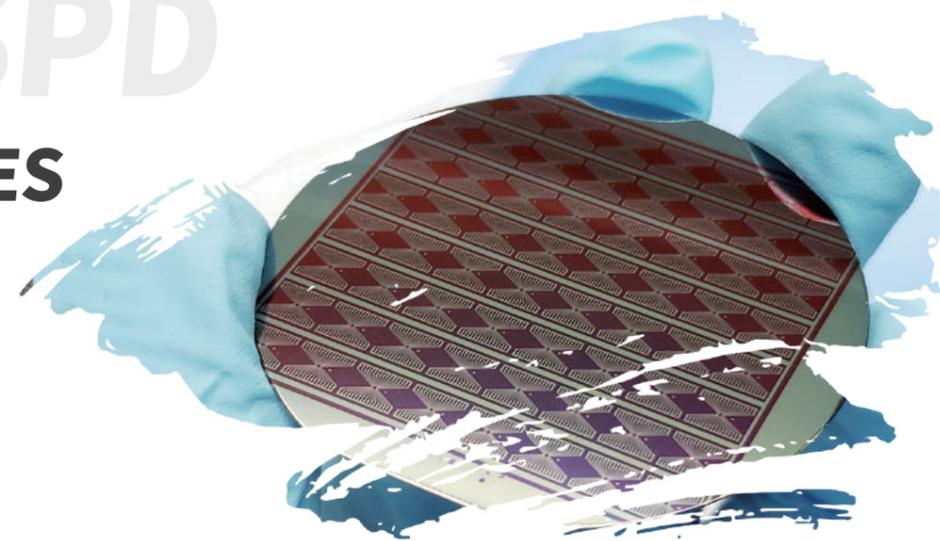


# QEye SNSPD SYSTEMS

- 95%  
System  
Detection  
Efficiency
- >50 MHz  
Maximum  
Count  
Rate
- <1 cps  
Dark  
Count  
Rate
- 100+  
Global  
Customers



# SNSPD DEVICES



## P-SPDnS Single-mode fiber coupled SNSPD

n:150(1550 nm), 164(1064 nm), 850(850 nm), 532(532 nm)...

Spectral range	Device type	SDE @central wavelength	DCR	MCR	Jitter
1370~1680 nm	Typical	≥80% @ 1550 nm	< 100 cps	20 MHz	~ 100 ps
	Advanced	≥90% @ 1550 nm	< 20 cps	20 MHz	< 50 ps
930~1190 nm	Typical	≥80% @ 1064 nm	< 100 cps	20 MHz	~ 100 ps
	Advanced	~ 90% @ 1064 nm	< 20 cps	20 MHz	< 50 ps
800~1000 nm	Typical	≥80% @ 900 nm	< 100 cps	20 MHz	~ 100 ps
	Advanced	~ 90% @ 900 nm	< 20 cps	20 MHz	< 50 ps

## P-SPDnM Multi-mode fiber coupled SNSPD

n:150(1550 nm), 164(1064 nm), 850(850 nm), 532(532 nm)...

Spectral range	Fiber type	SDE @central wavelength	DCR	MCR	Jitter
1550±20 nm	φ50 μm MMF	~ 50% @1550 nm	~ 100 cps	20 MHz	20 MHz
1064±20 nm	φ50 μm MMF	~ 50% @1064 nm	~ 20 cps	20 MHz	20 MHz

Performance parameter	P-SPD-nS	P-SPD-nSPro	P-SPD-nSProC
Base temperature	< 2.3 K	850 mK	850 mK (Continuous)
Optical channels (n)	1 ~ 32	1 ~ 16	1 ~ 16
Optical interface type	FC/UPC, FC/APC	FC/UPC, FC/APC	FC/UPC, FC/APC
Electrical channels (n)	1 ~ 32	1 ~ 16	1 ~ 16
Electrical interface type	SMA	SMA	SMA
Cooling power at 4.2K stage (50 Hz)	0.1 W	0.1 W	0.1 W
Cooling power at 60K stage (50 Hz)	3 W	3 W	3 W
Temperature stability	≤ ±5 mK	≤ ±5 mK	≤ ±5 mK
System leakage rate	< 1E-10 Pa · m <sup>3</sup> /s	< 1E-10 Pa · m <sup>3</sup> /s	< 1E-10 Pa · m <sup>3</sup> /s
Environment temperature	4 ~ 38 °C	4 ~ 38 °C	4 ~ 38 °C
Power supply	220 ~ 230 V; 50 Hz	220 ~ 230 V; 50 Hz	220 ~ 230 V; 50 Hz
Power consumption	< 1.3 kW	< 1.3 kW	< 1.3 kW



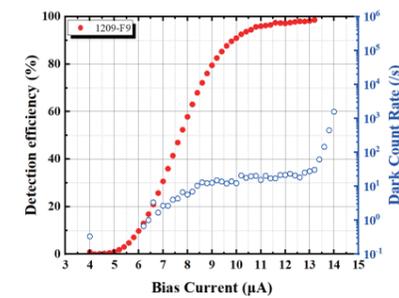
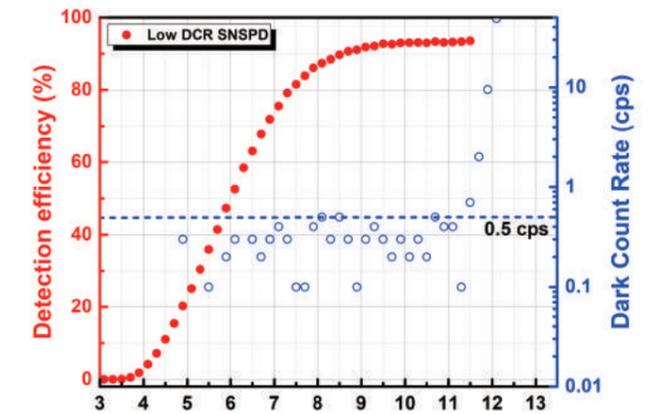
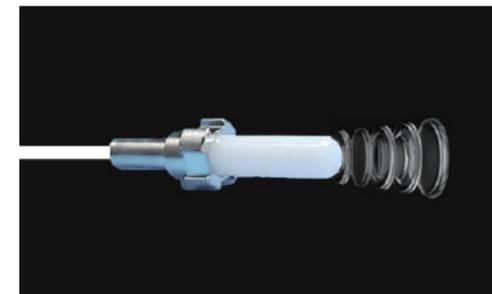
# PARAMETER UPGRADES SNSPDS

Our advanced technologies of SNSPD devices have been kept updated corresponding with the latest scientific results achieved by Shanghai Institute of Microsystem and Information Technology. The performance indicators of SNSPD has repeatedly chalked up world records in terms of System Detection Efficiency (SDE), Dark Count Rate (DCR) and Maximum Counting Rate (MCR). So far, the significant achievements include the SDE above 98% of the SNSPD system at the wavelength of 1550nm, the DCR as low as 1 cps at SDE > 90%. Also, the high performance devices and the related technologies have been granted Chinese, American and Japanese patents.

- High detection efficiency (>95%)
- High counting rate (>50 MHz)
- Low dark count (<1 cps)
- Low timing jitter (<20 ps)
- High stability
- SNSPD customization

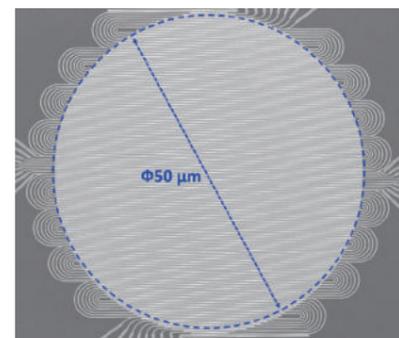
## Low dark count < 1 cps

- Integrated cryogenic filters technology
- DCR down to 0.5 cps with SDE > 90%
- Wavelength: 1550 ± 10 nm
- Other wavelengths can be customized



## High detection efficiency > 95%

- Original bilayer design
- SDE > 95%, up to 98% @ 1550 nm
- Multiple wavelengths options: 532, 850, 1064, 1310, 1550, 2000 nm

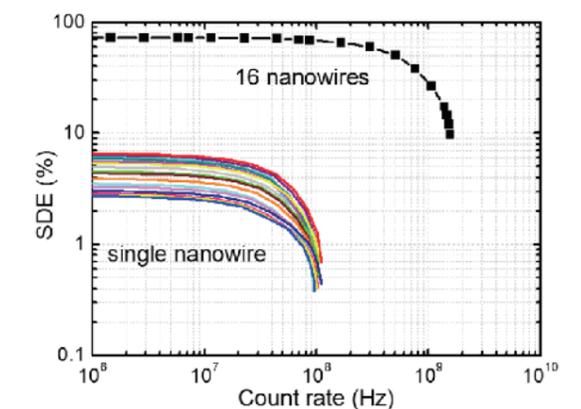
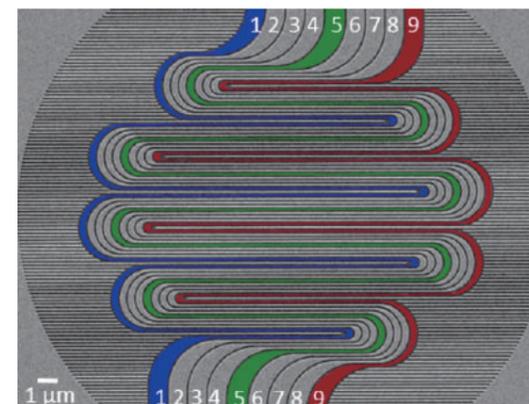


## Large active area

- Large sensitive area, suitable for various spatial optical coupling applications
- Available for 1550nm and 1064nm
- 50 µm multimode fiber coupling
- Unique low temperature filter design, DCR as low as 100 cps
- Customized free space coupling

## Multi-pixel SNSPD array

- 4/8/16 pixel SNSPD Array
- Photon number resolution (Up to 16 PNR), suitable for quantum light sources characterization
- Maximum count rate >GHz, suitable for high-speed laser communication



# CONTACT US

Please give us a call to have a chat about any  
of our products and how we can help your business

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