ANTARES Series

High repetition rate, High power picosecond fiber laser

ANTARES produces high average power with short (<10 ps) pulses at high repetition rates (40 MHz or 80 MHz) in a compact and robust format. Offering one of the World’s lowest cost of ownership, high precision and easiness of integration, ANTARES is ideally suited for industrial and scientific applications such as OPO pumping.

Integrating state of the art high-power fiber amplifiers, ANTARES offers remarkable spectral, temporal and spatial quality at high energy and high average power.

ANTARES embeds perfectly into any kind of systems working in a 24/7 operating environment, year-wide. Its very reduced footprint, weight and capital investment make it the money-maker you need.

KEY FEATURES
- Average power from hundreds of mW to 20W
- QCW – <10 ps
- High repetition rate
- Narrow linewidth
- $M^2 < 1.2$
- Low timing jitter
- Compact package, Rugged design, Plug-and-play

APPLICATIONS
- Efficient pumping of OPO
- Time-Correlated
- Single Photon Counting,
- Fluorescence Lifetime Imaging,
- Semiconductor inspection,
- CARS spectroscopy.

OPTIONS
- SHG & THG upon request
- F-SYNC: Fine-tuning rep. rate synchronization
**Technical Specifications***

<table>
<thead>
<tr>
<th>Model</th>
<th>ANTARES Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Power</td>
<td>From tens of mW to 20W</td>
</tr>
<tr>
<td>Wavelength</td>
<td>1030 or 1064 nm (upon request)</td>
</tr>
<tr>
<td>Spectral width</td>
<td>&lt; 1 nm</td>
</tr>
<tr>
<td>Pulse duration</td>
<td>&lt; 10 ps</td>
</tr>
<tr>
<td>Repetition rate</td>
<td>40 MHz or 80 MHz</td>
</tr>
<tr>
<td>M²</td>
<td>&lt;1.2</td>
</tr>
<tr>
<td>Beam waist diameter</td>
<td>1 mm</td>
</tr>
<tr>
<td>Beam pointing</td>
<td>&lt;25 μrad/°C</td>
</tr>
<tr>
<td>Ellipticity</td>
<td>&gt;0.9</td>
</tr>
<tr>
<td>Warm-up time</td>
<td>&lt; 15 min</td>
</tr>
<tr>
<td>Power stability</td>
<td>&lt;1% RMS</td>
</tr>
<tr>
<td>RMS noise</td>
<td>&lt;1% RMS</td>
</tr>
<tr>
<td>Polarization</td>
<td>Linear, &gt;100:1</td>
</tr>
</tbody>
</table>

**External Interfaces**

High speed External synchronisation (USB, Sync. Out)

**Software interfaces**

Intuitive GUI, DLL and Serial communication Protocol

**Laser head dimensions**

397 x 339 x 131 mm³

**Laser controller dimensions**

19”3U rack

**Standard umbilical length**

3 m

**Power consumption**

100 to 240 VAC, < 400 W

**Cooling**

Air cooled

**OPTIONS**

SHG & THG upon request

F-SYNC: Fine-tuning PRF synchronization

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This information is subject to modifications without prior notice.

SPARK LASERS offers a 24-month warranty for all ALTAIR laser range.

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CAUTION

CLASS 4 LASER PRODUCT
VISIBLE AND INVISIBLE LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION