



QAOS1047 Series 1047nm Actively Q-Switched Laser System up to 250µJ

Overview

The QAOS1047 series diode-pumped solid-state (DPSS) actively Q-switched AOM (Acousto-Optic Modulation) laser is ideal for applications that require a wavelength of 1047nm and single pulse energy levels up to 250µJ. The laser is constructed with features of high peak power, high repetition rate and short pulse duration. The laser is widely used in material processing, measurement, scientific research, and many other applications.



Specifications

Model Number	QAOS1047-XYP	
Wavelength (nm)	1047±1	
Operating mode	Actively Q-switched AOM (Acousto-Optic Modulation)	
Average power (mW)	~100 @ 1kHz (X=100), ~150 @ 1kHz (X=150), ~200 @ 1kHz (X=200), ~250 @ 1kHz (X=250)	
	Average power (mW) = Single pulse energy (µJ) * Rep. rate (kHz)	
Single pulse energy (µJ)	Up to ~250	
Peak power (W)	Peak Power (W) = Single Pulse Energy (µJ) / Pulse Duration (µs)	
Ave power stability (rms, over 4 hours)	<10% (P=B), <5% (P=A), <3% (P=E)	
Transverse mode	TEM ₀₀	
Pulse duration (ns)	Typically 7-11 @ <10kHz, varies from power and repetition.	
Repetition rate (kHz)	0.1-80	
M ² factor	<1.5	
Beam diameter at aperture (1/e ² , mm)	~0.4	
Beam divergence, full angle (mrad)	<5.0	
Warm-up time (minutes)	<10	
Beam height from base plate (mm)	25	
Operating temperature (°C)	10-35	
Dimensions of laser head (mm)	165(L) x50(W) x48(H) mm ³	
Weight of laser head (kg)	0.78 kg	
Power supply		
AOM Power Supply (Y=AD)	Input voltage	90-264VAC
	Dimensions	270(L) x214(W) x99(H) mm ³
	Weight	3.55 kg
Expected lifetime (hours)	10,000	
Warranty	10 months	
FDA Compliance	FDA CDRH Title 21 CFR1040.10/11 Class IV	

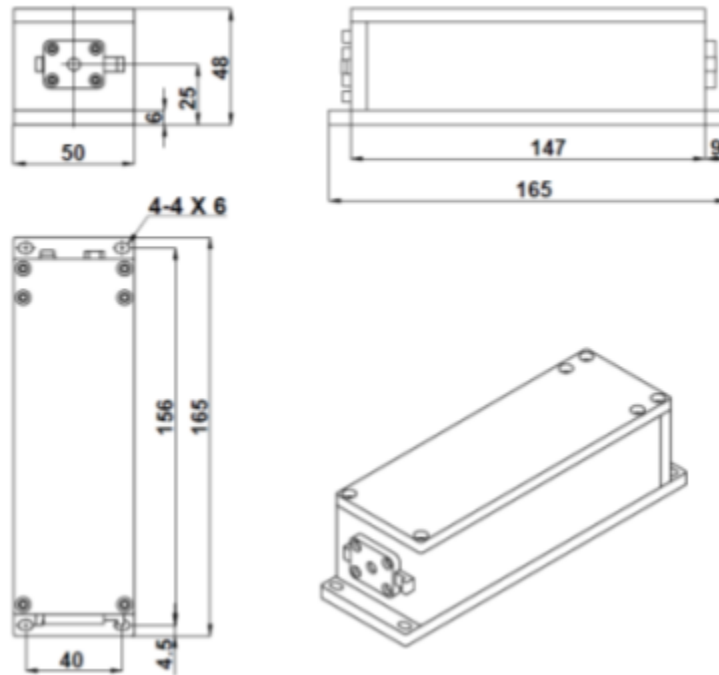
Remarks:

- The laser head needs to be used on a heat sink with good heat dissipation.
- 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.

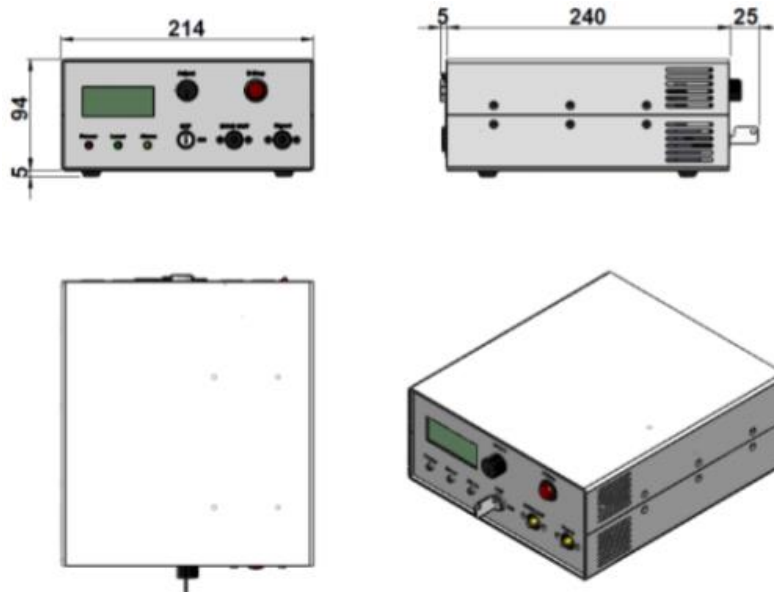


Outline Dimensions (unit: mm)

Laser Head



Power Supply



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