

X-RAY IMAGING
DIGITAL RADIOLOGY

TH 9438 QX

X-ray image intensifier

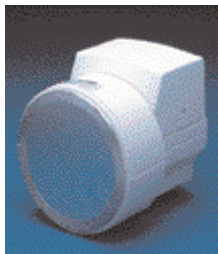
Ultra-high contrast and
high conversion factor

9" - 23 cm
25 mm output window

- Electronic zoom, 3 fields
- High resolution
- High DQE



THALES



TH 9438 QX

Thales Electron Devices' QX series of X-Ray Image Intensifiers (XRII), not only retain all the features on its proven HX generation, but also offer higher contrast, resolution and conversion factor, without compromising the already excellent DQE.

The TH 9438 QX is an 9-inch, triple-field XRII with 25 mm output window, intended for high-end digital radiology applications. When coupled with a high-performance 1k x 1k CCD camera, it offers a remarkably high level of image quality.

The TH 9438 QX also ensures:

- lower noise in digital mode,
- improved blemish characteristics,

- pulse operating mode,
- wide dynamic operating range.

Different housings, mechanical interfaces and paintings, are available on option.

The power supplies are microprocessor-controlled, comply with EMC standards, offer optimum voltage stability and total reliability.

They also feature blanking capability on option.

Furthermore, the TH 9438 QX is 100% interchangeable - optically, electrically and mechanically - with the TH 9438 HX.

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

Typical electro-optical characteristics (1)

Nominal entrance field size	23	cm
Output-image diameter	25	mm
Output-window thickness	14	mm
Input phosphor	Hi-Res CsI layer	
Output phosphor P20 wavelength	520 - 540	nm

Operating mode	Normal	Zoom 1	Zoom 2	
Useful entrance field size	215	160	120	mm
DQE at 59.5 keV	65			%
Conversion factor	260	130	65	cd.m ⁻² /mR.s ⁻¹
	30	15	8	cd.m ⁻² /μGy.s ⁻¹
Limiting resolution:				
• center	56	62	70	lp/cm
• 93 % radius	50	56	64	lp/cm
Contrast ratio:				
• large area (10 %)	36:1	> 36:1	> 36:1	
• small detail (10 mm)	23:1	25:1	30:1	
Brightness non-uniformity	25	12	6	%
Distortion:				
• integral	4	3	2	%
• differential (at 90% radius)	18	8	4	%

Mechanical characteristics (depending on housing)

Overall length	338-341	mm
Largest diameter	285-301	mm
Weight	9-20	kg

(1): IEC standards 1262-1 to 1262-6.

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For further information, please contact:

THALES ELECTRON DEVICES

2 bis, rue Latécoère - 78941 Vélizy Cedex - France
Tel: + 33 1 30 70 35 00 - Fax: + 33 1 30 70 35 35
www.thalesgroup.com/electrondevices