

# RADIANTIS OPIUM HF

The Absolutely Hands-Free Femtosecond Optical Parametric Oscillator



*A New Generation:*

Broadly Tunable, Femtosecond, Near-Transform-Limited Pulses across the UV, Visible and IR

RADIANTIS



Wide tunability  
in the Visible and  
UV spectrum

## RADIANTIS OPIUM HF

Radiantis has introduced a new generation of fully automated femtosecond Optical Parametric Oscillators (OPOs). Previously, the alignment and optimization of femtosecond OPOs was a specialized task carried out by expert users. Now, for the first time on such a high-specification device, OPIUM HF (*Hands-Free*) provides self-calibration and automated cavity alignment.

Tuning between wavelengths is effortless. The user simply selects the desired output wavelength from the software interface, and within seconds OPIUM HF will tune itself to the new wavelength and optimize the cavity alignment for power, pulse duration and stability. In addition, OPIUM HF provides self-calibration, a revolutionary feature that automatically re-optimizes cavity calibration data to always ensure maximum performance.

OPIUM HF also provides class-leading wavelength coverage with gap-free tuning from 490-2500 nm. Using 3 separate and simultaneous output ports emitting the Signal (Visible), Idler (IR) and Depleted Fundamental (near-IR), the complete range is delivered.

OPIUM HF for maximum performance and simplicity of use.

### Specifications

\*Pumped by  
Mai Tai HP

#### TUNING RANGE [nm]

Signal (Simultaneous with Idler)	490-750
Depleted Fundamental	690-1040
Idler (Simultaneous with Signal)	930-2500

#### AVERAGE OUTPUT POWER [mW]

Signal @550 nm	350
Depleted Fundamental @800nm	1100
Idler	170

#### TYPICAL PULSE DURATION [fs]

Signal	200
Depleted Fundamental	<140
Idler	200

Spatial Mode	TEM <sub>00</sub>
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\*Pumped by Ti:sapphire oscillator Spectra Physics  
Mai Tai HP working at 2.8 W, 95 fs@820 nm



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