

INDUSTRIAL
NON DESTRUCTIVE TESTING

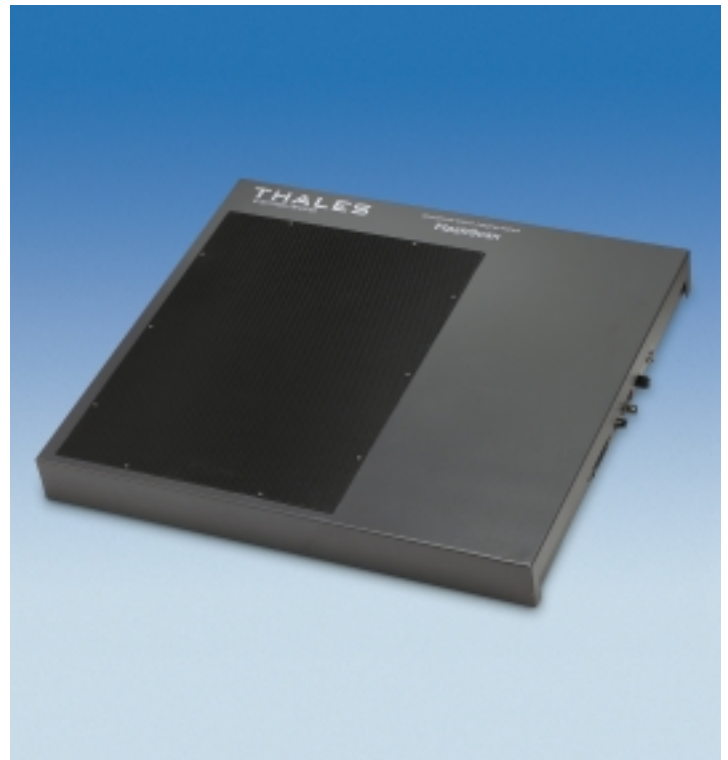
FlashScan 33

Digital X-Ray Imaging Subsystem

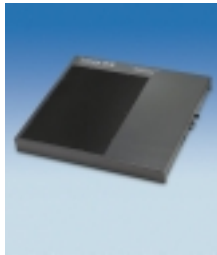
Very wide energy range
(from low energy
to few MeV)

- Highly integrated subsystem
- Wide dynamic range: 14-bit grayscale image
- High resolution:
127 μm pixel size
- Frame rate: 1.4 second

12" x 16" active image area



THALES



FlashScan 33

The FlashScan 33 digital imaging subsystem has been specifically designed for integration into non destructive testing equipment and can be used at very high energy level. Its large-format (12" x16" 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 33 generates 14-bit grayscale images, with film-like quality details, which can be viewed immediately on a computer screen.

The FlashScan 33 is a highly integrated subsystem including amorphous silicon image sensor array, X-ray conversion screen, supporting electronics, frame-grabber card for accelerated processing, X-ray safety interlock, and power supply.

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

FlashScan 33 features

Image sensor	type large format amorphous silicon array + conversion screen		
Active area	284 x 406	mm	
Format	2 240 x 3 200	7.1 millions pixels	
Pixel size	127	µm	
X-Ray conversion screen	Gd ₂ O ₂ S:Tb		
Conversion screen density (1)	130	mg/cm ²	
Energy range without shielding	30 to 160	kVp	
<i>Can be used at higher energy levels with appropriate shielding</i>			
X-Ray window material	aluminium		
MTF @ 80 kVp, 2 lp/mm	> 45	%	
MTF @ 45 kVp, 2 lp/mm	> 60	%	
Dynamic range	≥ 3 500:1		
Analog-to-digital converter	14	bits	
Non uniformity	≤ 1% after correction		
Exposure window:			
• internal trigger	2.7	sec	max.
• external trigger	120	sec	max.
Readout time	1.4	sec	approx.
Interface and acquisition card	PCI-based frame grabber		
Software features:	<ul style="list-style-type: none"> image acquisition gain & offset correction window & level adjustment control dialogue display calibrations, raw and corrected image pixel value monitoring save as 8, 16-bit TIFF image histogram magnify printing profile 		

PC requirements

• PC 500 MHz minimum with PCI bus	256 MB RAM	min.
• Operating system	Windows NT 4.0 / Windows 2000 / Windows XP	

The PC is not part of the delivery.

Mechanical characteristics

Imaging system:			
• dimensions	50 x 55 x 4.8	cm	
• weight	16	kg	approx.
Power supply:			
• dimensions	25 x 25 x 9	cm	
• weight	4	kg	
• power	115 V AC, 60 Hz	Hz	
	220 V AC, 50 Hz	Hz	
Cable length (2)			
• system to computer	10	m	
• power supply to system	5	m	
• fiber-optic from system to X-Ray safety switch	10	m	

(1) FlashScan 33 products with other screens may be ordered. Please, consult Thales Electron Devices.
 (2) Other cable lengths available on request.

This document cannot be considered to be a contractual specification. The information given herein may be modified without notice due to product improvement or further development. Consult Thales Electron Devices before making use of this information for equipment design.



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