

5 Channels Constant DMX 512 & RDM Decoder

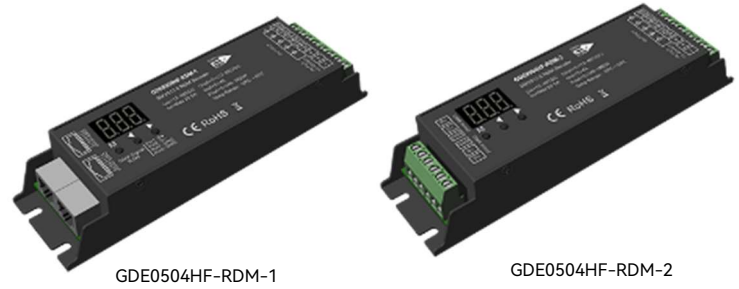
Model No.: GDE0504HF-RDM-1/ GDE0504HF-RDM-2

RDM/Numeric display/Seven PWM frequency/Linear or logarithmic dimming/Multiple protection

Features

- Comply with the DMX512 standard protocols.
- Digital numeric display, set DMX decode start address by buttons.
- RDM function can realize intercommunication between DMX master and decoder.
For example, DMX decoder address can be set by DMX master console.
- 16bit (65536 levels) /8bit (256 levels) grey level selectable.
- PWM frequency 250/500/1000/2000/4000/8000/16000Hz selectable.
- Logarithmic or linear dimming curve selectable.
- Over-heat / Over-load / Short circuit protection, recover automatically.
- GDE0504HF-RDM-1 has RJ-45 DMX signal ports, GDE0504HF-RDM-2 has

Green terminal DMX signal ports



GDE0504HF-RDM-1

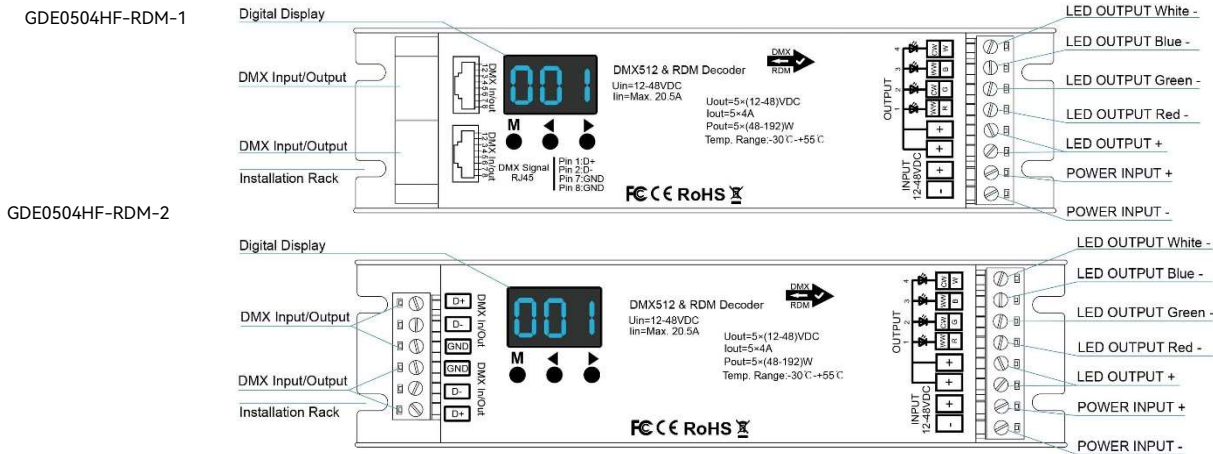
GDE0504HF-RDM-2

CE RoHS EMC LVD

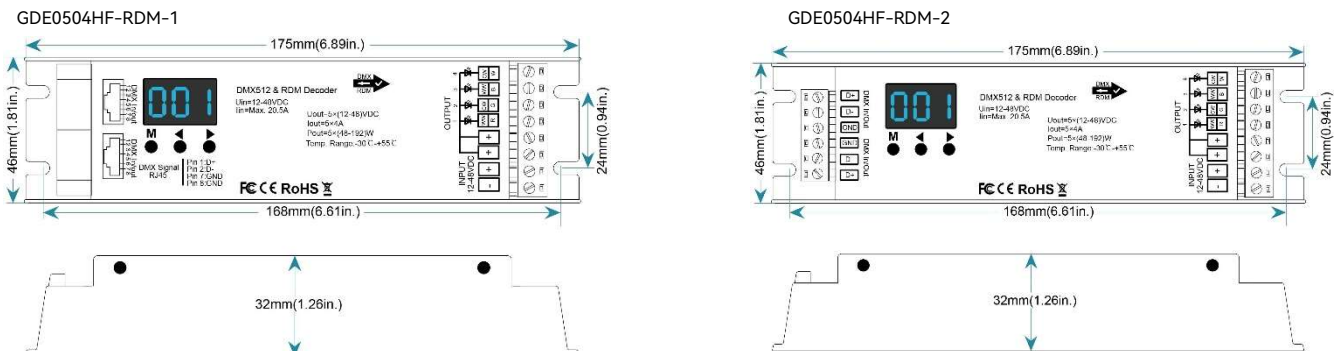
Technical Parameters

Input and Output		Safety and EMC		Environment	
Input voltage	12-48VDC	EMC standard (EMC)	ETSI EN 301 489-1 V2.2.3	Operation temperature	Ta: -30 °C ~ +55°C
Input current	20.5A		ETSI EN 301 489-17 V3.2.4	Case temperature (Max.)	Ta: +75°C
Output voltage	12-48VDC	Safety standard(LVD)	EN 62368-1:2020+A11:2020	IP rating	IP20
Output current	5CH, 4A/CH	Certification	CE,EMC,LVD	Protection	
Output power	5×48W @12V 5×96W@24V	Warranty		Protection	Reverse polarity Over-heat Over-load Short circuit
	5×144W@36V 5×192W@48V	Warranty	5 years		
Output type	Constant voltage	Package			
		Size	L178x W50 x H38mm		

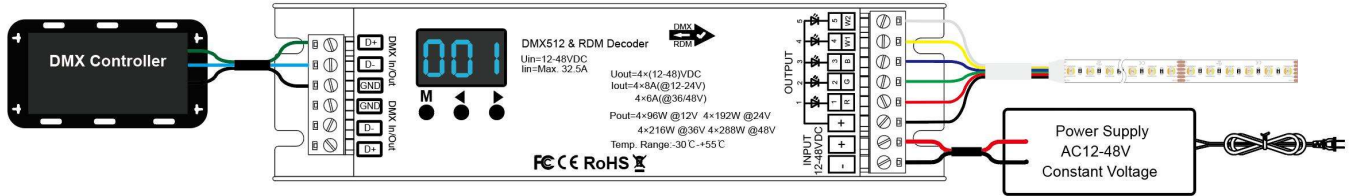
Mechanical Structures and Installations



Mechanical Dimensions



Wiring Diagram



Note:

1. An DMX signal amplifier is needed if more than 32 decoders are connected, or use overlong signal line, signal amplification should not be more than 5 times continuously.
2. If the recoil effect occurs because of longer signal line or bad line quality, please try to connect 0.25W 90~120Ω terminal resistor at the end of each DMX signal line.

Operation

System parameter setting

- Long press M and ◀ key in the same time for 2s, prepare for setup system parameter: grey level, output PWM frequency, output brightness curve, default output level, automatic blank screen. short press M key to switch five item. • Grey level: short press ◀ or ▶ key to switch 8bit("b08") or 16 bit("b16"). choose 16 bit.
- Output PWM frequency: short press ◀ or ▶ key to switch 250Hz("F02"), 500Hz("F05"), 1000Hz("F10"), 2000Hz("F20"), 4000Hz("F40"), 8000Hz("F80") or 16000Hz("F16").
- Higher PWM frequency, will cause lower output current, higher power noise, but more suitable for a camera(No flickers for video).
- Output brightness curve: short press ◀ or ▶ key to switch linear curve("C-L") or logarithmic curve("C-E").
- Default output level: press ◀ or ▶ key to change default 0~100% level ("d00" to "dFF") when no DMX input signal.
- Automatic blank screen: short press ◀ or ▶ key to switch enable ("bon") or disable("boF") automatic blank screen.
- Long press M key for 2s or timeout 10s, quit system parameter setting.

DMX mode

- Short press M key, when display 001~512, enter DMX mode.
- Press ◀ or ▶ key to change DMX decode start address(001~512), long press for fast adjustment.

input, will enter DMX mode automatically.

GDE0504HF-RDM-1/ GDE0504HF-RDM-2 decoder occupy 5 DMX address when connecting the DMX console.

defaulted start address is 1, their corresponding relationship in the form below:

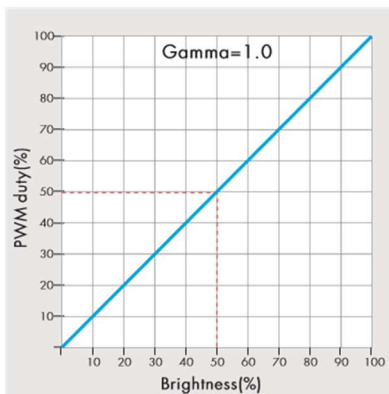
DMX Console	DMX Decoder Output
CH1 0~255	CH1 PWM 0~100% (LED R)
CH2 0~255	CH2 PWM 0~100% (LED G)
CH3 0~255	CH3 PWM 0~100% (LED B)
CH4 0~255	CH4 PWM 0~100% (LED W1)
CH5 0~255	CH5 PWM 0~100% (LED W2)

Self-test mode

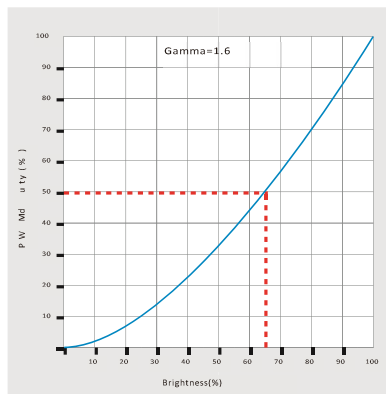
- Enter self-test mode only when DMX signal is disconnected or lost.
- Short press M key, when display L~L-6, enter self-test mode.
- Press ◀ or ▶ key to change mode number(L~L-6).
- Self-test mode include ve channel light up separately or synchronously.

Dimming curve setting

Linear dimming curve



Logarithmic dimming curve



- If there is a DMX signal
 - DMX Dimming: Each
- For example, the

DMX mode
(001~512)



Self-test mode
(L1~L6)

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.