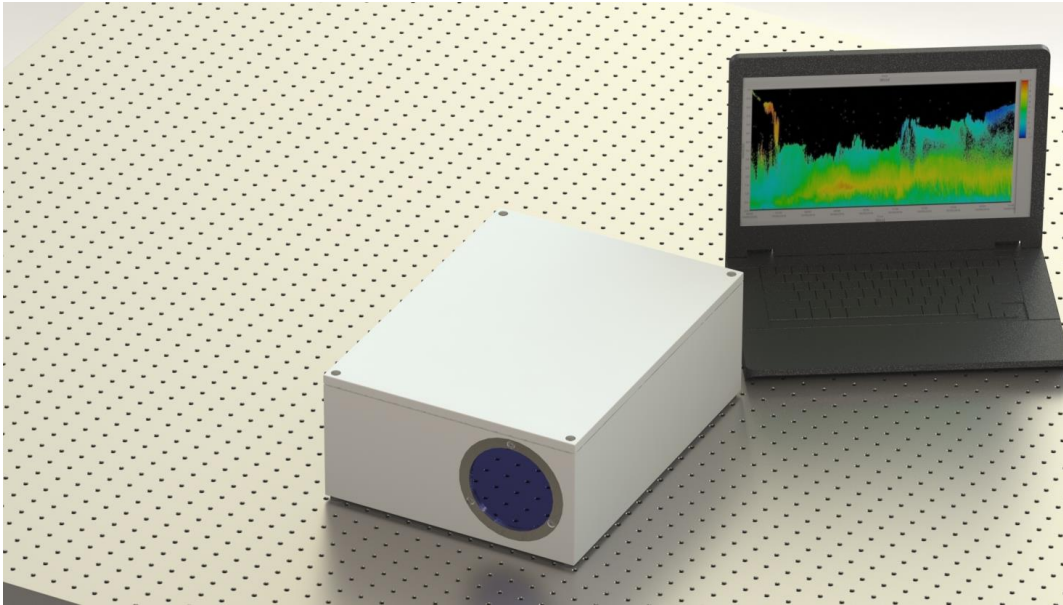


Abacus Laser LiTra L Module



- Upcoming project at Abacus Laser
- 2,1 μm wind lidar transceiver module for long range wind measurements
- Will include a reference laser, a high-energy pulsed Ho:YAG solid-state laser, the transmission and receiving optics and the heterodyne detection
- Laser stabilized by internal electronics
- Advanced solid-State laser technology is suitable for much higher pulse energy (>5 mJ and more) and peak power (well beyond 10 kW peak).

Expected European List Price: ~250 000 €

Abacus Laser LiTra L Module

Preliminary Lidar performance specifications:

Expected lidar range horizontal	20 – 30 km
Expected lidar range vertical	5 – 12 km
Pulse repetition frequency (PRF)	1 kHz
Pulse length τ (FWHM)	100 – 500 ns selectable at time of order

Preliminary laser specifications:

Wavelength	in the range 2060 to 2130 nm (tuned to atmosph. window)
Energy per pulse	5 mJ (more available)
Average power	5 W (more available)
Pulse peak power at 500 ns / 100 ns	10 kW / 50 kW
Beam quality	Single Mode ($M2 < 1,1$)
Pulse frequency offset	41 MHz (others available)
Aperture	71 or 96 mm

Preliminary power and environmental specifications:

Power requirements	24 V DC, 25 A
Power consumption	~500 W
Cooling	Water cooling, 20° C
Expected Size	50 x 35 x 25 cm ³
Expected weight	25 kg

All specifications at 500 ns pulse length, 1 kHz and 1 s averaging, unless otherwise stated.

Preliminary specifications, please enquire details at time of order.

General: *It is not permitted to use the Abacus Laser LiTra Modules for military applications*

