

Flat Panel Detector



Product Description

The PaxScan $^{\circ}$ 2121DXV is a real-time digital X-ray imaging device commonly referred to as a flat panel detector (FPD). The main system components are the 21 x 21cm 205 μ m-pixel amorphous silicon FPD. Interfacing to the 2121DXV is a simple task through the standard Gigabit Ethernet port. The developer's software package includes a "Virtual Command Processor" software interface that performs detector calibration, receptor set-up, image acquisition and image correction. This imager is intended for incorporation into a complete X-ray system by a qualified equipment manufacturer.

Technical Specifications

Receptor Type	Amorphous Silicon
Conversion Screen	Integral columnar CsI:TI
Pixel Area - Total	209.9 mm (h) x 209.9 mm (v)
Pixel Matrix - Total	
Pixel Pitch	205 μm
Limiting Resolution	

Image Quality (RQA5) (typical)

<u>Image Quality (RQA5) (typical)</u>	
MTF (1x1)	
1.0 lp/mm	55%
2.0 lp/mm	22%
DQE (1x1, Quantum-limited)	
0 lp/mm	80%
1.0 lp/mm	65%
2.0 lp/mm	40%
Quantum Limited Dose	2 nGy/frame (2 x 2) 6 nGy/frame (1 x 1)
Energy Range	40 - 150 kVp
Fill Factor	77.4%
Lag	2.5% Nominal (first frame)
Scan Method	Progressive
Data Output	GigE
A/D Conversion	16-bit
Cooling	Passive
Radiation Tolerance (active area)	2000 Gy
Dynamic Range	94 dB std modes

Power Requirements

Input voltage range
(measured at the input of the imager)
Nominal Power Consumption ¹
Peak Power Consumption ¹ (initialization)
<u>Mechanical</u>
Weight
Housing Material Aluminum
Sensor Protection Carbon fiber and aluminum
$\label{thm:mounting Provisions} \textbf{Blind, threaded mounting holes on the back.}$
Image Acquisition Modes
2 x 2 Binned 60 fps continuous X-ray, 30 fps pulsed Fluoro
Full Resolution 30 fps continuous X-ray, 15 fps pulsed Fluro
Environmental
Temperature Range - Operating
Temperature Range - Storage20°C - 70°C
Relative Humidity (non-condensing)
Atmospheric Pressure
Shock Tolerance 20G (any direction no power applied)
Regulatory
U.S ANSI/AAMI ES60601-1:2012
Canada
EU IEC/EN 60601-1:2012
Note ¹ Power drop across supply cables is not included

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