

## PRODUCT TYPES

**OEM HeNe Laser Tubes** –The world’s broadest range.

**Laser Heads** - Power levels from 0.5 to 17 mW in laboratory and OEM configurations.

**High Power Red** – Ranging from 20 to 35 mW minimum power.

**Green and Yellow** - 543nm green and 594nm yellow output wavelengths.

**Frequency Stabilized** – Turnkey intensity & frequency stabilized systems.

**Specialty Lasers** - Single and double Brewster window terminated laser tubes.

**Power Supplies** – Laboratory Units with AC input and OEM models with AC or DC input.

## WHY HELIUM NEON?

**Narrow Spectral Linewidth** – < 1.6 GHz, or approx. 2 pm for standard models, and with active stabilization, < 1 MHz, or better than 0.001 pm.









**Long Coherence Length** –Coherence lengths ranging from a minimum of 20 cm, up to several hundred meters.

**Unmatched Beam Parameters** – Low-noise, circular and astigmatism-free beams with typical M<sup>2</sup> values of 1.05 or better.

**Long Operational Lifetime** – Depending on the model, operating lifetimes can exceed 40,000 hours or more.

**Robust Construction** – Typical operating temperature range of -20 to +60 °C; without thermoelectric coolers or fans.

## KEY APPLICATIONS

-  FTIR / RAMAN
-  INTERFEROMETRY
-  WAFER INSPECTION
-  FREQUENCY REFERENCES
-  HEMATOLOGY / CYTOMETRY
-  SPECTROMETRY & MICROSCOPY
-  EDUCATIONAL SYSTEMS
-  HOLOGRAPHY



# LABORATORY & OEM LASER HEADS

Model	Min Power (mW)	Beam Dia (1/e <sup>2</sup> ) (mm)	Beam Divergence (mrad)	Mode Spacing (MHz)	Voltage (VDC)	Current (mA)	Dia x Length (mm)	Notes
05-LG(x)-193	1.0	0.86	0.81	321	2700	6.5	44.5 x 510	543 nm
05-LH(x)-213	0.5	0.46	1.77	1063	1320	4.0	31.8 x 178	< 1mW, Class 2
05-LH(x)-211	0.9	0.46	1.77	1063	1320	4.0	31.8 x 178	
05-LH(x)-111	1.0	0.59	1.35	687	1790	6.5	44.2 x 272	
05-LH(x)-121	2.0	0.59	1.35	687	1790	6.5	44.2 x 272	
05-LH(x)-151	5.0	0.80	1.00	438	2290	6.5	44.2 x 396	
05-LH(x)-991	10	0.65	1.24	341	2640	6.5	44.2 x 484	
05-LH(x)-925	17	0.96	0.84	257	3900	7.0	44.2 x 637	
05-LHP-847	20	0.70	1.16	257	3870	7.0	44.2 x 637	
05-LHP-828	25	1.23	0.66	165	5100	8.0	79 x 1023	Rect. Package
05-LHP-928	35	1.23	0.66	165	5100	8.0	79 x 1023	Rect. Package
05-STP-910	0.5	0.48	1.70	--	1220	4.0	Contact Factory	Single Freq., Stabilized
05-STP-912	1.0	0.54	1.50	--	1600	4.0	Contact Factory	Single Freq., Stabilized

Reference specifications only, subject to change without notice.

(x) Designates polarization option. Insert R for Random Polarization, P for Linear Polarization

Power Supplies are sold separately

## Specifications Common to all Laser Heads

Static Alignment: ± 0.25 mm and < 1.0 mrad

Angular Drift: < 0.03 mrad after 15 min

Amplitude Noise: < 2% peak-to-peak



High Power Laser Heads



OEM & Laboratory Laser Heads

# OEM LASER PLASMA TUBES



Model	Min Power (mW)	Beam Dia (1/e <sup>2</sup> ) (mm)	Beam Divergence (mrad)	Mode Spacing (MHz)	Voltage (VDC) <sup>(1)</sup>	Current (mA)	Dia x Length (mm)	Notes
3121H-P	1.0	0.64	1.3	685	1350	6.5	37 x 229	HAC Config.
05-LHB-290	--	--	--	--	1460	6.5	38 x 228	Double B-tube
05-LHP-100	1.0	0.67	1.18	638	1050	3.7	28.5 x 243	Anode Output
05-LH(x)-150	5.0	0.80	1.0	438	1850	6.5	38 x 353	
05-LHP-490	0.9	0.65	1.24	862	1000	4.0	28.5 x 183	
05-LHR-092	3.0	0.63	1.4	641	1514	4.5	28.5 x 243	NMF <sup>(2)</sup>
05-LH(x)-900	1.0	0.53	1.51	883	1100	4.5	28.5 x 178	
05-LHZ-004 <sup>(3)</sup>	0.5	0.49	1.81	1248	1200	3.5	25.4 x 129	Zeeman Split
05-LHR-219	2.0	0.59	1.35	687	1348	6.5	38 x 226	NMF <sup>(2)</sup>

Reference specifications only, subject to change without notice.

- (1) Operating voltage not including ballast resistor. Ballast resistor sold separately.
  - (2) Designates non-mode-flip – contact factory for more information
  - (3) Contact factory for full specifications and split frequencies available
  - (x) Designates polarization option. Insert R for Random Polarization, P for Linear Polarization
- AC and DC input power supply modules are sold separately

## Specifications Common to All Laser Heads & Plasma Tubes

Operating Temperature:	-20 to +40°C
Altitude	0 to 3000 meters
Relative Humidity	0 to 99%, non-condensing
Shock	< 1g for < 11 msec

**Safety Information, OEM Products:** It is the responsibility of the user to comply with all safety requirements as applicable to the product in question, including attaining an accession number, labeling, safety interlocks, submitting a product report and filing annual reports as may be required by regulatory agencies.



Plasma Tubes



OEM & Laboratory Power Supplies

Please contact us for further information

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