

Single Quantum Eos SNSPD Closed-Cycle System

High detection efficiency. Unrivalled time resolution.

Single Quantum develops the fastest and most sensitive light sensors on the market, based on the breakthrough technology of superconducting nanowire single photon detector (SNSPD). With 70 systems installed worldwide, Single Quantum Eos is recognized for its reliability, high performance, and long lifetime.

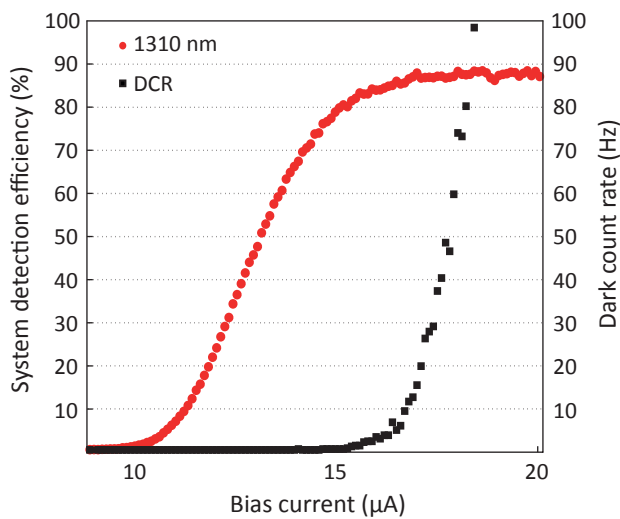


Features

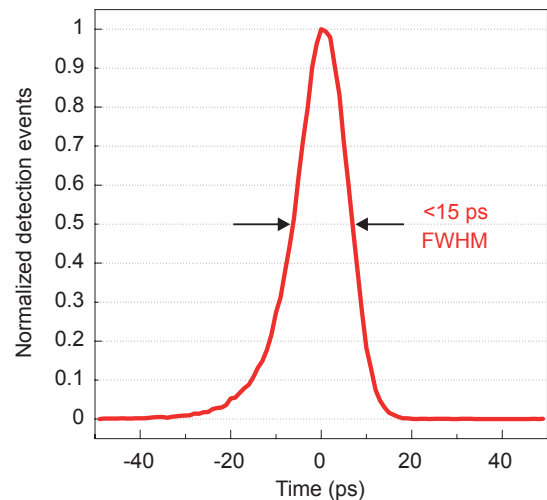
- High detection efficiency
- Low timing jitter (high time resolution)
- Short dead time
- High photon detection rate
- Low dark count rate
- Broad bandwidth
- No afterpulsing
- No helium consumption
- Continuous operation >10,000 hours
- A turn-key system

A complete solution comprising closed-cycle cryostat, helium compressor, electronic driver, and software.

High detection efficiency



Low timing jitter



Specifications

| | 800 nm | 900 nm | 1064 nm | 1310 nm | 1550 nm |
|---------------------------------|----------|----------|----------|-------------|-------------|
| Optimization wavelength | 800 nm | 900 nm | 1064 nm | 1310 nm | 1550 nm |
| System detection efficiency | ≥ 85% | ≥ 85% | ≥ 85% | ≥ 85% | ≥ 80% |
| Dark count rate | ≤ 10 Hz | ≤ 20 Hz | ≤ 100 Hz | typ. 100 Hz | typ. 300 Hz |
| Standard timing jitter | ≤ 40 ps | ≤ 40 ps | ≤ 50 ps | ≤ 50 ps | ≤ 50 ps |
| Optional low timing jitter | ≤ 15 ps | ≤ 15 ps | ≤ 20 ps | ≤ 20 ps | ≤ 25 ps |
| Dead time ¹ | ≤ 10 ns | ≤ 15 ns | ≤ 20 ns | ≤ 25 ns | ≤ 30 ns |
| Maximum count rate ² | ≥ 10 MHz | ≥ 10 MHz | ≥ 10 MHz | ≥ 10 MHz | ≥ 5 MHz |
| Output pulse height | ≥ 500 mV | ≥ 500 mV | ≥ 200 mV | ≥ 200 mV | ≥ 200 mV |
| Number of channels | 1-24 | | | | |

¹ Minimum time separation between two detection events

² Maximum continuous detection rate

Please contact us for dipstick system and customized solutions.