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102. Linear dimension

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Balls	10201	(5 ~ 25) mm	$\sqrt{(0.34\mu m)^2+(3.2\times10^{-6}\times l_0)^2}$	Measuring machines,standard / KRCMI-I-102-29
Dial/cylinder gauge testers	10206	(0 ~ 100) mm	$\sqrt{(0.20\mu m)^2+(1.6\times10^{-6}\times l_0)^2}$	Gauge blocks, Electronic micrometers / KRCMI-I-102-01
Distance meters; electrooptic/laser	10208	(0 ~ 40) m	$\sqrt{(0.19\mu m)^2+(1.5\times10^{-9}\times l_0)^2}$	Laser interferometers / KRCMI-I-102-037
End bars	10209	(25 ~ 500) mm (500 ~ 1 000) mm	$\sqrt{(0.25\mu m)^2+(3.1\times10^{-6}\times l_0)^2}$ $\sqrt{(1.02\mu m)^2+(1.8\times10^{-6}\times l_0)^2}$	Gauge blocks, Measuring machines, standard / KRCMI-I-102-03
Extensometers, linear displacement transducers	10210			Dial/cylinder gauge testers Multimeter / KRCMI-I-102-24
Cylinder		(0 ~ 100) mm	$\sqrt{(1.7\mu m)^2+(0.2\times10^{-6}\times l_0)^2}$	
Wire		(0 ~ 2 000) mm	2.9 mm	
Filler gauges	10211	(0.01 ~ 5) mm	0.8 µm	Outside micrometers / KRCMI-I-102-04
Gapgauges	10213	(5 ~ 200) mm	$\sqrt{(0.4\mu m)^2+(3.1\times10^{-6}\times l_0)^2}$	Measuring machines, standard, Cylindrical ring gauges / KRCMI-I-102-06
Gauge blocks, by comparison	10214	(0.5 ~ 100) mm	$\sqrt{(71nm)^2+(1.2\times10^{-6}\times l_0)^2}$	Gauge blocks, Gauge block comparators / KRCMI-I-102-07
Height gauges/measuring machines	10216	(0 ~ 600) mm (600 ~ 1 000) mm	$\sqrt{(0.6\mu m)^2+(1.5\times10^{-6}\times l_0)^2}$ $\sqrt{(7.7\mu m)^2+(2.0\times10^{-6}\times l_0)^2}$	Step gauges, Electronic micrometers, Precision surface plates / KRCMI-I-102-08
Measuring machines, standard	10220	(0 ~ 100) mm (100 ~ 500) mm	$\sqrt{(0.36\mu m)^2+(1.3\times10^{-6}\times l_0)^2}$ $\sqrt{(0.40\mu m)^2+(1.4\times10^{-6}\times l_0)^2}$	Gauge blocks, Optical flats, Optical parallels, Monochromatic Light Source / KRCMI-I-102-09
Electronic micrometers	10223	(0 ~ 250) µm	0.36 µm	Surface plate Gauge block/ KRCMI-I-102-10
Heightmicrometers, Riserblocks	10224			Gauge blocks, Electronic micrometers, Precision surface plates / KRCMI-I-102-11
Head		(0 ~ 20) mm	0.66 µm	
Block		(5 ~ 600) mm	$\sqrt{(1.4\mu m)^2+(3.0\times10^{-6}\times l_0)^2}$	
Laser scan micrometers	10225	(0.1 ~ 60) mm	0.56 µm	Cylindrical plug gauges, / KRCMI-I-102-28

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102. Linear dimension

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Standardtaperules, Peripheralgauges	10227	(0 ~ 40) m (40 ~ 80) m (80 ~ 100) m	$\sqrt{(0.092\mu m)^2+(1.5\times10^{-9}\times l_0)^2}$ $\sqrt{(0.11\mu m)^2+(1.5\times10^{-9}\times l_0)^2}$ $\sqrt{(0.16\mu m)^2+(1.5\times10^{-9}\times l_0)^2}$	Standardtaperules, Micrometer heads / KRCMI-I-102-15
Cylindrical plug/pin gauges, Thread measuring wire gauges Cylindrical plug gauge/pin gauges Thread measuring wire gauges	10228	 (0 ~ 30) mm (30~ 150) mm (0.17 ~ 3.5) mm	 1.4 μm $\sqrt{(0.24\mu m)^2+(3.4\times10^{-6}\times l_0)^2}$ 0.3 μm	Measuring machines, standard, Electronic micrometers, Gauge blocks / KRCMI-I-102-12
Radius gauges	10229	(0 ~ 100) mm	2 μm	Non-contact coordinate measuring machines / KRCMI-I-102-22
Cylindrical ring gauges	10230	(5 ~ 200) mm	$\sqrt{(0.62\mu m)^2+(3.1\times10^{-6}\times l_0)^2}$	Measuring machines, standard, Cylindrical ring gauges / KRCMI-I-102-13
Step blocks	10231	(0 ~ 200) μm	0.57 μm	Gauge block comparators / KRCMI-I-102-29
Step gauges Step gauges Caliper checker Outside Inside Depth Micrometer Checker Master Block Block Interval	10232	 (0 ~ 310) mm (310 ~ 1 010) mm (0 ~ 600) mm (0 ~ 600) mm 25 mm (0 ~ 300) mm	 $\sqrt{(0.54\mu m)^2+(0.62\times10^{-6}\times l_0)^2}$ $\sqrt{(0.88\mu m)^2+(0.64\times10^{-6}\times l_0)^2}$ $\sqrt{(0.58\mu m)^2+(2.0\times10^{-6}\times l_0)^2}$ $\sqrt{(0.82\mu m)^2+(2.8\times10^{-6}\times l_0)^2}$ 0.46 μm $\sqrt{(2.8\mu m)^2+(1.7\times10^{-6}\times l_0)^2}$	Gauge blocks, Electronic micrometers, Precision surface plates / KRCMI-I-102-16
Taper thickness gauges	10233	(0 ~ 100) mm	2 μm	Microscopes / KRCMI-I-102-25
Ultrasonic thickness gauges	10234	(0 ~ 250) mm	7.0 μm	Standard thickness Surface plate, Gauge block / KRCMI-I-102-17
Ultrasonic/coating thickness specimens Ultrasonic	10235	 (2.5 ~ 300) mm	 $\sqrt{(4.7\mu m)^2+(1.3\times10^{-6}\times l_0)^2}$	Gauge blocks, Electronic micrometers, Precision surface plates / KRCMI-I-102-23

102. Linear dimension

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Coating thickness	10235	(10 ~ 500) μm (0.5 ~ 10) mm Flatness of zero metal plate	0.3 μm 1.5 μm 0.5 μm	Gauge blocks, Electronic micrometers, Precision surface plates / KRCMI-I-102-23
Coating thickness testers	10236	(0 ~ 1.5) mm	2.0 μm	Coating thickness specimens / KRCMI-I-102-18

103. Angle

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Bevel protractors	10304	(0 ~ 180)°	0.6′	Angle gauge blocks / KRCMI-I-103-02
Plate/Square/Electric levels	10311			Fine angle generators,
Electronical		(0 ~ 2) mm/m	3.3 μm/m	Electronic micrometers,
		(2 ~ 9.7) mm/m	6.7 μm/m	Squareness testers,
Precision flat		±2°	5.5 μm/m	Precision surface plates
Squareness		(0 ~ 300) mm	2.5 μm	/ KRCMI-I-103-03
Flatness		-	1.3 μm	
Precision squares	10320			Squareness testers,
Perpendicularity		(0 ~ 450) mm	3.0 μm	Right angle testers
				/ KRCMI-I-103-01
Parallelism		(0 ~ 450) mm	1.4 μm	

104. Form

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Form testers	10401			Form standard specimens,
Height		(0 ~ 60) mm	0.14 μm	Cylindrical plug gauges
Width		(0 ~ 50) mm	1.0 μm	/ KRCMI-I-104-07
Angle		(30 ~ 90)°	2″	
Optical flats	10404	(25 ~ 75) mm	0.10 μm	Monochromatic Light Source,
		(75 ~ 100) mm	0.12 μm	Optical flats
				/ KRCMI-I-104-01
Optical parallels	10405			Monochromatic Light Source,
Flatness		(12 ~ 50) mm	0.08 μm	Gauge block comparators
Parallelism		(12 ~ 50) mm	0.10 μm	Optical flats /KRCMI-I-104-02
Parallel blocks	10406			Electronic micrometers,
Parallelism		(0 ~ 200) mm	1.2 μm	Precision surface plates
Flatness		(0 ~ 200) mm	1.2 μm	/ KRCMI-I-104-03
Difference between height and width of a pair		(0 ~ 400) μm	1.6 μm	
Precision surface plates	10407	(0 ~ 900) cm^2	0.40 μm	Electric levels
		(900 ~ 2 500) cm^2	0.61 μm	/ KRCMI-I-104-04
		(2 500 ~ 10 000) cm^2	1.0 μm	
		(10 000 ~ 40 000) cm^2	1.6 μm	
		(40 000 ~ 122 500) cm^2	2.5 μm	
		(122 500 ~ 202 500) cm^2	2.7 μm	
Roundness measurement instruments	10409			Roundness standard,
accuracy of Pick up		-	0.51 μm	Roundness magnification
rotate accuracyofcircumferential direction		360 °	0.02 μm	standard specimens
rotate accuracyof axial direction		360 °	0.07 μm	/ KRCMI-I-104-08
straightness of column		(0 ~ 250) mm	1.0 μm	
Straight edges	10412			Electronic micrometers,
straightness		(0 ~ 250) mm	4.4 μm	Precision surface plates,
		(250 ~ 500) mm	4.2 μm	Electric levels
		(500 ~ 750) mm	4.4 μm	/ KRCMI-I-104-06
		(750 ~ 1 000) mm	4.3 μm	
		(1 000 ~ 2 000) mm	7.3 μm	
Parallelism		(0 ~ 250) mm	3.8 μm	
		(250 ~ 500) mm	3.8 μm	
		(500 ~ 750) mm	3.8 μm	
		(750 ~ 1 000) mm	3.8 μm	
		(1 000 ~ 2 000) mm	6.4 μm	
Straight rules	10413	(0 ~ 2 000) mm	$\sqrt{(0.068\text{mm})^2+(8.0\times10^{-6}\times l_0)^2}$	Standardtaperules,
				Micrometer heads
				/ KRCMI-I-104-05

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105. Complex geometry

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Contact coordinate measuring machines	10503			Step gauges, Precision squares / KRCMI-I-105-03
X,Y,Z-axis accuracy		(0 ~ 1 000) mm	$\sqrt{(0.82\mu m)^2+(6.6\times10^{-6}\times I_0)^2}$	
straightness		(0 ~ 500) mm	3.0 μm	
Perpendicularity		(0 ~ 500) mm	3.0 μm	
Non-contact coordinate measuring machines	10504			Standard scale, Precision squares / KRCMI-I-105-16
X,Y-axis accuracy		(0 ~ 1 000) mm	$\sqrt{(0.42\mu m)^2+(3.0\times10^{-6}\times I_0)^2}$	
Perpendicularity		(0 ~ 500) mm	2.0 μm	
Gauge block accessories	10505			Gauge blocks, Gauge block comparators, Non-contact coordinate measuring machines, Precision surface plates / KRCMI-I-105-04
Round Type Jaw		8 mm	$\sqrt{(0.12\mu m)^2+(1.2\times10^{-6}\times I_0)^2}$	
A Type Jaw		8 mm	$\sqrt{(0.12\mu m)^2+(1.2\times10^{-6}\times I_0)^2}$	
B Type Jaw		Flatness	0.09 μm	
Scriber Point		Flatness	0.09 μm	
Center Point		eccentic distance	1.4 μm	
Base Block		35 mm	$\sqrt{(0.20\mu m)^2+(1.2\times10^{-6}\times I_0)^2}$	
Measuring microscope, Profile projector	10511			Standard scale, Precision squares / KRCMI-I-105-05
X,Y-axis accuracy		(0 ~ 500) mm	$\sqrt{(0.56\mu m)^2+(2.6\times10^{-6}\times I_0)^2}$	
Perpendicularity		(0 ~ 500) mm	2.0 μm	
Taper plug gauges	10514			Measuring machines, standard, Balls / KRCMI-I-105-07
taper angle		(0 ~ 60) °	1.5′	
diameter of taper Ring minimum		(0 ~ 200) mm	6.9 μm	
diameter of taper Ring maximum		(0 ~ 200) mm	8.7 μm	
length of taper Ring		(0 ~ 250) mm	4.4 μm	
Taper ring gauges	10515			Measuring machines, standard, Balls / KRCMI-I-105-09
taper angle		(0 ~ 60) °	4″	
diameter of taper Ring minimum		(1 ~ 30) mm	3.9 μm	
diameter of taper Ring maximum		(1 ~ 30) mm	1.3 μm	
length of taper Ring		(1 ~ 200) mm	6.1 μm	
Stylus type roughness testers	10517			Roughness standard specimens / KRCMI-I-105-10
longitudinall magnification		(0 ~ 120) μm	0.9 μm	
transversal magnification		(0 ~ 10) μm	0.20 μm	
Ra		(0 ~ 3.2) μm	0.007 μm	
Rz		(0 ~ 10.15) μm	0.071 μm	
Roughness standard /comparison specimens	10519			Roughness standard specimens, Stylus type roughness testers / KRCMI-I-105-12
Ra		(0 ~ 3) μm	0.01 μm	
Rz		(0 ~ 10) μm	0.08 μm	

105. Complex geometry

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Thread plug gauges	10525			Measuring machines, standard,
effective diameter		(0.5 ~ 100) mm	1.6 μm	Non-contact coordinate
Pitch		(0.15 ~ 4) mm	1.2 μm	measuring machines,
external diameter		(0.5 ~ 100) mm	0.52 μm	Thread measuring wire gauges
				/ KRCMI-I-105-13
half-angle of thread		(1 ~ 45)°	0.1′	
Thread ring gauges	10527			Measuring machines, standard,
effective diameter		(6 ~ 100) mm	1.2 μm	Balls (Probe)
Pitch		(0.6 ~ 4) mm	0.28 μm	/ KRCMI-I-105-14
internal diameter		(5 ~ 100) mm	2.2 μm	
V-blocks, Box blocks	10529			Electronic micrometers,
flatness of base plate		(10 ~ 200) mm	1.1 μm	Gauge blocks
				Height measuring machines
Flatness of V plate		(10 ~ 200) mm	1.1 μm	/ KRCMI-I-105-15
Parallelism of culinder on the base and V plate		(10 ~ 200) mm	2.6 μm	
Inclination of V furrow about base		(10 ~ 200) mm	0.8 μm	
Parallelism of culider on the side and V plate		(10 ~ 200) mm	2.6 μm	
Height difference of pair		(10 ~ 200) mm	2.6 μm	

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106. Various dimensional

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Inside/Outside/Gear tooth calipers, Caliper gauges	10601			Gauge blocks, Step gauges /KRCMI-I-106-01
Inside/Outside calipers		(0 ~ 2 000) mm	$\sqrt{(14\mu m)^2+(6.4\times10^{-6}\times I_0)^2}$	
Caliper gauges		(0 ~ 50) mm	$\sqrt{(0.8\mu m)^2+(6.3\times10^{-6}\times I_0)^2}$	
		(50 ~ 150) mm	$\sqrt{(2.5\mu m)^2+(6.3\times10^{-6}\times I_0)^2}$	
Cylinder/Bore gauges	10603			Dial gauge tester / KRCMI-I-106-04
Cylinder gauges		(0 ~ 400) mm	$\sqrt{(0.7\mu m)^2+(1.5\times10^{-6}\times I_0)^2}$	
Bore gauges		(0 ~ 100) mm	$\sqrt{(0.9\mu m)^2+(2.0\times10^{-6}\times I_0)^2}$	
Depth gauges, Depth micrometers	10604			Gauge blocks, Precision sufrace plates /KRCMI-I-106-05
Depth gauges		(0 ~ 50) mm	$\sqrt{(1.3\mu m)^2+(6.8\times10^{-6}\times I_0)^2}$	
		(50 ~ 1 000) mm	$\sqrt{(8.7\mu m)^2+(6.7\times10^{-6}\times I_0)^2}$	
Depth micrometers		(0 ~ 300) mm	$\sqrt{(1.3\mu m)^2+(2.6\times10^{-6}\times I_0)^2}$	
Dial/Digital gauges	10605	(0 ~ 100) mm	$\sqrt{(0.7\mu m)^2+(15.2\times10^{-6}\times I_0)^2}$	Dial/Cylinder gauge testers /KRCMI-I-106-06
Micro Indicators, Test Indicators Micro Indicators Test Indicators	10609	(0 ~ 3) mm	0.5 μm	Dial/Cylinder gauge testers /KRCMI-I-106-08
Micrometer heads	10610	(0 ~ 50) mm	$\sqrt{(0.6\mu m)^2+(16\times10^{-6}\times I_0)^2}$	Gauge blocks, Electronic micrometers KRCMI-I-106-09
3-points micrometers	10611	(ø 2 ~ ø 300) mm	$\sqrt{(1.3\mu m)^2+(6.3\times10^{-6}\times I_0)^2}$	Cylindrical ring gauges /KRCMI-I-106-15
Inside micrometers	10612	(5 ~ 1 000) mm	$\sqrt{(0.96\mu m)^2+(2.0\times10^{-6}\times I_0)^2}$	Gauge blocks, Gauge Block Accessories /KRCMI-I-106-12
Outside micrometers	10613			Gauge blocks Cylindrical plug/pin gauge /KRCMI-I-106-13
Outside micrometers		(0 ~ 25) mm	$\sqrt{(0.2\mu m)^2+(1.3\times10^{-6}\times I_0)^2}$	
		(25 ~ 100) mm	$\sqrt{(1.0\mu m)^2+(1.3\times10^{-6}\times I_0)^2}$	
		(100 ~2 000) mm	$\sqrt{(1.5\mu m)^2+(3.7\times10^{-6}\times I_0)^2}$	
V-anvil micrometers		(2.5 ~ 50) mm	1.6 μm	

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106. Various dimensional

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Standard sieves	10617			Non-contact coordinate
Diameter of wire		(0 ~ 10) mm	1.8 μm	measuring machines
opening of sieve		(0 ~ 100) mm	2.1 μm	/KRCMI-I-106-17
Welding gauges	10620			Non-contact coordinate
Height		(0 ~ 50) mm	0.2 mm	measuring machines
deep		(0 ~ 50) mm	0.2 mm	Gauge blocks,V-blocks,
scale		(0 ~ 100) mm	0.1 mm	Cylindrical plug/pin gauge
thickness		(0 ~ 20) mm	0.2 mm	Precision surface plates
Angle		(0 ~ 90) °	0.4 °	/KRCMI-I-106-20
thickness gauge		(0 ~ 10) mm	0.1 mm	

201. Mass

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Counter beam balances	20105	(0 ~ 311) g	11 mg	Weight / KRCMI-I-201-02
		(311 ~ 2 610) g	0.11 g	
		2 610 g ~ 20 kg	1.1 g	
Dial platform scale balances	20106	(0 ~ 1) kg	0.68 g	Weight / KRCMI-I-201-03
		(1 ~ 10) kg	6.8 g	
		(10 ~ 50) kg	68 g	
		(50 ~ 200) kg	0.14 kg	
Dial swing scale balances	20107	(0 ~ 10) kg	1.8 g	Weight / KRCMI-I-201-04
		(10 ~ 50) kg	8.9 g	
		(50 ~ 200) kg	0.09 kg	
		(200 ~ 1 000) kg	0.44 kg	
Direct reading balances	20108	(0 ~ 160) g	0.11 mg	Weight / KRCMI-I-201-05
		(160 ~ 200) g	0.15 mg	
Electric balances	20109	(0 ~ 5) g	40 µg	Weight / KRCMI-I-201-06
		(5 ~ 20) g	63 µg	
		(20 ~ 200) g	0.19 mg	
		(200 ~ 300) g	0.24 mg	
		(300 ~ 1 000) g	0.9 mg	
		(1 000 ~ 3 000) g	2.1 mg	
		(3 ~ 5) kg	4.3 mg	
		(5 ~ 6) kg	5.5 mg	
		(6 ~ 30) kg	20 mg	
		(30 ~ 40) kg	29 mg	
		(40 ~ 60) kg	64 mg	
		(60 ~ 200) kg	1.5 g	
		(200 ~ 500) kg	5.4 g	
		(500 ~ 1 000) kg	53 g	
Platform scale balances	20112	(0 ~ 50) kg	19 g	Weight / KRCMI-I-201-07
		(50 ~ 200) kg	0.11 kg	
		(200 ~ 500) kg	0.19 kg	
		(500 ~ 1 000) kg	0.46 kg	
Spring scale balances	20113			Weight / KRCMI-I-201-08
		(0 ~ 1) kg	0.68 g	
		(1 ~ 10) kg	6.8 g	
		(10 ~ 50) kg	68 g	
		(50 ~ 100) kg	0.14 kg	
Trip balances	20114	(0 ~ 200) g	0.19 g	Weight / KRCMI-I-201-09
		200 g ~ 1 kg	0.95 g	
		(1 ~ 5) kg	4.74 g	
Weights	20116	1 mg ~ 20 kg	(Class F1)	Weight,Balances electric / KRCMI-I-201-10
		1 mg	3.1 µg	
		2 mg	3.1 µg	
		5 mg	3.2 µg	
		10 mg	3.8 µg	
		20 mg	3.9 µg	
		50 mg	4.7 µg	
		100 mg	5.8 µg	
		200 mg	6.5 µg	

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201. Mass

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Weights	20116	500 mg	8.6 µg	Weight,Balances electric / KRCMI-I-201-10
		1 g	12 µg	
		2 g	14 µg	
		5 g	18 µg	
		10 g	25 µg	
		20 g	29 µg	
		50 g	37 µg	
		100 g	57 µg	
		200 g	0.10 mg	
		500 g	0.29 mg	
		1 kg	0.54 mg	
		2 kg	1.6 mg	
		5 kg	2.8 mg	
		10 kg	5.5 mg	
		20 kg	11 mg	

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202. Force

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Tension/Compression testing machines	20203			Force measuring devices, electrical, Weights / KRCMI-I-202-02
Tension		(0.4 ~ 50) N	1.1×10^{-3}	
		(50 ~ 100) N	5.3×10^{-4}	
		(100 ~ 200) N	1.5×10^{-3}	
		(200 ~ 500) N	1.4×10^{-3}	
		(0.5 ~ 1) kN	8.9×10^{-4}	
		(1 ~ 3) kN	6.7×10^{-4}	
		(3 ~ 5) kN	2.1×10^{-3}	
Compression		(0.4 ~ 50) N	7.9×10^{-4}	
		(50 ~ 100) N	5.6×10^{-4}	
		(100 ~ 200) N	2.1×10^{-3}	
		(200 ~ 500) N	7.1×10^{-4}	
		(0.5 ~ 1) kN	8.8×10^{-4}	
		(1 ~ 2) kN	1.2×10^{-3}	
		(2 ~ 5) kN	1.2×10^{-3}	
		(5 ~ 10) kN	8.6×10^{-3}	
		(10 ~ 20) kN	9.6×10^{-4}	
		(20 ~ 50) kN	1.3×10^{-3}	
		(50 ~ 100) kN	1.0×10^{-3}	
		(100 ~ 200) kN	1.4×10^{-3}	
		(200 ~ 500) kN	9.6×10^{-4}	
		(0.5 ~ 1) MN	1.8×10^{-3}	
		(1 ~ 2) MN	1.5×10^{-3}	
		(2 ~ 3) MN	1.5×10^{-3}	
Push-pull gauges	20204	(2 ~ 1 000) N	7.3×10^{-4}	Weights / KRCMI-I-202-01

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203. Torque

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Torque measuring devices	20302	(1 ~ 10) N·m	2.6×10^{-3}	Torque standards deadweight type / KRCMI-I-203-03
		(10 ~ 50) N·m	6.2×10^{-4}	
		(50 ~ 100) N·m	1.7×10^{-3}	
		(100 ~ 200) N·m	8.5×10^{-4}	
		(200 ~ 500) N·m	3.7×10^{-4}	
		(500 ~ 1 000) N·m	3.0×10^{-4}	
		(1 000 ~ 2 000) N·m	1.8×10^{-4}	
Torque wrenches/drivers	20303	(0.000 1 ~ 0.01) N·m	6.7×10^{-3}	Torque measuring devices / KRCMI-I-203-01
		(0.01 ~ 0.06) N·m	1.5×10^{-2}	
		(0.06 ~ 0.6) N·m	1.1×10^{-2}	
		(0.6 ~ 6) N·m	5.3×10^{-3}	
		(6 ~ 20) N·m	8.3×10^{-3}	
		(20 ~ 50) N·m	4.7×10^{-3}	
		(50 ~ 100) N·m	7.4×10^{-3}	
		(100 ~ 200) N·m	1.4×10^{-2}	
		(200 ~ 500) N·m	5.9×10^{-3}	
		(500 ~ 1 000) N·m	7.8×10^{-3}	

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204. Pressure

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Manometers	20402	(0 ~ 100) kPa	9.1×10^{-4}	air Dead Weight Tester / KRCMI-I-204-02
Pneumatic pressure ballances	20403	(4 ~ 200) kPa (0.2 ~ 3.5) MPa	8.6×10^{-5} 7.7×10^{-5}	air Dead Weight Tester / KRCMI-I-204-03
Hydraulic pressure ballances	20404	(0.1 ~ 120) MPa	5.7×10^{-5}	oil Dead Weight Tester / KRCMI-I-204-04
Absolute pressure gauges	20406	4 kPa abs. ~ 3 500 kPa abs.	8.1×10^{-5}	air Dead Weight Tester / KRCMI-I-204-05
Blood pressure gauge	20407	(0 ~ 40) kPa	2.1×10^{-3}	air Dead Weight Tester / KRCMI-I-204-06
Compound pressure gauges	20408	(-100 ~ 3 500) kPa	7.0×10^{-4}	air Dead Weight Tester / KRCMI-I-204-07
Differential pressure gauges	20409	(0 ~ 3 500) kPa	7.9×10^{-5}	air Dead Weight Tester / KRCMI-I-204-08
Gauge pressure gauges	20411	(0 ~ 3 500) kPa (3.5 ~ 20) MPa (20 ~ 120) MPa	7.9×10^{-5} 7.1×10^{-5} 5.9×10^{-5}	air Dead Weight Tester oil Dead Weight Tester / KRCMI-I-204-09
Pressure transducers/transmitters	20412	4 kPa abs. ~ 200 kPa abs. (200 ~ 3 500) kPa abs (0 ~ 120) MPa	4.6×10^{-4} 9.0×10^{-5} 7.3×10^{-5}	air Dead Weight Tester oil Dead Weight Tester / KRCMI-I-204-11
Dial type vacuum gauges	20413	(-100 ~ 0) kPa	8.8×10^{-4}	Air dead weight piston gage / KRCMI-I-204-12
Water Depth meters	20414	(0 ~ 3 500) kPa	5.6×10^{-4}	Water Depth meters /KRCMI-I-204-13

205. Vacuum

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Capacitance diaphragm gauges	20501	(0 ~ 13.332) Pa abs (13.332 ~ 133.32) Pa abs (133.32 ~ 1 333.2) Pa abs (1 333.2 ~ 133 322) Pa abs	0.03 Pa 0.04 Pa 0.8 Pa 20 Pa	Capacitance diaphragm gauges / KRCMI-I-205-01
Thermal conductivity gauges; pirani, thermocouple, convectron etc.	20504	(0 ~ 13.332) Pa abs (13.332 ~ 133.32) Pa abs (133.32 ~ 1 333.2) Pa abs (1 333.2 ~ 133 322) Pa abs	0.1 Pa 0.8 Pa 1.1 Pa 0.08 kPa	Capacitance diaphragm gauges / KRCMI-I-205-02

206. Volume

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Volumetric glasswares	20601			balance, weight
Burets		(0 ~ 2) ml	1.8 μl	/ KRCMI-I-206-01
		(2 ~ 10) ml	5.9 μl	
		(10 ~ 25) ml	12 μl	
		(25 ~ 50) ml	20 μl	
		(50 ~ 100) ml	29 μl	
Cylinder		(0 ~ 5) ml	16 μl	
		(5 ~ 10) ml	18 μl	
		(10 ~ 25) ml	43 μl	
		(25 ~ 50) ml	86 μl	
		(50 ~ 100) ml	0.15 ml	
		(100 ~ 250) ml	0.34 ml	
		(250 ~ 500) ml	0.65 ml	
		(500 ~ 1 000) ml	1.3 ml	
		(1 000 ~ 2 000) ml	2.7 ml	
Flask		(0 ~ 5) ml	7.3 μl	
		(5 ~ 10) ml	7.7 μl	
		(10 ~ 25) ml	12 μl	
		(25 ~ 50) ml	20 μl	
		(50 ~ 100) ml	34 μl	
		(100 ~ 250) ml	73 μl	
		(250 ~ 500) ml	0.13 ml	
		(500 ~ 1 000) ml	0.28 ml	
		(1 000 ~ 2 000) ml	0.49 ml	
Pipet		(0 ~ 1) ml	0.7 μl	
		(1 ~ 2) ml	0.9 μl	
		(2 ~ 5) ml	2.0 μl	
		(5 ~ 10) ml	2.9 μl	
		(10 ~ 25) ml	6.1 μl	
		(25 ~ 50) ml	14 μl	
		(50 ~ 100) ml	24 μl	
		(100 ~ 200) ml	30 μl	
Concrete air content meters	20605			balance, weight
		(0 ~ 10) %	0.07 %	/ KRCMI-I-206-02
Piston type volume meters	20606			balance, weight
		(0 ~ 0.02) ml	0.06 μl	/ KRCMI-I-206-03
		(0.02 ~ 0.05) ml	0.14 μl	
		(0.05 ~ 0.1) ml	0.17 μl	
		(0.1 ~ 0.2) ml	0.57 μl	
		(0.2 ~ 0.5) ml	1.4 μl	
		(0.5 ~ 1) ml	1.7 μl	
		(1 ~ 2) ml	5.6 μl	
		(2 ~ 5) ml	14 μl	
		(5 ~ 10) ml	17 μl	
		(10 ~ 25) ml	71 μl	
		(25 ~ 50) ml	0.14 ml	
		(50 ~ 100) ml	0.17 ml	

209. Materiality / Fluid

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Anemometers; hot-wire	20901	2 m/s ~ 5 m/s 5 m/s ~ 45 m/s	3.9×10^{-2} 3.5×10^{-2}	Wind tunnel,Pitot tube, Mano meter, MicroMano meter / KRCMI-I-209-01
Anemometers; pitot tube, etc.	20902	2 m/s ~ 5 m/s 5 m/s ~ 45 m/s	4.6×10^{-2} 4.9×10^{-2}	Wind tunnel,Pitot tube, Mano meter, MicroMano meter / KRCMI-I-209-02
Gas flowmeters; differential pressure	20908	0.002 m^3/h ~ 300 m^3/h	2.6×10^{-3}	Sonic Nozzle / KRCMI-I-209-04
Gas flowmeters; thermal mass, etc.	20911	0.002 m^3/h ~ 300 m^3/h	2.6×10^{-3}	Sonic Nozzle / KRCMI-I-209-04
Gas flowmeters; open channel, etc.	20914	0.002 m^3/h ~ 300 m^3/h	2.6×10^{-3}	Sonic Nozzle / KRCMI-I-209-04
Gas Flowmeters; turbine	20916	0.002 m^3/h ~ 300 m^3/h	2.6×10^{-3}	Sonic Nozzle / KRCMI-I-209-04
Gas flowmeters; ultrasonic	20918	0.002 m^3/h ~ 300 m^3/h	2.6×10^{-3}	Sonic Nozzle / KRCMI-I-209-04
Variable-Area Meters for Gas	20920	0.002 m^3/h ~ 300 m^3/h	2.6×10^{-3}	Sonic Nozzle / KRCMI-I-209-04
Vortex Flowmeters for Gas	20922	0.002 m^3/h ~ 300 m^3/h	2.6×10^{-3}	Sonic Nozzle / KRCMI-I-209-04
Anemometers; vane, etc	20925	2 m/s ~ 5 m/s 5 m/s ~ 45 m/s	4.6×10^{-2} 4.9×10^{-2}	Wind tunnel,Pitot tube, Mano meter, MicroMano meter / KRCMI-I-209-03

210. Hardness

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Brinell hardness testers	21001	(100 ~ 250) HBW 10/3000	3.3 HBW	Brinell hardness reference block / KRCMI-I-210-01
		(250 ~ 450) HBW 10/3000	5.2 HBW	
		(450 ~ 650) HBW 10/3000	8.3 HBW	
Rockwell hardness tester	21002	(20 ~ 70) HRC	0.40 HRC	Rockwell hardness reference block / KRCMI-I-210-02
		(10 ~ 100) HRBW	0.70 HRBW	
Shore hardness testers	21003	(20 ~ 100) HSD	1.5 HSD	Shore hardness reference block / KRCMI-I-210-03
Vickers hardness testers	21004	(100 ~ 300) HV 0.2	5.6 HV 0.2	Vickers hardness reference block / KRCMI-I-210-04
		(300 ~ 650) HV 0.2	17 HV 0.2	
		(650 ~ 850) HV 0.2	26 HV 0.2	
		(100 ~ 300) HV 0.5	4.8 HV 0.5	
		(300 ~ 650) HV 0.5	14 HV 0.5	
		(650 ~ 850) HV 0.5	24 HV 0.5	
		(100 ~ 300) HV 1	4.6 HV 1	
		(300 ~ 650) HV 1	14 HV 1	
		(650 ~ 850) HV 1	20 HV 1	
		(100 ~ 300) HV 10	2.5 HV 10	
		(300 ~ 650) HV 10	7.6 HV 10	
		(650 ~ 850) HV 10	10 HV 10	
		(100 ~ 300) HV 20	2.7 HV 20	
		(300 ~ 650) HV 20	6.1 HV 20	
		(650 ~ 850) HV 20	14 HV 20	
Durometer hardness testers	21005	(0 ~ 100) HDA	0.6 HDA	Durometer calibrator / KRCMI-I-210-05
		(0 ~ 100) HDB	0.6 HDB	
		(0 ~ 100) HDC	0.5 HDC	
		(0 ~ 100) HDD	0.5 HDD	
		(0 ~ 100) HDE	0.6 HDE	
		(0 ~ 100) HDF	0.6 HDF	
		(0 ~ 100) HDO	0.6 HDO	
		(0 ~ 100) HDOO	0.7 HDOO	
Leeb hardness testers	21006	< 500 HLD	4.6 HLD	Leeb hardness reference block / KRCMI-I-210-06
		(500 ~ 700) HLD	4.5 HLD	
		> 700 HLD	4.4 HLD	

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301. Time/ frequency

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Frequency standards	30102	100 ㎑ ~ 10 ㎒	1.2×10^{-12}	GPS Receiver Frequency Counter / KRCMI-I-301-01
General frequency sources	30103	0.001 ㎐ ~ 40 ㎓	1.2×10^{-12}	GPS Receiver Frequency Counter / KRCMI-I-301-02
Frequency meters/counters	30104			GPS Receiver
Time base Osc.		(1 ~ 10) MHz	1.2×10^{-12}	Frequency Counter / KRCMI-I-301-03
Input Frequency		1 ㎐ ~ 18 GHz	5.8×10^{-11}	
Time interval meter/ Stop watches/Times	30106			Q Tester / KRCMI-I-301-04
time		(0.001 ~ 360 000) s	1.3×10^{-7}	
timer				GPS Receiver
time		(0.001 ~ 10^{8}) s	2.6×10^{-7}	Frequency Counter
count		9 999	1	Stop Watch / KRCMI-I-301-05

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302. Velocity & revolution

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Standard RPM generators	30201			Frequency Counter
Revolutions		(1 ~ 30) min^{-1}	0.06 min^{-1}	Stroboscope
		(30 ~ 100) min^{-1}	0.07 min^{-1}	Tachometer
		(100 ~ 500) min^{-1}	0.08 min^{-1}	/ KRCMI-I-302-01
		(500 ~ 4 000) min^{-1}	0.2 min^{-1}	
Centrifugal separator				
Revolutions		(100 ~ 9 000) min^{-1}	0.6 min^{-1}	
		(9 000 ~ 15 000) min^{-1}	1 min^{-1}	
Contact type tachometers	30202			RPM Calibration System
Revolutions		(6 ~ 100) min^{-1}	0.06 min^{-1}	G.P.S Receiver
		(100 ~ 4 000) min^{-1}	0.1 min^{-1}	/ KRCMI-I-302-02
Photo tachometers/stroboscopes	30203			RPM Calibration System
Revolutions		(1 ~ 10) min^{-1}	0.000 058 min^{-1}	G.P.S Receiver
		(10 ~ 100) min^{-1}	0.000 58 min^{-1}	Waveform Generator
		(100 ~ 1 000) min^{-1}	0.005 8 min^{-1}	/ KRCMI-I-302-03
		(1 000 ~ 100 000) min^{-1}	0.058 min^{-1}	
		(100 000 ~ 600 000) min^{-1}	0.58 min^{-1}	
stroboscopes				
Revolutions		(30 ~ 1 000) min^{-1}	0.005 8 min^{-1}	
		(1 000 ~ 100 000) min^{-1}	0.058 min^{-1}	
		(100 000 ~ 500 000) min^{-1}	0.58 min^{-1}	
Speed meters	30204			RPM Calibration System
Speed		3.6 m/h ~ 1 km/h	0.000 1 km/h	G.P.S Receiver
		(1 ~ 250) km/h	0.01 km/h	Tachometer
		(250 ~ 5 000) km/h	0.1 km/h	/ KRCMI-I-302-04
		(5 000 ~ 10 800) km/h	1 km/h	

401. DC voltage & current

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
DC ammeters	40101	±(10 ~ 100) pA	2.6×10^{-3}	Meter Calibrator
		±(100 ~ 1 000) pA	6.9×10^{-5}	Transcomductance Amplifier
		±(1 ~ 10) nA	6.9×10^{-5}	/ KRCMI-I-401-01
		±(10 ~ 100) nA	6.2×10^{-5}	/ KRCMI-I-401-02
		±(0.1 ~ 1) μA	6.2×10^{-5}	
		±(1 ~ 10) μA	8.3×10^{-5}	
		±(10 ~ 100) μA	1.2×10^{-4}	
		±(0.1 ~ 1) mA	4.9×10^{-5}	
		±(1 ~ 10) mA	4.6×10^{-5}	
		±(10 ~ 100) mA	6.1×10^{-5}	
		±(0.1 ~ 1) A	1.1×10^{-4}	
		±(1 ~ 10) A	4.7×10^{-5}	
		±(10 ~ 100) A	4.6×10^{-4}	
Transconductance amplifiers	40102			Meter Calibrator
DC Current		±(0.1 ~ 1) mA	8.0×10^{-6}	Digital Multimeter
		±(1 ~ 10) mA	8.0×10^{-6}	Active Shunt
		±(10 ~ 100) mA	8.0×10^{-6}	Standard resistance
		±(0.1 ~ 1) A	1.6×10^{-5}	AC Measurement Standard
		±(1 ~ 10) A	1.6×10^{-5}	Current Shunt
		±(10 ~ 50) A	1.4×10^{-5}	/ KRCMI-I-401-03
		±(50 ~ 1 000) A	3.0×10^{-4}	
AC Current		(10 ~ 40) Hz		
		(0.1 ~ 1) mA	5.0×10^{-5}	
		(1 ~ 10) mA	4.0×10^{-5}	
		(10 ~ 100) mA	5.0×10^{-5}	
		(0.1 ~ 1) A	5.0×10^{-5}	
		(1 ~ 10) A	5.0×10^{-5}	
		(10 ~ 20) A	5.0×10^{-5}	
		(20 ~ 100) A	7.0×10^{-5}	
		(40 ~ 500) Hz		
		(0.1 ~ 1) mA	5.0×10^{-5}	
		(1 ~ 10) mA	4.0×10^{-5}	
		(10 ~ 100) mA	5.0×10^{-5}	
		(0.1 ~ 1) A	5.0×10^{-5}	
		(1 ~ 10) A	5.0×10^{-5}	
		(10 ~ 20) A	5.0×10^{-5}	
		(20 ~ 100) A	7.0×10^{-5}	
		(50 ~ 60) Hz		
		(40 ~ 200) A	4.0×10^{-4}	
		(200 ~ 1000) A	3.2×10^{-4}	
		(0.5 ~ 1) kHz		
		(0.1 ~ 1) mA	5.0×10^{-5}	
		(1 ~ 10) mA	4.0×10^{-5}	
		(10 ~ 100) mA	5.0×10^{-5}	

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401. DC voltage & current

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Transconductance amplifiers	40102			Meter Calibrator
AC Current		(0.1 ~ 1) A	5.0×10^{-5}	Digital Multimeter
		(1 ~ 10) A	5.0×10^{-5}	Active Shunt
		(10 ~ 20) A	5.0×10^{-5}	Standard resistance
		(20 ~ 100) A	7.0×10^{-5}	AC Measurement Standard
		(1 ~ 10) kHz		Current Shunt
		(1 ~ 10) mA	4.0×10^{-5}	/ KRCMI-I-401-03
		(10 ~ 100) mA	5.0×10^{-5}	
		(0.1 ~ 1) A	5.0×10^{-5}	
		(1 ~ 10) A	1.1×10^{-4}	
		(10 ~ 20) A	1.1×10^{-4}	
Dc voltage/currant calibrators	40103			Digital Multimeter
DC Voltage		±1 mV	0.35 μV	Active Shunt
		±(1 ~ 10) mV	3.5×10^{-6}	Meter Calibrator
		±(10 ~ 100) mV	4.3×10^{-6}	Standard resistance
		±(0.1 ~ 1) V	1.8×10^{-6}	/ KRCMI-I-401-04
		±(1 ~ 10) V	1.2×10^{-6}	
		±(10 ~ 100) V	2.3×10^{-6}	
		±(100 ~ 1 000) V	2.2×10^{-6}	
AC Voltage		±(1 ~ 100) μA	8.2×10^{-6}	
		±(0.1 ~ 1) mA	8.2×10^{-6}	
		±(1 ~ 10) mA	8.2×10^{-6}	
		±(10 ~ 100) mA	8.2×10^{-6}	
		±(0.1 ~ 1) A	1.6×10^{-5}	
		±(1 ~ 10) A	1.6×10^{-5}	
		±(10 ~ 20) A	1.4×10^{-5}	
		±(20 ~ 100) A	1.6×10^{-5}	
Electrical temperature calibrators	40104			Digital multi meter
Voltage(MEASURE)		±(1 ~ 10) mV	8.0×10^{-5}	/ KRCMI-I-401-05
		±(10 ~ 100) mV	8.0×10^{-6}	
		±(0.1 ~ 1) V	7.0×10^{-6}	
		±(1 ~ 10) V	7.0×10^{-6}	
		±(10 ~ 100) V	7.0×10^{-6}	
Current(MEASURE)		±(1 ~ 10) mA	1.5×10^{-5}	
		±(10 ~ 100) mA	1.6×10^{-5}	
Resistance(MEASURE)		0 Ω	8 μΩ	
		(0 ~ 1) Ω	3.8×10^{-5}	
		(1 ~ 10) Ω	1.0×10^{-5}	
		(10 ~ 100) Ω	9.0×10^{-6}	
		(0.1 ~ 1) kΩ	9.0×10^{-6}	
		(1 ~ 10) kΩ	9.0×10^{-6}	
Voltage(Source)		±(1 ~ 10) mV	8.0×10^{-5}	
		±(10 ~ 100) mV	9.0×10^{-6}	
		±(0.1 ~ 1) V	3.0×10^{-6}	
		±(1 ~ 10) V	3.0×10^{-6}	
		±(10 ~ 100) V	5.0×10^{-6}	

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401. DC voltage & current

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Electrical temperature calibrators	40104			Digital multi meter
Current(Source)		±(1 ~ 10) mA	2.2×10^{-5}	/ KRCMI-I-401-05
		±(10 ~ 100) mA	4.2×10^{-5}	
Resistance(Source)		0 Ω	12 μΩ	
		(0 ~ 1) Ω	1.5×10^{-5}	
		(1 ~ 10) Ω	8.0×10^{-6}	
		(10 ~ 100) Ω	5.0×10^{-6}	
		(0.1 ~ 1) kΩ	4.0×10^{-6}	
		(1 ~ 10) kΩ	4.0×10^{-6}	
DC current shunts	40105	25 μΩ	8.5 nΩ	DCC RESISTANCE BRIDGE
		(0.025 ~ 1) mΩ	3.5×10^{-6}	Standard resistance
		(1 ~ 10) mΩ	1.2×10^{-6}	Meter Calibrator
		(10 ~ 100) mΩ	2.7×10^{-6}	Transcomductance Amplifier
		(0.1 ~ 1) Ω	1.4×10^{-6}	Digital multi meter
		(1 ~ 10) Ω	1.4×10^{-6}	/ KRCMI-I-401-06
		(10 ~ 100) Ω	1.4×10^{-6}	
		(0.1 ~ 1) kΩ	1.3×10^{-6}	
		(1 ~ 10) kΩ	1.3×10^{-6}	
		(10 ~ 100) kΩ	4.0×10^{-6}	
Galvanometers/null detectors	40106			Meter Calibrator
DC Voltage		± 1 μV	5.8×10^{-4}	Divider
		±(1 ~ 3) μV	5.3×10^{-4}	/ KRCMI-I-401-07
		±(3 ~ 10) μV	4.2×10^{-4}	
		±(10 ~ 30) μV	2.8×10^{-4}	
		±(30 ~ 100) μV	4.2×10^{-4}	
		±(100 ~ 300) μV	2.8×10^{-4}	
		±(0.3 ~ 1) mV	4.2×10^{-4}	
		±(1 ~ 3) mV	2.8×10^{-4}	
		±(3 ~ 10) mV	4.1×10^{-4}	
		±(10 ~ 30) mV	2.7×10^{-4}	
		±(30 ~ 100) mV	4.1×10^{-4}	
		±(100 ~ 300) mV	2.7×10^{-4}	
		±(0.3 ~ 1) V	4.1×10^{-4}	
		±(1 ~ 3) V	2.7×10^{-4}	
		±(3 ~ 10) V	4.1×10^{-4}	
		±(10 ~ 30) V	2.7×10^{-4}	
		±(30 ~ 100) V	4.1×10^{-4}	
		±(100 ~ 300) V	2.7×10^{-4}	
		±(300 ~ 1 000) V	4.1×10^{-4}	
Potentiometers	40107			Meter Calibrator
DC Voltage		± 100 μV	4.2×10^{-4}	Divider
		±(0.1 ~ 1) mV	4.2×10^{-4}	/ KRCMI-I-401-09
		±(1 ~ 10) mV	4.1×10^{-4}	
		±(10 ~ 100) mV	4.1×10^{-4}	
		±(0.1 ~ 1) V	4.1×10^{-4}	
		±(1 ~ 10) V	4.1×10^{-4}	
		±(10 ~ 100) V	4.1×10^{-4}	
		±(100 ~ 1 000) V	4.1×10^{-4}	

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401. DC voltage & current

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
DC power supplies	40108			Digital Multimeter
DC Voltage		±10 mV	0.54 μV	Active Shunt
		±(10 ~ 100) mV	4.7×10^{-6}	/ KRCMI-I-401-10
		±(0.1 ~ 1) V	8.4×10^{-6}	
		±(1 ~ 10) V	6.1×10^{-6}	
		±(10 ~ 100) V	8.9×10^{-6}	
		±(100 ~ 1 000) V	9.1×10^{-6}	
DC Current		±(1 ~ 10) mA	5.8×10^{-4}	
		±(10 ~ 100) mA	6.2×10^{-5}	
		±(100 mA ~ 1 A)	6.3×10^{-5}	
		±(1 ~ 10) A	2.9×10^{-5}	
		±(10 ~ 100) A	3.5×10^{-5}	
		±(100 ~ 300) A	2.1×10^{-4}	
		±(300 ~ 600) A	2.2×10^{-4}	
		±(600 ~ 1 000) A	2.5×10^{-4}	
DC voltage dividers	40110	Ratio		Meter Calibrator
DC Voltage		0.001 ~ 1		Divider
		DC Voltage		/ KRCMI-I-401-13
		10mV ~ 1 kV	2.0×10^{-6}	
DC voltage standards	40111			DC volt meter
DC Voltage		1 V	0.78 μV	DC REFERENCE STD
		1.018 V	0.76 μV	/ KRCMI-I-401-14
		10 V	7.4 μV	
DC voltmeters	40112			Meter Calibrator
DC Voltage		± 0 mV	61 nV	/ KRCMI-I-401-01
		±(0 ~ 1) mV	6.1×10^{-5}	
		±(1 ~ 10) mV	7.0×10^{-6}	
		±(10 ~ 100) mV	3.4×10^{-6}	
		±(0.1 ~ 1) V	1.8×10^{-6}	
		±(1 ~ 10) V	1.5×10^{-6}	
		±(10 ~ 100) V	2.5×10^{-6}	
		±(100 ~ 1 000) V	2.6×10^{-6}	
Voltmeters, static	40113			Meter Calibrator
DC Voltage		±(0 ~ 1) kV	6.1×10^{-4}	Dc high voltage supply
		±(1 ~ 5) kV	1.1×10^{-3}	High voltage Digital Meter
		±(5 ~ 10) kV	1.1×10^{-3}	/ KRCMI-I-401-12
		±(10 ~ 15) kV	1.1×10^{-3}	
		±(15 ~ 20) kV	1.1×10^{-3}	
		±(20 ~ 25) kV	4.1×10^{-3}	
		±(25 ~ 30) kV	4.1×10^{-3}	
		±(30 ~ 35) kV	4.0×10^{-3}	
		±(35 ~ 40) kV	4.0×10^{-3}	

402. Resistance, Capacitance and Inductance

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Capacitance bridges/indicators	40201	1 ㎑		Standard Air Capacitor Set / KRCMI-I-402-01
		1 pF	3.5×10^{-4}	
		(1 ~ 10) pF	2.6×10^{-5}	
		(10 ~ 100) pF	2.6×10^{-5}	
		(0.1 ~ 1) nF	3.0×10^{-5}	
		(1 ~ 10) nF	9.0×10^{-5}	
		(10 ~ 100) nF	9.0×10^{-5}	
		(0.1 ~ 1) ㎌	1.2×10^{-4}	
		10 ㎑		
		10 nF	2.5×10^{-4}	
		(10 ~ 100) nF	2.5×10^{-4}	
		(0.1 ~ 1) ㎌	2.7×10^{-4}	
		100 ㎑		
		10 nF	2.5×10^{-4}	
		(10 ~ 100) nF	2.5×10^{-4}	
		(0.1 ~ 1) ㎌	2.7×10^{-4}	
		1 ㎒		
		1 pF	4.4×10^{-4}	
		(1 ~ 10) pF	4.2×10^{-4}	
		(10 ~ 100) pF	4.2×10^{-4}	
		(0.1 ~ 1) nF	4.3×10^{-4}	
		2 ㎒		
		1 pF	4.9×10^{-4}	
		(1 ~ 10) pF	4.2×10^{-4}	
		(10 ~ 100) pF	4.2×10^{-4}	
		(0.1 ~ 1) nF	4.5×10^{-4}	
		3 ㎒		
		1 pF	5.9×10^{-4}	
		(1 ~ 10) pF	4.2×10^{-4}	
		(10 ~ 100) pF	4.3×10^{-4}	
		(0.1 ~ 1) nF	5.2×10^{-4}	
		4 ㎒		
		1 pF	7.6×10^{-4}	
		(1 ~ 10) pF	4.2×10^{-4}	
		(10 ~ 100) pF	4.3×10^{-4}	
		(0.1 ~ 1) nF	6.1×10^{-4}	
		5 ㎒		
		1 pF	9.8×10^{-4}	
		(1 ~ 10) pF	4.2×10^{-4}	
		(10 ~ 100) pF	4.5×10^{-4}	
		(0.1 ~ 1) nF	7.6×10^{-4}	

402. Resistance, Capacitance and Inductance

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Capacitance bridges/indicators	40201	10 MHz		Standard Air Capacitor Set / KRCMI-I-402-01
		1 pF	3.4×10^{-3}	
		(1 ~ 10) pF	2.4×10^{-3}	
		(10 ~ 100) pF	2.4×10^{-3}	
		(0.1 ~ 1) nF	3.2×10^{-3}	
		13 MHz		
		1 pF	4.4×10^{-3}	
		(1 ~ 10) pF	2.4×10^{-3}	
		(10 ~ 100) pF	2.4×10^{-3}	
		(0.1 ~ 1) nF	3.8×10^{-3}	
FREQNCY		100 Hz ~ 100 MHz	1.0×10^{-6}	
Decade capacitors	40202	1 kHz		RLC Digibridge / KRCMI-I-402-02
		1 pF	0.56 fF	
		(1 ~ 10) pF	4.5×10^{-4}	
		(10 ~ 100) pF	4.5×10^{-4}	
		(0.1 ~ 1) nF	4.5×10^{-4}	
		(1 ~ 10) nF	3.0×10^{-4}	
		(10 ~ 100) nF	2.8×10^{-4}	
		(0.1 ~ 1) μF	2.8×10^{-4}	
		(1 ~ 10) μF	8.5×10^{-4}	
Standard capacitors	40204	1 kHz		
		1 pF	3.5×10^{-4}	Capacitance Bridge / KRCMI-I-402-03
		10 pF	5.0×10^{-5}	
		100 pF	5.0×10^{-5}	
		1 nF	5.0×10^{-5}	
		10 nF	9.0×10^{-5}	
		100 nF	9.0×10^{-5}	
		1 μF	1.2×10^{-4}	
Earth testers	40205			Decade Resistor Meter Calibrator / KRCMI-I-402-04
Resistor		1 mΩ	1.0×10^{-4}	
		(1 ~ 10) mΩ	1.0×10^{-4}	
		(10 ~ 100) mΩ	1.0×10^{-4}	
		(0.1 ~ 1) Ω	2.0×10^{-4}	
		(1 ~ 10) Ω	1.0×10^{-4}	
		(10 ~ 100) Ω	1.0×10^{-4}	
		(0.1 ~ 100) kΩ	1.0×10^{-4}	
AC Voltage		60 Hz		
		1 V	1.0×10^{-4}	
		(1 ~ 1 000) V	1.0×10^{-4}	
AC Current		60 Hz		
		1 A	1.0×10^{-3}	
		1 A ~ 40 A	1.3×10^{-3}	
		40 A ~ 80 A	1.0×10^{-3}	
		80 A ~ 100 A	1.1×10^{-3}	

402. Resistance, Capacitance and Inductance

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Inductance bridges/indicators	40206	1 kHz		Standard Inductor
Inductance		100 μH	1.9×10^{-4}	/ KRCMI-I-402-12
		(0.1 ~ 1) mH	1.3×10^{-4}	
		(1 ~ 10) mH	1.3×10^{-4}	
		(10 ~ 100) mH	1.3×10^{-4}	
		(0.1 ~ 1) H	1.3×10^{-4}	
		(1 ~ 10) H	1.5×10^{-4}	
Frequency		60 Hz ~ 100 MHz	1.0×10^{-6}	
Standard inductor	40208	1 kHz		Digital Multimeter
		100 μH	1.0×10^{-4}	/ KRCMI-I-402-05
		1 mH	1.0×10^{-4}	
		10 mH	1.0×10^{-4}	
		100 mH	1.0×10^{-4}	
		1 H	1.0×10^{-4}	
		10 H	1.0×10^{-4}	
Decade inductor		1 kHz		RLC Digibridge
		100 μH	46 nH	/ KRCMI-I-402-06
		(0.1 ~ 1) mH	3.5×10^{-4}	
		(1 ~ 10) mH	3.5×10^{-4}	
		(10 ~ 100) mH	3.5×10^{-4}	
		(0.1 ~ 1) H	3.5×10^{-4}	
		(1 ~ 10) H	3.5×10^{-4}	
Mega ohm testers	40210			Decade Resistor
Resistor		(1 ~ 10) kΩ	1.0×10^{-4}	Digital Multimeter
		(10 ~ 100) kΩ	1.0×10^{-4}	/ KRCMI-I-402-07
		(0.1 ~ 1) MΩ	1.0×10^{-4}	
		(1 ~ 10) MΩ	2.0×10^{-4}	
		(10 ~ 100) MΩ	3.0×10^{-4}	
		(0.1 ~ 1) GΩ	3.0×10^{-4}	
		(1 ~ 10) GΩ	9.0×10^{-4}	
		(10 ~ 100) GΩ	1.5×10^{-3}	
		(0.1 ~ 1) TΩ	2.8×10^{-3}	
		(1 ~ 10) TΩ	5.5×10^{-3}	
DC Voltage(Output Volage)		(1 ~ 10) V	1.0×10^{-5}	
		(10 ~ 50) V	2.0×10^{-5}	
		(50 ~ 100) V	1.0×10^{-5}	
		(100 ~ 500) V	2.0×10^{-5}	
		(0.5 ~ 1) kV	1.0×10^{-5}	
		(1 ~ 5) kV	6.4×10^{-3}	
		(1 ~ 10) kV	6.2×10^{-3}	
AC Voltage		60 Hz		
		(1 ~ 1 000) V	1.0×10^{-4}	
DC Voltage		(1 ~ 1 000) V	1.0×10^{-4}	

402. Resistance, Capacitance and Inductance

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Resistance bridges/similar	40213			Standard Resistor
Resistance bridge		1 mΩ	1.1×10^{-2}	/ KRCMI-I-402-08
Measuring arm		(1 ~ 10) mΩ	1.1×10^{-3}	
		(10 ~ 100) mΩ	2.0×10^{-4}	
		(0.1 ~ 1) Ω	2.0×10^{-5}	
		(1 ~ 10) Ω	6.0×10^{-6}	
		(10 ~ 100) Ω	1.1×10^{-5}	
		(0.1 ~ 1) kΩ	1.1×10^{-5}	
		(1 ~ 10) kΩ	1.1×10^{-5}	
		(10 ~ 100) kΩ	1.1×10^{-5}	
		(0.1 ~ 1) MΩ	2.0×10^{-5}	
		(1 ~ 10) MΩ	2.0×10^{-5}	
		(10 ~ 100) MΩ	4.0×10^{-5}	
		(0.1 ~ 1) GΩ	1.7×10^{-4}	
Ratio arm		(1 ~ 10) mΩ	2.2×10^{-6}	
		(10 ~ 100) mΩ	2.2×10^{-6}	
		(0.1 ~ 1) Ω	4.3×10^{-7}	
		(1 ~ 10) Ω	4.3×10^{-7}	
		(10 ~ 100) Ω	4.3×10^{-7}	
		(0.1 ~ 1) kΩ	4.3×10^{-7}	
		(1 ~ 10) kΩ	3.5×10^{-7}	
		(10 ~ 100) kΩ	6.9×10^{-7}	
		(0.1 ~ 1) MΩ	8.4×10^{-7}	
		(1 ~ 10) MΩ	2.0×10^{-6}	
		(10 ~ 100) MΩ	4.6×10^{-6}	
		(0.1 ~ 1) GΩ	5.7×10^{-6}	
Resistance meters	40214	25 μΩ	1.2×10^{-3}	Standard Resistor
Ohmmeter		(25 ~ 50) μΩ	6.0×10^{-4}	/ KRCMI-I-402-09
		(50 ~ 100) μΩ	3.0×10^{-5}	
		(0.1 ~ 1) mΩ	2.0×10^{-5}	
		(1 ~ 10) mΩ	2.0×10^{-5}	
		(10 ~ 100) mΩ	3.0×10^{-6}	
		(0.1 ~ 1) Ω	3.0×10^{-6}	
		(1 ~ 10) Ω	3.0×10^{-6}	
		(10 ~ 100) Ω	3.0×10^{-6}	
		(0.1 ~ 1) kΩ	3.0×10^{-6}	
		(1 ~ 10) kΩ	3.0×10^{-6}	
		(10 ~ 100) kΩ	5.0×10^{-6}	
		(0.1 ~ 1) MΩ	6.0×10^{-6}	
		(1 ~ 10) MΩ	9.0×10^{-6}	
		(10 ~ 100) MΩ	2.5×10^{-5}	
		(0.1 ~ 1) GΩ	4.0×10^{-5}	
		(1 ~ 10) GΩ	9.0×10^{-4}	
		(10 ~ 100) GΩ	1.5×10^{-3}	
		(0.1 ~ 1) TΩ	2.8×10^{-3}	
		(1 ~ 10) TΩ	5.5×10^{-3}	

402. Resistance, Capacitance and Inductance

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Resistance meters	40214			Standard Resistor
AC Ohmmeter		1 kHz		/ KRCMI-I-402-09
		1 Ω	3.1×10^{-4}	
		10 Ω	3.1×10^{-4}	
		100 Ω	3.1×10^{-4}	
		1 kΩ	3.1×10^{-4}	
		10 kΩ	1.4×10^{-4}	
		100 kΩ	1.4×10^{-4}	
		1 MΩ	2.5×10^{-4}	
Resistors	40215			Resistance Measuring System
Standard resistor		1 mΩ	4.0×10^{-6}	/ KRCMI-I-402-10
		(1 ~ 10) mΩ	4.0×10^{-6}	
		(10 ~ 100) mΩ	2.0×10^{-6}	
		(0.1 ~ 1) Ω	2.3×10^{-6}	
		(1 ~ 10) Ω	2.3×10^{-6}	
		(10 ~ 100) Ω	2.3×10^{-6}	
		(0.1 ~ 1) kΩ	2.3×10^{-6}	
		(1 ~ 10) kΩ	2.3×10^{-6}	
		(10 ~ 100) kΩ	4.6×10^{-6}	
		(0.1 ~ 1) MΩ	4.0×10^{-6}	
		(1 ~ 10) MΩ	8.0×10^{-6}	
		(10 ~ 100) MΩ	1.7×10^{-5}	
		(0.1 ~ 1) GΩ	3.1×10^{-5}	
		(1 ~ 10) GΩ	3.0×10^{-4}	
		(10 ~ 100) GΩ	4.0×10^{-4}	
		(0.1 ~ 1) TΩ	2.0×10^{-3}	
		(1 ~ 10) TΩ	6.0×10^{-3}	
		(10 ~ 100) TΩ	7.0×10^{-3}	
AC Standard resistor		1 kHz		RLC Digibridge
		1 Ω	3.1×10^{-4}	Standard Resistor
		10 Ω	3.1×10^{-4}	/ KRCMI-I-402-10
		100 Ω	3.1×10^{-4}	
		1 kΩ	3.1×10^{-4}	
		10 kΩ	1.4×10^{-4}	
		100 kΩ	1.4×10^{-4}	
		1 MΩ	2.5×10^{-4}	
		100 kHz		
		1 kΩ	4.1×10^{-4}	
		10 kΩ	4.1×10^{-4}	
		100 kΩ	4.1×10^{-4}	
Decade resistor		0 Ω	0.08 μΩ	Digital Multimeter
		(1 ~ 10) mΩ	5.0×10^{-4}	/ KRCMI-I-402-11
		(10 ~ 100) mΩ	1.5×10^{-4}	
		(0.1 ~ 1) Ω	1.5×10^{-4}	
		(1 ~ 10) Ω	1.7×10^{-5}	
		(10 ~ 100) Ω	1.1×10^{-5}	
		(0.1 ~ 1) kΩ	1.0×10^{-5}	

402. Resistance, Capacitance and Inductance

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Resistors	40215			Digital Multimeter
Decade resistor		(1 ~ 10) kΩ	1.0×10^{-5}	/ KRCMI-I-402-11
		(10 ~ 100) kΩ	1.0×10^{-5}	
		(0.1 ~ 1) MΩ	1.5×10^{-5}	
		(1 ~ 10) MΩ	1.5×10^{-5}	
		(10 ~ 100) MΩ	7.5×10^{-5}	
		(0.1 ~ 1) GΩ	6.0×10^{-4}	
		(1 ~ 10) GΩ	1.0×10^{-3}	
		(10 ~ 100) GΩ	1.3×10^{-3}	
		(0.1 ~ 1) TΩ	5.0×10^{-3}	
		(1 ~ 10) TΩ	6.7×10^{-3}	
Impedance bridges/LCR meters	40217			Standard Inductor Series
Frequency		100 Hz ~ 100 MHz	1.0×10^{-6}	Standard Capacitor Series Standard Resistor set
AC Voltage		1 kHz		Digital Multi Meter
		100 mV	1.8×10^{-4}	/ KRCMI-I-402- 13
		(0.1 ~ 1) V	1.0×10^{-4}	
		(1 ~ 10) V	1.0×10^{-4}	
		(10 ~ 50) V	1.8×10^{-4}	
DC Bias		±(10 ~ 100) mV	1.0×10^{-5}	
		±(0.1 ~ 10) V	1.0×10^{-5}	
		±(10 ~ 50) V	2.0×10^{-5}	
Inductance		1 kHz		
		100 μH	1.9×10^{-4}	
		1 mH ~ 10 mH	1.3×10^{-4}	
		10 mH ~ 100 mH	1.3×10^{-4}	
		100 mH ~ 1 H	1.3×10^{-4}	
		1 H ~ 10 H	1.5×10^{-4}	
Capacitance		1 kHz		
		1 pF	3.5×10^{-4}	
		10 pF	3.5×10^{-4}	
		100 pF	3.5×10^{-4}	
		1 000 pF	3.5×10^{-4}	
		10 nF	8.0×10^{-5}	
		100 nF	8.0×10^{-5}	
		1 μF	1.2×10^{-4}	
		10 μF	8.0×10^{-4}	
		10 kHz		
		10 nF	2.5×10^{-4}	
		100 nF	2.5×10^{-4}	
		1 μF	2.5×10^{-4}	
		100 kHz		
		10 nF	2.5×10^{-4}	

402. Resistance, Capacitance and Inductance

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Impedance bridges/LCR meters	40217			Standard Inductor Series
Capacitance		100 nF	2.5×10^{-4}	Standard Capacitor Series
		1 μF	2.5×10^{-4}	Standard Resistor set
				Digital Multi Meter
		1 MHz		/ KRCMI-I-402- 13
		1 pF	4.3×10^{-4}	
		10 pF	4.2×10^{-4}	
		100 pF	4.2×10^{-4}	
		1 000 pF	4.3×10^{-4}	
		2 MHz		
		1 pF	4.8×10^{-4}	
		10 pF	4.2×10^{-4}	
		100 pF	4.2×10^{-4}	
		1 000 pF	4.5×10^{-4}	
		3 MHz		
		1 pF	5.9×10^{-4}	
		10 pF	4.2×10^{-4}	
		100 pF	4.3×10^{-4}	
		1 000 pF	5.1×10^{-4}	
		4 MHz		
		1 pF	7.6×10^{-4}	
		10 pF	4.2×10^{-4}	
		100 pF	4.3×10^{-4}	
		1 000 pF	6.1×10^{-4}	
		5 MHz		
		1 pF	9.8×10^{-4}	
		10 pF	4.2×10^{-4}	
		100 pF	4.5×10^{-4}	
		1 000 pF	7.6×10^{-4}	
		10 MHz		
		1 pF	3.4×10^{-3}	
		10 pF	2.4×10^{-3}	
		100 pF	2.4×10^{-3}	
		1 000 pF	3.1×10^{-3}	
		13 MHz		
		1 pF	4.4×10^{-3}	
		10 pF	2.4×10^{-3}	
		100 pF	2.4×10^{-3}	
		1 000 pF	3.8×10^{-3}	

402. Resistance, Capacitance and Inductance

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Impedance bridges/LCR meters	40217			Standard Inductor Series
Resistance		1 kHz		Standard Capacitor Series
		1 Ω	3.1×10^{-4}	Standard Resistor set
		10 Ω	3.1×10^{-4}	Digital Multi Meter
		100 Ω	3.1×10^{-4}	/ KRCMI-I-402- 13
		1 kΩ	3.1×10^{-4}	
		10 kΩ	1.4×10^{-4}	
		100 kΩ	1.4×10^{-4}	
		1 MΩ	2.6×10^{-4}	
		100 kHz		
		1 kΩ	4.0×10^{-4}	
		10 kΩ	4.0×10^{-4}	
		100 kΩ	4.0×10^{-4}	
		1 MHz		
		10 Ω	4.0×10^{-4}	
		100 Ω	4.0×10^{-4}	
		1 kΩ	4.0×10^{-4}	
		10 kΩ	4.0×10^{-4}	
		100 kΩ	4.0×10^{-4}	
		2 MHz		
		10 Ω	6.0×10^{-4}	
		100 Ω	5.0×10^{-4}	
		1 kΩ	4.0×10^{-4}	
		3 MHz		
		10 Ω	7.0×10^{-4}	
		100 Ω	6.0×10^{-4}	
		1 kΩ	4.0×10^{-4}	
		4 MHz		
		10 Ω	7.0×10^{-4}	
		100 Ω	6.0×10^{-4}	
		1 kΩ	5.0×10^{-4}	
		5 MHz		
		10 Ω	1.0×10^{-3}	
		100 Ω	7.0×10^{-4}	
		1 kΩ	6.0×10^{-4}	
		10 MHz		
		10 Ω	4.1×10^{-3}	

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402. Resistance, Capacitance and Inductance

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Impedance bridges/LCR meters	40217			Standard Inductor Series
Resistance		100 Ω	2.0×10^{-3}	Standard Capacitor Series
		1 kΩ	2.1×10^{-3}	Standard Resistor set
				Digital Multi Meter
		13 MHz		/ KRCMI-I-402- 13
		10 Ω	6.2×10^{-3}	
		100 Ω	3.1×10^{-3}	
		1 kΩ	3.1×10^{-3}	
Schering Bridge		(50 ~ 60) Hz		
Capacitance		1 000 pF	1.0×10^{-4}	
tan δ		60 Hz		
		0.001	5.1×10^{-5}	
		0.005	5.1×10^{-5}	
		0.0001	5.1×10^{-5}	
		0.0005	5.1×10^{-5}	
		0.00001	5.1×10^{-5}	
		0.00005	5.1×10^{-5}	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Ammeters/AC	40301			Meter Calibrator Transcomductance Amplifier / KRCMI-I-403-01
AC current		40 Hz ~ 10 kHz		
		(0.1 ~ 10) mA	1.9×10^{-4}	
		(10 ~ 100) mA	1.9×10^{-4}	
		(0.1 ~ 1) A	1.9×10^{-4}	
		(1 ~ 10) A	3.6×10^{-4}	
		50 Hz ~ 60 Hz		
		(10 ~ 20) A	6.0×10^{-4}	
		(20 ~ 50) A	5.2×10^{-4}	
		(50 ~ 100) A	5.0×10^{-4}	
		(100 ~ 200) A	5.5×10^{-4}	
Ammeters/voltmeters, AC clamp	40302			Meter Calibrator Current Coil Transcomductance Amplifier / KRCMI-I-403-02
DC voltage		0 V	72 μV	
		(0 ~ 1 000) V	1.0×10^{-4}	
DC current		0 μA	12 nA	
		(0 ~ 100) μA	2.3×10^{-3}	
		(0.1 ~ 100) mA	2.3×10^{-3}	
		(0.1 ~ 1) A	2.3×10^{-3}	
		(1 ~ 10) A	2.4×10^{-3}	
		(10 ~ 20) A	2.5×10^{-3}	
		(20 ~ 50) A	2.6×10^{-3}	
		(50 ~ 100) A	2.6×10^{-3}	
		(100 ~ 1 000) A	2.5×10^{-3}	
		(1 000 ~ 2 500) A	2.4×10^{-3}	
		(2 500 ~ 5 000) A	2.4×10^{-3}	
AC voltage		40 Hz ~ 100 kHz		
		1 mV	0.74 μV	
		(1 ~ 20) mV	2.3×10^{-4}	
		(20 ~ 100) mV	6.5×10^{-5}	
		(0.1 ~ 1) V	1.0×10^{-5}	
		(1 ~ 10) V	5.8×10^{-4}	
		(10 ~ 100) V	1.0×10^{-4}	
		50 Hz ~ 1 kHz		
		(100 ~ 1 000) V	1.0×10^{-4}	
AC current		10 Hz ~ 10 kHz		
		1 mA	3.0 μA	
		(1 ~ 10) mA	2.3×10^{-3}	
		(10 ~ 100) mA	2.3×10^{-3}	
		(0.1 ~ 1) A	2.3×10^{-3}	
		(1 ~ 10) A	2.4×10^{-3}	
		(50 ~ 60) Hz		
		(10 ~ 20) A	3.3×10^{-3}	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Ammeters/voltmeters, AC clamp	40302			Meter Calibrator
AC current		(20 ~ 50) A	2.4×10^{-3}	Current Coil
		(50 ~ 150) A	2.4×10^{-3}	Transcomductance Amplifier
		(150 ~ 200) A	2.4×10^{-3}	/ KRCMI-I-403-02
		(200 ~ 600) A	2.4×10^{-3}	
		(600 ~ 800) A	2.5×10^{-3}	
		(800 ~ 1 000) A	2.5×10^{-3}	
		(1 000 ~ 6 000) A	3.8×10^{-3}	
Resistance		(10 ~ 100) mΩ	3.0×10^{-4}	
		(0.1 ~ 1) Ω	1.2×10^{-4}	
		(1 ~ 1 000) Ω	1.0×10^{-4}	
		(1 ~ 1 000) kΩ	1.0×10^{-4}	
		(1 ~ 100) MΩ	1.0×10^{-4}	
Calibrators, AC voltage/current	40303			Digital Multimeter
AC voltage		(2 ~ 100) mV		Active Shunt
		10 Hz ~ 20 kHz	5.0×10^{-5}	/ KRCMI-I-403-03
		20 kHz ~ 100 kHz	8.0×10^{-5}	
		100 kHz ~ 1 MHz	2.4×10^{-4}	
		(0.1 ~ 1.0) V		
		10 Hz ~ 50 kHz	5.0×10^{-5}	
		50 kHz ~ 100 kHz	6.0×10^{-5}	
		100 kHz ~ 500 kHz	1.6×10^{-4}	
		500 kHz ~ 1 MHz	1.7×10^{-4}	
		(1.0 ~ 10) V		
		10 Hz ~ 100 kHz	5.0×10^{-5}	
		100 kHz ~ 1 MHz	1.6×10^{-4}	
		(10 ~ 100) V		
		40 Hz ~ 50 kHz	5.0×10^{-5}	
		50 kHz ~ 100 kHz	6.0×10^{-5}	
		(100 ~ 1 000) V		
		50 Hz ~ 20 kHz	5.0×10^{-5}	
AC current		100 μA		
		60 Hz	1.3×10^{-4}	
		1 kHz	7.0×10^{-5}	
		(0.1 ~ 1.0) mA		
		40 Hz ~ 10 kHz	5.0×10^{-5}	
		(1.0 ~ 10) mA		
		40 Hz ~ 10 kHz	4.0×10^{-5}	
		10 mA ~ 1.0 A		
		40 Hz ~ 10 kHz	5.0×10^{-5}	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Calibrators, AC voltage/current	40303			Digital Multimeter
AC current		(1.0 ~ 10) A		Active Shunt
		40 Hz ~ 1 kHz	5.0×10^{-5}	/ KRCMI-I-403-03
		1 KHz ~ 10 kHz	1.1×10^{-4}	
		(10 ~ 100) A		
		40 Hz ~ 1 kHz	7.0×10^{-5}	
		(50 ~ 60) Hz		
		(100 ~ 150) A	4.7×10^{-4}	
		(150 ~ 200) A	4.0×10^{-4}	
Electrical Power Stavdard	40304			Electrical Power Stavdard /KRCMI-I-403-14
DC voltage		1 mV	0.1 μV	
		(1 ~ 10) mV	1.0×10^{-4}	
		(0.01 ~ 1 000) V	1.0×10^{-5}	
		(1 000 ~ 1 550) V	2.6×10^{-5}	
DC current		100 μA	2.5 nA	
		(0.1 ~ 1) mA	2.5×10^{-5}	
		(0.001 ~ 500) A	2.0×10^{-5}	
AC voltage		(0.04 ~ 1) kHz		
		2 mV	9 μV	
		(2 ~ 20) mV	4.5×10^{-3}	
		(0.02 ~ 1 000) V	6.0×10^{-5}	
AC current		(0.04 ~ 1) kHz		
		1 mA	1 μA	
		(1 ~ 10) mA	1.0×10^{-3}	
		(10 ~ 100) mA	3.0×10^{-4}	
		(0.1 ~ 1) A	3.8×10^{-4}	
		(1 ~ 10) A	6.1×10^{-4}	
		(10 ~ 20) A	7.5×10^{-4}	
		(50 ~ 60) Hz		
		(20 ~ 120) A	7.5×10^{-4}	
		(120 ~ 200) A	7.5×10^{-4}	
DC POWER		0.01 mW	3.7 nW	
		(0.01 ~ 1) mW	3.7×10^{-4}	
		(0.001 ~ 1) W	2.6×10^{-4}	
		(0.001 ~ 750) kW	7.0×10^{-5}	
active power		(50 ~ 60) Hz		
		0.6 mW	7 nW	
		(0.6 ~ 600) mW	2.5×10^{-4}	
		(0.6 ~ 6) W	2.5×10^{-4}	
		(6 ~ 60) W	1.2×10^{-4}	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Electrical Power Stavdard	40304			Electrical Power Stavdard
active power		(60 ~ 120) W	1.2×10^{-4}	/KRCMI-I-403-14
		(120 ~ 1 200) W	1.1×10^{-4}	
		(1.2 ~ 2.4) kW	1.1×10^{-4}	
		(2.4 ~ 3.8) kW	1.3×10^{-4}	
		(3.8 ~ 6) kW	1.3×10^{-4}	
		(6 ~ 12) kW	1.2×10^{-4}	
		(12 ~ 19.2) kW	1.1×10^{-4}	
		(19.2 ~ 30.4) kW	1.3×10^{-4}	
		(30.4 ~ 45.6) kW	1.3×10^{-4}	
reactive power		(50 ~ 60) Hz		
		0.6 mvar	0.1 mvar	
		(0.6 ~ 600) mvar	1.3×10^{-3}	
		(0.6 ~ 6) var	1.3×10^{-4}	
		(6 ~ 60) var	1.3×10^{-4}	
		(60 ~ 120) var	1.2×10^{-4}	
		(120 ~ 1 200) var	1.3×10^{-4}	
		(1.2 ~ 2.4) kvar	1.3×10^{-4}	
		(2.4 ~ 3.8) kvar	1.3×10^{-4}	
		(3.8 ~ 6) kvar	1.3×10^{-4}	
		(6 ~ 12) kvar	1.3×10^{-4}	
		(12 ~ 19.2) kvar	1.3×10^{-4}	
		(19.2 ~ 30.4) kvar	1.3×10^{-4}	
		(30.4 ~ 45.6) kvar	1.3×10^{-4}	
factor		(50 ~ 60) Hz		
		-1 ~ 1	0.000 2	
Frequency		10 Hz ~ 1 MHz	1.4×10^{-4}	
T.H.D				
voltage(THD-V)		(50 ~ 3000) Hz		
		(0.5 ~ 20) %	0.06 %	
current((THD-I)		(50 ~ 3000) Hz		
		(0.5 ~ 20) %	0.06 %	
AC current shunts	40305			Meter Calibrator
AC Resistance		(40 Hz ~ 1 kHz)		Digital Multimeter
		(0.025~ 1) mΩ	2.4×10^{-3}	Transcomductance Amplifier
		(1 ~ 10) mΩ	5.9×10^{-4}	/ KRCMI-I-403-04
		(10 ~ 100) mΩ	4.4×10^{-4}	
		(0.1 ~ 100) Ω	2.9×10^{-4}	
		(0.1 ~ 10) kΩ	1.9×10^{-4}	
Phase Angle Meter	40307			Electrical Power Stavdard
		(50 ~ 60) Hz		/ KRCMI-I-403-10
Phase Angle		(-180 ~ 180)°	0.006°	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Power factor meters	40310			Electrical Power Stavdard / KRCMI-I-403-05
Power factor meters		(50 ~ 60) Hz		
factor		-1 ~ 1	1.6×10^{-4}	
reactiv factor meter		(50 ~ 60) Hz		
reactiv factor		-1 ~ 1	1.6×10^{-4}	
AC power meters	40311			Electrical Power Stavdard
AC Watt Meter Power meters, AC				Calibrator Current Coil
DC voltage		1 mV	0.13 μV	/ KRCMI-I-403-06
		(1 ~ 100) mV	1.3×10^{-4}	
		(0.1 ~ 1 000) V	1.3×10^{-4}	
DC current		100 μA	5.4 nA	
		(0.1 ~ 1) mA	5.4×10^{-5}	
		(1~ 10) mA	4.9×10^{-5}	
		(10 ~ 100) mA	6.1×10^{-5}	
		(0.1 ~ 1) A	1.1×10^{-4}	
		(1 ~ 10) A	1.7×10^{-4}	
		(10 ~ 100) A	1.7×10^{-4}	
		(100 ~ 200) A	1.7×10^{-4}	
		(200 ~ 500) A	1.7×10^{-4}	
		(500 ~ 1 000) A	1.5×10^{-3}	
		(1 000 ~ 2 500) A	1.6×10^{-3}	
		(2 500 ~ 5 000) A	1.6×10^{-3}	
AC voltage		(50 Hz ~ 1 kHz)		
		2 mV	7 μV	
		(2 ~ 20) mV	3.5×10^{-3}	
		(20 ~ 100) mV	3.5×10^{-4}	
		(0.1 ~ 1 000) V	1.0×10^{-4}	
AC current		(50 Hz ~ 1 kHz)		
		1 mA	0.2 μA	
		(1 ~ 100) mA	2.0×10^{-4}	
		(0.1 ~ 1) A	2.0×10^{-4}	
		(1 ~ 10) A	3.0×10^{-4}	
		(10 ~ 100) A	5.0×10^{-4}	
		(50 ~ 60) Hz		
		(100 ~ 1 000) A	5.0×10^{-4}	
		(1 000 ~ 5 000) A	2.0×10^{-3}	
DC POWER		0.01 mW	2.1 nW	
		(0.01 ~ 100) mW	2.1×10^{-4}	
		(0.1 ~ 100) W	2.1×10^{-4}	
		(0.1 ~ 500) kW	2.1×10^{-4}	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
AC power meters AC Watt Meter Power meters, AC	40311			Electrical Power Stavdard Calibrator Current Coil / KRCMI-I-403-06
active power		(50 ~ 60) Hz		
		1.2 mW	0.2 mW	
		1.2 mW ~ 1.2 W	2.5×10^{-4}	
		(1.2 ~ 60) W	2.5×10^{-4}	
		(60 ~ 120) W	1.3×10^{-4}	
		(120 ~ 190) W	1.3×10^{-4}	
		(190 ~ 240) W	1.3×10^{-4}	
		(240 ~ 380) W	1.3×10^{-4}	
		(0.38 ~ 1.2) kW	1.3×10^{-4}	
		(1.2 ~ 2.4) kW	1.3×10^{-4}	
		(2.4 ~ 3.8) kW	1.3×10^{-4}	
		(3.8 ~ 9.6) kW	1.4×10^{-4}	
		(9.6 ~ 19.2) kW	1.4×10^{-4}	
		(19.2 ~ 30.4) kW	1.2×10^{-4}	
		(30.4 ~ 60) kW	2.0×10^{-3}	
		(60 ~ 120) kW	2.0×10^{-3}	
		(120 ~ 480) kW	2.1×10^{-3}	
		(480 ~ 960) kW	2.1×10^{-3}	
		(960 ~ 1 520) kW	2.1×10^{-3}	
reactive power		(50 ~ 60) Hz		
		0 var	0.2 mvar	
		(0 ~ 1.2) var	2.5×10^{-4}	
		(1.2 ~ 60) var	2.5×10^{-4}	
		(60 ~ 120) var	2.1×10^{-4}	
		(120 ~ 190) var	2.1×10^{-4}	
		(190 ~ 240) var	1.9×10^{-4}	
		(240 ~ 380) var	1.7×10^{-4}	
		(0.38 ~ 1.2) kvar	1.3×10^{-4}	
		(1.2 ~ 2.4) kvar	1.3×10^{-4}	
		(2.4 ~ 3.8) kvar	1.3×10^{-4}	
		(3.8 ~ 9.6) kvar	1.4×10^{-4}	
		(9.6 ~ 19.2) kvar	1.4×10^{-4}	
		(19.2 ~ 30.4) kvar	1.6×10^{-4}	
		(30.4 ~ 60) kvar	3.3×10^{-3}	
		(60 ~ 120) kvar	3.3×10^{-3}	
		(120 ~ 480) kvar	2.5×10^{-3}	
		(480 ~ 960) kvar	2.1×10^{-3}	
		(960 ~ 1 520) kvar	2.1×10^{-3}	
factor		(50 ~ 60) Hz		
		-1 ~ 1	0.000 3	
Frequency		10 Hz ~ 1 MHz	1.0×10^{-5}	
T.H.D		(50 ~ 3000) Hz		
voltage		(0.5 ~ 20) %	0.017 %	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
AC power meters AC Watt Meter Power meters, AC current	40311	(50 ~ 3000) Hz (0.5 ~ 20) %	0.017 %	Electrical Power Stavdard Calibrator Current Coil / KRCMI-I-403-06
Power supplies, AC	40312			Digital Multimeter / KRCMI-I-403-07
AC voltage		(0.04 ~ 10) kHz		
		(2 ~ 20) mV	3.1×10^{-4}	
		(20 ~ 100) mV	3.1×10^{-4}	
		(0.1 ~ 1) V	1.2×10^{-4}	
		(1 ~ 10) V	1.2×10^{-4}	
		(10 ~ 100) V	1.2×10^{-4}	
		(100 ~ 200) V	7.3×10^{-5}	
		(200 ~ 300) V	5.8×10^{-5}	
		(300 ~ 600) V	7.8×10^{-5}	
		(600 ~ 1 000) V	1.3×10^{-4}	
AC current		40 Hz ~ 1 kHz		
		(1 ~ 100) mA	1.2×10^{-4}	
		(0.1 ~ 1) A	8.7×10^{-4}	
		(1 ~ 10) A	4.1×10^{-4}	
		(10 ~ 50) A	4.5×10^{-4}	
		(50 ~ 100) A	5.8×10^{-4}	
DC voltage		0 mV	5.7 nV	
		(0 ~ 100) mV	1.6×10^{-5}	
		(0.1 ~ 1) V	1.2×10^{-6}	
		(1 ~ 10) V	5.9×10^{-4}	
		(10 ~ 50) V	2.3×10^{-4}	
		(50 ~ 100) V	1.2×10^{-4}	
		(100 ~ 200) V	6.8×10^{-5}	
		(200 ~ 300) V	4.5×10^{-5}	
		(300 ~ 400) V	3.4×10^{-5}	
		(400 ~ 1 000) V	1.2×10^{-4}	
Frequency		10 Hz ~ 10 kHz	6.0×10^{-5}	
Puncture/safety testers	40313			High Voltage Divider High Voltage Digital Meter Digital Multimeter Curr.Calibrator For W.Tester / KRCMI-I-403-08
DC Voltage(Positive)		0 kV	0.6 V	
		±(0 ~ 1) kV	6.0×10^{-4}	
		±(1 ~ 5) kV	6.0×10^{-4}	
		±(5 ~ 10) kV	5.0×10^{-4}	
		±(10 ~ 15) kV	4.7×10^{-4}	
		±(15 ~ 20) kV	4.5×10^{-4}	
		±(20 ~ 30) kV	6.7×10^{-4}	
		±(30 ~ 40) kV	5.0×10^{-4}	
		±(40 ~ 200) kV	9.0×10^{-4}	
DC Current		0 mA	0.65 μA	
		(0 ~ 0.5) mA	1.3×10^{-3}	
		(0.5 ~ 1) mA	6.6×10^{-4}	
		(1 ~ 2) mA	3.3×10^{-4}	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Puncture/safety testers	40313			High Voltage Divider
DC Current		(2 ~ 5) mA	1.5×10^{-4}	High Voltage Digital Meter
		(5 ~ 10) mA	6.4×10^{-4}	Digital Multimeter
		(10 ~ 50) mA	6.0×10^{-4}	Curr.Calibrator For W.Tester
		(50 ~ 100) mA	6.0×10^{-4}	/ KRCMI-I-403-08
AC Voltage		(50 ~ 60) Hz		
		(0.01 ~ 1) kV	1.3×10^{-4}	
		(1 ~ 200) kV	1.3×10^{-3}	
AC Current		(50 ~ 60) Hz		
		(0.5 ~ 1) mA	1.2×10^{-2}	
		(1 ~ 2) mA	1.2×10^{-2}	
		(2 ~ 5) mA	1.2×10^{-2}	
		(5 ~ 10) mA	1.2×10^{-2}	
		(10 ~ 20) mA	1.2×10^{-2}	
		(20 ~ 50) mA	1.2×10^{-2}	
		(50 ~ 100) mA	1.2×10^{-2}	
Time		(0.001 ~ 0.1) s	1.1×10^{-2}	
		(0.1 ~ 0.2) s	9.3×10^{-3}	
		(0.2 ~ 0.5) s	8.9×10^{-3}	
		(0.5 ~ 1) s	6.1×10^{-4}	
		(1 ~ 10) s	3.2×10^{-4}	
		(10 ~ 60) s	1.5×10^{-4}	
spark test		(0.01 ~ 1) kV	1.6×10^{-2}	
		(1 ~ 10) kV	1.8×10^{-2}	
		(10 ~ 15) kV	3.2×10^{-2}	
		(15 ~ 20) kV	3.1×10^{-2}	
insulating oil test low-frequency puncture tester		(0.01 ~ 100) kV	1.6×10^{-2}	
		(0.01 ~ 1) kV	1.6×10^{-2}	
		(1 ~ 10) kV	1.8×10^{-2}	
		(10 ~ 15) kV	3.2×10^{-2}	
		(15 ~ 20) kV	3.1×10^{-2}	
Recorders, power	40314			Electrical Power Stavdard
AC voltage		50 Hz ~ 1 kHz		/ KRCMI-I-403-11
		(2 ~ 20) mV	2.3×10^{-4}	
		(20 ~ 100) mV	4.2×10^{-4}	
		(0.1 ~ 1) V	3.3×10^{-4}	
		(1 ~ 10) V	9.1×10^{-5}	
		(10 ~ 1 000) V	1.0×10^{-4}	
AC Current		50 Hz ~ 1 kHz		
		(1 ~ 10) mA	2.0×10^{-4}	
		(10 ~ 100) mA	2.0×10^{-4}	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Recorders, power	40314			Electrical Power Stavdard
AC Current		(0.1 ~ 1) A	7.3×10^{-4}	/ KRCMI-I-403-11
		(1 ~ 10) A	7.3×10^{-4}	
		(50 ~ 60) Hz		
		(10 ~ 20) A	3.3×10^{-3}	
		(20 ~ 50) A	2.5×10^{-3}	
		(50 ~ 150) A	2.4×10^{-3}	
		(150 ~ 200) A	2.4×10^{-3}	
		(200 ~ 400) A	2.4×10^{-3}	
		(400 ~ 600) A	2.4×10^{-3}	
		(600 ~ 800) A	2.5×10^{-3}	
		(800 ~ 1000) A	2.3×10^{-3}	
		(1 000 ~ 2 500) A	4.4×10^{-3}	
		(2 500 ~ 6 000) A	3.5×10^{-3}	
AC Wattage		(50 ~ 60) Hz		
		(1.2 ~ 600) mW	1.7×10^{-4}	
		(0.6 ~ 1.2) W	1.7×10^{-4}	
		(1.2 ~ 6) W	1.7×10^{-4}	
		(18 ~ 24) W	6.3×10^{-4}	
		(24 ~ 30) W	6.7×10^{-4}	
		(30 ~ 36) W	8.3×10^{-4}	
		(36 ~ 60) W	6.7×10^{-4}	
		(60 ~ 72) W	6.9×10^{-4}	
		(72 ~ 120) W	6.7×10^{-4}	
		(120 ~ 240) W	6.3×10^{-4}	
		(240 ~ 1 800) W	6.7×10^{-4}	
		(1.8 ~ 2.4) kW	6.3×10^{-4}	
		(2.4 ~ 3) kW	6.7×10^{-4}	
		(3 ~ 3.6) kW	8.3×10^{-4}	
		(3.6 ~ 4.8) kW	6.0×10^{-4}	
		(4.8 ~ 6) kW	6.7×10^{-4}	
		(6 ~ 7.2) kW	6.9×10^{-4}	
		(7.2 ~ 12) kW	1.7×10^{-3}	
		(12 ~ 24) kW	4.2×10^{-3}	
		(24 ~ 600) kW	1.2×10^{-3}	
		(600 ~ 720) kW	1.2×10^{-3}	
		(720 ~ 960) kW	1.2×10^{-3}	
		(960 ~ 1 200) kW	1.2×10^{-3}	
factor		(50 ~ 60) Hz		
		-1 ~ 1	1.4×10^{-4}	
rms voltmeters, AC	40318			Synthesizer Level Generator
AC voltage		10 Hz ~ 10 kHz		Meter Calibrator
		(1 ~ 10) mV	3.7×10^{-4}	/ KRCMI-I-403-09
		(10 ~ 100) mV	6.5×10^{-5}	
		(0.1 ~ 1) V	1.0×10^{-5}	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
rms voltmeters, AC	40318			Synthesizer Level Generator
AC voltage		(1 ~ 10) V	5.8×10^{-4}	Meter Calibrator
		(10 ~ 100) V	1.0×10^{-4}	/ KRCMI-I-403-09
		(10 ~ 100) kHz		
		(1 ~ 10) mV	2.3×10^{-4}	
		(10 ~ 100) mV	6.5×10^{-5}	
		(0.1 ~ 1) V	1.0×10^{-5}	
		(1 ~ 10) V	6.0×10^{-4}	
		(10 ~ 100) V	2.0×10^{-4}	
		100 kHz ~ 1 MHz		
		(100 mV ~ 1 V)	1.0×10^{-5}	
		(1V ~ 10 V)	5.8×10^{-4}	
		40 Hz ~ 1 kHz		
		(10 ~ 1 000) V	1.0×10^{-4}	
Level		40 Hz ~ 10 kHz		
		(40 ~ 60) dB	0.01 dB	
		(20 ~ 40) dB	0.01 dB	
		(-20 ~ 0) dB	0.01 dB	
		(-40 ~ -20) dB	0.01 dB	
		(-60 ~ -40) dB	0.01 dB	
frequency response		10 Hz ~ 1 MHz	3.3×10^{-4}	
Watter hour meters	40319			Watt hour meters
Reference watt-hour meter		(100 ~ 1 000) V		/KRCMI-I-403-15
Reference power meter		(0.01 ~ 500) A		
Effective Power Amount		(0.01 ~ 500) kWh		
		±(0 ~ 100)%	0.013 %	
AC watt-hour meter		(Single phase)		
Effective Power Amount		(50 ~ 60) Hz		
		(60 ~ 380) V		
		(0.05 ~ 120) A		
		(-1 ~ 1)		
		±(0 ~ 100)%	0.011 %	
		(Three phase)		
		(50 ~ 60) Hz		
		(60 ~ 380) V		
		(0.05 ~ 120) A		
		(-1 ~ 1)		
		±(0 ~ 100)%	0.017 %	
Invalid Power Amount		(Single phase)		
		(50 ~ 60) Hz		
		(60 ~ 380) V		
		(0.05 ~ 120) A		
		(-1 ~ 1)		
		±(0 ~ 100)%	0.021 %	

403. AC voltage, current & power

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Watter hour meters Invalid Power Amount	40319	(Three phase) (50 ~ 60) Hz (60 ~ 380) V (0.05 ~ 120) A (-1 ~ 1) ±(0 ~ 100)%	0.036 %	Watt hour meters /KRCMI-I-403-15
Impulse High Voltage.High Current ester /Welding.Weid Current Tester AC Current	40320	60 Hz (1 ~ 10) A (10 ~ 50) A (50 ~ 100) A (100 ~ 400) A (400 ~ 1 400) A (1 400 ~ 2 900) A (2 900 ~ 4 000) A	8.2×10^{-3} 7.0×10^{-3} 6.8×10^{-3} 4.6×10^{-4} 4.2×10^{-3} 4.7×10^{-3} 3.6×10^{-3}	Standard Current Transformer Digital Multimeter Oscilloscope Shunt KRCMI-I-403-12
Time		(1 ~ 500) ms (0.5 ~ 60) s	3.0×10^{-3} 2.4×10^{-3}	
DC Current		(1 ~ 10) A (10 ~ 100) A (100 ~ 1 000) A	8.1×10^{-3} 3.5×10^{-3} 3.2×10^{-3}	
Ratio transformers Turn Current Coil DC Current (Ratio)	40321	2 ~ 50	1.2×10^{-3}	Meter Calibrator Current Coil Transcomductance Amplifier / KRCMI-I-403-02
AC Current (Ratio)		(50 ~ 60) Hz 2 ~ 50	1.5×10^{-3}	

404. Other DC & LF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
LF amplifiers	40401			Synthesizer level generator
Gain		(0 ~ 60) dB		Selective level meter
		10 Hz ~ 100 kHz	0.14 dB	Meter calibrator
		(0.1 ~ 20) MHz	0.23 dB	Oscilloscope
				Transconductance amplifier
Current probe and Current probe		DC ~ 1 kHz		/ KRCMI-I-404-22
Amplifier for oscilloscope		(1 ~ 100) mA	7.5×10^{-3}	
Current(Ap-p)		(0.1 ~ 1) A	6.5×10^{-3}	
		(1 ~ 10) A	7.7×10^{-3}	
		(1 ~ 10) kHz		
		(1 ~ 100) mA	7.8×10^{-3}	
		(0.1 ~ 1) A	6.8×10^{-3}	
		(1 ~ 10) A	1.1×10^{-2}	
Rising time		≤ 7 ns	1.0×10^{-2}	
DC/LF attenuators	40402			Synthesizer Level Generator
attenuation		40 Hz ~ 100 kHz		Selective Level Meter
		(0 ~ -50) dB	0.07 dB	/ KRCMI-I-404-03
		(-50 ~ -60) dB	0.09 dB	
		(-60 ~ -70) dB	0.11 dB	
		100 kHz ~ 30 MHz		
		(0 ~ -10) dB	0.15 dB	
		(-10 ~ -30) dB	0.16 dB	
		(-30 ~ -60) dB	0.21 dB	
		(-60 ~ -70) dB	0.59 dB	
Multimeter calibrators	40403			DC reference standard
DC voltage		±(0 ~ 220) mV	0.43 μV	Reference divider
		±(0.22 ~ 2.2) V	1.8×10^{-6}	Nanovoltmeter
		±(2.2 ~ 11) V	1.2×10^{-6}	Reference multimeter
		±(11 ~ 22) V	1.4×10^{-6}	AC measurement standard
		±(22 ~ 220) V	2.3×10^{-6}	AC current shunt
		±(220 ~ 1 100) V	2.2×10^{-6}	AC resistor
				Standard resistor
DC current		±(0 ~ 220) μA	0.8 nA	Current shunt
		±(0.22 ~ 220) mA	8.0×10^{-6}	Meter calibrator
		±(0.22 ~ 2.2) A	1.8×10^{-5}	Amplifier
		±(2.2 ~ 10) A	5.2×10^{-5}	/ KRCMI-I-404-04
		±(10 ~ 20) A	5.5×10^{-5}	
		±(20 ~ 100) A	4.0×10^{-4}	
AC voltage		(1 ~ 220) mV		
		10 Hz ~ 20 kHz	5.0×10^{-5}	
		20 kHz ~ 100 kHz	8.0×10^{-5}	
		100 kHz ~ 1 MHz	2.4×10^{-4}	

404. Other DC & LF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Multimeter calibrators	40403			DC reference standard
AC voltage		(0.22 ~ 2.2) V		Reference divider
		10 Hz ~ 50 kHz	5.0×10^{-5}	Nanovoltmeter
		50 kHz ~ 100 kHz	6.0×10^{-5}	Reference multimeter
		100 kHz ~ 500 kHz	1.6×10^{-4}	AC measurement standard
		500 kHz ~ 1 MHz	1.7×10^{-4}	AC current shunt
				AC resistor
		(2.2 ~ 22) V		Standard resistor
		10 Hz ~ 100 kHz	5.0×10^{-5}	Current shunt
		100 kHz ~ 1 MHz	1.6×10^{-4}	Meter calibrator
				Amplifier
		10 Hz ~ 50 kHz	5.0×10^{-5}	/ KRCMI-I-404-04
		50 kHz ~ 100 kHz	6.0×10^{-5}	
		(220 ~ 1 100) V		
		50 Hz ~ 20 kHz	5.0×10^{-5}	
AC current		(10 ~ 220) μA		
		10 Hz ~ 60 Hz	1.3×10^{-4}	
		60 Hz ~ 1 kHz	7.0×10^{-5}	
		(0.22 ~ 2.2) mA		
		10 Hz ~ 10 kHz	5.0×10^{-5}	
		(2.2 ~ 22) mA		
		10 Hz ~ 10 kHz	4.0×10^{-5}	
		22 mA ~ 2.2 A		
		10 Hz ~ 10 kHz	5.0×10^{-5}	
		(2.2 ~ 20) A		
		10 Hz ~ 1 kHz	5.0×10^{-5}	
		1 KHz ~ 10 kHz	1.1×10^{-4}	
		(20 ~ 100) A		
		10 Hz ~ 10 kHz	7.0×10^{-5}	
		(50 ~ 60) Hz		
		(100 ~ 150) A	4.7×10^{-4}	
		(150 ~ 200) A	4.0×10^{-4}	
Resistance		0.1 Ω ~ 10 kΩ	2.3×10^{-6}	
		(10 ~ 100) kΩ	3.5×10^{-6}	
		(0.1 ~ 1) MΩ	3.6×10^{-6}	
		(1 ~ 10) MΩ	7.7×10^{-6}	
		(10 ~ 100) MΩ	1.7×10^{-5}	
Frequency		10 Hz	6.0×10^{-4}	
		10 Hz ~ 10 Mz	6.0×10^{-5}	

404. Other DC & LF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Oscilloscope calibrators	40404			Oscilloscope
DC Voltage		±(0 ~ 2) mV	0.36 μV	Universal Counter
		±(2 ~ 5) mV	8.0×10^{-5}	Digital Multimeter
		±(5 ~ 10) mV	7.0×10^{-5}	AC MEASUREMENT STANDARD
		±(10 ~ 50) mV	2.0×10^{-5}	EPM SERIES POWER METER
		±(50 ~ 100) mV	6.0×10^{-5}	POWER SENSOR
		±(100 ~ 500) mV	2.0×10^{-5}	/ KRCMI-I-404-05
		±(0.5 ~ 1) V	6.0×10^{-5}	
		±(1 ~ 5) V	1.6×10^{-5}	
		±(5 ~ 10) V	6.0×10^{-5}	
		±(10 ~ 50) V	1.8×10^{-5}	
		±(50 ~ 100) V	6.0×10^{-5}	
		±(100 ~ 200) V	3.0×10^{-5}	
AC Voltage		100 Hz ~ 10 kHz		
		(0.1 ~ 2) mV	2.0×10^{-4}	
		(2 ~ 5) mV	8.0×10^{-5}	
		(5 ~ 10) mV	7.0×10^{-5}	
		(10 ~ 50) mV	2.0×10^{-5}	
		(50 ~ 100) mV	6.0×10^{-5}	
		(100 ~ 500) mV	1.4×10^{-5}	
		(0.5 ~ 1) V	6.0×10^{-5}	
		(1 ~ 5) V	1.6×10^{-5}	
		(5 ~ 10) V	6.0×10^{-5}	
		(10 ~ 50) V	1.8×10^{-5}	
		(50 ~ 100) V	6.0×10^{-5}	
		(100 ~ 200) V	3.0×10^{-5}	
Time		(0.1 ~ 0.5) ns	1.2×10^{-7}	
		(0.5 ~ 1) ns	5.8×10^{-7}	
		(1 ~ 2) ns	2.9×10^{-7}	
		(2 ~ 5) ns	1.2×10^{-7}	
		(5 ~ 10) ns	5.8×10^{-7}	
		(10 ~ 20) ns	2.9×10^{-7}	
		(20 ~ 50) ns	1.2×10^{-7}	
		(50 ~ 100) ns	5.8×10^{-7}	
		(0.1 ~ 0.2) μs	2.9×10^{-7}	
		(0.2 ~ 0.5) μs	1.2×10^{-7}	
		(0.5 ~ 1) μs	5.8×10^{-7}	
		(1 ~ 2) μs	2.9×10^{-7}	
		(2 ~ 5) μs	1.2×10^{-7}	
		(5 ~ 10) μs	5.8×10^{-7}	
		(10 ~ 20) μs	2.9×10^{-7}	
		(20 ~ 50) μs	1.2×10^{-7}	
		(50 ~ 100) μs	5.8×10^{-7}	
		(0.1 ~ 0.2) ms	2.9×10^{-7}	
		(0.2 ~ 0.5) ms	1.2×10^{-7}	

404. Other DC & LF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Oscilloscope calibrators	40404			Oscilloscope
Time		(0.5 ~ 1) ms	5.8×10^{-7}	Universal Counter
		(1 ~ 2) ms	2.9×10^{-7}	Digital Multimeter
		(2 ~ 5) ms	1.2×10^{-7}	AC MEASUREMENT STANDARD
		(5 ~ 10) ms	5.8×10^{-7}	EPM SERIES POWER METER
		(10 ~ 20) ms	2.9×10^{-7}	POWER SENSOR
		(20 ~ 50) ms	1.2×10^{-7}	/ KRCMI-I-404-05
		(50 ~ 100) ms	5.8×10^{-7}	
		(0.1 ~ 0.2) s	2.9×10^{-7}	
		(0.2 ~ 0.5) s	1.2×10^{-7}	
		(0.5 ~ 1) s	5.8×10^{-7}	
		(1 ~ 2) s	2.9×10^{-7}	
		(2 ~ 5) s	1.2×10^{-7}	
Output Frequency		100 Hz ~ 1 GHz	5.8×10^{-9}	
Output Level		(0.1 ~ 1) V		
		50 kHz ~ 1 MHz	6.0×10^{-4}	
		(1 ~ 10) MHz	1.4×10^{-2}	
		10 MHz ~ 1 GHz	1.5×10^{-2}	
		(1 ~ 4) GHz	1.9×10^{-2}	
		(4 ~ 10) GHz	2.0×10^{-2}	
Video signal generators	40406			Video measurement set
Color pattern generators				Spectrum analyzer
Subcarrier Frequency		(NTSC/PAL)		Universal counter
		(1 ~ 5) MHz	3.0×10^{-8}	GPS receiver
				/ KRCMI-I-404-27
Line Frequency		(NTSC/PAL)		/ KRCMI-I-406-24
		(10 ~ 50) kHz	6.4×10^{-8}	
Field Frequency		(NTSC/PAL)		
		(10 ~ 100) Hz	2.0×10^{-6}	
Bar Amplitude		(NTSC/PAL)		
		(0.1 ~ 1) V_{p-p}	3.9×10^{-3}	
Burst Amplitude		(NTSC/PAL)		
		(100 ~ 400) mV_{p-p}	5.7×10^{-3}	
Sync Amplitude		(NTSC/PAL)		
		(100 ~ 400) mV_{p-p}	4.3×10^{-3}	
Luminance		(NTSC/PAL)		
		10 mV_{p-p} ~ 1 V_{p-p}	6.5×10^{-3}	
		(NTSC/PAL)		
Chrominance		10 mV_{p-p} ~ 1 V_{p-p}	8.1×10^{-3}	
RF Frequency		(NTSC/PAL)		

404. Other DC & LF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Video signal generators	40406			Video measurement set
RF Frequency		(10 ~ 900) MHz	1 kHz	Spectrum analyzer Universal counter GPS receiver / KRCMI-I-404-27
Phase		(NTSC/PAL) 0 ° ~ 360 °	1.3 °	/ KRCMI-I-406-24
Audio distortion analyzers/ meters	40407			Meter calibrator Distortion meter calibrator
AC Volatge		(0.1 ~ 10) mV		Audio analyzer
		40 Hz ~ 50 kHz	1.0×10^{-3}	/ KRCMI-I-404-04
		(10 ~ 100) mV		/ KRCMI-I-404-06
		40 Hz ~ 50 kHz	2.0×10^{-4}	
DC Voltage		(0.1 ~ 10) V		
		40 Hz ~ 50 kHz	1.0×10^{-4}	
		(10 ~ 100) V		
		40 Hz ~ 20 kHz	1.0×10^{-4}	
		20 kHz ~ 50 kHz	2.0×10^{-4}	
		(100 ~ 1 000) V		
		40 Hz ~ 1 kHz	1.0×10^{-4}	
		1 kHz ~ 20 kHz	2.0×10^{-4}	
DC Voltage		±(0 ~ 100) mV	0.01 mV	
		±(0.1 ~ 10) V	1.0×10^{-4}	
		±(10 ~ 50) V	1.2×10^{-4}	
Frequency response		40 Hz ~ 100 kHz		
		(0.1 ~ 10) V	6.0×10^{-4}	
Distortion		40 Hz ~ 20 kHz		
		(0 ~ -70) dB	0.17 dB	
		(-70 ~ -80) dB	0.26 dB	
		(-80 ~ -90) dB	0.42 dB	
		(30 ~ 0.1) %	2.0×10^{-2}	
		(0.1 ~ 0.01) %	3.0×10^{-2}	
		(0.01 ~ 0.003) %	4.9×10^{-2}	
Level		40 Hz ~ 100 kHz		
		(20 ~ -80) dB	0.08 dB	
		100 kHz ~ 1 MHz		
		(20 ~ -80) dB	0.09 dB	
		1 MHz ~ 10 MHz		
		(20 ~ -80) dB	0.18 dB	

404. Other DC & LF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
LF/Audio signal analyzers	40409			Selective Level Meter
Input Level		10 Hz ~ 100 kHz		Meter Calibrator
		(50 ~ -80) dB	0.07 dB	Universal Counter
				Digital Multimeter
Input AC Voltage		(0.1 ~ 100) mV		Distortion Meter Calibrator
		40 Hz ~ 50 kHz	2.0×10^{-4}	Synthesizer Level Generator
		50 kHz ~ 100 kHz	4.0×10^{-4}	Digital Signal Generator
		100 kHz ~ 200 kHz	6.0×10^{-4}	Measuring Receiver
		200 kHz ~ 500 kHz	1.1×10^{-3}	/ KRCMI-I-404-07
		500 kHz ~ 1 MHz	3.0×10^{-3}	
		(0.1 ~ 1) V		
		40 Hz ~ 50 kHz	1.0×10^{-4}	
		50 kHz ~ 100 kHz	2.0×10^{-4}	
		100 kHz ~ 200 kHz	5.0×10^{-4}	
		200 kHz ~ 500 kHz	1.0×10^{-3}	
		500 kHz ~ 1 MHz	1.5×10^{-3}	
		(1 ~ 10) V		
		40 Hz ~ 50 kHz	1.0×10^{-4}	
		50 kHz ~ 100 kHz	2.0×10^{-4}	
		100 kHz ~ 200 kHz	4.0×10^{-4}	
		200 kHz ~ 500 kHz	1.0×10^{-3}	
		500 kHz ~ 1 MHz	1.6×10^{-3}	
		(10 ~ 100) V		
		40 Hz ~ 20 kHz	1.0×10^{-4}	
		20 kHz ~ 100 kHz	2.0×10^{-4}	
		(100 ~ 300) V		
		40 Hz ~ 20 kHz	3.3×10^{-4}	
Input Frequency		1 Hz ~ 500 kHz	6.0×10^{-6}	
Input DC Voltage		(-100 ~ 100) V	1.0×10^{-4}	
Output AC Voltage		(0.1 ~ 100) mV		
		40 Hz ~ 10 kHz	6.0×10^{-4}	
		10 kHz ~ 20 kHz	7.0×10^{-4}	
		20 kHz ~ 50 kHz	1.0×10^{-3}	
		50 kHz ~ 100 kHz	1.1×10^{-3}	
		(0.1 ~ 10) V		
		40 Hz ~ 20 kHz	6.0×10^{-4}	
		20 kHz ~ 100 kHz	8.0×10^{-4}	
		100 kHz ~ 1 MHz	8.1×10^{-3}	
		(10 ~ 30) V		
		40 Hz ~ 10 kHz	2.3×10^{-4}	

404. Other DC & LF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
LF/Audio signal analyzers	40409			Selective Level Meter
Output AC Voltage		10 kHz ~ 20 kHz	3.3×10^{-4}	Meter Calibrator
		20 kHz ~ 100 kHz	1.1×10^{-3}	Universal Counter
		100 kHz ~ 1 MHz	8.0×10^{-3}	Digital Multimeter
				Distortion Meter Calibrator
Output Level		10 Hz ~ 100 kHz		Synthesizer Level Generator
		(50 ~ -60) dB	0.051 dB	Digital Signal Generator
		(-60 ~ -80) dB	0.11 dB	Measuring Receiver
		100 kHz ~ 1 MHz		/ KRCMI-I-404-07
		(40 ~ 30) dB	0.065 dB	
		(30 ~ -30) dB	0.066 dB	
		(-30 ~ -80) dB	0.13 dB	
Output Frequency		1 Hz ~ 200 kHz	6.0×10^{-6}	
Distortion		40 Hz ~ 20 kHz		
		(0 ~ -70) dB	0.17 dB	
		(-70 ~ -80) dB	0.26 dB	
		(-80 ~ -90) dB	0.42 dB	
		(30 ~ 0.1) %	2.0×10^{-2}	
		(0.1 ~ 0.01) %	3.0×10^{-2}	
		(0.01 ~ 0.003) %	5.0×10^{-2}	
Standard Frequency		1 MHz, 10 MHz	6.0×10^{-9}	
Input Level		40 Hz ~ 100 kHz		
		(10 ~ -60) dBm	0.09 dB	
		(-60 ~ -100) dBm	0.13 dB	
		100 kHz ~ 30 MHz		
		(10 ~ -60) dB	0.13 dB	
		(-60 ~ -100) dB	0.59 dB	
Frequency Response		100 Hz ~ 30 MHz		
		(0 ~ -20) dBm	0.08 dB	
Line frequency meters	40410			AC Voltage Current standard
Frequency		(1 ~ 300) V		/ KRCMI-I-404-08
		10 Hz ~ 50 Hz	2.0×10^{-4}	
		50 Hz ~ 60 Hz	1.7×10^{-4}	
		60 Hz ~ 100 Hz	1.0×10^{-4}	
		100 Hz ~ 500 Hz	2.0×10^{-4}	
		500 Hz ~ 1 kHz	1.0×10^{-3}	
Function generators	40411			Universal counter
Muster frequency		1MHz, 10 MHz	6.0×10^{-10}	Oscilloscope
				Digital multimeter
Frequency		1 mHz ~ 500 MHz	6.0×10^{-9}	Measuring receiver
				/ KRCMI-I-404-09
				/ KRCMI-I-404-23

404. Other DC & LF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Function generators	40411			
Output voltage		(1 ~ 10) mV		Universal counter
		40 Hz ~ 20 kHz	1.8×10^{-3}	Oscilloscope
		20 kHz ~ 50 kHz	2.9×10^{-3}	Digital multimeter
		50 kHz ~ 100 kHz	6.6×10^{-3}	Measuring receiver
		100 kHz ~ 1 MHz	5.0×10^{-3}	/ KRCMI-I-404-09
		1 MHz ~ 10 MHz	3.0×10^{-2}	/ KRCMI-I-404-23
		(10 ~ 100) mV		
		40 Hz ~ 10 kHz	6.0×10^{-4}	
		10 kHz ~ 50 kHz	7.0×10^{-4}	
		50 kHz ~ 100 kHz	9.0×10^{-4}	
		100 kHz ~ 1 MHz	4.4×10^{-3}	
		1 MHz ~ 10 MHz	2.1×10^{-2}	
		(0.1 ~ 1) V		
		10 mHz ~ 40 Hz	8.4×10^{-3}	
		40 Hz ~ 20 kHz	6.0×10^{-4}	
		20 kHz ~ 100 kHz	8.0×10^{-4}	
		100 kHz ~ 1 MHz	4.4×10^{-3}	
		1 MHz ~ 10 MHz	2.1×10^{-2}	
		(1 ~ 10) V		
		10 mHz ~ 40 Hz	8.3×10^{-3}	
		40 Hz ~ 20 kHz	6.0×10^{-4}	
		20 kHz ~ 100 kHz	7.0×10^{-4}	
		100 kHz ~ 1 MHz	4.4×10^{-3}	
		1 MHz ~ 10 MHz	2.1×10^{-2}	
		(10 ~ 60) V		
		10 mHz ~ 40 Hz	8.1×10^{-3}	
		40 Hz ~ 10 kHz	3.0×10^{-4}	
		10 kHz ~ 20 kHz	3.3×10^{-4}	
		20 kHz ~ 50 kHz	5.0×10^{-4}	
		50 kHz ~ 100 kHz	7.0×10^{-4}	
		100 kHz ~ 1 MHz	4.3×10^{-3}	
Level flatness		10 Hz ~ 10 kHz		
		(0.1 ~ 10) V	6.0×10^{-4}	
		10 kHz ~ 100 kHz		
		(0.1 ~ 10) V	8.0×10^{-4}	
		100 Hz ~ 250 MHz		
		(0 ~ -30) dBm	0.22 dB	
DC off set		(-20 ~ 20) V	6.0×10^{-4}	
Amplitude modulation		(0 ~ 100) %	1.7×10^{-2}	

404. Other DC & LF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Function generators	40411			Universal counter
Frequency modulation		1 Hz ~ 400 kHz	2.8×10^{-2}	Oscilloscope
				Digital multimeter
Phase modulation		0 ° ~ 360 °	0.073 °	Measuring receiver
				/ KRCMI-I-404-09
Level		10 Hz ~ 20 MHz		/ KRCMI-I-404-23
		(10 ~ -60) dBm	0.19 dB	
		(-60 ~ -80) dBm	0.59 dB	
		(20 ~ 100) MHz		
		(10 ~ -60) dBm	0.18 dB	
		(-60 ~ -80) dBm	0.59 dB	
Rise time ,Fall time		100 ps ~ 1 s	6.0×10^{-3}	
Sync TTL level		(0.1 ~ 1) V	9 mV	
		(1 ~ 10) V	9.0×10^{-3}	
Period		(1 ~ 10) ns	6.0×10^{-4}	
		(10 ~ 100) ns	6.0×10^{-5}	
		(0.1 ~ 1) μs	6.0×10^{-6}	
		(1 ~ 10) μs	6.0×10^{-7}	
		10 μs ~ 10 s	6.0×10^{-8}	
AC/DC high voltages volt meters	40413			Kilovolt Meter
DC Voltage		0 kV	0.58 V	High voltage Digital Meter
		±(0 ~ 1) kV	1.0×10^{-3}	DC high voltage supply
		±(1 ~ 5) kV	6.0×10^{-4}	AC high voltage supply
		±(5 ~ 40) kV	5.0×10^{-4}	Digital Multimeter
		±(40 ~ 200) kV	1.0×10^{-3}	/ KRCMI-I-404-10
AC Voltage		(50 ~ 60) Hz		
		0.01 kV	0.58 V	
		(0.01 ~ 1) kV	1.0×10^{-3}	
		(1 ~ 20) kV	1.2×10^{-3}	
		(20 ~ 200) kV	1.3×10^{-3}	
LF Impulse generators	40414			Oscilloscope
Output Voltage		±(0 ~ 1) kV	0.003 kV	High Voltage Probe
		±(1 ~ 10) kV	3.0×10^{-3}	Killovolt Meter
		±(10 ~ 15) kV	3.3×10^{-3}	/ KRCMI-I-404-20
		±(15 ~ 30) kV	3.5×10^{-3}	
Pulse width		20 ns ~ 100 ms	2.0×10^{-3}	
Impulse Time		20 ns ~ 100 ms	2.0×10^{-3}	
Leakage current testers	40416			Meter calibrator
AC voltage		40 Hz ~ 1 kHz		/ KRCMI-I-404-12
		1 mV ~ 400 V	1.0×10^{-4}	

404. Other DC & LF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Leakage current testers	40416			Meter calibrator
AC current		40 Hz ~ 1 kHz		/ KRCMI-I-404-12
		(0.01 ~ 0.1) mA	1.0×10^{-3}	
		40 Hz ~ 1 kHz		
		0.1 mA ~ 1 A	1.0×10^{-4}	
DC current		(0 ~ 100) μA	0.1 μA	
		(0.1 ~ 100) mA	1.0×10^{-4}	
		(100 ~ 200) mA	5.0×10^{-5}	
Electronic AC/DC loads	40417			Calibrator
DC Voltage		(0 ~ 100) mV	0.4 mV	Transconductance Amplifier
		(0.1 ~ 1 000) V	2.0×10^{-6}	/ KRCMI-I-404-13
DC Current		(0 ~ 1) mA	0.01 μA	
		(1 ~ 10) mA	1.0×10^{-5}	
		10 mA ~ 1 A	2.0×10^{-5}	
		(1 ~ 10) A	1.0×10^{-4}	
		(10 ~ 100) A	2.0×10^{-4}	
		(100 ~ 200) A	3.0×10^{-4}	
		(200 ~ 600) A	2.5×10^{-4}	
		(600 ~ 1 000) A	2.4×10^{-4}	
AC Voltage		(50 ~ 60) Hz		
		(1 ~ 100) mV	5 μV	
		(0.1 ~ 10) V	4.0×10^{-5}	
		(10 ~ 1 000) V	5.0×10^{-5}	
AC Current		(50 ~ 60) Hz		
		(0.1 ~ 1) mA	0.01 μA	
		(1 ~ 100) mA	1.0×10^{-4}	
		(0.1 ~ 10) A	2.0×10^{-4}	
		(10 ~ 100) A	3.0×10^{-3}	
Analogue/Digital multimeters	40419			Meter Calibrator
DC Voltage		±(0 ~ 200) mV	0.20 μV	Standard Resistor set
		±(0.2 ~ 20) V	2.0×10^{-6}	DECADE RESISTANCE BOX
		±(20 ~ 1 000) V	2.3×10^{-6}	RUBIDIUM FREQUENCY STANDARD
				WAVEFORM GENERATOR
AC Voltage		(1 ~ 200) mV		/ KRCMI-I-404-14
		10 Hz ~ 20 kHz	6 μV	
		20 kHz ~ 100 kHz	8 μV	
		100 kHz ~ 200 kHz	25 μV	
		200 kHz ~ 500 kHz	33 μV	
		500 kHz ~ 1 MHz	0.6 mV	
		(0.2 ~ 2) V		
		10 Hz ~ 20 kHz	6.0×10^{-5}	
		20 kHz ~ 100 kHz	8.0×10^{-5}	

404. Other DC & LF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Analogue/Digital multimeters	40419			Meter Calibrator
AC Voltage		100 kHz ~ 200 kHz	2.5×10^{-4}	Standard Resistor set
		200 kHz ~ 500 kHz	3.3×10^{-4}	DECADE RESISTANCE BOX
		500 kHz ~ 1 MHz	6.0×10^{-4}	RUBIDIUM FREQUENCY STANDARD
				WAVEFORM GENERATOR
		(2 ~ 20) V		/ KRCMI-I-404-14
		10 Hz ~ 50 kHz	5.0×10^{-5}	
		50 kHz ~ 100 kHz	6.0×10^{-5}	
		100 kHz ~ 200 kHz	1.0×10^{-4}	
		200 kHz ~ 500 kHz	1.6×10^{-4}	
		500 kHz ~ 1 MHz	2.6×10^{-4}	
		(20 ~ 200) V		
		10 Hz ~ 20 kHz	5.0×10^{-5}	
		20 kHz ~ 50 kHz	6.0×10^{-5}	
		50 kHz ~ 100 kHz	8.0×10^{-5}	
		(200 ~ 1 000) V		
		10 Hz ~ 20 kHz	5.0×10^{-5}	
DC Current		±(0 ~ 200) μA	1.8 nA	
		±(0.2 ~ 2) mA	1.8×10^{-5}	
		±(2 ~ 20) mA	1.3×10^{-5}	
		±(20 ~ 200) mA	1.4×10^{-5}	
		±(0.2 ~ 2) A	1.9×10^{-5}	
		±(2 ~ 20) A	4.3×10^{-5}	
AC Current		(1 ~ 200) μA		
		10 Hz ~ 1 kHz	9 nA	
		(0.2 ~ 2) mA		
		10 Hz ~ 1 kHz	9.0×10^{-5}	
		1 kHz ~ 10 kHz	5.8×10^{-4}	
		(2 ~ 20) mA		
		10 Hz ~ 1 kHz	8.0×10^{-5}	
		1 kHz ~ 10 kHz	5.8×10^{-4}	
		(20 ~ 200) mA		
		10 Hz ~ 1 kHz	1.0×10^{-4}	
		1 kHz ~ 10 kHz	5.3×10^{-4}	
		(0.2 ~ 2) A		
		10 Hz ~ 1 kHz	1.4×10^{-4}	
		1 kHz ~ 10 kHz	9.9×10^{-4}	
		(2 ~ 20) A		
		10 Hz ~ 1 kHz	2.4×10^{-4}	
		1 kHz ~ 10 kHz	3.4×10^{-4}	

404. Other DC & LF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Analogue/Digital multimeters	40419			Meter Calibrator
Resistance		0 Ω ~ 1 Ω	2.3 μΩ	Standard Resistor set
		1 Ω ~ 20 kΩ	2.4×10^{-6}	DECADE RESISTANCE BOX
		20 kΩ ~ 200 kΩ	3.5×10^{-6}	RUBIDIUM FREQUENCY STANDARD
		0.2 MΩ ~ 2 MΩ	4.0×10^{-6}	WAVEFORM GENERATOR
		2 MΩ ~ 20 MΩ	8.0×10^{-6}	/ KRCMI-I-404-14
		20 MΩ ~ 200 MΩ	1.7×10^{-5}	
		200 MΩ~ 2 GΩ	1.8×10^{-5}	
		2 GΩ ~ 20 GΩ	1.1×10^{-3}	
Frequency		10 Hz ~ 10 MHz	1.0×10^{-6}	
Noise meters	40420			Meter Calibrator
Voltage		1 kHz		/ KRCMI-I-404-15
		(0.3 ~ 1) mV	9.1×10^{-3}	
		(1 ~ 3) mV	3.1×10^{-3}	
		(3 ~ 10) mV	1.1×10^{-3}	
		(10 ~ 30) mV	2.0×10^{-3}	
		(30 ~ 100) mV	4.0×10^{-4}	
		(100 ~ 300) mV	2.0×10^{-3}	
		(0.3 ~ 1) V	6.0×10^{-4}	
		(1 ~ 3) V	2.0×10^{-3}	
		(3 ~ 10) V	6.0×10^{-4}	
		(10 ~ 30) V	2.0×10^{-3}	
		(30 ~ 100) V	6.0×10^{-4}	
		(100 ~ 300) V	2.0×10^{-3}	
Freq.Response		10 Hz ~ 50 kHz		
		(0.3 ~ 3) V	6.0×10^{-3}	
Weighting Filters		1 kHz, (0.3 ~ 1) V		
DIN/AUDIO			6.0×10^{-3}	
DIN/NOISE			6.0×10^{-3}	
JIS A			6.0×10^{-3}	
CCIR			6.0×10^{-3}	
CCIR/ARM			6.0×10^{-3}	
Oscilloscopes	40421			Calibration generator
				Leveled sine wave generator
DC Voltage		±(0 ~ 1) mV	0.5 μV	Digital multimeter
		±(1 ~ 2) mV	2.5×10^{-4}	Universal counter
		±(2 ~ 10) mV	1.0×10^{-4}	/ KRCMI-I-404-16
		±(10 ~ 20) mV	5.0×10^{-5}	
		±(20 ~ 50) mV	2.0×10^{-5}	
		±(50 ~ 100) mV	1.0×10^{-4}	
		±(100 ~ 200) mV	5.0×10^{-5}	
		±(200 ~ 500) mV	2.0×10^{-5}	
		±(0.5 ~ 1) V	1.0×10^{-4}	
		±(1 ~ 2) V	5.0×10^{-5}	
		±(2 ~ 5) V	2.0×10^{-5}	

404. Other DC & LF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Oscilloscopes	40421			Calibration generator
DC Voltage		±(5 ~ 10) V	1.0×10^{-4}	Leveled sine wave generator
		±(10 ~ 20) V	5.0×10^{-5}	Digital multimeter
		±(20 ~ 50) V	2.0×10^{-5}	Universal counter
		±(50 ~ 100) V	1.0×10^{-4}	/ KRCMI-I-404-16
		±(100 ~ 200) V	5.0×10^{-5}	
Square wave voltage		(0.1 ~ 5) mV	1.6×10^{-3}	
		(5 ~ 10) mV	2.0×10^{-3}	
		(10 ~ 20) mV	1.5×10^{-3}	
		(20 ~ 50) mV	1.2×10^{-3}	
		(50 ~ 100) mV	1.0×10^{-3}	
		(100 ~ 200) mV	1.5×10^{-3}	
		(200 ~ 500) mV	1.2×10^{-3}	
		(0.5 ~ 1) V	1.0×10^{-3}	
		(1 ~ 2) V	1.5×10^{-3}	
		(2 ~ 5) V	1.2×10^{-3}	
		(5 ~ 20) V	1.0×10^{-3}	
		(20 ~ 100) V	1.2×10^{-3}	
Sine wave voltage		(1 ~ 200) mV		
		10 Hz ~ 20 kHz	6.0×10^{-5}	
		20 kHz ~ 100 kHz	8.0×10^{-5}	
		100 kHz ~ 200 kHz	2.5×10^{-4}	
		200 kHz ~ 500 kHz	3.3×10^{-4}	
		500 kHz ~ 1 MHz	6.0×10^{-4}	
		(0.2 ~ 2) V		
		10 Hz ~ 50 kHz	5.0×10^{-5}	
		50 kHz ~ 100 kHz	6.0×10^{-5}	
		100 kHz ~ 200 kHz	1.0×10^{-4}	
		200 kHz ~ 500 kHz	1.6×10^{-4}	
		500 kHz ~ 1 MHz	2.6×10^{-4}	
		(2 ~ 20) V		
		10 Hz ~ 50 kHz	5.0×10^{-5}	
		50 kHz ~ 100 kHz	6.0×10^{-5}	
		100 kHz ~ 200 kHz	1.0×10^{-4}	
		200 kHz ~ 500 kHz	1.5×10^{-4}	
		500 kHz ~ 1 MHz	2.2×10^{-4}	
		(20 ~ 200) V		
		10 Hz ~ 20 kHz	5.0×10^{-5}	
		20 kHz ~ 50 kHz	6.0×10^{-5}	
		50 kHz ~ 100 kHz	8.0×10^{-5}	

404. Other DC & LF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Oscilloscopes	40421			Calibration generator
Period		(0.1 ~ 1) ns	2.7×10^{-3}	Leveled sine wave generator
		(1 ~ 2) ns	1.4×10^{-3}	Digital multimeter
		(2 ~ 5) ns	5.4×10^{-4}	Universal counter
		(5 ~ 10) ns	3.0×10^{-4}	/ KRCMI-I-404-16
		(10 ~ 20) ns	1.5×10^{-4}	
		(20 ~ 50) ns	8.0×10^{-5}	
		(50 ~ 100) ns	1.0×10^{-4}	
		(100 ~ 200) ns	5.0×10^{-5}	
		(200 ~ 500) ns	6.0×10^{-5}	
		(0.5 ~ 1) μs	1.0×10^{-4}	
		(1 ~ 2) μs	5.0×10^{-5}	
		(2 ~ 5) μs	6.0×10^{-5}	
		(5 ~ 10) μs	1.0×10^{-4}	
		(10 ~ 20) μs	5.0×10^{-5}	
		(20 ~ 50) μs	6.0×10^{-5}	
		(50 ~ 100) μs	1.0×10^{-4}	
		(100 ~ 200) μs	5.0×10^{-5}	
		(200 ~ 500) μs	6.0×10^{-5}	
		(0.5 ~ 1) ms	1.0×10^{-4}	
		(1 ~ 2) ms	5.0×10^{-5}	
		(2 ~ 5) ms	6.0×10^{-5}	
		(5 ~ 10) ms	1.0×10^{-4}	
		(10 ~ 20) ms	5.0×10^{-5}	
		(20 ~ 50) ms	6.0×10^{-5}	
		(50 ~ 100) ms	1.0×10^{-4}	
		(100 ~ 200) ms	5.0×10^{-5}	
		(200 ~ 500) ms	6.0×10^{-5}	
		(0.5 ~ 1) s	1.0×10^{-4}	
		(1 ~ 2) s	5.0×10^{-5}	
		(2 ~ 5) s	6.0×10^{-5}	
bandwidth		(0.1 ~ 1) V_{p-p}		
		50 kHz ~ 100 MHz	2.2×10^{-2}	
		100 MHz ~ 500 MHz	3.7×10^{-2}	
		0.5 GHz ~ 1 GHz	4.8×10^{-2}	
		1 GHz ~ 16 GHz	5.7×10^{-2}	
CAL output amplitude		(0.1 ~ 10) V	1.0×10^{-5}	
Cal output Frequency		(0.1 ~ 10) ㎑	1.0×10^{-5}	
Impedance		50 Ω	2.0×10^{-5}	
		1 MΩ	6.0×10^{-5}	
Random wave generator	40423			Universal Counter
Frequency		(0.1 ~ 100) Hz	6.0×10^{-8}	Digital Multi Meter
		100 Hz ~ 100 MHz	6.0×10^{-9}	Measuring Receiver
		100 MHz ~ 300 MHz	2.0×10^{-8}	/ KRCMI-I-404-24

404. Other DC & LF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Random wave generator	40423			Universal Counter
Level		(1 ~ 100) mV		Digital Multi Meter
		40 Hz ~ 10 kHz	6.0×10^{-4}	Measuring Receiver
		10 kHz ~ 50 kHz	7.0×10^{-4}	/ KRCMI-I-404-24
		50 kHz ~ 100 kHz	9.0×10^{-4}	
		0.1 MHz ~ 1 MHz	4.4×10^{-3}	
		1 MHz ~ 30 MHz	2.2×10^{-2}	
		(0.1 ~ 1) V		
		40 Hz ~ 20 kHz	6.0×10^{-4}	
		20 kHz ~ 100 kHz	8.0×10^{-4}	
		0.1 MHz ~ 1 MHz	4.4×10^{-3}	
		1 MHz ~ 30 MHz	2.2×10^{-2}	
		(1 ~ 10) V		
		40 Hz ~ 20 kHz	6.0×10^{-4}	
		20 kHz ~ 100 kHz	7.0×10^{-4}	
		0.1 MHz ~ 1 MHz	4.4×10^{-3}	
		1 MHz ~ 30 MHz	2.2×10^{-2}	
		(10 ~ 30) V		
		40 Hz ~ 10 kHz	2.0×10^{-4}	
		10 kHz ~ 20 kHz	2.3×10^{-4}	
		20 kHz ~ 50 kHz	4.0×10^{-4}	
		50 kHz ~ 100 kHz	3.7×10^{-4}	
		0.1 MHz ~ 1 MHz	4.3×10^{-3}	
		1 MHz ~ 30 MHz	2.2×10^{-2}	
Volt/Current recorders	40424			Meter Calibrator
DC Voltage		±(0 ~ 100) mV	1 μV	Turncoil
		±(0.1 ~ 1 000) V	1.0×10^{-4}	/ KRCMI-I-404-17
DC Current		(0 ~ 100) μA	0.01 μA	
		100 μA ~ 20 A	2.0×10^{-4}	
		(20 ~ 100) A	1.0×10^{-3}	
		(100 ~ 500) A	2.0×10^{-3}	
		(500 ~ 1 000) A	3.0×10^{-3}	
		(1 000 ~ 2 000) A	2.0×10^{-3}	
AC Voltage		(0.1 ~ 100) mV		
		40 Hz ~ 10 kHz	5 μV	
		(0.1 ~ 1 000) V		
		40 Hz ~ 10 kHz	1.0×10^{-4}	
AC Current		(0.01 ~ 1) mA		
		40 Hz ~ 1 kHz	0.1 μA	
		1 kHz ~ 10 kHz	0.6 μA	

404. Other DC & LF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Volt/Current recorders	40424			Meter Calibrator
AC Current		(1 ~ 10) mA		Turncoil
		40 Hz ~ 1 kHz	1.0×10^{-4}	/ KRCMI-I-404-17
		1 kHz ~ 10 kHz	6.0×10^{-4}	
		(10 ~ 100) mA		
		40 Hz ~ 1 kHz	1.0×10^{-4}	
		1 kHz ~ 10 kHz	5.0×10^{-4}	
		(0.1 ~ 1) A		
		40 Hz ~ 1 kHz	2.0×10^{-4}	
		1 kHz ~ 10 kHz	1.0×10^{-3}	
		(1 ~ 20) A		
		40 Hz ~ 1 kHz	3.0×10^{-4}	
		1 kHz ~ 10 kHz	4.0×10^{-4}	
		60 Hz		
		(20 ~ 100) A	3.0×10^{-3}	
		(100 ~ 500) A	2.0×10^{-3}	
		(500 ~ 1 000) A	1.5×10^{-2}	
		(1 000 ~ 2 000) A	1.1×10^{-2}	
Relay test sets	40425			Digital multimeter
Output DC voltage		(0 ~ 100) mV	1.0 μV	Meter calibrator
		(0.1 ~ 10) V	6.0×10^{-6}	Active shunt
		(10 ~ 1 000) V	8.0×10^{-6}	/ KRCMI-I-404-18
Output DC current		(0 ~ 1) mA	0.13 μA	
		1 mA ~ 1 A	1.3×10^{-4}	
		(1 ~ 10) A	1.5×10^{-4}	
		(10 ~ 100) A	2.2×10^{-4}	
		(100 ~ 150) A	2.1×10^{-4}	
		(150 ~ 200) A	3.6×10^{-4}	
		(200 ~ 250) A	3.2×10^{-4}	
		(250 ~ 300) A	3.0×10^{-4}	
		(300 ~ 350) A	2.9×10^{-4}	
		(350 ~ 400) A	2.8×10^{-4}	
		(400 ~ 450) A	2.7×10^{-4}	
		(450 ~ 500) A	2.6×10^{-4}	
		(500 ~ 550) A	2.5×10^{-4}	
		(550 ~ 600) A	2.7×10^{-4}	
		(600 ~ 700) A	2.6×10^{-4}	
		(700 ~ 850) A	2.5×10^{-4}	
		(850 ~ 1 000) A	2.4×10^{-4}	
Output AC voltage		(1 ~ 100) mV		
		40 Hz	2.1×10^{-4}	
		40 Hz ~ 1 kHz	1.8×10^{-5}	
		(0.1 ~ 100) V		

404. Other DC & LF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Relay test sets	40425			Digital multimeter
Output AC voltage		40 Hz	1.2×10^{-4}	Meter calibrator
		40 Hz ~ 1 kHz	1.1×10^{-5}	Active shunt
				/ KRCMI-I-404-18
		(100 ~ 1 000) V		
		40 Hz ~ 1 kHz	1.3×10^{-5}	
Output AC Current		40 Hz ~ 1 kHz		
		1 mA ~ 1 A	1.3×10^{-3}	
		(1 ~ 10) A	1.4×10^{-3}	
		(10 ~ 100) A	3.7×10^{-4}	
		60 Hz		
		(100 ~ 200) A	2.5×10^{-4}	
		(200 ~ 300) A	2.2×10^{-4}	
		(300 ~ 400) A	2.1×10^{-4}	
		(400 ~ 500) A	6.4×10^{-4}	
		(500 ~ 600) A	5.5×10^{-4}	
		(600 ~ 700) A	4.9×10^{-4}	
		(700 ~ 800) A	4.4×10^{-4}	
		(800 ~ 900) A	4.0×10^{-4}	
		(900 ~ 1 000) A	3.7×10^{-4}	
		(1 000 ~ 1 500) A	2.9×10^{-4}	
		(1 500 ~ 2 000) A	2.5×10^{-4}	
		(2 000 ~ 2 500) A	4.0×10^{-4}	
		(2 500 ~ 3 000) A	3.3×10^{-4}	
		(3 000 ~ 3 500) A	3.1×10^{-4}	
		(3 500 ~ 4 000) A	3.0×10^{-4}	
		(4 ~ 19) kA	1.1×10^{-2}	
Input DC Voltage		(0 ~ 100) mV	0.1 mV	
		(0.1 ~ 1) V	1.0×10^{-3}	
		(1 ~ 1 000) V	1.0×10^{-4}	
Input AC Voltage		1 mV ~ 1 V		
		40 Hz ~ 1 kHz	1.0×10^{-3}	
		(1 ~ 1 000) V		
		40 Hz ~ 1 kHz	1.0×10^{-4}	
Input DC current		(0 ~ 100) mA	0.1 mA	
		(0.1 ~ 1) A	1.0×10^{-3}	
		(1 ~ 10) A	1.0×10^{-4}	
		(10 ~ 100) A	2.4×10^{-4}	
Input AC current		1 mA ~ 1 A		
		40 Hz ~ 1 kHz	1.0×10^{-3}	
		(1 ~ 10) A		
		40 Hz ~ 1 kHz	4.0×10^{-4}	

404. Other DC & LF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Relay test sets	40425			Digital multimeter
Input AC current		(10 ~ 100) A		Meter calibrator
		40 Hz ~ 400 Hz	1.8×10^{-3}	Active shunt
				/ KRCMI-I-404-18
Time interval		1 ms ~ 100 s	6.0×10^{-5}	
LF signal generators	40426			Universal Counter
Frequency		0.01 Hz ~ 500 MHz	6.0×10^{-9}	True RMS Volt meter
				Selective Level Meter
Output Voltage		(1 ~ 100) mV		Oscilloscope
		40 Hz ~ 10 kHz	2.1×10^{-4}	/ KRCMI-I-404-19
		10 kHz ~ 20 kHz	4.0×10^{-4}	
		20 kHz ~ 50 kHz	4.5×10^{-4}	
		50 kHz ~ 100 kHz	7.5×10^{-4}	
		0.1 MHz ~ 1 MHz	4.4×10^{-3}	
		1 MHz ~ 10 MHz	2.2×10^{-2}	
		(0.1 ~ 1) V		
		40 Hz ~ 20 kHz	6.0×10^{-4}	
		20 kHz ~ 100 kHz	8.0×10^{-4}	
		0.1 MHz ~ 1 MHz	4.4×10^{-3}	
		1 MHz ~ 10 MHz	2.2×10^{-2}	
		(1 ~ 10) V		
		40 Hz ~ 20 kHz	6.0×10^{-4}	
		20 kHz ~ 100 kHz	7.0×10^{-4}	
		0.1 MHz ~ 1 MHz	4.4×10^{-3}	
		1 MHz ~ 10 MHz	2.2×10^{-2}	
		(10 ~ 30) V		
		40 Hz ~ 10 kHz	2.0×10^{-4}	
		10 kHz ~ 20 kHz	2.3×10^{-4}	
		20 kHz ~ 100 kHz	3.7×10^{-4}	
		0.1 MHz ~ 1 MHz	4.4×10^{-3}	
		(30 ~ 300) V		
		40 Hz ~ 20 kHz	6.0×10^{-4}	
		20 kHz ~ 100 kHz	7.0×10^{-4}	
Frequency Response		10 Hz ~ 100 kHz		
		(0.1 ~ 10) V	5.0×10^{-4}	
		100 Hz ~ 30 MHz		
		(10 ~ -30) dB	0.08 dB	
Attenuator		10 Hz ~ 10 MHz		
		(0 ~ 60) dB	0.08 dB	
Rise Time , Fall Time		100 ps ~ 1 ms	1.0×10^{-3}	

404. Other DC & LF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Sweep generators	40429			Digital Multimeter
Frequency		1 mHz ~ 10 MHz	6.0×10^{-9}	Universal Counter
				True RMS Volt Meter
Output Voltage		(1 ~ 100) mV		/ KRCMI-I-404-25
		40 Hz ~ 10 kHz	2.1×10^{-4}	
		10 kHz ~ 20 kHz	4.0×10^{-4}	
		20 kHz ~ 50 kHz	4.5×10^{-4}	
		50 kHz ~ 100 kHz	7.5×10^{-4}	
		0.1 MHz ~ 1 MHz	4.4×10^{-3}	
		1 MHz ~ 10 MHz	2.2×10^{-2}	
		(0.1 ~ 1) V		
		40 Hz ~ 20 kHz	6.0×10^{-4}	
		20 kHz ~ 100 kHz	8.0×10^{-4}	
		0.1 MHz ~ 1 MHz	4.4×10^{-3}	
		1 MHz ~ 10 MHz	2.2×10^{-2}	
		(1 ~ 10) V		
		40 Hz ~ 20 kHz	6.0×10^{-4}	
		20 kHz ~ 100 kHz	7.0×10^{-4}	
		0.1 MHz ~ 1 MHz	4.4×10^{-3}	
		1 MHz ~ 10 MHz	2.2×10^{-2}	
		(10 ~ 30) V		
		40 Hz ~ 10 kHz	2.0×10^{-4}	
		10 kHz ~ 20 kHz	2.3×10^{-4}	
		20 kHz ~ 100 kHz	3.7×10^{-4}	
		0.1 MHz ~ 1 MHz	4.4×10^{-3}	
output level flatness		10 Hz ~ 100 kHz		
		(0.1 ~ 10) V	5.9×10^{-4}	
		100 kHz ~ 10 MHz		
		(0 ~ -30) dB	0.08 dB	
Level		10 Hz ~ 10 MHz		
		(10 ~ -60) dBm	0.18 dB	
		(-60 ~ -80) dBm	0.59 dB	
Signal transducers	40430			Digital Multimeter
DC Voltage		(0 ~ 100) mV	1 μV	Meter Calibrator
		(0.1 ~ 1 000) V	1.0×10^{-5}	/ KRCMI-I-404-26
AC Voltage		(1 ~ 100) mV		
		40 Hz	2.0×10^{-4}	
		40 Hz ~ 1 kHz	1.7×10^{-4}	
		1 kHz ~ 10 kHz	2.0×10^{-4}	
		10 kHz ~ 20 kHz	3.9×10^{-4}	

404. Other DC & LF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Signal transducers	40430			Digital Multimeter
AC Voltage		20 kHz ~ 50 kHz	7.5×10^{-4}	Meter Calibrator
		50 kHz ~ 100 kHz	9.6×10^{-4}	/ KRCMI-I-404-26
		(0.1 ~ 10) V		
		40 Hz	1.1×10^{-4}	
		40 Hz ~ 1 kHz	9.0×10^{-5}	
		1 kHz ~ 10 kHz	1.1×10^{-4}	
		10 kHz ~ 20 kHz	1.8×10^{-4}	
		20 kHz ~ 50 kHz	5.3×10^{-4}	
		50 kHz ~ 100 kHz	5.4×10^{-4}	
		(10 ~ 100) V		
		40 Hz	1.1×10^{-4}	
		40 Hz ~ 1 kHz	9.0×10^{-5}	
		1 kHz ~ 10 kHz	1.1×10^{-4}	
		10 kHz ~ 20 kHz	1.8×10^{-4}	
		20 kHz ~ 50 kHz	5.3×10^{-4}	
		50 kHz ~ 100 kHz	5.5×10^{-4}	
		(100 ~ 1 000) V		
		40 Hz ~ 10 kHz	1.1×10^{-4}	
		10 kHz ~ 20 kHz	2.1×10^{-4}	
DC Current		(0 ~ 100) μA	4 μA	
		(0.1 ~ 10) mA	3.0×10^{-5}	
		(10 ~ 100) mA	5.0×10^{-5}	
		(0.1 ~ 1) A	1.1×10^{-4}	
		(1 ~ 10) A	2.8×10^{-4}	
AC Current		(0.001 ~ 1) mA		
		40 Hz ~ 1 kHz	4.9×10^{-4}	
		1 kHz ~ 10 kHz	1.7×10^{-3}	
		(1 ~ 10) mA		
		40 Hz ~ 1 kHz	4.9×10^{-4}	
		1 kHz ~ 10 kHz	1.5×10^{-3}	
		(10 ~ 100) mA		
		40 Hz ~ 1 kHz	4.9×10^{-4}	
		1 kHz ~ 10 kHz	1.2×10^{-3}	
		(0.1 ~ 1) A		
		40 Hz ~ 1 kHz	8.7×10^{-4}	
		1 kHz ~ 10 kHz	6.9×10^{-3}	
		(1 ~ 10) A		
		40 Hz ~ 1 kHz	1.2×10^{-3}	
		1 kHz ~ 10 kHz	2.6×10^{-3}	

404. Other DC & LF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Signal transducers	40430			Digital Multimeter
Output Frequency		1 Hz ~ 20 kHz	1.0×10^{-6}	Meter Calibrator / KRCMI-I-404-26
AC/DC high voltage generators	40434			Kilovolt Meter
DC Voltage		0 kV	0.6 V	High voltage Digital Meter
		±(0 ~ 1) kV	1.0×10^{-3}	Digital Multimeter
		±(1 ~ 5) kV	6.0×10^{-4}	/ KRCMI-I-401-11
		±(5 ~ 20) kV	5.0×10^{-4}	
		±(20 ~ 200) kV	1.0×10^{-3}	
AC Voltage		(50 ~ 60) Hz		
		0.1 kV	0.6 V	
		(0.1 ~ 1) kV	1.0×10^{-3}	
		(1 ~ 10) kV	1.2×10^{-3}	
		(10 ~ 200) kV	1.3×10^{-3}	
AC/DC high voltage probes	40435			Kilovolt Meter
DC Voltage		0 kV	2 V	High voltage Digital Meter
		±(0 ~ 1) kV	1.0×10^{-3}	DC high voltage supply
		±(1 ~ 5) kV	6.0×10^{-4}	AC high voltage supply
		±(5 ~ 40) kV	5.0×10^{-4}	Digital Multimeter
		±(40 ~ 200) kV	1.0×10^{-3}	/ KRCMI-I-401-08
AC Voltage		(50 ~ 60) Hz		
		0.01 kV	1 V	
		(0.01 ~ 1) kV	6.0×10^{-4}	
		(1 ~ 20) kV	1.2×10^{-3}	
		(20 ~ 200) kV	1.3×10^{-3}	
Ratio		DC		
		±(0.01 ~ 1) kV		
		(10 ~ 10 000) : 1	6.5×10^{-5}	
		±(1 ~ 200) kV		
		(1 000 ~ 10 000) : 1	9.2×10^{-4}	
		AC		
		(40 Hz ~ 100 kHz)		
		(0.01 ~ 1) kV		
		(10 ~ 10 000) : 1	7.5×10^{-4}	
		(50 ~ 60) Hz		
		(1 ~ 200) kV		
		(1 000 ~ 10 000) : 1	1.2×10^{-3}	
Logic analyzers	40436			Meter calibrator
Voltage		(0.01 ~ 1) V	6.0×10^{-4}	/ KRCMI-I-404-30
		(1 ~ 10) V	6.0×10^{-5}	Calibration Generator
				/ KRCMI-I-404-28
Time		1 ns ~ 5 s	6.0×10^{-5}	

404. Other DC & LF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Telephone testers	40437			Selective level meter
Bell ring frequency		(15 ~ 1 000) Hz	4.0×10^{-4}	Digital multimeter Universal counter
Bell ring voltage		(10 ~ 100) V	6.0×10^{-4}	/ KRCMI-I-404-31
		(100 ~ 150) V	6.6×10^{-4}	
Line output voltage		48 V	1.3×10^{-4}	
Receiving frequency		400 Hz	1.5×10^{-4}	
Level		(-50 ~ 10) dBm	0.09 dB	
Video signal analyzers	40438			Video Measurement Set Signal Generation Platform
Vector scopes				
Amplitude (NTSC/PAL)		(0 ~ 1) V_{p-p}	1.6×10^{-2}	Universal Counter / KRCMI-I-406-29
Phase		0 ° ~ 360 °	1.3 °	/ KRCMI-I-406-30
Frequency		(3 ~ 5) MHz	1.3×10^{-7}	
Video signal monitors				
Frequency		50 kHz ~ 5 MHz	1.2×10^{-6}	
Amplitude (NTSC/PAL)		(0 ~ 1) V_{p-p}	1.5×10^{-2}	

406. RF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
RF amplifiers	40601			Syntesizer Sweeper
Amplitude gain		(0 ~ 30) dB		Power Meter
		9 kHz ~ 1 GHz	0.09 dB	Power Sensor
		(1 ~ 5) GHz	0.10 dB	Attenuator Set
		(5 ~ 10) GHz	0.12 dB	Network Analyzer
		(10 ~ 12) GHz	0.14 dB	Calibration Kit
		(12 ~ 18) GHz	0.18 dB	/ KRCMI-I-406-14
		(30 ~ 60) dB		
		9 kHz ~ 1 GHz	0.19 dB	
		(1 ~ 9) GHz	0.22 dB	
		(9 ~ 14) GHz	0.24 dB	
		(14 ~ 18) GHz	0.25 dB	
Coaxial attenuators	40602			Syntesizer Sweeper
Attenuation		100 ㎑ ~ 1 ㎓		Attenuator Set
		(0 ~ 10) dB	0.10 dB	Power Meter
		(10 ~ 30) dB	0.12 dB	Power Sensor
		(30 ~ 60) dB	0.16 dB	Directional Bridge
		(60 ~ 120) dB	0.19 dB	Dual Directional Coupler
				Network Analyzer
		(1 ~ 5) ㎓		Calibration Kit
		(0 ~ 10) dB	0.10 dB	Microwave Converter
		(10 ~ 30) dB	0.12 dB	Sensor Module
		(30 ~ 60) dB	0.16 dB	Measuring Receiver
		(60 ~ 120) dB	0.24 dB	/ KRCMI-I-406-01
		(5 ~ 10) ㎓		
		(0 ~ 10) dB	0.11 dB	
		(10 ~ 30) dB	0.14 dB	
		(30 ~ 60) dB	0.16 dB	
		(60 ~ 120) dB	0.28 dB	
		(10 ~ 18) ㎓		
		(0 ~ 10) dB	0.15 dB	
		(10 ~ 30) dB	0.16 dB	
		(30 ~ 60) dB	0.23 dB	
		(60 ~ 120) dB	0.33 dB	
Burst pulse generator	40605			Digitizing Oscilloscope
Voltage		(±)		High Voltage Probe
		Open Circuit		Attenuator Set
		(10 ~ 500) V	2.6×10^{-2}	/ KRCMI-I-406-25
		(0.5 ~ 4.8) kV	2.6×10^{-2}	
		50 Ω		
		(25 ~ 500) V	3.0×10^{-2}	
		(0.5 ~ 2.4) kV	3.0×10^{-2}	
		1 000 Ω		
		(25 ~ 500) V	3.0×10^{-2}	
		(0.5 ~ 4.57) kV	3.0×10^{-2}	
Rise / Fall Time		(1 ~ 5) ns	1.6×10^{-2}	
		(5 ~ 10) ns	3.6×10^{-3}	

406. RF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Burst pulse generator	40605			Digitizing Oscilloscope
Pulse Width		(10 ~ 50) ns	5.2×10^{-3}	High Voltage Probe
		(50 ~ 200) ns	4.6×10^{-3}	Attenuator Set
				/ KRCMI-I-406-25
Burst Duration		(5 ~ 20) ms	3.4×10^{-3}	
		(40 ~ 60) ms	3.6×10^{-3}	
Repetition rate		(10 ~ 300) μs	4.7×10^{-3}	
Burst Period		(50 ~ 100) ms	3.5×10^{-3}	
		(100 ~ 400) ms	4.0×10^{-3}	
Oscillation frequency		(0.09 ~ 0.1) MHz	4.9×10^{-3}	
		(0.1 ~ 40) MHz	5.0×10^{-3}	
RF power meter calibrators	40607	3 μW	0.18 nW	Power Meter
		10 μW	0.41 nW	Power Sensor
		30 μW	1.8 nW	Digital Multimeter
		100 μW	3.2 nW	/ KRCMI-I-406-15
		300 μW	18 nW	
		1 mW	0.12 μW	
		3 mW	0.20 μW	
		10 mW	0.80 μW	
		30 mW	1.6 μW	
		100 mW	11 μW	
Coaxial directional couplers/ splitters	40610	(0 ~ 20) dB		Network Analyzer
		9 kHz ~ 18 GHz	0.06 dB	Calibration Kit
		(20 ~ 40) dB		/ KRCMI-I-406-16
		9 kHz ~ 15 GHz	0.08 dB	
		(15 ~ 18) GHz	0.09 dB	
		(40 ~ 50) dB		
		9 kHz ~ 10 GHz	0.16 dB	
		(10 ~ 18) GHz	0.18 dB	
		(50 ~ 64) dB		
		(10 ~ 100) MHz	0.65 dB	
		(0.1 ~ 18) GHz	0.72 dB	
Electrostatic discharge generators	40613			Oscilloscope
Peak Current		(±)		ESD Target System
		(1 ~ 22.5) A	2.9×10^{-2}	High Voltage Probe
		(22.5 ~ 52.5) A	2.9×10^{-2}	/ KRCMI-I-406-27
		(52.5 ~ 120) A	2.9×10^{-2}	
T1 Current (30 ~ 65) ns		(±)		
		(1 ~ 2) A	3.3×10^{-2}	
		(2 ~ 12) A	3.2×10^{-2}	
		(12 ~ 20) A	3.1×10^{-2}	
		(20 ~ 80) A	3.0×10^{-2}	
T1 Current (180 ~ 400) ns		(±)		
		(0.20 ~ 1.10) A	1.1×10^{-1}	
		(1.10 ~ 1.65) A	7.9×10^{-2}	

406. RF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Electrostatic discharge generators	40613			Oscilloscope
T1 Current (180 ~ 400) ns		±(1.65 ~ 3.30) A	6.2×10^{-2}	ESD Target System
		±(3.30~ 4.13) A	5.5×10^{-2}	High Voltage Probe
		±(4.13~ 10.0) A	6.2×10^{-2}	/ KRCMI-I-406-27
T2 Current (60 ~ 130) ns		(±)		
		(0.5 ~ 6) A	4.3×10^{-2}	
		(6 ~ 8) A	3.4×10^{-2}	
		(8 ~ 25) A	3.2×10^{-2}	
		(25 ~ 35) A	3.0×10^{-2}	
T2 Current (360 ~ 800) ns		(±)		
		(0.1 ~ 0.6) A	2.2×10^{-1}	
		(0.6 ~ 1.8) A	1.5×10^{-1}	
		(1.8 ~ 2.25) A	6.9×10^{-2}	
		(2.25 ~ 5.2) A	1.1×10^{-1}	
Rise Time		(±)		
		(2 ~ 30) kV		
		(0.6 ~ 1) ns	2.7×10^{-3}	
Discharge Voltage		(±)		
		(0.1 ~ 12) kV	4.2×10^{-3}	
		(12 ~ 30) kV	4.3×10^{-3}	
EMC receivers	40614			Syntesizer Sweeper
Input Level		100 kHz ~ 10 MHz		Power Meter
		(-70 ~ 15) dBm	0.10 dB	Power Sensor
		(-100 ~ -70) dBm	0.11 dB	Attenuator Set
		(-110 ~ -100) dBm	0.15 dB	Network Analyzer
		(-120 ~ -110) dBm	0.20 dB	Calibration Kit
		10 MHz ~ 1 GHz		Microwave Converter
		(-30 ~ 15) dBm	0.10 dB	Sensor Module
		(-80 ~ -30) dBm	0.11 dB	Pulse/CW Micro. Counter
		(-100 ~ -80) dBm	0.12 dB	Synthesized CW Generator
		(-110 ~ -100) dBm	0.15 dB	/ KRCMI-I-406-17
		(-120 ~ -110) dBm	0.20 dB	
		(1 ~ 5) GHz		
		(-10 ~ 15) dBm	0.11 dB	
		(-80 ~ -10) dBm	0.12 dB	
		(-100 ~ -80) dBm	0.13 dB	
		(5 ~ 10) GHz		
		(-10 ~ 15) dBm	0.11 dB	
		(-80 ~ -10) dBm	0.12 dB	
		(-100 ~ -80) dBm	0.13 dB	
		(10 ~ 15) GHz		
		(-70 ~ 15) dBm	0.13 dB	
		(-100 ~ -70) dBm	0.14 dB	
		(15 ~ 18) GHz		
		(-10 ~ 15) dBm	0.13 dB	

406. RF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
EMC receivers	40614			Syntesizer Sweeper
Input Level		(-80 ~ -10) dBm	0.14 dB	Power Meter
		(-100 ~ -80) dBm	0.15 dB	Power Sensor
				Attenuator Set
Output Level		100 kHz ~ 10 MHz		Network Analyzer
		(-50 ~ 15) dBm	0.07 dB	Calibration Kit
		(-90 ~ -50) dBm	0.08 dB	Microwave Converter
		(-100 ~ -90) dBm	0.09 dB	Sensor Module
		(-110 ~ -100) dBm	0.13 dB	Pulse/CW Micro. Counter
		(-120 ~ -110) dBm	0.18 dB	Synthesized CW Generator
		10 MHz ~ 1 GHz		/ KRCMI-I-406-17
		(-50 ~ -15) dBm	0.07 dB	
		(-90 ~ -50) dBm	0.08 dB	
		(-100 ~ -90) dBm	0.09 dB	
		(-110 ~ -100) dBm	0.13 dB	
		(-120 ~ -110) dBm	0.18 dB	
		(1 ~ 5) GHz		
		(-20 ~ 15) dBm	0.08 dB	
		(-70 ~ -20) dBm	0.09 dB	
		(-100 ~ -70) dBm	0.10 dB	
		(5 ~ 10) GHz		
		(-20 ~ 15) dBm	0.08 dB	
		(-70 ~ -20) dBm	0.09 dB	
		(-100 ~ -70) dBm	0.10 dB	
		(10 ~ 15) GHz		
		(-40 ~ 15) dBm	0.10 dB	
		(-90 ~ -40) dBm	0.11 dB	
		(-100 ~ -90) dBm	0.12 dB	
		(15 ~ 18) GHz		
		(-10 ~ 15) dBm	0.10 dB	
		(-80 ~ -10) dBm	0.11 dB	
		(-100 ~ -80) dBm	0.12 dB	
Frequency		1 MHz ~ 18 GHz	6.4×10^{-10}	
RF filters	40615			Network Analyzer
Cut-off frequency		9 kHz ~ 60 MHz	4.0×10^{-6}	Calibration Kit
		(0.06 ~ 7) GHz	7.0×10^{-7}	/ KRCMI-I-406-18
		(7 ~ 18) GHz	1.7×10^{-7}	
Insertion loss		9 kHz ~ 1 GHz	0.06 dB	
		(1 ~ 6) GHz	0.07 dB	
		(6 ~ 18) GHz	0.08 dB	
RF impedance meters	40616			Network Analyzer
VSWR		1.0		Calibration Kit
		(0.05 ~ 1) GHz	0.059	Pulse/CW Micro. Counter
		(1 ~ 12) GHz	0.062	Power Meter
		(12 ~ 18) GHz	0.096	Power Sensor
				Spectrum Analyzer
				Mismatch Set
				/ KRCMI-I-406-19

406. RF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
RF impedance meters	40616			Network Analyzer
VSWR		1.2		Calibration Kit
		(0.05 ~ 1) GHz	0.071	Pulse/CW Micro. Counter
		(1 ~ 6) GHz	0.074	Power Meter
		(6 ~ 12) GHz	0.085	Power Sensor
		(12 ~ 18) GHz	0.12	Spectrum Analyzer
				Mismatch Set
		1.5		/ KRCMI-I-406-19
		(0.05 ~ 3) GHz	0.095	
		(3 ~ 12) GHz	0.11	
		(12 ~ 18) GHz	0.20	
		2.0		
		(0.05 ~ 1) GHz	0.14	
		(1 ~ 12) GHz	0.16	
		(12 ~ 18) GHz	0.27	
Output Level		(-30 ~ 10) dBm		
		(0.01 ~ 1) GHz	0.08 dB	
		(1 ~ 10) GHz	0.09 dB	
		(10 ~ 18) GHz	0.12 dB	
Frequency		1 MHz ~ 18 GHz	6.1×10^{-9}	
Coaxial standard mismatches	40619			Calibration Kit
VSWR		1.0 ~ 1.2		/ KRCMI-I-406-20
		(0.05 ~ 2) GHz	1.6×10^{-2}	
		(2 ~ 7) GHz	3.0×10^{-2}	
		(7 ~ 18) GHz	3.1×10^{-2}	
		1.2 ~ 1.5		
		(0.05 ~ 2) GHz	1.8×10^{-2}	
		(2 ~ 7) GHz	3.1×10^{-2}	
		(7 ~ 18) GHz	3.4×10^{-2}	
		1.5 ~ 2.0		
		(0.05 ~ 2) GHz	2.1×10^{-2}	
		(2 ~ 8) GHz	3.8×10^{-2}	
		(8 ~ 18) GHz	4.1×10^{-2}	
Mobile communication test sets	40621			Power Splitter
Frequency		20 Hz ~ 25 kHz	6.1×10^{-8}	Measuring Receiver
		100 kHz ~ 6 GHz	6.4×10^{-10}	Microwave Converter
				Sensor Module
Output Level		100 kHz ~ 1 GHz		Digital Multimeter
		(-10 ~ 20) dBm	0.18 dB	Audio Analyzer
		(-40 ~ -10) dBm	0.25 dB	Spectrum Analyzer
		(-80 ~ -40) dBm	0.30 dB	Signal Generator
		(-110 ~ -80) dBm	0.34 dB	Universal Counter
		(-127 ~ -110) dBm	0.36 dB	Dual Directional Coupler
		1 GHz ~ 6 GHz		/ KRCMI-I-406-02
		(-10 ~ 20) dBm	0.20 dB	

406. RF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Mobile communication test sets	40621			Power Splitter
Output Level		(-40 ~ -10) dBm	0.26 dB	Measuring Receiver
		(-80 ~ -40) dBm	0.30 dB	Microwave Converter
		(-110 ~ -80) dBm	0.35 dB	Sensor Module
		(-127 ~ -110) dBm	0.37 dB	Digital Multimeter
				Audio Analyzer
Level Flateness		100 kHz ~ 6 GHz		Spectrum Analyzer
		(-30 ~ 0) dBm	0.18 dB	Signal Generator
				Universal Counter
Frequency Modulation		(1 ~ 100) kHz	2.4×10^{-2}	Dual Directional Coupler / KRCMI-I-406-02
Amplitude Modulation		(1 ~ 100) %	2.4×10^{-2}	
Output AC Level		10 Hz ~ 25 kHz		
		(10 ~ 100) mV	1.0×10^{-3}	
		(0.1 ~ 1) V	9.9×10^{-4}	
		(1 ~ 10) V	7.5×10^{-4}	
Input AC Level		10 Hz ~ 25 kHz		
		10 mV ~ 10 V	6.1×10^{-4}	
Output DC Level		(0.1 ~ 10) V	6.9×10^{-5}	
Input DC level		(0.1 ~ 10) V	6.1×10^{-4}	
Input Level		100 kHz ~ 6 GHz		
		(-20 ~ 10) dBm	0.19 dB	
		(-40 ~ -20) dBm	0.25 dB	
		(-80 ~ -40) dBm	0.30 dB	
Modulation meters	40622			Audio Analyzer
AM		150 kHz ~ 1.3 GHz		Syntesizer Sweeper
		1 %	0.01 %	Synthesized CW Generator
		(1 ~ 20) %	0.28 %	Power Meter
		(20 ~ 40) %	0.57 %	Power Sensor
		(40 ~ 60) %	0.84 %	AM/FM Test Source
		(60 ~ 80) %	1.1 %	Network Analyzer
		(80 ~ 100) %	1.4 %	Calibration Kit
				Microwave Converter
FM		150 kHz ~ 1.3 GHz		Sensor Module
		1 kHz	1.0×10^{-2}	Power Splitter
		(1 ~ 100) kHz	1.4×10^{-2}	/ KRCMI-I-406-21
PM		150 kHz ~ 1.3 GHz		
		(1 ~ 100) rad	1.4×10^{-2}	
Network analyzers	40623			Universal Counter
Frequency		10 Hz ~ 1 kHz	5.8×10^{-8}	Power Meter
		1 kHz ~ 10 MHz	5.8×10^{-9}	Power Sensor
		10 MHz ~ 18 GHz	8.2×10^{-10}	Calibration Kit
				Measuring Receiver
				Microwave Converter

406. RF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Network analyzers	40623			Sensor Module
Output level accuracy & linearity		-60 dBm ~ 20 dBm		Spectrum Analyzer
		10 Hz ~ 10 kHz	0.05 dB	Attenuator Set
		10 kHz ~ 100 MHz	0.10 dB	/ KRCMI-I-406-03
		100 MHz ~ 1 GHz	0.11 dB	
		1 GHz ~ 5 GHz	0.16 dB	
		5 GHz ~ 10 GHz	0.17 dB	
		10 GHz ~ 15 GHz	0.18 dB	
		15 GHz ~ 18 GHz	0.21 dB	
Output level flatness		-40 dBm ~ 0 dBm		
		10 Hz ~ 10 kHz	0.04 dB	
		10 kHz ~ 100 MHz	0.10 dB	
		100 MHz ~ 1 GHz	0.11 dB	
		1 GHz ~ 5 GHz	0.14 dB	
		5 GHz ~ 10 GHz	0.15 dB	
		10 GHz ~ 15 GHz	0.18 dB	
		15 GHz ~ 18 GHz	0.21 dB	
Dynamic range accuracy		100 kHz ~ 18 GHz		
		0 dB ~ 20 dB	0.04 dB	
		20 dB ~ 40 dB	0.05 dB	
		40 dB ~ 60 dB	0.06 dB	
		60 dB ~ 70 dB	0.07 dB	
		70 dB ~ 90 dB	0.08 dB	
		90 dB ~ 100 dB	0.09 dB	
SWR		1.0		
		DC ~ 1 GHz	0.012	
		1 GHz ~ 6 GHz	0.021	
		6 GHz ~ 12 GHz	0.023	
		12 GHz ~ 18 GHz	0.024	
		1.2		
		DC ~ 1 GHz	0.016	
		1 GHz ~ 9 GHz	0.027	
		9 GHz ~ 12 GHz	0.028	
		12 GHz ~ 15 GHz	0.025	
		15 GHz ~ 18 GHz	0.026	
		1.5		
		DC ~ 1 GHz	0.023	
		1 GHz ~ 6 GHz	0.042	
		6 GHz ~ 9 GHz	0.044	
		9 GHz ~ 12 GHz	0.047	
		12 GHz ~ 15 GHz	0.046	
		15 GHz ~ 18 GHz	0.050	
		2.0		
		DC ~ 1 GHz	0.039	

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Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Network analyzers	40623			Measuring Receiver
SWR		1 GHz ~ 6 GHz	0.070	Microwave Converter
		6 GHz ~ 9 GHz	0.075	Sensor Module
		9 GHz ~ 12 GHz	0.073	Spectrum Analyzer
		12 GHz ~ 15 GHz	0.069	Attenuator Set
		15 GHz ~ 18 GHz	0.090	/ KRCMI-I-406-03
Noise figure meters	40624			Network Analyzer
Reference Frequency		10 MHz	6.4×10^{-10}	Noise Source
				Digital Multimeter
Input SWR		10 MHz ~ 12 GHz	0.07	Universal Counter
		12 GHz ~ 18 GHz	0.11	/ KRCMI-I-406-28
Noise figure		10 MHz ~ 6 GHz	0.47 dB	
		6 GHz ~ 18 GHz	0.48 dB	
Supply Voltage		(0 ~ 30) V	0.001 4 V	
Noise impulse simulators	40626			High Voltage Prove
Pulse Voltage		±		Oscilloscope
		(0.01 ~ 5) Kv	2.8×10^{-2}	/ KRCMI-I-406-04
Pulse Width		50 ns ~ 1 ms	3.5×10^{-3}	
Rise Time		(0.1 ~ 100) ns	4.6×10^{-3}	
RF power meters	40635			Range Calibrator
Power		3 μW ~ 100 mW	2.5×10^{-3}	Thermistor Mount
				Power Meter, Power Sensor
Reference Power		1 mW	5.6×10^{-3}	Digital Multimeter
				/ KRCMI-I-406-05
Diode power sensors	40636	(3 μW ~ 100 mW)		Power Meter
		9 kHz ~ 1 GHz	1.5×10^{-2}	Synthesized Sweeper
		1 GHz ~ 6 GHz	1.8×10^{-2}	Dual Directional Coupler
		6 GHz ~ 12 GHz	2.1×10^{-2}	/ KRCMI-I-406-06
		12 GHz ~ 15 GHz	2.2×10^{-2}	
		15 GHz ~ 18 GHz	2.6×10^{-2}	
Thermocouple power sensors	40637	(3 μW ~ 100 mW)		Power Meter
		9 kHz ~ 1 GHz	1.5×10^{-2}	Synthesized Sweeper
		1 GHz ~ 6 GHz	1.8×10^{-2}	Dual Directional Coupler
		6 GHz ~ 12 GHz	2.1×10^{-2}	/ KRCMI-I-406-07
		12 GHz ~ 15 GHz	2.2×10^{-2}	
		15 GHz ~ 18 GHz	2.6×10^{-2}	
Pulse generators	40638			Universal Counter
Period		100 ps ~ 10 s	5.8×10^{-9}	Oscilloscope
				/ KRCMI-I-406-08
Delay		1 ns ~ 10 s	5.8×10^{-3}	
Width		100 ps ~ 10 s	5.8×10^{-3}	

406. RF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Pulse generators	40638			Universal Counter
Transition time		4.5 ns ~ 10 ms	5.8×10^{-3}	Oscilloscope
				/ KRCMI-I-406-08
Output level		±		
		(1 mV ~ 20 V)	1.8×10^{-3}	
RF signal generators	40640			Universal Counter
Frequency		9 kHz ~ 18 GHz	6.0×10^{-10}	Synthesizer Sweeper
				Power Meter
Output level		9 kHz ~ 150 kHz		Power Sensor
		(-60 ~ 20) dBm	0.10 dB	Measuring Receiver
				Microwave Converter
		150 kHz ~ 100 MHz		Sensor Module
		(0 ~ 20) dBm	0.17 dB	GPS Receiver
		(-40 ~ 0) dBm	0.18 dB	Spectrum Analyzer
		(-50 ~ -40) dBm	0.19 dB	/ KRCMI-I-406-09
		(-80 ~ -50) dBm	0.24 dB	
		(-120 ~ -80) dBm	0.25 dB	
		100 MHz ~ 1 GHz		
		(0 ~ 20) dBm	0.17 dB	
		(-40 ~ 0) dBm	0.18 dB	
		(-50 ~ -40) dBm	0.19 dB	
		(-80 ~ -50) dBm	0.24 dB	
		(-120 ~ -80) dBm	0.26 dB	
		1 GHz ~ 2 GHz		
		(0 ~ 20) dBm	0.18 dB	
		(-40 ~ 0) dBm	0.19 dB	
		(-50 ~ -40) dBm	0.20 dB	
		(-80 ~ -50) dBm	0.25 dB	
		(-120 ~ -80) dBm	0.26 dB	
		2 GHz ~ 10 GHz		
		(0 ~ 20) dBm	0.19 dB	
		(-40 ~ 0) dBm	0.20 dB	
		(-50 ~ -40) dBm	0.21 dB	
		(-80 ~ -50) dBm	0.25 dB	
		(-120 ~ -80) dBm	0.27 dB	
		10 GHz ~ 18 GHz		
		(0 ~ 20) dBm	0.20 dB	
		(-40 ~ 0) dBm	0.21 dB	
		(-50 ~ -40) dBm	0.22 dB	
		(-80 ~ -50) dBm	0.26 dB	
		(-120 ~ -80) dBm	0.28 dB	
Level Flatness		(-40 ~ 0) dBm		
		9 kHz ~ 1 GHz	0.08 dB	
		1 GHz ~ 2 GHz	0.09 dB	
		2 GHz ~ 3 GHz	0.11 dB	

406. RF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
RF signal generators	40640			Universal Counter
Level Flatness		3 GHz ~ 9 GHz	0.12 dB	Synthesizer Sweeper
		9 GHz ~ 18 GHz	0.14 dB	Power Meter
				Power Sensor
FM Modulation		(1 ~ 100) kHz	2.4×10^{-2}	Measuring Receiver
				Microwave Converter
AM Modulation		(1 ~ 100) %	2.4×10^{-2}	Sensor Module
				GPS Receiver
Audio Frequency		40 Hz ~ 100 kHz	6.1×10^{-8}	Spectrum Analyzer
				/ KRCMI-I-406-09
RF spectrum analyzers	40641			GPS Receiver
Reference		10 MHz	4.0×10^{-10}	Universal Counter
				Syntesizer Sweeper
Frequency Readout		9 kHz ~ 18 GHz	$6.0 \times 10^{-4} \times$ Span	Synthesized CW Generator
				Power Meter
Frequency Mark Count		9 kHz ~ 18 GHz	0.6 Hz	Power Sensor
				Power Splitter
Frequency span		8 kHz ~ 1 800 MHz	$1.4 \times 10^{-4} \times$ Span	/ KRCMI-I-406-10
Scale Fidelity		(-20 ~ 0) dB	0.05 dB	
		(-40 ~ -20) dB	0.06 dB	
		(-60 ~ -40) dB	0.07 dB	
		(-80 ~ -60) dB	0.09 dB	
Reference Level		(-20 ~ 0) dBm	0.05 dB	
		(-40 ~ -20) dBm	0.06 dB	
		(-60 ~ -40) dBm	0.07 dB	
		(-80 ~ -60) dBm	0.09 dB	
Resolution Bandwidth		1 kHz ~ 10 MHz	$2.2 \times 10^{-3} \times$ RBW	
Cal output Frequency		(1 ~ 500) MHz	7.8×10^{-9}	
Cal output amplitude		(-30 ~ 0) dBm	0.06 dB	
Frequency response		9 kHz ~ 500 MHz	0.08 dB	
		500 MHz ~ 3 GHz	0.10 dB	
		3 GHz ~ 10 GHz	0.11 dB	
		10 GHz ~ 18 GHz	0.15 dB	
RF speed guns	40642			Speed Calibrator
Speed		(5 ~ 1 600) m/s	0.01 m/s	Microwave Frequency Counter
		(1 600 ~ 3 000) m/s	0.02 m/s	/ KRCMI-I-406-32
Frequency		(10.2 ~ 10.6) GHz	7 kHz	
Surge Generator	40643			High Voltage Prove
Voltage		(±)		Oscilloscope
		(0.02 ~ 20) V	3.2×10^{-3}	Current Monitor
				Attenuator
		(20 ~ 70) V	1.2×10^{-2}	/ KRCMI-I-406-11

406. RF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Surge Generator	40643			High Voltage Prove
Voltage		(70 ~ 100) V	2.6×10^{-2}	Oscilloscope
		(0.1 ~ 30) kV	2.6×10^{-2}	Current Monitor
		(30 ~ 100) kV	1.0×10^{-2}	Attenuator
		(100 ~ 500) kV	1.0×10^{-2}	/ KRCMI-I-406-11
Current		(±)		
		(1 ~ 50) A	1.7×10^{-2}	
		(50 ~ 100) A	1.7×10^{-2}	
		(100 ~ 500) A	1.7×10^{-2}	
		(500 ~ 1 000) A	1.7×10^{-2}	
		(1 ~ 5) kA	1.7×10^{-2}	
		(5 ~ 10) kA	1.7×10^{-2}	
		(10 ~ 50) kA	1.7×10^{-2}	
		(50 ~ 100) kA	1.7×10^{-2}	
		(100 ~ 150) kA	2.0×10^{-2}	
		(150 ~ 200) kA	2.0×10^{-2}	
Front Time		(0.4 ~ 10) μs	3.4×10^{-3}	
		(10 ~ 400) μs	3.6×10^{-3}	
Time to Half Value		(10 ~ 800) μs	4.0×10^{-3}	
		(0.8 ~ 6) ms	4.0×10^{-3}	
Rise Time , Fall Time		(0.002 ~ 1 000) μs	3.6×10^{-3}	
		(1 ~ 10) ms	3.6×10^{-3}	
		(10 ~ 20) ms	6.0×10^{-3}	
Pulse Width		(1 ~ 1 000) μs	3.5×10^{-3}	
		(1 ~ 500) ms	3.5×10^{-3}	
Duration Time		(0.01 ~ 1 000) μs	3.5×10^{-3}	
		(1 ~ 1 000) ms	3.5×10^{-3}	
		(1 ~ 6) s	3.5×10^{-3}	
Phase		(220 V , 60 Hz)		
		0° ~ 10°	7.0×10^{-2}	
		10° ~ 90°	8.1×10^{-3}	
		90° ~ 180°	4.4×10^{-3}	
		180° ~ 270°	3.3×10^{-3}	
		270° ~ 360°	2.8×10^{-3}	
		(230 V , 50 Hz)		
		0° ~ 10°	5.9×10^{-2}	
		10° ~ 90°	6.7×10^{-3}	
		90° ~ 180°	3.7×10^{-3}	
		180° ~ 270°	2.7×10^{-3}	
		270° ~ 360°	2.3×10^{-3}	

406. RF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Surge Generator	40643			High Voltage Prove
Ratio		(±)		Oscilloscope
		(50 ~ 350) kV		Current Monitor
		200 ~ 50 000	7.1×10^{-3}	Attenuator
		(±)		/ KRCMI-I-406-11
		(350 ~ 500) kV		
		200 ~ 50 000	1.1×10^{-2}	
SWR meters	40644			Network Analyzer
VSWR		1.0		Calibration Kit
		DC ~ 1 GHz	0.013	Spectrum Analyzer
		(1 ~12) GHz	0.023	Mismatch Set
		(12 ~ 18) GHz	0.024	Pulse/CW Micro. Counter
				Power Meter
		1.2		Power Sensor
		DC ~ 3 GHz	0.016	/ KRCMI-I-406-22
		(3 ~ 9) GHz	0.026	
		(9 ~ 18) GHz	0.027	
		1.5		
		DC ~ 3 GHz	0.022	
		(3 ~ 6) GHz	0.038	
		(6 ~ 9) GHz	0.042	
		(9 ~ 12) GHz	0.044	
		(12 ~ 15) GHz	0.047	
		(15 ~ 18) GHz	0.049	
		2.0		
		DC ~ 3 GHz	0.039	
		(3 ~ 6) GHz	0.067	
		(6 ~ 9) GHz	0.070	
		(9 ~ 15) GHz	0.074	
		(15 ~ 18) GHz	0.090	
Source power		(-30 ~ 10) dBm		
		(0.01 ~ 1) GHz	0.07 dB	
		(1 ~ 10) GHz	0.09 dB	
		(10 ~ 18) GHz	0.12 dB	
Frequency		100 kHz ~ 18 GHz	6.1×10^{-9}	
RF terminations	40645			Network Analyzer
VSWR		(0.05 ~ 2) GHz	0.009	Calibration Kit
		(2 ~ 18) GHz	0.012	/ KRCMI-I-406-23
RF voltmeters	40650			Power Meter
Voltage		100 kHz ~ 1 GHz		Signal Generator
		1 mV ~ 10 V	2.2×10^{-2}	/ KRCMI-I-406-13
Field strength meters	40652			Measuring Receiver
Reference frequency		10 MHz	1×10^{-8}	Signal Generator
				Power Sensor

406. RF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Field strength meters	40652			Frequency Counter
Frequency response		-40 dBm ~ 10 dBm		/KRCMI-I-406-33
		50 MHz ~ 1 GHz	0.23 dB	
		1 GHz ~ 8 GHz	0.35 dB	
		8 GHz ~ 18 GHz	0.47 dB	
		-80 dBm ~ -40 dBm		
		50 MHz ~ 1 GHz	0.23 dB	
		1 GHz ~ 8 GHz	0.37 dB	
		8 GHz ~ 18 GHz	0.49 dB	
Amplitude modulation		150 kHz ~ 18 GHz		
		5 % ~ 100 %	2.7×10^{-2}	
Frequency modulation		150 kHz ~ 18 GHz		
		5 kHz ~ 100 kHz	2.7×10^{-2}	
Dip simulators	40654			Oscilloscope
Line Voltage		(50 ~ 60) Hz		Digital Multimeter
		(10 ~ 100) V	2.3×10^{-3}	Frequency Counter
		(100 ~ 300) V	1.1×10^{-3}	High Voltage Differential
		(300 ~ 400) V	9.5×10^{-4}	Probe
				/ KRCMI-I-406-31
Line Frequency		(49 ~ 61) Hz	2.0×10^{-4}	
Dip & Up Voltage		220 V , (50 ~ 60) Hz		
		Dip : 120 %		
		(250 ~ 300) V	2.5×10^{-2}	
		Dip : 80 %		
		(160 ~ 200) V	1.9×10^{-2}	
		Dip : 70 %		
		(140 ~ 180) V	2.1×10^{-2}	
		Dip : 40 %		
		(80 ~ 100) V	3.7×10^{-2}	
		Dip : 0 %		
		(1 ~ 10) V	3.4×10^{-1}	
		120 V , (50 ~ 60) Hz		
		Dip : 120 %		
		(110 ~ 170) V	2.2×10^{-2}	
		Dip : 80 %		
		(70 ~ 120) V	1.8×10^{-2}	
		Dip : 70 %		
		(60 ~ 100) V	2.0×10^{-2}	
		Dip : 40 %		
		(30 ~ 60) V	3.5×10^{-2}	
		Dip : 0 %		
		(1 ~ 10) V	1.7×10^{-1}	

Accreditation No. : KC01-38

406. RF Measurements

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Dip simulators	40654			Oscilloscope
Duration Time		(1 ~ 10) ms	4.0×10^{-3}	Digital Multimeter
		(10 ~ 50) ms	4.0×10^{-3}	Frequency Counter
		(50 ~ 100) ms	4.0×10^{-3}	High Voltage Differential
		(100 ~ 500) ms	4.0×10^{-3}	Probe
		(0.5 ~ 1) s	4.0×10^{-3}	/ KRCMI-I-406-31
		(1 ~ 6) s	4.0×10^{-3}	
Phase		(220 V , 60 Hz)		
		0 ° ~ 10 °	7.0×10^{-2}	
		10 ° ~ 90 °	8.1×10^{-3}	
		90 ° ~ 180 °	4.4×10^{-3}	
		180 ° ~ 270 °	3.3×10^{-3}	
		270 ° ~ 360 °	2.8×10^{-3}	
		(230 V , 50 Hz)		
		0 ° ~ 10 °	1.3×10^{-1}	
		10 ° ~ 90 °	1.4×10^{-2}	
		90 ° ~ 180 °	7.8×10^{-3}	
		180 ° ~ 270 °	5.9×10^{-3}	
		270 ° ~ 360 °	5.0×10^{-3}	

Accreditation No. : KC01-38

501. temperature

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Temperature generators: ovens,	50101	(-196 ~ 0) ℃	0.018 ℃	S.P.R.T
furnaces, isothermal liquid		0 ℃	0.015 ℃	/ KRCMI-I-501-01
baths, ice-point baths,		(0 ~ 550) ℃	0.018 ℃	S.P.R.T
dry-block calibrators		(550 ~ 700) ℃	0.49 ℃	S-Type Thermocouple
		(700 ~ 1 100) ℃	0.67 ℃	/ KRCMI-I-501-02
		(1 100 ~ 1 500) ℃	3.1 ℃	
		(1 000 ~ 1 100) ℃	1.2 ℃	
		(1 100 ~ 1 200) ℃	4.0 ℃	
Temperature indicators/	50102			S.P.R.T
recorders /controllers,				S-Type Thermocouple
temperature calibrators				/ KRCMI-I-501-03
Temperature indicators/recorders		(-196 ~ 550) ℃	0.022 ℃	Meter Calibrator
/controllers (with Sensors)		(550 ~ 700) ℃	0.49 ℃	/ KRCMI-I-501-04
		(700 ~ 1 100) ℃	0.60 ℃	Meter Calibrator
		(1 100 ~ 1 500) ℃	3.1 ℃	/ KRCMI-I-501-05
Thermoelectric (only indicators)		(-196 ~ 650) ℃	0.04 ℃	
		(650 ~ 1 000) ℃	0.16 ℃	
		(1 000 ~ 1 300) ℃	0.22 ℃	
		(1 300 ~ 1 500) ℃	0.36 ℃	
Electric temp. calibrator		(-196 ~ 0) ℃	0.05 ℃	
Thermoelectric		(0 ~ 1 300) ℃	0.03 ℃	
		(1 300 ~ 1 500) ℃	0.1 ℃	
Glass thermometers;	50103	(-80 ~ -50) ℃	0.15 ℃	S.P.R.T
liquid-in-glass, Beckmann		(-50 ~ 400) ℃	0.04 ℃	/ KRCMI-I-501-06
		(400 ~ 500) ℃	0.58 ℃	
Resistance thermometers;	50104			S.P.R.T
SPRT, IPRT, thermistors, etc		(-196 ~ 550) ℃	0.024 ℃	/ KRCMI-I-501-08
Thermal expansion thermometers;	50105	(-50 ~ 150) ℃	0.3 ℃	S.P.R.T
bimetal, gas or liquid type		(150 ~ 250) ℃	0.6 ℃	S-Type Thermocouple
		(250 ~ 350) ℃	1.4 ℃	/ KRCMI-I-501-10
		(350 ~ 550) ℃	3.0 ℃	
Thermomecoules: noble metal,	50106			S.P.R.T
base metal, pure metal,				S-Type Thermocouple
special type, etc.				/ KRCMI-I-501-11
				S-Type Thermocouple
Thermocouple		(-196 ~ 550) ℃	0.4 ℃	/ KRCMI-I-501-13
		(550 ~ 1 100) ℃	0.9 ℃	
		(1 100 ~ 1 300) ℃	3.1 ℃	
Noble-metal thermocouple		(0 ~ 1 100) ℃	0.8 ℃	
		(1 100 ~ 1 500) ℃	3.1 ℃	
Temperature transducers	50107	(-196 ~ 550) ℃	0.04 ℃	S.P.R.T
		(550 ~ 1 100) ℃	0.8 ℃	S-Type Thermocouple
		(1 100 ~ 1 300) ℃	3.1 ℃	/ KRCMI-I-501-12

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501. temperature

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Others; quartz,semiconductivity, optical fiber etc. Semiconductive thermometers	50109	(-50 ~ 250) ℃	0.06 ℃	S.P.R.T / KRCMI-I-501-09

502. non contact thermometry

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Radiation thermometers	50204	(0 ~ 50) ℃ (50 ~ 150) ℃ (150 ~ 200) ℃ (200 ~ 400) ℃ (400 ~ 600) ℃ (600 ~ 800) ℃ (800 ~ 900) ℃ (900 ~ 1 000) ℃	1.6 ℃ 1.7 ℃ 1.9 ℃ 2.0 ℃ 2.2 ℃ 2.4 ℃ 2.5 ℃ 2.7 ℃	Standard radiation Thermometers / KRCMI-I-502-01
Thermal image apparatus	50205	(50 ~ 100) ℃ (100 ~ 150) ℃ (150 ~ 200) ℃ (200 ~ 400) ℃ (400 ~ 500) ℃	1.8 ℃ 1.9 ℃ 2.0 ℃ 2.1 ℃ 2.3 ℃	Standard radiation Thermometers / KRCMI-I-502-02
Blackbody furnaces	50206	(0 ~ 50) ℃ (50 ~ 150) ℃ (150 ~ 200) ℃ (200 ~ 400) ℃ (400 ~ 600) ℃ (600 ~ 800) ℃ (800 ~ 900) ℃ (900 ~ 1 000) ℃	1.2 ℃ 1.4 ℃ 1.6 ℃ 1.7 ℃ 1.9 ℃ 2.2 ℃ 2.3 ℃ 2.5 ℃	Standard radiation Thermometers / KRCMI-I-502-03

Accreditation No. : KC01-38

503. Humidity

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Dew-point hygrometers;chilled mirror, alumina thinfilm	50301	(-80 ~ -70) ℃ (-70 ~ -20) ℃ (-20 ~ 10) ℃ D.P. (10 ~ 70) ℃ D.P. (70 ~ 93) ℃ D.P.	0.64 ℃ D.P. 0.40 ℃ D.P. 0.18 ℃ D.P. 0.14 ℃ D.P. 0.16 ℃ D.P.	Dewpoint Metet / KRCMI-I-503-09
Relative humidity hygrometers; polimer thinfilm, hair	50302	(20 ~ 30) % R.H. (30 ~ 50) % R.H. (50 ~ 70) % R.H. (70 ~ 90) % R.H. (90 ~ 95) % R.H. (-40 ~ 100) ℃	1.9 % R.H. 1.6 % R.H. 1.8 % R.H. 2.1 % R.H. 2.2 % R.H. 0.4 ℃	Dewpoint Metet / KRCMI-I-503-01 Dewpoint Metet / KRCMI-I-503-02
Psychrometers; assmann ventilated, PRT type	50303	(20 ~ 70) % R.H. (70 ~ 95) % R.H. (-40 ~ 100) ℃	1.9 % R.H. 2.2 % R.H. 0.4 ℃	Dewpoint Metet / KRCMI-I-503-03 Calibrator / KRCMI-I-503-04
Temperature humidity recorders ; Hygrothermograph	50304	(20 ~ 30) % R.H. (30 ~ 50) % R.H. (50 ~ 70) % R.H. (70 ~ 90) % R.H. (90 ~ 95) % R.H. (-20 ~ 50) ℃	1.9 % R.H. 1.6 % R.H. 1.8 % R.H. 2.1 % R.H. 2.2 % R.H. 0.4 ℃	Dewpoint Metet / KRCMI-I-503-05
Transducers; dew-point/ dew-point humidity relative humidity	50305	(-70 ~ -10) ℃ D.P. (-10 ~ 80) ℃ D.P. (20 ~ 70) % R.H. (70 ~ 90) % R.H. (90 ~ 95) % R.H.	0.43 ℃ D.P. 0.35 ℃ D.P. 1.9 % R.H. 2.1 % R.H. 2.3 % R.H.	Dewpoint Metet / KRCMI-I-503-06
Humidity generators; two-pressure, two-temperature, flow mixing humidity gererator, constant temperature and humidity chamber)	50306	(10 ~ 80) % R.H. (80 ~ 95) % R.H. (-75 ~ 180) ℃	1.8 % R.H. 2.4 % R.H. 0.4 ℃	Dewpoint Metet / KRCMI-I-503-07

Accreditation No. : KC01-38

601. Acoustics

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Sound level meters	60106	31.5 Hz	0.3 dB	Calibrator / KRCMI-I-601-01
		63 Hz	0.3 dB	
		125 Hz	0.3 dB	
		250 Hz	0.2 dB	
		500 Hz	0.2 dB	
		1 kHz	0.2 dB	
		2 kHz	0.2 dB	
		4 kHz	0.3 dB	
		8 kHz	0.3 dB	
		12.5 kHz	0.4 dB	

Accreditation No. : KC01-38

603. Vibration

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Vibration calibrators	60301	(10 ~ 160) Hz	1.6×10^{-2}	Accelerometer
		(160 ~ 5 000) Hz	1.8×10^{-2}	/ KRCMI-I-603-01
Vibration transducers	60302	1 Hz	2.3×10^{-2}	Accelerometer
		(1 ~ 5) Hz	2.1×10^{-2}	/ KRCMI-I-603-02
		(5 ~ 160) Hz	1.5×10^{-2}	
		(160 ~ 5 000) Hz	1.7×10^{-2}	
Vibration measuring instruments	60303			Accelerometer
Acceleration		(10 ~ 2 500) Hz	1.5×10^{-2}	/ KRCMI-I-603-03
Speed		(10 ~ 2 500) Hz	1.5×10^{-2}	
Displacement		(10 ~ 160) Hz	1.4×10^{-2}	
		(160 ~ 315) Hz	2.1×10^{-2}	
		(315 ~ 630) Hz	6.6×10^{-2}	

Accreditation No. : KC01-38

701. Photometry

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Iluminance meters	70101	0.5 lx (0.5 ~ 1) lx (1 ~ 3 000) lx	2.7 % 2.5 % 2.4 %	Illuminance / KRCMI-I-701-01

Accreditation No. : KC01-38

901. Chemical analysis

Measured Quantity Instrument or Gauge	Field code	Range	Uncertainty of measurement (The Confidence Level is about 95 %)	Comments
Gas analyzers O_2	90106	(5 ~ 25) cmol/mol	2.4 %	Standard Gas / KRCMI-I-901-01