

Xineos™ -2222HS & Xineos-3030HS

CMOS Flat X-ray Detectors for Fluoroscopy



Key Features

- » Best in class low-dose image quality
- » 152 µm pixel pitch
- » 30 fps at full resolution
- » Up to 150 fps in binned ROI modes
- » 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
- » Gigabit Ethernet data interface (other options available on request)

Typical Applications

- » Surgery
- » Orthopedics
- » Cardiology
- » Vascular
- » Skull/ENT
- » Veterinary

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

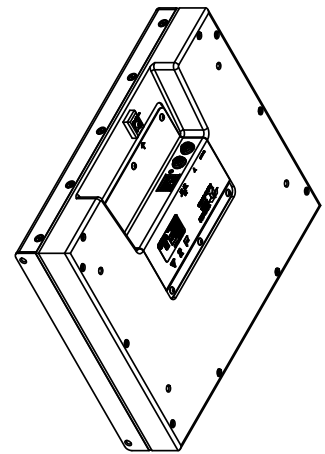
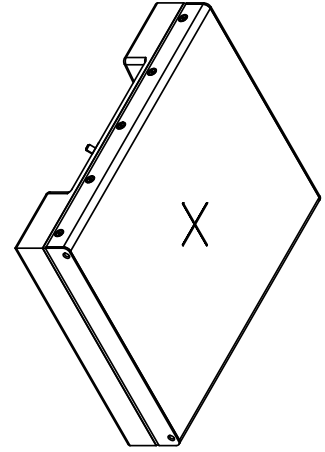
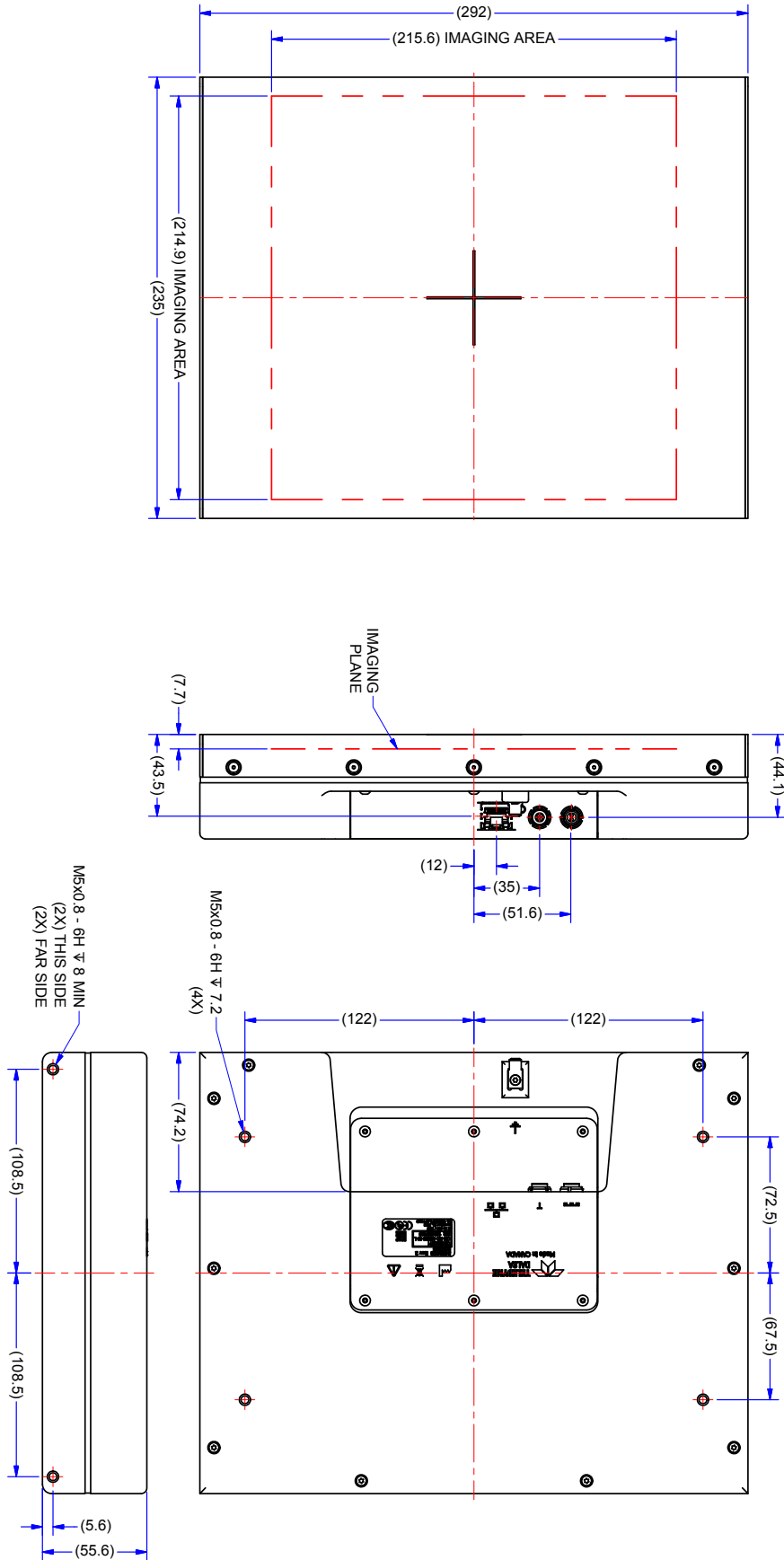
Utilizing Teledyne DALSA's latest generation proprietary radiation-hard CMOS Active Pixel design, the Xineos-HS Flat X-ray Detectors are the industry's first to beat the low-dose clinical imaging performance of Image Intensified cameras, and combine this industry benchmark with the form factor advantages of traditional amorphous silicon flat panels. 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 for mobile and fixed interventional imaging systems.

The Xineos-HS range is specifically designed to meet the demanding needs of both Surgical and Cardiac interventions, 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, pulsed x-ray clinical applications benefit from the increased detectability of small or low-contrast features while imaging lag-free in full resolution. Flexible zoom modes can be used to capture regions-of-interest at 150 fps, or even faster. Instantly after power-on, the detectors are ready to output crystal clean images and switching between modes is instant, making life so much easier for the physician — and the patient.

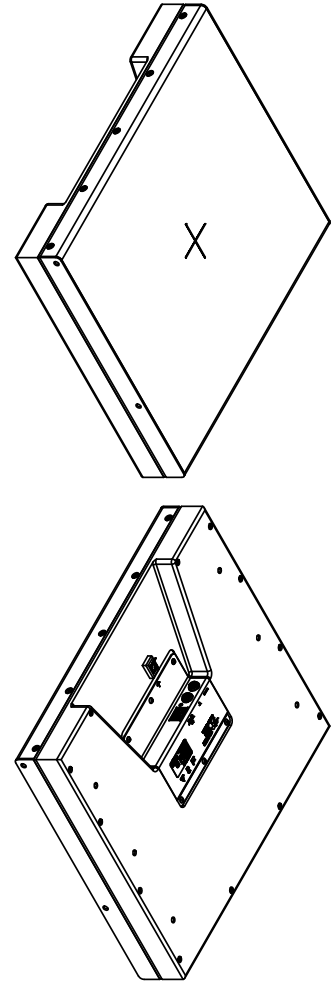
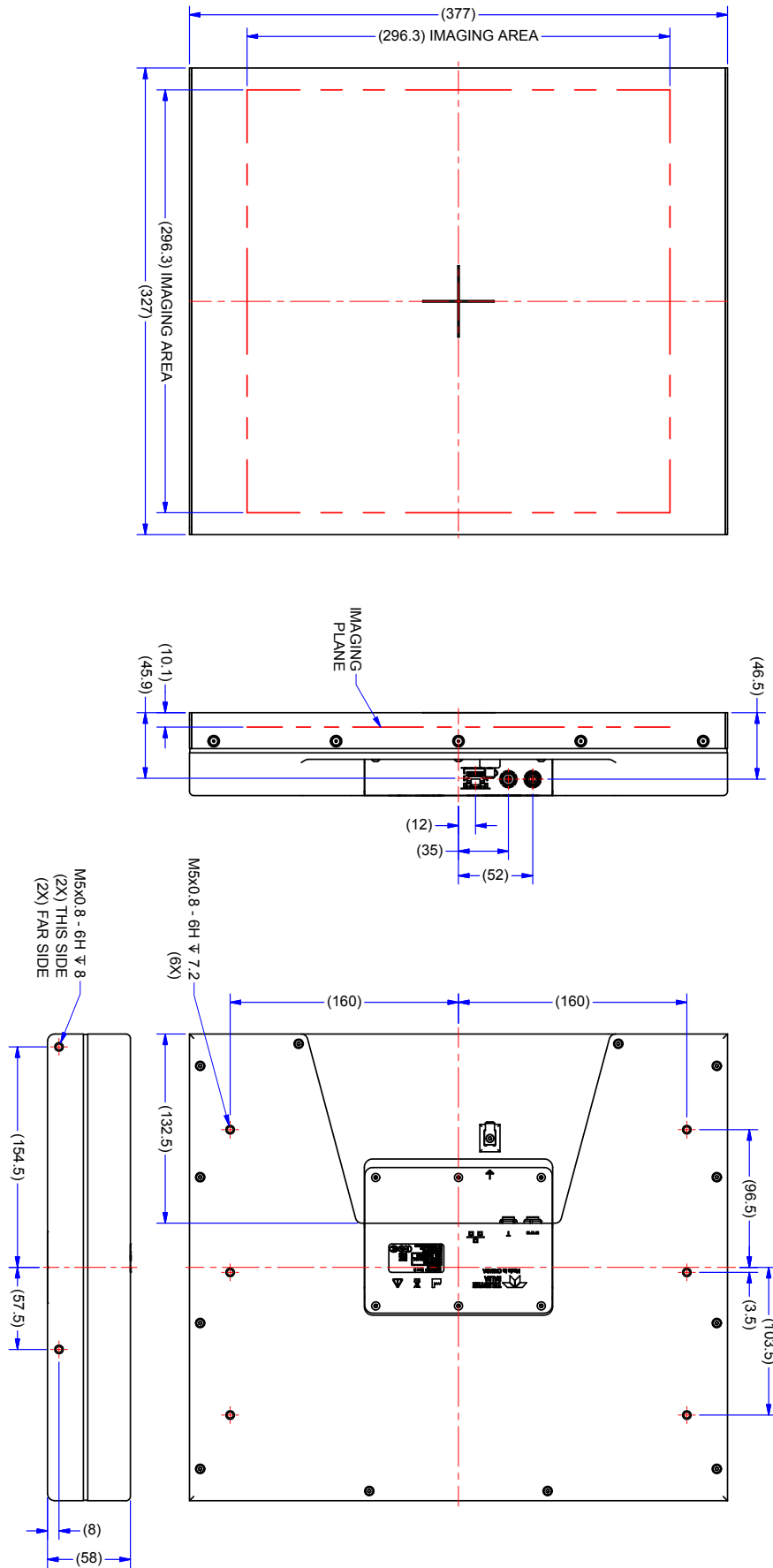
Specifications (Typical Values @ RQA5)

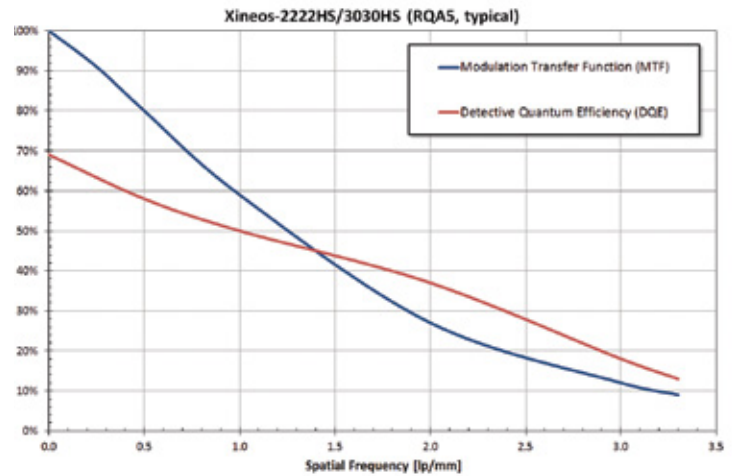
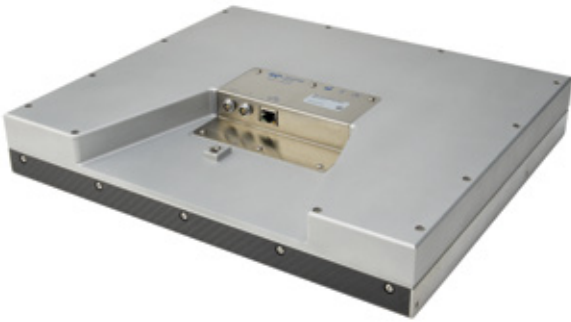
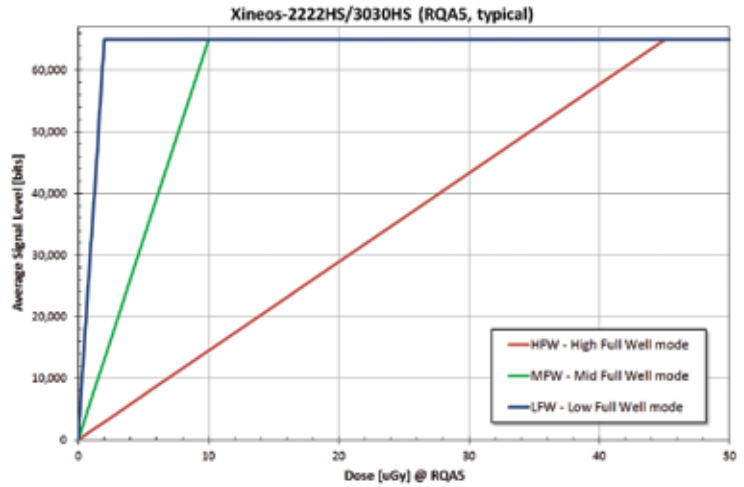
Parameter	Xineos-2222HS	Xineos-3030HS
Pixel Pitch	151.8 µm	
Active Area	215 x 215 mm ²	295 x 295 mm ²
Resolution	1416 x 1420	1952 x 1952
Binning support	1 x 1 / 2 x 2	
Scintillator	Medical-grade columnar CsI	
Saturation Dose, RQA5 (per mode)	2u Gy / 10u Gy / 45u Gy	
Dynamic Range (per mode)	70 dB / 75 dB / 77 dB	
MTF @ 1lp/mm / 2lp/mm	60% / 27%	58% / 25%
DQE(0) @ 1uGy, RQA5	75%	72%
DQE(0) @ 10nGy, RQA5	68%	64%
Image Bit Depth	16 bit	
Data Interface	Gigabit Ethernet (GigE)	
Frame Rate		
- Full FOV (100%), 1x1 / 2x2	27 fps / 80 fps	14 fps / 57 fps
- Mag0 (100%), 1x1 / 2x2	30 fps / 90 fps	15 fps / 60 fps
- Mag1 (70%), 1x1 / 2x2	57 fps / 160 fps	30 fps / 115 fps
- Mag 2 (50%), 1x1 / 2x2	115 fps / 220 fps	55 fps / 150 fps
ROI readout	Programmable (x,y) position & size	
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-2222HS



Xineos-3030HS





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