

Xineos™ -2022HR & Xineos-3030HR

CMOS Flat X-ray Detectors for Fluoroscopy



Key Features

- » 99 µm pixel pitch
- » Best in class resolution
- » Excellent low-dose image quality
- » Negligible image lag
- » Instant mode switching
- » No warm-up time needed
- » Stable offset calibration
- » Low power dissipation
- » Support for gain-, offset- and defect pixel correction
- » CameraLink (Full) data interface (other options available on request)

Typical Applications

- » Surgery
- » Skull/ENT
- » Crystallography
- » Non-destructive testing

Xineos CMOS X-Ray Flat Detectors: Better Images, Lower Dose

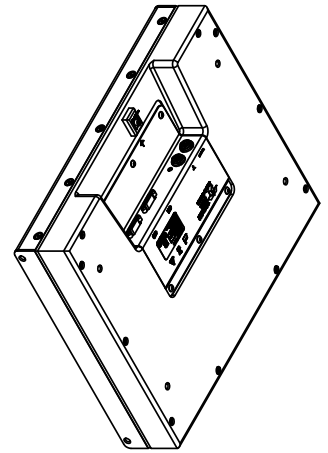
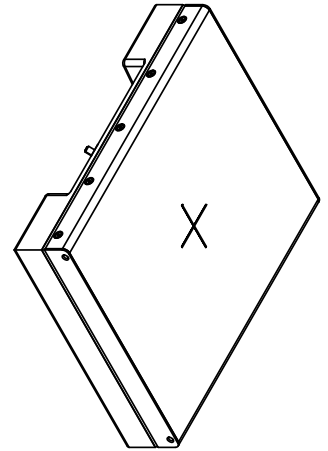
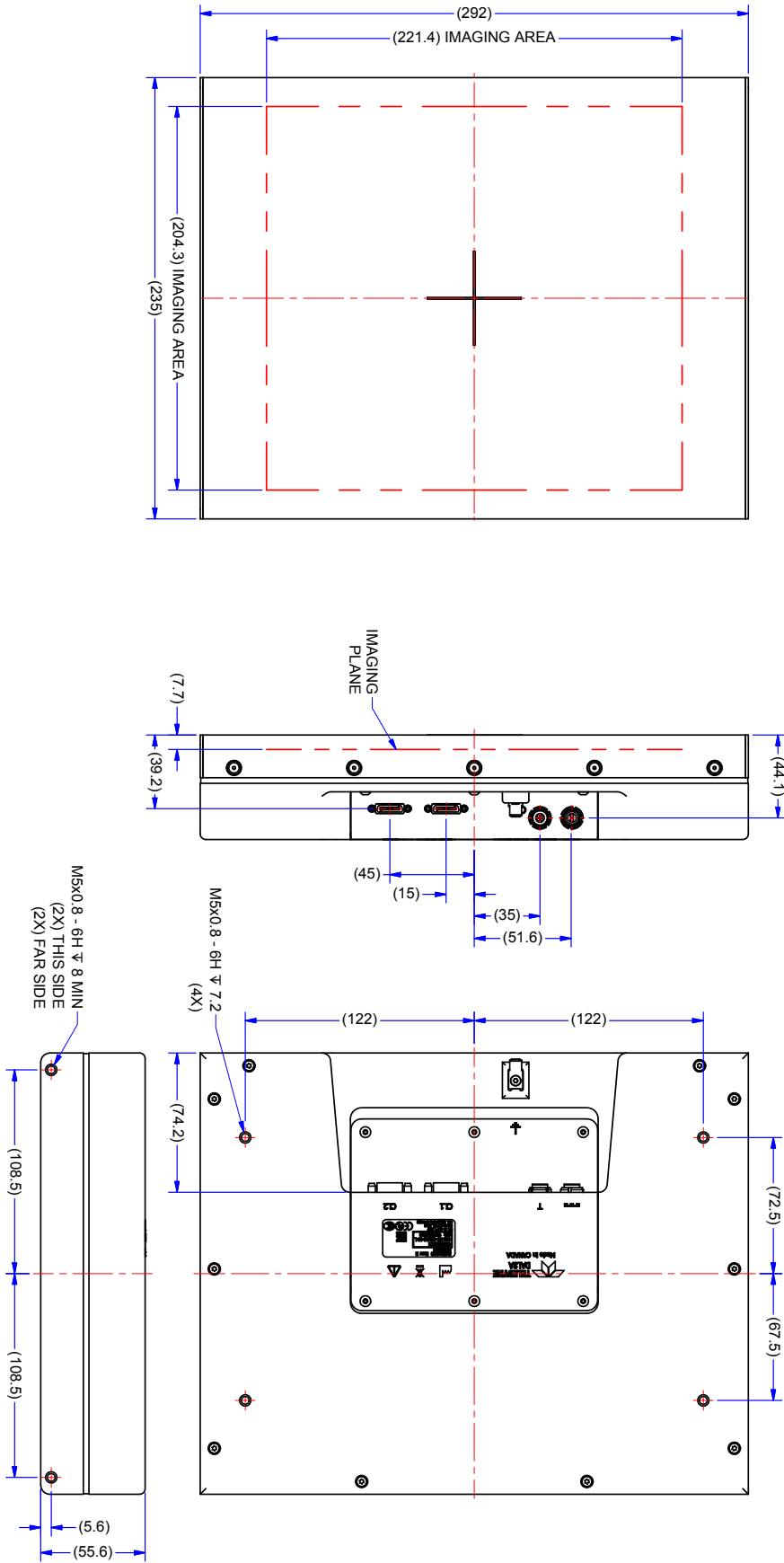
Utilizing Teledyne DALSA's latest generation proprietary radiation-hard CMOS Active Pixel design, the Xineos-HR Flat X-ray Detectors offer the industry's highest spatial resolution available in a compact flat detector package. Offering temperature-stable imaging characteristics and eliminating the need for forced cooling, these Xineos detectors are easy to integrate and reliable, reducing system recalibration and maintenance requirements in critical, heavy-use imaging systems.

The Xineos-HR range is specifically designed to meet the demanding needs of clinical, scientific and industrial applications, by using an advanced switchable pixel design that combines a high dynamic range with unsurpassed signal-to-noise performance at the lowest exposure levels. These dynamic applications benefit from the increased detectability of small or low-contrast features while imaging lag-free at high frame rates in full resolution. Flexible zoom modes can be used to capture regions-of-interest at 100fps or even faster. Instantly after power-on, the detectors are ready to output crystal clean images and switching between different readout modes is instant.

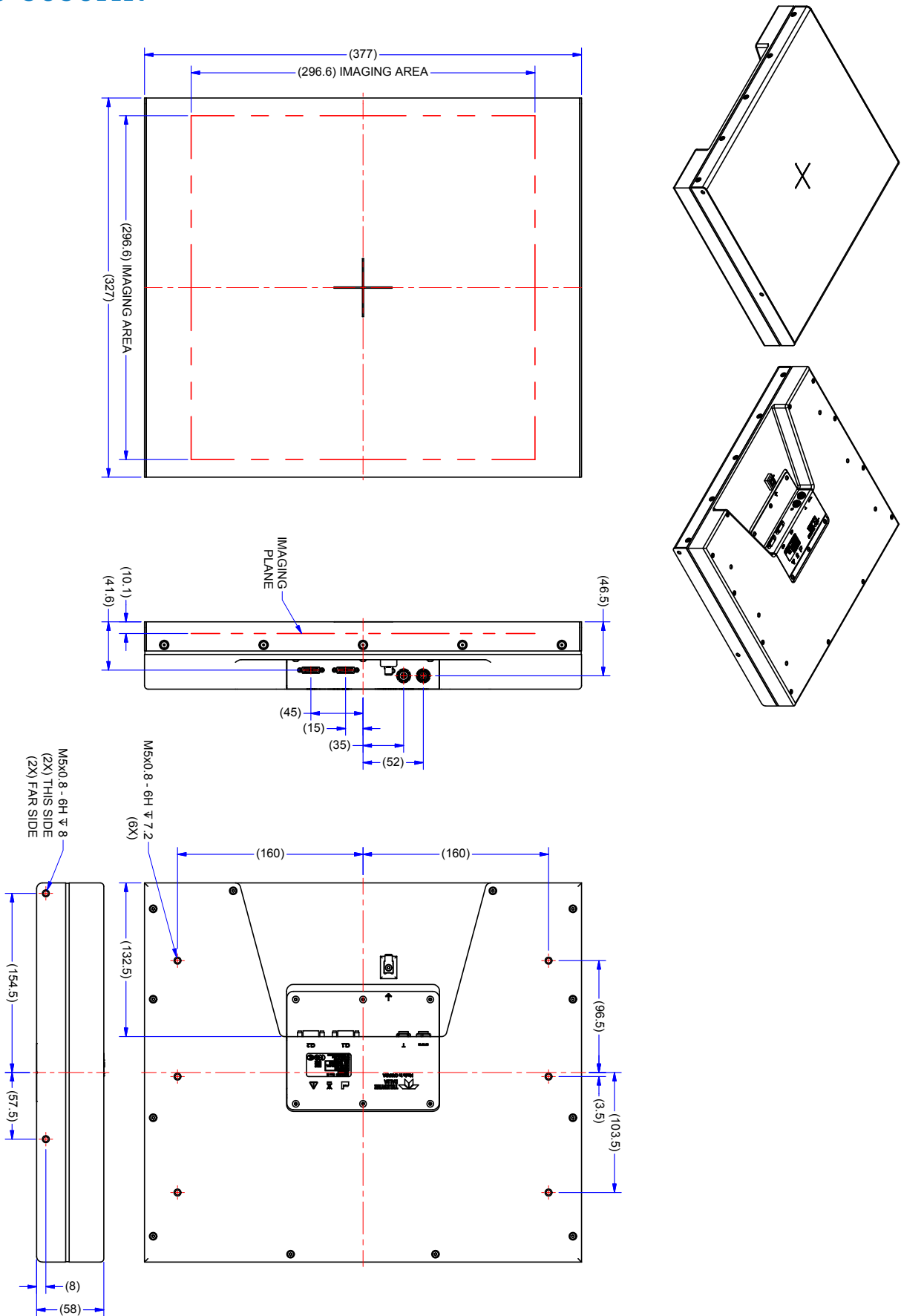
Specifications (Typical Values @ RQA5)

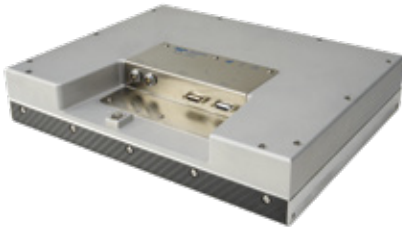
Parameter	Xineos-2022HR	Xineos-3030HR
Pixel Pitch	99 µm	
Active Area	204 x 221 mm ²	296 x 296 mm ²
Resolution	2065 x 2237	2994 x 2997
Binning support	1 x 1 / 2 x 2	
Scintillator	Medical-grade columnar CsI	
Saturation Dose, RQA5 (per mode)	5µGy / 23µGy	
Dynamic Range (per mode)	70 dB / 75 dB	
MTF @ 1lp/mm / 2lp/mm	60% / 30%	58% / 28%
DQE(0) @ 1µGy, RQA5	70%	66%
DQE(0) @ 10nGy, RQA5	68%	64%
Image Bit Depth	14 bit	
Data Interface	CameraLink (Full)	
Frame Rate		
- Mag0 (100%), 1x1 / 2x2	31 fps / 56 fps	31 fps / 63 fps
- Mag1 (70%), 1x1 / 2x2	37 fps / 68 fps	43 fps / 84 fps
- Mag 2 (50%), 1x1 / 2x2	44 fps / 80 fps	57 fps / 108 fps
ROI readout	Centered 100% / 70% / 50% MAG modes	
Trigger modes	Internal or External (Continuous or Pulsed)	
X-Ray Energy Range	15..150 kV	
Power Consumption (active)	<15 W	<18 W
Dimensions (WxHxD)	235 x 292 x 56 mm	327 x 377 x 58 mm
Weight	6 kg	9 kg

Xineos-2022HR

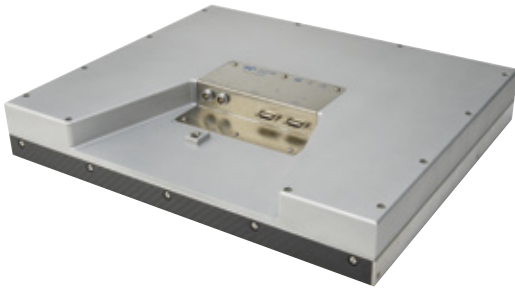
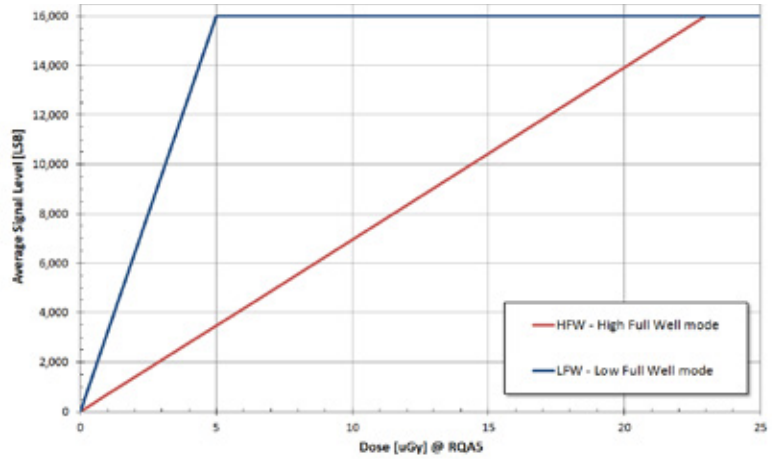


Xineos-3030HR

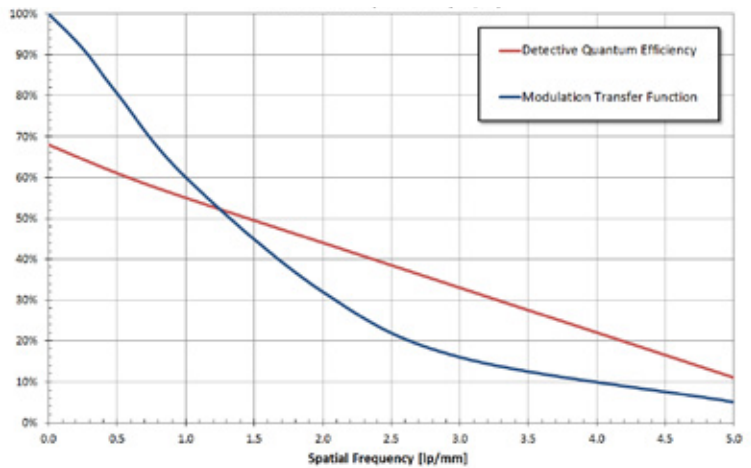




Xineos-2022HR/3030HR Sensitivity (RQA5)



Xineos-2022HR/3030HR DQE and MTF (RQA5)



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