

## Fiber Laser Products

AdValue Photonics is a leading manufacturer of innovative fiber laser products. The wavelengths of our lasers range from 515 nm (Green), to 1  $\mu\text{m}$ , 1.55  $\mu\text{m}$ , and 2  $\mu\text{m}$ . For 2  $\mu\text{m}$ , we offer the largest product portfolio in the industry. Our fiber lasers provide excellent single mode beam quality, high pulse energy and peak power.

<p><b>EVEREST<sup>nano</sup> Green Pulsed Laser (AP-515)</b></p> <ul style="list-style-type: none"> <li>• 515 nm wavelength</li> <li>• Average power 10-50 W</li> <li>• Pulse width 5 ns</li> <li>• Pulse energy 100 <math>\mu\text{J}</math></li> <li>• Pulse rep. rate 100-500 kHz</li> <li>• <math>M^2 &lt; 1.2</math></li> </ul> 	<p><b>EVEREST<sup>pico</sup> 1 <math>\mu\text{m}</math> Picosecond Laser (AP-1030P)</b></p> <ul style="list-style-type: none"> <li>• 1 <math>\mu\text{m}</math> wavelength</li> <li>• Average power 15-50 W</li> <li>• Pulse width 50 ps</li> <li>• Pulse energy 30-50 <math>\mu\text{J}</math></li> <li>• Pulse rep. rate 0.5-1 MHz</li> <li>• <math>M^2 &lt; 1.3</math></li> </ul> 
<p><b>EVEREST<sup>nano</sup> 1 <math>\mu\text{m}</math> Pulsed Fiber Laser (AP-1030)</b></p> <ul style="list-style-type: none"> <li>• 1 <math>\mu\text{m}</math> wavelength</li> <li>• Average power 100 W</li> <li>• Pulse width 5 ns</li> <li>• Pulse energy 100's <math>\mu\text{J}</math></li> <li>• Pulse rep. rate 50 kHz to 500 kHz</li> <li>• <math>M^2 &lt; 1.3</math></li> </ul> 	<p><b>EVEREST<sup>nano</sup> 2 <math>\mu\text{m}</math> Pulsed Fiber Laser (AP-1950)</b></p> <ul style="list-style-type: none"> <li>• 2 <math>\mu\text{m}</math> wavelength</li> <li>• Average power 5 W</li> <li>• Pulse width 5 ns</li> <li>• Pulse energy &gt;50 <math>\mu\text{J}</math></li> <li>• Pulse rep. rate 100 kHz</li> <li>• <math>M^2 &lt; 1.3</math></li> </ul> 
<p><b>1-2 <math>\mu\text{m}</math> Pulsed Single Frequency, ns (AP-P-SF)</b></p> <ul style="list-style-type: none"> <li>• 1 <math>\mu\text{m}</math>, 1.55 <math>\mu\text{m}</math>, 2 <math>\mu\text{m}</math> wavelength options</li> <li>• Narrow linewidth</li> <li>• Pulse energy up to <b>mJ</b> level</li> <li>• Pulse width nanoseconds</li> <li>• 10-200 kHz pulse rep. rate</li> </ul> 	<p><b>1 <math>\mu\text{m}</math> High Power Fiber Isolator (AP-aISO)</b></p> <ul style="list-style-type: none"> <li>• All-fiber structure, no free-space element</li> <li>• Forward power handling 50 W</li> <li>• Backward power handling 50 W</li> <li>• Integrated backward monitor</li> <li>• Multi-channel option</li> </ul> 
<p><b>2 <math>\mu\text{m}</math> Q-switched, ns (AP-QS1-MOD, AP-QS1, AP-QS)</b></p> <ul style="list-style-type: none"> <li>• Peak power 10's W to <b>10 kW</b></li> <li>• Pulse energy up to <b>mJ</b> level</li> <li>• Pulse width 20 to 200 ns</li> <li>• Average power &gt; 10 W</li> </ul> 	<p><b>2 <math>\mu\text{m}</math> Ultrafast, fs &amp; ps (AP-ML2, AP-ML1, AP-ML)</b></p> <ul style="list-style-type: none"> <li>• Mode-locked seed laser or high power</li> <li>• Pulse width 350 fs to 3 ps option</li> <li>• Pulse energy nJ to <b>10 <math>\mu\text{J}</math></b></li> <li>• Peak power <b>MW</b> level</li> <li>• Average power 3 mW to 3W</li> </ul> 
<p><b>2 <math>\mu\text{m}</math> Single Frequency (AP-SF1, AP-SF)</b></p> <ul style="list-style-type: none"> <li>• Wavelength 1.9 to 2.1 <math>\mu\text{m}</math> options</li> <li>• Output power mW's to W's</li> <li>• Spectral linewidth 10 kHz to 1 MHz</li> </ul> 	<p><b>2 <math>\mu\text{m}</math> CW (AP-CW1-MOD, AP-CW1, AP-CW)</b></p> <ul style="list-style-type: none"> <li>• Wavelength 1.9 to 2.1 <math>\mu\text{m}</math> options</li> <li>• Output power mW's to W's</li> <li>• Power modulation available</li> </ul> 
<p><b>2 <math>\mu\text{m}</math> Fiber Amplifier (AP-AMP1, AP-AMP)</b></p> <ul style="list-style-type: none"> <li>• Gain range 1.9 to 2.1 <math>\mu\text{m}</math> options</li> <li>• Output power mW's to W's</li> <li>• Input isolator included</li> <li>• Output isolator options</li> </ul> 	<p><b>2 <math>\mu\text{m}</math> Supercontinuum Source (AP-SC-MIR)</b></p> <ul style="list-style-type: none"> <li>• 10 dB bandwidth &gt;500 nm (~ 1.9-2.4 <math>\mu\text{m}</math>)</li> <li>• Average power 100 mW</li> <li>• Pulse rep. rate 10 kHz nominal</li> </ul> 
<p><b>2 <math>\mu\text{m}</math> ASE Broadband Source (AP-ASE)</b></p> <ul style="list-style-type: none"> <li>• Center wavelength 1.95 <math>\mu\text{m}</math>, 20 dB bandwidth 170 nm</li> <li>• Center wavelength 2.07 <math>\mu\text{m}</math>, 20 dB bandwidth 100 nm</li> </ul> 	<p><b>2 <math>\mu\text{m}</math> Isolator and Circulator (AP-ISO-2000, AP-CIR-2000)</b></p> <ul style="list-style-type: none"> <li>• Polarization insensitive or polarization maintaining</li> <li>• Isolator power handling 5 W ave. or 10 kW peak</li> <li>• Circulator power handling 2 W ave.</li> </ul> 

\* Please contact AdValue Photonics for special requirements, custom specifications, or OEM module packages.

Specifications subject to change without notice

## Applications

- Drilling/Cutting/Marking glasses and sapphire
- Scribing/Patterning thin films
- Welding/Marking clear and special plastics
- Marking various materials
- LIDAR and sensing
- Frequency conversion and mid-IR generation
- Scientific research in various fields
- Laser surgery and aesthetics

Our 1.55  $\mu\text{m}$  and 2  $\mu\text{m}$  lasers are in the so called "eye safe" (retina safe) wavelength region, within which the potential of accidental eye injury is reduced.\*

## Manufacturing

AdValue Photonics manufactures its products in Tucson, Arizona, USA. Specialty glasses and optical fibers are designed and fabricated in house to ensure the highest quality of products and enable our innovative laser designs.

## Sales

### U.S. Headquarters:

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JD UNION  
LASER PRECISION



\* Proper laser safety procedures should always be followed when operating a laser of any wavelength.

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