

2315N CMOS

Industrial Flat Panel Detectors



Superior Image Quality
with High Resolution for
Non-Destructive Testing

OVERVIEW

Varex Imaging's 2315N 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's 2315N 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
- 3072 x 1944 pixel matrix
- High Sensitivity and High Dynamic Range modes
- Operation up to 160 kV
- Suitable for real-time imaging at up to 86 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 data connection

APPLICATIONS¹

- Electronics inspection
- Casting inspection
- Weld inspection
- Metrology
- Micro Cone Beam Computed Tomography
- Materials science
- Quality control in automotive, aerospace and electronics manufacturing

Technical Specifications

SENSOR

Pixel Size (μm)	74.8
Sensitive Area (mm ²)	229.8 × 145.4
Pixel Matrix (px)	3072 × 1944

MAX FRAME RATE (FPS)

Pixel Binning	Camera Link
1×1	26
2×2	70
4×4	86

IMAGE PERFORMANCE

Dynamic Range (dB)	
High Dynamic Range Mode	typ. 73
High Sensitivity Mode	typ. 69
X-ray Energy Range (kV)	12 - 160

MECHANICAL

Weight (kg)	8
Dimensions l × w × h (mm ³)	267 × 257 × 51

COMMUNICATIONS

Camera Link	Medium 80 MHz (2 cables)
Control Channel	115 kBaud serial link / Camera Link
Digital Output	14-bit
Sync Ports	BNC
Sync In Port	3 - 15 V edge or level trigger
Sync Out Port	2 x TTL (0 - 3.3 V-CL)
Software	Support for 32 and 64 bit Windows® OS

POWER

Dissipation	18 W
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SCINTILLATOR OPTIONS

High Efficiency microcolumnar CsI

DRZ Standard

TEMPERATURE RANGE

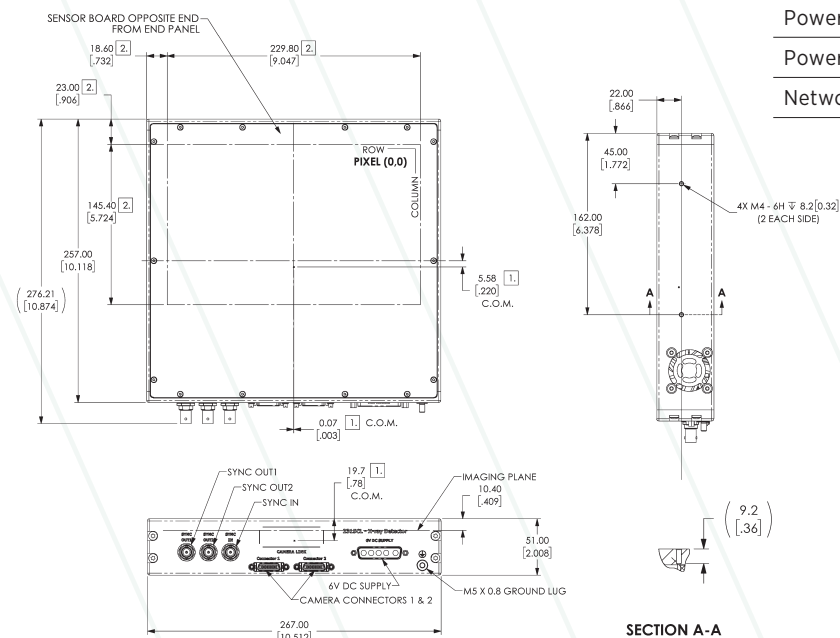
Operating Temperature	+10°C to +40°C
Storage Temperature	-10°C to +50°C

ACCESSORIES

Power Supply Type	6V PSU
Power Cable	3 m XLR to D-Sub
Power Supply Input	50 - 60 Hz, 100-240 VAC
Power Supply Output	6 V
Network Interface Card	EPIX E4 or E8

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.

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