

X-Ray FLAT PANEL IMAGER

FDX2121F

Active Area: 21 (H) × 21 (V) cm

FEATURING:

- **Excellent Sensitivity & Resolution**
- **Excellent Image Quality**
- **Excellent Reliability**
- **High speed & real-time image**

– Excellent Sensitivity & Resolution –

- Advanced and proven fine structured CsI:Tl and direct vapor deposition technology deliver higher sensitivity and better resolution.
- Reflection coating on CsI:Tl screen enables excellent Detective Quantum Efficiency (DQE) and low noise.

– Excellent Image Quality –

- Lower radiation dose beneficial to patients as a result of excellent image quality. The FDX2121F offers a new level of functionality and reliability for system manufacturers.

– Excellent Reliability –

- Excellent durability by using CsI:Tl screen direct vapor deposition method.
- The structure is highly reliable and protected from degradation due to the use of a unique moisture-proof sealing method for the CsI:Tl screen

– High speed & Real-time image –

- Achieves a real time and low dose image with high speed and low-noise ROIC.

INTENDED USE:

FDX2121F is an X-ray flat panel imager for medical mobile C-arm application of orthopedic purpose. This device can be used with an x-ray generator. It provides digital signal by detecting X-rays which pass through patient body and strike its surface. It does not provide clinical image, nor function of controlling X-ray generator.

For medical diagnosis, it additionally requires image processing with application software to visualize digital image. It is not intended to use for mammography, and angiography applications.

FPI is offered to the production maker of the X-ray equipment as components.

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COMPONENTS AND CHARACTERISTICS

Flat Panel Sensor Unit:

Sensor Protection Plate	Carbon Fiber Plate
Cooling	Natural Air Cooling
Input	DC24V,2A(max)
Overall Dimensions	275×275×50mm (W(H)×H(V)×D)
Weight	Typical 8 kg

Environmental:

Under delivery and stock

Temperature	-15 to 55 °C
Humidity	10 to 90 % (Non-Condensing)
Pressure	50 to 106 kPa

Under operating

Temperature	+10 to 35 °C
Humidity	10 to 85 % (Non-Condensing)
Pressure	70 to 106 kPa

ACCESSORIES

Connector

Connector for DC input	1
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MAIN CHARACTERISTICS

Image Format:

X-ray Conversion Layer	Cesium Iodide (Csl) with Amorphous Silicon (a-Si) Photodiode
Active Area	21(H) × 21(V) cm
Pixel Matrix	1024(H) × 1024(V)
Pixel Pitch	205 μm
Binning	1×1, 2×2
Maximum frame rate	25 fps (Non-Binning 1×1) at pulsed fluoroscopic mode 30 fps (Non-Binning 1×1) at continues fluoroscopic mode 30 fps (Binning 2×2) at pulsed and continues fluoroscopic mode

Performance:

Limiting Resolution	2.5 Lp/mm typ.
MTF (2.0 Lp/mm, 70 kVp, 1×1)	30 % typ.
DQE (DQE (0), Quantum - Limited)	75% typ.
A/D Conversion	16 bit

Ratings:

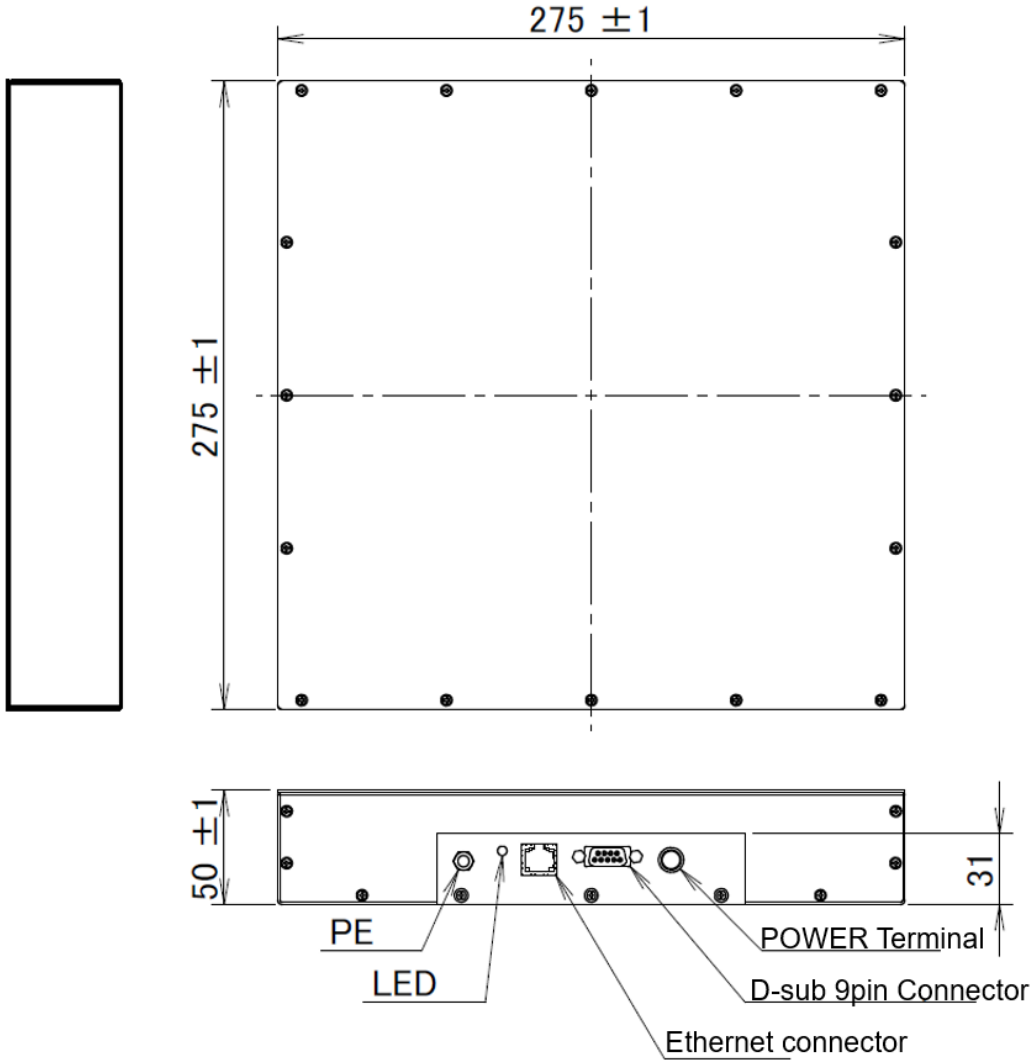
Energy Range	40-125 kVp
Maximum Entrance Dose (low Gain 1X1) (Linear Output Range)	30uGy / frame(typ.)

Interface:

Data Output	Ethernet (1000BASE-TX)
X-ray Synchronization Control	External
Power Input	DC24V

IMENSIONAL OUTLINE (1)
(Front side view)

Unit: mm



DIMENSIONAL OUTLINE (2)
(Back side view)

Unit: mm

