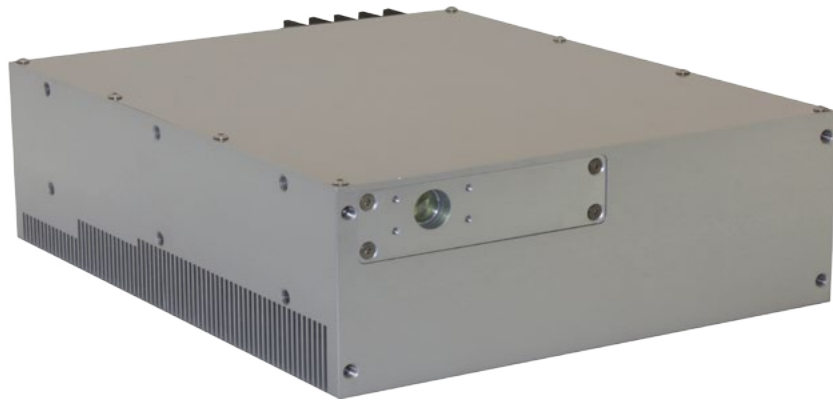


# Wedge

## Short Pulse Q-Switched DPSS Laser



### Features

Up to 4 mJ Pulse Energy

4 MW Peak Power

400 ps to 2,5 ns Pulsewidth

Single Shot to 100 kHz

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

MOPA configurations

Monolithic Design

Air Cooling

Low heat waste



### Applications

Micromachining of glass

Specialty marking

Thin film removal

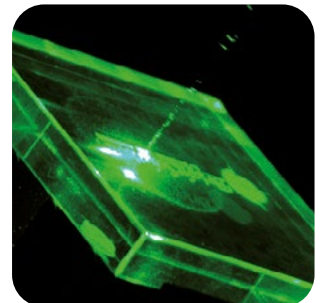
LIDAR and Bathymetry

Non-linear spectroscopy

Harmonic and parametric generation

Visible to IR OPO pumping

TeraHertz generation



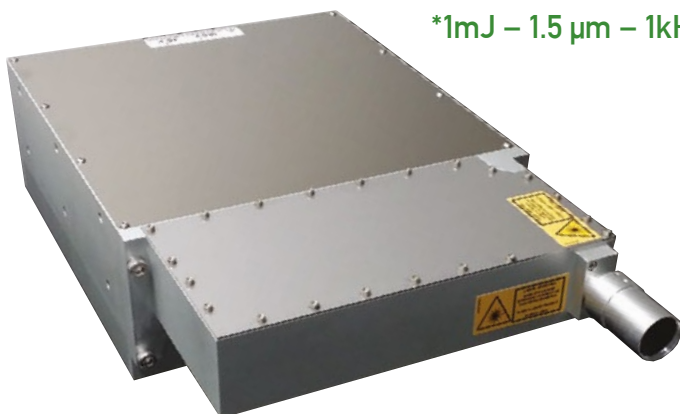


Wedge HB and XB laser models are available at different wavelengths and their main features are reported in the table below.

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 models

	HB 266	HB 355	HB 532	HB 1064	HB 1570	XB 266	XB 355	XB 532	XB 1064	XB 1570	XB 3100
Primary wavelength	266 nm	355 nm	532 nm	1064 nm	1570 nm	266 nm	355 nm	532 nm	1064 nm	1570 nm	3100 nm
Max Pulse Energy	150 $\mu$ J	200 $\mu$ J	1 mJ	2 mJ	400 $\mu$ J	500 $\mu$ J	600 $\mu$ J	2 mJ	4 mJ	0.8 mJ	> 0.1 mJ
Q-Switch Rep. Rate	Single Shot to 2 kHz					Single Shot to 1 kHz					Single Shot to 2 kHz
Pulsewidth	< 1.5 ns				< 2.5 ns	< 1.5 ns				< 2.5 ns	< 3 ns
Max Peak Power	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	Linear 100:1 (option: circular polarization)					Linear 100:1 (option: circular polarization)					
Cooling	Air-cooled (option: water cooling and contact cooling)					Air-cooled (option: water cooling and contact cooling)					
DC IN Voltage	Dual 8 V - 15 V					Dual 12 V - 15 V					



**\*1mJ – 1.5  $\mu$ m – 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

# Wedge

## Short Pulse Q-Switched DPSS Laser

# Wedge

## Short Pulse Q-Switched DPSS Laser

Wedge HF and XF are also actively Q-Switched lasers and this feature together with the sub-ns pulsewidth makes these lasers unique on the market. The extremely compact and rugged design coming from airborne applications is very appreciated also in industrial and instrumentation fields.

### Wedge models

	HF 266	HF 355	HF 532	HF 532 Plus	HF 1064	XF 266	XF 532	XF 532 Plus	XF 1064	XF 1064 Plus
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 uJ	40 uJ	100 uJ	120 uJ	180 uJ	5 uJ	30 uJ	40 uJ	70 uJ	80 uJ
Q-Switch Rep. Rate	single shot to 50 kHz	single shot to 100 kHz	20 to 100 kHz	20 to 100 kHz	single shot to 100 kHz	single shot to 50 kHz	single shot to 100 kHz	50 to 200 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 100:1 (option: circular polarization)					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				

### 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

\*C-Wedge 355-532-1064



# Wedge

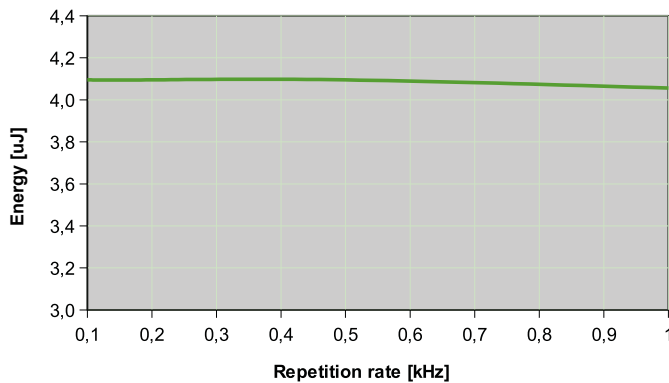
## Short Pulse Q-Switched DPSS Laser

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

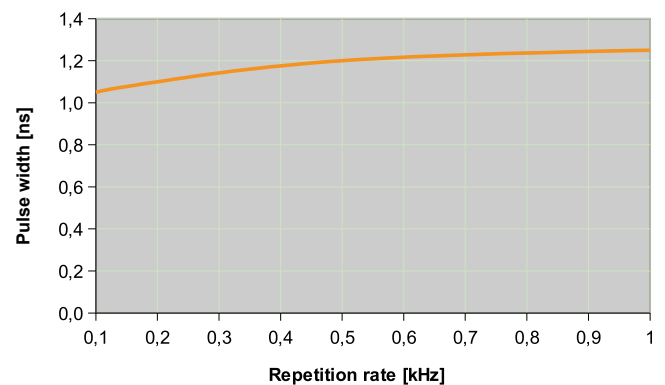
Below you can find the nominal performance curves related to the infrared versions of the Wedge XB 1064nm and of the Wedge HF 1064nm.

### Wedge XB 1064nm – PERFORMANCE CURVES

Wedge XB 1064nm: Pulse Energy

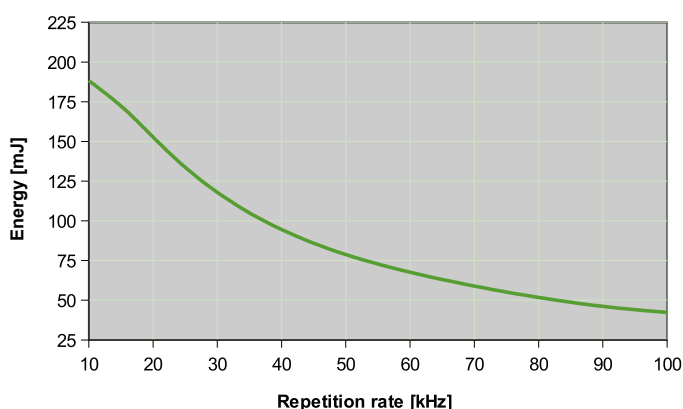


Wedge XB 1064nm: Pulse Width



### Wedge HF 1064nm – PERFORMANCE CURVES

Wedge HF 1064nm: Pulse Energy



Wedge HF 1064nm: Pulse Width

