

versaScan

Modular Optical Parametric Oscillator



Modular, versatile BBO-OPO for industrial and laboratory applications

Features and Benefits

Modular and reliable design

Adaptable to most commercial Nd:YAG pump lasers

Manual and motorized tuning selectable

Broadband and midband options

Best suited for most laboratory, industrial, or field applications

OPO Model /MB=midband /BB=broadband	versaScan /120	versaScan /170	versaScan /240	versaScan /320
Max. Pump Energy @ 355 nm	120 mJ	170 mJ	240 mJ	320 mJ
Repetition Rate (1)	0 - 100 Hz	0 - 50 Hz	0 - 30 Hz	0 - 20 Hz
OPO - Pulse Duration	0-3 ns shorter than pump pulse			
Linewidth /MB (2)	3 - 7 cm^{-1}			
Max. Pulse Energy Signal /MB	30 mJ	42 mJ	60 mJ	80 mJ
Tuning Range /MB (3)	412 - 2550 nm			
Linewidth /BB (2)	10 - 450 cm^{-1}			
Max. Pulse Energy Signal /BB	22 mJ	32 mJ	45 mJ	60 mJ
Tuning Range /BB (3)	410 - 2500 nm			

- (1) Same repetition rate as pump laser, performance at repetition rates above 20 Hz on request
- (2) Linewidth depends on pump pulse duration and characteristics (/BB: and OPO wavelength)
- (3) Tuning range can be optimized at edges of range (down to 403 nm on request), wavelength separation around degeneracy point optional for /MB

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This "workhorse" BBO-OPO is designed to work with most commercial Nd:YAG pump lasers. It offers many options and operation modes (broadband and midband down to about 2 cm^{-1} linewidth with a single BBO covering the whole wavelength range). Options include frequency converters for the UV range down to 205 nm and a wavemeter offering absolute wavelength accuracy and automatic calibration under computer control (LabView library available)

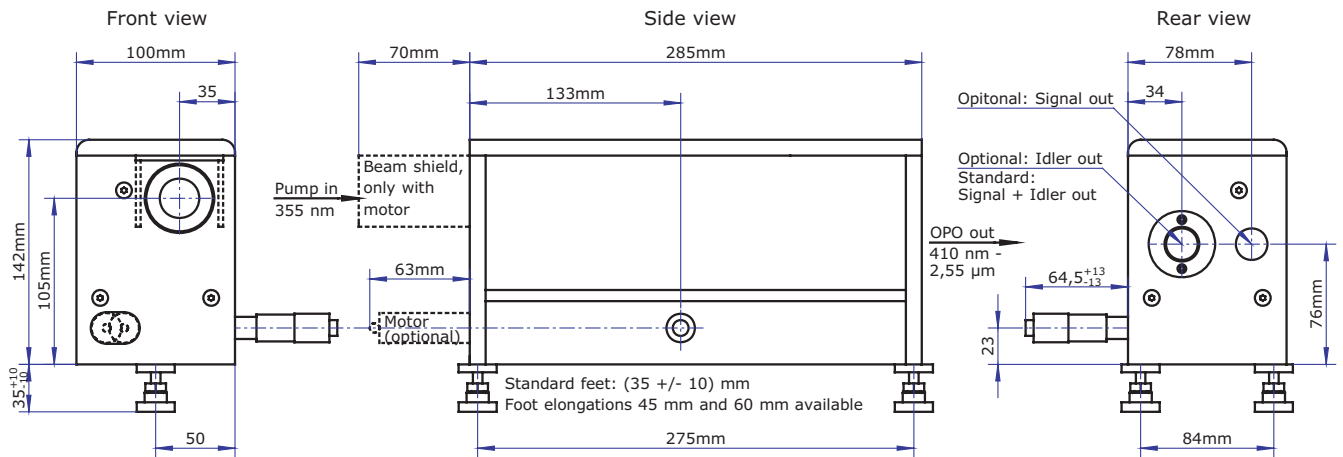
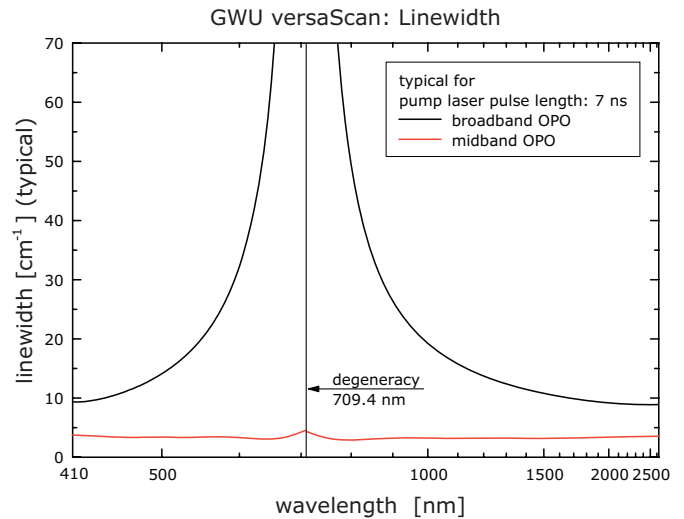
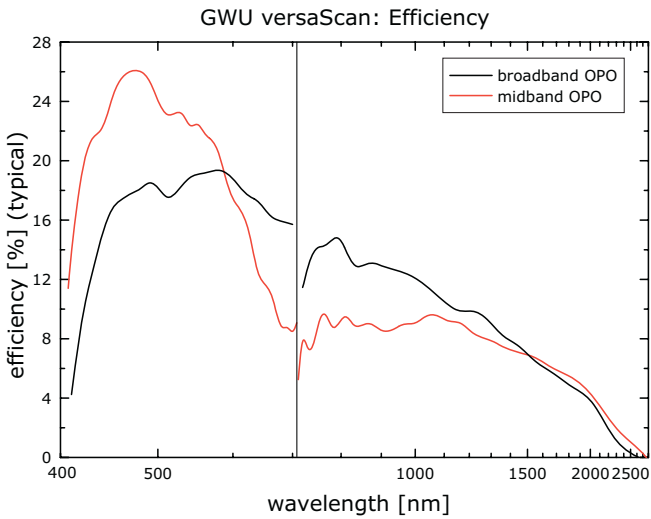
Pumplaser Requirements	
Pump Wavelength	355 nm
Pump Energy	50 - 320 mJ/pulse @ 355 nm
Pulse Width	3.5 - 10 ns @ 355 nm
Repetition Rate	1 - 100 Hz
Spatial Beam Profile	homogeneous
Divergence	< 0.5 mrad, > 0.5 mrad on request

Notes:

All specifications depend on pump laser specifications and performance. Please contact factory or your sales representative for details. All specifications subject to change without notice.

Mechanical + Utilities		
Size (L x W x H)	OPO (Body Only)	285 mm x 100 mm x 142 mm
	Electronics Box (Option)	280 mm x 285 mm x 176 mm
Weight	OPO Head w/ Motor	5.1 kg
	Electronics Box (Option)	5.2 kg max.
Power Requirements	Electronics & Motorizers	100 - 240 V, 50/60 Hz, 1.7 A

Dimensions with feet, micrometer screw, and other protruding elements please refer to dimensional drawing



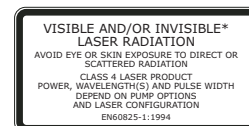
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08/2005



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