

LQS-1573 Passively Q-Switched Laser System



Series Specifications:

| | |
|--------------------|------------|
| Nominal Wavelength | 1573 nm |
| Output Type | Q-Switched |
| Laser Source Type | DPSS |

Overview:

The LQS-1573 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 1573 nm.

These lasers are commonly used for 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 5 μ J - 20 μ J
- Pulse repetition rate of 0.1 Hz - 1 kHz
- Pulse duration of 2 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 QF7-H, per your request, and data for the entire series is also displayed for your reference. The specs which are specific to QF7-H have been highlighted below in **red + bold**.

| | |
|--|--------------------------------------|
| Laser Form Factor | H |
| Output Power (mW) | >5, >10, >15, >20 |
| Single Pulse Energy (μJ) | 5, 10, 15, 20 |
| Optimal Pulse Frequency (Hz) | 1000 |
| Output Power Stability (%RMS/4h) | <1, <3, <5, <10 |
| FDA Safety Class | IV |
| Wavelength Tolerance (+/- nm) | 1 |
| Divergence (mrad, full angle) | <1.5 |
| Beam Dimensions (mm, $1/e^2$) | 1.5 |
| Transverse Mode | TEM00 |
| Longitudinal Modes | Multiple |
| Warm-up Time (minutes) | 10 |
| Avg. Pulse Duration (ns) | 2 |
| Approximate Peak Power (W) | 25000 |
| M^2 | <1.5 |
| Operating Temperature Range ($^{\circ}\text{C}$) | 10 to 35 |
| Max. TTL Modulation Freq. (Hz) | 20000 |
| Minimum Pulsing Frequency (Hz) | 0.1 |
| Modulation Input Signal | 0-5 VDC |
| Max. Power Input Duty Cycle | 100% |
| Cooling Method | TEC/Forced Air |
| Standard Warranty (months) | 12 |
| MTTF (operational hours) | 10000 |
| Weight of Product or Laser Head (kg) | 0.9 |
| Beam Height from Base Plate (mm) | 29 |

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:


| | |
|--|----------------------------------|
| Laser Form Factor | H |
| Dimensions of Product or Laser Head (mm) | 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.

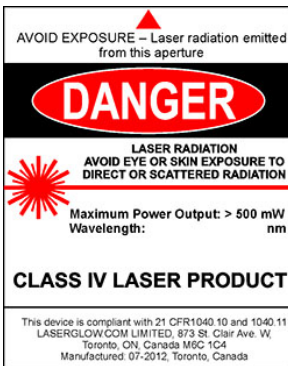
| | | |
|---|--------------------------|------------------------------------|
| | Power Supply Type: | SH |
|  FDA-Compliant Standard | Input Power | 85v to 264v |
| | Power Supply Weight (kg) | 2.3 |
| | Dimensions (mm) | 238 (l) x 146 (w) x 102 (h) |

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

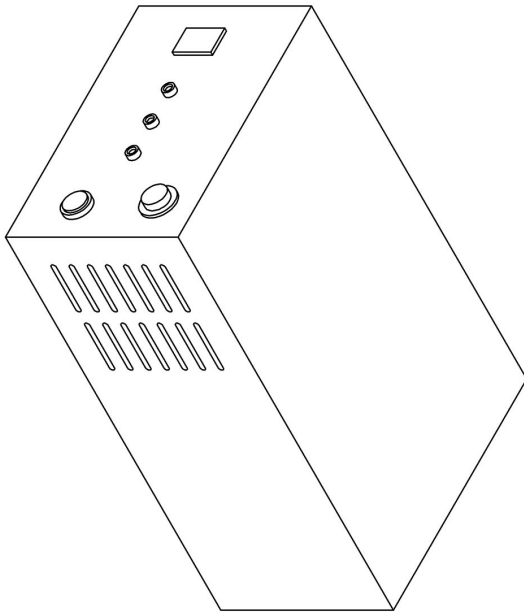
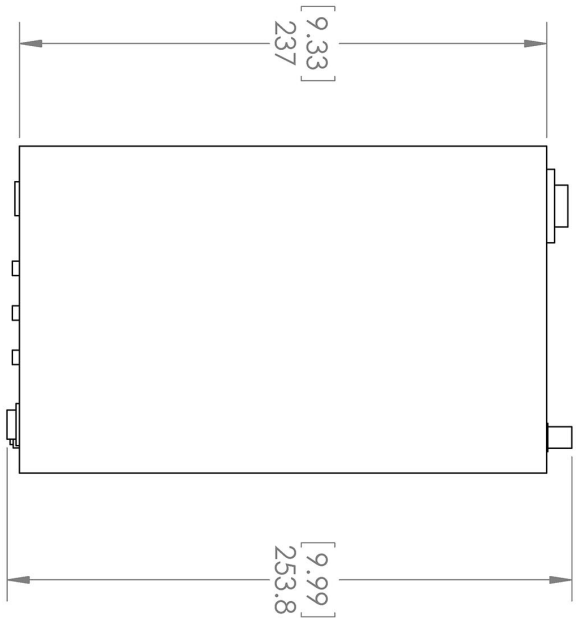
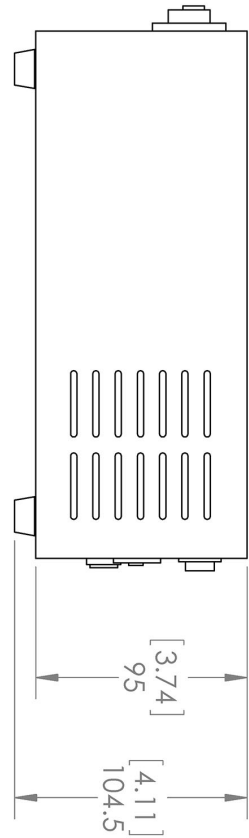
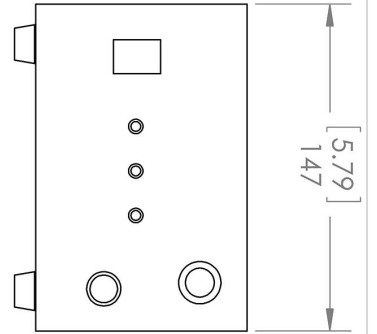
*Dimensions for fiber-integrated (I_) include laser head packaged inside.

Regulatory Classification:

The model you have selected (QF7-H) requires the following safety label(s):



Dimensional Drawing - Power Supply Form Factor: SH:



UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN MILLIMETER
 TOLERANCES: +/- 0.75 MM

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| TITLE: Power Supply SH/SF/SN REV 1 | |
| SCALE: 1:3 | SHEET 1 OF 1 |

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Accessories:

The most popular accessories for model QF7-H are shown below. For additional details regarding these or other accessories please see our website or contact us directly.

| Part Number | Description | |
|-------------|-------------|--|
|-------------|-------------|--|

FOR MORE INFORMATION PLEASE CONTACT:

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

Please confirm critical specifications with our staff prior to ordering.