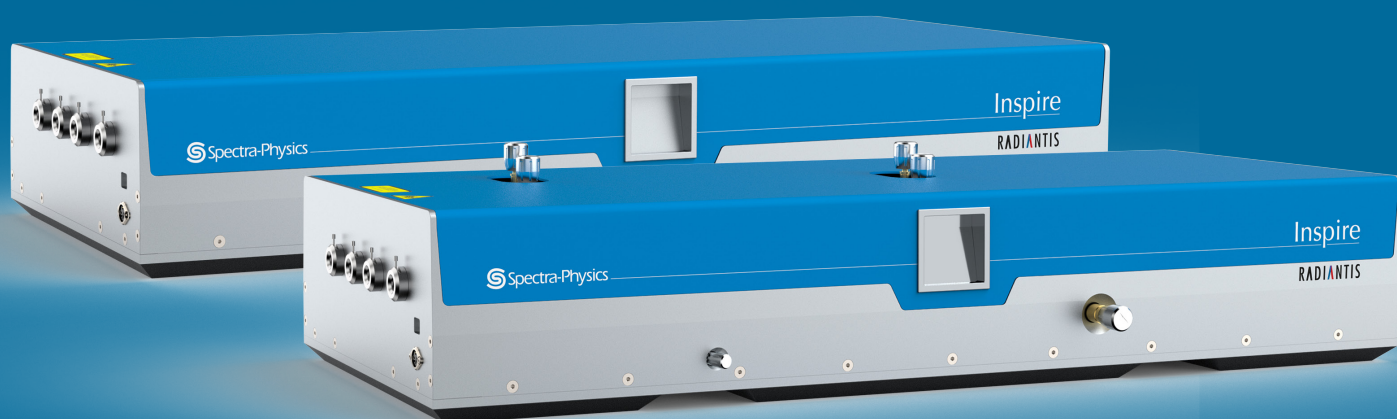


Femtosecond OPO for Ti:Sa Oscillators

Hands-Free Optical Parametric Oscillator Across 345 - 2500 nm

InspireTM



KEY FEATURES —

- Gap-free tuning across the UV, Visible and IR (345-2500 nm)* with a single configuration and without any change of optics.
- Fully-automated computer-controlled tuning and self-calibration.
- Simultaneous UV, Visible and IR beams available through 3 separate outputs ports.
- Integrated Second Harmonic Generation Unit for doubling the un-depleted pump.

APPLICATIONS —

- Time-Resolved Spectroscopy.
- Single-Molecule Spectroscopy.
- Pump-Probe Experiments.
- CARS and Raman Microscopy.
- Plasmonics.

TUNE YOUR WAVELENGTH

Broadly Tunable Laser Systems for Science & Technology

Description

Empower your research, using the Visible, UV and IR femtosecond pulses provided by the family of synchronously-pumped Optical Parametric Oscillators (OPOs), Inspire.

Based on Radiantis patented technology, Inspire delivers near-transform-limited pulses with high average power across the spectral range of 345–2500 nm, gap-free. With a single set of optics and just one standard configuration, the unique design of the Inspire offers best-in-class access to the complete spectral range, eliminating the need of change in configuration and ensuring simultaneous access to the Visible and IR.

The Inspire is available with both hands-free technology (the Inspire HF) and, for greater flexibility, as an automatic device (the Inspire Auto). The former providing computer-controlled tuning across the full spectral range and self-calibration, and the latter allowing adjustment of the pulse duration and enhanced functionality for multiple applications.

The Inspire is also tuned at room temperature, thereby avoiding the need for ovens, water-cooling units and pipes inside the OPO cavity.

Specifications¹

Output Characteristics ²	Inspire Auto 50	Inspire Auto 100	Inspire HF 50	Inspire HF 100
Average Power				
SHG @ 400 nm	n/a	1100 mW	n/a	1100 mW
Signal @ 550 nm	350 mW	350 mW	350 mW	350 mW
Depleted Fundamental @ 800 nm	1100 mW	1100 mW	1100 mW	1100 mW
Idler (at peak)	170 mW	170 mW	170 mW	170 mW
Pulse Width				
SHG	n/a	<140 fs	n/a	<140 fs
Signal	100–250 fs (adjustable)	100–250 fs (adjustable)	200 fs	200 fs
Depleted Fundamental	<140 fs	<140 fs	<140 fs	<140 fs
Idler	80–250 fs (adjustable)	80–250 fs (adjustable)	200 fs	200 fs
Tuning Range				
SHG	n/a	345–520 nm	n/a	345–520 nm
Signal (Simultaneous with Idler)	490–750 nm	490–750 nm	490–750 nm	490–750 nm
Depleted Fundamental	690–1040 nm	690–1040 nm	690–1040 nm	690–1040 nm
Idler (Simultaneous with Signal)	930–2500 nm	930–2500 nm	930–2500 nm	930–2500 nm
Repetition Rate	80 MHz			
Noise	<1% rms			
Wavelength Stability @ 555 nm	<0.5 nm			
Polarization	Horizontal for Signal and Idler, Vertical for SHG			
Spectrometer for UV and Visible Range ³	350–900 nm (integrated into optics unit)			
Size (W x L x H) ⁴	14.2 x 37.6 x 9.1 in (36.0 x 95.4 x 23.2 cm)			

Notes:

¹ Specifications are subject to change without notice.

² Pumped by Mai Tai® HP Ti:sapphire oscillators, 2.8W, 100fs, 820nm. Output characteristics for alternative pump lasers, such as Tsunami™ are available upon request.

³ IR spectral region available upon request.

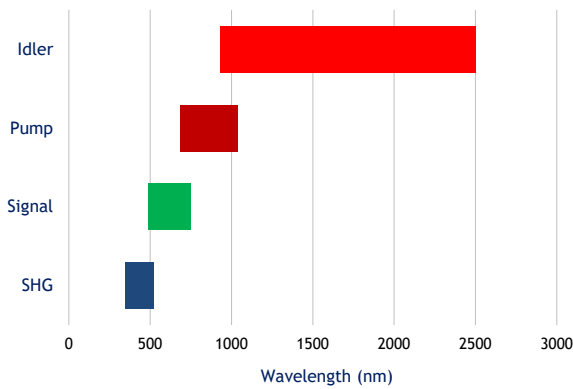
⁴ PC controllable. No control electronics unit required.



Mai Tai, Spectra-Physics, the Spectra-Physics logo and Inspire are all registered trademarks of Newport Corporation. Sold and Distributed through Newport Corporation's Spectra-Physics Brand.

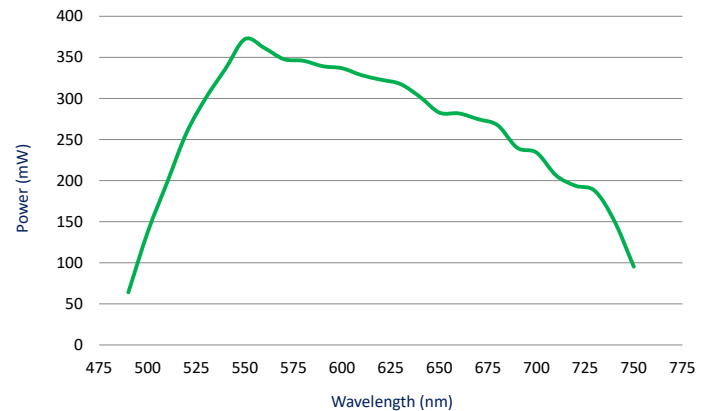
Inspire Wavelength Coverage

Outputs Ports

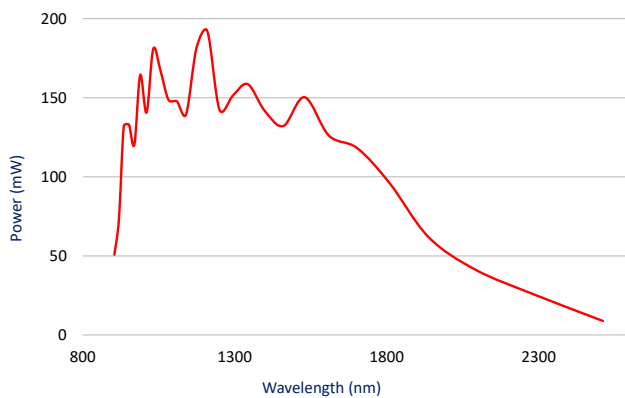


Four separate output ports provide the class-leading spectral coverage, consisting of the doubled pump (345–520 nm), signal (490–750 nm), idler (930–2500 nm) and depleted pump (640–1040 nm).

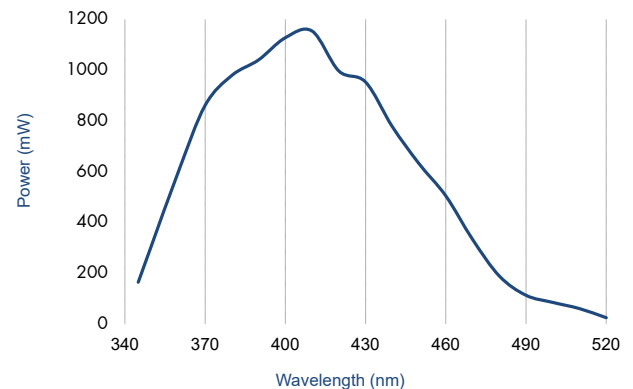
Signal Typical Tuning Curve



Idler Typical Tuning Curve



SHG Typical Tuning Curve



Dimensions

