

DATASHEET**Diode Lasers****FACTOR SERIES
FIBER-COUPLED DIODE LASER MODULE**

The FACTOR Series offers the highest efficiencies and best reliability for pump wavelengths in the range of 88x nm, 793 nm and 976 nm for pumping Nd^{3+} , Tm^{3+} and Yb^{3+} doped materials respectively. It is available between 1 and 22 single emitters, ranging from power levels of a few Watts up to 400 W.

**FEATURES**

- Robust package
- Fixed fiber
- VBG locking for wavelength stabilization
- Back reflection filter for 1064 nm laser light

APPLICATIONS

- Solid-state laser pumping

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Parameter	MDL878.6FCSE150HS17.1FACTOR200VBG
Package	Fiber-Coupled Single Emitters
OPTICAL PARAMETERS ¹	
Center Wavelength Range ³ (nm)	878.6
Center Wavelength Tolerance ³ (nm)	±0.6
Output Power ² (W)	150
Operating Condition	CW
Spectral Width (90% power content) (nm)	≤1
Wavelength Locked Output Power Range	50W to 150W
Slope Efficiency (W/A)	≥14
Wavelength Temp. Coefficient (nm/°C)	~0.01
Numerical Aperture (NA)	≥90% in 0.15
FIBER PARAMETERS ⁵	
Fiber Core Diameter (μm)	200 ±5
Fiber Cladding Diameter (μm)	280 ±6
Fiber Coating Diameter (μm)	450±30
Fiber Loose Tubing Diameter (mm)	2.2
Numerical Aperture (NA)	0.22 ±0.02
Fiber Length (m)	≥1.5
Fiber Termination	SMA905
ELECTRICAL PARAMETERS ¹	
Power Conversion Efficiency (%)	≥45
Threshold Current (I _{TH}) (A)	≤2
Operating Current (I _{OP}) (A)	≤13
Operating Voltage (V _{OP}) (V)	≤30
THERMAL PARAMETERS	
Operating Temperature Range ^{2,3,4} (°C)	+20 to +30
Storage Temperature Range ^{3,4} (°C)	0 to +55
Recommended Heatsink Capacity (W)	220
Maximum Soldering Temperature for Electrical Leads (°C)	320
Maximum Soldering Time per Lead (s)	10
MECHANICAL PARAMETERS	
Size (mm ³) [W x D x H]	96 x 50 x 12.5
Weight (kg)	0.295

Notes:

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1. Based on 25°C reference temperature.

2. Reduced lifetime if used above nominal operating conditions.

3. Coherent, Inc. upon request.

4. 5100 Patrick Henry Drive, Santa Clara, CA 95054

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

6. (800) 527-3786 | (408) 764-4983

7. Non-detachable fiber.

8. (408) 764-4646

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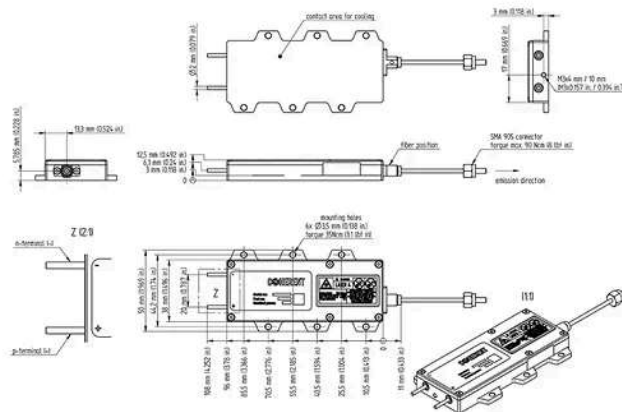
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