

Levante IR fs OPO

Femtosecond OPO with Automated Wavelength Tuning

Levante IR fs Optical Parametric Oscillator (OPO) is an ideal tool to extend the wavelength coverage of Coherent fs laser sources. A versatile tool for spectroscopy, material science, microscopy and other applications, it can be pumped with either the Fidelity HP or Chameleon Discovery laser systems.

The generation of the Signal and Idler pulses is jitter-free with respect to each other as well as to the pump pulse. High power Signal output is tunable between 1320 nm to 2000 nm while Idler output provides 2170 nm to 5000 nm range.

User-oriented design and automated wavelength tuning enable full PC control while easy-to-use data acquisition software and the TCP/IP-based interface allows for real-time data display and straightforward remote control setup or custom software.

FEATURES & BENEFITS

- Automated wavelength tuning
- Synchronous pumping scheme
- Full PC control
- TCP/IP standard Software Interface
- Integrated spectrometer for OPO Signal wavelength range

APPLICATIONS

- Ultrafast Spectroscopy
- Near Field Scanning Optical Microscopy (NSOM)
- Pump/probe Spectroscopy
- Semiconductor Inspection
- Material Science
- Multiphoton Excitation (MPE) Microscopy



SPECIFICATIONS	Pumped with Fidelity HP (10 W)	Pumped with Chameleon Discovery (fixed wavelength output, 3.5 W)
Pump Wavelength (nm)	1040	
Tuning Range ¹ (nm)	1320 to 2000	
Signal	1320 to 2000	
Idler	2170 to 5000	
Average Output Power (W)		
Signal, at 1500 nm	>2	>0.9
Idler, at 2500 nm	>0.7	>0.4
Typical Pulse Width after Compression (fs)	<150	
Pulse Repetition Rate ² (MHz)	80	
Power Stability ³ (%rms)	<1	
Spatial Mode (Signal and Idler)	TEM ₀₀	
Computer Interface	Standardized Software Interface (TCP/IP)	
Weight	88 kg (194 lbs.)	
Dimensions (L x W x H)	1169 x 402 x 204 mm (46.0 x 15.8 x 8.0 in.)	

1. Wavelengths up to 15 μm are available on request via optional accessories.

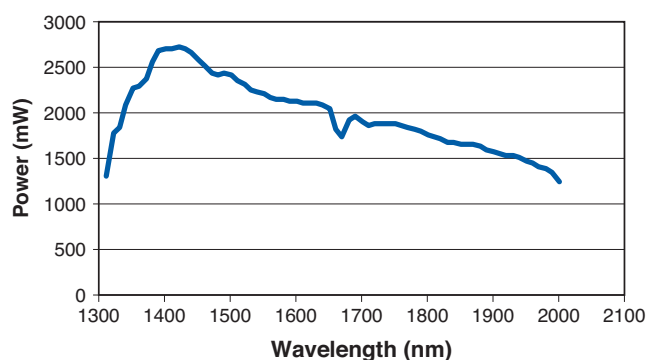
2. Synchronized to pump laser.

3. Measured over 12 hours at 1700 nm, at constant environmental temperature.

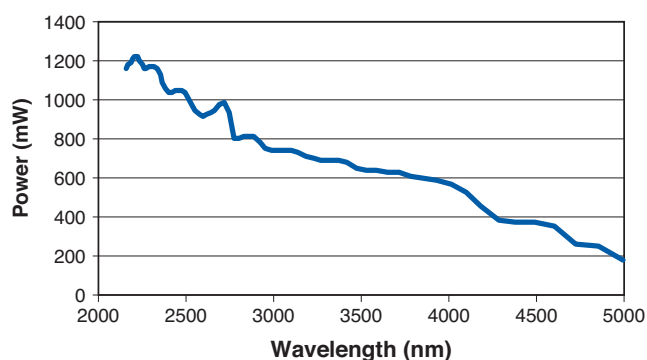
TYPICAL PERFORMANCE DATA

Levante IR Pumped with Fidelity HP (10 W, 80 MHz, 140 fs)

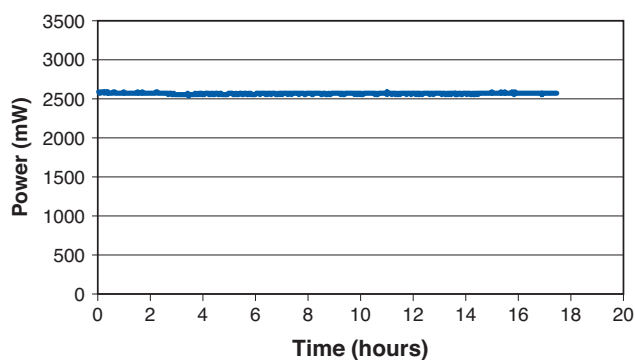
Levante IR
Output Power, Signal



Levante IR
Output Power, Idler

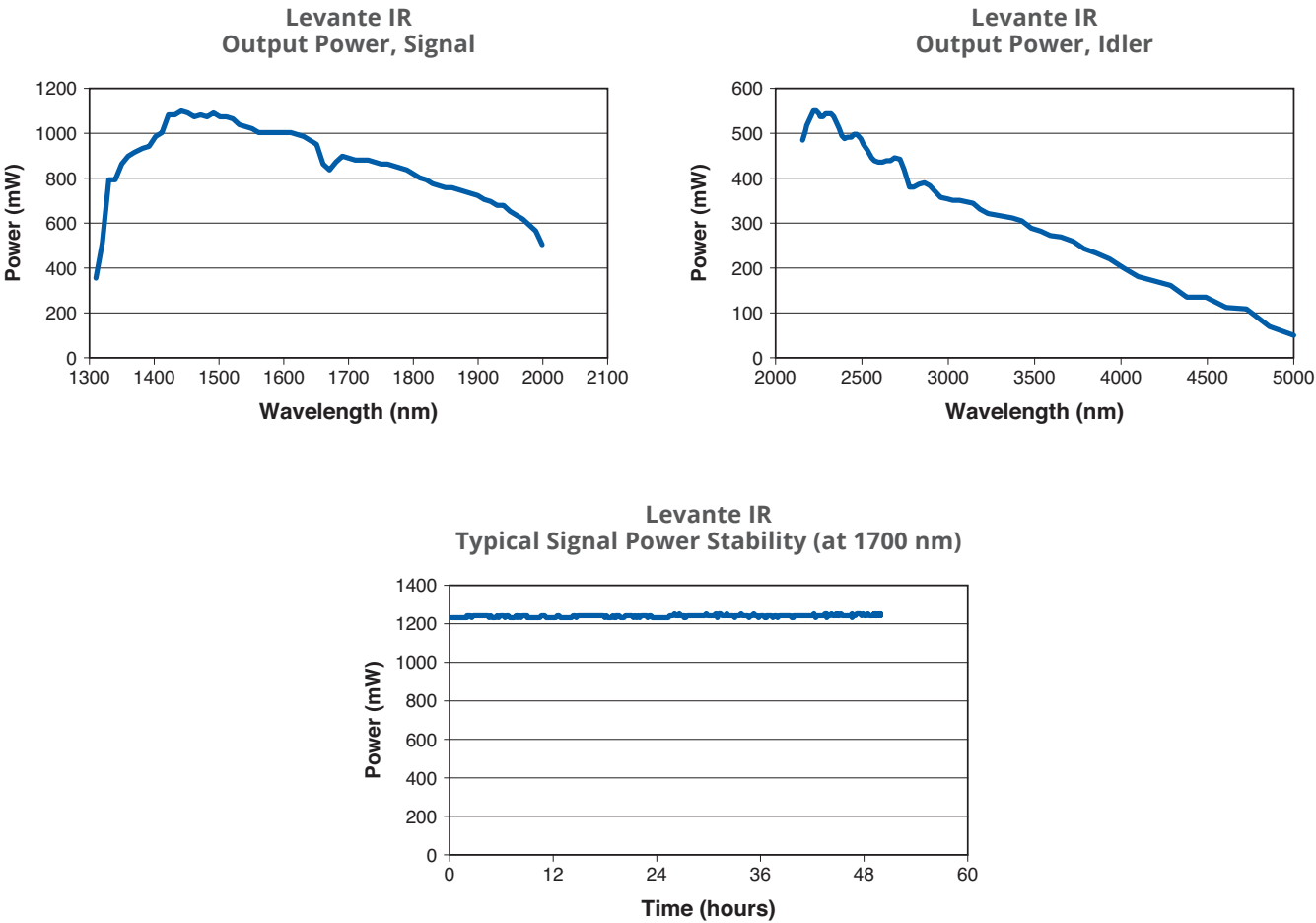


Levante IR
Typical Signal Power Stability (at 1600 nm)

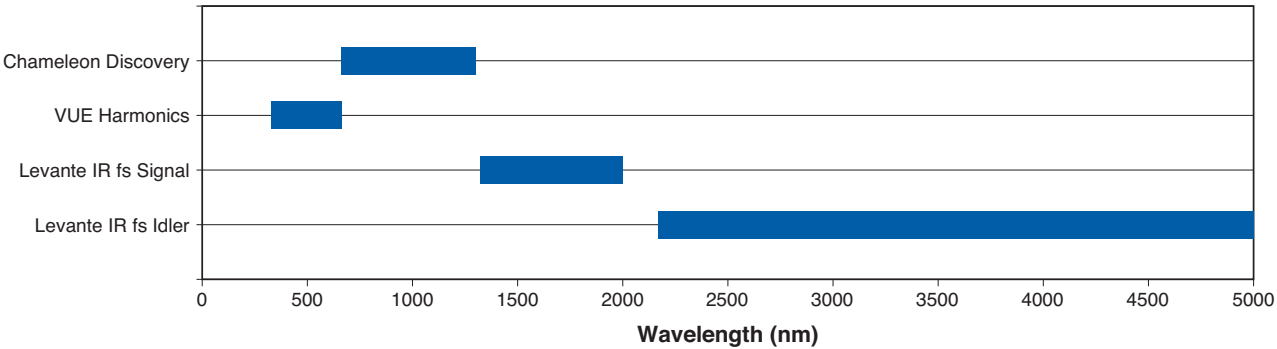


TYPICAL PERFORMANCE DATA

Levante IR Pumped with Chameleon Discovery (fixed wavelength output, 1040 nm, 3.5 W)

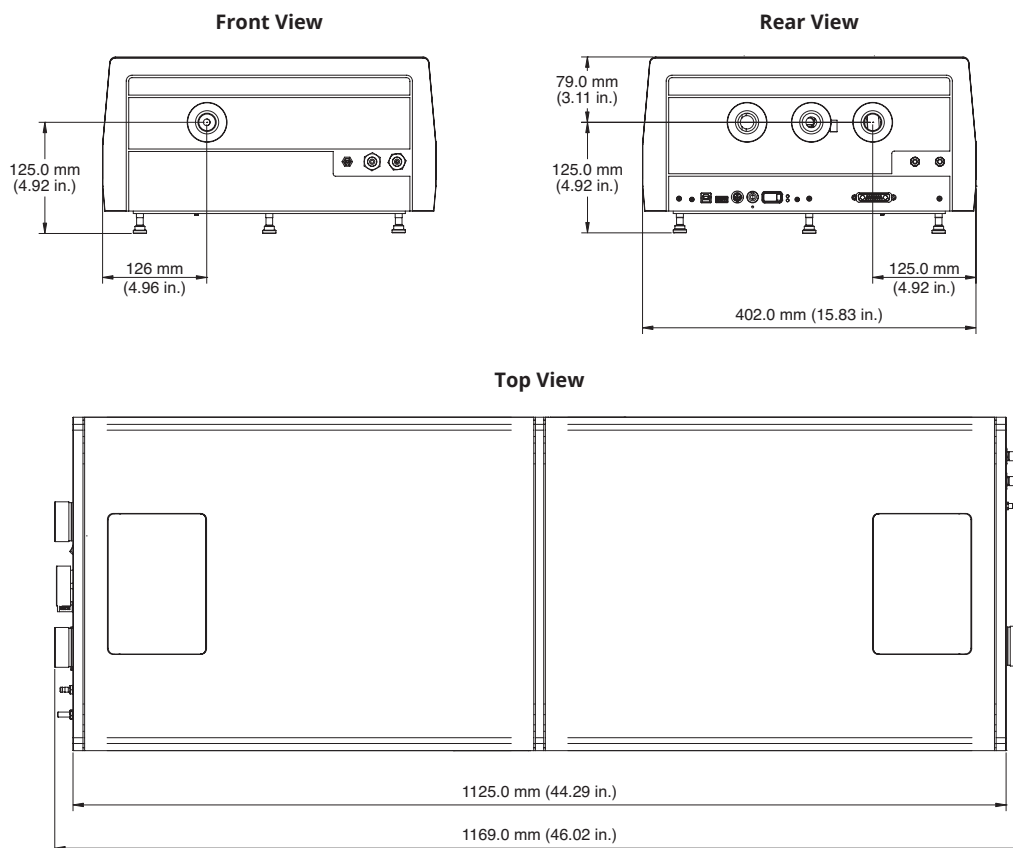


Extensive Spectral Coverage by Chameleon Discovery and Wavelength Extension Accessories



MECHANICAL SPECIFICATIONS

Levante IR



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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 Levante IR OPOs. 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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