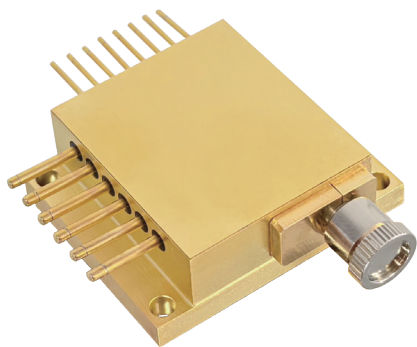




R3M-905 High Power Diode Laser Components

R3M-905 diode laser components are RealLight's AW series multi-function laser modules, providing multi-wavelength output with 3 emitters integrated. These fiber detachable lasers are equipped with fiber detector, photodiode and thermistor.

Key Features

- ♦ Superior power stability
- ♦ Excellent beam quality
- ♦ Efficient heat dissipation
- ♦ High reliability
- ♦ Different-wavelength combinations available

Applications

Spectroscopic Detection
Biomedicine
Material Analysis
Display&Lighting
Laser Manufacturing

Technical Specifications (25°C)

Package Type		R3M		
		3-wavelength		
Center Wavelength (nm)		650	808	905
Optical	CW Output Power / P_{op} (W)	0.5	12	-
	Peak Power P_{op} (W)	-	-	150
	Wavelength Tolerance (nm)	± 10		
	Spectral Width / $\Delta\lambda$ (nm)	<6		
	Temperature Drift of Wavelength / $\Delta\lambda/\Delta T$ (nm/°C)	0.3		
Electrical	CW Threshold Current / I_{th} (A)	0.5	1.8	-
	Pulse Threshold Current / I_{th} (A)	-	-	1.5
	CW Operating Current / I_{op} (A)	1.2	14	-
	Pulse Operating Current / I_{op} (A)	-	-	40
	CW Operating Voltage / V_{op} (V)	2.3	2	-
	Slope Efficiency / η_{es} (W/A)	0.7	1.0	3.9
	PD Parameter / I_{pd} (μA)	<8000		
	Thermistor / R_t (k Ω/β (25°C))	10 $\pm$ 1%/3930		
Fiber	Fiber Core Diameter / d_{core} (μm)	400		
	Fiber Cladding Diameter / D_{clad} (μm)	440		
	Fiber Coating Diameter / D_{buffer} (μm)	720		
	Numerical Aperture / NA	0.22		
	Connector	SMA905		

Notes:

1. For detailed voltage parameters of 905nm laser products, please contact us.
2. All the data in the above table are the typical values obtained from the tests at room temperature of 25°C, and the final data is subject to the final test report.

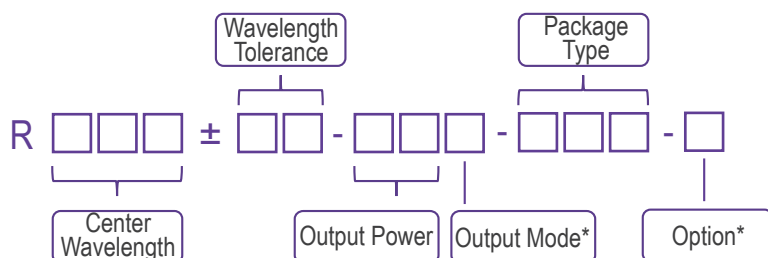
Other Parameters

Parameter	Operating Temperature /°C	Operating Relative Humidity /%	Storage Temperature /°C	Storage Relative Humidity /%	Lead Soldering Temperature (max/°C)
Min	10	-	-20	-	-
Max	30	75	70	90	250(10Sec.)

Order Information

Package	Wavelength (nm)	Output Power (W)	Part Number
R3M	650/808/905	0.5/12/150	R650/808/905±10-0.5/12/150WD-R3M-PFS

Part Numbering Schema

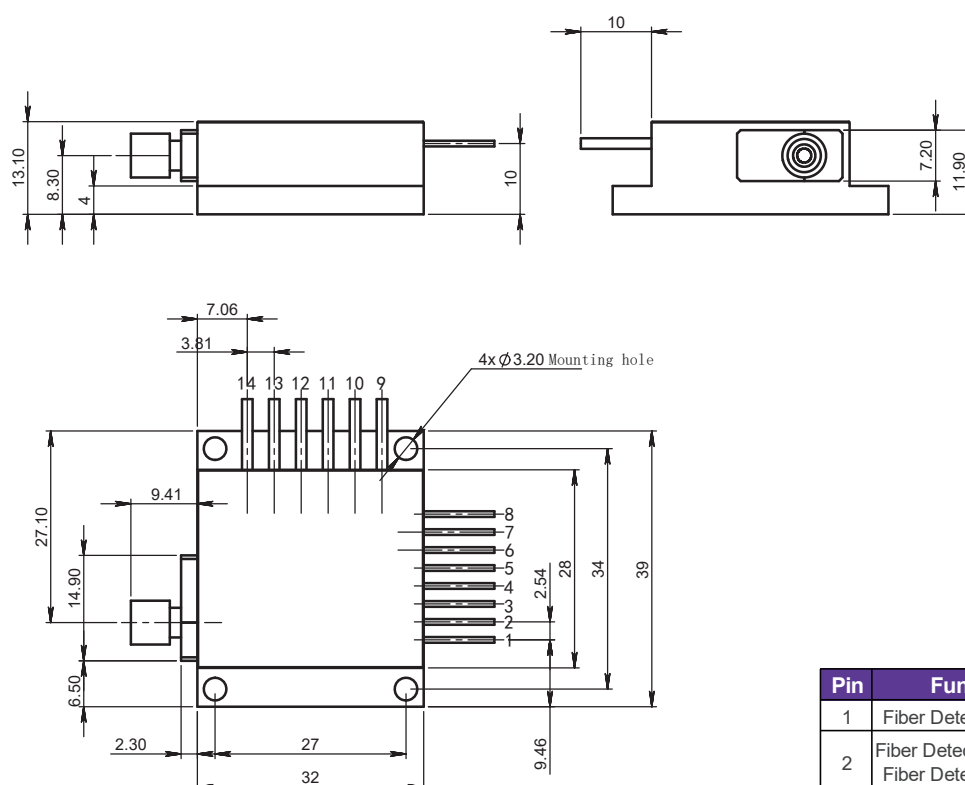


*Output Mode: D - Fiber Detachable

*Option: P - Pilot Light

FS - Fiber Detector

Mechanical Drawings (in mm)



Pin	Function	Pin	Function
1	Fiber Detector PD (P)	8	-
2	Fiber Detector LED (+); Fiber Detector PD (N)	9	905 (-)
3	Fiber Detector LED (-)	10	905 (+)
4	PD (P)	11	808 (+)
5	PD (N)	12	808 (-)
6	RT	13	650 (+)
7	RT	14	650 (-)

