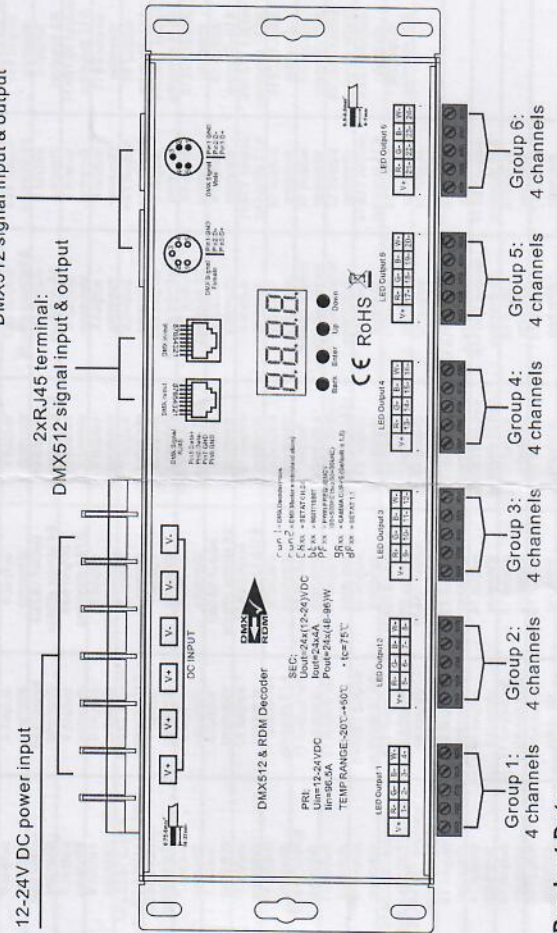


Ultra-Pro 24CH RDM DMX512 Decoder



Important: Read All Instructions Prior to Installation
Function introduction



Product Data

Input Voltage	Output Current	Output Power	Size (LxWxH)	Protection
12-24VDC	24x4A	24x(48-96)W	264.5X83X42mm	Short circuit

- Master & decoder mode, RDM function
- Metal housing, digital display to show data directly, easily to set and show DMX address.
- With multiple kinds of DMX in/out ports: RJ45, XLR, pluggable terminal blocks.
- Total 24 PWM output channels, common anode. DMX channel quantity 1CH or 24CH settable.
- 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.
- Galvanic isolation

Safety & Warnings

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

Operation

Before you do other settings, please set the device to be Master or Decoder mode.
run1 = DMX Decoder mode, **run2** = DMX Master mode(stand alone).
 Keep on clicking Down button, to get run1 or run2, then click Enter, then click Down button to choose 1 or 2, then click Back button.
 After choose run1 or run2, please power off and power on again the device.
I. For run2 DMX Master mode: After power on the device, if keep on clicking Up button, you will find below menu on display:



- Back
- Enter
- Up
- Down

0000 Means brightness for each output PWM channel. First 01 means PWM output channel 1 and it is selectable from 01 to 24 by clicking "Up" or "Down" button. Second 01 means brightness level, click "Enter" button, the display flashes, then click "Up" or "Down" button to select from 00-99-FL, which means 0%-99%-100% brightness, then click "Back" button to confirm.

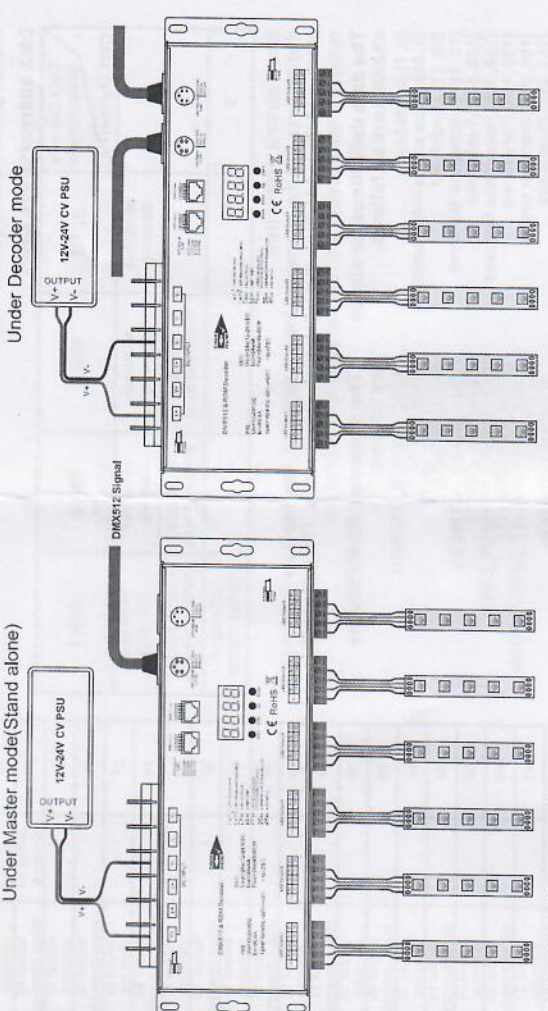
- 0000** means chasing effects, total 4 effects selectable from 01-04. Click "Up" or "Down" button to select the menu, then click "Enter" button to enter into the effect, then click "Up" or "Down" button to select from 01-04.
- CA01: Fade-up (0%-100%) and fade-down (100%-0%) of output 1, then output 2, output 3,, output 24, output 1,, cycling chasing
- CA02: Fade-up (0%-100%) of output 1, then simultaneous fade-down (100%-0%) of output 1 and fade-up (0%-100%) of output 2, simultaneous down of output 2 and up of output 3,, simultaneous down of output 23 and up of output 24, simultaneous down of output 24 and up of output 1,, cycling chasing
- CA03: Fade-up (0%-100%) of output 1, then output 2, output 3,, output 24, output 1,, cycling chasing
- CA04: Fade-down (100%-0%) of output 1, then output 2, output 3,, output 24, output 1,, cycling chasing
- 0000** means chasing speed, it selectable from 01-09, 01 is the slowest, 09 is the fastest.

II. For run1 DMX decoder mode: After power on the decoder, if keep on clicking Up button, you will find below menu on display:

- 01.XXX** the display following after **0** turns on red
- 01.XXX** Means DMX address, factory defaults setting is 001.
- 02.HXX** Means DMX channels quantity, factory defaults setting is Ch24
- 03.BXX** Means Bit (8bit or 16bit), factory defaults setting is 16bit
- 04.PXX** Means output PWM frequency, factory defaults setting is 1K HZ
- 05.GXX** Means output dimming curve gamma value, factory defaults setting is ga 1.5
- 06.DXX** Means Decoding mode, factory defaults setting is dp1.1
- run1** Means the device at run1 mode (DMX decoder mode).

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

Wiring diagram



1. DMX address setting:

select menu **01.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 **02.HXX**, 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 as 001.
 CH01 = 1 DMX address for all the output channels, which are all address 001.
 CH24 = 24 DMX addresses, output 1-24 is address 001-024 respectively.

3. PWM output resolution Bit setting:

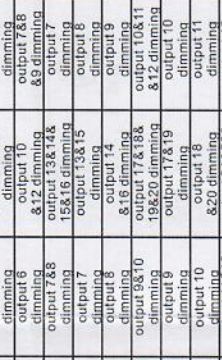
Select menu **00XX**, click button "Enter", display flashes, then click button "Up" / "Down" to choose 08 or 16 bit, then click button "Back" to confirm.

4. output PWM frequency setting:

Select menu **00XX**, 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 **00XX**, 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 **00XX**, click button "Enter", display flashes, then click 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.

DMX address is 001, CH01

DMX Console Slider number DMX channel	dp1.1	dp2.1	dp3.2	dp3.4	dp4.3	dp5.3	dp6.4	dp6.6	dp9.6
1	output 1 dimming	output 1 dimming	output 1&2 dimming	output 1&2 dimming	output 1&2 dimming	output 1&2 dimming	output 1&2 dimming	output 1&2 dimming	output 1&2 dimming
2	output 2 dimming	output 2 dimming	output 2 dimming	output 2&4 dimming	output 2 dimming	output 2 dimming	output 2 dimming	output 2 dimming	output 2 dimming
3	output 3 dimming	output 3 dimming	output 3&4 dimming	output 3&6 dimming	output 3 dimming	output 3 dimming	output 3 dimming	output 3 dimming	output 3 dimming
4	output 4 dimming	output 4 dimming	output 4 dimming	output 4 dimming	output 4 dimming	output 4 dimming	output 4 dimming	output 4 dimming	output 4 dimming
5	output 5 dimming	output 5 dimming	output 5 dimming	output 5 dimming	output 5 dimming	output 5 dimming	output 5 dimming	output 5 dimming	output 5 dimming
6	output 6 dimming	output 6 dimming	output 6 dimming	output 6 dimming	output 6 dimming	output 6 dimming	output 6 dimming	output 6 dimming	output 6 dimming
7	output 7 dimming	output 7 dimming	output 7 dimming	output 7 dimming	output 7 dimming	output 7 dimming	output 7 dimming	output 7 dimming	output 7 dimming
8	output 8 dimming	output 8 dimming	output 8 dimming	output 8 dimming	output 8 dimming	output 8 dimming	output 8 dimming	output 8 dimming	output 8 dimming
9	output 9 dimming	output 9 dimming	output 9 dimming	output 9 dimming	output 9 dimming	output 9 dimming	output 9 dimming	output 9 dimming	output 9 dimming
10	output 10 dimming	output 10 dimming	output 10 dimming	output 10 dimming	output 10 dimming	output 10 dimming	output 10 dimming	output 10 dimming	output 10 dimming
11	output 11 dimming	output 11 dimming	output 11 dimming	output 11 dimming	output 11 dimming	output 11 dimming	output 11 dimming	output 11 dimming	output 11 dimming
12	output 12 dimming	output 12 dimming	output 12 dimming	output 12 dimming	output 12 dimming	output 12 dimming	output 12 dimming	output 12 dimming	output 12 dimming
13	output 13 dimming	output 13 dimming	output 13 dimming	output 13 dimming	output 13 dimming	output 13 dimming	output 13 dimming	output 13 dimming	output 13 dimming
14	output 14 dimming	output 14 dimming	output 14 dimming	output 14 dimming	output 14 dimming	output 14 dimming	output 14 dimming	output 14 dimming	output 14 dimming
15	output 15 dimming	output 15 dimming	output 15 dimming	output 15 dimming	output 15 dimming	output 15 dimming	output 15 dimming	output 15 dimming	output 15 dimming
16	output 16 dimming	output 16 dimming	output 16 dimming	output 16 dimming	output 16 dimming	output 16 dimming	output 16 dimming	output 16 dimming	output 16 dimming
17	output 17 dimming	output 17 dimming	output 17 dimming	output 17 dimming	output 17 dimming	output 17 dimming	output 17 dimming	output 17 dimming	output 17 dimming
18	output 18 dimming	output 18 dimming	output 18 dimming	output 18 dimming	output 18 dimming	output 18 dimming	output 18 dimming	output 18 dimming	output 18 dimming
19	output 19 dimming	output 19 dimming	output 19 dimming	output 19 dimming	output 19 dimming	output 19 dimming	output 19 dimming	output 19 dimming	output 19 dimming
20	output 20 dimming	output 20 dimming	output 20 dimming	output 20 dimming	output 20 dimming	output 20 dimming	output 20 dimming	output 20 dimming	output 20 dimming
21	output 21 dimming	output 21 dimming	output 21 dimming	output 21 dimming	output 21 dimming	output 21 dimming	output 21 dimming	output 21 dimming	output 21 dimming
22	output 22 dimming	output 22 dimming	output 22 dimming	output 22 dimming	output 22 dimming	output 22 dimming	output 22 dimming	output 22 dimming	output 22 dimming
23	output 23 dimming	output 23 dimming	output 23 dimming	output 23 dimming	output 23 dimming	output 23 dimming	output 23 dimming	output 23 dimming	output 23 dimming
24	output 24 dimming	output 24 dimming	output 24 dimming	output 24 dimming	output 24 dimming	output 24 dimming	output 24 dimming	output 24 dimming	output 24 dimming
25	output 25 dimming	output 25 dimming	output 25 dimming	output 25 dimming	output 25 dimming	output 25 dimming	output 25 dimming	output 25 dimming	output 25 dimming
26	output 26 dimming	output 26 dimming	output 26 dimming	output 26 dimming	output 26 dimming	output 26 dimming	output 26 dimming	output 26 dimming	output 26 dimming
27	output 27 dimming	output 27 dimming	output 27 dimming	output 27 dimming	output 27 dimming	output 27 dimming	output 27 dimming	output 27 dimming	output 27 dimming
28	output 28 dimming	output 28 dimming	output 28 dimming	output 28 dimming	output 28 dimming	output 28 dimming	output 28 dimming	output 28 dimming	output 28 dimming
29	output 29 dimming	output 29 dimming	output 29 dimming	output 29 dimming	output 29 dimming	output 29 dimming	output 29 dimming	output 29 dimming	output 29 dimming
30	output 30 dimming	output 30 dimming	output 30 dimming	output 30 dimming	output 30 dimming	output 30 dimming	output 30 dimming	output 30 dimming	output 30 dimming
31	output 31 dimming	output 31 dimming	output 31 dimming	output 31 dimming	output 31 dimming	output 31 dimming	output 31 dimming	output 31 dimming	output 31 dimming
32	output 32 dimming	output 32 dimming	output 32 dimming	output 32 dimming	output 32 dimming	output 32 dimming	output 32 dimming	output 32 dimming	output 32 dimming
33	output 33 dimming	output 33 dimming	output 33 dimming	output 33 dimming	output 33 dimming	output 33 dimming	output 33 dimming	output 33 dimming	output 33 dimming
34	output 34 dimming	output 34 dimming	output 34 dimming	output 34 dimming	output 34 dimming	output 34 dimming	output 34 dimming	output 34 dimming	output 34 dimming
35	output 35 dimming	output 35 dimming	output 35 dimming	output 35 dimming	output 35 dimming	output 35 dimming	output 35 dimming	output 35 dimming	output 35 dimming
36	output 36 dimming	output 36 dimming	output 36 dimming	output 36 dimming	output 36 dimming	output 36 dimming	output 36 dimming	output 36 dimming	output 36 dimming
37	output 37 dimming	output 37 dimming	output 37 dimming	output 37 dimming	output 37 dimming	output 37 dimming	output 37 dimming	output 37 dimming	output 37 dimming
38	output 38 dimming	output 38 dimming	output 38 dimming	output 38 dimming	output 38 dimming	output 38 dimming	output 38 dimming	output 38 dimming	output 38 dimming
39	output 39 dimming	output 39 dimming	output 39 dimming	output 39 dimming	output 39 dimming	output 39 dimming	output 39 dimming	output 39 dimming	output 39 dimming
40	output 40 dimming	output 40 dimming	output 40 dimming	output 40 dimming	output 40 dimming	output 40 dimming	output 40 dimming	output 40 dimming	output 40 dimming
41	output 41 dimming	output 41 dimming	output 41 dimming	output 41 dimming	output 41 dimming	output 41 dimming	output 41 dimming	output 41 dimming	output 41 dimming
42	output 42 dimming	output 42 dimming	output 42 dimming	output 42 dimming	output 42 dimming	output 42 dimming	output 42 dimming	output 42 dimming	output 42 dimming
43	output 43 dimming	output 43 dimming	output 43 dimming	output 43 dimming	output 43 dimming	output 43 dimming	output 43 dimming	output 43 dimming	output 43 dimming
44	output 44 dimming	output 44 dimming	output 44 dimming	output 44 dimming	output 44 dimming	output 44 dimming	output 44 dimming	output 44 dimming	output 44 dimming
45	output 45 dimming	output 45 dimming	output 45 dimming	output 45 dimming	output 45 dimming	output 45 dimming	output 45 dimming	output 45 dimming	output 45 dimming
46	output 46 dimming	output 46 dimming	output 46 dimming	output 46 dimming	output 46 dimming	output 46 dimming	output 46 dimming	output 46 dimming	output 46 dimming
47	output 47 dimming	output 47 dimming	output 47 dimming	output 47 dimming	output 47 dimming	output 47 dimming	output 47 dimming	output 47 dimming	output 47 dimming
48	output 48 dimming	output 48 dimming	output 48 dimming	output 48 dimming	output 48 dimming	output 48 dimming	output 48 dimming	output 48 dimming	output 48 dimming

Short circuit protection

If short circuit of the connected load is detected, the display will flash to alarm and the load will be forced to open circuit status. Once the fault is removed, the decoder will recover after re-powered on.

The data definitions for strobe channel are as follows:

DISC_UNIQUE_BRANCH
DISC_MUTE
DISC_UN_MUTE
DEVICE_INFO
DMX_START_ADDRESS
IDENTIFY_DEVICE
SOFTWARE_VERSION_LABEL
DMX_PERSONALITY_LABEL
DMX_PERSONALITY_DESCRIPTION
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
PWM Resolution Quantity: SW1=0; ch24, SW1=1; ch01
PWM Resolution Mode: bit6
Gamma: ga1.5
Decoding Mode: dp1.1