SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017 & KS Q ISO/IEC 17025:2017

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CALIBRATION

Valid To : January. 07, 2030.

Accreditation No : KC00-011

In recognition of the successful completion of the KOLAS evaluation process,
accreditation is granted to this laboratory to perform the following calibrations

Field Code	Item of Calibration	on-site
102. Linear dimension		
10201	Balls	N
10203	Electrical/machanical comparators	Y
10206	Dial/cylinder gauge testers	N
10207	Doctor blades	N
10209	End bars	N
10210	Extensometers, linear displacement transducers	Y
10211	Filler gauges	N
10212	Film applicators	N
10213	Gap gauges	N
10214	Gauge blocks, by comparison	N
10216	Height gauges/ measuring machines	Y
10219	Linear scales	N
10220	Standard measuring machines	Y
10223	Electronic micrometers	N
10224	Height micrometers, riser blocks	N
10225	Laser scan micrometers	Y
10227	Standard tape rules, peripheral gauges	N
10228	Cylindrical plug/pin gauges, thread measuring wire gauges	N
10229	Radius gauges	N
10230	Cylindrical ring gauges	N
10231	Step blocks	N
10232	Step gauges	N
10233	Taper thickness gauges	N
10234	Ultrasonic thickness gauges	Y
10235	Ultrasonic/ coating thickness specimens	N
10236	Coating thickness testers	Y
10237	Torque arms	N
10238	Width measuring specimens	N
103. Angle		
10304	Bevel protractors	N
10311	Plate/square/electric levels	N
10317	Sine bars, plates, tables, centers	N
10318	Squareness testers, right angle testers	N
10319	Cylindrical squares	N
10320	Precision squares	N
10322	Angular dislpacement transducers	N
104. Form		
10401	Form testers	Y
10404	Optical flats	N
10405	Optical parallels	N
10406	Parallel blocks	N
10407	Precision surface plates	Y
10408	Profile gauges	N
10409	Roundness measurement instruments	Y
10412	Straight edges	N
10413	Straight rules	N
10415	Test bars	N
10416	Spherometers	N
105. Complex geometry		
10501	Base gauges for electric bulb	N
10503	Contact coordinate measuring machines	Y
10504	Non-contact coordinate measuring machines	Y
10505	Gauge block accessories	N
10508	Hardness indenters	N
10511	Measuring microscopes, profile projectors	Y
10512	Micro measuring microscopes	Y
10513	Orifice plates	N
10517	Stylus type roughness testers	Y
10518	Socket gauges for electric bulb	N
10525	Thread plug gauges	N
10529	V-blocks, box blocks	N
106. Various dimensional		
10601	Inside/outside/gear tooth calipers, caliper gauges	Y
10603	Cylinder/bore gauges	Y
10604	Depth gauges, depth micrometers	Y
10605	Dial/digital gauges	Y
10608	Grind gauges	N
10609	Micro indicators, test indicators	Y
10610	Micrometer heads	N
10611	3-point micrometers	Y
10612	Inside micrometers	Y
10613	Outside micrometers	Y
10615	Particle counters	Y
10617	Standard sieves	N
10620	Welding gauges	N
10621	Optical micrometers	N
10622	Particle dilution Systems	Y
201. Mass		
20105	Counter beam balances	Y
20106	Dial platform scale balances	Y
20108	Direct reading balances	Y
20109	Electric balances	Y
20112	Platform scale balances	Y
20113	Spring scale balances	Y
20114	Trip balances	N
20116	Weights	Y
202. Force		
20202	Force measuring devices	N
20203	Tension/compression testing machines	Y
20204	Push-pull gauges	N
203. Torque		
20302	Torque measuring devices	N
20303	Torque wrenches/drivers	N
204. Pressure		
20401	Altimeters	Y
20402	Manometers	Y
20406	Absolute pressure gauges	Y
20408	Compound pressure gauges	Y
20409	Differential pressure gauges	Y
20411	Gauge pressure gauges	Y
20412	Pressure transducers /transmitters	Y
20413	Dial type vacuum gauges	Y
20414	Water Depth meters	Y
206. Volume		
20601	Volumetric glasswares	N
20602	Pycnometers	N
20605	Concrete air content meters	N
20606	Piston type volume meters	N
207. Density		
20702	Liquid density meters	N
20704	Salinity meters	N
20705	Sucrose meters	N
20707	Chloride meters	N

Field Code	Item of Calibration	on-site
208. Viscosity		
20802	Dynamic viscometers; rotational, etc.	N
209. Fluid flow		
20901	Anemometers; hot-wire	N
20902	Anemometers; pitot tube, etc.	N
20908	Gas flowmeters; differential pressure	N
20909	Liquid flowmeters; differential pressure	N
20910	Liquid flowmeters; electromagnetic	N
20911	Gas flowmeters; thermal mass, etc.	N
20912	Liquid flowmeters; Coriolis, etc.	N
20914	Gas flowmeters; positive displacement	N
20915	Liquid flowmeters; positive displacement	N
20916	Gas flowmeters; turbine	N
20917	Liquid flowmeters; turbine	N
20918	Gas flowmeters; ultrasonic	N
20919	Liquid flowmeters; ultrasonic	N
20920	Gas flowmeters; variable area	N
20921	Liquid flowmeters; variable area	N
20922	Gas flowmeters; vortex	N
20923	Liquid flowmeters; vortex	N
20925	Anemometers; vane, etc.	N
301. Time & frequency		
30102	Frequency standards	N
30103	General frequency sources	Y
30104	Frequency meters/counters	Y
30105	Time interval sources	Y
30106	Time interval meters/stop watches/timers	Y
302. Velocity & revolution		
30201	Standard RPM generators	Y
30202	Contact type tachometers	Y
30203	Photo tachometers /stroboscopes	Y
30205	Wow-flutter generators	Y
30206	Wow-flutter meters	Y
401. DC voltage& current		
40101	DC ammeters	Y
40102	Transconductance amplifiers	Y
40103	DC voltage/ current calibrators	Y
40104	Electrical temperature calibrators	Y
40105	DC current shunts	Y
40106	Galvanometers/null detectors	Y
40108	DC power supplies	Y
40110	DC voltage dividers	N
40111	DC voltage standards	N
40112	DC voltmeters	Y
40113	Static/Ionic voltmeters	N
402. Resistance, capacitance inductance		
40201	Capacitance bridges /indicators	Y
40202	Decade capacitors	Y
40204	Standard capacitors	Y
40205	Earth testers	Y
40208	Inductors	Y
40210	Insulation testers	Y
40211	Q-meters	Y
40213	Resistance bridges & similar instruments	Y
40214	Resistance meters	Y
40215	Resistors	Y
40216	Electrical conductivity meters	N
40217	Impedance bridges/LCR meters	Y
403. AC voltage, current & power		
40301	AC ammeters	Y
40302	Clamp ammeters/voltmeters	Y
40303	AC voltage/current calibrators	Y
40304	Wattmeter calibrators	Y
40305	AC current shunts	Y
40310	Power factor meters	Y
40311	AC power meters	Y
40312	AC power supplies	Y
40313	Puncture/safety testers	Y
40314	Power recorders	Y
40318	AC voltmeters	Y
404. Other DC & LF measuremnets		
40401	LF amplifiers	Y
40402	DC/LF attenuators	Y
40403	Multimeter calibrators	Y
40404	Oscilloscope calibrators	Y
40406	Video signal generators	Y
40407	Audio distortion analyzers /meters	Y
40408	LF filters	Y
40409	LF/audio signal analyzers	Y
40410	Line frequency meters	Y
40411	Function generators	Y
40412	Genescopes	Y
40413	AC/DC high voltage voltmeters	Y
40416	Leakage current testers	Y
40417	Electronic AC/DC loads	Y
40419	Analogue/digital multimeters	Y
40420	Noise meters	Y
40421	Oscilloscopes	Y
40422	LF phase meters	Y
40423	Random wave generators	Y
40424	Voltage/current recorders	Y
40425	Relay test sets	Y
40426	LF signal generators	Y
40427	LF spectrum analyzers	Y
40429	Sweep generators	Y
40432	Transistor curve tracers	Y
40433	Waveform analyzers	Y
40434	AC/DC high voltage generators	Y
40435	AC/DC high voltage probes	Y
40436	Logic analyzers	Y
40437	Telephone testers	Y
40438	Video signal analyzers	Y
405. Low frequency electric & magnetic field		
40503	Flux meters	N
40504	Flux sources	N
40508	Magnetometers	N
40510	Reference/standard magnets	N
406. Radio frequency measurement		
40601	RF amplifiers	Y
40602	Coaxial attenuators	Y
40603	Waveguide attenuators	N
40605	Burst pulse generators	Y
40606	Attenuator calibrators	Y
40607	RF power meter calibrators	Y
40608	EMC transducers; current probes, absorbing clamps, etc.	Y
40610	Coaxial directional couplers /splitters	Y
40611	Waveguide directional couplers	N
40613	Electrostatic discharge generators	N
40614	EMC receivers	Y
40615	RF filters	Y
40616	RF impedance meters	Y
40617	RF impulse generators	Y
40618	Line impedance stabilization networks; LISN, CDN, ISN, etc.	Y
40619	Coaxial standard mismatches	Y
40621	Mobile communication test sets	Y
40622	Modulation meters	Y
40623	Network analyzers	Y
40624	Noise figure meters	Y
40625	Noise generators	Y
40626	Noise impulse simulators	Y
40635	RF power meters	Y
40636	Diode power sensors	Y
40637	Thermocouple power sensors	Y
40638	Pulse generators	Y
40639	Radar test sets	Y
40640	RF signal generators	Y
40641	RF spectrum analyzers	Y
40642	RF speed guns	Y
40643	Surge generators	Y
40645	RF terminations	Y
40646	Coaxial thermistor mounts	Y
40648	Transmission trouble testers	Y
40650	RF voltmeters	Y
40651	Vector voltmeters	Y
40652	Field strength meters	Y
40653	AM/FM test sources	Y
40654	Dip simulators	Y

Field Code	Item of Calibration	on-site
407. Field strength & antenna		
40701	Microwave leakage monitors	N
40702	Probes	N
40703	Dipole antennas	N
40704	Loop antennas	N
40705	Monopole antennas	N
40707	Horn antennas	N
501. Contact thermometry		
50101	Temperature generators; ovens, furnaces, isothermal liquid baths, ice-point baths, dry-block calibrators	Y
50102	Temperature indicators /recorders/controllers, temperature calibrators	Y
50103	Glass thermometers; liquid-in-glass, Beckmann	N
50104	Resistance thermometers; SPRT, IPRT, thermistors, etc.	Y
50105	Thermal expansion thermometers; bimetal, gas or liquid type	Y
50106	Thermomecoules: noble metal, base metal, pure metal, special type, etc.	Y
50107	Temperature transducers	Y
502. Non contact thermometry		
50204	Standard radiation thermometers	N
50205	Thermal image apparatus	N
50206	Blackbody furnaces	N
503. Humidity		
50301	Dew-point hygrometers; chilled mirror, alumina thin film, etc.	N
50302	Relative humidity hygrometers; polimer thin film, hair, etc.	Y
50304	Temperature humidity recorders;hygrothermograph, etc.	N
50305	Transducers; dew-point/ relative humidity	Y
50306	Humidity generators; two-pressure, two-temperature, flow mixing humidity gererator, constant temperature and humidity chamber, etc.	Y
601. Sound in air		
60102	Sound calibrators	N
60104	Microphones	N
60106	Sound level meters	Y
603. Vibration		
60301	Vibration calibrators	Y
60302	Vibration transducers	N
60303	Vibration measuring instruments	N
701. Photometry		
70101	Illuminance meters	Y
70102	Luminance meters	Y
70103	Total luminous flux meters	Y
70104	Luminous intensity meters	Y
702. Property of detectors & sources		
70202	Color temperature meters	Y
70203	Color temperature standard lamps	Y
70204	Colorimeters; source color	Y
70209	Total luminous flux standard lamps	N
70213	Display color analyzers; luminance, chromaticity, white balance, etc.	N
70214	Luminous intensity standard lamps	N
70215	Spectral irradiance standard lamps	N
70216	Total spectral radiant flux standard lamps	N
70217	Luminance standard sources	N
70218	Spectral radiance standard sources	N
70219	UV irradiance meters	N
70220	Spectral irradiance meters	N
70221	Total spectral radiant flux meters	Y
70222	Spectral radiance meters	N
70223	Spectral radiant intensity meters	N
703. Property of materials		
70301	Colorimeters; material color	Y
70306	Gloss meters	Y
70315	Optical densitometers	Y
70319	Reflectance meters	Y
70321	Refractometers	N
70323	Transmittance meters	Y
70325	Spectrophotometers including FT-IR spectrophotometers	Y
70326	Wavelength reference materials;absorption cell, bandpass filter, etc.	Y
704. Fiber optics		
70402	Broadband light sources	N
70410	Optical attenuators	N
70413	Optical loss testers	N
70415	Optical multimeters	N
70417	Optical spectrum analyzers	N
70418	Optical time domain reflectometers; OTDR	N
70430	ASE light sources	N
70433	Optical power stabilized lasers and LDs	N
901. Chemical analysis		
90101	Breath alcohol anayzers	N
90102	Environmental air quality monitoring instruments	N
90103	Gas analyzers	N
90104	Exhaust gas test instruments	N
90199	Others;	
	pH meter	N
	Electrical conductivity meter	N

Note

1. On-site calibration is allowed to items with marking 'Y', not allowed to items with marking 'N'.

2. Measurement uncertainty normally is quoted as an expanded uncertainty at a coverage probability of 95 %, which usually requires the use of a coverage factor of k=2. It expresses the lowest uncertainty of measurement that can be provided by accredited calbration laboratories in normal conditions.

3.Due to the calibration environment such as reference standards or customers' facilities, it is note that uncertainty of measurement on a calibration certificate may be expressed larger than measurement uncertainty on scope of accreditation in general.

4. If continuous calibration range is divided, each divided range`s endpoint indicates inclusive.
* ex) If calibration range is divided to (0 ~ 25) mm and (25 ~ 100) mm, 25 mm in first range indicates inclusive and 25 mm in second range indicates exclusive.

102. Linear dimension

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Balls	10201	(0 ~ 100) mm	$\sqrt{(0.30\,\mu m)^2+(8.3\times10^{-6}\times l_0)^2}$	Gauge blocks, Standard measuring machines /HCT-CS-223-10201
Electrical /mechanical comparators	10203	(0 ~ 5) mm	0.12 μm	Gauge blocks /HCT-CS-334-10203
Dial/cylinder gauge testers	10206	(0 ~ 25) mm (25 ~ 100) mm	0.21 μm 0.25 μm	Gauge blocks, Electronic micrometers /HCT-CS-001-10206
Doctor blades	10207	(0 ~ 10) mm	1.9 μm	Height micrometers, Precision surface Electronic micrometers /HCT-CS-335-10207
End bars	10209	(13 ~ 1 000) mm	$\sqrt{(0.15\,\mu m)^2+(3.0\times10^{-6}\times l_0)^2}$	Gauge blocks, Electronic micrometers /HCT-CS-183-10209
Extensometers, linear displacement transducers	10210	(0 ~ 50) mm (50 ~ 100) mm (100 ~ 1 000) mm	$\sqrt{(0.15\,\mu m)^2+(4.1\times10^{-6}\times l_0)^2}$ $\sqrt{(0.78\,\mu m)^2+(4.1\times10^{-6}\times l_0)^2}$ $\sqrt{(7.8\,\mu m)^2+(4.2\times10^{-6}\times l_0)^2}$	Gauge blocks /HCT-CS-184-10210
Filler gauges	10211	(0.01 ~ 5) mm	0.33 μm	Standard measuring machines /HCT-CS-002-10211
Film applicators	10212	(0 ~ 10) mm	1.9 μm	Height micrometers,Precision surface plates, Electronic micrometers /HCT-CS-336-10212
Gap gauges	10213	(3 ~ 250) mm	$\sqrt{(3.3\ \mu m)^2+(1.3\times10^{-6}\times l_0)^2}$	Height micrometers, Electronic micrometers /HCT-CS-003-10213
Gauge blocks, by comparison	10214	(0.5 ~ 100) mm	$\sqrt{(73\ nm)^2+(1.2\times10^{-6}\times l_0)^2}$	Gauge block comparators, Gauge blocks /HCT-CS-254-10214
Height gauges/measuring machines	10216	(0 ~ 1 000) mm	$\sqrt{(1.3\,\mu m)^2+(3.0\times10^{-6}\times l_0)^2}$	Gauge blocks /HCT-CS-005-10216
Linear scales	10219	(0 ~ 2 000) mm	$\sqrt{(1.5\,\mu m)^2+(1.4\times10^{-6}\times l_0)^2}$	Laser interferometers /HCT-CS-325-10219
Standard measuring machines	10220	(0 ~ 500) mm	$\sqrt{(0.25\ \mu m)^2+(3.1\times10^{-6}\times l_0)^2}$	Gauge blocks, Long gauge blocks /HCT-CS-224-10220

102. Linear dimension

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Electronic micrometers	10223	(0 ~ 0.02) mm (0.02 ~ 0.2) mm (0.2 ~ 2) mm	0.08 μm 0.16 μm 0.76 μm	Gauge blocks /HCT-CS-006-10223
Height micrometers, riser blocks Height micrometers Blocks Head Riser blocks	10224	 (0 ~ 610) mm (0 ~ 26) mm (0 ~ 600) mm	 $\sqrt{(1.7\ \mu m)^2+(2.9\times10^{-6}\times l_0)^2}$ $\sqrt{(1.8\ \mu m)^2+(2.8\times10^{-6}\times l_0)^2}$ $\sqrt{(1.7\ \mu m)^2+(2.9\times10^{-6}\times l_0)^2}$	Gauge blocks, Electronic micrometers /HCT-CS-007-10224
Laser scan micrometers	10225	(0.1 ~ 55) mm	0.71 μm	Pin gauges /HCT-CS-282-10225
Standard tape rules, peripheral gauges	10227	(0 ~ 10) m (10 ~ 20) m (20 ~ 30) m (30 ~ 40) m (40 ~ 50) m	0.53 mm 0.55 mm 0.59 mm 0.65 mm 0.72 mm	Tape measure calibration system /HCT-CS-241-10227
Cylindrical plug/pin gauges, thread measuring wire gauges Cyclindrical plug/pin gauges	10228	 (0.1 ~ 100) mm	 $\sqrt{(0.3\ \mu m)^2+(4.6\times10^{-6}\times l_0)^2}$	Standard measuring machines /HCT-CS-008-10228
Radius gauges	10229	(0 ~ 50) mm	3.0 μm	Profile projectors /HCT-CS-225-10229
Cylindrical ring gauges	10230	(1 ~ 100) mm	$\sqrt{(0.55\ \mu m)^2+(2.8\times10^{-6}\times l_0)^2}$	Standard measuring machines Standard ring gauges /HCT-CS-226-10230
Step blocks	10231	(0 ~ 200) μm	0.34 μm	Electronic micrometers, Precision surface plates /HCT-CS-337-10231
Step gauges	10232	(0 ~ 1 000) mm	$\sqrt{(1.6\mu m)^2+(4.2\times10^{-6}\times l_0)^2}$	Gauge blocks Electronic micrometers /HCT-CS-009-10232
Taper thickness gauges	10233	(0.1 ~ 60) mm	0.03 mm	Profile projectors /HCT-CS-242-10233
Ultrasonic thickness gauges	10234	(0 ~ 100) mm	2.5 μm	Ultrasonic thickness specimens /HCT-CS-243-10234

102. Linear dimension

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Ultrasonic/coating thickness specimens	10235			
coating		(0.01 ~ 8) mm	1.4 μm	Gauge blocks Standard measuring machines
Ultrasonic		(0.4 ~ 100) mm	$\sqrt{(0.77\ \mu m)^2+(4.0\times10^{-6}\times l_0)^2}$	Electronic micrometers /HCT-CS-227-10235
Coating thickness testers	10236	(0 ~ 0.25) mm	2.2 μm	Coating thickness specimens /HCT-CS-228-10236
		(0.25 ~ 1.5) mm	2.3 μm	
		(1.5 ~ 7.9) mm	4.2 μm	
Torque arms	10237			Contact coordinate measuring machines, Standard measuring machine /HCT-CS-287-10237
Torque Arm		(0 ~ 500) mm	$\sqrt{(6.8\ \mu m)^2+(12\times10^{-6}\times l_0)^2}$	
Wire		(0 ~ 5) mm	0.7 μm	
Width measuring specimens	10238	(0.1 ~ 1 000) mm	$\sqrt{(2.1\ \mu m)^2+(8.1\times10^{-6}\times l_0)^2}$	Contact coordinate measuring machines /HCT-CS-338-10238

103. Angle

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Bevel protractors	10304			Angle gauge blocks, Precision surface plates,
Angle accuracy		(0 ~ 90)°	1.3″	Profile projectors
		(90 ~ 360)°	2.0″	/HCT-CS-251-10304
Angle of accessories		(0 ~ 360)°	2.3″	
Plate/square/electric levels	10311			Fine angle generators, Precision surface plates
Angle		±200″	0.3″	Electronic micrometers,
		±1 000″	0.5″	Squareness testers
		±2 000″	0.9″	/HCT-CS-252-10311
Squareness		(0 ~ 300) mm	2.3 μm	
Flatness		300 mm × 60 mm	1.0 μm	
Sine bars, plates, tables, centers	10317			Standard measuring machines, Angle gauge blocks, Gauge blocks, Optical flats,
Center length of both rollers		(50 ~ 200) mm	0.77 μm	Electronic micrometers, Precision surface plates
Flatness of the measuring surface		(50 ~ 200) mm	0.24 μm	/HCT-CS-326-10317
parallelism,between rollers		(50 ~ 200) mm	0.90 μm	
Parallelism between measuring surface and 2 rollers		(50 ~ 200) mm	0.28 μm	
Squareness testers, right angle testers	10318			Cylindrical squares, Precision surface plates,
Squareness		(0 ~ 400) mm	1.7 μm	Electronic micrometers
				/HCT-CS-327-10318
Cylindrical squares	10319			Squareness testers, Cylindrical squares,
Squareness		(0 ~ 400) mm	$\sqrt{(2.0\ \mu m)^2+(1.2\times10^{-6}\times I_0)^2}$	Electronic micrometers, Precision surface plates
				/HCT-CS-328-10319
Straightness		(0 ~ 400) mm	2.1 μm	
Precision squares	10320			Cydrical squares, Squareness testers,
Squareness		(0 ~ 450) mm	$\sqrt{(2.0\,\mu m)^2+(3.0\times10^{-6}\times I_0)^2}$	precision surface plates
				/HCT-CS-278-10320
Parallelism		(0 ~ 450) mm	1.3 μm	
Straightness		(0 ~ 450) mm	2.9 μm	
Angular dislpacement transducers	10322			Rotary tables
		(0 ~ 360)°	0.20°	/HCT-CS-373-10322

104. Form

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Form testers	10401			Gauge blocks, Angle gauge blocks,
Z-axis		(0 ~ 60) mm	0.19 μm	Standard scales, Form standard specimens
				/HCT-CS-284-10401
X-axis		(0 ~ 200) mm	$\sqrt{(0.41\ \mu m)^2+(2.8\times10^{-6}\times I_0)^2}$	
Angle		(0 ~ 180) °	1.3 ´	
Optical flats	10404	Ø(10 ~ 130) mm	0.06 μm	Optical flats,
				Monochromatic light sources/HCT-CS-229-10404
Optical parallels	10405			Optical flats, Monochromatic light sources,
Flatness		Ø(10 ~ 30) mm	0.059 μm	Gauge block comparators
Parallelism		Ø(10 ~ 30) mm	0.080 μm	/HCT-CS-230-10405
Parallel blocks	10406			Electronic micrometers, Precision surface plates,
Parallelism		(0 ~ 1 000) mm	1.1 μm	Test bars
				/HCT-CS-285-10406
Flatness		(0 ~ 1 000) mm	1.1 μm	
Height difference between two blocks		(0 ~ 1 000) mm	1.8 μm	
Precision surface plates	10407			Electric levels
Area		(0 ~ 2 500) ㎠	0.73 μm	/HCT-CS-010-10407
		(2 500 ~ 5 000) ㎠	0.92 μm	
		(5 000 ~ 10 000) ㎠	1.1 μm	
		(10 000 ~ 15 000) ㎠	1.2 μm	
		(15 000 ~ 30 000) ㎠	1.6 μm	
		(30 000 ~ 60 000) ㎠	2 μm	
Profile gauges	10408	(0 ~ 5) mm	0.9 μm	Gauge blocks
				/HCT-CS-359-10408
Roundness measurement instruments	10409			Roundness magnification specimens, Optical flats,
Accuracy of detector		(0 ~ 1 000) μm	0.23 μm	Standard hemispgheres, Cylinderical squares
				/HCT-CS-279-10409
Rotation accuracy of circumference direction		(0 ~ 360) °	16 nm	
Rotation accuracy of shaft direction		(0 ~ 360) °	16 nm	
Straightness		(0 ~ 300) mm	1.3 μm	
Straight edges	10412			Electronic micrometers, Precision surface plates
Straightness		(0 ~ 2 000) mm	1.6 μm	/HCT-CS-329-10412
Parallelism		(0 ~ 2 000) mm	5.5 μm	
Straight rules	10413	(0 ~ 3 000) mm	$\sqrt{(0.20\ mm)^2+(1.5\times10^{-6}\times I_0)^2}$	Tape measure calibration system
				/HCT-CS-244-10413

104. Form

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Test bars	10415			Roundness measurement instruments, Precision surface plates,
Roundness		(0 ~ 100) mm	0.062 μm	Electronic micrometers /HCT-CS-330-10415
Cylindricity		(0 ~ 100) mm	0.26 μm	
Eccentricity		(0 ~ 100) mm	0.51 μm	
Spherometers	10416	(0 ~ 10) mm	0.14 μm	Gauge blocks, Optical flats /HCT-CS-340-10416

105. Complex geometry

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Base gauges for electric bulb	10501			Standard measuring machines, Cylindrical ring gauges,
Go, Not Go Inner diameter		(10 ~ 40) mm	0.90 μm	Form testers, 3-point micrometers
				/HCT-CS-360-10501
Screw thread Inner diameter		(10 ~ 40) mm	3.3 μm	
Pitch		(0.1 ~ 10) mm	1.0 μm	
Contact coordinate measuring machines	10503			Step gauges, Precision squares,
Accuracy		(0 ~ 600) mm	$\sqrt{(0.53\ \mu m)^2+(3.1\times10^{-6}\times I_0)^2}$	Straight edges
				/HCT-CS-011-10503
Straightness		(0 ~ 600) mm	2.1 μm	
Squareness		(0 ~ 600) mm	1.1″	
Non-contact coordinate measuring machines	10504			Standard scales
Accuracy		(0 ~ 1 000) mm	$\sqrt{(0.43\ \mu m)^2+(2.7\times10^{-6}\times I_0)^2}$	/HCT-CS-012-10504
Gauge block accessories	10505			Angle gauge blocks, Precision surface plates,
Flatness(contact surface of each jaw)		(0 ~ 50) mm	0.04 μm	Profile projectors
				/HCT-CS-308-10505
Parallelism(Parallel jaw)		(0 ~ 150) mm	1.2 μm	
Round type jaw		(0 ~ 50) mm	$\sqrt{(0.26\mu m)^2+(4.0\times10^{-6}\times I_0)^2}$	
A type Parallel jaw		(0 ~ 50) mm	$\sqrt{(0.37\mu m)^2+(4.0\times10^{-6}\times I_0)^2}$	
Base block		(0 ~ 50) mm	$\sqrt{(0.68\mu m)^2+(4.0\times10^{-6}\times I_0)^2}$	
Center point		(0 ~ 20) mm	0.70 μm	
Hardness indenters	10508			Standard measuring machines, profile projectors,
Diameter		(0 ~ 13) mm	0.4 μm	Non-contact coordinate measuring machines
				/HCT-CS-361-10508
Radius		(0 ~ 7) mm	1.3 μm	
Angle		(0 ~ 173)°	0.028°	
Length		(0 ~ 5) mm	0.7 μm	

105. Complex geometry

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Measuring microscopes, profile projectors	10511			Standard scales, Precision squares /HCT-CS-013-10511
Length accuracy		(0 ~ 300) mm	$\sqrt{(0.45\,\mu m)^2+(2.8\times10^{-6}\times L_0)^2}$	
Angle accuracy		(0 ~ 360)°	1.7′	
Magnification accuracy		×2 ~ ×100	3.1×10^{-4}	
Squareness accuracy		(0 ~ 300) mm	3.6 μm	
Micro measuring microscopes	10512	(0 ~ 50) mm	1.0 μm	Standard scales /HCT-CS-014-10512
Orifice plates	10513			Contact coordinate measuring machines, Standard measuring machines /HCT-CS-362-10513
Inner diameter		(5 ~ 400) mm	$\sqrt{(3.0\ \mu m)^2+(8.0\times10^{-6}\times L_0)^2}$	
Plate thickness		(0 ~ 25) mm	0.42μm	
Stylus type roughness testers	10517			Roughness standard, comparison specimens /HCT-CS-295-10517
Rsm		(0 ~ 120) μm	0.9 μm	
Pt		(0 ~ 10) μm	0.074 μm	
Ra		(0 ~ 1) μm	0.017 μm	
		(1 ~ 3) μm	0.045 μm	
Rz		(0 ~ 3) μm	0.047 μm	
		(3 ~ 12) μm	0.15 μm	
Socket gauges for electric bulb	10518			Standard measuring machines, Gauge blocks, Form testers /HCT-CS-363-10518
Go, Not Go Screw thread outer diameter		(10 ~ 40) mm	0.33 μm	
Pitch		(0.1 ~ 10) mm	0.73 μm	
Thread plug gauges	10525			Standard measuring machines, Thread measuring wire gauges, Profile Projectors /HCT-CS-016-10525
External diammeter		(1 ~ 100) mm	0.47 μm	
Effective diameter		(1 ~ 100) mm	1.6 μm	
Pitch		(0.2 ~ 6) mm	1.3 μm	
Half angle		(0 ~ 45)°	1.7′	

105. Complex geometry

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
V-blocks, box blocks	10529			Pin gauges, Electronic micrometers,
Flatness		(0 ~ 150) mm	1.0 μm	Precision surface plates, Test bars /HCT-CS-283-10529
Parallelism		(0 ~ 150) mm	1.1 μm	
Gradient		(0 ~ 150) mm	0.6 μm	
Difference of both block		(0 ~ 150) mm	0.9 μm	
Squareness		(0 ~ 150) mm	$\sqrt{(2.0\ \mu m)^2+(2.9\times10^{-6}\times l_0)^2}$	

106. Various dimensional

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Inside/outside/gear tooth calipers, caliper gauges	10601	(0 ~ 150) mm (150 ~ 1 500) mm	$\sqrt{(3.8\ \mu m)^2+(6.3\times10^{-6}\times I_0)^2}$ $\sqrt{(7.7\ \mu m)^2+(6.6\times10^{-6}\times I_0)^2}$	Gauge blocks /HCT-CS-017-10601
Cylinder/bore gauges Cylinder gauges Cylinder bore gauges	10603	 (0 ~ 2) mm (1 ~ 40) mm	 0.81 µm 0.78 µm	Dial gauge testers, Gauge blocks /HCT-CS-019-10603
Depth gauges, depth micrometers	10604	(0 ~ 300) mm (300 ~ 1 000) mm	$\sqrt{(0.90\ \mu m)^2+(4.0\times10^{-6}\times I_0)^2}$ $\sqrt{(7.1\mu m)^2+(4.1\times10^{-6}\times I_0)^2}$	Gauge blocks /HCT-CS-020-10604
Dial/digital gauges	10605	(0 ~ 50) mm (50 ~ 150) mm	$\sqrt{(0.16\ \mu m)^2+(1.9\times10^{-6}\times I_0)^2}$ $\sqrt{(0.93\ \mu m)^2+(2.0\times10^{-6}\times I_0)^2}$	Gauge blocks /HCT-CS-021-10605
Grind gauges Slope depth Scraper Straightness	10608	 (0 ~ 100) µm (0 ~ 150) mm	 2.0 µm 1.0 µm	Height micrometers, Electronic micrometers /HCT-CS-364-10608
Micro indicators, Test indicators	10609	(0 ~ 2) mm	0.44 µm	Dial gauge testers /HCT-CS-022-10609
Micrometer heads	10610	(0 ~ 50) mm	0.68 µm	Gauge blocks, Electronic micrometers /HCT-CS-023-10610
3-point micrometers	10611	Ø(1 ~ 200) mm	3.2 µm	Standard ring gauges /HCT-CS-231-10611
Inside micrometers	10612	(2 ~ 300) mm (300 ~ 1 500) mm	$\sqrt{(1.5\ \mu m)^2+(1.9\times10^{-6}\times I_0)^2}$ $\sqrt{(2.2\ \mu m)^2+(1.9\times10^{-6}\times I_0)^2}$	Gauge blocks /HCT-CS-026-10612
Outside micrometers	10613	(0 ~ 25) mm (25 ~ 500) mm (500 ~ 1 500) mm	$\sqrt{(0.36\mu m)^2+(4.1\times10^{-6}\times I_0)^2}$ $\sqrt{(1.1\mu m)^2+(4.1\times10^{-6}\times I_0)^2}$ $\sqrt{(2.6\mu m)^2+(4.1\times10^{-6}\times I_0)^2}$	Gauge blocks /HCT-CS-027-10613

106. Various dimensional

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Particle Counters	10615			Certified reference material (CRM),
Airbone particle counter				Particle counters, Flowmeters
(Laser reference voltage)		(0 ~ 10) V	5.4×10^{-4}	/HCT-CS-028-10615
(Flow rate)		(0 ~ 100) L/min	2.4×10^{-2}	
(Threshold voltage)		(0 ~ 10) V	5.4×10^{-4}	
(Counting efficiency)				
CPC		(0 ~ 1.0) μm	3.0 %	
OPC		(0.1 ~ 1.0) μm	4.7 %	
Liquid particle counter				/HCT-CS-029-10615
(Laser reference voltage)		(0 ~ 10) V	5.4×10^{-4}	
(Flow rate)		(0 ~ 25) mL/min	8.1×10^{-2}	
		(25 ~ 300) mL/min	5.0×10^{-2}	
(Threshold voltage)		(0 ~ 10) V	5.4×10^{-4}	
Standard sieves	10617			Profile projectors
Wire Diameter		(0.01 ~ 8) mm	1.7 μm	/HCT-CS-232-10617
Sieve opening		(0.01 ~ 125) mm	2.6 μm	
Welding gauges	10620			Profile projectors
Height/depth measuring scale		(0 ~ 100) mm	0.009 mm	/HCT-CS-246-10620
Weld throat thick measuring scale		(0 ~ 16) mm	0.009 mm	
Ruler measuring scale		(0 ~ 50) mm	0.096 mm	
Angle measuring scale		(0 ~ 90)°	0.14°	
Taper measuring scale		(0 ~ 7) mm	0.096 mm	
Optical micrometers	10621			Gauge blocks, Standard scales
Depth		(0 ~ 25) mm	7.6 μm	/HCT-CS-365-10621
Width		(0 ~ 1) mm	14 μm	
Particle dilution Systems	10622			ELECTRICAL PARTICLE SIZER,CPC
Particle Concentration Reduction Factor(PCRF)		(30 ~ 100) nm	8.2×10^{-2}	/HCT-CS-256-10622

201. Mass and related quantities

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Counter beam balances	20105	(0 ~ 311) g (311 ~ 2 610) g (2.61 ~ 20) kg	10 mg 82 mg 0.82 g	Standard weights /HCT-CS-233-20105
Dial platform scale balances	20106	 (0 ~ 30) kg (30 ~ 60) kg (60 ~ 100) kg	 0.06 kg 0.12 kg 0.29 kg	Standard weights /HCT-CS-309-20106
Direct reading balances	20108	(0 ~ 160) g	0.19 mg	Weights /HCT-CS-031-20108
Electric balances	20109	(0 ~ 2) g (2 ~ 5) g (5 ~ 20) g (20 ~ 50) g (50 ~ 100) g (100 ~ 200) g (200 ~ 500) g (0.5 ~ 1) kg (1 ~ 2) kg (2 ~ 5) kg (5 ~ 10) kg (10 ~ 30) kg (30 ~ 50) kg (50 ~ 100) kg (100 ~ 200) kg (200 ~ 300) kg (300 ~ 600) kg	33 µg 55 µg 65 µg 0.12 mg 0.14 mg 0.19 mg 0.49 mg 0.94 mg 1.9 mg 4.7 mg 9.5 mg 25 mg 0.12 g 1.7 g 3.5 g 11 g 17 g	Standard weights /HCT-CS-032-20109
Platform scale balances	20112	(0 ~ 20) kg (20 ~ 200) kg	1.2 g 58 g	Standard weights /HCT-CS-234-20112
Spring scale balances	20113	(0 ~ 1) kg (1 ~ 2) kg (2 ~ 5) kg (5 ~ 10) kg (10 ~ 30) kg (30 ~ 50) kg	2.9 g 5.8 g 12 g 29 g 58 g 0.12 kg	Standard weights /HCT-CS-235-20113
Trip balences	20114	(0 ~ 500) g	0.12 g	Standard Weights /HCT-CS-356-20114

201. Mass and related quantities

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Weights	20116			Standard weights, Mass comparators
		F1 class		/HCT-CS-033-20116
		1 mg	0.002 2 mg	
		2 mg	0.002 2 mg	
		5 mg	0.002 2 mg	
		10 mg	0.002 8 mg	
		20 mg	0.003 4 mg	
		50 mg	0.004 1 mg	
		100 mg	0.005 4 mg	
		200 mg	0.006 7 mg	
		500 mg	0.008 4 mg	
		1 g	0.010 mg	
		2 g	0.013 mg	
		5 g	0.017 mg	
		10 g	0.022 mg	
		20 g	0.033 mg	
		50 g	0.061 mg	
		100 g	0.11 mg	
		200 g	0.22 mg	
		500 g	0.57 mg	
		1 kg	1.1 mg	
		2 kg	2.2 mg	
		5 kg	6.1 mg	
		10 kg	12 mg	
		20 kg	23 mg	

202. Force

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Force measuring devices	20202			Hydraulic force calibration machines,
Force		(0.5 ~ 5) kN	3.1×10^{-5}	Deadweight force calibration machines
		(5 ~ 10) kN	2.8×10^{-4}	/HCT-CS-253-20202
		(10 ~ 20) kN	4.6×10^{-4}	
		(20 ~ 50) kN	3.9×10^{-4}	
		(50 ~ 100) kN	3.4×10^{-4}	
Tension/compression testing machines	20203			Electric force measuring devices
Compression		(0.1 ~ 10) N	1.8×10^{-3}	/HCT-CS-236-20203
		(10 ~ 20) N	1.5×10^{-3}	
		(20 ~ 50) N	1.6×10^{-3}	
		(50 ~ 100) N	1.6×10^{-3}	
		(100 ~ 200) N	1.5×10^{-3}	
		(200 ~ 500) N	1.8×10^{-3}	
		(500 ~ 1 000) N	1.8×10^{-3}	
		(1 ~ 2) kN	1.5×10^{-3}	
		(2 ~ 5) kN	1.5×10^{-3}	
		(5 ~ 10) kN	1.6×10^{-3}	
		(10 ~ 20) kN	1.9×10^{-3}	
		(20 ~ 50) kN	1.5×10^{-3}	
		(50 ~ 100) kN	1.6×10^{-3}	
		(100 ~ 200) kN	1.9×10^{-3}	
		(200 ~ 500) kN	1.9×10^{-3}	
		(500 ~ 1 000) kN	1.6×10^{-3}	
Tension		(0.1 ~ 50) N	1.6×10^{-3}	
		(50 ~ 100) N	1.9×10^{-3}	
		(100 ~ 200) N	1.5×10^{-3}	
		(200 ~ 500) N	1.6×10^{-3}	
		(500 ~ 1 000) N	1.5×10^{-3}	
		(1 ~ 2) kN	1.5×10^{-3}	
		(2 ~ 5) kN	1.6×10^{-3}	
		(5 ~ 10) kN	1.8×10^{-3}	
		(10 ~ 20) kN	2.7×10^{-3}	
		(20 ~ 50) kN	1.9×10^{-3}	
		(50 ~ 100) kN	1.9×10^{-3}	
		(100 ~ 200) kN	1.7×10^{-3}	
Push-pull gauges	20204	(0.2 ~ 50) N	1.5×10^{-3}	Deadweight force
		(50 ~ 1 000) N	1.3×10^{-3}	calibration machines, Weights
		(1 000 ~ 2 000) N	1.6×10^{-3}	/HCT-CS-034-20204
		(2 000 ~ 5 000) N	1.5×10^{-3}	

203. Torque

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Torque measuring devices	20302	(0.005 ~ 100) N·m	7.8×10^{-3}	Weights, Torque arm /HCT-CS-036-20302
Torque wrenches/drivers	20303			Torque calibration machines
Clockwise		(0.06 ~ 0.6) N·m	1.4×10^{-2}	/HCT-CS-037-20303
		(0.6 ~ 1) N·m	5.8×10^{-3}	
		(1 ~ 2.5) N·m	9.6×10^{-3}	
		(2.5 ~ 5) N·m	4.6×10^{-3}	
		(5 ~ 10) N·m	5.3×10^{-3}	
		(10 ~ 25) N·m	3.4×10^{-3}	
		(25 ~ 50) N·m	2.6×10^{-3}	
		(50 ~ 100) N·m	6.2×10^{-3}	
		(100 ~ 250) N·m	3.7×10^{-3}	
		(250 ~ 500) N·m	1.6×10^{-3}	
		(500 ~ 1 000) N·m	6.0×10^{-3}	
		(1 000 ~ 2 000) N·m	6.6×10^{-3}	
Counterclockwise		(0.06 ~ 0.6) N·m	1.3×10^{-2}	
		(0.6 ~ 1) N·m	6.4×10^{-3}	
		(1 ~ 2.5) N·m	9.1×10^{-3}	
		(2.5 ~ 5) N·m	4.9×10^{-3}	
		(5 ~ 10) N·m	5.2×10^{-3}	
		(10 ~ 25) N·m	2.4×10^{-3}	
		(25 ~ 50) N·m	2.6×10^{-3}	
		(50 ~ 100) N·m	8.3×10^{-3}	
		(100 ~ 250) N·m	3.2×10^{-3}	
		(250 ~ 500) N·m	3.4×10^{-3}	
		(500 ~ 1 000) N·m	5.0×10^{-3}	
		(1 000 ~ 2 000) N·m	4.3×10^{-3}	

204. Pressure

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Altimeters	20401	(0 ~ 15) km	12 m	Pressure calibrators /HCT-CS-357-20401
Manometers	20402	(0 ~ 22) kPa	7.3×10^{-3}	Pressure calibrators /HCT-CS-344-20402
Absolute pressure gauges	20406	(0.005 ~ 7) MPa abs.	6.0×10^{-4}	Pressure calibrators /HCT-CS-255-20406
Compound pressure gauges	20408	(-0.095 ~ 7) MPa	2.5×10^{-4}	Pressure calibrators /HCT-CS-215-20408
Differential pressure gauges pneumatic	20409	(0 ~ 7) MPa	5.8×10^{-4}	Pressure calibrators /HCT-CS-188-20409
Gauge pressure gauges	20411	(0 ~ 500) kPa (0.5 ~ 10) MPa (10 ~ 100) MPa (100 ~ 200) MPa	1.2×10^{-4} 1.0×10^{-4} 8.1×10^{-5} 7.1×10^{-5}	Dead-weight testers /HCT-CS-039-20411
Pressure transducers/transmitters	20412	(-95 ~ 0) kPa (0 ~ 500) kPa (0.5 ~ 10) MPa (10 ~ 100) MPa (100 ~ 200) MPa (0.005 ~ 7) MPa abs.	2.8×10^{-3} 3.1×10^{-3} 3.4×10^{-3} 3.3×10^{-3} 2.8×10^{-3} 3.5×10^{-3}	Pressure calibrators, Dead-weight testers /HCT-CS-169-20412
Dial type vacuum gauges	20413	(-95 ~ 0) kPa	2.0×10^{-2}	Pressure calibrators /HCT-CS-216-20413
Water Depth meters	20414	(0 ~ 2) MPa	1.2×10^{-2}	Pressure calibrators /HCT-CS-245-20414

206. Volume

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Volumetric glasswares	20601			Electric balances, Weights,
		(0.1 ~ 2) ml	2.4 μl	Pure water
		(2 ~ 10) ml	4.9 μl	/HCT-CS313-20601
		(10 ~ 25) ml	13 μl	
		(25 ~ 100) ml	26 μl	
		(100 ~ 250) ml	47 μl	
		(250 ~ 500) ml	70 μl	
		(500 ~ 1 000) ml	0.14 ml	
		(1 000 ~ 2 000) ml	0.22 ml	
		(2 000 ~ 5 000) ml	0.43 ml	
Pycnometers	20602			Electric balances, Weights,
		(0 ~ 50) ml	3.2 μl	Pure water
		(50 ~ 100) ml	7.0 μl	/HCT-CS313-20601
		(100 ~ 500) ml	30 μl	
Concrete air content meters	20605			Electric balances, Weights, Pure water
		(0 ~ 10) %	0.01 %	/HCT-CS-314-20605
Piston type volume meters	20606			Electric balances, Weights,
		(0.1 ~ 5) μl	18 nl	Pure water
		(5 ~ 10) μl	26 nl	/HCT-CS-315-20606
		(10 ~ 20) μl	36 nl	
		(20 ~ 50) μl	73 nl	
		(50 ~ 100) μl	0.12 μl	
		(0.1 ~ 0.2) ml	0.23 μl	
		(0.2 ~ 0.5) ml	0.53 μl	
		(0.5 ~ 1) ml	1.2 μl	
		(1 ~ 2) ml	2.3 μl	
		(2 ~ 5) ml	5.3 μl	
		(5 ~ 10) ml	12 μl	
		(10 ~ 20) ml	23 μl	

207.Density

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Liquid density meters	20702	(0 ~ 2) g/cm^3	0.000 16 g/cm^3	Density standard meterials /HCT-CS-351-20702
Salinity meters	20704	(0 ~ 26) %	0.012 %	NaCl /HCT-CS-352-20704
Sucrose meters	20705	(0 ~ 80) %	0.12 %	Sucrose /HCT-CS-294-20705
Chloride meters	20707	(0 ~ 1.5) %	0.001 1 %	Chloride ion standard solution /HCT-CS-353-20707

208. Viscosity

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Dynamic viscometers; rotational, etc. Rotational viscometers	20802	(2.5 ~ 200 000) mPa · s	1.5×10^{-2}	Viscosity standard /HCT-CS-288-20802

209. Fluid flow

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Anemometers; hot-wire	20901	(0.1 ~ 2) m/s (2 ~ 55) m/s	5.8×10^{-2} 4.4×10^{-3}	Lasor Doppler /HCT-CS-272-20901
Anemometers; pitot tube, etc.	20902	(0.1 ~ 2) m/s (2 ~ 55) m/s	5.8×10^{-2} 4.4×10^{-3}	Lasor Doppler /HCT-CS-273-20902
Gas flowmeters; differential pressure	20908	$(1.2 \times 10^{-5}$ ~ 0.12) m^3/h (0.12 ~ 260) m^3/h	1.9×10^{-3} 2.5×10^{-3}	Lasor Doppler/HCT-CS-375-20908 Sonic nozzle/HCT-CS-312-20908
Liquid flowmeters; differential pressure	20909	(0.005 ~ 50) m^3/h	2.4×10^{-3}	Master flowmeter /HCT-CS-313-20909
Liquid flowmeters; electromagnetic	20910	(0.005 ~ 50) m^3/h	2.4×10^{-3}	Master flowmeter /HCT-CS-313-20909
Gas flowmeters; thermal mass, etc.	20911	$(1.2 \times 10^{-5}$ ~ 0.12) m^3/h (0.12 ~ 260) m^3/h	1.9×10^{-3} 2.5×10^{-3}	Lasor Doppler/HCT-CS-375-20908 Sonic nozzle/HCT-CS-312-20908
Liquid flowmeters; Coriolis, etc.	20912	(0.005 ~ 50) m^3/h	2.4×10^{-3}	Master flowmeter /HCT-CS-313-20909
Gas flowmeters; positive displacement	20914	$(1.2 \times 10^{-5}$ ~ 0.12) m^3/h (0.12 ~ 260) m^3/h	1.9×10^{-3} 2.5×10^{-3}	Lasor Doppler/HCT-CS-375-20908 Sonic nozzle/HCT-CS-312-20908
Liquid flowmeters; positive displacement	20915	(0.005 ~ 50) m^3/h	2.4×10^{-3}	Master flowmeter /HCT-CS-313-20909
Gas flowmeters; turbine	20916	$(1.2 \times 10^{-5}$ ~ 0.12) m^3/h (0.12 ~ 260) m^3/h	1.9×10^{-3} 2.5×10^{-3}	Lasor Doppler/HCT-CS-375-20908 Sonic nozzle/HCT-CS-312-20908
Liquid flowmeters; turbine	20917	(0.005 ~ 50) m^3/h	2.4×10^{-3}	Master flowmeter /HCT-CS-313-20909
Gas flowmeters; ultrasonic	20918	$(1.2 \times 10^{-5}$ ~ 0.12) m^3/h (0.12 ~ 260) m^3/h	1.9×10^{-3} 2.5×10^{-3}	Lasor Doppler/HCT-CS-375-20908 Sonic nozzle/HCT-CS-312-20908
Liquid flowmeters; ultrasonic	20919	(0.005 ~ 50) m^3/h	2.4×10^{-3}	Master flowmeter /HCT-CS-313-20909
Gas flowmeters; variable area	20920	$(1.2 \times 10^{-5}$ ~ 0.12) m^3/h (0.12 ~ 260) m^3/h	1.9×10^{-3} 2.5×10^{-3}	Lasor Doppler/HCT-CS-375-20908 Sonic nozzle/HCT-CS-312-20908
Liquid flowmeters; variable area	20921	(0.005 ~ 50) m^3/h	2.4×10^{-3}	Master flowmeter /HCT-CS-313-20909
Gas flowmeters; vortex	20922	$(1.2 \times 10^{-5}$ ~ 0.12) m^3/h (0.12 ~ 260) m^3/h	1.9×10^{-3} 2.5×10^{-3}	Lasor Doppler/HCT-CS-375-20908 Sonic nozzle/HCT-CS-312-20908
Liquid flowmeters; vortex	20923	(0.005 ~ 50) m^3/h	2.4×10^{-3}	Master flowmeter /HCT-CS-313-20909
Anemometers; vane, etc.	20925	(0.1 ~ 2) m/s (2 ~ 55) m/s	5.8×10^{-2} 4.4×10^{-3}	Lasor Doppler /HCT-CS-274-20925

301. Time/frequency

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Frequency standards	30102			Frequency standards
Timebase Frequency		100 kHz ~ 10 MHz	2.5×10^{-12}	/HCT-CS-040-30102
General frequency sources	30103			Frequency standards
Output frequency		100 kHz ~ 100 MHz	2.0×10^{-11}	/HCT-CS-041-30103
Frequency meters/counters	30104			Frequency standards,
Input Frequency		0.1 Hz	6.2×10^{-11}	General frequency sources
		0.1 Hz ~ 3 GHz	6.2×10^{-12}	/HCT-CS-042-30104
		(3 ~ 40) GHz	0.58 Hz	
Timebase Frequency		100 kHz ~ 10 MHz	2.8×10^{-12}	
Time interval sources	30105			Frequency counters
Time interval		1 ns ~ 1 s	6.2×10^{-7}	/HCT-CS-043-30105
Frequency		1 Hz ~ 1 GHz	6.2×10^{-7}	
Time interval meters/Stop watches/ Timers	30106			Stopwatch Calibrator /HCT-CS-044-30106
Relative time difference		day	2.8×10^{-7}	
		month	1.3×10^{-8}	
Timer		(1 ~ 60) s	6.2×10^{-6}	Frequency standards
		(60 ~ 6 000) s	6.2×10^{-5}	/HCT-CS-044-30106
		(6 000 ~ 86 400) s	6.2×10^{-5}	

302. Velocity & revolution

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Standard RPM generators	30201			Frequency standards
Revolution velocity		(1 ~ 1 000) min^{-1}	0.062 min^{-1}	/HCT-CS-045-30201
		(1 000 ~ 100 000) min^{-1}	0.62 min^{-1}	
Centrifuge		100 min^{-1}	0.12 min^{-1}	
		(100 ~ 900) min^{-1}	1.1 min^{-1}	
		(900 ~ 1 000) min^{-1}	1.2 min^{-1}	
		(1 000 ~ 3 000) min^{-1}	1.4 min^{-1}	
		(3 000 ~ 6 000) min^{-1}	1.9 min^{-1}	
		(6 000 ~ 10 000) min^{-1}	2.6 min^{-1}	
		(10 000 ~ 20 000) min^{-1}	4.8 min^{-1}	
		(20 000 ~ 30 000) min^{-1}	7.1 min^{-1}	
		(30 000 ~ 40 000) min^{-1}	10 min^{-1}	
		(40 000 ~ 50 000) min^{-1}	12 min^{-1}	
		(50 000 ~ 60 000) min^{-1}	14 min^{-1}	
		(60 000 ~ 70 000) min^{-1}	17 min^{-1}	
		(70 000 ~ 80 000) min^{-1}	19 min^{-1}	
		(80 000 ~ 90 000) min^{-1}	21 min^{-1}	
		(90 000 ~ 99 000) min^{-1}	23 min^{-1}	
Contact type tachometers	30202			Frequency standards
Revolution velocity		(1 ~ 4 000) min^{-1}	0.062 min^{-1}	/HCT-CS-046-30202
Photo tachometers/stroboscopes	30203			Frequency standards
Photo-tachometer		1 min^{-1}	0.006 2 min^{-1}	/HCT-CS-047-30203
		(1 ~ 300) min^{-1}	0.006 2 min^{-1}	
		(300 ~ 6 000) min^{-1}	0.062 min^{-1}	
		(6 000 ~ 100 000) min^{-1}	0.62 min^{-1}	
Stroboscopic tachometer		1 min^{-1}	0.006 2 min^{-1}	
		(1 ~ 300) min^{-1}	0.006 2 min^{-1}	
		(300 ~ 6 000) min^{-1}	0.062 min^{-1}	
		(6 000 ~ 100 000) min^{-1}	0.62 min^{-1}	

302. Velocity & revolution

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Wow-flutter generators	30205			Frequency standards,
Wow-flutter Deflection		(0.01 ~ 3) %	6.2×10^{-3}	Frequency counters
				/HCT-CS-049-30205
Frequency		0.1 Hz ~ 99.99 kHz	6.2×10^{-4}	
Level		100 Hz ~ 100 kHz		
		100 mV	1.3×10^{-3}	
		(100 mV ~ 10 V)	1.1×10^{-3}	
Wow-flutter meters	30206			Wow-flutter generators
Wow-flutter Deflection		0.01 %	2.4×10^{-4} %	/HCT-CS-050-30206
		0.03 %	4.6×10^{-4} %	
		0.1 %	1.6×10^{-3} %	
		0.3 %	4.6×10^{-3} %	
		1 %	1.5×10^{-2} %	
		3 %	4.5×10^{-2} %	
Input frequency		10 Hz	0.58 Hz	
		99.99 kHz	5.8 Hz	
Output frequency		3.00 kHz	0.58 Hz	
		3.15 kHz	0.58 Hz	

401. DC voltage & current

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
DC ammeters	40101			Current calibrator,
DC Current		(±)		Multimeter calibrator,
		10 pA	20 fA	High Resistance
		(10 ~ 40) pA	24 fA	/HCT-CS-051-40101
		(40 ~ 100) pA	41 fA	
		(100 ~ 400) pA	52 fA	
		(400 ~ 800) pA	97 fA	
		800 pA ~ 4 nA	0.12 pA	
		(4 ~ 10) nA	0.27 pA	
		(10 ~ 40) nA	1.3 pA	
		(40 ~ 100) nA	2.2 pA	
		(100 ~ 400) nA	11 pA	
		(400 ~ 800) nA	22 pA	
		800 nA~ 1 μA	27 pA	
		(1 ~ 4) μA	7.2 nA	
		(4 ~ 10) μA	7.4 nA	
		(10 ~ 40) μA	9.1 nA	
		(40 ~ 80) μA	11 nA	
		(80 ~ 100) μA	12 nA	
		(100 ~ 400) μA	29 nA	
		(400 ~ 800) μA	43 nA	
		(0.8 ~ 1) mA	51 nA	
		(1 ~ 4) mA	0.25 μA	
		(4 ~ 8) mA	0.40 μA	
		(8 ~ 10) mA	0.48 μA	
		(10 ~ 40) mA	3.3 μA	
		(40 ~ 80) mA	5.2 μA	
		(80 ~ 100) mA	6.5 μA	
		(100 ~ 400) mA	59 μA	
		(400 ~ 800) mA	93 μA	
		(0.8 ~ 1) A	0.12 mA	
		(1 ~ 4) A	1.4 mA	
		(4 ~ 8) A	1.9 mA	
		(8 ~ 10) A	2.0 mA	
		(10 ~ 40) A	22 mA	
		(40 ~ 80) A	24 mA	
		(80 ~ 100) A	26 mA	

401. DC voltage & current

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Transconductance amplifiers	40102			Digital multimeters,
DC Current		0 μA	1.0 nA	Current shunts,
				Multimeter calibrators
		(±)		/HCT-CS-052-40102
		(0 ~ 40) μA	1.1 nA	
		(40 ~ 100) μA	2.6 nA	
		(100 ~ 400) μA	11 nA	
		(0.4 ~ 1) mA	26 nA	
		(1 ~ 4) mA	0.10 μA	
		(4 ~ 10) mA	0.25 μA	
		(10 ~ 40) mA	1.1 μA	
		(40 ~ 100) mA	2.5 μA	
		(100 ~ 400) mA	12 μA	
		(0.4 ~ 1) A	28 μA	
		(1 ~ 4) A	0.14 mA	
		(4 ~ 8) A	0.27 mA	
		(8 ~ 10) A	0.34 mA	
		(10 ~ 40) A	1.9 mA	
		(40 ~ 80) A	3.7 mA	
		(80 ~ 100) A	4.6 mA	
AC Current		50 Hz		
		100 μA	20 nA	
		(100 ~ 400) μA	77 nA	
		400 μA ~ 1 mA	0.14 μA	
		(1 ~ 4) mA	0.72 μA	
		(4 ~ 10) mA	1.3 μA	
		(10 ~ 40) mA	7.2 μA	
		(40 ~ 100) mA	13 μA	
		(100 ~ 400) mA	73 μA	
		400 mA ~ 1 A	0.13 mA	
		(1 ~ 4) A	0.74 mA	
		(4 ~ 10) A	1.4 mA	
		(10 ~ 40) A	7.9 mA	
		(40 ~ 100) A	16 mA	
		(50 ~ 100) Hz		
		100 μA	20 nA	
		(100 ~ 400) μA	74 nA	
		400 μA ~ 1 mA	0.14 μA	
		(1 ~ 4) mA	0.69 μA	
		(4 ~ 10) mA	1.3 μA	

401. DC voltage & current

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Transconductance amplifiers	40102			Digital multimeters,
AC Current		(10 ~ 40) mA	6.9 μA	Current shunts,
		(40 ~ 100) mA	13 μA	Multimeter calibrators
		(100 ~ 400) mA	70 μA	/HCT-CS-052-40102
		400 mA ~ 1 A	0.13 mA	
		(1 ~ 4) A	0.71 mA	
		(4 ~ 10) A	1.4 mA	
		(10 ~ 40) A	7.7 mA	
		(40 ~ 100) A	15 mA	
		100 Hz ~ 1 kHz		
		100 μA	17 nA	
		(100 ~ 400) μA	66 nA	
		(400 ~ 800) μA	0.10 μA	
		800 μA ~ 1 mA	0.11 μA	
		(1 ~ 4) mA	0.60 μA	
		(4 ~ 10) mA	1.1 μA	
		(10 ~ 40) mA	6.1 μA	
		(40 ~ 100) mA	11 μA	
		(100 ~ 400) mA	61 μA	
		400 mA ~ 1 A	0.10 mA	
		(1 ~ 4) A	0.63 mA	
		(4 ~ 10) A	1.2 mA	
		(10 ~ 40) A	6.9 mA	
		(40 ~ 100) A	14 mA	
		(1 ~ 10) kHz		
		100 μA	21 nA	
		(100 ~ 400) μA	78 nA	
		400 μA ~ 4 mA	0.69 μA	
		(4 ~ 10) mA	1.3 μA	
		(10 ~ 40) mA	7.0 μA	
		(40 ~ 100) mA	13 μA	
		(100 ~ 400) mA	70 μA	
		400 mA ~ 1 A	0.13 mA	
		(1 ~ 4) A	0.81 mA	
		(4 ~ 10) A	1.7 mA	
		(10 ~ 40) A	11 mA	
		(40 ~ 100) A	24 mA	

401. DC voltage & current

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Transconductance amplifiers	40102	(10 ~ 100) kHz		Current shunts,
AC Current		100 μA	0.11 μA	Multimeter calibrators
		(100 ~ 400) μA	0.55 μA	/HCT-CS-052-40102
		(400 ~ 800) μA	0.78 μA	
		(0.8 ~ 1) mA	0.90 μA	
		(1 ~ 4) mA	5.4 μA	
		(4 ~ 8) mA	7.7 μA	
		(8 ~ 10) mA	8.8 μA	
		(10 ~ 40) mA	55 μA	
		(40 ~ 80) mA	77 μA	
		(80 ~ 100) mA	88 μA	
		(100 ~ 400) mA	0.54 mA	
		(400 ~ 800) mA	0.77 mA	
		(0.8 ~ 1) A	0.88 mA	
		(1 ~ 4) A	5.5 mA	
		(4 ~ 8) A	7.7 mA	
		(8 ~ 10) A	8.9 mA	
		(10 ~ 40) A	56 mA	
		(40 ~ 80) A	80 mA	
		(80 ~ 100) A	92 mA	

401. DC voltage & current

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
DC Voltage/Current Calibrators	40103			Digital Multimeter, Current Shunt,
DC Currnet		0 pA	26 fA	Picoammeter
		(±)		/HCT-CS-053-40103
		(0 ~ 10) pA	0.13 pA	
		(10 ~ 100) pA	1.2 pA	
		(0.1 ~ 1) nA	27 fA	
		(1 ~ 10) nA	0.15 pA	
		(10 ~ 100) nA	1.2 pA	
		(0.1 ~ 1) μA	11 pA	
		(1 ~ 10) μA	92 pA	
		(10 ~ 100) μA	1.1 nA	
		(0.1 ~ 1) mA	11 nA	
		(1 ~ 10) mA	91 nA	
		(10 ~ 100) mA	1.3 μA	
		(0.1 ~ 1) A	10 μA	
		(1 ~ 10) A	1.2 mA	
		(10 ~ 100) A	27 mA	
DC Voltage		0 mV	0.16 μV	
		(±)		
		(0 ~ 10) mV	0.17 μV	
		(10 ~ 100) mV	0.79 μV	
		(0.1 ~ 1) V	7.2 μV	
		(1 ~ 10) V	72 μV	
		(10 ~ 100) V	0.80 mV	
		(100 ~ 1 000) V	8.2 mV	
DC Currnet(Clamp)		1 A	0.19 A	Clamp Meter
		(1 ~ 3) A	0.23 A	/HCT-CS-053-40103
		(3 ~ 8) A	0.33 A	
		(8 ~ 10) A	0.36 A	
		(10 ~ 20) A	0.53 A	
		(20 ~ 30) A	0.70 A	
		(30 ~ 50) A	1.5 A	
		(50 ~ 80) A	2.0 A	
		(80 ~ 100) A	2.3 A	
		(100 ~ 200) A	4.1 A	
		(200 ~ 300) A	5.9 A	
		(300 ~ 500) A	15 A	
		(500 ~ 700) A	18 A	
		(700 ~ 900) A	22 A	
		(900 ~ 1 000) A	24 A	

401. DC voltage & current

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Electrical temperature calibrators	40104			Digital Multimeter, Multimeter calibrators /HCT-CS-205-40104
DC Current(Source)		1 mA	63 nA	
		(1 ~ 10) mA	0.16 μA	
		(10 ~ 20) mA	1.7 μA	
		(20 ~ 30) mA	2.1 μA	
DC Voltage(Source)		(-10 ~ 0) mV	0.28 μV	
		0 mV	0.13 μV	
		(0 ~ 10) mV	0.28 μV	
		(10 ~ 100) mV	0.49 μV	
		(0.1 ~ 1) V	7.2 μV	
		(1 ~ 30) V	0.20 mV	
Resistance(Source)		10 Ω	0.12 mΩ	
		(10 ~ 100) Ω	1.1 mΩ	
		100 Ω ~ 1 kΩ	23 mΩ	
		(1 ~ 10) kΩ	0.11 Ω	
		(10 ~ 100) kΩ	1.1 Ω	
DC Current(Meter)		1 mA	80 nA	
		(1 ~ 10) mA	0.48 μA	
		(10 ~ 20) mA	0.87 μA	
		(20 ~ 30) mA	2.5 μA	
		(30 ~ 50) mA	3.5 μA	
		(50 ~ 70) mA	4.5 μA	
		(70 ~ 100) mA	6.0 μA	
DC Voltage(Meter)		(-10 ~ 0) mV	0.59 μV	
		0 mV	0.50 μV	
		(0 ~ 1) mV	0.52 μV	
		(1 ~ 10) mV	0.59 μV	
		(10 ~ 100) mV	1.3 μV	
		(0.1 ~ 1) V	61 μV	
		(1 ~ 10) V	0.24 mV	
		(10 ~ 100) V	0.88 mV	
		(100 ~ 200) V	2.3 mV	
		(200 ~ 300) V	3.0 mV	

401. DC voltage & current

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Electrical temperature calibrators	40104			Digital Multimeter,
				Multimeter calibrators
Resistance (Meter)		10 Ω	0.28 mΩ	/HCT-CS-205-40104
		(10 ~ 100) Ω	1.5 mΩ	
		(0.1 ~ 1) kΩ	11 mΩ	
		(1 ~ 10) kΩ	0.11 Ω	
		(10 ~ 100) kΩ	1.3 Ω	
DC current shunts	40105			Digital multimeters,
Resistance		25 μΩ	6.1 nΩ	Multimeter calibrators,
		(25 ~ 50) μΩ	8.7 nΩ	Current calibrators
		(50 ~ 100) μΩ	16 nΩ	/HCT-CS-054-40105
		(0.1 ~ 0.333 3) mΩ	50 nΩ	
		(0.333 3 ~ 0.5) mΩ	72 nΩ	
		(0.5 ~ 1) mΩ	0.14 μΩ	
		(1 ~ 8) mΩ	1.2 μΩ	
		(8 ~ 10) mΩ	4.0 μΩ	
		(10 ~ 16) mΩ	2.3 μΩ	
		(16 ~ 80) mΩ	13 μΩ	
		(0.08 ~ 0.1) Ω	11 μΩ	
		(0.1 ~ 0.16) Ω	33 μΩ	
		(0.16 ~ 0.4) Ω	41 μΩ	
		(0.4 ~ 0.8) Ω	86 μΩ	
		(0.8 ~ 1) Ω	62 μΩ	
		(1 ~ 1.6) Ω	0.20 mΩ	
		(1.6 ~ 4) Ω	0.70 mΩ	
		(4 ~ 10) Ω	0.49 mΩ	
		(10 ~ 16) Ω	1.2 mΩ	
		(16 ~ 40) Ω	3.8 mΩ	
		(40 ~ 80) Ω	3.9 mΩ	
		(80 ~ 100) Ω	5.3 mΩ	
		(100 ~ 800) Ω	41 mΩ	
		(800 ~ 1 000) Ω	0.12 Ω	

401. DC voltage & current

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Galvanometers/null detectors	40106			Multimeter calibrators,
DC Voltage		3 μV	58 nV	Current shunts
		(3 ~ 10) μV	58 nV	/HCT-CS-247-40106
		(10 ~ 30) μV	0.29 μV	
		(30 ~ 100) μV	0.58 μV	
		(100 ~ 300) μV	2.9 μV	
		(0.3 ~ 1) mV	5.8 μV	
		(1 ~ 3) mV	29 μV	
		(3 ~ 10) mV	58 μV	
		(10 ~ 30) mV	0.29 mV	
		(30 ~ 100) mV	0.58 mV	
		(100 ~ 300) mV	2.9 mV	
		(0.3 ~ 1) V	5.8 mV	
		(1 ~ 3) V	29 mV	
		(3 ~ 10) V	58 mV	
		(10 ~ 30) V	0.29 V	
		(30 ~ 100) V	0.58 V	
		(100 ~ 300) V	2.9 V	
		(300 ~ 1 000) V	5.8 V	
DC Power Supplies	40108			Digital Multimeter,Current Shunt
DC Voltage		0 V	0.63 μV	H.V Meter, Oscilloscope,
		(±)		Electronic Load
		(0 ~ 40) mV	0.70 μV	/HCT-CS-057-40108
		(40 ~ 80) mV	0.75 μV	
		(80 ~ 100) mV	0.79 μV	
		(100 ~ 400) mV	6.6 μV	
		(400 ~ 800) mV	7.0 μV	
		(0.8 ~ 1) V	7.3 μV	
		(1 ~ 4) V	64 μV	
		(4 ~ 8) V	69 μV	
		(8 ~ 10) V	72 μV	
		(10 ~ 40) V	0.67 mV	
		(40 ~ 80) V	0.75 mV	
		(80 ~ 100) V	0.81 mV	
		(100 ~ 400) V	6.8 mV	
		(400 ~ 800) V	7.7 mV	
		(800 ~ 1 000) V	8.2 mV	
		(1 000 ~ 2 000) V	2.4 V	

401. DC voltage & current

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
DC Power Supplies	40108			Digital Multimeter,Current Shunt
DC Current		0 A	0.65 nA	H.V Meter, Oscilloscope,
		(±)		Electronic Load
		(0 ~ 40) μA	1.3 nA	/HCT-CS-057-40108
		(40 ~ 80) μA	2.1 nA	
		(80 ~ 100) μA	2.6 nA	
		(100 ~ 400) μA	12 nA	
		(0.4 ~ 1) mA	26 nA	
		(1 ~ 4) mA	0.12 μA	
		(4 ~ 10) mA	0.26 μA	
		(10 ~ 40) mA	1.3 μA	
		(40 ~ 100) mA	2.6 μA	
		(100 ~ 400) mA	13 μA	
		(400 ~ 800) mA	23 μA	
		(0.8 ~ 1) A	28 μA	
		(1 ~ 4) A	0.15 mA	
		(4 ~ 10) A	0.34 mA	
		(10 ~ 40) A	2.0 mA	
		(40 ~ 100) A	4.6 mA	
		(100 ~ 300) A	61 mA	
		(300 ~ 1 000) A	0.22 A	
		(1 000 ~ 1 500) A	0.31 A	
		(1 500 ~ 2 000) A	0.43 A	
		(2 000 ~ 3 000) A	0.64 A	
Ripple		1 mV	0.12 mV	
		(1 ~ 5) mV	0.12 mV	
		(5 ~ 10) mV	0.16 mV	
		(10 ~ 50) mV	0.66 mV	
Load&Line Regulation		1 mV	0.64 μV	
		(1 ~ 5) mV	0.64 μV	
		(5 ~ 500) mV	58 μV	

401. DC voltage & current

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
DC voltage dividers	40110			High voltage deviders,
Ratio		1 000 : 1		High voltage generators,
		1 kV	4.8×10^{-4}	Digital Multimeters
		(1 ~ 100) kV	4.8×10^{-4}	/HCT-CS-348-40110
		10 000 : 1		
		1 kV	4.8×10^{-4}	
		(1 ~ 100) kV	4.8×10^{-4}	
DC voltage standards	40111			Standard cells, Digital multimeters
DC Voltage		1.018 V	1.5×10^{-6}	/HCT-CS-275-40111
		10 V	2.4×10^{-6}	
DC voltmeters	40112			Current calibrators,
DC Voltage		0 V	0.49 μV	Multimeter calibrators
		(±)		/HCT-CS-197-40112
		(0 ~ 4) mV	0.54 μV	
		(4 ~ 8) mV	0.57 μV	
		(8 ~ 10) mV	0.59 μV	
		(10 ~ 40) mV	0.84 μV	
		(40 ~ 80) mV	1.2 μV	
		(80 ~ 100) mV	1.3 μV	
		(100 ~ 400) mV	3.3 μV	
		(400 ~ 800) mV	5.6 μV	
		(0.8 ~ 1) V	6.7 μV	
		(1 ~ 4) V	22 μV	
		(4 ~ 8) V	38 μV	
		(8 ~ 10) V	46 μV	
		(10 ~ 40) V	0.29 mV	
		(40 ~ 80) V	0.52 mV	
		(80 ~ 100) V	0.63 mV	
		(100 ~ 400) V	3.8 mV	
		(400 ~ 800) V	6.6 mV	
		(800 ~ 1 000) V	8.2 mV	
Static/Ionic voltmeters	40113			Multimeter calibrators,
DC Voltage		(±)		High voltage generators
		10 V	62 mV	/HCT-CS-058-40113
		(10 ~ 500) V	62 mV	
		(0.5 ~ 1) kV	0.62 V	
		(1 ~ 10) kV	10 V	
		(10 ~ 20) kV	17 V	
		(20 ~ 30) kV	24 V	
		(30 ~ 40) kV	32 V	
		(40 ~ 48) kV	39 V	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Capacitance bridges/indicators	40201			Counter, Digital Multimeter
Frequency		10 Hz	5.8 mHz	/HCT-CS-059-40201
		10 Hz ~ 10 kHz	5.8 mHz	
		(10 ~ 100) kHz	5.9 mHz	
		(0.1 ~ 1) MHz	8.2 mHz	
		(1 ~ 10) MHz	0.59 Hz	
		(10 ~ 30) MHz	0.61 Hz	
AC Voltage		100 mV		Digital Multimeter
		20 Hz	20 uV	/HCT-CS-059-40201
		(0.02 ~ 1) kHz	16 uV	
		(1 ~ 10) kHz	22 uV	
		(10 ~ 100) kHz	0.11 mV	
		100 kHz ~ 1 MHz	25 mV	
		(0.1 ~ 1) V		
		20 Hz	0.64 mV	
		(0.02 ~ 10) kHz	0.59 mV	
		(10 ~ 100) kHz	1.1 mV	
		(0.1 ~ 1) MHz	35 mV	
		(1 ~ 10) V		
		20 Hz	6.4 mV	
		(0.02 ~ 10) kHz	5.9 mV	
		(10 ~ 100) kHz	10 mV	
		(0.1 ~ 1) MHz	0.35 V	
		(10 ~ 20) V		
		20 Hz	18 mV	
		(0.02 ~ 1) kHz	6.9 mV	
		(1 ~ 10) kHz	7.4 mV	
		(10 ~ 100) kHz	37 mV	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Capacitance bridges/indicators	40201			Standard capacitor
Capacitance		1 pF		/HCT-CS-059-40201
		60 Hz	0.76 fF	
		(60 ~ 400) Hz	0.75 fF	
		400 Hz ~ 1 MHz	0.76 fF	
		(1 ~ 2) MHz	0.78 fF	
		(2 ~ 3) MHz	0.86 fF	
		(3 ~ 4) MHz	0.98 fF	
		(4 ~ 5) MHz	1.2 fF	
		(5 ~ 10) MHz	2.6 fF	
		(10 ~ 13) MHz	3.8 fF	
		(1 ~ 10) pF		
		60 Hz	3.6 fF	
		60 Hz ~ 5 MHz	3.6 fF	
		(5 ~ 10) MHz	3.8 fF	
		(10 ~ 13) MHz	3.9 fF	
		(10 ~ 100) pF		
		60 Hz	35 fF	
		(60 ~ 400) Hz	35 fF	
		400 Hz ~ 4 MHz	36 fF	
		(4 ~ 5) MHz	38 fF	
		(5 ~ 10) MHz	49 fF	
		(10 ~ 13) MHz	61 fF	
		(100 ~ 1 000) pF		
		60 Hz	0.35 pF	
		(60 ~ 400) Hz	0.35 pF	
		400 Hz ~ 1 MHz	0.36 pF	
		(1 ~ 2) MHz	0.38 pF	
		(2 ~ 3) MHz	0.45 pF	
		(3 ~ 4) MHz	0.57 pF	
		(4 ~ 5) MHz	0.72 pF	
		(5 ~ 10) MHz	2.0 pF	
		(10 ~ 13) MHz	3.0 pF	
		(1 ~ 10) nF		
		60 Hz	1.4 pF	
		60 Hz ~ 100 kHz	0.82 pF	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Capacitance bridges/indicators	40201			Standard capacitor
Capacitance		(10 ~ 100) nF		/HCT-CS-059-40201
		60 Hz	36 pF	
		60 Hz ~ 100 kHz	8.2 pF	
		(0.1 ~ 1) µF		
		60 Hz	0.66 nF	
		60 Hz ~ 10 kHz	0.11 nF	
		(10 ~ 100) kHz	0.13 nF	
		(1 ~ 10) µF		
		100 Hz	4.7 nF	
		100 Hz ~ 1 kHz	3.2 nF	
		(10 ~ 100) µF		
		100 Hz	77 nF	
		100 Hz ~ 1 kHz	71 nF	
		(0.1 ~ 1) mF		
		100 Hz	1.2 µF	
		100 Hz ~ 1 kHz	2.3 µF	
Decade capacitors	40202			Capacitance bridges, LCR meters
		1 kHz		/HCT-CS-060-40202
		1 pF	0.07 fF	
		(1 ~ 10) pF	0.12 fF	
		(10 ~ 100) pF	1.2 fF	
		(100 ~ 1 000) pF	12 fF	
		(1 ~ 10) nF	0.21 pF	
		(10 ~ 100) nF	5.1 pF	
		(100 ~ 1 000) nF	0.11 nF	
		(1 ~ 2) µF	3.1 nF	
		(2 ~ 3) µF	3.9 nF	
		(3 ~ 4) µF	4.8 nF	
		(4 ~ 5) µF	5.7 nF	
		(5 ~ 6) µF	6.7 nF	
		(6 ~ 7) µF	7.7 nF	
		(7 ~ 8) µF	8.7 nF	
		(8 ~ 9) µF	10 nF	
		(9 ~ 10) µF	11 nF	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Decade capacitors	40202	120 Hz		Capacitance bridges,
		10 μF	33 nF	LCR meters
		(10 ~ 20) μF	39 nF	/HCT-CS-060-40202
		(20 ~ 30) μF	47 nF	
		(30 ~ 40) μF	56 nF	
		(40 ~ 50) μF	66 nF	
		(50 ~ 60) μF	76 nF	
		(60 ~ 70) μF	87 nF	
		(70 ~ 80) μF	0.10 μF	
		(80 ~ 90) μF	0.11 μF	
		(90 ~ 100) μF	0.12 μF	
		(0.1 ~ 0.2) mF	0.64 μF	
		(0.2 ~ 0.3) mF	0.88 μF	
		(0.3 ~ 0.4) mF	1.2 μF	
		(0.4 ~ 0.5) mF	1.4 μF	
		(0.5 ~ 0.6) mF	1.7 μF	
		(0.6 ~ 0.7) mF	1.9 μF	
		(0.7 ~ 0.8) mF	2.2 μF	
		(0.8 ~ 0.9) mF	2.5 μF	
		(0.9 ~ 1) mF	2.7 μF	
		12.5 kHz		
		1 pF	4.5 fF	
		(1 ~ 2) pF	6.3 fF	
		(2 ~ 3) pF	8.5 fF	
		(3 ~ 4) pF	11 fF	
		(4 ~ 5) pF	14 fF	
		(5 ~ 6) pF	16 fF	
		(6 ~ 7) pF	19 fF	
		(7 ~ 8) pF	21 fF	
		(8 ~ 9) pF	24 fF	
		(9 ~ 10) pF	26 fF	
		(10 ~ 20) pF	45 fF	
		(20 ~ 30) pF	53 fF	
		(30 ~ 40) pF	63 fF	
		(40 ~ 50) pF	74 fF	
		(50 ~ 60) pF	85 fF	
		(60 ~ 70) pF	96 fF	
		(70 ~ 80) pF	0.11 pF	
		(80 ~ 90) pF	0.12 pF	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Decade capacitors	40202	(90 ~ 100) pF	0.14 pF	Capacitance bridges, LCR meters
		(100 ~ 200) pF	0.43 pF	/HCT-CS-060-40202
		(200 ~ 300) pF	0.50 pF	
		(300 ~ 400) pF	0.59 pF	
		(400 ~ 500) pF	0.69 pF	
		(500 ~ 600) pF	0.79 pF	
		(600 ~ 700) pF	0.89 pF	
		(700 ~ 800) pF	1.0 pF	
		(800 ~ 900) pF	1.2 pF	
		(900 ~ 1 000) pF	1.3 pF	
		(1 ~ 2) nF	4.3 pF	
		(2 ~ 3) nF	5.0 pF	
		(3 ~ 4) nF	5.9 pF	
		(4 ~ 5) nF	6.9 pF	
		(5 ~ 6) nF	7.9 pF	
		(6 ~ 7) nF	8.9 pF	
		(7 ~ 8) nF	10 pF	
		(8 ~ 9) nF	12 pF	
		(9 ~ 10) nF	13 pF	
		(10 ~ 20) nF	43 pF	
		(20 ~ 30) nF	50 pF	
		(30 ~ 40) nF	59 pF	
		(40 ~ 50) nF	69 pF	
		(50 ~ 60) nF	79 pF	
		(60 ~ 70) nF	89 pF	
		(70 ~ 80) nF	0.10 nF	
		(80 ~ 90) nF	0.12 nF	
		(90 ~ 100) nF	0.13 nF	
		(100 ~ 200) nF	0.45 nF	
		(200 ~ 300) nF	0.53 nF	
		(300 ~ 400) nF	0.63 nF	
		(400 ~ 500) nF	0.74 nF	
		(500 ~ 600) nF	0.85 nF	
		(600 ~ 700) nF	0.96 nF	
		(700 ~ 800) nF	1.1 nF	
		(800 ~ 900) nF	1.2 nF	
		(900 ~ 1 000) nF	1.4 nF	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Decade capacitors	40202	100 kHz		Capacitance bridges, LCR meters
		1 pF	3.9 fF	/HCT-CS-060-40202
		(1 ~ 2) pF	4.5 fF	
		(2 ~ 3) pF	5.3 fF	
		(3 ~ 4) pF	6.3 fF	
		(4 ~ 5) pF	7.4 fF	
		(5 ~ 6) pF	8.5 fF	
		(6 ~ 7) pF	9.6 fF	
		(7 ~ 8) pF	11 fF	
		(8 ~ 9) pF	12 fF	
		(9 ~ 10) pF	14 fF	
		(10 ~ 20) pF	43 fF	
		(20 ~ 30) pF	50 fF	
		(30 ~ 40) pF	59 fF	
		(40 ~ 50) pF	69 fF	
		(50 ~ 60) pF	79 fF	
		(60 ~ 70) pF	89 fF	
		(70 ~ 80) pF	0.10 pF	
		(80 ~ 90) pF	0.12 pF	
		(90 ~ 100) pF	0.13 pF	
		(100 ~ 200) pF	0.43 pF	
		(200 ~ 300) pF	0.50 pF	
		(300 ~ 400) pF	0.59 pF	
		(400 ~ 500) pF	0.69 pF	
		(500 ~ 600) pF	0.79 pF	
		(600 ~ 700) pF	0.89 pF	
		(700 ~ 800) pF	1.0 pF	
		(800 ~ 900) pF	1.2 pF	
		(900 ~ 1 000) pF	1.3 pF	
		(1 ~ 2) nF	4.3 pF	
		(2 ~ 3) nF	5.0 pF	
		(3 ~ 4) nF	5.9 pF	
		(4 ~ 5) nF	6.9 pF	
		(5 ~ 6) nF	7.9 pF	
		(6 ~ 7) nF	8.9 pF	
		(7 ~ 8) nF	10 pF	
		(8 ~ 9) nF	12 pF	
		(9 ~ 10) nF	13 pF	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Decade capacitors	40202	500 kHz		Capacitance bridges, LCR meters
		1 pF	4.0 fF	/HCT-CS-060-40202
		(1 ~ 2) pF	4.9 fF	
		(2 ~ 3) pF	6.1 fF	
		(3 ~ 4) pF	7.5 fF	
		(4 ~ 5) pF	8.9 fF	
		(5 ~ 6) pF	11 fF	
		(6 ~ 7) pF	12 fF	
		(7 ~ 8) pF	14 fF	
		(8 ~ 9) pF	15 fF	
		(9 ~ 10) pF	17 fF	
		(10 ~ 20) pF	47 fF	
		(20 ~ 30) pF	58 fF	
		(30 ~ 40) pF	71 fF	
		(40 ~ 50) pF	84 fF	
		(50 ~ 60) pF	98 fF	
		(60 ~ 70) pF	0.12 pF	
		(70 ~ 80) pF	0.13 pF	
		(80 ~ 90) pF	0.14 pF	
		(90 ~ 100) pF	0.16 pF	
		(100 ~ 200) pF	0.47 pF	
		(200 ~ 300) pF	0.58 pF	
		(300 ~ 400) pF	0.71 pF	
		(400 ~ 500) pF	0.84 pF	
		(500 ~ 600) pF	0.98 pF	
		(600 ~ 700) pF	1.2 pF	
		(700 ~ 800) pF	1.3 pF	
		(800 ~ 900) pF	1.4 pF	
		(900 ~ 1 000) pF	1.6 pF	
		1 MHz		
		1 pF	6.5 fF	
		(1 ~ 2) pF	7.3 fF	
		(2 ~ 3) pF	8.4 fF	
		(3 ~ 4) pF	9.7 fF	
		(4 ~ 5) pF	12 fF	
		(5 ~ 6) pF	13 fF	
		(6 ~ 7) pF	15 fF	
		(7 ~ 8) pF	17 fF	
		(8 ~ 9) pF	18 fF	
		(9 ~ 10) pF	20 fF	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Decade capacitors	40202	(10 ~ 20) pF	72 fF	Capacitance bridges, LCR meters
		(20 ~ 30) pF	81 fF	/HCT-CS-060-40202
		(30 ~ 40) pF	93 fF	
		(40 ~ 50) pF	0.11 pF	
		(50 ~ 60) pF	0.13 pF	
		(60 ~ 70) pF	0.14 pF	
		(70 ~ 80) pF	0.16 pF	
		(80 ~ 90) pF	0.17 pF	
		(90 ~ 100) pF	0.19 pF	
		(100 ~ 200) pF	0.72 pF	
		(200 ~ 300) pF	0.81 pF	
		(300 ~ 400) pF	0.93 pF	
		(400 ~ 500) pF	1.1 pF	
		(500 ~ 600) pF	1.3 pF	
		(600 ~ 700) pF	1.4 pF	
		(700 ~ 800) pF	1.6 pF	
		(800 ~ 900) pF	1.7 pF	
		(900 ~ 1 000) pF	1.9 pF	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Standard capacitors	40204	1 kHz		Capacitance bridges, LCR meters
		1 pF	21 aF	/HCT-CS-061-40204
		10 pF	0.12 fF	
		100 pF	1.2 fF	
		1 nF	12 fF	
		10 nF	0.21 pF	
		100 nF	5.1 pF	
		1 μF	0.12 nF	
		10 μF	12 nF	
		120 Hz		
		100 μF	0.12 μF	
		1 mF	1.3 μF	
		12.5 kHz		
		1 pF	15 fF	
		10 pF	26 fF	
		100 pF	0.14 pF	
		1 nF	1.2 pF	
		10 nF	13 pF	
		100 nF	0.13 nF	
		1 μF	1.4 nF	
		100 kHz		
		1 pF	2.6 fF	
		10 pF	14 fF	
		100 pF	0.13 pF	
		1 nF	1.3 pF	
		10 nF	13 pF	
		500 kHz		
		1 pF	3.5 fF	
		10 pF	17 fF	
		100 pF	0.16 pF	
		1 nF	1.6 pF	
		1 MHz		
		1 pF	2.9 fF	
		10 pF	20 fF	
		100 pF	0.19 pF	
		1 nF	1.9 pF	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Earth testers	40205			Decade resistor, Standard Resistors
Resistance		0.01 Ω	71 μΩ	/HCT-CS-062-40205
		(0.01 ~ 0.1) Ω	71 μΩ	
		(0.1 ~ 0.2) Ω	0.10 mΩ	
		(0.2 ~ 0.3) Ω	0.14 mΩ	
		(0.3 ~ 0.4) Ω	0.18 mΩ	
		(0.4 ~ 0.5) Ω	0.21 mΩ	
		(0.5 ~ 0.6) Ω	0.25 mΩ	
		(0.6 ~ 0.7) Ω	0.28 mΩ	
		(0.7 ~ 0.8) Ω	0.32 mΩ	
		(0.8 ~ 0.9) Ω	0.36 mΩ	
		(0.9 ~ 1) Ω	0.39 mΩ	
		(1 ~ 2) Ω	0.60 mΩ	
		(2 ~ 3) Ω	0.62 mΩ	
		(3 ~ 4) Ω	0.65 mΩ	
		(4 ~ 5) Ω	0.69 mΩ	
		(5 ~ 6) Ω	0.73 mΩ	
		(6 ~ 7) Ω	0.78 mΩ	
		(7 ~ 8) Ω	0.82 mΩ	
		(8 ~ 9) Ω	0.88 mΩ	
		(9 ~ 10) Ω	0.93 mΩ	
		(10 ~ 20) Ω	5.8 mΩ	
		(20 ~ 30) Ω	5.9 mΩ	
		(30 ~ 50) Ω	6.0 mΩ	
		(50 ~ 60) Ω	6.1 mΩ	
		(60 ~ 70) Ω	6.3 mΩ	
		(70 ~ 80) Ω	6.4 mΩ	
		(80 ~ 90) Ω	6.6 mΩ	
		(90 ~ 100) Ω	6.7 mΩ	
		(100 ~ 200) Ω	58 mΩ	
		(200 ~ 400) Ω	59 mΩ	
		(400 ~ 500) Ω	60 mΩ	
		(500 ~ 600) Ω	61 mΩ	
		(600 ~ 700) Ω	62 mΩ	
		(700 ~ 800) Ω	63 mΩ	
		(800 ~ 900) Ω	64 mΩ	
		(900 ~ 1 000) Ω	66 mΩ	
		(1 ~ 2) kΩ	0.58 Ω	
		(2 ~ 5) kΩ	0.59 Ω	
		(5 ~ 6) kΩ	0.60 Ω	
		(6 ~ 8) kΩ	0.61 Ω	
		(8 ~ 9) kΩ	0.62 Ω	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Earth testers	40205			Decade resistor, Standard Resistors
Resistance		(9 ~ 10) kΩ	0.63 Ω	/HCT-CS-062-40205
		(10 ~ 20) kΩ	5.8 Ω	
		(20 ~ 50) kΩ	5.9 Ω	
		(50 ~ 60) kΩ	6.0 Ω	
		(60 ~ 80) kΩ	6.1 Ω	
		(80 ~ 90) kΩ	6.2 Ω	
		(90 ~ 100) kΩ	6.3 Ω	
Voltage		50 Hz		Meter Calibrator
		1 V	5.8 mV	/HCT-CS-062-40205
		(1 ~ 20) V	5.9 mV	
		(20 ~ 30) V	6.8 mV	
		(30 ~ 50) V	7.3 mV	
		(50 ~ 100) V	59 mV	
		(100 ~ 200) V	60 mV	
		(200 ~ 300) V	0.14 V	
		(300 ~ 400) V	0.17 V	
		(400 ~ 500) V	0.21 V	
		(500 ~ 600) V	0.24 V	
		(600 ~ 700) V	0.26 V	
		(700 ~ 800) V	0.29 V	
		(800 ~ 900) V	0.33 V	
		(900 ~ 1 000) V	0.36 V	
		50 Hz ~ 1 kHz		
		1 V	5.8 mV	
		(1 ~ 20) V	5.9 mV	
		(20 ~ 30) V	6.8 mV	
		(30 ~ 50) V	7.3 mV	
		(50 ~ 100) V	59 mV	
		(100 ~ 200) V	60 mV	
		(200 ~ 300) V	65 mV	
		(300 ~ 400) V	69 mV	
		(400 ~ 500) V	74 mV	
		(500 ~ 600) V	81 mV	
		(600 ~ 700) V	86 mV	
		(700 ~ 800) V	92 mV	
		(800 ~ 900) V	98 mV	
		(900 ~ 1 000) V	0.11 V	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Earth testers	40205			Digital Multimeter, Current Shunt
Current		50 Hz		/HCT-CS-062-40205
		1 A	2.5 mA	
		(1 ~ 2) A	4.7 mA	
		(2 ~ 4) A	9.3 mA	
		(4 ~ 6) A	14 mA	
		(6 ~ 8) A	19 mA	
		(8 ~ 10) A	23 mA	
		(10 ~ 20) A	27 mA	
		(20 ~ 30) A	40 mA	
		(30 ~ 40) A	53 mA	
		(40 ~ 50) A	66 mA	
		(50 ~ 60) A	79 mA	
		(60 ~ 70) A	0.10 A	
		(70 ~ 80) A	0.11 A	
		(80 ~ 90) A	0.12 A	
		(90 ~ 100) A	0.13 A	
		50 Hz ~ 1 kHz		
		1 A	2.5 mA	
		(1 ~ 2) A	4.7 mA	
		(2 ~ 4) A	9.3 mA	
		(4 ~ 6) A	14 mA	
		(6 ~ 8) A	19 mA	
		(8 ~ 10) A	23 mA	
		(10 ~ 20) A	44 mA	
		(20 ~ 30) A	66 mA	
		(30 ~ 40) A	87 mA	
		(40 ~ 50) A	0.11 A	
		(50 ~ 60) A	0.13 A	
		(60 ~ 70) A	0.14 A	
		(70 ~ 80) A	0.15 A	
		(80 ~ 90) A	0.17 A	
		(90 ~ 100) A	0.19 A	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Earth testers	40205			Decade resistor, Standard Resistors
Ground Bond Resistance		50 Hz		/HCT-CS-062-40205
		1 mΩ	0.1 mΩ	
		(1 ~ 10) mΩ	0.1 mΩ	
		(10 ~ 100) mΩ	1.2 mΩ	
		(100 ~ 200) mΩ	2.4 mΩ	
		(200 ~ 300) mΩ	3.5 mΩ	
		(300 ~ 400) mΩ	4.7 mΩ	
		(400 ~ 500) mΩ	6.0 mΩ	
		(50 ~ 60) Hz		
		1 mΩ	0.1 mΩ	
		(1 ~ 10) mΩ	0.1 mΩ	
		(10 ~ 100) mΩ	1.2 mΩ	
		(100 ~ 200) mΩ	2.4 mΩ	
		(200 ~ 300) mΩ	3.5 mΩ	
		(300 ~ 400) mΩ	4.7 mΩ	
		(400 ~ 500) mΩ	6.0 mΩ	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Inductors	40208	100 Hz		LCR meters
		0.1 mH	0.12 μH	/HCT-CS-063-40208
		(0.1 ~ 0.2) mH	0.34 μH	
		(0.2 ~ 0.3) mH	0.43 μH	
		(0.3 ~ 0.4) mH	0.53 μH	
		(0.4 ~ 0.5) mH	0.63 μH	
		(0.5 ~ 0.6) mH	0.74 μH	
		(0.6 ~ 0.7) mH	0.85 μH	
		(0.7 ~ 0.8) mH	0.96 μH	
		(0.8 ~ 0.9) mH	1.1 μH	
		(0.9 ~ 1) mH	1.2 μH	
		(1 ~ 2) mH	2.8 μH	
		(2 ~ 3) mH	3.1 μH	
		(3 ~ 4) mH	3.4 μH	
		(4 ~ 5) mH	3.9 μH	
		(5 ~ 6) mH	4.3 μH	
		(6 ~ 7) mH	4.8 μH	
		(7 ~ 8) mH	5.3 μH	
		(8 ~ 9) mH	5.8 μH	
		(9 ~ 10) mH	6.3 μH	
		(10 ~ 20) mH	28 μH	
		(20 ~ 30) mH	31 μH	
		(30 ~ 40) mH	34 μH	
		(40 ~ 50) mH	39 μH	
		(50 ~ 60) mH	43 μH	
		(60 ~ 70) mH	48 μH	
		(70 ~ 80) mH	53 μH	
		(80 ~ 90) mH	58 μH	
		(90 ~ 100) mH	63 μH	
		(100 ~ 200) mH	0.28 mH	
		(200 ~ 300) mH	0.31 mH	
		(300 ~ 400) mH	0.34 mH	
		(400 ~ 500) mH	0.39 mH	
		(500 ~ 600) mH	0.43 mH	
		(600 ~ 700) mH	0.48 mH	
		(700 ~ 800) mH	0.53 mH	
		(800 ~ 900) mH	0.58 mH	
		900 mH ~ 1 H	0.63 mH	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Inductors	40208	100 Hz ~ 1 kHz		LCR meters
		0.1 mH	0.12 μH	/HCT-CS-063-40208
		(0.1 ~ 0.2) mH	0.34 μH	
		(0.2 ~ 0.3) mH	0.43 μH	
		(0.3 ~ 0.4) mH	0.53 μH	
		(0.4 ~ 0.5) mH	0.63 μH	
		(0.5 ~ 0.6) mH	0.74 μH	
		(0.6 ~ 0.7) mH	0.85 μH	
		(0.7 ~ 0.8) mH	0.96 μH	
		(0.8 ~ 0.9) mH	1.1 μH	
		(0.9 ~ 1) mH	1.2 μH	
		(1 ~ 2) mH	2.8 μH	
		(2 ~ 3) mH	3.1 μH	
		(3 ~ 4) mH	3.4 μH	
		(4 ~ 5) mH	3.9 μH	
		(5 ~ 6) mH	4.3 μH	
		(6 ~ 7) mH	4.8 μH	
		(7 ~ 8) mH	5.3 μH	
		(8 ~ 9) mH	5.8 μH	
		(9 ~ 10) mH	6.3 μH	
		(10 ~ 20) mH	28 μH	
		(20 ~ 30) mH	31 μH	
		(30 ~ 40) mH	34 μH	
		(40 ~ 50) mH	39 μH	
		(50 ~ 60) mH	43 μH	
		(60 ~ 70) mH	48 μH	
		(70 ~ 80) mH	53 μH	
		(80 ~ 90) mH	58 μH	
		(90 ~ 100) mH	63 μH	
		(100 ~ 200) mH	0.28 mH	
		(200 ~ 300) mH	0.31 mH	
		(300 ~ 400) mH	0.34 mH	
		(400 ~ 500) mH	0.39 mH	
		(500 ~ 600) mH	0.43 mH	
		(600 ~ 700) mH	0.48 mH	
		(700 ~ 800) mH	0.53 mH	
		(800 ~ 900) mH	0.58 mH	
		900 mH ~ 1 H	0.63 mH	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Inductors	40208	1 kHz ~ 10 kHz		LCR meters
		0.1 mH	0.12 μH	/HCT-CS-063-40208
		(0.1 ~ 0.2) mH	0.34 μH	
		(0.2 ~ 0.3) mH	0.43 μH	
		(0.3 ~ 0.4) mH	0.53 μH	
		(0.4 ~ 0.5) mH	0.63 μH	
		(0.5 ~ 0.6) mH	0.74 μH	
		(0.6 ~ 0.7) mH	0.85 μH	
		(0.7 ~ 0.8) mH	0.96 μH	
		(0.8 ~ 0.9) mH	1.1 μH	
		(0.9 ~ 1) mH	1.2 μH	
		(1 ~ 2) mH	2.8 μH	
		(2 ~ 3) mH	3.1 μH	
		(3 ~ 4) mH	3.4 μH	
		(4 ~ 5) mH	3.9 μH	
		(5 ~ 6) mH	4.3 μH	
		(6 ~ 7) mH	4.8 μH	
		(7 ~ 8) mH	5.3 μH	
		(8 ~ 9) mH	5.8 μH	
		(9 ~ 10) mH	6.3 μH	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Insulation testers	40210			Decade Resistor,
Insulation Resistance		1 kΩ	0.62 Ω	High resistance meters
		(1 ~ 2) kΩ	0.62 Ω	/HCT-CS-064-40210
		(2 ~ 5) kΩ	0.64 Ω	
		(5 ~ 7) kΩ	0.66 Ω	
		(7 ~ 10) kΩ	0.70 Ω	
		(10 ~ 20) kΩ	6.2 Ω	
		(20 ~ 50) kΩ	6.4 Ω	
		(50 ~ 70) kΩ	6.5 Ω	
		(70 ~ 100) kΩ	6.9 Ω	
		(100 ~ 200) kΩ	63 Ω	
		(200 ~ 500) kΩ	64 Ω	
		(500 ~ 700) kΩ	65 Ω	
		700 kΩ ~ 1 MΩ	68 Ω	
		(1 ~ 2) MΩ	0.66 kΩ	
		(2 ~ 5) MΩ	0.72 kΩ	
		(5 ~ 7) MΩ	0.79 kΩ	
		(7 ~ 10) MΩ	0.94 kΩ	
		(10 ~ 20) MΩ	12 kΩ	
		(20 ~ 50) MΩ	14 kΩ	
		(50 ~ 70) MΩ	15 kΩ	
		(70 ~ 100) MΩ	19 kΩ	
		(100 ~ 200) MΩ	0.22 MΩ	
		(200 ~ 500) MΩ	0.32 MΩ	
		(500 ~ 700) MΩ	0.43 MΩ	
		700 MΩ ~ 1 GΩ	0.63 MΩ	
		(1 ~ 2) GΩ	4.3 MΩ	
		(2 ~ 5) GΩ	6.8 MΩ	
		(5 ~ 7) GΩ	9.1 MΩ	
		(7 ~ 10) GΩ	12 MΩ	
		(10 ~ 20) GΩ	77 MΩ	
		(20 ~ 50) GΩ	0.14 GΩ	
		(50 ~ 70) GΩ	0.19 GΩ	
		(70 ~ 100) GΩ	0.27 GΩ	
		(100 ~ 200) GΩ	1.4 GΩ	
		(200 ~ 500) GΩ	3.2 GΩ	
		(500 ~ 700) GΩ	4.5 GΩ	
		700 GΩ ~ 1 TΩ	6.3 GΩ	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Insulation testers	40210			Digital Multimeter,
Insulation voltage		25 V	5.8 mV	High Voltage Meter
		(25 ~ 800) V	58 mV	/HCT-CS-064-40210
		(0.8 ~ 1) kV	1.0 V	
		(1 ~ 3) kV	4.6 V	
		(3 ~ 5) kV	6.9 V	
		(5 ~ 8) kV	9.3 V	
		(8 ~ 10) kV	12 V	
AC Voltage		50 Hz		Meter Calibrator
		10 V	5.9 mV	/HCT-CS-064-40210
		(10 ~ 50) V	7.3 mV	
		(50 ~ 100) V	59 mV	
		(100 ~ 300) V	0.14 V	
		(300 ~ 500) V	0.21 V	
		(500 ~ 600) V	0.24 V	
		(600 ~ 800) V	0.31 V	
		(800 ~ 1 000) V	0.38 V	
		50 Hz ~ 1 kHz		
		10 V	5.9 mV	
		(10 ~ 50) V	7.3 mV	
		(50 ~ 100) V	59 mV	
		(100 ~ 300) V	65 mV	
		(300 ~ 500) V	74 mV	
		(500 ~ 600) V	81 mV	
		(600 ~ 800) V	92 mV	
		(800 ~ 1 000) V	0.11 V	
Resistance		1 Ω	5.8 mΩ	Decade Resistor,
		(1 ~ 10) Ω	5.9 mΩ	High resistance meters
		(10 ~ 100) Ω	7.0 mΩ	/HCT-CS-064-40210
		(100 ~ 500) Ω	61 mΩ	
		500 Ω ~ 1 kΩ	67 mΩ	
		(1 ~ 5) kΩ	0.60 Ω	
		(5 ~ 10) kΩ	0.67 Ω	
		(10 ~ 50) kΩ	6.0 Ω	
		(50 ~ 100) kΩ	6.6 Ω	
		(100 ~ 500) kΩ	61 Ω	
		500 kΩ ~ 1 MΩ	65 Ω	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Insulation testers	40210			Decade Resistor,
Resistance		(1 ~ 5) MΩ	0.69 kΩ	High resistance meters
		(5 ~ 10) MΩ	0.92 kΩ	/HCT-CS-064-40210
		(10 ~ 50) MΩ	14 kΩ	
		(50 ~ 100) MΩ	19 kΩ	
		(100 ~ 500) MΩ	0.32 MΩ	
		500 MΩ ~ 1 GΩ	0.62 MΩ	
DC Voltage		(1 ~ 10) V	0.58 mV	Meter Calibrator
		(10 ~ 50) V	0.68 mV	/HCT-CS-064-40210
		(50 ~ 100) V	5.8 mV	
		(100 ~ 200) V	6.2 mV	
		(200 ~ 400) V	20 mV	
		(400 ~ 600) V	29 mV	
		(600 ~ 800) V	38 mV	
		(800 ~ 1 000) V	47 mV	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Q-meters	40211			Digital multimeter
AC Voltage		1 kHz		/HCT-CS-065-40211
		10 mV	58 μV	
		100 mV	0.58 mV	
		1 V	0.59 mV	
		10 V	5.9 mV	
Frequency		1 kHz	5.8 mHz	Frequency Counter,
		(1 ~ 100) kHz	5.8 mHz	Digital multimeter
		100 kHz ~ 1 MHz	8.2 mHz	/HCT-CS-065-40211
		(1 ~ 10) MHz	0.58 Hz	
		(10 ~ 100) MHz	0.82 Hz	
Resistance bridges & Similar instruments	40213			Standard Resistor,
MEASURING ARM		0.01 Ω	9.6 μΩ	Digital multimeters
		(0.01 ~ 0.1) Ω	11 μΩ	/HCT-CS-066-40213
		(0.1 ~ 1) Ω	19 μΩ	
		(1 ~ 10) Ω	0.11 mΩ	
		(10 ~ 100) Ω	0.92 mΩ	
		(0.1 ~ 1) kΩ	9.1 mΩ	
		(1 ~ 10) kΩ	90 mΩ	
		(10 ~ 100) kΩ	1.0 Ω	
		(0.1 ~ 1) MΩ	11 Ω	
		(1 ~ 10) MΩ	0.24 kΩ	
		(10 ~ 100) MΩ	16 kΩ	
RATIO ARM		× 0.001	5.9×10^{-8}	
		× 0.01	5.9×10^{-7}	
		× 0.1	5.9×10^{-6}	
		× 1	5.9×10^{-5}	
		× 10	5.9×10^{-4}	
		× 100	5.9×10^{-3}	
		× 1 000	6.0×10^{-2}	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Resistance meters	40214			Standard Resistor,
DC Resistance		25 μΩ	0.17 μΩ	High resistance meter
		50 μΩ	0.10 μΩ	/HCT-CS-067-40214
		100 μΩ	83 nΩ	
		500 μΩ	0.13 μΩ	
		1 mΩ	0.25 μΩ	
		(1 ~ 10) mΩ	1.2 μΩ	
		(10 ~ 100) mΩ	0.68 μΩ	
		(100 ~ 1 000) mΩ	3.3 μΩ	
		(1 ~ 3) Ω	0.24 mΩ	
		(3 ~ 5) Ω	0.38 mΩ	
		(5 ~ 8) Ω	0.59 mΩ	
		(8 ~ 10) Ω	0.74 mΩ	
		(10 ~ 30) Ω	1.2 mΩ	
		(30 ~ 50) Ω	1.9 mΩ	
		(50 ~ 80) Ω	2.9 mΩ	
		(80 ~ 100) Ω	3.6 mΩ	
		(100 ~ 300) Ω	10 mΩ	
		(300 ~ 500) Ω	17 mΩ	
		(500 ~ 800) Ω	27 mΩ	
		800 Ω ~ 1 kΩ	34 mΩ	
		(1 ~ 3) kΩ	0.19 Ω	
		(3 ~ 5) kΩ	0.32 Ω	
		(5 ~ 8) kΩ	0.55 Ω	
		(8 ~ 10) kΩ	0.63 Ω	
		(10 ~ 30) kΩ	1.1 Ω	
		(30 ~ 50) kΩ	1.6 Ω	
		(50 ~ 80) kΩ	2.5 Ω	
		(80 ~ 100) kΩ	3.1 Ω	
		(100 ~ 300) kΩ	14 Ω	
		(300 ~ 500) kΩ	17 Ω	
		(500 ~ 800) kΩ	24 Ω	
		800 kΩ ~ 1 MΩ	29 Ω	
		(1 ~ 3) MΩ	0.21 kΩ	
		(3 ~ 5) MΩ	0.25 kΩ	
		(5 ~ 8) MΩ	0.38 kΩ	
		(8 ~ 10) MΩ	0.47 kΩ	
		(10 ~ 30) MΩ	11 kΩ	
		(30 ~ 50) MΩ	13 kΩ	
		(50 ~ 80) MΩ	15 kΩ	
		(80 ~ 100) MΩ	18 kΩ	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Resistance meters	40214			Standard Resistor,
DC Resistance		(100 ~ 300) MΩ	0.22 MΩ	High resistance meter
		(300 ~ 500) MΩ	0.32 MΩ	/HCT-CS-067-40214
		(500 ~ 800) MΩ	0.53 MΩ	
		800 MΩ ~ 1 GΩ	0.63 MΩ	
		(1 ~ 3) GΩ	5.4 MΩ	
		(3 ~ 5) GΩ	6.8 MΩ	
		(5 ~ 8) GΩ	9.4 MΩ	
		(8 ~ 10) GΩ	12 MΩ	
		(10 ~ 30) GΩ	94 MΩ	
		(30 ~ 50) GΩ	0.14 GΩ	
		(50 ~ 80) GΩ	0.22 GΩ	
		(80 ~ 100) GΩ	0.27 GΩ	
		(100 ~ 300) GΩ	2.1 GΩ	
		(300 ~ 500) GΩ	3.3 GΩ	
		(500 ~ 800) GΩ	5.1 GΩ	
		800 GΩ ~ 1 TΩ	6.3 GΩ	
		(1 ~ 8) TΩ	0.58 TΩ	
		(8 ~ 10) TΩ	0.63 TΩ	
Frequency		10 Hz	5.8 mHz	Digital multimeter,Counter
		10 Hz ~ 100 kHz	5.8 mHz	/HCT-CS-067-40214
		100 kHz ~ 1 MHz	8.2 mHz	
AC Voltage		50 Hz		Digital multimeter
		100 mV	18 μV	/HCT-CS-067-40214
		(0.1 ~ 1) V	0.14 mV	
		(1 ~ 10) V	1.4 mV	
		(10 ~ 100) V	14 mV	
		(100 ~ 1 000) V	0.14 V	
		60 Hz		
		100 mV	16 μV	
		(0.1 ~ 1) V	0.11 mV	
		(1 ~ 10) V	1.1 mV	
		(10 ~ 100) V	12 mV	
		(100 ~ 1 000) V	0.14 V	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Resistance meters	40214			Digital multimeter
AC Voltage		1 kHz		/HCT-CS-067-40214
		10 mV	6.9 μV	
		(10 ~ 100) mV	18 μV	
		(0.1 ~ 1) V	0.11 mV	
		(1 ~ 10) V	1.1 mV	
		(10 ~ 100) V	12 mV	
		(100 ~ 1 000) V	0.14 V	
AC Resistance		1 kHz		Standard Resistor,
		1 mΩ	5.2 μΩ	High resistance meter,
		10 mΩ	13 μΩ	/HCT-CS-067-40214
		100 mΩ	0.12 mΩ	
		1 Ω	9.1 mΩ	
		10 Ω	3.7 mΩ	
		100 Ω	36 mΩ	
		1 kΩ	0.36 Ω	
		10 kΩ	3.6 Ω	
		100 kΩ	38 Ω	
DC Voltage		100 mV	0.79 μV	
		(0.1 ~ 1) V	7.3 μV	
		(1 ~ 10) V	72 μV	
		(10 ~ 100) V	0.81 mV	
		(100 ~ 1 000) V	9.0 mV	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Resistors	40215			Digital multimeter,
Standard Resistance(DC)		1 mΩ	4.8 nΩ	Standard Resistor,
		(1 ~ 10) mΩ	28 nΩ	Meter calibrator
		(10 ~ 100) mΩ	1.1 μΩ	/HCT-CS-068-40215
		(0.1 ~ 1) Ω	2.6 μΩ	
		(1 ~ 10) Ω	25 μΩ	
		(10 ~ 25) Ω	63 μΩ	
		(25 ~ 100) Ω	0.33 mΩ	
		(0.1 ~ 1) kΩ	2.5 mΩ	
		(1 ~ 10) kΩ	20 mΩ	
		(10 ~ 100) kΩ	0.25 Ω	
		(0.1 ~ 1) MΩ	3.1 Ω	
		(1 ~ 10) MΩ	0.18 kΩ	
		(10 ~ 100) MΩ	1.3 kΩ	
		(0.1 ~ 1) GΩ	15 kΩ	
		(1 ~ 10) GΩ	1.5 MΩ	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Resistors	40215			LCR Meter, Standard Resistor
Standard Resistance(AC)		1 mΩ		/HCT-CS-068-40215
		50 Hz	5.2 μΩ	
		(0.05 ~ 1) kHz	5.2 μΩ	
		(1 ~ 10) mΩ		
		50 Hz	16 μΩ	
		(0.05 ~ 1) kHz	16 μΩ	
		(10 ~ 100) mΩ		
		50 Hz	0.83 mΩ	
		(0.05 ~ 1) kHz	0.83 mΩ	
		(0.1 ~ 1) Ω		
		400 Hz	1.2 mΩ	
		(0.4 ~ 1) kHz	1.2 mΩ	
		(1 ~ 10) Ω		
		400 Hz	3.8 mΩ	
		(0.4 ~ 1) kHz	3.8 mΩ	
		1 kHz ~ 1 MHz	0.12 Ω	
		(10 ~ 100) Ω		
		400 Hz	36 mΩ	
		(0.4 ~ 1) kHz	36 mΩ	
		1 kHz ~ 1 MHz	1.2 Ω	
		(0.1 ~ 1) kΩ		
		400 Hz	0.36 Ω	
		(0.4 ~ 1) kHz	0.36 Ω	
		1 kHz ~ 1 MHz	12 Ω	
		(1 ~ 10) kΩ		
		400 Hz	3.6 Ω	
		(0.4 ~ 1) kHz	3.6 Ω	
		1 kHz ~ 1 MHz	0.12 kΩ	
		(10 ~ 100) kΩ		
		400 Hz	39 Ω	
		(0.4 ~ 1) kHz	39 Ω	
		1 kHz ~ 1 MHz	1.2 kΩ	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Resistors	40215			Digital Multimeter, Meter Calibrator
Decade Resistance(DC)		1 mΩ	7.5 μΩ	/HCT-CS-068-40215
		(1 ~ 9) mΩ	7.5 μΩ	
		(9 ~ 20) mΩ	7.6 μΩ	
		(20 ~ 30) mΩ	7.8 μΩ	
		(30 ~ 40) mΩ	7.9 μΩ	
		(40 ~ 50) mΩ	8.1 μΩ	
		(50 ~ 60) mΩ	8.4 μΩ	
		(60 ~ 70) mΩ	8.7 μΩ	
		(70 ~ 80) mΩ	9.0 μΩ	
		(80 ~ 90) mΩ	9.3 μΩ	
		(90 ~ 100) mΩ	9.7 μΩ	
		(100 ~ 200) mΩ	76 μΩ	
		(200 ~ 300) mΩ	77 μΩ	
		(300 ~ 400) mΩ	78 μΩ	
		(400 ~ 500) mΩ	79 μΩ	
		(500 ~ 600) mΩ	81 μΩ	
		(600 ~ 700) mΩ	82 μΩ	
		(700 ~ 800) mΩ	85 μΩ	
		(800 ~ 900) mΩ	87 μΩ	
		900 mΩ ~ 1 Ω	89 μΩ	
		(1 ~ 2) Ω	0.13 mΩ	
		(2 ~ 3) Ω	0.17 mΩ	
		(3 ~ 4) Ω	0.21 mΩ	
		(4 ~ 5) Ω	0.25 mΩ	
		(5 ~ 6) Ω	0.30 mΩ	
		(6 ~ 7) Ω	0.35 mΩ	
		(7 ~ 8) Ω	0.39 mΩ	
		(8 ~ 9) Ω	0.44 mΩ	
		(9 ~ 10) Ω	0.48 mΩ	
		(10 ~ 20) Ω	0.37 mΩ	Digital Multimeter
		(20 ~ 30) Ω	0.42 mΩ	/HCT-CS-068-40215
		(30 ~ 40) Ω	0.48 mΩ	
		(40 ~ 50) Ω	0.55 mΩ	
		(50 ~ 60) Ω	0.62 mΩ	
		(60 ~ 70) Ω	0.69 mΩ	
		(70 ~ 80) Ω	0.77 mΩ	
		(80 ~ 90) Ω	0.84 mΩ	
		(90 ~ 100) Ω	0.92 mΩ	
		(100 ~ 200) Ω	3.9 mΩ	
		(200 ~ 300) Ω	4.5 mΩ	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Resistors	40215			Digital Multimeter
Decade Resistance(DC)		(300 ~ 400) Ω	5.2 mΩ	/HCT-CS-068-40215
		(400 ~ 500) Ω	5.9 mΩ	
		(500 ~ 600) Ω	6.7 mΩ	
		(600 ~ 700) Ω	7.4 mΩ	
		(700 ~ 800) Ω	8.2 mΩ	
		(800 ~ 900) Ω	8.9 mΩ	
		900 Ω ~ 1 kΩ	9.7 mΩ	
		(1 ~ 2) kΩ	34 mΩ	
		(2 ~ 3) kΩ	40 mΩ	
		(3 ~ 4) kΩ	46 mΩ	
		(4 ~ 5) kΩ	53 mΩ	
		(5 ~ 6) kΩ	60 mΩ	
		(6 ~ 7) kΩ	68 mΩ	
		(7 ~ 8) kΩ	75 mΩ	
		(8 ~ 9) kΩ	83 mΩ	
		(9 ~ 10) kΩ	91 mΩ	
		(10 ~ 20) kΩ	0.38 Ω	
		(20 ~ 30) kΩ	0.43 Ω	
		(30 ~ 40) kΩ	0.49 Ω	
		(40 ~ 50) kΩ	0.55 Ω	
		(50 ~ 60) kΩ	0.62 Ω	
		(60 ~ 70) kΩ	0.69 Ω	
		(70 ~ 80) kΩ	0.77 Ω	
		(80 ~ 90) kΩ	0.84 Ω	
		(90 ~ 100) kΩ	0.92 Ω	
		(100 ~ 200) kΩ	3.1 Ω	
		(200 ~ 300) kΩ	3.7 Ω	
		(300 ~ 400) kΩ	4.6 Ω	
		(400 ~ 500) kΩ	5.4 Ω	
		(500 ~ 600) kΩ	6.2 Ω	
		(600 ~ 700) kΩ	7.0 Ω	
		(700 ~ 800) kΩ	7.8 Ω	
		(800 ~ 900) kΩ	8.5 Ω	
		900 kΩ ~ 1 MΩ	9.4 Ω	
		(1 ~ 2) MΩ	74 Ω	
		(2 ~ 3) MΩ	77 Ω	
		(3 ~ 4) MΩ	81 Ω	
		(4 ~ 5) MΩ	86 Ω	
		(5 ~ 6) MΩ	91 Ω	
		(6 ~ 7) MΩ	97 Ω	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Resistors	40215			Digital Multimeter
Decade Resistance(DC)		(7 ~ 9) MΩ	0.11 kΩ	/HCT-CS-068-40215
		(9 ~ 10) MΩ	0.12 kΩ	
		(10 ~ 20) MΩ	2.6 kΩ	
		(20 ~ 30) MΩ	2.7 kΩ	
		(30 ~ 50) MΩ	2.8 kΩ	
		(50 ~ 60) MΩ	2.9 kΩ	
		(60 ~ 80) MΩ	3.0 kΩ	
		(80 ~ 90) MΩ	3.1 kΩ	
		(90 ~ 100) MΩ	3.2 kΩ	
		(100 ~ 400) MΩ	0.14 MΩ	
		(400 ~ 700) MΩ	0.15 MΩ	
		700 MΩ ~ 1 GΩ	0.16 MΩ	
		(1 ~ 2) GΩ	8.8 MΩ	
		(2 ~ 4) GΩ	12 MΩ	Digital Multimeter,
		(4 ~ 6) GΩ	19 MΩ	Insulation Resistance Tester
		(6 ~ 8) GΩ	21 MΩ	/HCT-CS-068-40215
		(8 ~ 10) GΩ	0.11 GΩ	
		(10 ~ 60) GΩ	0.13 GΩ	
		(60 ~ 80) GΩ	0.20 GΩ	
		(80 ~ 100) GΩ	0.51 GΩ	
		100 GΩ ~ 1 TΩ	7.3 GΩ	
Decade Resistance(AC)		1 kHz		LCR Meter
		100 mΩ	0.32 mΩ	/HCT-CS-068-40215
		(100 ~ 200) mΩ	0.38 mΩ	
		(200 ~ 300) mΩ	0.46 mΩ	
		(300 ~ 400) mΩ	0.55 mΩ	
		(400 ~ 500) mΩ	0.65 mΩ	
		(500 ~ 600) mΩ	0.76 mΩ	
		(600 ~ 700) mΩ	0.87 mΩ	
		(700 ~ 800) mΩ	0.98 mΩ	
		(800 ~ 900) mΩ	1.1 mΩ	
		900 mΩ ~ 1 Ω	3.2 mΩ	
		(1 ~ 2) Ω	3.8 mΩ	
		(2 ~ 3) Ω	4.6 mΩ	
		(3 ~ 4) Ω	5.5 mΩ	
		(4 ~ 5) Ω	6.5 mΩ	
		(5 ~ 6) Ω	7.6 mΩ	
		(6 ~ 7) Ω	8.7 mΩ	
		(7 ~ 8) Ω	9.8 mΩ	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Resistors	40215			LCR Meter
Decade Resistance(AC)		(8 ~ 9) Ω	11 mΩ	/HCT-CS-068-40215
		(9 ~ 10) Ω	12 mΩ	
		(10 ~ 20) Ω	32 mΩ	
		(20 ~ 30) Ω	35 mΩ	
		(30 ~ 40) Ω	38 mΩ	
		(40 ~ 50) Ω	42 mΩ	
		(50 ~ 60) Ω	46 mΩ	
		(60 ~ 70) Ω	51 mΩ	
		(70 ~ 80) Ω	55 mΩ	
		(80 ~ 90) Ω	60 mΩ	
		(90 ~ 100) Ω	65 mΩ	
		(100 ~ 200) Ω	0.32 Ω	
		(200 ~ 300) Ω	0.35 Ω	
		(300 ~ 400) Ω	0.38 Ω	
		(400 ~ 500) Ω	0.42 Ω	
		(500 ~ 600) Ω	0.46 Ω	
		(600 ~ 700) Ω	0.51 Ω	
		(700 ~ 800) Ω	0.55 Ω	
		(800 ~ 900) Ω	0.60 Ω	
		900 Ω ~ 1 kΩ	0.65 Ω	
		(1 ~ 2) kΩ	3.2 Ω	
		(2 ~ 3) kΩ	3.5 Ω	
		(3 ~ 4) kΩ	3.8 Ω	
		(4 ~ 5) kΩ	4.2 Ω	
		(5 ~ 6) kΩ	4.6 Ω	
		(6 ~ 7) kΩ	5.1 Ω	
		(7 ~ 8) kΩ	5.5 Ω	
		(8 ~ 9) kΩ	6.0 Ω	
		(9 ~ 10) kΩ	6.5 Ω	
		(10 ~ 20) kΩ	32 Ω	
		(20 ~ 30) kΩ	35 Ω	
		(30 ~ 40) kΩ	38 Ω	
		(40 ~ 50) kΩ	42 Ω	
		(50 ~ 60) kΩ	46 Ω	
		(60 ~ 70) kΩ	51 Ω	
		(70 ~ 80) kΩ	55 Ω	
		(80 ~ 90) kΩ	60 Ω	
		(90 ~ 100) kΩ	65 Ω	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Electrical conductivity meters	40216	14.36 MS/m	0.12 MS/m	Standard specimens
		22.90 MS/m	0.20 MS/m	/HCT-CS-227-40216
		34.26 MS/m	0.29 MS/m	
		58.38 MS/m	0.50 MS/m	
Impedance bridges/LCR meters	40217			Counter, Digital Multimeters
Frequency		10 Hz	5.8 mHz	/HCT-CS-093-40217
		10 Hz ~ 10 kHz	5.8 mHz	
		(10 ~ 100) kHz	5.9 mHz	
		(0.1 ~ 1) MHz	8.2 mHz	
		(1 ~ 10) MHz	0.58 Hz	
		(10 ~ 30) MHz	0.60 Hz	
AC Voltage		1 mV		Digital Multimeters
		20 Hz	6.4 uV	/HCT-CS-093-40217
		(0.02 ~ 1) kHz	4.3 uV	
		(1 ~ 10) kHz	11 uV	
		(10 ~ 100) kHz	30 uV	
		(1 ~ 10) mV		
		20 Hz	7.3 uV	
		(0.02 ~ 1) kHz	5.0 uV	
		(1 ~ 10) kHz	12 uV	
		(10 ~ 100) kHz	40 uV	
		(10 ~ 100) mV		
		20 Hz	20 uV	
		(0.02 ~ 1) kHz	16 uV	
		(1 ~ 10) kHz	22 uV	
		(10 ~ 100) kHz	0.11 mV	
		(0.1 ~ 1) V		
		20 Hz	0.64 mV	
		(0.02 ~ 10) kHz	0.59 mV	
		(10 ~ 100) kHz	1.1 mV	
		(0.1 ~ 1) MHz	35 mV	
		(1 ~ 10) V		
		20 Hz	6.4 mV	
		(0.02 ~ 10) kHz	5.9 mV	
		(10 ~ 100) kHz	10 mV	
		(0.1 ~ 1) MHz	0.35 V	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Impedance bridges/LCR meters	40217			Digital Multimeters
AC Voltage		(10 ~ 20) V		/HCT-CS-093-40217
		20 Hz	18 mV	
		(0.02 ~ 1) kHz	6.9 mV	
		(1 ~ 10) kHz	7.4 mV	
		(10 ~ 100) kHz	37 mV	
DC Voltage		100 mV	0.76 μV	
		100 mV ~ 1 V	58 μV	
		(1 ~ 10) V	0.58 mV	
		(10 ~ 40) V	0.64 mV	
DC Current		1 A	0.63 mA	Digital Multimeters, Current Shunt
		1 A ~ 10 A	5.0 mA	/HCT-CS-093-40217
		10 A ~ 20 A	13 mA	
		20 A ~ 40 A	25 mA	
Resistance		1 mΩ		Standard Resistor
		50 Hz	5.2 μΩ	/HCT-CS-093-40217
		50 Hz ~ 1 kHz	5.2 μΩ	
		(1 ~ 10) mΩ		
		50 Hz	13 μΩ	
		50 Hz ~ 1 kHz	13 μΩ	
		(10 ~ 100) mΩ		
		50 Hz	0.12 mΩ	
		50 Hz ~ 1 kHz	0.12 mΩ	
		(0.1 ~ 1) Ω		
		400 Hz	1.2 mΩ	
		400 Hz ~ 1 kHz	1.2 mΩ	
		(1 ~ 10) Ω		
		400 Hz	3.7 mΩ	
		400 Hz ~ 1 kHz	3.7 mΩ	
		1 kHz ~ 5 MHz	0.12 Ω	
		(5 ~ 10) MHz	0.13 Ω	
		(10 ~ 13) MHz	0.14 Ω	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Impedance bridges/LCR meters	40217			Standard Resistor
Resistance		(10 ~ 100) Ω		/HCT-CS-093-40217
		400 Hz	36 mΩ	
		400 Hz ~ 1 kHz	36 mΩ	
		1 kHz ~ 13 MHz	1.2 Ω	
		100 Ω ~ 1 kΩ		
		400 Hz	0.36 Ω	
		400 Hz ~ 1 kHz	0.36 Ω	
		1 kHz ~ 13 MHz	12 Ω	
		(1 ~ 10) kΩ		
		400 Hz	3.6 Ω	
		400 Hz ~ 1 kHz	3.6 Ω	
		1 kHz ~ 1 MHz	0.12 kΩ	
		(10 ~ 100) kΩ		
		1 kHz	38 Ω	
		1 kHz ~ 1 MHz	1.2 kΩ	
Capacitance		1 pF		Standard Capacitor
		60 Hz	0.76 fF	/HCT-CS-093-40217
		(60 ~ 400) Hz	0.75 fF	
		400 Hz ~ 1 MHz	0.76 fF	
		(1 ~ 2) MHz	0.78 fF	
		(2 ~ 3) MHz	0.86 fF	
		(3 ~ 4) MHz	0.98 fF	
		(4 ~ 5) MHz	1.2 fF	
		(5 ~ 10) MHz	2.6 fF	
		(10 ~ 13) MHz	3.8 fF	
		(1 ~ 10) pF		
		60 Hz	3.6 fF	
		60 Hz ~ 5 MHz	3.6 fF	
		(5 ~ 10) MHz	3.8 fF	
		(10 ~ 13) MHz	3.9 fF	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Impedance bridges/LCR meters	40217			Standard Capacitor
Capacitance		(10 ~ 100) pF		/HCT-CS-093-40217
		60 Hz	35 fF	
		(60 ~ 400) Hz	35 fF	
		400 Hz ~ 4 MHz	36 fF	
		(4 ~ 5) MHz	38 fF	
		(5 ~ 10) MHz	49 fF	
		(10 ~ 13) MHz	61 fF	
		(100 ~ 1 000) pF		
		60 Hz	0.35 pF	
		(60 ~ 400) Hz	0.35 pF	
		400 Hz ~ 1 MHz	0.36 pF	
		(1 ~ 2) MHz	0.38 pF	
		(2 ~ 3) MHz	0.45 pF	
		(3 ~ 4) MHz	0.57 pF	
		(4 ~ 5) MHz	0.72 pF	
		(5 ~ 10) MHz	2.0 pF	
		(10 ~ 13) MHz	3.0 pF	
		(1 ~ 10) nF		
		60 Hz	1.4 pF	
		(60 ~ 120) Hz	0.77 pF	
		120 Hz ~ 100 kHz	0.82 pF	
		(10 ~ 100) nF		
		60 Hz	36 pF	
		(60 ~ 120) Hz	9.3 pF	
		120 Hz ~ 100 kHz	8.2 pF	
		(0.1 ~ 1) µF		
		60 Hz	0.66 nF	
		(60 ~ 120) Hz	0.18 nF	
		120 Hz ~ 10 kHz	0.11 nF	
		(10 ~ 100) kHz	0.13 nF	
		(1 ~ 10) µF		
		100 Hz	4.7 nF	
		100 Hz ~ 1 kHz	3.2 nF	

402. Resistance, capacitance and inductance

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Impedance bridges/LCR meters	40217			Standard Capacitor
Capacitance		(10 ~ 100) μF		/HCT-CS-093-40217
		100 Hz	77 nF	
		100 Hz ~ 1 kHz	71 nF	
		(0.1 ~ 1) mF		
		100 Hz	1.2 μF	
		100 Hz ~ 1 kHz	2.3 μF	
Inductance		1 kHz		Standard Inductor
		100 μH	21 nH	/HCT-CS-093-40217
		100 μH ~ 1 mH	0.15 μH	
		(1 ~ 10) mH	1.5 μH	
		(10 ~ 100) mH	15 μH	
		100 mH ~ 1 H	0.15 mH	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
AC ammeters	40301			Multimeter calibrator,
AC Current		10 μA		Current Amplifier
		50 Hz ~ 1 kHz	12 nA	/HCT-CS-070-40301
		(10 ~ 100) μA		
		40 Hz	3.2×10^{-4}	
		40 Hz ~ 1 kHz	2.3×10^{-4}	
		(1 ~ 10) kHz	2.1×10^{-3}	
		100 μA ~ 10 mA		
		40 Hz	2.4×10^{-4}	
		40 Hz ~ 1 kHz	1.8×10^{-4}	
		(1 ~ 10) kHz	2.1×10^{-3}	
		(10 ~ 100) mA		
		40 Hz	2.4×10^{-4}	
		40 Hz ~ 1 kHz	1.7×10^{-4}	
		(1 ~ 10) kHz	1.6×10^{-3}	
		100 mA ~ 1 A		
		40 Hz	3.5×10^{-4}	
		40 Hz ~ 1 kHz	3.4×10^{-4}	
		(1 ~ 10) kHz	8.4×10^{-3}	
		(1 ~ 10) A		
		(50 ~ 60) Hz	1.3×10^{-3}	
		60 Hz ~ 1 kHz	2.0×10^{-3}	
		(10 ~ 20) A		
		(50 ~ 60) Hz	7.1×10^{-4}	
		60 Hz ~ 1 kHz	1.5×10^{-3}	
		(20 ~ 50) A		
		(50 ~ 60) Hz	6.2×10^{-4}	
		(50 ~ 100) A		
		(50 ~ 60) Hz	4.1×10^{-4}	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
AC ammeters	40301			Multimeter calibrator
AC Voltage		1 V		/HCT-CS-070-40301
		40 Hz	0.38 mV	
		40 Hz ~ 10 kHz	3.6×10^{-4}	
		(1 ~ 10) V		
		40 Hz	1.4×10^{-4}	
		40 Hz ~ 10 kHz	6.8×10^{-5}	
		(10 ~ 30) V		
		40 Hz	2.1×10^{-4}	
		40 Hz ~ 1 kHz	1.2×10^{-4}	
		(30 ~ 75) V		
		40 Hz	1.5×10^{-4}	
		40 Hz ~ 1 kHz	9.1×10^{-5}	
		(75 ~ 150) V		
		40 Hz	1.3×10^{-4}	
		40 Hz ~ 1 kHz	7.3×10^{-5}	
		(150 ~ 300) V		
		50 Hz	4.3×10^{-4}	
		50 Hz ~ 1 kHz	1.5×10^{-4}	
		(300 ~ 750) V		
		50 Hz	3.9×10^{-4}	
		50 Hz ~ 1 kHz	1.0×10^{-4}	
Clamp ammeters/voltmeters	40302			Meter Calibrator
DC Voltage		100 mV	6.3 μV	/HCT-CS-071-40302
		100 mV ~ 1 V	62 μV	
		(1 ~ 10) V	0.62 mV	
		(10 ~ 100) V	6.0 mV	
		(100 ~ 1 000) V	62 mV	
AC Voltage		100 mV		
		40 Hz	13 μV	
		40 Hz ~ 20 kHz	10 μV	
		(20 ~ 50) kHz	17 μV	
		(50 ~ 100) kHz	38 μV	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Clamp ammeters/voltmeters	40302			Meter Calibrator
AC Voltage		(100 mV ~ 1 V)		/HCT-CS-071-40302
		40 Hz	0.14 mV	
		40 Hz ~ 20 kHz	85 μV	
		(20 ~ 100) kHz	0.15 mV	
		(1 ~ 10) V		
		40 Hz	1.4 mV	
		40 Hz ~ 20 kHz	0.85 mV	
		(20 ~ 50) kHz	1.2 mV	
		(50 ~ 100) kHz	1.4 mV	
		(10 ~ 100) V		
		40 Hz	15 mV	
		40 Hz ~ 20 kHz	9.4 mV	
		(20 ~ 50) kHz	13 mV	
		(50 ~ 100) kHz	22 mV	
		(100 ~ 1 000) V		
		50 Hz	0.38 V	
		50 Hz ~ 1 kHz	0.11 V	
DC Current		10 μA	12 nA	Meter Calibrator, Current Amplifier,
		(10 ~ 100) μA	0.12 μA	Coil
		100 μA ~ 1 mA	1.4 μA	/HCT-CS-071-40302
		(1 ~ 10) mA	14 μA	
		(10 ~ 100) mA	0.14 mA	
		100 mA ~ 1 A	1.4 mA	
		(1 ~ 10) A	14 mA	
		(10 ~ 50) A	85 mA	
		(50 ~ 100) A	0.14 A	
		(100 ~ 200) A	0.25 A	
		(200 ~ 300) A	0.36 A	
		(300 ~ 400) A	0.48 A	
		(400 ~ 500) A	0.59 A	
		(500 ~ 750) A	1.1 A	
		(750 ~ 900) A	1.3 A	
		(900 ~ 1 000) A	1.4 A	
		(1 000 ~ 1 500) A	1.9 A	
		(1 500 ~ 2 000) A	2.5 A	
		(2 000 ~ 2 500) A	3.0 A	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Clamp ammeters/voltmeters	40302			Meter Calibrator, Current Amplifier,
AC Current		10 μA		Coil
		50 Hz ~ 10 kHz	12 nA	/HCT-CS-071-40302
		(10 ~ 100) μA		
		50 Hz ~ 1 kHz	0.12 μA	
		(1 kHz ~ 10 kHz)	0.24 μA	
		100 μA ~ 1 mA		
		40 Hz ~ 1 kHz	1.4 μA	
		(1 kHz ~ 10 kHz)	2.5 μA	
		(1 ~ 10) mA		
		40 Hz ~ 1 kHz	14 μA	
		(1 kHz ~ 10 kHz)	24 μA	
		(10 ~ 100) mA		
		40 Hz ~ 1 kHz	0.14 mA	
		(1 kHz ~ 10 kHz)	0.20 mA	
		100 mA ~ 1 A		
		40 Hz ~ 1 kHz	1.4 mA	
		(1 kHz ~ 10 kHz)	8.5 mA	
		(1 ~ 10) A		
		(40 ~ 60) Hz	19 mA	
		60 Hz ~ 1 kHz	24 mA	
		(10 ~ 100) A		
		(50 ~ 60) Hz	0.32 A	
		(100 ~ 200) A		
		(50 ~ 60) Hz	0.39 A	
		(200 ~ 300) A		
		(50 ~ 60) Hz	0.48 A	
		(300 ~ 400) A		
		(50 ~ 60) Hz	0.58 A	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Clamp ammeters/voltmeters	40302			Meter Calibrator, Current Amplifier,
AC Current		(400 ~ 500) A		Coil
		(50 ~ 60) Hz	0.68 A	/HCT-CS-071-40302
		(500 ~ 750) A		
		(50 ~ 60) Hz	1.3 A	
		(750 ~ 900) A		
		(50 ~ 60) Hz	1.5 A	
		(900 ~ 1 000) A		
		(50 ~ 60) Hz	1.6 A	
		(1 000 ~ 1 500) A		
		(50 ~ 60) Hz	2.1 A	
		(1 500 ~ 2 000) A		
		(50 ~ 60) Hz	2.6 A	
		(2 000 ~ 2 500) A		
		(50 ~ 60) Hz	3.2 A	
		(2 500 ~ 3 000) A		
		(50 ~ 60) Hz	3.7 A	
Resistance		1 Ω	0.73 mΩ	Meter Calibrator
		(1 Ω ~ 10 Ω)	0.98 mΩ	/HCT-CS-071-40302
		(10 Ω ~ 100 Ω)	7.4 mΩ	
		(100 Ω ~ 1 kΩ)	74 mΩ	
		(1 kΩ ~ 10 kΩ)	0.72 Ω	
		(10 kΩ ~ 100 kΩ)	7.1 Ω	
		(100 kΩ ~ 1 MΩ)	65 Ω	
		(1 MΩ ~ 10 MΩ)	0.8 kΩ	
		(10 MΩ~ 100 MΩ)	21 kΩ	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Clamp ammeters/voltmeters	40302			Meter Calibrator
Frequency		40 Hz	7.7 mHz	/HCT-CS-071-40302
		(40 ~ 50) Hz	8.5 mHz	
		(50 ~ 60) Hz	10 mHz	
		(60 ~ 300) Hz	71 mHz	
		(300 ~ 400) Hz	80 mHz	
		400 Hz ~ 1 kHz	0.14 Hz	
Current Probe		DC		Meter Calibrator, Current Amplifier,
		10 mA	12 μA	Digital Multimeter, Coil
		(10 ~ 50) mA	58 μA	/HCT-CS-071-40302
		(50 ~ 100) mA	0.12 mA	
		(100 ~ 500) mA	0.59 mA	
		(500 mA ~ 1 A)	1.2 mA	
		(1 ~ 5) A	6.0 mA	
		(5 ~ 10) A	12 mA	
		(10 ~ 20) A	24 mA	
		(20 ~ 40) A	48 mA	
		(40 ~ 60) A	71 mA	
		(60 ~ 80) A	94 mA	
		(80 ~ 100) A	0.12 A	
		(100 ~ 500) A	0.59 A	
		(500 ~ 1 000) A	1.2 A	
		(50 ~ 60) Hz		
		10 mA	61 μA	
		(10 ~ 50) mA	87 μA	
		(50 ~ 100) mA	0.14 mA	
		(100 ~ 500) mA	0.63 mA	
		(500 mA ~ 1 A)	1.3 mA	
		(1 ~ 5) A	6.1 mA	
		(5 ~ 10) A	12 mA	
		(10 ~ 20) A	24 mA	
		(20 ~ 40) A	47 mA	
		(40 ~ 60) A	71 mA	
		(60 ~ 80) A	95 mA	
		(80 ~ 100) A	0.12 A	
		(100 ~ 500) A	0.68 A	
		(500 ~ 1 000) A	1.4 A	
		(1 000 ~ 3 000) A	3.7 A	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Clamp ammeters/voltmeters	40302			Meter Calibrator, Current Amplifier,
Current Coil(AC Ratio)		(50 ~ 60) Hz		Current Shunt,Digital Multimeter,
		2	0.15 %	Clamp Meter , Coil
		10	0.06 %	/HCT-CS-071-40302
		25	0.13 %	
		50	0.08 %	
Current Coil(DC Ratio)		2	0.04 %	
		10	0.04 %	
		25	0.13 %	
		50	0.08 %	
AC voltage/current calibrators	40303			Digital Multimeter,
AC Voltage		1 mV		AC Voltage Standard
		40 Hz	2.4 μV	/HCT-CS-072-40303
		40 Hz ~ 20 kHz	2.1 μV	
		(20 ~ 50) kHz	3.3 μV	
		(50 ~ 100) kHz	4.3 μV	
		(1 ~ 10) mV		
		40 Hz	3.9 μV	
		40 Hz ~ 20 kHz	2.9 μV	
		(20 ~ 50) kHz	6.0 μV	
		(50 ~ 100) kHz	6.7 μV	
		(10 ~ 100) mV		
		40 Hz	12 μV	
		40 Hz ~ 20 kHz	6.9 μV	
		(20 ~ 50) kHz	12 μV	
		(50 ~ 100) kHz	24 μV	
		(0.1 ~ 0.4) V		
		40 Hz	32 μV	
		40 Hz ~ 20 kHz	15 μV	
		(20 ~ 50) kHz	24 μV	
		(50 ~ 100) kHz	37 μV	
		(0.4 ~ 0.8) V		
		40 Hz	62 μV	
		40 Hz ~ 20 kHz	25 μV	
		(20 ~ 50) kHz	44 μV	
		(50 ~ 100) kHz	68 μV	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
AC voltage/current calibrators	40303			Digital Multimeter,
AC Voltage		(0.8 ~ 1) V		AC Voltage Standard
		40 Hz	77 μV	/HCT-CS-072-40303
		40 Hz ~ 20 kHz	30 μV	
		(20 ~ 50) kHz	55 μV	
		(50 ~ 100) kHz	84 μV	
		(1 ~ 4) V		
		40 Hz	0.32 mV	
		40 Hz ~ 20 kHz	0.14 mV	
		(20 ~ 50) kHz	0.24 mV	
		(50 ~ 100) kHz	0.39 mV	
		(4 ~ 8) V		
		40 Hz	0.64 mV	
		40 Hz ~ 20 kHz	0.30 mV	
		(20 ~ 50) kHz	0.48 mV	
		(50 ~ 100) kHz	0.80 mV	
		(8 ~ 10) V		
		40 Hz	0.79 mV	
		40 Hz ~ 20 kHz	0.36 mV	
		(20 ~ 50) kHz	0.59 mV	
		(50 ~ 100) kHz	0.98 mV	
		(10 ~ 40) V		
		40 Hz	3.4 mV	
		40 Hz ~ 20 kHz	1.9 mV	
		(20 ~ 50) kHz	3.5 mV	
		(50 ~ 100) kHz	5.0 mV	
		(40 ~ 80) V		
		40 Hz	6.4 mV	
		40 Hz ~ 20 kHz	3.1 mV	
		(20 ~ 50) kHz	6.6 mV	
		(50 ~ 100) kHz	9.3 mV	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
AC voltage/current calibrators	40303			Digital Multimeter,
AC Voltage		(80 ~ 100) V		AC Voltage Standard
		40 Hz	8.0 mV	/HCT-CS-072-40303
		40 Hz ~ 20 kHz	3.8 mV	
		(20 ~ 50) kHz	8.1 mV	
		(50 ~ 100) kHz	12 mV	
		(100 ~ 400) V		
		40 Hz	47 mV	
		40 Hz ~ 10 kHz	21 mV	
		(400 ~ 800) V		
		40 Hz	93 mV	
		40 Hz ~ 10 kHz	40 mV	
		(800 ~ 1 000) V		
		40 Hz	0.12 V	
		40 Hz ~ 10 kHz	48 mV	
AC Current		100 μA		Digital Multimeter, Current Shunt
		50 Hz	47 nA	/HCT-CS-072-40303
		50 Hz ~ 1 kHz	40 nA	
		(1 ~ 10) kHz	43 nA	
		(0.1 ~ 0.4) mA		
		50 Hz	77 nA	
		50 Hz ~ 1 kHz	66 nA	
		(1 ~ 10) kHz	78 nA	
		(0.4 ~ 0.8) mA		
		50 Hz	0.13 μA	
		50 Hz ~ 1 kHz	0.11 μA	
		(1 ~ 10) kHz	0.13 μA	
		(0.8 ~ 1) mA		
		50 Hz	0.15 μA	
		50 Hz ~ 1 kHz	0.13 μA	
		(1 ~ 10) kHz	0.16 μA	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
AC voltage/current calibrators	40303			Digital Multimeter, Current Shunt
AC Current		(1 ~ 4) mA		/HCT-CS-072-40303
		50 Hz	0.73 μA	
		50 Hz ~ 1 kHz	0.61 μA	
		(1 ~ 10) kHz	0.70 μA	
		(4 ~ 8) mA		
		50 Hz	1.1 μA	
		50 Hz ~ 1 kHz	0.90 μA	
		(1 ~ 10) kHz	1.1 μA	
		(8 ~ 10) mA		
		50 Hz	1.3 μA	
		50 Hz ~ 1 kHz	1.1 μA	
		(1 ~ 10) kHz	1.3 μA	
		(10 ~ 40) mA		
		50 Hz	7.2 μA	
		50 Hz ~ 1 kHz	6.0 μA	
		(1 ~ 10) kHz	6.9 μA	
		(40 ~ 80) mA		
		50 Hz	11 μA	
		50 Hz ~ 1 kHz	9.0 μA	
		(1 ~ 10) kHz	11 μA	
		(80 ~ 100) mA		
		50 Hz	13 μA	
		50 Hz ~ 1 kHz	10 μA	
		(1 ~ 10) kHz	13 μA	
		(0.1 ~ 0.4) A		
		50 Hz	70 μA	
		50 Hz ~ 1 kHz	61 μA	
		(1 ~ 10) kHz	70 μA	
		(0.4 ~ 0.8) A		
		50 Hz	0.11 mA	
		50 Hz ~ 1 kHz	90 μA	
		(1 ~ 10) kHz	0.11 mA	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
AC voltage/current calibrators	40303			Digital Multimeter, Current Shunt
AC Current		(0.8 ~ 1) A		/HCT-CS-072-40303
		50 Hz	0.13 mA	
		50 Hz ~ 1 kHz	0.10 mA	
		(1 ~ 10) kHz	0.13 mA	
		(1 ~ 4) A		
		50 Hz	0.74 mA	
		50 Hz ~ 1 kHz	0.62 mA	
		(1 ~ 10) kHz	0.74 mA	
		(4 ~ 8) A		
		50 Hz	1.2 mA	
		50 Hz ~ 1 kHz	1.0 mA	
		(1 ~ 10) kHz	1.2 mA	
		(8 ~ 10) A		
		50 Hz	1.4 mA	
		50 Hz ~ 1 kHz	1.2 mA	
		(1 ~ 10) kHz	1.5 mA	
		(10 ~ 30) A		
		50 Hz	5.0 mA	
		50 Hz ~ 1 kHz	4.3 mA	
		(30 ~ 50) A		
		50 Hz	7.2 mA	
		50 Hz ~ 1 kHz	6.2 mA	
		(50 ~ 80) A		
		50 Hz	13 mA	
		50 Hz ~ 1 kHz	11 mA	
		(80 ~ 100) A		
		50 Hz	15 mA	
		50 Hz ~ 1 kHz	13 mA	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
AC voltage/current calibrators	40303			Clamp Meter, Digital Multimeter
AC Current(Clamp meter)		(50 ~ 60) Hz		/HCT-CS-072-40303
		1 A	0.19 A	
		(1 ~ 3)A	0.23 A	
		(3 ~ 8) A	0.32 A	
		(8 ~ 10) A	0.35 A	
		(10 ~ 20) A	0.61 A	
		(20 ~ 30) A	0.77 A	
		(30 ~ 50) A	1.5 A	
		(50 ~ 80) A	2.0 A	
		(80 ~ 100) A	2.4 A	
		(100 ~ 200) A	4.1 A	
		(200 ~ 300) A	5.8 A	
		(300 ~ 500) A	15 A	
		(500 ~ 800) A	20 A	
		(800 ~ 1 000) A	24 A	
		(1 000 ~ 1 400) A	31 A	
Wattmeter calibrators	40304			AC Power Meter
AC Power		(50 ~ 60) Hz		/HCT-CS-275-40304
		0.12 W	0.35 mW	
		(0.12 ~ 0.24) W	0.37 mW	
		(0.24 ~ 0.6) W	0.74 mW	
		(0.6 ~ 1.2) W	0.89 mW	
		(1.2 ~ 2.4) W	1.8 mW	
		(2.4 ~ 6) W	6.3 mW	
		(6 ~ 12) W	13 mW	
		(12 ~ 24) W	26 mW	
		(24 ~ 60) W	54 mW	
		(60 ~ 120) W	0.11 W	
		(120 ~ 240) W	0.22 W	
		(240 ~ 600) W	0.46 W	
		(600 ~ 1 200) W	0.91 W	
		(1 200 ~ 2 400) W	1.9 W	
		(2 400 ~ 4 800) W	3.8 W	
Power factor		(50 ~ 60) Hz		
		-1 ~ 1	0.000 68	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Wattmeter calibrators	40304			AC Power Meter
Harmonic		(50 ~ 60) Hz		/HCT-CS-275-40304
THD(V)		(0.5 ~ 20) %	0.038 %	
THD(I)		(0.5 ~ 20) %	0.038 %	
Frequency		20 Hz	7.1 mHz	
		(20 ~ 50) Hz	8.3 mHz	
		(50 ~ 60) Hz	9.9 mHz	
		(60 ~ 100) Hz	18 mHz	
		(100 ~ 400) Hz	67 mHz	
		(0.4 ~ 1) kHz	0.19 Hz	
AC current shunts	40305			Multimeter calibrator,
AC Resistance		40 Hz		Digital Multimeter
		0.001 Ω	0.44 μΩ	/HCT-CS-073-40305
		(0.001 ~ 0.01) Ω	13 μΩ	
		(0.01 ~ 0.1) Ω	40 μΩ	
		(0.1 ~ 1) Ω	0.27 mΩ	
		(1 ~ 10) Ω	3.0 mΩ	
		(10 ~ 100) Ω	30 mΩ	
		(100 ~ 1 000) Ω	0.36 Ω	
		(40 ~ 100) Hz		
		0.001 Ω	0.63 μΩ	
		(0.001 ~ 0.01) Ω	20 μΩ	
		(0.01 ~ 0.1) Ω	38 μΩ	
		(0.1 ~ 1) Ω	0.22 mΩ	
		(1 ~ 10) Ω	2.4 mΩ	
		(10 ~ 100) Ω	24 mΩ	
		(100 ~ 1 000) Ω	0.28 Ω	
		100 Hz ~ 1 kHz		
		0.001 Ω	2.0 μΩ	
		(0.001 ~ 0.01) Ω	20 μΩ	
		(0.01 ~ 0.1) Ω	37 μΩ	
		(0.1 ~ 1) Ω	0.20 mΩ	
		(1 ~ 10) Ω	2.3 mΩ	
		(10 ~ 100) Ω	23 mΩ	
		(100 ~ 1 000) Ω	0.27 Ω	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Power factor meters	40310	(50 ~ 60) Hz		Wattmeter calibrator
		-1 ~ 1	0.000 24	/HCT-CS-074-40310
AC power meters	40311			Wattmeter calibrator,
				Multimeter calibrator
AC Power		(50 ~ 60) Hz		/HCT-CS-075-40311
		0.06 W	0.067 mW	
		(0.06 ~ 0.12) W	0.069 mW	
		(0.12 ~ 0.24) W	0.083 mW	
		(0.24 ~ 0.6) W	0.13 mW	
		(0.6 ~ 1.2) W	0.22 mW	
		(1.2 ~ 2.4) W	0.31 mW	
		(2.4 ~ 6) W	0.74 mW	
		(6 ~ 12) W	1.7 mW	
		(12 ~ 24) W	3.1 mW	
		(24 ~ 48) W	6.0 mW	
		(48 ~ 60) W	7.4 mW	
		(60 ~ 120) W	17 mW	
		(120 ~ 240) W	31 mW	
		(240 ~ 480) W	60 mW	
		(480 ~ 600) W	75 mW	
		(600 ~ 1 200) W	0.17 W	
		(1.2 ~ 2.4) kW	0.31 W	
		(2.4 ~ 4.8) kW	0.61 W	
		(4.8 ~ 9.6) kW	1.3 W	
		(9.6 ~ 19.2) kW	2.5 W	
DC Power		0.1 W	67 μW	
		(0.1 ~ 1) W	0.16 mW	
		(1 ~ 1.2) W	0.19 mW	
		(1.2 ~ 2.4) W	0.36 mW	
		(2.4 ~ 3) W	0.55 mW	
		(3 ~ 4.8) W	0.71 mW	
		(4.8 ~ 6) W	1.7 mW	
		(6 ~ 12) W	2.9 mW	
		(12 ~ 24) W	4.4 mW	
		(24 ~ 48) W	9.8 mW	
		(48 ~ 60) W	35 mW	
		(60 ~ 120) W	40 mW	
		(120 ~ 240) W	79 mW	
		(240 ~ 480) W	0.14 W	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
AC power meters	40311			Wattmeter calibrator, Multimeter calibrator
DC Power		(480 ~ 500) W	0.24 W	/HCT-CS-075-40311
		(0.5 ~ 1) kW	0.42 W	
		(1 ~ 1.2) kW	0.84 W	
		(1.2 ~ 3) kW	2.9 W	
		(3 ~ 6) kW	5.8 W	
		(6 ~ 12) kW	6.4 W	
		(12 ~ 50) kW	24 W	
Power factor		(50 ~ 60) Hz		
		-1 ~ 1	0.000 16	
AC Voltage		50 Hz		
		1 V	85 μV	
		(1 ~ 2) V	0.13 mV	
		(2 ~ 5) V	0.37 mV	
		(5 ~ 10) V	0.85 mV	
		(10 ~ 20) V	1.3 mV	
		(20 ~ 50) V	4.5 mV	
		(50 ~ 60) V	5.0 mV	
		(60 ~ 100) V	9.4 mV	
		(100 ~ 150) V	12 mV	
		(150 ~ 200) V	15 mV	
		(200 ~ 300) V	46 mV	
		(300 ~ 500) V	64 mV	
		(500 ~ 600) V	73 mV	
		(600 ~ 750) V	95 mV	
		(750 ~ 1 000) V	0.14 V	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
AC power meters	40311			Wattmeter calibrator, Multimeter calibrator /HCT-CS-075-40311
AC Voltage		60 Hz		
		1 V	85 μV	
		(1 ~ 2) V	0.13 mV	
		(2 ~ 5) V	0.37 mV	
		(5 ~ 10) V	0.85 mV	
		(10 ~ 20) V	1.3 mV	
		(20 ~ 50) V	4.5 mV	
		(50 ~ 60) V	5.0 mV	
		(60 ~ 100) V	9.4 mV	
		(100 ~ 150) V	12 mV	
		(150 ~ 200) V	15 mV	
		(200 ~ 300) V	30 mV	
		(300 ~ 500) V	46 mV	
		(500 ~ 600) V	56 mV	
		(600 ~ 750) V	68 mV	
		(750 ~ 1 000) V	0.11 V	
AC Current		(50 ~ 60) Hz		
		1 mA	0.19 μA	
		(1 ~ 10) mA	1.9 μA	
		(10 ~ 20) mA	3.0 μA	
		(20 ~ 50) mA	11 μA	
		(50 ~ 100) mA	18 μA	
		(100 ~ 200) mA	29 μA	
		(200 ~ 500) mA	0.21 mA	
		(0.5 ~ 1) A	0.35 mA	
		(1 ~ 2) A	0.62 mA	
		(2 ~ 5) A	2.9 mA	
		(5 ~ 10) A	5.6 mA	
		(10 ~ 20) A	15 mA	
		(20 ~ 30) A	29 mA	
		(30 ~ 50) A	31 mA	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
AC power meters	40311			Wattmeter calibrator, Multimeter calibrator /HCT-CS-075-40311
DC Voltage		1 V	62 μV	
		(1 ~ 2) V	63 μV	
		(2 ~ 5) V	67 μV	
		(5 ~ 20) V	0.64 mV	
		(20 ~ 50) V	0.70 mV	
		(50 ~ 60) V	0.73 mV	
		(60 ~ 200) V	6.5 mV	
		(200 ~ 300) V	6.8 mV	
		(300 ~ 500) V	7.5 mV	
		(500 ~ 600) V	8.0 mV	
		(600 ~ 750) V	8.7 mV	
		(750 ~ 1 000) V	62 mV	
DC Current		1 mA	80 nA	
		(1 ~ 10) mA	0.78 μA	
		(10 ~ 20) mA	1.1 μA	
		(20 ~ 50) mA	3.6 μA	
		(50 ~ 100) mA	8.6 μA	
		(100 ~ 200) mA	13 μA	
		(200 ~ 500) mA	62 μA	
		500 mA ~ 1 A	0.13 mA	
		(1 ~ 2) A	0.21 mA	
		(2 ~ 5) A	1.6 mA	
		(5 ~ 10) A	2.1 mA	
		(10 ~ 20) A	3.2 mA	
		(20 ~ 30) A	8.7 mA	
		(30 ~ 50) A	11 mA	
Harmonic Voltage		(50 ~ 60) Hz		
		(0.5 % ~ 20 %)	0.024 %	
Harmonic Current		(50 ~ 60) Hz		
		(0.5 % ~ 20 %)	0.022 %	
Frequency		20 Hz	2.4 mHz	
		(20 Hz ~ 1 kHz)	1.3×10^{-4}	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
AC power meters	40311			Wattmeter calibrator,
				Multimeter calibrator,
Flicker				AC Power Meter
P_{st}		(1 ~ 4 000) cpm		/HCT-CS-075-40311
		1	0.39 %	
$P_{inst.max}$				
Sinusoidal		(0.5 ~ 33.333) Hz		
		1	0.38 %	
Square		(0.5 ~ 28) Hz		
		1	0.40 %	
		(28 ~ 30.5) Hz		
		1	1.1 %	
		(30.5 ~ 33.333) Hz		
		1	0.40 %	
$P_{st\ Range}$		1 620 cpm		
		(0.25 ~ 5)	0.39 %	
AC power supplies	40312			Digital Multimeter,
AC Voltage		100 mV		High Voltage Meter
		20 Hz	20 μV	/HCT-CS-076-40312
		(0.02 ~ 10) kHz	18 μV	
		(10 ~ 100) kHz	0.11 mV	
		(0.1 ~ 0.4) V		
		20 Hz	0.10 mV	
		(0.02 ~ 10) kHz	0.09 mV	
		(10 ~ 100) kHz	0.49 mV	
		(0.4 ~ 0.8) V		
		20 Hz	0.14 mV	
		(0.02 ~ 10) kHz	0.12 mV	
		(10 ~ 100) kHz	0.71 mV	
		(0.8 ~ 1) V		
		20 Hz	0.16 mV	
		(0.02 ~ 10) kHz	0.14 mV	
		(10 ~ 100) kHz	0.82 mV	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
AC power supplies	40312			Digital Multimeter,
AC Voltage		(1 ~ 4) V		High Voltage Meter
		20 Hz	1.0 mV	/HCT-CS-076-40312
		(0.02 ~ 10) kHz	0.9 mV	
		(10 ~ 100) kHz	4.8 mV	
		(4 ~ 8) V		
		20 Hz	1.4 mV	
		(0.02 ~ 10) kHz	1.2 mV	
		(10 ~ 100) kHz	7.0 mV	
		(8 ~ 10) V		
		20 Hz	1.6 mV	
		(0.02 ~ 10) kHz	1.4 mV	
		(10 ~ 100) kHz	8.2 mV	
		(10 ~ 50) V		
		20 Hz	11 mV	
		(0.02 ~ 10) kHz	10 mV	
		(10 ~ 100) kHz	53 mV	
		(50 ~ 80) V		
		20 Hz	14 mV	
		(0.02 ~ 10) kHz	12 mV	
		(10 ~ 100) kHz	71 mV	
		(80 ~ 100) V		
		20 Hz	16 mV	
		(0.02 ~ 10) kHz	14 mV	
		(10 ~ 100) kHz	82 mV	
		(100 ~ 150) V		
		50 Hz ~ 10 kHz	46 mV	
		(150 ~ 300) V		
		50 Hz ~ 10 kHz	84 mV	
		(300 ~ 1 000) V		
		50 Hz ~ 10 kHz	0.62 V	
		(1 ~ 1.5) kV		
		(50 ~ 60) Hz	9.0 V	

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Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
AC power supplies	40312			Digital Multimeter,
DC Voltage		100 mV	6.2 μV	High Voltage Meter
		(0.1 ~ 1) V	62 μV	/HCT-CS-076-40312
		(1 ~ 10) V	0.62 mV	
		(10 ~ 100) V	6.2 mV	
		(100 ~ 400) V	62 mV	
		(400 ~ 1 000) V	0.62 V	
AC Current		100 μA		Digital Multimeter,Current Shunt,
		50 Hz ~ 10 kHz	48 nA	Electronic Load
				/HCT-CS-076-40312
		(0.1 ~ 0.4) mA		
		50 Hz ~ 10 kHz	0.10 μA	
		(0.4 ~ 0.8) mA		
		50 Hz ~ 10 kHz	0.15 μA	
		(0.8 ~ 1) mA		
		50 Hz ~ 10 kHz	0.17 μA	
		(1 ~ 4) mA		
		50 Hz ~ 10 kHz	1.0 μA	
		(4 ~ 8) mA		
		50 Hz ~ 10 kHz	1.3 μA	
		(8 ~ 10) mA		
		50 Hz ~ 10 kHz	1.5 μA	
		(10 ~ 40) mA		
		50 Hz ~ 10 kHz	10 μA	
		(40 ~ 80) mA		
		50 Hz ~ 10 kHz	13 μA	
		(80 ~ 100) mA		
		50 Hz ~ 10 kHz	14 μA	
		(0.1 ~ 0.4) A		
		50 Hz ~ 10 kHz	0.10 mA	
		(0.4 ~ 0.8) A		
		50 Hz ~ 10 kHz	0.13 mA	

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Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
AC power supplies	40312			Digital Multimeter,Current Shunt,
AC Current		(0.8 ~ 1) A		Electronic Load
		50 Hz ~ 10 kHz	0.15 mA	/HCT-CS-076-40312
		(1 ~ 4) A		
		50 Hz ~ 10 kHz	1.0 mA	
		(4 ~ 8) A		
		50 Hz ~ 10 kHz	1.4 mA	
		(8 ~ 10) A		
		50 Hz ~ 10 kHz	1.6 mA	
		(10 ~ 20) A		
		50 Hz ~ 10 kHz	7.0 mA	
		(20 ~ 30) A		
		50 Hz ~ 10 kHz	7.8 mA	
		(30 ~ 45) A		
		50 Hz ~ 10 kHz	9.3 mA	
DC Current		100 μA	6.6 nA	
		(0.1 ~ 1) mA	63 nA	
		(1 ~ 10) mA	0.63 μA	
		(10 ~ 100) mA	6.3 μA	
		(0.1 ~ 1) A	64 μA	
		(1 ~ 10) A	0.67 mA	
		(10 ~ 40) A	24 mA	
		(40 ~ 80) A	48 mA	
		(80 ~ 100) A	53 mA	
Frequency		20 Hz	9 μHz	Digital Multimeter,
		(20 ~ 100) Hz	78 μHz	Frequency Counter, Voltage Probe
		(0.1 ~ 1) kHz	0.84 mHz	/HCT-CS-076-40312
		(1 ~ 10) kHz	9.8 mHz	
		(10 ~ 40) kHz	67 mHz	
		(40 ~ 80) kHz	71 mHz	
		(80 ~ 100) kHz	75 mHz	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Puncture/safety testers	40313			Digital Multimeter,
AC Voltage		(50 ~ 60) Hz		High Voltage Meter,
		0.1 kV	0.62 V	High Voltage Divider
		(0.1 ~ 1) kV	0.63 V	/HCT-CS-077-40313
		(1 ~ 2) kV	5.0 V	
		(2 ~ 4) kV	11 V	
		(4 ~ 6) kV	16 V	
		(6 ~ 8) kV	20 V	
		(8 ~ 10) kV	25 V	
		(10 ~ 20) kV	48 V	
		(20 ~ 30) kV	70 V	
		(30 ~ 40) kV	93 V	
		(40 ~ 50) kV	0.12 kV	
		(50 ~ 60) kV	0.14 kV	
		(60 ~ 70) kV	0.17 kV	
		(70 ~ 75) kV	0.18 kV	
		(75 ~ 100) kV	6.2×10^{-3}	
DC Voltage		(±)		
		0.1 kV	0.64 V	
		(0.1 ~ 1) kV	0.64 V	
		(1 ~ 2) kV	2.5 V	
		(2 ~ 4) kV	4.8 V	
		(4 ~ 6) kV	7.0 V	
		(6 ~ 8) kV	9.3 V	
		(8 ~ 10) kV	12 V	
		(10 ~ 20) kV	26 V	
		(20 ~ 30) kV	38 V	
		(30 ~ 40) kV	51 V	
		(40 ~ 50) kV	63 V	
		(50 ~ 60) kV	75 V	
		(60 ~ 70) kV	88 V	
		(70 ~ 80) kV	0.10 kV	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Puncture/safety testers	40313			Digital Multimeter,
DC Voltage		(80 ~ 90) kV	0.12 kV	High Voltage Meter, High Voltage Divider
		(90 ~ 100) kV	0.13 kV	/HCT-CS-077-40313
AC Cut-off Current		(50 ~ 60) Hz		Digital Multimeter,
		0.1 mA	0.11 μA	Decade Resistor
		(0.1 ~ 0.5) mA	0.41 μA	/HCT-CS-077-40313
		(0.5 ~ 1) mA	0.86 μA	
		(1 ~ 2) mA	3.2 μA	
		(2 ~ 5) mA	4.1 μA	
		(5 ~ 10) mA	8.6 μA	
		(10 ~ 50) mA	39 μA	
		(50 ~ 100) mA	83 μA	
DC Cut-off Current		0.1 mA	67 nA	
		(0.1 ~ 0.5) mA	68 nA	
		(0.5 ~ 5) mA	0.68 μA	
		(5 ~ 50) mA	6.8 μA	
		(50 ~ 100) mA	64 μA	
Insulation Voltage		25 V	0.68 mV	High Voltage Meter,
		(25 ~ 50) V	0.72 mV	Digital Multimeter
		(50 ~ 100) V	0.86 mV	/HCT-CS-077-40313
		(100 ~ 500) V	3.7 mV	
		(500 ~ 800) V	5.1 mV	
		(0.8 ~ 1) kV	1.1 V	
		(1 ~ 2) kV	2.5 V	
		(2 ~ 4) kV	4.7 V	
		(4 ~ 6) kV	7.0 V	
		(6 ~ 8) kV	9.3 V	
		(8 ~ 10) kV	12 V	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Puncture/safety testers	40313			Standard Resistor, Decade Resistor
Insulation Resistance		1 kΩ	0.64 Ω	/HCT-CS-077-40313
		(1 ~ 10) kΩ	0.69 Ω	
		(10 ~ 100) kΩ	6.8 Ω	
		(100 ~ 200) kΩ	95 Ω	
		(200 ~ 500) kΩ	0.19 kΩ	
		(500 ~ 700) kΩ	0.26 kΩ	
		(700 ~ 1 000) kΩ	0.36 kΩ	
		(1 ~ 100) MΩ	1.3×10^{-3}	
		(100 ~ 1 000) MΩ	2.6×10^{-3}	
		(1 ~ 10) GΩ	6.5×10^{-3}	
		(10 ~ 100) GΩ	1.2×10^{-2}	
Ground Bond AC Current		(50 ~ 60) Hz		Digital Multimeter, Current Shunt
		1 A	0.74 mA	/HCT-CS-077-40313
		(1 ~ 10) A	1.6 mA	
		(10 ~ 20) A	7.0 mA	
		(20 ~ 30) A	7.7 mA	
		(30 ~ 40) A	8.5 mA	
		(40 ~ 50) A	9.4 mA	
		(50 ~ 60) A	12 mA	
Ground Bond Resistance		(50 ~ 60) Hz		Standard Resistor, Decade Resistor
		1 mΩ	62 μΩ	/HCT-CS-077-40313
		(1 ~ 10) mΩ	65 μΩ	
		(10 ~ 500) mΩ	1.2×10^{-2}	
Time		(1 ~ 5) s	2 ms	Oscilloscope, Voltage Probe
		(5 ~ 30) s	0.04 s	/HCT-CS-077-40313
		(30 ~ 60) s	0.07 s	
Power recorders	40314			Wattmeter calibrator,
AC Power		(50 ~ 60) Hz		Multimeter calibrator, Coil
		1.5 W	2.5 mW	/HCT-CS-078-40314
		(1.5 ~ 3) W	2.5 mW	
		(3 ~ 12) W	9.7 mW	
		(12 ~ 15) W	3.6 mW	
		(15 ~ 30) W	6.8 mW	
		(30 ~ 60) W	14 mW	
		(60 ~ 120) W	27 mW	
		(120 ~ 300) W	41 mW	
		(300 ~ 600) W	81 mW	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Power recorders	40314			Wattmeter calibrator,
AC Power		(600 ~ 1 200) W	0.17 W	Multimeter calibrator, Coil
		(1.2 ~ 1.5) kW	0.21 W	/HCT-CS-078-40314
		(1.5 ~ 3) kW	0.41 W	
		(3 ~ 6) kW	0.81 W	
		(6 ~ 12) kW	1.7 W	
		(12 ~ 15) kW	2.2 W	
		(15 ~ 30) kW	4.2 W	
		(30 ~ 60) kW	8.2 W	
		(60 ~ 120) kW	17 W	
		(120 ~ 240) kW	31 W	
DC Power		0.5 W	0.11 mW	
		(0.5 ~ 2.5) W	0.40 mW	
		(2.5 ~ 7.5) W	1.4 mW	
		(7.5 ~ 15) W	2.5 mW	
		(15 ~ 24) W	4.1 mW	
		(24 ~ 30) W	5.6 mW	
		(30 ~ 50) W	8.3 mW	
		(50 ~ 60) W	12 mW	
		(60 ~ 75) W	15 mW	
		(75 ~ 125) W	42 mW	
		(125 ~ 300) W	71 mW	
		(300 ~ 600) W	0.12 W	
		(600 ~ 750) W	0.25 W	
		(0.75 ~ 1.25) kW	0.87 W	
		(1.25 ~ 3) kW	1.6 W	
		(3 ~ 12.5) kW	6.0 W	
		(12.5 ~ 15) kW	11 W	
		(15 ~ 30) kW	36 W	
		(30 ~ 60) kW	72 W	
		(60 ~ 120) kW	0.15 kW	
		(120 ~ 250) kW	0.29 kW	
		(250 ~ 500) kW	0.60 kW	
Power Factor		(50 ~ 60) Hz		
		-1 ~ 1	0.000 16	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Power recorders	40314			Wattmeter calibrator,
AC Voltage		50 Hz		Multimeter calibrator
		1 V	85 μV	/HCT-CS-078-40314
		(1 ~ 2) V	0.13 mV	
		(2 ~ 5) V	0.37 mV	
		(5 ~ 10) V	0.85 mV	
		(10 ~ 20) V	1.3 mV	
		(20 ~ 50) V	4.5 mV	
		(50 ~ 60) V	5.0 mV	
		(60 ~ 100) V	9.4 mV	
		(100 ~ 150) V	12 mV	
		(150 ~ 200) V	15 mV	
		(200 ~ 300) V	46 mV	
		(300 ~ 500) V	64 mV	
		(500 ~ 600) V	73 mV	
		(600 ~ 750) V	95 mV	
		(750 ~ 1 000) V	0.14 V	
		60 Hz		
		1 V	85 μV	
		(1 ~ 2) V	0.13 mV	
		(2 ~ 5) V	0.37 mV	
		(5 ~ 10) V	0.85 mV	
		(10 ~ 20) V	1.3 mV	
		(20 ~ 50) V	4.5 mV	
		(50 ~ 60) V	5.0 mV	
		(60 ~ 100) V	9.4 mV	
		(100 ~ 150) V	12 mV	
		(150 ~ 200) V	15 mV	
		(200 ~ 300) V	30 mV	
		(300 ~ 500) V	46 mV	
		(500 ~ 600) V	56 mV	
		(600 ~ 750) V	68 mV	
		(750 ~ 1 000) V	0.11 V	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Power recorders	40314			Wattmeter calibrator,
AC Current		(50 ~ 60) Hz		Multimeter calibrator, Coil
		100 mA	0.14 mA	/HCT-CS-078-40314
		100 mA ~ 1 A	1.4 mA	
		(1 ~ 10) A	19 mA	
		(10 ~ 100) A	0.32 A	
		(100 ~ 200) A	0.39 A	
		(200 ~ 300) A	0.48 A	
		(300 ~ 400) A	0.58 A	
		(400 ~ 500) A	0.68 A	
		(500 ~ 750) A	1.3 A	
		(750 ~ 900) A	1.5 A	
		(900 ~ 1 000) A	1.6 A	
		(1 000 ~ 1 500) A	2.1 A	
		(1 500 ~ 2 000) A	2.6 A	
		(2 000 ~ 2 500) A	3.2 A	
		(2 500 ~ 3 000) A	3.7 A	
AC voltmeters	40318			Multimeter calibrators,
DC Voltage		(±)		Digital Multimeters,
		2 mV	0.53 μV	AC voltage standard
		(2 ~ 10) mV	0.59 μV	/HCT-CS-079-40318
		(10 ~ 100) mV	1.4 μV	
		(0.1 ~ 1) V	6.7 μV	
		(1 ~ 10) V	46 μV	
		(10 ~ 100) V	0.63 mV	
		(100 ~ 1 000) V	8.1 mV	
AC Voltage		2 mV		
		10 Hz	5.2 μV	
		10 Hz ~ 50 kHz	3.8 μV	
		(50 ~ 100) kHz	4.5 μV	
		(100 ~ 500) kHz	11 μV	
		500 kHz ~ 1 MHz	12 μV	
		(2 ~ 10) mV		
		10 Hz	3.9 μV	
		10 Hz ~ 20 kHz	3.4 μV	
		(20 ~ 50) kHz	3.6 μV	
		(50 ~ 100) kHz	6.0 μV	
		(100 ~ 500) kHz	15 μV	
		500 kHz ~ 1 MHz	18 μV	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
AC voltmeters	40318			Multimeter calibrators,
AC Voltage		(10 ~ 100) mV		Digital Multimeters,
		10 Hz	25 μV	AC voltage standard
		(10 ~ 20) Hz	11 μV	/HCT-CS-079-40318
		20 Hz ~ 20 kHz	6.0 μV	
		(20 ~ 50) kHz	12 μV	
		(50 ~ 100) kHz	18 μV	
		(100 ~ 500) kHz	71 μV	
		500 kHz ~ 1 MHz	72 μV	
		100 mV ~ 1 V		
		10 Hz	0.23 mV	
		(10 ~ 20) Hz	72 μV	
		(20 ~ 40) Hz	37 μV	
		40 Hz ~ 20 kHz	20 μV	
		(20 ~ 50) kHz	47 μV	
		(50 ~ 100) kHz	59 μV	
		(100 ~ 500) kHz	0.50 mV	
		500 kHz ~ 1 MHz	0.53 mV	
		(1 ~ 10) V		
		10 Hz	2.3 mV	
		(10 ~ 20) Hz	0.72 mV	
		(20 ~ 40) Hz	0.37 mV	
		40 Hz ~ 20 kHz	0.25 mV	
		(20 ~ 50) kHz	0.47 mV	
		(50 ~ 100) kHz	0.59 mV	
		(100 ~ 500) kHz	5.0 mV	
		500 kHz ~ 1 MHz	5.6 mV	
		(10 ~ 100) V		
		40 Hz ~ 20 kHz	3.6 mV	
		(20 ~ 50) kHz	7.6 mV	
		(50 ~ 100) kHz	8.3 mV	
		(100 ~ 1 000) V		
		40 Hz ~ 20 kHz	34 mV	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
AC voltmeters	40318			Multimeter calibrators, Oscilloscope
Frequency		10 Hz	5.8 mHz	/HCT-CS-079-40318
		10 Hz ~ 1 kHz	58 mHz	
		1 kHz ~ 10 MHz	5.8×10^{-5}	
		(10 ~ 50) MHz	1.2×10^{-4}	
Frequency Response		0 dB		Multimeter calibrators,
		20 Hz ~ 100 kHz	0.002 dB	Digital Multimeters,
		(100 ~ 200) kHz	0.006 dB	AC voltage standard
				/HCT-CS-079-40318
Output Voltage		1 V		
		100 Hz	0.13 mV	
		100 Hz ~ 1 kHz	1.2×10^{-4}	
		(1 ~ 20) kHz	1.8×10^{-4}	
		(20 ~ 50) kHz	2.0×10^{-3}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
LF amplifiers	40401			Multimeter calibrator,
				Digital multimeter
Low Frequency Amplifier				/HCT-CS-181-40401
Gain		10 Hz		
		2 mV	9.8 μV	
		(2 ~ 10) mV	2.2×10^{-3}	
		(10 ~ 100) mV	5.1×10^{-4}	
		(0.1 ~ 1) V	2.5×10^{-4}	
		(1 ~ 10) V	2.5×10^{-4}	
		(10 ~ 100) V	2.5×10^{-4}	
		(10 ~ 100) Hz		
		2 mV	8.2 μV	
		(2 ~ 10) mV	1.8×10^{-3}	
		(10 ~ 100) mV	2.4×10^{-4}	
		(0.1 ~ 1) V	1.4×10^{-4}	
		(1 ~ 10) V	2.2×10^{-4}	
		(10 ~ 100) V	1.4×10^{-4}	
		(0.1 ~ 1) kHz		
		2 mV	8.2 μV	
		(2 ~ 10) mV	1.8×10^{-3}	
		(10 ~ 100) mV	2.2×10^{-4}	
		(0.1 ~ 1) V	1.2×10^{-4}	
		(1 ~ 10) V	1.9×10^{-4}	
		(10 ~ 100) V	1.2×10^{-4}	
		(1 ~ 10) kHz		
		2 mV	8.2 μV	
		(2 ~ 10) mV	1.8×10^{-3}	
		(10 ~ 100) mV	2.4×10^{-4}	
		(0.1 ~ 1) V	1.4×10^{-4}	
		(1 ~ 10) V	2.2×10^{-4}	
		(10 ~ 100) V	1.4×10^{-4}	
		(10 ~ 100) kHz		
		2 mV	17 μV	
		(2 ~ 10) mV	4.0×10^{-3}	
		(10 ~ 100) mV	1.5×10^{-3}	
		(0.1 ~ 1) V	8.3×10^{-4}	
		(1 ~ 10) V	1.8×10^{-3}	
		(10 ~ 100) V	8.2×10^{-4}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
LF amplifiers	40401			Multimeter calibrator,
				Digital multimeter
Low Frequency Amplifier				/HCT-CS-181-40401
Gain		10 Hz ~ 1 kHz		
		(0 ~ 60) dB	0.006 3 dB	
		(1 ~ 20) kHz		
		(0 ~ 60) dB	0.006 7 dB	
		(20 ~ 100) kHz		
		(0 ~ 40) dB	0.013 dB	
Charge type Amplifier				
Gain		10 Hz		
		10 mV	21 μV	
		(10 ~ 100) mV	2.8×10^{-3}	
		(0.1 ~ 1) V	3.0×10^{-4}	
		(1 ~ 9) V	4.0×10^{-4}	
		(10 ~ 100) Hz		
		10 mV	21 μV	
		(10 ~ 100) mV	1.1×10^{-3}	
		(0.1 ~ 1) V	2.0×10^{-4}	
		(1 ~ 9) V	4.0×10^{-4}	
		(0.1 ~ 1) kHz		
		10 mV	13 μV	
		(10 ~ 100) mV	1.1×10^{-3}	
		(0.1 ~ 1) V	2.0×10^{-4}	
		(1 ~ 9) V	4.0×10^{-4}	
		(1 ~ 10) kHz		
		10 mV	16 μV	
		(10 ~ 100) mV	8.0×10^{-4}	
		(0.1 ~ 1) V	2.0×10^{-4}	
		(1 ~ 9) V	4.0×10^{-4}	
		(10 ~ 20) kHz		
		10 mV	17 μV	
		(10 ~ 100) mV	9.5×10^{-4}	
		(0.1 ~ 1) V	5.0×10^{-4}	
		(1 ~ 9) V	1.0×10^{-3}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
LF amplifiers	40401			Multimeter calibrator,
				Digital multimeter
Gain : DC Voltage		10 mV	1.5 μV	/HCT-CS-181-40401
		(10 ~ 100) mV	6.0×10^{-5}	
		(0.1 ~ 1) V	6.0×10^{-5}	
		(1 ~ 10) V	7.0×10^{-5}	
		(10 ~ 100) V	7.0×10^{-5}	
DC/LF attenuators	40402			Function Generator,
Attenuator		20 Hz ~ 20 kHz		Digital Multimeters
		(0 ~ 50) dB	0.017 dB	/HCT-CS-081-40402
		(50 ~ 60) dB	0.044 dB	
		(20 ~ 50) kHz		
		(0 ~ 50) dB	0.044 dB	
		(50 ~ 60) dB	0.056 dB	
		(50 ~ 100) kHz		
		(0 ~ 50) dB	0.044 dB	
		(50 ~ 60) dB	0.056 dB	
Multimeter calibrators	40403			Standard cell, Standard Resistor,
				Standard divider,
DC Voltage		0 mV	0.13 μV	AC calibrator
		(0 ~ 100) mV	2.3×10^{-6}	/HCT-CS-082-40403
		(-0 ~ -100) mV	2.3×10^{-6}	
		(0.1 ~ 1) V	2.3×10^{-6}	
		(-0.1 ~ -1) V	2.3×10^{-6}	
		(1 ~ 10) V	2.3×10^{-6}	
		(-1 ~ -10) V	2.3×10^{-6}	
		(10 ~ 100) V	2.3×10^{-6}	
		(-10 ~ -100) V	2.3×10^{-6}	
		(100 ~ 1 000) V	2.3×10^{-6}	
		(-100 ~ -1 000) V	2.3×10^{-6}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Multimeter calibrators	40403			Standard cell, Standard Resistor,
				Standard divider,
AC Voltage		(10 Hz)		AC calibrator
		100 μV	0.27 μV	/HCT-CS-082-40403
		(0.1 ~ 100) mV	3.8×10^{-5}	
		(0.1 ~ 1) V	3.3×10^{-5}	
		(1 ~ 10) V	4.7×10^{-5}	
		(10 ~ 100) V	5.2×10^{-5}	
		(10 ~ 40) Hz		
		100 μV	0.13 μV	
		(0.1 ~ 100) mV	3.3×10^{-5}	
		(0.1 ~ 1) V	2.7×10^{-5}	
		(1 ~ 10) V	1.7×10^{-5}	
		(10 ~ 100) V	3.2×10^{-5}	
		(100 ~ 1 000) V	1.5×10^{-5}	
		(40 ~ 100) Hz		
		100 μV	0.13 μV	
		(0.1 ~ 100) mV	2.0×10^{-5}	
		(0.1 ~ 1) V	2.6×10^{-5}	
		(1 ~ 10) V	2.0×10^{-5}	
		(10 ~ 100) V	3.5×10^{-5}	
		(100 ~ 1 000) V	2.0×10^{-5}	
		(100 ~ 500) Hz		
		100 μV	0.13 μV	
		(0.1 ~ 100) mV	3.1×10^{-5}	
		(0.1 ~ 1) V	1.7×10^{-5}	
		(1 ~ 10) V	2.8×10^{-5}	
		(10 ~ 100) V	2.3×10^{-5}	
		(100 ~ 1 000) V	2.2×10^{-5}	
		500 Hz ~ 1 kHz		
		100 μV	0.13 μV	
		(0.1 ~ 100) mV	3.1×10^{-5}	
		(0.1 ~ 1) V	2.1×10^{-5}	
		(1 ~ 10) V	2.0×10^{-5}	
		(10 ~ 100) V	2.6×10^{-5}	
		(100 ~ 1 000) V	2.7×10^{-5}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Multimeter calibrators	40403			Standard cell, Standard Resistor,
				Standard divider,
AC Voltage		(1 ~ 10) kHz		AC calibrator
		100 μV	0.13 μV	/HCT-CS-082-40403
		(0.1 ~ 100) mV	2.7×10^{-5}	
		(0.1 ~ 1) V	1.7×10^{-5}	
		(1 ~ 10) V	1.5×10^{-5}	
		(10 ~ 100) V	2.8×10^{-5}	
		(100 ~ 1 000) V	3.1×10^{-5}	
		(10 ~ 20) kHz		
		100 μV	0.13 μV	
		(0.1 ~ 100) mV	2.9×10^{-5}	
		(0.1 ~ 1) V	2.6×10^{-5}	
		(1 ~ 10) V	1.5×10^{-5}	
		(10 ~ 100) V	4.9×10^{-5}	
		(100 ~ 1 000) V	2.7×10^{-5}	
		(20 ~ 30) kHz		
		100 μV	0.21 μV	
		(0.1 ~ 100) mV	3.0×10^{-5}	
		(0.1 ~ 1) V	2.1×10^{-5}	
		(1 ~ 10) V	2.5×10^{-5}	
		(10 ~ 100) V	4.8×10^{-5}	
		(100 ~ 1 000) V	4.4×10^{-5}	
		(30 ~ 50) kHz		
		100 μV	0.21 μV	
		(0.1 ~ 100) mV	4.3×10^{-5}	
		(0.1 ~ 1) V	2.7×10^{-5}	
		(1 ~ 10) V	3.0×10^{-5}	
		(10 ~ 100) V	4.1×10^{-5}	
		(100 ~ 600) V	1.1×10^{-4}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Multimeter calibrators	40403			Standard cell, Standard Resistor,
				Standard divider,
AC Voltage		(50 ~ 100) kHz		AC calibrator
		100 μV	0.28 μV	/HCT-CS-082-40403
		(0.1 ~ 100) mV	6.7×10^{-5}	
		(0.1 ~ 1) V	3.6×10^{-5}	
		(1 ~ 10) V	5.8×10^{-5}	
		(10 ~ 100) V	6.5×10^{-5}	
		(100 ~ 600) V	1.2×10^{-4}	
		(100 ~ 200) kHz		
		100 μV	0.50 μV	
		(0.1 ~ 100) mV	1.1×10^{-4}	
		(0.1 ~ 1) V	5.9×10^{-5}	
		(1 ~ 10) V	5.9×10^{-5}	
		(10 ~ 60) V	1.4×10^{-4}	
		(200 ~ 300) kHz		
		100 μV	0.50 μV	
		(0.1 ~ 100) mV	1.3×10^{-4}	
		(0.1 ~ 1) V	5.9×10^{-5}	
		(1 ~ 10) V	6.3×10^{-5}	
		(10 ~ 60) V	1.8×10^{-4}	
		(300 ~ 500) kHz		
		100 μV	0.74 μV	
		(0.1 ~ 100) mV	1.5×10^{-4}	
		(0.1 ~ 1) V	1.3×10^{-4}	
		(1 ~ 20) V	5.0×10^{-5}	
		(0.5 ~ 1) MHz		
		100 μV	0.88 μV	
		(0.1 ~ 100) mV	4.8×10^{-4}	
		(0.1 ~ 1) V	2.7×10^{-4}	
		(1 ~ 20) V	2.5×10^{-4}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Multimeter calibrators	40403			Standard cell, Standard Resistor,
				Standard divider,
AC Voltage		(1 ~ 2) MHz		AC calibrator
		100 μV	0.20 μV	/HCT-CS-082-40403
		(0.1 ~ 100) mV	4.4×10^{-4}	
		(0.1 ~ 1) V	5.5×10^{-4}	
		(1 ~ 3) V	2.4×10^{-4}	
		(2 ~ 5) MHz		
		100 μV	0.31 μV	
		(0.1 ~ 100) mV	9.1×10^{-4}	
		(0.1 ~ 1) V	9.0×10^{-4}	
		(1 ~ 3) V	7.3×10^{-4}	
		(5 ~ 10) MHz		
		100 μV	0.31 μV	
		(0.1 ~ 100) mV	1.1×10^{-3}	
		(0.1 ~ 1) V	8.4×10^{-4}	
		(1 ~ 3) V	9.1×10^{-4}	
		(10 ~ 20) MHz		
		100 μV	0.47 μV	
		(0.1 ~ 100) mV	1.1×10^{-3}	
		(0.1 ~ 1) V	7.8×10^{-4}	
		(1 ~ 3) V	8.3×10^{-4}	
		(20 ~ 30) MHz		
		100 μV	1.4 μV	
		(0.1 ~ 100) mV	2.2×10^{-3}	
		(0.1 ~ 1) V	1.3×10^{-3}	
		(1 ~ 3) V	1.3×10^{-3}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Multimeter calibrators	40403			Standard cell, Standard Resistor, Standard divider, AC calibrator /HCT-CS-082-40403
DC Current		0 μA	0.80 nA	
		(0 ~ 100) μA	8.8×10^{-6}	
		(-0 ~ -100) μA	8.8×10^{-6}	
		(0.1 ~ 1) mA	9.9×10^{-3}	
		(-0.1 ~ -1) mA	9.9×10^{-3}	
		(1 ~ 10) mA	1.0×10^{-5}	
		(-1 ~ -10) mA	1.0×10^{-5}	
		(10 ~ 100) mA	6.6×10^{-6}	
		(-10 ~ -100) mA	6.6×10^{-6}	
		(0.1 ~ 1) A	6.7×10^{-6}	
		(-0.1 ~ -1) A	6.7×10^{-6}	
		(1 ~ 10) A	1.4×10^{-5}	
		(-1 ~ -10) A	1.4×10^{-5}	
		(10 ~ 20) A	3.6×10^{-5}	
		(-10 ~ -20) A	3.6×10^{-5}	
		(20 ~ 30) A	2.8×10^{-5}	
		(-20 ~ -30) A	2.8×10^{-5}	
AC Current		(10 Hz)		
		1 μA	32 nA	
		(1 ~ 100) μA	3.2×10^{-4}	
		(0.1 ~ 1) mA	2.9×10^{-4}	
		(1 ~ 10) mA	2.9×10^{-4}	
		(10 ~ 100) mA	2.9×10^{-4}	
		(0.1 ~ 1) A	2.9×10^{-4}	
		(1 ~ 3) A	9.9×10^{-4}	
		(3 ~ 10) A	2.9×10^{-4}	
		(10 ~ 20) A	2.9×10^{-4}	
		(20 ~ 30) A	4.9×10^{-4}	
		(10 ~ 40) Hz		
		1 μA	6.7 nA	
		(1 ~ 100) μA	7.1×10^{-5}	
		(0.1 ~ 1) mA	3.6×10^{-5}	
		(1 ~ 10) mA	4.5×10^{-5}	
		(10 ~ 100) mA	4.4×10^{-5}	
		(0.1 ~ 1) A	4.5×10^{-5}	
		(1 ~ 3) A	2.5×10^{-4}	
		(3 ~ 10) A	4.7×10^{-5}	
		(10 ~ 20) A	4.8×10^{-5}	
		(20 ~ 30) A	7.6×10^{-5}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Multimeter calibrators	40403			Standard cell, Standard Resistor,
				Standard divider,
AC Current		(40 ~ 45) Hz		AC calibrator
		1 μA	6.6 nA	/HCT-CS-082-40403
		(1 ~ 100) μA	7.3×10^{-5}	
		(0.1 ~ 1) mA	3.7×10^{-5}	
		(1 ~ 10) mA	4.3×10^{-5}	
		(10 ~ 100) mA	4.4×10^{-5}	
		(0.1 ~ 1) A	4.6×10^{-5}	
		(1 ~ 10) A	4.7×10^{-4}	
		(10 ~ 20) A	4.9×10^{-4}	
		(20 ~ 30) A	7.6×10^{-4}	
		(45 ~ 100) Hz		
		1 μA	6.6 nA	
		(1 ~ 100) μA	7.3×10^{-5}	
		(0.1 ~ 1) mA	3.7×10^{-5}	
		(1 ~ 10) mA	4.3×10^{-5}	
		(10 ~ 100) mA	4.4×10^{-5}	
		(0.1 ~ 1) A	4.7×10^{-5}	
		(1 ~ 10) A	4.9×10^{-5}	
		(10 ~ 20) A	4.8×10^{-5}	
		(20 ~ 30) A	7.5×10^{-5}	
		(100 ~ 200) Hz		
		1 μA	6.6 nA	
		(1 ~ 100) μA	7.2×10^{-5}	
		(0.1 ~ 1) mA	3.8×10^{-5}	
		(1 ~ 10) mA	4.3×10^{-5}	
		(10 ~ 100) mA	4.5×10^{-5}	
		(0.1 ~ 1) A	4.7×10^{-5}	
		(1 ~ 10) A	4.9×10^{-5}	
		(10 ~ 20) A	4.8×10^{-5}	
		(20 ~ 30) A	7.6×10^{-5}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Multimeter calibrators	40403			Standard cell, Standard Resistor,
				Standard divider,
AC Current		(200 ~ 500) Hz		AC calibrator
		1 μA	6.6 nA	/HCT-CS-082-40403
		(1 ~ 100) μA	7.2×10^{-5}	
		(0.1 ~ 1) mA	3.7×10^{-5}	
		(1 ~ 10) mA	4.3×10^{-5}	
		(10 ~ 100) mA	4.4×10^{-5}	
		(0.1 ~ 1) A	4.5×10^{-5}	
		(1 ~ 10) A	6.4×10^{-5}	
		(10 ~ 20) A	4.8×10^{-5}	
		(20 ~ 30) A	7.7×10^{-5}	
		500 Hz ~ 1 kHz		
		1 μA	6.6 nA	
		(1 ~ 100) μA	7.3×10^{-5}	
		(0.1 ~ 1) mA	3.7×10^{-5}	
		(1 ~ 10) mA	4.3×10^{-5}	
		(10 ~ 100) mA	4.5×10^{-5}	
		(0.1 ~ 1) A	4.3×10^{-5}	
		(1 ~ 10) A	4.9×10^{-5}	
		(10 ~ 20) A	4.8×10^{-5}	
		(20 ~ 30) A	7.5×10^{-5}	
		(1 ~ 2) kHz		
		1 μA	6.7 nA	
		(1 ~ 100) μA	7.3×10^{-5}	
		(0.1 ~ 1) mA	3.7×10^{-5}	
		(1 ~ 10) mA	4.3×10^{-5}	
		(10 ~ 100) mA	4.3×10^{-5}	
		(0.1 ~ 1) A	4.5×10^{-5}	
		(1 ~ 10) A	4.9×10^{-5}	
		(10 ~ 20) A	4.8×10^{-5}	
		(20 ~ 30) A	7.6×10^{-5}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Multimeter calibrators	40403			Standard cell, Standard Resistor,
AC Current		(2 ~ 5) kHz		Standard divider,
		1 μA	6.7 nA	AC calibrator
		(1 ~ 100) μA	7.3×10^{-5}	/HCT-CS-082-40403
		(0.1 ~ 1) mA	3.6×10^{-5}	
		(1 ~ 10) mA	4.3×10^{-5}	
		(10 ~ 100) mA	4.7×10^{-5}	
		(0.1 ~ 1) A	4.5×10^{-5}	
		(1 ~ 10) A	4.9×10^{-5}	
		(10 ~ 20) A	4.9×10^{-5}	
		(20 ~ 30) A	7.6×10^{-5}	
		(5 ~ 10) kHz		
		1 μA	6.7 nA	
		(1 ~ 100) μA	7.4×10^{-5}	
		(0.1 ~ 1) mA	3.7×10^{-5}	
		(1 ~ 10) mA	4.3×10^{-5}	
		(10 ~ 100) mA	4.5×10^{-5}	
		(0.1 ~ 1) A	5.0×10^{-5}	
		(1 ~ 3) A	2.6×10^{-4}	
		(10 ~ 30) kHz		
		1 μA	12 nA	
		(1 ~ 100) μA	1.2×10^{-4}	
		(0.1 ~ 1) mA	6.8×10^{-5}	
		(1 ~ 10) mA	7.2×10^{-5}	
		(10 ~ 100) mA	7.2×10^{-5}	
		(0.1 ~ 0.33) A	2.1×10^{-4}	
Resistance		0 Ω	4.6 μΩ	
		(0 ~ 1) Ω	9.9×10^{-6}	
		(1 ~ 10) Ω	2.5×10^{-5}	
		(10 ~ 100) Ω	7.7×10^{-6}	
		(0.1 ~ 1) kΩ	7.3×10^{-6}	
		(1 ~ 10) kΩ	4.9×10^{-6}	
		(10 ~ 100) kΩ	7.3×10^{-6}	
		(0.1 ~ 1) MΩ	9.6×10^{-6}	
		(1 ~ 10) MΩ	1.2×10^{-5}	
		(10 ~ 100) MΩ	2.5×10^{-5}	
		(100 ~ 1 000) MΩ	3.2×10^{-5}	
		(1 ~ 10) GΩ	5.8×10^{-4}	
		(10 ~ 100) GΩ	1.2×10^{-3}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Multimeter calibrators	40403			Standard cell, Standard Resistor, Standard divider,
Frequency		1 Hz	0.58 μHz	AC calibrator
		(1 ~ 10) Hz	5.8×10^{-7}	/HCT-CS-082-40403
		(10 ~ 100) Hz	5.8×10^{-7}	
		(0.1 ~ 1) kHz	5.8×10^{-7}	
		(1 ~ 10) kHz	5.8×10^{-7}	
		(10 ~ 100) kHz	5.8×10^{-7}	
		(0.1 ~ 1) MHz	5.8×10^{-7}	
		(1 ~ 10) MHz	5.8×10^{-7}	
		(10 ~ 30) MHz	1.9×10^{-7}	
Multi function calibrator				Meter calibrators,
DC Voltage (Meter)		1 mV	0.52 μV	Digital multimeters,
		-1 mV	0.52 μV	Frequency counters, LCR meters
		(1 ~ 100) mV	1.3×10^{-5}	/HCT-CS-276-40403
		(-1 ~ -100) mV	1.3×10^{-5}	
		(0.1 ~ 1) V	6.7×10^{-6}	
		(-0.1 ~ -1) V	6.7×10^{-6}	
		(1 ~ 10) V	4.5×10^{-6}	
		(-1 ~ -10) V	4.5×10^{-6}	
		(10 ~ 100) V	6.3×10^{-6}	
		(-10 ~ -100) V	6.3×10^{-6}	
		(100 ~ 1 000) V	8.0×10^{-6}	
		(-100 ~ -1 000) V	8.0×10^{-6}	
DC Current (Meter)		1 μA	7.0 nA	
		-1 μA	7.0 nA	
		(1 ~ 100) μA	1.2×10^{-4}	
		(-1 ~ -100) μA	1.2×10^{-4}	
		(0.1 ~ 1) mA	5.7×10^{-5}	
		(-0.1 ~ -1) mA	5.7×10^{-5}	
		(1 ~ 10) mA	5.4×10^{-5}	
		(-1 ~ -10) mA	5.4×10^{-5}	
		(10 ~ 100) mA	4.8×10^{-5}	
		(-10 ~ -100) mA	4.8×10^{-5}	
		(0.1 ~ 1) A	1.2×10^{-4}	
		(-0.1 ~ -1) A	1.2×10^{-4}	
		(1 ~ 10) A	9.4×10^{-5}	
		(-1 ~ -10) A	9.4×10^{-5}	
		(10 ~ 20) A	1.6×10^{-4}	
		(-10 ~ -20) A	1.6×10^{-4}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Multimeter calibrators	40403			Meter calibrators,
				Digital multimeters,
Resistance (Meter)		1 Ω	11 μΩ	Frequency counters, LCR meters
		(1 ~ 100) Ω	6.9×10^{-6}	/HCT-CS-276-40403
		(0.1 ~ 1) kΩ	6.9×10^{-6}	
		(1 ~ 10) kΩ	4.6×10^{-6}	
		(10 ~ 100) kΩ	7.0×10^{-6}	
		(0.1 ~ 1) MΩ	9.3×10^{-6}	
		(1 ~ 10) MΩ	1.2×10^{-5}	
		(10 ~ 100) MΩ	2.5×10^{-5}	
		(0.1 ~ 1) GΩ	6.2×10^{-4}	
AC Voltage (Meter)		(10 ~ 40) Hz		
		1 mV	4.8 μV	
		(1 ~ 100) mV	1.8×10^{-4}	
		(0.1 ~ 1) V	1.2×10^{-4}	
		(1 ~ 10) V	1.3×10^{-4}	
		(10 ~ 100) V	1.3×10^{-4}	
		(100 ~ 1 000) V	3.7×10^{-4}	
		(40 ~ 500) Hz		
		1 mV	4.8 μV	
		(1 ~ 100) mV	1.5×10^{-4}	
		(0.1 ~ 1) V	5.9×10^{-5}	
		(1 ~ 10) V	5.8×10^{-5}	
		(10 ~ 100) V	7.1×10^{-5}	
		(100 ~ 1 000) V	8.7×10^{-5}	
		500 Hz ~ 1 kHz		
		1 mV	4.8 μV	
		(1 ~ 100) mV	1.5×10^{-4}	
		(0.1 ~ 1) V	5.9×10^{-5}	
		(1 ~ 10) V	5.8×10^{-5}	
		(10 ~ 100) V	7.1×10^{-5}	
		(100 ~ 1 000) V	8.7×10^{-5}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Multimeter calibrators	40403			Meter calibrators,
				Digital multimeters,
AC Voltage (Meter)		(1 ~ 10) kHz		Frequency counters, LCR meters
		1 mV	4.8 μV	/HCT-CS-276-40403
		(1 ~ 100) mV	1.5×10^{-4}	
		(0.1 ~ 1) V	6.1×10^{-5}	
		(1 ~ 10) V	5.8×10^{-5}	
		(10 ~ 100) V	7.1×10^{-5}	
		(100 ~ 1 000) V	2.0×10^{-4}	
		(10 ~ 20) kHz		
		1 mV	4.8 μV	
		(1 ~ 100) mV	1.5×10^{-4}	
		(0.1 ~ 1) V	7.7×10^{-5}	
		(1 ~ 10) V	5.8×10^{-5}	
		(10 ~ 100) V	7.1×10^{-5}	
		(100 ~ 1 000) V	2.0×10^{-4}	
		(20 ~ 50) kHz		
		1 mV	4.9 μV	
		(1 ~ 100) mV	2.2×10^{-4}	
		(0.1 ~ 1) V	9.4×10^{-5}	
		(1 ~ 10) V	9.4×10^{-5}	
		(10 ~ 100) V	1.1×10^{-4}	
		(50 ~ 100) kHz		
		1 mV	6.5 μV	
		(1 ~ 100) mV	5.5×10^{-4}	
		(0.1 ~ 1) V	1.4×10^{-4}	
		(1 ~ 10) V	1.3×10^{-4}	
		(10 ~ 100) V	2.1×10^{-4}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Multimeter calibrators	40403			Meter calibrators,
				Digital multimeters,
AC Current (Meter)		(10 ~ 40) Hz		Frequency counters, LCR meters
		1 μA	14 nA	/HCT-CS-276-40403
		(1 ~ 100) μA	3.1×10^{-4}	
		(0.1 ~ 1) mA	2.3×10^{-4}	
		(1 ~ 10) mA	2.3×10^{-4}	
		(10 ~ 100) mA	2.3×10^{-4}	
		(0.1 ~ 1) A	3.4×10^{-4}	
		(1 ~ 10) A	5.6×10^{-4}	
		(10 ~ 20) A	2.0×10^{-4}	
		(40 ~ 500) Hz		
		1 μA	12 nA	
		(1 ~ 100) μA	2.2×10^{-4}	
		(0.1 ~ 1) mA	1.7×10^{-4}	
		(1 ~ 10) mA	1.7×10^{-4}	
		(10 ~ 100) mA	1.6×10^{-4}	
		(0.1 ~ 1) A	3.4×10^{-4}	
		(1 ~ 10) A	5.6×10^{-4}	
		(10 ~ 20) A	2.1×10^{-4}	
		500 Hz ~ 1 kHz		
		1 μA	12 nA	
		(1 ~ 100) μA	2.2×10^{-4}	
		(0.1 ~ 1) mA	1.7×10^{-4}	
		(1 ~ 10) mA	1.7×10^{-4}	
		(10 ~ 100) mA	1.6×10^{-4}	
		(0.1 ~ 1) A	3.4×10^{-4}	
		(1 ~ 10) A	5.6×10^{-4}	
		(10 ~ 20) A	5.3×10^{-4}	
		(1 ~ 5) kHz		
		1 μA	21 nA	
		(1 ~ 100) μA	4.9×10^{-4}	
		(0.1 ~ 1) mA	3.8×10^{-4}	
		(1 ~ 10) mA	3.4×10^{-4}	
		(10 ~ 100) mA	3.2×10^{-4}	
		(0.1 ~ 1) A	6.6×10^{-4}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Multimeter calibrators	40403			Meter calibrators,
				Digital multimeters,
AC Current (Meter)		(5 ~ 10) kHz		Frequency counters, LCR meters
		1 μA	86 nA	/HCT-CS-276-40403
		(1 ~ 100) μA	2.1×10^{-3}	
		(0.1 ~ 1) mA	2.1×10^{-3}	
		(1 ~ 10) mA	1.9×10^{-3}	
		(10 ~ 100) mA	1.5×10^{-3}	
		(0.1 ~ 1) A	8.3×10^{-3}	
Time Mark		1 ns	3.1 ps	
		(1 ~ 10) ns	3.1×10^{-4}	
		(10 ~ 100) ns	3.1×10^{-5}	
		(0.1 ~ 1) μs	3.2×10^{-6}	
		(1 ~ 10) μs	6.6×10^{-7}	
		(10 ~ 100) μs	5.8×10^{-7}	
		(0.1 ~ 1) ms	5.8×10^{-7}	
		(1 ~ 10) ms	5.8×10^{-7}	
		(10 ~ 100) ms	5.8×10^{-7}	
		(0.1 ~ 1) s	5.8×10^{-7}	
Frequency		1 Hz	0.58 μHz	
		(1 ~ 10) Hz	5.8×10^{-7}	
		(10 ~ 100) Hz	5.8×10^{-7}	
		(0.1 ~ 1) kHz	5.8×10^{-7}	
		(1 ~ 10) kHz	5.8×10^{-7}	
		(10 ~ 100) kHz	5.8×10^{-7}	
		(0.1 ~ 1) MHz	5.8×10^{-7}	
		(1 ~ 10) MHz	5.8×10^{-7}	
		(10 ~ 100) MHz	5.8×10^{-7}	
		(0.1 ~ 1) GHz	5.8×10^{-7}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Multimeter calibrators	40403			Meter calibrators,
				Digital multimeters,
Capacitance		120 Hz		Frequency counters, LCR meters
		100 μF	42 nF	/HCT-CS-276-40403
		1 kHz		
		1 pF	1.2 fF	
		(1 ~ 10) pF	4.7×10^{-4}	
		(10 ~ 100) pF	2.3×10^{-4}	
		(0.1 ~ 1) nF	2.3×10^{-4}	
		(1 ~ 10) nF	2.8×10^{-4}	
		(10 ~ 100) nF	2.5×10^{-4}	
		(1 ~ 10) μF	2.2×10^{-4}	
		(0.1 ~ 1) μF	2.2×10^{-4}	
		(1 ~ 10) kHz		
		1 pF	0.39 fF	
		(1 ~ 10) pF	3.7×10^{-4}	
		(10 ~ 100) pF	3.6×10^{-4}	
		(0.1 ~ 1) nF	3.6×10^{-4}	
		(1 ~ 10) nF	3.6×10^{-4}	
		(10 ~ 100) nF	4.0×10^{-4}	
		(0.1 ~ 1) μF	3.6×10^{-4}	
		(10 ~ 100) kHz		
		1 pF	0.37 fF	
		(1 ~ 10) pF	3.6×10^{-4}	
		(10 ~ 100) pF	3.6×10^{-4}	
		(0.1 ~ 1) nF	3.7×10^{-4}	
		(1 ~ 10) nF	3.6×10^{-4}	
		(100 ~ 500) kHz		
		1 pF	0.38 fF	
		(1 ~ 10) pF	3.7×10^{-4}	
		(10 ~ 100) pF	3.6×10^{-4}	
		(0.1 ~ 1) nF	3.7×10^{-4}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Multimeter calibrators	40403			Meter calibrators,
				Digital multimeters,
Capacitance		(0.5 ~ 1) MHz		Frequency counters, LCR meters
		1 pF	0.62 fF	/HCT-CS-276-40403
		(1 ~ 10) pF	6.2×10^{-4}	
		(10 ~ 100) pF	6.2×10^{-4}	
		(0.1 ~ 1) nF	6.2×10^{-4}	
Inductance(Source)		1 kHz		
		100 μH	90 nH	
		(0.1 ~ 1) mH	4.0×10^{-4}	
		(1 ~ 10) mH	2.4×10^{-4}	
		(10 ~ 100) mH	2.4×10^{-4}	
		(0.1 ~ 1) H	2.4×10^{-4}	
		(1 ~ 10) H	2.5×10^{-4}	
		(1 ~ 10) kHz		
		100 μH	53 nH	
		(0.1 ~ 1) mH	2.4×10^{-4}	
		(1 ~ 10) mH	2.4×10^{-4}	
Oscilloscope calibrators	40404			Digital multimeters, Counters,
DC Voltage		(±)		Oscilloscopes, Spectrum analyzers
		0 mV	0.065 μV	Power meters, AC Calibrators
		(0 ~ 2.5) mV	1.1×10^{-4}	/HCT-CS-083-40404
		(2.5 ~ 5) mV	5.6×10^{-5}	
		(5 ~ 10) mV	6.4×10^{-5}	
		(10 ~ 25) mV	2.6×10^{-5}	
		(25 ~ 50) mV	1.3×10^{-5}	
		(50 ~ 100) mV	5.8×10^{-5}	
		(100 ~ 250) mV	2.4×10^{-5}	
		(250 ~ 500) mV	1.3×10^{-5}	
		(0.5 ~ 1) V	5.8×10^{-5}	
		(1 ~ 2.5) V	2.4×10^{-5}	
		(2.5 ~ 5) V	1.2×10^{-5}	
		(5 ~ 10) V	5.8×10^{-5}	
		(10 ~ 25) V	2.4×10^{-5}	
		(25 ~ 50) V	1.3×10^{-5}	
		(50 ~ 100) V	5.8×10^{-5}	
		(100 ~ 150) V	4.0×10^{-5}	
		(150 ~ 200) V	3.1×10^{-5}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Oscilloscope calibrators	40404			Digital multimeters, Counters,
Square/Edge Wave Voltage		1 kHz		Oscilloscopes, Spectrum analyzers
		5 mV	4.4 μV	Power meters, AC Calibrators
		(5 ~ 10) mV	9.2×10^{-4}	/HCT-CS-083-40404
		(10 ~ 25) mV	4.1×10^{-4}	
		(25 ~ 50) mV	2.6×10^{-4}	
		(50 ~ 100) mV	1.8×10^{-4}	
		(100 ~ 250) mV	1.7×10^{-4}	
		(250 ~ 500) mV	8.7×10^{-5}	
		(0.5 ~ 1) V	1.8×10^{-4}	
		(1 ~ 2.5) V	1.5×10^{-4}	
		(2.5 ~ 5) V	1.7×10^{-4}	
		(5 ~ 10) V	1.7×10^{-4}	
		(10 ~ 25) V	1.9×10^{-4}	
		(25 ~ 50) V	1.8×10^{-4}	
		(50 ~ 100) V	1.7×10^{-4}	
		(100 ~ 130) V	1.4×10^{-4}	
		(130 ~ 200) V	1.1×10^{-4}	
		100 kHz		
		10 mV	28 μV	
		(10 ~ 25) mV	2.7×10^{-3}	
		(25 ~ 50) mV	1.8×10^{-3}	
		(50 ~ 100) mV	1.3×10^{-3}	
		(100 ~ 250) mV	1.4×10^{-3}	
		(250 ~ 500) mV	1.6×10^{-3}	
		(0.5 ~ 1) V	1.1×10^{-3}	
		(1 ~ 2.5) V	9.5×10^{-4}	
Square/Edge Wave Frequency		10 Hz	5.8 μHz	
		10 Hz ~ 1 kHz	5.8×10^{-8}	
		(1 ~ 10) kHz	3.2×10^{-8}	
		10 kHz ~ 10 MHz	5.8×10^{-8}	
Edge TD Pulse Drive		(10 ~ 100) Hz		
		11 V	2.6 mV	
		(11 ~ 100) V	2.9×10^{-5}	
		(0.1 ~ 1) kHz		
		11 V	2.6 mV	
		(11 ~ 100) V	2.9×10^{-5}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Oscilloscope calibrators	40404			Digital multimeters, Counters,
Edge Duty Cycle		50 %	0.058 %	Oscilloscopes, Spectrum analyzers
				Power meters, AC Calibrators
Edge Rise Time		300 ps	0.64 ps	/HCT-CS-083-40404
		(300 ~ 500) ps	1.5×10^{-3}	
Leveled Sine Wave(Harmonic)		50 kHz ~ 6 GHz		
		-10 dBc	0.64 dB	
		(-10 ~ -80) dBc	0.64 dB	
High Frequency output levels		50 kHz ~ 600 MHz		
(V : p-p)		60 mV	1.0 mV	
		(60 ~ 300) mV	1.6×10^{-2}	
		(300 ~ 600) mV	1.5×10^{-2}	
		600 mV ~ 5.5 V	1.6×10^{-2}	
		600 MHz ~ 1 GHz		
		60 mV	1.0 mV	
		(60 ~ 300) mV	1.6×10^{-2}	
		(300 ~ 600) mV	1.5×10^{-2}	
		600 mV ~ 3.5 V	1.6×10^{-2}	
		(1 ~ 2) GHz		
		60 mV	1.0 mV	
		(60 ~ 300) mV	1.6×10^{-2}	
		(300 ~ 600) mV	1.5×10^{-2}	
		600 mV ~ 3 V	1.6×10^{-2}	
		(2 ~ 6) GHz		
		60 mV	1.0 mV	
		(60 ~ 300) mV	1.6×10^{-2}	
		(300 ~ 600) mV	1.5×10^{-2}	
		600 mV ~ 1.2 V	1.6×10^{-2}	
Leveled Sine Wave(Frequency)		500 MHz	1.5 Hz	
		(0.5 ~ 6) GHz	3.2×10^{-8}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Oscilloscope calibrators	40404			Digital multimeters, Counters,
Leveled Sine Wave(Amplitude)		10 Hz		Oscilloscopes, Spectrum analyzers
		5 mV	4.3 μV	Power meters, AC Calibrators
		(5 ~ 100) mV	7.4×10^{-5}	/HCT-CS-083-40404
		(0.1 ~ 1) V	6.5×10^{-4}	
		(1 ~ 5.5) V	4.3×10^{-4}	
		(0.01 ~ 50) kHz		
		5 mV	5.1 μV	
		(5 ~ 100) mV	1.2×10^{-5}	
		(0.1 ~ 1) V	6.6×10^{-4}	
		(1 ~ 5.5) V	1.4×10^{-4}	
Wave Generator(Square)		10 Hz		
		10 mV	4.2 μV	
		(10 ~ 900) mV	3.7×10^{-5}	
		(0.9 ~ 2.5) V	9.7×10^{-4}	
		(2.5 ~ 3.75) V	6.4×10^{-4}	
		(3.75 ~ 55) V	7.1×10^{-5}	
		(0.01 ~ 1) kHz		
		10 mV	4.0 μV	
		(10 ~ 900) mV	5.5×10^{-5}	
		(0.9 ~ 2.5) V	5.2×10^{-4}	
		(2.5 ~ 3.75) V	3.5×10^{-4}	
		(3.75 ~ 55) V	4.2×10^{-5}	
		(1 ~ 10) kHz		
		2.5 V	0.73 mV	
		(2.5 ~ 3.75) V	3.8×10^{-4}	
		(3.75 ~ 55) V	8.7×10^{-4}	
Wave Generator(Sine)		10 Hz		
		10 mV	4.0 μV	
		(0.01 ~ 55) V	7.3×10^{-5}	
		(0.01 ~ 1) kHz		
		10 mV	4.0 μV	
		(0.01 ~ 55) V	6.9×10^{-5}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Oscilloscope calibrators	40404			Digital multimeters, Counters,
Wave Generator(Triangle)		10 Hz		Oscilloscopes, Spectrum analyzers
		10 mV	4.0 μV	Power meters, AC Calibrators
		(0.01 ~ 55) V	7.3×10^{-5}	/HCT-CS-083-40404
		(0.01 ~ 1) kHz		
		10 mV	4.0 μV	
		(0.01 ~ 55) V	6.9×10^{-5}	
Pulse Generator(Priod)		10 ns	0.58 ps	
		(0.01 ~ 20) μs	2.9×10^{-5}	
		(20 ~ 100) μs	5.8×10^{-6}	
Pulse Generator(Width)		4 ns	1.2 ps	
		(4 ~ 100) ns	1.0×10^{-3}	
Time Mark		1 ns	2.7 ps	
		(1 ~ 2) ns	1.4×10^{-3}	
		(2 ~ 5) ns	5.4×10^{-4}	
		(5 ~ 10) ns	2.7×10^{-4}	
		(10 ~ 20) ns	1.4×10^{-4}	
		(20 ~ 50) ns	5.4×10^{-5}	
		(50 ~ 100) ns	2.7×10^{-5}	
		(100 ~ 200) ns	1.4×10^{-5}	
		(200 ~ 500) ns	5.4×10^{-6}	
		(0.5 ~ 1) μs	2.8×10^{-6}	
		(1 ~ 2) μs	1.4×10^{-6}	
		(2 ~ 5) μs	5.5×10^{-7}	
		(5 ~ 10) μs	6.4×10^{-7}	
		(10 ~ 20) μs	3.2×10^{-7}	
		(20 ~ 50) μs	1.3×10^{-7}	
		(50 ~ 100) μs	5.8×10^{-7}	
		(100 ~ 200) μs	2.9×10^{-7}	
		(200 ~ 500) μs	1.2×10^{-7}	
		(0.5 ~ 1) ms	5.8×10^{-7}	
		(1 ~ 2) ms	2.9×10^{-7}	
		(2 ~ 5) ms	1.2×10^{-7}	
		(5 ~ 10) ms	5.8×10^{-7}	
		(10 ~ 20) ms	2.9×10^{-7}	
		(20 ~ 50) ms	1.2×10^{-7}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Oscilloscope calibrators	40404			Digital multimeters, Counters,
Time Mark		(50 ~ 100) ms	5.8×10^{-7}	Oscilloscopes, Spectrum analyzers
		(100 ~ 200) ms	2.9×10^{-7}	Power meters, AC Calibrators
		(200 ~ 500) ms	1.2×10^{-7}	/HCT-CS-083-40404
		(0.5 ~ 1) s	5.8×10^{-7}	
		(1 ~ 2) s	2.9×10^{-7}	
		(2 ~ 5) s	1.2×10^{-7}	
		(5 ~ 10) s	5.8×10^{-7}	
		(10 ~ 20) s	2.9×10^{-7}	
Frequency		50 mHz	5.8 nHz	
		(50 ~ 100) mHz	5.8×10^{-7}	
		(100 ~ 200) mHz	2.9×10^{-7}	
		(200 ~ 500) mHz	1.2×10^{-7}	
		(0.5 ~ 1) Hz	5.8×10^{-7}	
		(1 ~ 2) Hz	2.9×10^{-7}	
		(2 ~ 5) Hz	1.2×10^{-7}	
		(5 ~ 10) Hz	5.8×10^{-7}	
		(10 ~ 20) Hz	2.9×10^{-7}	
		(20 ~ 50) Hz	1.2×10^{-7}	
		(50 ~ 100) Hz	5.8×10^{-7}	
		(100 ~ 200) Hz	2.9×10^{-7}	
		(200 ~ 500) Hz	1.2×10^{-7}	
		(0.5 ~ 1) kHz	5.8×10^{-7}	
		(1 ~ 2) kHz	2.9×10^{-7}	
		(2 ~ 5) kHz	1.2×10^{-7}	
		(5 ~ 10) kHz	5.8×10^{-7}	
		(10 ~ 20) kHz	2.9×10^{-7}	
		(20 ~ 50) kHz	1.2×10^{-7}	
		(50 ~ 100) kHz	5.8×10^{-7}	
		(100 ~ 200) kHz	2.9×10^{-7}	
		(200 ~ 500) kHz	1.2×10^{-7}	
		(0.5 ~ 1) MHz	5.8×10^{-7}	
		(1 ~ 2) MHz	2.9×10^{-7}	
		(2 ~ 5) MHz	1.2×10^{-7}	
		(5 ~ 10) MHz	5.8×10^{-7}	
		(10 ~ 20) MHz	2.9×10^{-7}	
		(20 ~ 50) MHz	1.2×10^{-7}	
		(50 ~ 100) MHz	5.8×10^{-7}	
		(100 ~ 200) MHz	2.9×10^{-7}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Oscilloscope calibrators	40404			Digital multimeters, Counters,
Frequency		(200 ~ 500) MHz	1.2×10^{-7}	Oscilloscopes, Spectrum analyzers
		(0.5 ~ 1.1) GHz	5.2×10^{-7}	Power meters, AC Calibrators
				/HCT-CS-083-40404
MeasZ (Resistance)		40 Ω	12 mΩ	
		40 Ω ~ 1.5 MΩ	2.7×10^{-4}	
MeasZ (Capacitance)		50 pF	0.26 pF	
		(50 ~ 100) pF	3.8×10^{-3}	
Video signal generators	40406			Frequency counters,
DOT Frequency		10 kHz ~ 1 000 MHz	6.2×10^{-7}	Video signal analyzers,
				Oscilloscopes
SYNC Frequency		50 Hz ~ 1 MHz	6.2×10^{-7}	/HCT-CS-084-40406
SYNC, Burst WIDTH(Time)		1 μs	1.2 ns	
		(1 ~ 100) μs	1.2×10^{-3}	
Analog Video Level		100 mV	0.88 mV	
		(100 ~ 1 000) mV	1.8×10^{-2}	
Analog Sync Level		1 V	20 mV	
		(1 ~ 5) V	2.0×10^{-2}	
Audio Level		100 mV	1.8 mV	
		(100 ~ 1 000) mV	1.8×10^{-2}	
S-Video Level		100 mV	1.8 mV	
		(100 ~ 1 000) mV	1.8×10^{-2}	
Component Level		100 mV	1.8 mV	
		(100 ~ 1 000) mV	1.8×10^{-2}	
Scart Video Level		100 mV	1.8 mV	
		(100 ~ 1 000) mV	1.8×10^{-2}	
Scart Audio Level		100 mV	1.8 mV	
		(100 ~ 1 000) mV	1.8×10^{-2}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Video signal generators	40406			Frequency counters,
NTSC,PAL,SECAM H-Timing Test				Video signal analyzers,
Time		100 ns	0.59 ns	Oscilloscopes
		(100 ~ 300) ns	2.0×10^{-2}	/HCT-CS-084-40406
		300 ns ~ 9 μs	1.3×10^{-3}	
Level		50 mV	0.36 mV	
		(50 ~ 900) mV	6.2×10^{-3}	
NTSC,PAL,SECAM COLOR BAR				
LUMINANCE Level		50 mV	0.16 mV	
		(50 ~ 900) mV	3.6×10^{-3}	
NTSC,PAL,SECAM COLOR BAR				
CHROMINANCE Level		50 mV	0.16 mV	
		(50 ~ 900) mV	3.6×10^{-3}	
NTSC,PAL,SECAM COLOR BAR				
CHROMINACE Phase		(0 ~ 360)°	0.55°	
RF Frequency		10 kHz ~ 1 000 MHz	6.2×10^{-7}	
Sound Frequency		10 Hz ~ 1 MHz	6.2×10^{-7}	
SUB CARRIER Frequency				
NTSC		3.579 545 MHz	0.62 Hz	
PAL		4.433 619 MHz	0.68 Hz	
Audio distortion analyzers/meters	40407			Multimeter calibrators,
Distortion meter				Distortion meter calibrators
Input frequency		1 Hz ~ 1 MHz	6.2×10^{-5}	/HCT-CS-085-40407
AC input levels		2 mV		
		10 Hz	5.3 μV	
		10 Hz ~ 20 kHz	2.5×10^{-3}	
		(20 ~ 50) kHz	2.6×10^{-3}	
		(50 ~ 100) kHz	3.6×10^{-3}	
		(2 ~ 10) mV		
		10 Hz	9.8 μV	
		10 Hz ~ 20 kHz	1.2×10^{-3}	
		(20 ~ 50) kHz	1.3×10^{-3}	
		(50 ~ 100) kHz	1.9×10^{-3}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Audio distortion annalyzers/meters	40407			Multimeter calibrators,
AC input levels		(10 ~ 100) mV		Distortion meter calibrators
		10 Hz	75 μV	/HCT-CS-085-40407
		10 Hz ~ 20 kHz	6.3×10^{-4}	
		(20 ~ 50) kHz	6.6×10^{-4}	
		(50 ~ 100) kHz	9.4×10^{-4}	
		(0.1 ~ 1) V		
		10 Hz	0.70 mV	
		10 Hz ~ 20 kHz	6.2×10^{-4}	
		(20 ~ 50) kHz	6.2×10^{-4}	
		(50 ~ 100) kHz	6.3×10^{-4}	
		(1 ~ 10) V		
		10 Hz	7.0 mV	
		10 Hz ~ 20 kHz	6.2×10^{-4}	
		(20 ~ 50) kHz	6.2×10^{-4}	
		(50 ~ 100) kHz	6.3×10^{-4}	
		(10 ~ 100) V		
		10 Hz	70 mV	
		10 Hz ~ 20 kHz	6.2×10^{-4}	
		(20 ~ 50) kHz	6.3×10^{-4}	
		(50 ~ 100) kHz	6.5×10^{-4}	
		(100 ~ 300) V		
		50 Hz	0.14 V	
		50 Hz ~ 1 kHz	2.3×10^{-4}	
DC input levels		1 mV	6.2 μV	
		1 mV ~ 100 V	6.2×10^{-4}	
		(100 ~ 300) V	2.1×10^{-4}	
Input distortion		1 kHz ~ 20 kHz		
		(-10 ~ -60) dB	0.32 dB	
		(-60 ~ -70) dB	0.39 dB	
		(-70 ~ -80) dB	0.56 dB	
		1 kHz ~ 20 kHz		
		0.01 %	0.000 56 %	
		(0.01 ~ 30) %	3.2×10^{-2}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Audio distortion analyzers/meters	40407			Multimeter calibrators,
Distortion meter calibrators				Distortion meter calibrators
Output level		100 mV		/HCT-CS-085-40407
		20 Hz	65 μV	
		20 Hz ~ 1 kHz	6.3×10^{-4}	
		(1 ~ 20) kHz	7.3×10^{-4}	
		(20 ~ 100) kHz	1.3×10^{-3}	
		(0.1 ~ 1) V		
		20 Hz	0.63 mV	
		20 Hz ~ 1 kHz	6.2×10^{-4}	
		(1 ~ 20) kHz	6.8×10^{-4}	
		(20 ~ 100) kHz	1.2×10^{-3}	
		(1 ~ 10) V		
		20 Hz	6.3 mV	
		20 Hz ~ 1 kHz	6.2×10^{-4}	
		(1 ~ 20) kHz	6.8×10^{-4}	
		(20 ~ 100) kHz	1.1×10^{-3}	
Output distortion		20 Hz ~ 100 kHz		
		(-10 ~ -20) dB	0.89 dB	
		20 Hz ~ 100 kHz		
		(-20 ~ -50) dB	1.1 dB	
		20 Hz ~ 100 kHz		
		(-50 ~ -80) dB	1.4 dB	
LF filters	40408			Audio analyzers,
Frequency		20 Hz	6.2 mHz	Function generators
		20 Hz ~ 30 Hz	2.1×10^{-4}	/HCT-CS-087-40408
		30 Hz ~ 10 MHz	6.2×10^{-4}	
		10 MHz ~ 30 MHz	2.1×10^{-4}	
Level		(0 ~ 90) dB		
		20 Hz	0.006 0 dB	
		20 Hz ~ 200 Hz	0.005 9 dB	
		200 Hz ~ 10 kHz	0.006 2 dB	
		10 kHz ~ 20 kHz	0.006 6 dB	
		20 kHz ~ 100 kHz	0.009 4 dB	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
LF/audio signal analyzers	40409			Multimeter calibrators,
				Digital multimeters
Output Frequency		1 Hz ~ 1 MHz	6.2×10^{-5}	/HCT-CS-088-40409
Output level		2 mV		
		20 Hz	7.0 μV	
		20 Hz ~ 1 kHz	3.5×10^{-3}	
		(1 ~ 20) kHz	3.5×10^{-3}	
		(20 ~ 100) kHz	4.5×10^{-3}	
		(2 ~ 100) mV		
		20 Hz	20 μV	
		20 Hz ~ 1 kHz	1.8×10^{-4}	
		(1 ~ 20) kHz	4.5×10^{-4}	
		(20 ~ 100) kHz	1.1×10^{-3}	
		(0.1 ~ 1) V		
		20 Hz	0.16 mV	
		20 Hz ~ 1 kHz	1.2×10^{-4}	
		(1 ~ 20) kHz	2.9×10^{-4}	
		(20 ~ 100) kHz	8.2×10^{-4}	
		(1 ~ 10) V		
		20 Hz	1.6 mV	
		20 Hz ~ 1 kHz	1.2×10^{-4}	
		(1 ~ 20) kHz	2.9×10^{-4}	
		(20 ~ 100) kHz	8.2×10^{-4}	
		(10 ~ 100) V		
		20 Hz	16 mV	
		20 Hz ~ 1 kHz	1.7×10^{-4}	
		(1 ~ 20) kHz	3.6×10^{-4}	
		(20 ~ 100) kHz	8.2×10^{-4}	
		(10 ~ -10) dBm		
		20 Hz	0.006 2 dB	
		20 Hz ~ 20 kHz	0.006 4 dB	
		(20 ~ 50) kHz	0.007 0 dB	
		(50 ~ 100) kHz	0.016 dB	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
LF/audio signal analyzers	40409			Multimeter calibrators, Digital multimeters /HCT-CS-088-40409
Output level		(-10 ~ -30) dBm		
		20 Hz	0.006 6 dB	
		20 Hz ~ 20 kHz	0.006 6 dB	
		(20 ~ 50) kHz	0.008 7 dB	
		(50 ~ 100) kHz	0.017 dB	
		(-30 ~ -40) dBm		
		20 Hz	0.006 6 dB	
		20 Hz ~ 20 kHz	0.006 6 dB	
		(20 ~ 50) kHz	0.008 7 dB	
		(50 ~ 100) kHz	0.023 dB	
Output DC Offset		-20 V ~ 0 mV	6.2×10^{-5}	
		0 mV	6.2 μV	
		0 mV ~ 20 V	6.2×10^{-5}	
Output flatness		20 Hz ~ 20 kHz	0.006 3 dB	
		(20 ~ 100) kHz	0.009 2 dB	
Output Attenuation		20 Hz ~ 1 kHz		
		(-10 ~ -60) dB	0.037 dB	
		(1 ~ 20) kHz		
		(-10 ~ -60) dB	0.038 dB	
		(20 ~ 50) kHz		
		(-10 ~ -60) dB	0.071 dB	
		(50 ~ 100) kHz		
		(-10 ~ -60) dB	0.071 dB	
Output impedance		50 Ω	6.2 mΩ	
		600 Ω	62 mΩ	
Input frequency		1 Hz ~ 1 MHz	6.2×10^{-5}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
LF/audio signal analyzers	40409			Multimeter calibrators, Digital multimeters /HCT-CS-088-40409
AC input levels		2 mV		
		10 Hz	7.9 μV	
		10 Hz ~ 20 kHz	3.9×10^{-3}	
		(20 ~ 50) kHz	3.9×10^{-3}	
		(50 ~ 100) kHz	4.6×10^{-3}	
		(2 ~ 100) mV		
		10 Hz	43 μV	
		10 Hz ~ 20 kHz	1.7×10^{-4}	
		(20 ~ 50) kHz	2.4×10^{-4}	
		(50 ~ 100) kHz	5.7×10^{-4}	
		(0.1 ~ 1) V		
		10 Hz	0.33 mV	
		10 Hz ~ 20 kHz	9.0×10^{-5}	
		(20 ~ 50) kHz	1.2×10^{-4}	
		(50 ~ 100) kHz	1.6×10^{-4}	
		(1 ~ 10) V		
		10 Hz	3.4 mV	
		10 Hz ~ 20 kHz	9.0×10^{-5}	
		(20 ~ 50) kHz	1.2×10^{-4}	
		(50 ~ 100) kHz	1.4×10^{-4}	
		(10 ~ 100) V		
		10 Hz	34 mV	
		10 Hz ~ 20 kHz	1.0×10^{-4}	
		(20 ~ 50) kHz	1.3×10^{-4}	
		(50 ~ 100) kHz	2.2×10^{-4}	
		(100 ~ 300) V		
		50 Hz	0.13 V	
		50 Hz ~ 10 kHz	2.5×10^{-4}	
DC input levels		1 mV	6.2 μV	
		(1 ~ 100) mV	6.3×10^{-5}	
		(0.1 ~ 100) V	6.2×10^{-5}	
		(100 ~ 300) V	6.2×10^{-5}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
LF/audio signal analyzers	40409			Multimeter calibrators, Digital multimeters
Filter(weight,low,high pass etc)		20 Hz ~ 100 kHz	2.9×10^{-4}	/HCT-CS-088-40409
Distortion factor		1 kHz ~ 20 kHz		
		(-10 ~ -60) dB	0.32 dB	
		(-60 ~ -70) dB	0.39 dB	
		(-70 ~ -80) dB	0.56 dB	
		1 kHz ~ 20 kHz		
		(0.001 ~ 0.01) %	5.6×10^{-2}	
		(0.01 ~ 30) %	3.2×10^{-2}	
Line frequency meters	40410			Multimeter calibrators
Frequency		50 V ~ 500 V		/HCT-CS-179-40410
		40 Hz ~ 1 kHz	6.2×10^{-6}	
Function generators	40411			Frequency counters, Digital multimeters,
Frequency		1 Hz ~ 3 GHz	5.8×10^{-9}	Spectrum analyzers, Oscilloscopes /HCT-CS-089-40411
Output level		10 mV		
		20 Hz	4.0 μV	
		20 Hz ~ 20 kHz	3.0×10^{-4}	
		(20 ~ 100) kHz	7.0×10^{-4}	
		100 kHz ~ 1 MHz	3.0×10^{-3}	
		(10 ~ 100) mV		
		20 Hz	20 μV	
		20 Hz ~ 20 kHz	8.4×10^{-4}	
		(20 ~ 100) kHz	2.1×10^{-3}	
		100 kHz ~ 1 MHz	2.5×10^{-3}	
		(0.1 ~ 1) V		
		20 Hz	0.16 mV	
		20 Hz ~ 20 kHz	2.9×10^{-4}	
		(20 ~ 100) kHz	8.2×10^{-4}	
		100 kHz ~ 1 MHz	2.0×10^{-3}	
		(1 ~ 10) V		
		20 Hz	1.6 mV	
		20 Hz ~ 20 kHz	5.6×10^{-4}	
		(20 ~ 100) kHz	1.8×10^{-3}	
		100 kHz ~ 1 MHz	5.0×10^{-3}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Function generators	40411			Frequency counters,
				Digital multimeters,
Output level		(10 ~ 100) V		Spectrum analyzers, Oscilloscopes
		20 Hz	16 mV	/HCT-CS-089-40411
		20 Hz ~ 20 kHz	6.0×10^{-3}	
		(20 ~ 100) kHz	1.9×10^{-3}	
		(-60 ~ 20) dBm		
		20 Hz ~ 20 kHz	0.029 dB	
		(20 ~ 50) kHz	0.023 dB	
		(50 ~ 100) kHz	0.050 dB	
		100 kHz ~ 100 MHz	0.16 dB	
DC Offset		(- 20 V ~ - 1 V)	0.64 mV	
		(-1 V ~ 0 mV)	5.8×10^{-4}	
		0 mV	5.8 μV	
		(0 mV ~ 1 V)	5.8×10^{-4}	
		(1 V ~ 20 V)	0.64 mV	
Output flatness		20 Hz ~ 100 kHz	0.016 dB	
		100 kHz ~ 1 GHz	0.063 dB	
Harmonic		(-80 ~ 0) dB		
		20 Hz ~ 100 MHz	0.59 dB	
Distortion factor		(-80 ~ 0) dB		
		20 Hz ~ 20 kHz	1.2 dB	
		20 kHz ~ 100 kHz	2.4 dB	
Output Attenuation		20 Hz ~ 1 kHz		
		(0 ~ -60) dB	0.029 dB	
		1 kHz ~ 20 kHz		
		(0 ~ -60) dB	0.023 dB	
		20 kHz ~ 100 kHz		
		(0 ~ -60) dB	0.050 dB	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Function generators	40411			Frequency counters,
				Digital multimeters,
Rise/Fall Time		1 ns	5.9 ps	Spectrum analyzers, Oscilloscopes
		(1 ~ 10) ns	1.3×10^{-3}	/HCT-CS-089-40411
		(10 ~ 100) ns	1.2×10^{-3}	
		100 ns ~ 1 s	1.2×10^{-3}	
AM Modulation		5 % ~ 99 %	1.2×10^{-2}	
FM Modulation		9 kHz ~ 400 kHz	1.2×10^{-2}	
Duty Cycle		1 % ~ 99 %	0.058 %	
ECG Simulator Frequency		(0.1 ~ 1) Hz	6.0×10^{-3}	
ECG Simulator Amplitudes		0.5 mV		
		0.5 Hz	6.3 μV	
		(0.5 ~ 10) mV		
		(0.5 ~ 100) Hz	1.4×10^{-2}	
Resistance		10 Ω	5.9 mΩ	
		10 Ω ~ 100 kΩ	5.9×10^{-5}	
Genescopes	40412			Oscilloscope calibrators
Virtical gain		1 kHz		/HCT-CS-110-40412
		100 mV	1.2 mV	
		100 mV ~ 100 V	1.2×10^{-2}	
AC/DC high voltage voltmeters	40413			High voltage generators
DC Voltage		(±)		/HCT-CS-092-40413
		1 V	0.58 mV	
		(1 ~ 100) V	8.6×10^{-6}	
		(100 ~ 200) V	4.1×10^{-5}	
		(200 ~ 400) V	2.1×10^{-5}	
		(400 ~ 600) V	1.4×10^{-5}	
		(600 ~ 800) V	1.1×10^{-5}	
		(0.8 ~ 1) kV	8.1×10^{-6}	
		(1 ~ 2) kV	6.7×10^{-4}	
		(2 ~ 5) kV	6.0×10^{-4}	
		(5 ~ 20) kV	5.9×10^{-4}	
		(20 ~ 50) kV	5.5×10^{-4}	
		(50 ~ 100) kV	7.0×10^{-4}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
AC/DC high voltage voltmeters	40413			High voltage generators
AC Voltage		(50 ~ 60) Hz		/HCT-CS-092-40413
		1 V	6.2 mV	
		(1 ~ 200) V	6.2×10^{-3}	
		(200 ~ 500) V	8.6×10^{-5}	
		(0.5 ~ 1) kV	1.1×10^{-4}	
		(1 ~ 2) kV	4.1×10^{-3}	
		(2 ~ 4) kV	3.0×10^{-3}	
		(4 ~ 6) kV	2.8×10^{-3}	
		(6 ~ 20) kV	2.6×10^{-3}	
		(20 ~ 70) kV	2.5×10^{-3}	
Leakage current testers	40416			Meter calibrators
AC Current		10 Hz		/HCT-CS-208-40416
		100 μA	78 nA	
		(100 ~ 200) μA	5.0×10^{-4}	
		(200 ~ 500) μA	4.6×10^{-4}	
		(0.5 ~ 1) mA	7.1×10^{-4}	
		(1 ~ 2) mA	4.4×10^{-4}	
		(2 ~ 5) mA	4.6×10^{-4}	
		(5 ~ 10) mA	7.1×10^{-4}	
		(10 ~ 20) mA	4.4×10^{-4}	
		(20 ~ 50) mA	4.8×10^{-4}	
		(50 ~ 100) mA	3.7×10^{-4}	
		(10 ~ 40) Hz		
		100 μA	69 nA	
		(100 ~ 200) μA	4.0×10^{-4}	
		(200 ~ 500) μA	3.2×10^{-4}	
		(0.5 ~ 1) mA	6.6×10^{-4}	
		(1 ~ 2) mA	3.7×10^{-4}	
		(2 ~ 5) mA	3.2×10^{-4}	
		(5 ~ 10) mA	6.6×10^{-4}	
		(10 ~ 20) mA	3.7×10^{-4}	
		(20 ~ 50) mA	3.2×10^{-4}	
		(50 ~ 100) mA	2.5×10^{-4}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Leakage current testers	40416			Meter calibrators
AC Current		(0.04 ~ 1) kHz		/HCT-CS-208-40416
		20 μA	14 nA	
		(20 ~ 50) μA	3.6×10^{-4}	
		(50 ~ 100) μA	6.6×10^{-4}	
		(100 ~ 200) μA	3.5×10^{-4}	
		(200 ~ 500) μA	2.8×10^{-4}	
		(0.5 ~ 1) mA	6.4×10^{-4}	
		(1 ~ 2) mA	3.4×10^{-4}	
		(2 ~ 5) mA	2.8×10^{-4}	
		(5 ~ 10) mA	6.4×10^{-4}	
		(10 ~ 20) mA	3.4×10^{-4}	
		(20 ~ 50) mA	2.6×10^{-4}	
		(50 ~ 100) mA	1.8×10^{-4}	
		(1 ~ 10) kHz		
		20 μA	0.11 μA	
		(20 ~ 50) μA	3.0×10^{-3}	
		(50 ~ 100) μA	2.2×10^{-3}	
		(100 ~ 200) μA	1.7×10^{-3}	
		(200 ~ 500) μA	3.0×10^{-3}	
		(0.5 ~ 1) mA	2.2×10^{-3}	
		(1 ~ 2) mA	1.7×10^{-3}	
		(2 ~ 5) mA	2.8×10^{-3}	
		(5 ~ 10) mA	2.1×10^{-3}	
		(10 ~ 20) mA	1.7×10^{-3}	
		(20 ~ 50) mA	1.9×10^{-3}	
		(50 ~ 100) mA	1.6×10^{-3}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Leakage current testers	40416			Meter calibrators
DC Current		1 μA	7.1 nA	/HCT-CS-208-40416
		(1 ~ 2) μA	3.6×10^{-3}	
		(2 ~ 5) μA	1.4×10^{-3}	
		(5 ~ 10) μA	1.0×10^{-3}	
		(10 ~ 20) μA	5.5×10^{-4}	
		(20 ~ 50) μA	2.4×10^{-4}	
		(50 ~ 100) μA	6.3×10^{-4}	
		(100 ~ 200) μA	3.2×10^{-4}	
		(200 ~ 500) μA	1.4×10^{-4}	
		(0.5 ~ 1) mA	6.2×10^{-4}	
		(1 ~ 2) mA	3.1×10^{-4}	
		(2 ~ 5) mA	1.4×10^{-4}	
		(5 ~ 10) mA	6.2×10^{-4}	
		(10 ~ 20) mA	3.1×10^{-4}	
		(20 ~ 50) mA	1.4×10^{-4}	
		(50 ~ 100) mA	8.6×10^{-5}	
AC Voltage		40 Hz		
		1 mV	4.8 μV	
		(1 ~ 2) mV	2.5×10^{-3}	
		(2 ~ 5) mV	1.1×10^{-3}	
		(5 ~ 10) mV	5.9×10^{-4}	
		(10 ~ 20) mV	4.6×10^{-4}	
		(20 ~ 50) mV	3.2×10^{-4}	
		(50 ~ 100) mV	2.0×10^{-4}	
		(100 ~ 200) mV	3.4×10^{-4}	
		(200 ~ 500) mV	1.9×10^{-4}	
		(0.5 ~ 1) V	6.3×10^{-4}	
		(1 ~ 2) V	3.3×10^{-4}	
		(2 ~ 5) V	2.0×10^{-4}	
		(5 ~ 10) V	1.4×10^{-4}	
		(10 ~ 20) V	3.3×10^{-4}	
		(20 ~ 50) V	2.2×10^{-4}	
		(50 ~ 100) V	1.5×10^{-4}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Leakage current testers	40416			Meter calibrators
AC Voltage		(0.04 ~ 1) kHz		/HCT-CS-208-40416
		1 mV	4.8 μV	
		(1 ~ 2) mV	2.5×10^{-3}	
		(2 ~ 5) mV	1.1×10^{-3}	
		(5 ~ 10) mV	5.8×10^{-4}	
		(10 ~ 20) mV	4.5×10^{-4}	
		(20 ~ 50) mV	2.8×10^{-4}	
		(50 ~ 100) mV	1.7×10^{-4}	
		(100 ~ 200) mV	3.3×10^{-4}	
		(200 ~ 500) mV	1.4×10^{-4}	
		(0.5 ~ 1) V	6.2×10^{-4}	
		(1 ~ 2) V	3.2×10^{-4}	
		(2 ~ 5) V	1.4×10^{-4}	
		(5 ~ 10) V	8.5×10^{-5}	
		(10 ~ 20) V	3.1×10^{-4}	
		(20 ~ 50) V	1.5×10^{-4}	
		(50 ~ 100) V	9.4×10^{-5}	
		(100 ~ 200) V	7.5×10^{-5}	
		(200 ~ 500) V	9.2×10^{-5}	
		(500 ~ 1 000) V	8.7×10^{-5}	
		(1 ~ 10) kHz		
		1 mV	4.8 μV	
		(1 ~ 2) mV	2.5×10^{-3}	
		(2 ~ 5) mV	1.1×10^{-3}	
		(5 ~ 10) mV	5.8×10^{-4}	
		(10 ~ 20) mV	4.5×10^{-4}	
		(20 ~ 50) mV	2.8×10^{-4}	
		(50 ~ 100) mV	1.7×10^{-4}	
		(100 ~ 200) mV	3.3×10^{-4}	
		(200 ~ 500) mV	1.4×10^{-4}	
		(0.5 ~ 1) V	6.2×10^{-4}	
		(1 ~ 2) V	3.2×10^{-4}	
		(2 ~ 5) V	1.4×10^{-4}	
		(5 ~ 10) V	8.5×10^{-5}	
		(10 ~ 20) V	3.1×10^{-4}	
		(20 ~ 50) V	1.5×10^{-4}	
		(50 ~ 100) V	9.4×10^{-5}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Leakage current testers	40416			Meter calibrators
DC Voltage		1 mV	0.80 μV	/HCT-CS-208-40416
		(1 ~ 2) mV	4.1×10^{-4}	
		(2 ~ 5) mV	1.7×10^{-4}	
		(5 ~ 10) mV	8.5×10^{-5}	
		(10 ~ 20) mV	3.1×10^{-4}	
		(20 ~ 50) mV	1.2×10^{-4}	
		(50 ~ 100) mV	6.3×10^{-5}	
		(100 ~ 200) mV	3.1×10^{-4}	
		(200 ~ 500) mV	1.2×10^{-4}	
		(0.5 ~ 1) V	6.2×10^{-4}	
		(1 ~ 2) V	3.1×10^{-4}	
		(2 ~ 5) V	1.2×10^{-4}	
		(5 ~ 10) V	6.2×10^{-5}	
		(10 ~ 20) V	3.1×10^{-4}	
		(20 ~ 50) V	1.2×10^{-4}	
		(50 ~ 100) V	6.2×10^{-5}	
		(100 ~ 200) V	3.2×10^{-5}	
		(200 ~ 500) V	1.5×10^{-5}	
		(500 ~ 1 000) V	1.1×10^{-5}	
Input voltage to		(20 Hz ~ 1 MHz)		
output voltage ratio		1 ~ 1 384	4.7×10^{-3}	
Input voltage to		(20 Hz ~ 1 MHz)		
output current ratio		0.5 ~ 909	5.7×10^{-3}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Leakage current testers	40416			Meter calibrators
Resistance		10 Ω	0.12 mΩ	/HCT-CS-208-40416
		(10 ~ 20) Ω	3.5×10^{-5}	
		(20 ~ 50) Ω	1.6×10^{-5}	
		(50 ~ 100) Ω	1.1×10^{-5}	
		(100 ~ 200) Ω	3.2×10^{-5}	
		(200 ~ 500) Ω	1.5×10^{-5}	
		(0.5 ~ 1) kΩ	1.2×10^{-5}	
		(1 ~ 2) kΩ	3.3×10^{-5}	
		(2 ~ 5) kΩ	1.6×10^{-5}	
		(5 ~ 10) kΩ	1.1×10^{-5}	
		(10 ~ 20) kΩ	3.3×10^{-5}	
		(20 ~ 50) kΩ	1.6×10^{-5}	
		(50 ~ 100) kΩ	1.1×10^{-5}	
		(100 ~ 200) kΩ	3.5×10^{-5}	
		(200 ~ 500) kΩ	1.6×10^{-5}	
		(0.5 ~ 1) MΩ	1.3×10^{-5}	
Capacitance		1 kHz		
		100 pF	1.2 fF	
		(100 ~ 200) pF	5.1×10^{-5}	
		(200 ~ 500) pF	2.1×10^{-5}	
		(0.5 ~ 1) nF	1.2×10^{-5}	
		(1 ~ 2) nF	1.1×10^{-4}	
		(2 ~ 5) nF	4.2×10^{-5}	
		(5 ~ 10) nF	2.1×10^{-5}	
		(10 ~ 20) nF	2.6×10^{-4}	
		(20 ~ 50) nF	1.1×10^{-4}	
		(50 ~ 100) nF	5.1×10^{-5}	
		(100 ~ 200) nF	5.1×10^{-4}	
		(200 ~ 500) nF	2.1×10^{-4}	
		(0.5 ~ 1) μF	1.1×10^{-4}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Electronic AC/DC loads	40417			DC power supplies, Current shunts,
DC loads				Digital multimeters
CV Mode		100 mV	6.4 μV	/HCT-CS-094-40417
		(0.1 ~ 1 000) V	1.2×10^{-4}	
CC Mode		100 mA	6.4 μA	
		(0.1 ~ 1) A	6.4×10^{-5}	
		(1 ~ 10) A	1.2×10^{-4}	
		(10 ~ 100) A	1.2×10^{-4}	
		(100 ~ 300) A	2.1×10^{-4}	
		(300 ~ 400) A	2.6×10^{-4}	
CR Mode		0.1 Ω		
		100 A	7.3 mA	
		(0.1 ~ 1) Ω		
		(100 ~ 10) A	6.8×10^{-5}	
		(1 ~ 100) Ω		
		(10 ~ 0.1) A	6.4×10^{-5}	
AC loads				
CV Mode		60 Hz		
		100 mV	16 μV	
		(0.1 ~ 10) V	1.4×10^{-4}	
		(10 ~ 100) V	1.5×10^{-4}	
		(100 ~ 1 000) V	1.5×10^{-4}	
CC Mode		60 Hz		
		100 mA	96 μA	
		(0.1 ~ 1) A	1.3×10^{-3}	
		(1 ~ 10) A	2.3×10^{-3}	
		(10 ~ 20) A	6.5×10^{-4}	
		(20 ~ 40) A	7.0×10^{-4}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Electronic AC/DC loads	40417			DC power supplies, Current shunts,
Charging/Discharging Tester				Digital multimeters
Charging Current		100 μA	5.8 nA	/HCT-CS-094-40417
		(0.000 1 ~ 100) A	1.3×10^{-4}	
		(100 ~ 400) A	2.1×10^{-4}	
		(400 ~ 500) A	2.0×10^{-4}	
		(500 ~ 1 500) A	3.1×10^{-4}	
		(1 500 ~ 3 000) A	4.1×10^{-4}	
Discharging Currnet		-100 μA	5.8 nA	
		(-0.000 1 ~ -100) A	1.3×10^{-4}	
		(-100 ~ -400) A	2.1×10^{-4}	
		(-400 ~ -500) A	2.0×10^{-4}	
		(-500 ~ -1 500) A	3.1×10^{-4}	
		(-1 500 ~ -3 000) A	4.1×10^{-4}	
Charging Voltage		100 mV	6.2 μV	
		(0.1 ~ 1 000) V	1.2×10^{-4}	
		(1 000 ~ 1 500) V	1.9×10^{-3}	
Sense Voltage(Meter)		100 mV	6.4 μV	
		(0.1 ~ 1 000) V	1.2×10^{-4}	
Analogue/digital multimeters	40419			Meter callibraters,
				Current amplifiers,
DC Voltage		(±)		Standard Resistor
		0 mV	0.24 μV	/HCT-CS-095-40419
		(0 ~ 100) mV	3.5×10^{-6}	
		(0.1 ~ 1) V	1.5×10^{-6}	
		(1 ~ 10) V	4.5×10^{-6}	
		(10 ~ 100) V	1.9×10^{-6}	
		(100 ~ 1 000) V	1.8×10^{-6}	
DC Current		(±)		
		100 nA	2.7 pA	
		0 μA	0.31 nA	
		(0 ~ 1) μA	3.9×10^{-4}	
		(1 ~ 10) μA	3.9×10^{-5}	
		(10 ~ 100) μA	2.1×10^{-6}	
		(0.1 ~ 1) mA	1.6×10^{-5}	
		(1 ~ 10) mA	8.3×10^{-5}	
		(10 ~ 100) mA	1.8×10^{-5}	
		(0.1 ~ 1) A	3.3×10^{-5}	
		(1 ~ 10) A	7.8×10^{-5}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Analogue/digital multimeters	40419			Meter callibraters,
				Current amplifiers,
DC Current		(10 ~ 20) A	7.7×10^{-5}	Standard Resistor
		(20 ~ 30) A	6.3×10^{-5}	/HCT-CS-095-40419
Resistance		0 Ω	2.1 μΩ	
		(0 ~ 100) Ω	2.9×10^{-6}	
		(0.1 ~ 1) kΩ	7.0×10^{-7}	
		(1 ~ 10) kΩ	9.9×10^{-6}	
		(10 ~ 100) kΩ	4.2×10^{-7}	
		(0.1 ~ 1) MΩ	2.0×10^{-6}	
		(1 ~ 10) MΩ	6.2×10^{-6}	
		(10 ~ 100) MΩ	1.3×10^{-5}	
		(0.1 ~ 1) GΩ	1.6×10^{-5}	
		(1 ~ 10) GΩ	1.5×10^{-4}	
AC Voltage		1 mV		
		10 Hz	0.84 μV	
		(10 ~ 40) Hz	0.68 μV	
		(40 ~ 500) Hz	0.68 μV	
		(0.5 ~ 1) kHz	0.68 μV	
		(1 ~ 10) kHz	0.70 μV	
		(10 ~ 20) kHz	0.70 μV	
		(20 ~ 50) kHz	0.88 μV	
		(50 ~ 100) kHz	1.7 μV	
		(100 ~ 200) kHz	1.6 μV	
		(200 ~ 500) kHz	2.2 μV	
		(0.5 ~ 1) MHz	6.2 μV	
		(1 ~ 100) mV		
		10 Hz	8.8×10^{-5}	
		(10 ~ 40) Hz	4.4×10^{-5}	
		(40 ~ 500) Hz	4.1×10^{-5}	
		(0.5 ~ 1) kHz	4.1×10^{-5}	
		(1 ~ 10) kHz	4.5×10^{-5}	
		(10 ~ 20) kHz	4.6×10^{-5}	
		(20 ~ 50) kHz	6.4×10^{-5}	
		(50 ~ 100) kHz	1.0×10^{-4}	
		(100 ~ 200) kHz	2.1×10^{-4}	
		(200 ~ 500) kHz	3.5×10^{-4}	
		(0.5 ~ 1) MHz	7.6×10^{-4}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Analogue/digital multimeters	40419			Meter callibraters,
				Current amplifiers,
AC Voltage		(0.1 ~ 1) V		Standard Resistor
		10 Hz	7.3×10^{-5}	/HCT-CS-095-40419
		(10 ~ 40) Hz	3.8×10^{-5}	
		(40 ~ 500) Hz	2.1×10^{-5}	
		(0.5 ~ 1) kHz	2.1×10^{-5}	
		(1 ~ 10) kHz	2.2×10^{-5}	
		(10 ~ 20) kHz	2.2×10^{-5}	
		(20 ~ 50) kHz	3.2×10^{-5}	
		(50 ~ 100) kHz	5.0×10^{-5}	
		(100 ~ 200) kHz	1.9×10^{-4}	
		(200 ~ 500) kHz	5.4×10^{-4}	
		(0.5 ~ 1) MHz	2.2×10^{-3}	
		(1 ~ 10) V		
		10 Hz	6.9×10^{-5}	
		(10 ~ 40) Hz	3.5×10^{-5}	
		(40 ~ 500) Hz	2.1×10^{-5}	
		(0.5 ~ 1) kHz	9.4×10^{-5}	
		(1 ~ 10) kHz	2.1×10^{-5}	
		(10 ~ 20) kHz	2.1×10^{-5}	
		(20 ~ 50) kHz	3.3×10^{-5}	
		(50 ~ 100) kHz	5.9×10^{-5}	
		(100 ~ 200) kHz	3.0×10^{-4}	
		(200 ~ 500) kHz	7.0×10^{-4}	
		(0.5 ~ 1) MHz	2.1×10^{-3}	
		(10 ~ 100) V		
		10 Hz	8.7×10^{-5}	
		(10 ~ 40) Hz	4.2×10^{-5}	
		(40 ~ 500) Hz	2.7×10^{-5}	
		(0.5 ~ 1) kHz	2.7×10^{-5}	
		(1 ~ 10) kHz	2.7×10^{-5}	
		(10 ~ 20) kHz	2.7×10^{-5}	
		(20 ~ 50) kHz	3.5×10^{-5}	
		(50 ~ 100) kHz	8.6×10^{-5}	
		30 V		
		300 kHz	10 mV	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Analogue/digital multimeters	40419			Meter callibraters,
				Current amplifiers,
AC Voltage		50 V		Standard Resistor
		150 kHz	18 mV	/HCT-CS-095-40419
		(100 ~ 1 000) V		
		50 Hz	2.6×10^{-5}	
		(40 ~ 500) Hz	2.0×10^{-5}	
		(0.5 ~ 1) kHz	2.0×10^{-5}	
		(1 ~ 10) kHz	5.4×10^{-5}	
		(10 ~ 20) kHz	5.4×10^{-5}	
		(20 ~ 30) kHz	1.6×10^{-4}	
AC Current		10 μA		
		10 Hz	11 nA	
		(10 ~ 40) Hz	7.9 nA	
		(40 ~ 500) Hz	1.6 nA	
		(0.5 ~ 1) kHz	3.9 nA	
		(1 ~ 5) kHz	11 nA	
		(5 ~ 10) kHz	17 nA	
		(10 ~ 100) μA		
		10 Hz	1.1×10^{-4}	
		(10 ~ 40) Hz	7.9×10^{-5}	
		(40 ~ 500) Hz	7.2×10^{-5}	
		(0.5 ~ 1) kHz	7.2×10^{-5}	
		(1 ~ 5) kHz	1.8×10^{-4}	
		(5 ~ 10) kHz	4.3×10^{-4}	
		(0.1 ~ 1) mA		
		10 Hz	1.1×10^{-4}	
		(10 ~ 40) Hz	6.7×10^{-5}	
		(40 ~ 500) Hz	6.3×10^{-5}	
		(0.5 ~ 1) kHz	6.3×10^{-5}	
		(1 ~ 5) kHz	1.2×10^{-4}	
		(5 ~ 10) kHz	4.0×10^{-4}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Analogue/digital multimeters	40419			Meter callibraters,
				Current amplifiers,
AC Current		(1 ~ 10) mA		Standard Resistor
		10 Hz	1.5×10^{-4}	/HCT-CS-095-40419
		(10 ~ 40) Hz	6.8×10^{-5}	
		(40 ~ 500) Hz	6.0×10^{-5}	
		(0.5 ~ 1) kHz	6.0×10^{-5}	
		(1 ~ 5) kHz	1.6×10^{-4}	
		(5 ~ 10) kHz	6.0×10^{-4}	
		(10 ~ 100) mA		
		10 Hz	1.5×10^{-4}	
		(10 ~ 40) Hz	7.1×10^{-5}	
		(40 ~ 500) Hz	6.2×10^{-5}	
		(0.5 ~ 1) kHz	6.2×10^{-5}	
		(1 ~ 5) kHz	1.6×10^{-4}	
		(5 ~ 10) kHz	6.0×10^{-4}	
		(0.1 ~ 1) A		
		10 Hz	1.7×10^{-4}	
		(10 ~ 40) Hz	1.3×10^{-4}	
		(40 ~ 500) Hz	1.0×10^{-4}	
		(0.5 ~ 1) kHz	1.0×10^{-4}	
		(1 ~ 5) kHz	2.7×10^{-4}	
		(5 ~ 10) kHz	1.0×10^{-3}	
		(1 ~ 10) A		
		40 Hz	2.7×10^{-4}	
		(40 ~ 500) Hz	5.5×10^{-5}	
		(0.5 ~ 1) kHz	5.5×10^{-5}	
		(1 ~ 5) kHz	1.8×10^{-3}	
		(5 ~ 10) kHz	1.6×10^{-3}	
		(10 ~ 20) A		
		40 Hz	1.6×10^{-4}	
		(40 ~ 500) Hz	1.6×10^{-4}	
		(0.5 ~ 1) kHz	2.3×10^{-4}	
		(1 ~ 5) kHz	5.0×10^{-4}	
		(5 ~ 10) kHz	1.5×10^{-3}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Analogue/digital multimeters	40419			Meter callibraters,
				Current amplifiers,
AC Current		(20 ~ 30) A		Standard Resistor
		(10 ~ 40) Hz	1.7×10^{-4}	/HCT-CS-095-40419
		(40 ~ 500) Hz	1.6×10^{-4}	
		(0.5 ~ 1) kHz	1.6×10^{-4}	
		(1 ~ 5) kHz	6.1×10^{-4}	
		(5 ~ 10) kHz	1.8×10^{-3}	
Frequency		10 Hz	1 μHz	
		(0.0000 1 ~ 10) MHz	6.1×10^{-8}	
Noise meters	40420			Multimeter calibrators
AC level(rms & Q-peak)		100 mV		/HCT-CS-097-40420
		10 Hz	0.16 mV	
		10 Hz ~ 50 kHz	1.6×10^{-3}	
		(50 ~ 100) kHz	1.8×10^{-3}	
		(100 ~ 300) mV		
		10 Hz	0.63 mV	
		10 Hz ~ 50 kHz	2.1×10^{-3}	
		(50 ~ 100) kHz	2.1×10^{-3}	
		(0.3 ~ 1) V		
		10 Hz	1.5 mV	
		10 Hz ~ 50 kHz	1.5×10^{-3}	
		(50 ~ 100) kHz	1.5×10^{-3}	
		(1 ~ 3) V		
		10 Hz	6.3 mV	
		10 Hz ~ 50 kHz	2.1×10^{-3}	
		(50 ~ 100) kHz	2.1×10^{-3}	
		(3 ~ 10) V		
		10 Hz	15 mV	
		10 Hz ~ 50 kHz	1.5×10^{-3}	
		(50 ~ 100) kHz	1.5×10^{-3}	
		(10 ~ 30) V		
		10 Hz	63 mV	
		10 Hz ~ 50 kHz	2.1×10^{-3}	
		(50 ~ 100) kHz	2.7×10^{-3}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Noise meters	40420			Multimeter calibrators
AC level(rms & Q-peak)		(30 ~ 100) V		/HCT-CS-097-40420
		10 Hz	0.15 V	
		10 Hz ~ 50 kHz	1.5×10^{-3}	
		(50 ~ 100) kHz	1.5×10^{-3}	
		(100 ~ 300) V		
		50 Hz	0.63 V	
		50 Hz ~ 10 kHz	2.1×10^{-3}	
Weighting filter		1 kHz		
Filter(DIN/AUDIO, JIS A		1V	1.5 mV	
CCIR, CCIR/ARM)				
Frequency Reponse		20 Hz ~ 100 kHz	0.016 dB	
Oscilloscopes	40421			Oscilloscope calibrators,
DC Voltage		(±)		Multimeter calibrators,
		0 V	4.6 μV	RF signal calibrators, Powermeters
		(0 ~ 1) mV	3.0×10^{-2}	/HCT-CS-080-40421
		(1 ~ 2) mV	1.5×10^{-2}	
		(2 ~ 3) mV	1.0×10^{-2}	
		(3 ~ 4) mV	7.6×10^{-3}	
		(4 ~ 5) mV	6.1×10^{-3}	
		(5 ~ 6) mV	5.1×10^{-3}	
		(6 ~ 7) mV	4.9×10^{-3}	
		(7 ~ 8) mV	4.3×10^{-3}	
		(8 ~ 9) mV	3.8×10^{-3}	
		(9 ~ 10) mV	3.4×10^{-3}	
		(10 ~ 15) mV	2.3×10^{-3}	
		(15 ~ 25) mV	1.8×10^{-3}	
		(20 ~ 25) mV	1.8×10^{-3}	
		(25 ~ 30) mV	1.5×10^{-3}	
		(30 ~ 35) mV	1.3×10^{-3}	
		(35 ~ 40) mV	1.1×10^{-3}	
		(40 ~ 45) mV	9.8×10^{-4}	
		(45 ~ 50) mV	8.8×10^{-4}	
		(50 ~ 60) mV	7.8×10^{-4}	
		(60 ~ 70) mV	1.2×10^{-3}	
		(70 ~ 80) mV	1.0×10^{-3}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Oscilloscopes	40421			Oscilloscope calibrators,
DC Voltage		(80 ~ 90) mV	9.3×10^{-4}	Multimeter calibrators,
		(90 ~ 100) mV	8.4×10^{-4}	RF signal calibrators, Powermeters
		(100 ~ 150) mV	5.6×10^{-4}	/HCT-CS-080-40421
		(150 ~ 200) mV	4.8×10^{-4}	
		(200 ~ 250) mV	6.9×10^{-4}	
		(250 ~ 300) mV	5.8×10^{-4}	
		(300 ~ 350) mV	5.0×10^{-4}	
		(350 ~ 400) mV	4.3×10^{-4}	
		(400 ~ 450) mV	3.9×10^{-4}	
		(450 ~ 500) mV	3.5×10^{-4}	
		(0.5 ~ 0.6) V	3.7×10^{-4}	
		(0.6 ~ 0.7) V	8.3×10^{-4}	
		(0.7 ~ 0.8) V	7.3×10^{-4}	
		(0.8 ~ 0.9) V	6.5×10^{-4}	
		(0.9 ~ 1) V	5.8×10^{-4}	
		(1 ~ 2.5) V	5.9×10^{-4}	
		(2.5 ~ 5) V	2.9×10^{-4}	
		(5 ~ 10) V	6.7×10^{-4}	
		(10 ~ 25) V	5.8×10^{-4}	
		(25 ~ 30) V	4.8×10^{-4}	
		(30 ~ 35) V	4.1×10^{-4}	
		(35 ~ 40) V	3.6×10^{-4}	
		(40 ~ 45) V	3.2×10^{-4}	
		(45 ~ 50) V	2.9×10^{-4}	
		(50 ~ 60) V	3.0×10^{-4}	
		(60 ~ 70) V	4.2×10^{-4}	
		(70 ~ 80) V	3.7×10^{-4}	
		(80 ~ 90) V	3.3×10^{-4}	
		(90 ~ 100) V	3.0×10^{-4}	
		(100 ~ 200) V	2.9×10^{-4}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Oscilloscopes	40421			Oscilloscope calibrators,
Square wave Voltage		1 kHz		Multimeter calibrators,
		1 mV	19 μV	RF signal calibrators, Powermeters
		(1 ~ 2) mV	9.3×10^{-3}	/HCT-CS-080-40421
		(2 ~ 3) mV	6.2×10^{-3}	
		(3 ~ 4) mV	4.6×10^{-3}	
		(4 ~ 5) mV	3.7×10^{-3}	
		(5 ~ 6) mV	3.1×10^{-3}	
		(6 ~ 7) mV	1.2×10^{-2}	
		(7 ~ 8) mV	1.0×10^{-2}	
		(8 ~ 9) mV	9.0×10^{-3}	
		(9 ~ 10) mV	8.1×10^{-3}	
		(10 ~ 15) mV	5.4×10^{-3}	
		(15 ~ 20) mV	4.1×10^{-3}	
		(20 ~ 25) mV	3.2×10^{-3}	
		(25 ~ 30) mV	2.7×10^{-3}	
		(30 ~ 35) mV	2.3×10^{-3}	
		(35 ~ 40) mV	2.0×10^{-3}	
		(40 ~ 45) mV	1.8×10^{-3}	
		(45 ~ 50) mV	1.6×10^{-3}	
		(50 ~ 100) mV	7.1×10^{-3}	
		(100 ~ 250) mV	2.8×10^{-3}	
		(250 ~ 500) mV	1.4×10^{-3}	
		(0.5 ~ 1) V	7.0×10^{-3}	
		(1 ~ 2.5) V	2.8×10^{-3}	
		(2.5 ~ 5) V	1.4×10^{-3}	
		(5 ~ 10) V	7.0×10^{-3}	
		(10 ~ 25) V	2.8×10^{-3}	
		(25 ~ 50) V	1.4×10^{-3}	
		(50 ~ 60) V	1.2×10^{-3}	
		(60 ~ 70) V	1.7×10^{-3}	
		(70 ~ 80) V	1.5×10^{-3}	
		(80 ~ 90) V	1.3×10^{-3}	
		(90 ~ 100) V	1.2×10^{-3}	
		(100 ~ 150) V	1.6×10^{-3}	
		(150 ~ 200) V	1.2×10^{-3}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Oscilloscopes	40421			Oscilloscope calibrators,
Bandwidth level		50 kHz ~ 1 MHz		Multimeter calibrators,
		60 mV	2.2 mV	RF signal calibrators, Powermeters
		(0.06 ~ 3) V	2.2×10^{-2}	/HCT-CS-080-40421
		(1 ~ 550) MHz		
		60 mV	2.7 mV	
		(0.06 ~ 3) V	2.7×10^{-2}	
		550 MHz ~ 40 GHz		
		60 mV	1.5 mV	
		(60 ~ 600) mV	2.6×10^{-2}	
		(0.6 ~ 3) V	3.0×10^{-2}	
Time Mark		1 ns	8.4 fs	
		(1 ~ 2) ns	4.2×10^{-6}	
		(2 ~ 5) ns	1.7×10^{-6}	
		(5 ~ 10) ns	5.8×10^{-6}	
		(10 ~ 20) ns	2.9×10^{-6}	
		(20 ~ 50) ns	1.2×10^{-6}	
		(50 ~ 100) ns	5.8×10^{-6}	
		(100 ~ 200) ns	2.9×10^{-6}	
		(200 ~ 500) ns	1.2×10^{-6}	
		(0.5 ~ 1) µs	5.8×10^{-6}	
		(1 ~ 2) µs	2.9×10^{-6}	
		(2 ~ 5) µs	1.2×10^{-6}	
		(5 ~ 10) µs	5.8×10^{-6}	
		(10 ~ 20) µs	2.9×10^{-6}	
		(20 ~ 50) µs	1.2×10^{-6}	
		(50 ~ 100) µs	5.8×10^{-6}	
		(100 ~ 200) µs	2.9×10^{-6}	
		(200 ~ 500) µs	1.2×10^{-6}	
		(0.5 ~ 1) ms	5.8×10^{-6}	
		(1 ~ 2) ms	2.9×10^{-6}	
		(2 ~ 5) ms	1.2×10^{-6}	
		(5 ~ 10) ms	5.8×10^{-6}	
		(10 ~ 20) ms	2.9×10^{-6}	
		(20 ~ 50) ms	1.2×10^{-6}	
		(50 ~ 100) ms	5.8×10^{-6}	
		(100 ~ 200) ms	2.9×10^{-6}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Oscilloscopes	40421			Oscilloscope calibrators,
Time Mark		(200 ~ 500) ms	1.2×10^{-6}	Multimeter calibrators,
		(0.5 ~ 1) s	5.8×10^{-6}	RF signal calibrators, Powermeters
		(1 ~ 2) s	2.9×10^{-6}	/HCT-CS-080-40421
		(2 ~ 5) s	1.2×10^{-6}	
		(5 ~ 10) s	5.8×10^{-6}	
		(10 ~ 20) s	2.9×10^{-6}	
Frequency		100 mHz	0.84 μHz	
		(100 ~ 200) mHz	4.2×10^{-6}	
		(200 ~ 500) mHz	1.7×10^{-6}	
		(0.5 ~ 1) Hz	5.8×10^{-6}	
		(1 ~ 2) Hz	2.9×10^{-6}	
		(2 ~ 5) Hz	1.2×10^{-6}	
		(5 ~ 10) Hz	5.8×10^{-6}	
		(10 ~ 20) Hz	2.9×10^{-6}	
		(20 ~ 50) Hz	1.2×10^{-6}	
		(50 ~ 100) Hz	5.8×10^{-6}	
		(100 ~ 200) Hz	2.9×10^{-6}	
		(200 ~ 500) Hz	1.2×10^{-6}	
		(0.5 ~ 1) kHz	5.8×10^{-6}	
		(1 ~ 2) kHz	2.9×10^{-6}	
		(2 ~ 5) kHz	1.2×10^{-6}	
		(5 ~ 10) kHz	5.8×10^{-6}	
		(10 ~ 20) kHz	2.9×10^{-6}	
		(20 ~ 50) kHz	1.2×10^{-6}	
		(50 ~ 100) kHz	5.8×10^{-6}	
		(100 ~ 200) kHz	2.9×10^{-6}	
		(200 ~ 500) kHz	1.2×10^{-6}	
		(0.5 ~ 1) MHz	5.8×10^{-6}	
		(1 ~ 2) MHz	2.9×10^{-6}	
		(2 ~ 5) MHz	1.2×10^{-6}	
		(5 ~ 10) MHz	5.8×10^{-6}	
		(10 ~ 20) MHz	2.9×10^{-6}	
		(20 ~ 50) MHz	1.2×10^{-6}	
		(50 ~ 100) MHz	5.8×10^{-6}	
		(100 ~ 200) MHz	2.9×10^{-6}	
		(200 ~ 500) MHz	1.2×10^{-6}	
		(0.5 ~ 1) GHz	5.8×10^{-6}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Oscilloscopes	40421			Oscilloscope calibrators,
AC Voltage		50 Hz ~ 10 kHz		Multimeter calibrators,
		10 mV	5.8 μV	RF signal calibrators, Powermeters
		(10 ~ 15) mV	4.1×10^{-4}	/HCT-CS-080-40421
		(15 ~ 20) mV	3.3×10^{-4}	
		(20 ~ 25) mV	4.4×10^{-4}	
		(25 ~ 30) mV	3.7×10^{-4}	
		(30 ~ 35) mV	3.4×10^{-4}	
		(35 ~ 40) mV	3.0×10^{-4}	
		(40 ~ 45) mV	2.7×10^{-4}	
		(45 ~ 50) mV	2.4×10^{-4}	
		(50 ~ 60) mV	2.4×10^{-4}	
		(60 ~ 70) mV	2.1×10^{-4}	
		(70 ~ 80) mV	2.0×10^{-4}	
		(80 ~ 90) mV	1.8×10^{-4}	
		(90 ~ 100) mV	1.6×10^{-4}	
		(100 ~ 150) mV	1.3×10^{-4}	
		(150 ~ 200) mV	1.1×10^{-4}	
		(200 ~ 250) mV	1.9×10^{-4}	
		(250 ~ 300) mV	1.8×10^{-4}	
		(300 ~ 350) mV	1.6×10^{-4}	
		(350 ~ 400) mV	1.6×10^{-4}	
		(400 ~ 450) mV	1.5×10^{-4}	
		(450 ~ 500) mV	1.4×10^{-4}	
		(500 ~ 600) mV	1.7×10^{-4}	
		(600 ~ 700) mV	1.6×10^{-4}	
		(700 ~ 800) mV	1.5×10^{-4}	
		(800 ~ 900) mV	1.4×10^{-4}	
		(0.9 ~ 1) V	1.4×10^{-4}	
		(1 ~ 1.5) V	1.2×10^{-4}	
		(1.5 ~ 2) V	1.2×10^{-4}	
		(2 ~ 2.5) V	1.1×10^{-4}	
		(2.5 ~ 3) V	9.7×10^{-5}	
		(3 ~ 3.5) V	8.9×10^{-5}	
		(3.5 ~ 4) V	8.2×10^{-5}	
		(4 ~ 4.5) V	7.7×10^{-5}	
		(4.5 ~ 5) V	7.3×10^{-5}	
		(5 ~ 6) V	1.2×10^{-4}	
		(6 ~ 7) V	1.0×10^{-4}	
		(7 ~ 8) V	9.5×10^{-5}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Oscilloscopes	40421			Oscilloscope calibrators,
AC Voltage		(8 ~ 9) V	9.3×10^{-5}	Multimeter calibrators,
		(9 ~ 10) V	8.2×10^{-5}	RF signal calibrators, Powermeters
		(10 ~ 15) V	6.9×10^{-5}	/HCT-CS-080-40421
		(15 ~ 20) V	6.2×10^{-5}	
		(20 ~ 25) V	1.3×10^{-4}	
		(25 ~ 30) V	1.2×10^{-4}	
		(30 ~ 35) V	1.1×10^{-4}	
		(35 ~ 40) V	9.9×10^{-5}	
		(40 ~ 45) V	9.3×10^{-5}	
		(45 ~ 50) V	8.9×10^{-5}	
		(50 ~ 60) V	1.3×10^{-4}	
		(60 ~ 70) V	1.2×10^{-4}	
		(70 ~ 80) V	1.1×10^{-4}	
		(80 ~ 90) V	1.0×10^{-4}	
		(90 ~ 100) V	9.2×10^{-5}	
Input Resistance		50 Ω	5.8 mΩ	
		75 Ω	5.9 mΩ	
		1 MΩ	0.44 kΩ	
10 MHz Reference out		10 MHz	5.8×10^{-8}	
Output Voltage		DC		
		100 mV	61 μV	
		(0.1 ~ 1) V	6.1×10^{-5}	
		(1 ~ 2) V	3.6×10^{-5}	
		(2 ~ 3) V	2.4×10^{-5}	
		(3 ~ 4) V	1.8×10^{-5}	
		(4 ~ 5) V	1.4×10^{-5}	
		(5 ~ 6) V	1.2×10^{-5}	
		(6 ~ 7) V	1.0×10^{-5}	
		(7 ~ 8) V	8.9×10^{-6}	
		(8 ~ 9) V	7.9×10^{-6}	
		(9 ~ 10) V	7.1×10^{-6}	
		(10 ~ 11) V	4.8×10^{-5}	
		(11 ~ 12) V	4.4×10^{-5}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Oscilloscopes	40421			Oscilloscope calibrators,
Output Voltage		1 kHz		Multimeter calibrators,
		100 mV	63 μV	RF signal calibrators, Powermeters
		(0.1 ~ 1) V	1.1×10^{-4}	/HCT-CS-080-40421
		(1 ~ 2) V	4.6×10^{-4}	
		(2 ~ 3) V	3.1×10^{-4}	
		(3 ~ 4) V	2.3×10^{-4}	
		(4 ~ 5) V	1.9×10^{-4}	
		(5 ~ 6) V	1.5×10^{-4}	
		(6 ~ 7) V	1.3×10^{-4}	
		(7 ~ 8) V	1.2×10^{-4}	
		(8 ~ 9) V	1.0×10^{-4}	
		(9 ~ 10) V	9.3×10^{-5}	
		(10 ~ 11) V	8.6×10^{-4}	
		(11 ~ 12) V	7.9×10^{-4}	
Output Frequency		100 Hz	5.8×10^{-5}	
		100 Hz ~ 10 MHz	5.8×10^{-7}	
LF phase meters	40422			RESOLVER/SYNCHRO SIMULATOR
Synchro/Resolver		0 °	0.002 °	/HCT-CS-217-40422
		(0 ~ 360) °	0.002 °	
Random wave generators	40423			Frequency counters
Frequency		1 Hz ~ 350 MHz	5.8×10^{-9}	Digital multimeters,
				Spectrum analyzers, Oscillpscopes
Output level		10 mV		/HCT-CS-098-40423
		20 Hz	4.0 μV	
		20 Hz ~ 20 kHz	3.0×10^{-4}	
		(20 ~ 100) kHz	7.0×10^{-4}	
		100 kHz ~ 1 MHz	3.0×10^{-3}	
		(10 ~ 100) mV		
		20 Hz	20 μV	
		20 Hz ~ 20 kHz	8.4×10^{-4}	
		(20 ~ 100) kHz	2.1×10^{-3}	
		100 kHz ~ 1 MHz	2.5×10^{-3}	
		(0.1 ~ 1) V		
		20 Hz	0.16 mV	
		20 Hz ~ 20 kHz	2.9×10^{-4}	
		(20 ~ 100) kHz	8.2×10^{-4}	
		100 kHz ~ 1 MHz	2.0×10^{-3}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Random wave generators	40423			Frequency counters
Output level		(1 ~ 10) V		Digital multimeters,
		20 Hz	1.6 mV	Spectrum analyzers, Oscillpscopes
		20 Hz ~ 20 kHz	5.6×10^{-4}	/HCT-CS-098-40423
		(20 ~ 100) kHz	1.8×10^{-3}	
		100 kHz ~ 1 MHz	5.0×10^{-3}	
		(10 ~ 100) V		
		20 Hz	16 mV	
		20 Hz ~ 20 kHz	6.0×10^{-4}	
		(20 ~ 100) kHz	1.9×10^{-3}	
		(-60 ~ 20) dBm		
		100 kHz ~ 100 MHz	0.16 dB	
DC Offset		(-20 V ~ -1 V)	0.62 mV	
		(-1 V ~ -0 mV)	5.8×10^{-4}	
		0 mV	5.8 μV	
		(0 mV ~ 1 V)	5.8×10^{-4}	
		(1 V ~ 20 V)	0.62 mV	
Output flatness		(-10 ~ 10) dB		
		20 Hz ~ 100 kHz	0.016 dB	
		100 kHz ~ 350 MHz	0.063 dB	
Harmonic		(-80 ~ 0) dB		
		20 Hz ~ 80 MHz	0.59 dB	
Output Attenuation		20 Hz ~ 1 kHz		
		(0 ~ -60) dB	0.029 dB	
		(1 ~ 20) kHz		
		(0 ~ -60) dB	0.023 dB	
		(20 ~ 100) kHz		
		(0 ~ -60) dB	0.050 dB	
Rise/Fall Time		1 ns	5.9 ps	
		(1 ~ 10) ns	1.3×10^{-3}	
		(10 ~ 100) ns	1.2×10^{-3}	
		100 ns ~ 1 s	1.2×10^{-3}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Random wave generators	40423			Frequency counters
AM modulation		5 % ~ 99 %	1.2×10^{-2}	Digital multimeters,
				Spectrum analyzers, Oscillpscopes
FM modulation		9 kHz ~ 400 kHz	1.2×10^{-2}	/HCT-CS-098-40423
Duty Cycle		(1 ~ 99) %	0.058 %	
Voltage/Current recorders	40424			Multimeter calibrators
DC Voltage		(±)		/HCT-CS-100-40424
		0 mV	0.50 μV	
		(0 ~ 2) mV	0.53 μV	
		(2 ~ 5) mV	1.7×10^{-4}	
		(5 ~ 10) mV	8.5×10^{-5}	
		(10 ~ 20) mV	4.6×10^{-5}	
		(20 ~ 100) mV	6.3 μV	
		(100 ~ 200) mV	6.6 μV	
		200 mV ~ 1 V	0.062 mV	
		(1 ~ 2) V	0.063 mV	
		(2 ~ 20) V	0.62 mV	
		(20 ~ 200) V	6.4 mV	
		(200 ~ 1 000) V	62 mV	
DC Current		(±)		
		0 mA	0.07 μA	
		(0 ~ 10) mA	8.0×10^{-5}	
		(10 ~ 100) mA	8.7×10^{-5}	
		100 mA ~ 1 A	1.3×10^{-4}	
Relay test sets	40425			Multimeters, Current shunts
AC Voltage		(20 ~ 55) Hz		/HCT-CS-218-40425
		100 mV	20 μV	
		100 mV ~ 1 V	0.16 mV	
		(1 ~ 1 000) V	1.6×10^{-4}	
		(55 ~ 300) Hz		
		100 mV	16 μV	
		100 mV ~ 1 V	0.14 mV	
		(1 ~ 1 000) V	1.4×10^{-4}	
		300 Hz ~ 1 kHz		
		100 mV	16 μV	
		100 mV ~ 1 V	0.12 mV	
		(1 ~ 1 000) V	1.4×10^{-4}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Relay test sets	40425			Multimeters, Current shunts
AC Current		20 Hz ~ 1 kHz		/HCT-CS-218-40425
		10 mA	9.3 μA	
		(10 ~ 100) mA	9.3×10^{-4}	
		100 mA ~ 1 A	1.2×10^{-3}	
		(1 ~ 10) A	1.7×10^{-4}	
		(10 ~ 50) A	3.3×10^{-4}	
		(50 ~ 100) A	4.2×10^{-4}	
DC Voltage		100 mV	7 μV	
		(0.1 ~ 1 000) V	6.1×10^{-5}	
DC Current		10 mA	0.63 μA	
		(10 ~ 100) mA	7.8×10^{-5}	
		100 mA ~ 1 A	2.3×10^{-4}	
		(1 ~ 10) A	5.0×10^{-4}	
		(10 ~ 100) A	7.0×10^{-4}	
Frequency		50 Hz	6 mHz	
		(50 ~ 60) Hz	1.2×10^{-4}	
		60 Hz ~ 1 kHz	2.9×10^{-4}	
Time interval		1 ms	3 μs	
		(0.001 ~ 60) s	1.2×10^{-3}	
LF signal generators	40426			Frequency counters,
Frequency		1 Hz ~ 2 MHz	5.8×10^{-9}	Digital multimeters,
				Spectrum analyzers, Oscilloscopes
Output level		10 mV		/HCT-CS-101-40426
		20 Hz	4.0 μV	
		20 Hz ~ 20 kHz	3.0×10^{-4}	
		(20 ~ 100) kHz	7.0×10^{-4}	
		100 kHz ~ 1 MHz	3.0×10^{-3}	
		(10 ~ 100) mV		
		20 Hz	20 μV	
		20 Hz ~ 20 kHz	8.4×10^{-4}	
		(20 ~ 100) kHz	2.1×10^{-3}	
		100 kHz ~ 1 MHz	2.5×10^{-3}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
LF signal generators	40426			Frequency counters,
Output level		(0.1 ~ 1) V		Digital multimeters,
		20 Hz	0.16 mV	Spectrum analyzers, Oscilloscopes
		20 Hz ~ 20 kHz	2.9×10^{-4}	/HCT-CS-101-40426
		(20 ~ 100) kHz	8.2×10^{-4}	
		100 kHz ~ 1 MHz	2.0×10^{-3}	
		(1 ~ 10) V		
		20 Hz	1.6 mV	
		20 Hz ~ 20 kHz	5.5×10^{-4}	
		(20 ~ 100) kHz	1.8×10^{-3}	
		100 kHz ~ 1 MHz	5.0×10^{-3}	
		(10 ~ 100) V		
		20 Hz	16 mV	
		20 Hz ~ 20 kHz	6.0×10^{-4}	
		(20 ~ 100) kHz	1.9×10^{-3}	
		(-60 ~ 20) dBm		
		20 Hz ~ 20 kHz	0.029 dB	
		(20 ~ 50) kHz	0.023 dB	
		(50 ~ 100) kHz	0.050 dB	
		100 kHz ~ 1 MHz	0.16 dB	
DC Offset		(-20 V ~ -1 V)	0.62 mV	
		(-1 V ~ 0 mV)	5.8×10^{-4}	
		0 mV	5.8 μV	
		(0 mV ~ 1 V)	5.8×10^{-4}	
		(1 V ~ 20 V)	0.62 mV	
Harmonic		20 Hz ~ 100 kHz	0.016 dB	
		100 kHz ~ 1 MHz	0.049 dB	
Output flatness		(-80 ~ 0) dB		
		20 Hz ~ 100 MHz	0.59 dB	
Distortion factor		(-80 ~ 0) dB		
		20 Hz ~ 20 kHz	1.2 dB	
		20 kHz ~ 100 kHz	2.4 dB	
Output Attenuation		20 Hz ~ 1 kHz		
		(0 ~ -60) dB	0.029 dB	
		(1 ~ 20) kHz		
		(0 ~ -60) dB	0.023 dB	
		(20 ~ 100) kHz		
		(0 ~ -60) dB	0.050 dB	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
LF signal generators	40426			Frequency counters,
Rise/Fall time		1 ns	5.9 ps	Digital multimeters,
		(1 ~ 10) ns	1.3×10^{-3}	Spectrum analyzers, Oscilloscopes
		(10 ~ 100) ns	1.2×10^{-3}	/HCT-CS-101-40426
		100 ns ~ 1 s	1.2×10^{-3}	
AM modulation		(5 ~ 99) %	1.2×10^{-2}	
FM modulation		(9 ~ 400) kHz	1.2×10^{-2}	
Duty Cycle		(1 ~ 99) %	0.058 %	
LF spectrum analyzers	40427			Function generators
Input level		27 dBm		/HCT-CS-180-40427
		10 Hz	0.008 1 dB	
		10 Hz ~ 50 kHz	0.006 4 dB	
		(50 ~ 100) kHz	0.007 1 dB	
		(27 ~ 20) dBm		
		10 Hz	0.006 8 dB	
		10 Hz ~ 50 kHz	0.006 2 dB	
		50 kHz ~ 100 kHz	0.006 3 dB	
		(100 ~ 200) kHz	0.007 0 dB	
		(20 ~ 10) dBm		
		10 Hz	0.007 4 dB	
		10 Hz ~ 20 kHz	0.006 2 dB	
		(20 ~ 100) kHz	0.006 4 dB	
		(100 ~ 200) kHz	0.008 3 dB	
		(10 ~ -10) dBm		
		10 Hz	0.007 3 dB	
		10 Hz ~ 20 kHz	0.006 2 dB	
		(20 ~ 100) kHz	0.006 3 dB	
		(100 ~ 200) kHz	0.008 6 dB	
		(-10 ~ -40) dBm		
		10 Hz	0.009 0 dB	
		10 Hz ~ 20 kHz	0.007 9 dB	
		(20 ~ 100) kHz	0.013 dB	
		(100 ~ 200) kHz	0.022 dB	
		(-40 ~ -50) dBm		
		10 Hz	0.018 dB	
		10 Hz ~ 20 kHz	0.016 dB	
		(20 ~ 100) kHz	0.024 dB	
		(100 ~ 200) kHz	0.045 dB	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
LF spectrum analyzers	40427			Function generators
Input level		10 mV		/HCT-CS-180-40427
		10 Hz	22 μV	
		10 Hz ~ 10 kHz	2.2×10^{-3}	
		(10 ~ 100) kHz	2.3×10^{-3}	
		(100 ~ 200) kHz	2.3×10^{-3}	
		(10 ~ 100) mV		
		10 Hz	88 μV	
		10 Hz ~ 10 kHz	6.3×10^{-4}	
		(10 ~ 100) kHz	8.3×10^{-4}	
		(100 ~ 200) kHz	1.2×10^{-3}	
		(0.1 ~ 1) V		
		10 Hz	0.69 mV	
		10 Hz ~ 10 kHz	6.2×10^{-4}	
		(10 ~ 100) kHz	6.3×10^{-4}	
		(100 ~ 200) kHz	7.8×10^{-4}	
		(1 ~ 10) V		
		10 Hz	6.9 mV	
		10 Hz ~ 10 kHz	6.2×10^{-4}	
		(10 ~ 100) kHz	6.3×10^{-4}	
		(100 ~ 200) kHz	7.3×10^{-4}	
		(10 ~ 30) V		
		10 Hz	16 mV	
		10 Hz ~ 10 kHz	2.4×10^{-4}	
		(10 ~ 100) kHz	4.0×10^{-4}	
Input frequency		10 Hz ~ 200 kHz	6.2×10^{-5}	
Input impedance		1 MΩ	0.62 kΩ	
Output level(AC)		10 mV		
		20 Hz	9.5 μV	
		20 Hz ~ 1 kHz	7.9×10^{-4}	
		(1 ~ 10) kHz	1.5×10^{-3}	
		(10 ~ 100) kHz	3.3×10^{-3}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
LF spectrum analyzers	40427			Function generators
Output level(AC)		(10 ~ 100) mV		/HCT-CS-180-40427
		20 Hz	64 μV	
		20 Hz ~ 1 kHz	6.3×10^{-4}	
		(1 ~ 10) kHz	7.6×10^{-3}	
		(10 ~ 100) kHz	1.3×10^{-3}	
		(0.1 ~ 1) V		
		20 Hz	0.63 mV	
		20 Hz ~ 1 kHz	6.2×10^{-4}	
		(1 ~ 10) kHz	6.8×10^{-4}	
		(10 ~ 100) kHz	1.1×10^{-3}	
		(1 ~ 10) V		
		20 Hz	6.3 mV	
		20 Hz ~ 1 kHz	6.2×10^{-4}	
		(1 ~ 10) kHz	6.7×10^{-3}	
		(10 ~ 100) kHz	1.1×10^{-3}	
Output level(DC)		10 mV	6.2 μV	
		10 mV ~ 10 V	6.2×10^{-5}	
Sweep generators	40429			Frequency counters,
Frequency		1 Hz ~ 21 MHz	5.8×10^{-9}	Digital multimeters,
				Spectrum analyzers, Oscilloscopes
Output level		10 mV		/HCT-CS-102-40429
		20 Hz	4.0 μV	
		20 Hz ~ 20 kHz	3.0×10^{-4}	
		(20 ~ 100) kHz	7.0×10^{-4}	
		100 kHz ~ 1 MHz	3.0×10^{-3}	
		(10 ~ 100) mV		
		20 Hz	20 μV	
		20 Hz ~ 20 kHz	8.4×10^{-4}	
		(20 ~ 100) kHz	2.1×10^{-3}	
		100 kHz ~ 1 MHz	2.5×10^{-3}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Sweep generators	40429			Frequency counters,
Output level		(0.1 ~ 1) V		Digital multimeters,
		20 Hz	0.16 mV	Spectrum analyzers, Oscilloscopes
		20 Hz ~ 20 kHz	2.9×10^{-4}	/HCT-CS-102-40429
		(20 ~ 100) kHz	8.2×10^{-4}	
		100 kHz ~ 1 MHz	2.0×10^{-3}	
		(1 ~ 10) V		
		20 Hz	1.6 mV	
		20 Hz ~ 20 kHz	5.6×10^{-4}	
		(20 ~ 100) kHz	1.8×10^{-3}	
		100 kHz ~ 1 MHz	5.0×10^{-3}	
		(10 ~ 100) V		
		20 Hz	16 mV	
		20 Hz ~ 20 kHz	6.0×10^{-4}	
		(20 ~ 100) kHz	1.9×10^{-3}	
		-60 dBm ~ 20 dBm		
		100 kHz ~ 21 MHz	0.16 dB	
DC Offset		(-20 V ~ -1 V)	0.62 mV	
		(-1 V ~ 0 mV)	5.8×10^{-4}	
		0 mV	5.8 μV	
		(0 mV ~ 1 V)	5.8×10^{-4}	
		(1 V ~ 20 V)	0.62 mV	
Output flatness		20 Hz ~ 100 kHz	0.016 dB	
		100 kHz ~ 21 MHz	0.056 dB	
Harmonic		(-80 ~ 0) dB		
		20 Hz ~ 21 MHz	0.59 dB	
Output Attenuation		20 Hz ~ 1 kHz		
		(0 ~ -60) dB	0.029 dB	
		(1 ~ 20) kHz		
		(0 ~ -60) dB	0.023 dB	
		(20 ~ 100) kHz		
		(0 ~ -60) dB	0.050 dB	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Sweep generators	40429			Frequency counters,
Rise/Fall Time		1 ns	5.9 ps	Digital multimeters,
		(1 ~ 10) ns	5.9×10^{-3}	Spectrum analyzers, Oscilloscopes
		(10 ~ 100) ns	1.3×10^{-3}	/HCT-CS-102-40429
		100 ns ~ 1 s	1.2×10^{-3}	
AM moduation		(5 ~ 99) %	1.2×10^{-2}	
FM modulation		(9 ~ 400) kHz	1.2×10^{-2}	
Duty Cycle		(1 ~ 99) %	0.058 %	
Transistor curve tracers	40432			Digital multimeters,
DC Voltage				High resistance meters,
(SMU, Base/Emitter/Collector)		(-1 000 ~ -200) V	5.5×10^{-6}	Electrometers,
		(-200 ~ -100) V	1.1×10^{-5}	Multimeter calibrators
		(-100 ~ -10) V	5.2×10^{-6}	/HCT-CS-103-40432
		(-10 ~ -1) V	3.8×10^{-6}	
		(-1 ~ -0.1) V	7.0×10^{-6}	
		(-0.1 ~ 0) V	4.9×10^{-6}	
		0 V	0.13 μV	
		(0 ~ 0.1) V	4.9×10^{-6}	
		(0.1 ~ 1) V	7.0×10^{-6}	
		(1 ~ 10) V	3.8×10^{-6}	
		(10 ~ 100) V	5.2×10^{-6}	
		(100 ~ 200) V	1.1×10^{-5}	
		(200 ~ 1 000) V	5.5×10^{-6}	
DC Voltage		(-1 000 ~ -200) V	5.5×10^{-6}	
(VSU, Base/Emitter/Collector)		(-200 ~ -100) V	1.1×10^{-5}	
		(-100 ~ -10) V	5.2×10^{-6}	
		(-10 ~ -1) V	3.8×10^{-6}	
		(-1 ~ -0.1) V	7.0×10^{-6}	
		(-0.1 ~ 0) V	4.9×10^{-6}	
		0 V	0.13 μV	
		(0 ~ 0.1) V	4.9×10^{-6}	
		(0.1 ~ 1) V	7.0×10^{-6}	
		(1 ~ 10) V	3.8×10^{-6}	
		(10 ~ 100) V	5.2×10^{-6}	
		(100 ~ 200) V	1.1×10^{-5}	
		(200 ~ 1 000) V	5.5×10^{-6}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Transistor curve tracers	40432			Digital multimeters,
DC Voltage		(-1 000 ~ -200) V	5.5×10^{-6}	High resistance meters,
VMU (Base/Emitter/Collector)		(-200 ~ -100) V	1.1×10^{-5}	Electrometers,
		(-100 ~ -10) V	5.2×10^{-6}	Multimeter calibrators
		(-10 ~ -1) V	3.8×10^{-6}	/HCT-CS-103-40432
		(-1 ~ -0.1) V	7.0×10^{-6}	
		(-0.1 ~ 0) V	4.9×10^{-6}	
		0 V	0.13 μV	
		(0 ~ 0.1) V	4.9×10^{-6}	
		(0.1 ~ 1) V	7.0×10^{-6}	
		(1 ~ 10) V	3.8×10^{-6}	
		(10 ~ 100) V	5.2×10^{-6}	
		(100 ~ 200) V	1.1×10^{-5}	
		(200 ~ 1 000) V	5.5×10^{-6}	
DC Current		(-50 ~ -20) A	1.3×10^{-5}	
(SMU, Base/Emitter/Collector)		(-20 ~ -10) A	8.3×10^{-6}	
		(-10 ~ -2) A	4.9×10^{-4}	
		(-2 ~ -1) A	7.0×10^{-4}	
		(-1 ~ -0.1) A	2.2×10^{-4}	
		(-100 ~ -10) mA	4.8×10^{-5}	
		(-10 ~ -1) mA	1.5×10^{-5}	
		(-1 ~ -0.1) mA	1.3×10^{-5}	
		(-100 ~ -10) μA	1.4×10^{-5}	
		(-10 ~ -1) μA	8.1×10^{-5}	
		(-1 ~ -0.1) μA	7.6×10^{-4}	
		(-100 ~ -10) nA	2.4×10^{-3}	
		(-10 ~ -1) nA	2.4×10^{-3}	
		(-1 ~ -0.1) nA	5.8×10^{-3}	
		(-100 ~ -10) pA	1.2×10^{-2}	
		(-10 ~ 0) pA	1.2×10^{-2}	
		0 A	8.1 nA	
		(0 ~ 10) pA	1.2×10^{-2}	
		(10 ~ 100) pA	1.2×10^{-2}	
		(0.1 ~ 1) nA	5.8×10^{-3}	
		(1 ~ 10) nA	2.4×10^{-3}	
		(10 ~ 100) nA	2.4×10^{-3}	
		(0.1 ~ 1) μA	7.6×10^{-4}	
		(1 ~ 10) μA	8.1×10^{-5}	
		(10 ~ 100) μA	1.4×10^{-5}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Transistor curve tracers	40432			Digital multimeters,
DC Current		(0.1 ~ 1) mA	1.3×10^{-5}	High resistance meters,
(SMU, Base/Emitter/Collector)		(1 ~ 10) mA	1.5×10^{-5}	Electrometers,
		(10 ~ 100) mA	4.8×10^{-5}	Multimeter calibrators
		(0.1 ~ 1) A	2.2×10^{-4}	/HCT-CS-103-40432
		(1 ~ 2) A	7.0×10^{-4}	
		(2 ~ 10) A	4.9×10^{-4}	
		(10 ~ 20) A	8.3×10^{-6}	
		(20 ~ 50) A	1.3×10^{-5}	
Time interval		(0.001 ~ 1) s	3.0×10^{-3}	
		(1 ~ 60) s	1.0×10^{-3}	
Waveform analyzers	40433			Multimeter calibrators,
				Digital multimeters
Output frequency		1 Hz ~ 1 MHz	6.2×10^{-5}	/HCT-CS-104-40433
Outout level		2 mV		
		20 Hz	7.0 μV	
		20 Hz ~ 1 kHz	3.5×10^{-3}	
		(1 ~ 20) kHz	3.5×10^{-3}	
		(20 ~ 100) kHz	4.5×10^{-3}	
		(2 ~ 10) mV		
		20 Hz	10 μV	
		20 Hz ~ 1 kHz	1.8×10^{-3}	
		(1 ~ 20) kHz	2.8×10^{-3}	
		(20 ~ 100) kHz	5.8×10^{-3}	
		(10 ~ 100) mV		
		20 Hz	20 μV	
		20 Hz ~ 1 kHz	5.0×10^{-4}	
		(1 ~ 20) kHz	9.0×10^{-4}	
		(20 ~ 100) kHz	2.1×10^{-3}	
		(0.1 ~ 1) V		
		20 Hz	0.17 mV	
		20 Hz ~ 1 kHz	1.2×10^{-4}	
		(1 ~ 20) kHz	2.9×10^{-4}	
		(20 ~ 100) kHz	8.5×10^{-4}	
		(1 ~ 10) V		
		20 Hz	1.6 mV	
		20 Hz ~ 1 kHz	1.2×10^{-4}	
		(1 ~ 20) kHz	2.9×10^{-4}	
		(20 ~ 100) kHz	8.5×10^{-4}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Waveform analyzers	40433			Multimeter calibrators,
Outout level		(10 ~ 100) V		Digital multimeters
		20 Hz	16 mV	/HCT-CS-104-40433
		20 Hz ~ 1 kHz	1.7×10^{-4}	
		(1 ~ 20) kHz	3.5×10^{-4}	
		(20 ~ 100) kHz	1.1×10^{-3}	
Output DC Offset		-20 V ~ 0 mV	6.2×10^{-5}	
		0 mV	6.2 μV	
		0 mV ~ 20 V	6.2×10^{-5}	
Output flatness		20 Hz ~ 20 kHz	0.006 3 dB	
		(20 ~ 100) kHz	0.009 2 dB	
Output Attenuation		20 Hz ~ 1 kHz		
		(-10 ~ -60) dB	0.022 dB	
		(1 ~ 20) kHz		
		(-10 ~ -60) dB	0.019 dB	
		(20 ~ 50) kHz		
		(-10 ~ -60) dB	0.029 dB	
		(50 ~ 100) kHz		
		(-10 ~ -60) dB	0.038 dB	
Output impedance		50 Ω	6.2 mΩ	
		600 Ω	62 mΩ	
Input frequency		1 Hz ~ 1 MHz	6.2×10^{-5}	
AC Input level		2 mV		
		10 Hz	7.9 μV	
		10 Hz ~ 20 kHz	3.9×10^{-3}	
		(20 ~ 50) kHz	3.9×10^{-3}	
		(50 ~ 100) kHz	4.7×10^{-3}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Waveform analyzers	40433			Multimeter calibrators,
AC Input level		(2 ~ 10) mV		Digital multimeters
		10 Hz	10 μV	/HCT-CS-104-40433
		10 Hz ~ 20 kHz	1.7×10^{-3}	
		(20 ~ 50) kHz	1.7×10^{-3}	
		(50 ~ 100) kHz	2.3×10^{-3}	
		(10 ~ 100) mV		
		10 Hz	43 μV	
		10 Hz ~ 20 kHz	4.5×10^{-4}	
		(20 ~ 50) kHz	4.5×10^{-4}	
		(50 ~ 100) kHz	9.4×10^{-4}	
		(0.1 ~ 1) V		
		10 Hz	0.14 mV	
		10 Hz ~ 20 kHz	1.2×10^{-4}	
		(20 ~ 50) kHz	1.2×10^{-4}	
		(50 ~ 100) kHz	4.6×10^{-4}	
		(1 ~ 10) V		
		10 Hz	3.4 mV	
		10 Hz ~ 20 kHz	1.2×10^{-4}	
		(20 ~ 50) kHz	1.2×10^{-4}	
		(50 ~ 100) kHz	2.6×10^{-4}	
		(10 ~ 100) V		
		10 Hz	34 mV	
		10 Hz ~ 20 kHz	1.0×10^{-4}	
		(20 ~ 50) kHz	1.0×10^{-4}	
		(50 ~ 100) kHz	3.2×10^{-4}	
		(100 ~ 300) V		
		50 Hz	0.13 V	
		50 Hz ~ 10 kHz	2.5×10^{-4}	
DC Input level		1 mV	6.2 μV	
		(1 ~ 100) mV	6.3×10^{-5}	
		(0.1 ~ 100) V	6.2×10^{-5}	
		(100 ~ 300) V	2.3×10^{-5}	
Filter (weight,low,high pass, etc.)		400 Hz ~ 80 kHz	2.1×10^{-4}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Waveform analyzers	40433			Multimeter calibrators,
Distortion factor		1 kHz ~ 20 kHz		Digital multimeters
		(-10 ~ -60) dB	0.32 dB	/HCT-CS-104-40433
		(-60 ~ -70) dB	0.39 dB	
		(-70 ~ -80) dB	0.56 dB	
		1 kHz ~ 20 kHz		
		(0.001 ~ 0.01) %	5.6×10^{-2}	
		(0.01 ~ 30) %	3.2×10^{-2}	
AC/DC high voltage generators	40434			High voltage voltmeters
DC Voltage		(±)		/HCT-CS-055-40434
		1 V	0.62 mV	
		1 ~ 100 V	8.1×10^{-6}	
		100 ~ 500 V	1.2×10^{-5}	
		(0.5 ~ 1) kV	5.6×10^{-6}	
		(1 ~ 100) kV	1.3×10^{-3}	
AC Voltage		(50 ~ 60) Hz		
		100 V	12 mV	
		(0.1 ~ 1) kV	1.2×10^{-4}	
		(1 ~ 10) kV	2.6×10^{-3}	
		(10 ~ 20) kV	2.5×10^{-3}	
		(20 ~ 30) kV	2.4×10^{-3}	
		(30 ~ 50) kV	2.3×10^{-3}	
		(50 ~ 60) kV	2.4×10^{-3}	
		(60 ~ 70) kV	2.5×10^{-3}	
		(70 ~ 100) kV	6.3×10^{-3}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
AC/DC high voltage probes	40435	(±)		High voltage sources
DC Voltage Ratio		1 kV or less		/HCT-CS-056-40435
		(1 : 1)		
		10 mV ~ 1 000 V	5.2×10^{-5}	
		(1 ~ 5 : 1)		
		100 mV ~ 1 000 V	6.0×10^{-5}	
		(5 ~ 10 : 1)		
		100 mV ~ 1 000 V	3.9×10^{-4}	
		(10 ~ 50 : 1)		
		(1 ~ 1 000) V	8.0×10^{-4}	
		(50 ~ 100 : 1)		
		(10 ~ 1 000) V	2.2×10^{-3}	
		(100 ~ 500 : 1)		
		(10 ~ 1 000) V	5.1×10^{-2}	
		(500 ~ 1 000 : 1)		
		(100 ~ 1 000) V	0.20 %	
		1 kV or greater		
		(100 : 1)		
		(1 ~ 5) kV	0.070 %	
		(100 ~ 1 000 : 1)		
		(1 ~ 100) kV	0.70 %	
		(1 000 ~ 10 000 : 1)		
		(1 ~ 100) kV	7.0 %	
DC Voltage(SCOPE PROBE)		(±)		
		1 mV	1.4 μV	
		1 mV ~ 10 mV	1.5×10^{-4}	
		10 mV ~ 100 mV	6.3×10^{-5}	
		0.1 V ~ 1 kV	1.0×10^{-4}	
		1 kV ~ 20 kV	1.5×10^{-3}	
		20 kV ~ 40 kV	1.4×10^{-3}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
AC/DC high voltage probes	40435			High voltage sources
AC Voltage		50 Hz ~ 1 kHz		/HCT-CS-056-40435
		1 mV	4.8 μV	
		(1 ~ 10) mV	5.6×10^{-4}	
		(10 ~ 100) mV	1.7×10^{-4}	
		(0.1 ~ 10) V	9.0×10^{-5}	
		(10 ~ 100) V	1.0×10^{-4}	
		100 V ~ 1 kV	6.2×10^{-4}	
		(50 ~ 60) Hz		
		1 kV	0.02 kV	
		(1 ~ 10) kV	1.2×10^{-2}	
		(10 ~ 20) kV	1.2×10^{-2}	
		(20 ~ 60) kV	1.2×10^{-2}	
		(60 ~ 70) kV	1.2×10^{-2}	
Resistance		1 Ω	0.58 mΩ	
		(1 ~ 10) Ω	5.8×10^{-4}	
		(0.01 ~ 10) kΩ	5.8×10^{-4}	
		(10 ~ 100) kΩ	5.9×10^{-5}	
		(0.1 ~ 10) MΩ	5.8×10^{-4}	
		(10 ~ 100) MΩ	1.7×10^{-4}	
		(0.1 ~ 1) GΩ	1.9×10^{-3}	
Capacitance		(1 kHz)		
		1 pF	5.9 fF	
		(1 ~ 10) pF	9.2×10^{-4}	
		(10 ~ 100) pF	6.5×10^{-4}	
		(0.1 ~ 1) nF	5.9×10^{-3}	
		(1 ~ 10) nF	8.7×10^{-4}	
Logic analyzers	40436	(±)		Multimeter calibrators
Input voltage		100 mV	6.3 μV	/HCT-CS-201-40436
		(0.1 ~ 1) V	0.062 mV	
		(1 ~ 3) V	0.064 mV	
		(3 ~ 10) V	0.62 mV	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Telephone testers	40437			Frequency couters,
Frequency		1 Hz ~ 1 MHz	6.3×10^{-7}	Digital multimeters /HCT-CS-127-40437
AC Amplitude		10 mV		
		20 Hz	9.5 μV	
		(20 ~ 100) Hz	9.1×10^{-4}	
		(0.1 ~ 1) kHz	7.8×10^{-4}	
		(1 ~ 20) kHz	1.5×10^{-3}	
		(20 ~ 100) kHz	3.3×10^{-3}	
		(10 ~ 100) mV		
		20 Hz	20 μV	
		20 Hz ~ 1 kHz	1.8×10^{-4}	
		(1 ~ 20) kHz	4.5×10^{-4}	
		(20 ~ 100) kHz	1.1×10^{-3}	
		(0.1 ~ 1) V		
		20 Hz	0.16 mV	
		20 Hz ~ 1 kHz	1.4×10^{-4}	
		(1 ~ 20) kHz	2.9×10^{-4}	
		(20 ~ 100) kHz	8.5×10^{-4}	
		(1 ~ 10) V		
		20 Hz	1.6 mV	
		20 Hz ~ 1 kHz	1.4×10^{-4}	
		(1 ~ 20) kHz	2.9×10^{-4}	
		(20 ~ 100) kHz	8.2×10^{-4}	
	`			
		(10 ~ 100) V		
		20 Hz	15 mV	
		20 Hz ~ 1 kHz	1.4×10^{-4}	
		(1 ~ 20) kHz	2.9×10^{-4}	
		(20 ~ 100) kHz	8.2×10^{-4}	
		(100 ~ 500) V		
		20 Hz	84 mV	
		20 Hz ~ 1 kHz	1.5×10^{-4}	
		(20 ~ -10) dBm		
		20 Hz	0.006 2 dB	
		20 Hz ~ 20 kHz	0.006 6 dB	
		(20 ~ 100) kHz	0.010 dB	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Telephone testers	40437			Frequency couters,
AC Amplitude		(-10 ~ -40) dBm		Digital multimeters
		20 Hz	0.006 1 dB	/HCT-CS-127-40437
		20 Hz ~ 20 kHz	0.007 0 dB	
		(20 ~ 100) kHz	0.011 dB	
Loop Current		1 mA	0.62 μA	
		(1 ~ 100) mA	6.2×10^{-4}	
		(0.1 ~ 1) A	6.5×10^{-4}	
DC Voltage		10 mV	6.2 μV	
		10 mV ~ 100 V	6.2×10^{-4}	
		(100 ~ 500) V	1.3×10^{-4}	
Dial Level		(-39 ~ 10) dBm	0.59 dB	
Resistance		50 Ω	6.2 mΩ	
		(50 ~ 1 000) Ω	6.2×10^{-4}	
Video signal analyzers	40438			Video signal generators
SQUARE WAVE level		50 mV	0.12 mV	/HCT-CS-130-40438
		(50 ~ 100) mV	1.6×10^{-3}	
		(100 ~ 150) mV	1.4×10^{-3}	
		(150 ~ 300) mV	1.3×10^{-3}	
		(300 ~ 550) mV	1.2 mV	
		(550 ~ 700) mV	1.3 mV	
		(700 ~ 800) mV	1.4 mV	
		(800 ~ 1 000) mV	1.7×10^{-3}	
SINE WAVE level		50 mV	1.7 mV	
		(50 ~ 100) mV	2.3 mV	
		(100 ~ 200) mV	5.5 mV	
		(200 ~ 300) mV	6.7 mV	
		(300 ~ 400) mV	11 mV	
		(400 ~ 500) mV	13 mV	
		(500 ~ 600) mV	14 mV	
		(600 ~ 700) mV	19 mV	
		(700 ~ 800) mV	20 mV	
		(800 ~ 900) mV	21 mV	
		(900 ~ 1 000) mV	23 mV	
BURST Frequency		(3 ~ 5) MHz	4.8×10^{-7}	

404. Other DC & LF measurements

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Video signal analyzers	40438			Video signal generators
Vector scopes, Video signal monitors				/HCT-CS-130-40438
Color Bar Level		50 mV	4.3 mV	
		(50 ~ 100) mV	4.6 mV	
		(100 ~ 200) mV	5.5 mV	
		(200 ~ 300) mV	6.7 mV	
		(300 ~ 400) mV	11 mV	
		(400 ~ 500) mV	13 mV	
		(500 ~ 600) mV	14 mV	
		(600 ~ 700) mV	19 mV	
		(700 ~ 800) mV	20 mV	
		(800 ~ 900) mV	21 mV	
		(900 ~ 1 000) mV	23 mV	
Color Bar phase		(0 ~ 360) °	0.7 °	
Frequency		50 Hz ~ 10 MHz	5.8×10^{-5}	
Vertical Level		50 mV	2.1 mV	
		(50 ~ 300) mV	2.1 mV	
		(300 ~ 600) mV	2.4 mV	
		(600 ~ 850) mV	2.5 mV	
		(850 ~ 1 000) mV	2.6 mV	
Vertical Level(Response)		(50 kHz ~ 10 MHz)		
		50 mV	2.7 mV	
		(50 ~ 100) mV	3.1 mV	
		(100 ~ 150) mV	5.4 mV	
		(150 ~ 200) mV	5.9 mV	
		(200 ~ 250) mV	6.4 mV	
		(250 ~ 300) mV	7.0 mV	
		(300 ~ 400) mV	12 mV	
		(400 ~ 500) mV	13 mV	
		(500 ~ 600) mV	14 mV	
		(600 ~ 700) mV	19 mV	
		(700 ~ 800) mV	20 mV	
		(800 ~ 900) mV	22 mV	
		(900 ~ 1 000) mV	23 mV	

405. Low frequency electric & magnetic field

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Flux meters	40503	0.1 mWb (0.1 ~ 1) mWb 1 mWb ~ 10 Wb	0.59 μWb 8.2×10^{-4} 8.0×10^{-4}	Volt-second generator /HCT-CS-257-40503
Flux sources	40504	0.1 mWb (0.1 ~ 100) mWb (0.1 ~ 10) Wb	6.7 nWb 6.7×10^{-5} 1.1×10^{-5}	DMM, Counter, Scope /HCT-CS-258-40504
Magnetometers	40508	0 mT (0 ~ 1) mT (1 ~ 3) mT (3 ~ 25) mT 40 mT (40 ~ 1 000) mT (1 ~ 1.9) T	2.2 μT 6.3×10^{-3} 2.9×10^{-3} 2.2×10^{-3} 0.029 mT 7.3×10^{-4} 8.0×10^{-4}	Helmholtz coil, Electro magnet, NMR teslameter /HCT-CS-259-40508
Reference/standard magnets	40510	5 mT (5 ~ 25) mT 50 mT (50 ~ 100) mT (0.1 ~ 1) T (1 ~ 1.9) T	16 μT 2.6×10^{-3} 0.079 mT 1.4×10^{-3} 1.6×10^{-3} 1.3×10^{-3}	Helmholtz coil, Electro magnet, Gauss meter /HCT-CS-260-40510

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
RF amplifiers	40601			RF spectrum analyzers,
Gain		(0 ~ 80 dB)		Network analyzers
		5 Hz ~ 10 Hz	0.16 dB	/HCT-CS-105-40601
		10 Hz ~ 100 kHz	0.08 dB	
		100 kHz ~ 10 GHz	0.21 dB	
		10 GHz ~ 18 GHz	0.32 dB	
		(0 ~ 60 dB)		
		18 GHz ~ 26.5 GHz	0.30 dB	
		26.5 GHz ~ 40 GHz	0.42 dB	
		40 GHz ~ 110 GHz	0.43 dB	
Harmonics		(9 kHz ~ 18 GHz)		
		-100 dBc ~ 0 dBc	1.5 dB	
Reflection coefficient		(0 ~ 1)		
		5 Hz ~ 100 MHz	3.8×10^{-3}	
		100 MHz ~ 3 GHz	5.3×10^{-3}	
		(3 ~ 18) GHz	2.4×10^{-2}	
		(18 ~ 50) GHz	5.9×10^{-2}	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Coaxial attenuators	40602			Attenuator calibrators,
Attenuation		(5 Hz ~ 9 kHz)		Network analyzers, Calibration kits
		0 dB ~ 10 dB	0.11 dB	/HCT-CS-108-40602
		10 dB ~ 20 dB	0.13 dB	
		20 dB ~ 30 dB	0.15 dB	
		30 dB ~ 40 dB	0.17 dB	
		40 dB ~ 50 dB	0.21 dB	
		50 dB ~ 60 dB	0.30 dB	
		(9 kHz ~ 26.5 GHz)		
		0 dB ~ 10 dB	0.04 dB	
		10 dB ~ 20 dB	0.04 dB	
		20 dB ~ 30 dB	0.05 dB	
		30 dB ~ 40 dB	0.05 dB	
		40 dB ~ 50 dB	0.06 dB	
		50 dB ~ 60 dB	0.06 dB	
		60 dB ~ 70 dB	0.07 dB	
		70 dB ~ 80 dB	0.08 dB	
		80 dB ~ 90 dB	0.08 dB	
		90 dB ~ 100 dB	0.09 dB	
		100 dB ~ 110 dB	0.09 dB	
		110 dB ~ 120 dB	0.10 dB	
		(26.5 GHz ~ 50 GHz)		
		0 dB ~ 10 dB	0.21 dB	
		10 dB ~ 20 dB	0.23 dB	
		20 dB ~ 30 dB	0.29 dB	
		30 dB ~ 40 dB	0.30 dB	
		40 dB ~ 50 dB	0.47 dB	
		50 dB ~ 60 dB	1.2 dB	
Reflection coefficient		(0 ~ 1)		
		5 Hz ~ 100 MHz	3.8×10^{-3}	
		100 MHz ~ 3 GHz	5.3×10^{-3}	
		(3 ~ 18) GHz	2.4×10^{-2}	
		(18 ~ 50) GHz	5.9×10^{-2}	
Standing Wave Ratio		(1 ~ ∞)		
		5 Hz ~ 100 MHz	7.9×10^{-3}	
		100 MHz ~ 3 GHz	1.2×10^{-2}	
		(3 ~ 18) GHz	5.1×10^{-2}	
		(18 ~ 50) GHz	1.4×10^{-1}	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Waveguide attenuators	40603			Network analyzers,
Attenuation		(40 GHz ~ 75 GHz)		Calibration kits
		(0 ~ 10) dB	0.34 dB	/HCT-CS-343-40603
		(10 ~ 20) dB	0.34 dB	
		(20 ~ 30) dB	0.34 dB	
		(30 ~ 40) dB	0.34 dB	
		(40 ~ 50) dB	0.34 dB	
		(50 ~ 60) dB	0.36 dB	
		(75 GHz ~ 110 GHz)		
		(0 ~ 10) dB	0.34 dB	
		(10 ~ 20) dB	0.34 dB	
		(20 ~ 30) dB	0.34 dB	
		(30 ~ 40) dB	0.34 dB	
		(40 ~ 50) dB	0.34 dB	
		(50 ~ 60) dB	0.36 dB	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Burst pulse generators	40605			Attenuators, Oscilloscopes
Output Voltage		50 Ω		/HCT-CS-109-40605
		(±)		
		10 V	0.35 V	
		(10 ~ 20) V	3.4×10^{-2}	
		(20 ~ 50) V	3.0×10^{-2}	
		(50 ~ 200) V	3.4×10^{-2}	
		(200 ~ 500) V	3.0×10^{-2}	
		(0.5 ~ 1) kV	3.4×10^{-2}	
		(1 ~ 2) kV	2.9×10^{-2}	
		(2 ~ 2.5) kV	2.7×10^{-2}	
		(2.5 ~ 3) kV	2.5×10^{-2}	
		(3 ~ 4) kV	3.3×10^{-2}	
		1 kΩ		
		(±)		
		10 V	0.34 V	
		(10 ~ 40) V	3.9×10^{-2}	
		(40 ~ 100) V	3.6×10^{-2}	
		(100 ~ 400) V	3.9×10^{-2}	
		(0.4 ~ 1) kV	3.6×10^{-2}	
		(1 ~ 2) kV	3.9×10^{-2}	
		(2 ~ 4) kV	3.5×10^{-2}	
		(4 ~ 5) kV	3.3×10^{-2}	
		(5 ~ 6) kV	3.2×10^{-2}	
		(6 ~ 8) kV	3.1×10^{-2}	
Delta time measurement		1.0 ns	0.011 ns	
(rise/fall/duration/period/		(1.0 ~ 2.0) ns	5.6×10^{-3}	
repetition rate/burst		(2.0 ~ 5.0) ns	2.3×10^{-3}	
duration)		(5.0 ~ 10.0) ns	1.7×10^{-3}	
		(10 ~ 20) ns	8.1×10^{-4}	
		(20 ~ 50) ns	3.3×10^{-4}	
		(50 ~ 100) ns	1.2×10^{-3}	
		(100 ~ 200) ns	5.9×10^{-4}	
		(200 ~ 500) ns	2.4×10^{-4}	
		(0.5 ~ 1.0) μs	1.2×10^{-3}	
		(1.0 ~ 2.0) μs	5.9×10^{-4}	
		(2.0 ~ 5.0) μs	2.4×10^{-4}	
		(5.0 ~ 10.0) μs	1.2×10^{-3}	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Burst pulse generators	40605			Attenuators, Oscilloscopes
Delta time measurement		(10 ~ 20) μs	5.9×10^{-4}	/HCT-CS-109-40605
(rise/fall/duration/period/		(20 ~ 50) μs	2.4×10^{-4}	
repetition rate/burst		(50 ~ 100) μs	1.2×10^{-3}	
duration)		(100 ~ 200) μs	5.9×10^{-4}	
		(200 ~ 500) μs	2.4×10^{-4}	
		(0.5 ~ 1) ms	1.2×10^{-3}	
		(1 ~ 2) ms	5.9×10^{-4}	
		(2 ~ 5) ms	2.4×10^{-4}	
		(5 ~ 10) ms	1.2×10^{-3}	
		(10 ~ 20) ms	5.9×10^{-4}	
		(20 ~ 50) ms	2.4×10^{-4}	
		(50 ~ 100) ms	1.2×10^{-3}	
		(100 ~ 200) ms	5.9×10^{-4}	
		(200 ~ 500) ms	2.4×10^{-4}	
		(0.5 ~ 1.0) s	1.2×10^{-3}	
		(1.0 ~ 2.0) s	6.0×10^{-4}	
		(2.0 ~ 5.0) s	2.4×10^{-4}	
Frequency measurement		2.5 kHz	1.6 Hz	
		(2.5 ~ 5) kHz	3.3×10^{-4}	
		(5 ~ 10) kHz	8.8×10^{-4}	
		(10 ~ 100) kHz	6.6×10^{-4}	
		(0.1 ~ 1) MHz	1.2×10^{-3}	
		(1 ~ 3) MHz	3.2×10^{-4}	
		(3 ~ 10) MHz	6.6×10^{-4}	
		(10 ~ 30) MHz	3.6×10^{-4}	
		(30 ~ 100) MHz	1.5×10^{-3}	
Attenuator calibrators	40606			Standard attenuators
Attenuation measurement accuracy		(0 ~ 10) dB	0.027 dB	/HCT-CS-175-40606
		(10 ~ 20) dB	0.029 dB	
		(20 ~ 30) dB	0.032 dB	
		(30 ~ 40) dB	0.038 dB	
		(40 ~ 50) dB	0.043 dB	
		(50 ~ 60) dB	0.043 dB	
		(60 ~ 70) dB	0.048 dB	
		(70 ~ 80) dB	0.054 dB	
		(80 ~ 90) dB	0.060 dB	
		(90 ~ 100) dB	0.066 dB	
		(100 ~ 110) dB	0.069 dB	
		(110 ~ 120) dB	0.074 dB	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
RF power meter calibrators	40607			Digital multimeter
Power range		3 μW	0.07 nW	/HCT-CS-166-40607
		10 μW	0.18 nW	
		30 μW	0.8 nW	
		100 μW	1.8 nW	
		300 μW	4 nW	
		1 mW	0.01 μW	
		3 mW	0.03 μW	
		10 mW	0.07 μW	
		30 mW	0.24 μW	
		100 mW	2.0 μW	
EMC transducers; current probes, absorbing clamps, etc.	40608			Network analyzers, Calibration kits /HCT-CS-167-40608
EMC tranducers				
Transfer impedance		5 Hz ~ 400 MHz	0.54 dB	
		400 MHz ~ 3 GHz	1.1 dB	
Reflection coefficient		5 Hz ~ 3 GHz	5.9×10^{-3}	
Absorbing clamps				/HCT-CS-198-40608
Insertion loss		30 MHz ~ 1 GHz	1.8 dB	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Coaxial directional couplers/splitters	40610			Network analyzers, Calibration kits /HCT-CS-110-40610
Coupling factor		(5 Hz ~ 9 kHz)		
		(0 ~ 10) dB	0.11 dB	
		(10 ~ 20) dB	0.13 dB	
		(20 ~ 30) dB	0.15 dB	
		(30 ~ 40) dB	0.17 dB	
		(40 ~ 50) dB	0.21 dB	
		(50 ~ 60) dB	0.30 dB	
		(9 kHz ~ 26.5 GHz)		
		(0 ~ 10) dB	0.04 dB	
		(10 ~ 20) dB	0.04 dB	
		(20 ~ 30) dB	0.05 dB	
		(30 ~ 40) dB	0.05 dB	
		(40 ~ 50) dB	0.06 dB	
		(50 ~ 60) dB	0.06 dB	
		(60 ~ 70) dB	0.07 dB	
		(70 ~ 80) dB	0.08 dB	
		(80 ~ 90) dB	0.08 dB	
		(90 ~ 100) dB	0.09 dB	
		(100 ~ 110) dB	0.09 dB	
		(110 ~ 120) dB	0.10 dB	
		(26.5 GHz ~ 50 GHz)		
		(0 ~ 10) dB	0.21 dB	
		(10 ~ 20) dB	0.23 dB	
		(20 ~ 30) dB	0.29 dB	
		(30 ~ 40) dB	0.30 dB	
		(40 ~ 50) dB	0.47 dB	
		(50 ~ 60) dB	1.2 dB	
Reflection coefficient		(0 ~ 1)		
		5 Hz ~ 9 kHz	4.4×10^{-3}	
		9 kHz ~ 1 GHz	4.8×10^{-3}	
		(1 ~ 18) GHz	1.0×10^{-2}	
		(18 ~ 40) GHz	1.3×10^{-2}	
		(40 ~ 50) GHz	1.4×10^{-2}	
Insertion loss		5 Hz ~ 50 GHz	0.12 dB	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Waveguide directional couplers	40611			Network analyzers, Calibration kits
Coupling factor		(40 GHz ~ 75 GHz)		/HCT-CS-349-40611
		(0 ~ 10) dB	0.34 dB	
		(10 ~ 20) dB	0.34 dB	
		(20 ~ 30) dB	0.34 dB	
		(30 ~ 40) dB	0.34 dB	
		(40 ~ 50) dB	0.34 dB	
		(50 ~ 60) dB	0.36 dB	
		(75 GHz ~ 110 GHz)		
		(0 ~ 10) dB	0.34 dB	
		(10 ~ 20) dB	0.34 dB	
		(20 ~ 30) dB	0.34 dB	
		(30 ~ 40) dB	0.34 dB	
		(40 ~ 50) dB	0.34 dB	
		(50 ~ 60) dB	0.36 dB	
Electrostatic discharge generators	40613			Electrostatic discharge measurement system,
ESD Discharge Current		(±)		Oscilloscope calibrators
(Ip, Ip2, 30 ns, 60 ns,		0.10 A	1.5 mA	/HCT-CS-111-40613
130 ns, 180 ns, 360 ns,		(0.10 ~ 0.30) A	0.55 %	
400 ns, 800 ns)		(0.30 ~ 0.50) A	0.51 %	
		(0.50 ~ 1.0) A	0.43 %	
		(1.0 ~ 10.0) A	0.33 %	
		(10.0 ~ 30.0) A	2.1 %	
		(30.0 ~ 100.0) A	3.2 %	
		(100.0 ~ 125.0) A	2.6 %	
		(125.0 ~ 150.0) A	2.1 %	
Rise/Fall Time		(0.5 ~ 1) ns	3.7×10^{-2}	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Electrostatic discharge generators	40613			Electrostatic discharge measurement system,
Voltage		(±)		Oscilloscope calibrators
		(0.1 ~ 0.5) kV	6.5 V	/HCT-CS-111-40613
		(0.5 ~ 1) kV	6.8×10^{-3}	
		(1 ~ 2) kV	1.4×10^{-2}	
		(2 ~ 4) kV	7.2×10^{-3}	
		(4 ~ 6) kV	5.4×10^{-3}	
		(6 ~ 8) kV	4.3×10^{-3}	
		(8 ~ 10) kV	3.7×10^{-3}	
		(10 ~ 12) kV	3.4×10^{-3}	
		(12 ~ 14) kV	3.1×10^{-3}	
		(14 ~ 16) kV	2.8×10^{-3}	
		(16 ~ 18) kV	2.6×10^{-3}	
		(18 ~ 20) kV	2.5×10^{-3}	
		(20 ~ 25) kV	2.4×10^{-3}	
		(25 ~ 30) kV	2.2×10^{-3}	
Semiconductor ESD Peak Current				
(HBM)		(±)		
		(0.15 to 0.17) A	14 mA	
		(0.17 to 0.33) A	8.2×10^{-2}	
		(0.33 to 0.67) A	8.2×10^{-2}	
		(0.67 to 1.33) A	8.2×10^{-2}	
		(1.33 to 2.67) A	9.0×10^{-2}	
		(2.67 to 5.23) A	7.2×10^{-2}	
(MM)		(±)		
		(1.5 ~ 1.75) A	8.6×10^{-2}	
		(1.75 ~ 3.5) A	9.3×10^{-2}	
		(3.5 ~ 7.0) A	8.8×10^{-2}	
		(7 ~ 16) A	8.1×10^{-2}	
Semiconductor ESD Risee/Fall Tim		(1 ~ 11) ns	0.037 ns	
Semiconductor ESD Decay Time		(100 ~ 200) ns	0.58 ns	
Semiconductor ESD Peak Voltage		(±)		
		100 V	3.5 V	
		(0.1 ~ 8) kV	3.8×10^{-2}	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
EMC receivers	40614			Calibration pulse generators,
Reference frequency		80 kHz ~ 100 MHz	5.8×10^{-11}	Frequency standards, Power sensors,
				RF signal generators,
Input impedance		9 kHz ~ 1 GHz	3.8×10^{-3}	Standard attenuators,
(Reflection cofefficient)		(1 ~ 3) GHz	5.3×10^{-3}	Network analyzers
		(3 ~ 20) GHz	9.3×10^{-3}	/HCT-CS-112-40614
		(20 ~ 40) GHz	1.2×10^{-2}	
		(40 ~ 50) GHz	1.0×10^{-1}	
Sinewave voltage accuracy		10 Hz ~ 2 GHz	0.04 dB	
		(2 ~ 12) GHz	0.06 dB	
		(12 ~ 40) GHz	0.08 dB	
		(40 ~ 50) GHz	0.15 dB	
Pulse response		9 kHz ~ 40 GHz	0.25 dB	
Repetition frequency response		9 kHz ~ 1 GHz	0.10 dB	
		(1 ~ 18) GHz	0.37 dB	
Overall selectivity		9 kHz ~ 40 GHz	0.08 dB	
IF rejection ratio		9 kHz ~ 40 GHz	0.31 dB	
Image frequency response		9 kHz ~ 40 GHz	0.31 dB	
Other spurious response		9 kHz ~ 40 GHz	0.31 dB	
Random noise		9 kHz ~ 40 GHz	0.07 dB	
Resolution bandwidth		10 Hz ~ 20 MHz	7.4×10^{-4}	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
RF filters	40615			Network analyzers, Calibration kits
Cutoff frequency		9 kHz ~ 26.5 GHz	6.4×10^{-7}	/HCT-CS-113-40615
Insert loss		(9 kHz ~ 1 GHz)		
		(0 ~ 10) dB	0.11 dB	
		(10 ~ 20) dB	0.12 dB	
		(20 ~ 30) dB	0.14 dB	
		(30 ~ 40) dB	0.17 dB	
		(40 ~ 50) dB	0.21 dB	
		(50 ~ 60) dB	0.30 dB	
		(60 ~ 70) dB	0.54 dB	
		(70 ~ 80) dB	1.3 dB	
		(80 ~ 100) dB	3.3 dB	
		(1 GHz ~ 18 GHz)		
		(0 ~ 10) dB	0.11 dB	
		(10 ~ 20) dB	0.12 dB	
		(20 ~ 30) dB	0.13 dB	
		(30 ~ 40) dB	0.15 dB	
		(40 ~ 50) dB	0.20 dB	
		(50 ~ 60) dB	0.34 dB	
		(60 ~ 70) dB	0.72 dB	
		(70 ~ 80) dB	1.9 dB	
		(80 ~ 100) dB	4.7 dB	
		(18 GHz ~ 26.5 GHz)		
		(0 ~ 10) dB	0.21 dB	
		(10 ~ 20) dB	0.23 dB	
		(20 ~ 30) dB	0.24 dB	
		(30 ~ 40) dB	0.27 dB	
		(40 ~ 50) dB	0.35 dB	
		(50 ~ 60) dB	0.59 dB	
		(60 ~ 70) dB	1.3 dB	
		(70 ~ 80) dB	3.2 dB	
		(80 ~ 100) dB	7.6 dB	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
RF filters	40615			
Insert loss		(26.5 GHz ~ 40 GHz)		
		(0 ~ 10) dB	0.21 dB	
		(10 ~ 20) dB	0.23 dB	
		(20 ~ 30) dB	0.24 dB	
		(30 ~ 40) dB	0.29 dB	
		(40 ~ 50) dB	0.47 dB	
		(50 ~ 60) dB	1.2 dB	
		(60 ~ 70) dB	3.1 dB	
		(40 GHz ~ 110 GHz)		
		(0 ~ 10) dB	0.34 dB	
		(10 ~ 20) dB	0.34 dB	
		(20 ~ 30) dB	0.34 dB	
		(30 ~ 40) dB	0.34 dB	
		(40 ~ 50) dB	0.34 dB	
		(50 ~ 60) dB	0.36 dB	
RF impedance meters	40616			Frequency standards,
Output frequency		1 mHz ~ 18 GHz	5.8×10^{-11}	Measuring recievers /HCT-CS-176-40616
Output level		(9 kHz ~ 18 GHz)		
		(0 ~ 20) dBm	0.19 dB	
		(-10 ~ 0) dBm	0.18 dB	
		(-30 ~ -10) dBm	0.19 dB	
		(-50 ~ -30) dBm	0.20 dB	
		(-70 ~ -50) dBm	0.21 dB	
		(-90 ~ -70) dBm	0.22 dB	
		(-110 ~ -90) dBm	0.23 dB	
		(-120 ~ -110) dBm	0.24 dB	
RF impulse generators	40617			RF spectrum analyzers
Impulse level		9 kHz ~ 1 GHz	0.28 dB	/HCT-CS-248-40617

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Line impedance stabilization networks; LISN, CDN, ISN, etc.	40618			Network analyzers, Calibration kits /HCT-CS-114-40618
LISN				
Impedance		5 Hz ~ 1 GHz	2.0×10^{-2}	
Phase angle		5 Hz ~ 1 GHz	0.02 °	
Voltage division factor		5 Hz ~ 1 GHz	0.12 dB	
Isolation		(9 kHz ~ 200 MHz)		
		(0 ~ 50) dB	0.2 dB	
		(50 ~ 60) dB	0.3 dB	
		(60 ~ 70) dB	0.5 dB	
		(70 ~ 80) dB	1.2 dB	
		(80 ~ 90) dB	3.1 dB	
Reflection coefficient		(0 ~ 1)		
		9 kHz ~ 200 MHz	5.4×10^{-3}	
CDN				
Impedance		5 Hz ~ 1 GHz	2.0×10^{-2}	
Phase angle		5 Hz ~ 1 GHz	0.02 °	
Voltage division factor		5 Hz ~ 1 GHz	0.12 dB	
ISN				
Impedance		9 kHz ~ 1 GHz	2.0×10^{-2}	
Phase angle		9 kHz ~ 1 GHz	0.02 °	
Voltage diivision factor		9 kHz ~ 1 GHz	0.12 dB	
Longitudinal Conversion Loss		9 kHz ~ 1 GHz	0.25 dB	
Coupling Attenuation(Isolation)		(9 kHz ~ 30 MHz)		
		(0 ~ 50) dB	0.2 dB	
		(50 ~ 60) dB	0.3 dB	
		(60 ~ 70) dB	0.5 dB	
		(70 ~ 80) dB	1.2 dB	
		(80 ~ 90) dB	3.1 dB	
EM clamps				
Coupling factor		9 kHz ~ 1 GHz	0.30 dB	
Decoupling factor		9 kHz ~ 1 GHz	0.30 dB	
Impedance		9 kHz ~ 1 GHz	1.8×10^{-2}	
Impedance converters				
Impedance		5 Hz ~ 3 GHz	2.0×10^{-2}	
Phase angle		5 Hz ~ 3 GHz	0.02 °	
Attenuator		5 Hz ~ 3 GHz	0.11 dB	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Coaxial standard mismatches	40619			Network analyzers, Calibration kits
Reflection coefficients				/HCT-CS-174-40619
Reflection coefficient		(0 ~ 1)		
		9 kHz ~ 1 GHz	4.8×10^{-3}	
		(1 ~ 18) GHz	1.0×10^{-2}	
Calibration KIT				
Magnitude of reflection coefficient				
(Termination)		9 kHz ~ 3 GHz	0.011 7	
		(3 ~ 20) GHz	0.018 1	
		(20 ~ 40) GHz	0.028 2	
		(40 ~ 50) GHz	0.035 0	
(Short circuit, Open circuit)		9 kHz ~ 3 GHz	0.018 4	
		(3 ~ 20) GHz	0.025 8	
		(20 ~ 40) GHz	0.035 9	
		(40 ~ 50) GHz	0.043 5	
Phase of reflection coefficient		(± 180 °)		
		9 kHz ~ 3 GHz	1.1 °	
		(3 ~ 20) GHz	1.6 °	
		(20 ~ 40) GHz	2.1 °	
		(40 ~ 50) GHz	2.5 °	
Mobile communication test sets	40621			Frequency standards, Power sensors,
Output frequency		1 mHz ~ 46 GHz	5.8×10^{-11}	Measuring receivers,
				RF spentrumm analyzers
Output level		(-30 ~ 20) dBm		/HCT-CS-115-40621
		9 kHz ~ 100 MHz	0.05 dB	
		100 MHz ~ 1 GHz	0.07 dB	
		(1 ~ 8) GHz	0.08 dB	
		(8 ~ 12) GHz	0.09 dB	
		(12 ~ 26) GHz	0.12 dB	
		(26 ~ 40) GHz	0.15 dB	
		(40 ~ 50) GHz	0.21 dB	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Mobile communication test sets	40621			Frequency standards, Power sensors,
Absolute TRFL accuracy		(9 kHz ~ 8 GHz)		Measuring receivers,
		(0 ~ 30) dBm	0.15 dB	RF spentrumm analyzers
		(-40 ~ 0) dBm	0.16 dB	/HCT-CS-115-40621
		(-80 ~ -40) dBm	0.18 dB	
		(-120 ~ -80) dBm	0.20 dB	
		(-140 ~ -120) dBm	0.21 dB	
		(8 GHz ~ 18 GHz)		
		(0 ~ 30) dBm	0.20 dB	
		(-40 ~ 0) dBm	0.20 dB	
		(-80 ~ -40) dBm	0.22 dB	
		(-120 ~ -80) dBm	0.24 dB	
		(-140 ~ -120) dBm	0.25 dB	
		(18 GHz ~ 26.5 GHz)		
		(0 ~ 30) dBm	0.27 dB	
		(-40 ~ 0) dBm	0.27 dB	
		(-80 ~ -40) dBm	0.29 dB	
		(-120 ~ -80) dBm	0.31 dB	
		(-140 ~ -120) dBm	0.32 dB	
Relative TRFL accuracy		(9 kHz ~ 18 GHz)		
		(0 ~ 30) dBm	0.05 dB	
		(-40 ~ 0) dBm	0.05 dB	
		(-80 ~ -40) dBm	0.08 dB	
		(-120 ~ -80) dBm	0.09 dB	
		(-140 ~ -120) dBm	0.10 dB	
		(18 GHz ~ 26.5 GHz)		
		(0 ~ 30) dBm	0.05 dB	
		(-40 ~ 0) dBm	0.05 dB	
		(-80 ~ -40) dBm	0.08 dB	
		(-120 ~ -80) dBm	0.09 dB	
		(-140 ~ -120) dBm	0.11 dB	
Output amplitude modulation		(CW 100 kHz ~ 26.5 GHz, Rate 10 Hz ~ 100 kHz)		
		(1 ~ 100) %	1.2×10^{-2}	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Mobile communication test sets	40621			Frequency standards, Power sensors,
Output frequency modulation		(CW 100 kHz ~ 26.5 GHz,		Measuring receivers,
		Rate 10 Hz ~ 100 kHz)		RF spentrumm analyzers
		0.1 Hz ~ 5 MHz	1.2×10^{-2}	/HCT-CS-115-40621
Output phase modulation		(CW 100 kHz ~ 26.5 GHz,		
		Rate 10 Hz ~ 100 kHz)		
		0.1 rad ~ 10 krad	1.2×10^{-2}	
Output phase distortion		100 kHz ~ 26.5 GHz	3.0×10^{-2}	
Output harmonics		9 kHz ~ 10 GHz	1.4 dB	
		(10 ~ 26.5) GHz	1.7 dB	
Output AC Voltage		(10 Hz ~ 25 kHz)		
		10 mV ~ 100 V	7.4×10^{-4}	
Output DC voltage		10 mV ~ 100 V	5.8×10^{-5}	
Input frequency		1 mHz ~ 18 GHz	5.8×10^{-11}	
Input voltage		(-120 ~ 20) dBm		
		9 kHz ~ 100 MHz	0.05 dB	
		100 MHz ~ 1 GHz	0.07 dB	
		(1 ~ 8) GHz	0.08 dB	
		(8 ~ 12) GHz	0.09 dB	
		(12 ~ 18) GHz	0.12 dB	
		(18 ~ 50) GHz	0.12 dB	
Input level linearity		(9 kHz ~ 26.5 GHz)		
		(-10 ~ 30) dBm	0.034 dB	
		(-20 ~ -10) dBm	0.040 dB	
		(-30 ~ -20) dBm	0.046 dB	
		(-40 ~ -30) dBm	0.052 dB	
		(-50 ~ -40) dBm	0.058 dB	
		(-60 ~ -50) dBm	0.064 dB	
		(-70 ~ -60) dBm	0.070 dB	
		(-80 ~ -70) dBm	0.076 dB	
		(-90 ~ -80) dBm	0.080 dB	
		(-100 ~ -90) dBm	0.086 dB	
		(-110 ~ -100) dBm	0.092 dB	
		(-140 ~ -110) dBm	0.098 dB	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Mobile communication test sets	40621			Frequency standards, Power sensors,
Input amplitude modulation		100 kHz ~ 26.5 GHz	1.2×10^{-2}	Measuring receivers,
				RF spentrumm analyzers
Input frequency modulation		100 kHz ~ 26.5 GHz	1.2×10^{-2}	/HCT-CS-115-40621
Input phase modulation		100 kHz ~ 26.5 GHz	1.2×10^{-2}	
Input modulation distortion		100 kHz ~ 26.5 GHz	3.0×10^{-2}	
Input harmonics		9 kHz ~ 10 GHz	1.4 dB	
		(10 ~ 18) GHz	1.7 dB	
Input AC voltage		(10 Hz ~ 25 kHz)		
		10 mV ~ 100 V	7.4×10^{-4}	
Input DC voltage		10 mV ~ 100 V	7.3×10^{-5}	
Reflection coefficient		(0 ~ 1)		
		9 kHz ~ 1 GHz	3.8×10^{-3}	
		(1 ~ 3) GHz	5.3×10^{-3}	
		(3 ~ 20) GHz	2.4×10^{-2}	
		(20 ~ 50) GHz	5.9×10^{-2}	
Insertion Loss		(375 MHz ~ 6 GHz)		
		(0 ~ 10) dB	0.11 dB	
		(10 ~ 20) dB	0.12 dB	
		(20 ~ 30) dB	0.14 dB	
Modulation meters	40622			Measuring receivers,
Frequency		1 mHz ~ 26.5 GHz	5.8×10^{-11}	AM/FM test source
				/HCT-CS-116-40622
Amplitude Modulation		(CW 100 kHz ~ 26.5 GHz,		
		Rate 10 Hz ~ 100 kHz)		
		(1 ~ 100) %	1.2×10^{-2}	
Frequency Modulation		(CW 100 kHz ~ 26.5 GHz,		
		Rate 10 Hz ~ 100 kHz)		
		0.1 Hz ~ 5 MHz	1.2×10^{-2}	
Phase Modulation		(CW 100 kHz ~ 26.5 GHz,		
		Rate 10 Hz ~ 100 kHz)		
		0.1 rad ~ 10 krad	1.2×10^{-2}	
Audio RMS Accuracy		(20 Hz ~ 50 kHz)		
		100 mV ~ 5 V	1.2×10^{-3}	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Modulation meters	40622			Measuring receivers,
Reference Power		(50 MHz)		AM/FM test source
		1 mW	8.0×10^{-3}	/HCT-CS-116-40622
Zero Set		0.000 μW	0.001 μW	
		0.00 μW	0.01 μW	
		0.0 μW	0.1 μW	
		0.000 mW	0.001 mW	
		0.00 mW	0.01 mW	
Range-to-Range Error		10 μW ~ 100 mW	1.3×10^{-3}	
Tuned RF Level		(0 ~ 10) dB	0.027 dB	
		(10 ~ 20) dB	0.029 dB	
		(20 ~ 30) dB	0.032 dB	
		(30 ~ 40) dB	0.038 dB	
		(40 ~ 50) dB	0.043 dB	
		(50 ~ 60) dB	0.043 dB	
Tuned RF Level		(60 ~ 70) dB	0.048 dB	
		(70 ~ 80) dB	0.054 dB	
		(80 ~ 90) dB	0.060 dB	
		(90 ~ 100) dB	0.066 dB	
		(100 ~ 110) dB	0.069 dB	
		(110 ~ 120) dB	0.074 dB	
Network analyzers	40623			Calibration kit,
Output frequency		1 mHz ~ 46 GHz	5.8×10^{-11}	Frequency standards,
				Power sensors,
Output level accuracy		(-30 ~ 20) dBm		Standard attenuators,
		5 Hz ~ 100 MHz	0.06 dB	Standard mismatches
		100 MHz ~ 1 GHz	0.07 dB	/HCT-CS-117-40623
		(1 ~ 8) GHz	0.08 dB	
		(8 ~ 12) GHz	0.09 dB	
		(12 ~ 18) GHz	0.12 dB	
		(18 ~ 26) GHz	0.12 dB	
		(26 ~ 33) GHz	0.14 dB	
		(33 ~ 40) GHz	0.15 dB	
		(40 ~ 50) GHz	0.15 dB	
		(50 ~ 75) GHz	0.24 dB	
		(75 ~ 110) GHz	0.28 dB	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Network analyzers	40623			Calibration kit,
Absolute TRFL accuracy		(9 kHz ~ 8 GHz)		Frequency standards,
		(0 ~ 30) dBm	0.15 dB	Power sensors,
		(-40 ~ 0) dBm	0.16 dB	Standard attenuators,
		(-80 ~ -40) dBm	0.18 dB	Standard mismatches
		(-120 ~ -80) dBm	0.20 dB	/HCT-CS-117-40623
		(-140 ~ -120) dBm	0.21 dB	
		(8 GHz ~ 18 GHz)		
		(0 ~ 30) dBm	0.20 dB	
		(-40 ~ 0) dBm	0.20 dB	
		(-80 ~ -40) dBm	0.22 dB	
		(-120 ~ -80) dBm	0.24 dB	
		(-140 ~ -120) dBm	0.25 dB	
		(18 GHz ~ 26.5 GHz)		
		(0 ~ 30) dBm	0.27 dB	
		(-40 ~ 0) dBm	0.27 dB	
		(-80 ~ -40) dBm	0.29 dB	
		(-120 ~ -80) dBm	0.31 dB	
		(-140 ~ -120) dBm	0.32 dB	
		(26.5 GHz ~ 40 GHz)		
		(-30 ~ 20) dBm	0.27 dB	
		(40 GHz ~ 50 GHz)		
		(-30 ~ 20) dBm	0.31 dB	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Network analyzers	40623			Calibration kit,
Output level linearity		(9 kHz ~ 26.5 GHz)		Frequency standards,
		(0 ~ 10) dBm	0.034 dB	Power sensors,
		(-10 ~ 0) dBm	0.034 dB	Standard attenuators,
		(-20 ~ -10) dBm	0.040 dB	Standard mismatches
		(-30 ~ -20) dBm	0.046 dB	/HCT-CS-117-40623
		(-40 ~ -30) dBm	0.052 dB	
		(-50 ~ -40) dBm	0.058 dB	
		(-60 ~ -50) dBm	0.064 dB	
		(-70 ~ -60) dBm	0.070 dB	
		(-80 ~ -70) dBm	0.076 dB	
		(-90 ~ -80) dBm	0.080 dB	
		(-100 ~ -90) dBm	0.086 dB	
		(-110 ~ -100) dBm	0.092 dB	
		(-120 ~ -110) dBm	0.098 dB	
		(26.5 GHz ~ 40 GHz)		
		(-30 ~ 20) dBm	0.024 dB	
		(40 GHz ~ 50 GHz)		
		(-30 ~ 20) dBm	0.050 dB	
Harmonics		20 Hz ~ 20 GHz	1.4 dB	
		(20 ~ 40) GHz	1.7 dB	
Magnitude dynamic accuracy		(0 ~ 120) dB	0.029 dB	
Mismatch measurement accuracy		9 kHz ~ 1 GHz	4.8×10^{-3}	
		(1 ~ 18) GHz	1.0×10^{-2}	
Input impedance		9 kHz ~ 1 GHz	4.8×10^{-3}	
		(1 ~ 18) GHz	1.0×10^{-2}	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Noise figure meters	40624			Noise standards, Noise sources
Output frequency		1 mHz ~ 18 GHz	5.8×10^{-11}	RF signal generators
				/HCT-CS-118-40624
Input impedance		9 kHz ~ 1 GHz	0.9×10^{-2}	
		(1 ~ 3) GHz	1.2×10^{-2}	
		(3 ~ 18) GHz	1.9×10^{-2}	
Output DC voltage		0 V	10 μV	
		(0.1 ~ 30) V	1.1×10^{-6}	
Noise figure		10 MHz ~ 18 GHz	0.35 dB	
Noise generators	40625			RF spectrum generators
Output frequency		1 mHz ~ 18 GHz	5.8×10^{-11}	/HCT-CS-177-40625
Output level		(-120 dBm ~ 30 dBm)		
		9 kHz ~ 3 GHz	0.51 dB	
		(3 ~ 6.6) GHz	1.8 dB	
		(6.6 ~ 18) GHz	2.4 dB	
Noise impulse simulators	40626			High voltage probes, Oscilloscopes
Output Voltage		(±)		/HCT-CS-119-40626
		10 V	0.34 V	
		(10 ~ 20) V	3.4×10^{-2}	
		(20 ~ 50) V	3.1×10^{-2}	
		(50 ~ 200) V	3.4×10^{-2}	
		(200 ~ 250) V	3.2×10^{-2}	
		(250 ~ 500) V	3.1×10^{-2}	
		(0.5 ~ 1) kV	3.4×10^{-2}	
		(1 ~ 2) kV	2.9×10^{-2}	
		(2 ~ 2.5) kV	2.7×10^{-2}	
		(2.5 ~ 3) kV	2.7×10^{-2}	
		(3 ~ 4) kV	3.4×10^{-2}	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Noise impulse simulators	40626			High voltage probes, Oscilloscopes
Delta time measurement		0.1 ns	0.011 ns	/HCT-CS-119-40626
(rise/fall/duration/period		(0.1 ~ 1.0) ns	1.2×10^{-2}	
/repetition rate		(1.0 ~ 2.0) ns	5.6×10^{-3}	
/burst duration)		(2.0 ~ 5.0) ns	2.3×10^{-3}	
		(5.0 ~ 10.0) ns	1.7×10^{-3}	
		(10 ~ 20) ns	8.1×10^{-4}	
		(20 ~ 50) ns	3.3×10^{-4}	
		(50 ~ 100) ns	1.2×10^{-3}	
		(100 ~ 200) ns	5.9×10^{-4}	
		(200 ~ 500) ns	2.4×10^{-4}	
		(0.5 ~ 1.0) μs	1.2×10^{-3}	
		(1.0 ~ 2.0) μs	5.9×10^{-4}	
		(2.0 ~ 5.0) μs	2.4×10^{-4}	
		(5.0 ~ 10.0) μs	1.2×10^{-3}	
		(10 ~ 20) μs	5.9×10^{-4}	
		(20 ~ 50) μs	2.4×10^{-4}	
		(50 ~ 100) μs	1.2×10^{-3}	
		(100 ~ 200) μs	5.9×10^{-4}	
		(200 ~ 500) μs	2.4×10^{-4}	
		(0.5 ~ 1) ms	1.2×10^{-3}	
		(1 ~ 2) ms	5.9×10^{-4}	
		(2 ~ 5) ms	2.4×10^{-4}	
		(5 ~ 10) ms	1.2×10^{-3}	
		(10 ~ 20) ms	5.9×10^{-4}	
		(20 ~ 50) ms	2.4×10^{-4}	
		(50 ~ 100) ms	1.2×10^{-3}	
		(100 ~ 200) ms	5.9×10^{-4}	
		(200 ~ 500) ms	2.4×10^{-4}	
		(0.5 ~ 1.0) s	1.2×10^{-3}	
		(1.0 ~ 2.0) s	5.9×10^{-4}	
		(2.0 ~ 5.0) s	2.4×10^{-4}	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
RF power meters	40635			
RF power meters				Range calibrators, Power sensors
Output frequency		1 mHz ~ 18 GHz	5.8×10^{-11}	/HCT-CS-120-40635
Output levels		(10 MHz ~ 300 MHz)		
		1 μW ~ 100 mW	5.1×10^{-3}	
Instrument accuracy		3 μW ~ 100 mW	3.2×10^{-3}	
Input level accuracy		(9 kHz ~ 18 GHz)		
		(-80 ~ 20) dBm	0.16 dB	
Input voltage		(DC)		
		(0 ~ 400) V	4.3×10^{-5}	
RF high power meters				RF calorimeters
Calibration facor		(10 kHz ~ 220 MHz)		/HCT-CS-162-40635
		0.01 W ~ 2.5 kW	1.5×10^{-2}	
		(200 MHz ~ 1 GHz)		
		(0.01 ~ 100) W	2.9×10^{-2}	
		(1 GHz ~ 4.2 GHz)		
		(0.01 ~ 10) W	3.3×10^{-2}	
Diode power sensors	40636			Coaxial thermistor mounts
Calibration factor		(1 μW ~ 100 mW)		Power sensors
		9 kHz ~ 1 GHz	1.5×10^{-2}	/HCT-CS-121-40636
		(1 ~ 10) GHz	1.6×10^{-2}	
		(10 ~ 18) GHz	2.1×10^{-2}	
		(18 ~ 26) GHz	2.1×10^{-2}	
		(26 ~ 34) GHz	2.5×10^{-2}	
		(34 ~ 38) GHz	3.0×10^{-2}	
		(38 ~ 43) GHz	3.3×10^{-2}	
		(43 ~ 50) GHz	3.6×10^{-2}	
Reflection Coefficient		(0 ~ 1)		
		9 kHz ~ 1 GHz	3.8×10^{-3}	
		(1 ~ 3) GHz	5.3×10^{-3}	
		(3 ~ 20) GHz	9.3×10^{-3}	
		(20 ~ 40) GHz	1.2×10^{-2}	
		(40 ~ 50) GHz	5.9×10^{-2}	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Thermocouple power sensors	40637			Coaxial thermistor mounts
Calibration factor		(1 μW ~ 100 mW)		Power sensors
		9 kHz ~ 1 GHz	1.5×10^{-2}	/HCT-CS-122-40637
		(1 ~ 10) GHz	1.6×10^{-2}	
		(10 ~ 18) GHz	2.1×10^{-2}	
		(18 ~ 26) GHz	2.1×10^{-2}	
		(26 ~ 34) GHz	2.5×10^{-2}	
		(34 ~ 38) GHz	3.0×10^{-2}	
		(38 ~ 43) GHz	3.3×10^{-2}	
		(43 ~ 50) GHz	3.6×10^{-2}	
Reflection coefficient		(0 ~ 1)		
		9 kHz ~ 1 GHz	3.8×10^{-3}	
		(1 ~ 3) GHz	5.3×10^{-3}	
		(3 ~ 20) GHz	9.3×10^{-3}	
		(20 ~ 40) GHz	1.2×10^{-2}	
		(40 ~ 50) GHz	5.9×10^{-2}	
Pulse generators	40638			Frequency couters, Oscilloscopes
Frequency		1 Hz ~ 10 GHz	6.2×10^{-9}	/HCT-CS-123-40646
Period		300 ps ~ 1 s	6.2×10^{-9}	
Delay		1 s ~ 100 ns	1.2×10^{-3}	
		(100 ~ 10) ns	1.4×10^{-3}	
		(10 ~ 1) ns	6.0×10^{-3}	
Double Pulse		1 s ~ 100 ns	1.2×10^{-3}	
		(100 ~ 10) ns	1.4×10^{-3}	
		(10 ~ 1) ns	6.0×10^{-3}	
Width		1 s ~ 100 ns	1.2×10^{-3}	
		(100 ~ 10) ns	1.4×10^{-3}	
		(10 ~ 1) ns	6.0×10^{-3}	
Transition Time		1 s ~ 100 ns	1.2×10^{-3}	
		(100 ~ 10) ns	1.4×10^{-3}	
		(10 ~ 1) ns	6.0×10^{-3}	
DC Level		10 mV	6.2 μV	
		10 mV ~ 100 V	6.2×10^{-4}	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Pulse generators	40638			Frequency couters, Oscilloscopes
Output Level		10 mV		/HCT-CS-123-40646
		20 Hz ~ 1 kHz	10 μV	
		(1 ~ 20) kHz	14 μV	
		(20 ~ 100) kHz	15 μV	
		(10 ~ 100) mV		
		20 Hz ~ 1 kHz	6.4×10^{-4}	
		(1 ~ 20) kHz	7.1×10^{-4}	
		(20 ~ 100) kHz	1.2×10^{-3}	
		(100 mV ~ 1 V)		
		20 Hz ~ 20 kHz	6.3×10^{-4}	
		(20 ~ 50) kHz	6.7×10^{-4}	
		(50 ~ 100) kHz	6.8×10^{-4}	
		(1 ~ 10) V		
		20 Hz ~ 20 kHz	6.3×10^{-4}	
		(20 ~ 50) kHz	6.7×10^{-4}	
		(50 ~ 100) kHz	6.7×10^{-4}	
		(10 ~ 100) V		
		20 Hz ~ 20 kHz	6.3×10^{-4}	
		(20 ~ 50) kHz	6.7×10^{-4}	
		(50 ~ 100) kHz	6.7×10^{-4}	
		(100 ~ 200) V		
		20 Hz ~ 1 kHz	3.2×10^{-4}	
		(200 ~ 300) V		
		40 Hz ~ 1 kHz	2.4×10^{-4}	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Radar test sets	40639			VOR/ILS signal calibrators,
Output frequency Accuracy		5 Hz ~ 18 GHz	5.8×10^{-11}	Frequency standards, Power sensors
				/HCT-CS-168-40639
Output level		(9 kHz ~ 18 GHz)		
		(10 ~ 30) dBm	0.12 dB	
		(-30 ~ 10) dBm	0.12 dB	
		(-60 ~ -30) dBm	0.13 dB	
		(-100 ~ -60) dBm	0.15 dB	
		(-120 ~ -100) dBm	0.30 dB	
Output Signal Harmonics		(9 kHz ~ 5 GHz)		
		(-100 ~ 0) dBc	1.2 dB	
		(5 GHz ~ 18 GHz)		
		(-100 ~ 0) dBc	1.7 dB	
Output modulation signal level		(9 kHz ~ 18 GHz)		
		(-100 ~ 0) dBc	1.7 dB	
Output amplitude modulatiion		(CW 9 kHz ~ 18 GHz,		
		Rate 10 Hz ~ 100 kHz)		
		(1 ~ 100) %	1.2×10^{-2}	
Output frequency modulation		(CW 9 kHz ~ 18 GHz,		
		Rate 10 Hz ~ 100 kHz)		
		(0.1 ~ 400) kHz	1.2×10^{-2}	
Output modulation distortion		(9 kHz ~ 18 GHz)		
		(0 ~ 100) %	1.2×10^{-2}	
Output Phase Modulation		(9 kHz ~ 18 GHz)		
		(0.1 ~ 400) rad	1.2×10^{-2}	
DDM		100 kHz ~ 1.36 GHz	3.0×10^{-2}	
SDM		100 kHz ~ 1.36 GHz	1.2×10^{-2}	
VOR		100 kHz ~ 1.36 GHz	0.04 °	
Output Pulse width		1 ns ~ 10 ms	1.2×10^{-2}	
Input frequency		9 kHz ~ 18 GHz	5.8×10^{-11}	
Input level		(100 kHz ~ 1 GHz)		
		1 mW ~ 100 W	1.9×10^{-2}	
		(1 GHz ~ 1.36 GHz)		
		1 mW ~ 80 W	1.9×10^{-2}	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
RF signal generators	40640			Measuting recievers, Power sensors,
Output frequency		1 mHz ~ 46 GHz	5.8×10^{-11}	Frequency standards,
				RF spectrum analyzers
Absolute output level		(-30 ~ 20) dBm		/HCT-CS-124-40640
		5 Hz ~ 100 MHz	0.05 dB	
		100 MHz ~ 1 GHz	0.07 dB	
		(1 ~ 8) GHz	0.08 dB	
		(8 ~ 12) GHz	0.09 dB	
		(12 ~ 18) GHz	0.12 dB	
		(18 ~ 26) GHz	0.11 dB	
		(26 ~ 33) GHz	0.13 dB	
		(33 ~ 40) GHz	0.14 dB	
		(40 ~ 50) GHz	0.16 dB	
		(50 ~ 75) GHz	0.21 dB	
		(75 ~ 110) GHz	0.28 dB	
Absolute TRFL accuracy		(9 kHz ~ 8 GHz)		
		(0 ~ 30) dBm	0.15 dB	
		(-40 ~ 0) dBm	0.16 dB	
		(-80 ~ -40) dBm	0.18 dB	
		(-120 ~ -80) dBm	0.20 dB	
		(-140 ~ -120) dBm	0.21 dB	
		(8 GHz ~ 18 GHz)		
		(0 ~ 30) dBm	0.20 dB	
		(-40 ~ 0) dBm	0.20 dB	
		(-80 ~ -40) dBm	0.22 dB	
		(-120 ~ -80) dBm	0.24 dB	
		(-140 ~ -120) dBm	0.25 dB	
		(18 GHz ~ 26.5 GHz)		
		(0 ~ 30) dBm	0.27 dB	
		(-40 ~ 0) dBm	0.27 dB	
		(-80 ~ -40) dBm	0.29 dB	
		(-120 ~ -80) dBm	0.31 dB	
		(-140 ~ -120) dBm	0.32 dB	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
RF signal generators	40640			Measuting recievers, Power sensors,
Relative TRFL accuracy		(9 kHz ~ 26.5 GHz)		Frequency standards,
		(0 ~ 30) dBm	0.05 dB	RF spectrum analyzers
		(-40 ~ 0) dBm	0.05 dB	/HCT-CS-124-40640
		(-80 ~ -40) dBm	0.08 dB	
		(-120 ~ -80) dBm	0.09 dB	
		(-140 ~ -120) dBm	0.11 dB	
Output amplitude modulation		(CW 100 kHz ~ 26.5 GHz, Rate 10 Hz ~ 100 kHz)		
		(1 ~ 100) %	1.2×10^{-2}	
Output frequency modulation		(CW 100 kHz ~ 26.5 GHz, Rate 10 Hz ~ 100 kHz)		
		0.1 Hz ~ 5 MHz	1.2×10^{-2}	
Output phase modulation		(CW 100 kHz ~ 26.5 GHz, Rate 10 Hz ~ 100 kHz)		
		(0.1 ~ 400) rad	1.2×10^{-2}	
Output modulation distortion		100 kHz ~ 26.5 GHz	3.0×10^{-2}	
Harmonics		20 Hz ~ 20 GHz	1.4 dB	
		(20 ~ 40) GHz	1.7 dB	
Pulse modulation		200 ns ~ 10 s	1.2×10^{-3}	
RF spectrum analyzers	40641			Power sensors, Frequency standards,
Reference frequency		10 MHz ~ 1 GHz	5.8×10^{-11}	RF signal generators, Standard attenuators
Reference level		(10 MHz ~ 1 GHz)		/HCT-CS-125-40641
		-30 dBm ~ 10 dBm	0.07 dB	
Frequency readout		5 Hz ~ 110 GHz	$9.6 \times 10^{-4} \cdot$ SPAN	
Frequency counter		5 Hz ~ 110 GHz	0.1 Hz	
Frequency span		5 Hz ~ 110 GHz	$1.4 \times 10^{-3} \cdot$ SPAN	
Resolution bandwidth		1 Hz ~ 100 MHz	$2.2 \times 10^{-3} \cdot$ RBW	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
RF spectrum analyzers	40641			Power sensors, Frequency standards,
Resolution bandwidth selectivity		1 Hz ~ 100 MHz	$4.0 \times 10^{-3} \cdot RBW$	RF signal generators,
				Standard attenuators
Resolution bandwidth switching error		1 Hz ~ 100 MHz	0.004 dB	/HCT-CS-125-40641
Input attenuator accuracy		(0 ~ 100) dB	0.08 dB	
Scale fidelity		(0 ~ 100) dB	0.08 dB	
Reference level accuracy		(0 ~ 100) dB	0.06 dB	
Frequency responese		5 Hz ~ 4 GHz	0.09 dB	
		(4 ~ 18) GHz	0.15 dB	
		(18 ~ 26.5) GHz	0.19 dB	
		(26.5 ~ 40) GHz	0.21 dB	
		(40 ~ 110) GHz	0.35 dB	
Average noise level		5 Hz ~ 3 GHz	0.58 dB	
		(3 ~ 12) GHz	1.0 dB	
		(12 ~ 18) GHz	1.4 dB	
		(18 ~ 40) GHz	1.7 dB	
		(40 ~ 50) GHz	2.0 dB	
Sideband noise level		-30 kHz ~ 30 kHz	1.7 dB	
Input level		(1 kHz ~ 100 kHz) -60 dBV ~ 30 dBV	0.18 dB	
Conversion factor		(18 ~ 110) GHz	0.82 dB	
RF speed guns	40642			Frequency standards
Speed		(5 ~ 2 000) m/s	0.026 m/s	/HCT-CS-278-40642

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Surge generators	40643			High voltage probes
Voltage output		(±)		/HCT-CS-126-40643
		2 V	0.092 V	
		(2 ~ 10) V	9.3×10^{-3}	
		(10 ~ 20) V	7.1×10^{-3}	
		(20 ~ 50) V	3.9×10^{-3}	
		(50 ~ 100) V	3.6×10^{-3}	
		(100 ~ 200) V	3.9×10^{-3}	
		(200 ~ 500) V	1.7×10^{-3}	
		(500 ~ 1 000 V)	3.6×10^{-3}	
		(1 ~ 2) kV	1.5×10^{-2}	
		(2 ~ 4) kV	8.4×10^{-3}	
		(4 ~ 6) kV	8.7×10^{-3}	
		(6 ~ 8) kV	7.3×10^{-3}	
		(8 ~ 10) kV	7.6×10^{-3}	
		(10 ~ 12) kV	6.3×10^{-3}	
		(12 ~ 15) kV	6.9×10^{-3}	
		(15 ~ 18) kV	6.1×10^{-3}	
		(18 ~ 20) kV	5.5×10^{-3}	
Current output		(±)		
		1 A	26 mA	
		(1 ~ 2) A	1.3×10^{-2}	
		(2 ~ 5) A	7.0×10^{-3}	
		(5 ~ 10) A	5.9×10^{-3}	
		(10 ~ 20) A	5.7×10^{-3}	
		(20 ~ 50) A	5.2×10^{-3}	
		(50 ~ 100) A	4.2×10^{-3}	
		(100 ~ 200) A	5.7×10^{-3}	
		(200 ~ 500) A	5.2×10^{-3}	
		(500 ~ 1 000) A	3.5×10^{-4}	
		(1 000 ~ 2 000) A	5.8×10^{-3}	
		(2 000 ~ 3 000) A	8.6×10^{-3}	
		(3 000 ~ 5 000) A	5.2×10^{-3}	
		(5 000 ~ 7 000) A	6.1×10^{-3}	
		(7 000 ~ 10 000) A	4.3×10^{-3}	
		(10 000 ~ 20 000) A	5.9×10^{-3}	
		(20 000 ~ 50 000) A	2.4×10^{-3}	
		(50 000 ~ 100 000) A	1.3×10^{-3}	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Surge generators	40643			High voltage probes
Delta time measurement				/HCT-CS-126-40643
(rise/fall/duration/period		0.2 ns	0.011 ns	
/repetition rate/burst duration)		(0.2 ~ 1) ns	1.1×10^{-2}	
		(1 ~ 2) ns	5.8×10^{-3}	
		(2 ~ 5) ns	2.3×10^{-3}	
		(5 ~ 10) ns	1.6×10^{-3}	
		(10 ~ 20) ns	8.1×10^{-4}	
		(20 ~ 50) ns	3.3×10^{-4}	
		(50 ~ 100) ns	1.2×10^{-3}	
		(100 ~ 200) ns	5.8×10^{-4}	
		(200 ~ 500) ns	2.4×10^{-4}	
		(0.5 ~ 1) µs	2.5×10^{-3}	
		(1 ~ 2) µs	1.5×10^{-3}	
		(2 ~ 5) µs	6.1×10^{-4}	
		(5 ~ 10) µs	1.2×10^{-3}	
		(10 ~ 20) µs	6.0×10^{-4}	
		(20 ~ 50) µs	2.4×10^{-4}	
		(50 ~ 100) µs	1.3×10^{-3}	
		(100 ~ 200) µs	5.8×10^{-4}	
		(200 ~ 500) µs	2.4×10^{-4}	
		(0.5 ~ 1) ms	1.2×10^{-3}	
		(1 ~ 2) ms	1.5×10^{-3}	
		(2 ~ 5) ms	6.1×10^{-4}	
		(5 ~ 10) ms	1.2×10^{-3}	
		(10 ~ 20) ms	6.0×10^{-4}	
		(20 ~ 50) ms	2.4×10^{-4}	
		(50 ~ 100) ms	1.2×10^{-3}	
		(100 ~ 200) ms	5.8×10^{-4}	
		(200 ~ 500) ms	2.4×10^{-4}	
		(0.5 ~ 1) s	1.2×10^{-3}	
		(1 ~ 2) s	2.8×10^{-3}	
		(2 ~ 5) s	6.1×10^{-4}	
		(5 ~ 10) s	1.2×10^{-3}	
Frequency		0.1 Hz	5.8 mHz	
		(0.1 ~ 1) Hz	5.9×10^{-6}	
		1 Hz ~ 10 MHz	1.2×10^{-6}	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
RF terminations	40645			Network analyzers, Calibration kits
Reflection coefficients		(0 ~ 1)		/HCT-CS-128-40645
		5 Hz ~ 9 kHz	4.4×10^{-3}	
		9 kHz ~ 1 GHz	4.8×10^{-3}	
		(1 ~ 18) GHz	1.0×10^{-2}	
		(18 ~ 40) GHz	1.3×10^{-2}	
		(40 ~ 50) GHz	1.4×10^{-2}	
		(50 ~ 75) GHz	2.1×10^{-2}	
		(75 ~ 110) GHz	2.4×10^{-2}	
Coaxial thermistor mounts	40646			Coaxial thermistor mounts
Calibration factor		(1 μW ~ 100 mW)		/HCT-CS-129-40646
		10 MHz ~ 1 GHz	1.4×10^{-2}	
		(1 ~ 10) GHz	1.6×10^{-2}	
		(10 ~ 18) GHz	2.1×10^{-2}	
Reflection coefficient		(0 ~ 1)		
		10 MHz ~ 1 GHz	3.8×10^{-3}	
		(1 ~ 3) GHz	5.3×10^{-3}	
		(3 ~ 18) GHz	9.3×10^{-3}	
Transmission trouble testers	40648			Frequency counters, Oscilloscopes,
Pulse width		1 ns ~ 100 μs	1.4×10^{-2}	Artifacts
				/HCT-CS-261-40648
Pulse amplitude		1 mV ~ 20 V	6.3×10^{-2}	
Pulse rate		1 ns ~ 100 μs	5.8×10^{-11}	
Pulse reflection delay time		1 ns ~ 200 μs	1.5×10^{-2}	
Impedance		0 Ω	1.2 mΩ	
		0.1 Ω ~ 500 Ω	1.0×10^{-4}	
Insertion loss		1 MHz ~ 2.5 GHz	0.32 dB	
Return loss		1 MHz ~ 2.5 GHz	0.51 dB	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
RF voltmeters	40650			Meter calibrators, Power sensors
Voltage		(DC)		/HCT-CS-133-40650
		(0 ~ 400) V	5.8×10^{-5}	
		(DC ~ 100 kHz)		
		0.1 mV ~ 10 V	1.6×10^{-4}	
		(100 kHz ~ 1 GHz)		
		-120 dBm ~ 20 dBm	0.15 dB	
Vector voltmeters	40651			Meter calibrators, Power sensors
Voltage		(DC)		/HCT-CS-173-40651
		(0 ~ 400) V	5.8×10^{-5}	
		(DC ~ 100 kHz)		
		0.1 mV ~ 10 V	1.6×10^{-4}	
		(100 kHz ~ 1 GHz)		
		-120 dBm ~ 20 dBm	0.15 dB	
Field strength meters	40652			Power sensors, Frequency standards
Frequency		9 kHz ~ 18 GHz	5.8×10^{-11}	/HCT-CS-200-40652
Frequency response		9 kHz ~ 4 GHz	0.09 dB	
		(4 ~ 18) GHz	0.15 dB	
Amplitude modulation		100 kHz ~ 18 GHz	1.2×10^{-2}	
Frequency modulation		100 kHz ~ 18 GHz	1.2×10^{-2}	
AM/FM test sources	40653			Measuring recivers
Output frequency		1 MHz ~ 1 GHz	5.8×10^{-11}	/HCT-CS-250-40653
Vestigual FM		50 Hz ~ 3 kHz	2.0×10^{-2}	
Vestigal AM		50 Hz ~ 3 kHz	2.0×10^{-2}	
Distortion factor		(12.5 ~ 400) kHz	4.0×10^{-4}	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Dip simulators	40654			Digital multimeters, Oscilloscopes,
DC Output voltage		(±)		High voltage probes
		1 V	0.65 mV	/HCT-CS-202-40654
		(1 ~ 10) V	8.0×10^{-5}	
		(10 ~ 50) V	1.5×10^{-4}	
		(50 ~ 100) V	8.8×10^{-5}	
		(100 ~ 150) V	1.6×10^{-4}	
		(150 ~ 200) V	1.3×10^{-4}	
		(200 ~ 250) V	1.2×10^{-4}	
		(250 ~ 300) V	1.0×10^{-4}	
		(300 ~ 400) V	8.7×10^{-5}	
AC Output voltage		(50 ~ 60) Hz		
		50 V	0.30 V	
		(50 ~ 100) V	3.4×10^{-3}	
		(100 ~ 150) V	3.1×10^{-3}	
		(150 ~ 200) V	2.5×10^{-3}	
		(200 ~ 250) V	2.1×10^{-3}	
		(250 ~ 300) V	1.9×10^{-3}	
		(300 ~ 400) V	1.6×10^{-3}	
Line frequency		(50 ~ 60) Hz	3.5×10^{-4}	
Dip & Up Voltage		(0 ~ 12) V		
DC Voltage		0 %		
		0 V	0.19 V	
		(0 ~ 40) %		
		(0 ~ 4.8) V	4.8×10^{-2}	
		(40 ~ 70) %		
		(4.8 ~ 8.4) V	3.3×10^{-2}	
		(70 ~ 80) %		
		(8.4 ~ 9.6) V	3.1×10^{-2}	
		(80 ~ 120) %		
		(9.6 ~ 14.4) V	2.7×10^{-2}	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Dip simulators	40654			Digital multimeters, Oscilloscopes,
Dip & Up Voltage		(12 ~ 25) V		High voltage probes
DC Voltage		0 %		/HCT-CS-202-40654
		0 V	0.19 V	
		(0 ~ 40) %		
		(0 ~ 10) V	3.1×10^{-2}	
		(40 ~ 70) %		
		(10 ~ 17.5) V	2.6×10^{-2}	
		(70 ~ 80) %		
		(17.5 ~ 20) V	2.5×10^{-2}	
		(80 ~ 120) %		
		(20 ~ 30) V	2.4×10^{-2}	
		(25 ~ 50) V		
		0 %		
		0 V	0.19 V	
		(0 ~ 40) %		
		(0 ~ 20) V	2.5×10^{-2}	
		(40 ~ 70) %		
		(20 ~ 35) V	2.4×10^{-2}	
		(70 ~ 80) %		
		(35 ~ 40) V	2.4×10^{-2}	
		(80 ~ 120) %		
		(40 ~ 60) V	2.3×10^{-2}	
		(50 ~ 100) V		
		0 %		
		0 V	0.21 V	
		(0 ~ 40) %		
		(0 ~ 40) V	2.5×10^{-2}	
		(40 ~ 70) %		
		(40 ~ 70) V	2.4×10^{-2}	
		(70 ~ 80) %		
		(70 ~ 80) V	2.4×10^{-2}	
		(80 ~ 120) %		
		(80 ~ 120) V	2.3×10^{-2}	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Dip simulators	40654			Digital multimeters, Oscilloscopes,
Dip & Up Voltage		(100 ~ 200) V		High voltage probes
DC Voltage		0 %		/HCT-CS-202-40654
		0 V	0.21 V	
		(0 ~ 40) %		
		(0 ~ 80) V	2.5×10^{-2}	
		(40 ~ 70) %		
		(80 ~ 140) V	2.4×10^{-2}	
		(70 ~ 80) %		
		(140 ~ 160) V	2.4×10^{-2}	
		(80 ~ 120) %		
		(160 ~ 240) V	2.3×10^{-2}	
		(200 ~ 300) V		
		0 %		
		0 V	0.23 V	
		(0 ~ 40) %		
		(0 ~ 120) V	2.6×10^{-2}	
		(40 ~ 70) %		
		(120 ~ 210) V	2.4×10^{-2}	
		(70 ~ 80) %		
		(210 ~ 240) V	2.4×10^{-2}	
		(80 ~ 120) %		
		(240 ~ 360) V	2.4×10^{-2}	
		(300 ~ 400) V		
		0 %		
		0 V	0.23 V	
		(0 ~ 40) %		
		(0 ~ 160) V	2.5×10^{-2}	
		(40 ~ 70) %		
		(160 ~ 280) V	2.4×10^{-2}	
		(70 ~ 80) %		
		(280 ~ 320) V	2.4×10^{-2}	
		(80 ~ 120) %		
		(320 ~ 480) V	2.3×10^{-2}	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Dip simulators	40654			Digital multimeters, Oscilloscopes,
Dip & Up Voltage		(100 ~ 110) V, (50 ~ 60) Hz		High voltage probes
AC Voltage		0 %		/HCT-CS-202-40654
		0 V	0.21 V	
		(0 ~ 40) %		
		(0 ~ 44) V	2.9×10^{-2}	
		(40 ~ 70) %		
		(44 ~ 77) V	2.5×10^{-2}	
		(70 ~ 80) %		
		(77 ~ 88) V	2.4×10^{-2}	
		(80 ~ 120) %		
		(88 ~ 132) V	2.4×10^{-2}	
		(110 ~ 120) V, (50 ~ 60) Hz		
		0 %		
		0 V	0.21 V	
		(0 ~ 40) %		
		(0 ~ 48) V	2.8×10^{-2}	
		(40 ~ 70) %		
		(48 ~ 84) V	2.5×10^{-2}	
		(70 ~ 80) %		
		(84 ~ 96) V	2.4×10^{-2}	
		(80 ~ 120) %		
		(96 ~ 144) V	2.4×10^{-2}	
		(120 ~ 220) V, (50 ~ 60) Hz		
		0 %		
		0 V	0.21 V	
		(0 ~ 40) %		
		(0 ~ 88) V	2.9×10^{-2}	
		(40 ~ 70) %		
		(88 ~ 154) V	2.5×10^{-2}	
		(70 ~ 80) %		
		(154 ~ 176) V	2.5×10^{-2}	
		(80 ~ 120) %		
		(176 ~ 264) V	2.4×10^{-2}	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Dip simulators	40654			Digital multimeters, Oscilloscopes,
AC Voltage		(220 ~ 230) V, (50 ~ 60) Hz		High voltage probes
		0 %		/HCT-CS-202-40654
		0 V	0.21 V	
		(0 ~ 40) %		
		(0 ~ 92) V	2.8×10^{-2}	
		(40 ~ 70) %		
		(92 ~ 161) V	2.5×10^{-2}	
		(70 ~ 80) %		
		(161 ~ 184) V	2.5×10^{-2}	
		(80 ~ 120) %		
		(184 ~ 276) V	2.4×10^{-2}	
		(230 ~ 380) V, (50 ~ 60) Hz		
		0 %		
		0 V	0.24 V	
		(0 ~ 40) %		
		(0 ~ 152) V	3.0×10^{-2}	
		(40 ~ 70) %		
		(152 ~ 266) V	2.5×10^{-2}	
		(70 ~ 80) %		
		(266 ~ 304) V	2.5×10^{-2}	
		(80 ~ 120) %		
		(304 ~ 456) V	2.4×10^{-2}	
		(380 ~ 400) V, (50 ~ 60) Hz		
		0 %		
		0 V	0.24 V	
		(0 ~ 40) %		
		(0 ~ 160) V	2.9×10^{-2}	
		(40 ~ 70) %		
		(160 ~ 280) V	2.5×10^{-2}	
		(70 ~ 80) %		
		(280 ~ 320) V	2.5×10^{-2}	
		(80 ~ 120) %		
		(320 ~ 480) V	2.4×10^{-2}	

406. Radio frequency measurement

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Dip simulators	40654			Digital multimeters, Oscilloscopes,
Delta Time		0.2 ns	0.011 ns	High voltage probes
		(0.2 ~ 1) ns	1.1×10^{-2}	/HCT-CS-202-40654
		(1 ~ 2) ns	5.6×10^{-3}	
		(2 ~ 5) ns	2.2×10^{-3}	
		(5 ~ 10) ns	1.7×10^{-3}	
		(10 ~ 20) ns	8.3×10^{-4}	
		(20 ~ 50) ns	3.3×10^{-4}	
		(50 ~ 100) ns	1.2×10^{-3}	
		(100 ~ 200) ns	6.1×10^{-4}	
		(200 ~ 500) ns	2.5×10^{-4}	
		(0.5 ~ 1) µs	1.2×10^{-3}	
		(1 ~ 2) µs	6.1×10^{-4}	
		(2 ~ 5) µs	2.5×10^{-4}	
		(5 ~ 10) µs	1.2×10^{-3}	
		(10 ~ 20) µs	6.1×10^{-3}	
		(20 ~ 50) µs	2.5×10^{-4}	
		(50 ~ 100) µs	6.1×10^{-4}	
		(100 ~ 200) µs	6.1×10^{-4}	
		(200 ~ 500) µs	2.5×10^{-4}	
		(0.5 ~ 1) ms	1.2×10^{-3}	
		(1 ~ 2) ms	6.1×10^{-4}	
		(2 ~ 5) ms	2.5×10^{-4}	
		(5 ~ 10) ms	1.2×10^{-3}	
		(10 ~ 20) ms	6.1×10^{-4}	
		(20 ~ 50) ms	2.5×10^{-4}	
		(50 ~ 100) ms	1.2×10^{-3}	
		(100 ~ 200) ms	6.1×10^{-4}	
		(200 ~ 500) ms	2.5×10^{-4}	
		(0.5 ~ 1) s	1.2×10^{-3}	
		(1 ~ 2) s	6.1×10^{-4}	
		(2 ~ 5) s	2.5×10^{-4}	
		(5 ~ 10) s	1.2×10^{-3}	
Inrush current		50 A	0.23 A	
		(50 ~ 100) A	3.6×10^{-3}	
		(100 ~ 500) A	3.9×10^{-3}	
		(500 ~ 1 000) A	3.3×10^{-3}	
Frequency		10 Hz ~ 1 kHz	1.2×10^{-3}	

407. Field strength & antenna

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Microwave leakage monitors	40701			
Power Density		2.45 GHz		Transfer standard probes
		(0.01 ~ 3) mW/cm^2	0.16	/HCT-CS-310-40701
Probes	40702			
E-field probes				Transfer standard probes
		5 kHz ~ 200 MHz		/HCT-CS-262-40702
		(1 ~ 800) V/m	0.13	
		200 MHz ~ 1 GHz		
		(1 ~ 300) V/m	0.13	
		(1 ~ 18) GHz		
		(1 ~ 200) V/m	0.13	
		(18 ~ 40) GHz		
		(1 ~ 200) V/m	0.14	
H-field probes				H-field probes
Frequency response		10 Hz ~ 400 kHz		/HCT-CS-311-40702
		(0.16 ~ 40) A/m	0.06	
		400 kHz ~ 220 MHz		
		(0.02 ~ 2.97) A/m	0.14	
		220 MHz ~ 1 GHz		
		(0.02 ~ 1.48) A/m	0.16	
Linearity		(50 ~ 60) Hz		
		(0.16 ~ 400) A/m	0.04	
Dipole antennas	40703			
SAR E-field probe				SAR calibration system
Conversion factor		800 MHz ~ 6 GHz	1.3×10^{-1}	/HCT-CS-106-40703
Dipole antenna				Network analyzers
Antenna factor		20 MHz ~ 18 GHz	1.1 dB	/HCT-CS-263-40703
VSWR		20 MHz ~ 18 GHz	0.02	
Radiation pattern		700 MHz ~ 18 GHz	1.4 dB	

407. Field strength & antenna

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Dipole antennas	40703			
Biconical antenna				Network analyzers
Antenna factor		20 MHz ~ 18 GHz	1.2 dB	/HCT-CS-272-40703
		(18 ~ 40) GHz	1.5 dB	
VSWR		20 MHz ~ 18 GHz	0.02	
		(18 ~ 40) GHz	0.24	
Log periodic antenna				Network analyzers
Antenna factor		20 MHz ~ 18 GHz	1.2 dB	/HCT-CS-273-40703
		(18 ~ 40) GHz	1.4 dB	
VSWR		20 MHz ~ 6 GHz	0.02	
		(6 ~ 40) GHz	0.24	
Loop antennas	40704			Standard loop antennas
Antenna factor		10 Hz ~ 30 MHz	1.3 dB	/HCT-CS-237-40704
		(30 ~ 400) MHz	1.5 dB	
Voltage Standing Wave Ratio		10 Hz ~ 400 MHz	0.02	
Monopole antennas	40705			Network analyzers
Antenna factor		1 kHz ~ 30 MHz	1.4 dB	/HCT-CS-238-40705
Voltage Standing Wave Ratio		1 kHz ~ 30 MHz	0.02	
Horn antennas	40707			Network analyzers
Antenna factor		200 MHz ~ 18 GHz	0.9 dB	/HCT-CS-264-40707
		(18 ~ 40) GHz	1.4 dB	
		(40 ~ 110) GHz	1.2 dB	
VSWR		200 MHz ~ 40 GHz	0.02	
		(40 ~ 110) GHz	0.03	
Radiation pattern		700 MHz ~ 18 GHz	1.4 dB	
		(18 ~ 40) GHz	1.4 dB	
beamwidth		700 MHz ~ 40 GHz		
		(0 ~ 180)°	6°	

501. Contact thermometry

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Temperature generators; ovens, furnaces, isothermal liquid baths, ice-point baths, dry-block calibrators, etc	50101			Standard thermometers
Dry-block calibrators		(-80 ~ 500) ℃	0.05 ℃	/HCT-CS-203-50101
Ice-point baths		0 ℃	0.02 ℃	/HCT-CS-210-50101
Isothermal liquid baths		(-196 ~ -80) ℃	0.06 ℃	/HCT-CS-211-50101
		(-80 ~ 500) ℃	0.02 ℃	
Furnaces		(250 ~ 1 100) ℃	1.0 ℃	/HCT-CS-212-50101
		(1 100 ~ 1 600) ℃	2.6 ℃	
Temperature controlled chambers/ovens		(-80 ~ 100) ℃	0.6 ℃	/HCT-CS-134-50101
		(100 ~ 250) ℃	0.8 ℃	
		(250 ~ 400) ℃	1.0 ℃	
Temperature indicators/recorders/ controllers, temperature calibrators Temperature indicators /recorders/controllers	50102			Standard thermometers
(With Sensor)				
Thermoeletric Type		(-196 ~ -80) ℃	0.4 ℃	/HCT-CS-135-50102
		(-80 ~ 250) ℃	0.3 ℃	
		(250 ~ 500) ℃	0.7 ℃	
		(500 ~ 1 100) ℃	1.7 ℃	
		(1 100 ~ 1 600) ℃	2.7 ℃	
Resistance Type		(-196 ~ 250) ℃	0.03 ℃	/HCT-CS-274-50102
		(250 ~ 500) ℃	0.06 ℃	
(Without Sensor)				
Thermoelectric Type		(-196 ~ -80) ℃	0.06 ℃	/HCT-CS-137-50102
		(-80 ~ 500) ℃	0.04 ℃	
		(500 ~ 1 600) ℃	0.09 ℃	
Resistance Type		(-196 ~ 500) ℃	0.03 ℃	/HCT-CS-139-50102
Glass thermometers; liquid-in-glass, Beckmann liquid-in-glass	50103	(-80 ~ 250) ℃	0.04 ℃	Standard thermometers /HCT-CS-147-50103
Resistance thermometers; SPRT, IPRT, thermistors, etc. IPRT	50104	(-196 ~ 500) ℃	0.04 ℃	Standard thermometers /HCT-CS-148-50104

501. Contact thermometry

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Thermal expansion thermometers; bimetal, gas or liquid type	50105			Standard thermometers, /HCT-CS-149-50105
bimetal		(-80 ~ 150) ℃	0.6 ℃	
		(150 ~ 500) ℃	1.2 ℃	
Thermomecoules: noble metal, base metal, pure metal, special type, etc.	50106			Standard thermometers, Standard thermocouples
Base metal		(0 ~ 500) ℃	0.4 ℃	/HCT-CS-152-50106
		(500 ~ 1 100) ℃	0.9 ℃	
		(1 100 ~ 1 600) ℃	2.7 ℃	
Noble metal		(-196 ~ -80) ℃	0.9 ℃	/HCT-CS-151-50106
		(-80 ~ 250) ℃	0.5 ℃	
		(250 ~ 500) ℃	0.7 ℃	
		(500 ~ 1 100) ℃	1.3 ℃	
		(1 100 ~ 1 200) ℃	3.2 ℃	
Temperature transducers	50107	(-80 ~ 250) ℃	0.04 ℃	Standard thermometers /HCT-CS-170-50107

502. Non contact thermometry

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Standard radiation thermometers	50204			Standard radiation thermometers,
		(-20 ~ 0) ℃	0.8 ℃	Blackbody sources
		(0 ~ 200) ℃	0.9 ℃	/HCT-CS-222-50204
		(200 ~ 500) ℃	1.2 ℃	
		(500 ~ 800) ℃	1.6 ℃	
		(800 ~ 1 000) ℃	1.8 ℃	
Thermal image apparatus	50205			Standard radiation thermometers,
		(-20 ~ 0) ℃	0.8 ℃	Blackbody sources
		(0 ~ 200) ℃	0.9 ℃	/HCT-CS-286-50205
		(200 ~ 500) ℃	1.2 ℃	
		(500 ~ 800) ℃	1.6 ℃	
		(800 ~ 1 000) ℃	1.8 ℃	
Blackbody furnaces	50206			Standard radiation thermometers
		(-20 ~ 0) ℃	0.8 ℃	/HCT-CS-333-50206
		(0 ~ 200) ℃	0.9 ℃	
		(200 ~ 500) ℃	1.1 ℃	
		(500 ~ 800) ℃	1.6 ℃	
		(800 ~ 1 000) ℃	1.7 ℃	

503. Humidity

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Dew-point hygrometers; chilled mirror, alumina thin film, etc. Alumina thinfilm	50301	(-20 ~ 47) ℃ D.P.	0.7 ℃ D.P.	Dewpoint hygrometers /HCT-CS-154-50301
Relative humidity hygrometers; polimer thinfilm, hair, etc. Polimer thinfilm (Humidity) (Tmeperature) Hair (Humidity) (Tmeperature)	50302	 (5 ~ 98) % R.H. (-40 ~ 85) ℃ (20 ~ 90) % R.H. (-20 ~ 50) ℃	 1.5 % R.H. 0.5 ℃ 2.3 % R.H. 0.5 ℃	Dewpoint hygrometers, Standard thermometers /HCT-CS-153-50302 /HCT-CS-156-50302
Temperature humidity recorders; hygrothermograph, etc. (Humidity) (Tmeperature)	50304	 (20 ~ 90) % R.H. (-20 ~ 50) ℃	 2.0 % R.H. 0.7 ℃	Dewpoint hygrometers /HCT-CS-157-50304
Transducers; dew-point/relative humidity Relative humidity	50305	 (5 ~ 98) % R.H.	 1.7 % R.H.	Dewpoint hygrometers /HCT-CS-171-50305
Humidity generators; two-pressure, two-temperature, flow mixing humidity generator, contstant temperature and humidity chamber, etc. Flow mixing humidity generator Constant temperature and humidity chamber (Humidity) (Tmeperature)	50306	 (5 ~ 98) % R.H. (5 ~ 98) % R.H. (-80 ~ 100) ℃ (100 ~ 250) ℃	 1.5 % R.H. 2.7 % R.H. 0.6 ℃ 0.8 ℃	 Dewpoint hygrometers /HCT-CS-213-50306 Dewpoint hygrometers, Temperature indicators /HCT-CS-182-50306

601. Sound in air

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Sound calibrators	60102			Microphone /HCT-CS-195-60102
Multifunction calibrator		31.5 Hz	0.12 dB	
		(31.5 ~ 63) Hz	0.10 dB	
		(63 ~ 8 000) Hz	0.09 dB	
		(8 000 ~ 12 500) Hz	0.10 dB	
Pistonphone, Sound level calibrator		250 Hz	0.09 dB	/HCT-CS-196-60102
		1 000 Hz	0.09 dB	
Microphones	60104			Microphone /HCT-CS-293-60104
		20 Hz	0.16 dB	
		(20 ~ 25) Hz	0.14 dB	
		(25 ~ 31.5) Hz	0.13 dB	
		(31.5 ~ 50) Hz	0.12 dB	
		(50 ~ 63) Hz	0.11 dB	
		(63 ~ 8 000) Hz	0.10 dB	
		(8 000 ~ 10 000) Hz	0.11 dB	
		(10 000 ~ 12 500) Hz	0.12 dB	
		(12 500 ~ 16 000) Hz	0.18 dB	
		(16 000 ~ 20 000) Hz	0.25 dB	
Sound level meters	60106			Microphone /HCT-CS-172-60106
		20 Hz	0.5 dB	
		(20 ~ 50) Hz	0.4 dB	
		(50 ~ 125) Hz	0.3 dB	
		(125 ~ 3 150) Hz	0.2 dB	
		(3 150 ~ 8 000) Hz	0.3 dB	
		(8 000 ~ 12 500) Hz	0.4 dB	
		(12 500 ~ 20 000) Hz	0.5 dB	

603. Vibration

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Vibration calibrators	60301	10 Hz	1.6×10^{-2}	Standard accelerometer
		(10 ~ 5 000) Hz	1.6×10^{-2}	/HCT-CS-219-60301
Vibration transducers	60302			Standard accelerometers
Vibration transducer		0.5 Hz	2.2×10^{-2}	/HCT-CS-220-60302
		(0.5 ~ 8) Hz	2.1×10^{-2}	
		(8 ~ 40) Hz	1.2×10^{-2}	
		(40 ~ 630) Hz	1.1×10^{-2}	
		(630 ~ 1 250) Hz	1.2×10^{-2}	
		(1 250 ~ 2 500) Hz	1.7×10^{-2}	
		(2 500 ~ 5 000) Hz	2.1×10^{-2}	
		(5 000 ~ 10 000) Hz	2.8×10^{-2}	
		(10 000 ~ 15 000) Hz	3.7×10^{-2}	
		(15 000 ~ 20 000) Hz	4.5×10^{-2}	
Vibration transducer(Shock)		(0.1 ~ 5) ms		/HCT-CS-291-60302
		200 m/s^2	3.0×10^{-2}	
		(200 ~ 500) m/s^2	2.5×10^{-2}	
		(500 ~ 1 000) m/s^2	2.4×10^{-2}	
		(1 000 ~ 20 000) m/s^2	3.0×10^{-2}	
		(20 000 ~ 100 000) m/s^2	3.8×10^{-2}	

603. Vibration

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Vibration measuring instruments	60303			Standard accelerometers /HCT-CS-221-60303
Acceleration		10 Hz	1.7×10^{-2}	
		(10 ~ 40) Hz	1.8×10^{-2}	
		(40 ~ 160) Hz	1.7×10^{-2}	
		(160 ~ 630) Hz	1.8×10^{-2}	
		(630 ~ 1 250) Hz	1.9×10^{-2}	
		(1 250 ~ 2 500) Hz	2.1×10^{-2}	
Velocity		10 Hz	1.8×10^{-2}	
		(10 ~ 20) Hz	1.8×10^{-2}	
		(20 ~ 160) Hz	1.7×10^{-2}	
		(160 ~ 630) Hz	1.8×10^{-2}	
		(630 ~ 1 250) Hz	2.1×10^{-2}	
		(1 250 ~ 2 500) Hz	2.7×10^{-2}	
Displacement		10 Hz	1.6×10^{-2}	
		(10 ~ 160) Hz	1.6×10^{-2}	
		(160 ~ 315) Hz	2.2×10^{-2}	
Vibration measurring instrument(Shock)		200 m/s^2	4.6×10^{-2}	/HCT-CS-292-60303
		(200 ~ 500) m/s^2	3.0×10^{-2}	
		(500 ~ 1 000) m/s^2	2.7×10^{-2}	
		(1 000 ~ 1 500) m/s^2	2.6×10^{-2}	
		(1 500 ~ 2 000) m/s^2	3.2×10^{-2}	

701. Photometry

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Iluminance meters	70101			Reference Illummunance meters
		0.5 lx	3.3×10^{-2}	/HCT-CS-159-70101
		(0.5 ~ 10) lx	2.9×10^{-2}	
		(10 ~ 3 000) lx	2.8×10^{-2}	
		(3 000 ~ 12 000) lx	2.9×10^{-2}	
Luminance meters	70102			Luminance standard sources
Luminance		(1 ~ 10) cd/m^2	2.4×10^{-2}	/HCT-CS-316-70102
		(10 ~ 100) cd/m^2	1.8×10^{-2}	
		(100 ~ 3 000) cd/m^2	1.6×10^{-2}	
		(3 000 ~ 13 000) cd/m^2	1.8×10^{-2}	
Total luminous flux meters	70103			Total luminous flux standard lamp
Total luminous flux		(56.2 ~ 21 245) lm	2.3×10^{-2}	/HCT-CS-296-70103
Luminous intensity meters	70104			Luminous intensity standard lamp
Luminous intensity		(7.5 ~ 2 992) cd	2.6×10^{-2}	/HCT-CS-297-70104

702. Property of detectors & sources

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Color Temperature Meters	70202			Color Temperature Standard lamps
Color Temperature		(2 750 ~ 3 167) K	22 K	/HCT-CS-298-70202
Color temperature standard lamps	70203			Color Temperature Standard lamps
				Spectral irradiancee meters
Color temperature		2 856 K	22 K	/HCT-CS-299-70203
Colorimeters; source color	70204			Luminance standard sources,
Chromaticity coordinates		x,y: (0.01 ~ 0.9)		Color temperature standard lamps,
(CIE 1931)				Color filters
		(Tungsten lamp 2 856 K)		/HCT-CS-317-70204
		x	0.003	
		y	0.003	
		(Red)		
		x	0.004	
		y	0.004	
		(Green)		
		x	0.004	
		y	0.004	
		(Blue)		
		x	0.004	
		y	0.004	
		(White)		
		x	0.004	
		y	0.004	
Luminance		(1 ~ 10) cd/m^2	2.4 × 10^{-2}	
		(10 ~ 100) cd/m^2	1.8 × 10^{-2}	
		(100 ~ 3 000) cd/m^2	1.6 × 10^{-2}	
		(3 000 ~ 13 000) cd/m^2	1.8 × 10^{-2}	
Iluminance		0.5 lx	3.3 × 10^{-2}	
		(0.5 ~ 10) lx	2.9 × 10^{-2}	
		(10 ~ 3 000) lx	2.8 × 10^{-2}	
		(3 000 ~ 12 000) lx	2.9 × 10^{-2}	
Total luminance flux standard lamps	70209			Total luminous flux standard lamps,
Total luminance flux		(56.2 ~ 21 245) lm	3.3 × 10^{-2}	Total luminous flux meters
				/HCT-CS-300-70209

702. Property of detectors & sources

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Display color analyzers; luminance, chromaticity, white balance, etc.	70213			Luminance standard sources, Color filters /HCT-CS-318-70213
Chromaticity		x,y : (0.01 ~ 0.9)		
Chromaticity coordinates (CIE 1931)				
		(Tungsten lamp 2 856 K)		
		x	0.003	
		y	0.003	
		(Red)		
		x	0.004	
		y	0.004	
		(Green)		
		x	0.004	
		y	0.004	
		(Blue)		
		x	0.004	
		y	0.004	
		(White)		
		x	0.004	
		y	0.004	
Luminance		(1 ~ 10) cd/m^2	2.4×10^{-2}	
		(10 ~ 100) cd/m^2	1.8×10^{-2}	
		(100 ~ 3 000) cd/m^2	1.6×10^{-2}	
		(3 000 ~ 13 000) cd/m^2	1.8×10^{-2}	
Luminous intensity standard lamps	70214			Luminous intensity standard lamps, Luminous instensity meters /HCT-CS-301-70214
Luminous intensity		(7.5 ~ 2 992) cd	2.8×10^{-2}	
Spectral irradiance standard lamps	70215			Spectral irradiance standard lamps, Spectral irradiance meters /HCT-CS-302-70215
Spectral irradiance		250 nm	7.7×10^{-2}	
		(250 ~ 255) nm	7.4×10^{-2}	
		(255 ~ 280) nm	6.5×10^{-2}	
		(280 ~ 305) nm	5.6×10^{-2}	
		(305 ~ 340) nm	4.8×10^{-2}	
		(340 ~ 475) nm	3.7×10^{-2}	
		(475 ~ 765) nm	3.1×10^{-2}	
		(765 ~ 840) nm	2.9×10^{-2}	
		(840 ~ 1 020) nm	2.7×10^{-2}	
Illuminance		(3 870 ~ 9 189) lx	2.8×10^{-2}	
Color temperature		(2 831 ~ 3 167) K	22 K	
Chromaticity coordinates (CIE 1931)		x (0.424 ~ 0.451)	0.004	
		y (0.398 ~ 0.411)	0.004	

702. Property of detectors & sources

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Total spectral radiant flux standard lamps	70216			Total spectral radiant flux standard lamps,
Total spectral radiant flux		350 nm	5.6×10^{-2}	Total spectral radiant flux meters
		(350 ~ 365) nm	4.9×10^{-2}	/HCT-CS-303-70216
		(365 ~ 380) nm	4.2×10^{-2}	
		(380 ~ 410) nm	3.6×10^{-2}	
		(410 ~ 480) nm	2.9×10^{-2}	
		(480 ~ 850) nm	2.6×10^{-2}	
Total luminous flux		(56.2 ~ 21 245) nm	3.3×10^{-2}	
Color temperature		(2 750 ~ 3 071) K	22 K	
Chromaticity coordinates (CIE 1931)		x: (0.431 ~ 0.458)	0.004	
		y: (0.400 ~ 0.419)	0.004	
Luminance standard sources	70217			Spectral radiance meters,
Luminance		(1 ~ 13 000) cd/m^2	2.4×10^{-2}	Colorimeters; source color
				/HCT-CS-319-70217
Chromaticity coordinates (CIE 1931)		x,y : (0.01 ~ 0.9)		
		(Tungsten lamp 2 856 K)		
		x	0.003	
		y	0.003	
		(Red)		
		x	0.004	
		y	0.004	
		(Green)		
		x	0.004	
		y	0.004	
		(Blue)		
		x	0.004	
		y	0.004	
		(White)		
		x	0.004	
		y	0.004	
Spectral radiance standard sources	70218			Spectral radiance standard sources,
Spectral radiance		380 nm	3.9×10^{-2}	Spectral radiance meters
		(380 ~ 385) nm	3.7×10^{-2}	/HCT-CS-320-70218
		(385 ~ 410) nm	3.5×10^{-2}	
		(410 ~ 420) nm	3.0×10^{-2}	
		(420 ~ 450) nm	2.8×10^{-2}	
		(450 ~ 475) nm	2.5×10^{-2}	
		(475 ~ 935) nm	2.3×10^{-2}	
		(935 ~ 1 040) nm	2.5×10^{-2}	

702. Property of detectors & sources

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
UV irradiance meters	70219			UV Sensor /HCT-CS-159-70219
		365 nm 60 μW/cm^2 ~ 200 mW/cm^2	4.8 × 10^{-2}	
		405 nm 60 μW/cm^2 ~ 70 mW/cm^2	4.8 × 10^{-2}	
Spectral irradiance meters	70220			Spectral irradiance standard lamps
Wavelength		(350 ~ 850) nm	0.51 nm	/HCT-CS-304-70220
Spectral irradiance		250 nm	6.9 × 10^{-2}	
		(250 ~ 255) nm	6.5 × 10^{-2}	
		(255 ~ 275) nm	5.6 × 10^{-2}	
		(275 ~ 295) nm	4.9 × 10^{-2}	
		(295 ~ 320) nm	4.0 × 10^{-2}	
		(320 ~ 350) nm	3.6 × 10^{-2}	
		(350 ~ 425) nm	2.9 × 10^{-2}	
		(425 ~ 475) nm	2.4 × 10^{-2}	
		(475 ~ 590) nm	2.2 × 10^{-2}	
		(590 ~ 1 020) nm	2.0 × 10^{-2}	
Illuminance		(3 870 ~ 9 189) lx	2.9 × 10^{-2}	
Color temperature		(2 831 ~ 3 167) K	22 K	
Chromaticity coordinates		x: (0.424 ~ 0.451)	0.004	
(CIE 1931)		y: (0.398 ~ 0.411)	0.004	

702. Property of detectors & sources

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Total spectral radiant flux meters	70221			Total spectral radiant flux
Wavelength		(350 ~ 850) nm	0.51 nm	standard lamps
				/HCT-CS-305-70221
Total spectral radiant flux		350 nm	4.3×10^{-2}	
		(350 ~ 355) nm	3.9×10^{-2}	
		(355 ~ 370) nm	3.8×10^{-2}	
		(370 ~ 390) nm	3.1×10^{-2}	
		(390 ~ 435) nm	2.5×10^{-2}	
		(435 ~ 465) nm	2.1×10^{-2}	
		(465 ~ 850) nm	1.9×10^{-2}	
Total luminous flux meters		(56.2 ~ 21 245) lm	2.3×10^{-2}	
Color temperature		(2 750 ~ 3 071) K	22 K	
Chromaticity coordinates		x: (0.431 ~ 0.458)	0.004	
(CIE 1931)		y: (0.400 ~ 0.419)	0.004	
Spectral radiance meters	70222			Spectral rediance meters,
Wavelength		(400 ~ 765) nm	0.51 nm	Luminance standard sources
				/HCT-CS-321-70222
Spectral radiance		380 nm	3.7×10^{-2}	
		(380 ~ 385) nm	3.6×10^{-2}	
		(385 ~ 410) nm	3.3×10^{-2}	
		(410 ~ 420) nm	2.9×10^{-2}	
		(420 ~ 440) nm	2.6×10^{-2}	
		(440 ~ 460) nm	2.4×10^{-2}	
		(460 ~ 500) nm	2.2×10^{-2}	
		(500 ~ 930) nm	1.9×10^{-2}	
		(930 ~ 1 040) nm	2.2×10^{-2}	
Luminance		(1 ~ 10) cd/m^2	2.4×10^{-2}	
		(10 ~ 100) cd/m^2	1.8×10^{-2}	
		(100 ~ 3 000) cd/m^2	1.6×10^{-2}	
		(3 000 ~ 13 000) cd/m^2	1.8×10^{-2}	
Color temperature		(2 836 ~ 2 876) K	22 K	
Chromaticity coordinates		x : (0.447 ~ 0.451)	0.003	
(CIE 1931)		y : (0.409 ~ 0.413)	0.003	

702. Property of detectors & sources

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Spectral radiant intensity meters	70223			Spectral irradiance standard lamps
Wavelength		(350 ~ 850) nm	0.51 nm	/HCT-CS-306-70223
Spectral radiant intensity		250 nm	7.2×10^{-2}	
		(250 ~ 255) nm	6.4×10^{-2}	
		(255 ~ 275) nm	5.8×10^{-2}	
		(275 ~ 280) nm	5.1×10^{-2}	
		(280 ~ 305) nm	4.7×10^{-2}	
		(305 ~ 340) nm	3.5×10^{-2}	
		(340 ~ 425) nm	2.9×10^{-2}	
		(425 ~ 1 020) nm	2.4×10^{-2}	

703. Property of materials

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Colorimeters; material color (Including Specular Component Standard Illuminant:A, C, D65 Standard Observe:2°, 10°)	70301			Color standard tiles /HCT-CS-354-70301
White		X	0.82	
		Y	0.74	
		Z	0.86	
M. Grey		X	0.25	
		Y	0.23	
		Z	0.27	
D. Grey		X	0.10	
		Y	0.09	
		Z	0.10	
Red		X	0.29	
		Y	0.18	
		Z	0.11	
Orange		X	0.56	
		Y	0.39	
		Z	0.14	
Yellow		X	0.69	
		Y	0.59	
		Z	0.16	
Green		X	0.16	
		Y	0.19	
		Z	0.17	
D. Blue		X	0.07	
		Y	0.07	
		Z	0.12	

703. Property of materials

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Colorimeters; material color (Excluding Specular Component Standard Illuminant:A, C, D65 Standard Observe:2°, 10°)	70301			Color standard tiles /HCT-CS-354-70301
White		X	0.79	
		Y	0.71	
		Z	0.82	
M. Grey		X	0.21	
		Y	0.19	
		Z	0.23	
D. Grey		X	0.06	
		Y	0.06	
		Z	0.06	
Red		X	0.26	
		Y	0.15	
		Z	0.09	
Orange		X	0.53	
		Y	0.35	
		Z	0.41	
Yellow		X	0.65	
		Y	0.56	
		Z	0.14	
Green		X	0.12	
		Y	0.16	
		Z	0.13	
D. Blue		X	0.04	
		Y	0.04	
		Z	0.08	

703. Property of materials

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Colorimeters; material color	70301			Color standard tiles
(Including Specular Component				/HCT-CS-354-70301
Standard Illuminant:A, C, D65				
Standard Observe:2° , 10°)				
White		x	0.000 5	
		y	0.000 5	
M. Grey		x	0.000 5	
		y	0.000 5	
D. Grey		x	0.000 5	
		y	0.000 5	
Red		x	0.000 9	
		y	0.000 5	
Orange		x	0.000 6	
		y	0.000 5	
Yellow		x	0.000 5	
		y	0.000 5	
Green		x	0.000 5	
		y	0.000 5	
D. Blue		x	0.000 5	
		y	0.000 5	
(Excluding Specular Component				
Standard Illuminant:A, C, D65				
Standard Observe:2° , 10°)				
White		x	0.000 5	
		y	0.000 5	
M. Grey		x	0.000 5	
		y	0.000 5	
D. Grey		x	0.000 5	
		y	0.000 5	
Red		x	0.001 5	
		y	0.000 5	
Orange		x	0.000 8	
		y	0.000 5	
Yellow		x	0.000 5	
		y	0.000 6	
Green		x	0.000 5	
		y	0.000 5	
D. Blue		x	0.001 7	
		y	0.001 7	

703. Property of materials

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Colorimeters; material color (Including Specular Component Standard Illuminant:A, C, D65 Standard Observe:2°, 10°)	70301			Color standard tiles /HCT-CS-354-70301
White		*L**	0.31	
		*a**	0.10	
		*b**	0.08	
M. Grey		*L**	0.21	
		*a**	0.06	
		*b**	0.06	
D. Grey		*L**	0.15	
		*a**	0.05	
		*b**	0.04	
Red		*L**	0.21	
		*a**	0.19	
		*b**	0.18	
Orange		*L**	0.26	
		*a**	0.15	
		*b**	0.27	
Yellow		*L**	0.29	
		*a**	0.12	
		*b**	0.33	
Green		*L**	0.20	
		*a**	0.11	
		*b**	0.09	
D. Blue		*L**	0.14	
		*a**	0.08	
		*b**	0.11	

703. Property of materials

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Colorimeters; material color (Excluding Specular Component Standard Illuminant:A, C, D65 Standard Observe:2° , 10°)	70301			Color standard tiles /HCT-CS-354-70301
White		L^*	0.31	
		a^*	0.10	
		b^*	0.08	
M. Grey		L^*	0.20	
		a^*	0.06	
		b^*	0.05	
D. Grey		L^*	0.12	
		a^*	0.04	
		b^*	0.04	
Red		L^*	0.20	
		a^*	0.23	
		b^*	0.28	
Orange		L^*	0.25	
		a^*	0.19	
		b^*	0.36	
Yellow		L^*	0.29	
		a^*	0.13	
		b^*	0.43	
Green		L^*	0.19	
		a^*	0.12	
		b^*	0.10	
D. Blue		L^*	0.17	
		a^*	0.22	
		b^*	0.23	
Gloss meters	70306			Gloss Standard
Gloss		20°	1.7×10^{-2}	/HCT-CS-366-70306
		60°	1.4×10^{-2}	
		85°	1.2×10^{-2}	
Optical densitometers	70315			X-ray film step tablet
Density		(1 ~ 11) Step	0.05	/HCT-CS-369-70315
		(12 ~ 14) Step	0.11	
Reflectance meters	70319			Absolute Spectral Reflectance, White Standard Plates
Reflectance		(380 ~ 780) nm	1.4×10^{-2}	/HCT-CS-370-70319

703. Property of materials

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Refractometers	70321	(1.332 97 ~ 1.490 78) nD	0.000 06 nD	Refractometers /HCT-CS-355-70321
Transmittance meters	70323			Transmittance Filter
Transmittance		(0.08 ~ 0.2)		/HCT-CS-367-70323
		(250 ~ 750) nm	9.7×10^{-3}	
		(0.3 ~ 0.5)		
		(250 ~ 750) nm	8.4×10^{-3}	
		(0.9 ~ 0.95)		
		(250 ~ 750) nm	8.6×10^{-3}	
Spectrophotometers including FT-IR spectrophotometers	70325			Wavelength Filters, Transmittance Filters,
Wavenumber		(240 ~ 640) nm	0.4 nm	Absolute Spectral Reflectance,
		(640 ~ 880) nm	0.2 nm	White Standard Plates
				/HCT-CS-368-70325
Transmittance		(0.1 ~ 0.3)		
		250 nm	8.4×10^{-3}	
		300 nm	8.3×10^{-3}	
		350 nm	5.8×10^{-3}	
		400 nm	5.3×10^{-3}	
		450 nm	5.7×10^{-3}	
		500 nm	5.6×10^{-3}	
		550 nm	6.4×10^{-3}	
		600 nm	6.2×10^{-3}	
		650 nm	5.2×10^{-3}	
		700 nm	5.6×10^{-3}	
		750 nm	5.6×10^{-3}	
		(0.3 ~ 0.5)		
		250 nm	8.4×10^{-3}	
		300 nm	8.4×10^{-3}	
		350 nm	5.7×10^{-3}	
		400 nm	5.6×10^{-3}	
		450 nm	5.5×10^{-3}	
		500 nm	5.8×10^{-3}	
		550 nm	5.8×10^{-3}	
		600 nm	5.6×10^{-3}	
		650 nm	5.6×10^{-3}	
		700 nm	5.7×10^{-3}	
		750 nm	5.8×10^{-3}	

703. Property of materials

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Spectrophotometers including	70325			Wavelength Filters,
FT-IR spectrophotometers				Transmittance Filters,
Transmittance		(0.5 ~ 0.9)		Absolute Spectral Reflectance,
		250 nm	8.6×10^{-3}	White Standard Plates
		300 nm	8.6×10^{-3}	/HCT-CS-368-70325
		350 nm	5.9×10^{-3}	
		400 nm	5.8×10^{-3}	
		450 nm	5.7×10^{-3}	
		500 nm	5.8×10^{-3}	
		550 nm	5.8×10^{-3}	
		600 nm	5.7×10^{-3}	
		650 nm	5.7×10^{-3}	
		700 nm	5.8×10^{-3}	
		750 nm	5.8×10^{-3}	
Absorbance		(0.1 ~ 0.3)		
		250 nm	0.003 6	
		300 nm	0.003 8	
		350 nm	0.002 4	
		400 nm	0.002 3	
		450 nm	0.002 7	
		500 nm	0.002 4	
		550 nm	0.002 3	
		600 nm	0.002 9	
		650 nm	0.002 3	
		700 nm	0.002 5	
		750 nm	0.003 0	
		(0.3 ~ 0.5)		
		250 nm	0.003 7	
		300 nm	0.003 7	
		350 nm	0.002 5	
		400 nm	0.002 4	
		450 nm	0.002 5	
		500 nm	0.002 4	
		550 nm	0.002 4	
		600 nm	0.002 5	
		650 nm	0.002 4	
		700 nm	0.002 5	
		750 nm	0.002 5	

703. Property of materials

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Spectrophotometers including FT-IR spectrophotometers	70325			Wavelength Filters, Transmittance Filters,
Absorbance		(0.5 ~ 0.9)		Absolute Spectral Reflectance,
		250 nm	0.003 7	White Standard Plates
		300 nm	0.003 8	/HCT-CS-368-70325
		350 nm	0.002 5	
		400 nm	0.002 6	
		450 nm	0.002 7	
		500 nm	0.002 6	
		550 nm	0.002 6	
		600 nm	0.002 7	
		650 nm	0.002 6	
		700 nm	0.002 6	
		750 nm	0.002 6	
Spectral Reflectance		(250 ~ 2 190) nm	1.2×10^{-2}	
(Including Specular Component Standard Illuminant, Excluding Specular Component Standard Illuminant)		(2 190 ~ 2 400) nm	3.6×10^{-2}	

703. Property of materials

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Wavelength reference materials; absorption cell, bandpass filter, etc.	70326			Wavelength Filters, Transmittance Filters,
Wavenumber		(240 ~ 640) nm	0.5 nm	Absolute Spectral Reflectance,
		(640 ~ 890) nm	1.1 nm	White Standard Plates Spectrophotometers
Transmittance		(0.1 ~ 0.3)		/HCT-CS-372-70326
		250 nm	8.2×10^{-3}	
		300 nm	5.2×10^{-3}	
		350 nm	5.2×10^{-3}	
		400 nm	5.2×10^{-3}	
		450 nm	5.1×10^{-3}	
		500 nm	5.1×10^{-3}	
		550 nm	5.1×10^{-3}	
		600 nm	5.1×10^{-3}	
		650 nm	5.1×10^{-3}	
		700 nm	5.1×10^{-3}	
		750 nm	5.1×10^{-3}	
		(0.3 ~ 0.5)		
		250 nm	8.0×10^{-3}	
		300 nm	5.0×10^{-3}	
		350 nm	5.0×10^{-3}	
		400 nm	5.0×10^{-3}	
		450 nm	5.0×10^{-3}	
		500 nm	5.0×10^{-3}	
		550 nm	5.0×10^{-3}	
		600 nm	5.0×10^{-3}	
		650 nm	5.0×10^{-3}	
		700 nm	5.0×10^{-3}	
		750 nm	5.0×10^{-3}	
		(0.5 ~ 0.9)		
		250 nm	8.0×10^{-3}	
		300 nm	5.0×10^{-3}	
		350 nm	5.0×10^{-3}	
		400 nm	5.0×10^{-3}	
		450 nm	5.0×10^{-3}	
		500 nm	5.0×10^{-3}	
		550 nm	5.0×10^{-3}	
		600 nm	5.0×10^{-3}	
		650 nm	5.3×10^{-3}	
		700 nm	5.3×10^{-3}	
		750 nm	5.3×10^{-3}	

703. Property of materials

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Wavelength reference materials; absorption cell, bandpass filter, etc.	70326			Wavelength Filters, Transmittance Filters,
Absorbance		(0.1 ~ 0.3)		Absolute Spectral Reflectance,
		250 nm	0.003 6	White Standard Plates
		300 nm	0.002 3	Spectrophotometers
		350 nm	0.002 3	/HCT-CS-372-70326
		400 nm	0.002 3	
		450 nm	0.002 3	
		500 nm	0.002 3	
		550 nm	0.002 3	
		600 nm	0.002 3	
		650 nm	0.002 3	
		700 nm	0.002 3	
		750 nm	0.002 3	
		(0.3 ~ 0.5)		
		250 nm	0.003 5	
		300 nm	0.002 2	
		350 nm	0.002 2	
		400 nm	0.002 2	
		450 nm	0.002 2	
		500 nm	0.002 2	
		550 nm	0.002 2	
		600 nm	0.002 2	
		650 nm	0.002 2	
		700 nm	0.002 2	
		750 nm	0.002 2	
		(0.5 ~ 0.9)		
		250 nm	0.003 5	
		300 nm	0.002 2	
		350 nm	0.002 2	
		400 nm	0.002 2	
		450 nm	0.002 2	
		500 nm	0.002 2	
		550 nm	0.002 2	
		600 nm	0.002 2	
		650 nm	0.002 3	
		700 nm	0.002 3	
		750 nm	0.002 3	
Spectral Reflectance (Including Specular Component Standard Illuminant)		(380 ~ 800) nm	7.8×10^{-3}	

704. Fiber optics

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Broadband light sources	70402			Optical spectrum analyzers,
Wavelength output		1 310 nm	0.085 nm	Optical power meters
		1 550 nm	0.085 nm	/HCT-CS-266-70402
Optical power output		1 310 nm		
		(-60 ~ 0) dBm	0.09 dB	
		1 550 nm		
		(-60 ~ 0) dBm	0.09 dB	
Optical attenuators	70410			Optical power meters
Optical attenuation		1 310 nm, 1 550 nm		/HCT-CS-267-70410
		(-60 ~ 0) dB	0.09 dB	
Optical loss testers	70413			Wavelength meters,
Wavelength output		1 310 nm	8.5×10^{-7}	Optical power meters
		1 550 nm	8.2×10^{-7}	/HCT-CS-280-70413
Optical power input				
		1 310 nm		
		(-60 ~ 0) dBm	0.09 dB	
		1 550 nm		
		(-60 ~ 0) dBm	0.09 dB	
Linearity measure				
		1 310 nm, 1 550 nm		
		(-60 ~ 0) dB	0.09 dB	
Optical multimeters	70415			Optical power meters
Optical power input		1 310 nm		/HCT-CS-268-70415
		(-60 ~ 0) dBm	0.09 dB	
		1 550 nm		
		(-60 ~ 0) dBm	0.09 dB	
Linearity measure		1 310 nm, 1 550 nm		
		(-60 ~ 0) dB	0.09 dB	

704. Fiber optics

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Optical spectrum analyzers	70417			Wavelength meters,
Wavelength output		1 310 nm, 1 550 nm	0.058 nm	Optical power meters
				/HCT-CS-269-70417
Resolution measure		1 310 nm, 1 550 nm	0.058 nm	
		RBW (0.1 ~ 1) nm		
Optical power output		1 310 nm		
		(-60 ~ 0) dBm	0.09 dB	
		1 550 nm		
		(-60 ~ 0) dBm	0.09 dB	
Linearity measure		1 310 nm, 1 550 nm		
		(-60 ~ 0) dB	0.09 dB	
Optical time domain	70418			Optical spectrum analyzers,
reflectometers; OTDR				Standard CRM
Wavelength		1 310 nm	0.36 nm	/HCT-CS-270-70418
		1 550 nm	0.36 nm	
Length		(1 310 nm)		
		3 km	0.1 m	
		13 km	0.34 m	
		(1 550 nm)		
		3 km	0.1 m	
		13 km	0.34 m	
Return loss		(1 310 nm)		
		3 km	0.11 dB	
		13 km	0.10 dB	
		(1 550 nm)		
		3 km	0.09 dB	
		13 km	0.10 dB	

704. Fiber optics

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
ASE light sources	70430			Optical spectrum analyzers,
Wavelength output		1 310 nm	0.085 nm	Optical power meters
		1 550 nm	0.085 nm	/HCT-CS-281-70430
Optical power output		1 310 nm (-60 ~ 0) dBm	0.09 dB	
		1 550 nm (-60 ~ 0) dBm	0.09 dB	
Optical power stabilized lasers and LDs	70433			Wavelength meters, Optical power meters
Wavelength output		1 310 nm	8.5×10^{-7}	/HCT-CS-271-70433
		1 550 nm	8.2×10^{-7}	
Optical power output		1 310 nm (-60 ~ 0) dBm	0.09 dB	
		1 550 nm (-60 ~ 0) dBm	0.09 dB	

901. Chemical analsis

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Breath Alcohol Anayzers	90101			CRM
Dry process		(0.000 ~ 0.080) % BAC	2.1×10^{-2}	/HCT-CS-358-90101
Wet process		(0.000 ~ 0.030) % BAC	1.5×10^{-2}	
		(0.030 ~ 0.080) % BAC	1.4×10^{-2}	
Environmental air quality monitoring instruments	90102			CRM /HCT-CS-346-90102
Oxygen(O_2)		(0 ~ 22.0) cmol/mol	2.2×10^{-2}	
Carbon monoxide(CO)		(0 ~ 105) μmol/mol	2.3×10^{-2}	
Sulfer dioxide(SO_2)		(0 ~ 110) μmol/mol	2.1×10^{-2}	
Nitrogen monoxide(NO)		(0 ~ 110) μmol/mol	2.1×10^{-2}	
Gas analyzers	90103			CRM
Oxygen(O_2)		(0 ~ 22.0) cmol/mol	2.2×10^{-2}	/HCT-CS-164-90103
Carbon monoxide(CO)		(0 ~ 105) μmol/mol	2.3×10^{-2}	
Methane(CH_4)		(0 ~ 2.2) cmol/mol	4.2×10^{-2}	
Carbon dioxide(CO_2)		(0 ~ 10.5) cmol/mol	2.2×10^{-2}	
Hydrogen sulfide(H_2S)		(0 ~ 53) μmol/mol	5.1×10^{-2}	
Sulfer dioxide(SO_2)		(0 ~ 110) μmol/mol	2.1×10^{-2}	
Hydrogen chloride(HCl)		(0 ~ 53) μmol/mol	5.5×10^{-2}	
Nitrogen monoxide(NO)		(0 ~ 110) μmol/mol	2.1×10^{-2}	
Hydrogen(H_2)		(0 ~ 2.2) cmol/mol	2.1×10^{-2}	
Exhaust gas test instruments	90104			CRM
Oxygen(O_2)		(0 ~ 22.0) cmol/mol	2.3×10^{-2}	/HCT-CS-347-90104
Carbon monoxide(CO)		(0 ~ 5.5) cmol/mol	2.3×10^{-2}	
Carbon dioxide(CO_2)		(0 ~ 10.5) cmol/mol	2.2×10^{-2}	
Nitrogen monoxide(NO)		(0 ~ 1 050) μmol/mol	2.1×10^{-2}	

901. Chemical analsis

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Others; pH meter, Electrical conductivity meter	90199			CRM /HCT-CS-371-90199
pH meter		(4 ~ 10) pH	0.017 pH	
Electrical conductivity meter		100 μS/cm 1 413 μS/cm 10 mS/cm	2.2 μS/cm 5.9 μS/cm 0.055 mS/cm	

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017 & KS Q ISO/IEC 17025:2017

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CALIBRATION

Valid To : January. 07, 2030.

Accreditation No : KC00-011

In recognition of the successful completion of the KOLAS evaluation process,
accreditation is granted to this laboratory to perform the following calibrations

Field Code	Item of Calibration	on-site	Field Code	Item of Calibration	on-site	Field Code	Item of Calibration	on-site
501. Contact thermometry								
50101	Temperature generators; ovens, furnaces, isothermal liquid baths, ice-point baths, dry-block calibrators	Y						
50102	Temperature indicators /recorders/controllers, temperature calibrators	Y						
50104	Resistance thermometers; SPRT, IPRT, thermistors, etc.	Y						
50107	Temperature transducers	N						

Note

1. On-site calibration is allowed to items with marking 'Y', not allowed to items with marking 'N'.

2. Measurement uncertainty normally is quoted as an expanded uncertainty at a coverage probability of 95 %, which usually requires the use of a coverage factor of k=2. It expresses the lowest uncertainty of measurement that can be provided by accredited calbration laboratories in normal conditions.

3.Due to the calibration environment such as reference standards or customers' facilities, it is note that uncertainty of measurement on a calibration certificate may be expressed larger than measurement uncertainty on scope of accreditation in general.

4. If continuous calibration range is divided, each divided range`s endpoint indicates inclusive.
* ex) If calibration range is divided to (0 ~ 25) mm and (25 ~ 100) mm, 25 mm in first range indicates inclusive and 25 mm in second range indicates exclusive.

Accreditation No. : KC00-011

501. Contact thermometry

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Temperature generators: ovens,furnaces, isothermal liquid baths, ice-point baths, dry-block calibrators	50101			Standard thermometers /HCT-CS-134-50101
Temperature controlled chambers/ovens		(-40 ~ 250) ℃	0.9 ℃	
Temperature indicators/ recorders/controllers, temperature calibrators	50102			Standard thermometers
Temperature indicators/ recorders/controllers (With Seneor)				
Thermoelectric type		(-40 ~ 250) ℃	0.4 ℃	/HCT-CS-135-50102
Resistance type		(-40 ~ 250) ℃	0.09 ℃	/HCT-CS-274-50102
(Without Sensor)				
Thermoelectric type		(-40 ~ 250) ℃	0.08 ℃	/HCT-CS-137-50102
Resistance type		(-40 ~ 250) ℃	0.03 ℃	/HCT-CS-139-50102
Resistance thermometers; SPRT, IPRT, thermistors, etc.	50104			Standard thermometers / HCT-CS-148-50104
IPRT		(-40 ~ 250) ℃	0.10 ℃	
Temperature transducers	50107	(-40 ~ 250) ℃	0.12 ℃	Standard thermometers / HCT-CS-170-50107