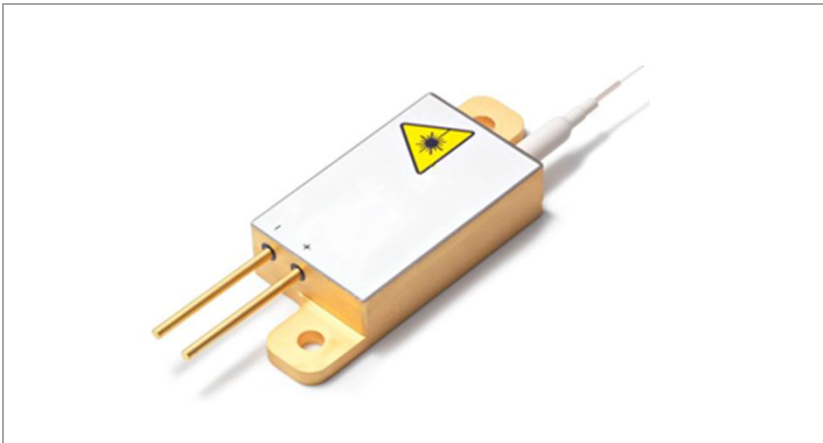


# 30W 9xxnm Uncooled Multimode Laser Diode Module


BMU30-9xx-01-R



II-VI Laser Enterprise's new multimode single emitter based laser diode module BMU30-9xx-01-R has been designed to provide an increased power output enabling fiber laser and direct system manufacturers to generate higher powers with fewer modules, allowing for more compact pump configurations, greater pump block efficiency and simplification of packaging. Its compact design reduces the footprint of fiber laser pump stages.

The module features a new generation of multimode laser diodes with E2 front mirror passivation that prevents Catastrophic Optical Damage (COD) to the laser diode facet. The laser diodes are connected in series to allow for fast current switching. The module includes a feedback protection filter that protects the laser diodes from harmful fibre laser wavelength feedback light.

## Features:

- Single emitter based laser diode module
- Increased output power of 30W
- 0.15NA 105 $\mu$ m core multimode optical fiber with 0.12NA under-filling
- Hermetically sealed 2-pin package with floating anode/cathode
- Fibre laser feedback protection
- Standard wavelengths at 915, 940, and 975nm
- RoHS compliant 

## Applications:

- Fiber laser pumping
- Direct applications
- Material processing
- Medical

## Operating Characteristics

Conditions unless otherwise stated:

Parameters at 25°C heat sink temperature and use of a thermal interface material rated for a thermal contact resistance of less than 1.0cm<sup>2</sup> K/W. Optical fibre with 105µm core diameter and 0.15NA.

Parameter	Min	Typ	Max	Unit	Conditions
CW Output Power	28	30		W	
Centre Wavelength BMU30-915-01-R BMU30-940-01-R BMU30-975-01-R	905 930 970	915 940 975	925 950 980	nm	
Spectral Width (-13dB)		6		nm	
Threshold Current		0.5	0.7	A	
Operating Current			12	A	
Operating Voltage		5.2	5.8	V	
Wallplug Efficiency		48		%	
Feedback Protection	45			dB	1030-1200nm

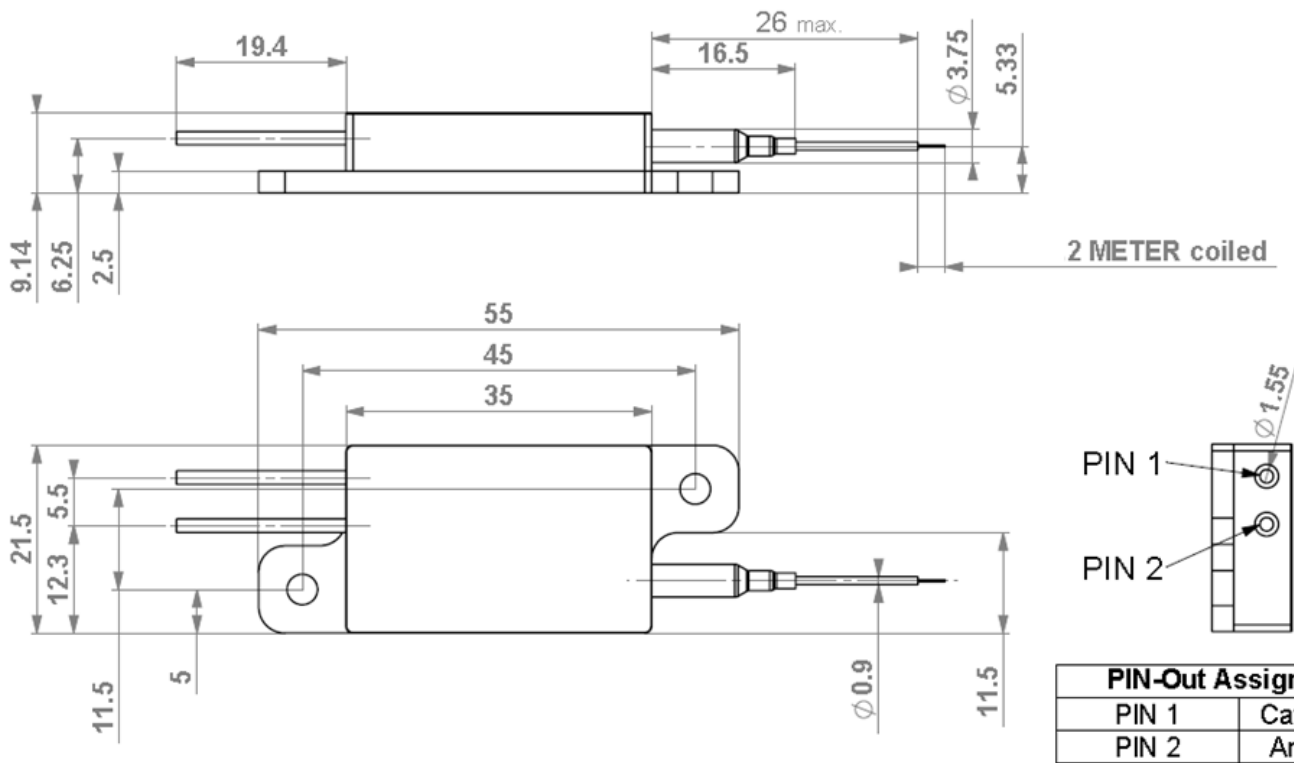
## Absolute Ratings

Parameter	Min	Typ	Max	Unit	Conditions
ESD	–		500	V	HBM, C=100pF, R=1.5 kOhm
Storage temperature	-40		85	°C	non-condensing
Lead soldering temperature	–		320	°C	
Lead soldering time	–		10	Sec	
Operating case temperature	15		60	°C	Reliability impacted if operating point deviates from reference condition
Relative humidity	5		85	%	
Fiber bend radius	25			mm	

Fiber Specification

Parameter	Min	Typ	Max	Unit	Conditions
Buffer diameter	230	250	270	μm	
Cladding diameter	123	125	128	μm	
Core diameter	102	105	108	μm	
Numeric aperture	-	0.15	-	-	
NA Filling			0.12	NA	>90% power content
Fiber length	-	2	-	m	

Package Dimensions (mm)



**RoHS Compliance** 

II-VI Laser Enterprise is fully committed to environment protection and sustainable development and has set in place a comprehensive program for removing polluting and hazardous substances from all of its products. The relevant evidence of RoHS compliance is held as part of our controlled documentation for each of our compliant products. RoHS compliance parts are available to order, please refer to the ordering information section for further details.

**Ordering Information:**

- BMU30-915-01-R                    30W 915nm Multimode Laser Diode Module with 0.15NA fiber**
- BMU30-940-01-R                    30W 940nm Multimode Laser Diode Module with 0.15NA fiber**
- BMU30-975-01-R                    30W 975nm Multimode Laser Diode Module with 0.15NA fiber**

**Contact Information**

[www.laserenterprise.com](http://www.laserenterprise.com)

**Important Notice**

Performance figures, data and any illustrative material provided in this data sheet are typical and must be specifically confirmed in writing by II-VI Laser Enterprise before they become applicable to any particular order or contract. In accordance with the II-VI Laser Enterprise policy of continuous improvement specifications may change without notice. Further details are available from any II-VI Laser Enterprise sales representative.



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