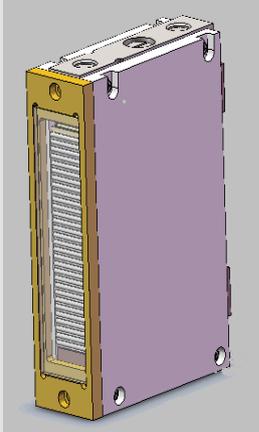


# FocusEngine™

## Micro-Channel Water Cooled Vertical Stack Diode Laser(CW)

### VS120



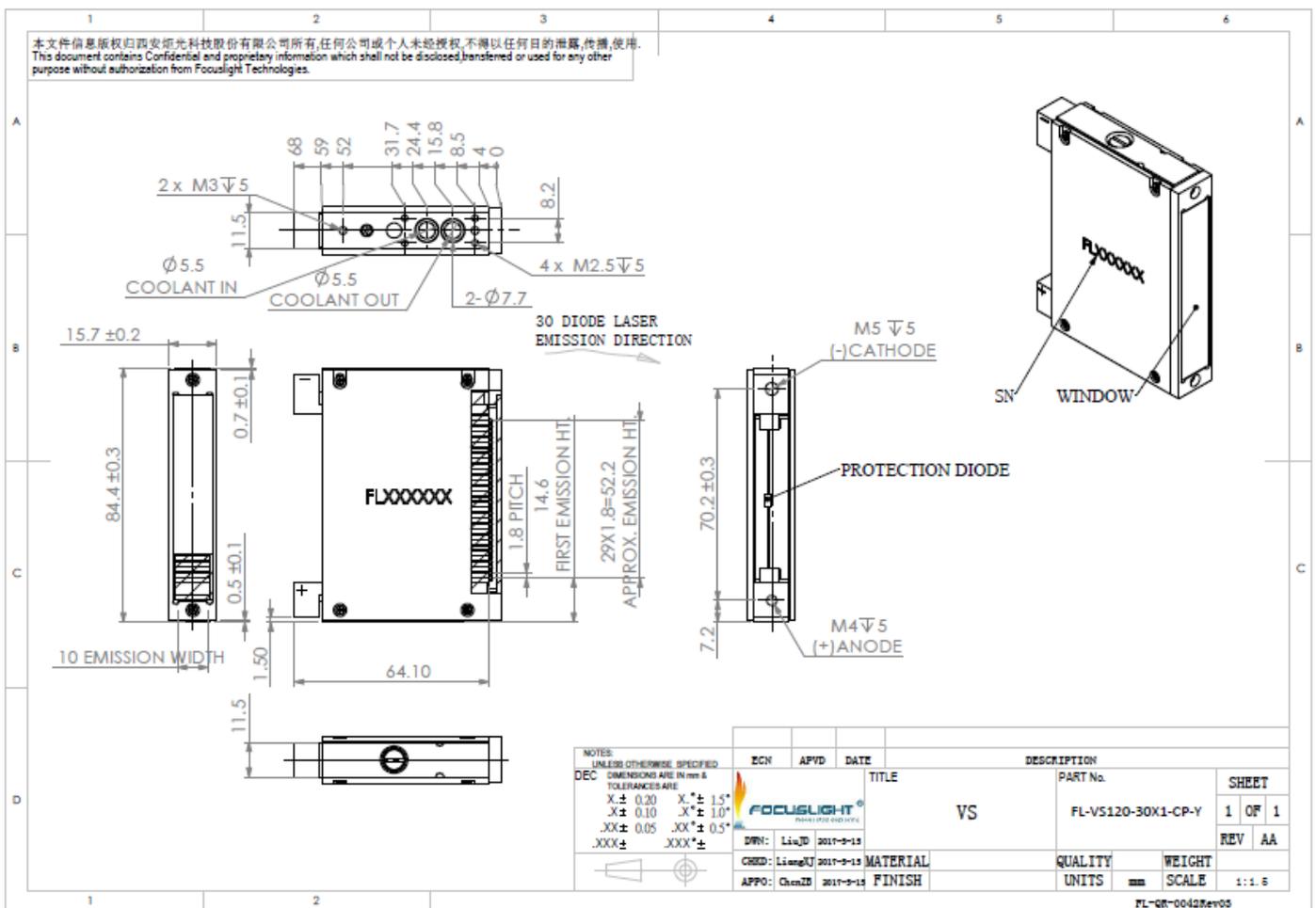
#### Features

- Long lifetime
- High power
- Narrow spectrum

#### Applications

- Pumping
- Industry
- Research

### Device Dimension (mm)



This structure drawing is only for reference. For any other special requirement, please feel free to contact us.

## Specification

Module Type <sup>1</sup>	Units	FL-VS120-NX1-100XN-808	FL-VS120-NX1-120XN-976
<b>Optical <sup>2</sup></b>			
Center Wavelength $\lambda$	nm	808	976
Wavelength Tolerance	nm	$\pm 3$	$\pm 5$
Output Power per Bar	W	100	120
Available Number of bars	-	1-65	1-65
Bar-to-Bar Spacing	mm	1.8	1.8
Spectral Width FWHM	nm	$\leq 4$	$\leq 5$
Spectral Width FW90%E	nm	$\leq 6$	$\leq 8$
Fast Axis Divergence(FWHM) <sup>3</sup>	degree	35	35
Slow Axis Divergence(FWHM)	degree	8	8
Pulse Width	$\mu\text{s}$	/	/
Duty Cycle	%	/	/
Polarization Mode	-	TE/TM	TE
Wavelength Temp. Coefficient	nm/ $^{\circ}\text{C}$	$\sim 0.28$	$\sim 0.28$
<b>Electrical Parameters</b>			
Operating Current $I_{op}$	A	$\leq 120$	$\leq 110$
Threshold Current $I_{th}$	A	$\leq 25$	$\leq 20$
Operating Voltage $V_{op}$ <sup>4</sup>	V	$\leq 2$	$\leq 2$
Slope Efficiency <sup>4</sup>	W/A	$\geq 1.1$	$\geq 1.1$
Power Conversion Efficiency	%	$\geq 48$	$\geq 55$
<b>Thermal Parameters</b>			
Operating Temperature <sup>5</sup>	$^{\circ}\text{C}$	20~30	20~30
Storage Temperature <sup>6</sup>	$^{\circ}\text{C}$	0~55	0~55
Coolant	-	Deionized Water	Deionized Water
Flow Rate <sup>4</sup>	L/min	0.3~0.4	0.3~0.4
Max Inlet Pressure	kPa	380	380
Conductivity	$\mu\text{S/cm}$	$< 5$	$< 5$

<sup>1</sup> FL(abbreviation of Focuslight) - VS\*\*(structure code) –NX1(Number of Bars) -##(Power) -808/976(center wavelength).

<sup>2</sup> Data at 25 $^{\circ}\text{C}$  temperature, unless otherwise stated.

<sup>3</sup> For fast axis collimation: divergence  $\leq 0.5^{\circ}$  .

<sup>4</sup> Parameters for single Bar.

<sup>5</sup> If exceed operating temperature, the device lifetime will be impacted, which will cause wavelength drift.

<sup>6</sup> Please avoid use and storage in the condensation environment

Please feel free to contact with Focuslight if you have any requirement.



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