

R4MH High Power Diode Laser Components

R4MH diode laser components are RealLight's AW series multi-function laser modules, providing multi-wavelength output with 4 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)

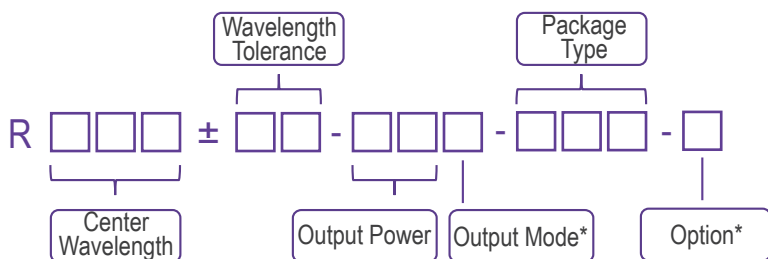
Package Type		R4MH			
		4-wavelength			
Center Wavelength (nm)		450	650	808	9XX / 1064
Optical	CW Output Power / P _{op} (W)	4	0.5	10	10
	Wavelength Tolerance (nm)	±10			
	Spectral Width / Δλ (nm)	<6			
	Temperature Drift of Wavelength / Δλ/ΔT (nm/°C)	0.3			
Electrical	Threshold Current / I _{th} (A)	0.35	0.5	1.8	1.2 / 1.2
	Operating Current / I _{op} (A)	3.5	1.2	13	13 / 14
	Operating Voltage / V _{op} (V)	4.7	2.2	2	1.8 / 1.8
	Slope Efficiency / η _{es} (W/A)	1.3	0.7	0.9	0.8 / 0.8
	PD Parameter / I _{pd} (μA)	<8000			
	Thermistor / Rt (kΩ/β (25°C))	10±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			

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.)

Part Numbering Schema

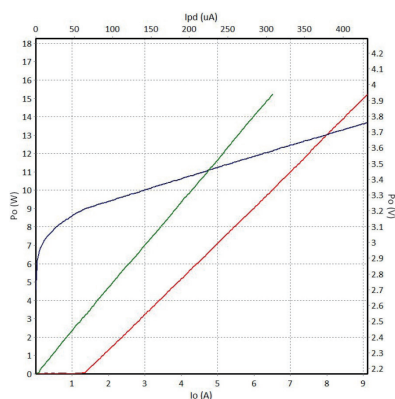


*Output Mode: D - Fiber Detachable

*Option: P - Pilot Light

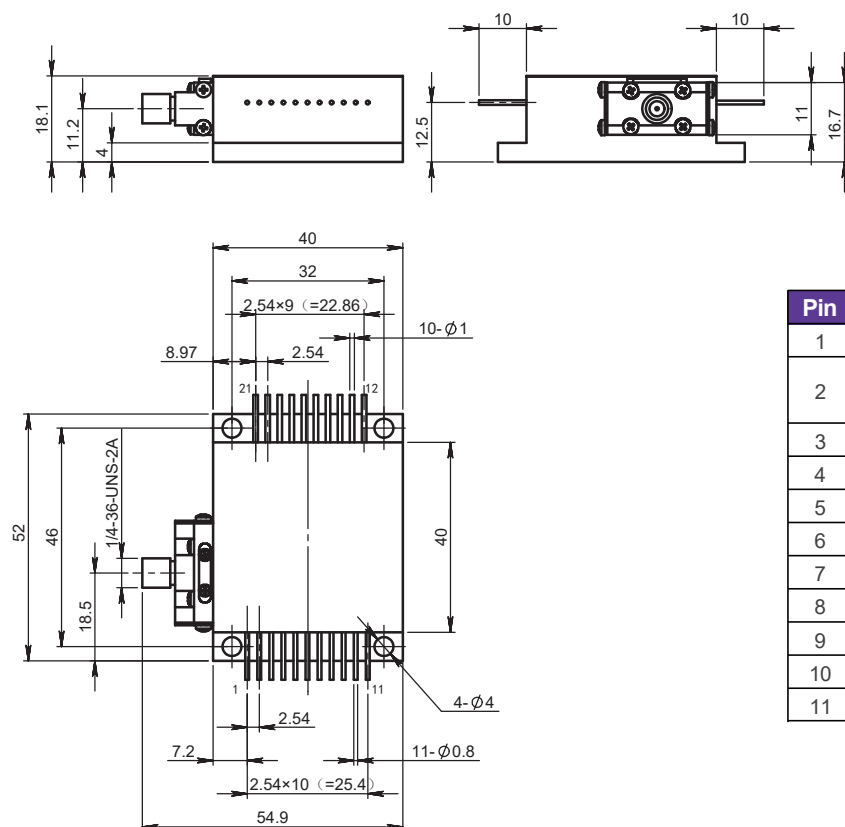
FS - Fiber Detector

Product Characteristics Diagrams



PIV curve of 808nm Diode Laser Components

Mechanical Drawings (in mm)



Pin	Function	Pin	Function
1	Fiber Detector PD (P)	12	LD1(+)
2	Fiber Detector LED (+); Fiber Detector PD (N)	13	LD1(-)
3	Fiber Detector LED (-)	14	LD2(+)
4	PD(P)	15	LD2(-)
5	PD(N)	16	LD3(+)
6	-	17	LD3(-)
7	-	18	-
8	-	19	-
9	-	20	450nm(+)
10	Thermistor	21	450nm(-)
11	Thermistor		

