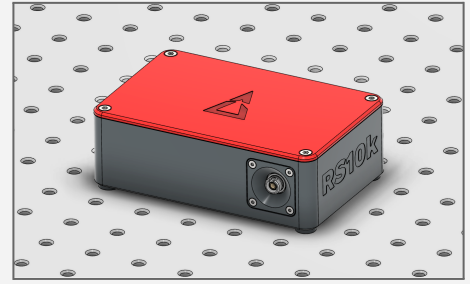


RS10k Spectrometer

Early adopter devices available from 7/2023



The RS10k is the world's smallest echelle spectrometer, capable of measuring a wide wavelength range simultaneously at high resolution. The spectrometer is powered through a single USB interface and has no moving parts, making it simple to use.

Product Highlights

- High-resolution over large spectral range
- Ultra-compact footprint
- Low polarisation dependency
- RedSolve control software
- Python API

Key Specifications

1. Optical performance

Spectral range	450-1030 nm
Resolving Power [$R=\lambda/d\lambda$]	17,000 - 10,000 (450-1030 nm)
Wavelength stability	<5 pm/°C
Fibre input	SMF FC/PC
Detector	uncooled CMOS
Exposure time	0.001-10 s
Data acquisition	up to 10 Hz

2. Mechanical & Electrical

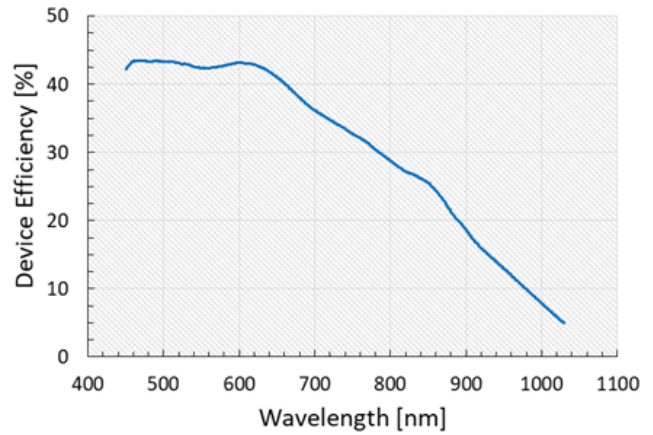
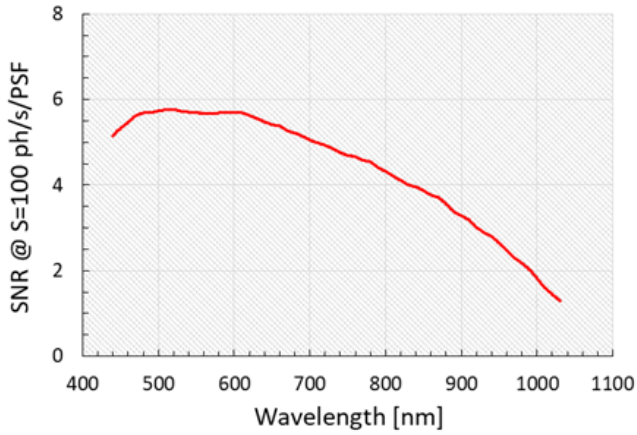
Weight	0.65 kg (1.43 lbs)
Dimensions (L/W/H)	12 x 7.8 x 4 cm (4.7 x 3.1 x 1.6 inch)
Data interface	USB 3.0 full speed

3. Operational

Temperature range	15-30 °C
Humidity range	0-70 %

Performance

The left figure shows the signal-to-noise ratio (SNR) for a monochromatic signal of 100 ph/s. The right figure shows the device efficiency, excluding coupling and transmission losses of the SMF.



Product Applications

- Quantum-source spectroscopy
- Simultaneous high-resolution multi-element analysis
- Laser spectrum analysis (e.g. real-time monitoring of laser modes)
- Tool for physics teaching labs

What's included:

- RS10k spectrometer
- S-405XP and 780HP hybrid single-mode fibres with FC/PC to FC/APC connectors
- USB 3.0 cable (2 m)
- USB flash drive with unique wavelength calibration file

Contact Details



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