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DMX512 DECODER
LT-905-OLED

5 CHANNELS

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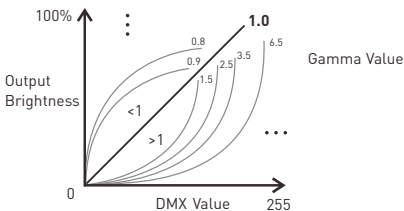Short circuit / Over current / Overheat protection

RDM
DMX

Photoelectric isolation

www.ltech-led.com

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Product introduction

1. Designed with 5 channels output, and Max. 5A per channel, up to 600W output.

2. Easy operation with OLED display and the touch buttons.

3. 5 modes available: DIM, CT, RGB, RGBW, RGBWY.

4. 5-pin XLR, RJ45 DMX interface with photoelectric isolation, improve signal transmission efficiency and anti-interference ability.

5. With RDM remote management protocol, the operations can be completed via the RDM editor, 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, liner, LOG or custom 0.1-9.9 dimming curve.

5-pin XLR   RJ45   RDM   Photoelectric isolation   Short circuit protection   Over current protection   Overheat protection   Display
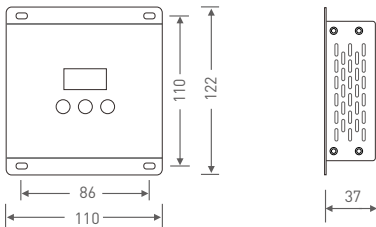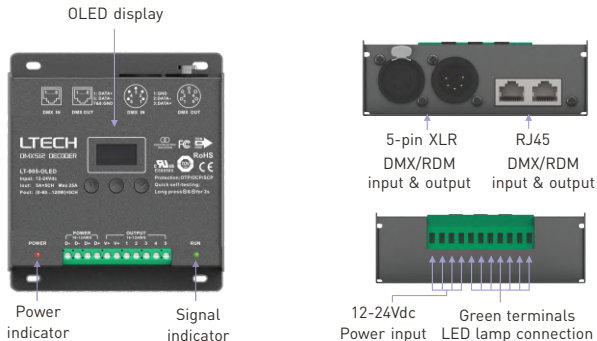
Technical specs

Model:	LT-905-OLED	Photoelectric isolation:	Yes
Input signal:	DMX512/RDM	Working temp.:	-30°C~65°C
Input voltage:	12~24Vdc	Dimensions:	122×110×37mm(L×W×H)
Current load:	5A × 5CH Max. 25A	Package size:	127×123×41mm(L×W×H)
Output power:	(0~60W...120W) × 5CH Max. 600W	Weight (G.W.):	550g
DMX interfaces:	5-pin XLR, RJ45		
Control modes:	DIM/CT/RGB/RGBW/RGBWY		
Dimming curves:	0.1~9.9, standard, linear, LOG		
Grey level:	8bit (256 levels) /16bit (65536 levels)		
Protection:	Short circuit / Overheat / Over current protection, recover automatically.		

Product size

Unit: mm

110

122

86

110

37

E500585

FC CE RoHS 5-Year Warranty

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Main component description

OLED display

Power indicator

Signal indicator

5-pin XLR
DMX/RDM
input & output

RJ45
DMX/RDM
input & output

12-24Vdc
Power input

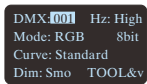Green terminals
LED lamp connection

OLED display interface

M ∧ ∨

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

1. DMX address settings

DMX:001   Hz: High
Mode: RGB   8bit
Curve: Standard
Dim: Smo   TOOL&v

Main page

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

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2. PWM frequency

```
DMX: 001   Hz: High
Mode: RGB      8bit
Curve: Standard
Dim: Smo   TOOL&v
```

Press "∧" or "∨" key to choose.
Option :

No flicker in video camera.

Std (standard)
High
Mid (middle)
Low

Smooth and delicate, human eye is comfortable.

＊ It is recommended to use standard.

3. Modes

```
DMX: 001   Hz: High
Mode: RGB      8bit
Curve: Standard
Dim: Smo   TOOL&v
```

Press "∧" or "∨" key to choose.
Available: DIM / CT / CT2 / RGB / RGBW / RGBWY

4. Grey scale

```
DMX: 001   Hz: High
Mode: RGB      8bit
Curve: Standard
Dim: Smo   TOOL&v
```

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

5. Dimming curves

```
DMX: 001   Hz: High
Mode: RGB      8bit
Curve: Standard
Dim: Smo   TOOL&v
```

Press "∧" or "∨" key to choose.
Available : Standard
Linear
Log
0.1~9.9
It is recommended to use standard, 0.1-9.9 is for special requirements.

6. Enhance dimming

```
DMX: 001   Hz: High
Mode: RGB      8bit
Curve: Standard
Dim:Smo   TOOL&v
```
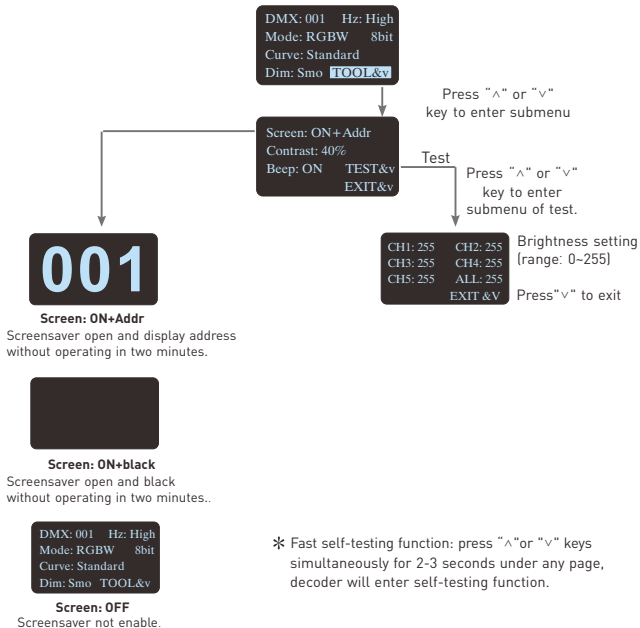
Press "∧" or "∨" key to choose.
Available : Std (standard)
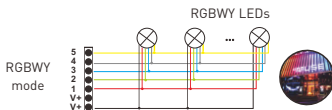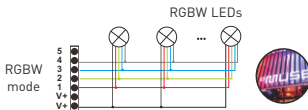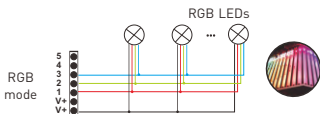Smo (smooth)
＊ It is recommended to use standard.
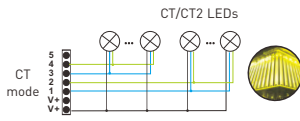Smo: This option with smooth processing, realizes flicker-free dimming and smooth dynamic effects.

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7. Tool

```
DMX: 001    Hz: High
Mode: RGBW      8bit
Curve: Standard
Dim: Smo   TOOL&v
```

Press "^" or "∨"
key to enter submenu

```
Screen: ON+Addr
Contrast: 40%
Beep: ON      TEST&v
              EXIT&v
```

Test

Press "^" or "∨"
key to enter
submenu of test.

001

Screen: ON+Addr
Screensaver open and display address
without operating in two minutes.

```
CH1: 255    CH2: 255
CH3: 255    CH4: 255
CH5: 255    ALL: 255
            EXIT &V
```

Brightness setting
(range: 0~255)

Press"∨" to exit

Screen: ON+black
Screensaver open and black
without operating in two minutes..

```
DMX: 001    Hz: High
Mode: RGBW      8bit
Curve: Standard
Dim: Smo  TOOL&v
```

Screen: OFF
Screensaver not enable.

✳ Fast self-testing function: press "^"or "∨" keys
simultaneously for 2-3 seconds under any page,
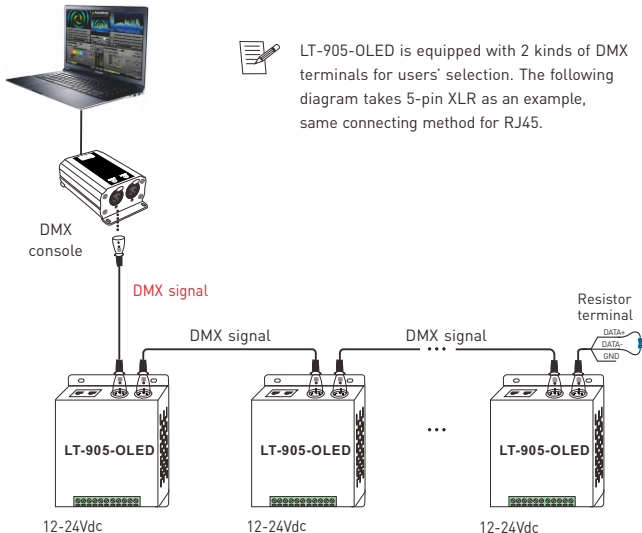decoder will enter self-testing function.

Wiring diagram

1. Connecting LED lights:
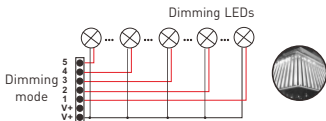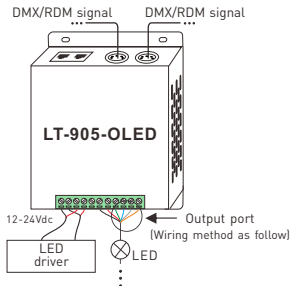
2. DMX console connection:

LT-905-OLED is equipped with 2 kinds of DMX terminals for users' selection. The following diagram takes 5-pin XLR as an example, same connecting method for RJ45.

DMX console

DMX signal

Resistor terminal

DMX signal   DMX signal

LT-905-OLED   LT-905-OLED   LT-905-OLED

12-24Vdc   12-24Vdc   12-24Vdc

An amplifier is needed if more than 32 decoders are connected or use overlong signal line, signal amplification should not be more than 5 times continuously.

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 2 kinds of DMX/RDM terminals:
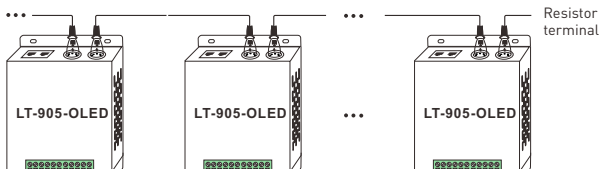
5-pin XLR connected in parallel
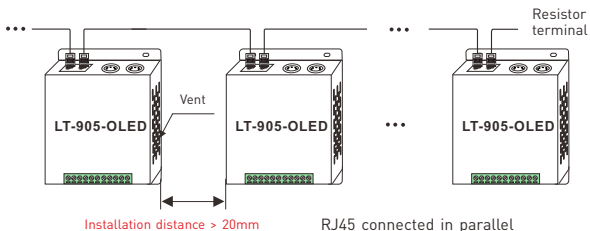
Installation distance > 20mm   RJ45 connected in parallel

These 2 terminals can be connected in a mixed way.

Installation attentions: 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.

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Address setting table

Mode		DIM	CT/CT2	RGB	RGBW	RGBWY
Address quantity		1	2	3	4	5
Resolution		8bit	8bit	8bit	8bit	8bit
Channel	1	001	001	001	001	001
	2	001	002	002	002	002
	3	001	001	003	003	003
	4	001	002	003	004	004
	5	001	002	003	004	005

Mode		DIM	CT/CT2	RGB	RGBW	RGBWY
Address quantity		2	4	6	8	10
Resolution		16bit	16bit	16bit	16bit	16bit
Channel	1	001 002	001 002	001 002	001 002	001 002
	2	001 002	003 004	003 004	003 004	003 004
	3	001 002	001 002	005 006	005 006	005 006
	4	001 002	003 004	005 006	007 008	007 008
	5	001 002	003 004	005 006	007 008	009 010

When you select CT2, the DMX address represents brightness , color temperature and constant power output respectively.

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Work with RDM editor

LT-905-OLED can work with LTECH RDM editor (Model: WiFi-RDM01) to realize changing the parameters by long-range setting, wiring diagram as below:
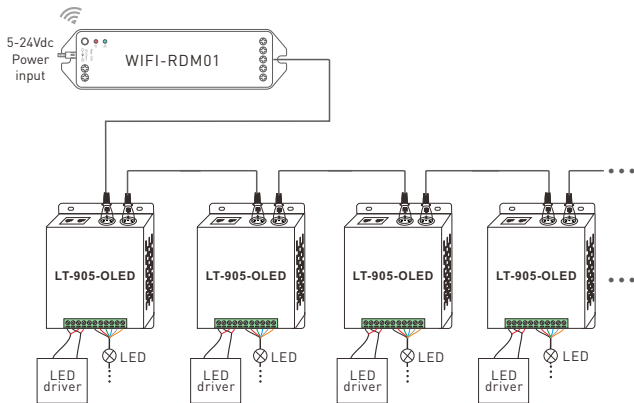
RDM editor App interface instruction

Download the App, setting the LT-905-OLED 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.
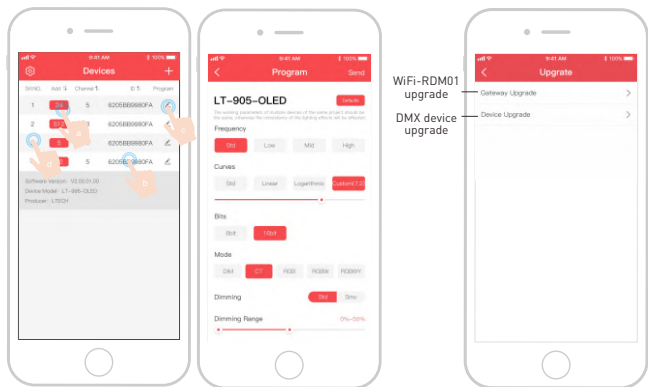
a: Click"Add", edit the address in corresponding box.
b: Click"ID", get more product details.
c: Click" ✎ ", enter edited interface.
d: Click"No.", issue the recognizing command.

Supporting WiFi-RDM01 upgrade and DMX driver upgrade.

✻ 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.

Update Time: 15/01/2021_A5