

Speed and Precision Enhanced: Introducing the New V810i 3D AXI Solutions for Unrivalled Speed and Accuracy in Defect Detection

Imagine detecting defects with improved speed and highly accurate X-Ray inspection without sacrificing efficiency. With ViTrox's V810i AXI S2 XLL, this is no longer just a dream, but a reality!

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The new **V810i Advanced 3D X-Ray Inspection (AXI) S2 XLL** delivers high-definition and high-quality inspection that can be used effectively for defect detection and yield improvements. Unlike AOI, X-ray imaging overcomes limitations posed by hidden solder joints, component shields, and high-density double-sided boards. The V810i AXI Solution can generate X-ray images of solder joints and capture structural defects, including head-in-pillow, solder (insufficient/excess/missing), solder voiding and other defects that can account for the majority of defects on a complicated board.

The new **V810i AXI S2 XLL** offers unparalleled benefits with the ability to complete 100% test coverage for board sizes up to 1200.00 mm x 660.4 mm (47.24" x 26"). This exceptional capability can accommodate long board inspection, which is suitable for industries such as automotive and telecommunications.

The new **V810i AXI S2 XLL** improves upon previous ViTrox 3D Computed Tomography (3DCT) technology Algebraic Reconstruction Technique (ART). Besides that, it can generate high-quality X-ray images with enhanced imaging and reconstruction methods for repeatable and stable inspection capabilities. This is especially beneficial for very heavily shaded components inspection and non-uniformly shaded components inspection, such as joint inspection for Ball Grid Array (BGA) and pressfit, SMT open defect, and thermal pad void inspection for Land Grid Array (LGA) and Insulated Gate Bipolar Transistor (IGBT) for automotive (electric vehicle). It has also been widely utilised in aerospace, industrial equipment, telecommunications/server, and semiconductors.

Experience the **Speed & Precision** of the **New V810i AXI S2 XLL**



Ease of Programming



Higher Inspection Repeatability
& Precision



Unmatched Accuracy with
A.I. Integration



Maximising PCB Assembly Quality and Throughput with ViTrox's V810i AXI Solution:

Designed to surpass the existing AXI predecessors, this V810i AXI Solution offers unparalleled benefits for industries with its exceptional inspection capabilities! Here are some of the benefits that you will experience with this state-of-the-art AXI:

1. Effortless Programming

One of the biggest advantages of this system is its ease of programming, with one simple flow to complete a full programming. Enhanced by its Initial tuning and Swift Fine Tuning feature, AXI **A.I. programming** improves the overall programming experience. V810i can save up to 50% of programming time (especially for heavily shaded components) enabling users to enjoy fast and ease-of-use programming.

2. Higher Inspection Repeatability And Precision

With the mind of users, the V810i AXI solution is now offering H-reconstruction to address the challenging inspection of very heavily shaded components and non-uniformly shaded components. V810i H-reconstruction is a unique imaging and reconstruction method that generate high-definition and high-quality X-ray images. Coupled with AXI's comprehensive algorithm and A.I. integrated inspection capabilities, V810i AXI has proven its repeatability and precision inspection capability for challenging inspection. It is especially useful for inspecting voids within the IGBT components, which is beneficial for power semiconductor manufacturers who must comply with safety and performance requirements.

3. Unmatched Accuracy with Artificial Intelligence (A.I.) Integration

But what sets the V810i AXI Solution in the market is its **A.I. integration**, which expands the opportunities for AXI inspection, resulting in speedy and highly accurate inspection capabilities for both challenging and common pads. V810i's unique A.I. inspection model can detect defects/abnormalities of specific joint types. For instance, such as thermal pad void within the IGBT components. Strengthened with ViTrox's AXI artificial intelligence (A.I.) Solution, users also can automate the buy-off process with a certain confident scoring with an A.I. accuracy upward of 90%.

Key Takeaway

ViTrox's **V810i AXI series** is also capable of supporting the IPC-CFX-2591 standards and it is also part of **IPC-CFX 2591 Qualified Products Listing (QPL)**, to ensure that our AXI meets the industry standards and provides a reliable solution that manufacturers are looking for. The V810i AXI Solution is one of the most advanced and innovative inspection solutions on the market, with its extraordinary and competitive features. Its speedy and precise 3D AXI inspection technology makes it an ideal solution for any manufacturer looking to improve their inspection processes while implementing the IPC-CFX.

If you want to learn more about ViTrox's IPC-CFX 2591 QPL validated V810i AXI series and its capabilities, reach out to our experts via **enquiry@vitrox.com**. Don't miss out on the opportunity to experience the cutting-edge technology of ViTrox's inspection solutions today!

Contact Us

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