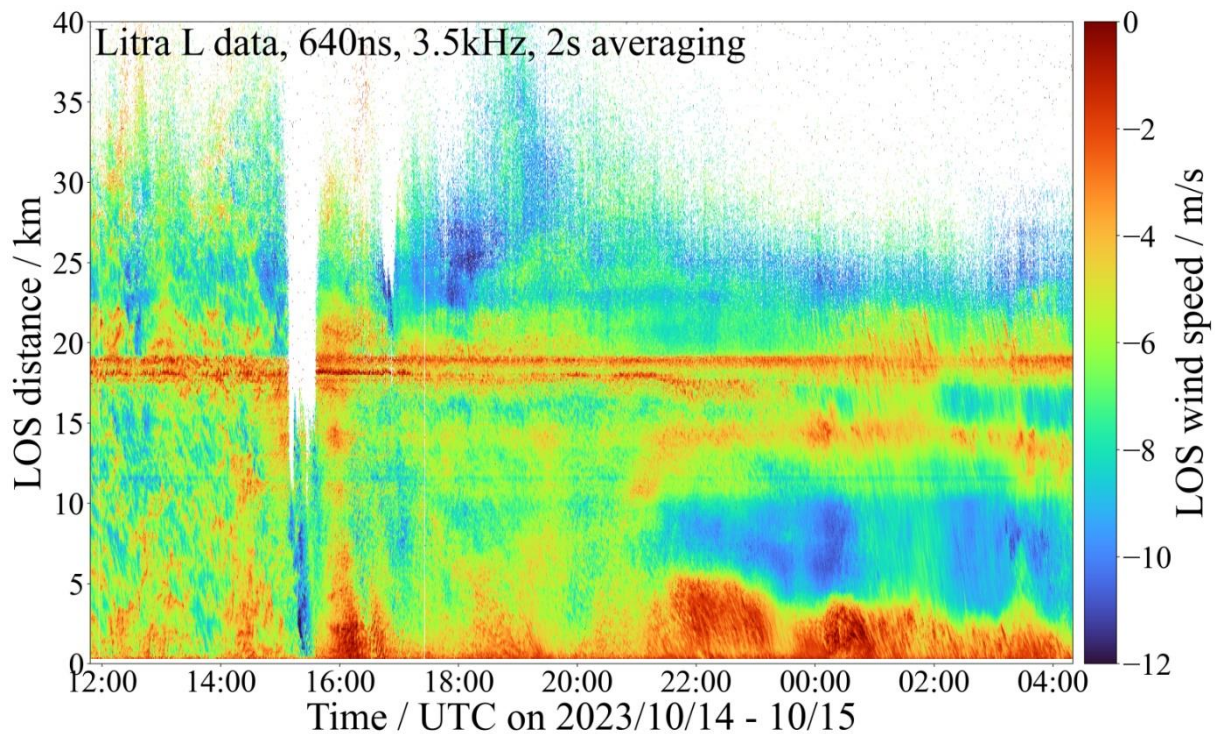


# Abacus Laser LiTra L Module



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

**Delivery time:** Presumably available early 2025. For more information, please enquire directly with us.



# Abacus Laser LiTra L Module

## Preliminary lidar performance specifications:

Typical maximum lidar range horizontal <sup>1</sup>	20 – 35 km
Typical lidar range vertical	Detection in and partly above boundary layer
Pulse repetition frequency (PRF)	adjustable 2 – 10 kHz, limited only by $P_{avg}$
Pulse length (FWHM)	500, 650, 1000 ns (others on request)

## Preliminary laser specifications:

Pulse peak power	>1 kW
Pulse energy for 650 ns pulse	≈1 mJ
Max. average power ( $P_{avg}$ )	≈4 W
Aperture	≈140 mm
Wavelength	≈1550 nm

## Preliminary environmental specifications:

Typical power consumption	≈300 W
Power requirements	24 V DC, 20 A or similar
Cooling	External water chiller
Size	110 x 75 x 50 cm <sup>3</sup>
Weight	≈80 kg
Eye safety	Laser class 1M

All specifications are preliminary and subject to changes.

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

<sup>1</sup> The lidar range depends on weather conditions, pulse length and averaging time.

