

XINEOS-2022HR & XINEOS-3030HR

CMOS 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 Scanning X-Ray Detectors Better Images, Lower Dose

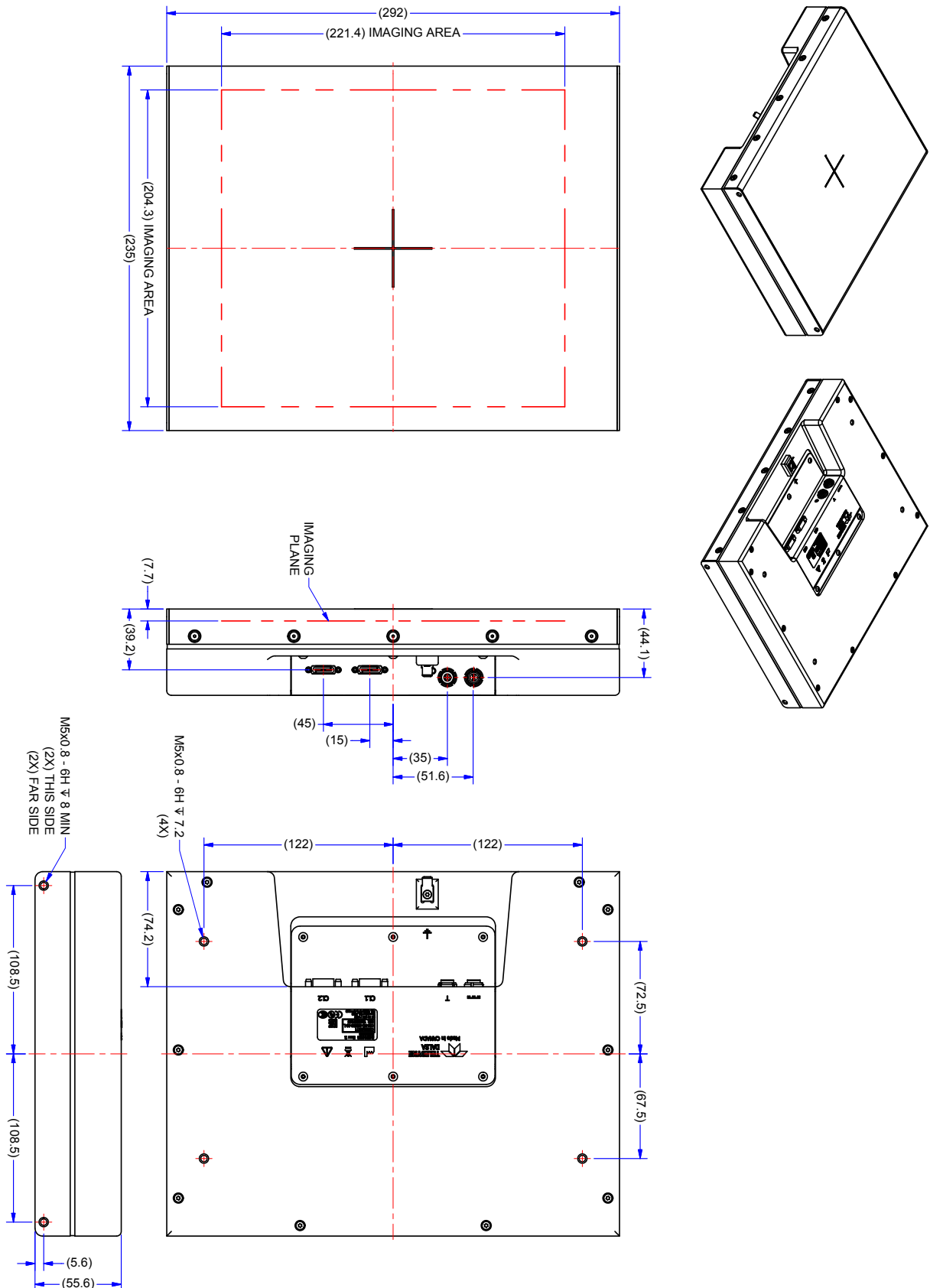
Utilizing Teledyne DALSA's latest generation proprietary radiation-hard CMOS Active Pixel design, the Xineos-HR Flat X-Ray Detectors offer the industry's highest spatial resolution available in a compact flat detector package. Offering temperature-stable imaging characteristics and eliminating the need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

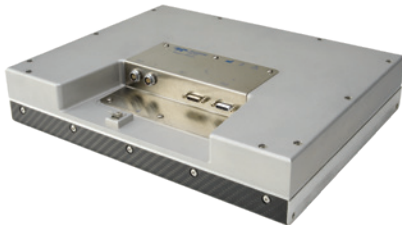
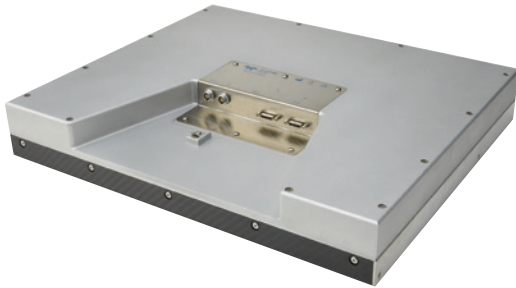
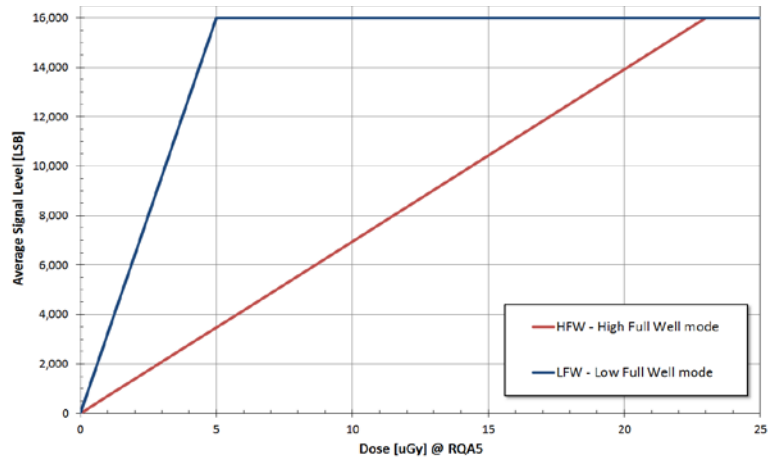
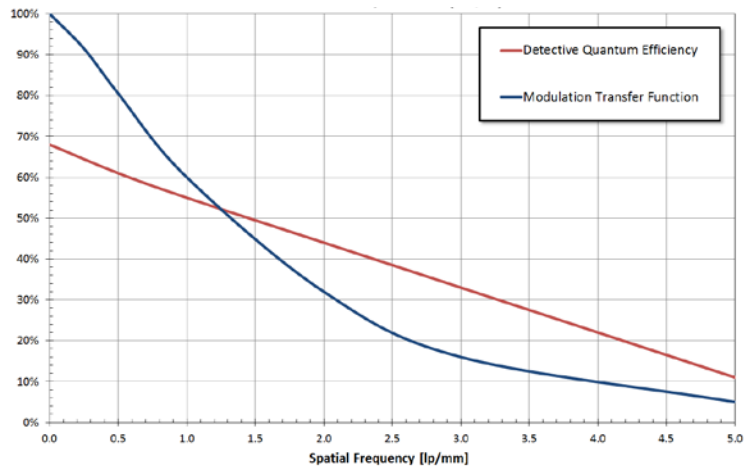
The Xineos-HR range is specifically designed to meet the demanding needs of clinical, scientific and industrial applications, by using an advanced switchable pixel design that combines a high dynamic range with unsurpassed signal-to-noise performance at the lowest exposure levels. These dynamic applications 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) | 5uGy / 23uGy | |
| Dynamic Range (per mode) | 70 dB / 75 dB | |
| MTF @ 1lp/mm / 2lp/mm | 60% / 30% | 58% / 28% |
| DQE(0) @ 1uGy, 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-2022HR/3030HR Sensitivity (RQA5)

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

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