

# Fiber-Coupled Diode Laser Module

878.6 nm, 150 W, VBG,  
Conduction-Cooled, Single Emitter-Based



OPTICAL PARAMETERS <sup>1</sup>	I5F-HS16.1
Center Wavelength Range <sup>3</sup> (nm)	878.6
Center Wavelength Tolerance <sup>3</sup> (nm)	±0.6
Output Power <sup>2</sup> (W)	150
Spectral Width (90% power content) (nm)	<1
Wavelength Temp. Coefficient (nm/°C)	0.01
Slope Efficiency (W/A)	>14
Numerical Aperture (NA)	>90% (typ. 95%) in 0.15
FIBER PARAMETERS <sup>5</sup>	
Fiber Core Diameter (μm)	200 ±5
Fiber Clad Diameter (μm)	280 ±6
Fiber Coating Diameter (μm)	450 ±30
Fiber Loose Tubing Diameter (mm)	2.2
Numerical Aperture <sup>3</sup> (NA)	0.22 ±0.02
Fiber Length (m)	1.5
Fiber Termination	SMA905
ELECTRICAL PARAMETERS <sup>1</sup>	
Power Conversion Efficiency (%)	>45% (typ. 50%)
Threshold Current (I <sub>TH</sub> ) (A)	<2
Operating Current (I <sub>OP</sub> ) (A)	<14 (typ. 12)
Operating Voltage (V <sub>OP</sub> ) (V) max.	29
THERMAL PARAMETERS	
Operating Temperature Range <sup>3,4</sup> (°C)	+20 to +30
Storage Temperature Range <sup>4</sup> (°C)	0 to +55
Recommended Heatsink Capacity (W)	195
Maximum Soldering Temperature for Electrical Leads (°C)	320
Maximum Soldering Time per Lead (s)	10

<sup>1</sup> Data at 25°C base plate temperature.

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

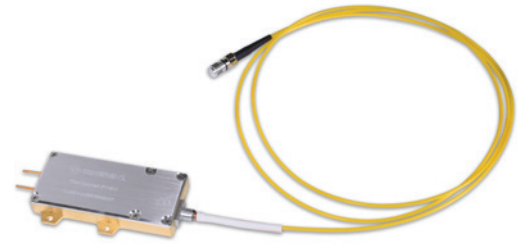
<sup>3</sup> Others available upon request.

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

<sup>5</sup> Non-detachable fiber.

# Fiber-Coupled Diode Laser Module

885 nm, 150 W, VBG,  
Conduction-Cooled, Single Emitter-Based



OPTICAL PARAMETERS <sup>1</sup>	I5F-HS16.1
Center Wavelength Range <sup>3</sup> (nm)	885
Center Wavelength Tolerance <sup>3</sup> (nm)	±0.6
Output Power <sup>2</sup> (W)	150
Spectral Width (90% power content) (nm)	<1
Wavelength Temp. Coefficient (nm/°C)	0.01
Slope Efficiency (W/A)	>14
Numerical Aperture (NA)	>90% (typ. 95%) in 0.15
FIBER PARAMETERS <sup>5</sup>	
Fiber Core Diameter (μm)	200 ±5
Fiber Clad Diameter (μm)	280 ±6
Fiber Coating Diameter (μm)	450 ±30
Fiber Loose Tubing Diameter (mm)	2.2
Numerical Aperture <sup>3</sup> (NA)	0.22 ±0.02
Fiber Length (m)	1.5
Fiber Termination	SMA905
ELECTRICAL PARAMETERS <sup>1</sup>	
Power Conversion Efficiency (%)	>45% (typ. 50%)
Threshold Current (I <sub>TH</sub> ) (A)	<2
Operating Current (I <sub>OP</sub> ) (A)	<14 (typ. 12)
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Operating Temperature Range <sup>3,4</sup> (°C)	+20 to +30
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<sup>1</sup> Data at 25°C base plate temperature.

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

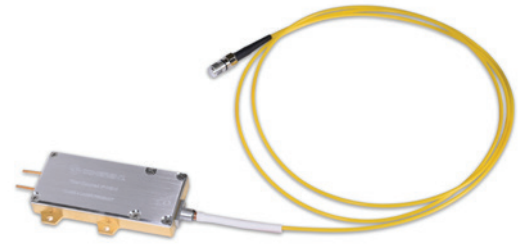
<sup>3</sup> Others available upon request.

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

<sup>5</sup> Non-detachable fiber.

# Fiber-Coupled Diode Laser Module

888 nm, 150 W, VBG,  
Conduction-Cooled, Single Emitter-Based



OPTICAL PARAMETERS <sup>1</sup>	I5F-HS16.1
Center Wavelength Range <sup>3</sup> (nm)	888
Center Wavelength Tolerance <sup>3</sup> (nm)	±0.6
Output Power <sup>2</sup> (W)	150
Spectral Width (90% power content) (nm)	<1
Wavelength Temp. Coefficient (nm/°C)	0.01
Slope Efficiency (W/A)	>14
Numerical Aperture (NA)	>90% (typ. 95%) in 0.15
FIBER PARAMETERS <sup>5</sup>	
Fiber Core Diameter (μm)	200 ±5
Fiber Clad Diameter (μm)	280 ±6
Fiber Coating Diameter (μm)	450 ±30
Fiber Loose Tubing Diameter (mm)	2.2
Numerical Aperture <sup>3</sup> (NA)	0.22 ±0.02
Fiber Length (m)	1.5
Fiber Termination	SMA905
ELECTRICAL PARAMETERS <sup>1</sup>	
Power Conversion Efficiency (%)	>45% (typ. 50%)
Threshold Current (I <sub>TH</sub> ) (A)	<2
Operating Current (I <sub>OP</sub> ) (A)	<14 (typ. 12)
Operating Voltage (V <sub>OP</sub> ) (V) max.	30
THERMAL PARAMETERS	
Operating Temperature Range <sup>3,4</sup> (°C)	+20 to +30
Storage Temperature Range <sup>4</sup> (°C)	0 to +55
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<sup>2</sup> Reduced lifetime if used above nominal operating conditions.

<sup>3</sup> Others available upon request.

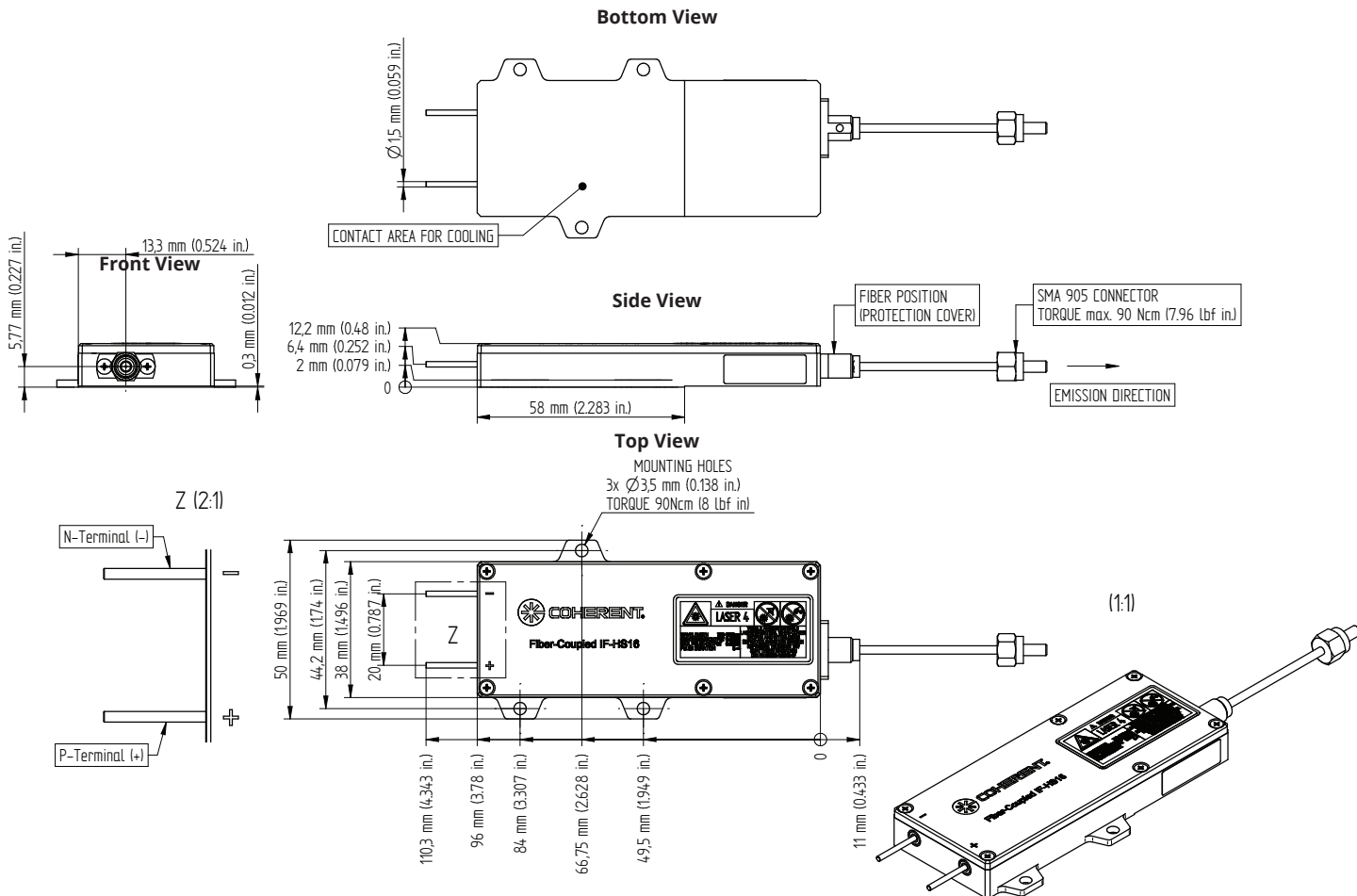
<sup>4</sup> A non-condensing environment is required for storage and operation below the ambient dew point.

<sup>5</sup> Non-detachable fiber.

## MECHANICAL SPECIFICATIONS

### VBG, Conduction-Cooled, Single Emitter-Based Fiber-Coupled Diode Laser Module

15F-HS16



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