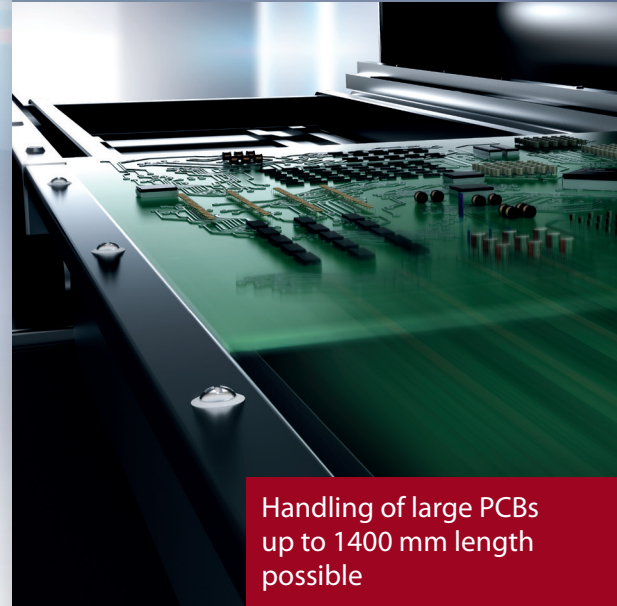




Cutting-Edge  
3D X-ray for  
Networked PCB  
Manufacturing



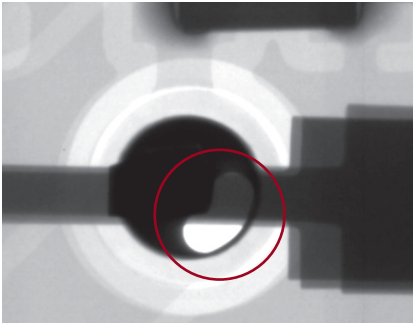
Handling of large PCBs  
up to 1400 mm length  
possible

## **iX7059 PCB Inspection (XL)**

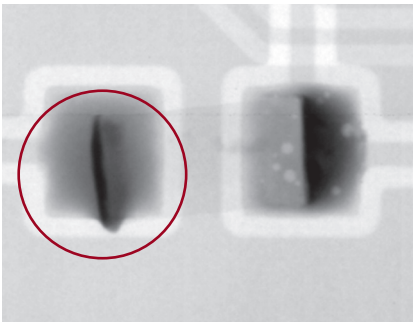
Innovative X-ray inspection for maximum  
product quality and process efficiency

**3D AXI**

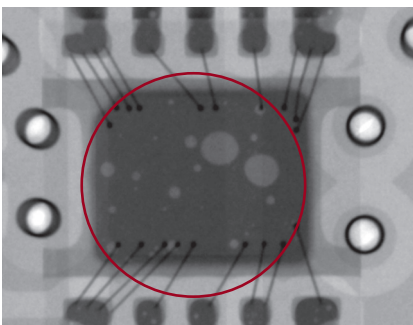
# Pioneering Quality Assurance for Modern Electronics Manufacturing



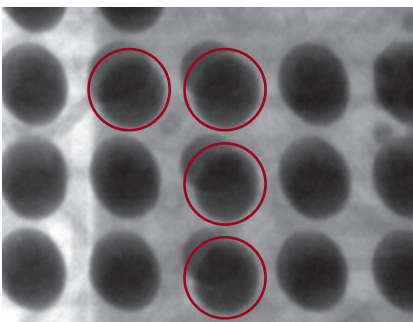
Void in a THT solder joint



SMD component in tombstone position



Voids in a surface solder joint



Not connected BGA solder balls

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**Complete defect detection on densely populated, thick and even double-sided PCBs**

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**Smooth handling of very large assemblies such as server boards, LED applications, semiconductors and 5G electronics**

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**High-precision solder joint inspection, even on extremely small components and the complex assemblies of high-performance processors**

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**Measurement of voids in surface soldering to ensure efficient heat dissipation**

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**Quality inspection on THT solder joints, pin height and degree of filling, to prevent short circuits**

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**Modern operating software for extremely fast programming and incredibly simple verification**

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**Service, hotline support and remote maintenance worldwide**

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When it comes to quality assurance in the production line, cycle time and inspection coverage play a crucial role. Having 100% reliable and comprehensive inspection coverage directly impacts process efficiency and ensures consistently high product quality with zero rejects. A high-precision 3D inline X-ray inspection solution capable of reliably inspecting hidden solder joints and complex assemblies with THTs, BGAs, CSPs, QFPs, SSOPs and LEDs provides optimal first pass yield results. The innovative 3D X-ray inspection technology in the iX7059 PCB systems ensures shorter capture times thanks to a unique dynamic 3D image acquisition concept and provides excellent 3D slice images by means of integrated computed tomography – for peerless measurement precision and maximum throughput rates.

### Best first pass yield results

Viscom Quality Uplink provides maximum quality and process efficiency by means of intelligent networking of 3D SPI, 3D AOI, 3D AXI and verification station



### Defect-free and stable high-end electronics manufacturing

Ensuring complete 3D X-ray inspection in the production line while at the same time meeting the highest cycle time requirements is a challenge that Viscom has long overcome. The new system design of the iX7059 generation adds space-saving installation, intelligent networking and extremely simple operation by way of a 24" touch monitor. A big advantage of the new line is its ability to flexibly handle PCB assemblies, even **very large PCBs measuring up to 1400 mm in length** and weighing up to 15 kg.

In addition to traditional SMD inspection, the iX7059 PCB Inspection (XL) also provides high-precision, reliable detection of soldering defects such as head-in-pillow and pores in BGA and LGA components, voids in surface soldering as well as incorrect fill levels of THT solder joints. This makes the iX7059 PCB Inspection (XL) ideal for use in LED lighting, security technology in the automotive industry, high-end telecommunications and server technology – anywhere reliable functionality is absolutely essential.

At the heart of the iX7059 PCB Inspection systems is **CT-based 3D X-ray technology** which provides image recordings at high-speed and high-quality levels. The combination of a powerful microfocus X-ray tube, state-of-the-art flat panel detector and innovative dynamic image acquisition produces **exact tomographic images for highest defect detection**.

Thanks to its extensive component inspection library, the new line provides extremely user-friendly and fast programming that can be automatically optimized due to the integrated Viscom verification – a significant plus when it comes to creating new inspection programs. The AI-backed verification technology helps to improve the classification and releases additional resources. The iX7059 PCB Inspection (XL) is the number one choice for ensuring **maximum return on investment** and defect-free production of high-end electronics capable of meeting growing demands.

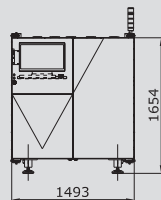


The iX7059 PCB Inspection XL system inspects very long PCBs: up to 1000 mm long by default and up to 1400 mm with external transport tunnel

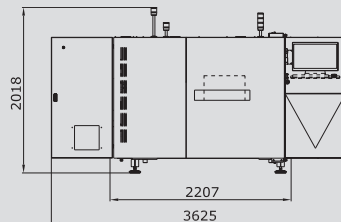
# Technical Specifications



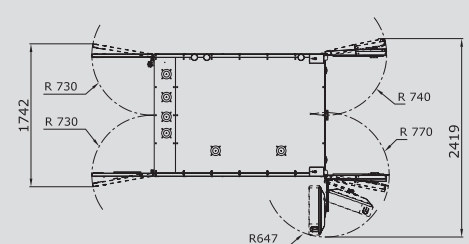
Front view



Side view



Top view



Dimensions in mm

		iX7059 PCB Inspection	iX7059 PCB Inspection XL
X-ray technology	X-ray tube	Sealed microfocus X-ray tube	
	High voltage	130 kV	130 kV (up to 180 kV optional)
	Tube current	300 µA	300 µA (500 µA)
	Detector	Flat panel detector type FPD T2 (FPD T3 and T4 optional), 14-bit grayscale depth	
	Resolution	8.5 – 25 µm/Pixel	
	3D image capture mode	Evolution 4 as standard, Evolution 5 and Evolution 6 optional for unique dynamic image recordings	
	X-ray cabinet	Designed to meet requirements for fully protected devices in accordance with the German Radiation Protection Act (StrlSchG) and the German Radiation Protection Ordinance (StrlSchV). Radiation leakage rate < 1 µSv/h	
Software	User interface	Viscom vVision/EasyPro	
	Statistical process control	Viscom vSPC/SPC, open interface (optional)	
	Verification station	Viscom vVerify/HARAN	
	Remote diagnosis	Viscom SRC (optional)	
	Programming station	Viscom PST34 (optional)	
	Operating system	Windows®	
	Processor	Intel® Core™ i9	
Handling	PCB dimensions	Up to 610 mm x 600 mm (24" x 23.6") (L x W)	Up to 1400 mm x 660 mm (55" x 26") (L x W)
	PCB weight	Up to 10 kg (22 lbs)	Up to 15 kg (33 lbs)
	Transfer height	860 – 980 mm ± 20 mm (33.9" – 38.6" ± 0.8")	
	Width adjustment	Automatic during setup	
	Clamping	Pneumatic	
	Support area	3 mm (0.1")	
	Upper transport clearance	Up to 50 mm (2"), depending on resolution	
	Lower transport clearance	Up to 62 mm (2.4")	
Other system data	Positioning unit	Synchronous linear motor	
	Interfaces	SMEMA, IPC Hermes (optional)	
	Power requirements	400 V (other voltages on request), 3P/N/PE, 8 A, 4 - 6 bar working pressure	
	System dimensions	1493 mm x 1654 mm x 2207 mm (58.8" x 65.1" x 86.9") (W x H x D)	
	Line integration dimension	+30 mm (1.2") on both sides, plus side tunnel for the extended longboard option	
	Weight	Ca. 2500 – 2700 kg (ca. 5511 – 5952 lbs)	Ca. 2500 – 3000 kg (ca. 5511 – 6613 lbs)

Specifications and other system information are subject to change without notice and may differ from the information displayed at the time of ordering.