

# ORIA™ Blue

Femtosecond and Picosecond Second Harmonic Generation Unit



## Key Features

- Highest conversion efficiency
- Femtosecond and picosecond operation
- Broad wavelength coverage with a single set of optics
- Excellent beam quality
- Simultaneous IR and UV outputs
- Automated hands-free and manual versions
- Compatible with standard femtosecond and picosecond Ti:sapphire oscillators

## Applications

- Nonlinear spectroscopy
- Quantum optics
- Biophotonics
- Biochemistry

The Ori<sup>TM</sup> Blue offers an innovative, easy-to-use and reliable doubling unit that efficiently converts the near-IR emission of mode-locked ultrafast Ti:sapphire lasers (typically 680–1080 nm) into the near-UV and Visible spectrum (340–540 nm).

Based on novel nonlinear optical technology, the Ori<sup>TM</sup> Blue doubler provides exceptional beam quality, combined with high conversion efficiency and reduced pulse broadening. Two synchronised beams simultaneously deliver the converted output in the near-UV and Visible (340–540 nm) and the unconverted fundamental in the IR (680–1080 nm). The complete spectrum is covered with a single optics set for maximum flexibility.

The Ori<sup>TM</sup> Blue is available in both manual and automated hands-free versions and is compatible with standard femtosecond and picosecond MHz repetition rate Ti:sapphire oscillators. Installation is straightforward and alignment-free.

This compact unit provides an excellent tool for a wide range of applications requiring femtosecond and picosecond light pulses at MHz repetition rates.

## Specifications<sup>1</sup>

Output Characteristics	Pumped with Ti:sapphire oscillator, 2.8W at 820nm, 80MHz, 90fs (690–1040nm)	Pumped with Ti:sapphire oscillator, 3.3W at 820nm, 80MHz, 140fs (680–1080nm)
Tuning Range	345–520 nm	340–550 nm
Average Power	>1.2 W at 410 nm	>1.2 W at 410 nm
Pulse Width	<150 fs at 860 nm	<180 fs at 860 nm
Spatial Mode	TEM <sub>00</sub>	TEM <sub>00</sub>
Repetition Rate	80 MHz	80 MHz
Operation	Manual and fully automated versions	Manual and fully automated versions
Dimensions (W x L x H)	7.9 x 14.3 x 6.1 in (200 x 364 x 155 mm)	7.9 x 14.3 x 6.1 in (200 x 364 x 155 mm)

**Notes:**  
<sup>1</sup> Specifications are subject to change without notice.

## Typical Tuning Curve



## Dimensions

