



## QSLH1047 Series 1047nm Passively Q-Switched Laser System up to 150uJ

### Overview

The QSLH1047 series diode pumped solid state (DPSS) Q-switched laser is ideal for applications that require a wavelength of 1047nm and single pulse energy levels up to 150uJ. The laser features high peak power, high repetition rate, and short pulse duration. The laser is widely used in industry marking on diamond or stone, teaching of nonlinear optics, fiber communication, and many other applications.



### Specifications

<b>Model Number</b>		<b>QSLH1047-XYPR</b>
Wavelength (nm)		1047±1
Operating mode		Frequency conversion of Q-switched pulsed laser
Single pulse energy (µJ)		~50 ( <b>X=50</b> ), ~100 ( <b>X=100</b> ), ~150 ( <b>X=150</b> )
Average power stability (rms, over 4 hours)		<5% ( <b>P=A</b> ), <3% ( <b>P=E</b> ), <2% ( <b>P=2</b> )
Pulse duration (ns)		~6
Peak power (W)		Peak Power (W) = Single Pulse Energy (µJ) / Pulse Duration (µs)
Repetition rate (kHz)	Fixed	One fixed rep. rate internal between 1Hz-1kHz, such as 1kHz ( <b>R=S1</b> ) with stable pulse energy, pulse duration and pulse period.
	External Trigger	Rep. rate in the range of 1Hz-1kHz obtained by external trigger with stable pulse energy, pulse duration and pulse period. ( <b>R=C</b> )
	QCW	QCW state with one rep. rate between 2kHz-3kHz. ( <b>R=U</b> )
Average power (mW)		Average power (mW) = Single pulse energy (µJ) * Rep. rate (kHz)
Transverse mode		TEM <sub>00</sub>
Beam divergence, full angle (mrad)		<2.0
Beam diameter at aperture (mm)		~3.0
M <sup>2</sup> factor		<1.5
Warm-up time (minutes)		<10
Beam height from base plate (mm)		29
Operating temperature (°C)		10-35
Dimensions of laser head (mm)		154.5(L)×77(W) ×60(H) mm <sup>3</sup>
Weight of laser head (kg)		0.9 kg
Power supply		
High Power Elite Power Supply ( <b>Y=H</b> )	Input voltage	90-264VAC
	Dimensions	275(L) ×145(W) ×104(H) mm <sup>3</sup>
	Weight	2.3 kg
	Notes	Fixed output power
Warranty period		10 months
Expected lifetime (hours)		10,000
FDA Compliance		FDA CDRH Title 21 CFR 1040.10/11 Class IV

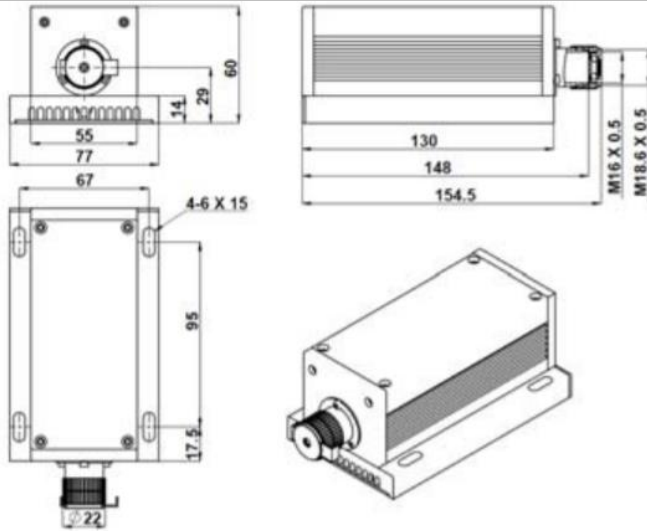
### Remarks:

- Specifications of the Q-switched pulsed laser is based on the laser pulsed at the specified repetition rate. If the laser is run at a different repetition rate, the output characteristics may change.

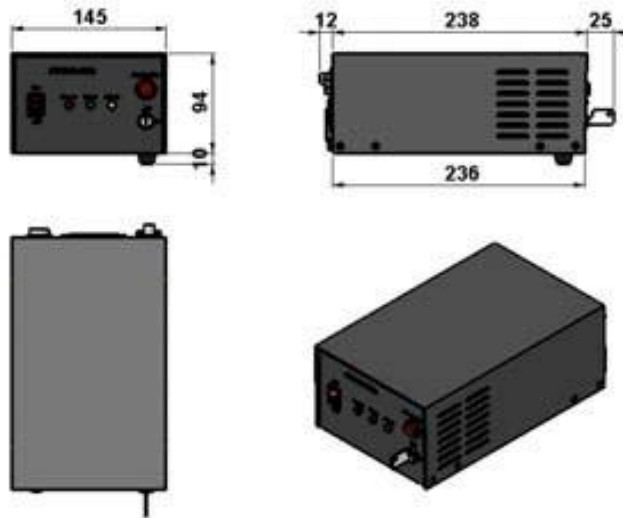


**Outline Dimensions (unit: mm)**

**Laser Head**



**Power Supply**



Note: The above specifications are subject to change without notice.