

New High-Speed InGaAs Linear Image Sensors for Advanced Foreign Object Detection

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Hamamatsu Photonics Europe

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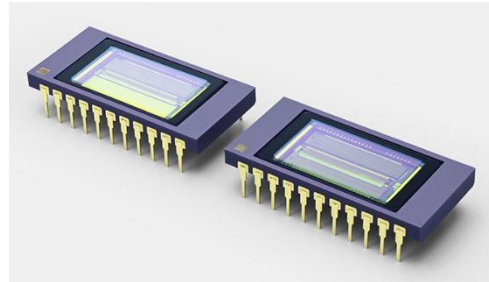
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High-speed line rate (50 klines/s) NIR image sensors

Hamamatsu Photonics announces the launch of the G17225 series, designed specifically for high-performance applications in foreign object detection, food screening, plastic sorting, spectral domain-optical coherence tomography (SD-OCT), and non-destructive inspection.

Ideal for in-line inspection processes, these new sensors boast an impressive array of features.



Key Features:

- **High-Speed Performance:** With a maximum line rate of 50 kilolines per second and a data rate of up to 20 MHz, the series ensures fast and accurate data acquisition critical for real-time inspection applications.
- **Selectable Conversion Efficiency:** Users can choose from four types of conversion efficiency, tailored to specific application requirements.
- **Built-in Temperature Sensor:** Maintaining stable operation under varying conditions is essential. The integrated temperature sensor ensures consistent performance and reliability, facilitating seamless integration into existing systems.
- **Room Temperature Operation:** Engineered for room temperature functionality, the G17225 series eliminates the need for complex cooling mechanisms, simplifying usage in various environments.

Applications

The sensors are ideal for applications in non-destructive food inspection, where safety and quality are of paramount importance. Their high sensitivity and broad spectral range allow for effective detection of foreign objects, ensuring that products meet rigorous quality standards. Their applications extend into SD-OCT and industrial sectors such as agricultural product sorting, where precision and speed translate to improved operational efficiency.

Specifications Snapshot:

- **Image size:** Options available: 12.8×0.025 mm, 12.8×0.0125 mm, and 12.8×0.25 mm.
- **Pixel Configuration:** Available pixel sizes (25×25 μ m, 12.5×12.5 μ m, and 12.5×250 μ m) for imaging flexibility.
- **Spectral Response:** Optimized range from 0.9 to 1.7 μ m, with peak sensitivity wavelengths tailored to specific application roles.

Hamamatsu understands the challenges faced by R&D engineers and industrial stakeholders. The G17225 series not only addresses the demand for speed and accuracy in inspection processes but also the importance of trusted inspection technologies for critical applications.

For more information, please visit the [product webpage](#)