

# High dynamic range 2D InGaAs area image sensors for near infrared hyperspectral imaging

## Delivers fast and low dark current for infrared detection

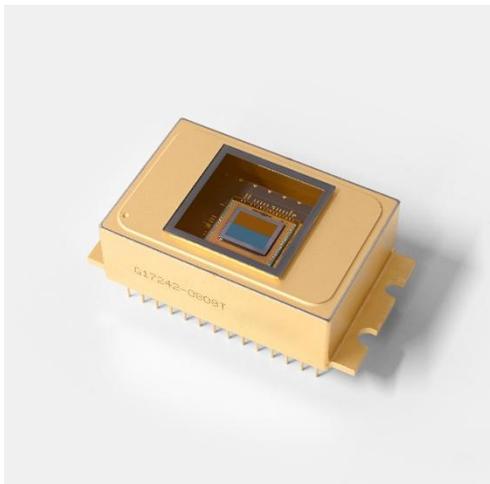
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G17243-0808T silicon photodiode ©Hamamatsu Photonics

Hamamatsu Photonics is pleased to announce the release of the G17242/G17243-0808T InGaAs area image sensors. These fast, low dark current sensors are engineered specifically for near infrared (NIR) hyperspectral imaging applications. They deliver a wide spectral response range ensuring exceptional performance for a multitude of scientific and industrial needs.

### Key benefits

Ideal for both R&D and industrial engineering professionals, its extensive **dynamic range of 3500** enables imaging with exceptional detail across a wide range of light intensities, ensuring versatility in various applications. Other features and benefits include:

- **4-Port analog output:** Provides flexible connectivity options, allowing for seamless integration with different systems and enhancing data acquisition capabilities.
- **High frame rate of 503 frames per second:** Facilitates rapid imaging, making it ideal for dynamic environments and fast-changing scenes, to capture the necessary data in real-time.
- **Low dark current:** Reduces noise in the imaging process, enhancing the clarity and quality of images.

- **Multi-line readout functionality:** Allows for simultaneous data readout across multiple lines, improving efficiency and speeding up the imaging process.
- **Simplified operation with built-in timing generator:** Reduces setup complexity and encourages ease of use, enabling quick deployment.
- **Three-stage TE-cooled design:** Maintains optimal sensor temperature for improved performance and reduced noise, ensuring reliable and consistent results over extended periods.
- **Flexible operation modes:** The ability to switch between ‘integrate while readout’ and ‘integrate then readout’ functions allow for customizable imaging strategies tailored to specific research or industrial needs.

**Target applications:**

- Hyperspectral Imaging
- Agriculture
- Food inspection
- Material analysis
- Metal exploration

For full technical details, visit the [17243-0808T InGaAs image sensor](#) product page and [datasheet](#) or [contact us](#).