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 by either the Chameleon Discovery NX or Axon 1064-3 laser models.

The generation of the Signal and Idler pulses from OPO 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 2150 nm to 4800 nm range when pumped by Discovery NX system.

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 and 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

COHERENT®

Levante IR fs OPO

Femtosecond OPO with Automated Wavelength Tuning

OPTICAL SPECIFICATIONS

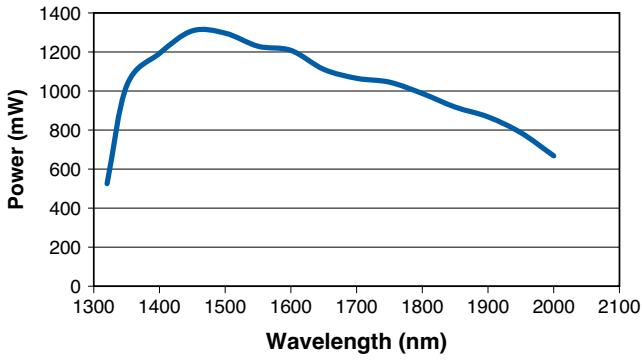
	Pumped by Chameleon Discovery NX (fixed wavelength output)	Pumped by Axon 1064-3
Pump Wavelength (nm)	1040	1064
OPO Tuning Range[1] (nm)		
Signal	1320 to 2000	1350 to 2000
Idler	2150 to 4800	2280 to 4800
Average Output Power (W)		
Signal, at 1500 nm	1.05	0.9
Idler, at 2500 nm	0.4	0.35
Pulse Width after Compression, typical (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.

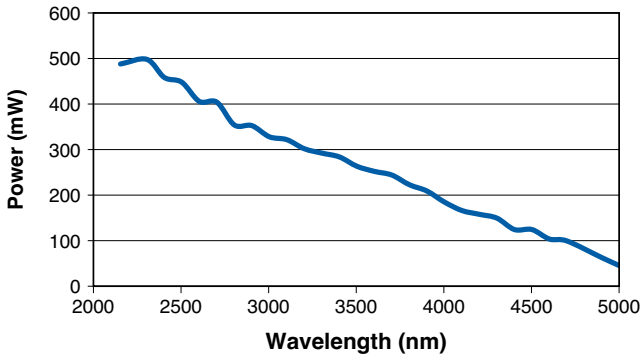
TYPICAL PERFORMANCE DATA

Levante IR Pumped by Chameleon Discovery NX (fixed wavelength output, 1040 nm)

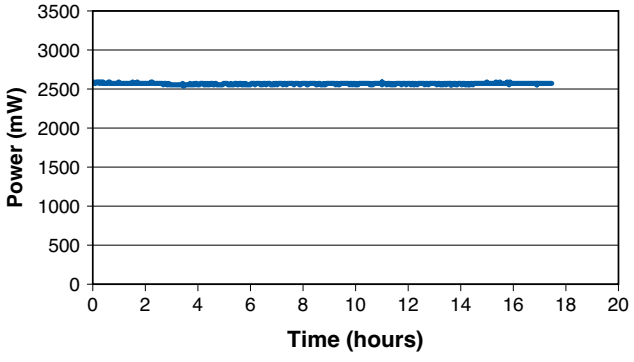
Levante IR
Output Power, Signal



Levante IR
Output Power, Idler



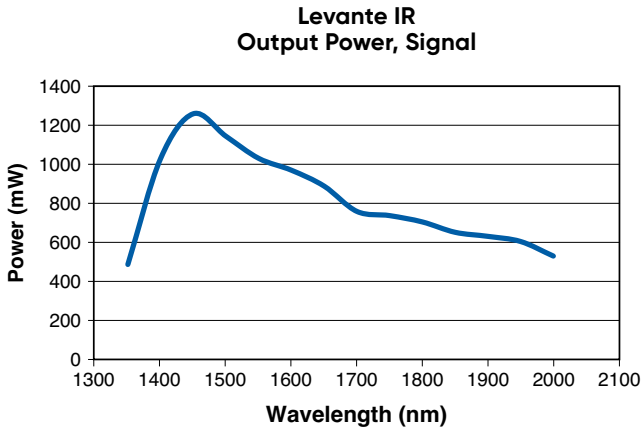
Levante IR
Typical Signal Power Stability (at 1700 nm)

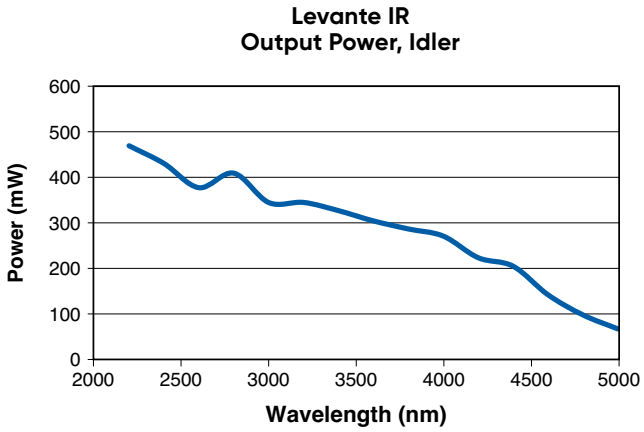


COHERENT

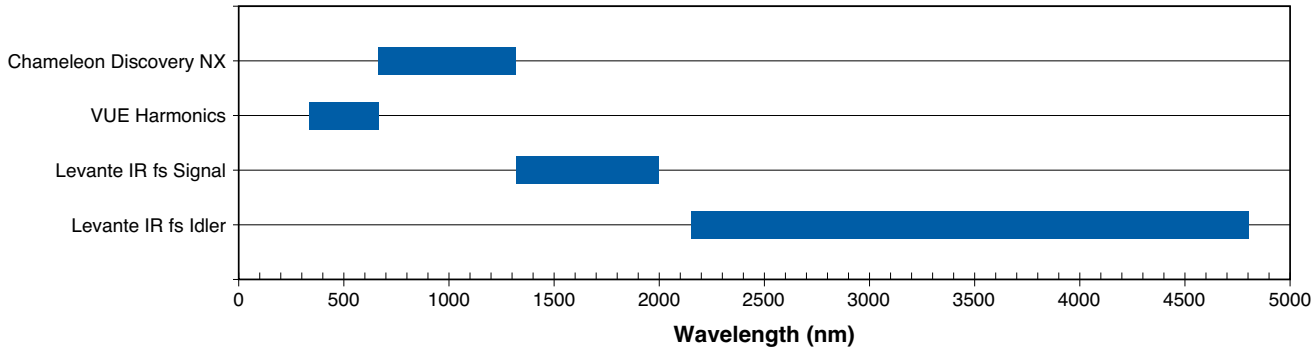
TYPICAL PERFORMANCE DATA

Levante IR Pumped by Axon 1064-3





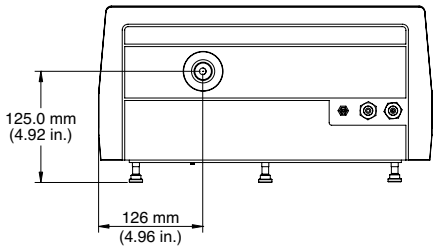
Extensive Spectral Coverage by Chameleon Discovery NX and Wavelength Extension Accessories



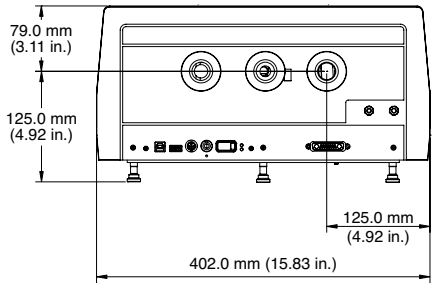
MECHANICAL SPECIFICATIONS

Levante IR

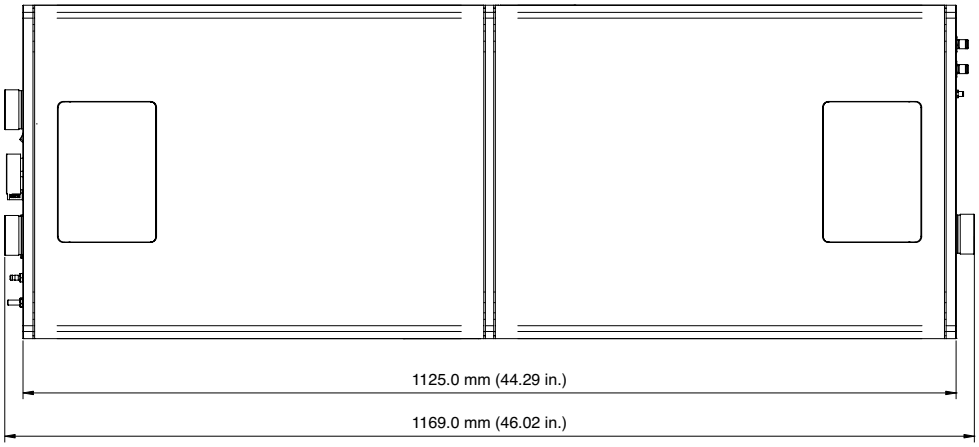
Front View



Rear View



Top View



COHERENT

Coherent, Inc.,
5100 Patrick Henry Drive Santa Clara, CA 95054
p. (800) 527-3786 | (408) 764-4983
f. (408) 764-4646

tech.sales@coherent.com **www.coherent.com**