

Whale4343FSI

a-Si X-ray flat panel detector



Key Features

- Pixel pitch 140 μm
- Active Area 430×430mm
- Image Acquisition Time $\leq 1\text{s}$
- High dynamic range and a long lifetime among other benefits

Whale4343FSI is a fixed type and low noise X-ray flat panel detector. It is based on amorphous silicon (a-Si) technology that features a high dynamic range and a long lifetime among other benefits. Whale4343FSI 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. Optimized for industrial component counting, casting, pipe welding applications.



Technology	
Sensor	a-Si
Scintillator	GOS / CSI
Active Area	430 x 430 mm
Pixel Matrix	3072 x 3072
Pixel Pitch	140 μm
AD Conversion	16 bits
Interface	
Data Interface	Gigabit Ethernet
Exposure Control	Pulse Sync In / Pulse Sync Out
Work Mode	Software Mode / HVG Trigger Mode / AED Trigger Mode
Image Acquisition Time	≤1 s
Operating System	Windows7 / Windows10 OS 32 bits or 64 bits
Technical Performance	
Resolution	3.5 lp/mm
Energy Range	40~160KV / 350KV
Lag	0.8% @ 1st frame
Dynamic Range	≥86dB
Sensitivity	540 lsb/uGy
SNR	48 dB @ (20000lsb)
MTF	72% @ (1 lp/mm)
	44% @ (2 lp/mm)
	25% @ (3 lp/mm)
DQE (2uGy)	64% @ (0 lp/mm)
	41% @ (1 lp/mm)
	28% @ (2 lp/mm)
Mechanical	
Dimension(H x W x D)	470 x 470 x 34 mm
Weight	9.5 kg / 13 kg
Sensor Protection Material	Carbon Fiber
Housing Material	Aluminum Alloy
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)
Dust and Water Resistant	IPX0
Power	
Supply	100~240 VAC
Frequency	50/60 Hz
Consumption	14 W

