The PaxScan® 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 21 cm 205\textmu 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:Tl
- **Pixel Area - Total**: 209.9 mm (h) x 209.9 mm (v)
- **Pixel Matrix - Total**: 1,024 (h) x 1,024 (v)
- **Effective**: 1,004 (h) x 1,004 (v)
- **Pixel Pitch**: 205 \textmu m
- **Limiting Resolution**: 2.43 lp/mm (1 x 1) 1.22 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 ...................................... 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**: Parallel
- **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**: 21 V - 33 V (measured at the input of the imager)
- **Nominal Power Consumption**: 12 W
- **Peak Power Consumption**: 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 1  Power drop across supply cables is not included

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PaxScan® 2121DXV
Flat Panel Detector

Manufacturer by Varex Imaging Corporation
Specifications subject to change without notice.

Note: All Varex Imaging Amorphous Silicon Receptors are designed to be integrated into a complete X-ray system by a qualified system integrator. The system integrator is responsible for obtaining FDA clearance for medical use.

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