1207 CMOS
Flat Panel Detector

OVERVIEW
Varex Imaging’s 1207 CMOS Flat Panel X-ray Detector (FPD) is a high speed, low noise X-ray detector with excellent sensitivity. It employs state-of-the-art large-area CMOS (Complementary Metal-Oxide Semiconductor) image sensor technology and is supplied with a range of scintillator and interface options.

Varex Imaging 1207 Flat Panel X-ray Detector has switchable pixel gain that makes it well suited to real-time imaging and CT as well as static imaging with high dynamic range.

FEATURES AND BENEFITS
• 74.8 µm pixel pitch
• 1536 x 864 pixel matrix
• High Sensitivity and High Dynamic Range modes
• Operation up to 160 kV
• Suitable for real-time imaging at up to 191 fps
• 1 x 1, 2 x 2 and 4 x 4 pixel binning options
• High DQE
• Various scintillator options available
• Input/output for X-ray generator synchronization
• Camera Link or GigE Vision data connection

APPLICATIONS¹
• Medical
• Dental
• Veterinary
• Life sciences

www.vareximaging.com
### TECHNICAL SPECIFICATIONS

#### SENSOR
- **Pixel Size (µm)**: 74.8
- **Sensitive Area (mm²)**: 114.9 × 64.6
- **Pixel Matrix (px)**: 1536 × 864

#### MAX FRAME RATE (FPS)

<table>
<thead>
<tr>
<th>Pixel Binning</th>
<th>Camera Link</th>
<th>GigE Vision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1×1</td>
<td>60</td>
<td>31</td>
</tr>
<tr>
<td>2×2</td>
<td>156</td>
<td>126</td>
</tr>
<tr>
<td>4×4</td>
<td>191</td>
<td>191</td>
</tr>
</tbody>
</table>

#### IMAGE PERFORMANCE
- **Dynamic Range (dB)**
  - **High Dynamic Range Mode**: typ. 71
  - **High Sensitivity Mode**: typ. 68
- **X-ray Energy Range (kV)**: 12 - 130

#### MECHANICAL
- **Weight (kg)**: 1.9
- **Dimensions l × w × h (mm³)**: 223.5 × 150 × 42

#### MECHANICAL CHARACTERISTICS
(*Dimensions in mm*)

#### COMMUNICATIONS
- **Camera Link**: Base 80 Mhz (1 cable)
- **GigE Vision**: 1000BASE-T
- **Digital Output**: 14-bit
- **Control Channel**: 115 kBaud serial link / Camera Link / GigE Vision
- **Sync Ports**: BNC
- **Sync In Port**: 3 - 15 V edge or level trigger
- **Sync Out Port**: TTL (0 - 5.0 V)
- **Software**: Support for 32 and 64 bit Windows® OS

#### POWER
- **Camera Link**: 8 W
- **GigE Vision**: 10.5 W

#### SCINTILLATOR OPTIONS
- **High Efficiency microcolumnar CsI**
- **High Resolution microcolumnar CsI**
- **Various Gd₂O₂S:Tb (GOS) fluorescent screens**

#### TEMPERATURE RANGE
- **Operating Temperature**: +10°C to +40°C
- **Storage Temperature**: -10°C to +50°C

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1 Unless otherwise specified, Varex Imaging Flat Panel X-ray Detectors are components intended to be integrated into products by X-ray system manufacturers. System manufacturers are responsible for qualifying and validating their products for their intended uses and meeting all applicable regulatory requirements.

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