

## Laserglow Product Datasheet

### 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 uJ - 20 uJ
- 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**.


|  |                                      |
|--|--------------------------------------|
| Output Power (mW)                        | <b>&gt;5, &gt;10, &gt;15, &gt;20</b> |
| Single Pulse Energy (μJ)                 | <b>5, 10, 15, 20</b>                 |
| Optimal Pulse Frequency (Hz)             | <b>1000</b>                          |
| Output Power Stability (%RMS/4h)         | <b>&lt;1, &lt;3, &lt;5, &lt;10</b>   |
| Wavelength Tolerance (+/- nm)            | <b>1</b>                             |
| Divergence (mrad, full angle)            | <b>&lt;1.5</b>                       |
| Beam Dimensions (mm, 1/e <sup>2</sup> )  | <b>1.5</b>                           |
| Warm-up Time (minutes)                   | <b>10</b>                            |
| Avg. Pulse Duration (ns)                 | <b>2</b>                             |
| Approximate Peak Power (W)               | <b>25000</b>                         |
| M <sup>2</sup>                           | <b>&lt;1.5</b>                       |
| Operating Temperature Range (°C)         | <b>10 to 35</b>                      |
| Max. TTL Modulation Freq. (Hz)           | <b>20000</b>                         |
| Minimum Pulsing Frequency (Hz)           | <b>0.1</b>                           |
| Modulation Input Signal                  | <b>0-5 VDC</b>                       |
| Max. Power Input Duty Cycle              | <b>100%</b>                          |
| Standard Warranty (months)               | <b>12</b>                            |
| MTTF (operational hours)                 | <b>10000</b>                         |
| Weight of Product or Laser Head (kg)     | <b>0.9</b>                           |
| Beam Height from Base Plate (mm)         | <b>29</b>                            |
| Dimensions of Product or Laser Head (mm) | <b>155 (l) x 77 (w) x 60 (h)</b>     |

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:       | SH                          |
|  | 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 - Laser Form Factor: H:



Dimensional Drawing - Power Supply Form Factor: SH:



**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.