

Single Quantum Iris-S19

The next generation spectroscopy

Spectroscopy at the single photon level

The Single Quantum Iris-S19 is the turn-key system that allows you to readily perform spectroscopy and photon correlations with an unprecedented time resolution and the highest detection efficiency on the market. Iris-S19 couples via an optical fiber a high-throughput spectrograph with superconducting single photon detectors (SNSPDs) and it is the ideal solution for spectroscopy in both the visible and the near infrared wavelength range, for time-resolved measurements and quantum optics experiments.

Applications

- Single photon source characterization
- Single molecule fluorescence spectroscopy
- Time-resolved spectroscopy
- Photon correlation measurements

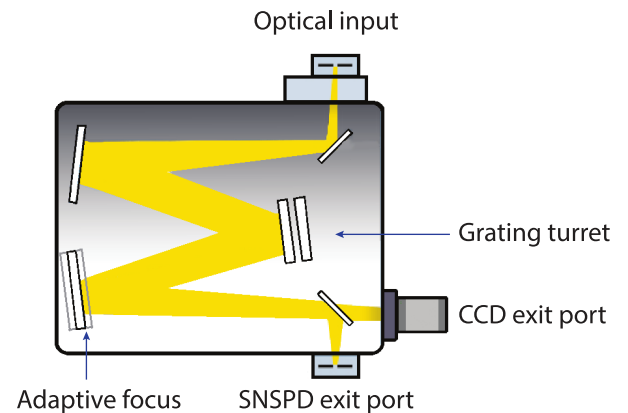
Standard specifications

Spectral range	200-2200 nm
Aperture	F/3.6
Focal length	193 mm
Spectral resolution ¹	0.15 nm
Gratings ²	2
Software	Included
Optical input	Free space or fiber
Exit ports	2
CCD exit port	Si or InGAs camera (optional)
SNSPD exit port	Single Quantum Eos
Independent detection channels	1 to 8
SNSPD detection efficiency (peak)	> 75%
Dark count rate	< 300 Hz
Timing jitter	< 60 ps
Detector base temperature	2.5 K
Helium compressor	Air-cooled or water-cooled
Cryostat size	24 x 34 x 59 cm

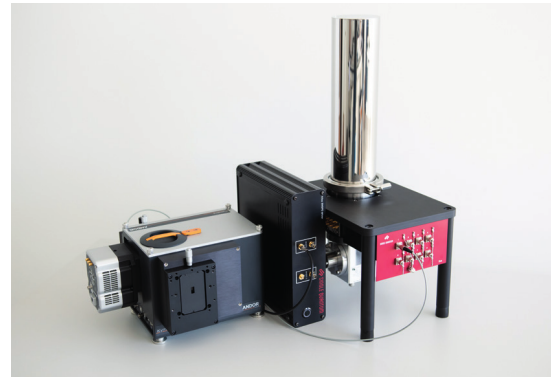
¹ Calculated for 1200 l/mm grating, blaze 1000 nm.

² Gratings available from 150 l/mm to 1200 l/mm on a motorized turret.

System design



Superconducting Nanowire Single Photon Detectors



Detection Efficiency

