

VLAC Policy for Traceability of Measurement

VLAC-VR103: 2026

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1. Purpose and scope

This policy provides the guidance and interpretation of traceability requirements in ISO/IEC17025:2017, JIS Q 17025:2018. This document is used for laboratories accredited by the VLAC and laboratories applying for accreditation.

2. Referenced documents

Following documents and standards are referred including the referenced documents

- (1) ISO/IEC Guide 99:2007 International vocabulary of metrology -- Basic and general concepts and associated terms (VIM)
- (2) ISO/IEC Guide 98-3:2008 Uncertainty of measurement -- Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)
- (3) 測定不確かさ評価の最前線. 今井秀孝, 日本規格協会
- (4) ILAC P10:01/2020 ILAC Policy on Traceability of Measurement Results
- (5) ISO/IEC 17025:2017(JIS Q 17025:2018)

3. Definition

3.1 Internal calibration

Calibration carried out by testing laboratory.

4. Basic concept

4.1 Achievement of traceability

Laboratories accredited by the VLAC and laboratories applying for accreditation to the Company shall establish measurement traceability. Traceability will be achieved with apply following all of clauses.

- (1) It can be traced to the national, international, or recognized standards through an documented unbroken chain of calibration.
- (2) The unbroken chain is achieved by use of SI units.
- (3) Uncertainty of measurement is evaluated in each stage of the comparison.
- (4) Appropriate method and operation procedure is used for the each comparison stage. Measurement result and measurement uncertainty is recorded.
- (5) The calibration laboratory or testing laboratory who perform internal calibration can show competence for execute the comparison stage.

4.2 Traceability of measurement

4.2.1 Traceability to SI unit may be achieved by either of following calibrations.

- (1) Calibration by the national or international metrology institute
- (2) Calibration carried out by laboratory that's scope of calibration is accredited by APAC or Global ACI MRA member accreditation body. Calibration certificate with accreditation logo or a statement regarding accreditation related to Global ACI MRA was included. meets traceability requirements.

- (3) Calibration carried out by laboratory that is not accredited, internal calibration or calibration that is out-of-scope. In this case, all terms described 4.1 shall be verified.

Note: For the demonstration of traceability, refer to ISO/IEC 17025:2017 Annex A.3 (JIS Q 17025:2018 Annex A.3).

4.2.2 Traceability shall be applied for following measurements.

- (1) Measuring instruments used to obtain measurement values that serve as test results (e.g., power meters, disturbance receivers, leakage current ammeters)
- (2) Measurements performed to verify equipment compliance (e.g., NSA, grounding resistance of Artificial Mains Networks/LISNs)
- (3) Measurements performed to establish specific test conditions that affect test results (e.g., field uniformity, temperature inside a climatic chamber during temperature testing, humidity conditions during electrostatic discharge testing)
- (4) Measurements of parameters used to correct measurement results (e.g., cable loss)

Note 1: While the expression "traceable calibration" was sometimes used in the past, traceability is a mandatory requirement for calibration—as indicated in 4.1—meaning that "non-traceable calibration" is not a valid concept.

Note 2: For traceability, refer to ISO/IEC 17025:2017 Annex A (JIS Q 17025:2018 Annex A3).

Revision History

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-Add Global ACI

-APLAC→APAC, ILAC→Global ACI

2.(5) add ISO/IEC 17025:2017(JIS Q 17025:2018)

4.2.1 Calibration certificates bearing a statement of accreditation regarding the Global ACI MRA were also deemed to satisfy traceability requirements.

(3) Added a note regarding the demonstration of traceability.

4.2.2 Modified wording; added examples and notes.

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(1) Deleted the introduction, as it overlapped with "1. Purpose and Scope."

(2) Newly added the measurements to which traceability applies to section 4.2.2 and deleted Appendix 1.