Visible and Ultraviolet Extension for Chameleon Ti:Sapphire Lasers

Chameleon VUE is a series of Harmonics Generation options for generating visible and deep UV wavelengths in an automated hands-free package.

VUE SHG is a second harmonic generation system, which can cover 340 nm to 540 nm.

VUE THG is a third harmonic generation system, spanning 227 nm to 540 nm.

VUE modules can communicate with the built-in spectrometer within the Chameleon laser to automatically optimize crystal phase matching as the wavelength of the pump laser varies.

The modular instrument design focuses on user-friendliness and compactness, with software-controlled wavelength tuning available. Great care has been applied to the optimization of the nonlinear conversion processes within the modules. As a result high conversion efficiencies can now be achieved at all input power levels with minimum pulse broadening. The system is also designed to optimize beam pointing stability and the beam intensity profile.

Chameleon VUE is ideal for spectroscopic applications such as transient absorption spectroscopy and time-resolved imaging techniques such as FRET and FLIM.

FEATURES
• Widely-tunable ultrafast visible and UV
• Automated phase matching
• High conversion efficiencies
• Excellent beam quality
• Robust and compact design
• Motorized actuators with software control
• Compatible with all 80 MHz Chameleon Ti:Sapphire laser models
• User GUI
• Extended wavelengths ranges (FHG) available on request

APPLICATIONS
• Ultrafast Spectroscopy
• Transient Absorption Spectroscopy.
• Non-linear Optics
• Fluorescence Lifetime Imaging

COHERENT®
Superior Reliability & Performance
Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice. Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all Chameleon systems. For full details of this warranty coverage, please refer to the Service section at www.Coherent.com or contact your local Sales or Service Representative.

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ISO 9001 Registered

Chameleon VUE Harmonics  Datasheet

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
<th>Chameleon VUE SHG</th>
<th>Chameleon VUE THG</th>
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</thead>
<tbody>
<tr>
<td>Chameleon Ultra II Pump</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuning Range (nm)</td>
<td>340 to 540</td>
<td>227 to 540</td>
</tr>
<tr>
<td>Conversion Efficiency2 (%)</td>
<td>&gt;40</td>
<td>&gt;10</td>
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<tr>
<td>Chameleon Vision II Pump</td>
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<td>Tuning Range (nm)</td>
<td>340 to 540</td>
<td>227 to 540</td>
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<tr>
<td>Conversion Efficiency2 (%)</td>
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<td>&gt;10</td>
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<tr>
<td>Chameleon Vision S Pump</td>
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<tr>
<td>Tuning Range (nm)</td>
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<td>230 to 345</td>
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<tr>
<td>Conversion Efficiency2 (%)</td>
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<td>&gt;8</td>
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</tbody>
</table>

MECHANICAL PARAMETERS

Dimensions (L x W x H) | 385 x 286 x 207 mm (15.2 x 11.3 x 8.1 in.)

1 VUE THG also includes SHG stage for access to SHG wavelengths, typical efficiency 20% at peak.
2 At peak of tuning range.

TYPICAL PERFORMANCE DATA

VUE SHG Typical Tuning Curve
(Ultra II Pump)

Power (mW) vs Wavelength (nm)

VUE THG Typical Tuning Curve
(Ultra II Pump)

Power (mW) vs Wavelength (nm)