

# basiScan

## Compact Optical Parametric Oscillator



### basiScan Specification

basiScan Broadband	/BB/140		/BB/280		/BB/140/HE		/BB280/HE
Repetition Rate	10 Hz	20 Hz	10 Hz	10 Hz	20 Hz	10 Hz	
Pump Energy @ 355 nm	130 mJ	120 mJ	230 mJ	130 mJ	120 mJ	230 mJ	
Output Energy (Signal)	28 mJ	25 mJ	50 mJ	45 mJ	40 mJ	80 mJ	
Output Energy (Signal + Idler)	48 mJ	42 mJ	85 mJ	64 mJ	56 mJ	113 mJ	
Beam Diameter at Exit Aperture	< 7 mm		< 9 mm		< 7 mm		< 9 mm
Tuning Range Signal Wave	410 nm – 690 nm						
Tuning Range Idler Wave	730 nm – 2500 nm						
Linewidth <sup>1</sup>	10 cm <sup>-1</sup> – 450 cm <sup>-1</sup>				10 cm <sup>-1</sup> – 500 cm <sup>-1</sup>		
OPO Pulse Width	0 – 3 ns < Pump						
Beam Divergence (FWHM)	< 10 mrad						

<sup>1</sup>: Depends on pump pulse width and wavelength

### Features and Benefits

- Simple and reliable design
- Compact footprint
- Wide wavelength coverage
- Soft pumping scheme for high reliability and long lifetime
- Adaptable to most commercial Nd:YAG pump lasers

### Applications

- Remote Sensing
- Material Analysis
- Laser induced fluorescence
- Combustion analysis
- Multiphoton interactions

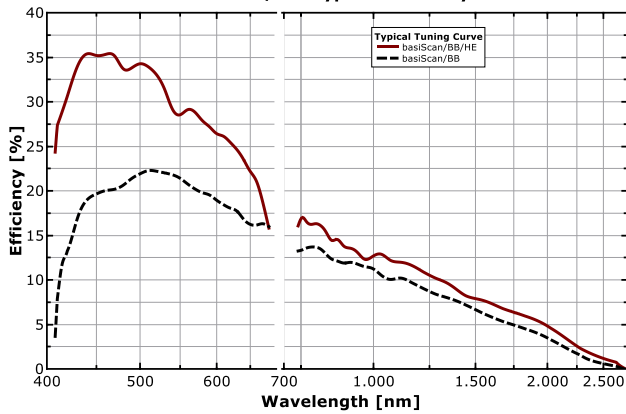
### Notes

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.

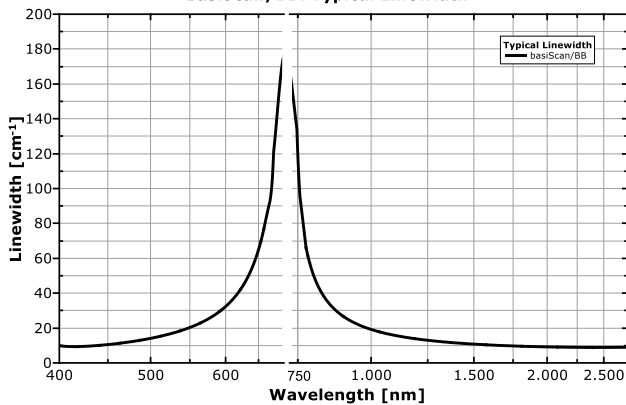
# basiScan Performance

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

**basiScan/BB: Typical Efficiency**



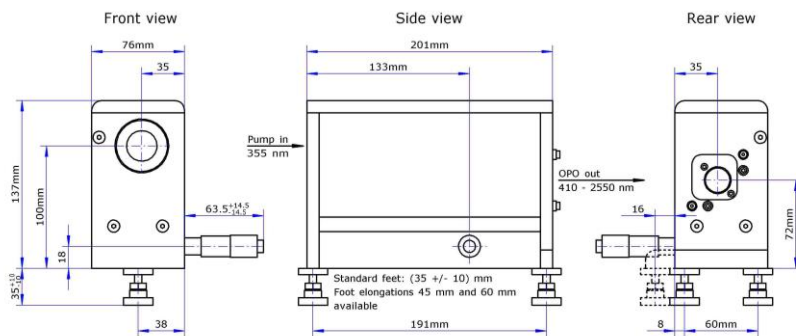
**basiScan/BB: Typical Linewidth**



## Pumplaser Requirements

Wavelength	355 nm
Energy	50 – 280 mJ
Pulse Width	3.5 – 10 ns
Repetition Rate	1 – 30 Hz
Spatial Beam Profile	Homogeneous
Divergence	< 0.5 mrad

# basiScan Dimensions and Properties



## Mechanical + Utilities

Size OPO body  
(L x W x H):  
201 x 76 x 137 mm<sup>3</sup>

Weight OPO body:  
5 kg

For dimensions with feet, micrometer screw and other protruding elements please refer to the dimensional drawing

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