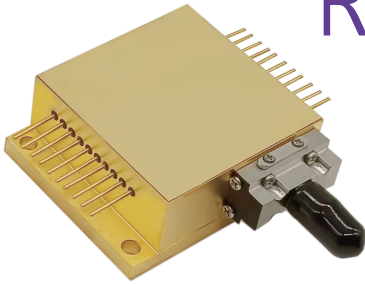


# R3MH Diode Laser Components



R3MH 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

- Aesthetic medicine
- Dental treatment
- Material processing

## Technical Specifications (25°C)

Package Type		R3MH		
		3-wavelength		
Center Wavelength (nm)		450	650	808/980/1064
Optical	CW Output Power / $P_{op}$ (W)	4	0.5	10
	Wavelength Tolerance (nm)	±10		
	Spectral Width / $\Delta\lambda$ (nm)	<6		
	Temperature Drift of Wavelength / $\Delta\lambda/\Delta T$ (nm/°C)	0.3		
Electrical	Threshold Current / $I_{th}$ (A)	0.35	0.5	1.5/1.2/1.2
	Operating Current / $I_{op}$ (A)	3.5	1.2	13/12/13
	Operating Voltage / $V_{op}$ (V)	4.7	2.2	2.1/2/2
	Slope Efficiency / $\eta_{es}$ (W/A)	1.1	0.7	0.8/0.9/0.85
	PD Parameter / $I_{pd}$ (μA)	<3000		
	Thermistor / $R_t$ (kΩ/β (25°C))	10±5%/3930		
Fiber	Fiber Core Diameter / $d_{core}$ (μm)	200		
	Fiber Cladding Diameter / $D_{clad}$ (μm)	220		
	Fiber Coating Diameter / $D_{buffer}$ (μm)	400		
	Numerical Aperture / NA	0.22		
	Connector	SMA905		

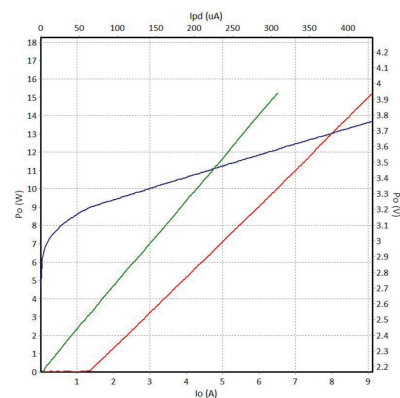
1. All the data in the above table are the typical values obtained from the tests at room temperature of 25°C, and the final data is subject to the final test report.

## 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

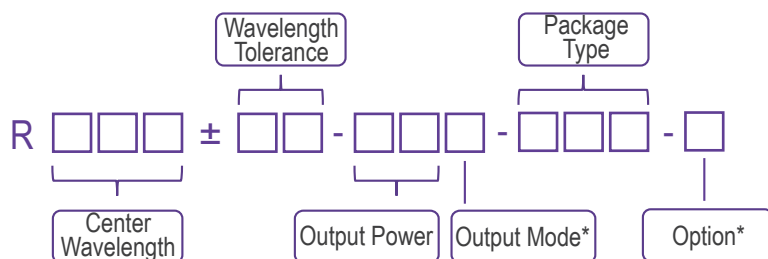
Package	Wavelength (nm)	Output Power(W)	Part Number
R3MH	450/650/808	4/0.5/10	R450/650/808±10-4/0.5/10WD-R3MH-PFS
	450/650/980	4/0.5/10	R450/650/980±10-4/0.5/10WD-R3MH-PFS
	450/650/1064	4/0.5/10	R450/650/1064±10-4/0.5/10WD-R3MH-PFS



PIV curve of

808nm Diode Laser Components

## Part Numbering Schema

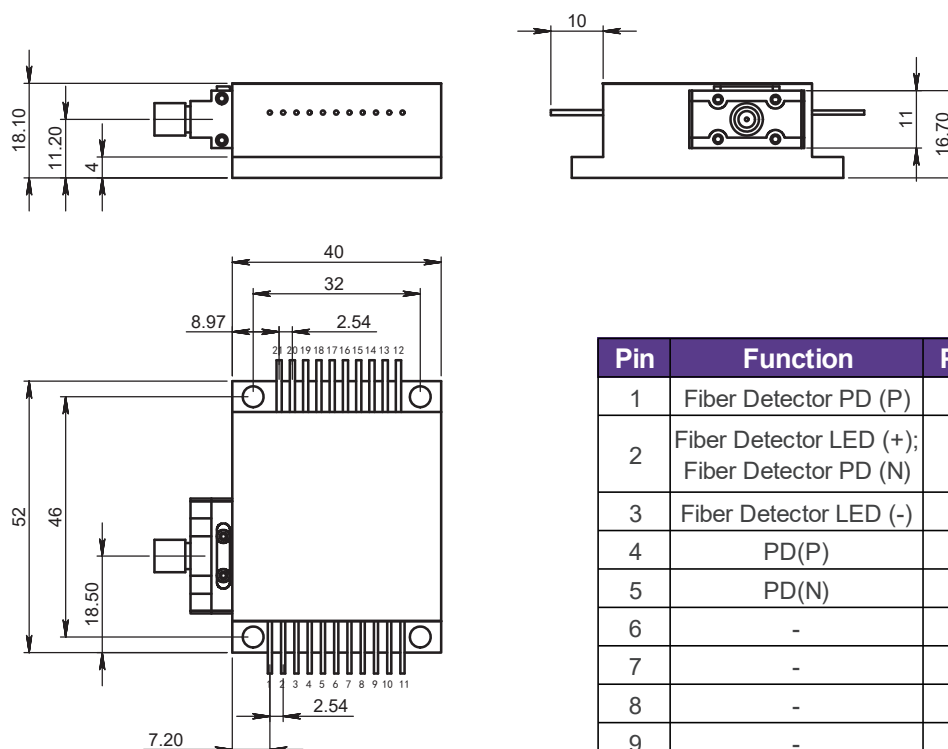


\*Output Mode: D - Fiber Detachable

\*Option: P - Pilot Light

FS - Fiber Detector

## Mechanical Drawings (in mm)



Pin	Function	Pin	Function
1	Fiber Detector PD (P)	12	-
2	Fiber Detector LED (+); Fiber Detector PD (N)	13	-
3	Fiber Detector LED (-)	14	LD1( + )
4	PD(P)	15	LD1( - )
5	PD(N)	16	LD2( + )
6	-	17	LD2( - )
7	-	18	-
8	-	19	-
9	-	20	450nm( + )
10	Thermistor	21	450nm( - )
11	Thermistor		

