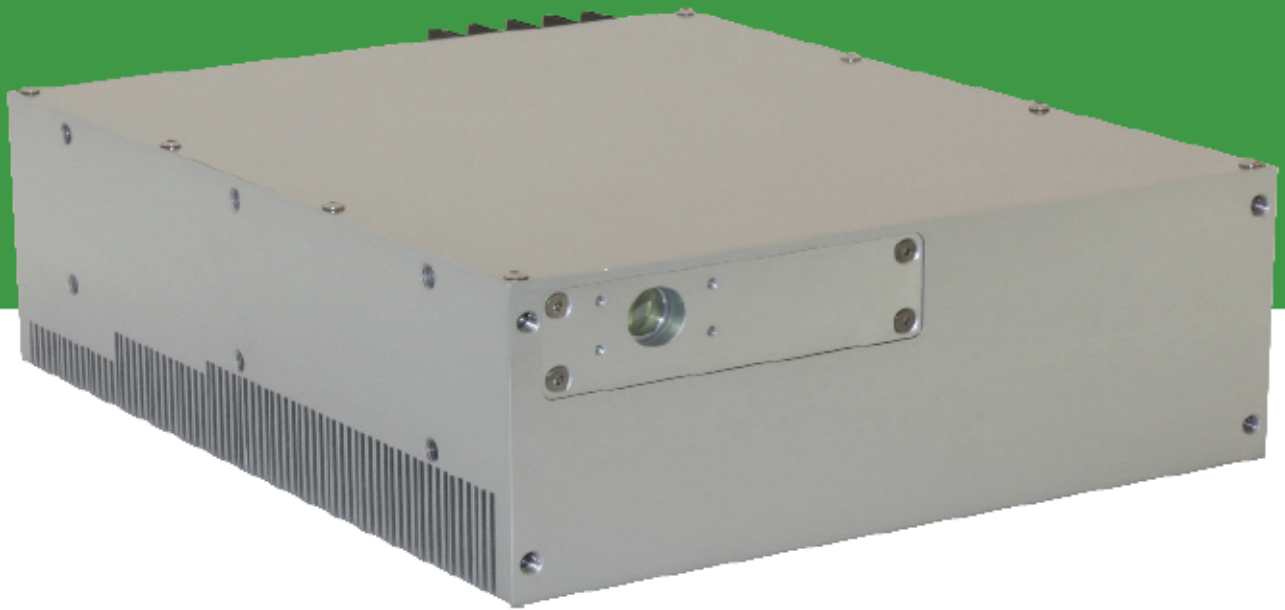


# WEDGE

Short Pulse Q-Switched DPSS Laser



## FEATURES

Up to 2 mJ Pulse Energy

2 MW Peak Power

500 ps to 3 ns Pulse Width

Single Shot to 100 kHz

Monolithic Design

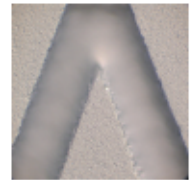
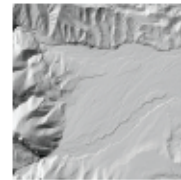
Air Cooling

Low heat waste

@1064 @532 @355 nm

## APPLICATIONS

- » Thin film removal
- » Micromachining of glass and hard materials
- » LIDAR
- » Non-linear Spectroscopy
- » Harmonic and parametric generation
- » Visible to IR OPO pumping
- » TeraHertz generation



# WEDGE

## Short Pulse Q-Switched DPSS Laser

WEDGE family has been fully renewed in terms of performances and available models.

Wedge HB is available both at 1064nm and at 532 nm; pulse energy reaches 2 mJ in less than 1 ns . The air-cooled unit measures only 26x22x8 cm.

Wedge-HF and Wedge-XF are now available in a very compact unit, only 8x9x19 cm, both at 1064nm and 532nm. Repetition rate can reach 100 kHz and pulses can be shorter than 500 ps.

pWedge represents a flexible platform for customized units where high power amplifiers can be added to Wedge-HF and Wedge-XF in order to fit the most demanding industrial and aerospace applications.

Based on a proprietary fast Q-Switching technology, this compact sealed and monolithic diode pumped lasers are insensitive to vibrations and harsh environments.

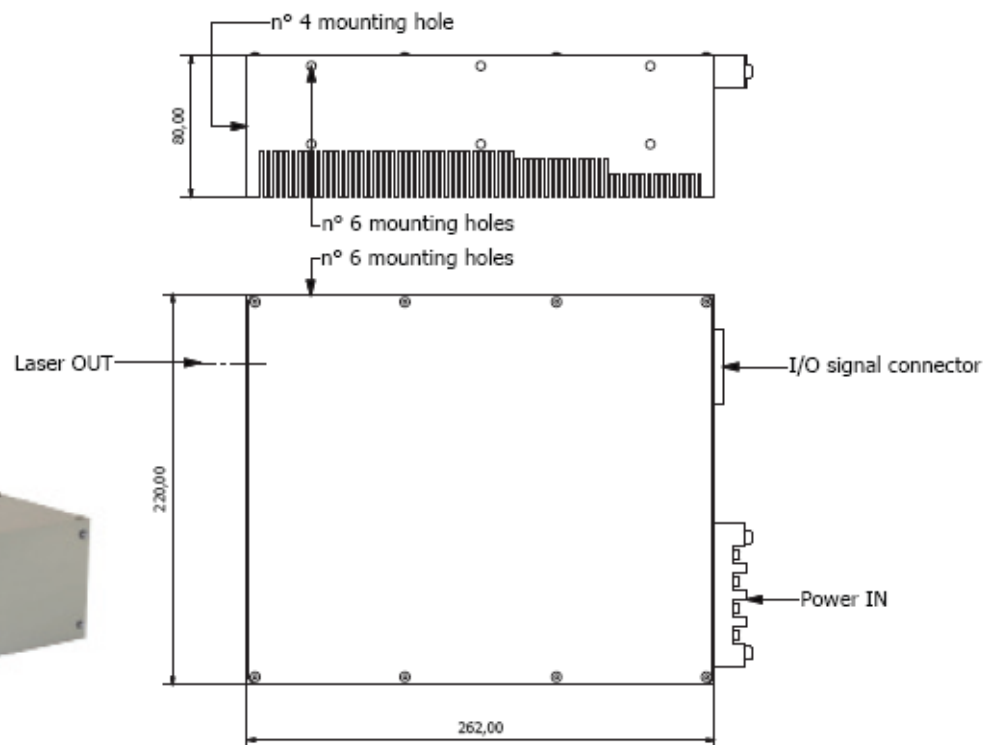
They have been designed for OEM applications like micro machining of hard and soft materials, specialty marking, glass and crystals engraving, LIDAR, LIBS, Spectroscopy and medical diagnostics. High output peak

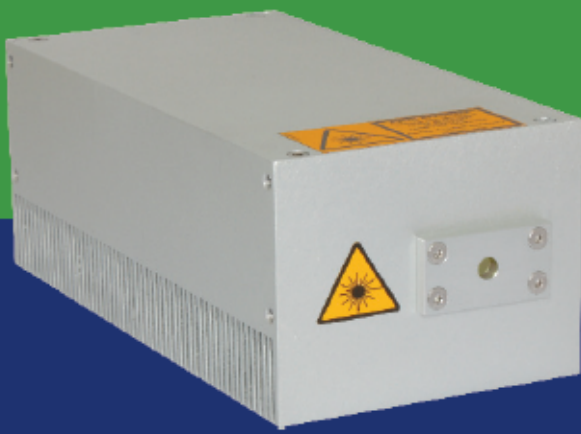
power, with relatively low energy and heat generation, allows efficient ablation and non-linear interaction with most materials. The compact and lightweight package represents a great benefit in LIDAR and other aerospace applications, while short pulses give extremely precise time-of-flight measurements.

Second Harmonic (532 nm output) and wavelength conversion option widen the product application range.

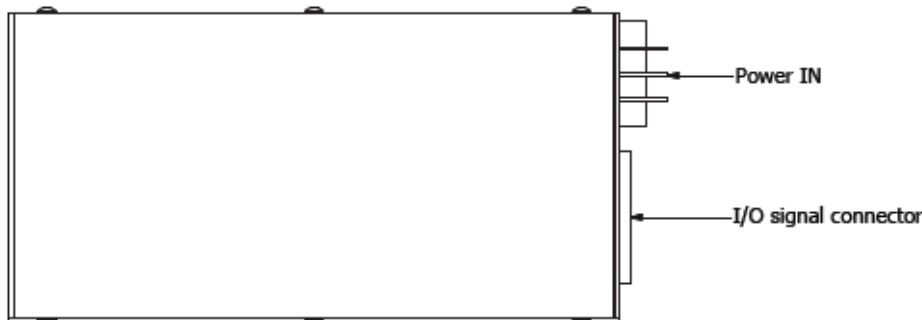
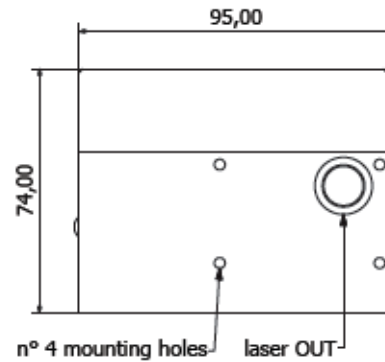
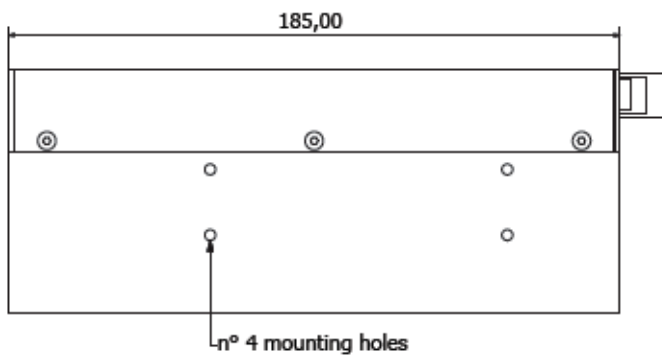
### OPTIONS AVAILABLE

- » Single Longitudinal Mode
- » Beam Expanding and collimation optics
- » Red aiming beam
- » Mechanical shutter
- » Circular Polarization
- » Monitoring Photodiode
- » AC-DC Power Supply
- » Harmonic generation at 532nm and 355nm
- » Parametric generation at 1.5 um and 3 um





Models	HB - 1064	HB - 532	HF - 1064	HF - 532	pWedge
Wavelength	1064nm	532nm	1064nm	532nm	1064nm
Pulsewidth	< 1.5 ns		700ps to 3 ns		500 ps
Pulse Energy	up to 2 mJ	up to 1 mJ	40 to 200 uJ	15 to 80 uJ	up to 1mJ
Peak Power	up to 2 MW		up to 300 kW	up to 80 kW	up to 2 MW
Repetition Rate	Single Shot to 2 kHz		10 to 100 kHz		Single Shot to 10 kHz
Polarization	Linear 100:1 (Option: circular polarization)				
Beam diameter	< 1.5 mm (Option: beam expander)				
Beam Quality (M <sup>2</sup> )	< 2		< 1.5		< 2
Cooling	Air cooled				



All dimensions in mm



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**LUCE**



**WEDGE**



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**BFP**