## Product Description

The PaxScan® 2020X 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

<table>
<thead>
<tr>
<th>Receptor Type</th>
<th>Amorphous Silicon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conversion Screen</td>
<td>Integral columnar CsI:Tl</td>
</tr>
<tr>
<td>Pixel Area - Total</td>
<td>199 mm (h) x 199 mm (v) (7.8 x 7.8 in.)</td>
</tr>
<tr>
<td>Pixel Matrix - Total</td>
<td>1,024 (h) x 1,024 (v)</td>
</tr>
<tr>
<td>Effective</td>
<td>1,004 (h) x 1,004 (v)</td>
</tr>
<tr>
<td>Pixel Pitch</td>
<td>194 μm</td>
</tr>
<tr>
<td>Limiting Resolution</td>
<td>2.58 lp/mm @ 30 fps (1 x 1)</td>
</tr>
<tr>
<td></td>
<td>1.29 lp/mm @ 60 fps (2 x 2)</td>
</tr>
</tbody>
</table>

### 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 ........................................... 55%
  - 2.0 lp/mm ........................................... 30%
- **Quantum Limited Dose (2x2)** .................. 3.5 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** ......................... 2000Gy (active area)
- **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** .................. 17 W
- **Peak Power Consumption** .................... 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 - 90%
- **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

Note: Power drop across supply cables is not included

*PaxScan is a Registered Trademark of Varex Imaging Corporation*
Drawing for reference only

Inches [Centimeter]