

Inspire™ IR

Automated Ultrafast Infrared OPO



The Spectra-Physics® Inspire IR optical parametric oscillator (OPO) delivers a wide, gap-free tuning range from 1000 nm to 1580 nm. Pumped with the Mai Tai® HP ultrafast Ti:Sapphire laser, the system also provides exceptionally high power across the full range. The Inspire IR OPO features user-friendly, computer-controlled tuning in a sealed hands-free package. The system's robust design ensures high stability and insensitivity to ambient temperature change.

The Inspire IR OPO offers:

- Two output ports available: signal output (1000–1550 nm with >900 mW at the peak) and fundamental output (690–1040 nm with >1 W)
- Synchronized output from two output ports—ideal for applications requiring more than one wavelength such as CARS
- Fully-automated hands-free wavelength tuning complete with automated cavity alignment to maintain optimal power and pulse durations

Wide, gap-free wavelength coverage make the Inspire IR OPO the next-generation OPO for developing cutting-edge imaging and spectroscopy applications.

The Inspire IR Advantage

- Wide, gap-free tuning from 1000 nm to 1550 nm
- Accepts a wide range of pump wavelengths
- Highest output power in the near IR
- Fully-automated, computer-controlled tuning
- Synchronized output of near IR (pump) and IR (signal) wavelengths

Applications

- Coherent Anti-Stokes Raman Spectroscopy (CARS)
- Multiphoton excitation (MPE) microscopy
- Time-resolved spectroscopy
- Vibrational overtone spectroscopy
- Semiconductor research and spectroscopy
- Multiple wavelength pump-probe experiments
- Fiber optics and optical communications



