



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
- Highest Efficiency
- Shock and Vibration Rugged
- Tested for Space Applications
- Low Thermal Resistance

Applications

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

Typical Device Performance

Package	NL-QD-Qxyzz-B / BS	
Parameters		
Number of Diode Bars per Stack		zz = 2 to 19
Pitch between Diode Bars	µm	400 & 500
QCW Output Power per Diode Bar	Watt	60 to 200
Number of Different Wavelengths		795 to 820
Operating Current @ 85W	Amp.	88
Operating Current (Maximum)	Amp.	100
Operating Voltage	Volt	< 2 / Bar
Total Efficiency	%	52
Total Efficiency (Minimum)	%	44
Beam Divergence (FWHM)	Degree	10 x 40

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

Standard wavelength is 808nm.

Spectral width is ≤ 4 nm FWHM.

Tolerance on wavelength is +/- 3nm.

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

Possibility of pitch between diode bars of 500 µm

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.

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Package Dimensions

