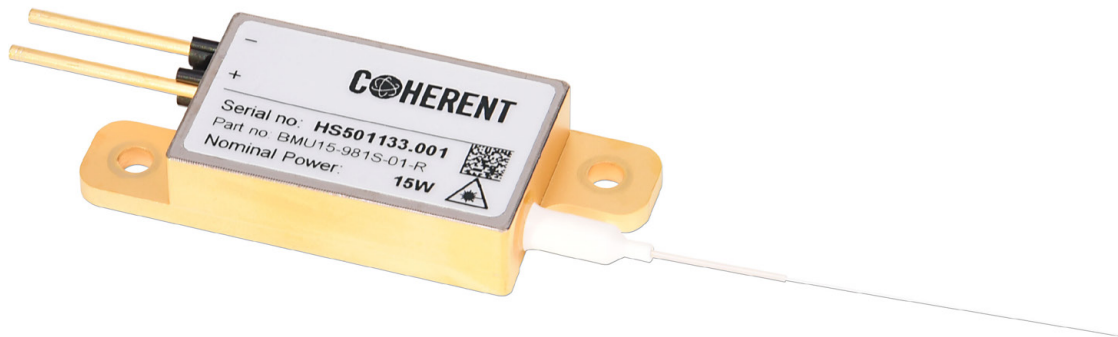


FACTOR SERIES FIBER-COUPLED DIODE LASER MODULE

**981 nm, ≥ 20 W, 104 μm , VBG, CW,
Conduction-Cooled, Single Emitter-Based**

The FACTOR Series offers the highest efficiencies and best reliability for pump wavelengths in the range of 808nm, 88x nm, 793 nm and 9xx nm for pumping Nd³⁺, Tm³⁺ and Yb³⁺ 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
- Hermetically sealed
- Fixed fiber
- Feedback protection at 1030-1200 nm
- VBG for wavelength stabilization

APPLICATIONS

- Solid state laser pumping
- Materials processing
- Medical
- Direct applications

FIBER-COUPLED DIODE LASER MODULE

Device Specification

Optical Parameter ¹		BMU3E
Center Wavelength Range ³ (nm)		981
Center Wavelength Tolerance ³ (nm)		±0.5
Output Power ² (W)		≥20, typ. 23
Operating Condition		CW
Spectral Width (FWHM) (nm)		≤0.4
Wavelength Locked Output Power Range		7 - 10A
Slope Efficiency (W/A)		≥2.5
Wavelength Temp. Coefficient (nm/°C)		≤0.02
Numerical Aperture (NA)		>90% in 0.12
Fiber Parameters ⁵		
Fiber Core Diameter (μm)		104 ±2
Fiber Cladding Diameter (μm)		125 ±3
Fiber Coating Diameter (μm)		250 ±20
Fiber Loose Tubing Diameter (mm)		-
Numerical Aperture (NA)		0.15 ±0.02
Fiber Length (m)		≥1.8
Fiber Termination		Pigtail
Electrical Parameters ¹		
Power Conversion Efficiency (%)		typ. 45
Threshold Current (I _{TH}) (A)		typ. 0.7
Operating Current (I _{OP}) (A)		≤10
Operating Voltage (V _{OP}) (V)		≤5.4
Thermal Parameters		
Operating Temperature Range ^{2,3,4} (°C)		+20 to +30
Storage Temperature Range ^{3,4} (°C)		-40 to +85
Recommended Heatsink Capacity (W)		60
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]		21.5 x 55 x 9.1
Weight (g)		41.5

Part Number(s)

BMU3E	BMU20-981S-01-R
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Notes:

1. Data at 25°C base plate temperature and the use of a thermal interface material rated for a thermal contact resistance of less than 1.0 cm² K/W (0.155 in² K/W).
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.

