

## DH-HN Helium Neon Laser Series

DH series 632.8nm HeNe lasers have internal cavity design with options of TEM<sub>00</sub> mode or multi-mode types and linear or random polarization output. The output power is 1mW~60mW and the tube length between 150~1500mm. They are suitable for alignment, measurement, education and medical applications. Power supply (input voltage 220VAC, frequency 50 Hz) is included.



### DH-HN Series Cylindrical Helium Neon Laser Systems

Part No	Power (mW)	Output Mode	Beam Dia.	Beam Divergence (mrad)	Dimension	Power Supply (KV,mA)
DH-HN150	>0.5	single	∅0.6	1.5	∅ 25 × 150	1.1, 4.5
DH-HN180	>0.8	single	∅0.6	1.5	∅ 30 × 180	1.1, 4.5
DH-HN230	>1.5	single	∅0.7	1.4	∅ 36 × 230	1.1, 4.5
DH-HN250	>2.0	single	∅0.8	1.4	∅ 36 × 250	1.2, 5.0
DH-HN300	>4.0	Multi-mode	∅1.2	1.4	∅ 38 × 300	1.5, 7
DH-HN350	>5.0	Multi-mode	∅1.3	1.3	∅ 38 × 350	1.5, 7
DH-HN450	>8.0	Multi-mode	∅1.5	1.3	∅ 40 × 450	1.5, 8

### DH-HN Series High-Power Helium Neon Laser Systems

Part No	power (mW)	Output Mode	Beam Dia.	Beam Divergence (mrad)	Dimension	Long-term Drift	Polarization
DH-HN400	> 8	TEM <sub>00</sub>	∅0.5	0.8	460×80×120	5%	linear
DH-HN600	>12	TEM <sub>00</sub>	∅1	0.8	620×110×170	5%	linear
DH-HN1200	>40	TEM <sub>00</sub>	∅1.1	0.8	1300×130×200	5%	linear
DH-HN1700	>60	TEM <sub>00</sub>	∅1.4	0.8	1700×130×200	5%	linear

### Stabilized Helium Neon Laser System

- Hard-sealed laser tube with long lifetime.
- Use internal cavity polarization technique to give linear output.

Part No  
DH-HN250P

Output Power: ≥ 2mW, CW  
 Power Stability: ≤ 1.0% RMS over 2 hours  
 Transverse Mode: TEM<sub>00</sub>  
 Polarization: Linear, ≥ 1500:1  
 Beam Diameter: ∅ 0.8 mm  
 Tube Length: 250mm

Beam Divergence: 1.4mrad  
 Dimension: ∅ 45 × 293 mm  
 Power Supply: 220V, 5.0mA  
 Power Supply Model: DH-JDW3  
 Power Supply Dimension: 22cm × 15cm × 6.5cm

All dimensions are in mm unless otherwise specified.

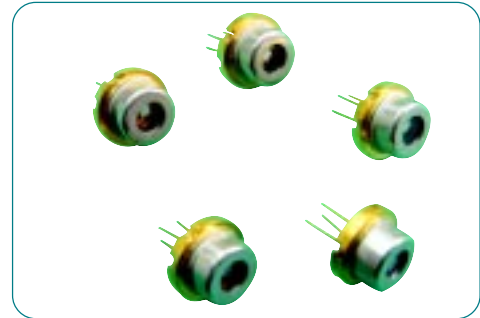
## GCSLD Laser Diode

### Features:

- High brightness
- Standard T018,T05,T03 Package

### Applications:

- Medical laser treatment
- Pumping
- Illuminations



Part No.	Specifications			
	Wavelength	Power	Package	Note
GCSLD-10-080m-5	650nm	80mW	TO18	Single mode
GCSLD-05-200m-8	808nm	200mW	TO18	
GCSLD-05-500m-8	808nm	500mW	TO5	
GCSLD-05-001-8	808nm	1W	TO5	
GCSLD-05-002-4	808nm	2W	TO3	
GCSLD-05-2500m-3C	808nm	2.5W	C-Mount	with FAC lens
GCSLD-05-004-3C	808nm	4W	C-Mount	with FAC lens
GCSLD-05-005-3C	808nm	5W	C-Mount	with FAC lens
GCSLD-05-006-3C	808nm	6W	C-Mount	with FAC lens
GCSLD-06-2500m-3C	980nm	2.5W	C-Mount	with FAC lens
GCSLD-06-005-3C	980nm	5W	C-Mount	with FAC lens

## GCSLX Fiber-Coupled Modules With Single Emitter

### Features:

- High coupling efficiency
- Multimode fiber pigtail
- Compact, hermetically sealed package

### Applications:

- Photo Dynamic Treatment
- End, Pumping
- Medical Laser Treatment
- Science and Research



Part No.	Specifications			
	Wavelength	Power	Fiber core	package
GCSLX-09-350m-2	635nm	350mW	∅100μm	9-pin HHL
GCSLX-10-200m-2	660nm	200mW	∅100μm	14-pin butterfly
GCSLX-10-750m-2	665nm	750mW	∅100μm	9-pin HHL
GCSLX-05-800m-1	808nm	800mW	∅100μm	4-pin air cool

GCSLX Fiber-Coupled Modules With Single Emitter

Part No.	Specifications			
	Wavelength	Power	Fiber core	Package
GCSLX-05-002-1	808nm	2W	Ø100µm	4-pin air cool
GCSLX-05-003-1	808nm	3W	Ø100µm	4-pin air cool
GCSLX-05-004-1	808nm	4W	Ø100µm	4-pin air cool
GCSLX-05-005-1	808nm	5W	Ø200µm	4-pin air cool
GCSLX-05-002-2	808nm	2W	Ø100µm	14pin butterfly
GCSLX-05-003-2	808nm	3W	Ø100µm	HHL
GCSLX-05-004-2	808nm	4W	Ø100µm	HHL
GCSLX-05-005-2	808nm	5W	Ø200µm	HHL
GCSLX-05-007-2	808nm	7W	Ø200 or 400µm	HHL
GCSLX-06-002-1	980nm	2W	Ø100µm	4-pin air cool
GCSLX-06-004-1	980nm	4W	Ø200µm	4-pin air cool
GCSLX-06-002-2	980nm	2W	Ø100µm	14-pin butterfly
GCSLX-06-004-2	980nm	4W	Ø	
GCSLX-06-007-2			200 or 400µm	HHL
GCSLX-12-750m-1	830nm	750mW	Ø60µm	4-pin air cool

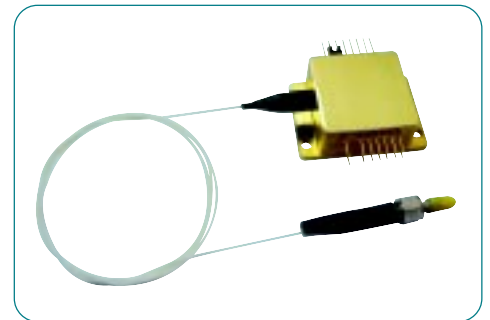
GCSLX-DUET Single Fiber Output Dual-Wavelength Laser Modules

Features:

- High brightness
- Integrated aiming beam (2mW@650nm)
- High coupling efficiency
- Compact, hermetically sealed package
- Long lifetime

Applications:

- Dentistry
- Surgery
- Aesthetics
- Physiotherapy



Part No.	Specifications		
	Power@wavelength	Fiber Core	Package
GCSLX-Duet-05-002	2W@808nm & 2mW@650nm	Ø200µm	16-pin HHL
GCSLX-Duet-05-003	3W@808nm & 2mW@650nm	Ø200µm	16-pin HHL
GCSLX-Duet-05-004	4W@808nm & 2mW@650nm	Ø200µm	16-pin HHL
GCSLX-Duet-05-005	5W@808nm & 2mW@650nm	Ø200µm	16-pin HHL
GCSLX-Duet-05-007	7W@808nm & 2mW@650nm	Ø200 or 400µm	16-pin HHL
GCSLX-Duet-06-002	2W@980nm & 2mW@650nm	Ø200µm	16-pin HHL
GCSLX-Duet-06-004	4W@980nm & 2mW@650nm	Ø200µm	16-pin HHL
GCSLX-Duet-06-007	7W@980nm & 2mW@650nm	Ø200 or 400µm	16-pin HHL

## GCSSLR-DUET Receptacle Dual-Wavelength Laser Modules

**Features:**

- Integrated aiming beam (2mW@650nm)
- High coupling efficiency
- Compact, hermetically sealed package
- Long lifetime

**Applications:**

- Dentistry
- Surgery
- Aesthetics
- Physiotherapy



Part No.	Specifications		
	Power@wavelength	Conector	Package
GCSSLR-Duet-05-002	2W@808nm & 2mW@650nm	SMA905 receptacle	HHL
GCSSLR-Duet-05-003	3W@808nm & 2mW@650nm	SMA905 receptacle	HHL
GCSSLR-Duet-05-004	4W@808nm & 2mW@650nm	SMA905 receptacle	HHL
GCSSLR-Duet-05-005	5W@808nm & 2mW@650nm	SMA905 receptacle	HHL
GCSSLR-Duet-05-007	7W@808nm & 2mW@650nm	SMA905 receptacle	HHL
GCSSLR-Duet-06-002	2W@980nm & 2mW@650nm	SMA905 receptacle	HHL
GCSSLR-Duet-06-004	4W@980nm & 2mW@650nm	SMA905 receptacle	HHL
GCSSLR-Duet-06-007	7W@980nm & 2mW@650nm	SMA905 receptacle	HHL

## GCSSLX-B Fiber- Bundled Laser Modules With Multiple Emitters

**Features:**

- High brightness
- Available in volume
- High coupling efficiency
- Compact, hermetically package

**Applications:**

- Photo Dynamic Treatment
- Dentistry
- Material processing
- END pumping



Part No.	Specifications			
	Wavelength	power	fibercore	Package
GCSSLX-B09-001-2	635nm	1W	≤Ø300µm	HHL
GCSSLX-B09-002-2	635nm	2W	≤Ø400µm	HHL
GCSSLX-B10-002-2	660nm	2W	≤Ø300µm	HHL
GCSSLX-B10-003-2	660nm	3W	≤Ø300µm	HHL
GCSSLX-B05-010-1	808nm	10W	≤Ø400µm	Air cool
GCSSLX-B05-012-1	808nm	12W	≤Ø400µm	Air cool
GCSSLX-B06-010-1	980nm	10W	≤Ø400µm	Air cool
GCSSLX-B06-012-1	980nm	12W	≤Ø400µm	Air cool

## GCSSLX-DUET-B Dual-wavelength and Tri-Wavelength Fiber-Bundled Laser Modules

### Features:

- High brightness
- Available in volume
- High coupling efficiency
- Compact, hermetically sealed package

### Applications:

- Physiotherapy
- Other medical treatment



Part No.	Specifications
GCSSLX-Duet-B0510-202	2W@808nm & 200mW@660nm ≤Ø300µm fiber bundle
GCSSLX-Duet-B0510-402	4W@808nm & 200mW@660nm ≤Ø300µm fiber bundle
GCSSLX-Duet-B0510-502	5W@808nm & 200mW@660nm ≤Ø300µm fiber bundle
GCSSLX-Duet-B0510-1002	10W@808nm & 200mW@660nm ≤Ø400µm fiber bundle
GCSSLX-TRIO-B0506-22	2W@808nm & 2W@980nm & pilot beam ≤Ø300µm fiber bundle

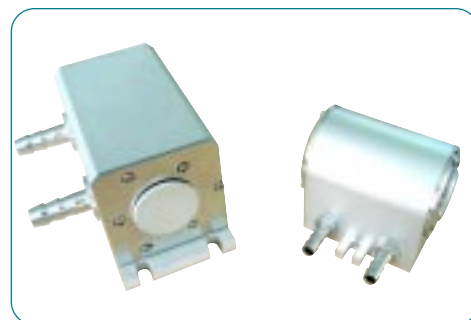
## GCDPM-15 Diode Pumped Nd: YAG Laser Modules

### Features:

- 25~200W CW of optical deliver power at 1064nm
- Long lifetime pump diodes
- Compact design
- Provide customer designed service for other output powers and QCW output products

### Applications:

- Replacement of less efficient lamp-pumped laser system



Part No.	Output Power	Rod Type	Diode Bias Voltage	Drive Current
GCDPM-15-025-1	25W	Ø3mm YAG	<6V	29A Typ.
GCDPM-15-050-1	50W	Ø3mm YAG	<12V	29A Typ.
GCDPM-15-075-1	75W	Ø3mm YAG	<18V	29A Typ.
GCDPM-15-100-1	100W	Ø4mm YAG	<24V	29A Typ.
GCDPM-15-200-1	200W	Ø5mm YAG	<42V	29A Typ.

1. Rod length is 65mm with flat/flat and 1.0% Nd doping
2. Rod length is 105mm with flat/flat faces and 1.0% Nd doping
3. 1064nm multi-mode output in a cavity ( $165 \pm 5\text{nm}$ , HR/flat 80%ROC) CW oscillator arrangement at delivery
4. 1064nm multi-mode output in a cavity ( $185 \pm 5\text{nm}$ , HR/flat 80%ROC) CW oscillator arrangement at delivery
5. The rods with 0.6% ~ 1.0% Nd doping are available

### Note:

Recommend using special laser power supply;

Recommended recalculating water-cooling system with 7~12L/min flow rate and 30~50PSI coolant pressure.

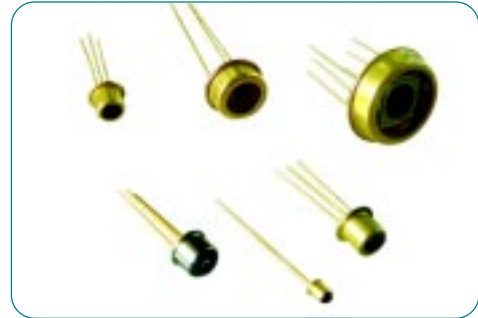
## GCPD Photo Detector

### Features:

- Low noise, low dark current
- Standard TO package and fiber pigtailed co-axial packages. Receptacle packages are available.

### Applications:

- NIR (near infrared) photometry
- Optical communication



Part No.	Specifications
GCPD-12P12-1	Cover 400~1700nm, InGaAs $\varnothing$ 1mm & Si $\varnothing$ 2mm PIN, TO5 package
GCPD-1P0075-1	InGaAs PIN, $\varnothing$ 75 $\mu$ m, TO package
GCPD-1P0075-2	InGaAs PIN, $\varnothing$ 75 $\mu$ m, Mini can package
GCPD-1P03-1	InGaAs PIN, $\varnothing$ 300 $\mu$ m, TO package
GCPD-1P03-2	InGaAs PIN, $\varnothing$ 300 $\mu$ m, Mini can package
GCPD-1P05-1	InGaAs PIN, $\varnothing$ 500 $\mu$ m, TO package
GCPD-1P1-1	InGaAs PIN, $\varnothing$ 1mm, TO package
GCPD-2P05	Si PIN, $\varnothing$ 0.5mm
GCPD-2P1	Si PIN, $\varnothing$ 1mm
GCPD-2P2	Si PIN, $\varnothing$ 2mm
GCPD-2P4	Si PIN, $\varnothing$ 4mm
GCPD-2P6	Si PIN, $\varnothing$ 6mm

## GCSLS Diode Laser Systems

These series turnkey systems provide a simple and reliable solution for operating high power, visible and NIR laser diodes. It integrates the laser diodes, driver, controller and user-friendly Computer interface in one low cost package.

- Custom Wavelength and powers
- External Modulation available



Part No.	Specifications
GCSLS-09-002-2	635nm/2W, 400 $\mu$ m fiber core output, NA: 0.22, current adjustable, temperature adjustable, 110~240V AC input.
GCSLS-10-200m-2	660nm/200mW, 100 $\mu$ m fiber core output, NA: 0.22, current adjustable, temperature adjustable, 110~240V AC input.
GCSLS-05-007-1	808nm/7W, 400 $\mu$ m fiber core output, NA: 0.22, current adjustable, 110~240V AC input.