

Datasheet: Necsel™ Blue NovaLum VHP Laser

These specifications are for the Necsel blue NovaLum VHP package. The centroid of the wavelength spectrum will be within the indicated wavelength range.



Model #	Symbol	Min. (nm)	Typical (nm)	Max. (nm)
Blue-VHP-44x	λ	440	445	449

Operating Wavelengths

Laser Parameter	Symbol	Min.	Typical	Max.	Unit
Operating Power (CW)	P_{op}	-	24	-	W
Module Operating Temperature [non-condensing atmosphere]	$T_{Thermistor}$	-	30	-	°C
Center Wavelength [at 25°C and P_{op}]	λ	440	445	449	nm
Wavelength Temperature Coefficient	-	-	0.1	-	nm/°C
Threshold Current	I_{th}	-	350	-	mA
Slope Efficiency	η	-	18	-	W/A
Laser Power Conversion Efficiency	PCE	-	27	-	%

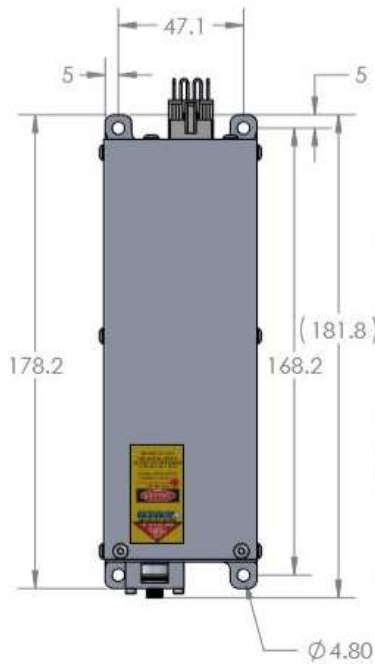
Power Supply Requirements

Operating Voltage (4 strings in series)	V_{op}	36	52	58	V
Operating Voltage per string	V_{op}	9	13	14.5	V
Allowable Reverse Current	I_r	-	-	85	mA
Operating Current	I_{op}	-	1.7	2.0	A

Fiber Specifications

Fiber Core Diameter (Centration $\leq 10 \mu m$)		0.400		mm
Connector Type (Nose length 0.3850 - 0.3863 in., 9.779 – 9.812 mm)		SMA-905		
Numerical Aperture		0.22		

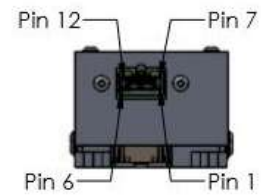
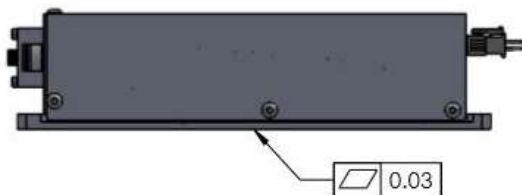
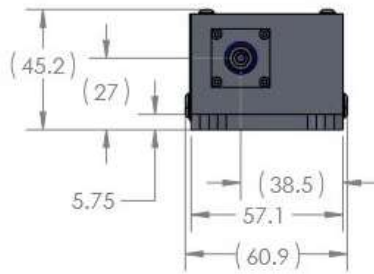
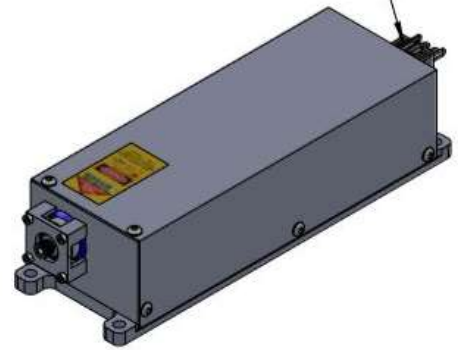
Outline Drawing and Electrical Connections



header: Samtec IPL1-106-01-L-D-K
 receptacle: IPD1-06-D-K
 Pins: CC79L-2024-01-L

Pin	Function	String
1	laser -ve	right, far
2	Laser +ve	right, near
3	Laser -ve	right, near
4	Laser +ve	left, near
5	Laser -ve	left, near
6	Laser +ve	left, far
7	Laser +ve	right, far
8	thermistor	right
9	thermistor	right
10	thermistor	left
11	thermistor	left
12	Laser -ve	left, far

shown with shorting clip installed



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