

Abacus Laser LiTra S Module



- Wind lidar transceiver module for short to medium range wind measurements
- Includes a reference laser, a pulsed fibre amplifier, the transmission and receiving optics and the heterodyne detection
- Internal control electronics stabilizes the laser
- Output is an analogue signal from the balanced detector
- For data acquisition, a separate unit is required (available e.g. from Licel)

Delivery time: 4 to 8 months after order, depending on the configuration and availability of components.

European List Price: 60 000 EUR



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Lidar performance specifications:

Typical maximum lidar range horizontal	7 – 10 km ¹
Typical lidar range vertical	within planetary boundary layer, higher if aerosols present
Pulse repetition frequency (PRF)	adjustable 8 – 100 kHz
Pulse length (FWHM)	standard 160 – 640 ns, more on request

Laser specifications:

Wavelength	~1550 nm
Pulse peak power	~60 W
Energy per pulse	~40 µJ
Average power at 10 kHz	~400 mW
Aperture	71 mm (48 mm optional)

Power and environmental specifications:

Power requirements	12 V DC, 5 A
Typical power consumption	~30 W
Temperature range case	10° – 30 °C, more on request
Size	39.5 x 27.8 x 12.7 cm ³
Weight	14 kg
Eye safety	Laser class 1M

All specifications at 640 ns pulse length, 10 kHz and 2 s averaging, unless otherwise stated.

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

¹ The lidar range depends on weather conditions, pulse length and averaging time.