Zone DMX512 & RF RGBW Wheel Panel

A mains-powered touch wheel panel that sends DMX512 or compatible RF control signals for four rgbw lighting zones. Use it with suitable decoders or receivers; it does not directly power an LED strip.

Model specifications

Product function	Four-zone DMX512 master and RF remote
Lighting type	RGBW
Power supply	100-240 VAC
Maximum input current	0.1 A
Output signals	DMX512 + compatible RF 2.4 GHz
DMX output channels	16
Independent zones	4
RF distance	Up to 10 m in unobstructed space
Dimming	0-100%; 256 levels
Operating temperature	-30 to +55 °C
Maximum case temperature	+65 °C
IP rating	IP20
Panel dimensions	86 x 86 x 33 mm
User interface	Touch wheel and zone buttons

This is a 100-240 VAC control panel, not a low-voltage PWM load controller. Keep mains and control-signal wiring correctly separated.

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.

DMX512

Wall Mounted Touch Panel



DIM DUO RGB RGBW

CE RoHS emc LVD

- Touch panel 4 zone 1-4 color DMX512 master, can also be used as 4 zone 1-4 color RF remote.
- DMX signal output, comply to standard DMX512 protocol, compatible with DMX decoder from any supplier.
- When used as RF remote, each zone can remote control multiple RF 2.4G LED controllers.
- Ultra sensitive high strength glass touch panel with touch color wheel in the middle.
- Smooth and accurate color adjustment by touching the color wheel.
- Touch keys with LED indicator.
- White & Black glass panel available.

Technical parameters

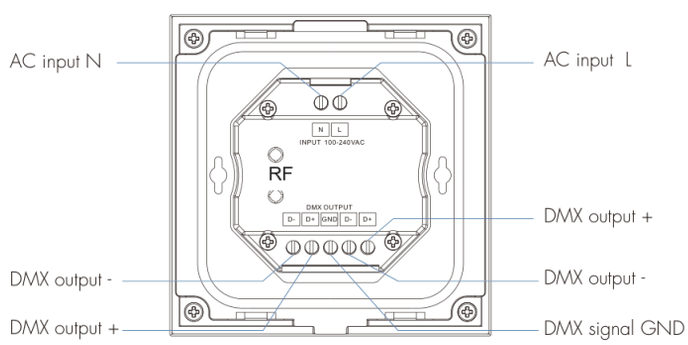
Model No.	DIM	DUO	RGB	RGBW
Light type	Single color	Dual color	RGB	RGBW
Output dmx channel number	4	8	12	16

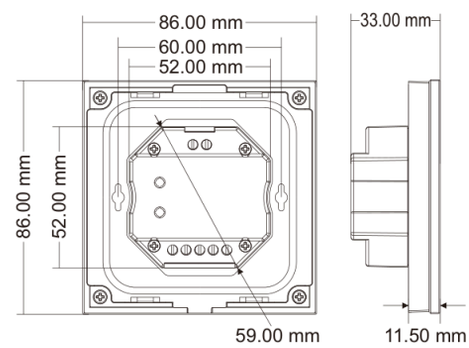
Input and Output	
Input voltage	100-240VAC
Input current	Max 0.1A
Output signal	DMX512, RF 2.4GHz
Dimming data	
Input signal	Touch key, RF 2.4GHz
RF Control distance	10m(Barrier-free space)
Dimming level	256 levels
Dimming range	0-100%
Warranty	
Warranty	5 years

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

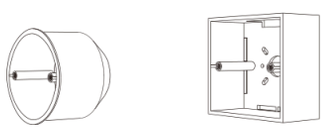
Environment	
Operation temperature	Ta: -30°C ~ +55°C
Case temperature (Max.)	Tc: +65°C
IP rating	IP20
Package	
Size	L112 x W112 x H50mm
Gross weight	0.234kg

Mechanical structures and installations



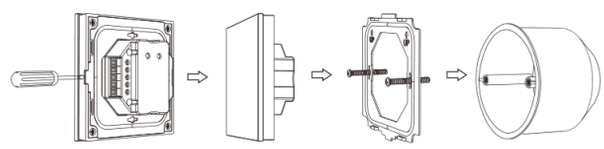


Typical base as below:



European style 86 size

Installation diagram:



Uninstall Touch panel Baseplate Base

Key function

DIM panel



ALL —— Turn on/off all zone light.

Brightness+, 10 levels.

Brightness-, 10 levels.

Brightness wheel.

SCENE 1 SCENE 2 SCENE 3 SCENE 4 —— 4 scenes, short press recall the scene, long press 5s save current brightness into scene 1/2/3/4.

1 ZONE 2 ZONE 3 ZONE 4 ZONE

Short press turn on zone light and select zone simultaneously, long press 2s turn off zone light.
Short press multiple zone key fastly, will select multiple zone synchronously.
4 zone control seperately or synchronously, each zone could control multiple receivers.

DUO panel



ALL —— Turn on/off all zone light.

Brightness+, 10 levels.

Brightness-, 10 levels.

Color temperature wheel.

SCENE 1 SCENE 2 SCENE 3 SCENE 4 —— 4 scenes, short press recall the scene, long press 5s save current brightness into scene 1/2/3/4.

1 ZONE 2 ZONE 3 ZONE 4 ZONE

Short press turn on zone light and select zone simultaneously, long press 2s turn off zone light.
Short press multiple zone key fastly, will select multiple zone synchronously.
4 zone control seperately or synchronously, each zone could control multiple receivers.

RGB panel



ALL —— Turn on/off all zone light.

Color wheel.

MODE —— Short press play 10 built-in dynamic mode, long press 2s run mode-cycle.

BRT/SPEED —— Adjust dynamic mode speed or static color brightness, 10 levels.

SCENE 1 SCENE 2 SCENE 3 SCENE 4 —— 4 scenes, short press recall the scene, long press 5s save current brightness into scene 1/2/3/4.

1 ZONE 2 ZONE 3 ZONE 4 ZONE

Short press turn on zone light and select zone simultaneously, long press 2s turn off zone light.
Short press multiple zone key fastly, will select multiple zone synchronously.
4 zone control seperately or synchronously, each zone could control multiple receivers.

RGBW panel



ALL —— Turn on/off all zone light.

Color wheel.

MODE —— Short press play 10 built-in dynamic mode, long press 2s run mode-cycle.

BRT/SPEED —— Adjust dynamic mode speed or static color brightness, 10 levels.

WHITE —— Short press get white color, long press adjust white brightness.

SCENE 1 SCENE 2 SCENE 3 —— 3 scenes, short press recall the scene, long press 5s save current brightness into scene 1/2/3.

1 ZONE 2 ZONE 3 ZONE 4 ZONE

Short press turn on zone light and select zone simultaneously, long press 2s turn off zone light.
Short press multiple zone key fastly, will select multiple zone synchronously.
4 zone control seperately or synchronously, each zone could control multiple receivers.

Turn on key tone: Long press power key for 5s when all zone light is off, will turn on or turn off key tone.

Scene locking:

- Scene keys can be set to locked state, cancel long press for 5 seconds to save the scene function (default scene is not locked).
- Short press the panel on/off key, turn on the light first, then turn off the light, immediately long press the panel on/off key for 5 seconds, then immediately long press any one scene key for 5 seconds to set all scene keys to locked state.
- Short press the panel on/off key, turn on the light first, then turn off the light, immediately long press the panel on/off key for 5 seconds, then immediately long press any one scene key for 10 seconds to restore all scene keys to unlocked state.

Touch panel work as DMX512 master match RF remote

Touch panel 4 zone DMX512 master can also match with 4 zone RF remote (Optional).
End user can choose the suitable match/delete ways. Two options are offered for selection:

Use On/Off key

Match:
Turn on light, turn off, immediately press the On/Off key of the panel for 5s, then press any zone key of the RF remote within 5s.
The LED indicator fast flash 3 times means match is successful.

Delete:
Turn on light, turn off, immediately press the On/Off key of the panel for 10s to delete all match,
The LED indicator fast flash 6 times means all matched remotes were deleted.

Use Power Restart

Match:
Switch off the power of the panel, then switch on power, repeat again.
Immediately short press any zone key 3 times on the remote.
The LED indicator fast flash 3 timesmeans match is successful.

Delete:
Switch off the power of the panel, then switch on power, repeat again.
Immediately short press any zone key 5 times on the remote.
The LED indicator fast flash 6 times means all matched remotes were deleted.

Touch panel work as RF remote

Touch panel 4 zone remote can match with RF controller for the corresponding light type.
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 zone key of the touch panel.
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 of the receiver, then switch on power, repeat again.
Immediately short press zone key 3 times on the touch panel.
The light blinks 3 times means match is successful.

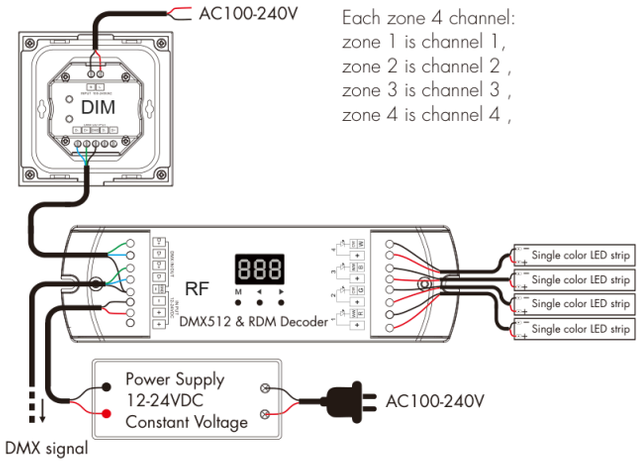
Delete:
Switch off the power of the receiver, then switch on power, repeat again.
Immediately short press zone key 5 times on the touch panel.
The light blinks 5 times means all matched remotes were deleted.

The address assignment of touch panel work as DMX512 master

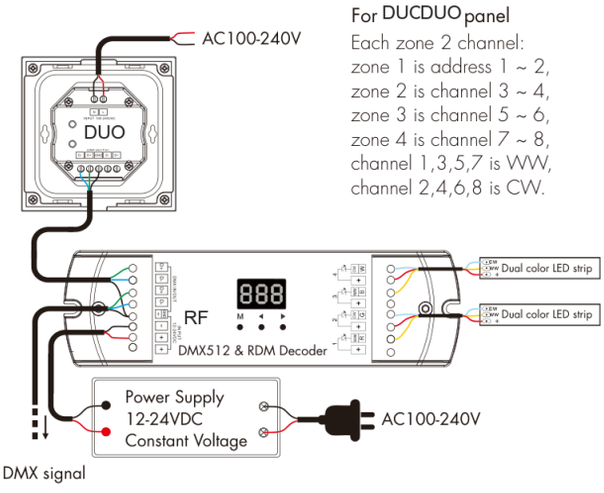
After connect with DMX decoders, please set the DMX decoders address as below:

Model No.	DIM	DUO		RGB			RGBW			
		WW	CW	R	G	B	R	G	B	W
Zone 1 DMX decoder's address	1	1	2	1	2	3	1	2	3	4
Zone 2 DMX decoder's address	2	3	4	4	5	6	5	6	7	8
Zone 3 DMX decoder's address	3	5	6	7	8	9	9	10	11	12
Zone 4 DMX decoder's address	4	7	8	10	11	12	13	14	15	16

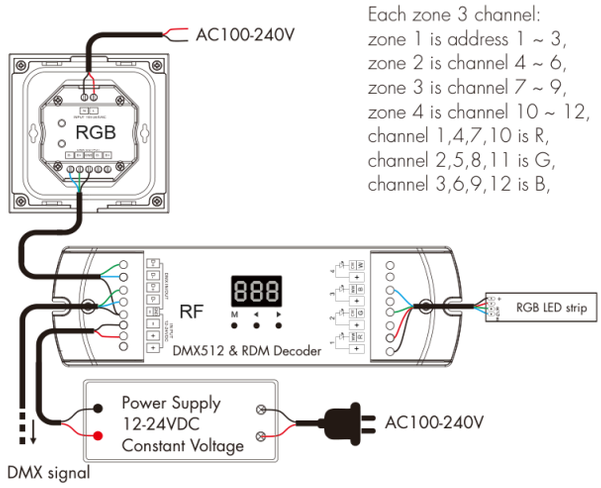
Wiring diagram for touch panel work as DMX512 master



For DIM DIM Panel
Each zone 4 channel:
zone 1 is channel 1,
zone 2 is channel 2 ,
zone 3 is channel 3 ,
zone 4 is channel 4 ,

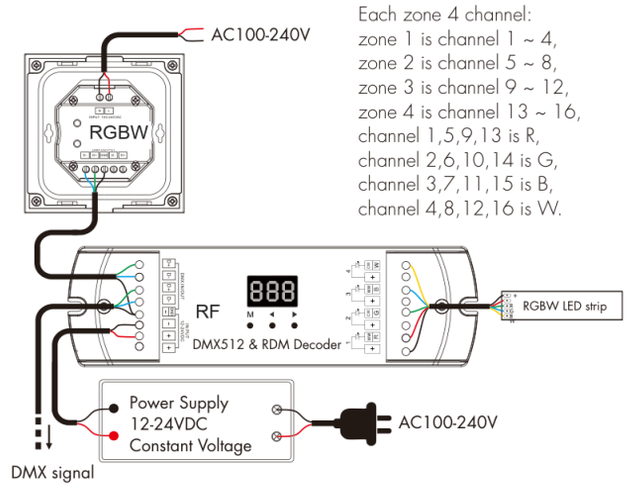


For DUCDUO panel
Each zone 2 channel:
zone 1 is address 1 ~ 2,
zone 2 is channel 3 ~ 4,
zone 3 is channel 5 ~ 6,
zone 4 is channel 7 ~ 8,
channel 1,3,5,7 is WW,
channel 2,4,6,8 is CW.



RGB panel

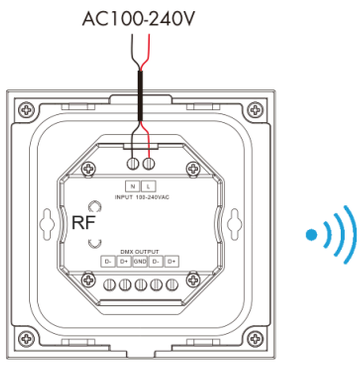
Each zone 3 channel:
zone 1 is address 1 ~ 3,
zone 2 is channel 4 ~ 6,
zone 3 is channel 7 ~ 9,
zone 4 is channel 10 ~ 12,
channel 1,4,7,10 is R,
channel 2,5,8,11 is G,
channel 3,6,9,12 is B,



RGBW panel

Each zone 4 channel:
zone 1 is channel 1 ~ 4,
zone 2 is channel 5 ~ 8,
zone 3 is channel 9 ~ 12,
zone 4 is channel 13 ~ 16,
channel 1,5,9,13 is R,
channel 2,6,10,14 is G,
channel 3,7,11,15 is B,
channel 4,8,12,16 is W.

Wiring diagram for touch panel work as RF remote



RGB/RGBW dynamic mode list (only 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

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.DMX decoder first address error. 2.Wrong connection of output wires.	1.Check the DMX first address. 2.Reconnect output wires.