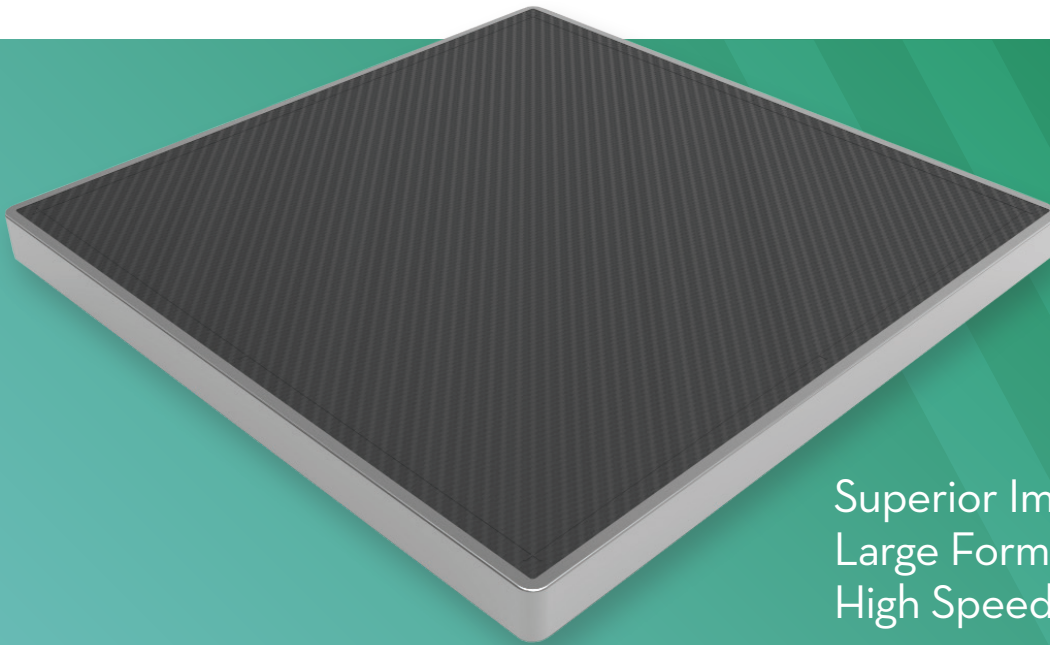


XRD 4343RF

Flat Panel Detector



Superior Image Quality
Large Format, Static and
High Speed Real-time Imaging

OVERVIEW

Varex Imaging XRD 4343RF is based on the next generation platform of Varex Imaging amorphous silicon (a-Si) Flat Panel X-ray Detectors (FPDs). The enhanced performance Varex Imaging XRD 4343RF supports a full 43 x 43 cm² (17 x 17 in²) field of view providing superior imaging for fluoroscopy, radiography and cone beam CT applications. The detector offers frame rates up to 85 fps and has a direct deposited Cesium Iodide scintillator for superior image quality.

Rapid system integration is accomplished with real time image processing PCIe board for host computer, integrated trigger and X-ray synchronization circuitry and a comprehensive software library for image acquisition and processing.

FEATURES AND BENEFITS

- 15 fps at 150 μm pixel pitch
- 2880 x 2880 pixel matrix
- Excellent DQE
- 16-bit digital output
- Directly deposited CsI scintillator
- Fast switching between imaging modes
- Fiber optical interface
- Real time corrections on a PCIe card
- Trigger interface for X-ray generator

APPLICATIONS¹

- Radiography & Fluoroscopy
- 3D Cone Beam CT

Technical Specifications

SENSOR

Panel Single substrate amorphous silicon active TFT-diode array
 Scintillator CsI:TI
 Pixel Matrix 2880 × 2880 @ 150 μm pitch
 Total Area 432 mm × 432 mm

ELECTRONICS

Amplifiers . . . User selectable gain and frame rate settings to support RAD, DSA and fluoroscopy

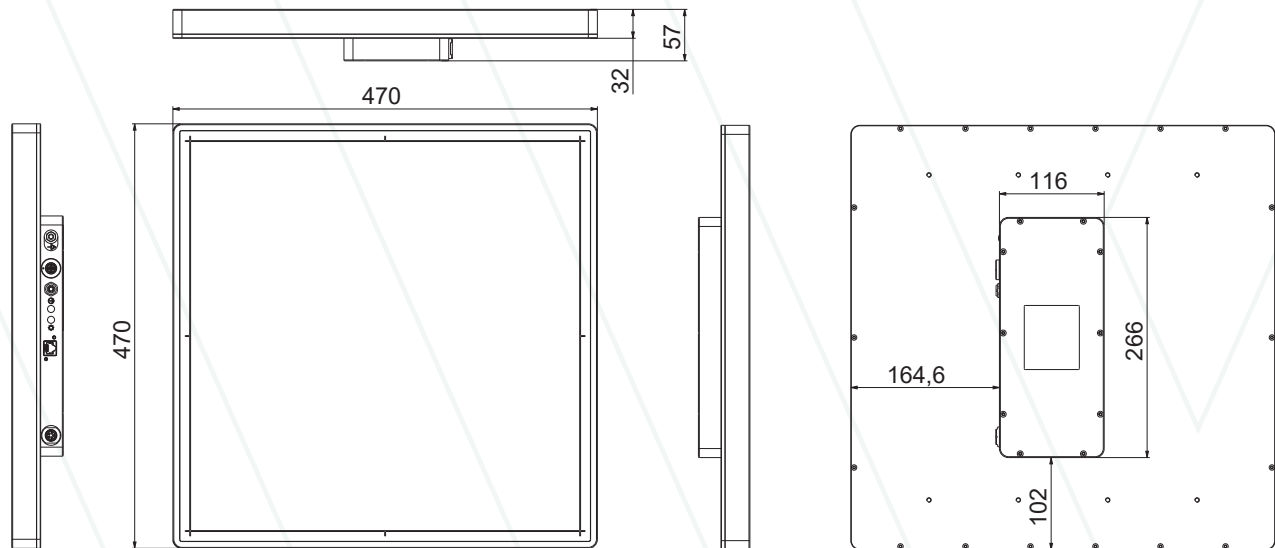
ADC 16-bit

Field of View (mm ²)	Pixel Matrix	Binning	Pixel Pitch (μm ²)	(fps)
432 × 432	2880 × 2880	1 × 1	150	5
	1440 × 1440	2 × 2	300	30
	960 × 960	3 × 3	450	45
288 × 288	1920 × 1920	1 × 1	150	20
	960 × 960	2 × 2	300	40
	640 × 640	3 × 3	450	60
216 × 216	1440 × 1440	1 × 1	150	25
	736 × 720	2 × 2	300	50
	480 × 480	3 × 3	450	70
432 × 216	2880 × 1440	1 × 1	150	25
	1440 × 720	2 × 2	300	50
432 × 72	2880 × 480	1 × 1	150	60
	1440 × 240	2 × 2	300	85

Mode Transition <1 second

MECHANICAL CHARACTERISTICS

(Dimensions in mm)



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.

MECHANICAL

Size 470 (w) × 470 (l) × 57 (h)
 Weight 12 kg
 Housing Aluminum frame with carbon-fiber entrance window

COMMUNICATIONS

Data I/F Fiber optical to PCIe frame grabber board
 Class 1 Laser per IEC 60825-1
 X-ray I/F Integrated X-ray trigger control
 Software Support for 32 and 64 bit Windows® OS

IMAGE PROCESSING

Type Real time pixel corrections on frame grabber

IMAGING PERFORMANCE

Typical DQE 62% (1 cy/mm), 48% (2 cy/mm), 25% (3 cy/mm) for RQA5
 Typical MTF 58% (1 cy/mm), 28% (2 cy/mm), 12% (3 cy/mm) for RQA5
 Saturation Dose 80 μGy
 Energy Range 40 - 150 kV
 Typical Lag < 5% 1st frame
 Dynamic Range 82 dB (measured at Gain 5)

ENVIRONMENTAL

Temperature 10°C to 35°C (operating), -10°C to 55°C (storage)
 Humidity 30% to 70% RH (operating, non-condensing)
 Vibration IEC/EN 60721-3 class 2M3 (10-150 Hz, 0.5 g)
 Shock IEC/EN 60721-3 class 2M3 (11 ms, 2 g)

POWER

Supply 100 - 240 VAC, 50/60 Hz XRD-EPS Power Supply 215 W
 Dissipation 25 W

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