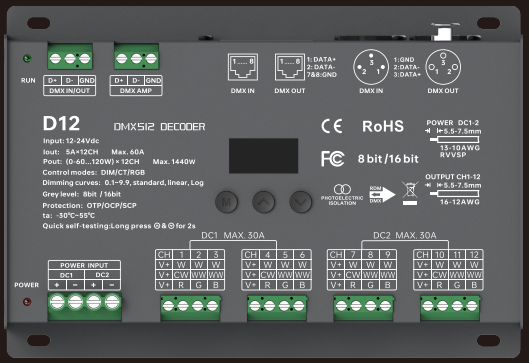
12
CHANNELS

- OLED display
- 8 bit / 16 bit
- 3 kinds of DMX interfaces
- Dimming curve: 0.1~9.9
- Short circuit / Over current / Overheat protection

D12

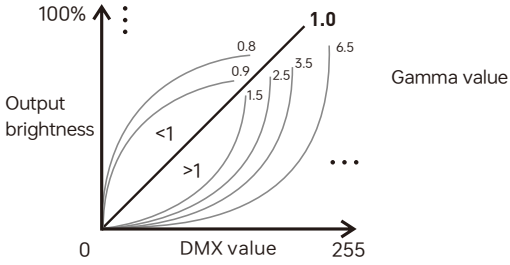
DMX512 DECODER



RDM DMX · FC · CE · RoHS · Photoelectric isolation · 5-Year Warranty

Product introduction

1. Designed for Hi-power multiple channels application, 12 channels output, and Max. 5A current per channel, up to 1440W output power.
2. Easy operation with OLED screen and touch buttons.
3. 3 kinds of optional modes available: DIM, CT, RGB.
4. 3-pin XLR, RJ45 and green terminal DMX interface with photoelectric isolation, improve signal transmission efficiency and anti-interference ability, the green terminal also has signal amplifier function.
5. With RDM remote management protocol, the operations can be completed via the RDM master console, such as parameters browsing & settings, DMX address settings, equipment recognition, etc.
6. With firmware upgrade function.
7. With short circuit, over current and overheat protection, as well as warning function when a fault occurs.
8. With power-on state management and fast self-testing function.
9. 16bit (65536 levels) / 8bit (256 levels) grey level available.
10. Available for standard, linear, LOG or customize 0.1-9.9 dimming curve.




3-pin XLR


RJ45

RDM


Photoelectric isolation


Short circuit protection


Overheat protection


Over current protection

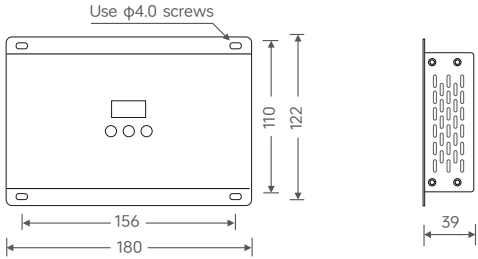
Display

Technical specs

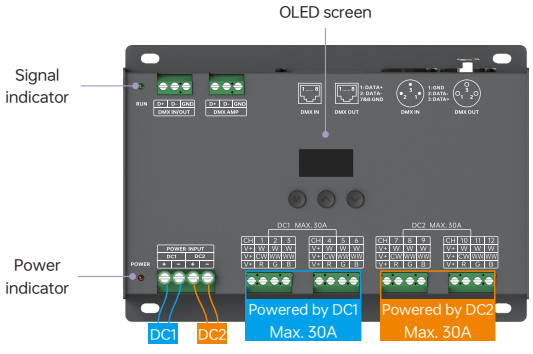
Model :	D12
Input signal :	DMX512/RDM
Input voltage :	12-24Vdc
Current load :	5A × 12CH Max. 60A
Output power :	(0~60W...12W) × 12CH Max. 1440W
DMX interfaces :	3-pin XLR, RJ45, green terminal
Control modes :	DIM/CT/RGB
Dimming curves :	0.1~9.9, standard, linear, LOG
Grey level :	8bit (256 levels) / 16bit (65536 levels)
Photoelectric isolation :	Yes
Protection:	Short circuit / Overheat / Over current protection, recover automatically.
Working temperature :	-30°C~55°C
Dimensions :	180×122×39mm(L×W×H)
Package size :	193×127×41mm(L×W×H)
Weight (G.W.) :	730g

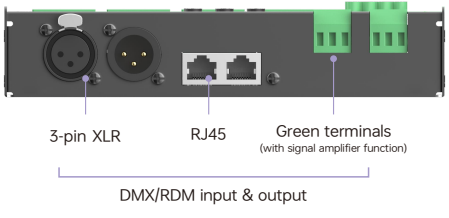
RDM DMX FC CE RoHS 5-Year Warranty

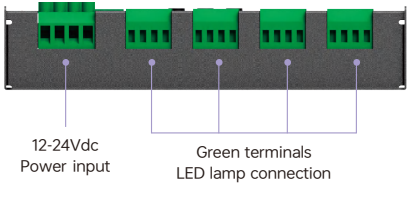
Product size Unit: mm



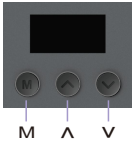
Main component description





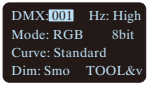


OLED screen interface



Press “M” key, switch entries.
Long press “M” key, back to main page.
Press “∧” or “∨” key, parameter adjustment.
Exit: back to previous page.

1. DMX address settings



Main page

Press “∧” or “∨” key to set DMX address.
Range: 001~512

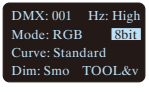
2. PWM frequency

Press “∧” or “∨” key to choose.
Option :
Std (standard)
High
Mid (middle)
Low
No flicker in video camera.
Smooth and exquisite, human eye is comfortable.
✻ It is recommended to use standard.

3. Modes

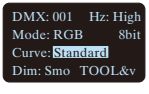
Press “∧” or “∨” key to choose.
Option : DIM
CT/CT2
RGB

4. Grey scale



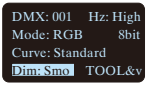
Press “∧” or “∨” key to choose.
Option : 8bit
16bit (choose it if the master controller supports this function)

5. Dimming curves



Press “∧” or “∨” key to choose.
Option : Standard
Linear
LOG
0.1~9.9
It is recommended to use standard, 0.1-9.9 is for special requirements.

6. Enhance dimming



Press “∧” or “∨” key to choose.

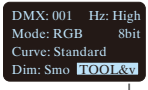
Option : Std (standard)

Smo (smooth)

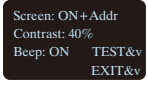
✻ It is recommended to use standard.

Smo: This option with smooth processing, realizes flicker-free dimming and smooth dynamic effects.

7. Tool



Press “∧” or “∨” key to enter submenu



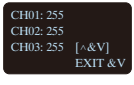
Press “∧” or “∨” key to enter submenu of test.

Screen: ON+Addr

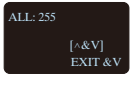
Screensaver open and display address if undo for 2 minutes.

Screen: ON+black

Screensaver open and black if undo for 2 minutes.



Brightness setting (range: 0~255) Press“∧” or “∨” to next page Press“∨” to exit



Change all value simultaneously (on the last page)

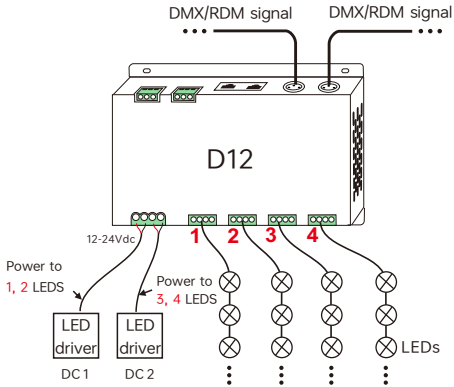
Screen: OFF

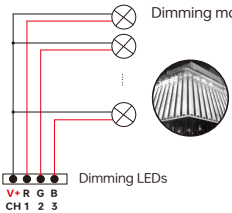
Screensaver not enable.

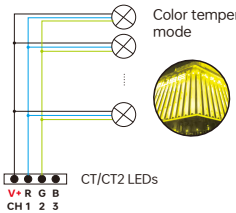
✻ Fast self-testing function: press “∧”or “∨” keys simultaneously for 2-3 seconds under any page, decoder will enter self-testing function.

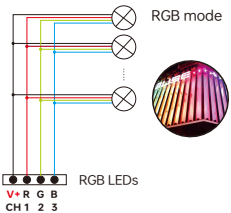
Wiring diagram

1. Connecting LED lights:



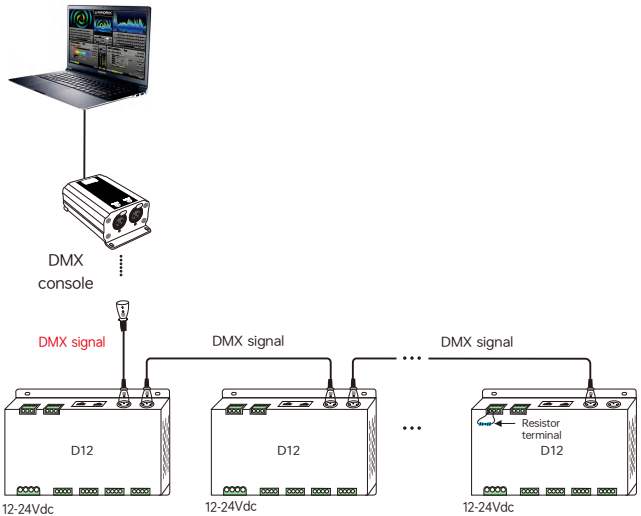






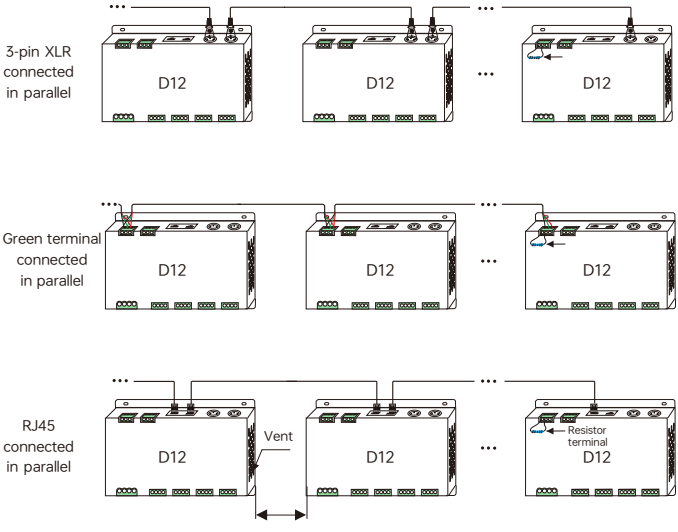
2. DMX console connection:

D12 is equipped with 3 kinds of DMX terminals for users' selection. The following diagram takes 3-pin XLR as an example, same connecting method for the rest two: RJ45 & green terminal (with amplifier function).



✻ If the recoil effect occurs because of longer signal line or bad line quality, please try to connect 0.25W 90-120Ω terminal resistor at the end of each line.

3. The connection diagram of 3 kinds of DMX/RDM terminals:

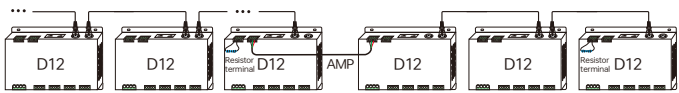


These 3 terminals can be connected in a mixed way.

Installation attention : please reserve enough ventilation distance between decoders (>20mm), be sure not to block the vent, or it will affect lifetime of decoder for poor heat dissipation.

4. The connection diagram of AMP signal amplifier terminal:

Connecting with green terminal or an extra amplifier will be needed when more than 32 decoders are connected or use overlong signal wire (as shown below). Signal amplifier should not be more than 5 times continuously.



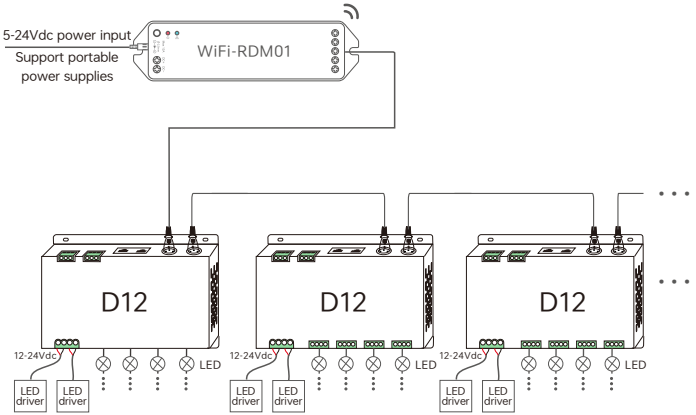
Address setting table

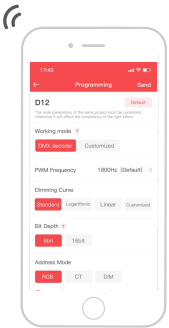
Mode		DIM	CT/CT2	RGB
Address Quantity		4	8	12
Resolution		8bit	8bit	8bit
Channel	1	001	001	001
	2	001	002	002
	3	001	002	003
	4	002	003	004
	5	002	004	005
	6	002	004	006
	7	003	005	007
	8	003	006	008
	9	003	006	009
	10	004	007	010
	11	004	008	011
	12	004	008	012

Mode		DIM	CT/CT2	RGB
Address Quantity		8	16	24
Resolution		16bit	16bit	16bit
Channel	1	001 002	001 002	001 002
	2	001 002	003 004	003 004
	3	001 002	003 004	005 006
	4	003 004	005 006	007 008
	5	003 004	007 008	009 010
	6	003 004	007 008	011 012
	7	005 006	009 010	013 014
	8	005 006	011 012	015 016
	9	005 006	011 012	017 018
	10	007 008	013 014	019 020
	11	007 008	015 016	021 022
	12	007 008	015 016	023 024

Work with RDM editor

D12 can work with LTECH RDM editor (Model: WiFi-RDM01) to realize changing the parameters by long-range setting, wiring diagram as below:

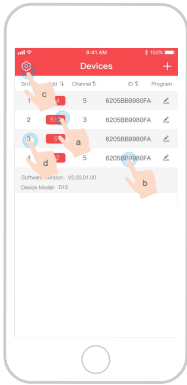


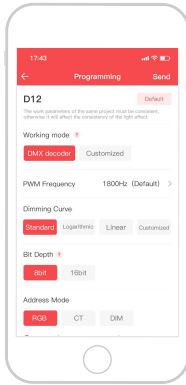


RDM editor App interface instruction

Download the App, setting the D12 parameters (frequency, bit, curve, modes, dimming range, screensaver, etc.) after well connecting the RDM editor, more details, please check the manual of WiFi-RDM01.

Well installation of products first, then working with WiFi-RDM01 to realize setting parameters and firmware upgrade by App.





a: Click"Add", edit the address in corresponding box.

b: Click"ID", get more product details.

c: Click" ", enter edited interface.

d: Click"No.", issue the recognizing command.

Supporting WiFi-RDM01 upgrade and DMX driver upgrade.

Attention

- Product installation and commissioning should be done by a qualified professional.
- Our company products are and not lightningproof non-waterproof(special models excepted). Please avoid the sun and rain. When installed outdoors, please ensure they are mounted in a waterproof enclosure or in an area equipped with lightning protection devices.
- Good heat dissipation will prolong the working life of products. Please ensure good ventilation.
- Please check if the working voltage used complies with the parameter requirements of products.
- The diameter of wire used must be able to load the light fixtures you connect and ensure the firm wiring.
- Before you power on products, please make sure all the wiring is correct in case of incorrect connection that causes damage to light fixtures.
- If a fault occurs, please do not attempt to fix products by yourself. If you have any question, please contact your suppliers.

Warranty Agreement

- Warranty periods from the date of delivery: 5 years.
- Free repair or replacement services for quality problems are provided within warranty periods.

Warranty exclusions below:
Following conditions are not within the guarantee range of free repairing or replacement services:

- Beyond warranty periods.
- Any artificial damage caused by high voltage, overload, or improper operations.
- Products with severe physical damage.
- Damage caused by natural disasters and force majeure.
- Warranty labels and barcodes have been damaged.
- No any contract signed by our company.

1. Repair or replacement provided is the only remedy for customers. Our company is not liable for any incidental or consequential damage unless it is within the law.
2. Our company has the right to amend or adjust the terms of this warranty, and release in written form shall prevail.

* This manual is subject to changes without further notice. Product functions depend on the goods. Please feel free to contact our official distributors if you have any question.