

# AW1-HP SERIES

## High Power IR Industrial Lasers

### features & benefits.

*Innovative End-Pumping Technology*  
*Average Power Up to 100W*  
*Excellent Beam Quality, Pulse Stability & Point Stability*  
*Ultra-Compact & Light-Weight*  
*Field-Replaceable Diode*  
*24/7 Proven Reliability*  
*Low Operational Cost*

AW1-HP Series lasers are high power (>50W) Q-switched, TEM00 mode 1064 nm lasers with a multiple mode option, which are engineered for the highly demanding 24/7 production environment, consisting 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.

AW1-HP Series lasers are featured with pulse frequencies ranging from 1-300 kHz (300 kHz to 500 kHz is optional), average power covered from 50W to >100W. Advanced Optowave lasers are designed and engineered with flexible laser architectures. Please contact Advanced Optowave for any laser requirements exceeding standard specifications.



## AW1-HP SERIES High Power IR Industrial Lasers

SPECIFICATIONS*	AW1-HP-50W-100K	AW1-HP-75W-100K	AW1-HP-100W-100K
Wavelength	1064 nm		
Average Power <sup>1</sup>	50W	75W	100W
Pulse Repetition Rate	Single Shot to 300 kHz or CW		
Beam Quality (M <sup>2</sup> )	<1.3		
Spatial Mode <sup>2</sup>	TEM00		
Beam Roundness	>90%		
Pulse Width <sup>3</sup>	<40ns @ 50K <60ns @ 100K		
Pulse-to-Pulse Stability <sup>4</sup>	<2% RMS		
Average Power Stability <sup>4</sup>	<3% over 12 hours		
Point Stability	20 μrad/°C		
Polarization Ratio	>100:1 LINEAR, HORIZONTAL		
Communication Protocol <sup>5</sup>	RS-232		
Operating Voltage (VAC)	90-260		
Line Frequency (Hz)	47-63		
Cooling	WATER		
Operation Temperature	15° - 30° C		
Operation Humidity	20% - 80%		
Storage Temperature	-10° - 50° C		

DIMENSIONS & WEIGHT	DIMENSIONS (IN.)	WEIGHT (LBS.)
Laser Head	13.75 x 8 x 3.75	25
Laser Controller	19 x 17 x 7	30
Umbilical	100 inches / 2.5 meters (all lasers)	

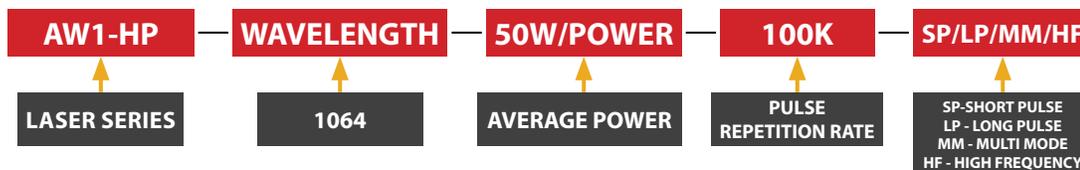
**Note:**

- Contact AOC for higher power lasers.
- Contact AOC for multimode option.
- Contact AOC for short pulse or long pulse width option.
- Defined as standard deviation/average.
- Contact AOC for USB II & Ethernet.

**COMPLIANCE:** CDRH, ROHS, CE

## 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.



\*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 laser systems. For full details on warranty coverage, or for further product information, please contact us.

