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

<table>
<thead>
<tr>
<th>Detection Efficiency</th>
<th>Form Factor</th>
<th>Operating Temperature</th>
<th>Base Temperature Hold Time</th>
<th>Wall Plug Power Draw</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥80%</td>
<td>3U</td>
<td>2.5 K</td>
<td>indefinite</td>
<td>3 kW</td>
</tr>
</tbody>
</table>
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 (~3µm 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.