

## LPS-1064 AOM Q-Switched DPSS Laser System



### Series Specifications:

Nominal Wavelength	1064 nm
Output Type	Q-Switched
Laser Source Type	DPSS

### Overview:

The LPS-1064 Series of Diode-Pumped Solid-State (DPSS) AOM Q-Switched Lasers are ideal for applications requiring high peak power and a fast pulse frequency at 1064 nm. The embedded AOM gives the user direct control over the output pulses, enabling a specified frequency or even a single pulse to be emitted.

These lasers are commonly used for materials processing, marking, Raman Spectroscopy, biological experimentation and a broad spectrum of other applications.

### Key Features:

- AOM q-switch allows for active control of pulses
- Air cooled - no need for water cooling or external chiller
- Lightweight, compact design
- Efficient DPSS technology runs on standard AC power (85 - 264 V, 47 - 63 Hz)
- >10,000 hours continuous maintenance-free operating life
- FDA CDRH Compliant Class IV enclosure
- 48-hour replacement coverage available for an additional fee on specific models

### 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 PA6-U, per your request, and data for the entire series is also displayed for your reference. The specs which are specific to PA6-U have been highlighted below in **red + bold**.

Laser Form Factor	N	W	<b>U</b>
Output Power (W)	1, 2	3, 5	<b>8, 10, 12, 15, 18, 20</b>
Single Pulse Energy ( $\mu$ J)	100, 200	300, 500	<b>300, 350, 400, 500, 600, 700</b>
Optimal Pulse Frequency (Hz)	10000	10000	<b>30000</b>
Output Power Stability (%RMS/4h)	<3, <5, <10	<3, <5, <10	<b>&lt;3, &lt;5, &lt;10</b>
FDA Safety Class	IV	IV	<b>IV</b>
Central Wavelength (nm)	1063.2		
Wavelength Tolerance (+/- nm)	1	1	<b>1</b>
Divergence (mrad, full angle)	<1.5	<2	<b>&lt;1.5</b>
Beam Dimensions (mm, 1/e <sup>2</sup> )	2	2.5	<b>2</b>
Transverse Mode	Near TEM00		
Longitudinal Modes	Multiple	Multiple	<b>Multiple</b>
Warm-up Time (minutes)	10	10	<b>10</b>
Avg. Pulse Duration (ns)	8	10	<b>25</b>
Approx. Timing Jitter (+/- ns)	10	10	<b>10</b>
Approx. Trigger-Pulse Latency ( $\mu$ s)	200	200	<b>200</b>
Approximate Peak Power (W)	10000, 20000	30000, 40000	<b>10000, 13000, 15000, 20000, 25000, 30000</b>
Polarization Ratio			<b>&gt;100</b>
Operating Temperature Range ( $^{\circ}$ C)	15 to 35	15 to 35	<b>15 to 35</b>
Storage Temperature Range ( $^{\circ}$ C)	-10 to	-10 to	<b>-10 to 50</b>
Max. TTL Modulation Freq. (Hz)	200,000	200,000	<b>200,000</b>
Modulation Input Signal	0-5 VDC	0-5 VDC	<b>0-5 VDC</b>
Max. Power Input Duty Cycle	100%	100%	<b>100%</b>
Cooling Method	TEC/Forced Air	TEC/Forced Air	<b>TEC/Forced Air</b>
Standard Warranty (months)	12	12	<b>12</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.

## Specifications Page 2:


Laser Form Factor	N	W	U
MTTF (operational hours)	10000	10000	<b>10000</b>
Weight of Product or Laser Head (kg)	2.6	6.1	<b>10.2</b>
Beam Height from Base Plate (mm)	68.2	93.5	<b>113</b>
Dimensions of Product or Laser Head (mm)	240 (l) x 99 (w) x 94 (h)	346 (l) x 140 (w) x 125 (h)	<b>420 (l) x 142 (w) x 144 (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.

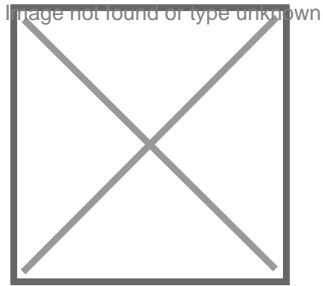
	Power Supply Type:	<b>AZ</b>	<b>AN</b>	<b>AW</b>
 FDA-Compliant AOM Driver	Input Power	<b>85v to 264v</b>	85v to 264v	85v to 264v
	Power Supply Weight (kg)	<b>12.4</b>	6.2	6.88
	Dimensions (mm)	<b>376 (l) x 485 (w) x 133 (h)</b>	334 (l) x 300 (w) x 123 (h)	334 (l) x 300 (w) x 123 (h)

\*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 (PA6-U) requires the following safety label(s):



## Accessories:

The most popular accessories for model PA6-U are shown below. For additional details regarding these or other accessories please see our website or contact us directly.

Part Number	Description	
 ACFMIRHXA	FC/PC Fiber Coupler/Collimator for IR wavelengths (1000 to 1300 nm) (installed and aligned) 11mm diameter input lens Full Details: <a href="http://www.laserglow.com/ACF">www.laserglow.com/ACF</a>	
 ACSMIRHXA	SMA-905 Fiber Coupler/Collimator for IR wavelengths (1000 to 1300 nm) (installed and aligned) 11mm diameter input lens Full Details: <a href="http://www.laserglow.com/ACS">www.laserglow.com/ACS</a>	
 ACALBNWXX	Carrying Case-104 Holds Lab/OEM N or W size Standard/Labspec laser Full Details: <a href="http://www.laserglow.com/ACA">www.laserglow.com/ACA</a>	Included With Laser
 AFS2002XX	Armored Fiber With SMA 905 Connectors 200um Core Multimode 2 m length Full Details: <a href="http://www.laserglow.com/AFS">www.laserglow.com/AFS</a>	
 AFF2002XX	Armored Fiber With FC/PC Connectors 200um Core Multimode 2m length Full Details: <a href="http://www.laserglow.com/AFF">www.laserglow.com/AFF</a>	
 AGFKTP59X	LSG-KTP-NF-6 Fit-Over Safety Goggles 532/808/1064nm Output: OD 6+ at 190-534/740-1064 nm CE Certified Full Details: <a href="http://www.laserglow.com/AGF">www.laserglow.com/AGF</a>	

## 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.