

A game changer in single photon counting imaging

Mantis³

A single photon counting camera with nanosecond timestamping

The Mantis³ consists of a Timepix3-based visible light camera coupled to a Cricket™ containing a high-end image intensifier. The TPX3Cam* is a high-rate, event-driven, timestamping camera. The coupled image intensifier enables single photon sensitivity and offers a choice of photocathodes optimized for your application.

The C-mount coupling between the Cricket and TPX3Cam adds to the versatility of the Mantis³. Both parts can easily be combined with other equipment.

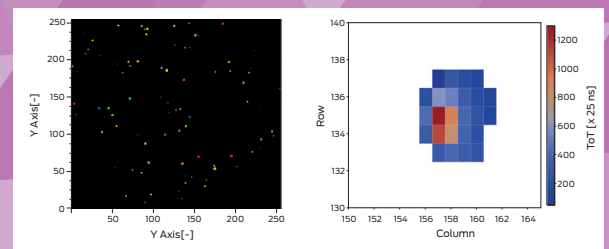
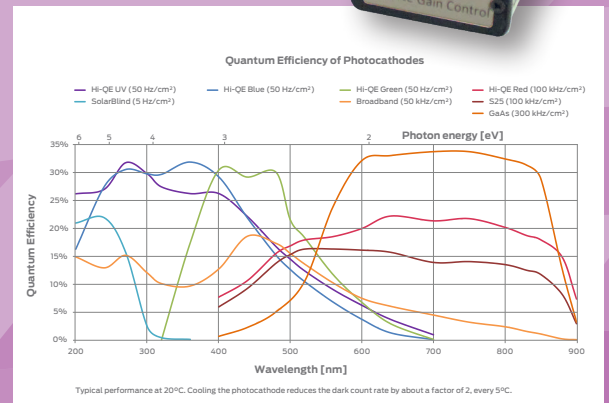
Features

- Timepix3 ASIC technology
- 1.6 ns timestamping
- Excellent time resolution (200 ps)
- Up to 80 Mhits/s rate capability
- Spatial resolution <10 μm on the sensor plane (after centroiding)

*TPX3Cam is offered in collaboration with Amsterdam Scientific Instruments.

Applications

- Time-correlated single photon counting
- Wide-field FLIM
- LIDAR
- Two-photon microscopy



Single photons time-of-arrival (ToA)

Single photon cluster time-over-threshold (ToT)

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