

Laserglow Product Datasheet

LQS-0532 Passively Q-Switched Laser System

Laserglow Part Number:
Q530301SX



Similar Products:

For information about the other lasers in this product family visit:

<http://www.laserglow.com/Q53>

Ordering:

Order Online Now or Request Quote:

<http://www.laserglow.com/Q530301SX>

Series Specifications:

| | |
|--------------------|------------|
| Nominal Wavelength | 532 nm |
| Output Type | Q-Switched |
| Laser Source Type | DPSS |



Overview:

The LQS-0532 Series of Diode-Pumped Solid-State (DPSS) Q-Switched Lasers are ideal for applications requiring a very high peak power or short pulse duration at 532 nm.

These lasers are commonly used for fluorescence excitation, Raman spectroscopy, material processing, and a broad range of other applications. The driver is available as a plug-and-play benchtop system or an O.E.M. component designed for system integration.

Key Features:

- Pulse energy of 1 uJ - 30 uJ
- Pulse repetition rate of 1 Hz - 4 kHz
- Pulse duration of 10 ns
- Air cooled
- Runs on standard AC power (85 - 264 V, 47 - 63 Hz)
- 10,000 hour maintenance-free operating life (Expected)
- FDA/CDRH compliant Class IV enclosure

Package Includes:

- Laser Head
- Driver/Power Supply
- Power Cable
- BNC Connector (LabSpec models only)
- Keys, Safety Interlock
- Hard-shell Carrying Case

Specifications:

This spec sheet has been generated specifically for part number Q530301SX, per your request, and data for the entire series is also displayed for your reference. The specs which are specific to Q530301SX have been highlighted below in **red + bold**.

| | | |
|---|------------|-------------------------------|
| Output Power (mW) | >12 | >20, >40, >80, >120 |
| Single Pulse Energy (μJ) | 3 | 5, 10, 20, 30 |
| Optimal Pulse Frequency (Hz) | 4000 | 4000 |
| Output Power Stability (%RMS/4h) | <1, <3, <5 | <1 , <3, <5, <10 |
| Central Wavelength (nm) | 531.65 | 531.65 |
| Wavelength Tolerance (+/- nm) | 1 | 1 |
| Divergence (mrad, full angle) | <1.5 | <1.5 |
| Beam Dimensions (mm, 1/e ²) | 1.2 | 1 |
| Warm-up Time (minutes) | 10 | 10 |
| Avg. Pulse Duration (ns) | 10 | 10 |
| Approximate Peak Power (W) | 100 | 300, 500, 800, 1000 |
| Optical Noise Amplitude (%RMS @ 20 Hz - 20 MHz) | <20 | <20 |
| Spectral Linewidth (nm) | <0.2 | <0.12 |
| M ² | <1.2 | <1.5 |
| Polarization Ratio | | >100 |
| Beam Pointing Stability (mrad) | <0.05 | <0.05 |
| Operating Temperature Range (°C) | 10 to 35 | 10 to 35 |
| Max. TTL Modulation Freq. (Hz) | 20000 | 20000 |
| Minimum Pulsing Frequency (Hz) | 1 | 1 |
| Modulation Input Signal | 0-5 VDC | 0-5 VDC |
| Total Power Consumption (W) | 28 | 90 |
| Max. Power Input Duty Cycle | 100% | 100% |
| Standard Warranty (months) | 12 | 12 |
| MTTF (operational hours) | 10000 | 10000 |
| Weight of Product or Laser Head (kg) | 0.6 | 0.9 |

CW: All specifications are based on performance at full output power and after the specified warmup period. Output characteristics may change if the laser is run at a different power level.

Q-Switched: Specifications are based on the laser pulsing at the specified design frequency. Output characteristics may change if the laser is run at a

different frequency.

Specifications Page 2:

This spec sheet has been generated specifically for part number Q530301SX, per your request, and data for the entire series is also displayed for your reference. The specs which are specific to Q530301SX have been highlighted below in **red + bold**.


| | | |
|--|-------------------------------|----------------------------------|
| Laser Form Factor | | |
| Beam Height from Base Plate (mm) | 24.8 | 29 |
| Dimensions of Product or Laser Head (mm) | 140.8 (l) x 73 (w) x 46.2 (h) | 155 (l) x 77 (w) x 60 (h) |

CW: All specifications are based on performance at full output power and after the specified warmup period. Output characteristics may change if the laser is run at a different power level.

Q-Switched: Specifications are based on the laser pulsing at the specified design frequency. Output characteristics may change if the laser is run at a different frequency.

Power Supply Options:

These lasers are available with several different power supply options. The model that you have selected is highlighted below, and any other options are shown for easy reference.

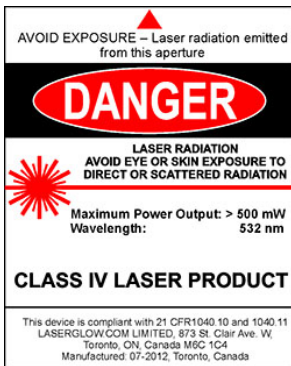
| | | | |
|--|--------------------------|----------------------------|------------------------------------|
| <div>FDA-Compliant Standard</div> <div></div> | Power Supply Type: | SM | SH |
| | Input Power | 85v to 264v | 85v to 264v |
| | Power Supply Weight (kg) | 1.2 | 2.3 |
| | Dimensions (mm) | 133 (l) x 130 (w) x 65 (h) | 238 (l) x 146 (w) x 102 (h) |

*Power supply may not be exactly as shown, see dimensional drawings on next 2 pages.

*Dimensions for fiber-integrated (I_) include laser head packaged inside.

Regulatory Classification:

The model you have selected (Q530301SX) requires the following safety label(s):



Dimensional Drawing - Laser Form Factor: H:









Dimensional Drawing - Power Supply Form Factor: SH:



Accessories:

The most popular accessories for model Q530301SX are shown below. For additional details regarding these or other accessories please see our website or contact us directly.

| Part Number | Description | |
|--|--|---------------------|
|  AFF2002XX | Armored Fiber With FC/PC Connectors 200um Core Multimode 2m length Full Details: www.laserglow.com/AFF | |
|  AFS2002XX | Armored Fiber With SMA 905 Connectors 200um Core Multimode 2 m length Full Details: www.laserglow.com/AFS | |
|  AGF5327XX | LSG-532-NF-7 Fit-Over Safety Goggles 532nm Output: OD 7+ at 190-532 nm CE Certified Full Details: www.laserglow.com/AGF | |
|  ACFVISHXA | FC/PC Fiber Coupler/Collimator for visible spectrum wavelengths (400 to 700 nm) (installed and aligned) 11mm diameter input lens Full Details: www.laserglow.com/ACF | |
|  ACSVISHXA | SMA-905 Fiber Coupler/Collimator for visible spectrum wavelengths (400 to 700 nm) (installed and aligned) 11mm diameter input lens Full Details: www.laserglow.com/ACS | |
|  ACALBHFX | Carrying Case-103 Holds Lab/OEM H, F and O size Standard/LabSpec laser Full Details: www.laserglow.com/ACA | Included With Laser |

FOR MORE INFORMATION PLEASE CONTACT:

LASERGLOW TECHNOLOGIES
99 Ingram Dr. Unit B, North York, ON, Canada M6M2L7
Tel. (416) 729-7976 Fax (716) 322-3510
sales@laserglow.com www.laserglow.com

E&OE: Data included in this sheet may be subject to change without notice.

Please confirm critical specifications with our staff prior to ordering.