

# RF CALIBRATION SOLUTIONS

Advanced Energy offers regular calibration of your RF generators and matches, keeping your precise RF sensors within specification and ensuring your tools are operating at their highest potential.

## Support Evolving Technologies Through Precise Process Control

RF power measurement is a crucial part of semiconductor processing as it provides the full picture of your plasma characteristics. Maintaining measurement accuracy ensures your equipment is operating within design specifications and allows you to refine and optimize your precise process steps. Even the most expensive or technologically advanced equipment will see reduced performance if not properly calibrated and that calibration maintained.

## Benefits of Calibration



Provide certainty and confidence in the results recorded with your devices



Reduce operating costs by reducing production errors and unexpected downtime



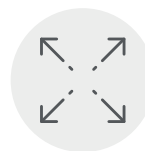
Eliminate product defects and process inconsistencies due to uncalibrated equipment



Increase yield by optimizing processes and continuously improving



See consistent results every time through improved tool repeatability



Extend the life of your tools by consistently operating within design specifications



Improve tool to tool and chamber to chamber reproducibility across your fab



Meet company quality regulations for measurement equipment

## Why Calibrate Your RF Generators and Matches?

Many standalone RF measurement devices used in the industry for decades come with manufacturer-recommended calibration intervals to ensure the device continues to meet its original specifications. As RF technology advances, new RF generators and matches, often include the same RF sensor technology that exists in standalone measurement devices. The addition of these sensors has greatly enhanced the user's ability to characterize their system and has improved the overall performance. However, contrary to legacy generators and matches, these advanced products now require regular calibration to maintain their performance and continue providing accurate results.

**With today's technology, it is crucial to maintain your RF generators and matches as you would any other measurement device.**

## Our RF Power Measurement Approach

Our calorimeter-based calibration approach using DC to RF transfer guarantees a tighter, more accurate calibration when compared to industry measurement standards. For 13.56 MHz equipment, our 3 kW transfer standards have a standard uncertainty of less than 0.25%. This allows us to calibrate your equipment to within a  $\pm 1\%$  accuracy, and often much tighter. All new AE products are released with industry-leading guaranteed accuracy thanks to our calibration and RF measurement capabilities from our design and service centers. Not only is AE the only repair provider with the custom standards required to calibrate your equipment to its original accuracy specifications, but we can make the calibration process seamless by offering exchange units to minimize tool downtime.

## Get Started

When a product is sent to AE for service, the calibration is checked and updated to match its original specifications. If your products have not been serviced regularly, it is vital to track your unit's calibration schedule and follow AE's recommended two-year calibration interval or your company's custom calibration requirements.

Schedule your calibration services today by requesting an RMA through your local service center or by visiting [advancedenergy.com](http://advancedenergy.com).



PRECISION | POWER | PERFORMANCE

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