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**FOR IMMEDIATE RELEASE**

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**PEMTRON to Discuss AI-Driven 3D Inspection Lineup at SMTA Monterrey**

**April 2026** — PEMTRON, an inspection equipment developer and supplier, will highlight a full portfolio of SPI, AOI, AXI, and conformal coating inspection systems designed to help manufacturers improve yield, strengthen process control, and keep pace with increasingly complex electronics production at Booth No. 39 during the SMTA Monterrey Expo & Tech Forum on April 23, 2026 in Monterrey, Mexico.

At this year's event, PEMTRON will demonstrate how its inspection platforms are evolving beyond traditional defect detection—integrating high-resolution 3D imaging with AI-driven analytics and real-time data connectivity across the production line. The lineup on display includes SATURN, ATHENA, TWIN, CI, and JUPITER, each engineered to address specific challenges in modern SMT and advanced electronics manufacturing environments.

From high-speed solder paste inspection to deep internal defect analysis and dual-side board inspection, PEMTRON's technologies are built to deliver faster decision-making, higher accuracy, and more consistent process outcomes directly on the factory floor.



**ATHENA – AI-Driven 3D Automated Optical Inspection**

ATHENA is an advanced 3D AOI system that combines high-precision measurement with artificial intelligence for automated defect classification, teaching, and OCR functionality. Its 12-way projection system eliminates shadowing effects, ensuring highly accurate inspection results. The modular platform supports multiple resolution options, including 10µm/15µm and 18µm configurations, along with optional high-resolution camera upgrades and a three-stage conveyor system for enhanced flexibility.

### **JUPITER – High-Precision 3D AXI Platform**

JUPITER leverages advanced PCT (Phase Contrast Tomography) and 2D/3D X-ray imaging to deliver in-depth analysis of internal defects. Seamlessly integrated with PEMTRON's AOI algorithms, JUPITER enables synchronized SPI/AOI/AXI data sharing for smarter inspection and real-time process feedback.

### **TWIN – Dual-Side 3D AOI in a Single Pass**

TWIN is a high-efficiency 3D AOI system capable of inspecting both the top and bottom sides of a PCB simultaneously. By eliminating the need for board flipping, TWIN significantly reduces cycle time while maintaining high detection accuracy. Its advanced optical system is optimized for densely populated and double-sided assemblies, improving throughput without compromising inspection reliability.

### **SATURN – High-Performance 3D Solder Paste Inspection**

SATURN delivers precise solder paste inspection using quad Moiré projection technology, 2D color imaging, and high-resolution 3D profiling. Available in 10µm/15µm or 18µm configurations and equipped with up to a 10MP camera, SATURN provides accurate measurements of solder paste volume, height, and area—ensuring consistent process control and improved yield performance.

### **TROI 8800 CI – AI-Enhanced Conformal Coating Inspection**

The TROI 8800 CI system provides high-precision conformal coating inspection using advanced optical technology and optional inline thickness measurement. Powered by AI-based defect recognition, the system identifies coating issues such as voids, bubbles, and uneven coverage, supporting manufacturers in meeting high-reliability requirements.

### **Driving Smart, Connected Inspection**

From SMT process control to advanced X-ray defect analysis, PEMTRON's inspection portfolio is designed to elevate manufacturing quality, increase throughput, and simplify complex inspection workflows. By integrating AI, high-resolution imaging, and real-time data connectivity across SPI, AOI, AXI, and coating inspection platforms, PEMTRON continues to advance the future of intelligent electronics manufacturing.

Speak with the PEMTRON team at the SMTA Monterrey Expo to explore live system demonstrations, and learn how AI-powered 3D inspection can elevate quality, efficiency, and yield across your production line.

For more information, visit.

### **About PEMTRON**

Based on 3D precision measurement and vision source technology, PEMTRON develops equipment used in various fields such as SMT, Automotive Field, Lead Tab, Semiconductor, and supplies Soldering Inspection equipment (3D SPI), 3D Mounting Inspection equipment (3D AOI, MOI), Conformal Coating Inspection equipment (TROI-8800 CI), Bottom Head Inspection equipment (Eagle 8800TH), Top & Bottom Double Sided Simultaneous Inspection equipment (Eagle 8800TWIN), Automated X-Ray SMD Counter (MERCURY), Wafer Sawing Before/After 3D Inspection equipment (8800 WI/WIR), Wire Bonding 3D Inspection & MEMS Auto Inspection equipment (ZEUS), Package AVI equipment (APOLLON), Memory Module / SSD Auto Inspection equipment (MARS), FC-BGA, FCP-CSP Inspection equipment (POSEIDON-S), Scale Sorter Of FC-BGA Products (8800 FI), Bump Metal Mask Inspection equipment (8800 MI), PCB Appearance Inspection equipment (8800 AI) and Lead Tab Process/Inspection equipment (Hawk 7300).