

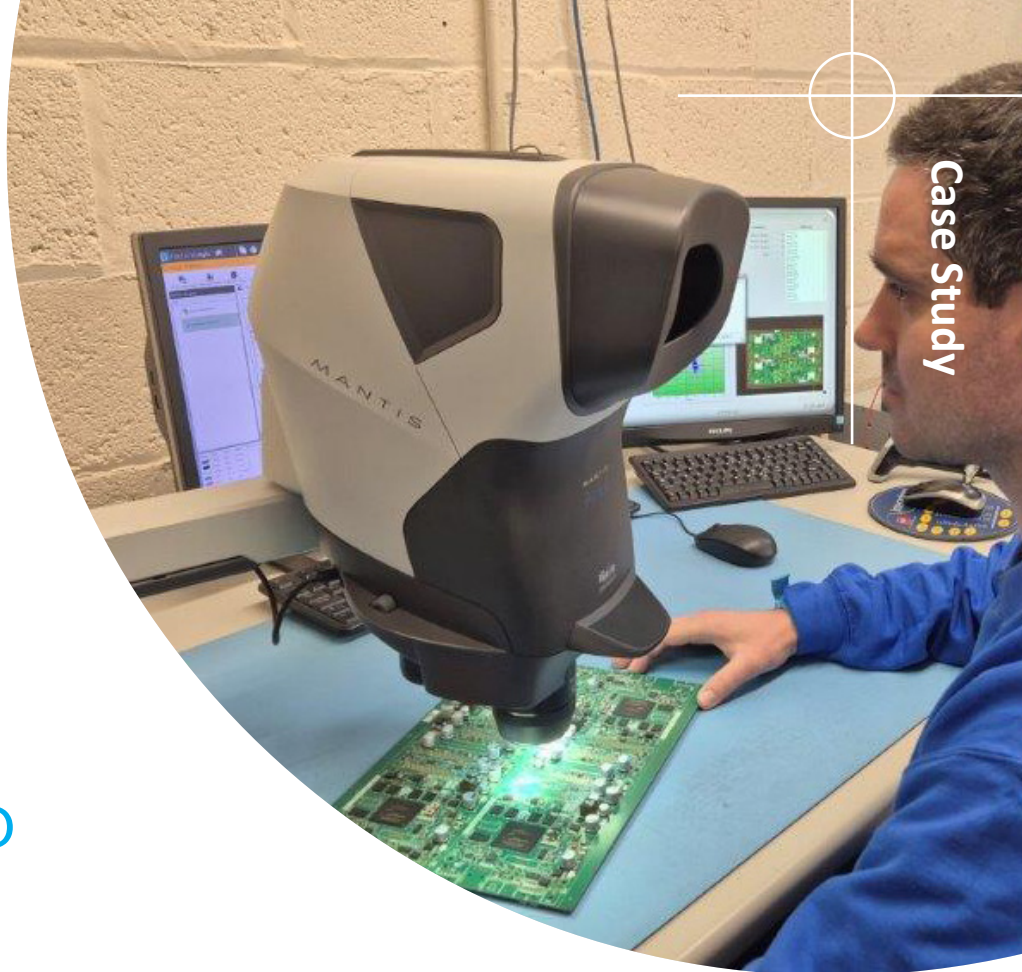
ENHANCING ELECTRONICS INSPECTION AND REWORK WITH MANTIS PIXO

Prism Electronics is a UK-based contract electronics manufacturer with over 30 years of experience in assembling and testing printed circuit boards (PCBs). The company provides surface-mount (SMT), through-hole (PTH), box-build, and electro-mechanical assembly and test services for customers across a range of industries.

Following a management buyout, Prism began a focused investment programme in new production and inspection technology to strengthen its manufacturing capability and continue delivering reliable, high-quality service to its customers.

The Challenge: **Enhancing Inspection and Rework Efficiency**

Prism's inspection teams were working with traditional binocular magnifiers and handheld tools. These supported reliable quality control but were less comfortable for extended use and made detailed soldering and rework more demanding as component sizes continued to shrink.



The company wanted to improve operator ergonomics, visual clarity, and process traceability. The team also saw an opportunity to streamline documentation by capturing clear inspection images without disrupting production flow.

The Solution: Mantis PIXO for Precision Inspection and Rework

Prism Electronics installed two Mantis PIXO systems, one in its conventional build area and another in the surface-mount department. Both are used for inspection and precision rework.

The inspection team had been interested in Mantis technology for some time, but it wasn't until after the management buyout that investment became available. Upgrading inspection equipment was high on their list, and Mantis PIXO stood out for its clear 3D view, generous working distance, and eyepiece-less design that lets operators work comfortably and maintain a natural posture.

The integrated camera also makes it easy to capture images for build documentation and 8D (Eight Disciplines) quality investigations, helping the quality team record and share information efficiently.

The Outcome: Improved Rework Quality and Operator Comfort

Mantis PIXO quickly became part of Prism's standard inspection and rework process. Operators reported improved visibility and comfort, allowing them to work with greater precision for longer periods. Feedback from across the team has been consistently positive.

Quality Manager Paul Young noted a visible improvement in rework and inspection standards:

"We've seen a definite improvement in the quality of rework and inspection, and the feedback from the operators has been excellent."

The systems also support process development by enabling clear image capture for internal documentation and repeatable procedures.

Key Benefits of Mantis PIXO

- Clear, high-quality stereo view for inspection and rework
- Reduced eye strain and improved operator comfort
- Faster, consistent image capture for documentation
- Enhanced visibility during fine soldering and modification
- Strong team feedback and quick operator adoption
- Improved traceability and repeatable quality processes

Conclusion

By introducing Mantis PIXO, Prism Electronics has strengthened its inspection and rework capability while supporting operator comfort and consistency. The systems align with the company's wider investment in technology and its commitment to continuous improvement.

Lindsay Webb, Account & Marketing Lead, highlights:

"This investment reflects Prism Electronics' continued focus on quality and process improvement, supporting our commitment to deliver reliable, high-performance solutions for every customer."



Frequently Asked Questions

Q: What applications does Mantis PIXO support in electronics manufacturing?

Mantis PIXO is used for PCB inspection, fine soldering, rework, and quality assurance in both conventional and surface-mount production.

Q: Why choose Mantis PIXO instead of a binocular microscope?

It provides an eyepiece-less 3D view that reduces fatigue and supports better posture, helping operators maintain accuracy during long inspection sessions.

Q: Can Mantis PIXO capture images for build documentation?

Yes. The integrated camera allows users to capture and share images instantly for training, fault analysis, and process documentation.

Q: Is Mantis PIXO suitable for both inspection and rework?

Yes. Its large working distance and clear stereo viewing make it ideal for inspection, soldering, and precision modification.