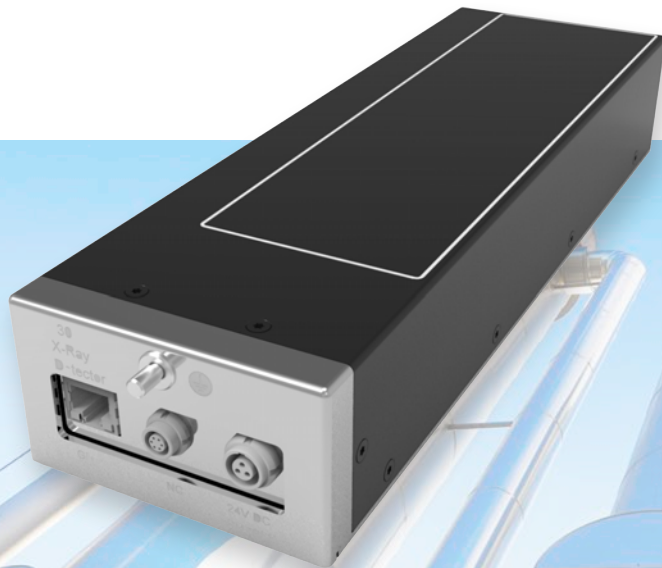


2307N AND 2307S CMOS Industrial Flat Panel Detectors



Superior Image Quality
with High Resolution for
Non-Destructive Testing

OVERVIEW

Varex Imaging's 2307N CMOS Flat Panel X-ray Detector is a high speed, low noise X-ray detector with a long and narrow active area suitable for high-energy pipe inspection. The 2307S is designed for low-dose applications e.g. pre-clinical imaging. The 2307N and 2307S CMOS employ state-of-the-art large-area CMOS (Complementary Metal-Oxide Semiconductor) image sensor technology.

Varex Imaging's 2307N and 2307S CMOS Flat Panel X-ray Detectors have 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 864 pixel matrix
- High Sensitivity and High Dynamic Range modes
- Operation up to 225 kV (2307N) or 90 kV (2307S)
- Suitable for real-time imaging at up to 190 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
- GigE Vision data connection

APPLICATIONS¹

- Weld and Pipe inspection
- Aerospace
- Industrial non-destructive testing
- Micro Cone Beam Computed Tomography
- Scientific applications
- Pre-clinical imaging (2307S)

Technical Specifications

| SENSOR | |
|---|---------------------------|
| Pixel Size (µm) | 74.8 |
| Sensitive Area (mm ²) | 229.8 × 64.6 |
| Pixel Matrix (px) | 3072 × 864 |
| MAX FRAME RATE (FPS) | |
| Pixel Binning | GigE Vision |
| 1×1 | 15 |
| 2×2 | 63 |
| 4×4 | 190 |
| IMAGE PERFORMANCE | |
| | 2307N 2307S |
| Dynamic Range (dB) | |
| High Dynamic Range Mode | typ. 73 |
| High Sensitivity Mode | typ. 69 |
| X-ray Energy Range (kV) | 12 - 225 12 - 90 |
| MECHANICAL | |
| | 2307N 2307S |
| Weight (kg) | 5.2 2.5 |
| Dimensions l × w × h (mm ³) | 290 x 90 x 50 |

| COMMUNICATIONS | |
|-----------------|---------------------------------------|
| Camera Link | N/A |
| GigE Vision | 1000BASE-T |
| Digital Output | 14-bit |
| Control Channel | 115 kBaud serial link |
| Sync Ports | 6w LEMO |
| 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 | |
|-------------|------|
| Dissipation | 25 W |

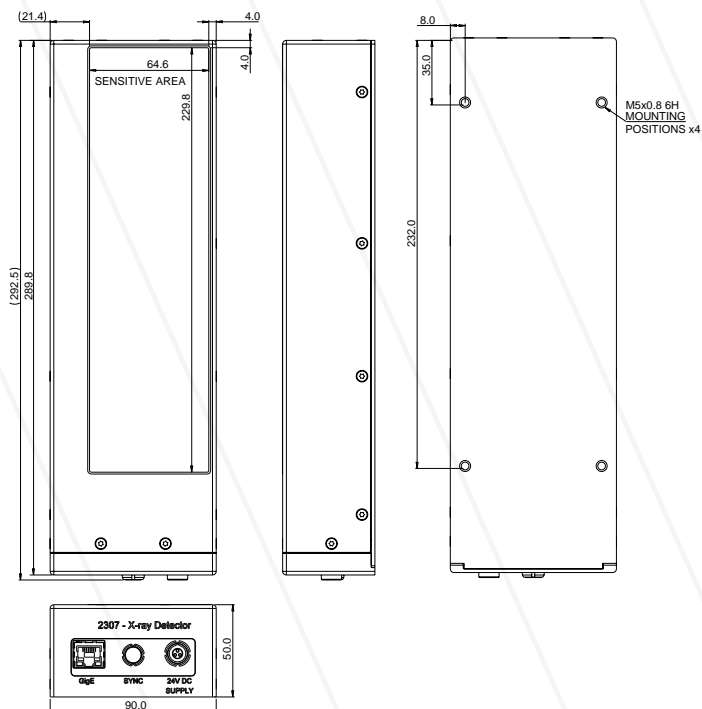
| SCINTILLATOR OPTIONS | |
|----------------------|---|
| 2307N | High Resolution CsI |
| 2307N | Various Gd ₂ O ₂ S:Tb (GOS) fluorescent screens |
| 2307S | Gadox AD Mammo |

| TEMPERATURE RANGE | |
|-----------------------|----------------|
| Operating Temperature | +10°C to +40°C |
| Storage Temperature | -10°C to +50°C |

| ACCESSORIES | |
|------------------------|-------------------------|
| Power Supply Type | PSU-3A |
| Power Cable | 3 m Lemo Low Voltage |
| Power Supply Input | 50 - 60 Hz, 100-240 VAC |
| Power Supply Output | 24 V |
| Network Interface Card | Intel I210-T1 |

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.

Varex Imaging Corporation

| | | | |
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