DMX DECODER&MASTER

Summary
Welcome to use PX series DMX512/RDM decoder & driver. PX series adopt the advanced micro-computer control technology and converted the DMX512/RDM2009 digital signal widely used in international to the PWM control signal. 1~12 channels output for option and each channel able to achieve 256 or 65536 gradations of controlling, and also it can be used as the connector of PC digital light controller and analog light modulator. It is mainly used for the controlling of buildings & lights applied LED.

Product Features
- 12 channels output, the maximum current of 5A/ch for RGBWY decoder, up to 1440W
- Can be used as stand alone DMX Master controller
- OLED Screen and touch button, more convenient operation
- 27 sense modes built-in, with speed and brightness adjust function
- 3 kinds of optional: DIM, CT, RGB
- 2 kinds of DMX ports: Green terminal, RJ45
- Short-circuit protection, over-load protection, over-temperature protection
- Fast self-testing function
- 8 bit / 16 bit resolution optional (master mode support 8 bit only)
- Multiple dimming curve: (0.1~9.9), liner, log
- Meets DMX512/1990, RDM /2009 protocol
- Supported RDM parameters:
  DISC_UNIQUE_BRANCH
  DISC_MUTE
  DISC_UN_MUTE
  DEVICE_INFO
  SOFTWARE_VERSION_LABEL
  DMX512/RDM_START_ADDRESS
  IDENTIFY_DEVICE
  MANUFACTURER_LABEL
  SUPPORTED_PARAMETERS

12 channels output, the maximum current of 5A/ch for RGBWY decoder, up to 1440W
OLED Screen and touch button, more convenient operation
Can be used as stand alone DMX Master controller
8 bit / 16 bit resolution optional
Multiple dimming curve: (0.1~9.9), liner, log
Technical Parameters

Model: PX1205-OLED
Input Signal: DMX512 1990/RCM 2009
Input Voltage: 12-24V
Output Voltage: 12-24V
Output Current: 5A*12CH  MAX. 60A
Output Power: (0~60W) / (0~120W) SCH MAX. 1440W
Control Mode: DIM/CT/RGB
Dimming Curve: 0.1~9.9/Liner/Log
Grey Level: 8bit (256 levels) / 16bit (65536 levels)
Protection: Short-Circuit / Over Load / Over Temperature
Dimension: 164*93*38 mm (L * W * H)
Packing Size: 184*104*42 mm (L * W * H)
G.W.: 432 g
Operation Temperature: -20 - 50 °C
Relative humidity: 20% - 90% RH

Interface Description

1. Power input interface (DC1, DC2)
2. OLED Screen
3. Green terminal (with signal amplifier function)
4. RJ45 signal input and output
5. Green terminal LED Lamps connection (by DC1)
6. Green terminal LED Lamps connection (by DC2)

OLED Screen Description

<table>
<thead>
<tr>
<th>Button Name</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter</td>
<td>Enter button (focus on the option menu pointed by the cursor and enter the state of this option menu.</td>
</tr>
<tr>
<td>BACK</td>
<td>Back button, return to the previous menu, exit the state of this option.</td>
</tr>
<tr>
<td>Up</td>
<td>Move the cursor up, change the state of the option</td>
</tr>
<tr>
<td>Down</td>
<td>Move the cursor down, change the state of the option</td>
</tr>
</tbody>
</table>
The product restores the default initial page which shows the current parameter information and working status when power on again. Please press "ENTER" to homepage. If there is no operation in 1 minute, the OLED screen will restore the initial page.

### DMX Master

<table>
<thead>
<tr>
<th>DMX Decoder Curve</th>
<th>CH: RGB 888</th>
<th>Addr: 001</th>
<th>Line NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTER BACK UP DOWN</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Initial Page**

**Main Page**

**Mix Color**

- **Mix Color**
- Default Mode
- Bright: 001
- Speed: 1

**Mix Color Edit**

- **Mix Color Edit**
- Bright: 001
- Speed: 1

**Default Mode (RGB)**

- **NO.**
- **Mode**
- **NO.**
- **Mode**

<table>
<thead>
<tr>
<th>NO.</th>
<th>Mode</th>
<th>NO.</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Red</td>
<td>15</td>
<td>GB Ramp</td>
</tr>
<tr>
<td>2</td>
<td>Green</td>
<td>16</td>
<td>RGB Ramp</td>
</tr>
<tr>
<td>3</td>
<td>Blue</td>
<td>17</td>
<td>ALL Ramp</td>
</tr>
<tr>
<td>4</td>
<td>Yellow</td>
<td>18</td>
<td>RG_Gradient</td>
</tr>
<tr>
<td>5</td>
<td>Cyan</td>
<td>19</td>
<td>RB_Gradient</td>
</tr>
<tr>
<td>6</td>
<td>Purple</td>
<td>20</td>
<td>GB_Gradient</td>
</tr>
<tr>
<td>7</td>
<td>White</td>
<td>21</td>
<td>RGB_Gradient</td>
</tr>
<tr>
<td>8</td>
<td>RG Jump</td>
<td>22</td>
<td>ALL_Gradient</td>
</tr>
<tr>
<td>9</td>
<td>RB Jump</td>
<td>23</td>
<td>RG_Chase</td>
</tr>
<tr>
<td>10</td>
<td>GB Jump</td>
<td>24</td>
<td>RB_Chase</td>
</tr>
<tr>
<td>11</td>
<td>RGB Jump</td>
<td>25</td>
<td>GB_Chase</td>
</tr>
<tr>
<td>12</td>
<td>ALL Jump</td>
<td>26</td>
<td>RGB_Chase</td>
</tr>
<tr>
<td>13</td>
<td>RG Ramp</td>
<td>27</td>
<td>ALL_Chase</td>
</tr>
<tr>
<td>14</td>
<td>RB Ramp</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Default Mode (CT)**

- **Default Mode**
- **CT Brightness setting**
- Press "up" or "down" key
- Warm: 0-255 adjustable
- Cool: 0-255 adjustable

**Default Mode (DIM)**

- **DIM Brightness setting**
- Press "up" or "down" key
- Dim: 0-255 adjustable

Updated at 2017-08-31
DMX Decoder & Master

DMX Address Setting
- Press "up" or "down" key to set DMX Address
- Address: 1-511 adjustable

Dimming Curve Setting
- Press "up" or "down" key to set dimming curve
- Curve: 0.1-9.9
  - Linear
  - Log

Resolution Setting
- Press "up" or "down" key to set resolution
- Resolution: 8Bit
- 16Bit

System Setting

Output Setting
- Press "up" or "down" key to set output channel
- CH: DIM
- CT: RGB
- RGBW
- RGBWY

System Status

OTP/OCP/SCP Status
- When using DMX decoders after wiring is completed, you can check the short circuit, over current, over load problems in this page.
- Once a fault occurs, the "OK" will switch to "Warning" on the screen.

Factory Reset
- Restore to Factory Setting?
- Yes (Enter) / No (Back)

Self-Testing
- Quick self-testing
- Press "BACK" for 3s

Wiring Diagram

Connecting LED lights:
PX1205-OLED is equipped with 2 types DMX terminals for users’ selection. The following diagram takes RJ45 as an example, same connecting method for Green terminal.

An amplifier is needed when more than 32 decoders are connected, signal amplification should not be more than 5 times continuously.

If the recoil effect occurs because of longer signal line or bad line quality, please try to connect 0.25W 90-120Q terminal resistor at the end of each line.

The connection diagram of 2 kinds of DMX/RDM terminals:

<table>
<thead>
<tr>
<th>Mode</th>
<th>DIM</th>
<th>CT</th>
<th>RGB</th>
<th>RGBW</th>
<th>RGBY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address Quantity</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Resolution</td>
<td>8bit</td>
<td>8bit</td>
<td>8bit</td>
<td>8bit</td>
<td>8bit</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Channel</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

RJ45 Connected in parallel

Updated at 2017-08-31

Address setting table

<table>
<thead>
<tr>
<th>Mode</th>
<th>DIM</th>
<th>CT</th>
<th>RGB</th>
<th>RGBW</th>
<th>RGBY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address Quantity</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Resolution</td>
<td>16bit</td>
<td>16bit</td>
<td>16bit</td>
<td>16bit</td>
<td>16bit</td>
</tr>
</tbody>
</table>

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</tr>
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<td>5</td>
</tr>
</tbody>
</table>

Green terminal connected in parallel