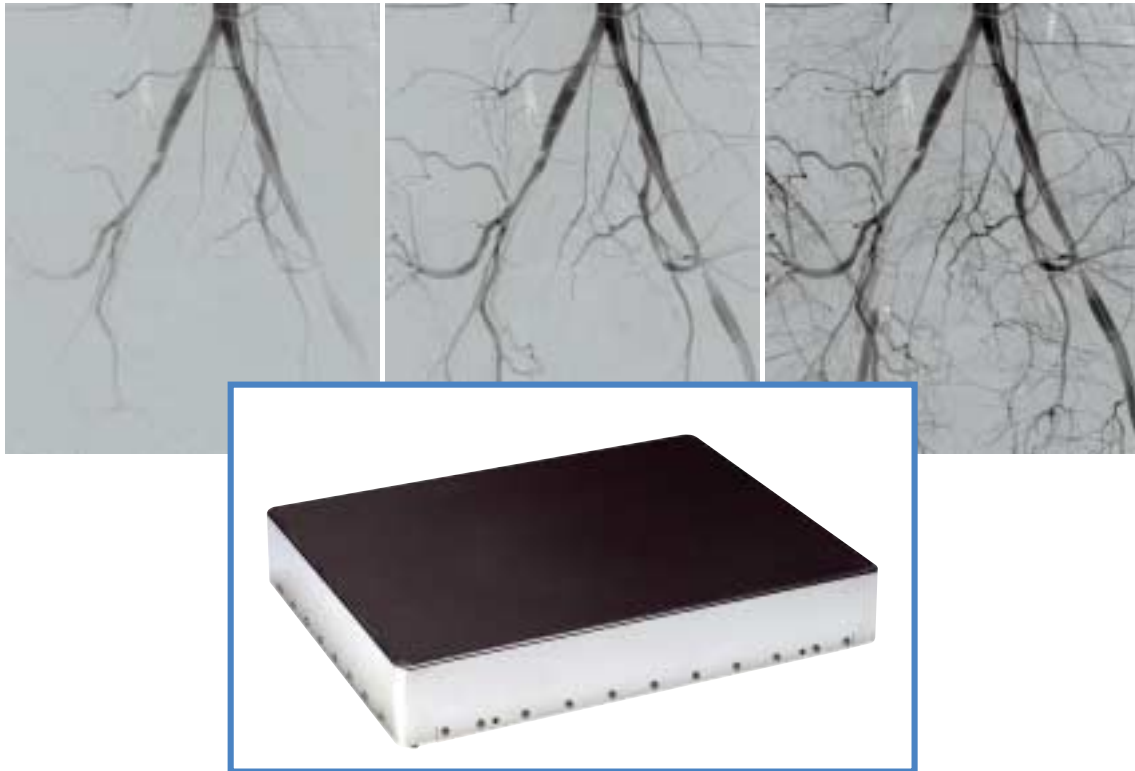


pixium **4700**

Digital Detector for real-time X-ray Imaging

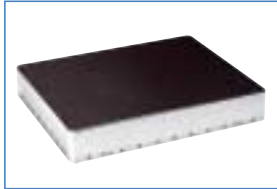


The Pixium 4700 is a digital flat-panel X-ray detector, ideally suited for large size dynamic application such as Vascular and R&F Studies.

- Optimal format (30 cm x 40 cm)
- High resolution (> 5 millions pixels)
- Distortion-free image
- Performant DSA (Digital Subtraction Angiography)
- Low dose fluoroscopy
- Extremely low temporal artefact (lag)

TRIXELL
Winning Technology

DIGITAL DETECTOR FOR REAL-TIME X-RAY IMAGING



Pixium 4700

The Pixium 4700 is a dynamic flat-panel X-ray detector. Its 30 cm x 40 cm format is the ideal size with regards to body coverage, bringing easy patient access with maximum angulation possibilities.

The Pixium 4700 uses the same technological platform as the Pixium 4600 and the Pixium 4800 the first digital detectors in the Pixium family, combining an amorphous silicon flat panel with a cesium iodide scintillator (CsI/Tl). The result is a new comer detector providing advanced dynamic features for excellent image quality.

The Pixium 4700 brings unmatched digital imaging performance, with high contrast, spatial and temporal resolution at low X-ray dose. High Detective Quantum Efficiency (DQE) enables very efficient fluoroscopy resulting in exceptional digital images.

The Pixium 4700 detector complies with all applicable international standards: IEC 60601-1; UL 60601-1; CAN CSA 22.2; FDA CFR 21.1.

Image geometry and formats characteristics

Pixel pitch	154	µm
X-ray sensitive array:		
• in overview mode	381.9 x 294.1	mm
• in zoom 1 mode	221.7 x 221.7	mm
• in zoom 2 mode	157.7 x 157.7	mm
Image size	2 480 x 1 910	pixels

Operating modes and performances

A/D conversion dynamic range	14	bits
Pixel grouping feature : 1 x 1, 2 x 2, 4 x 2		
Maximum frame rate:		
• 1 x 1 overview mode, X-window duration ≤ 70ms	7.5	fr/sec.
• 1 x 1 zoom 1 mode, X-window duration ≤ 25 ms	15	fr/sec.
• 1 x 1 zoom 2 mode, X-window duration ≤ 10 ms	30	fr/sec.
• 2 x 2 overview mode, X-window duration ≤ 13ms	30	fr/sec.
• 2 x 2 overview continuous mode	30	fr/sec.
• 2 x 2 zoom 1 mode, X-window duration ≤ 5 ms	60	fr/sec.
• 2 x 2 zoom 2 mode, X-window duration ≤ 7 ms	60	fr/sec.
• 4 x 2 overview mode, X-window duration ≤ 8 ms	60	fr/sec.

X-ray generator voltage range	40 to 150	kVp	
Dose range	5 to 4 500	nGy/fr	
Maximum linear dose	45	μGy/fr	
Sensitivity:			
• highest gain (2 x 2 mode)	6.41	LSB/nGy	typ.
• lowest gain	0.14	LSB/nGy	typ.
Signal / Electronic noise:			
• @ 5 nGy/fr in highest gain (1)	14	dB	min.
• @ 1μGy/fr in lowest gain (1)	54	dB	min.
MTF @ 1 lp/mm, RQA5 (2)	60	%	min.
MTF @ 2 lp/mm, RQA5 (2)	30	%	min.
DQE @ 0 lp/mm, 1μGy/fr,RQA5 (2)	73	%	typ.
Residual signal (lag & memory effect) after 10 sec. exposure* at 30 fr/sec.:			
• after 1 sec.	≤ 1.1	%	
• after 10 sec.	≤ 0.25	%	

* Residual signal values in mode 2 gain 7 with 30 fr/sec.

Electrical interfaces

Single DC input voltage	24	V	
Electrical power	75	W	

Mechanical characteristics

Overall dimensions	478 x 366 x 85	mm	max.
Weight	20	kg	typ.

(1) 1nGy = 0.115 μR @ RQA

(2) RQA5 = 70 kVp, filtration = 2.5 + 21 mm aluminium



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