

AWAVE SERIES

EUV Industrial Lasers

features & benefits.

Innovative End-Pumping Technology
Air-Cooling (Average Power Up to 100mW)
Excellent Beam Quality, Pulse Stability & Point Stability
Patent Pending Harmonic Conversion Technologies
Ultra-Compact & Light-Weight
Brand-New Focusing Optics
Field-Replaceable Diode
24/7 Proven Reliability
Low Operational Cost

AWAVE EUV Series models are Q-switched TEM00 mode lasers and are engineered for the highly demanding 24/7 production environment. Each system consists of a laser head and a laser controller connected with a 2.5 meter umbilical cable. The fiber-coupled pumping diodes are located in the laser controller for easy field-replacement. The laser head is sealed in a clean room to assure long-term reliability.

AWAVE EUV Series lasers are featured with pulse frequencies ranging from 1-100 kHz, average power covered from 50mW to 100mW and pulse energy in excess of 100μJ, 100mW/EUV Laser. Our AWAVE EUV lasers are designed and engineered with flexible laser architectures. Contact Advanced Optowave for any laser requirements exceeding standard specifications.



Nd:YLF EUV Laser Systems

SPECIFICATIONS ¹	AWAVE 209-50mW-1K	AWAVE 209-100mW-1K
Wavelength ¹	209nm	
Average Power ²	50mW	100mW
Pulse Repetition Rate ³	Single Shot to 15 kHz	
Beam Quality (M ²)	<1.3	
Spatial Mode	TEM00	
Beam Roundness	>90%	
Pulse Width	<25ns @1kHz <50ns @10kHz	<40ns @1kHz <50ns @10kHz
Pulse Energy (mJ @ 1kHz)	>50μJ	>100μJ
Pulse-to-Pulse Stability ⁴	<3% RMS	
Average Power Stability ⁴	<3% over 12 hours	
Polarization Ratio	>100:1 LINEAR, HORIZONTAL	
Communication Protocol ⁵	RS-232	
Operating Voltage (VAC)	90-260	
Line Frequency (Hz)	47-63	
Cooling	AIR	WATER
Operation Temperature	15° - 30° C	
Operation Humidity	20% - 80%	
Storage Temperature	-20° - 50° C	

Nd:YAG EUV Laser Systems

SPECIFICATIONS ¹	AWAVE 213-50mW-3K	AWAVE 213-100mW-3K
Wavelength ¹	213nm	
Average Power ²	50mW	100mW
Pulse Repetition Rate ³	Single Shot to 20 kHz	
Beam Quality (M ²)	<1.3	
Spatial Mode	TEM00	
Beam Roundness	>90%	
Pulse Width	<20ns @1kHz <40ns @10kHz	<30ns @1kHz <60ns @10kHz
Pulse Energy (mJ @ 1kHz)	>20μJ	>40μJ
Pulse-to-Pulse Stability ⁴	<3% RMS	
Average Power Stability ⁴	<3% over 12 hours	
Polarization Ratio	>100:1 LINEAR, HORIZONTAL	
Communication Protocol ⁵	RS-232	
Operating Voltage (VAC)	90-260	
Line Frequency (Hz)	47-63	
Cooling	AIR	WATER
Operation Temperature	15° - 30° C	
Operation Humidity	20% - 80%	
Storage Temperature	-20° - 50° C	

Note: 1. Contact AOC for additional wavelengths. 4. Defined as standard deviation/average.
2. Contact AOC for higher power lasers. 5. Contact AOC for USB II & Ethernet.
3. Contact AOC for high frequency.

*Advanced Optowave Corporation follows a policy of continuous product improvement. Specifications are subject to change without notice. Advanced Optowave Corporation offers a limited warranty for all AWAVE Series laser systems. For full details on warranty coverage, or for further product information, please contact us.

Nd:YV04 EUV Laser Systems

SPECIFICATIONS ¹	AWAVE 213-50mW-20K	AWAVE 213-100mW-20K
Wavelength ¹	213nm	
Average Power ²	50mW	100mW
Pulse Repetition Rate ³	Single Shot to 100 kHz	
Beam Quality (M ²)	<1.2	
Spatial Mode	TEM00	
Beam Roundness	>90%	
Pulse Width	<10ns @20kHz <40ns @100kHz	
Pulse Energy (mJ @ 20kHz)	>2.5μJ	>5μJ
Pulse-to-Pulse Stability ⁴	<3% RMS	
Average Power Stability ⁴	<3% over 12 hours	
Polarization Ratio	>100:1 LINEAR, HORIZONTAL	
Communication Protocol ⁵	RS-232	
Operating Voltage (VAC)	90-260	
Line Frequency (Hz)	47-63	
Cooling	AIR	WATER
Operation Temperature	15° - 30° C	
Operation Humidity	20% - 80%	
Storage Temperature	-20° - 50° C	

Note: 1. Contact AOC for additional wavelengths.
2. Contact AOC for higher power lasers.
3. Contact AOC for high frequency.
4. Defined as standard deviation/average.
5. Contact AOC for USB II & Ethernet.

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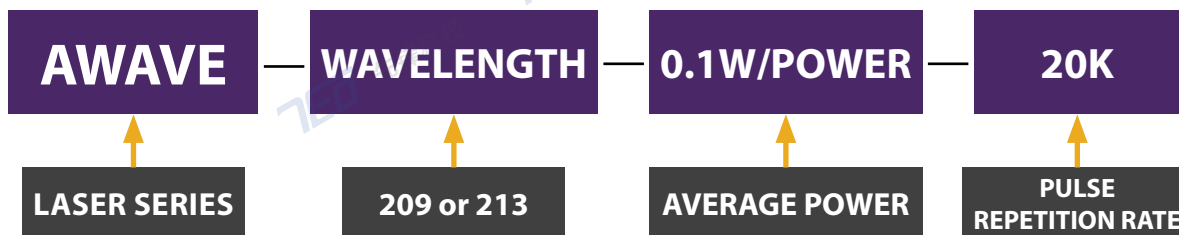
Dimensions & Weight

DIMENSIONS	ALL MODELS
Laser Head (in.)	23.8 x 8 x 5.5
Laser Controller (in.)	19 x 17 x 7
Umbilical (in./m.)	100 inches / 2.5 meters (all lasers)

WEIGHT	ALL MODELS
Laser Head (lbs.)	30
Laser Controller (lbs.)	20

Order Information

Our lasers are designed and engineered with flexible laser architectures. Customers can specify laser requirements based on their needs. Please contact us for any laser requirements exceeding the specifications of standard products.



COMPLIANCE: CDRH, ROHS, CE

