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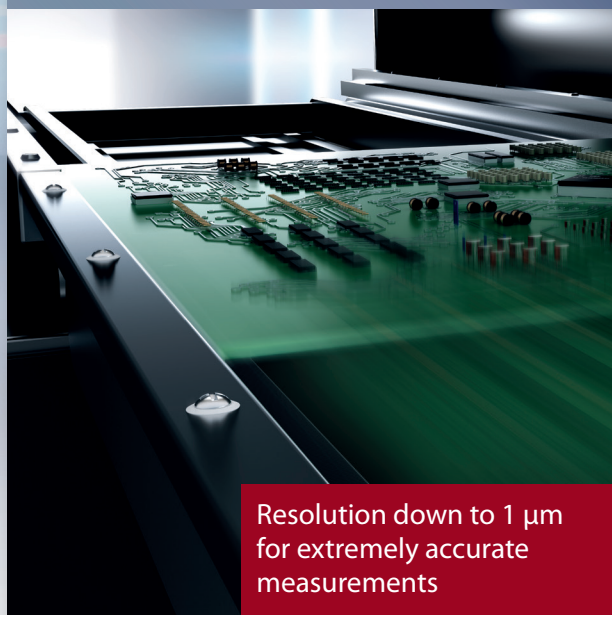
Lab-to-Fab 3D X-ray Inspection System



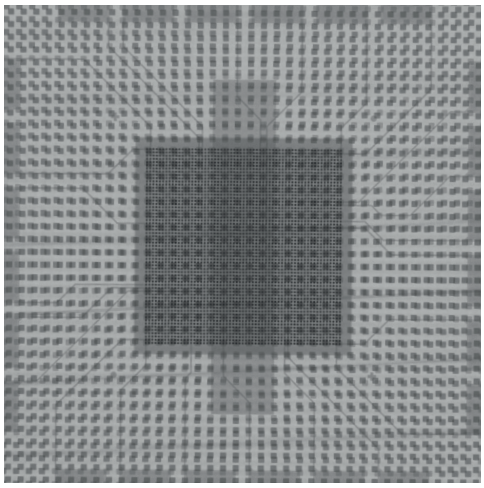
Resolution down to 1 µm for extremely accurate measurements

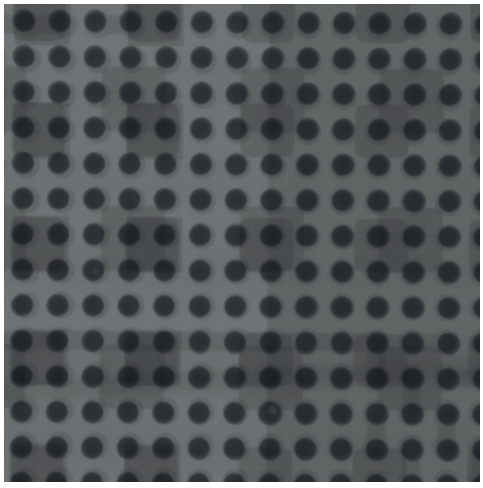
iX7059 One

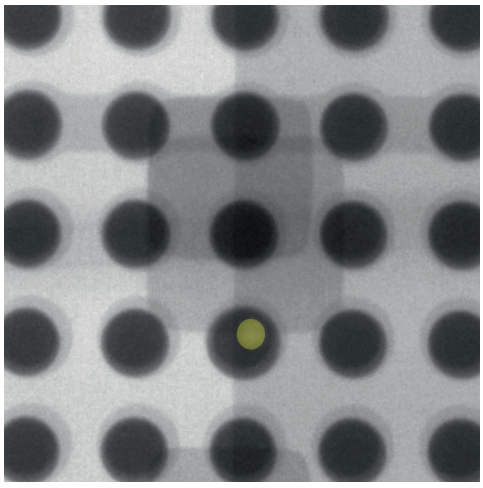
The ONE ideal inspection system for your advanced assembly, power module and semiconductor production.

3D AXI

Our Highest Resolution Inspection System for Inline Applications







Resolution down to 1 µm for extremely accurate measurements

Set a new benchmark in quality assurance with an extended depth of field

Ultra precise X-ray inspection in real 2D, 2.5D and 3D

From RnD to inline inspection („Lab-to-Fab“)

Tailored for semiconductor devices, leadframe applications, and advanced assembly products.

Modern operating software for extremely fast programming and incredibly simple verification

Service, hotline support and remote maintenance worldwide

In the pursuit of excellence, precision is non-negotiable. With the iX7059 One, precision isn't just a goal; it's a guarantee. Equipped with state-of-the-art imaging capabilities, this system delivers unrivaled image quality down to an astonishing 1µm resolution. From intricate semiconductor devices to complex leadframe applications, every detail is captured with breathtaking clarity.

But precision extends beyond mere image quality. Its about the ability to identify and address defects with unwavering accuracy. Here, the iX7059 One shines brightest, boasting a greater depth of field that sets a new benchmark in defect detection. Whether it's a subtle flaw or a glaring imperfection, rest assured that nothing escapes the meticulous gaze of this advanced inspection system.

What sets the iX7059 One apart is its versatility. With X-ray Inspection capabilities spanning 2D, 2.5D, and 3D, it's equipped to handle the diverse needs of modern manufacturing. From single semiconductor devices with intricate internal structures to leadframe applications requiring comprehensive analysis, this system delivers unparalleled 100 % inline inspection for mass production performance across the board.

UPH Efficiency

In the ever-evolving landscape of semiconductor, power module, and advanced assembly requirements, optimizing the UPH is paramount. **Introducing the iX7059 One!**

At the heart of the **iX7059 One** lies a revolutionary blend of cutting-edge technology and intelligent AI-driven methodologies. This synergy empowers manufacturers to embark on a journey of unparalleled efficiency, where production processes are not only accelerated but also enriched with smart decision-making capabilities. As the cornerstone of swift and smart production, the iX7059 One ensures that every component undergoes rigorous inspection without compromising on quality.

Furthermore, the **iX7059 One** isn't just about speed; it's about foresight. By detecting voids or cracks early in the manufacturing process, this advanced system goes beyond mere efficiency gains to deliver tangible cost savings. Imagine a production line where potential defects are identified and rectified before they escalate, where every component meets the highest standards of quality without compromise.

Compatibility Redefined

In today's interconnected world, compatibility isn't just about hardware; it's about synergy. That's why we've develeoped vConnect, a digital multi-purpose platform designed to unlock the full potential of the iX7059 One. Seamlessly integrating with your existing infrastructure, vConnect provides real-time data insights that empower you to make informed decisions and optimize operational efficiency.

Imagine having a bird's-eye view of your production line, with every component and process meticulously tracked and analyzed in real-time. With **vConnect**, this vision becomes a reality. Whether it's monitoring inspection results, analyzing performance metrics, or identifying areas for improvement, vConnect puts the power of data at your fingertips.

vConnect

Viscoms new multipurpose-platform will show you the next level of digital connectivity

vConnect acts as central user control for Viscom services. You can simplify your processes and monitor and control the technical status of your machines effortlessly. Condition Monitoring provides you with real-time data and shows you the current state of your machines in your dashboards. Furthermore, you can enhance maintenance efficiency due to elements from vConnect Predictive Maintenance.

You can also organize, customize and design your dashboards individually. Additionally, we offer scalable storage solutions – both local and cloud-based – to cover large amounts of data. We are delighted to provide assistance for our various modern solutions, including cloud connection and cloud usage. Due to the backup service, you are protected against security gaps and data losses.

You will experience a new level of intelligent connectivity – to achieve one goal: Increase the productivity of your machines!

vCONNECT

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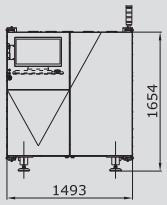
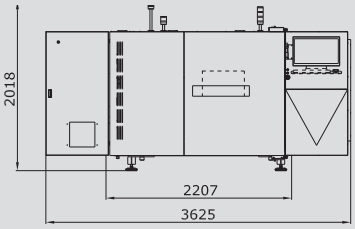
Technical Specifications iX7059 One

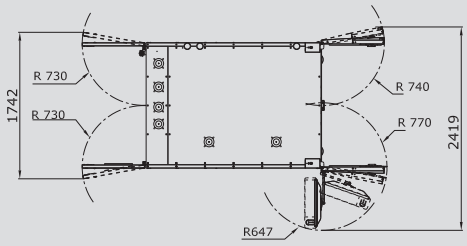
Front view



Side view



Top view



Dimensions in mm

		iX7059 One Leadframe	iX7059 One Carrier	iX7059 One Special
X-ray technology	X-ray tube	Sealed microfocus X-ray tube		
	High voltage	110kv		
	Tube current	up to 200 µA		
	Detector	FPD T3 (T4 optional), 14-bit grayscale depth		
	Resolution	1 - 25 µm/pixel		
	3D image capture mode	Evolution 5 as standard, Evolution 6 optional		
	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		
	Statistical process control	Viscom vSPC/SPC, open interface (optional)		
	Verification station	Viscom vVerify		
	Remote diagnosis	Viscom SRC (optional)		
	Programming station	Viscom PST34 (optional)		
	Operating system	Windows®		
	Processor	Intel® Core™ i7		
Handling	Product dimensions	Up to 300 mm x 550 mm (11.8" x 21.6") (L x W)*	Up to 500 mm x 500 mm (19.6" x 19.6") (L x W)*	Up to 500 mm x 500 mm (19.6" x 19.6") (L x W)*
	Product weight	Up to 5 kg (11 lbs)		
	Clamping thickness	0 - 2.5 mm**	5.5 - 11 mm**	2.5 - 5.5 mm**
	Transfer height	860 - 980 mm ± 20 mm (33.8" - 38.5" ± 0.7")		
	Width adjustment	Automatic during setup		
	Clamping	Pneumatic		
	Support area	3 mm (0.1")		
	Upper transport clearance	2 - 50 mm (0.07 - 1.9")		
	Lower transport clearance	50 mm (1.9")		
Other system data	Positioning unit	Synchronous linear motor		
	Interfaces	SECS/GEM, 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 (58.7" x 65.1" x 86.8") (W x H x D)		
	Line integration dimension	+30 mm (1.1") on both sides		
	Weight	2255 kg (4971.4 lbs)*		

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

* depends on configuration
** other clamping thickness on request

Our international subsidiaries and representatives can be found at:

www.viscom.com

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