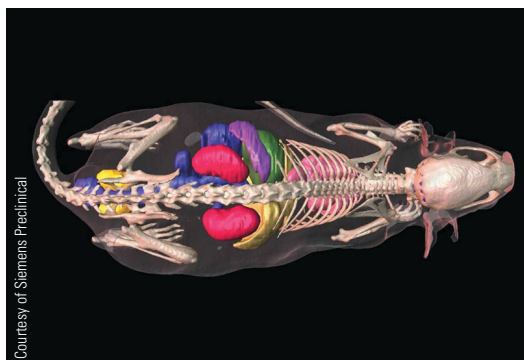
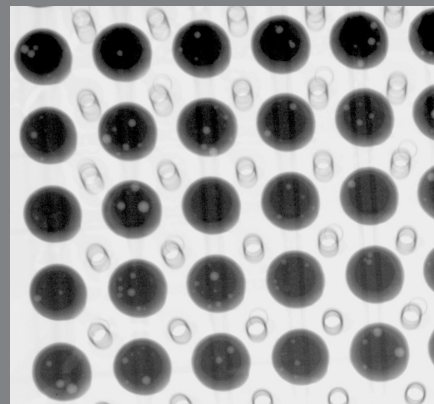
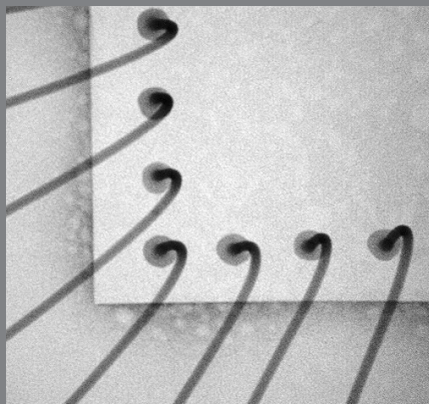


## Thermo Scientific PXS10 High-Resolution MicroFocus X-Ray Source 130kV

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 next level of completely integrated 130kV X-Ray sources – the Thermo Scientific PXS10 high-resolution MicroFocus X-Ray source.



The high-performance Thermo Scientific PXS10 is ideal for electronics inspection, showing clear X-Ray images of IC wire bonds, ball grid arrays, and other components (right).



Micro CT image of a lab rat

**Description.** The Thermo Scientific PXS10 X-Ray source is a digitally controlled 130kV microfocus X-Ray source for use in high-resolution imaging applications. The small spot size and high magnification, combined with stable high-intensity output, allow superior quality 2D and 3D images. The X-Ray source combines the end window X-Ray tube, high-voltage power supply, and controller in one compact package powered from a 24 VDC source.

**Applications.** The high-performance Thermo Scientific PXS10 X-Ray source is the ideal choice for:

- Manual and automated 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

**Benefits.** Thermo Scientific PXS10 X-Ray sources offer many attractive benefits:

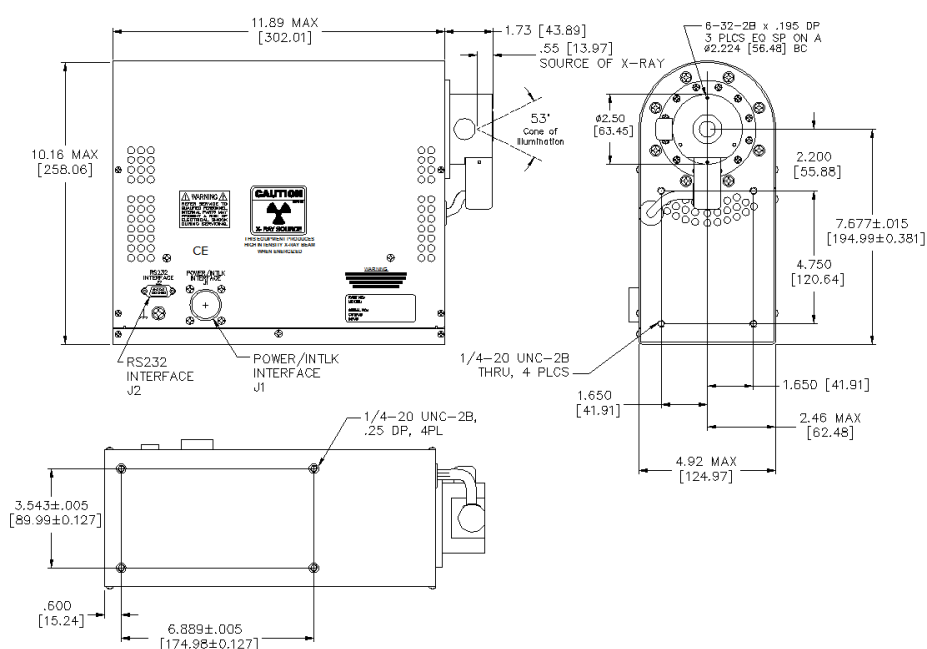
- Small, round spot optimized over the range of operating voltage and power for distortion free images
- 6 micron spot at 4 watts for high-resolution imaging
- 14 mm spot to window spacing provides high geometric magnification
- X-Ray tube, power supply, and control electronics in one compact package make system integration easy
- Tube head can be rotated +90° or -90° relative to position shown (see Figure 1)
- Auto-conditioning ramps source up slowly as required by the time the source has been off
- Digital interface allows user access to diagnostics and operating logs. Source can be operated with the supplied Windows® graphical user interface or using the included Product Interface Specification.

## Thermo Scientific PXS10 Specifications

Parameter	16 Watt	40 Watt	65 Watt
Operating Voltage Range	45-130kV	45-130kV	45-130kV
Maximum Power	16 W, 45-130kV	40 W, 80-130kV	65 W, 130kV
Maximum Beam Current	0.356 mA	0.500 mA	0.500 mA
Spot Size:			
4 Watt	≤ 6μ, 60-130kV	≤ 7μ, 45-130kV	≤ 7μ, 45-130kV
8 Watt	≤ 9μ, 45-130kV	≤ 10μ, 45-130kV	≤ 10μ, 45-130kV
16 Watt	≤ 21μ, 45-130kV	≤ 22μ, 45-130kV	≤ 22μ, 45-130kV
32 Watt		≤ 48μ, 70-130kV	≤ 48μ, 70-130kV
40 Watt		≤ 60μ, 80-130kV	≤ 60μ, 80-130kV
65 Watt			≤ 100μ, 130kV
Spot Ellipticity	±20% @ 16 watts, 130kV (either axis referred to average)		
Cone of Illumination	≥ 53°, round beam, uniform beam profile in any direction		
Spot to Window Spacing	14 ± 0.5 mm		
Window Diameter (uncollimated)	Approximately 19 mm (.76 in.)		
Window Material and Thickness	Beryllium: 0.25 mm (.01 in.)		
Target Material	Tungsten		
Ambient Temperature and Humidity	0 to 32 °C, 0-95% RH, up to 5,000 feet		
Method of Cooling	Internal fan. Adequate air circulation around unit must be provided.		
Shielding	X-Ray leakage behind the X-Ray tube is less than 0.5mR/hour, measured one inch away with Victoreen 190.		
Weight	Approximately 13.6 kg (30 lb.)		
Input Power	24-26 VDC, 6 amps		

### CERTIFICATIONS

- CE Directives 73/23/EEC (Low Voltage) and 89/336/EEC (EMC)
- UL 61010-1, 2nd Edition, CAN/CSA-C22.2 No. 61010-1, 2nd Edition



**Figure 1. Outline drawing of Thermo Scientific PXS10 high-resolution MicroFocus X-Ray Source**