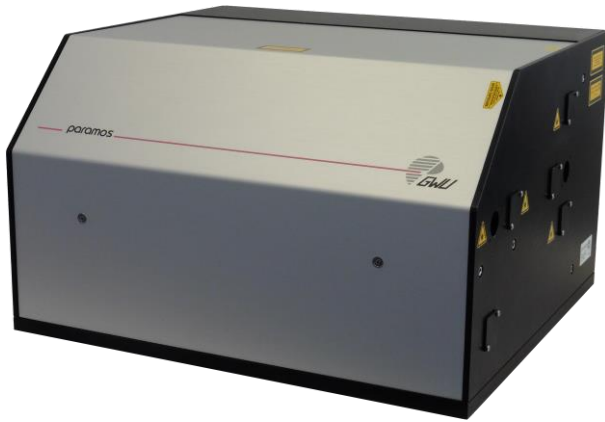


primoScan

High End Optical Parametric Oscillator



primoScan Specification

primoScan Broadband	/BB/140		/BB/300		/BB/550	
Repetition Rate	10 Hz	20 Hz	10 Hz		10 Hz	
Pump Energy	130 mJ	120 mJ	230 mJ	280 mJ	400 mJ	520 mJ
Output Energy at 450 nm	50 mJ	45 mJ	90 mJ	110 mJ	155 mJ	205 mJ
Beam Diameter at Exit Aperture	< 8 mm		< 10 mm		< 12 mm	
Tuning Range Signal Wave	405 nm – 690 nm					
Tuning Range Idler Wave	730 nm – 2700 nm					
Linewidth	10 cm ⁻¹ – 500 cm ⁻¹					
OPO Pulse Width	0 – 3 ns < Pump					
Beam Divergence (FWHM) ¹	< 10 mrad					
Wavelength Shift Time	< 100 ms					

primoScan Midband	/ULD/140		/ULD/280		/ULD/500	
Repetition Rate	10 Hz	20 Hz	10 Hz		10 Hz	
Pump Energy	130 mJ	120 mJ	230 mJ	280 mJ	400 mJ	500 mJ
Output Energy at 450 nm	40 mJ	35 mJ	71 mJ	85 mJ	125 mJ	155 mJ
Output Energy at 345 nm	9 mJ	8 mJ	16 mJ	19 mJ	28 mJ	35 mJ
Output Energy at 260 nm	5.2 mJ	4.5 mJ	9.2 mJ	11 mJ	16 mJ	20 mJ
Beam Diameter at Exit Aperture	< 6.5 mm		< 8.5 mm		< 11 mm	
Tuning Range OPO	405 nm – 2750 nm					
Tuning Range UV ²	190 nm – 405 nm					
Linewidth ³	3.5 cm ⁻¹ – 6 cm ⁻¹					
OPO Pulse Width	0 – 3 ns < Pump					
Beam Divergence (FWHM)	< 2 mrad					
Wavelength Shift Time	< 100 ms					

Features and Benefits

Fully integrated midband and broadband OPO

Ultra-low divergence version available

Highest UV efficiency

Widest tuning range 190-2750 nm

Single output port for entire tuning range

Fully automated control standard

Fast shot-to-shot wavelength switching

Soft pumping scheme for high reliability and long lifetime

Applications

Material Analysis

Laser induced fluorescence

Combustion studies

Remote sensing

Multiphoton interactions

Medical & Biotechnology

Notes

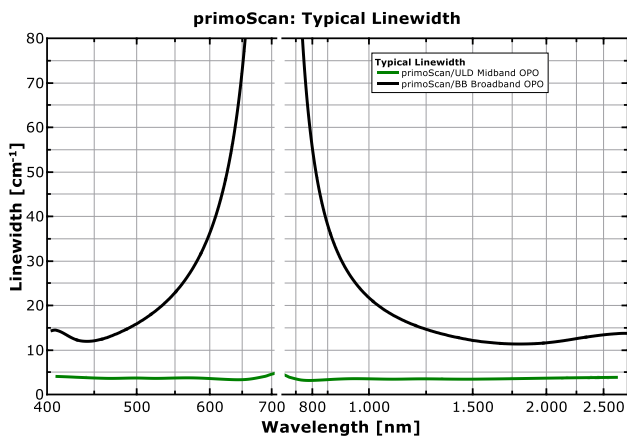
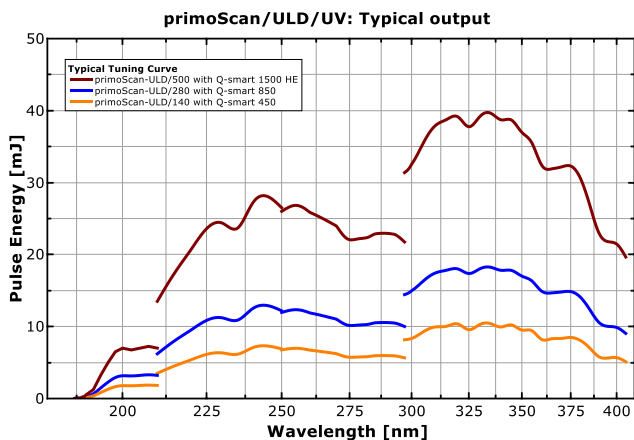
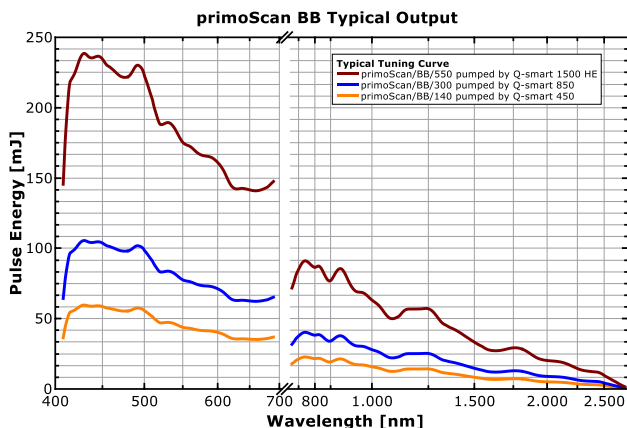
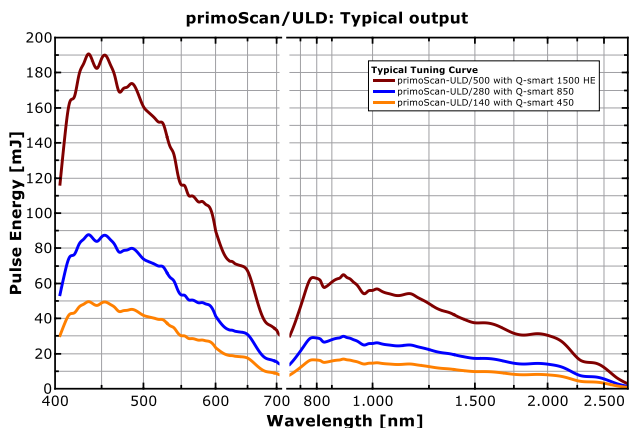
All specifications depend in the pump laser specifications and performance. Please contact the factory or our sales representatives for details. All specifications are subject to change without notice.

¹: at 450 nm
²: Depending on UV Options

³: Except deep UV < 300 nm linewidth < 8 cm⁻¹

primoScan Performance

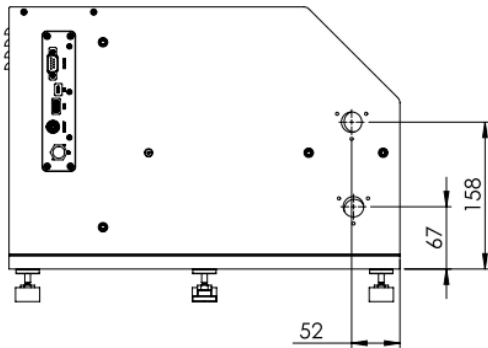
Typical performance with Lumibird Q-Smart Lasers, not a guaranteed or warranted specification



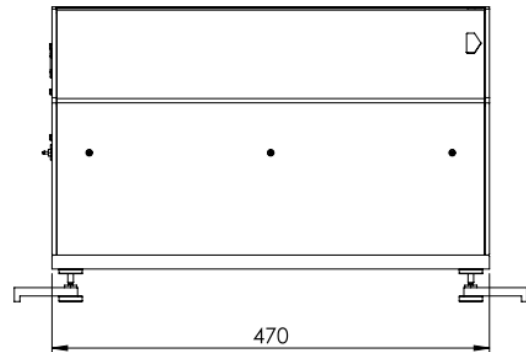
Pump Laser Requirements

Wavelength	355 nm
Energy	80 – 500 mJ
Pulse Width	3.5 – 10 ns
Repetition Rate	1 – 400 Hz
Spatial Beam Profile	homogeneous
Divergence	< 0.5 mrad

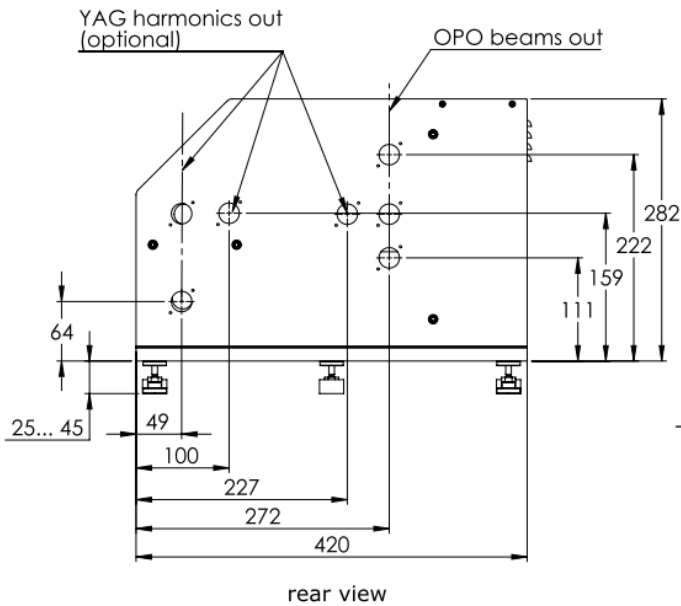
primoScan Dimensions and Properties



front view



side view



rear view

Mechanical + Utilities

Size OPO body
(L x W x H):
470 x 420 x 317 mm³

Weight OPO body:
24 – 29 kg (depending on configuration)

Power requirements
Electronics & Motorizers:
100 – 240 V, 50 – 60 Hz

For dimensions with feet
please refer to the
dimensional drawing