

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



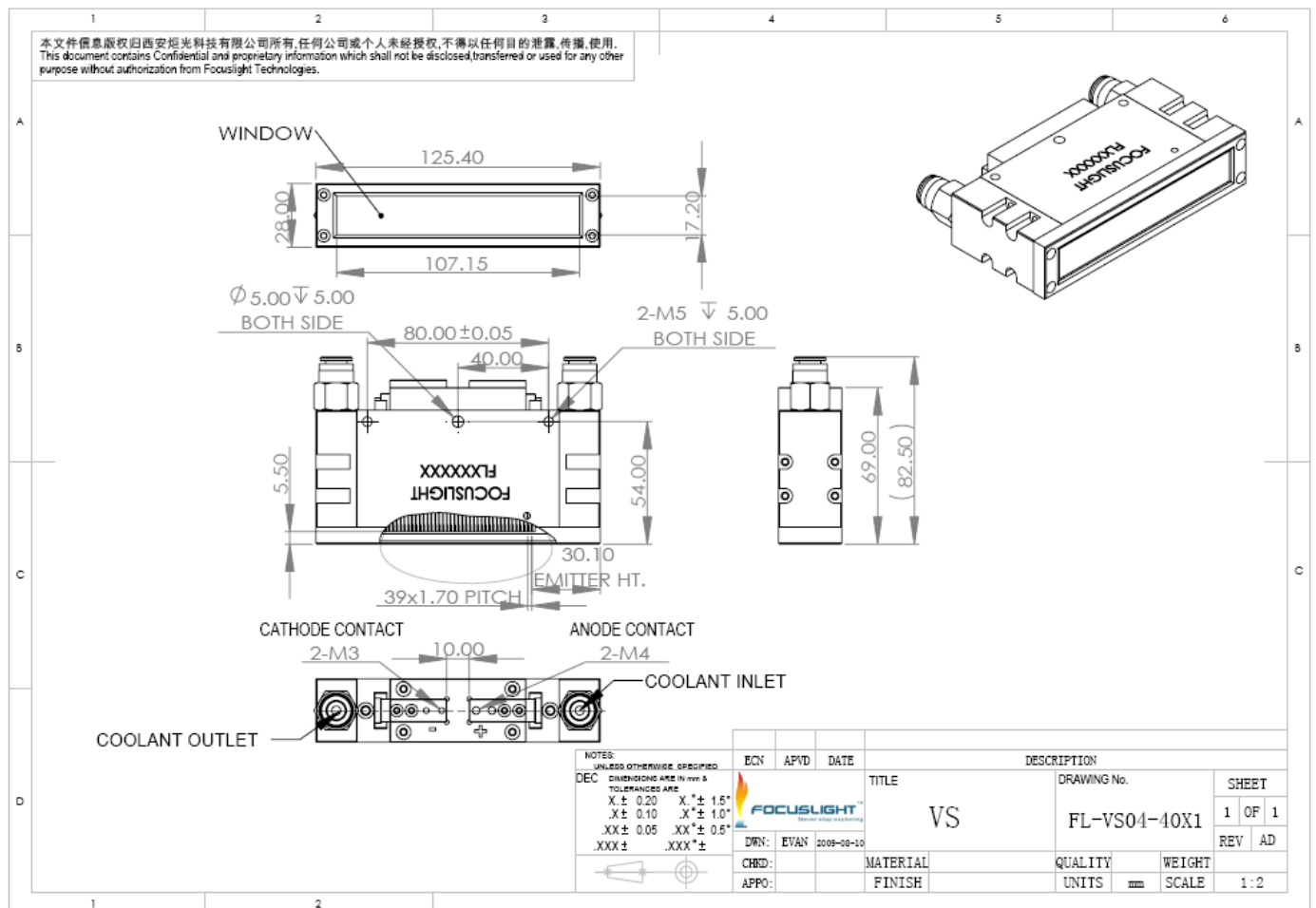
Features

- High power
- Uniform beam profile
- Harsh environment applications
- AuSn bonding
- Long storage time

Applications

- Pumping
- Scientific research
- Industry

Device Dimension (mm)



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

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

Specification

Module Type ¹	Units	FL-VS**-N- ##-808(Q)	FL-VS**-N- ##-808(Q)	FL-VS**-N- ##-808(Q)	FL-VS**-N- ##-808(Q)	FL-VS**-N- ##-940(Q)	FL-VS**-N- ##-940(Q)	FL-VS**-N- ##-940(Q)
Optical ^{3,7}								
Center Wavelength λ	nm	808	808	808	808	940	940	940
Wavelength Tolerance	nm	± 3	± 3	± 3	± 3	± 5	± 5	± 5
Output Power ²	W	150	200	250	300	200	250	300
Number of Bars	-	40	40	40	40	40	40	40
Bar-to-Bar Spacing	mm	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Spectral Width FWHM	nm	≤ 6	≤ 4	≤ 4	≤ 4	≤ 6	≤ 6	≤ 6
Spectral Width FW90%E	nm	≤ 8	≤ 6	≤ 8	≤ 7	≤ 8	≤ 8	≤ 8
Pulse Width	ms	≤ 0.3	≤ 0.3	≤ 0.3	≤ 0.2	≤ 0.3	≤ 0.3	≤ 0.2
Duty Cycle	%	≤ 4	≤ 4	≤ 4	≤ 2	≤ 4	≤ 4	≤ 2
Fast Axis Divergence(FWHM) ^{4,6} degree		35	35	35	35	35	35	35
Slow Axis Divergence (FWHM) degree		8	8	8	8	8	8	8
Polarization Mode	-	TE	TE	TE	TE	TE	TE	TE
Wavelength Temp. Coefficient	nm/°C	~ 0.28	~ 0.28	~ 0.28	~ 0.28	~ 0.33	~ 0.32	~ 0.32
Electrical Parameters ^{3,7}								
Operating Current I_{op}	A	≤ 170	≤ 190	≤ 250	≤ 300	≤ 200	≤ 250	≤ 300
Threshold Current I_{th}	A	≤ 15	≤ 25	≤ 32	≤ 32	≤ 18	≤ 18	≤ 18
Operating Voltage V_{op}	V	≤ 2	≤ 2	≤ 2	≤ 2	≤ 2	≤ 2	≤ 2
Slope Efficiency	W/A	≥ 1	≥ 1.1	≥ 1.15	≥ 1.1	≥ 1.05	≥ 1.1	≥ 1.1
Power Conversion Efficiency	%	≥ 42	≥ 50	≥ 52	≥ 50	≥ 50	≥ 50	≥ 50
Thermal Parameters								
Operating Temperature	°C	15~25	15~25	15~25	15~25	15~25	15~25	15~25
Storage Temperature ⁵	°C	0~55	0~55	0~55	0~55	0~55	0~55	0~55
Coolant	-	Deionized water	Deionized water	Deionized water	Deionized water	Deionized water	Deionized water	Deionized water
Flow Rate/Bar	L/Min	0.4~0.7	0.4~0.7	0.4~0.7	0.4~0.7	0.4~0.7	0.4~0.7	0.4~0.7
Max Inlet Pressure	kPa	380	380	380	380	380	380	380

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

²Reduced lifetime if used above nominal operating conditions.

³Data at 25°C temperature, unless otherwise stated.

⁴For fast axis collimation: divergence <0.5°.

⁵A non-condensing environment is required for storage and operation below ambient dew point.

⁶For smile requirements, please contact us.

⁷If there are any other requirements, please contact us.



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