



## Argon-Ion and Helium-Neon Lasers

The one source for gas lasers



## Your Source for Gas Lasers

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What makes JDSU the choice for argon-ion and Helium-Neon (HeNe) lasers? Whether you're involved in medical research, semiconductor manufacturing, high-speed printing, or another demanding application, we have the expertise, commitment, and technology to ensure you'll get the best solution for your need.

With more than 20 years of experience, we have an unmatched understanding of the gas laser market. That understanding has led us to devote extensive resources to help establish a premier, high-volume manufacturing facility. Located in Singapore, the facility produces lasers of the highest standard. And we maintain that standard through regional quality management, on-site supplier quality engineering, and regular quality audits.

Successful gas laser production requires extraordinary care during the manufacturing process. Every individual throughout each stage of production — from engineering and procurement to manufacturing and quality control — is attuned to the highly sensitive nature of the applications for which these products are used. Consequently, we can assure the steady supply of quality products to our customers around the globe. Our products are being used in customers' new systems and as replacement components in the large installed base of existing systems.



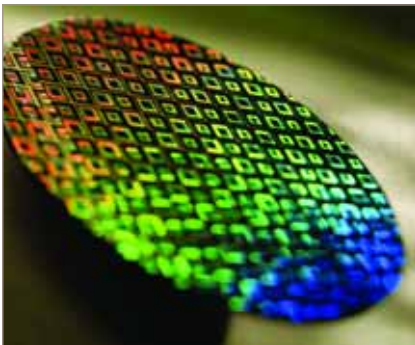
# Key Gas Laser Applications



Known for their longevity and predictable electrical and optical performance characteristics, our lasers are being used in a wide variety of applications.

## Medical Research

University, medical, and government laboratories on the cusp of new discoveries rely on instruments designed with JDSU's argon-ion and HeNe lasers for cell mapping, genome analysis, and DNA sequencing. Some instruments such as flow cytometers and DNA sequencers are designed to contain argon-ion and HeNe lasers to perform critical measurements. Gas lasers have also played a key role in the rapid progress of the human genome project and the evolution of proteomics research.



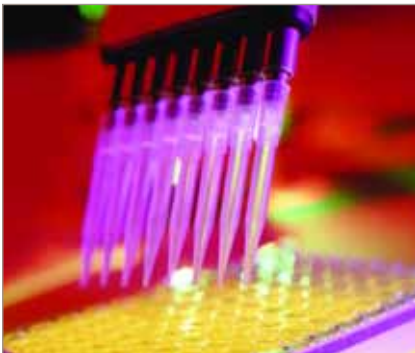
Featuring excellent wavelength to wavelength power stability, JDSU gas lasers are well suited for delivering multiple wavelengths simultaneously, a key requirement for many bio-technology applications.

## Semiconductor

JDSU lasers are playing a critical role in semiconductor inspection, helping to improve yields on semiconductor wafers for integrated circuit manufacturing. Our products offer the advantages of excellent beam mode quality, consistent, predictable life time, and true single-line performance.

## Reprographics

JDSU lasers have helped advance high-speed digital printing processes for major worldwide printing laboratories. Our customers want lasers with low optical noise. And JDSU offers some of the lowest optical noise gas laser products in the industry.



# Argon-Ion Lasers

## Highlights

### 2210 Series Argon-Ion Laser Systems

- Single or multi-line operation
- Exceptional beam pointing stability
- Integral-mirror, metal-ceramic construction
- Ultra low noise
- Fast warm-up
- Long life



JDSU argon-ion lasers offer extreme stability over the entire range of operating current and temperature. The maintenance-free design also offers long life even in the most demanding applications.

Our single-line argon-ion lasers produce 458, 488, or 515 nm wavelengths, and our multi-line models produce several wavelengths from 458 to 515 nm simultaneously. The laser's power output ranges from 4 to 65 mW. For applications requiring multiple wavelengths, the JDSU multi-line laser heads feature up to six usable wavelengths, making them an ideal and extremely cost-effective option over current single-line solid-state sources.

Symmetric design and axial airflow of cylindrical laser heads allow for optimum beam-pointing stability over the life of the product and fast warm-up times. Initial installation and routine maintenance are straightforward due to tight production control of optical and mechanical tolerances. Blower-induced mechanical vibration is virtually eliminated through the use of flexible ducting between the laser head and blower assembly.

We also offer industry-standard packaging and a variety of wavelength options that ensure easy initial installation and field replacement for most applications. As with the JDSU cylindrical laser heads, rectangular models incorporate axial airflow for exceptional beam pointing stability and fast warm-up. A top-mounted fan assembly simplifies installation.

## Argon Laser Specifications

Model	2213-75SL	2213-xxVL	2213-75GL	2214-xxSL	2214-xVL	2214-xxGL	2214-xxML	2211-xxSL	2211-xVL	2211-xxGL
Output Power (mW)	75	15/25	75	10/20/30	4/5/6	10/15/20	25/40/65	10/20/30	4/5/6	10/15/20
Wavelength (nm)	488	458	515	488	458	515	458 to 515	488	458	515

Model	2218-0xxMLS	2218-0xxSLS	2219-0xxMLS	2219-0xxSLS
Output Power (mW)	25	10/20/30	25	10/20/30
Wavelength (nm)	458-515	488	458-515	488



# Helium-Neon Lasers

## Highlights

### 1100 and 1600 series HeNe Gas Lasers

- Four wavelengths available: 544, 594, 612, 633nm
- 0.5 to 22.5 mW
- Long operating life
- Low noise
- Exceptional beam-pointing stability
- Long-term amplitude stability



We manufacture HeNe lasers in the red, green, yellow, and orange wavelengths, with output powers from 0.5 to 22.5 mW. These lasers feature the patented JDSU close-cathode design that rapidly and uniformly distributes discharge heat throughout the laser, resulting in excellent beam pointing, and power stability. Hard-sealed internal mirrors and low noise result in greater reliability, longer life, and enhanced performance.

The exceptional mode quality, low beam divergence, and low optical noise of our HeNe lasers make them ideal for the most demanding applications, including flow cytometry, particle sizing, and hematology. In addition, the JDSU HeNe lasers deliver inherently stable wavelengths and optimal beam quality without requiring thermal stabilization and shaping optics that diode sources often need to produce comparable beam quality.

Our HeNe self-contained Novette<sup>®</sup> laser systems incorporate 1000 series HeNe tubes and low-noise power supplies into convenient, compact, low-cost units that meet CDRH requirements. Typical uses include alignment, perimeter detection, and education.

## HeNe Gas Laser Specifications

Model	1101/P	1103/P	1107/P	1108/P	1122/P	1125/P	1135/P	1137/P	1144/P	1145/P
Output Power (mW)	1.5	2.0	0.8	0.5	2.0	5.0	10.0	7.0	15.0	22.5/21.0
Wavelength (nm)	633	633	633	633	633	633	633	633	633	633

Model	1652/P	1653	1654	1673MP	1674M/MP	1677/P	1679P	1507	1507P	1508	1508P
Output Power (mW)	0.25	0.5	0.75	0.5	0.75	2.0	3.0	0.8	0.8	0.5	0.5
Wavelength (nm)	543.5	543.5	543.5	543.5	543.5	594	612	633	633	633	633



# Sustainable Solutions

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## Compliance

### Argon Laser Systems

- CE per specification EN55011 and EN50082-2
- UL 1950 and 1262
- CDRH 21 CFR 1040.10
- EN60825-2
- EN60950, IEC 950, and EN61010

### HeNe Laser Systems

- CDRH 1040.10
- CE

## One Source, with a Focus on Customers

No matter which JDSU gas laser component or subsystem you choose, you'll get a high quality solution, from a trusted supplier. Adherence to strict manufacturing standards and a commitment to meeting customers' needs have made JDSU a leader in gas lasers, with thousands of installations throughout the world.

All gas laser heads, power supplies, and accessories are distributed from our primary shipping hub in Singapore. We offer worldwide sales and support, with a world-class warranty program. We have customer service professionals dedicated to regions throughout the world, ensuring a solid contact point for all distributors and customers—ensuring you get just what you need in technology and support.

All statements, technical information and recommendations related to the products herein are based upon information believed to be reliable or accurate. However, the accuracy or completeness thereof is not guaranteed, and no responsibility is assumed for any inaccuracies. The user assumes all risks and liability whatsoever in connection with the use of a product or its application. JDSU reserves the right to change at any time without notice the design, specifications, function, fit or form of its products described herein, including withdrawal at any time of a product offered for sale herein. JDSU makes no representations that the products herein are free from any intellectual property claims of others. Please contact JDSU for more information. JDSU and the JDSU logo are trademarks of JDS Uniphase Corporation. Other trademarks are the property of their respective holders. ©2006 JDS Uniphase Corporation. All rights reserved. 30137556 000 GASLASER.BR.CL.AE