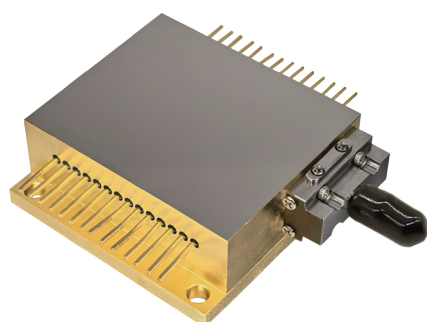




R7M Diode Laser Components

R7M diode laser components are RealLight's AW series multi-function laser modules, providing multi-wavelength output with 2-3 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		R7M		
		3-wavelength		
Center Wavelength (nm)		650	980	1470
Optical	CW Output Power / P_{op} (W)	0.2	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)	0.2	1.2	1.5
	Operating Current / I_{op} (A)	0.5	18	13.5
	Operating Voltage / V_{op} (V)	2.2	2	5.5
	Slope Efficiency / η_{es} (W/A)	0.7	0.9	1.2
	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.

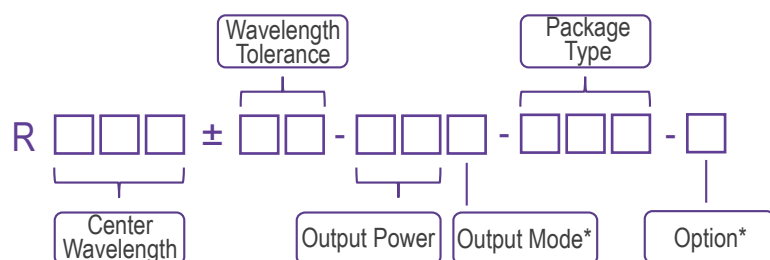
Other Parameters

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
R7M	650/980/1470	0.2/15/15	R650/980/1470±10-0.2/15/15WD-R7M-PFS

Part Numbering Schema

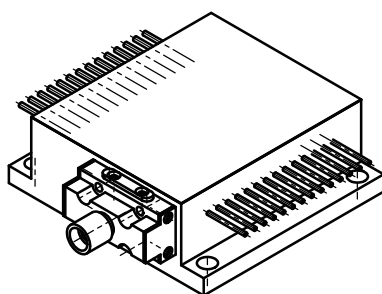
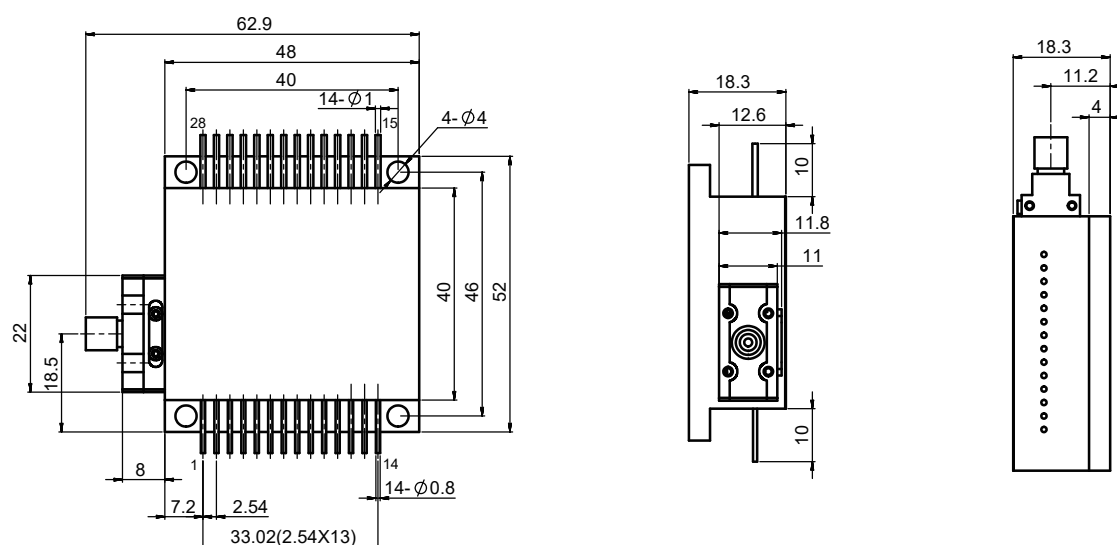


*Output Mode: D - Fiber Detachable

*Option: P - Pilot Light

FS - Fiber Detector

Mechanical Drawings (in mm)



650/980/1470nm			
Pin	Function	Pin	Function
1	Fiber Detector PD (P)	15	1470nm(+)
2	Fiber Detector LED (+); Fiber Detector PD (N)	16	-
3	Fiber Detector LED (-)	17	-
4	-	18	-
5	-	19	-
6	-	20	-
7	-	21	-
8	-	22	1470nm(-)
9	-	23	980nm(+)
10	-	24	980nm(-)
11	PD(P)	25	-
12	PD(N)	26	-
13	Thermistor	27	650nm(+)
14	Thermistor	28	650nm(-)