



The Xplorer series - sealed integrated microfocus

Xplorer 130 cube



High magnification

As inspection tasks become more challenging, the Xplorer Cube enables you to resolve small features down to a few μm with focal spot of 12 μm (JIMA resolution of 5 μm) at 8 W and a short FOD of < 11 mm allowing high magnification. This ensures even the most minute components can be thoroughly examined, leading to higher quality control and reliability in production.

Homogeneous intensity distribution

Homogeneous intensity distribution and highly symmetric focal spot ensure consistent, high-quality 3D and CT images with reduced artifacts, improving inspection accuracy and reliability. These features contribute to superior imaging performance, making identifying defects easier and ensuring product integrity.

High power output

Delivering an industry leading 65 W at 130 kV, the Xplorer 130 Cube is ideally suited to automated inline 2D and 3D inspection of PCBAs, batteries, and other electronic components. Combined with a large coverage wide beam of 115° on both axes this enables you to increase the efficiency of your production line with maximized throughput. The robust performance of the Xplorer 130 Cube supports various applications, ensuring comprehensive and cost-effective inspection solutions.

Compact & reliable design

A fully integrated X-ray module with a minimized footprint in a popular form factor, reducing space requirements and enhancing inspection quality. This streamlined design facilitates easy integration into production lines while reliable, long-term performance and zero maintenance maximize uptime and operational efficiency.

Dynamic focusing

Resolution and power can be optimized for individual applications, giving users the flexibility required to thrive in a changing market.

Ethernet connection

Operate the module in the way that suits you best. Control of the module can be achieved either with the included GUI or via your host-controller using the provided software interface specifications. The Xplorer 130 Cube includes a modern ethernet connection supporting industry 4.0 requirements enabling you to future proof your systems and monitor the system's performance with the extensive diagnostics provided.

Wide beam

The wide beam capability provides greater coverage and dose homogeneity within the field-of-view to increase throughput and line speed.

Features include

- High power 65 W and 500 µA beam current
- Metal ceramic tube for stability and long life
- High magnification 11 mm FOD
- Wide 115° beam for broad coverage and oblique views
- Highly stable output and spot position ensure clear 3D and CT images

Control

- Ethernet supporting industry 4.0 requirements
- Comet GUI included for ease of integration

Options

- Focal spot power density options for highest resolution or longest life
- Ready for customized beam collimation and filtering for battery inspection and micro-CT

Certificates

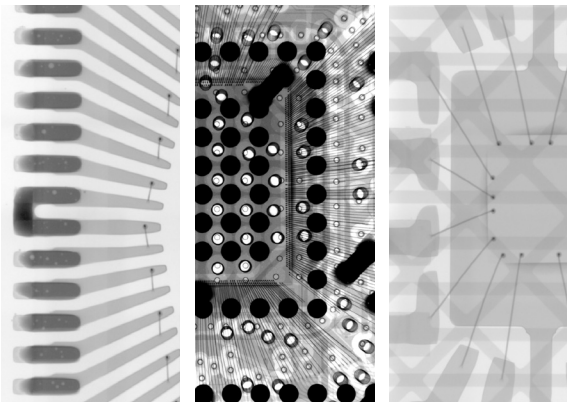
- CE (Low voltage 2014/35/EU, EMC 2014/30/EU and RoHS 2011/65/EU)



Specifications

XP-130/3-2

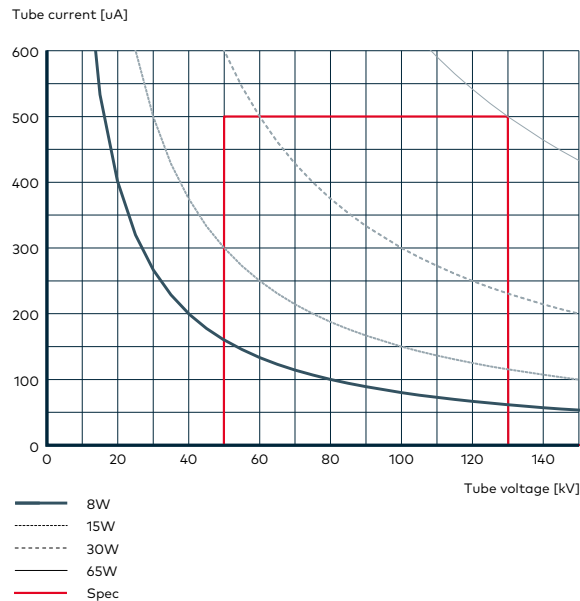
Voltage Range	50 to 130 kV
Current Range	0 to 500 µA
Maximum Power	65 W at 130 kV (50 W at 100 kV)
Focal Spot Size	12 µm to 100 µm Min. resolution 5 µm (JIMA)
Focal Spot Control	Optimized over power range
Window Material	Beryllium 0.5 mm
Radiation Coverage	115° both axes
Focus to Object Distance	11 mm
Input Ratings	24 VDC; 6 A
Duty Cycle	Rated for continuous operation
Operating Temperature Range	5 °C to 40 °C
Humidity	< 90% Non-condensing
Storage Temperature	-25 °C to 70 °C
Dimensions (L×W×H)	172 × 167 × 319 mm
Weight	~ 8.7 kg
Interface Com	Ethernet RJ45
Interface I/O	«X-ray on» OUT, Hardware interlock IN High-voltage enable IN
Interface Power	24VDC In & Power interlock



Applications

The Xplorer Compact 130 is versatile and suited for a variety of NDT applications including inline inspection processes for PCBA and electronic batteries, ensuring high standards of quality and reliability in electronic components.

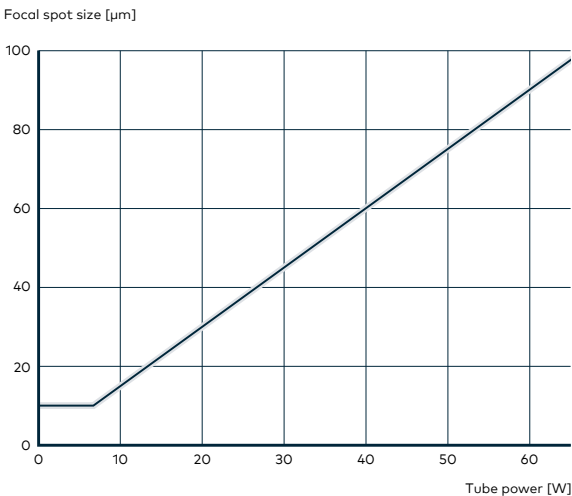
130 Cube Max Power Output



High power

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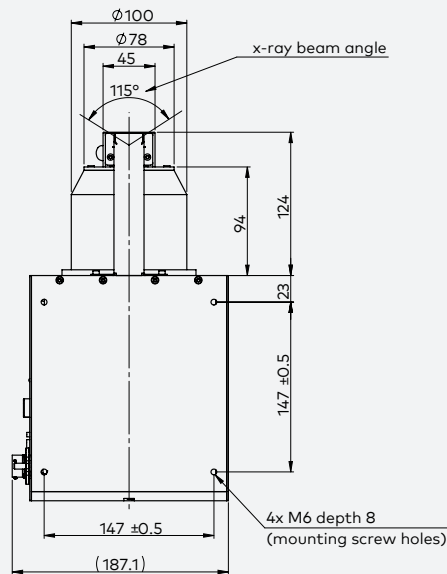
Focal spot vs Power: Xplorer 130 Cube



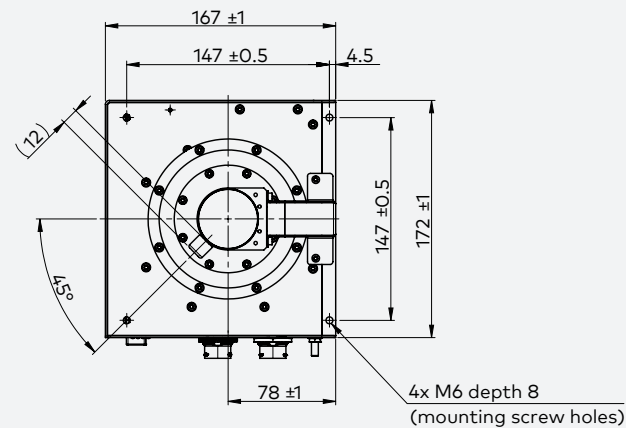
Dynamic focusing

Thanks to dynamic focusing across the entire power range, the resolution and power can be optimized for individual applications, giving you the flexibility required to thrive in a changing market.

Bottom view



Front view



All measurements in mm

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