

# Ultra-Pro 4CH RDM DMX512 Decoder

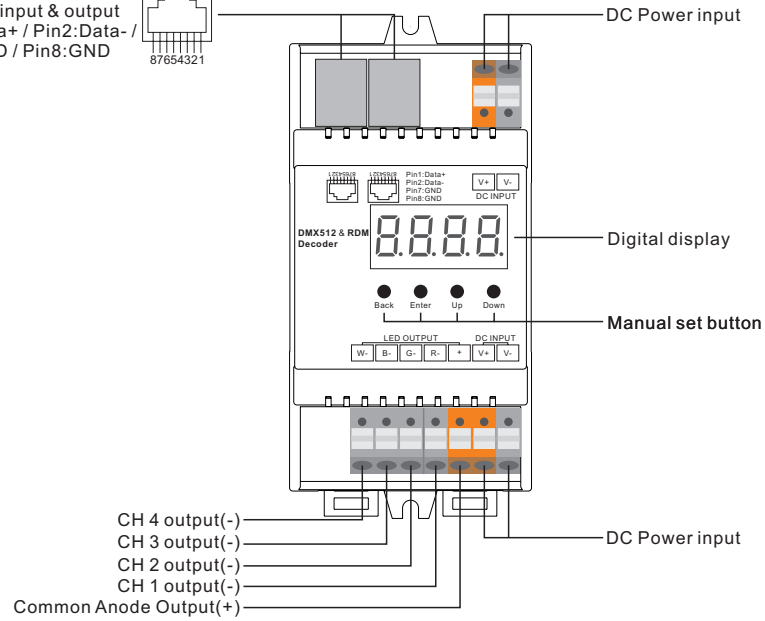
09.218RD.04744



**Important:** Read All Instructions Prior to Installation

## Function introduction

RJ45 terminal  
DMX512 input & output  
Pin1:Data+ / Pin2:Data- /  
Pin7:GND / Pin8:GND



## Product Data

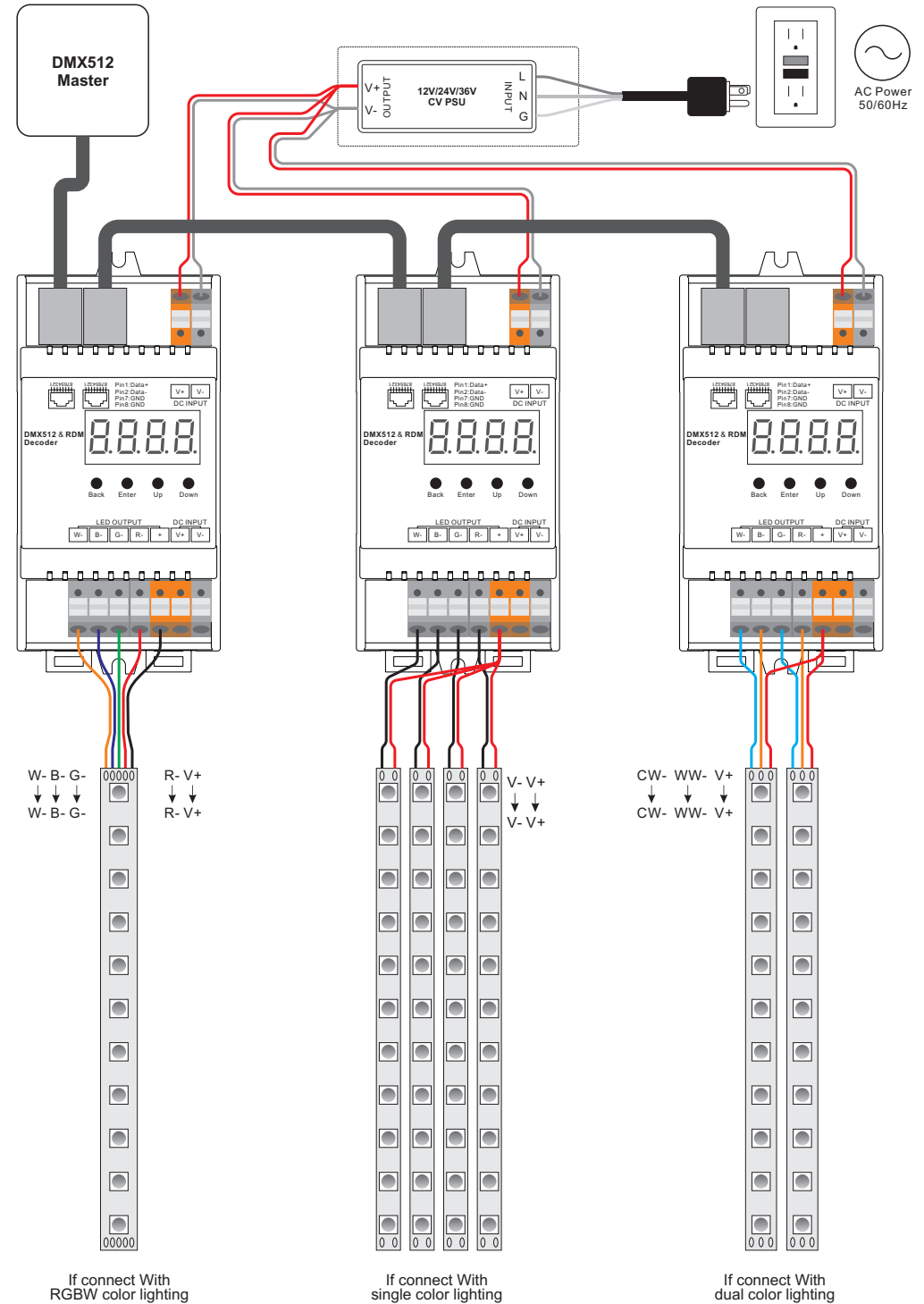
No.	Input Voltage	Output Current	Output Power	Remarks	Size(LxWxH)
1	12-36VDC	4x5A	4x(60-180)W	Constant voltage	110x53x65mm
2	12-48VDC	4x350mA	4x(4.2-16.8)W	Constant current	110x53x65mm
3	12-48VDC	4x700mA	4x(8.4-33.6)W	Constant current	110x53x65mm

- RDM function enabled DMX decoder
- Digital display to show data directly, easily to set and show DMX address and DMX channel
- PWM output resolution ratio 8bit , 16bit settable
- Output PWM frequency from 500HZ ~ 30K HZ settable
- Output dimming curve gamma value from 0.1 ~ 9.9 settable
- Decoding mode settable
- DIN rail controller

## Safety & Warnings

- DO NOT install with power applied to device.
- DO NOT expose the device to moisture.

## Wiring Diagram



### Button introduction

Up, Down button is for menu selection. After power on the decoder, if keep on clicking Up button, you will find below menu on display:

DMX signal indicator ● :: When DMX signal input is detected, the indicator on the display following after **A** turns on red **A.XXX**.



● ● ● ●  
Back Enter Up Down

**A.XXX** Means DMX address. factory defaults setting is 001.

**AA.XX** Means DMX channels quantity.

**BB.XX** Means Bit (8bit or 16bit). factory defaults setting is 16bit

**PP.XX** Means output PWM frequency. factory defaults setting is 1KHZ

**GA.XX** Means output dimming curve gamma value, factory defaults setting is ga 1.5

**DP.XX** Means Decoding mode, factory defaults setting is dp1.1

By holding button Back + Enter together at the same time over 5 seconds until the display go off, it will restore default settings.

### 1. DMX address setting:

select menu **A.XXX**, click button "Enter", display flashes, then click or hold button "Up" / "Down" to set DMX address (click is slow, hold is fast.), then click button "Back" to confirm.

### 2. DMX channel quantity setting:

Select menu **AA.XX**, click button "Enter", display flashes, then click button "Up" / "Down" to set DMX channel quantity, then click button "Back" to confirm.

For example the DMX address is already set 001.

CH01=1 DMX address for all the output channels, which are all address 001.

CH02=2 DMX addresses, output 1&3 is address 001, output 2,4 is address 002

CH03=3 DMX addresses, output 1, 2 is address 001,002, output 3,4 is address 003

CH04=4 DMX addresses, output 1,2,3,4 is address 001,002,003,004

### DMX address is 001, CH01

DMX Console Slider number	dp1.1	dp2.1
1	for all output dimming	for all output dimming
2	No use	for all output micro dimming

### DMX address is 001, CH02

DMX Console Slider number	dp1.1	dp2.1	dp3.2
1	for output 1&3 dimming	for output 1&3 dimming	for output 1&3 dimming
2	for output 2,4 dimming	for output 1&3 micro dimming	for output 2,4 dimming
3		for output 2,4 dimming	for all output dimming
4		for output 2,4 micro dimming	

### DMX address is 001, CH03

DMX Console Slider number	dp1.1	dp2.1	dp4.3	dp5.3
1	for output 1 dimming	for output 1 dimming	for output 1 dimming	for output 1 dimming
2	for output 2 dimming	for output 1 micro dimming	for output 2 dimming	for output 2 dimming
3	for output 3,4 dimming	for output 2 dimming	for output 3,4 dimming	for output 3,4 dimming
4		for output 2 micro dimming	for all output master dimming	for all output master dimming
5		for output 3,4 dimming		strobe effects
6		for output 3,4 micro dimming		

### DMX address is 001, CH04

DMX Console Slider number	dp1.1	dp2.1	dp5.4	dp6.4
1	for output 1 dimming	for output 1 dimming	for output 1 dimming	for output 1 dimming
2	for output 2 dimming	for output 1 micro dimming	for output 2 dimming	for output 2 dimming
3	for output 3 dimming	for output 2 dimming	for output 3 dimming	for output 3 dimming
4	for output 4 dimming	for output 2 micro dimming	for output 4 dimming	for output 4 dimming
5		for output 3 dimming	for all output master dimming	for all output master dimming
6		for output 3 micro dimming		strobe effects
7		for output 4 dimming		
8		for output 4 micro dimming		

### 3. PWM output resolution Bit setting:

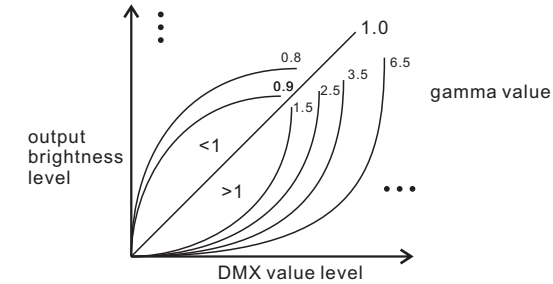
select menu **BB.XX**, click button "Enter", display flashes, then click button "Up" / "Down" to choose 08 or 16 bit, then click button "Back" to confirm.

### 4. output PWM frequency setting:

select menu **PP.XX**, click button "Enter", display flashes, then click button "Up" / "Down" to choose 00~30, then click button "Back" to confirm. 00=500HZ, 01=1KHZ, 02=2KHZ.....30=30KHZ.

### 5. output dimming curve gamma value setting:

select menu **GA.XX**, click button "Enter", display flashes, then click or hold button "Up" / "Down" to choose 0.1~9.9, then click button "Back" to confirm.



### 6. DMX decoding mode setting:

Select menu **DP.XX**, click button "Enter", display flashes, then click or hold button "Up" / "Down" to choose the decoding mode, then click button "Back" to confirm. "dPxx" means the DMX address quantity used for control of corresponding PWM output channel quantity. 1st "x" is DMX address quantity, 2nd "x" is PWM channel quantity.

Micro dimming: the micro dimming effect can only be visible when the dimming curve gamma value is set lower than 1.4, and the lower the value is, the more visible the micro dimming effect will be.

### The data definitions for strobe channel are as follows:

```
{0, 7},//undefined
{8, 65},//slow strobe-->fast strobe
{66, 71},//undefined
{72, 127},//slow push fast close
{128, 133},//undefined
{134, 189},//slow close fast push
{190, 195},//undefined
{196, 250},//random strobe
{251, 255},//undefined
```

### The supported RDM PIDs are as follows:

```
DISC_UNIQUE_BRANCH
DISC_MUTE
DISC_UN_MUTE
DEVICE_INFO
DMX_START_ADDRESS
IDENTIFY_DEVICE
SOFTWARE_VERSION_LABEL
DMX_PERSONALITY
DMX_PERSONALITY_DESCRIPTION
SLOT_INFO
SLOT_DESCRIPTION
MANUFACTURER_LABEL
SUPPORTED_PARAMETERS
```

### Restore to Factory Default Setting

Press and hold down both "Back" and "Enter" keys until the digital display turns off, then release the keys, system will reset and the digital display will turn on again, all settings will be restored to factory default.  
Default settings are as follows:  
DMX Address Code: a001  
DMX Address Quantity: SW1=0: ch04, SW1=1: ch03  
PWM Resolution Mode: bt16  
PWM Frequency: pf01  
Gamma: ga1.5  
Decoding Mode: dp1.1