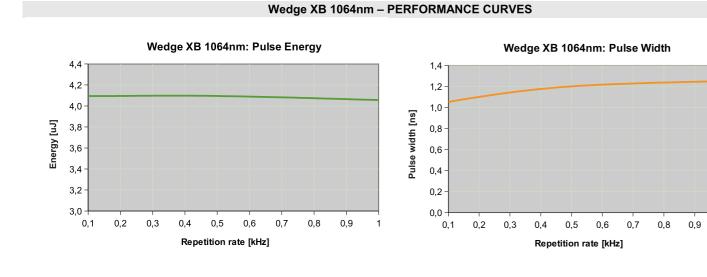
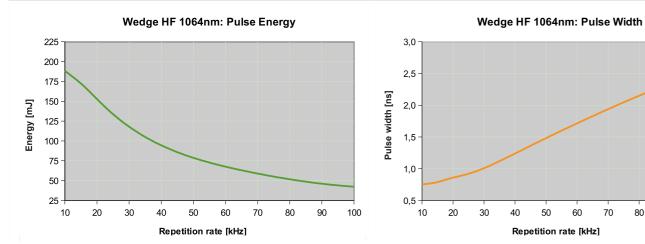
# Wedge Short Pulse Q-Switched DPSS Laser

In order to better describe the performances of the Wedge models, please refer to the specific datasheets available for each model.

Below you can find the nominal perfomance curves related to the infrared versions of the Wedge XB 1064nm and of the Wedge HF 1064nm.



### Wedge HF 1064nm – PERFORMANCE CURVES





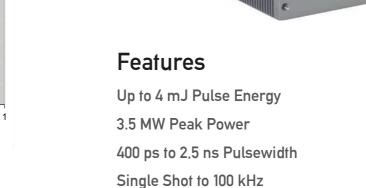
60

70

80

90

100



266, 355, 532, 1064, 1570, 3100 nm

Multi-wavelength models

Monolithic Design

Air Cooling Low heat waste

Micromachining of glass Specialty marking LIDAR and Bathymetry Display manufacturing Athmospheric and pollution monitoring LIBS

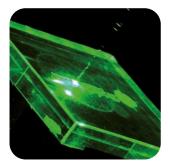


Non-linear spectroscopy Harmonic and parametric generation Visible to IR OPO pumping



**Bright Solutions Srl** Via Artigiani 27 27010 Cura Carpignano (Pv) Italy T (+39) 0382 583094 info@brightsolutions.it sales@brightsolutions.it www.brightsolutions.it









## **Applications**





## Wedge Short Pulse Q-Switched DPSS Laser

Wedge HB and XB laser models are available at different wavelengths and their main featues are reported in the table below.

All the configurations are based on our proprietary fast active Q-Switch technology, the key point for all the applications requiring high performances in terms of synchronization between the laser and the entire system.

Wedge HB and XB models

Wedge HF and XF are also actively Q-Switched lasers a
makes these lasers unique on the market. The extreme
applications is very appeciated also in industrial and inst

	Wedge HF and XF models										
	HF 266	HF 355	HF 532	HF 532 Plus	HF 1064	XF 266	XF 532	XF 532 Plus	XF 1064	XF 1064 Plu	
Primary wavelength	266 nm	355 nm	532 nm	532 nm	1064 nm	266 nm	532 nm	532 nm	1064 nm	1064 nm	
Max Pulse Energy	15 µJ	40 µJ	100 µJ	120 µJ	180 µJ	5 µJ	30 µJ	40 µJ	70 µJ	80 µJ	
Q-Switch Rep. Rate	single shot to 50 kHz	single shot	to 100 kHz	20 to 100 kHz	single shot to 100 kHz	single shot to 50 kHz	single shot to 100 kHz		single shot to 100 kHz	50 to 200 kHz	
Pulsewidth	700 ps to 1.5 ns	500 ps to 1 ns	700 ps to 2.5 ns	500 ps to 2 ns	700 ps to 2.5 ns	400 ps to 700 ps	400 ps to 1.5 ns	400 ps to 1.6 ns	400 ps to 1.5 ns	400 ps to 1.6 ns	
Max Peak Power	20 kW	80 kW	140 kW	200 kW	250 kW	10 kW	75 kW	90 KW	175 kW	150 kW	
Polarization		Linear 1 option: circular p			Linear 100:1 (option: circular polarization)						
Beam quality (M <sup>2</sup> )		< 1.5	;		< 1.3						
Cooling	Air-cooled (option: water cooling and contact cooling)					Air-cooled (option: water cooling and contact cooling)					
DC IN Voltage	24 V					24 V					

HB 266	HB 355	HB 532	HB 1064	HB 1570	XB 266	XB 355	XB 532	XB 1064	XB 1570	XB 3100			
266 nm	355 nm	532 nm	1064 nm	1570 nm	266 nm	355 nm	532 nm	1064 nm	1570 nm	3100 nm			
<b>لىر</b> 150	<b>لىر</b> 200	1 mJ	2 mJ	<b>لىر</b> 400	500 <b>µJ</b>	600 <b>µJ</b>	2 mJ	4 mJ	0.8 mJ	> 0.1 mJ			
	S	ingle Shot to	2 kHz			Single Shot to 2 kHz							
	<	1.5 ns		< 2.5 ns	< 1.5 ns < 2.5 ns					< 3 ns			
120 kW	150 kW	800 kW	1.8 MW	200 kW	300 kW	400 kW	1.8 MW	3.6 MW	400 kW	> 30 kW			
Polarization (option: circular polarization)							Linear 100:1 (option: circular polarization)						
	(option: wat	Air-cooled er cooling and co	ontact cooling)		Air-cooled (option: water cooling and contact cooling)								
DC IN Voltage Dual 5 V - 15 V DC						Dual 9 V - 15 V DC							
	266 nm 150 للا	266 nm 355 nm 150 للل 200 لل S 200 kW 150 kW (option: wat	266 nm 355 nm 532 nm 150 مل 200 مل 1 mJ Single Shot to < 1.5 ns 120 kW 150 kW 800 kW Linear 100: (option: circular polar Air-cooled (option: water cooling and co	266 nm 355 nm 532 nm 1064 nm 150 µJ 200 µJ 1 mJ 2 mJ Single Shot to 2 kHz < 1.5 ns 120 kW 150 kW 800 kW 1.8 MW Linear 100:1 (option: circular polarization) Air-cooled (option: water cooling and contact cooling)	266 nm     355 nm     532 nm     1064 nm     1570 nm       150 µJ     200 µJ     1 mJ     2 mJ     400 µJ       Single Shot to 2 kHz       < 1.5 ns	266 nm   355 nm   532 nm   1064 nm   1570 nm   266 nm     150 µJ   200 µJ   1 mJ   2 mJ   400 µJ   500 µJ     Single Shot to 2 kHz     < 1.5 ns	266 nm   355 nm   532 nm   1064 nm   1570 nm   266 nm   355 nm     150 μJ   200 μJ   1 mJ   2 mJ   400 μJ   500 μJ   600 μJ     Single Shot to 2 kHz     < 1.5 ns	266 nm   355 nm   532 nm   1064 nm   1570 nm   266 nm   355 nm   532 nm     150 μJ   200 μJ   1 mJ   2 mJ   400 μJ   500 μJ   600 μJ   2 mJ     Single Shot to 2 kHz   Single Shot   2 mJ      500 μJ   600 μJ   2 mJ     Single Shot to 2 kHz   Single Shot      Single Shot      2.5 ns   < 1.5 ns	266 nm   355 nm   532 nm   1064 nm   1570 nm   266 nm   355 nm   532 nm   1064 nm     150 µJ   200 µJ   1 mJ   2 mJ   400 µJ   500 µJ   600 µJ   2 mJ   4 mJ     Single Shot to 2 kHz         Single Shot to 2 kHz      Single Shot to 2 kHz      Single Shot to 1 kHz      Single Shot to 1 kHz      <1.5 ns	150 µJ   200 µJ   1 mJ   2 mJ   400 µJ   500 µJ   600 µJ   2 mJ   4 mJ   0.8 mJ     Single Shot to 2 kHz     Single Shot to 2 kHz      Single Shot to 2 kHz      Single Shot to 1 kHz              Single Shot to 2 kHz     Single Shot to 2 kHz   Single Shot to 1 kHz                                 Single Shot to 2 kHz <td col<="" td=""></td>			

\*1mJ – 1.5 µm – 1kHz Eye-safe

### **OPTIONS AVAILABLE:**

Beam expanding and collimation optics Multi-wavelength configurations Multimodal Fiber coupling Low jitter option Remote control box and software interface AC-DC power supply



Beam expanding and collimation optics Multi-wavelength configurations Multimodal Fiber coupling Low jitter option Remote control box and software interface AC-DC power supply

Wedge Short Pulse Q-Switched DPSS Laser



and this feature together with the sub-ns pulsewidth ely compact and rugged design coming from airborne strumentation fields.

