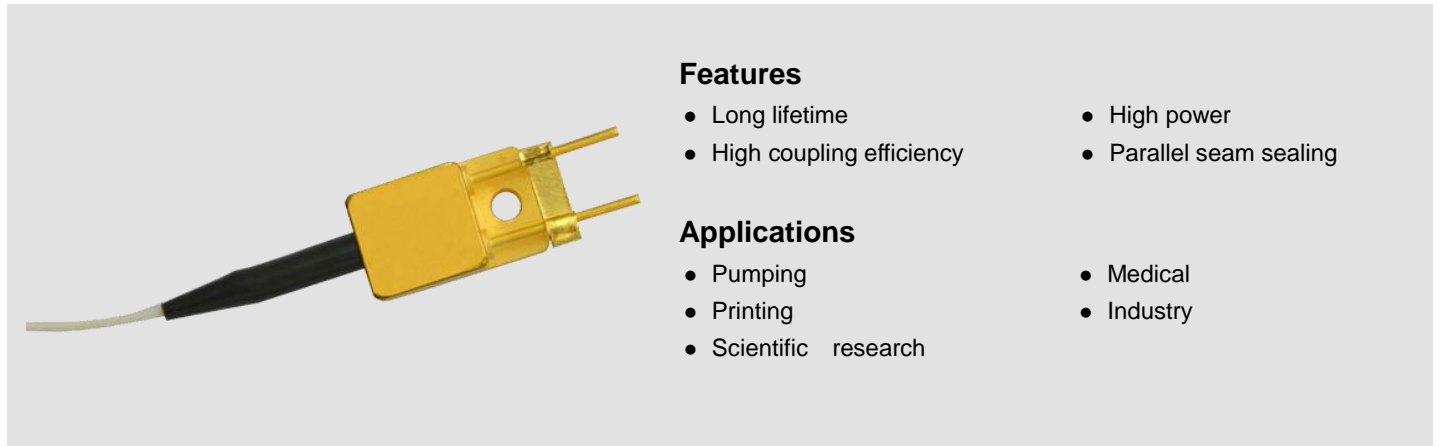


# Fiber Coupled Single Emitter Diode Laser (CW)



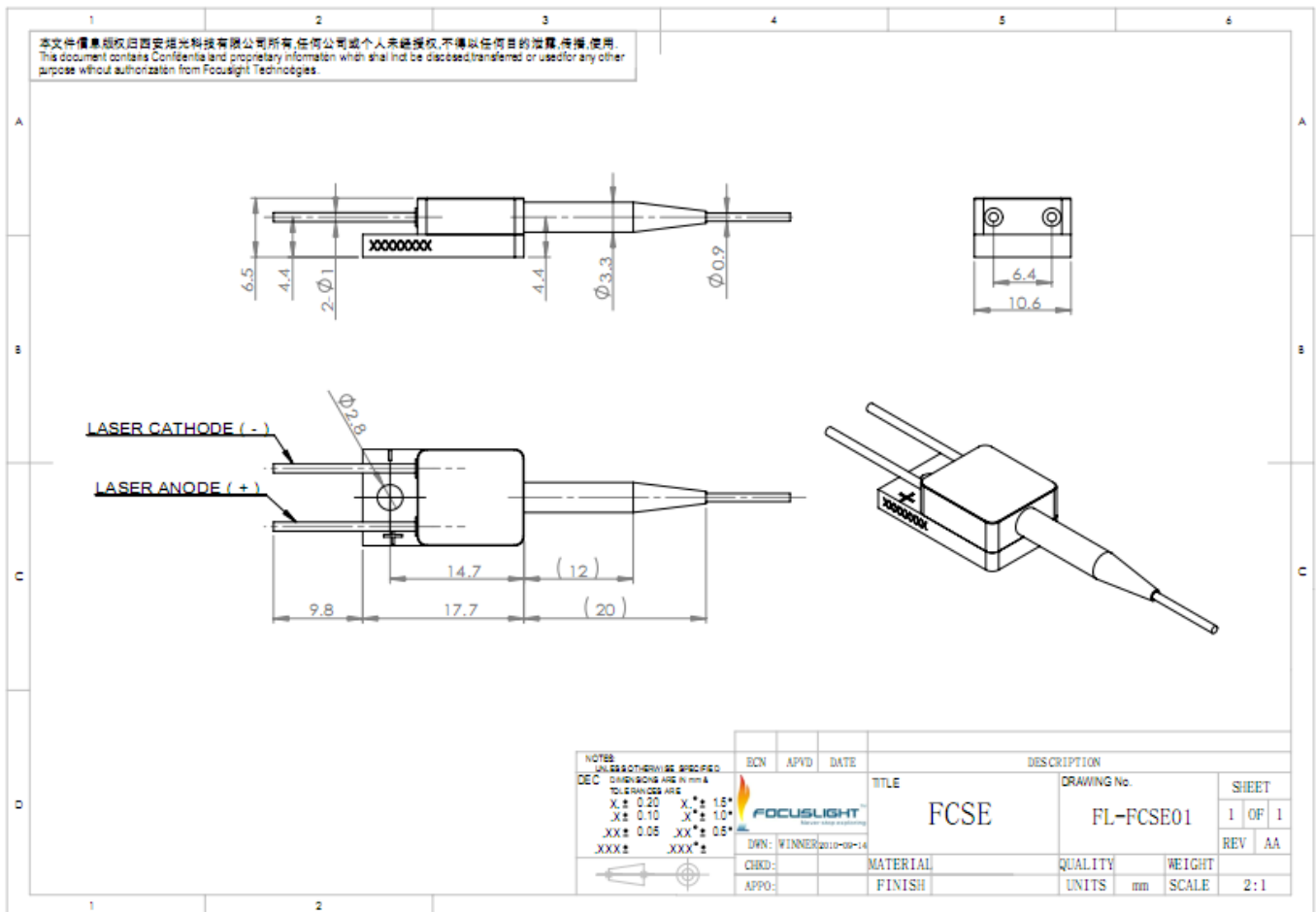
### Features

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

### Applications

- Pumping
- Printing
- Scientific research
- Medical
- Industry

## 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 <sup>1</sup>	Units	FL-FCSE01- 2-808	FL-FCSE01- 3-808	FL-FCSE01- 5-808	FL-FCSE01- 7-808
<b>Optical</b> <sup>3,7</sup>					
Center Wavelength $\lambda$	nm	808	808	808	808
Wavelength Tolerance	nm	$\pm 3$	$\pm 3$	$\pm 3$	$\pm 3$
Output Power <sup>2</sup>	W	2	3	5	7
Spectral Width FWHM	nm	$\leq 3$	$\leq 3$	$\leq 3$	$\leq 3$
Spectral Width FW90%E	nm	$\leq 4$	$\leq 4$	$\leq 4$	$\leq 4$
Polarization Mode	-	TE	TM	TM	TE
Wavelength Temp. Coefficient	nm/°C	$\sim 0.28$	$\sim 0.28$	$\sim 0.28$	$\sim 0.28$
<b>Fiber Parameters</b>					
Fiber Numerical Aperture	NA	0.15	0.22	0.22	0.22
Fiber Core/Cladding Diameter	$\mu\text{m}$	105/125	200/220	200/220	200/220
Connector Type <sup>6</sup>	-	SC	SMA905	SMA905	SMA905
Fiber length <sup>5</sup>	m	1.5	1.5	1.5	1.5
<b>Electrical Parameters</b> <sup>3,7</sup>					
Operating Current $I_{op}$	A	$\leq 3$	$\leq 3.9$	$\leq 6.5$	$\leq 8.8$
Threshold Current $I_{th}$	A	$\leq 0.6$	$\leq 0.8$	$\leq 1.1$	$\leq 1.8$
Operating Voltage $V_{op}$	V	$\leq 2.2$	$\leq 2.1$	$\leq 2.2$	$\leq 2.2$
Slope Efficiency	W/A	$\geq 0.85$	$\geq 0.9$	$\geq 0.9$	$\geq 0.9$
Power Conversion Efficiency	%	$\geq 40$	$\geq 40$	$\geq 38$	$\geq 40$
<b>Thermal Parameters</b>					
Operating Temperature	°C	15~30	15~30	15~30	15~30
Storage Temperature <sup>4</sup>	°C	-20~80	-20~80	-20~80	-20~80
Recommended Thermal Dissipation Capacity	W	$\geq 6$	$\geq 9$	$\geq 16$	$\geq 20$

<sup>1</sup>Explanation for the name of Module Type: FL (abbreviation of Focuslight) -FCSE01(structure code) -3(output power) -808(center wavelength).

<sup>2</sup>Reduced lifetime if used above nominal operating conditions.

<sup>3</sup>Data at 25°C temperature, unless otherwise stated.

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

<sup>5</sup>Fiber length can be specified by customer.

<sup>6</sup>Can be with or without fiber connector.

<sup>7</sup>If there are any other requirements, please contact us.

# Fiber Coupled Single Emitter Diode Laser (CW)

## Specification

Module Type <sup>1</sup>	Units	FL-FCSE01-3-915	FL-FCSE01-4-915	FL-FCSE01-8-915	FL-FCSE01-3-940
<b>Optical</b> <sup>3,7</sup>					
Center Wavelength $\lambda$	nm	915	915	915	940
Wavelength Tolerance	nm	$\pm 5$	$\pm 5$	$\pm 5$	$\pm 5$
Output Power <sup>2</sup>	W	3	4	8	3
Spectral Width FWHM	nm	$\leq 4$	$\leq 4$	$\leq 4$	$\leq 4$
Spectral Width FW90%E	nm	$\leq 6$	$\leq 6$	$\leq 6$	$\leq 6$
Polarization Mode	-	TE	TE	TE	TM
Wavelength Temp. Coefficient	nm/°C	$\sim 0.32$	$\sim 0.32$	$\sim 0.32$	$\sim 0.33$
<b>Fiber Parameters</b>					
Fiber Numerical Aperture	NA	0.15 or 0.22	0.22	0.15 or 0.22	0.15
Fiber Core/Cladding Diameter	$\mu\text{m}$	105/125 or 400/440	200/220	105/125 or 400/440	105/125
Connector Type <sup>6</sup>	-	SC or SMA905	SMA905	SC or SMA905	SC
Fiber length <sup>5</sup>	m	1.5	1.5	1.5	1.5
<b>Electrical Parameters</b> <sup>3,7</sup>					
Operating Current $I_{op}$	A	$\leq 3.8$	$\leq 5.5$	$\leq 9.2$	$\leq 3.8$
Threshold Current $I_{th}$	A	$\leq 0.5$	$\leq 0.8$	$\leq 0.8$	$\leq 0.5$
Operating Voltage $V_{op}$	V	$\leq 2$	$\leq 2$	$\leq 2$	$\leq 2$
Slope Efficiency	W/A	$\geq 0.85$	$\geq 0.85$	$\geq 0.9$	$\geq 0.85$
Power Conversion Efficiency	%	$\geq 42$	$\geq 40$	$\geq 40$	$\geq 42$
<b>Thermal Parameters</b>					
Operating Temperature	°C	15~30	15~30	15~30	15~30
Storage Temperature <sup>4</sup>	°C	-20~80	-20~80	-20~80	-20~80
Recommended Thermal Dissipation Capacity	W	$\geq 8$	$\geq 12$	$\geq 25$	$\geq 8$

<sup>1</sup>Explanation for the name of Module Type: FL (abbreviation of Focuslight) -FCSE01(structure code) -3(output power) -808(center wavelength).

<sup>2</sup>Reduced lifetime if used above nominal operating conditions.

<sup>3</sup>Data at 25°C temperature, unless otherwise stated.

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

<sup>5</sup>Fiber length can be specified by customer.

<sup>6</sup>Can be with or without fiber connector.

<sup>7</sup>If there are any other requirements, please contact us.

# Fiber Coupled Single Emitter Diode Laser (CW)

## Specification

Module Type <sup>1</sup>	Units	FL-FCSE01-4-940	FL-FCSE01-3-976	FL-FCSE01-4-976	FL-FCSE01-8-976
<b>Optical</b> <sup>3,7</sup>					
Center Wavelength $\lambda$	nm	940	976	976	976
Wavelength Tolerance	nm	$\pm 5$	$\pm 5$	$\pm 5$	$\pm 5$
Output Power <sup>2</sup>	W	4	3	4	8
Spectral Width FWHM	nm	$\leq 4$	$\leq 4$	$\leq 4$	$\leq 4$
Spectral Width FW90%E	nm	$\leq 6$	$\leq 6$	$\leq 6$	$\leq 6$
Polarization Mode	-	TE	TE	TE	TE
Wavelength Temp. Coefficient nm/°C		$\sim 0.33$	$\sim 0.34$	$\sim 0.34$	$\sim 0.34$
<b>Fiber Parameters</b>					
Fiber Numerical Aperture	NA	0.22	0.15	0.22	0.15
Fiber Core/Cladding Diameter	$\mu\text{m}$	200/220	105/125	200/220	105/125
Connector Type <sup>6</sup>	-	SMA905	SC	SMA905	SC
Fiber length <sup>5</sup>	m	1.5	1.5	1.5	1.5
<b>Electrical Parameters</b> <sup>3,7</sup>					
Operating Current $I_{op}$	A	$\leq 5.5$	$\leq 3.8$	$\leq 5.5$	$\leq 9.2$
Threshold Current $I_{th}$	A	$\leq 0.8$	$\leq 0.5$	$\leq 0.8$	$\leq 0.8$
Operating Voltage $V_{op}$	V	$\leq 2$	$\leq 2$	$\leq 2$	$\leq 2$
Slope Efficiency	W/A	$\geq 0.85$	$\geq 0.85$	$\geq 0.85$	$\geq 0.9$
Power Conversion Efficiency	%	$\geq 40$	$\geq 42$	$\geq 40$	$\geq 40$
<b>Thermal Parameters</b>					
Operating Temperature	°C	15~30	15~30	15~30	15~30
Storage Temperature <sup>4</sup>	°C	-20~80	-20~80	-20~80	-20~80
Recommended Thermal Dissipation Capacity	W	$\geq 12$	$\geq 8$	$\geq 12$	$\geq 24$

<sup>1</sup>Explanation for the name of Module Type: FL (abbreviation of Focuslight) -FCSE01(structure code) -3(output power) -808(center wavelength).

<sup>2</sup>Reduced lifetime if used above nominal operating conditions.

<sup>3</sup>Data at 25°C temperature, unless otherwise stated.

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

<sup>5</sup>Fiber length can be specified by customer.

<sup>6</sup>Can be with or without fiber connector.

<sup>7</sup>If there are any other requirements, please contact us.



### Focuslight Technologies Co., Ltd.

Distributed by:  
 LASERAND, Inc  
 Montreal, QC, Canada  
 Tel: 514 452-4693  
 Email: sales@laserand.com  
 Website: www.laserand.com

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