



### **Product Description**

The PaxScan® 2020DXV 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. Interfacing to the 2020DXV 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:Tl
Pixel Area - Total .....	199 mm (h) x 199 mm (v)
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 (1 x 1)
	1.29 lp/mm (2 x 2)

### **Image Quality (RQA5) - (typical)**

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 .....	42%
Quantum Limited Dose (2x2) .....	2 nGy/frame
(1x1) .....	6 nGy/frame
Energy Range .....	40 - 150 kVp
Fill Factor .....	68%
Lag .....	2.5% Nominal (first frame)
Scan Method .....	Parallel
Data Output .....	GigE
A/D Conversion .....	16-bit
Cooling .....	Passive
Radiation Tolerance (active area) .....	2000 Gy
Dynamic Range .....	94 dB std modes
	108 dB DGS modes

### **Power Requirements**

Input voltage range .....	21 V - 33 V
	(measured at the input of the imager)
Nominal Power Consumption <sup>1</sup> .....	12 W
Peak Power Consumption <sup>1</sup> (initialization) .....	15 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**

2 x 2 Binned .....	60 fps continuous X-ray, 30 fps pulsed Fluoro
Full Resolution .....	30 fps continuous X-ray, 15 fps pulsed Fluoro

### **Environmental**

Temperature Range - Operating .....	15°C - 58°C
	(as reported by imager internal sensor)
Temperature Range - Storage .....	-20°C - 70°C
Relative Humidity (non-condensing) .....	10% - 90%
Atmospheric Pressure .....	70 kPa - 106 kPa
Shock Tolerance .....	20G (any direction no power applied)

### **Regulatory**

U.S. ....	ANSI/AAMI ES60601-1:2012
Canada .....	CAN/CSA C22.2 No. 60601-1:14
EU .....	IEC/EN 60601-1:2012

Note <sup>1</sup> Power drop across supply cables is not included.

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Drawing for reference only

Inches [millimeters]

