

Datasheet: Necsel™ Red High Power CS Mounted Bar

These specifications are for the Necsel red high power CS mounted bar with FAC/SAC lensing. The centroid of the wavelength spectrum will be within the indicated wavelength range.



Model #	Symbol	Min. (nm)	Typical (nm)	Max. (nm)
Red-HP-65x	λ	653	657	661

Operating Wavelengths

Laser Parameter	Symbol	Min.	Typical	Max.	Unit
Operating Power (CW)	P_{op}	-	7.0	-	W
Module Operating Temperature [non-condensing atmosphere]	$T_{Thermistor}$	-	25	30	°C
Center Wavelength [at 25°C and P_{op}]	λ	653	657	661	nm
Spectral Width @ FWHM	$\Delta\lambda$	-	1	3	nm
Wavelength Temperature Coefficient	-	-	0.2	-	nm/°C
Threshold Current	I_{th}	-	3.5	-	A
Slope Efficiency	η	-	0.95	-	W/A

Array Specifications

Number of Output Beams	N	18	20	20	-
Emitting Area Width	W_{ea}	-	40	-	μm
Emitting Area Period	L_{ea}	-	200	-	μm
Fill Factor	FF	-	20	-	%

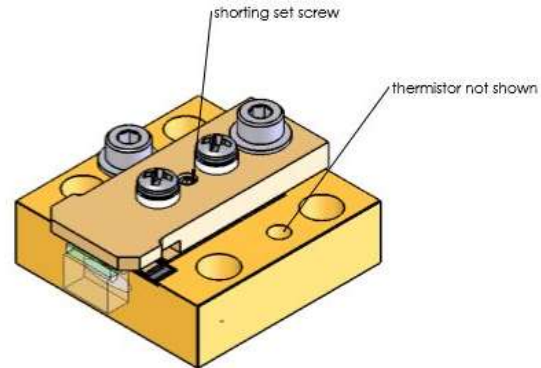
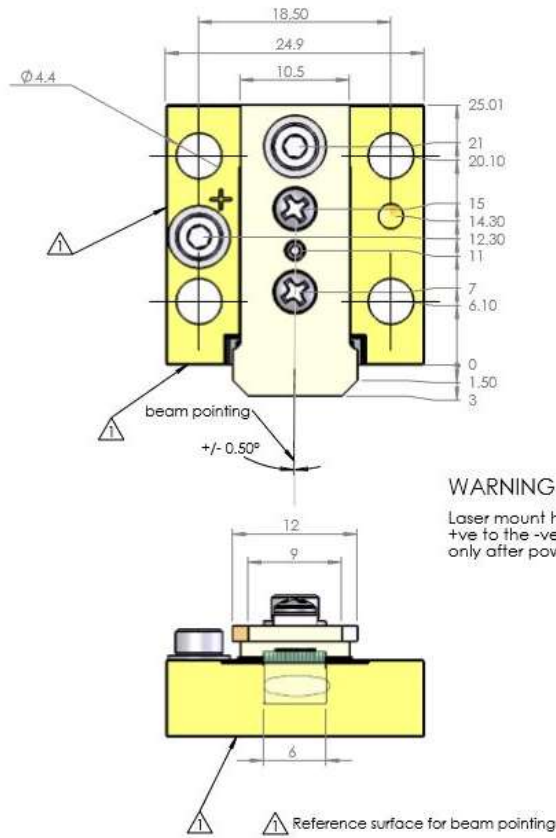
Lensing

Fast-Axis Collimation	FAC	-	3	4	mRad
Slow-Axis Collimation	SAC	-	33	40	mRad

Power Supply Requirements

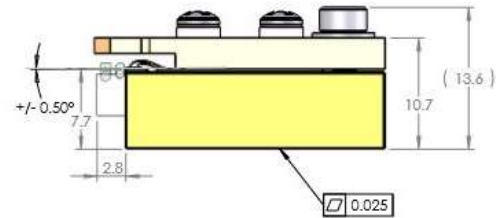
Operating Voltage	V_{op}	-	2.4	3.0	V
Operating Current	I_{op}	-	10	12	A

Outline Drawing and Electrical Connections



WARNING: ESD SENSITIVE DEVICE.

Laser mount has a set screw connecting the +ve to the -ve terminals. Remove set screw only after power supply is connected.



NOTE:
Lens Position actively aligned to achieve a residual beam divergence of <40 mRad horizontally and <4 mRad vertically.
Beam pointing shall be $<\pm 0.5$ degrees in the vertical and horizontal axes.

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