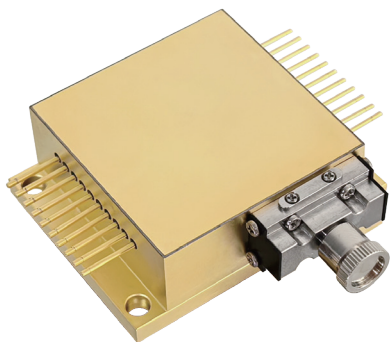




R4D High Power Diode Laser Components

R4D 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		R4D				
		Red Laser	Single-wavelength			
Center Wavelength (nm)		650	808	980	1064	1470
Optical	CW Output Power / P _{op} (W)	0.5	45	50	45	15
	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	1.2	1.2	1.4
	Operating Current / I _{op} (A)	1.2	14	20	15	15
	Operating Voltage / V _{op} (V)	2.3	8	5.4	6.8	5.8
	Slope Efficiency / η _{es} (W/A)	0.7	3.7	2.7	3.3	1.1
	PD Parameter / I _{pd} (μA)	<8000				
	Thermistor / Rt (kΩ/β (25°C))	10±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.

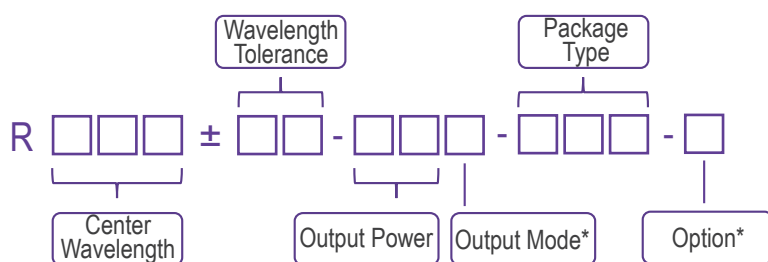
Other Parameters

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
R4D	808	45	R808±10-45WD-R4D-PFS
	980	50	R980±10-50WD-R4D-PFS
	1064	45	R1064±10-45WD-R4D-PFS
	1470	15	R1470±10-15WD-R4D-PFS

Part Numbering Schema

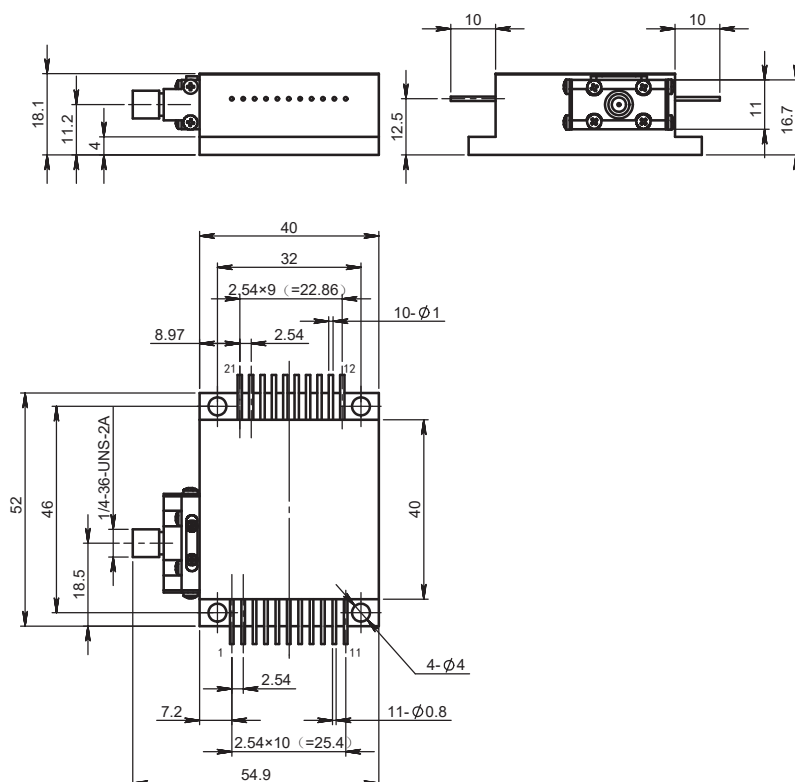


*Output Mode: D - Fiber Detachable

*Option: P - Pilot Light

FS - Fiber Detector

Mechanical Drawings (in mm)



808/1064/1470nm			
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	-
4	PD(P)	15	-
5	PD(N)	16	-
6	-	17	-
7	-	18	LD1 (-)
8	-	19	LD1 (-)
9	-	20	Red laser LD(+)
10	Thermistor	21	Red laser LD(-)
11	Thermistor		

980nm			
Pin	Function	Pin	Function
1	Fiber Detector PD (P)	12	-
2	Fiber Detector LED (+) Fiber Detector PD (N)	13	-
3	Fiber Detector LED (-)	14	LD1 (+)
4	PD(P)	15	LD1 (+)
5	PD(N)	16	-
6	-	17	-
7	-	18	LD1 (-)
8	-	19	LD1 (-)
9	-	20	Red laser LD(+)
10	Thermistor	21	Red laser LD(-)
11	Thermistor		

