32CH DMX512 Constant Voltage Decoder
User Manual

(Please read through this manual carefully before use)

1、Brief Introduction

Welcome to use the DMX512 Constant Voltage Decoder which is developed only for constant voltage LED lamps. It adopts advanced micro-computer control technology to transfer DMX512/1990 signal to PWM signal. 32 channels output, max 3A each channel, 65536 gray scales, workable for single color, color temperature, RGB and RGBW led lamp.

2、Specifications

Model	32CH DMX512 Decoder
Input voltage	DC5V-24V
Max load current	3A×32CH，Max 96A
Max output power	480W(5V)/1152W(12V)/2304W(24V)
Output scale level	65536 levels
Input signal	DMX512/RDM,8Bit、16Bit optional
Output DMX channel	Constant Voltage PWM×32CH
Decode channel	32CH
DMX512 socket	XLR-3R/ RJ45/ Terminal block
Control mode	DIM /CT /RGB /RGBW 4 modes switch
Dimension	L195 X W145 X H38(mm)
Weight (G.W)	810g

3、Basic Features

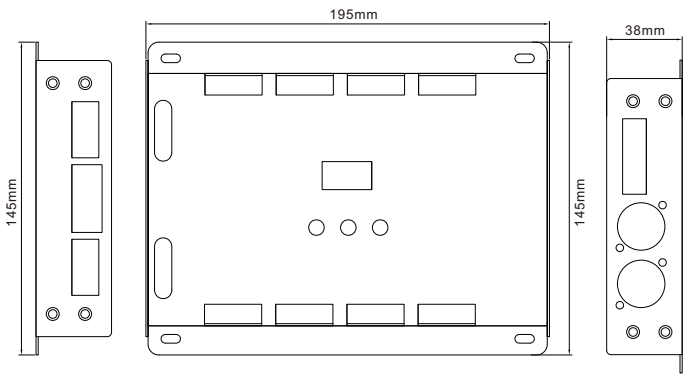
1. Support RDM function.
2. Selectable output frequency 1K、2K、4K、8K.

3. Output gamma curve can be adjusted.
4. DMX decoding supports 8 bits or 16 bits.
5. OLED display.
6. 32 channels output.
7. Power-off data saved function.

4、Safety warnings

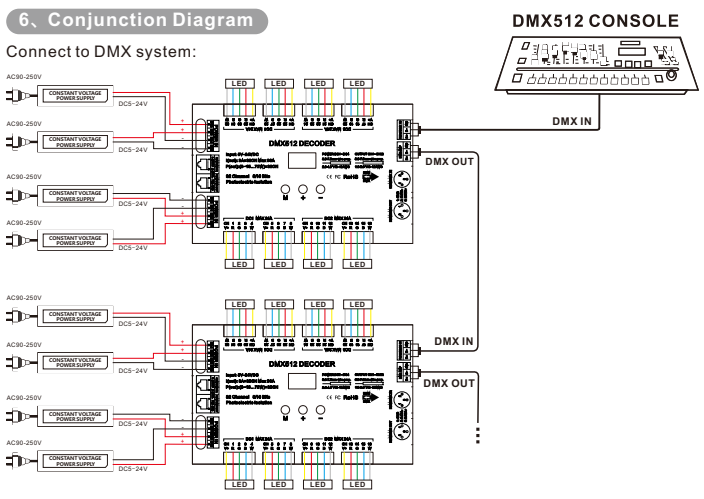
Please don't install this controller in lightening, intense magnetic and high-voltage fields.
1.To reduce the risk of component damage and fire caused by short circuit, make sure correct connection.
2.Always be sure to mount this unit in an area that will allow proper ventilation to ensure a fitting temperature.
3.Check if the voltage and power adapter suit the controller.
(please select DC12-24V power supply with constant voltage)
4.Don't connect cables with power on; make sure a correct connection and no short circuit checked with instrument before power on.
5.Please don't open controller cover and operate if problems occur.
The manual is only suitable for this model; any update is subject to change without prior notice.

5、Interfaces



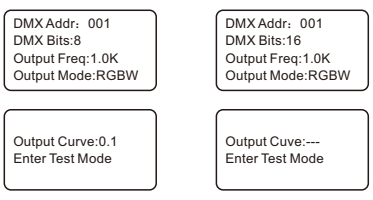
6、Conjunction Diagram

Connect to DMX system:



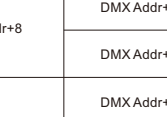
7、Operating instructions

1. Three touch buttons: M,+,- .When decoder is on,interface showed as below:

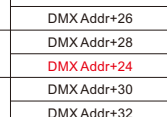


a) The decoder has an automatic key lock, pressing M button for about 2 seconds to unlock, and select the first DMX: 001, it is highlighted when selected. Short press M button to switch selection. The selection sequence is: DMX: 001, RGBW, Freq: 1.0K, 16 bit, curve: 0.1 and Enter Test Mode, then back to DMX: 001, and cycle in this way.
b) When select DMX:001, press + button to increase, press - button to decrease, the Max. value is 512.
c) When select RGBW, press +, - button to switch DIM , CT, RGB and RGBW.
d) When select Freq: 1.0K, press +,- button to select the PWM output frequency.
e) When select 8 bit, it is DMX data decoded bit, support 8 bit or 16 bit.

f) When select Curve: 0.1, it is PWM output gamma curve, support gamma0.1 - gamma9.9; when at 16 bit, not support curve selection.
g) When select Enter Test mode, arbitrarily press + - buttons to enter test mode interface. It doesn't support DMX decode function when enter it, and the test mode interface showed as picture 1 - picture 4.

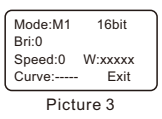


Picture 1

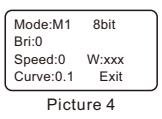


Picture 2

Picture 1: When test mode is M0, it is static mode, RGBW can be dimmed separately, press M button to switch selection, and the max value is 65535 when at 16 bit mode. When select Exit, arbitrarily press + - buttons to return main interface. it is straight line showed when at 16 bit mode, not support curve selection. The 16 bit and 8 bit refer to RGBW data bit.
Picture 2 : Compared with picture 1, it supports curve selection function.



Picture 3



Picture 4

Picture 3: When test mode is M1-M9, it is RGB dynamic mode, W channel can be dimmed separately. Speed and brightness are adjustable, 8 speed level and 8 brightness level, the mode detail showed in form 1.
Picture 4: Compared with picture 3, it supports W channel output gamma curve selection function.

1. Instruction:
a) 8 outputs controlled synchronously when in test mode. R corresponding to CH(1+4*n), G corresponding to CH(2+4*n), B corresponding to CH (3+4*n), W corresponding toCH (4+4*n), n belong to (0,7), 0 indicates the first output.
b) Test mode as below:

NO	Modes	Description
M0	RGBW can be dimmed separately in static mode	Brightness adjustable
M1	3 color skipping	Brightness, speed adjustable
M2	7 color skipping	Brightness, speed adjustable
M3	White color strobe	Brightness, speed adjustable
M4	3 color smooth	Brightness, speed adjustable
M5	Full color smooth	Brightness, speed adjustable
M6	RG color smooth	Brightness, speed adjustable
M7	R B color smooth	Brightness, speed adjustable
M8	GB color smooth	Brightness, speed adjustable
M9	White color fade & change	Brightness, speed adjustable
M10	Great cycle	All mode cycle

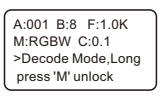
c) The key lock function is activated automatically if no operation for 10 seconds.
d) Under DMX decoding, the relation between decode address and output channels as below:

Hardware output	8 bit decode mode			
Output channel	DIM (ocupy 8 DMX channels)	CT (ocupy 16 DMX channels)	RGB (occupy 24 DMX channels)	RGBW (occupy 32 DMX channels)
CH1	DMX Addr+0	DMX Addr+0	DMX Addr+0	DMX Addr+0
CH2			DMX Addr+1	DMX Addr+1
CH3		DMX Addr+1	DMX Addr+2	DMX Addr+2
CH4			DMX Addr+0	DMX Addr+3
CH5	DMX Addr+1	DMX Addr+2	DMX Addr+3	DMX Addr+4
CH6			DMX Addr+4	DMX Addr+5
CH7		DMX Addr+3	DMX Addr+5	DMX Addr+6
CH8			DMX Addr+3	DMX Addr+7
CH9	DMX Addr+2	DMX Addr+4	DMX Addr+6	DMX Addr+8
CH10			DMX Addr+7	DMX Addr+9
CH11		DMX Addr+5	DMX Addr+8	DMX Addr+10
CH12			DMX Addr+6	DMX Addr+11
CH13	DMX Addr+3	DMX Addr+6	DMX Addr+9	DMX Addr+12
CH14			DMX Addr+10	DMX Addr+13
CH15		DMX Addr+7	DMX Addr+11	DMX Addr+14
CH16			DMX Addr+9	DMX Addr+15
CH17	DMX Addr+4	DMX Addr+8	DMX Addr+12	DMX Addr+16
CH18			DMX Addr+13	DMX Addr+17
CH19		DMX Addr+9	DMX Addr+14	DMX Addr+18
CH20			DMX Addr+12	DMX Addr+19
CH21	DMX Addr+5	DMX Addr+10	DMX Addr+15	DMX Addr+20
CH22			DMX Addr+16	DMX Addr+21
CH23		DMX Addr+11	DMX Addr+17	DMX Addr+22
CH24			DMX Addr+15	DMX Addr+23
CH25	DMX Addr+6	DMX Addr+12	DMX Addr+18	DMX Addr+24
CH26			DMX Addr+19	DMX Addr+25
CH27		DMX Addr+13	DMX Addr+20	DMX Addr+26
CH28			DMX Addr+18	DMX Addr+27
CH29	DMX Addr+7	DMX Addr+14	DMX Addr+21	DMX Addr+28
CH30			DMX Addr+22	DMX Addr+29
CH31		DMX Addr+15	DMX Addr+23	DMX Addr+30
CH32			DMX Addr+21	DMX Addr+31

Hardware output	16 bit decode mode			
Output channel	DIM (ocupy 16 DMX channels)	CT (ocupy 32 DMX channels)	RGB (occupy 48 DMX channels)	RGBW (occupy 64 DMX channels)
CH1	DMX Addr+0	DMX Addr+0	DMX Addr+0	DMX Addr+0
CH2			DMX Addr+2	DMX Addr+2
CH3		DMX Addr+2	DMX Addr+4	DMX Addr+4
CH4			DMX Addr+0	DMX Addr+6
CH5	DMX Addr+2	DMX Addr+4	DMX Addr+6	DMX Addr+8
CH6			DMX Addr+8	DMX Addr+10
CH7		DMX Addr+6	DMX Addr+10	DMX Addr+12
CH8			DMX Addr+6	DMX Addr+14
CH9	DMX Addr+4	DMX Addr+8	DMX Addr+12	DMX Addr+16
CH10			DMX Addr+14	DMX Addr+18
CH11		DMX Addr+10	DMX Addr+16	DMX Addr+20
CH12			DMX Addr+12	DMX Addr+22
CH13	DMX Addr+6	DMX Addr+12	DMX Addr+18	DMX Addr+24
CH14			DMX Addr+20	DMX Addr+26
CH15		DMX Addr+14	DMX Addr+22	DMX Addr+28
CH16			DMX Addr+18	DMX Addr+30
CH17	DMX Addr+8	DMX Addr+16	DMX Addr+24	DMX Addr+32
CH18			DMX Addr+26	DMX Addr+34
CH19		DMX Addr+18	DMX Addr+28	DMX Addr+36
CH20			DMX Addr+24	DMX Addr+38
CH21	DMX Addr+10	DMX Addr+20	DMX Addr+30	DMX Addr+40
CH22			DMX Addr+32	DMX Addr+42
CH23		DMX Addr+22	DMX Addr+34	DMX Addr+44
CH24			DMX Addr+30	DMX Addr+46
CH25	DMX Addr+12	DMX Addr+24	DMX Addr+36	DMX Addr+48
CH26			DMX Addr+38	DMX Addr+50
CH27		DMX Addr+26	DMX Addr+40	DMX Addr+52
CH28			DMX Addr+36	DMX Addr+54
CH29	DMX Addr+14	DMX Addr+28	DMX Addr+42	DMX Addr+56
CH30			DMX Addr+44	DMX Addr+58
CH31		DMX Addr+30	DMX Addr+46	DMX Addr+60
CH32			DMX Addr+42	DMX Addr+62

Notice:The X in the DMX addr+x indicates the DMX address offset, DMX Addr+1 indicates to plus 1 on the original set value, that is the current DMX address value.

E)Lock screen interface as follow:



A is DMX address. B is DMX decode bit, F is output frequency, M is mode DIM, CT, RGB or RGBW, C is output curve .For the last sentence, if it is begin with Decode mode, that is in decode mode. If it is begin with Test Mode, that is in test mode.

2. Support RDM function, support regular command, the command as follow:
DISC_UNIQUE_BRANCH
DISC_MUTE
DISC_UN_MUTE
DEVICE_INFO
SOFTWARE_VERSION_LABEL
DMX_START_ADDRESS
IDENTIFY_DEVICE

3. Power-off data saved function.

8、After-Sales

From the day you purchase our products within 3 years, if being used properly in accordance with the instruction, and quality problems occur, we provide free repair or replacement services except the following cases:
1.Any defects caused by wrong operations.
2.Any damages caused by inappropriate power supply or abnormal voltage.
3.Any damages caused by unauthorized removal, maintenance, modifying circuit, incorrect connections and replacing chips.
4.Any damages due to transportation, breaking, flooded water after the purchase.
5.Any damages caused by earthquake, fire, flood, lightning strike etc force majeure of natural disasters.
6.Any damages caused by negligence, inappropriate storing at high temperature and humidity environment or near harmful chemicals.
7.Product has been updated.

9、Kindly Reminder

Power Source Selection:
Power source must be DC constant voltage type of power supply. Due to the efficient output in some power supplies are only 80% of total, so please select at least 20% higher output power supply than the consumption of LED lights.