6 Channels CV DMX512 Decoder with On-Board Display

Model No.: ART-E0610HF-C6

On-Board LCD display/Four PWM frequency/Six Channels Output



Features

- Comply with the DMX512/1990 standard protocols.
- Direct manual control using the LCD screen and buttons.
- Converts standard DMX signal to hi-frequency PWM-for 12V-48V LED lights
- 16bit (65536 levels) /8bit (256 levels) grey level selectable.
- PWM frequency 5Hz-30KHz selectable.
- The 7 output terminals provide 6 independently controllable channels of constant-voltage PWM dimming, and a common anode power terminal (shared positive).

Technical Parameters

Input and Output	
Input voltage	12-48VDC
Output current(Max.)	6CH×10A@12-24V 6CH×6A@25-48V
Output power(Max.)	720W@12V 1440W@24V 1728W@48V
Output type	Constant voltage

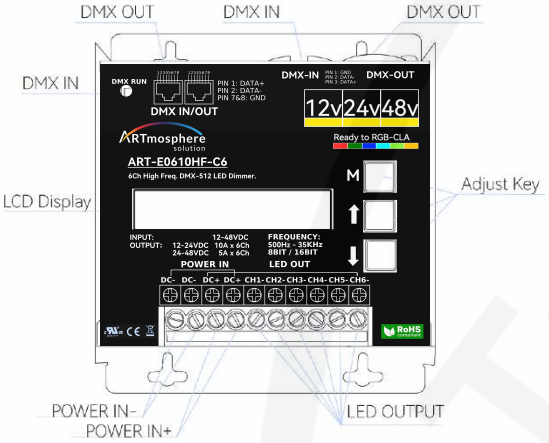
Grey Levels and PWM Frequency	
Grey Levels	16bit (65536 levels)/ 8bit (256 levels)
PWM Frequency	5K/10K/20K/30KHz

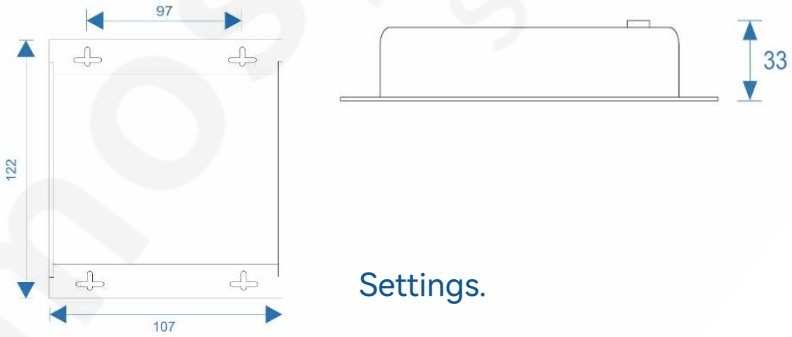
Size and Weight	
Size	L122×W107×H33mm
Gross weight	450g

Environment	
Operation temperature	Ta: -30 °C ~ +55°C
IP rating	IP40

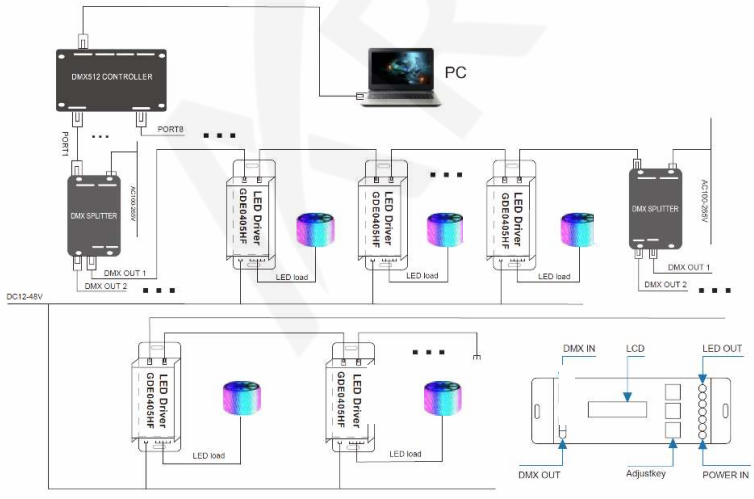
Input and Output Connectors	
DMX IN/ OUT	RJ45/XLR
Power in/LED Out	10PIN Phoenix Connector

Mechanical Structures and Installations





Wiring Diagram



Settings.

Configurable Options	Ranges
-DMX Address:	1 to 512.
-Resolution:	8-Bit or 16Bit.
-PWM Frequency:	500 Hz to 35.000 Hz adjustable in 500Hz.
-Color Mode:	RGB-CCT, HSI Mode, or XY Mode.
-Dimming Channels 1-3:	Values scale based on the selected ColorMode Red/Green/Blue(0-100%), Hue(0-100%) Saturation(0-100%) Intensity(0-100%) or X/Y/Brightness(0-100%).
-Dimming Channels 4-6:	Warm White, Cold White, and Amber (All adjustable from 0-100%).
-Dimming Curve:	Linear, Exponential, or Inverse Exp.
-Power On Mode:	Restore Last, Wait For DMX, or Manual UI.
-DMX Loss Mode:	Hold Last, Blackout, Manual UI, or Fade Black.
-DMX Timeout:	1 to 30 seconds.
-Fade Curve:	Off, Linear, or Smooth.
-Fade Time:	Off, or 0.5 to 30.0 seconds (when a fade curve is acrive).
-Manual Override:	ON or OFF.
-Channel Test:	ON or OFF (includes the ability to select a spacific test channel).
-Screen Timeout:	5 to 60 seconds(adjustable in 5-second steps)
-OK Hold Time:	50 ms to 1000 ms.
-Factory Reset:	Restores default settings(requires holding the M button for 3 seconds).

ARTmosphere solution

Note:

1. There is a 7 pin phoenix connector socket with two power input pins for a 12/24/48V power supply, as well as one power output pin and four channel output pins.
2. A recommended 10 decoders maximum can be chained together on one DMX512 network. To add more unit loads, and for networks longer than 300 meters, a DMX repeater, amplifier, or opto-isolator is needed.
3. DMX control is only active while the DMX channel is displayed. If the dimming console stops transmitting DMX data, the decoder will retain the last values it received until the device is powered off.

Operation

Adjust the internal parameter such as address code, 8/16bit, PWM frequency, and set manual brightness levels of each channel by the keys and which will displayed on the LCD screen.



Call up the DMX512 external control and internal dimming program menu, like address code, 8/16bit, PWM frequency, etc. and set manual brightness levels of each channel.



Adjust the address code, adjust the brightness, frequency, 8/16 bit UP and Down.

Self-test procedures

Set DMX address to 000, RGBW full output during 3s, then R, G, B, W fading.

Notes:

1.DMX signal cable is three core shielded signal cable, the signal cable with positive, negative, when connect the DMX signal terminals pls pay more attention to the polarity.
2. When connect the decoder, please make sure to the corresponding positive, negative and GND.
3. The cable between DMX controllers, splitters and decoders should not over 300meters.
4. A maximum of 10 DMX Decoders may be connected together via the RJ45 or XLR DMX Connection Ports. DMX signal may be extended further by installing a DMX repeater or splitter after the 10th DMX Decoder.
5. An additional splitter/amplifier must be added after 32pcs decoders. Cascade connection must not more than 4 PCS.

Safety Information

1.Install in accordance with national and local electrical code regulations.

2. This product is intended to be installed and serviced by a qualified, licensed electrician.

3. The working voltage for the decoder is DC12-48V, DO NOT connect to high voltage power. Install with a compatible constant voltage power supply or battery with appropriate voltage.

4. Only install compatible 12VDC-48VDC constant voltage luminaires. Make sure to match power supply voltage to the requirements of the LED light. Ignoring this could lead to a potential fire hazard.

5. This product is rated for indoor use only and is not protected against moisture.

6. Choose an appropriate wire gauge for the maximum potential current load, given your choice of power supply and lights. Keep in mind that the sum total current for all channels is carried over the shared LED+ terminal, so the total current over the LED+ conductor is typically the determining factor in cable choice.

7. Ensure that power is disconnected whenever inserting or removing wires in screw terminals, or connectors in sockets.

8 Ensure that all screw terminals are tightened and all connectors are fully inserted while in operation.

Malfunctions analysis & troubleshooting

Malfunctions	Causes	Troubleshooting
No light	1. No power. 2. Wrong connection or insecure.	1. Check the power. 2. Check the connection.
Wrong color	1. Wrong connection of R/G/B/W wires. 2. DMX decode address error.	1. Reconnect R/G/B/W wires. 2. Set correct decode address.
Uneven intensity between front and rear, with voltage drop	1. Output cable is too long. 2. Wire diameter is too small. 3. Overload beyond power supply capability. 4. Overload beyond controller capability.	1. Reduce cable or loop supply. 2. Change wider wire. 3. Replace higher power supply. 4. Add power repeater.