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X-Scanimaging.com

X-Ray Line-Scan Camera Series

Crane XIH High Energy Detector

The X-Scan Imaging XIH8800 series of linear array (LDA) X-ray cameras offer high performance for high-energy X-ray and gamma-ray scanning applications in a compact form factor. A heavy-metal housing shields diode arrays and electronics ensuring long-life reliability under extreme radiation conditions. A wide selection of scintillation material combined with off-axis fiber optics convert high-energy photons into visible light for detection by the imaging array while providing a wide dynamic range, optimization of sensitivity and resolution, and solid-state reliability. The proximity of the analog-to-digital converters (ADC) to the detector chips and the use of low-voltage-differential-signal (LVDS) technology minimize interference noise. A collection of hardware for interfacing with computers and software including drivers, an intuitive application programming interface (API), and sample code expedite development.

Key Features

Off-axis, fiber-optic design for high-energy reliability in a compact form factor
50 keV to 15 MeV energy range
Choice of scintillators: GOS:Tb, CsI:Tl, CWO
Wide range of resolutions & selection of lengths
Incorporates X-Scan Imaging's proprietary photodiode arrays
- Selectable resolution
- Low noise, wide dynamic range, high sensitivity
- High MTF

16-bit analog-to-digital conversion
Supports variable scan speed with position synchronization
Software development kit
    Device drivers, libraries, standard API
GigE / Camera Link / USB3 interface

Applications

Industrial non-destructive testing (NDT)
Weld and corrosion inspection
Fan-beam computed tomography (CT)

Model: XIH88␣␣-[*LLL*][i]

Model series	XIH8850	XIH8801	XIH8802	XIH8804	XIH8808	XIH8816
Resolution	50 µm	0.1 mm	0.2 mm	0.4 mm	0.8 mm	1.6 mm
Number of pixels	LLL × 512	LLL × 256	LLL × 128	LLL × 64	LLL × 32	LLL × 16
Maximum line rate	550 Hz	1500 Hz	3 kHz	6 kHz	12 kHz	23 kHz

[i] Active Length is 25.6 mm × *LLL*, where *LLL* is the detector length in multiples of 6 inches and greater than 12 inches (minimum length is 308 mm with no maximum limit).
The maximum line rate is available for *LLL* ≤ 18 (461 mm). Depending on scintillator choice, image quality may be degraded at line rates greater than 1 kHz.

Standard Options

Part Numbering:

Example: XIH8802W15-600-024-GX-FGE

Definitions:

X	I	H	88	02	W15	–	600	–	024	–	DS	–	GX	–	FGE
[1]	[2]	[3]	[4]	[5]	[6]	[7]		[8]		[9]		[10]		[11]		[12]

Position	Description	Position	Description
[1]	Product Family	[7]	Scintillator Code
[2]	Array Type	[8]	Energy Rating
[3]	Shape	[9]	Detector Length (Inches)
[4]	Energy Option H= With FOP	[10]	Housing Aspect
[5]	Array Series	[11]	Interface G=GigE C=CameraLink U=USB
[6]	Pixel Pitch 02=200um, 04=400um, etc	[12]	PC Frame Grabber Card

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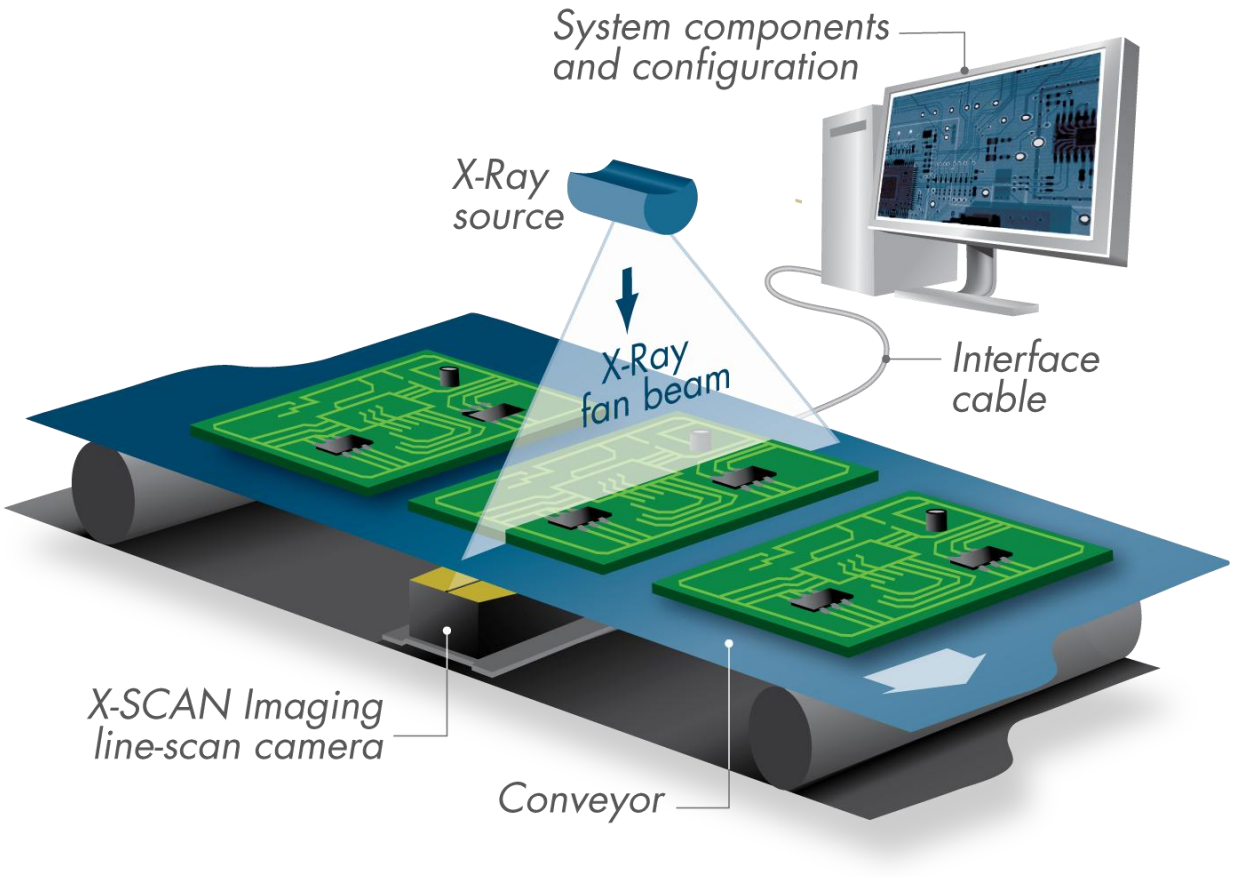
Setup

The XIH8800 series camera system includes a camera unit, a software development kit, power adapter and cabling. The frame-grabber to be installed in the computer is provided optionally. The objects to be scanned should be passed between the X-ray source and the camera.



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