



Smart-Dim Dual Channel LED Dimming Module

The SLD Smart-DIM DC dimming module is designed to provide flicker (PWM) pulse width modulated dimming in a 0/1-10V dimming applications. With over 97% efficiency, this smart, power saving module offers extreme flexibility, ease of use and is compatible with commercial 0/1-10V dimmer controls. (0/1V=0% brightness, 10V=100% brightness). This accessory is ideal when combined with an AC-DC driver to enable dimming of LED fixtures. The SLD Smart-DIM's can be incorporated into an XLD200 series enclosure, eliminating the need for external junction boxes, for quick and easy installation.

SLD-DIM2 DC/DC (0/1-10V + PWM) LED Dimming Module



Features

- Wide range DC input 8 - 48 VDC
- Flicker-free 0-100% Dimming
- High efficiency up to 97%
- High precision dimming ratio : >1:1000
- Fully isolated plastic housing
- Comply with EN55015 and FCC Part 15 without additional input filter and capacitors
- Suitable for LED lighting and signage applications
- Compact size, high reliability
- 3 year warranty

Applications

- Architectural Lighting
- Effect & Contour Lighting
- Office General Illumination
- Warehouses
- Street Lighting
- Signage
- Strip Lighting
- Swimming Pools/Fountain lighting

Model	Input Voltage Range (Vdc)	Channel Output	Output Voltage Range *	Max. Output Current per Channel (A) **	Max Output Total Power (W)	Power Efficiency (Typ)
SLD-DIM2	8 - 48V	2	Vin - 0.2V~0.5V	5	480	97%

*- SLD-DIM dimming module requires an external CV LED driver, connected to the DC input, and should not exceed the above input voltage range.

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

Input Specification

Voltage Range	Please refer model table	Input Current	5.1A max (per channel)
Control Voltage	0/1-10VDC Dimmer *The external control source to the SLD-DIM purple and grey control wires should have the capability to sink a min. of 10mA for multiple SLD-DIM modules connected together. * A minimum sink current of 2mA is recommended for a single module	Control Range	0-100%v ≤1V = 0% light output 10V =100% light output
Short Circuit Protection	Hiccup-Mode, Auto-Recovery upon removal of short circuit condition.	Over Voltage	Auto Recovery upon input voltage under Vin (max)
Over Temperature Protection	Auto recovery upon operating temperature <105°C	Under voltage Logout	Auto Recovery upon input voltage over Vin (min)

Output Specification

Output Frequency	1kHz PWM	Output Current	5A max. at full load **
Power Efficiency	97% Typ	Dimming Ratio	1:1000

** - SLD-DIM dimming module max. output current is dependent on LED driver output current , which should not exceed the Class 2 maximum of 5A or 100W per output channel.

Environmental Specification

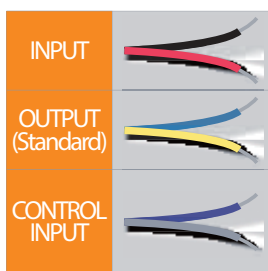
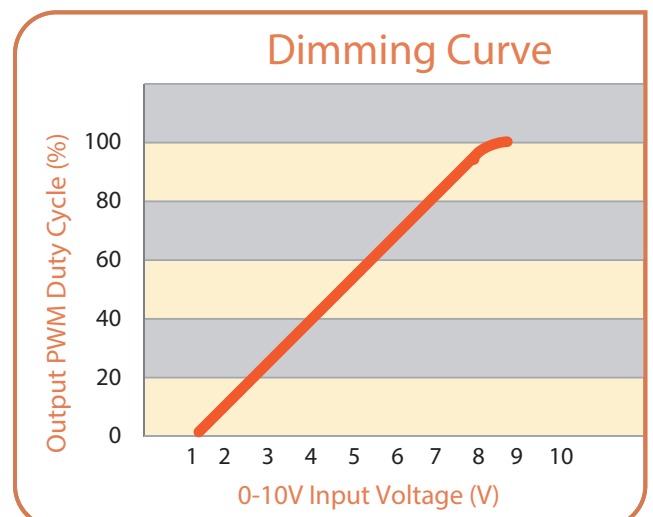
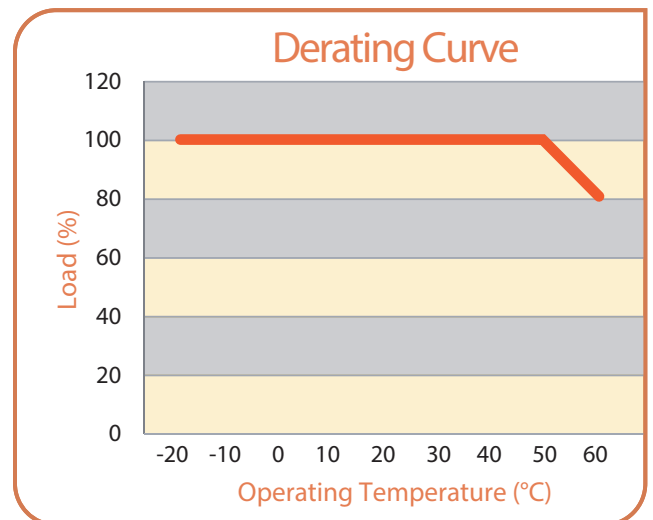
Ambient Temperature	Storage Temp	Relative Humidity
- 20°C - 60°C (Full Load)	- 40°C - 85°C	5% - 95 %

Compliance / Safety

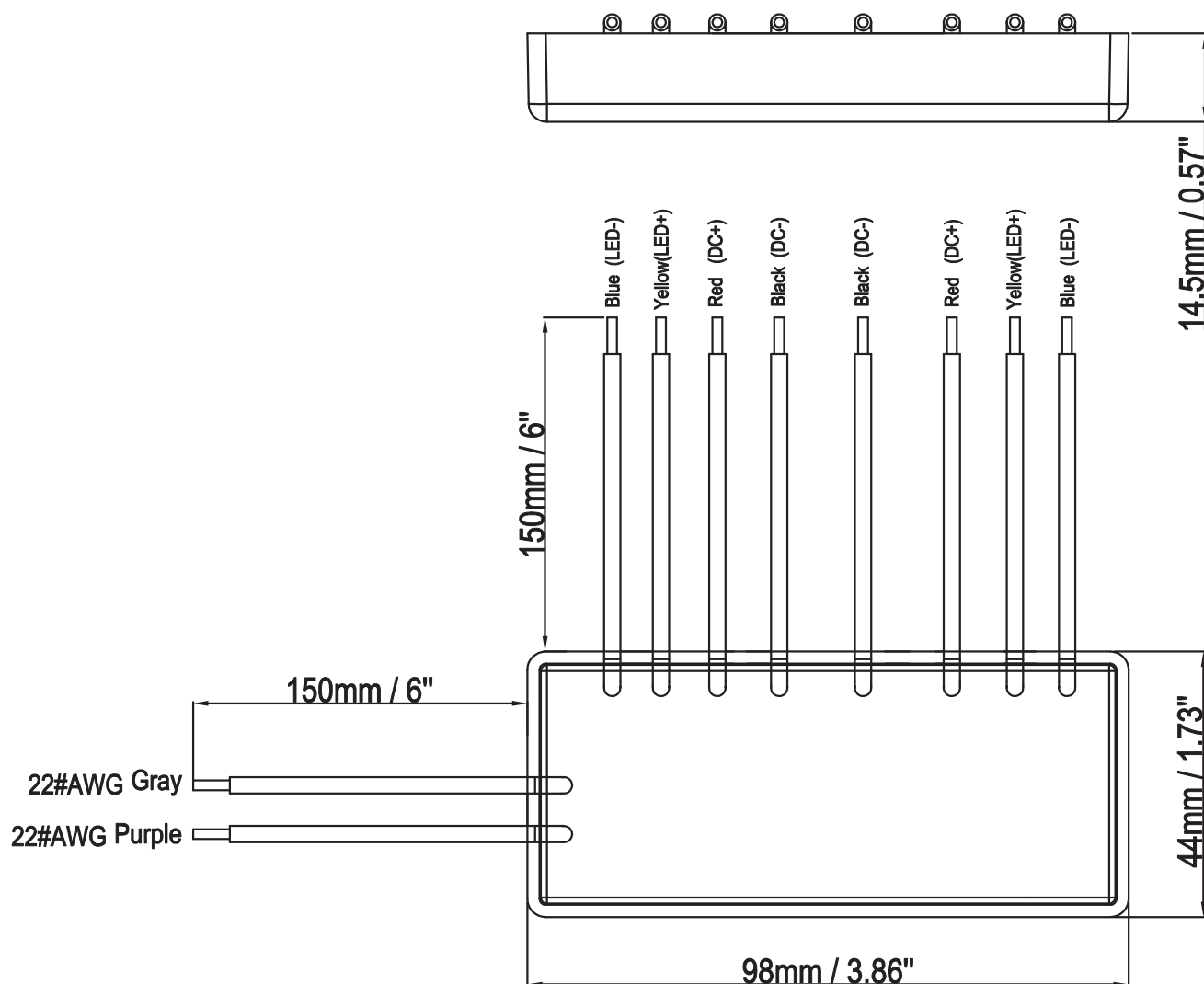
Safety Standards:	UL8750,UL879,
Weatherability:	IP 65

Mechanical Specification

Power Unit Dimensions	98mm (L) x 44mm (W) x 14.5mm (H)
Case Design/Material	Polycarbonate White
Wire Length	6 inches 152.4mm
Wire Size	a. 18AWG standard, 300V, 105deg C (DC input and Dim Output wires) b.22AWG standard, 300V, 105deg C(0/1-10V control wires)



Mechanical Diagram



Input Wire		Output Wire	
Red	DC + Input1/2	Yellow	LED +1
Black	DC - Input1/2	Yellow	LED +2
Purple	to 0/1-10V Control	Blue	LED -1
Gray	to 0/1-10V Control	Blue	LED -2

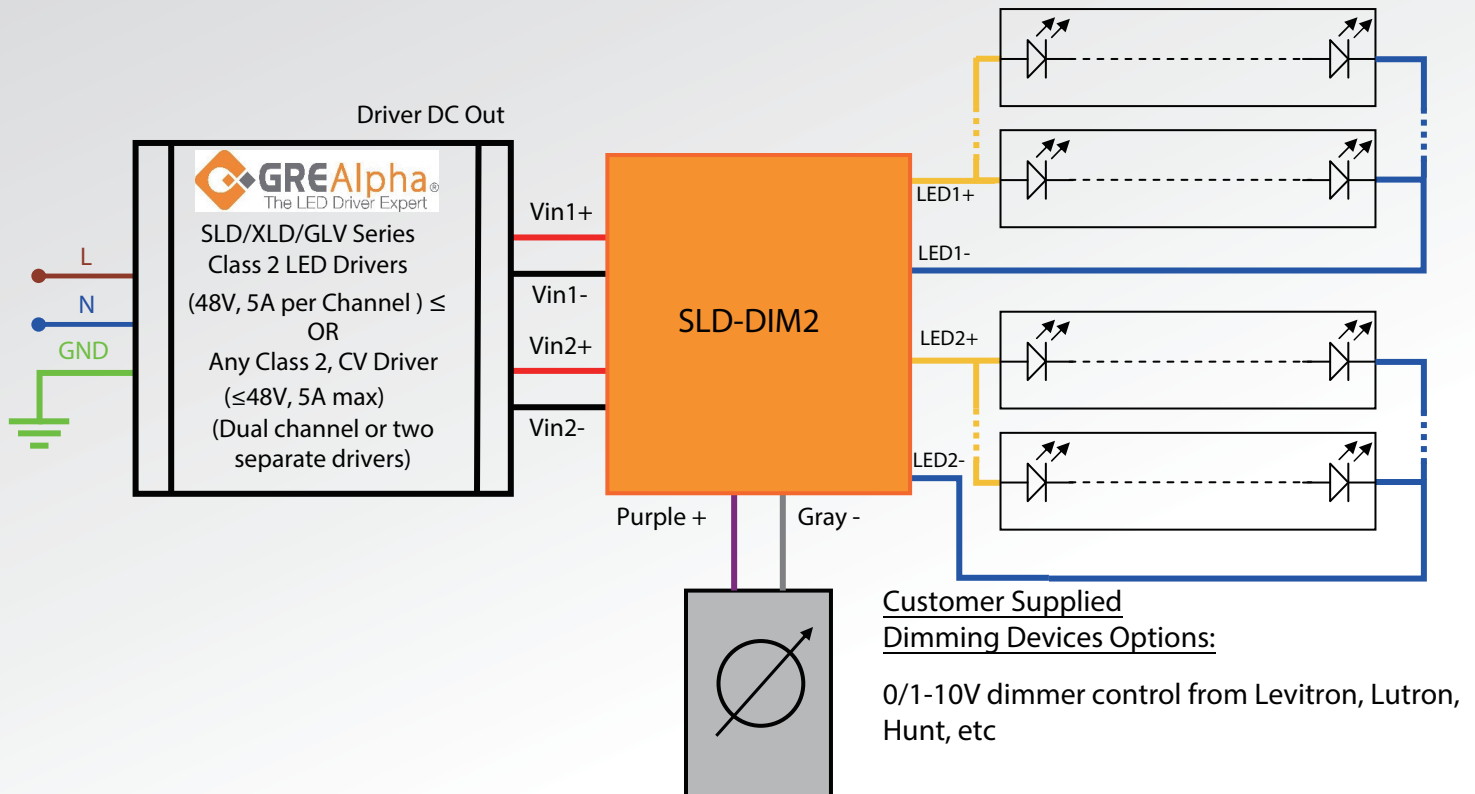
Packing Information

Weight: 110g/pcs,

100pcs/ carton;11 kg /carton; L270xW220xH430 (mm)

Wiring Diagrams

SLD-DIM2 Configuration Arrays using 0/1-10V dimmer or Adjustable DC Source Control Option



** Note alternate simple on-off operation:

- Connecting the Purple and Grey output together will provide 0% brightness. -
Leave Purple and Grey output open will provide 100% brightness.

* 0-100% flicker-free performance not guaranteed when used with non-GRE Alpha CV Drivers

GRE Alpha undertakes extensive testing on its dimming modules to ensure dimming compatibility and performance to our best ability. However due to rapidly evolving technology and the wide number of dimmers available GRE Alpha makes no specific recommendations on dimming system selection for its dimming modules and there are no warranties of performance or compatibility implied. Please test product for dimming compatibility before use.

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