

High Power R5M Diode Laser Components

High power R5M diode laser components are RealLight's AW series multi-function laser modules, providing multi-wavelength output with 3 different wavelength emitters integrated. These fiber detachable lasers are equipped with fiber detector, photodiode, thermistor and replaceable window.

Key Features

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

Applications

Aesthetic medicine
Laser surgery
Laser therapy

Technical Specifications (25°C)

Package Type		R5M					
		3-wavelength			3-wavelength		
Center Wavelength (nm)		650	808	980	650	808	1064
Optical	CW Output Power / P_{op} (W)	0.5	15	15	0.5	15	15
	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)	0.5	1.2	1.1	0.5	1.5	1
	Operating Current / I_{op} (A)	1.2	10	18	1.2	10	10
	Operating Voltage / V_{op} (V)	2.2	4	1.8	2.2	4	3.6
	Slope Efficiency / η_{es} (W/A)	0.7	1.7	0.9	0.7	1.7	1.7
	PD Parameter / I_{pd} (μA)	<3000					
	Thermistor / R_t ($k\Omega/\beta$ (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					

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.

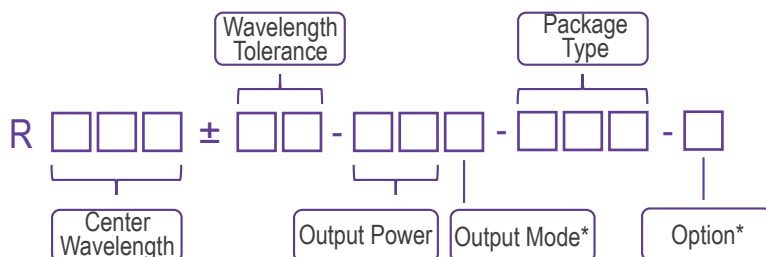
Other Parameters

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
R5M	650/808/980	0.5/15/15	R650/808/980±10-0.5/15/15WD-R5M-PFS
	650/808/1064	0.5/15/15	R650/808/1064±10-0.5/15/15WD-R5M-PFS

Part Numbering Schema

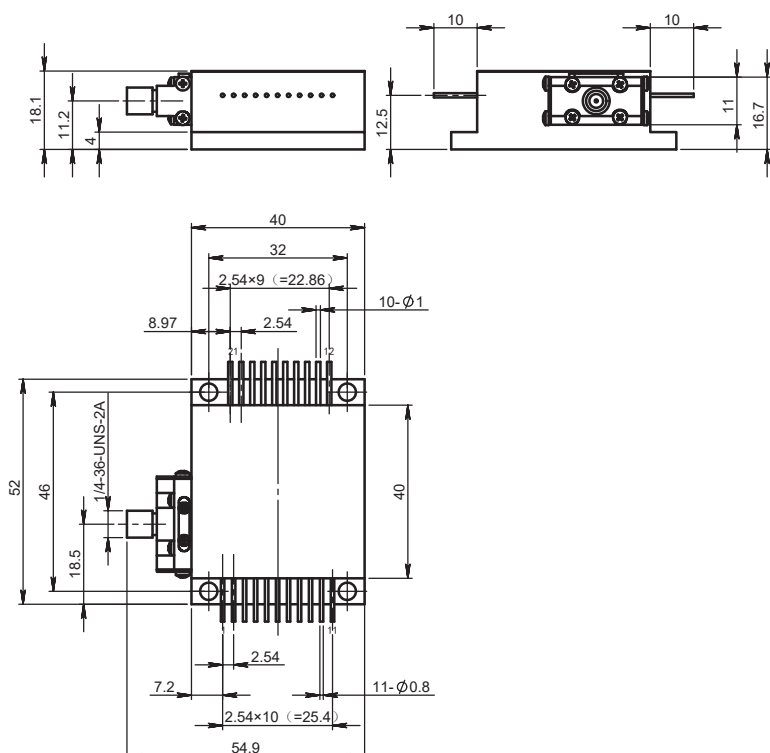


*Output Mode: D - Fiber Detachable

*Option: P - Pilot Light

FS - Fiber Detector

Mechanical Drawings (in mm)



650/808/980nm			
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	LD1(-)
4	PD(P)	15	LD1(-)
5	PD(N)	16	LD2(+)
6	-	17	-
7	-	18	-
8	-	19	LD2(-)
9	-	20	Red laser LD(+)
10	Thermistor	21	Red laser LD(-)
11	Thermistor		

650/808/1064nm			
Pin	Function	Pin	Function
1	Fiber Detector PD (P)	12	LD1(+)
2	Fiber Detector LED (+); Fiber Detector PD (N)	13	-
3	Fiber Detector LED (-)	14	-
4	PD(P)	15	LD1(-)
5	PD(N)	16	LD2(+)
6	-	17	-
7	-	18	-
8	-	19	LD2(-)
9	-	20	Red laser LD(+)
10	Thermistor	21	Red laser LD(-)
11	Thermistor		

