

14HHL/15HHL Diode Laser Components

14HHL and 15HHL diode laser components are RealLight's AW series multi-function laser modules, available in fiber detachable or fiber coupled configurations. These lasers are equipped with aiming beam, fiber detector, photodiode and thermistor.

Key Features

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

Applications

- Medical application
- Laser processing
- Scientific research

Technical Specifications (25°C)

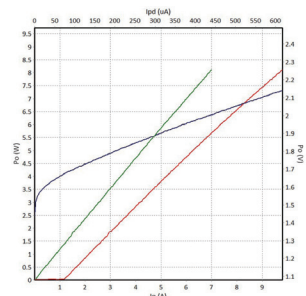
Package Type		14HHL				15HHL					
Center Wavelength (nm)		450	808	9XX		1064	450	808	9XX		1064
Optical	CW Output Power / Pop (W)	4	9	10	20	10	4	9	10	20	10
	Wavelength Tolerance (nm)	±3, ±10									
	Spectral Width / Δλ (nm)	<4									
	Temperature Drift of Wavelength / Δλ/ΔT (nm/°C)	0.3									
Aiming Beam	Output Power / Pa (mW)	2									
	Wavelength / λa(nm)	650±10									
	Voltage / Va (V)	2.2, 5.0									
Electrical	Threshold Current / Ith (A)	0.4	1.2	0.55	1	1.1	0.4	1.2	0.55	1	1.1
	Operating Current / Iop (A)	3.5	10	11	23.5	10.5	3.5	9.5	11	23.5	10.5
	Operating Voltage / Vop (V)	4.4	2	1.8	2	1.7	4.4	2	1.8	2	1.7
	Slope Efficiency / ηes (W/A)	1.1	0.9	0.9	0.9	0.9	1.1	0.9	0.9	0.9	0.9
	PD Parameter / Ipd (μA)	<3000					<2000				
	Thermistor / Rt (kΩ/β (25°C))	10±1%/3450									
	TEC Max Current Imax (A)	6									
	TEC Max Voltage Vmax (V)	9.8									
Fiber	Fiber Core/Cladding Diameter Dcore (μm)	105/125、200/220									
	Fiber Length / L (cm)	100±10 (customizable)									
	Numerical Aperture / NA	0.22									
	Connector	SMA905					FC/PC, SMA905				

Other Parameters

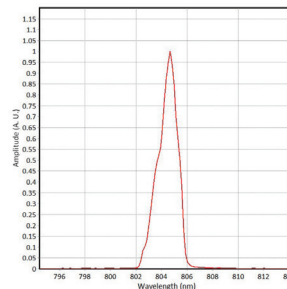
Parameter	Operating Temperature /°C	Operating Relative Humidity /%	Storage Temperature /°C	Storage Relative Humidity /%	Lead Soldering Temperature (max/°C)
Min	10	-	-20	-	-
Max	30	75	70	90	250(10Sec.)

Order Information

Package	Wavelength (nm)	Output Power (W)	Part Number
14HHL	450	4	R450±10-4WD-14HHL-PTFS
	808	9	R808±10-9WD-14HHL-PTFS
	9xx	10	R9xx±10-10WD-14HHL-PTFS
		20	R9xx±10-20WD-14HHL-PTFS
	1064	10	R1064±10-10WD-14HHL-PTFS
15HHL	450	4	R450±10-4WF-15HHL-PT
	808	9	R808±10-9WF-15HHL-PT
	9xx	10	R9xx±10-10WF-15HHL-PT
		20	R9xx±10-20WF-15HHL-PT
	1064	10	R1064±10-10WF-15HHL-PT

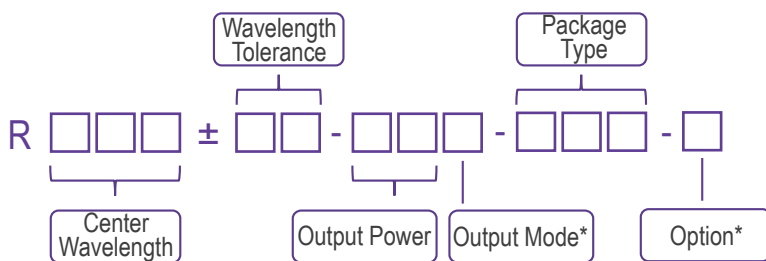


808nm P-I-V Graph



808nm Spectrum

Part Numbering Schema



*Output Mode: D - Fiber Detachable

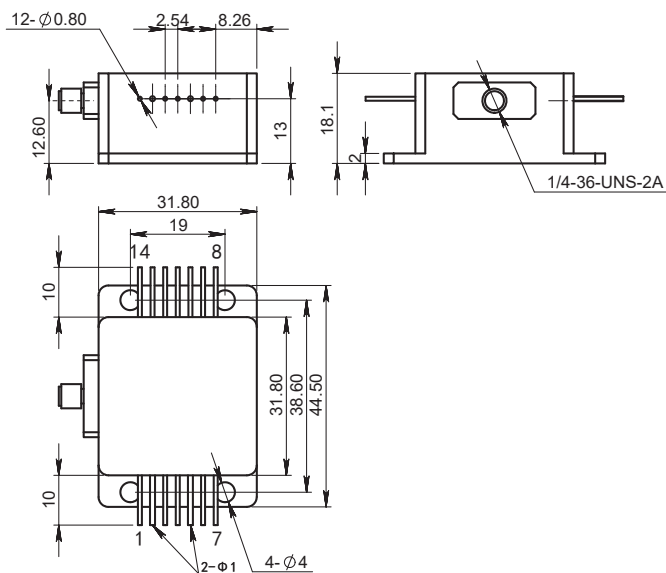
F - Fiber Pigtailed

*Option: T - TEC

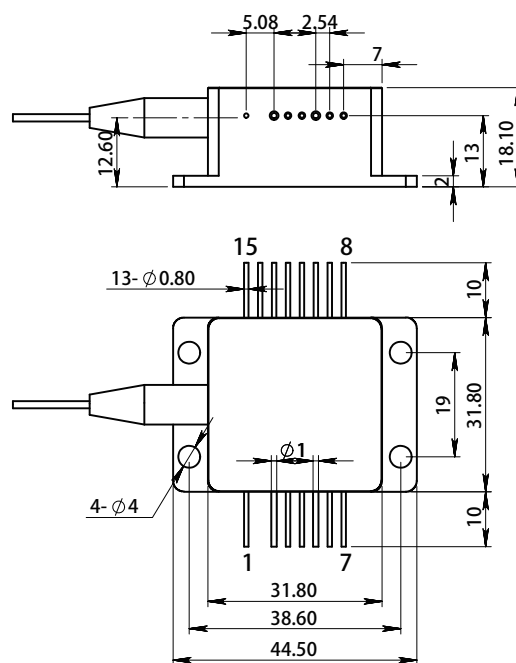
P - Pilot Light

FS - Fiber Detector

Mechanical Drawings (in mm)



14HHL



15HHL

14HHL			
Pin	Function	Pin	Function
1	Case	8	TEC (-)
2	Laser (+)	9	FCD PD(P)
3	Thermistor	10	FCD LED(-)
4	Thermistor	11	FCD LED(+), FCD PD(N)
5	Laser (-)	12	Aiming Beam LD(+); [DC 5V]
6	PD(P)	13	Aiming Beam LD(-); [GND]
7	PD(N)	14	TEC (+)

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

