

## X-ray Line-Scan Camera Series



# Hawk XID Dual Energy

The X-Scan Imaging XID8800 series of dual-energy linear array x-ray cameras offer high performance and capability to differentiate materials in a variety of applications. At the heart of a XID8800 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 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

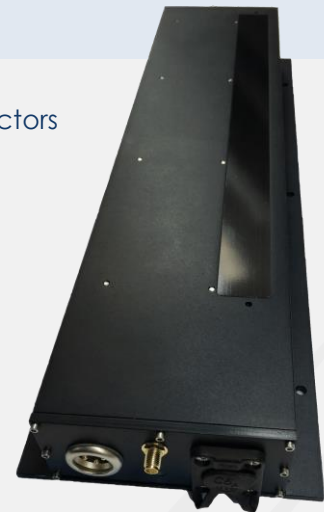
- High resolution with varieties of filters and scintillators
- Low noise, wide dynamic range, high sensitivity, high x-ray energy contrast
- X-ray energy range options for:
  - Low x-ray energy range (25 – 100 KeV)
  - High x-ray energy range (45 – 160 KeV)

Variable scan speed with position synchronization

16-bit analog-to-digital conversion

Software development kit

- Device drivers, libraries, standard API



Distributor



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## 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

## Filter Material

Copper 0.250, 0.400, 0.800mm standard  
 Filter material can be customized.

Adjustable low energy/high energy integration times

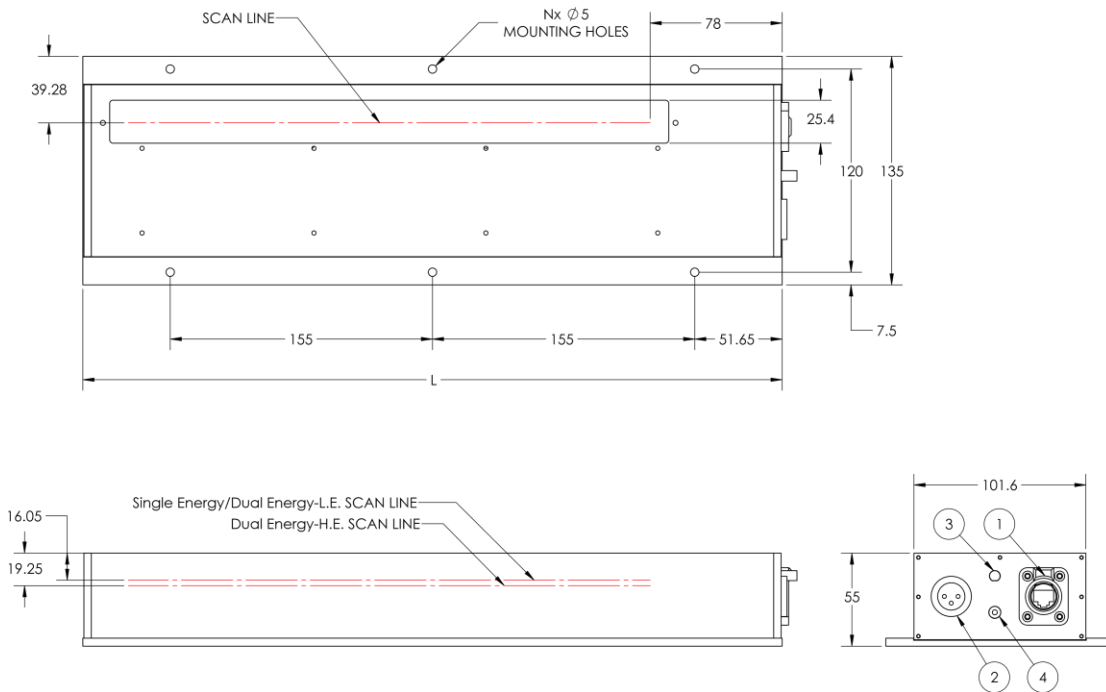
Model	Active length <sup>i</sup>	Number of pixels		
		XID8804 Series	XID8808 Series	XID8816 Series
XID88 <sub>LE</sub> -12	307 mm	768 × 2	384 × 2	192 × 2
XID88 <sub>LE</sub> -18	461 mm	1152 × 2	576 × 2	288 × 2
XID88 <sub>LE</sub> -24	614 mm	1536 × 2	768 × 2	384 × 2
XID88 <sub>LE</sub> -36	922 mm	2304 × 2	1152 × 2	576 × 2
XID88 <sub>LE</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.

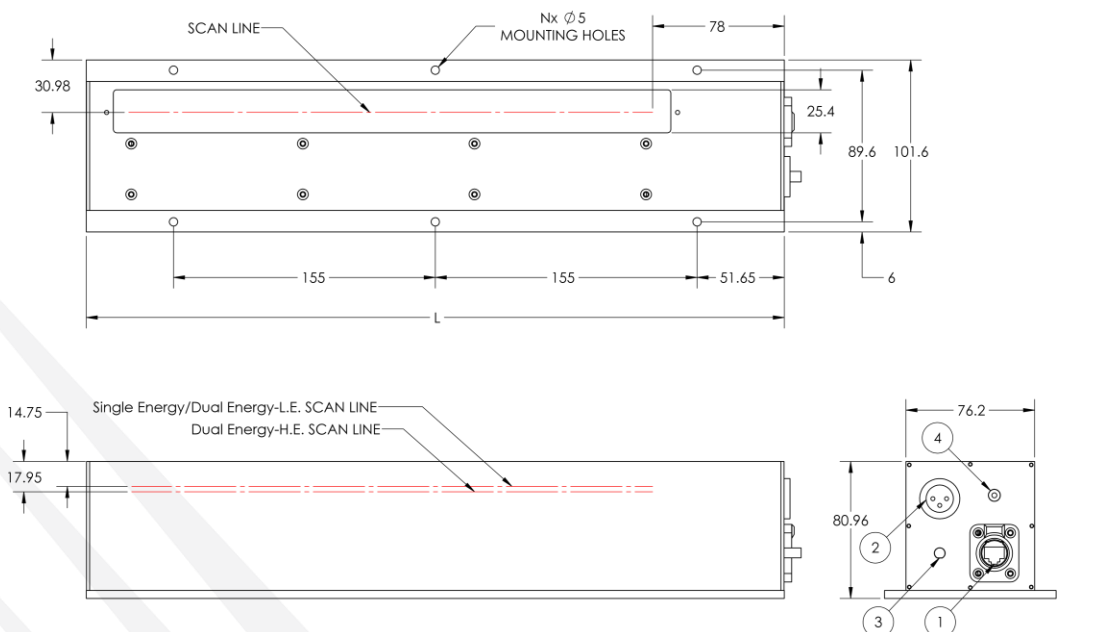
## Mechanical Configurations

X-Scan Imaging housings are available in two form factors. The DR housing is a low profile, wider detector to fit under conveyor systems or other tight spaces. The DS housing is a taller, narrower profile. The standard X-Scan Imaging detectors, Single Energy, Dual Energy, and CMOS TDI all share the same mounting hole pattern.

DR:

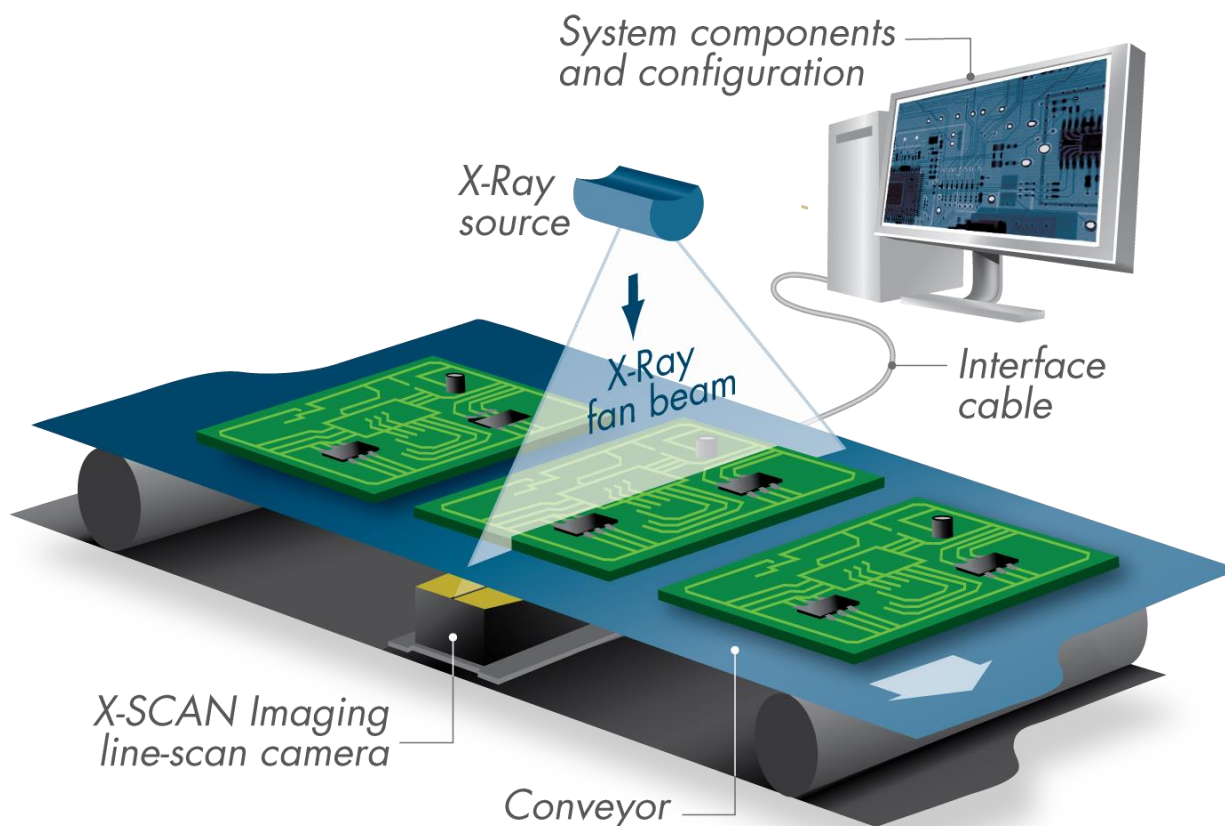


DS:



## Setup

The XID8800 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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