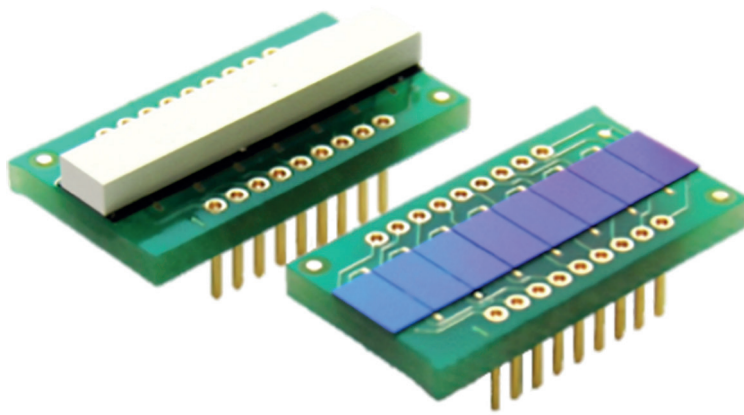


X-Array Series

Photodiode Array Series



The X-Array Series is an enhanced product family of back-illuminated photodiode arrays for numerous X-ray imaging applications like baggage, cargo, vehicle and industrial inspection.

The series comes with high sensitivity, improved pixel-to-pixel response uniformity, and reduced or even eliminated crosstalk. Moreover, the back-illuminated photodiode technology with the flip-chip assembly process makes the detectors robust and reliable.

The X-Array series includes wide selection of standard parts easily fitted to customer applications. It covers pixel pitches of 1.2, 1.6 and 2.5 mm, and is available with several scintillator options and different pin lengths.

X-Array series is designed to support both dual and single energy imaging configurations.

APPLICATIONS

- High resolution carry-on baggage scanning
- Security screening
- Cargo and vehicle inspection
- Non-destructive testing
- Food inspection
- Raw material sorting
- Thickness measurement
- Foreign particle detection
- Personnel/body scanning
- Tire inspection

KEY FEATURES

- 16-channel high resolution, low noise photodiode array
- High sensitivity, improved pixel-to-pixel response uniformity, minimized crosstalk
- Robust and reliable by flip-chip assembly technology
- 1.2, 1.6 and 2.5 mm pixel pitch options available as standard products
- Support both dual and single energy imaging configurations

GENERAL CHARACTERISTICS

PARAMETER	X-Array 1.2	X-Array 1.6	X-Array 2.5
Pixel size	0.9 x 2.15 mm	1.25 x 2.0 mm	2.15 x 2.8 mm
Substrate size	Wide: 19.0 x 17.8 Narrow: 19.0 x 10.2	Wide: 25.4 x 17.5 Narrow: 25.4 x 10.2	Wide: 40.0 x 17.5 Narrow: 40.0 x 10.2
Junction capacitance	35 pF typ.	40 pF typ.	80 pF typ.
Shunt resistance	2 GΩ	2 GΩ	1 GΩ
Sensitivity @ 550nm	370 mA/W typ.		
Non-uniformity, pixel-to-pixel	max +/-10%		
Scintillator options	GOS screen, Ceramic GOS, CsI(Tl), CdWO4		
Operating and storage temp range	-20...+60°C		

DETECTION TECHNOLOGY

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