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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
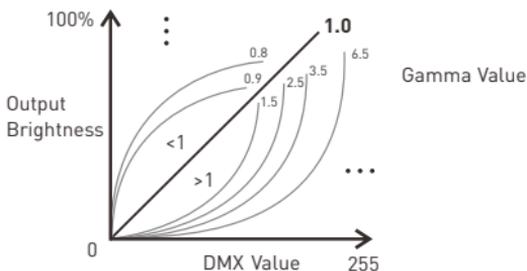Short circuit / Over current / Overheat protection

RDM
DMX

Photoelectric
isolation

www.ltech-led.com

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.

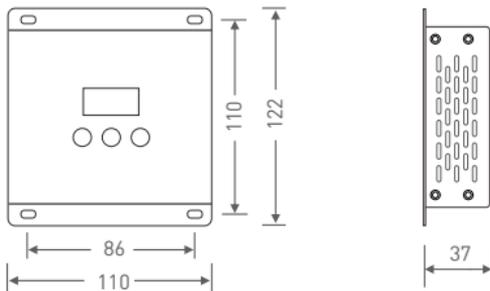5-pin XLR | RJ45 | RDM | Photoelectric isolation | Short circuit protection | Over current protection | Overheat protection | Display

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Technical specs

Model:	LT-905-OLED
Input signal:	DMX512/RDM
Input voltage:	12~24Vdc
Current load:	5A × 5CH Max. 25A
Output power:	(0~60W...120W) × 5CH Max. 600W
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.

Photoelectric isolation:	Yes
Working temp.:	-30°C~65°C
Dimensions:	122×110×37mm(L×W×H)
Package size:	127×123×41mm(L×W×H)
Weight (G.W.):	550g

Product size

Unit: mm

110

122

86

110

37

cULus E500585

TÜV SÜD

FC

CE

RoHS

5-Year Warranty

Main component description

OLED display

5-pin XLR
DMX/RDM
input & output

RJ45
DMX/RDM
input & output

12-24Vdc
Power input

Green terminals
LED lamp connection

Power
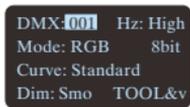indicator

Signal
indicator

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.
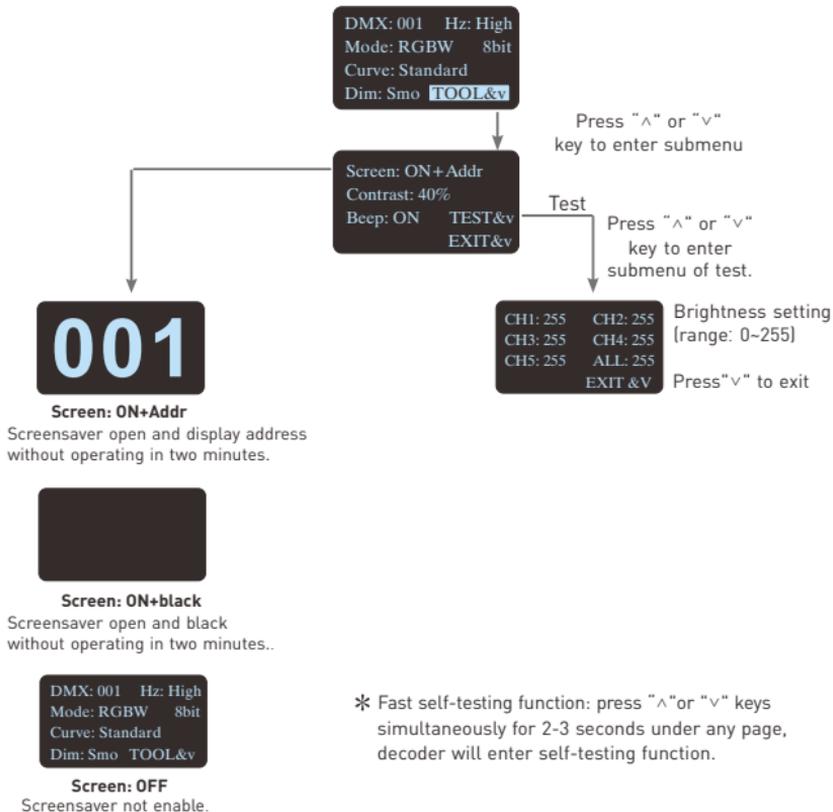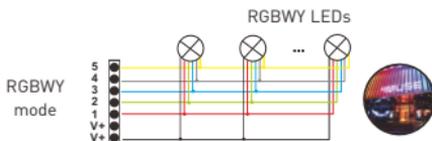Available : Std (standard)
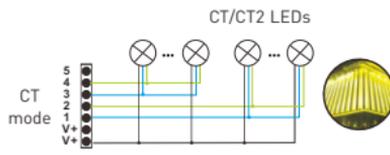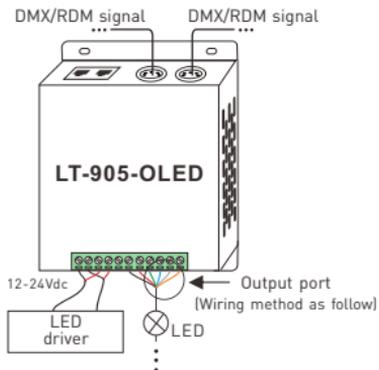   Smo (smooth)
     ＊ It is recommended to use standard.

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.

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Wiring diagram

1. Connecting LED lights:

DMX/RDM signal   DMX/RDM signal

LT-905-OLED

12-24Vdc   Output port
(Wiring method as follow)

LED driver   LED

Dimming LEDs

Dimming mode

CT/CT2 LEDs

CT mode

RGB LEDs

RGB mode

RGBW LEDs

RGBW mode

RGBWY LEDs

RGBWY mode
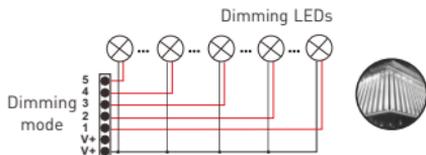
2. DMX console connection:

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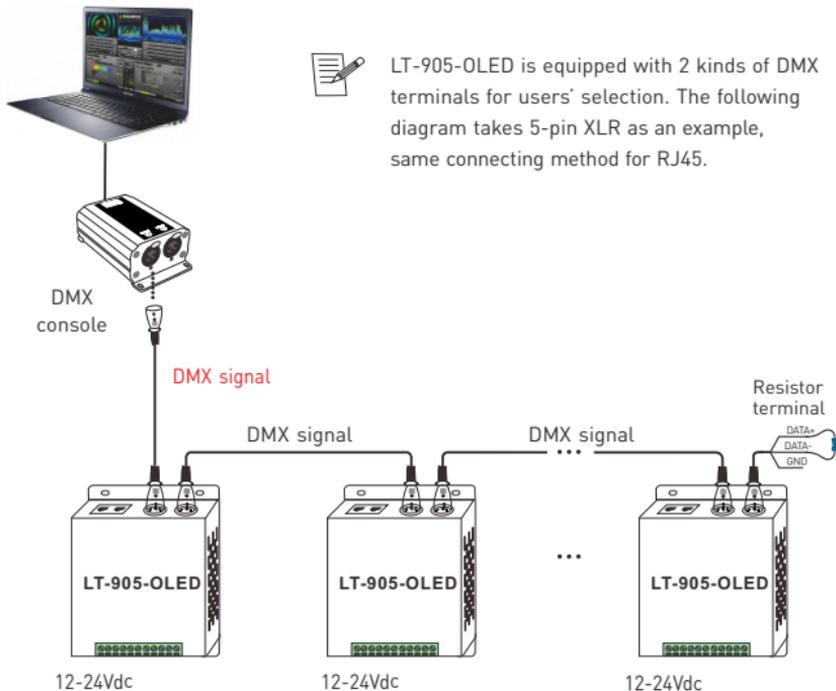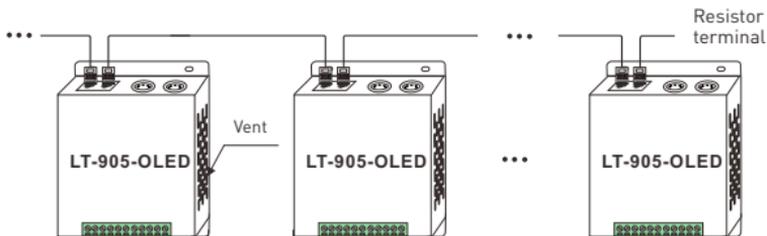
An amplifier is needed if more than 32 decoders are connected or use overlong signal line, signal amplification should not be more than 5 times continuously.

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:

Resistor terminal

LT-905-OLED   **LT-905-OLED**   **LT-905-OLED**
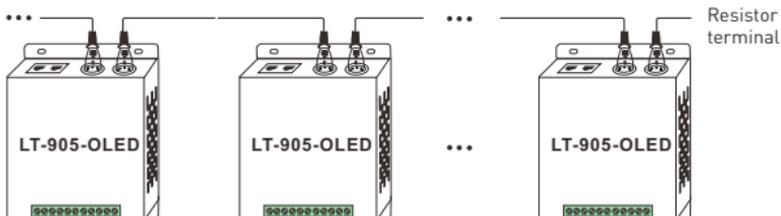
5-pin XLR connected in parallel

Resistor terminal

Vent

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

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.

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.

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:
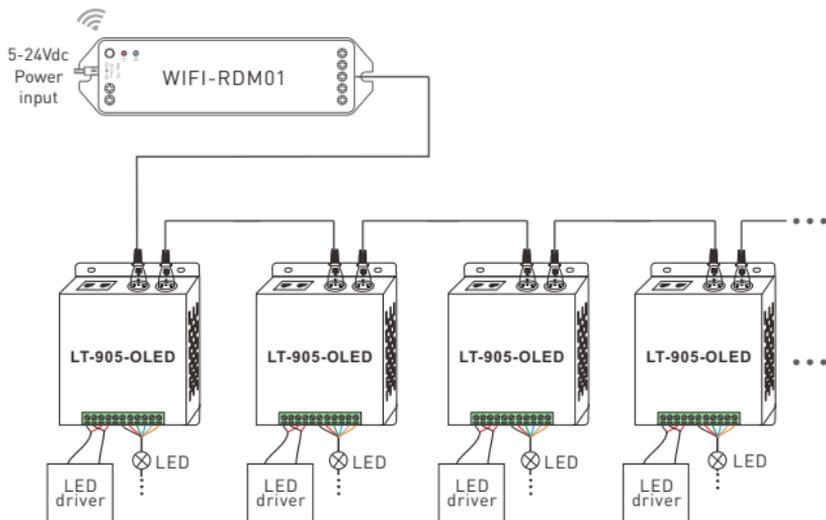
RDM editor App interface instruction

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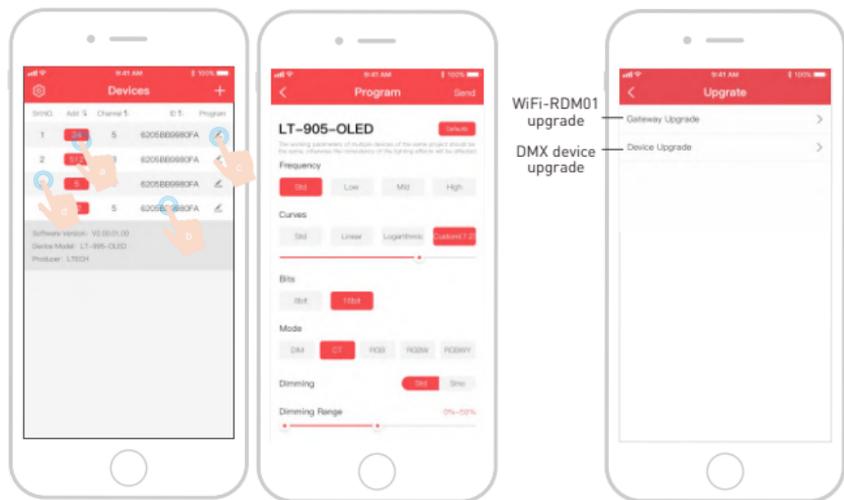
a: Click"Add", edit the address in corresponding box.
b: Click"ID", get more product details.
c: Click" ✎ ", enter edited interface.
d: Click"No.", issue the recognizing command.

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.

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