

# Shark1717FDM

IGZO X-ray flat panel detector



## Key Features

- 111  $\mu\text{m}$  pixel pitch
- Excellent sensitivity and high dynamic range modes
- Suitable for dental CBCT application, ensures the overall imaging of the mouth and jaw
- ROI area scan function can replace the linear array detector
- CSI scintillator offers lower dose and high image quality

**Shark1717FDM** is a low noise X-ray flat panel detector optimized for dental CBCT application. It is based on Indium Gallium Zinc Oxide (IGZO) technology that supports a fast frame rate among other benefits. Shark1717FDM has excellent image quality and 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	IGZO
Scintillator	CSI
Active Area	170.5 x 170.5 mm
Pixel Matrix	1536 x 1536
Pixel Pitch	111 μm
AD Conversion	16 bits
Interface	
Data Interface	1G / 2.5G Ethernet
Exposure Control	Pulse Sync In / Pulse Sync Out
Frame Speed	35 fps (1×1)
Operating System	Windows7 / Windows10 OS 32 bits or 64 bits
Technical Performance	
Resolution	4.5 lp/mm
Energy Range	40~160 KV
Lag	0.8% @ 1st frame
Dynamic Range	≥86 dB
Sensitivity	440 lsb/uGy
SNR	49 dB @ (20000lsb)
MTF	78% @ (1 lp/mm) 49% @ (2 lp/mm) 29% @ (3 lp/mm)
DQE (2uGy)	61% @ (0 lp/mm) 40% @ (1 lp/mm) 27% @ (2 lp/mm)
Mechanical	
Dimension(H x W x D)	204 x 196 x 35 mm
Weight	2.8 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	10W

