

Quantum Opus

SUPERCONDUCTING NANOWIRE SINGLE-PHOTON DETECTION SYSTEM

Opus One™ Multi-Channel Near-Infrared Photon Detector System with >80% Detection Efficiency

Key Features:

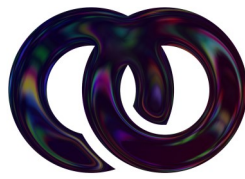
- Quantum Opus supplies high efficiency and low noise detectors, low-jitter, which operate at 2.5 Kelvin.
- High system detection efficiency at custom wavelengths.
- Black body filtering available to reduce dark counts by 10dB for telecom devices.
- Multi-element nanowires and other device architectures available upon request.
- Broadband and other custom response curves available.
- 3U rack-mount cryogenic system operates continuously without recharge using a lab-friendly low-noise water-cooled compressor.
- Cryostat easily accommodates up to 16 detectors.
- Complete two-detector system starts at \$109k
- On-site system setup, training, and optimization services available.
- *Ask about mid-infrared photon counting!*



System Specifications

Detection Efficiency	Form Factor	Operating Temperature	Base Temperature Hold Time	Wall Plug Power Draw
≥80%	3U	2.5 K	indefinite	3 kW

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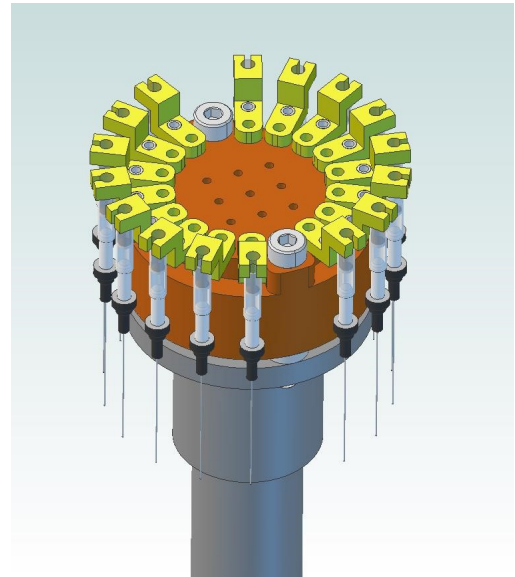
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The **Opus One™** compact cryostat can easily support up to 16 nanowire devices, each optimized for a standard center wavelength (950 nm or 1550 nm) or devices with customer specified response curves such as

- Custom center wavelength devices with very high efficiency.
- High efficiency devices with very broadband response.
- Mid-infrared ($\sim 3\mu\text{m}$ wavelength) sensitivity.

Multiple detector and fiber types can be installed in a single compact system.



CUSTOMER PHOTOS



Compressor unit fits under optical table.



Cryostat and electronics easily rack mountable.

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