

## Dual Energy X-ray Line-Scan Camera Series

# XD8800 Series

The X-Scan Imaging XD8800 series of dual energy linear array x-ray cameras offers high performance and capability to differentiate materials in a variety of applications. At the heart of a XD8800 camera are X-Scan Imaging's CMOS silicon imaging detector diode array chips providing wide dynamic range and solid-state reliability. A wide selection of filter and scintillation materials select and convert x-rays for detection by the diode array and optimizes x-ray energy discrimination, sensitivity, and resolution. The close 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 to computers and software including drivers, an intuitive application programming interface (API), and example code software expedite developments of x-ray scanning systems.

### Key Features

- Extract material of a target from dual-energy image data
- Incorporates X-Scan Imaging's proprietary XB8800 Photodiode Detectors
  - High resolution with varieties of filters and scintillators
  - Low noise, wide dynamic range, high sensitivity, high x-ray energy contrast
  - X-ray energy range options for:
    - Low x-ray energy range (25 – 100 KeV)
    - High x-ray energy range (45 – 160 KeV)
- Variable scan speed with position synchronization
- 16-bit analog-to-digital conversion
- Software development kit
  - Device drivers, libraries, standard API

### Applications

- Food and industrial inspection requiring high contrast
- Composite material sorting and inspection
- Security and cargo screening
- Waste sorting and recycling
- Rare metal or mineral detection
- Drug detection and control



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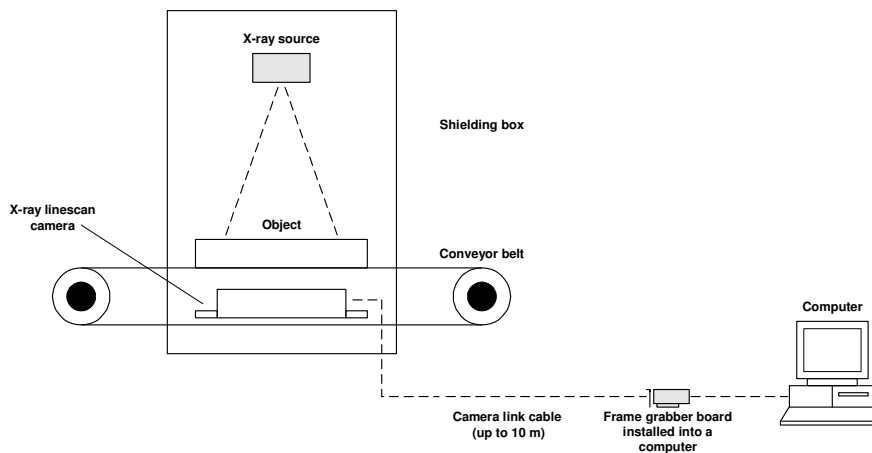
## Models

Model	Active length <sup>i</sup>	Number of pixels		
		XD8804 Series	XD8808 Series	XD8816 Series
XD88 <sub>LL</sub> -12	307 mm	768 × 2	384 × 2	192 × 2
XD88 <sub>LL</sub> -14	358 mm	896 × 2	448 × 2	224 × 2
XD88 <sub>LL</sub> -16	410 mm	1024 × 2	512 × 2	256 × 2
XD88 <sub>LL</sub> -18	461 mm	1152 × 2	576 × 2	288 × 2
XD88 <sub>LL</sub> -20	512 mm	1280 × 2	640 × 2	320 × 2
XD88 <sub>LL</sub> -24	614 mm	1536 × 2	768 × 2	384 × 2
XD88 <sub>LL</sub> -36	922 mm	2304 × 2	1152 × 2	576 × 2
XD88 <sub>LL</sub> -48	1229 mm	3072 × 2	1536 × 2	768 × 2

<sup>i</sup> Other detector lengths are available upon request. Minimum active length is 154mm.

## Setup

The XD8800 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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