

# AWSO-A Series Single-Mode Diode Laser Module



## Key Features

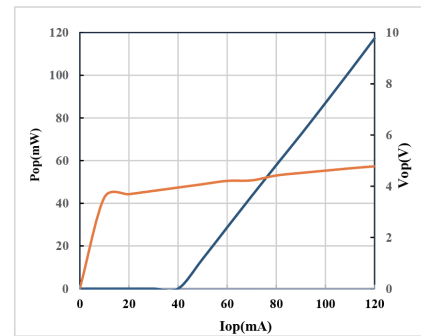
- ◆ Power stability <  $\pm 2\%$
- ◆ Low power consumption, typical < 5W
- ◆ Compact design, easily integrated

## Applications

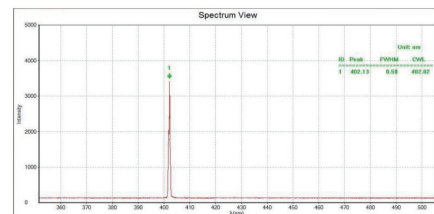
Raman spectroscopy  
Laser-induced fluorescence (LIF)  
Fluorescence Spectrometer  
Particle size analysis  
Flow cytometer  
Confocal microscopy

## Technical Specifications

Optical Parameters					
Center Wavelength (nm)	405	450	520	638	650
Output Power (mW)	50	50	50	60	60
Wavelength Tolerance (nm)	$\pm 10$				
Linewidth (nm)	<3				
Power Stability (typ., @4h)	$\pm 2\%$ (P-P)				
Output Fiber ( $\mu\text{m}/\text{NA}$ )	4, 6, 9 / 0.22				
Connector	FC/PC, SMA905				
System Parameters					
Adjustability % Full Power	0~100%				
Warm up Time (min)	15				
Control Interface	PH2.0~10P, USB				
Supply Voltage	5VDC/2A				
Power Consumption (typ., W)	<5				
Storage Humidity	0~70% RH				
Storage Temperature ( $^{\circ}\text{C}$ )	-10~60				
Operating Temperature ( $^{\circ}\text{C}$ )	10~35 (heat sink is required)				
Weight (g)	<150				
Dimensions (mm)	76.2×63.5×28				



405nm P-I-V Graph



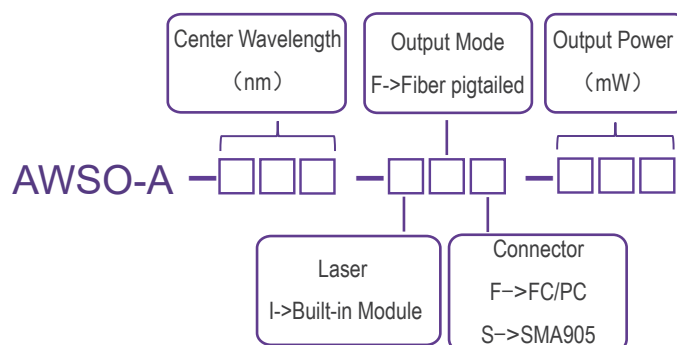
405nm Spectrum

1. Higher power options available upon request.
2. All the data in the above table are the typical values obtained from the tests at room temperature of  $25^{\circ}\text{C}$ , and the final data is subject to the final test report.

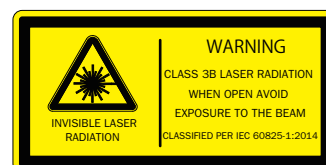
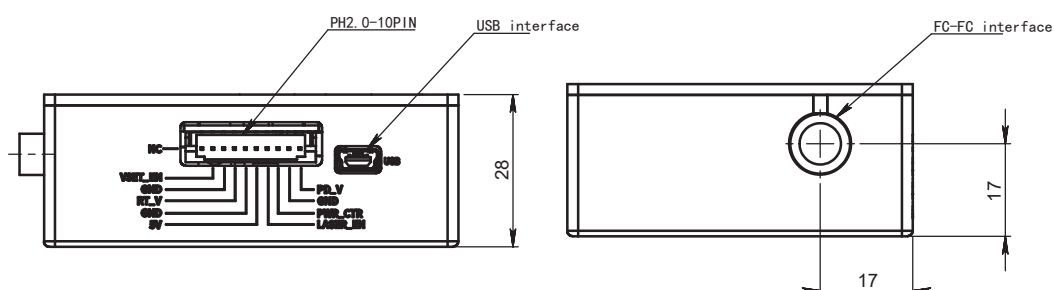
## Ordering Information

Wavelength (nm)	Output Power (mW)	Part Number	Connector
405	50	AWSO-A-405-IF(F)-50	FC/PC
	50	AWSO-A-405-IF(S)-50	SMA905
450	50	AWSO-A-450-IF(F)-50	FC/PC
	50	AWSO-A-450-IF(S)-50	SMA905
520	50	AWSO-A-520-IF(F)-50	FC/PC
	50	AWSO-A-520-IF(S)-50	SMA905
638	60	AWSO-A-638-IF(F)-60	FC/PC
	60	AWSO-A-638-IF(S)-60	SMA905
650	60	AWSO-A-650-IF(F)-60	FC/PC
	60	AWSO-A-650-IF(S)-60	SMA905

## Part Numbering Schema



## Mechanical Drawings (mm)



## Pin Descriptions

PIN	Function	Description
1	NC	NC
2	VSET_ENABLE	Set to low-level to control power through PIN8, high level or left floating: the laser outputs at rated power
3	GND	Signal Ground
4	RTV	Rt signal level, 1.5V for 25°C
5	GND	Input Power Ground
6	+5V	5VDC/2A
7	LASER ENABLE	Set to high-level to enable the laser, low-level or suspend to disable LD
8	Power Control	Apply 0-1.2V to control output power (0-100% full power adjustability)
9	GND	Signal Ground
10	PDV	PD feedback signal