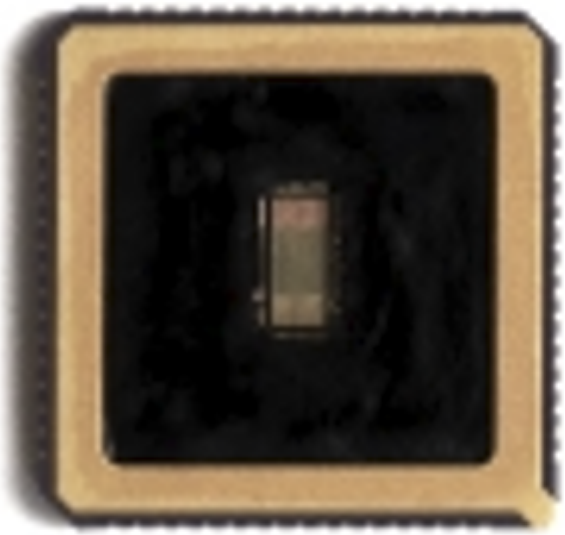
SENSOR CHIP



peo PHOTONICS

Table of contents

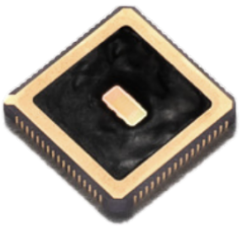
← Back to Table of Contents

Partner NovoViz

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 photon-driven sensor (NV04ASC)

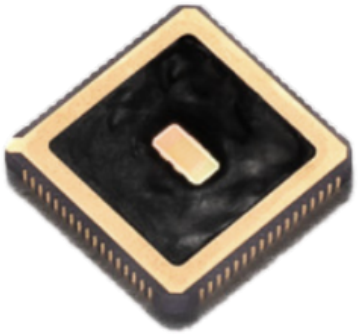


Photon Detection / SPAD Imaging › Sensor Chip

Asynchronous photon-driven sensor (NV04ASC)

The NovoViz NV04ASC asynchronous photon-driven sensor chip is engineered to meet the demands of applications that require both high sensitivity and elevated frame rates, while maintaining a reduced output bandwidth.

This advanced sensor integrates the advantages of single-photon avalanche diode (SPAD) technology—delivering true single-photon resolution and rapid response times—with the efficiency of event-based sensing, resulting in significantly lower data output rates.



Leveraging an innovative sensor architecture, the NV04ASC streams photon events with nanosecond-level timestamp resolution and minimal latency, all over a standard, cost-effective interface. Its design makes it exceptionally well-suited for high dynamic range imaging, low-light environments, depth sensing, obstacle detection, and visual odometry, among other applications. Owing to its novel architecture, the sensor achieves an effective frame rate of up to 100 million single-photon frames per second, offering substantial performance and efficiency advantages over existing solutions in the market. This combination of high speed, sensitivity, and data efficiency positions the NV04ASC as a versatile solution for next-generation imaging challenges across various industries.

Key Specifications:

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