



Case Study

Semiconductor Company Strengthens Calibration and Repair Support with SIMCO

Overview:

For a semiconductor company developing power-efficient embedded processing technology, reliable test and measurement equipment is essential. Engineering and operations teams depend on calibrated instruments to support product development, troubleshooting, validation, and production readiness.

The company needed a calibration partner that could support specialized electronic test equipment, including advanced RF signal analysis instruments such as Agilent/Keysight MXA signal analyzers. In semiconductor environments, these instruments may be used to evaluate RF behavior, validate wireless performance, troubleshoot signal issues, and confirm that devices meet required specifications.

The company's existing calibration provider could support basic calibration needs, but the service model was not keeping pace with broader requirements. Turnaround times were slow, and the provider was uncertain about its ability to support repair needs for more complex test equipment.

The company selected SIMCO to provide calibration and repair support, helping address an immediate service gap while creating a more reliable path for future test equipment support.

The Challenge:

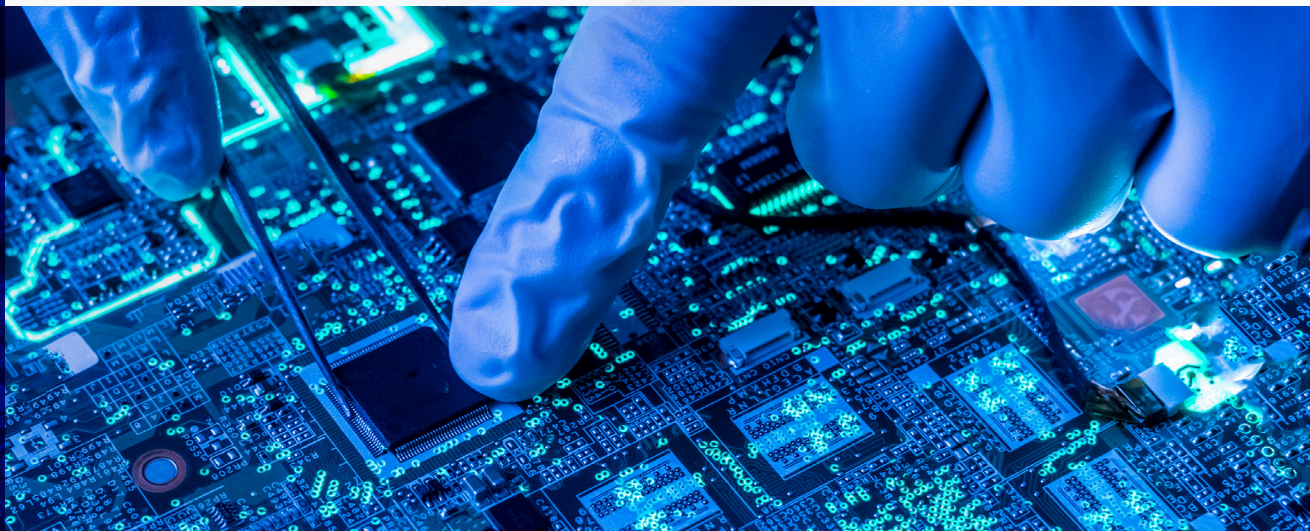
The customer needed repair and calibration support for specialized electronic test equipment used in engineering and validation workflows. Their existing lab could handle calibration, but response times were slow and repair support was limited.

This created a practical challenge for engineering and operations teams. When advanced test equipment requires repair, calibration alone is not enough. The organization needs a provider that can evaluate the issue, complete the repair where possible, and return the equipment calibrated and ready for use.

For a semiconductor company, downtime on RF and signal analysis equipment can create ripple effects across development and validation workflows. These instruments may be used to characterize performance, diagnose signal behavior, validate wireless functionality, and support engineering decisions. If equipment is unavailable, teams can lose access to critical measurement capability.

The customer needed a partner that could provide:

- Repair and calibration support for specialized electronic test equipment
- Faster, more responsive service
- Confidence handling complex RF and signal analysis instruments
- Z540 calibration after repair
- A more helpful service experience when equipment required more than routine calibration
- A path to reduce dependence on providers with limited repair capability



The Solution:

SIMCO worked with the customer to support both repair and Z540 calibration needs for specialized test equipment, including signal analysis instruments used in semiconductor engineering environments.

Unlike a provider focused only on basic calibration, SIMCO could help evaluate the broader service requirement and support the customer through the repair and calibration process. This gave the customer a more capable partner for equipment that needed technical attention before it could be returned to service.

SIMCO's approach focused on three priorities:

1. Address the Repair Capability Gap

The customer's existing lab was not confident in its ability to support repair needs for more complex test equipment. SIMCO provided a more capable alternative for specialized instruments requiring both repair evaluation and calibration.

2. Improve Service Responsiveness

The customer's current calibration process was moving slowly. SIMCO helped create a faster, more accountable service path so the customer did not have to rely on a provider that was hesitant to support the full scope of work.

3. Return Equipment Ready for Use

For complex electronic test equipment, repair is only part of the workflow. After repair, calibration is critical to confirm the instrument is ready to support accurate measurements. SIMCO supported the full process, helping the customer return equipment to engineering use with greater confidence.

Results:

By selecting SIMCO, the customer gained a more responsive calibration and repair partner for specialized electronic test equipment.

The engagement helped the customer:

- Address repair and calibration needs for critical test equipment
- Reduce dependence on a provider with limited repair capability
- Improve confidence in support for specialized RF and signal analysis instruments
- Create a clearer path for returning complex equipment to service
- Support engineering and operations teams that rely on accurate measurement equipment
- Build a foundation for broader calibration and repair support over time



We needed a partner that could do more than calibrate. We needed help with repair, responsiveness, and getting specialized test equipment back into service.”

Why It Matters:

For semiconductor companies, test and measurement equipment plays a critical role in product development, validation, troubleshooting, and production support. RF and signal analysis instruments are especially important in environments where teams need to understand signal behavior, wireless performance, and overall device performance.

When specialized instruments are delayed or cannot be repaired by the current provider, the impact can extend across engineering workflows. A calibration partner with repair capability helps reduce that risk by supporting the full equipment lifecycle, from evaluation and repair to calibration and return-to-service readiness.

With SIMCO, the customer gained a more capable path for supporting specialized equipment and reducing disruption from service gaps.

Need a calibration partner that can support more than routine calibration?

SIMCO helps electronics and semiconductor organizations keep critical test equipment repaired, calibrated, documented, and ready for use.

Visit www.SIMCO.com to request a consultation today.



SIMCO is the leading provider of calibration and software services for technology organizations, bringing over 60 years of calibration industry leadership. Our experience enables us to develop exceptional solutions for service management.

Founded in 1962 to service NASA and high technology firms in Silicon Valley, SIMCO is committed to delivering life-saving quality leaner, by providing the highest level of quality and customer service.

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or contact Sales at 866-299-6029

Headquarters:

3131 Jay St, Suite 100
Santa Clara, CA 95054