

# XINEOS-1511

CMOS Flat X-ray Detectors for cost-effective Dental 3D+Panoramic



## KEY FEATURES

- Best in class low-dose image quality
- 99  $\mu\text{m}$  pixel pitch
- 30 fps at full resolution
- 300 fps in Panoramic ROI mode
- 16-bit advanced 3D/CBCT readout mode
- Negligible image lag
- Stable offset calibration
- Low power dissipation
- Integrated gain-, offset- and defect pixel correction
- Gigabit Ethernet data interface (LVDS option available on request)

## TYPICAL APPLICATIONS

- Dental CBCT
- Dental 3D + Panoramic

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

The Xineos-1511 CMOS flat detector sets a new benchmark in low dose imaging performance. Built with our sixth generation CMOS technology, Xineos-1511 offers switchable saturation dose to maximize dynamic range or sensitivity on demand.

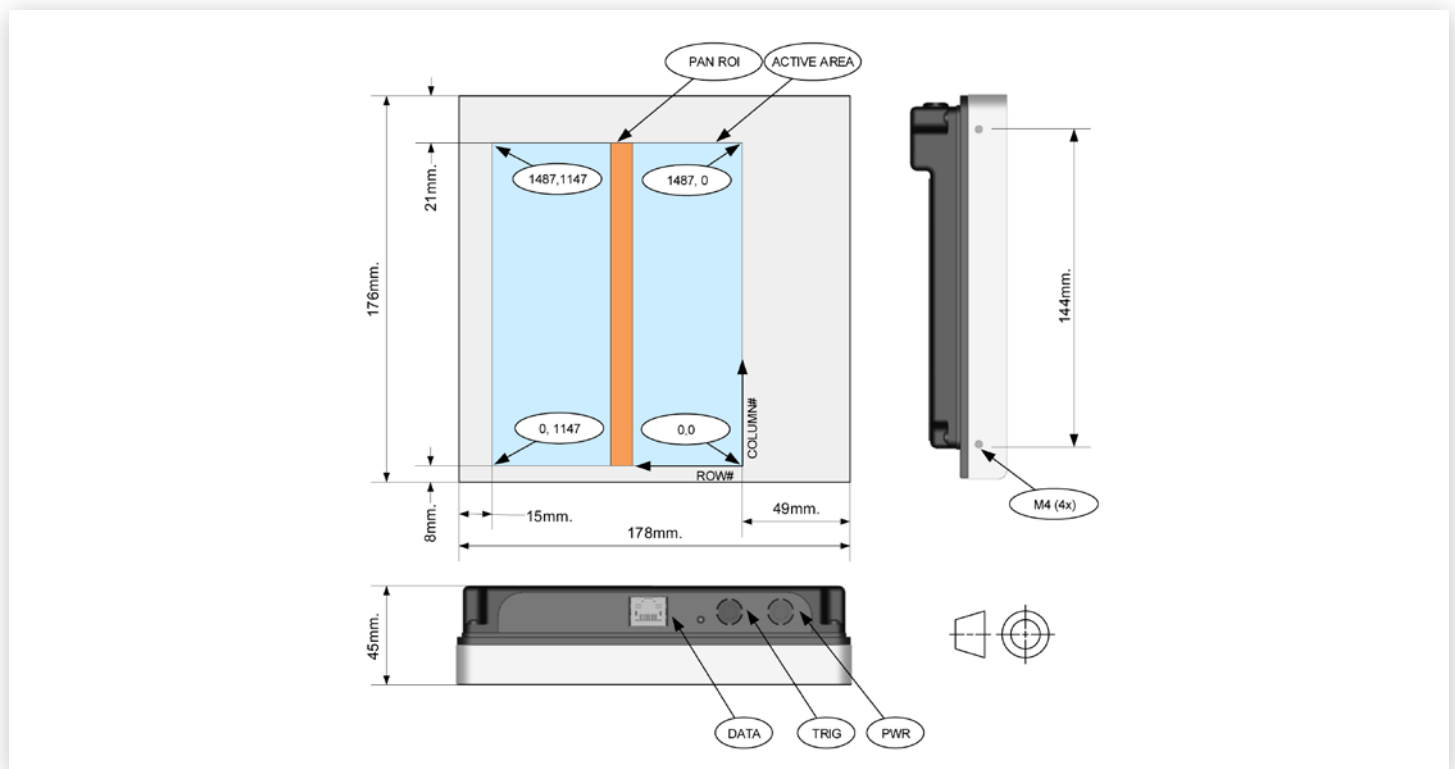
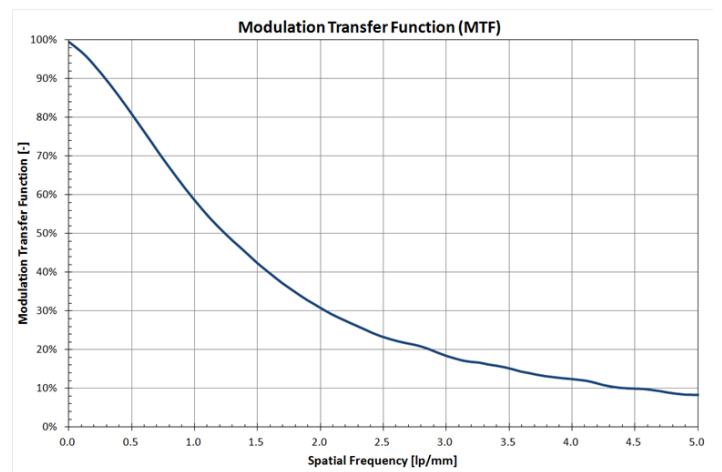
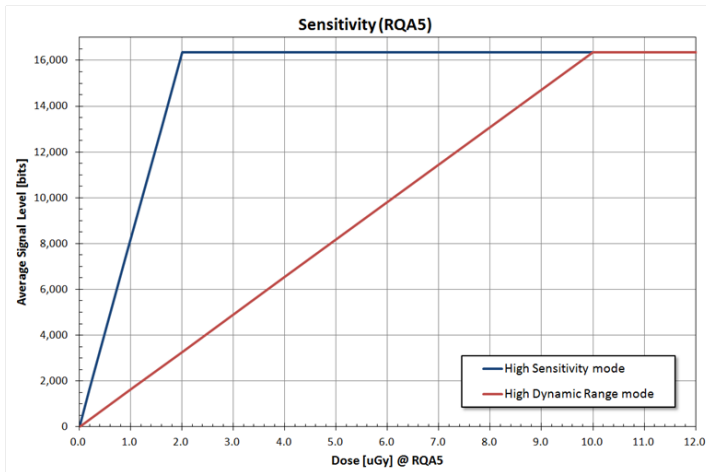
Offering a 15 x 11 cm active area, the Xineos-1511 images from the top of the Temporomandibular joint (TMJ) to the bottom of the adult mandible, and with a programmable region of interest (ROI) that is flexible in size, position and frame rate (e.g. 15 x 1 cm @ 300 fps). A single detector can deliver optimized image quality for different procedures, e.g. for use in Dental 3D/CBCT and Panoramic 2-in-1 combo systems.

Industry-leading low-dose diagnostic image quality and high resolution make Xineos-1511 perfectly suitable for extra-oral dental diagnosis and implant planning. The detector features built-in offset and gain (flat-field) correction, and advanced defect pixel correction to ensure optimal raw image quality, and a 16-bit 2 x 2 pixel binning mode to extend computational signal integrity for advanced 3D reconstruction algorithms.

The Xineos-1511 also features the industry's smallest shoulder edge distance (7.3 mm), enabling improved patient access and compact enclosure designs. With no need for active cooling, this low power CMOS X-Ray detector delivers increased reliability in heavy-duty applications.

## SPECIFICATIONS

Parameter	Specification Xineos-1511
Pixel Pitch	99 $\mu\text{m}$
Active Area	147.3 x 113.7 mm <sup>2</sup>
Resolution	1488 x 1148
Binning support	1 x 1 / 2 x 2
Scintillator	Medical-grade columnar CsI
Seamless switchable saturation modes	2 modes, software switchable
Saturation Dose, RQA5 (per mode)	2 $\mu\text{Gy}$ / 10 $\mu\text{Gy}$
Dynamic Range (per mode)	71 dB / 75 dB
MTF @ 1lp/mm / 2lp/mm	60% / 30%
DQE(0), RQA5	70%
Non-linearity	<1%
Image Lag (1st frame @ 30 fps)	<0.1%
ADC Conversion	14-bit (16384 levels)
Data Interface	Gigabit Ethernet (GigE)
Frame Rate	
- Full size, full resolution	30 fps
- Full size, 2 x 2 binning	60 fps
- 1488 x 100 pxl ROI, full resolution	300 fps
ROI readout	Programmable (x,y) position & size
Trigger modes	Continuous or Synchronized
X-Ray Energy Range	40..125 kVp
Power Consumption (active)	8 W
Dimensions (WxHxD)	178 x 176 x 45 mm
Weight	2.5 kg

**SPECIFICATIONS**

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