

# Fiber Coupled Multiple Single Emitter Diode Laser (CW)



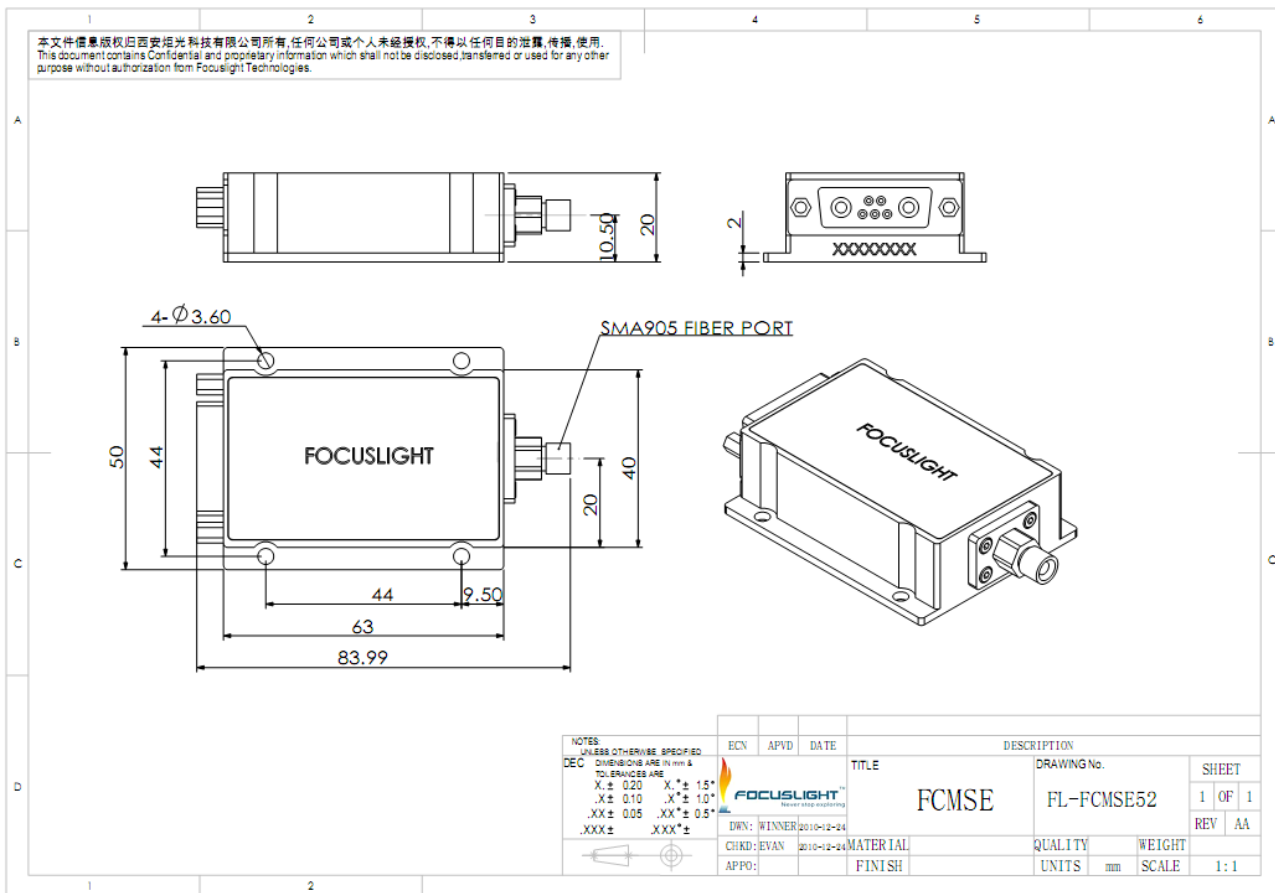
## Features

- Long lifetime
- High coupling efficiency
- High power
- 400/440 um detachable fiber

## 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 Multiple Single Emitter Diode Laser (CW)

## Specification

Module Type <sup>1</sup>	Units	FL-FCMSE52-10-808	FL-FCMSE52-12-808	FL-FCMSE52-20-808	FL-FCMSE52-10-915	FL-FCMSE52-12-915	FL-FCMSE52-20-915
<b>Optical<sup>3,7</sup></b>							
Center Wavelength $\lambda$	nm	808	808	808	915	915	915
Wavelength Tolerance	nm	$\pm 3$	$\pm 3$	$\pm 3$	$\pm 5$	$\pm 5$	$\pm 5$
Output Power <sup>2</sup>	W	10	12	20	10	12	20
Spectral Width FWHM	nm	$\leq 4$	$\leq 4$	$\leq 4$	$\leq 4$	$\leq 4$	$\leq 4$
Spectral Width FW90%E	nm	$\leq 6$	$\leq 6$	$\leq 6$	$\leq 6$	$\leq 6$	$\leq 6$
Polarization Mode	-	TM	TM	TE	TE	TE	TE
Wavelength Temp. Coefficient nm/°C		$\sim 0.28$	$\sim 0.28$	$\sim 0.28$	$\sim 0.32$	$\sim 0.32$	$\sim 0.32$
<b>Fiber Parameters</b>							
Fiber Numerical Aperture	NA	0.22	0.22	0.22	0.22	0.22	0.22
Fiber Core/Cladding Diameter	$\mu\text{m}$	400/440	400/440	400/440	400/440	400/440	200/220or400/440
Connector Type <sup>6</sup>	-	SMA905	SMA905	SMA905	SMA905	SMA905	SMA905
Fiber length <sup>5</sup>	m	1.5	1.5	1.5	1.5	1.5	1.5
<b>Electrical Parameters<sup>3,7</sup></b>							
Operating Current $I_{op}$	A	$\leq 4.8$	$\leq 4.8$	$\leq 8$	$\leq 4.8$	$\leq 5.5$	$\leq 8$
Threshold Current $I_{th}$	A	$\leq 1$	$\leq 1$	$\leq 0.8$	$\leq 1$	$\leq 1$	$\leq 0.8$
Operating Voltage $V_{op}$	V	$\leq 6$	$\leq 6$	$\leq 6$	$\leq 6$	$\leq 6$	$\leq 6$
Slope Efficiency	W/A	$\geq 2.5$	$\geq 2.5$	$\geq 2.5$	$\geq 2.5$	$\geq 2.5$	$\geq 2.5$
Power Conversion Efficiency	%	$\geq 35$	$\geq 35$	$\geq 35$	$\geq 20$	$\geq 25$	$\geq 40$
<b>Thermal Parameters</b>							
Operating Temperature	°C	15~30	15~30	15~30	15~30	15~30	15~30
Storage Temperature <sup>4</sup>	°C	0~55	0~55	0~55	0~55	0~55	0~55
Recommended Thermal Dissipation Capacity	W	$\geq 20$	$\geq 25$	$\geq 30$	$\geq 20$	$\geq 25$	$\geq 40$

<sup>1</sup>Explanation for the name of Module Type: FL(abbreviation of Focuslight) –FCMSE52 (structure code) -10(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 Multiple Single Emitter Diode Laser (CW)

## Specification

Module Type <sup>1</sup>	Units	FL-FCMSE52-10-940	FL-FCMSE52-12-940	FL-FCMSE52-10-976	FL-FCMSE52-12-976	FL-FCMSE52-20-976
<b>Optical<sup>3,7</sup></b>						
Center Wavelength $\lambda$	nm	940	940	976	976	976
Wavelength Tolerance	nm	$\pm 5$	$\pm 5$	$\pm 5$	$\pm 5$	$\pm 5$
Output Power <sup>2</sup>	W	10	12	10	12	20
Spectral Width FWHM	nm	$\leq 4$	$\leq 4$	$\leq 4$	$\leq 4$	$\leq 4$
Spectral Width FW90%E	nm	$\leq 6$	$\leq 6$	$\leq 6$	$\leq 6$	$\leq 6$
Polarization Mode	-	TE	TE	TE	TE	TE
Wavelength Temp. Coefficient nm/°C		$\sim 0.33$	$\sim 0.33$	$\sim 0.34$	$\sim 0.34$	$\sim 0.34$
<b>Fiber Parameters</b>						
Fiber Numerical Aperture	NA	0.22	0.22	0.22	0.22	0.22
Fiber Core/Cladding Diameter	$\mu\text{m}$	400/440	400/440	200/220or400/440	200/220or400/440	200/220or400/440
Connector Type <sup>6</sup>	-	SMA905	SMA905	SMA905	SMA905	SMA905
Fiber length <sup>5</sup>	m	1.5	1.5	1.5	1.5	1.5
<b>Electrical Parameters<sup>3,7</sup></b>						
Operating Current $I_{op}$	A	$\leq 4.8$	$\leq 5.5$	$\leq 4.8$	$\leq 5.5$	$\leq 8$
Threshold Current $I_{th}$	A	$\leq 1$	$\leq 1$	$\leq 1$	$\leq 1$	$\leq 0.8$
Operating Voltage $V_{op}$	V	$\leq 6$	$\leq 6$	$\leq 6$	$\leq 6$	$\leq 6$
Slope Efficiency	W/A	$\geq 2.5$	$\geq 2.5$	$\geq 2.5$	$\geq 2$	$\geq 2$
Power Conversion Efficiency	%	$\geq 20$	$\geq 25$	$\geq 20$	$\geq 25$	$\geq 40$
<b>Thermal Parameters</b>						
Operating Temperature	°C	15~30	15~30	15~30	15~30	15~30
Storage Temperature <sup>4</sup>	°C	0~55	0~55	0~55	0~55	0~55
Recommended Thermal Dissipation Capacity	W	$\geq 25$	$\geq 30$	$\geq 25$	$\geq 30$	$\geq 40$

<sup>1</sup>Explanation for the name of Module Type: FL(abbreviation of Focuslight) –FCMSE52 (structure code) -10(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.

Add: No.17 Xinxu Road, New Industrial Park  
Xi'an, Shaanxi, P.R.China 710119

Tel: +86-29 8888 0786

Fax: +86-29 8888 7075

Email: sales@focuslight.com.cn

Website: www.focuslight.com.cn

Copyright ©2009 Focuslight. All rights reserved.

