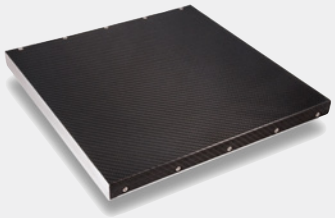
TELEDYNE

Teledyne DALSA
X-Ray Solutions

XINEOS-2329

CMOS Flat X-Ray Detectors for Mammography



KEY FEATURES

- 49.5 µm square 3T PPD radiation-hard CMOS active pixel design
- 23 x 29 cm active area
- X-Ray stack optimized for high resolution imaging in mammography, specimen analysis, etc.
- "Dynamic saturation" for application specific settings (patent pending)
- 14-bit image data in DBT-mode; 16-bit image data in Full Field Digital Mammography (FFDM)
- ≤1.9 mm chestwall edge distance
- Low power consumption
- Undetectable ghosting for typical clinical dose rates
- GigE interface for ease of integration
- Offset, Gain and Defect Pixel Correction (Win7 64-bit library)
- Long life time with stable performance
- Software to support detector factory calibrations

TYPICAL APPLICATIONS

- Full Field Digital Mammography
- Digital Breast Tomosynthesis
- Contrast-Enhanced Mammography
- Dual Energy Mammography
- High-Resolution Scientific and Industrial X-Ray Imaging

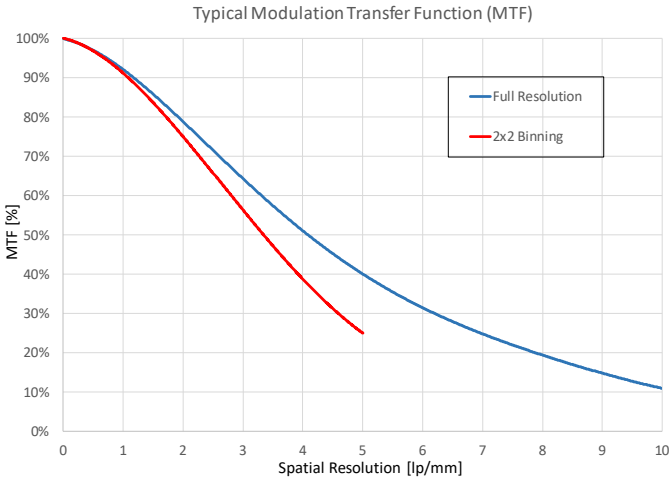
Xineos Flat X-Ray Detectors: Better Images, Lower Dose

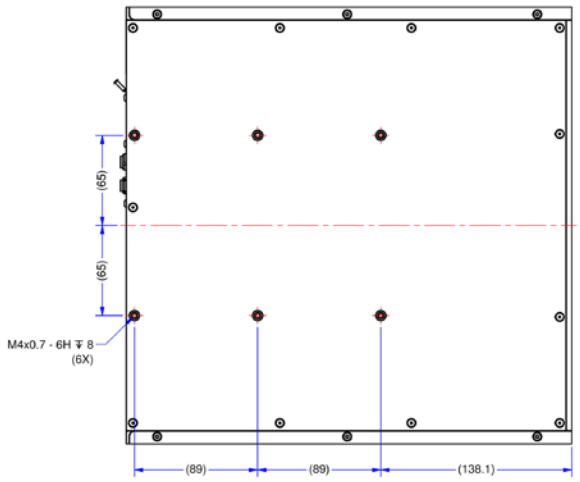
The Xineos-2329 CD42M222 CMOS X-Ray detector is specifically designed to address the very demanding needs of X-Ray mammography applications with just one detector suitable for both static FFDM (Full Field Digital Mammography) and dynamic DBT (Digital Breast Tomosynthesis) modes. The imaging performance of the detector exceeds the current industry benchmarks, while it provides several unique features.

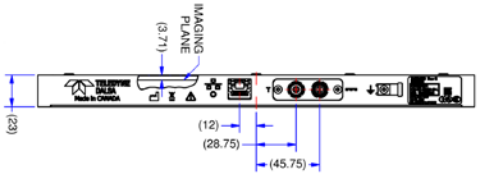
Teledyne DALSA advanced CMOS detector delivers unsurpassed low dose DQE at operational speeds, which allow for easy implementation of emerging modalities like DBT dual-energy imaging, etc. Proven radiation-hard design ensures stable and reliable performance over the product lifetime. For X-Ray conversion, a high quality CsI scintillator is used.

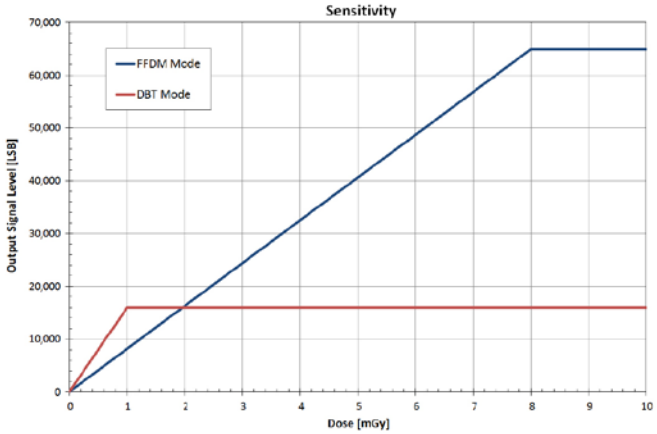
	FFDM Mode	Specifications (Typical Values @ RQA-M2)	DBT Mode
Pixel Pitch		49.5 µm	
Active Area		228 x 292 mm	
Resolution		4608 (H) x 5888 (V)	
Binning Support		1 x 1/ 2 x 2	
Scintillator		Medical-grade columnar CsI	
MTF @ 1 lp/mm / 5 lp/mm		92% / 40%	
DQE(0)		75%	
Data Interface		Gigabit Ethernet (GigE)	
Saturation Dose	8mGy		1mGy
Dynamic Range	87 dB		73 dB
ADC Conversion	16-bit		14-bit
Frame Readout Time	<500 msec		<125 msec
Maximum Frame Rate	2 fps		8 fps
Chest Wall Distance		≤1.9 mm	
Trigger Modes		External, Master / Slave	
X-Ray Energy Range		All mammography modalities	
Power Consumption (active)		<20 W	
Dimensions (W x H x D)		322 x 315 x 23 mm	
Weight		3.4 kg	

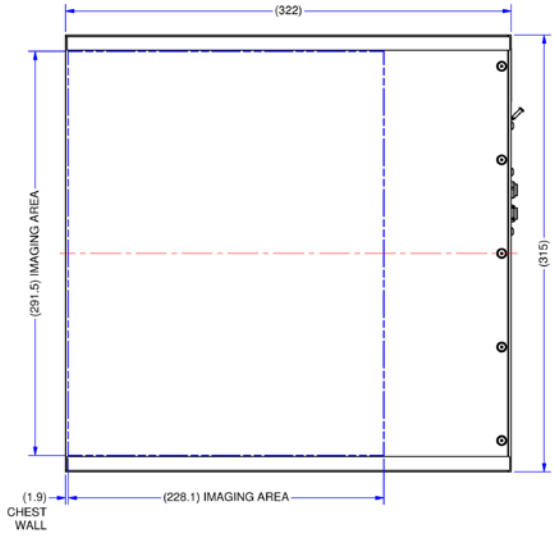
SPECIFICATIONS

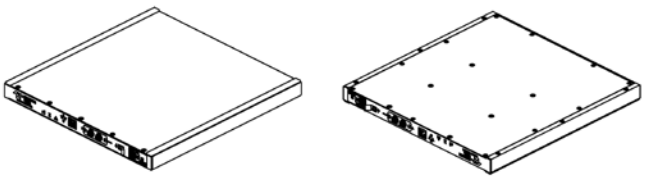












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