Arktis Laser Product Datasheet

LQS-1313 Passively Q-Switched Laser System

Series Specifications:

Nominal Wavelength	1313 nm
Output Type	Q-Switched
Laser Source Type	DPSS

Overview:

The LQS-1313 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 1313 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 - 40 uJ
- Pulse repetition rate of 1 Hz - 5 kHz
- Pulse duration in the range of 10-25 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 QD2-H, per your request, and data for the entire series is also displayed for your reference. The specs which are specific to QD2-H have been highlighted below in **red + bold**.

Output Power (mW)	>25	**>50**, **>100**
Single Pulse Energy (µJ)	5	**10**, **20**
Optimal Pulse Frequency (Hz)	5000	**5000**
Output Power Stability (%RMS/4h)	<1, <3, <5	**<1**, **<3**, **<5**
Wavelength Tolerance (+/- nm)	1	**1**
Divergence (mrad, full angle)	<1.5	**<2**
Beam Dimensions (mm, $1/e^2$)	1.5	**3**
Warm-up Time (minutes)	10	**10**
Avg. Pulse Duration (ns)	10	**25**
Approximate Peak Power (W)	500	**1000**
M^2	<1.2	**<1.5**
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**
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**
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.

	Power Supply Type:	**SM**	**SH**
FDA-Compliant Standard 	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)**

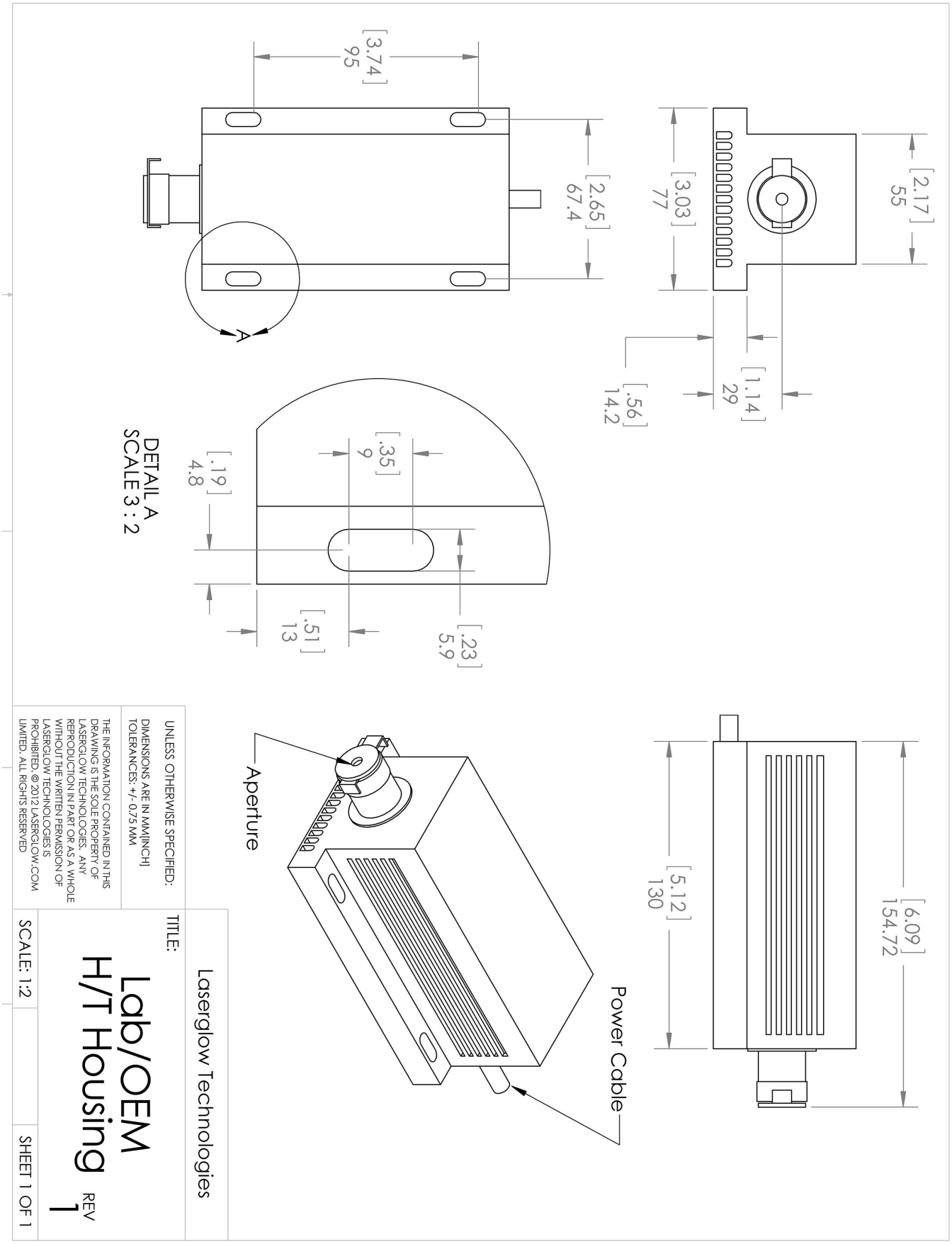
*Power supply may not be exactly as shown, see dimensional drawings on next 2 pages.

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

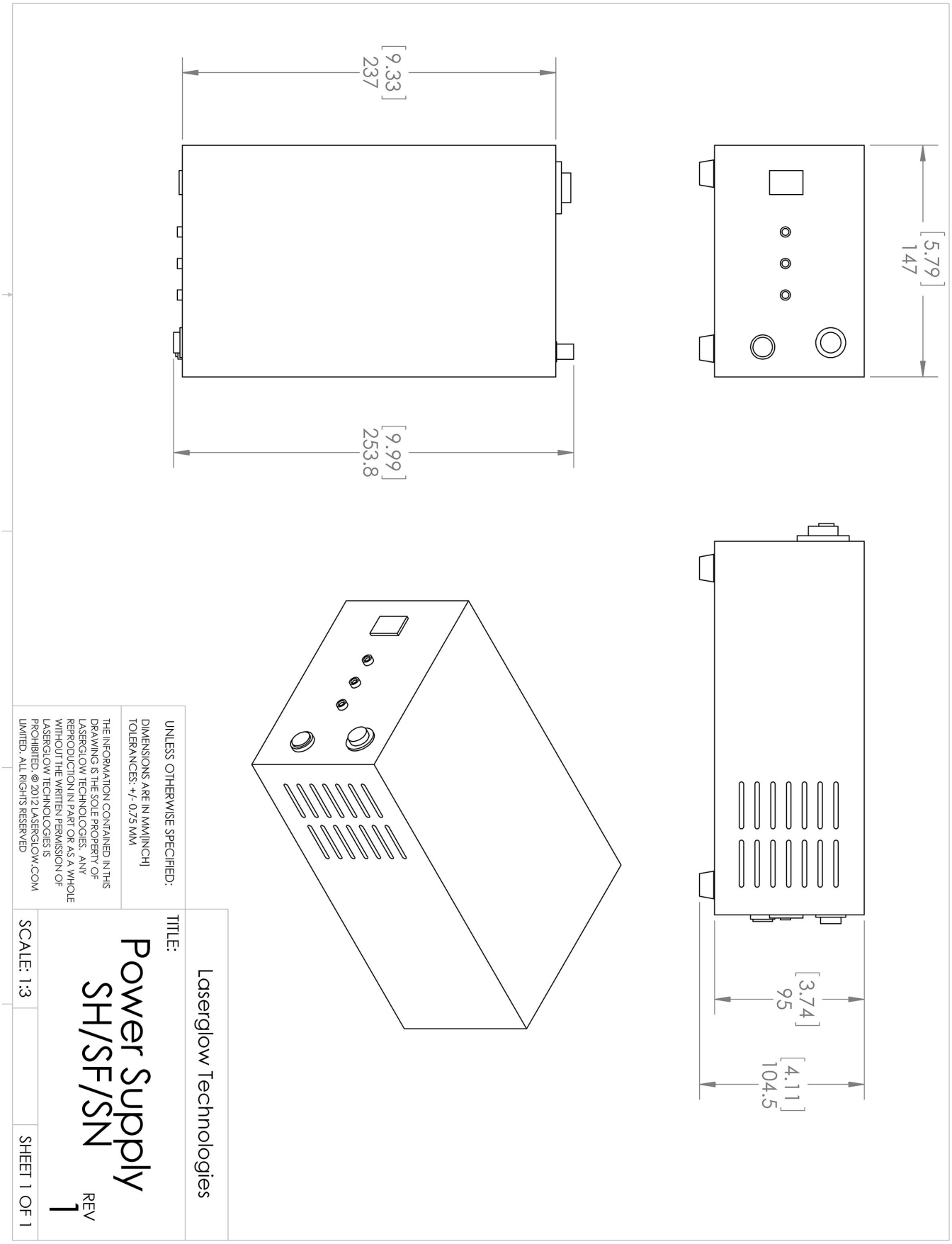
Regulatory Classification:

The model you have selected (QD2-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 QD2-H are shown below. For additional details regarding these or other accessories please see our website or contact us directly.

Part Number	Description	
 ACFLIRHXA	FC/PC Fiber Coupler/Collimator for IR wavelengths (1300 to 1600 nm) (installed and aligned) 11 mm diameter input lens Full Details: www.arktislaser.com/ACF	
 ACSLIRHXA	SMA-905 Fiber Coupler/Collimator for IR wavelengths (1300 to 1600 nm) (installed and aligned) 11 mm diameter input lens Full Details: www.arktislaser.com/ACS	
 ACALBMXXX	Carrying Case-102 Holds Lab/OEM M, R and S size, standard or LabSpec laser Full Details: www.arktislaser.com/ACA	Included With Laser
 AFF2002XX	Armored Fiber With FC/PC Connectors 200um Core Multimode 2m length Full Details: www.arktislaser.com/AFF	
 AFS2002XX	Armored Fiber With SMA 905 Connectors 200um Core Multimode 2 m length Full Details: www.arktislaser.com/AFS	
 AGFMIR4XX	LSG-MIR-NF-4 Fit-Over Safety Goggles Mid-IR Range Output: OD 4+ at 945-10600 nm CE Certified Full Details: www.arktislaser.com/AGF	

FOR MORE INFORMATION PLEASE CONTACT:

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