

**SECURITY**  
**NON DESTRUCTIVE TESTING**

# FlashScan 23

Digital X-Ray Imaging Subsystem

Thinnest portable FPD  
design

**9" x 9" sensitive area**

- Film replacement
- Highly integrated subsystem
- Wide dynamic range: 14-bit grayscale image
- High resolution:  
143  $\mu\text{m}$  pixel size
- Readout time: 1 second
- 2 modes operation:  
standard and binning option



**THALES**



FlashScan 23

The FlashScan 23 digital imaging subsystem has been specifically designed for integration into non-destructive testing equipment with computer acquisition and can be used at energy level up to 160 keV. Its format 9" x 9" active image area and its wide dynamic range eliminate the need for X-Ray film in many radiographic applications. Just seconds after exposure, the FlashScan 23 generates 14-bit grayscale images, with film-like quality details,

which can be viewed immediately on a computer screen.

The FlashScan 23 is a highly integrated subsystem including amorphous silicon image sensor array, X-ray conversion screen and supporting electronics and interface unit.

This product is designed, developed and manufactured at an ISO 9001:V2000, ISO 14001 and EN 46001 production site registered.

### FlashScan 23 features

Image sensor	type large format amorphous silicon array + conversion screen		
Active area	223 x 223	mm	
Format	1 560 x 1 560	2.43 millions pixels	
Pixel size	143	µm	
X-Ray conversion screen	Gd <sub>2</sub> O <sub>2</sub> S:Tb		
Conversion screen density (1)	34	mg/cm <sup>2</sup>	
Energy range	25 to 160	keV	
Spatial resolution	3.5	lp/mm	max.
X-Ray window material	aluminium		
MTF @ 1 lp/mm	> 40	%	
MTF @ 2 lp/mm	> 16	%	
MTF @ 3.5 lp/mm	> 4	%	
Dynamic range	> 2 000:1		
Analog-to-digital converter	14	bits	
Exposure window	20	sec	max.
Data output format	SERDES		
Read out time	1	sec	approx.

### Mechanical characteristics

Dimensions	36 x 33 x 1.3	cm	
Position of the sensitive area:			
• from the left side	< 10	mm	
• from the bottom side	5	mm	
Weight	4	kg	

(1) Other screens may be ordered. Please, consult Thales Electron Devices.



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