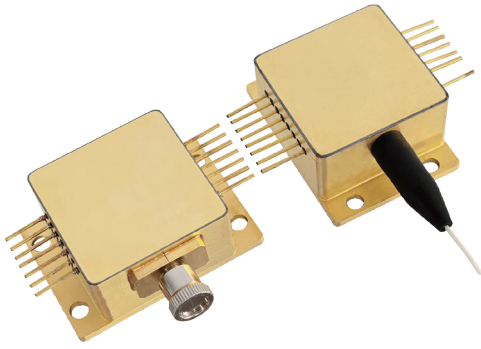


14HHL/15HHL Diode Laser Components



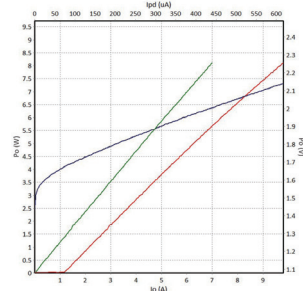
14HHL and 15HHL diode laser components are RealLight's AW series multi-function laser modules, available in fiber detachable or fiber coupled configurations. These lasers are equipped with aiming beam, fiber detector, photodiode and thermistor.

Key Features

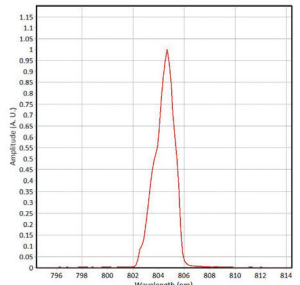
- ◆ Compact size
- ◆ Efficient heat dissipation
- ◆ High reliability
- ◆ Superior power stability
- ◆ Excellent beam quality
- ◆ Various wavelengths

Applications

Medical application
Laser processing
Scientific research



808nm P-I-V Graph



808nm Spectrum

Technical Specifications (25°C)

Package Type		14HHL					15HHL			
Center Wavelength（nm）		450	808	940/976/980	1064	1470	808	940/976/980	1064	1470
Optical	CW Output Power / P _{op} （W）	4	9	15	10	5	9	15	10	5
	Wavelength Tolerance（nm）	±10								
	Spectral Width / Δλ（nm）	<4								
	Temperature Drift of Wavelength / Δλ/ΔT（nm/℃）	0.3								
Aiming Beam	Output Power / P _a （mW）	2								
	Wavelength / λ _a （nm）	650±10								
	Voltage / V _a （V）	5								
Electrical	Threshold Current / I _{th} （A）	0.35	1.2	1	1.2	1.8	1.2	1	1.2	1.8
	Operating Current / I _{op} （A）	3.5	12	18	13	14	12	18	13	14
	Operating Voltage / V _{op} （V）	4.4	2	2	2	1.5	2	2	2	1.5
	Slope Efficiency / η _{es} （W/A）	1.1	0.9	0.9	0.9	0.4	0.9	0.9	0.9	0.4
	PD Parameter / I _{pd} （μA）	<3000					<2000			
	Thermistor / R _t （kΩ/β（25℃））	10±1%/3930								
	TEC Max Current I _{max} （A）	6								
	TEC Max Voltage V _{max} （V）	9.8								
Fiber	Fiber Core/Cladding Diameter D _{core} （μm）	-					105/125, 200/220			
	Fiber Length / L（cm）	-					100±10（customizable）			
	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.

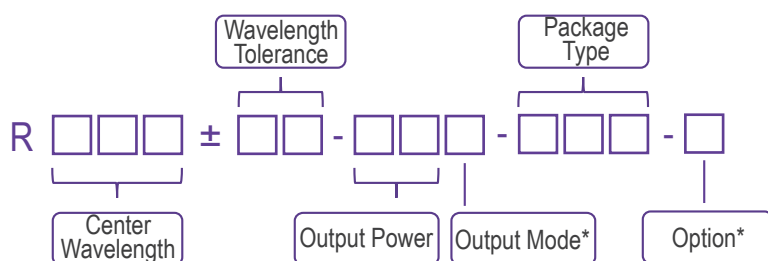
Other Parameters

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
14HHL	450	4	R450±10-4WD-14HHL-PTFS
	808	9	R808±10-9WD-14HHL-PTFS
	9xx (940/976/980)	15	R9xx±10-15WD-14HHL-PTFS
	1064	10	R1064±10-10WD-14HHL-PTFS
	1470	5	R1470±10-5WD-14HHL-PTFS
15HHL	808	9	R808±10-9WF-15HHL-PT
	9xx (940/976/980)	15	R9xx±10-15WF-15HHL-PT
	1064	10	R1064±10-10WF-15HHL-PT
	1470	5	R1470±10-5WF-15HHL-PT

Part Numbering Schema



*Output Mode: D - Fiber Detachable

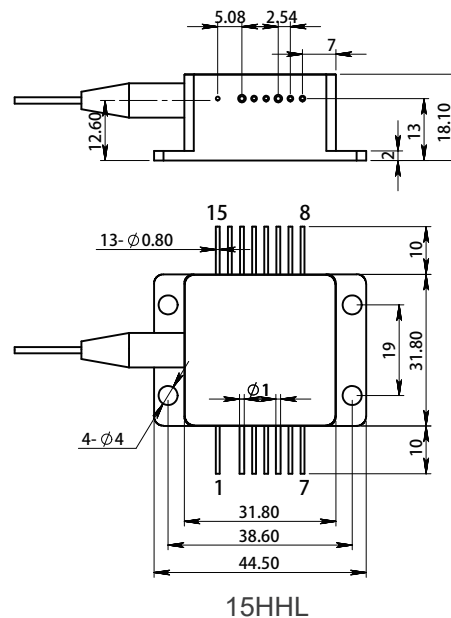
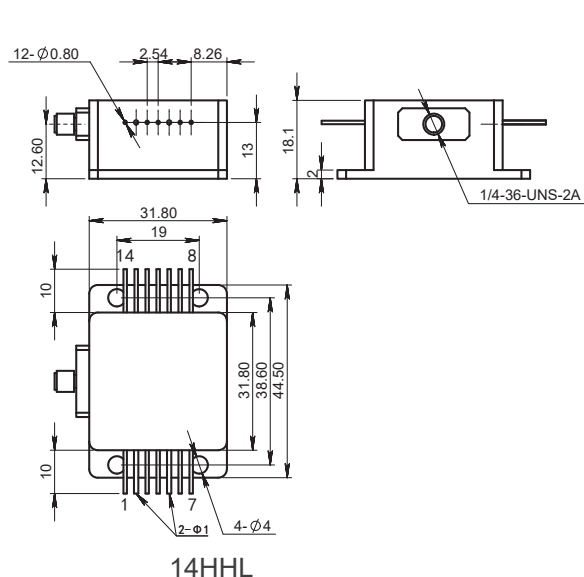
F - Fiber Pigtailed

*Option: T - TEC

P - Pilot Light

FS - Fiber Detector

Mechanical Drawings (in mm)



14HHL			
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 (-)		

