

Constant Voltage DMX RGBW Dimming Module

GRE Alpha's Constant Voltage DMX dimming modules support high resolution RGBW color control and features full integration with DMX512-A protocol. The onboard dip switch allows for selection between 8 bit and 16 bit mode operation; wide DC input makes them suitable for both 12V and 24V applications. These versatile devices come in fully isolated and non isolated versions with options for RJ 45 terminal block connections. These devices are compliant with RDM protocol for bi-directional entertainment lighting and lighting control communication.

Features

- 5 – 24V DC input
- RGBW color control
- 8-bit or 16-bit resolution
- Spring-loaded terminal for easy installation
- With or without input/output isolation versions available
- Dimming curve selection **
- Terminal block connectors or RJ45 connectors versions to choose from for DMX control signal
- Dimming Range: 0-100%
- 97% Efficiency

Applications

- Architectural Lighting
- Linear LED Lighting
- Constant Voltage Lighting Applications
- Lighting Controls
- Smart Lighting



SLD-DIM-DMX

DMX RGBW Dimming Module



Model Number	Input Voltage Range (VDC)	Channel(s) Output	Output Rating		Max Output Power (All Channels) (W)
			Voltage (VDC)	Max. Current (All Channels) (A)	
SLD-DIM-DMX4	5 -24	4	Vin - 0.2~0.5V	5	100
SLD-DIM-DMX4I	5 -24	4	Vin - 0.2~0.5V	5	100
SLD-DIM-DMX4-RJ45	5 -24	4	Vin - 0.2~0.5V	5	100
SLD-DIM-DMX4I-RJ45	5 -24	4	Vin - 0.2~0.5V	5	100

SLD-DIM-DMX4: Terminal block connector for DMX control signal, without isolation; SLD-DIM-DMX4I: Terminal block connector for DMX control signal, with isolation; SLD-DIM-DMX4-RJ45: RJ45 connector for DMX control signal, without isolation; SLD-DIM-DMX4I-RJ45: RJ45 connector for DMX control signal, with isolation;

* UL marking: for products manufactured in Vietnam only, effective October 2020.

** Logarithmic mode only works on 8-bit resolution

Copyright © 2016 GRE Alpha. All rights reserved. Reproduction in whole or in part without permission is prohibited.

SLD-DIM-DMX
Preliminary datasheet for reference only

Input Specification

Voltage Range	5-24Vdc	Dimmable Input Voltage Range	5 A max
Over Voltage Protection	@Vin=50V	Dimming Range	0-100%
Recommended input wire length	Max 3m		

Output Specification

Output Voltage	Vin - 0.2~0.5V	Output Current	5A max(All Channels)
Power Efficiency	97% @ Full Load	Max. Output Power	100W(Single Channel), 120W(sum of all channels)
Over Current Protection	110% Iout(Max)	Over Temperature Protection	Power MOSFET @ 105°C
PWM Frequency	733 Hz	Recommended LED output wire length	up to 30m*
Standby Power	200mW(Max)	Other Protection Modes	Thermal shutdown with auto restart overload protection

* --Depends on LED specification

Environmental Specification

MTBF	Cooling	Max Case Temp	Operating Temp	Storage Temp
55,000 Hours @ 25°C full load	Convection	60°C	-25°C - 40°C @ Full load	-25°C - 85°C

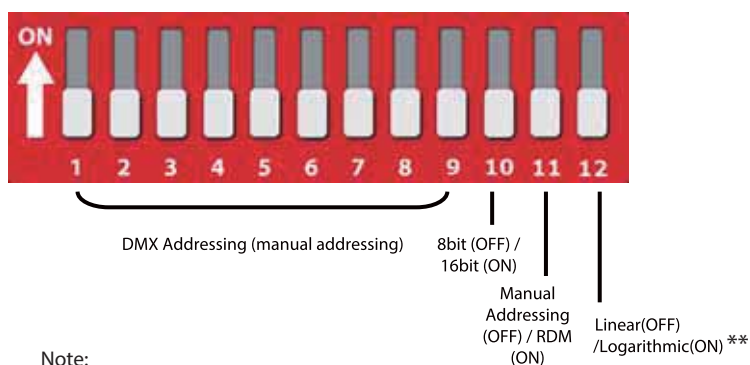
Compliance/Safety

Safety Standards:	US Standard: UL/CUL 244A, FCC part 15 Class B EU Standard: CE & CB, included EMC & EMI- EN55015, IEC61558-1, SELV, IEC 61347-2-13 Dimming Standard: IEC62386-101, 102 and 207
Weatherability:	IP 20

Mechanical Specification

Dimming Module Dimensions	123(L)*46(W)*19.6(H)mm(SLD-DIM-DMX4/DIM-DMX4I) 123(L)*46(W)*21.8(H)mm(SLD-DIM-DMX4-RJ45/DIM-DMX4I-RJ45)
Case Design/Material	Polycarbonate White
Connector Type	WAGO terminal block connectors(With RJ45 connectors for RJ45 version)
Connectors	Vin+, Vin-, R-, G-, B-, W-, DC+, DMX IN, DMX OUT
Wire Size	24-16 AWG(0.25-1mm ²)

Pin Assignment



Note:

When DIP11=OFF (Manual Addressing mode):

DIP1-9=00000000 => Address R=1, G=2, B=3, W=4

DIP1-9=10000000 => Address R=2, G=3, B=4, W=5

DIP1-9=01000000 = Address R=3, G=4, B=5, W=6

DIP1-9=10111111, 01111111 or 11111111 not to be used

** Logarithmic mode only works on 8-bit resolution

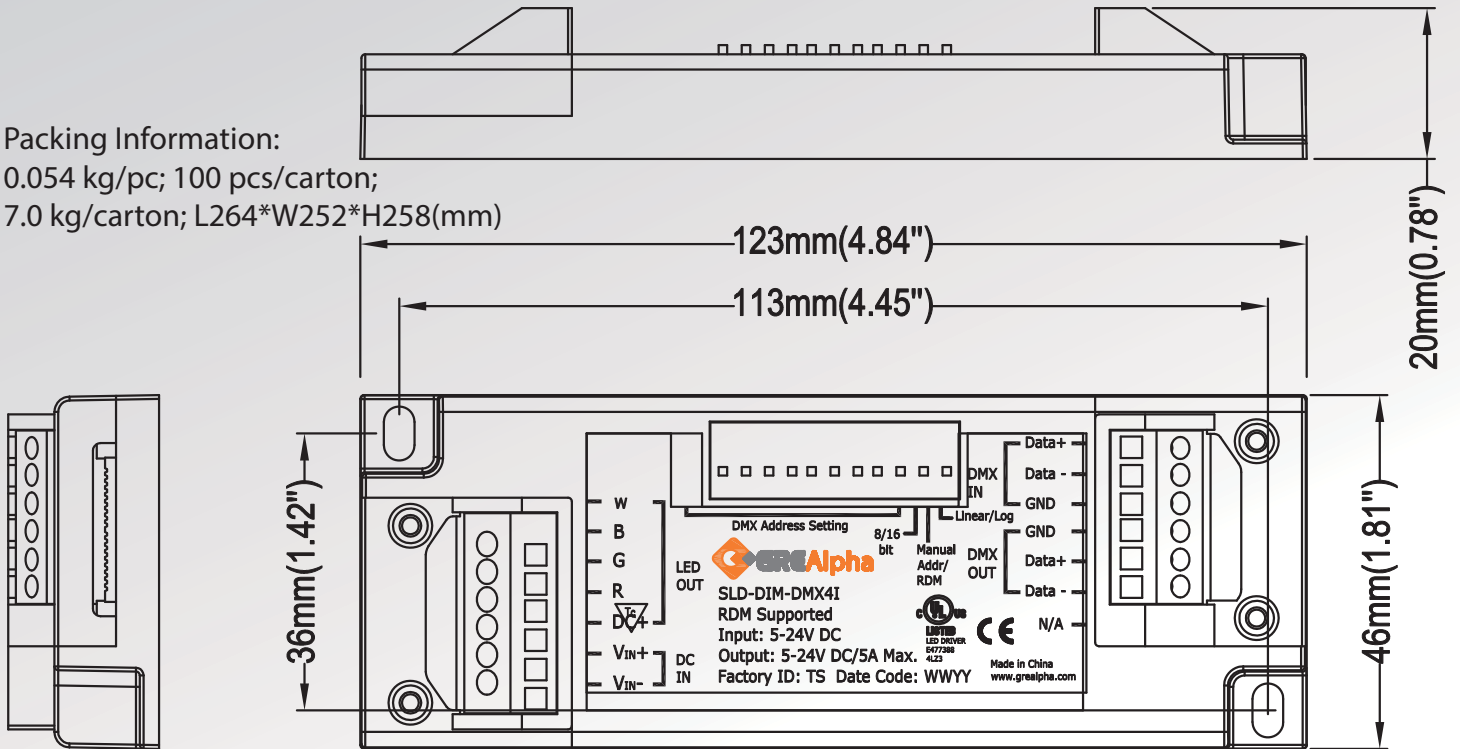
Mechanical Diagram

SLD-DIM-DMX4 / SLD-DIM-DMX4I

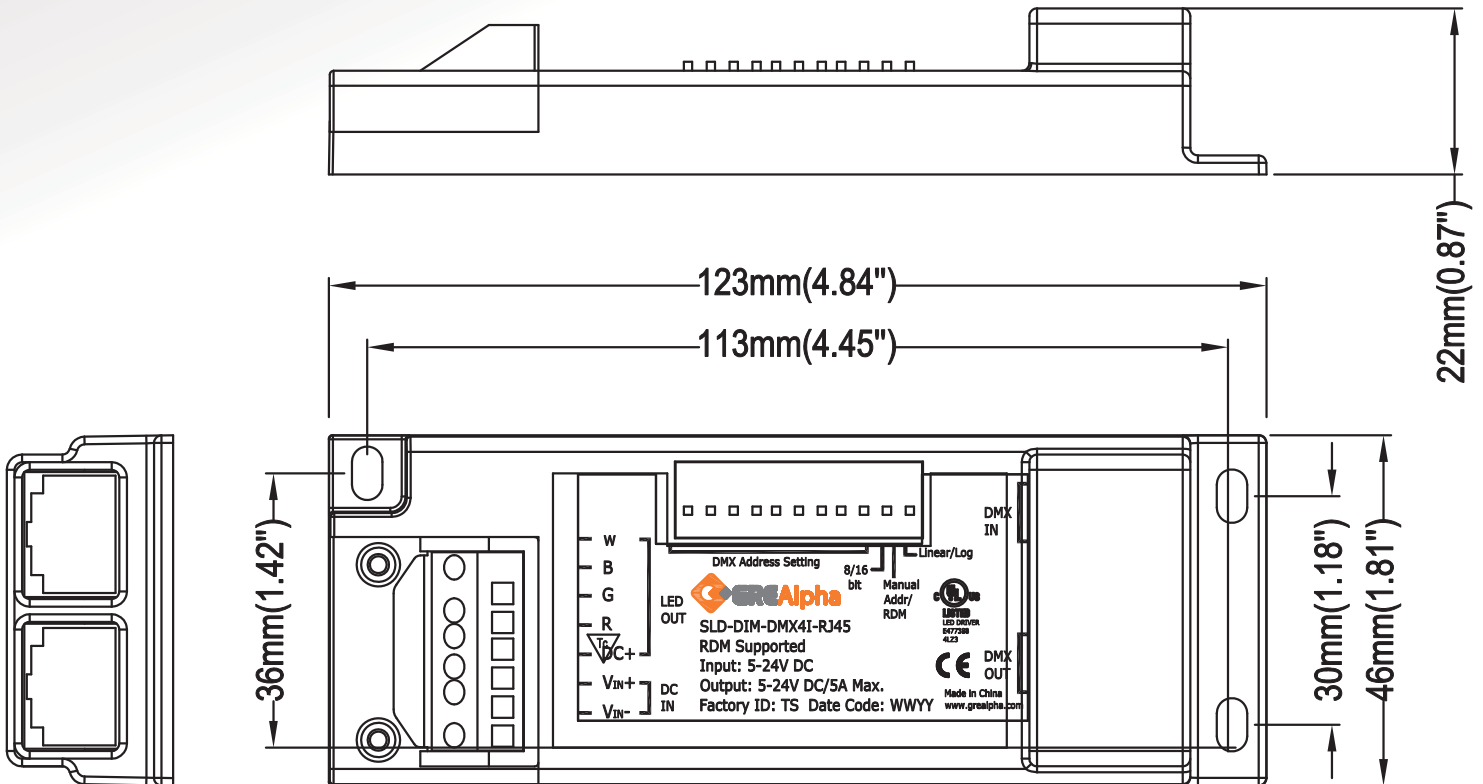
Packing Information:

0.054 kg/pc; 100 pcs/carton;

7.0 kg/carton; L264*W252*H258(mm)



SLD-DIM-DMX4-RJ45 / SLD-DIM-DMX4I-RJ45



Packing Information:

0.060 kg/pc; 100 pcs/carton;

8.0 kg/carton; L264*W252*H258(mm)

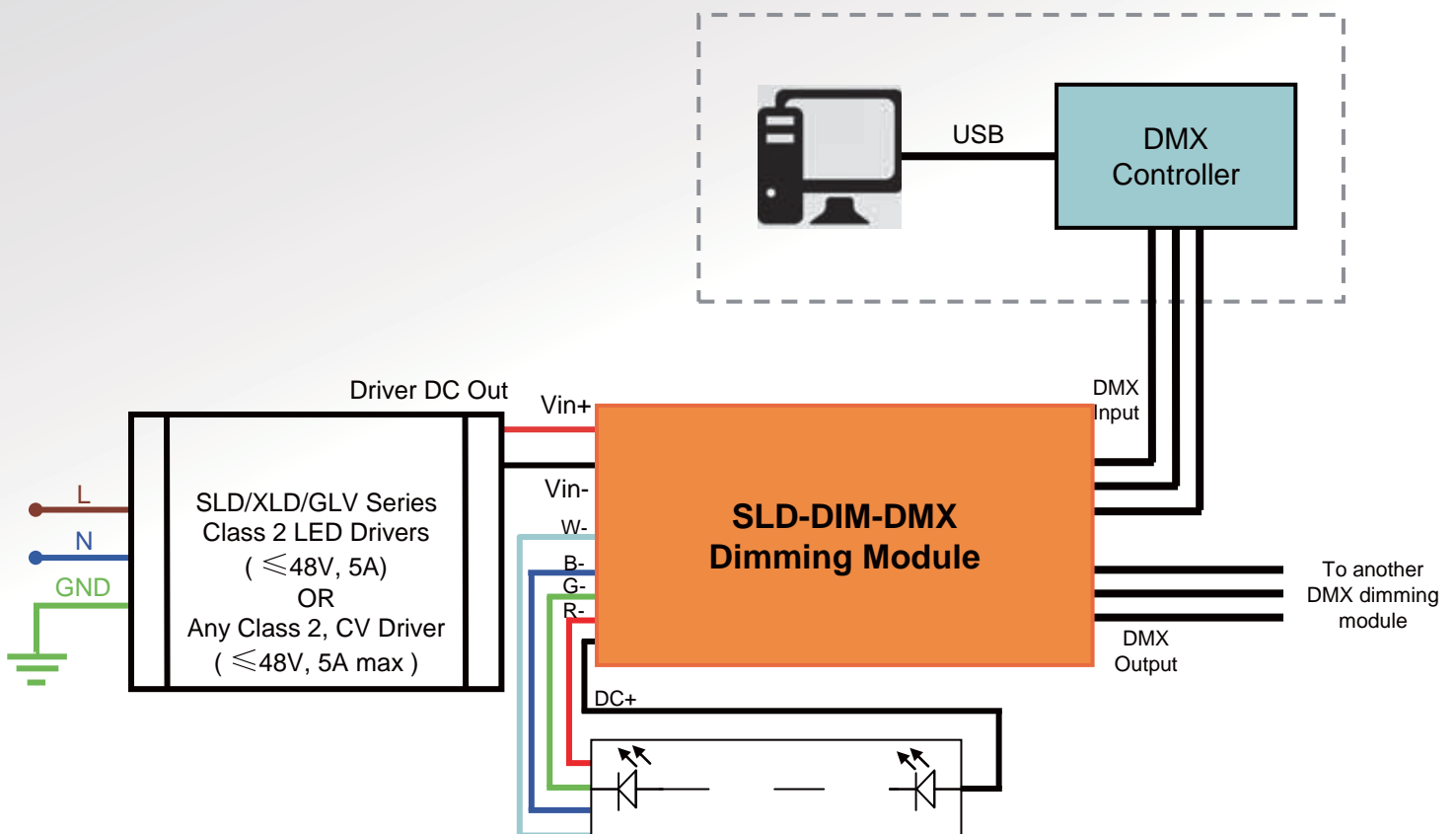
RJ45 Pinout

ESTA Version*:

- Pin1: Data+
- Pin2: Data-
- Pin3~6: Not Assigned
- Pin7~8: GND

*: Other Pinout Versions available. Please contact us for further details.

Wiring Diagrams



Information furnished is believed to be accurate and reliable. However, GRE Alpha assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of GRE Alpha. Specifications mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied.

The GRE Alpha logo is a registered trademark of GRE Alpha Electronics Ltd.
All other names are the property of their respective owners