

Abacus Laser LiTra HSR Module



- Coherent high spectral resolution doppler wind lidar module for combined detection of Mie and Rayleigh scattering.
- Includes a reference laser, a pulsed amplifier chain, the transmission and receiving optics and the heterodyne detection.
- Possible wavelengths: 532 nm and/or 1064 nm
- Output is an analogue signal from the balanced detector.
- For the broadband data acquisition, a separate unit is required (available e.g. from Licel)

Delivery time: 8 to 12 months after order, depending on the configuration and availability of components.



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Typical lidar performance:

Typical Mie (aerosol) performance	Detection in and partly above boundary layer with high velocity resolution
Typical Rayleigh performance	Molecular detection up to several km
Pulse repetition frequency (PRF)	2 kHz (others on request)
Pulse length (FWHM)	640 ns (others on request)

Typical laser specifications:

Wavelength	532 nm and/or 1064 nm
Pulse energy	2 / 4 mJ (up to >100 mJ possible)
Pulse peak power	3 to 6 kW (up to >100 kW possible)
Aperture	44 to 71 mm

Environmental specifications:

Typical power consumption	~700 W
Power requirements	110 – 230 V AC, 4 – 10 A
Cooling	External water chiller
Size	90 x 60 x 60 cm ³
Weight	~100 kg
Eye safety	Laser class 4

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

