

Accelerate Your AXI Inspection Abilities with Our Latest Enhancements

Get ready to explore how our AXI technology is integrated with exceptional features that make ViTrox's AXI systems the industry's most sought-after solution. Your journey towards manufacturing excellence starts here, with ViTrox as your trusted partner.

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Welcome to the future of manufacturing, where your success is our top priority. At ViTrox, we're deeply attuned to your unique needs and dedicated to placing you at the forefront of innovation. In today's ever-evolving production landscape, we understand that speed and reliability are paramount. That's why we've gone the extra mile to enhance our V810i Advanced 3D X-Ray Inspection (AXI) solutions, ensuring they align perfectly with your manufacturing objectives.



Accelerate Your
AXI Inspection Abilities
with Our **Latest Enhancements**

- ⊕ Market's First AXI Dual Lane Solution
- ⊕ Effortless Programming and Process Optimisation
- ⊕ Sharper X-ray Imaging for Complex Components

V810i S3 **V810i S2 EX**

In this fast-paced manufacturing world, where challenging inspections are the norm, we proudly introduce our V810 AXI solutions, now equipped with groundbreaking technologies to further enhance its capabilities. It's not just advanced; it's the fastest AXI solution on the market. From inspection speed to cycle time and

programming efficiency, we've fine-tuned every aspect to put you at the forefront of speed and accuracy. As you continue reading, you'll discover how these innovations can transform your manufacturing processes and drive your success to new heights.

1. **Maximise Efficiency with ViTrox's V810i AXI Latest Dual Lane Solution**

Conventional X-ray inspection methods have often come with a host of challenges. Slow cycle times, limitations in board size compatibility, and struggles to meet the demands of modern, high-speed production have all posed significant pain points. At ViTrox, we empathise with these frustrations, which is why we proudly stand as the first in the market to introduce the V810i AXI Solution with Dual Lane capability, available in our **V810i 3D AXI S2EX** and **V810i 3D AXI S3** models. This groundbreaking feature directly addresses these pain points by accommodating and inspecting PCB boards weighing up to 4.5kg and measuring up to 457mm x 206mm (18" x 8.1") in size, ensuring compatibility across a spectrum of production requirements. Moreover, it delivers an impressive up to 40% cycle time improvement, revolutionising your inspection efficiency. Whether you're dealing with small boards or orchestrating mass production inspections, this innovation is a carefully crafted solution to drive your success.

2. **Increase X-Ray Imaging Accuracy with 3D CT ART**

The challenges of producing high-quality 3D models for ball grid array (BGA) joint types and accurately analysing defects have often left manufacturers grappling with uncertainties. To overcome these challenges, we have integrated our in-house developed Algebraic Reconstruction Technique (ART) with a model of sharp geometric 3D computed tomography (CT), simplifying the defect analysis process like never before. Our innovative approach generates high-quality 3D models for BGA joint types, offering a distinctive and precise view of defective joints. This revolutionary technology significantly boosts your confidence levels when making critical decisions about defect analysis.

3. **Tackle Complex Component and 5G Connector Inspections through Sharper X-ray Imaging with H-Reconstruction**

The sheer complexity of boards and components has often left inspection images compromised, affecting the accuracy and reliability of defect analysis. The rise of 5G technology, known for its exceptional performance and reliability, brings a new challenge. High-speed 5G connectors, layered with metal plates, pose a formidable hurdle for AXI suppliers. These connectors can disrupt X-ray images, making precise inspections a daunting task.

To address these challenges, we have developed an extra-fine scanning methodology and a robust "H" reconstruction processing method to generate clean and razor-sharp X-ray images, ensuring stable and repeatable inspection capabilities. Our H-reconstruction technique, specially designed for heavily shaded components and non-uniformly shaded components, shines in applications like High-Speed Connector Inspection and shading BGA packages. Now, you can experience remarkably higher inspection repeatability and accuracy.

4. **Experience Effortless Programming and Process Optimisation with our A.I. Solutions**

Moreover, the V810i AXI solution seamlessly incorporates artificial intelligence (A.I.) features, unlocking new horizons for AXI inspections. With the V810i AXI A.I. inspection solution, we elevate inspection accuracy across the board, from challenging to common pads, even encompassing pads with intricate grayscales or distinct profiles and attributes. These AXI A.I. Inspection Solutions are:

- **A.I. Programming:** Ensure effortless programming, leading to achieving no escapee and low false call results.
- **A.I. Classification:** An A.I. inspection solution that is developed to cater to challenging inspection and further improve the inspection accuracy for both challenging and common pads. This includes pads consisting of multiple grayscale or unique profiles/characteristics.

- A.I. VVTS: Provides users with an automated buy-off feature supported by confident scoring, allowing it to differentiate between true and false defects from the system. This A.I. solution has an impressive accuracy rate of up to 95% and offers comprehensive coverage of up to 80%, with false call rates below 15% and an escapee rate of less than 0.1%

Key Takeaways

Step boldly into the future of manufacturing with our latest AXI innovations, meticulously designed to propel your business to new heights. We're thrilled to share the news that ViTrox's AXI solutions hold the prestigious IPC-CFX-2591 validation, a testament to our unwavering dedication to optimising your manufacturing processes. Dive into success stories from industry leaders like **CommScope Tijuana**, **Unigen Corporation**, and **NEOTech**, who have harnessed the transformative capabilities of our V810i 3D AXI solution.

The journey to manufacturing excellence awaits. Connect with us today at **enquiry@vitrox.com** to explore how our AXI solutions can be your key to unlocking a world of possibilities for your manufacturing journey!

Contact Us

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