

Fiber-Coupled Diode Laser Module

793 nm, 10 W, Conduction-Cooled,
Single Emitter-Based



OPTICAL PARAMETERS ¹	15F-HS1.4
Center Wavelength Range ³ (nm)	793
Center Wavelength Tolerance ³ (nm)	±5
Output Power ² (W)	10
Spectral Width (90% power content) (nm)	<3
Wavelength Temp. Coefficient (nm/°C)	~0.27
Slope Efficiency (W/A)	2.5 ~ 3.0
Numerical Aperture (NA)	95% in 0.12
FIBER PARAMETERS ⁵	
Fiber Core Diameter (µm)	106.5 ±1.5
Fiber Clad Diameter (µm)	125 ±1
Fiber Coating Diameter (µm)	245 ±15
Numerical Aperture ³ (NA)	0.15 ±0.02
Fiber Length (m)	>2
Fiber Termination	Fiber Pigtail
ELECTRICAL PARAMETERS ¹	
Power Conversion Efficiency (%)	>40
Threshold Current (I _{TH}) (A)	<0.8
Operating Current (I _{OP}) (A) max.	5.0
Operating Voltage (V _{OP}) (V) max.	<6.0
THERMAL PARAMETERS	
Operating Temperature Range ^{3,4} (°C)	+20 to +30
Storage Temperature Range ⁴ (°C)	0 to +55
Recommended Heatsink Capacity (W)	20
Maximum Soldering Temperature for Electrical Leads (°C)	320
Maximum Soldering Time per Lead (s)	10

¹ Data at 25°C base plate temperature.

² Reduced lifetime if used above nominal operating conditions.

³ Others available upon request.

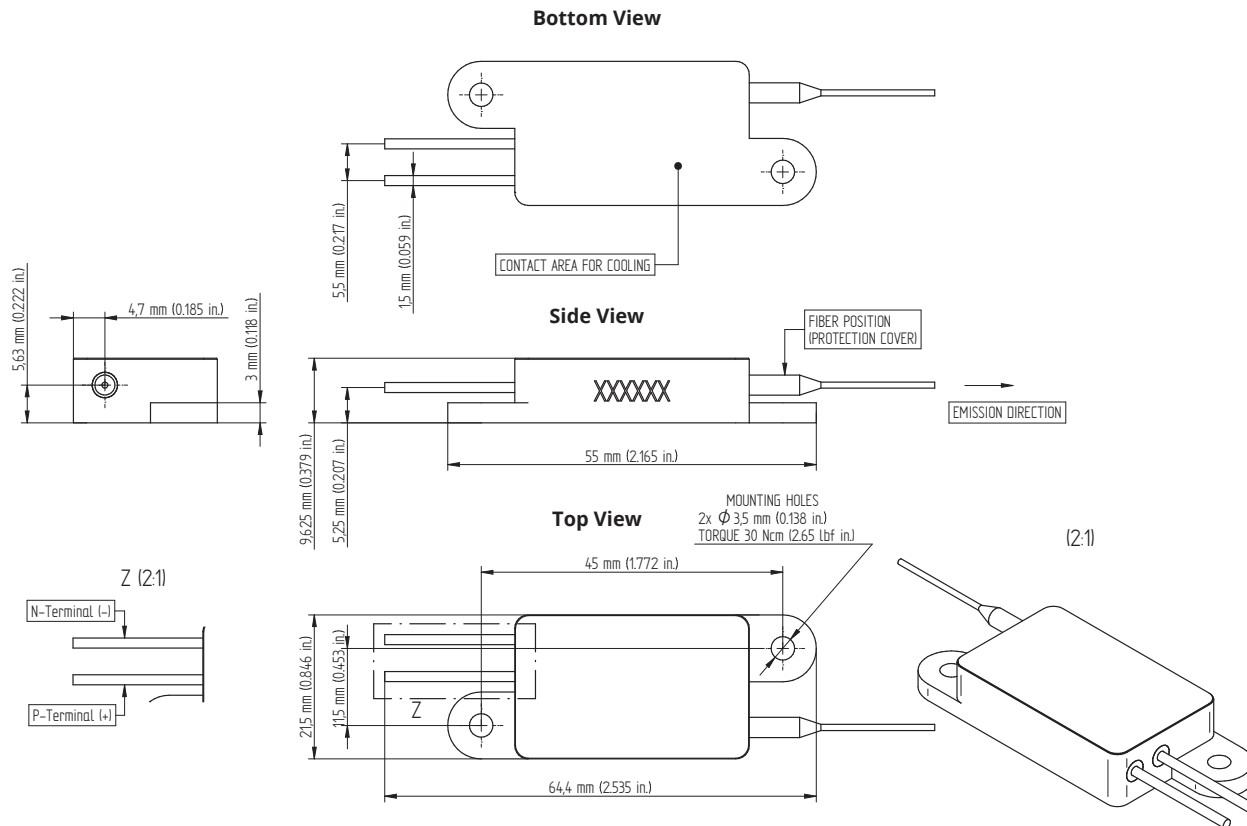
⁴ A non-condensing environment is required for storage and operation below the ambient dew point.

⁵ Non-detachable fiber.

MECHANICAL SPECIFICATIONS

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

I5F-HS1



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Visible / invisible laser radiation.
Avoid eye or skin exposure to
direct or scattered radiation!
Class 4 Laser product
IEC 60825-1:2014