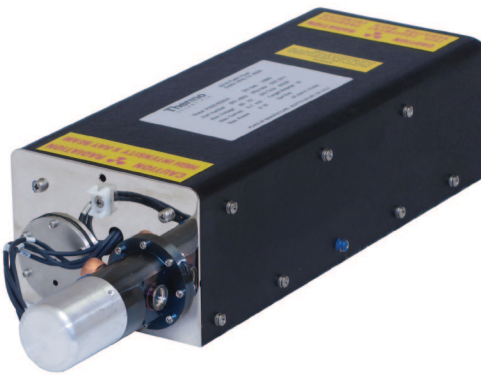
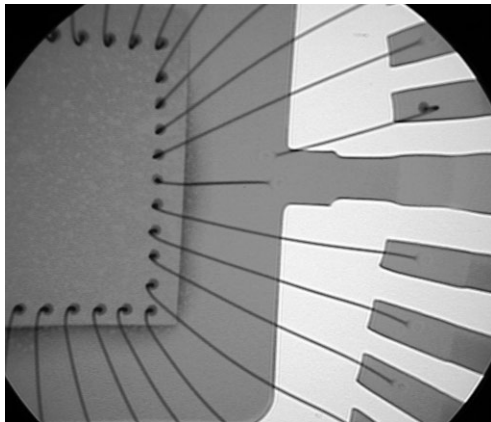


The Thermo Scientific X-Ray product line has been providing quality X-Ray sources to the industrial and medical imaging markets since 1978. Known and respected for innovation and superior microfocus technology, we are proud to introduce the completely integrated Thermo Scientific PXS5-822 side window microfocus X-Ray source.

Thermo Scientific PXS5-822 MicroFocus X-Ray Source 80kV



Thermo Scientific PXS5-822 X-Ray sources feature an integrated design with X-Ray tube, power supply, and control electronics in one package.



Lead frame with wire bonds

Description. The Thermo Scientific PXS5-822 is an 80kV microfocus X-Ray source in side window configuration for use in high-resolution imaging. The side window configuration allows use in compact cabinets where high magnification is still required. The small spot size and high magnification, combined with stable output deliver superior quality 2D and 3D images. It combines the X-Ray tube, high-voltage power supply, and controller in one compact package powered from a 12 VDC source.

Applications. The high-performance Thermo Scientific PXS5-822 X-Ray source is the ideal choice for:

- Manual inspection of printed circuit boards and electronic devices
- Nondestructive test requiring high-resolution imaging of metal and plastic parts
- Micro-CT imaging for industrial and life sciences applications

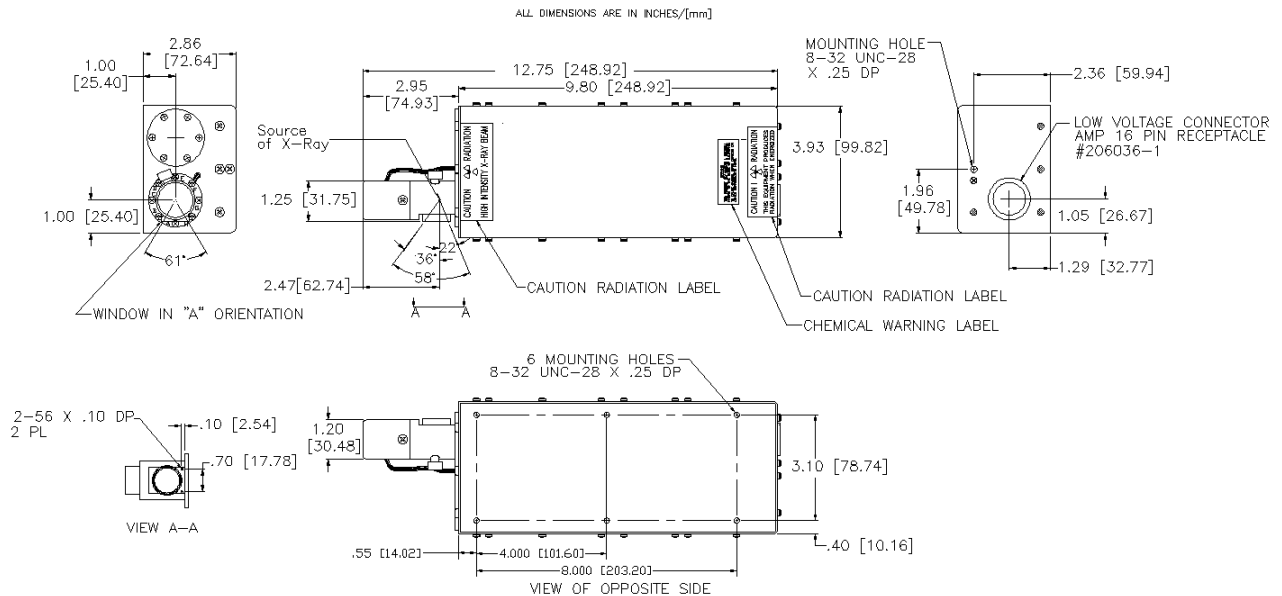
- Rotating gantry Micro-CT systems
- Conveyor inspection systems requiring a wide beam side window configuration (Thermo Scientific PXS5-822-WB)

Benefits. Thermo Scientific PXS5-822 X-Ray sources offer many attractive benefits:

- Side window configuration for use in smaller cabinet systems
- 12.5 mm spot-to-window spacing for high geometric magnification and high resolution
- Moderate cost for high-performance/value inspection systems
- Wide beam version (Thermo Scientific PXS5-822-WB) allows large field of view
- X-Ray tube, power supply, and control electronics in one compact package make system integration easy

Thermo Scientific PXS5-822 Specifications

Operating Voltage Range	20-80kV	
Maximum Power	8 watts, 45-80kV	
Maximum Beam Current	.178 mA @ 45kV	
Spot Size	Typically 15 μ at 50kV to 80kV, 4W to 8W	
Cone of Illumination	Standard Beam 34°	Wide Beam 60°
Spot to Window Spacing	12.5 \pm 0.5 mm (.49 in.)	12.5 \pm 0.5 mm (.49 in.)
Window Diameter	Approximately 9.4 mm (.37 in.)	Approximately 19 mm (0.76 in.)
Window Material and Thickness	Beryllium: 0.127 mm (.005 in.)	Beryllium: 0.254 mm (.010 in.)
Target Material	Tungsten	
Flux Stability	Typically < +/- 2% in 4 hours after 10-minute warm up	
Ambient Temperature and Humidity	0 to 32 °C, 0-95% RH, up to 5,000 feet	
Method of Cooling	Cooling air must be directed at the unit to maintain the tube mounting plate temperature below 50 °C (below 40 °C is recommended).	
Shielding	X-Ray leakage behind the X-Ray tube is less than 0.5mR/hour, measured one inch away with Victoreen 190.	
Weight	Approximately 3.6 kg (8 lb.)	
Input Power	12-14 VDC, 4A	
Control Interface	Analog control and monitoring of operating conditions and status	



Outline drawing of
Thermo Scientific
PXS5-822 X-Ray Source

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