

# Whale3025FPI-M

## Fixed Type X Ray Detector



## Whale3025FPI-M X Ray Detector

Whale3025FPI-M production is a fixed type and low noise x ray flat panel detector based on amorphous silicon technology. A-Si technology based detector owns many advantages that are unavailable with other technology, Whale3025FPI-M production takes a high image quality and a large dynamic range, also Whale3025FPI-M possesses multi-gain stage, this function makes it possible that the detector can both be suitable for high sensitivity and large dynamic range requirements. Based on above characteristics, Whale3025FPI-M detector can be widely used in medical, industrial, veterinary, and research application area.

Key features for amorphous silicon technology:

- ◆ Large dose dynamic range
- ◆ Long life time

### Key Features

- Pixel Pitch: 140  $\mu\text{m}$
- Pixel Matrix: 1792 x 2048
- ADC: 16-bit
- Gain Stage: Multi-Gain
- Scintillator: CSI/GOS
- Water Proof: IPX0
- Interface: Optical Fiber  
High voltage generator Power
- Calibration: Software, Firmware
- Radiation Hardness:  $\geq 10000\text{Gy}$

### Application

- Medical
- Industry
- Veterinary
- Research

#### Technology

Sensor	a-Si
Scintillator	CSI/GOS
Active Area	250 x 286 mm
Pixel Matrix	1792x 2048
Pixel Pitch	140 $\mu\text{m}$
AD Conversion	16 bits

#### Interface

Communication Interface	Optical Fiber
Exposure Control	Pulse Sync In (Edge or Level) / Pulse Sync Out (Edge or Level)
Mode	Software Mode / HVG Sync Mode / FPD Sync Mode
Frame Speed	20fps
Operating System	Windows7 / Windows10 OS 32 bit or 64 bit

#### Technical Performance

Resolution	3.5 lp/mm
Energy Range	40~350 KV
Lag	$\leq 1\%$ 1st frame
Dynamic Range	86 dB
Sensitivity	540 lsb/uGy
SNR	48 dB @(20000lsb)
MTF	70% @(1 lp/mm) 38% @(2 lp/mm) 21% @(3 lp/mm)
DQE (2uGy)	58% @(0 lp/mm) 41% @(1 lp/mm) 25% @(2 lp/mm)

#### Mechanical

Dimension(H x W x D)	322 x 285x 46.5 mm
Weight	4.8 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

#### Regulatory

CFDA (China)	
FDA (USA)	
CE (Europe)	

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