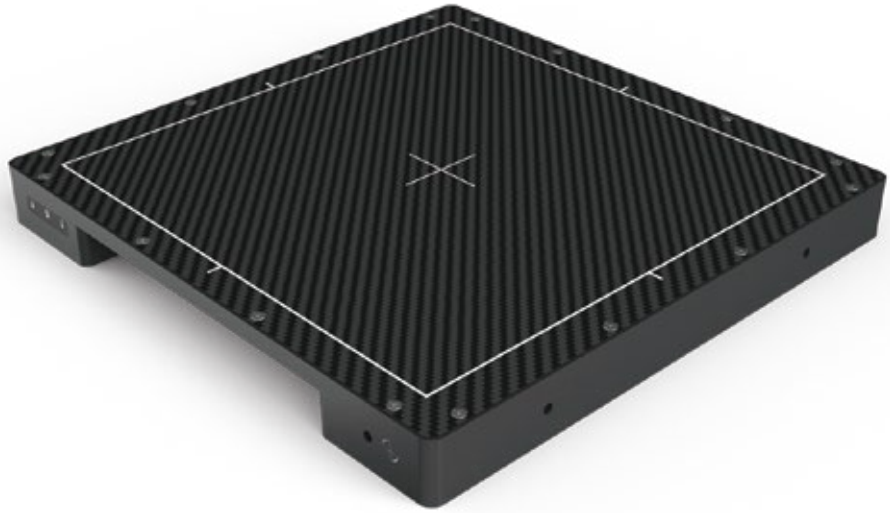
# Shark2323FDM

Detection Technology

## IGZO X-ray flat panel detector



## Key Features

- Embedded image calibration feature for easy integration
- Pixel size 148 μm
- 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)
- Cost saving

Shark2323FDM is a 23 x 23 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.  Shark2323FDM 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 C-arm systems, image intensifier replacement and upgrade.

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# Technical Specifications

| | |
|---|---|
| **Technology** | |
| Sensor | IGZO |
| Scintillator | CSI |
| Active Area | 227 x 227 mm |
| Pixel Matrix | 1536 x 1536 |
| Pixel Pitch | 148 μm |
| 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 | 3.37 lp/mm |
| Energy Range | 40~160 KV |
| Lag | 0.8% @ 1st frame |
| Dynamic Range | ⩾88dB |
| Sensitivity | 740 lsb/uGy |
| SNR | 50 dB @ (20000lsb) |
| MTF | 70% @ (1 lp/mm) |
| | 42% @ (2 lp/mm) |
| | 23% @ (3 lp/mm) |
| DQE（2uGy） | 68% @ (0 lp/mm) |
| | 43% @ (1 lp/mm) |
| | 28% @ (2 lp/mm) |
| **Mechanical** | |
| Dimension(H x W x D) | 268 x 265 x 28 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 | 10 W |