

## 2 Micron CW Fiber Laser

### AP-CW1

AdValue Photonics' 2 $\mu$ m fiber lasers provide many advantages over traditional bulk Ho and Tm solid state lasers with their compact size, high efficiency, low maintenance, and ease of operation.

#### Applications:

- LIDAR
- Gas sensing
- Mid-IR generation
- Spectroscopy
- Test and measurement
- Research & development



#### Features:

- Customizable operating wavelength
- High output power
- Diffraction limited beam quality
- Turn-key system with no maintenance

#### Optical Characteristics:

Parameter	Specification
Operation mode	CW
Operating wavelength	1950 nm (Option: customized wavelength 1900-2100 nm)
Wavelength accuracy	$\pm 5$ nm (Option: customized accuracy)
Output power (nominal)	1, 2, 5, 10 W (not for all options)
Power adjustment	10-100% max.
Spectral linewidth	< 1 nm
Beam quality, M <sup>2</sup>	< 1.1
Output polarization	Random (Option: linearly polarized)
Output delivery	<ul style="list-style-type: none"> <li>• Max. power 1W or 2W: SMF-28 single mode fiber, 3 mm jacket, 1 m fiber length, no connector</li> <li>• Max. power 5W or 10 W: single mode fiber cable with collimator termination, cable length 1 m, collimated beam ~ 5 mm diameter, collimator housing dimensions <math>\Phi 35 \times 97</math> mm</li> </ul>

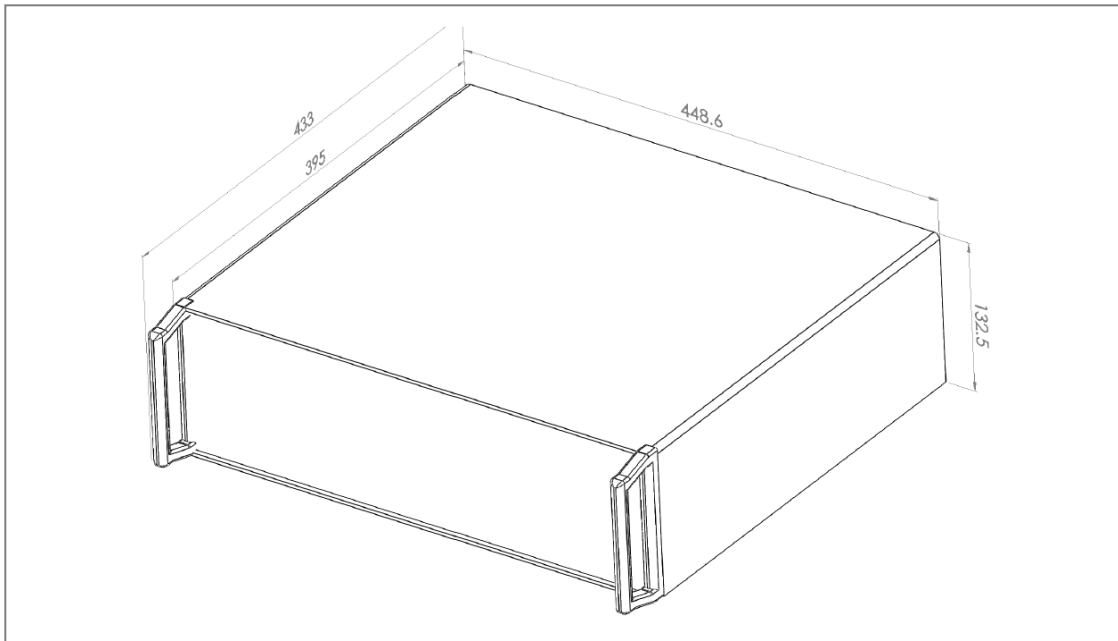
(Customization options available.)

*Specifications subject to change without notice*

## General Characteristics:

Parameter	Specification
Operating temperature	10 to +35 °C
Storage temperature	-10 to +70 °C
Cooling	Forced air
Power requirement	AC 100~240 V (50/60Hz)
Warm-up time	20 minutes
Package dimensions	448.6(W) x 433(D) x 132.5(H) mm

## Mechanical Outline:



## Ordering Information:

Part Number:	AP-CW1	-	xxxx	-	xx	-	xx		
			Standard Wavelength: 1950 = 1950 nm Custom Wavelength: xxxx = xxxx nm		Output Power: 01 = 1 W 02 = 2 W 05 = 5 W 10 = 10 W		Polarization: RP = random polarization PM = polarization maintaining		

(For special request, please contact AdValue Photonics at 1-520-790-5468 or [sales@advaluephotonics.com](mailto:sales@advaluephotonics.com).)



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**Innovative products made in the Optics Valley, Tucson, Arizona, USA**

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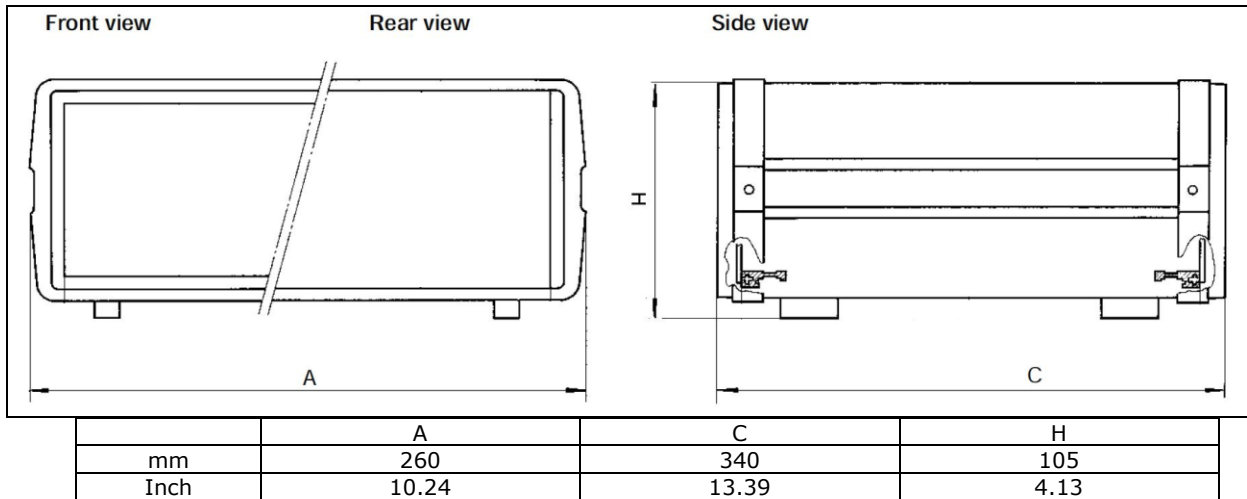
Parameter	Specification
Operation mode	CW
Operating wavelength	1950 nm (Option: customized wavelength 1900-2100 nm)
Wavelength accuracy	$\pm 5$ nm (Option: customized accuracy)
Output power (nominal)	50, 200 mW (not for all options)
Power adjustment	10-100% max.
Spectral linewidth	< 1 nm
Beam quality, $M^2$	< 1.1
Output polarization	Random (Option: linearly polarized)
Output fiber	SMF-28 single mode fiber, 3 mm jacket, 1 m length, no connector (For linearly polarized output: Panda PM 1550 fiber)

(Customization options available.)

## General Characteristics:

Parameter	Specification
Operating temperature	10 to +35 °C
Storage temperature	-10 to +70 °C
Cooling	Forced air
Power requirement	AC 100~240 V (50/60Hz)
Warm-up time	20 minutes
Package dimensions	Standard: 105(H) x 260(W) x 340(D) mm

## Mechanical Outline:



## Ordering Information:

Part Number:	AP-CW	-	xxxx	-	mxxx	-	xx		
			Standard Wavelength: 1950 = 1950 nm Custom Wavelength: xxxx = xxxx nm		Output Power: m050 = 50 mW m200 = 200 mW		Polarization: RP = random polarization PM = polarization maintaining		

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## 2 Micron High Power CW Fiber Laser Module AP-CW1-MOD

### Features:

- Laser emission in the 2  $\mu\text{m}$  wavelength region
- 10W output power, variable
- Output modulation capability
- Near diffraction limited beam quality
- Turn-key control box available
- Custom options available



### Applications:

- Plastic materials processing
- Laser surgery
- Aesthetic medicine

### Optical Characteristics:

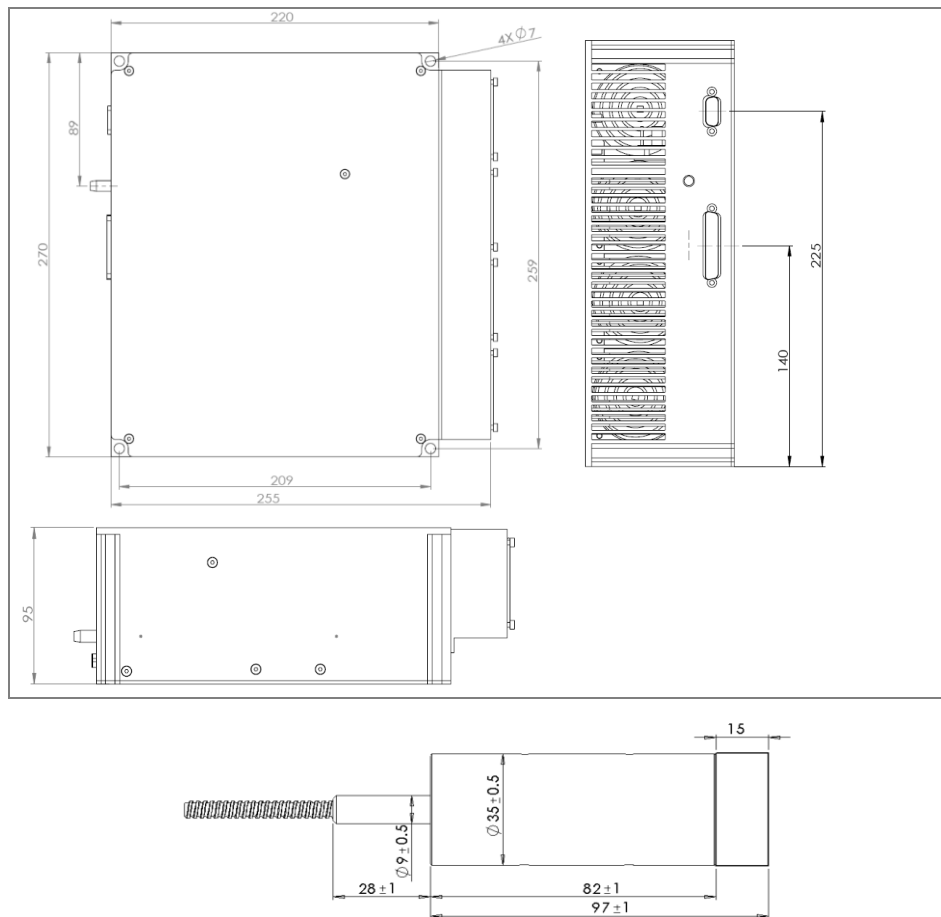
Parameter	Specification
Operating mode	CW or modulated
Operating wavelength	1950 nm (Option: customized wavelength 1900-2100 nm)
Wavelength accuracy	$\pm 5$ nm (Option: customized accuracy)
Max. output power	10 W (not for all options)
Power adjustment	10-100% max.
Spectral linewidth	< 1 nm
Beam quality, $M^2$	< 1.1
Output polarization	Random (Option: linearly polarized)
Output modulation frequency	1 kHz max.
Output isolator	Optional
Aiming beam	Optional
Output delivery	Option 1: Collimated beam output - single mode fiber cable with collimator termination, cable length 2 meters, collimated output beam 5 mm diameter Option 2: Fiber output - single mode or multimode fiber output, armored cable or 3 mm fiber jacket, fiber length 2 meters, no connector

(Customization options available.)

## General Characteristics:

Parameter	Specification
Operating current	13 A (nominal)
Operating voltage	24 V (nominal)
Modulation control signal	TTL
Operating temperature	10-30 °C
Storage temperature	-10 to +70 °C
Warm-up time	20 minutes
Package dimensions	270(W) x 255(D) x 95(H) mm

## Mechanical Outline:



## Ordering Information:

Part Number: AP-CW1-MOD - xxxx - xx - (Polarization)

Standard Wavelength:  
1950 = 1950 nm

Custom Wavelength:  
xxxx = xxxx nm

Output Power:  
02 = 2 W  
05 = 5 W  
10 = 10 W

Polarization:  
(no spec) = random polarization  
LP = linearly polarized

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**The 2 μm Fiber Laser Experts**