

## Fiber Laser Products

AdValue Photonics is a leading manufacturer of innovative fiber laser products. We are also a 2  $\mu\text{m}$  laser expert and offering the broadest product portfolio in the industry. Our fiber laser products provide excellent single mode beam quality, high pulse energy, and high peak power.

<p><b>EVERESTnano 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>EVERESTpico 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; 1.2</math></li> </ul> 
<p><b>1-2 <math>\mu\text{m}</math> Pulsed Single Frequency, ns (AP-P-SF1)</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> 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 options</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> 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> 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 (<math>\sim</math> 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 average or 10 kW peak</li> <li>• Circulator power handling 2 W average</li> </ul> 

\* Please contact AdValue Photonics for special requirements. Custom specifications are welcome. OEM module package available.

Specifications subject to change without notice

## Applications

- Materials processing
  - Clear plastics Welding/Marking/Ablating/Cutting
  - Glass and sapphire Cutting/Drilling/Marking
  - Thin film solar cells and TCO patterning
  - Ceramics, CFD diamond and CFRP cutting
  - Stent cutting
  - 2.5D surface shaping and etching
- LIDAR
- Gas sensing
- Frequency conversion and mid-IR generation
- Nonlinear optics studies
- Scientific research
- Laser surgery and aesthetic medicine

## Manufacturing

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



## Sales

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