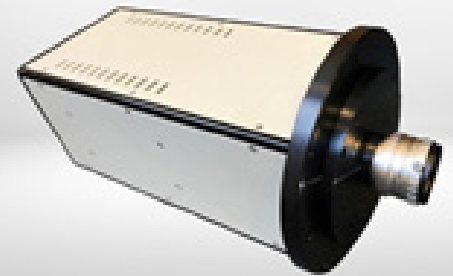


Photek Imaging Photon Detector (IPD)

The Photek Image Photon Detector (IPD) is based on a true single photon counting sensor that uniquely provides simultaneous position and timing information for each detected photon. The camera outputs a continuous stream of photon detection location and time (x, y, t).

The IPD is perfect for continuous imaging of processes with very low light levels over wide fields. The high resolution time tagging enables 100% duty cycle imaging of time resolved events. The IPD is highly customizable, with multiple options of image plane formats, high sensitivity photocathodes and accessories that can be combined into complete turn-key systems. The system is available in 3 different configurations. A performance comparison of the three units can be found on page 2.

Operation has never been easier thanks to the plug-n-play USB interface, fully integrated power supply and intuitive Image32 software.



Features:

- Noiseless photon counting
- High resolution position and time stamp for each photon
- Continuous data acquisition
- Variety of high QE, low noise photocathodes from UV to visible λ
- Fully integrated high voltage power supply

Applications:

- Wide field time correlated single photon counting
- Bioluminescence Imaging
- Chemiluminescence Imaging
- Time resolved Spectroscopy
- Fluorescence Lifetime Imaging
- Missile Warning



Product Specifications

Camera

| | |
|--------------------|---|
| ● Readout Mode | Real-time image integration and X,Y, T list |
| ● Integration Time | Unlimited |
| ● Input Window | Fused Silica or Fiber Optic |
| ● Photocathode | SB, Bi, S20, or S25 |
| ● High Voltage | Integrated |
| ● Interface | USB 2.0 |

Resolution

| | | | |
|----------------------------|------------------|------------------|------------------|
| ● Input Diameter | 18 mm | 25 mm | 40 mm |
| ● Typical Image Format | | 512 x 512 | |
| ● Pixel Size @ Image Plane | 35 μm | 50 μm | 80 μm |
| ● Limiting Resolution | 18 lp/mm | 15 lp/mm | 12 lp/mm |

Timing

| | |
|--------------------------|-------------------|
| ● Time Resolution | 10 ns |
| ● Maximum Count Rate | 300,000 cps |
| ● Recommended Count Rate | < 100,000 cps |
| ● Local Count Rate | 50,000 cps |
| ● Event Dead Time | 1.3 μs |

For complete product details and specifications, visit www.photek.com to review the product datasheet. Photek is accredited to ISO 9001 and ISO 14001.



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All specifications and data are taken from Photek.
Specifications subject to change.