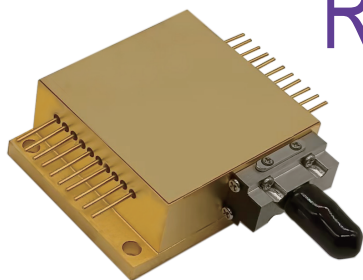


R4D Diode Laser Components



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

- Laser aesthetics
- Medical application
- Material processing

Technical Specifications (25°C)

Package Type		R4D		
Center Wavelength (nm)		808	915/940/976/980	1064
Optical	CW Output Power / P _{op} (W)	40	50	40
	Wavelength Tolerance (nm)	±10		
	Spectral Width / Δλ (nm)	<6		
	Temperature Drift of Wavelength / ΔNΔT (nm/°C)	0.3		
Aiming Beam	Output Power / Pa (mW)	2		
	Wavelength / λa(nm)	650±10		
	Voltage / Va (V)	2.2, 5.0		
Electrical	Threshold Current / I _{th} (A)	3	2	2
	Operating Current / I _{op} (A)	18	22	18
	Operating Voltage / V _{op} (V)	6.2	6	6
	Slope Efficiency / η _{es} (W/A)	2.6	2.5	2.5
	PD Parameter / I _{pd} (μA)	<8000		
	Thermistor / Rt (kΩ/β (25°C))	10±1%/3450		
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.

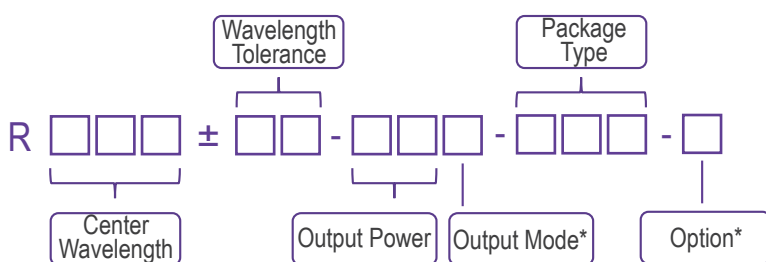
Other Parameters

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	40	R808±10-40WD-R4D-PFS
	9xx (915/940/976/980)	50	R9xx±10-50WD-R4D-PFS
	1064	40	R1064±10-40WD-R4D-PFS

Part Numbering Schema

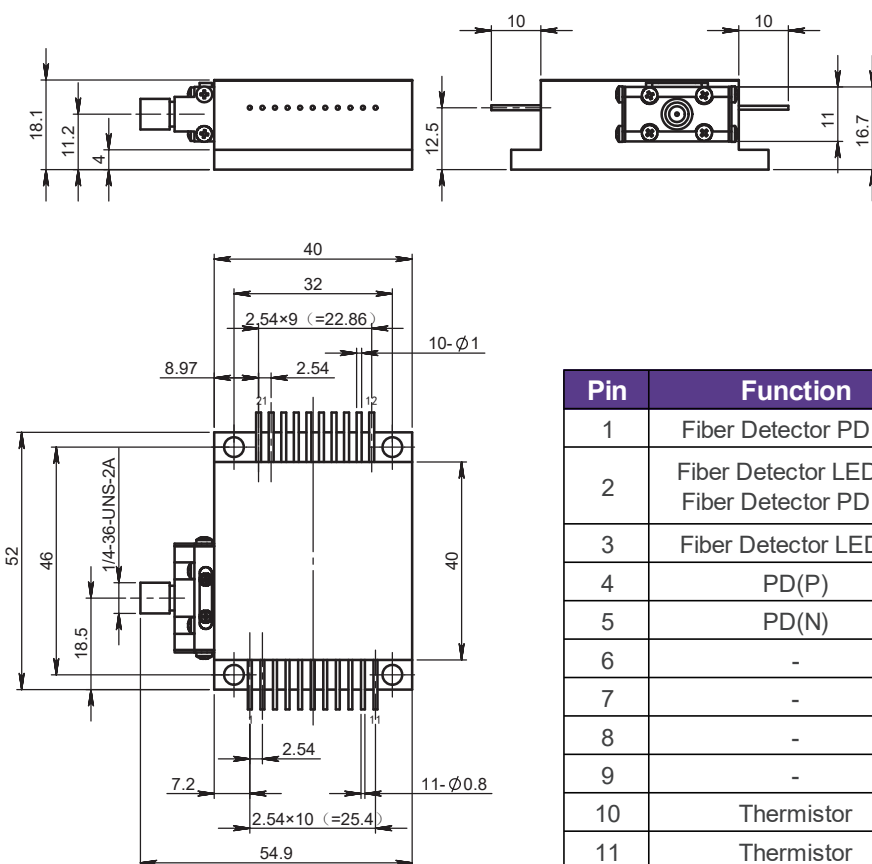


*Output Mode: D - Fiber Detachable

*Option: P - Pilot Light

FS - Fiber Detector

Mechanical Drawings (in mm)



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

