

premiScan

High-end Optical Parametric Oscillator



Features and Benefits

- Modular and reliable design
- Adaptable to most commercial Nd:YAG pump lasers
- Broadband and midband options
- Computer controlled tuning, crystal change, and absolute wavelength calibration (optional)
- Double crystal unit (MB)

OPO Model MB=midband, BB=broadband	premiScan /170	premiScan /240	premiScan /320	premiScan /400	premiScan /650
Pump Pulse Energy @ 355 nm	170 mJ	240 mJ	320 mJ	400 mJ	650 mJ
Repetition Rate (1)	0 - 100 Hz				
OPO - Pulse Duration	0-3 ns shorter than pump pulse				
Linewidth MB (2)	3 - 7.5 cm ⁻¹				
Pulse Energy Signal, Max. MB	45 mJ	64 mJ	86 mJ	108 mJ	170 mJ
Tuning Range MB (3)	410 - 2630 nm				
Linewidth BB (2)	10 - 400 cm ⁻¹				
Pulse Energy Signal, Max. BB	51 mJ	72 mJ	96 mJ	120 mJ	190 mJ
Tuning Range BB (3)	410 - 2550 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
- (3) Tuning range can be optimized at edges of range (down to 403 nm on request, contact factory), wavelength separation around degeneracy point: contact factory

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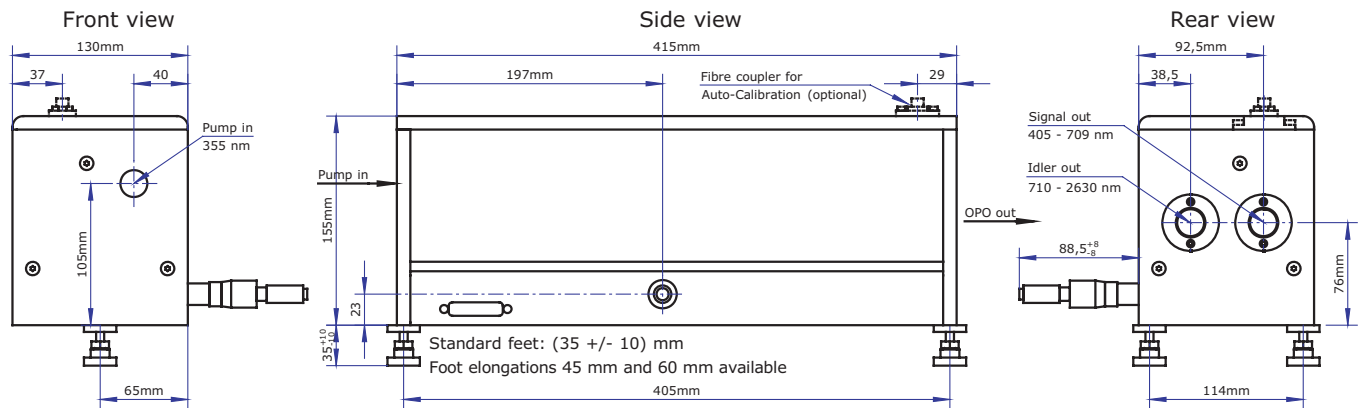
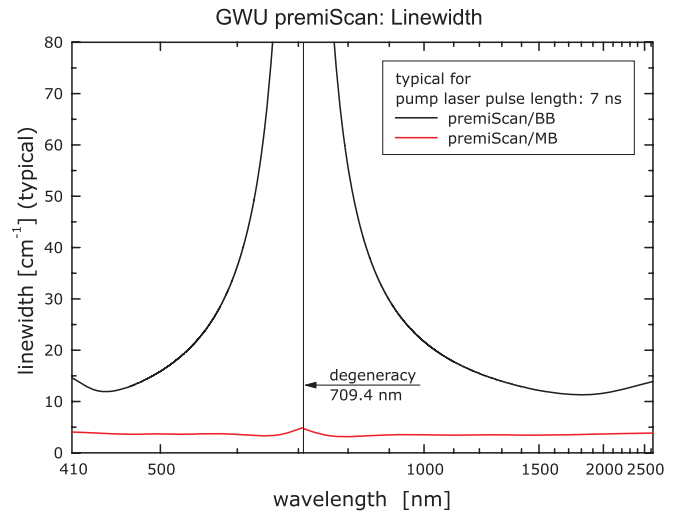
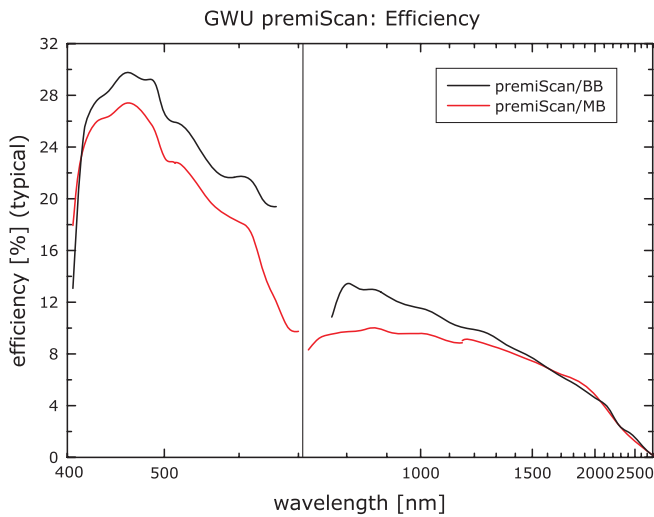
This top performing BBO-OPO is designed to work with most commercial Nd:YAG pump lasers (seeded or unseeded). Options and versions include broad- or midband operation, frequency converter for wavelength extension to the UV, wavemeter (lambdaScan) for absolute wavelength control, integrated beam separation, full computer control (LabView library available). Ask for details.

Pump Laser Requirements	
Pump Wavelength	355 nm
Pump Energy	50 - 650 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)	415 mm x 130 mm x 155 mm
	Electronics Box (Option)	280 mm x 285 mm x 176 mm
Weight	OPO Head w/ Motor	8.6 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



GWU-Lasertechnik Vertriebsges. mbH

Talstr. 3
50374 Erftstadt
Germany

Fon +49 . (0)22 35 . 9 55 22-0
Fax +49 . (0)22 35 . 7 56 32

info@gwu-group.de
www.gwu-group.de

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