

19·12·10- NITE-AC-001 2 0 2 0 - 0 6 - 2 5

Certificate of Accreditation

International Accreditation Japan (IAJapan) hereby accredits the following conformity assessment body as a calibration laboratory of ASNITE accreditation program.

Accreditation Identification: ASNITE 0004 Calibration
Name of Conformity Assessment Body: Applied Electromagnetic Research Institute, National Institute of Information and Communications Technology
Name of Legal Entity: National Institute of Information and Communications Technology
Location of Conformity Assessment Body: 4-2-1, Nukui-Kitamachi, Koganei Tokyo, 184-8795 JAPAN
Scope of Accreditation: as the following pages
Accreditation Requirement: ISO/IEC 17025:2017*
* The relevant accreditation requirements described in the ASNITE- C (NMI) Accreditation Scheme Document are also applied.
Effective Date of Accreditation: 2020-06-25
Expiry Date of Accreditation: 2025-06-24
Date of Initial Accreditation: 2003-01-31

Jean Hishimoto

KISHIMOTO Isao Chief Executive, International Accreditation Japan (IAJapan) National Institute of Technology and Evaluation

- International Accreditation Japan (IAJapan) is a laboratory accreditation body which has signed MRAs of ILAC (International Laboratory Accreditation Cooperation) and APAC (Asia Pacific Accreditation Cooperation).

⁻ MRA requirements are, in addition to relevant international standards and guides, requirements for participation in proficiency testing programs, surveillance and reassessment, and the policy for the traceability of measurement for MRA purpose.

⁻ This laboratory fulfills ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. This accreditation means this laboratory meets both the technical competence requirements and management system requirements that are necessary for it to consistently deliver technically valid test results and calibrations (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

⁻ The latest accreditation information is publicly available on IAJapan Website as an accreditation certificate.

Accreditation Category for Calibration Laboratory: Time and Frequency
Laboratory's permanent facility/On-site Calibration: Laboratory's permanent facility

	Calibration and Measurement Capability			
Quantity	Instrument or Artifact	Measurand Level or Range	Expanded Uncertainty (Level of Confidence Approximately 95%)	Effective Date of Accreditation
Frequency	Local frequency standard	5 MHz	5.0×10 ⁻¹⁴ Hz/Hz	2020-06-25
		10 MHz	5.0×10 ⁻¹⁴ Hz/Hz	
		1 Hz~100 MHz	$1.0 \times 10^{-7}/f + 1.0 \times 10^{-12}$ Hz/Hz (<i>f</i> ; easurement Frequency [Hz])	
Time scale difference	Local clock vs. UTC (prediction)	-0.5 s∼0.5 s	60 ns	
	Local clock vs. UTC (post-process)	-0.5 s∼0.5 s	20 ns	
	Local clock vs. UTC (NICT)	-0.5 s∼0.5 s	4 ns	

Laboratory's permanent facility/On-site Calibration: Non- Laboratory's permanent facility (Remote Calibration)

	Calibration and Measurement Capability			
Quantity	Instrument or Artifact	Measurand Level or Range	Expanded Uncertainty (Level of Confidence Approximately 95%)	Effective Date of Accreditation
Frequency	Remote frequency standard *Baseline length <1000 km	5 MHz	5.0×10 ⁻¹³ Hz/Hz	2020-06-25
		10 MHz	5.0×10 ⁻¹³ Hz/Hz	
Time scale difference	Remote clock vs. UTC (prediction) *Baseline length <1000 km	-0.5 s∼0.5 s	70 ns	
	Remote clock vs. UTC (post-process) *Baseline length <1000 km	-0.5 s∼0.5 s	50 ns	
	Remote clock vs. UTC (NICT) *Baseline length <1000 km	-0.5 s∼0.5 s	40 ns	

(End of Attachment)