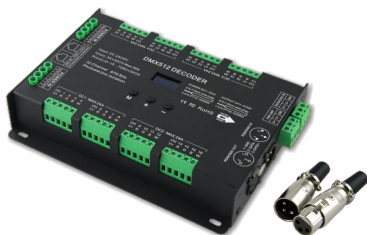# 32CH DMX512 Constant Voltage Decoder User Manual

（Please read through this manual carefully before use）

Update Time: 2019.4.10

1、 Brief Introduction

Welcome to use the DMX512 Constant Voltage Decoder, designed for Hi-power multiple channels application, 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, up to 2304W output power, 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	256 levels(8bit)/65536 levels(16bit)
Input signal	DMX512/RDM
Output DMX channel	Constant Voltage PWM×32CH
Output frequency	1K、2K、4K、8K selectable
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. Easy operation with OLED screen and touch buttons.
2. 8bit (256 levels)/16bit (65536 levels) grey level optional.
3. Support 3 kinds of DMX ports with signal isolation function:
   3-pin XLR, RJ45 and green terminal (with signal amplifier function).
4. With RDM remote management protocol, the operations can be completed via the RDM master console, such as parameters browsing & setting, DMX address setting, equipment recognition, etc.
5. Optional for standard, linear, LOG or custom 0.1-9.9 dimming curve.
6. Power-off data saved function.
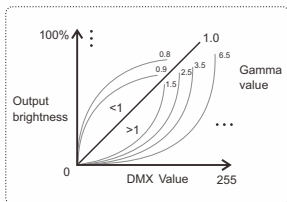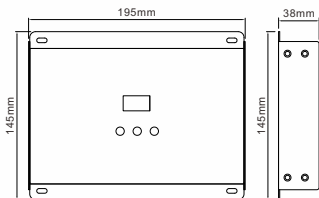

4、Safety warnings

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.
6. When the signal line is long or the wire quality causes the signal recoil effect to affect the use of product, you can try to connect 0.25W 90-120Ω terminating resistor at the end of each signal line to solve.

5、Interfaces

Main component description:

OLED screen
Power input
Green terminals With signal amplifier function
RJ45
3-pin XLR
Power input
Green terminals LED lamps connection

195mm
38mm
145mm
145mm
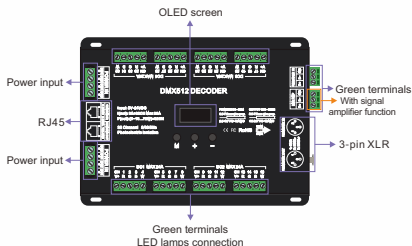
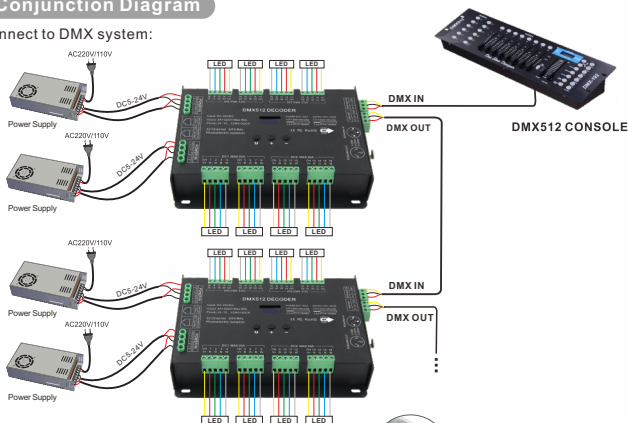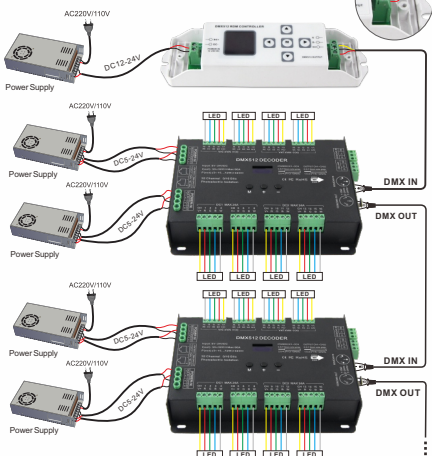## 6、Conjunction Diagram

1. Connect to DMX system:

2. Work with RDM controller:

Note: RDM controller can only be used normally with 3-pin XLR terminals.

7、Operating instructions

OLED screen interface:

Press "M" key, switch entries.
Press "+" or "-" key, parameter adjustment.
Exit: back to previous page.
Long press three buttons in case of power off.
Restar to restore the factory settings.

1. Lock screen interface:

A: 001   B: 8   F: 1.0
M: RGBW   C: 1.8   *
Decode Mode, Long press `M` unlock

No operation after 10 seconds into the lock screen interface, display only has set up a good parameter, long press the M key for 2 seconds to unlock. The star symbol flashes when there is DMX signal in.

2. DMX address setting

DMX Addr : 001
DMX Bit : 8
Output Freq : 1.0K
Output Mode : RGBW

Main page
Press "+" or "-" key to set DMX address.
Range: 001~512

3. PWM frequency

DMX Addr : 001
DMX Bit : 8
Output Freq : 1.0K
Output Mode : RGBW

Press "+" or "-" key to choose.
Optional : 8K、4K、2K、1K
It is recommended to use 1K

4. Mode

DMX Addr : 001
DMX Bit : 8
Output Freq : 1.0K
Output Mode : RGBW

Press "+" or "-" key to choose.
Optional : DIM、CT、RGB、RGBW

5. Grey scale

DMX Addr : 001
DMX Bit : 8
Output Freq : 1.0K
Output Mode : RGBW

Press "+" or "-" key to choose.
Optional : 8bit
16bit (choose it if the master controller support this function)

6. Dimming curve

Output Curve: 1.0
Enter Test Mode

Press "+" or "-" key to choose.
Optional : 0.1~9.9 (only 8bit can be set)
It is recommended to use 1.8
0.1-9.9 is for special requirements.

7. Built-in test

Mode: M0   8 bit
R: 000   G: 000
B: 000   W: 000
Curve: 1.8   Exit

Press "+" or "-" key to choose.
Optional: Mode M0-10
Digits 8bit or 16bit
Grey scale 0-255 or 0-65536
Gamma value 0.1-9.9(only 8bit can be set)

6. Instruction:

a) 8 outputs controlled synchronously when in test mode.

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

Address setting table

Mode		DIM	CT	RGB	RGBW
Address Quantity		8	16	24	32
Resolution		8bit	8bit	8bit	8bit
Channel	1	001	001	001	001
	2	001	002	002	002
	3	001	001	003	003
	4	001	002	001	004
	5	002	003	004	005
	6	002	004	005	006
	7	002	003	006	007
	8	002	004	004	008
	9	003	005	007	009
	10	003	006	008	010
	11	003	005	009	011
	12	003	006	007	012
	13	004	007	010	013
	14	004	008	011	014
	15	004	007	012	015
	16	004	008	010	016
	17	005	009	013	017
	18	005	010	014	018
	19	005	009	015	019
	20	005	010	013	020
	21	006	011	016	021
	22	006	012	017	022
	23	006	011	018	023
	24	006	012	016	024
	25	007	013	019	025
	26	007	014	020	026
	27	007	013	021	027
	28	007	014	019	028
	29	008	015	022	029
	30	008	016	023	030
	31	008	015	024	031
	32	008	016	022	032

Mode		DIM	CT	RGB	RGBW
Address Quantity		16	32	48	64
Resolution		16bit	16bit	16bit	16bit
Channel	1	001 002	001 002	001 002	001 002
	2	001 002	003 004	003 004	003 004
	3	001 002	001 002	005 006	005 006
	4	001 002	003 004	001 002	007 008
	5	003 004	005 006	007 008	009 010
	6	003 004	007 008	009 010	011 012
	7	003 004	005 006	011 012	013 014
	8	003 004	007 008	007 008	015 016
	9	005 006	009 010	013 014	017 018
	10	005 006	011 012	015 016	019 020
	11	005 006	009 010	017 018	021 022
	12	005 006	011 012	013 014	023 024
	13	007 008	013 014	019 020	025 026
	14	007 008	015 016	021 022	027 028
	15	007 008	013 014	023 024	029 030
	16	007 008	015 016	019 020	031 032
	17	009 010	017 018	025 026	033 034
	18	009 010	019 020	027 028	035 036
	19	009 010	017 018	029 030	037 038
	20	009 010	019 020	025 026	039 040
	21	011 012	021 022	031 032	041 042
	22	011 012	023 024	033 034	043 044
	23	011 012	021 022	035 036	045 046
	24	011 012	023 024	031 032	047 048
	25	013 014	025 026	037 038	049 050
	26	013 014	027 028	039 040	051 052
	27	013 014	025 026	041 042	053 054
	28	013 014	027 028	037 038	055 056
	29	015 016	029 030	043 044	057 058
	30	015 016	031 032	045 046	059 060
	31	015 016	029 030	047 048	061 062
	32	015 016	031 032	043 044	063 064

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.