



# Micro-Channel Water Cooled Single Bar Diode Laser (QCW)

## Specification

Module Type <sup>1</sup>	Units	FL-MCC09-150-808(Q)	FL-MCC09-200-808(Q)	FL-MCC09-250-808(Q)	FL-MCC09-200-940(Q)	FL-MCC09-250-940(Q)	FL-MCC09-300-940(Q)
<b>Optical</b> <sup>3,7</sup>							
Center Wavelength $\lambda$	nm	808	808	808	940	940	940
Wavelength Tolerance	nm	$\pm 3$	$\pm 3$	$\pm 3$	$\pm 5$	$\pm 5$	$\pm 5$
Output Power <sup>2</sup>	W	150	200	250	200	250	300
Spectral Width FWHM	nm	$\leq 4$	$\leq 4$	$\leq 3.5$	$\leq 6$	$\leq 4$	$\leq 6$
Spectral Width FW90%E	nm	$\leq 6$	$\leq 6$	$\leq 6$	$\leq 8$	$\leq 6$	$\leq 8$
Fast Axis Divergence(FWHM) <sup>4</sup> degree		35	35	35	35	35	35
Slow Axis Divergence (FWHM) degree		8	8	8	8	8	8
Pulse Width	ms	$\leq 0.3$	$\leq 0.2$	$\leq 0.2$	$\leq 0.3$	$\leq 0.2$	$\leq 0.2$
Duty Cycle	%	$\leq 10$	$\leq 10$	$\leq 10$	$\leq 10$	$\leq 8$	$\leq 4$
Polarization Mode	-	TE	TE	TE	TE	TE	TE
Wavelength Temp. Coefficient	nm/°C	-0.28	-0.28	-0.28	-0.33	-0.33	-0.33
<b>Electrical Parameters</b> <sup>3,7</sup>							
Operating Current $I_{op}$	A	$\leq 160$	$\leq 180$	$\leq 250$	$\leq 200$	$\leq 250$	$\leq 300$
Threshold Current $I_{th}$	A	$\leq 15$	$\leq 30$	$\leq 26$	$\leq 18$	$\leq 18$	$\leq 18$
Operating Voltage $V_{op}$	V	$\leq 2$	$\leq 2$	$\leq 2$	$\leq 2$	$\leq 2$	$\leq 2$
Slope Efficiency	W/A	$\geq 1$	$\geq 1.1$	$\geq 1.15$	$\geq 1.1$	$\geq 1.1$	$\geq 1.1$
Power Conversion Efficiency	%	$\geq 45$	$\geq 50$	$\geq 50$	$\geq 50$	$\geq 50$	$\geq 50$
<b>Thermal Parameters</b>							
Operating Temperature	°C	15~30	15~30	15~30	15~30	15~30	15~30
Storage Temperature <sup>5</sup>	°C	0~55	0~55	0~55	0~55	0~55	0~55
Coolant	-	DI Water	DI Water	DI Water	DI Water	DI Water	DI 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
Max Inlet Pressure	kPa	380	380	380	380	380	380
Resistivity	M $\Omega$ *cm	0.2-0.5	0.2-0.5	0.2-0.5	0.2-0.5	0.2-0.5	0.2-0.5

<sup>1</sup>Explanation for the name of Module Type: FL(abbreviation of Focuslight) -MCC09(structure code) -150(output power) -808(center wavelength)(Q:QCW).

<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>For fast axis collimation: divergence <0.5°.

<sup>5</sup>A non-condensing environment is required for storage and operation below ambient dew point

<sup>6</sup>For smile requirements, please contact us.

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



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