OVERVIEW
Two models of the Varex Imaging XRD 1622 digital Flat Panel X-ray Detectors (FPDs) are available: The Varex Imaging XRD 1622 AO provides over 74 dB of dynamic range and 1 frame per second (fps). The enhanced performance Varex Imaging XRD 1622 AP offers over 87 dB of dynamic range and frame rates up to 4 fps via multiple read-out modes. Both detectors support a broad range of energy levels from 20 kV – 15 MV and are available with several shielding and scintillator options.

Rapid system integration is accomplished via Gigabit Ethernet data communication, integrated trigger and X-ray synchronization circuitry, and a comprehensive software library for image acquisition and processing.

The wide energy range, variable frame rates and shielding options allow the Varex Imaging XRD 1622 to meet the component requirements of applications such as industrial non destructive testing, radiation therapy for cancer treatment, as well as veterinary and life and physical science.

FEATURES AND BENEFITS
- Radiation-hardened for harsh environments
- 200μm pixel pitch
- Up to 65,536 gray levels
- X-ray energies from 20 kV – 15 MV
- Selectable gain settings
- Gigabit Ethernet interface

APPLICATIONS
- Radiography, Radiosurgery & Proton Therapy
- Industrial Non Destructive Testing & Evaluation
- Veterinary
- Life & Physical Science
### Technical Specifications

#### SENSOR
- Panel: Single substrate amorphous silicon active TFT/diode array
- Scintillator: Direct deposition CsI:Tl or various Gd\(_2\)O\(_2\)S:Tb (GOS) fluorescent screens
- Pixel Matrix: 2048 x 2048 @ 200 µm pitch

#### ELECTRONICS
- Amplifiers: 16 x 128 channel custom low noise ASICs with 2 (AO) or 6 user selectable gain settings
- ADC: 14 bit (AO), 16 bit (AP)

#### MECHANICAL
- Size: 50.0 cm (w) x 56.0 cm (l) x 2.2 cm (h)
- Weight: 8.8 kg
- Housing: Aluminum
- Shielding: Integrates with shielding cassette for high energy applications (optional)

#### COMMUNICATIONS
- Data I/F: Gigabit Ethernet Vision
- X-ray I/F: Integrated X-ray trigger control
- Software: Support for 32 and 64 bit Windows® OS

#### IMAGING PERFORMANCE
- DQE: 67% (0 cy/mm), 53% (1 cy/mm), 36% (2 cy/mm) for RQA5 with CsI
- MTF: 63% (1 cy/mm), 31% (2 cy/mm) with CsI
- Lag: < 6% 1st frame
- Dynamic Range: > 74 dB (AO), > 87 dB (AP)
- Energy: 20 kV – 15 MV

#### ENVIRONMENTAL
- Temperature: 10 – 40°C (operating), -10 – 50°C (storage)
- Humidity: 10 – 90%RH (non-condensing)
- Ingress: IP-65 rated (total dust and low pressure water jets protection)
- Vibration: IEC/EN 60068-2-6 (10-150 Hz, 0.5 g)
- Shock: IEC/EN 60068-2-27 (11 ms, 2 g)

#### POWER
- Supply: 100 – 240 VAC, 50/60 Hz
- Dissipation: XRD-LPM Power Supply 40 W

#### REGULATORY
- Standards: UL-60601-1, IEC/EN-60601-1, IEC/EN-60950-1
- Regulations: CE, RoHS

---

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. Contents in this document are subject to change without notice.

---

©2017 Varex Imaging Corporation. All Rights reserved. Production of any of the material contained herein in any format or media without the express written permission of Varex Imaging Corporation is prohibited.