

Fiber Coupled Single Emitter Diode Laser (CW)



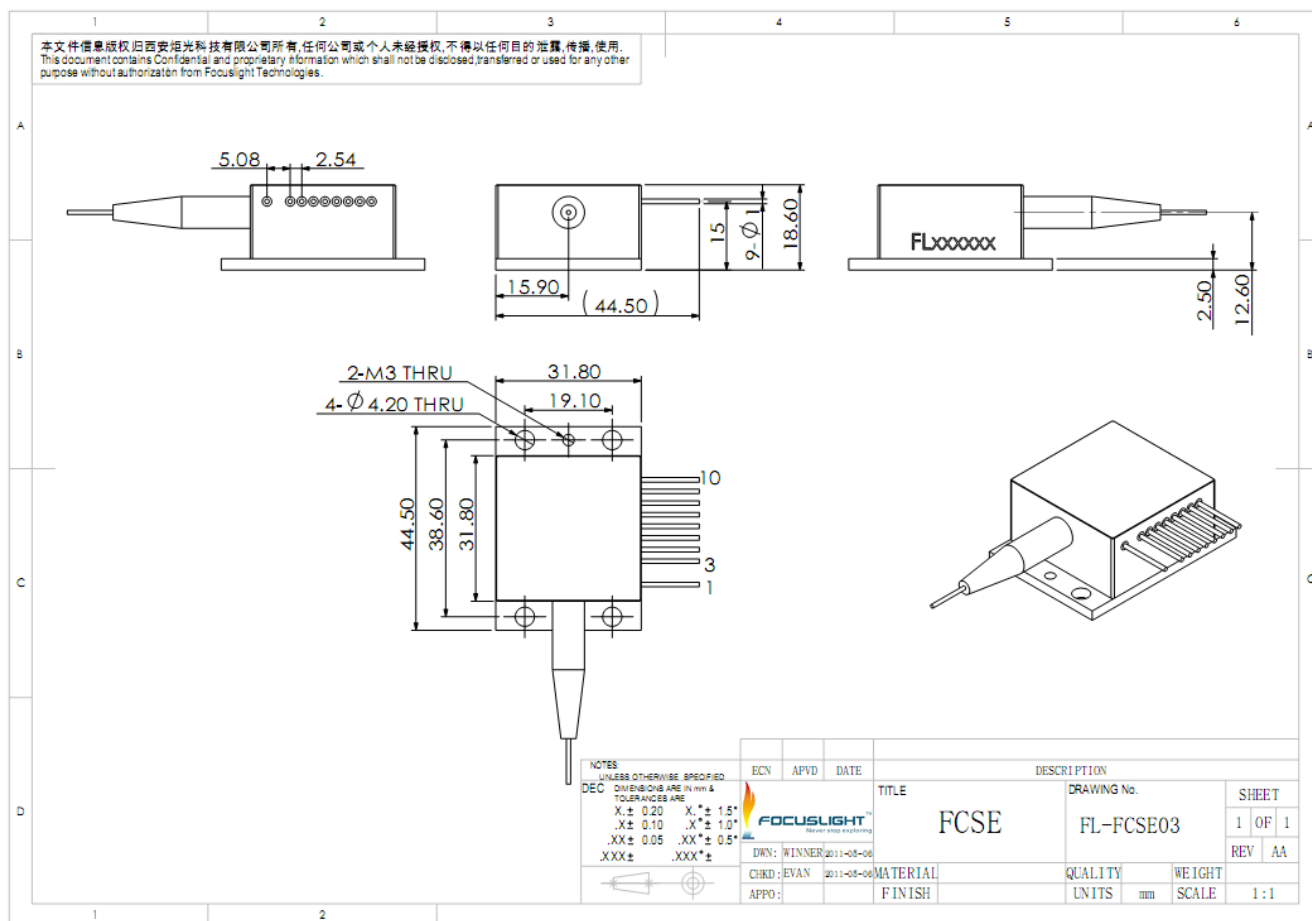
Features

- Long lifetime
- High coupling efficiency
- High power
- Parallel seam sealing

Applications

- Pumping
- Medical

Device Dimension (mm)



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

Fiber Coupled Single Emitter Diode Laser (CW)

Specification

Module Type ¹	Units	FL-FCSE03-7-808	FL-FCSE03-8-915	FL-FCSE03-8-976
Optical ^{3,7}				
Center Wavelength λ	nm	808	915	976
Wavelength Tolerance	nm	± 3	± 5	± 5
Output Power ²	W	7	8	8
Spectral Width FWHM	nm	≤ 4	≤ 4	≤ 4
Spectral Width FW90%E	nm	≤ 6	≤ 6	≤ 6
Wavelength Temp. Coefficient	nm/°C	~ 0.28	~ 0.32	~ 0.34
Fiber Parameters				
Fiber Numerical Aperture	NA	0.22	0.22	0.22
Fiber Core/Cladding Diameter	μm	200/220	200/220	200/220
Connector Type ⁶	-	SMA905	SMA905	SMA905
Fiber length ⁵	m	1.5	1.5	1.5
Electrical Parameters ^{3,7}				
Operating Current I_{op}	A	≤ 8.2	≤ 9.2	≤ 9.2
Threshold Current I_{th}	A	≤ 1.75	≤ 0.8	≤ 0.8
Operating Voltage V_{op}	V	≤ 2.2	≤ 2	≤ 2
Slope Efficiency	W/A	≥ 1	≥ 0.9	≥ 0.9
Power Conversion Efficiency	%	≥ 34	≥ 40	≥ 40
PD Parameters ⁸				
Operating Current I_{mo}	mA	0~2	0~2	0~2
TEC Parameters ⁸				
Operating Current I_t	A	3	3	3
Operating Voltage V_t	V	8.5	8.5	8.5
Thermistor Parameters ^{8,9}				
Thermistor R_t	(K Ω)/ β (25°C)	10 \pm 0.5%/3862	10 \pm 0.5%/3862	10 \pm 0.5%/3862
Aiming Beam Parameters ⁸				
Output Power	mW	2	2	2
Wavelength	nm	635	635	635
Operating Voltage	V	2	2	2
Operating Current	mA	<50	<50	<50
Thermal Parameters				
Operating Temperature	°C	15~35	15~35	15~35
Storage Temperature ⁴	°C	0~55	0~55	0~55
Recommended Thermal Dissipation Capacity	W	≥ 12	≥ 12	≥ 12

¹Explanation for the name of Module Type: FL (abbreviation of Focuslight) -FCSE03 (structure code) -7(output power) -808(center wavelength).

²Reduced lifetime if used above nominal operating conditions.

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

⁴A non-condensing environment is required for storage and operation below ambient dew point.

⁵Fiber length can be specified by customer.

⁶Can be with or without fiber connector.

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

⁸The customer can choose Thermistor with any two of the rest three options(Aiming Beam, PD and TEC).

⁹ $R_T = R_0 \cdot \exp(\beta(1/T - 1/T_0))$, ($T_0 = 25^\circ\text{C} = 298\text{K}$).



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