

UNIBODY LITTROW DIODE LASER
(Long Cavity)

Part List

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Summary of parts:

Part Name	Material	Starting Dimensions	Quantity Per Laser
Baseplate	6061-T6 Aluminum	4.5" x 11.75" x 1"	1
Bottom Cover	6061-T6 Aluminum	4.48" x 10" x 0.75"	1
Cavity	6061-T6 Aluminum	4.5" x 10" x 1"	1
Top Cover	6061-T6 Aluminum	4.48" x 10" x 0.75"	1
Diode Collimation Tube Mount	6061-T6 Aluminum	1.40" x 0.78" x 1.08"	1
Optical Isolator Mount (Large Version)	6061-T6 Aluminum	1.75" x 2.05" x 1.60"	1
Optical Isolator Mount (Small Version)	6061-T6 Aluminum	1.75" x 2.05" x 0.375"	1
Diode Protection Circuit	PC Board	1" x 1"	1
Brewster Window	Microscope Slide	0.7" x 0.7"	1

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Additional Components

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Summary of parts:

<u>Description</u>	<u>Company</u>	<u>Part Number</u>	<u>Quantity per Laser</u>	<u>Unit Cost \$</u>
15 Pin D-sub Connector (male)	Amphenol	DSub-15	1	3.04
23AWG Heavy-build Polyimide Wire	MWS Wire Industries	23HML	~15 ft	0.0516/ft
Collimation Tube	Thorlabs	LT230P-B	1	111.00
Thermistor	EPCOS	B57861S0503F040	1	2.14
Temperature Sensor	Analog Devices Inc.	AD590	1	7.98
Piezomechanical Actuator	Noliac	SCMAP02	1	227.15
Sapphire Window	Swiss Jewel	W7.87	2	5.20
Thermoelectric Cooler	Laird	56460-501	3	16.73
Laser Diode	Sacher	G2 Series	1	1600.00
Holographic Diffraction Grating	Newport	6x12x3.2mm	1	16.73
Anamorphic Prisms	Thorlabs	PS871-B	2	143.20
Viton O-Ring (Dampening)	McMaster-Carr	AS568A-004	1	4.22
Viton O-Ring (Vacuum)	McMaster-Carr	AS568A-167	2	4.92
PM fiber coupler for (λ) with angle FC receptacle, f=7.5mm aspheric lens, and laser head adapter #15	Oz Optics	HPUC-23A-(λ)-P-7.5AS-15	1	230.95
¼" Aluminum Seal-Off Valve	DLH Industries	V1021-1	1	11.30
¼" Valve Operator, 25mm ISO Flange	DLH Industries	V1025-3-25	N/A	188.00
Optical Isolator ('Aspirin' Version)	Thorlabs	IO-D Series	1	465.00
Optical Isolator (Large Version)	Thorlabs	IO-3D Series	1	1575.00
3-Pin Connector for Diode Laser	Thorlabs	S8060	1	6.00