

# NIST TRACEABLE CALIBRATION

## NIST

National Institute of Standards and Technology (NIST) is a non-regulatory federal agency within the U.S. Department of Commerce established by Congress in 1901. NIST's mission is to promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve our quality of life.

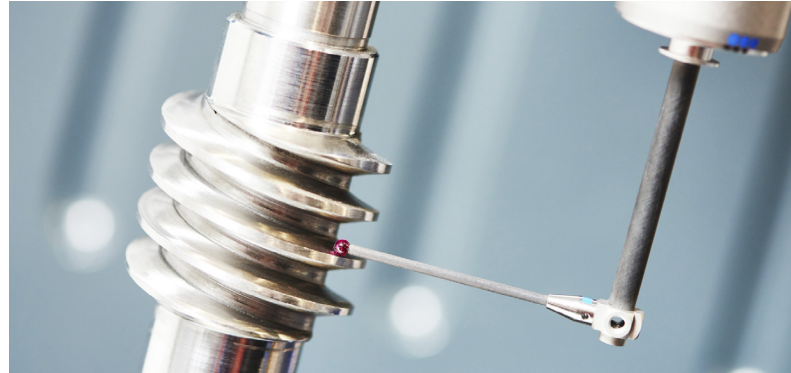
In the U.S., NIST is the legally established National Standards Laboratory. As such, NIST has the responsibility "to develop, maintain and retain custody of the national standards of measurement, and to provide the means and methods for making measurements consistent with those standards; to assure the compatibility of United States national measurement standards with those standards; and to assure the compatibility of United States national measurement standards with those of other nations." [15 U.S.C. 271] NIST ensures the U.S. national standards are accurate realizations of the seven base units of the International System of Measurements (SI); meter, kilogram, second, ampere, kelvin, mole, and candela.

### Metrological Traceability

Metrological traceability refers to the measurement result which can be related through an unbroken chain of calibrations, including measurement uncertainty determination, to specified references. It is a basic assurance that a relationship exists between the measurement results of a measurement instrument and the value of a measurement standard.

### How Traceability Impacts Global Markets

Traceability of measurement results to International Measurement Standards makes it possible to achieve the accuracy, precision and interchangeability required for global trade markets. To deliver truly standardized components, industry depends upon reliable and consistent measurements that are traceable to a recognized measurement system such as the International System of Units.



### NIST Certified Traceable Calibration

Fundamental to a NIST traceable calibration is thorough documentation of the measurement process used to establish the series of calibrations that successively link to the specified reference standard. NIST is responsible only for documenting traceability for its reference standards and the instruments it directly measures. Documenting NIST traceable calibrations in the commercial environment is the sole responsibility of the lab performing the calibration work.

### ISO Compliance

Traceability is particularly important to companies that must comply with or follow the requirements of International Organization for Standardization (ISO) standard(s). ISO requirements often require that test, measurement and control equipment be traceable to recognized national or international standards. Other organizations may voluntarily follow the requirements of ISO so that they can claim ISO compliance for their product. This compliance is normally an indication of an organization's commitment to service and/or quality.

## ABOUT TEKTRONIX

All calibrations performed by Tektronix are traceable to NIST. **Periodic lab recertification is at the core of our quality system.** Choose from multiple NIST traceable certificate options, including ANSI Z-540.1 and ISO/IEC 17025:2005. In addition, Tektronix provides:

- Services for equipment from 9,000-plus manufacturers — far more than just Tektronix!
- Extensive global service network — more than 100 points of service.
- 1,100-plus associates — highly-skilled technicians and sales representatives.
- Superior quality — accredited calibration at ISO/IEC 17025 accredited facilities.

For more information about NIST Traceable Calibration, contact Tektronix today by calling 800-438-8165 or visit us online at [tek.com/service](http://tek.com/service).

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