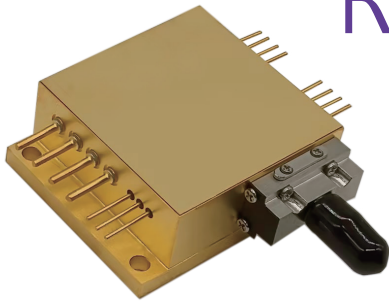


# R4D Diode Laser Components



R4D diode laser components are Reallight's AW series multi-function laser modules, providing single-wavelength and high-power output with 2-3 emitters integrated. 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	9XX	1064
Optical	CW Output Power / $P_{op}$ (W)	40	50	40
	Wavelength Tolerance (nm)	±10		
	Spectral Width / $\Delta\lambda$ (nm)	<6		
	Temperature Drift of Wavelength / $\Delta\lambda/\Delta T$ (nm/°C)	0.3		
Aiming Beam	Output Power / $P_a$ (mW)	2		
	Wavelength / $\lambda_a$ (nm)	650±10		
	Voltage / $V_a$ (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 / $\eta_{es}$ (W/A)	2.6	2.5	2.5
	PD Parameter / $I_{pd}$ (μA)	<8000		
	Thermistor / $R_t$ ( $k\Omega/\beta$ (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		

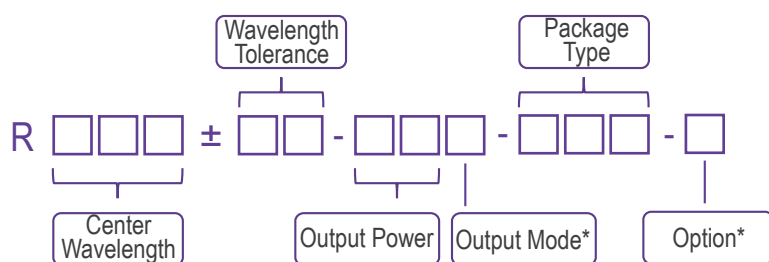
## Other Parameters

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	50	R9XX±10-50WD-R4D-PFS
	1064	40	R1064±10-40WD-R4D-PFS

## Part Numbering Schema

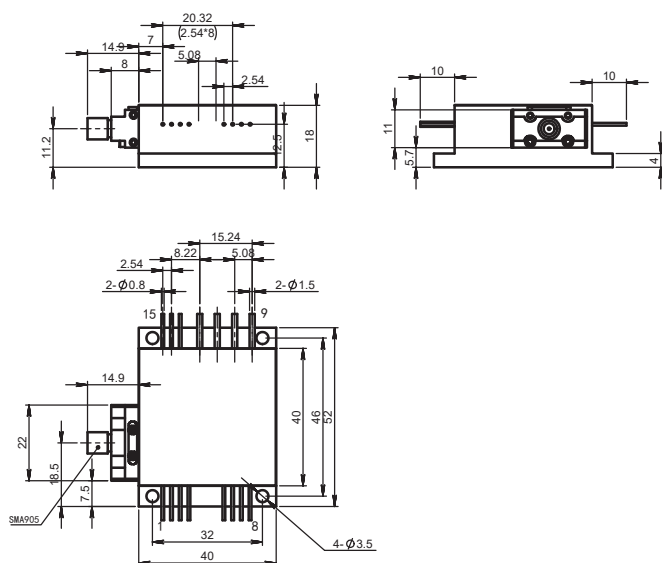


\*Output Mode: D - Fiber Detachable

\*Option: P - Pilot Light

FS - Fiber Detector

## Mechanical Drawings (in mm)



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

