

# **2 Micron High Power Q-Switched Fiber Laser**AP-QS1

This world's first 2  $\mu$ m Q-switched fiber laser offers nanosecond pulses and high beam intensity, providing a new state-of-the-art tool to research and industry applications.

AdValue Photonics' 2 µm 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:**

- Mid-IR generation
- Nonlinear optics studies
- Spectroscopy
- Research & development

#### **Features:**

- Customizable operating wavelength
- Nanosecond pulses
- High peak power
- Near diffraction limited beam quality
- Turn-key system with no maintenance



## **Optical Characteristics:**

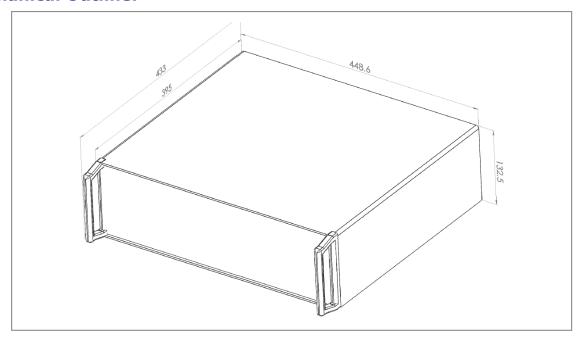
Parameter	Specification					
	180 ns Pulse Option	20 ns Pulse Option				
Operation mode	Pulsed					
Operating wavelength	1.95 μm (Option: 1.92-2.0 μm)	1.95 μm (Option: 1.92-2.0 μm)				
Max. average power	5 W	2 W				
Pulse repetition rate	20 kHz	10 to 30 kHz variable				
Pulse width	160-200 ns (power dependent)	20 to 50 ns (rep. rate dependent)				
Max. pulse energy	250 µJ	200 μJ				
Beam quality, M <sup>2</sup>	< 1.3	•				
Output polarization	Within ±5%					
Output polarization	Random (Option: Linearly Polarized)					
Output isolator	Included					
Output beam	Collimated beam, diameter ~ 4 mm					
Output fiber	Single mode fiber, 5 mm armored cable, 0.8 m cable length (For linearly polarized output: polarization maintaining single mode fiber)					
Fiber termination	Collimator, housing dimensions Φ35 x 97 mm					

(Customization options available.)

#### **General Characteristics:**

Parameter	Specification				
Operating temperature	0 to +30 °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-QS1	-	xxxx	xx	-	xx	xxx or xx
			Standard Wavelength: 1950 = 1950 nm Custom Wavelength: xxxx = xxxx nm	Output Power: 02 = 2 W 05 = 5 W		Polarization: RP = random polarization LP = linear polarization	Pulse Option: 180 = 180 ns Option 20 = 20 ns Option

(For special request, please contact AdValue Photonics at 1-520-790-5468 or <a href="mailto:sales@advaluephotonics.com">sales@advaluephotonics.com</a>.)

