FocusEngine™

Macro-Channel Water Cooled Vertical Stack Diode Laser (QCW)

MaCC-

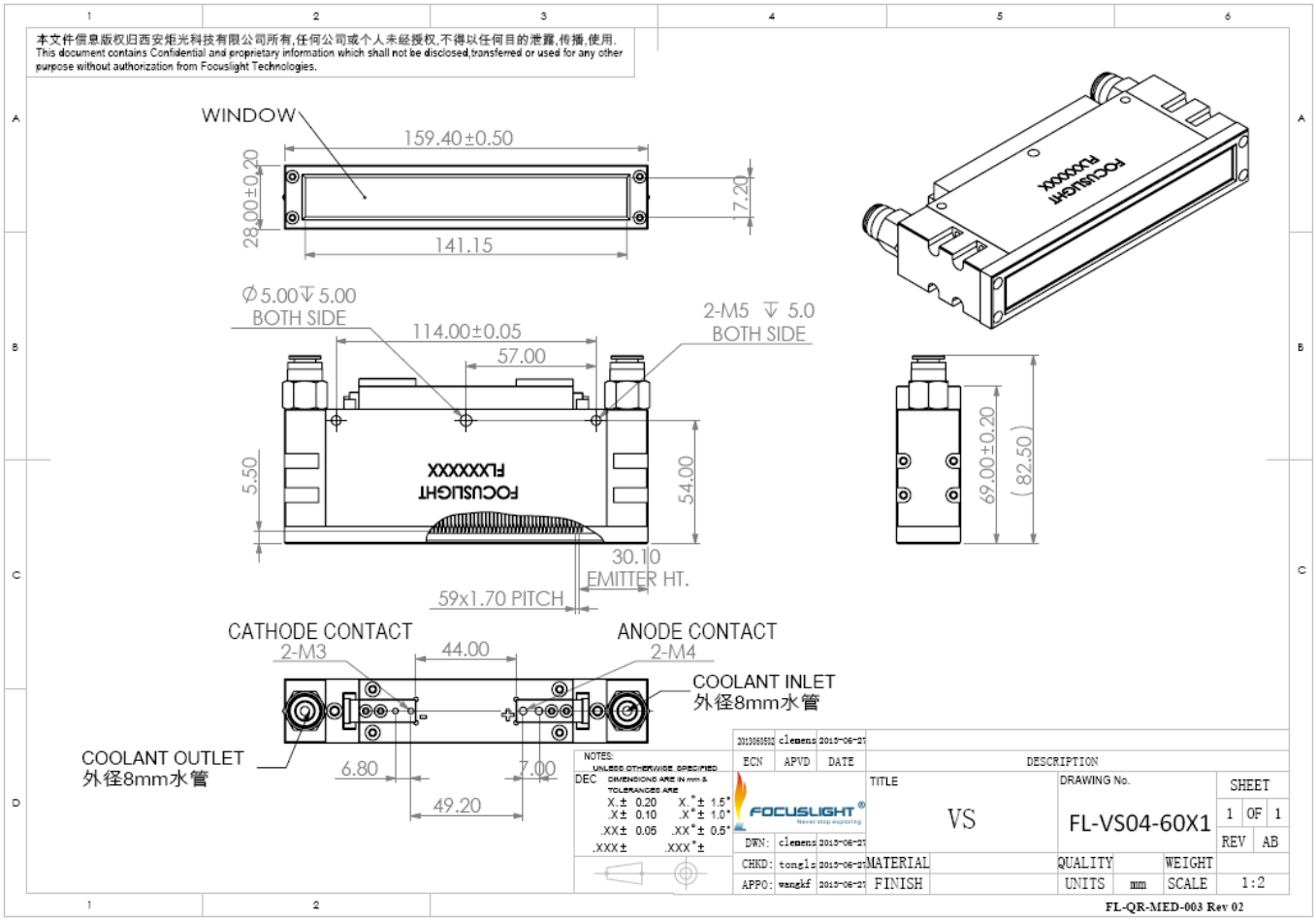
Features

- Long lifetime
- AuSn bonding
- Long storage time
- High power

Applications

- Pumping
- Scientific research
- Industry

Device Dimension (mm)



1 This structure drawing is only for reference. More structure drawings can be found below the datasheet. For any other special requirement, please feel free to contact us.

2 Drawings for 1-40 bars are available. Please contact Focuslight for details.

Specification

Module Type [1]	Units	FL-VS**-N-##-808(Q)	FL-VS**-N-##-940(Q)
Optical [2]			
Center Wavelength λ	nm	808	940
Wavelength Tolerance	nm	±3	±5
Output Power per Bar[3]	W	300	250
Number of Bars	#	1~40	1~40
Bar-to-Bar Spacing	mm	1.7	1.7
Spectral Width FWHM	nm	⩽5	⩽5
Spectral Width FW90%E	nm	⩽7	⩽8
Fast Axis Divergence(95%) [4,9]	degree	70	55
Slow Axis Divergence (95%) [5]	degree	16	12
Pulse Width	ms	⩽0.2	⩽0.2
Duty Cycle	%	⩽8	⩽8
Polarization Mode	-	TE	TE
Wavelength Temp. Coefficient	nm/℃	~0.28	~0.32
Electrical Parameters [3]			
Operating Current I_{op}	A	⩽280	⩽270
Threshold Current I_{th}	A	⩽32	⩽30
Operating Voltage V_{op} [6]	V	⩽2	⩽2.2
Slope Efficiency[6]	W/A	⩾1.1	⩾1.1
Power Conversion Efficiency	%	⩾50	⩾50
Thermal Parameters			
Operating Temperature[7]	℃	20~30	20~30
Storage Temperature[8]	℃	0~55	0~55
Coolant	-	Deionized Water	Deionized Water
Flow Rate/Bar	L/min	0.5-0.8	0.5-0.8
Max Inlet Pressure	kPa	380	380
Conductivity	μs•cm^{-1}	＜5	＜5

[1]Explanation for the name of Module Type: FL(abbreviation of Focuslight) - VS**(structure code) -N(Number of Bars) -##(Power) -808(center wavelength).

[2]Data at 25°C temperature, unless otherwise stated.

[3]Standard power configuration : 200W/Bar, 250W/Bar, 300 W/Bar

[4]For fast axis collimation: divergence <0.5°.

[5]Fill factor <30%, slow axis collimation ⩽5°; fast and slow axis collimation at the same time is available.

[6]Parameters for single Bar

[7] If exceed operating temperature, the device lifetime will be impacted, which will cause wavelength drift

[8] Please avoid use and storage in the condensation environment

[9] For smile requirements, please contact us.

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

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