

R2D High Power Diode Laser Components

R2D diode laser components are Reallight's AW series multi-function laser modules, providing single-wavelength output. These fiber detachable lasers are equipped with aiming beam, fiber detector, photodiode and thermistor.

Key Features

- ◆ High reliability
- ◆ Superior power stability
- ◆ Excellent beam quality
- ◆ Efficient heat dissipation
- ◆ Various wavelengths

Applications

- Spectroscopic Detection
- Biomedicine
- Material Analysis
- Display&Lighting
- Laser Manufacturing

Technical Specifications (25°C)

Package Type		R2D				
		Red Laser	Single-wavelength			
Center Wavelength (nm)		650	808	9XX	1064	1470
Optical	CW Output Power / P _{op} (W)	0.5	20	30	25	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)	0.5	1.8	1	1	1.4
	Operating Current / I _{op} (A)	1.2	13	20	17	14
	Operating Voltage / V _{op} (V)	2.3	4	3.6	3.6	3
	Slope Efficiency / η _{es} (W/A)	0.7	1.8	1.6	1.6	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 (customizable)				
	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.

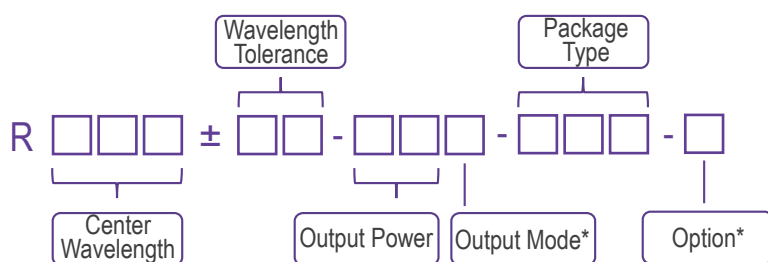
Other Parameters

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
R2D	808	20	R808±10-20WD-R2D-PFS
	9XX	30	R9XX±10-30WD-R2D-PFS
	1064	25	R1064±10-25WD-R2D-PFS
	1470	10	R1470±10-10WD-R2D-PFS

Part Numbering Schema

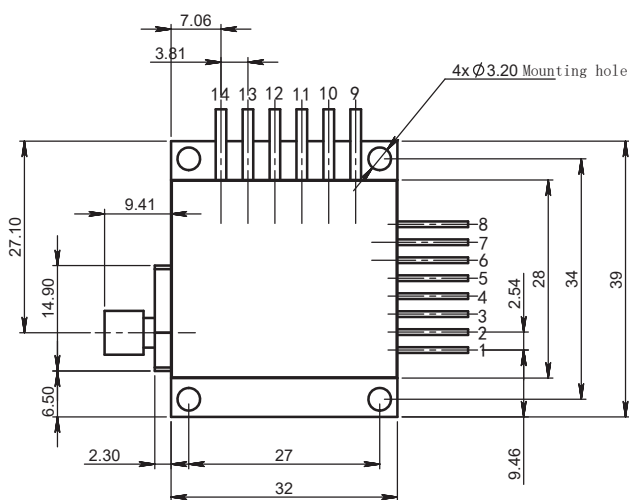
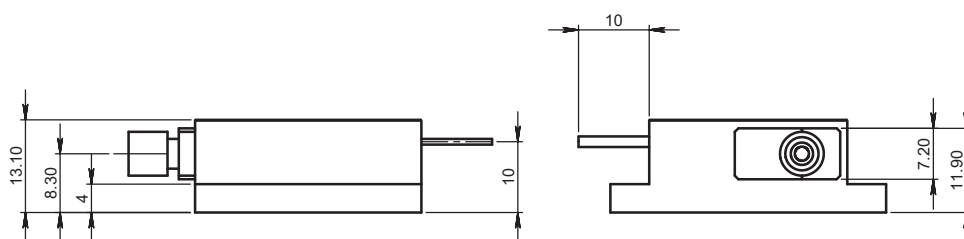


*Output Mode: D - Fiber Detachable

*Option: P - Pilot Light

FS - Fiber Detector

Mechanical Drawings (in mm)



Pin	Function	Pin	Function
1	Fiber Detector PD (P)	8	-
2	Fiber Detector LED (+); Fiber Detector PD (N)	9	LD (+)
3	Fiber Detector LED (-)	10	-
4	PD(P)	11	-
5	PD(N)	12	LD (-)
6	RT	13	Red laser LD(+)
7	RT	14	Red laser LD(-)

