

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 1050 nm laser light

APPLICATIONS

- Fiber laser pumping

**Coherent, Inc.**

5100 Patrick Henry Drive, Santa Clara, CA 95054
p. (800) 527-3786 | (408) 764-4983
f. (408) 764-4646

tech.sales@coherent.com www.coherent.com

DATASHEET

Parameter	MDL976FCSE150HS17.1FACTOR106.5VBG
Package	Fiber-Coupled Single Emitters
OPTICAL PARAMETERS ¹	
Center Wavelength Range (nm)	976 (note 3)
Center Wavelength Tolerance (nm)	±0.6 (note 3)
Output Power (W)	150 (note 2)
Operating Condition	CW
Spectral Width (90% power content) (nm)	≤1
Wavelength Locked Output Power Range	50W to 150W
Slope Efficiency (W/A)	≥13
Wavelength Temp. Coefficient (nm/°C)	~0.01
Numerical Aperture (NA)	≥90% in 0.16
FIBER PARAMETERS ⁵	
Fiber Core Diameter (μm)	106.5 ±1.5
Fiber Cladding Diameter (μm)	125 ±1
Fiber Coating Diameter (μm)	245±15
Fiber Loose Tubing Diameter (mm)	0.9
Numerical Aperture (NA)	0.22 ±0.02
Fiber Length (m)	≥2
Fiber Termination	Pigtail
ELECTRICAL PARAMETERS ¹	
Power Conversion Efficiency (%)	≥48
Threshold Current (I _{TH}) (A)	≤0.9
Operating Current (I _{OP}) (A)	≤14
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)	0.3

Notes:

- 

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

tech.sales@coherent.com www.coherent.com

DATASHEET

**Coherent, Inc.**

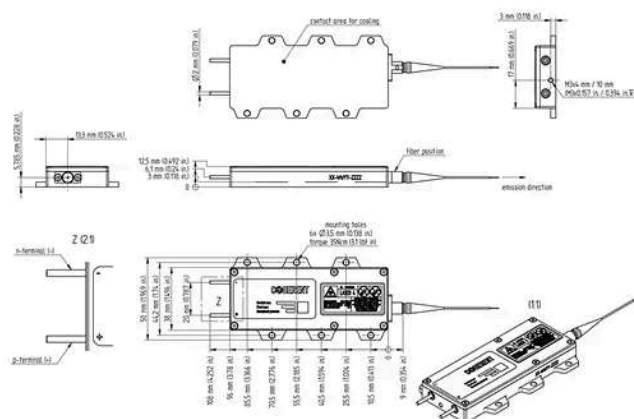
5100 Patrick Henry Drive, Santa Clara, CA 95054

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

f. (408) 764-4646

tech.sales@coherent.com www.coherent.com

DATASHEET

**Coherent, Inc.**

5100 Patrick Henry Drive, Santa Clara, CA 95054

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

f. (408) 764-4646

tech.sales@coherent.com www.coherent.com