



# SINGLE QUANTUM

Excellence in photon detection



## Superconducting Nanowire Single Photon Detection System

*We develop the world's fastest and most sensitive light sensors limited only by the laws of physics.*

Single Quantum was established as the first European company manufacturing and commercializing

superconducting single photon detectors.

By sharing this groundbreaking technology, we aim to create a better future!

Our multi-channel detection system has already been chosen by more than 200 academic and industrial labs all over the world to perform complex optical measurements.

The unique combination of unparalleled detection efficiency and time resolution is what makes our superconducting detectors the ideal choice for quantum communication, cryptography, infrared fluorescence spectroscopy, laser ranging and many other applications.



high  
efficiency



low jitter



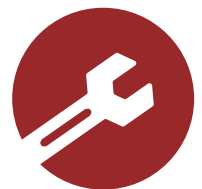
continuous  
operation



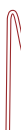
plug and play



200+ happy  
users  
worldwide



installation  
service  
and global  
support

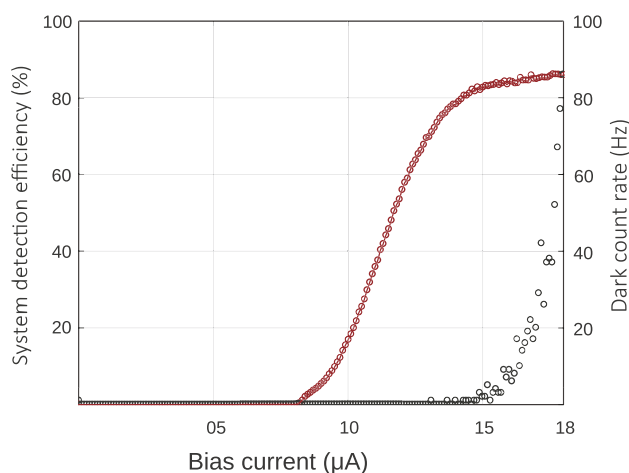


## Specifications

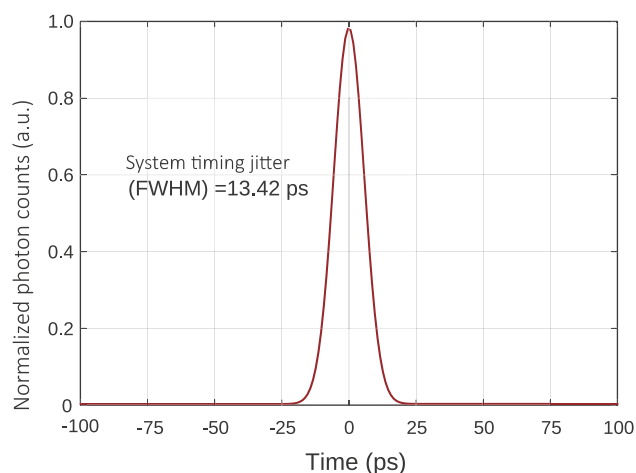
Optimization wavelength	800 nm	900 nm	1064 nm	1310 nm	1550 nm
System detection efficiency	≥ 90%	≥ 90%	≥ 85%	≥ 85%	≥ 85%
Timing jitter	≤ 15 ps	≤ 15 ps	≤ 20 ps	≤ 20 ps	≤ 20 ps
Dark count rate	≤ 1 Hz	≤ 1 Hz	≤ 10 Hz	≤ 10 Hz	≤ 10 Hz
Maximum count rate	≥ 80 MHz	≥ 80 MHz	≥ 50 MHz	≥ 50 MHz	≥ 50 MHz

**Disclaimer:** The specs listed in the table are the best currently available for each parameter. Is not possible to meet all of them simultaneously per wavelength. Various options can be discussed, so please get in touch with us for further information if you're interested.

SDE and DCR vs. bias current at 1550nm



Timing jitter at 900nm



## Single Quantum Eos

The Single Quantum Eos is a complete measurement system that consists of a closed-cycle cryostat, helium compressor, electronic driver and up to 24 high performance fiber-coupled superconducting nanowire single photon detectors. Our custom developed electronic driver and software are unique in the market and enable fully computer-controlled operation and makes it effortless to interface with any programming language.

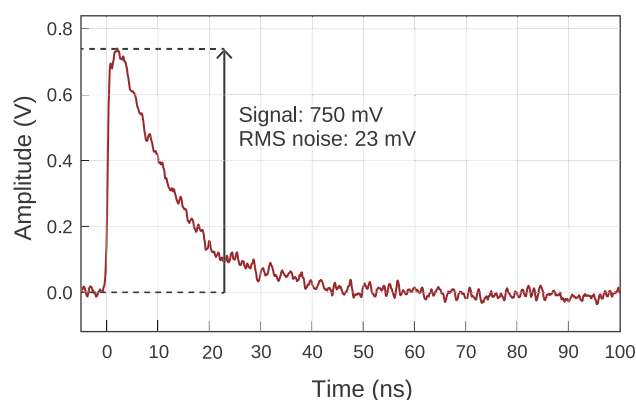
## Contact

Interested? Please get in touch for more detailed information. Together we'll find the best customized solution for your experiment!

✉ [sales@singlequantum.com](mailto:sales@singlequantum.com)

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Electrical detector output pulse at 1550nm



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