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SUPERLIGHTINGLED
SUPERLIGHTINGLED
DMX512 RDM Enabled
Waterproof Decoder

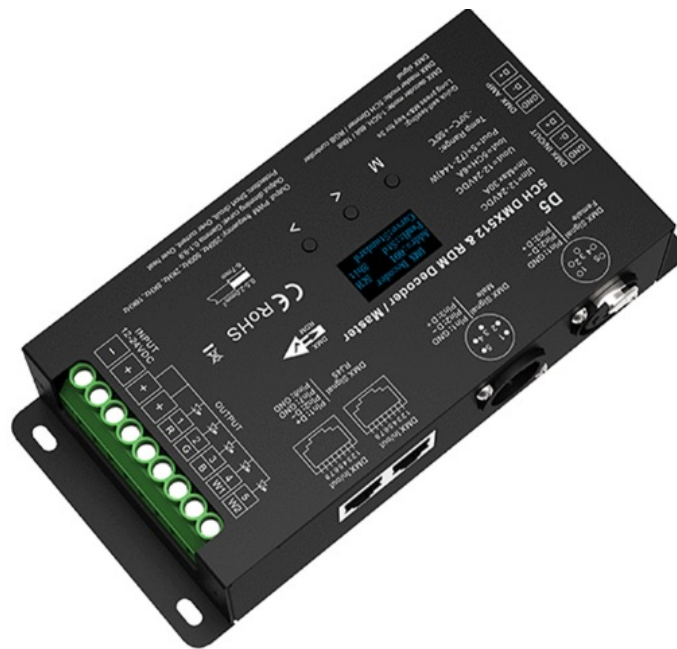# SUPERLIGHTINGLED DMX512 RDM Enabled Waterproof Decoder Instructions

Contents

SUPERLIGHTINGLED

SUPERLIGHTINGLED DMX512 RDM Enabled Waterproof Decoder

Specifications

No.	Input Voltage	Output Current	Output Power	Remarks	Size (LxWxH)
1	12-36VDC	4x5A	4x(60-180)W Constant voltage		180.5×73.6x38mm
2	12-36VDC	4x350mA	4x(4.2-12.6)W Constant current		180.5×73.6x38mm
3	12-36VDC	4x700mA	4x(8.4-25.2)W Constant current		180.5×73.6x38mm

- **Ambient Temperature:** -25°C to +45°C
- **Safety & Warnings:** Common Anode Output(+) CH 1:R/WW output(-) CH 2:G/CW output(-) CH 3:B/WW output(-) CH 4:W/CW output(-)

Product Usage Instructions

Setting DMX512 Address

To set the desired DMX512 address:

1. Press and hold any of the 3 buttons (A, B, C) for over 3 seconds to enter address setting mode.
2. Use button A to set the hundreds position, button B for the tens position, and button C for the units position.
3. Press and hold any button for over 3 seconds to confirm the setting.

Choose DMX Channel

To choose the DMX channel:

1. Press and hold both buttons B and C simultaneously for over 3 seconds to enter channel selection mode.
2. Use button A to choose from 1/2/3/4 channels.
3. Press and hold button A for over 3 seconds to confirm the setting.

Choose Dimming Curve Gamma Value

To choose the dimming curve gamma value:

1. Press and hold all buttons A, B, and C simultaneously for over 3 seconds.

2. Use buttons B and C to select the gamma value from 0.1 to 9.9.

3. Press and hold both buttons B and C for over 3 seconds to confirm the setting.

Firmware OTA Update

If a firmware update is available:

1. Connect the decoder to a Windows computer via a USB to serial port converter.

2. Use software RS485-OTW on the computer to push the firmware update to the decoder.

FAQHow do I update the firmware of the decoder?
To update the firmware, follow these steps:

1. Connect the decoder to a Windows computer using a USB to serial port converter.

2. Use software RS485-OTW on the computer to push the firmware update to the decoder.

What is the default DMX address for the product?
The factory default DMX address is 001.

How can I set the DMX512 address?
To set the DMX512 address, follow these steps:

1. Press and hold any of the 3 buttons (A, B, C) for over 3 seconds to enter address setting mode.

2. Use button A to set the hundreds position, button B for the tens position, and button C for the units position.

3. Press and hold any button for over 3 seconds to confirm the setting.

RDM Enabled Waterproof DMX512 Decoder

Important: Read All Instructions Prior to Installation Function introduction
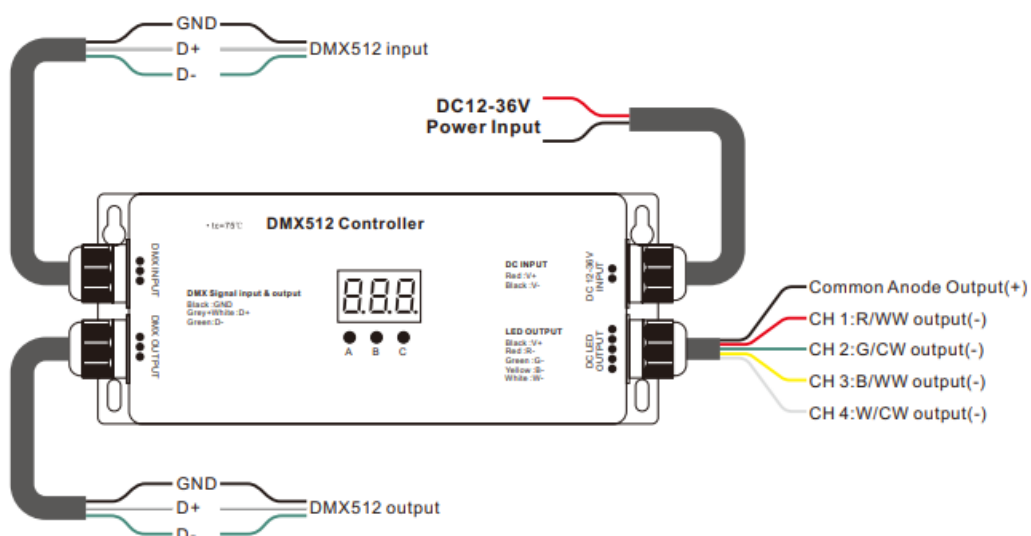
Product Data

No.	Input Voltage	Output Current	Output Power	Remarks	Size(LxWxH)	Ambient Temperature
1	12-36VDC	4x5A	4x(60-180)W	Constant voltage	180.5×73.6x38mm	-25℃ ~ +45℃
2	12-36VDC	4x350mA	4x(4.2-12.6)W	Constant current	180.5×73.6x38mm	-25℃ ~ +45℃
3	12-36VDC	4x700mA	4x(8.4-25.2)W	Constant current	180.5×73.6x38mm	-25℃ ~ +45℃

- Standard DMX512 compliant control interface
- RDM function enabled to realize intercommunication between DMX master and decoder.
- For example, DMX decoder's address can be assigned by DMX master console
- With digital display to show data directly, easily to set and show DMX address.
- Total 4 PWM output channels, common anode
- DMX address manually settable
- DMX channel quantity from 1CH~4CH settable
- Output PWM frequency from 200HZ ~ 35K HZ settable.
- Output dimming curve gamma value from 0.1 ~ 9.9 settable
- To work with power repeater to expand output power unlimitedly.
- Waterproof grade:IP67

Safety & Warnings

- DO NOT install with power applied to device.
- This device is IP67 rating and protected against damp environment.

Operation

To set desired DMX512 address through buttons, button A is to set "hundreds" position,

- button B is to set "tens" position,
- button C is to set "unit" position.

Set DMX address (Factory default DMX address is 001)
Press and hold down any of the 3 buttons for over 3 seconds, digital display flashes to enter into address setting, then keep short pressing button A to set "hundreds" position, button B to set "tens" position, button C to set "units" position, then press and hold down any button for >3 seconds to confirm the setting.

DMX signal indicator (the digit 0 of "hundreds" position of DMX address) : When DMX signal input is detected,

the digit 0 of "hundreds" position of DMX address will stay solid on. If there is no signal input, the digit 0 of "hundreds" position of DMX address will blink.

4.C.H.

Choose DMX Channel (Factory default DMX channel is 4CH)

- Press and hold down both buttons B+C simultaneously for over 3 seconds, CH digital display flashes, then
- keep short pressing button A to choose 1/2/3/4, which means total 1/2/3/4 channels. Press and hold down button A for >3 seconds to confirm the setting. Factory default is 4 DMX channels.

For example the DMX address is already set as 001.

1. CH=1 DMX address for all the output channels, which all will be address 001.
2. CH=2 DMX addresses , output 1&3 will be address 001, output 2&4 will be address 002
3. CH=3 DMX addresses, output 1, 2 will be address 001, 002 respectively, output 3&4 will be address 003
   4CH=4 DMX addresses, output 1, 2, 3, 4 will be address 001, 002, 003, 004 respectively

P.F.1

Choose PWM frequency (Factory default PWM frequency is PF1 1KHz)

- Press and hold down both buttons A+B simultaneously for over 3 seconds, digital display will show PF1, PF means output PWM frequency, the digit 1 will flash, which means frequency, then keep short pressing button C to select a frequency from 0-9 and A-L, which stand for following frequencies:
- 0=500Hz, 1=1KHz, 2=2KHz, …, 9=9KHz, A=10KHz, B=12KHz, C=14KHz, D=16KHz, E=18KHz, F=20KHz, H=25KHz, J=35KHz, L=200Hz.
- Then press and hold down button C for >3 seconds to confirm the setting.

9.1.5.

Choose Dimming Curve Gamma Value (Factory default dimming curve value is g1.5)
Press and hold down all buttons A+B+C simultaneously for over 3 seconds, digital display flashes g1.5, 1.5 means the dimming curve gamma value, the value is selectable from 0.1-9.9, then keep short pressing button B and button C to select corresponding digits, then press and hold down both buttons B+C for >3 seconds to confirm the setting.
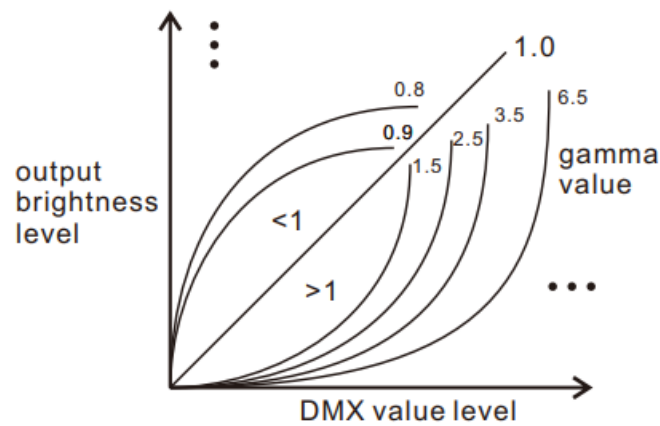
Firmware OTA update

You will get this after power on the decoder, it means this decoder supports firmware OTA update function. This function can be used when there is a firmware update from the manufacturer, the update can be executed through a Windows computer and an USB to serial port converter, the converter will connect the computer and the decoder's hard wire DMX port. A software RS485-OTW on the computer will be used to push the firmware to the decoder.

Connect the computer and the decoder through the USB to serial port converter, if you need to update multiple decoders' firmware, connect the converter to first decoder's DMX port, then connect other decoders to the first decoder in daisy chain through the DMX port. Please do not power on the decoders. Run the OTA tool RS485-OTW on the computer, select the correct communication port "USB-SERIAL" , baudrate "250000", and data bit "9", use default settings for other configurations. Then click "file" button to select the new firmware from the computer, then click "Open Port", the firmware will be loaded. Then click "Download Firmware", the right side state column of the OTA tool will show "send link". Then power on the decoders before "wait erase" displaying on the state column, the digital display of the

decoders will show . Then "wait erase" will show on the state column, which means the updating starts. Then the OTA tool starts writing data to the decoders, the state column will show the progress, once writing data

finishes, the digital display of the decoders will flash , which means firmware updated successfully.

Restore to Factory Default Setting

Press and hold down both buttons A+C for over 3 seconds until the digital display turns off and then turns on again, all settings will be restored to factory default.

Default settings are as follows

- DMX Address: 001
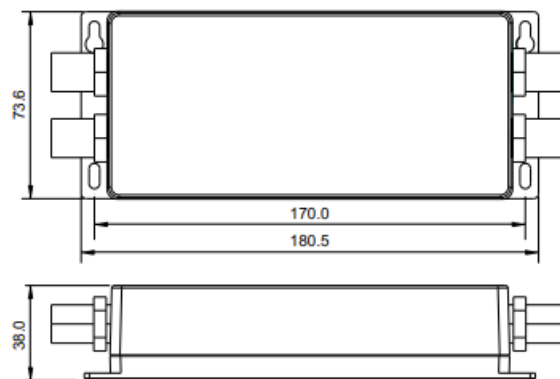- DMX Address Quantity: 4CH
- PWM Frequency: PF1
- Gamma: g1.0

RDM Discovery Indication

When using RDM to discover the device, the digital display will flash and the connected lights will also flash at the same frequency to indicate. Once the display stops flashing, the connected light also stops flashing.
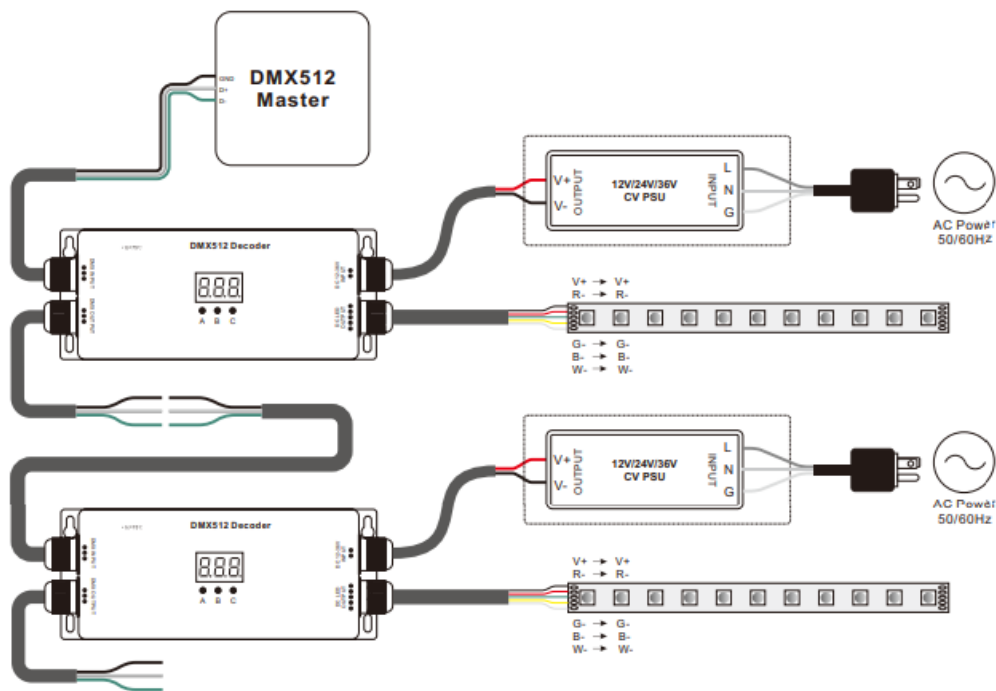
The supported RDM PIDs are as follows:

- 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
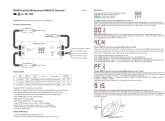- SLOT_DESCRIPTION
- MANUFACTURER_LABEL
- SUPPORTED_PARAMETERS

Product Dimension

Wiring Diagram

Documents / Resources

SUPERLIGHTINGLED DMX512 RDM Enabled Waterproof Decoder [pdf] Instructions
DMX512, DMX512 RDM Enabled Waterproof Decoder, RDM Enabled Waterproof Decoder, Enabled Waterproof Decoder, Waterproof Decoder, Decoder

References

- **User Manual**