

## Arktis Laser Product Datasheet

### LPS-0355 AOM Q-Switched DPSS Laser System



#### Series Specifications:

Nominal Wavelength	355 nm
Output Type	Q-Switched
Laser Source Type	DPSS

#### Overview:

The LPS-0355 Series of Diode-Pumped Solid-State (DPSS) AOM Q-Switched Lasers are ideal for applications requiring the highest available peak power and/or single pulse energy at 355 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. The driver is available as a complete FDA-compliant system or as an O.E.M. component with significantly reduced dimensions.

Please note that for UV Marking and Machining, a beam delivery device is necessary and is not included with the purchase of the laser.

#### 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)
- >5,000 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 P35-U, per your request, and data for the entire series is also displayed for your reference. The specs which are specific to P35-U have been highlighted below in **red + bold**.


Output Power (mW)	>100, >300, >500	<b>&gt;1000, &gt;2000, &gt;3000</b>
Single Pulse Energy (μJ)	10, 30, 50	<b>50, 70, 100, 150</b>
Optimal Pulse Frequency (Hz)	10000	<b>4000, 20000</b>
Output Power Stability (%RMS/4h)	<3, <5, <10	<b>&lt;3, &lt;5, &lt;10</b>
Central Wavelength (nm)	355.1	<b>355.1</b>
Wavelength Tolerance (+/- nm)	1	<b>1</b>
Divergence (mrad, full angle)	<2	<b>&lt;1, &lt;3</b>
Beam Dimensions (mm, 1/e <sup>2</sup> )	4	<b>1, 2.5</b>
Warm-up Time (minutes)	10	<b>10</b>
Avg. Pulse Duration (ns)	15	<b>15</b>
M <sup>2</sup>		<b>&lt;1.3</b>
Polarization Ratio	>100	<b>&gt;100</b>
Operating Temperature Range (°C)	15 to 35	<b>15 to 35</b>
Max. TTL Modulation Freq. (Hz)	50000	<b>100,000</b>
Modulation Input Signal	0-5 VDC	<b>0-5 VDC</b>
Max. Power Input Duty Cycle	100%	<b>100%</b>
Standard Warranty (months)	12	<b>12</b>
MTTF (operational hours)	5000	<b>5000</b>
Weight of Product or Laser Head (kg)	6.1	<b>10.2</b>
Beam Height from Base Plate (mm)	93.5	<b>113</b>
Dimensions of Product or Laser Head (mm)	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>AW</b>	<b>AZ</b>
	Input Power	85v to 264v	<b>85v to 264v</b>
	Power Supply Weight (kg)	6.88	<b>12.4</b>
	Dimensions (mm)	334 (l) x 300 (w) x 123 (h)	<b>376 (l) x 485 (w) x 133 (h)</b>

\*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 (P35-U) requires the following safety label(s):



## Accessories:

The most popular accessories for model P35-U are shown below. For additional details regarding these or other accessories please see our website or contact us directly.

Part Number	Description	
 AGF5327XX	LSG-532-NF-7 Fit-Over Safety Goggles 532nm Output: OD 7+ at 190-532 nm CE Certified Full Details: <a href="http://www.arktislaser.com/AGF">www.arktislaser.com/AGF</a>	
 ACALBNWXX	Carrying Case-104 Holds Lab/OEM N or W size Standard/Labspec laser Full Details: <a href="http://www.arktislaser.com/ACA">www.arktislaser.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.arktislaser.com/AFS">www.arktislaser.com/AFS</a>	
 AFF2002XX	Armored Fiber With FC/PC Connectors 200um Core Multimode 2m length Full Details: <a href="http://www.arktislaser.com/AFF">www.arktislaser.com/AFF</a>	
 ACSUV1HXX	SMA Fiber Coupler/Collimator for ultraviolet wavelengths (266 to 399 nm) 11mm diameter input lens Full Details: <a href="http://www.arktislaser.com/ACS">www.arktislaser.com/ACS</a>	
 ACFUV1HXX	FC/PC Fiber Coupler/Collimator for ultraviolet wavelengths (266 to 399 nm) 11mm diameter input lens Full Details: <a href="http://www.arktislaser.com/ACF">www.arktislaser.com/ACF</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.