

X-PANEL[®] 4343a PSI



Portable a-Si-TFT X-ray flat panel detector



Key features

- **Technology** a-Si-TFT
- **Pixel pitch** 140 μm
- **Pixel matrix** 3072 x 3072
- **Pixel area** 430 x 430 mm
- **Energy range** 40-160 kV
- **Interface** Gigabit Ethernet
- **Frame rate** ≤ 1 s
- **Weight** 4.6 kg
- **Application** Industrial NDT
Digital radiography (DR)



X-Panel 4343a PSI is a portable type and low noise X-ray flat panel detector optimized for industrial non-destructive testing (NDT) and digital radiography (DR) applications. It is based on amorphous silicon (a-Si) technology that features a high dynamic range and a long lifetime among other benefits.

X-Panel 4343a PSI has good image quality and a large dynamic range. Furthermore, it comes with multiple gain modes, that make it compatible with both high sensitivity and large dynamic range requirements.

Technical specifications

Technology	
Sensor	a-Si-TFT
Scintillator	GOS / CSI
Active area	430 x 430 mm
Pixel matrix	3072 x 3072
Pixel pitch	140 µm
AD conversion	16 bits

Interface	
Communication interface	Gigabit Ethernet
Exposure control	Trigger in (Edge or Level) / Trigger out (Edge or Level)
Image Acquisition Time	≤1 seconds
Operating system	Windows7 / Windows10 OS 32 bits or 64 bits

Mechanical	
Dimensions (H x W x D)	460 x 460 x 15 mm
Weight	4.6 kg
Sensor protection material	Carbon fiber
Housing material	High strength aluminum alloy

Power	
Supply	100~240 VAC
Frequency	50/60 Hz
Consumption	14 W

Environmental	
Temperature range	10~35°C (operating); -10~50°C (storage)
Humidity	30~70% RH (non-condensing)
Vibration	IEC/EN 60721-3 class 2M3 (10~150 Hz, 0.5 g)
Shock	IEC/EN 60721-3 class 2M3 (11 ms, 2 g)
Ingress protection rating	IP41

Technical performance	
Resolution	3.5 lp/mm
Energy range	40~160 kV
Lag	<0.8% @1st frame
Dynamic range	≥86 dB
Sensitivity	540 lsb/uGy
SNR	48 dB @ (20000 lsb)
MTF	72% @ (1 lp/mm)
	44% @ (2 lp/mm)
	25% @ (3 lp/mm)
DQE	64% @ (0 lp/mm)
	41% @ (1 lp/mm)
	28% @ (2 lp/mm)

X-Panel 4343a PSI outline

