HORIZON

Mid-band nanosecond Optical Parametric Oscillator

Continuum BY LUMIBIRD



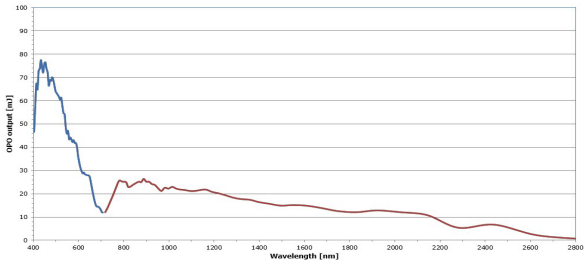
MAIN FEATURES

- Extended tunability from 192 nm up to 2750 nm
- Linewidth < 7 cm^{-1}
- Ultra-high resolution stepper motors for precision scanning
- Temperature stabilised crystals for high reproducibility
- Excellent beam quality
- Fully automated for hands-free operation

MAIN APPLICATIONS

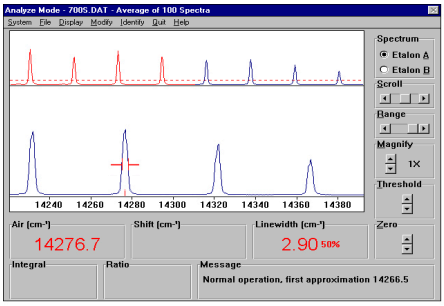
- **PHOTOACOUSTIC IMAGING**
- **BIOLOGICAL SAMPLE EXCITATION**
- **MATERIAL ANALYSIS**
- **SPECTROSCOPY**
- **LASER INDUCED FLUORESCENCE**

Typical tuning curve



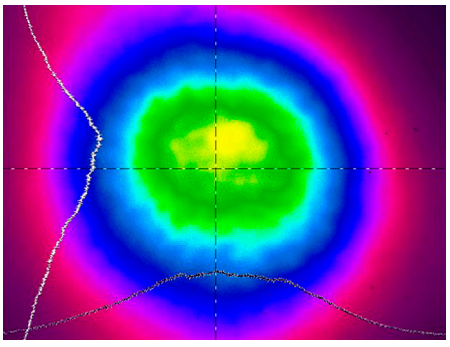
Pumped by Q-smart 850

Typical linewidth



Linewidth at 700 nm

Typical beam profile



Near field @ 430 nm
1.5 m from laser output

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www.quantel-laser.com

Many options and configurations are available. Please contact Lumibird to find the best match for your needs and compatibility between options.

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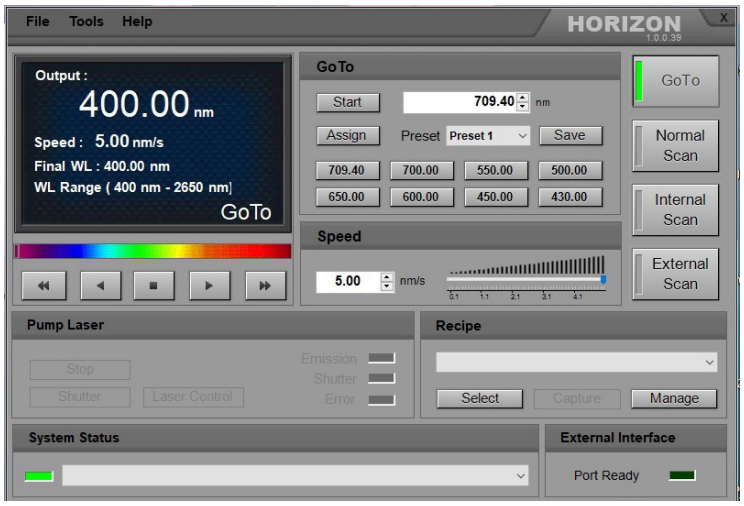
SPECIFICATIONS

		Horizon		
		450 - 10	450 - 20	850 - 10
Wavelength (nm)	OPO	400 - 2750		
	UV range	192 - 400		
Repetition rate (Hz) (1)		10	20	10
Peak energy (mJ) (2)	OPO (425 nm)	35	24	75
	UV (325 nm)	7	3.5	13
Pulse duration (ns) (3)		3 - 5		
Beam diameter (mm) (4)		4 - 7		
Linewidth (cm^{-1})	OPO	3 - 7		
	UV range	< 10		
Beam divergence (mrad) (5)		< 4 (both axes)		
Pointing stability (µrad, RMS)		< 100		
Pulse to pulse energy stability (%) (6)		< ± 10		
Beam roundness (%) (7)		> 85		
Polarization ratio (%)	Signal	> 99 horizontal		
	Idler			

(1) Other repetition rates on request
(2) More energy on request
(3) Measured at FWHM with fast photodiode and 1 GHz oscilloscope
(4) Signal beam, at the output of the OPO
(5) Full angle, at $1/e^2$ of the peak
(6) 99% of shots, signal beam at 425 nm
(7) At the output of the system, signal beam at 425 nm
(8) At the output of the laser

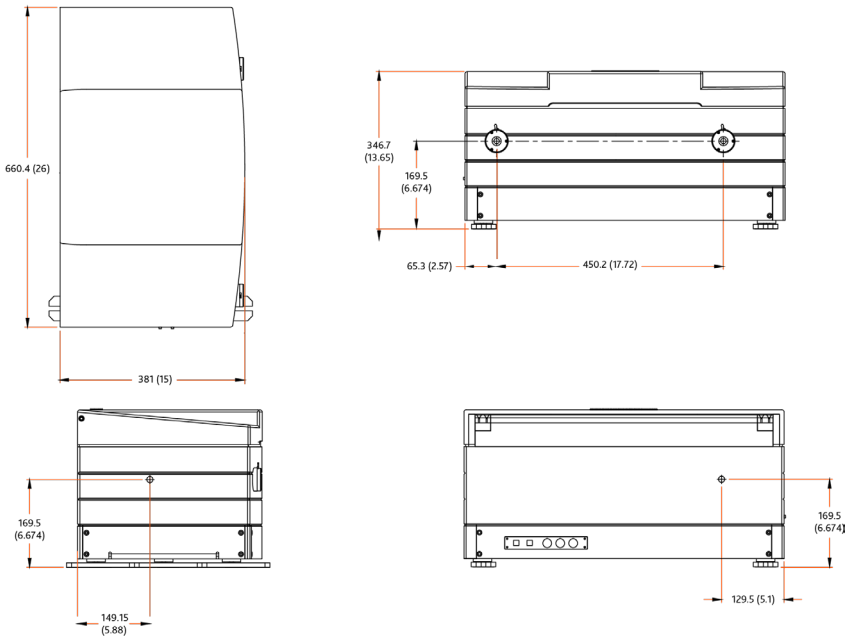
	Pump laser		
	Q-smart 450		Q-smart 850
Wavelength (nm)	355		
Energy per pulse (mJ)	130	120	230
Pulse duration (ns) (3)	~ 5		
Beam diameter (mm) (8)	~ 6.5		~ 9
Beam divergence (mrad) (5)	< 0.5		

Graphical User Interface



DIMENSIONS

Dimensions in mm (inches)





DANGER
INVISIBLE LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO
DIRECT OR SCATTERED RADIATION
CLASS 4 LASER PRODUCT

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