

Pulsed Single-Frequency Fiber Laser

AP-P-SF

(Wavelength: 1 μm , 1.55 μm , 2 μm)

The pulsed single-Frequency fiber lasers are designed to provide the highest pulse energy in a single longitudinal mode. This series of products at 2 μm , 1.55 μm , and 1 μm provide new capabilities to research and industry applications.

With their compact size, high efficiency, low maintenance, and ease of operation, AdValue Photonics' fiber lasers provide many advantages over traditional bulk solid state lasers.

Applications:

- LIDAR
- Frequency conversion
- Mid-IR generation
- Spectroscopy

Features:

- Single longitudinal mode
- High pulse energy
- Customizable operating wavelength
- Nanosecond pulses
- Near diffraction limited beam quality
- Turn-key system with no maintenance required



Optical Characteristics:

| Parameter | Specification | | |
|------------------------------|---|--------------------|-------------------------|
| | AP-P-SF-1950 | AP-P-SF-1550 | AP-P-SF-1060 |
| Operation mode | Pulsed | | |
| Spectral linewidth | Single Frequency (single longitudinal mode) | | |
| Typical operating wavelength | 1.03, 1.06 μm | 1.55 μm | 1.95 μm |
| Customizable wavelength | - | - | 1.9 ~ 2.1 μm |
| Pulse energy | Up to 1 mJ | | |
| Pulse width | 100-300 ns (non-adjustable, factory selectable) | | |
| Pulse repetition rate | 10-200 kHz (non-adjustable, factory selectable) | | |
| Max. average power | 10 W (higher or lower power available) | | |
| Beam quality, M^2 | < 1.3 | | |
| Output polarization | Random (option: linear polarization) | | |
| Output delivery | Free-space collimated beam ~ 1 mm diameter (beam expansion available) | | |

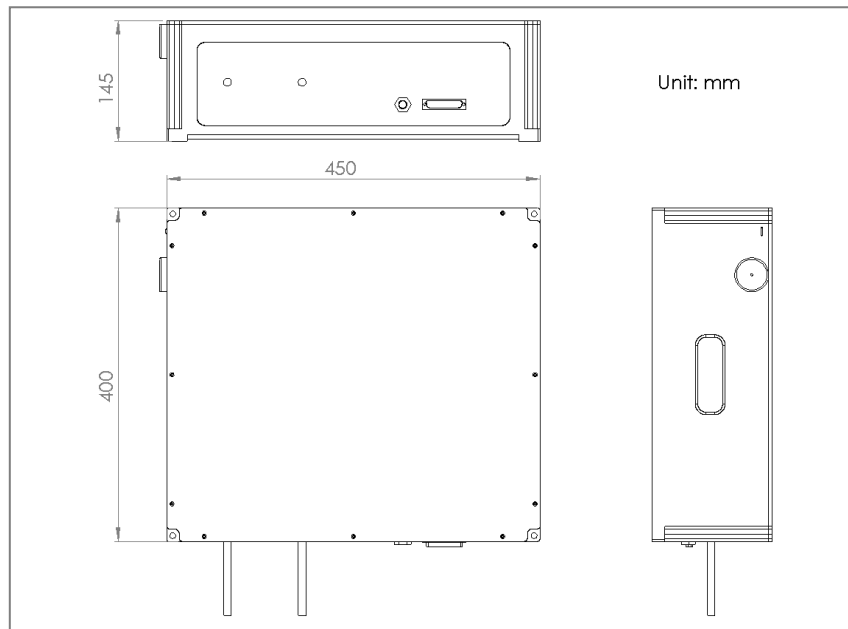
(For special requirement, please contact AdValue Photonics for options.)

Specifications subject to change without notice

General Characteristics:

| Parameter | Specification |
|-----------------------|--|
| Operating temperature | 10 to +30 °C |
| Storage temperature | -10 to +70 °C |
| Cooling | Water cooled |
| Power requirement | AC 100~240 V (50/60Hz) |
| Warm-up time | 10 minutes |
| Package dimensions | 450(W) x 400(D) x 145(H) (optical module only, not including a separate control unit) |

Mechanical Outline:



Ordering Information:

| AP-P-SF | - | xxxx | - | xxxx | - | xxx | - | xxx | - | xx |
|----------------------|---|------|---|---------------|---|--------------|---|-----------------|---|--------------------------|
| Standard Wavelength: | | | | Pulse Energy: | | Pulse Width: | | Pulse Rep Rate: | | Polarization: |
| 1950 = 1.95 μm | | | | m500 = 0.5 mJ | | 100 = 100 ns | | 010 = 10 kHz | | RP = random polarization |
| 1550 = 1.55 μm | | | | 01 = 1 mJ | | 300 = 300 ns | | 050 = 50 kHz | | LP = linear polarization |
| 1060 = 1.06 μm | | | | | | | | 100 = 100 kHz | | |
| 1030 = 1.03 μm | | | | | | | | | | |



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