REDBACK SYSTEMS

RS15k Spectrometer

Early adopter devices available from 6/2024



The RS15k is a groundbreaking single-mode fibre-fed echelle spectrometer designed to revolutionise your near-infrared wavelength analysis. The spectrometer has a compact and robust footprint making it suitable for in-field spectral analysis.

Product Highlights

- High-resolution over large bandwidth
- Cooled SWIR (InGaAs) detector
- Low polarisation dependency
- Compact footprint

- RedSolve control software
- Python API

Humidity range

Key Specifications

1. Optical performance

Spectral range	950-1650 nm
Resolving Power [R=λ/dλ]	20,000 (at 1550 nm)
Fibre input	SMF FC/PC
Detector	cooled SWIR CMOS
Exposure time	0.001-5 s
Data acquisition	up to 5 Hz

2. Mechanical & Electrical

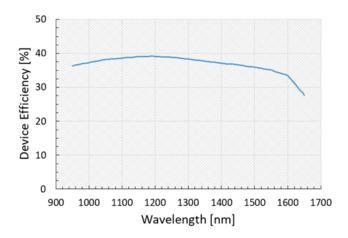
Weight	~8 kg
Dimensions (L/W/H)	29.2 x 32 x 10.5 cm (11.5 x 12.6 x 4.1 inch)
Power supply	24 V or USB-C
Data interface	USB 3.0 full speed
3. Operational	
Temperature range	15-35 °C

0-70 %

non-condensing

Performance

The plot shows the device efficiency, excluding coupling and transmission losses of the SMF.



Product Applications

- Simultaneous multi-element analysis
- Astronomy

- NIR laser spectrum analysis
- Telecommunications

What's included:

- RS15k spectrometer in Pelican 1520 storage case
- 1060XP single-mode fibre with FC/PC connectors (optional: hybrid SMF with FC/PC to FC/APC)
- USB 3.0 cable
- Power supply and cable
- USB drive with unique wavelength calibration file

Contact Details





