

Name of Accreditation Program	JCSS Accreditation Program
Accreditation Identification	JCSS 0071 Calibration
Name Conformity Assessment Body	Kansai Testing Center, Japan Quality Assurance Organization
Name of Legal Entity	Japan Quality Assurance Organization JCN 9010005016585
Inquiry Point	Sales Div. TEL: +81-72-966-7209 FAX: +81-72-966-7885

*JCN: Japan Corporate Number



24•06•13-NITE-012
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Certificate of Accreditation

International Accreditation Japan (IAJapan) hereby accredits the following conformity assessment body as a calibration laboratory of Japan Calibration Service System.

Accreditation Identification: JCSS 0071 Calibration

Name of Conformity Assessment Body: Kansai Testing Center,
Japan Quality Assurance Organization

Name of Legal Entity: Japan Quality Assurance Organization

Location of Conformity Assessment Body: 3-8-19 Mizuhai, Higashi-Osaka -shi, Osaka 578-0921,
JAPAN

Scope of Accreditation: Length, Mass, Temperature,
Electricity (High Frequency) & Electromagnetic Fields,
Force, Pressure, Acoustics & Ultrasound
(as the following pages)

Accreditation Requirement: ISO/IEC 17025:2017*

* The relevant accreditation requirements described in the Accreditation Scheme Document for JCSS are also applied.

Effective Date of Accreditation: 2023-08-06

Expiry Date of Accreditation: 2027-08-05

Date of Initial Accreditation: 1997-03-19

A handwritten signature in black ink, appearing to read 'K. Horisaka'.

HORISAKA Kazuhide

Chief Executive, International Accreditation Japan (IAJapan)

National Institute of Technology and Evaluation

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- 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.

General Field of Calibration: LengthDate of Initial Accreditation of the Field: 1997-03-19Laboratory's permanent facility/On-site Calibration: Laboratory's permanent facilityCalibration and Measurement Capabilities

Calibration Procedures# and Type of Instruments/Materials to be calibrated		Range	Expanded Uncertainty (Level of Confidence Approximately 95 %) (L(mm): Nominal length)
Length Measuring Instrument	Gauge Blocks (Comparison method)	From 0.5 mm up to 100 mm	0.07 μm
		More than 100 mm up to 500 mm	(0.02+L/2000) μm
	End Gauges with flat ends (Comparison method)	Up to 500 mm	(0.6+L/1000) μm
		More than 500 mm up to 670 mm	(0.6+L/750) μm
	Micrometers	Up to 500 mm	(2+L/100) μm
	Calipers	Up to 600 mm	0.03 mm
	Depth Gauges	Up to 300 mm	0.02 mm
	Height Gauges	Up to 600 mm	3.5 μm
	Dial Gauges	Up to 10 mm	1.6 μm
	Dial Test Indicators	Up to 1.6 mm	1.6 μm
	Calibration Tester for Dial Gauges	Up to 25 mm	0.5 μm
		More than 25 mm up to 100 mm	0.7 μm
	Calibration apparatus for extensometers	Up to 25 mm	0.4 μm
		More than 25 mm up to 50 mm	0.5 μm
		More than 50 mm up to 75 mm	0.7 μm
		More than 75 mm up to 100 mm	0.9 μm

#All Calibration Procedures are in-house procedures developed by this laboratory.

Laboratory's permanent facility/On-site Calibration: On-site CalibrationCalibration and Measurement Capabilities

Calibration Procedures# and Type of Instruments/Materials to be calibrated		Range	Expanded Uncertainty (Level of Confidence Approximately 95 %)
Length Measuring Instrument	Extensometers	Up to 100 mm	2.2 μm
		More than 100 mm up to 600 mm	0.43 mm

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General Field of Calibration: Mass

Date of Initial Accreditation of the Field: 2000-02-23

Laboratory's permanent facility/On-site Calibration: Laboratory's permanent facility

Calibration and Measurement Capabilities

Calibration Procedures# and Type of Instruments/Materials to be calibrated		Range	Expanded Uncertainty (Level of Confidence Approximately 95 %)
Weight	Weight	20 kg	12 mg
		10 kg	7.0 mg
		5 kg	3.4 mg
		2 kg	1.6 mg
		1 kg	0.54 mg
		500 g	0.40 mg
		200 g	0.12 mg
		100 g	0.060 mg
		50 g	0.041 mg
		20 g	0.028 mg
		10 g	0.025 mg
		5 g	0.020 mg
		2 g	0.015 mg
		1 g	0.013 mg
		500 mg	0.0097 mg
		200 mg	0.0071 mg
		100 mg	0.0065 mg
		50 mg	0.0047 mg
		20 mg	0.0040 mg
		10 mg	0.0029 mg
		5 mg	0.0029 mg
		2 mg	0.0032 mg
		1 mg	0.0032 mg
	Deadweight	From 10 kg up to 20 kg	30 mg
		From 5 kg less than 10 kg	20 mg
		From 2 kg less than 5 kg	9.0 mg
		From 1 kg less than 2 kg	4.0 mg
		From 500 g less than 1 kg	0.98 mg
		From 200 g less than 500 g	0.64 mg
		From 100 g less than 200 g	0.30 mg
		From 50 g less than 100 g	0.20 mg
		From 20 g less than 50 g	0.20 mg
		From 10 g less than 20 g	0.15 mg
		From 5 g less than 10 g	0.13 mg
		From 2 g less than 5 g	0.11 mg
		From 1 g less than 2 g	0.064 mg
		From 100 mg less than 1 g	0.050 mg
		From 10 mg less than 100 mg	0.023 mg
		From 1 mg less than 10 mg	0.010 mg

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Laboratory's permanent facility/On-site Calibration: Laboratory's permanent facility, On-site Calibration
Calibration and Measurement Capabilities

Calibration Procedures# and Type of Instruments/Materials to be calibrated		Range	Expanded Uncertainty (Level of Confidence Approximately 95 %)	
			Permanent Laboratory	On-site Calibration
Scale	Non-automatic Electronic Weighing Instruments	More than 300 kg up to 350 kg	42 µg/g	42 µg/g
		More than 150 kg up to 300 kg	16 µg/g	16 µg/g
		More than 12 kg up to 150 kg	8.0 µg/g	8.0 µg/g
		More than 5 kg up to 12 kg	8.0 µg/g	8.0 µg/g
		More than 2 kg up to 5 kg	1.5 µg/g	1.5 µg/g
		More than 1 kg up to 2 kg	2.3 µg/g	2.3 µg/g
		More than 90 g up to 1 kg	2.6 µg/g	2.6 µg/g
		More than 50 g up to 90 g	3.9 µg/g	3.9 µg/g
		More than 40 g up to 50 g	2.3 µg/g	2.3 µg/g
		More than 30 g up to 40 g	5.1 µg/g	5.1 µg/g
		More than 20 g up to 30 g	6.6 µg/g	6.6 µg/g
		More than 10 g up to 20 g	5.1 µg/g	5.1 µg/g
		More than 5 g up to 10 g	10 µg/g	10 µg/g
		More than 3 g up to 5 g	19 µg/g	19 µg/g
		More than 2 g up to 3 g	16 µg/g	16 µg/g
		More than 1 g up to 2 g	12 µg/g	12 µg/g
		More than 900 mg up to 1 g	19 µg/g	19 µg/g
		More than 700 mg up to 900 mg	50 µg/g	50 µg/g
		More than 500 mg up to 700 mg	44 µg/g	44 µg/g
		More than 400 mg up to 500 mg	33 µg/g	33 µg/g
		More than 300 mg up to 400 mg	60 µg/g	60 µg/g
		More than 200 mg up to 300 mg	86 µg/g	86 µg/g
		More than 100 mg up to 200 mg	54 µg/g	54 µg/g
		More than 90 mg up to 100 mg	0.13 mg/g	0.13 mg/g
		More than 80 mg up to 90 mg	0.25 mg/g	0.25 mg/g
		More than 70 mg up to 80 mg	0.27 mg/g	0.27 mg/g
		More than 60 mg up to 70 mg	0.22 mg/g	0.22 mg/g
		More than 50 mg up to 60 mg	0.24 mg/g	0.24 mg/g
		More than 40 mg up to 50 mg	0.17 mg/g	0.17 mg/g
		More than 30 mg up to 40 mg	0.36 mg/g	0.36 mg/g
		More than 20 mg up to 30 mg	0.43 mg/g	0.43 mg/g
		More than 10 mg up to 20 mg	0.36 mg/g	0.36 mg/g
		More than 9 mg up to 10 mg	0.59 mg/g	0.59 mg/g
		More than 8 mg up to 9 mg	1.6 mg/g	1.6 mg/g
		More than 7 mg up to 8 mg	1.8 mg/g	1.8 mg/g
		More than 6 mg up to 7 mg	1.4 mg/g	1.4 mg/g
		More than 5 mg up to 6 mg	1.6 mg/g	1.6 mg/g
		More than 4 mg up to 5 mg	0.96 mg/g	0.96 mg/g
		More than 3 mg up to 4 mg	2.4 mg/g	2.4 mg/g
		More than 2 mg up to 3 mg	3.2 mg/g	3.2 mg/g

		More than 1 mg up to 2 mg	2.4 mg/g	2.4 mg/g
		1 mg	4.8 mg/g	4.8 mg/g
	Non-automatic Mechanical Weighing Instruments	More than 250 kg up to 350 kg	0.20 mg/g	0.20 mg/g
		More than 160 kg up to 250 kg	0.15 mg/g	0.15 mg/g
		More than 50 kg up to 160 kg	0.21 mg/g	0.21 mg/g
		More than 40 kg up to 50 kg	0.11 mg/g	0.11 mg/g
		More than 30 kg up to 40 kg	0.13 mg/g	0.13 mg/g
		More than 20 kg up to 30 kg	0.17 mg/g	0.17 mg/g
		More than 12 kg up to 20 kg	0.13 mg/g	0.13 mg/g
		More than 10 kg up to 12 kg	0.21 mg/g	0.21 mg/g
		More than 5 kg up to 10 kg	0.13 mg/g	0.13 mg/g
		More than 2 kg up to 5 kg	0.10 mg/g	0.10 mg/g
		More than 1 kg up to 2 kg	0.25 mg/g	0.25 mg/g
		More than 400 g up to 1 kg	5.0 µg/g	5.0 µg/g
		More than 300 g up to 400 g	6.0 µg/g	6.0 µg/g
		More than 200 g up to 300 g	8.0 µg/g	8.0 µg/g
		More than 90 g up to 200 g	3.0 µg/g	3.0 µg/g
		More than 40 g up to 90 g	5.0 µg/g	5.0 µg/g
		More than 30 g up to 40 g	7.0 µg/g	7.0 µg/g
		More than 20 g up to 30 g	10 µg/g	10 µg/g
		More than 10 g up to 20 g	5.0 µg/g	5.0 µg/g
		More than 5 g up to 10 g	10 µg/g	10 µg/g
		More than 3 g up to 5 g	19 µg/g	19 µg/g
		More than 2 g up to 3 g	16 µg/g	16 µg/g
		More than 1 g up to 2 g	12 µg/g	12 µg/g
		1 g	20 µg/g	20 µg/g

#All Calibration Procedures are in-house procedures developed by this laboratory.

General Field of Calibration: Temperature

Date of Initial Accreditation of the Field: 2021-09-27

Laboratory's permanent facility/On-site Calibration: Laboratory's permanent facility

Calibration and Measurement Capabilities

Calibration Procedures# and Type of Instruments/Materials to be calibrated		Range	Expanded Uncertainty (Level of Confidence Approximately 95 %)
Contact type thermometer	Liquid-in-glass Thermometer (Comparison calibration)	From -50 °C less than 0 °C	0.09 °C
		0 °C	0.06 °C
		More than 0 °C up to 100 °C	0.08 °C
		More than 100 °C up to 200 °C	0.10 °C
		More than 200 °C up to 250 °C	0.11 °C
		More than 250 °C up to 300 °C	0.16 °C
		More than 300 °C up to 350 °C	0.20 °C
	Temperature sensors with display unit (Comparison calibration)	From -80 °C less than 0°C	0.054 °C
		0 °C	0.035 °C
		More than 0 °C up to 100 °C	0.043 °C
		More than 100 °C up to 200 °C	0.068 °C
		More than 200 °C up to 300 °C	0.11 °C
		More than 300 °C up to 400 °C	0.12 °C
		More than 400 °C up to 420 °C	0.15 °C
	Temperature sensors with display unit (Comparison calibration) (*1)	From -40 °C up to -20 °C	0.40 °C
		More than -20 °C up to 70 °C	0.30 °C
		More than 70 °C up to 100 °C	0.40 °C
	Thermocouple (K, E, J, T) (Comparison calibration) (*2)	From -80 °C up to 300 °C	0.5 °C
		More than 300 °C up to 420 °C (*2)	0.7 °C

#All Calibration Procedures are in-house procedures developed by this laboratory.

(*1) Employing temperature controlled enclosures

(*2) Type T thermocouple : Maximum calibration scope is up to 400 °C

General Field of Calibration: Electricity (High Frequency) & Electromagnetic Fields

Date of Initial Accreditation of the Field: 2007-02-21

Laboratory's permanent facility/On-site Calibration: Laboratory's permanent facility

Calibration and Measurement Capabilities

Calibration Procedures# and Type of Instruments/Materials to be calibrated		Range		Expanded Uncertainty (Level of Confidence Approximately 95 %)
Radio Frequency Measuring Equipments	RF Power Measuring Equipment (50 Ω)	From 10 MHz up to 50 MHz	1 mW	2.1 %
			From 10 nW less than 100 mW	2.2 %
			From 1 nW less than 10 nW	2.3 %
			From 100 pW less than 1 nW	2.4 %
		More than 50 MHz up to 12 GHz	1 mW	2.4 %
			From 10 nW less than 100 mW	2.5 %
			From 1 nW less than 10 nW	2.6 %
			From 100 pW less than 1 nW	2.7 %
		From 10 MHz up to 250 MHz	From 100 mW up to 200 W	2.6 %
		More than 250 MHz up to 500 MHz	From 100 mW up to 100 W	2.6 %
		More than 500 MHz up to 1 GHz	From 100 mW up to 100 W	2.6 %
	RF Power Source (50 Ω)	From 10 MHz up to 50 MHz	1 mW	2.1 %
			From 10 nW less than 100 mW	2.2 %
			From 1 nW less than 10 nW	2.3 %
			From 100 pW less than 1 nW	2.4 %
		More than 50 MHz up to 12 GHz	1 mW	2.2 %
			From 10 nW less than 100 mW	2.3 %
			From 1 nW less than 10 nW	2.4 %
			From 100 pW less than 1 nW	2.5 %
	RF Voltage Measuring Equipment (50 Ω)	From 10 MHz up to 500 MHz	0.5 V	1.2 %
			From 0.2 V up to 0.7 V	1.3 %
			From 0.1 V less than 0.2 V	1.3 %
		More than 500 MHz up to 1000 MHz	0.5 V	2.3 %
			From 0.2 V up to 0.7 V	2.3 %
			From 0.1 V less than 0.2 V	2.3 %
	RF Voltage Measuring Equipment (75 Ω)	From 10 MHz up to 500 MHz	0.5 V	1.2 %
			From 0.2 V up to 0.7 V	1.3 %
			From 0.1 V less than 0.2 V	1.4 %
		More than 500 MHz up to 1000 MHz	0.5 V	2.3 %
			From 0.2 V up to 0.7 V	2.3 %
			From 0.1 V less than 0.2 V	2.4 %
	RF Voltage Measuring Equipment (High)	From 10 MHz up to 500 MHz	0.5 V	1.2 %
			From 0.2 V up to 0.7 V	1.3 %
			From 0.1 V less than 0.2 V	1.4 %
		More than 500 MHz up to 1000 MHz	0.5 V	2.3 %
			From 0.2 V up to 0.7 V	2.4 %
			From 0.1 V less than 0.2 V	2.4 %

Laser Power Measuring Equipments	Attenuator (50 Ω)	From 10 MHz up to 1 GHz	More than 0 dB up to 50 dB	0.03 dB
		More than 1 GHz up to 12 GHz	More than 0 dB up to 50 dB	0.04 dB
	Attenuation Measuring Equipment	From 10 MHz up to 12 GHz	More than 0 dB up to 50 dB	0.03 dB
	Optical Fiber Power Meter	1.31 μm band	From 10 μW less than 50 μW	1.3 %
			From 50 μW less than 100 μW	0.55 %
			From 100 μW up to 500 μW	0.40 %
		1.55 μm band	From 10 μW less than 50 μW	1.3 %
			From 50 μW less than 100 μW	0.55 %
			From 100 μW up to 500 μW	0.40 %

#All Calibration Procedures are in-house procedures developed by this laboratory.

General Field of Calibration: Force

Date of Initial Accreditation of the Field: 2003-12-26

Laboratory's permanent facility/On-site Calibration: On-site Calibration

Calibration and Measurement Capabilities

Calibration Procedures and Type of Instruments/Materials to be calibrated		Range		Expanded Uncertainty (Level of Confidence Approximately 95 %)
Uniaxial Testing Machines	According to JIS B 7721 (ISO 7500-1) #	Compression	From 0.1 N up to 3000 kN	0.20 %
		Tension	From 0.1 N up to 300 kN	0.20 %

JIS B 7721:2018, ISO 7500-1: 2015

General Field of Calibration: Pressure

Date of Initial Accreditation of the Field: 2005-04-20

Laboratory's permanent facility/On-site Calibration: Laboratory's permanent facility

Calibration and Measurement Capabilities

Calibration Procedures# and Type of Instruments/Materials to be calibrated		Range			Expanded Uncertainty (Level of Confidence Approximately 95 %)
Pressure Gauge	Pressure Balance	Liquid	Gauge pressure	From 1 MPa up to 10 MPa	The larger one of the two 0.038 % or 1.5 kPa
				More than 10 MPa up to 100 MPa	0.050 %
	Liquid Manometer	Mercury type	Gauge pressure	From 20 kPa up to 200 kPa	0.12 kPa
	Pressure Gauges	Liquid	Gauge pressure	From 1 MPa up to 10 MPa	The larger one of the two 0.033 % or 1.0 kPa
				More than 10 MPa up to 100 MPa	0.028 %
		Gas	Gauge pressure	From -100 kPa less than -20 kPa	25 Pa
				From -20 kPa less than -15 kPa	4.5 Pa
				From -15 kPa less than -10 kPa	3.5 Pa
				From -10 kPa less than -7.5 kPa	2.5 Pa
				From -7.5 kPa less than -5 kPa	1.9 Pa
				From -5 kPa less than -2.5 kPa	1.5 Pa
				From -2.5 kPa less than -1 kPa	1.2 Pa
				From -1 kPa up to -0.005 kPa	1.0 Pa
				From 0.005 kPa up to 1 kPa	1.0 Pa
				More than 1 kPa up to 2.5 kPa	1.2 Pa
				More than 2.5 kPa up to 5 kPa	1.5 Pa
				More than 5 kPa up to 7.5 kPa	1.9 Pa
				More than 7.5 kPa up to 10 kPa	2.5 Pa
				More than 10 kPa up to 15 kPa	3.5 Pa
				More than 15 kPa up to 20 kPa	4.5 Pa
				More than 20 kPa up to 350 kPa	The larger one of the two 0.011 % or 0.011 kPa
				More than 350 kPa up to 500 kPa	0.012 %
				More than 500 kPa up to 3500 kPa	0.010 %
			Absolute Pressure	From 18 kPa up to 100 kPa	25 Pa
				More than 100 kPa up to 150 kPa	31 Pa
				More than 150 kPa up to 200 kPa	38 Pa
				More than 200 kPa up to 250 kPa	45 Pa
				More than 250 kPa up to 300 kPa	53 Pa
				More than 300 kPa up to 350 kPa	61 Pa
			Difference Pressure (*)	From -20 kPa less than -15 kPa	4.5 Pa
				From -15 kPa less than -10 kPa	3.5 Pa
				From -10 kPa less than -7.5 kPa	2.5 Pa
				From -7.5 kPa less than -5 kPa	1.9 Pa
				From -5 kPa less than -2.5 kPa	1.5 Pa
				From -2.5 kPa less than -1 kPa	1.2 Pa
				From -1 kPa up to -0.005 kPa	1.0 Pa
				From 0.005 kPa up to 1 kPa	1.0 Pa

				More than 1 kPa up to 2.5 kPa	1.2 Pa
				More than 2.5 kPa up to 5 kPa	1.5 Pa
				More than 5 kPa up to 7.5 kPa	1.9 Pa
				More than 7.5 kPa up to 10 kPa	2.5 Pa
				More than 10 kPa up to 15 kPa	3.5 Pa
				More than 15 kPa up to 20 kPa	4.5 Pa
	Mechanical Type Pressure Gauges	Liquid	Gauge pressure	From 1 MPa up to 5.5 MPa	20 kPa
				More than 5.5 MPa up to 100 MPa	0.20 % of maximum pressure
		Gas	Gauge pressure	From -100 kPa less than -20 kPa	0.15 kPa
				From -20 kPa less than -0.3 kPa	0.40 % of minimum pressure
				From -0.3 kPa up to -0.005 kPa	2.7 Pa
				From 0.005 kPa up to 0.3 kPa	2.7 Pa
				More than 0.3 kPa up to 20 kPa	0.40 % of maximum pressure
				More than 20 kPa up to 3500 kPa	The larger one of the two 0.15 % or 0.15 kPa
			Difference Pressure (*)	From -20 kPa less than -0.3 kPa	0.40 % of minimum pressure
				From -0.3 kPa up to -0.005 kPa	2.7 Pa
				From 0.005 kPa up to 0.3 kPa	2.7 Pa
				More than 0.3 kPa up to 20 kPa	0.40 % of maximum pressure

#All Calibration Procedures are in-house procedures developed by this laboratory.

(*) Line Pressure: 100 kPa \pm 5 kPa (Absolute Pressure)

General Field of Calibration: Acoustics & Ultrasound

Date of Initial Accreditation of the Field: 2005-09-01

Laboratory's permanent facility/On-site Calibration: Laboratory's permanent facility

Calibration and Measurement Capabilities

Calibration Procedures# and Type of Instruments/Materials to be calibrated		Range		Expanded Uncertainty (Level of Confidence Approximately 95 %)
Acoustic Measuring Equipment, etc.	Sound Level Meter (Free-Field Response Level)	From 20 Hz up to 250 Hz		0.6 dB
		More than 250 Hz up to 1.25 kHz		0.3 dB
		More than 1.25 kHz up to 5 kHz		0.4 dB
		More than 5 kHz up to 8 kHz		0.5 dB
		More than 8 kHz up to 10 kHz		0.6 dB
		More than 10 kHz up to 12.5 kHz		0.8 dB
	Sound Calibrator (Sound Pressure Level)	250 Hz		0.14 dB
		1000 Hz		0.14 dB
	Audiometers (WS1 Microphone)	Sound Pressure	From 125 Hz up to 4000 Hz	0.6 dB
			More than 4000 Hz up to 8000 Hz	0.6 dB
	Audiometers (WS2 Microphone)		From 125 Hz up to 4000 Hz	0.7 dB
			More than 4000 Hz up to 8000 Hz	0.9 dB

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Laboratory's permanent facility/On-site Calibration: On-site Calibration

Calibration and Measurement Capabilities

Calibration Procedures# and Type of Instruments/Materials to be calibrated		Range		Expanded Uncertainty (Level of Confidence Approximately 95 %)
Acoustic Measuring Equipment, etc.	Sound Calibrator (Sound Pressure Level)	250 Hz		0.14 dB
		1000 Hz		0.14 dB

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