



Product Description

The PaxScan® 2020X (version 3) is a real-time digital X-ray imaging device commonly referred to as a flat panel detector (FPD). The main system components are the 20 x 20cm 194µm-pixel amorphous silicon FPD and Command Processor CP2LC. Excellent low-dose performance is achieved by combining Varex Imaging's proprietary readout electronics with a custom Cesium Iodide scintillator. A Windows® based application program and a communications command (DLL) library has also been developed to assist OEM customers tasked with developing their own system interface. 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	199 mm (h) x 199 mm (v) (7.8 x 7.8 in.)
Pixel Matrix - Total	1,024 (h) x 1,024 (v)
Effective	1,004 (h) x 1,004 (v)
Pixel Pitch	194 µm
Limiting Resolution	2.58 lp/mm @ 30 fps (1 x 1) 1.29 lp/mm @ 60 fps (2 x 2)

Image Quality (RQA5) (typical)

MTF (1x1)	
1.0 lp/mm	55%
2.0 lp/mm	25%
2.58 lp/mm (Nyquist Frequency)	16%
DQE (1x1, Quantum-limited)	
0 lp/mm	77%
1.0 lp/mm	60%
2.0 lp/mm	37%
Quantum Limited Dose (2x2)	1.5 nGy/frame
Energy Range	40 - 150 kVp
Fill Factor	68%
Lag	< 5% (first frame)
Scan Method	Parallel
Data Output	Fiber optic
A/D Conversion	16-bit
Cooling	Passive
Radiation Tolerance	2000 Gy (active area)
Dynamic Range	94 dB std modes 108 dB DGS modes

Power Requirements

Input voltage range	21V - 33V (measured at the input of the imager)
Nominal Power Consumption ¹	17 W
Peak Power Consumption ¹ (initialization)	21 W

Mechanical

Weight	3.2 kg
Housing Material	Aluminum
Sensor Protection	Carbon fiber and aluminum
Mounting Provisions ..	Blind, threaded mounting holes on the back.

Image Acquisition Modes

Normal Fluoro	512 (h) x 512 (v) (2x2 binned)
Full Resolution	1,024 (h) x 1,024 (v)

Environmental

Temperature Limit	15 - 59°C (as reported by imager internal sensor)
Relative Humidity (non-condensing)	10% - 80%
Atmospheric Pressure	70 kPa - 106 kPa
Shock Tolerance	20G (any direction no power applied)

Regulatory

U.S.	ANSI/AAMI ES60601-1:2005
Canada	CAN/CSA C22.2 No. 60601-1:08
EU	IEC/EN 60601-1:2005

Note¹ Power drop across supply cables is not included

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Drawing for reference only

Inches [Centimeter]

