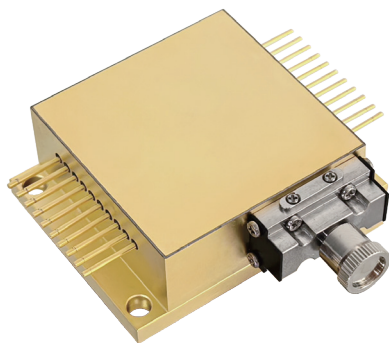




R5M High Power Diode Laser Components

R5M diode laser components are RealLight's AW series multi-function laser modules, providing multi-wavelength output with 4-5 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								
		4-wavelength				5-wavelength				
Center Wavelength (nm)		650	808	980	1064	650	808	910	980	1064
Optical	CW Output Power / P_{op} (W)	0.5	10	15	10	0.5	10	10	10	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)	0.5	1.8	1.2	1.2	0.5	1.8	1	1	1.2
	Operating Current / I_{op} (A)	1.2	13	18	13	1.2	13	12	13	13
	Operating Voltage / V_{op} (V)	2.2	2	2	2	2.2	2	2	2	2
	Slope Efficiency / η_{es} (W/A)	0.8	0.9	0.9	0.8	0.8	0.9	0.9	0.8	0.8
	PD Parameter / I_{pd} (μA)	<3000								
	Thermistor / R_t (k Ω/β (25°C))	10 $\pm$ 1%/3930								
	Fiber Core Diameter / D_{core} (μm)	400								
Fiber	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.

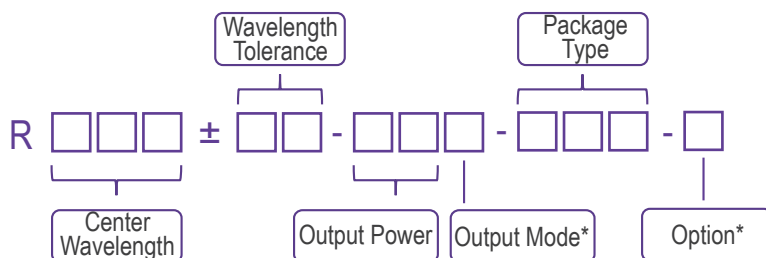
Other Parameters

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	650/808/980/1064	0.5/10/15/10	R650/808/980/1064±10-0.5/10/15/10WD-R5M-PFS
	650/808/910/980/1064	0.5/10/10/10/10	R650/808/910/980/1064±10-0.5/10/10/10/10WD-R5M-PFS

Part Numbering Schema

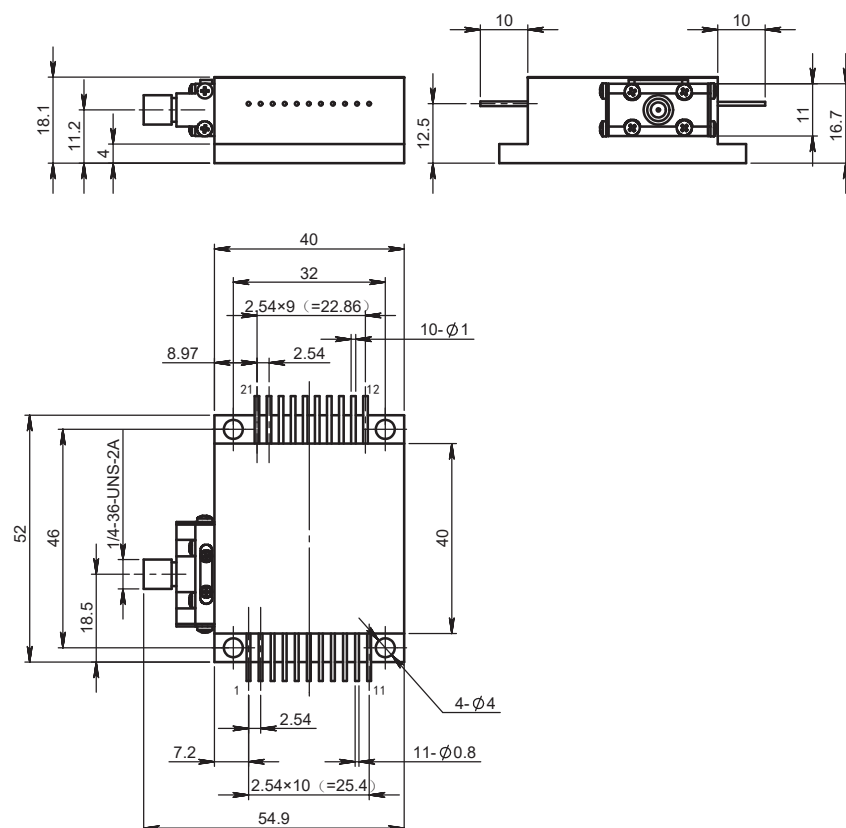


*Output Mode: D - Fiber Detachable

*Option: P - Pilot Light

FS - Fiber Detector

Mechanical Drawings (in mm)



4-wavelength			
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	LD2(-)
6	-	17	LD2(-)
7	-	18	LD3(+)
8	-	19	LD3(-)
9	-	20	LD4(+)
10	Thermistor	21	LD4(-)
11	Thermistor		

5-wavelength			
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	LD4(+)
8	-	19	LD4(-)
9	-	20	LD5(+)
10	Thermistor	21	LD5(-)
11	Thermistor		

