

PDA-23

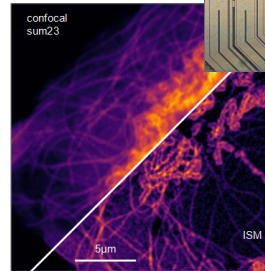
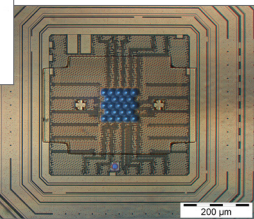
Cooled Single Photon Detector Array



PICOQUANT

in cooperation with
pi imaging

- Array detector assembly based on 23 densely packed high-performance SPADs with
 - Large effective fill factor
 - High photon detection efficiency
 - Low jitter
 - Low dark count rates
- Peltier-cooling integrated
- Multiple mounting options (C-Mount, bracket)
- Available as add-on for MultiHarp 160 event timer



Application areas

- Optimized for Image Scanning Microscopy (ISM)
- Optimized for low dark count applications

Specifications (preliminary)

Feature highlights	
Active area	100 μm x 110 μm
Native fill factor	23.5 %
Effective fill factor with microlenses	>80 %
Photon Detection Efficiency (PDE)	typ. peak PDE 55 % @ 520 nm PDE typically above 35 % for wavelengths from 440 to 660 nm
Timing jitter	<120 ps FWHM for wavelengths between 510 and 785 nm
Dark count rates	typ. 100 cps for most pixels typ. 1 hot pixel with around >1 kcps Peltier-cooling for even less dark counts

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