

# Shark3030FDM-X

IGZO X-ray flat panel detector



## Key Features

- Embedded image calibration feature for easy integration
- Pixel pitch 99  $\mu\text{m}$
- Low-noise, excellent dynamic image even at a low dose
- High speed without image delay
- The frame rate of Max. 40 fps (1x1) and Max. 80 fps (2x2)
- Direct deposition Cesium Iodide (CsI) Scintillator effectively reduces light scattering between pixels

**Shark3030FDM-X** is a 30 x 30 cm fixed type, dynamic flat panel detector based on Indium Gallium Zinc Oxide technology. The advanced IGZO TFT with CsI Scintillator provides an ultra low-noise image at a low dose and a high acquisition frame rate. It features excellent sensitivity and high dynamic range modes for high-end applications including cardiac and cerebral angiography. Shark3030FDM-X structural design effectively reduces the bending radius of the detector outlet, shortening the wiring space for easy installation and integration of systems. It performs well in DSA angiography.



# Technical Specifications

Technology	
Sensor	IGZO
Scintillator	CSI
Active Area	304 x 304 mm
Pixel Matrix	3072 x 3072
Pixel Pitch	99 $\mu$ m
AD Conversion	16 bits
Interface	
Data Interface	10G Ethernet
Exposure Control	Pulse Sync In / Pulse Sync Out
Work Mode	Software Mode / HVG Sync Mode / FPD Sync Mode
Frame Speed	40 fps (1x1) / 80fps (2x2)
Operating System	Windows7 / Windows10 OS 32 bits or 64 bits
Technical Performance	
Resolution	5.0 lp/mm
Energy Range	40~160 KV
Lag	0.8% @ 1st frame
Dynamic Range	$\geq$ 76 dB
Sensitivity	360 lsb/uGy
SNR	47 dB @ (20000lsb)
MTF	75% @ (1 lp/mm) 48% @ (2 lp/mm) 29% @ (3 lp/mm)
DQE (2uGy)	66% @ (0 lp/mm) 38% @ (1 lp/mm) 21% @ (2 lp/mm)
Mechanical	
Dimension(H x W x D)	344 x 341 x 28 mm
Weight	4.3 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	22 W

