



# 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

- Biomedical applications
- 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 <sub>op</sub> (W)	0.5	10	15	10	0.5	10	10	10	10
	Wavelength Tolerance (nm)	±10								
	Spectral Width / Δλ (nm)	<6								
	Temperature Drift of Wavelength / ΔNΔT (nm/°C)	0.3								
Electrical	Threshold Current / I <sub>th</sub> (A)	0.5	1.8	1.2	1.2	0.5	1.8	1	1	1.2
	Operating Current / I <sub>op</sub> (A)	1.2	13	18	13	1.2	13	12	13	13
	Operating Voltage / V <sub>op</sub> (V)	2.2	2	2	2	2.2	2	2	2	2
	Slope Efficiency / η <sub>es</sub> (W/A)	0.8	0.9	0.9	0.8	0.8	0.9	0.9	0.8	0.8
	PD Parameter / I <sub>pd</sub> (μA)	<3000								
Thermistor / Rt (kΩ/β (25°C))		10±1%/3930								
Fiber	Fiber Core Diameter / D <sub>core</sub> (μm)	400								
	Fiber Cladding Diameter / D <sub>clad</sub> (μm)	440								
	Fiber Coating Diameter / D <sub>buffer</sub> (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.)

