LT-8048
DMX/RDM 3CH CV DECODER
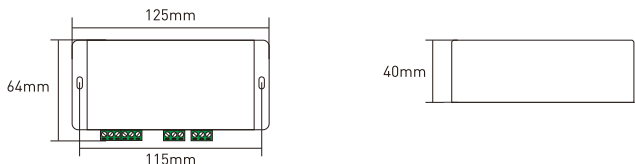

FC CE RoHS COMPLIANT warranty 5 years

LT-8048 with the standard RDM remote device management protocol, supports DMX512 signal bi-directional communi-cation, achieves remote management of reading and writing DMX address (DMX master controller must recognize the RDM protocol). Equipped with DMX standard XLR-3, green terminal interface. Realize 0-100% dimming or different lighting effect; workable with single color, bi-color or RGB LED lamps.
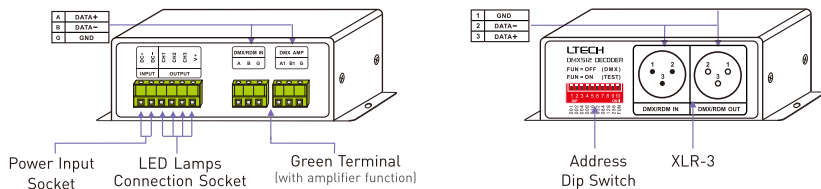
1. Product Parameter

LT-8048

Input Signal:	DMX512, RDM	Dimming Range:	0-100%
Input Voltage:	12-48Vdc	Working Temperature:	-30°C~65°C
Current Load:	4A×3CH Max. 12A	Dimensions(LxWxH):	125×64×40mm
Output Power:	Max. 144W/432W/576W (12V/36V/48V)	Package Size(LxWxH):	135×70×50mm
DMX512 Socket:	XLR-3, Green Terminal	Weight (G.W.):	305g

2. Product Size

125mm

64mm

115mm

40mm

3. Configuration Diagram

A	DATA+
B	DATA-
G	GND

1	GND
2	DATA-
3	DATA+

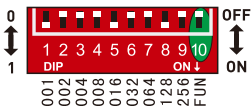Power Input Socket   LED Lamps Connection Socket   Green Terminal (with amplifier function)   Address Dip Switch   XLR-3
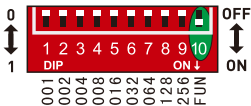
4. Dip Switch Operation

RDM Mode: The dip switch 1-10 are OFF.

DMX Mode: FUN=OFF (the 10th dip switch=OFF)
Setting DMX addresses with dip switch 1-9

Self-testing Mode: FUN=ON (the 10th dip switch=ON)

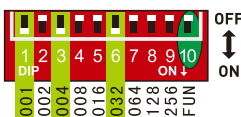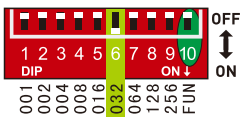### 4.1 How to set DMX address via dip switch:

FUN=OFF (the 10th dip switch=OFF) **DMX Mode**

DMX address value=the total value of (1-9), to get the place value when in "ON" position, otherwise will be 0.

E.g.1: Set Initial Address To 32.   E.g.2: Set Initial Address To 37.   E.g.3: Set Initial Address To 178.

001+004+032=37

002+016+032+128=178

4.2 Self-testing Mode:

FUN=ON (the 10th dip switch = ON) **Self-testing Mode**

Dip Switch	1-9=off	1=on	2=on	3=on	4=on	5=on	6=on	7=on	8=on	9=on
Self-test Function	Static Black	Static Red	Static Green	Static Blue	Static Yellow	Static Purple	Static Cyan	Static White	7 Colors Jumping	7 Colors Smooth

Static Red
Static Green
Static Blue
Static Yellow
Static Purple
Static Cyan
Static White
7 Colors Jumping
7 Colors Smooth
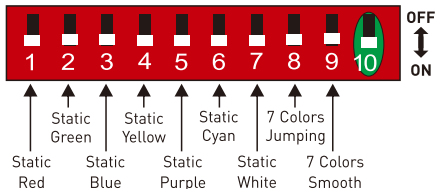
For changing effects (Dip Switch 8/9=on):
DIP switch 1-7 is used to realize 7 speed levels.
(7=on, the fastest level)

[Attn] When several dip switches are on, subjected to the highest switch value.
As the figure above shows, the effect will be 7 colors smooth at 7 speed level.
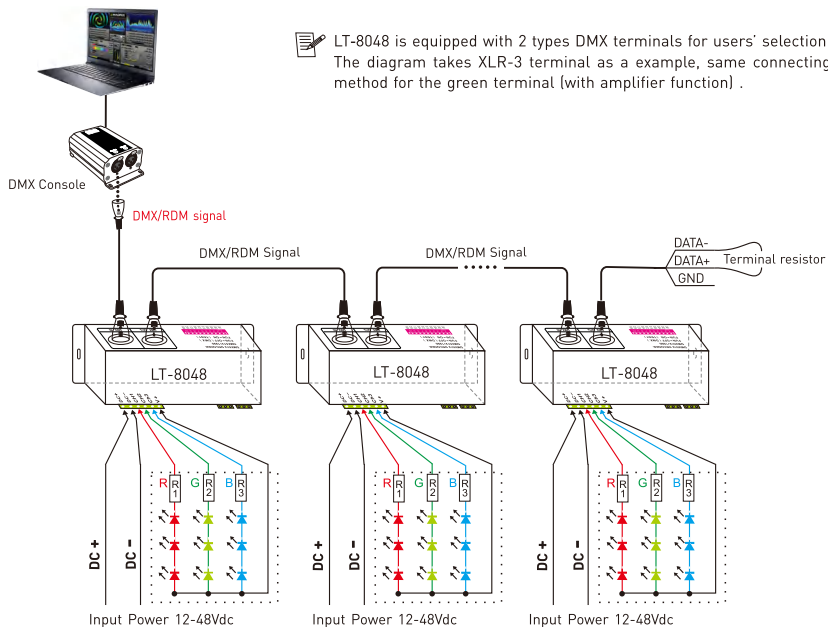
4.3 DMX Dimming Instruction:

Each LT-8048 DMX decoder occupied 3 DMX addresses when connecting the DMX console.

e.g., the defaulted initial address is 1, please find their corresponding relationships in the form.

DMX Console	DMX Decoder
CH1 0-255	CH1 PWM 0-100% (LED R)
CH2 0-255	CH2 PWM 0-100% (LED G)
CH3 0-255	CH3 PWM 0-100% (LED B)

5. Wiring Diagram

5.1 Decoder can be connected to a variety of standard DMX512 devices:

📝 LT-8048 is equipped with 2 types DMX terminals for users' selection. The diagram takes XLR-3 terminal as a example, same connecting method for the green terminal (with amplifier function) .

DMX Console

DMX/RDM signal

DMX/RDM Signal   DMX/RDM Signal   DATA-
                                              DATA+ Terminal resistor
                                              GND

LT-8048   LT-8048   LT-8048

| R R | G R | B R | | R R | G R | B R | | R R | G R | B R |
| 1 | 2 | 3 | | 1 | 2 | 3 | | 1 | 2 | 3 |

DC + DC –   DC + DC –   DC + DC –

Input Power 12-48Vdc   Input Power 12-48Vdc   Input Power 12-48Vdc

✱ When more than 32 DMX decoders are connected, DMX signal amplifiers are needed and signal amplification should not be more than 5 times continuously. If you need to modify the parameter settings of connected DMX/RDM decoders that exceed 32, you can add 1 RDM signal amplifier. Or you can add 1-5 DMX signal amplifiers after completing the parameter settings.

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

5.2 The connection diagram of two DMX terminals:

XLR-3 Connected in Parallel   Terminal Resistor   Green Terminal Connected in Parallel
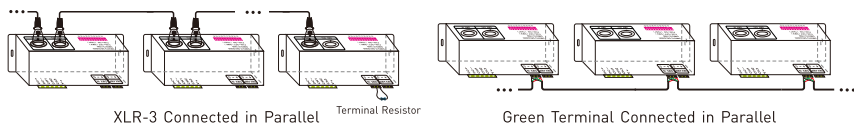
These 2 terminals can be connected in a mixed way.

5.3 The connection diagram of AMP signal amplifier terminal:

DMX signal input

AMP
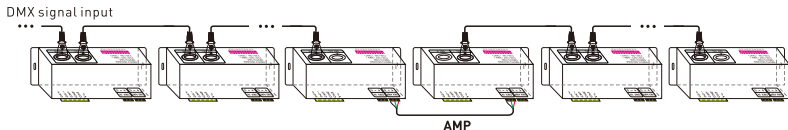
✱ AMP interface can be used for signal amplification when too many DMX decoders are connected or signal line is too long, signal amplification should be no more than 5 times continuously.

6. Attention

• This product must be installed and adjusted by a qualified professional.
• This product is non-waterproof (special models excepted). Please avoid the sun and rain. When installed outdoors, please ensure it is mounted in a water proof enclosure.
• Good heat dissipation will extend the life the product. Please install the product in a environment with good ventilation.
• When you install this product, please avoid being near a large area of metal objects or stacking them to prevent signal interference.
• Keep the product away from a intense magnetic field, a high pressure area or a place where lightning is easy to occur.
• Please check whether the working voltage used complies with the parameter requirements of the product.
• Before you power on the product, please make sure all the wiring is correct in case of incorrect connection that may cause a short circuit and damage the components, or trigger a accident.
• If a fault occurs, please do not attempt to fix the product by yourself. If you have any question, please contact the supplier.

∗ 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.

7. 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:
• 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 LTECH.

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