

The Summit™ NL-QD-Qxy01-A1 and NL-QD-Qxy01-T packages are high power diode lasers for quasi-CW operation. The 'x' designates the wavelength window, while 'y' characterizes the optical power of each bar, from a minimum of 60W QCW up to 200W QCW.

This product is based on a highly efficient and highly reliable 1cm diode laser bar. Its compact and rugged design facilitates connection to a heat exchanger isolated from electrical connections. The design is optimized to allow very good temperature control.

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## Features

- High Conversion Efficiency
- Mechanically Robust
- Shock and Vibration Rugged
- Passively Cooled Package

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## Applications

- Pumping
- LIDAR
- Illumination
- Mapping

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## Proven Performance

## Typical Device Performance

Package		NL-QD-Q1201-A1	NL-QD-Q1301-A1	NL-QD-Q1401-A1	NL-QD-Q1501-A1	NL-QD-Q1601-A1
		NL-QD-Q1201-T	NL-QD-Q1301-T	NL-QD-Q1401-T	NL-QD-Q1501-T	NL-QD-Q1601-T
<b>Parameters</b>						
QCW Output Power	Watt	60	80	100	125	150
Peak Wavelength	nm	808	808	808	808	808
Wavelength Tolerance	nm	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>
Operating Current	Amp.	66	84	100	120	140
Operating Current (Maximum)	Amp.	74	95	115	135	160
Operating Voltage	Volt	< 2	< 2	< 2	< 2	< 2
Slop Efficiency	W / A	1.22	1.22	1.22	1.22	1.22
Total Efficiency	%	50	52	53	53	53
Total Efficiency (Minimum)	%	43	44	44	44	44
Beam Divergence (FWHM)	Degree	10 x 40	10 x 40	10 x 40	10 x 40	10 x 40
Spectral Width (FWHM)	Nm	< 3	< 3	< 3	< 3	< 3

Variation of wavelength with temperature  $\Delta\lambda/\Delta T \sim 0.26 \text{ }^\circ\text{C}$ .

Other wavelengths available upon request in the 915nm to 980nm range.

Can operate at high temperature (up to +60°C).

Can operate at larger pulse width (up to few ms).

Can operate at higher duty cycles (@ 100W QCW up to 20% on A1 and 10% on T).

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.



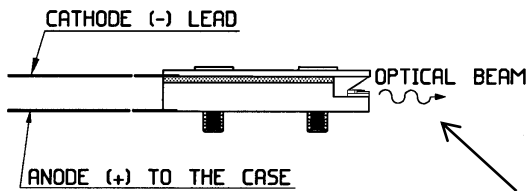
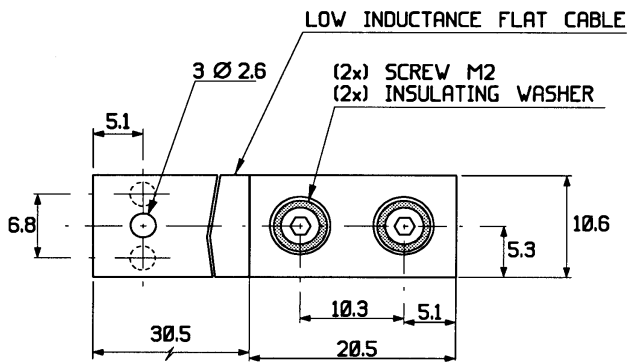
### Notice

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 contact your nLIGHT sales representative.

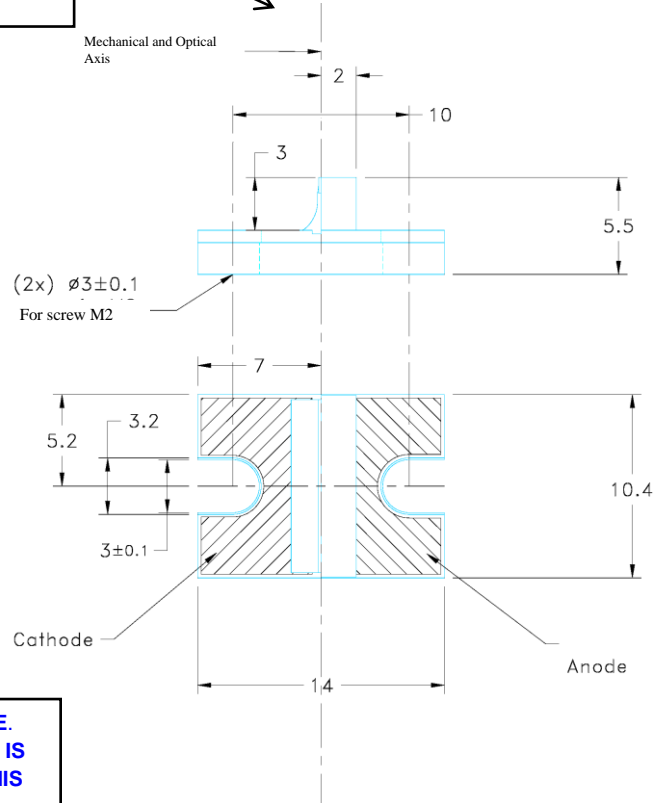
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**Package Dimensions**

'A1' Package  
'T' Package



**AVOID EXPOSURE.  
LASER RADIATION IS  
EMITTED FROM THIS  
APERTURE**



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