Satsuma Display

*Flexibility and experience in a single compact laser*

Satsuma Display is the most compact air-cooled femtosecond laser on the market, offering 4 individual outputs.

Satsuma Display is based on the well-known Satsuma platform - benefiting from 10 years of product improvements and feedback from installation of 1500 units in the field. The Satsuma platform’s reliability and stability are internationally-recognized.

Thanks to the unique features of Satsuma Display, Amplitude enables Display leaders to operate with up to 4 different wavelengths using a single laser. It offers the possibility to optimize the quality of ablation to the highest level for every kind of materials, including metals, p-Si, ITO, isolators and polymers.

In addition, femtosecond pulses provide flexibility to deliver results for the most challenging processes, such as selective ablation, cutting, drilling and carbonization.

Upgrade your nanosecond or picosecond laser repair processes to femtosecond laser to increase your production yield.

Satsuma Display is robust, compact, light and air-cooled, making the integration smooth for gantry system designs.

**Industry:**
- OLED and LCD array repair
- C/F repair
- μLED lift-off and repair

**Key Features**
- 4 wavelengths IR, Green, UV and DUV for processing all kind of materials including metals, p-Si, ITO, isolators and polymers
- Femtosecond pulses for high quality thin layer removal and cutting with low HAZ
- Air-cooled, compact, lightweight and robust for smooth integration on a gantry system
Specifications

<table>
<thead>
<tr>
<th></th>
<th>IR</th>
<th>SHG</th>
<th>THG</th>
<th>FHG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wavelength</td>
<td>1030 nm</td>
<td>515 nm</td>
<td>343 nm</td>
<td>257 nm</td>
</tr>
<tr>
<td>Average Power</td>
<td>&gt; 5 W (20 W optional)</td>
<td>&gt; 2 W (8W optional)</td>
<td>&gt; 0.75 W (3W optional)</td>
<td>&gt; 0.5 W (2W optional)</td>
</tr>
<tr>
<td>Pulse Energy</td>
<td>&gt; 40 µJ</td>
<td>&gt; 16 µJ</td>
<td>&gt; 6 µJ</td>
<td>&gt; 4 µJ</td>
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<tr>
<td>Repetition Rate</td>
<td>Single shot to 2 MHz</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Pulse Duration</td>
<td>&lt; 350 fs to 10 ps</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Wavelength Switching Time</td>
<td>&lt; 2 s</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Long Term Power Stability</td>
<td>&lt; 1 % rms over 100 hours</td>
<td></td>
<td></td>
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<tr>
<td>Waist Asymmetry</td>
<td>&lt; 13 %</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>M²</td>
<td>&lt; 1.2</td>
<td></td>
<td></td>
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<tr>
<td>Beam Pointing Stability</td>
<td>&lt; 25 µrad/°C</td>
<td></td>
<td></td>
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<tr>
<td>Warm-up Time</td>
<td>&lt; 30 min</td>
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</table>

*High Energy Option

Options

- Output power monitoring for 4 wavelengths
- Burst mode - Pulse train with 25 ns period
- Superior beam - astigmatism <10%, waist asymmetry <5%
- High amplifier repetition rate - up to 40MHz

Application Results:

- C/F repair – direct method
- Array repair – block removal

Dimensions

- Laser Head: 52 x 33 x 19 cm
- Power Supply: 2U rackable
- Laser Head + HG: < 30 kg
- Controller: 15 kg

Options are subject to change without prior notice. © 08-2019 | Ref. 1245-b

Avoid eye or skin exposure to direct or scattered radiation.

amplitude-laser.com