SPAD CAMERA

peo PHOTONICS

Table of contents

NovoViz redefines what’s possible in photon detection. Just as OLED transformed displays, SPAD sensors are redefining vision—detecting single photons for unmatched speed and sensitivity. But with great data comes great complexity.

Product offering

Asynchronous Single-Photon Camera (NV04ASC-HW)

Asynchronous Single-Photon Camera (NV04ASC-HW)

The NovoViz NV04ASC-HW Asynchronous photon-driven camera was developed for applications requiring high sensitivity and/or frame rate but with reduced output bandwidth.

The camera combines the benefits of a single-photon avalanche diode (SPAD) camera, namely the single-photon resolution and fast operating speeds, with the benefits of an event camera – low output data rates.

Our innovative sensor architecture streams photon events with nanosecond timestamp resolution and latency over a conventional, low cost USB interface. The camera is well suited for high dynamic range imaging, low light imaging, depth sensing, obstacle detection and visual odometry, among others. Due to the advanced architecture, the camera can operate at an equivalent frame rate of 100 million single-photon frames per second which comes with significant advantages over current solutions.

Key Specifications:

- 64 x 48 SPAD pixels
- 100M fps
- 10ns resolution
- Event-driven output
- USB 3.0