



The Summit™ NL-QD-Qx1zz-B/BS package (where 'zz' = 2 to 19 bars) is a multi-color conductively cooled diode laser stack designed to operate at different peak wavelengths and high peak power. These diode laser bar arrays benefit from a fully mastered technology designed for improved efficiency and reliable operation at very high junction temperatures.

The packaging and heat exchanger have been optimized to reduce overall thermal resistance.

The multi-color NL-QD-Qx1zz-B/BS stack allows efficient pumping over a broad temperature range. It is ideal for applications under severe environmental conditions, such as pumping solid-state lasers in designators and illuminators. The compact and rugged design is well suited to defense and space applications, where small footprint and high reliability are required.

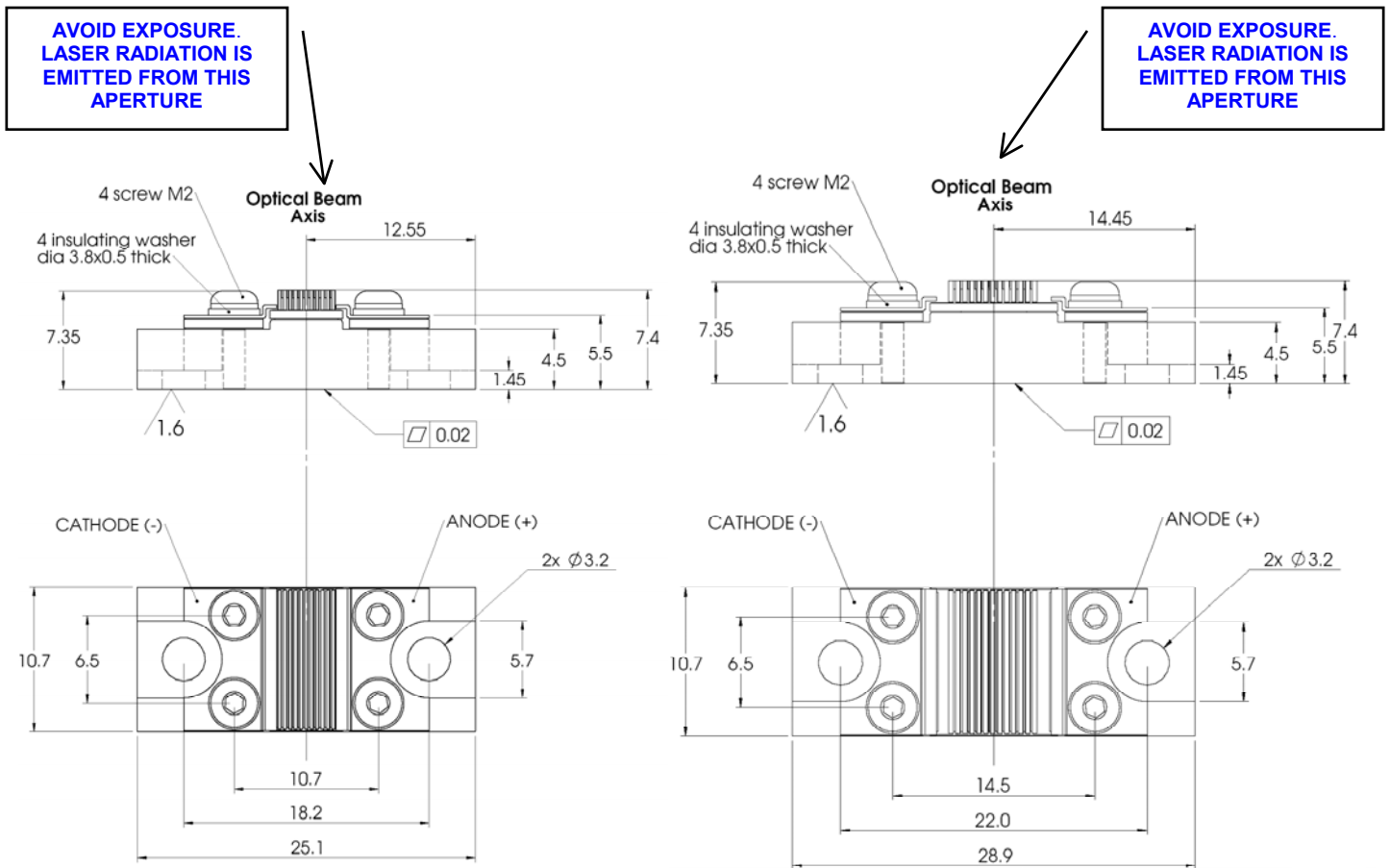
## Features

- Multi-Wavelength
- High efficiency
- Shock and Vibration Rugged
- Tested for Space Applications
- Low Thermal Resistance

## Applications

- Target Designation
- Ranging
- LIDAR
- Space Environments
- Multi-Spectral Imaging
- Medical
- Ignition

## Package Dimensions



# Summit™ QCW Package Series – Multi-color Stacked Array

Case temperature: standard +25 °C

Quasi-continuous mode:

pulse width = 200µs  
repetition rate = few 10's Hz

Device Specifications	UNITS	NL-QD-Qxyzz-B / BS
<b>Parameters</b>		
Number of diode bars		zz = 2 to 19
Pitch between bars	µm	400 & 500
QCW output power per bar	Watt	60 to 200
Number of different wavelengths		2 to 5 wavelengths
Peak wavelength possibility	nm	795 to 820
Operating current @ 85W	Typ.	Amp. 88
	Max.	Amp. 100
Operating voltage	Volt	≤ 2 / bar
Total efficiency	Typ.	% 52
	Min.	% 44
Beam divergence (FWHM)	degree	10 x 40

#### Note:

Variation of wavelength is approximately 0.26 to 0.3 nm/°C.

Operation from -40°C to +75°C.

Standard tolerance on each wavelength is +/- 3nm.

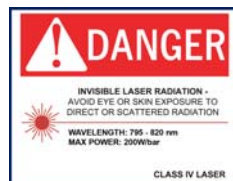
Can also be designed with 'G' or 'K' type of package.

Pitch between diode bars is possible up to 500µm.

Operating at higher power or higher temperature will accelerate component aging, increase threshold current, and decrease slope efficiency.

#### CFR Regulation

These components do not comply with the federal regulation (Title 21 CFR Chapter 1 Subchapter J) as administered by the Center for Device and Radiological Health. Purchaser acknowledges that their products must comply with these regulations before they can be sold to an end-user.



#### Notice

nLight continually improves its products to provide our customers with outstanding quality and reliability. nLIGHT may make changes to specifications and product descriptions at any time, without notice. In addition, nLIGHT offers a limited warranty to ensure customer satisfaction. For complete details, please check with your nLIGHT sales representative.



nLIGHT Corporation  
5408 NE 88th Street, Bldg E  
Vancouver, Washington 98565  
United States of America  
Phone: 866.202.4488  
360.566.4460  
Fax: 360.546.1960  
E-mail: [sales@nlight.net](mailto:sales@nlight.net)  
Web: [www.nLight.net](http://www.nLight.net)