



財團法人全國認證基金會  
Taiwan Accreditation Foundation

## Certificate of Accreditation

(Certificate No: L1160-260324)

This is to certify that

**Gong-Hung Technology Co., Ltd.**

**GCH Technology Calibration Laboratory (Electrical)**

No.1, Ln. 36, Wenfeng St., Fengshan Dist., Kaohsiung City 830, Taiwan (R.O.C.)

**is accredited in respect of laboratory**

**Accreditation Criteria** : ISO/IEC 17025: 2017; CNS 17025: 2018

**Accreditation Number** : 1160

**Originally Accredited** : December 01, 2003

**Effective Period** : March 24, 2026 to March 23, 2029

**Accredited Scope** : Calibration Field, see described in the Appendix



Scan to verify

*Yi-Ling Chen*

Yi-Ling Chen  
President, Taiwan Accreditation Foundation  
March 24, 2026

Accreditation Number : 1160  
Laboratory Head : CHEN, Chin-Chuan

## Electricity

calibration items	working standard brand /model	calibration method document name /no.	measurand level or range				measurement conditions /independent variable explanation	smallest uncertainty	
			minimum value	units	maximum value	units		value	units
KF1001 DC Voltage Source DC Voltage Meter (on-site calibration included)	FLUKE/8588A FLUKE/5502A	In-house method: DC Voltage calibration procedure (on-site calibration included) (Document No.: GCH-SCP-E01)	10	mV	10	mV	voltage source	82	μV/V
			100	mV	100	mV	voltage source	21	μV/V
			1	V	1	V	voltage source	7.3	μV/V
			10	V	10	V	voltage source	6.9	μV/V
			100	V	100	V	voltage source	11	μV/V
			1000	V	1000	V	voltage source	13	μV/V
			0.1	V	1	V	voltage source	21	μV/V
			>1	V	10	V	voltage source	7.4	μV/V
			>10	V	100	V	voltage source	11	μV/V
			>100	V	1000	V	voltage source	13	μV/V
			10	mV	10	mV	voltage meter	0.43	mV/V
			100	mV	100	mV	voltage meter	0.11	mV/V
			1	V	1	V	voltage meter	68	μV/V
			10	V	10	V	voltage meter	67	μV/V
			100	V	100	V	voltage meter	72	μV/V
			1000	V	1000	V	voltage meter	69	μV/V
			0.1	V	1	V	voltage meter	0.11	mV/V
			>1	V	10	V	voltage meter	68	μV/V
			>10	V	100	V	voltage meter	73	μV/V
			>100	V	1000	V	voltage meter	73	μV/V



calibration items	working standard brand /model	calibration method document name /no.	measurand level or range				measurement conditions /independent variable explanation	smallest uncertainty	
			minimum value	units	maximum value	units		value	units
KF1001 DC Voltage Source DC Voltage Meter (on-site calibration included)	FLUKE/8588A FLUKE/5502A	In-house method: DC Voltage calibration procedure (on-site calibration included) (Document No.: GCH-SCP-E01)	10	mV	10	mV	voltage source (on-site calibration)	88	μV/V
			100	mV	100	mV	voltage source (on-site calibration)	22	μV/V
			1	V	1	V	voltage source (on-site calibration)	7.6	μV/V
			10	V	10	V	voltage source (on-site calibration)	6.9	μV/V
			100	V	100	V	voltage source (on-site calibration)	11	μV/V
			1000	V	1000	V	voltage source (on-site calibration)	13	μV/V
			0.1	V	1	V	voltage source (on-site calibration)	22	μV/V
			>1	V	10	V	voltage source (on-site calibration)	7.6	μV/V
			>10	V	100	V	voltage source (on-site calibration)	11	μV/V
			>100	V	1000	V	voltage source (on-site calibration)	13	μV/V
			10	mV	10	mV	voltage meter (on-site calibration)	0.43	mV/V
			100	mV	100	mV	voltage meter (on-site calibration)	0.11	mV/V
			1	V	1	V	voltage meter (on-site calibration)	68	μV/V
			10	V	10	V	voltage meter (on-site calibration)	67	μV/V
			100	V	100	V	voltage meter (on-site calibration)	72	μV/V
			1000	V	1000	V	voltage meter (on-site calibration)	69	μV/V



calibration items	working standard brand /model	calibration method document name /no.	measurand level or range				measurement conditions /independent variable explanation	smallest uncertainty	
			minimum value	units	maximum value	units		value	units
KF1001 DC Voltage Source DC Voltage Meter (on-site calibration included)	FLUKE/8588A FLUKE/5502A	In-house method: DC Voltage calibration procedure (on-site calibration included) (Document No.: GCH-SCP-E01)	0.1	V	1	V	voltage meter (on-site calibration)	0.11	mV/V
			>1	V	10	V	voltage meter (on-site calibration)	68	$\mu$ V/V
			>10	V	100	V	voltage meter (on-site calibration)	73	$\mu$ V/V
			>100	V	1000	V	voltage meter (on-site calibration)	73	$\mu$ V/V
Approval Signatory: HUNG, Chuan-Hsi; CHEN, Chin-Chuan									
KF1002 DC Current Source DC Current Meter (on-site calibration included)	FLUKE/8588A FLUKE/5502A	In-house method: DC Current calibration procedure (on-site calibration included) (Document No.: GCH-SCP-E02)	10	$\mu$ A	10	$\mu$ A	current source	0.11	mA/A
			100	$\mu$ A	100	$\mu$ A	current source	34	$\mu$ A/A
			1	mA	1	mA	current source	34	$\mu$ A/A
			10	mA	10	mA	current source	38	$\mu$ A/A
			100	mA	100	mA	current source	0.12	mA/A
			1	A	1	A	current source	0.35	mA/A
			10	A	10	A	current source	0.46	mA/A
			20	A	20	A	current source	1.3	mA/A
			0.1	mA	1	mA	current source	34	$\mu$ A/A
			>1	mA	10	mA	current source	38	$\mu$ A/A
			>10	mA	100	mA	current source	0.12	mA/A
			>0.1	A	1	A	current source	0.35	mA/A
			>1	A	10	A	current source	0.46	mA/A
			>10	A	20	A	current source	1.3	mA/A
			10	$\mu$ A	10	$\mu$ A	current meter	2.5	mA/A
			100	$\mu$ A	100	$\mu$ A	current meter	0.41	mA/A
			1	mA	1	mA	current meter	0.18	mA/A
10	mA	10	mA	current meter	0.16	mA/A			
100	mA	100	mA	current meter	0.16	mA/A			
1	A	1	A	current meter	0.52	mA/A			
10	A	10	A	current meter	0.77	mA/A			



calibration items	working standard brand /model	calibration method document name /no.	measurand level or range				measurement conditions /independent variable explanation	smallest uncertainty	
			minimum value	units	maximum value	units		value	units
KF1002 DC Current Source DC Current Meter (on-site calibration included)	FLUKE/8588A FLUKE/5502A	In-house method: DC Current calibration procedure (on-site calibration included) (Document No.: GCH-SCP-E02)	20	A	20	A	current meter	1.2	mA/A
			0.1	mA	1	mA	current meter	0.43	mA/A
			>1	mA	10	mA	current meter	0.19	mA/A
			>10	mA	100	mA	current meter	0.17	mA/A
			>0.1	A	1	A	current meter	0.52	mA/A
			>1	A	10	A	current meter	0.78	mA/A
			>10	A	20	A	current meter	1.3	mA/A
			10	μA	10	μA	current source (on-site calibration)	0.11	mA/A
			100	μA	100	μA	current source (on-site calibration)	37	μA/A
			1	mA	1	mA	current source (on-site calibration)	35	μA/A
			10	mA	10	mA	current source (on-site calibration)	38	μA/A
			100	mA	100	mA	current source (on-site calibration)	0.12	mA/A
			1	A	1	A	current source (on-site calibration)	0.35	mA/A
			10	A	10	A	current source (on-site calibration)	0.46	mA/A
			20	A	20	A	current source (on-site calibration)	1.3	mA/A
			0.1	mA	1	mA	current source (on-site calibration)	37	μA/A



calibration items	working standard brand /model	calibration method document name /no.	measurand level or range				measurement conditions /independent variable explanation	smallest uncertainty	
			minimum value	units	maximum value	units		value	units
KF1002 DC Current Source DC Current Meter (on-site calibration included)	FLUKE/8588A FLUKE/5502A	In-house method: DC Current calibration procedure (on-site calibration included) (Document No.: GCH-SCP-E02)	>1	mA	10	mA	current source (on-site calibration)	39	μA/A
			>10	mA	100	mA	current source (on-site calibration)	0.12	mA/A
			>0.1	A	1	A	current source (on-site calibration)	0.35	mA/A
			>1	A	10	A	current source (on-site calibration)	0.46	mA/A
			>10	A	20	A	current source (on-site calibration)	1.3	mA/A
			10	μA	10	μA	current meter (on-site calibration)	2.5	mA/A
			100	μA	100	μA	current meter (on-site calibration)	0.41	mA/A
			1	mA	1	mA	current meter (on-site calibration)	0.18	mA/A
			10	mA	10	mA	current meter (on-site calibration)	0.16	mA/A
			100	mA	100	mA	current meter (on-site calibration)	0.16	mA/A
			1	A	1	A	current meter (on-site calibration)	0.52	mA/A
			10	A	10	A	current meter (on-site calibration)	0.77	mA/A
			20	A	20	A	current meter (on-site calibration)	1.2	mA/A
			0.1	mA	1	mA	current meter (on-site calibration)	0.43	mA/A
			>1	mA	10	mA	current meter (on-site calibration)	0.19	mA/A
>10	mA	100	mA	current meter (on-site calibration)	0.17	mA/A			



calibration items	working standard	calibration method	measurand level or range				measurement conditions /independent variable	smallest uncertainty	
	brand /model	document name /no.	minimum value	units	maximum value	units	explanation	value	units
KF1002 DC Current Source DC Current Meter (on-site calibration included)	FLUKE/8588A FLUKE/5502A	In-house method: DC Current calibration procedure (on-site calibration included) (Document No.: GCH-SCP-E02)	>0.1	A	1	A	current meter (on-site calibration)	0.52	mA/A
			>1	A	10	A	current meter (on-site calibration)	0.78	mA/A
			>10	A	20	A	current meter (on-site calibration)	1.3	mA/A
Approval Signatory: HUNG, Chuan-Hsi; CHEN, Chin-Chuan									
KF1003 DC High Voltage Source DC High Voltage Meter (on-site calibration included)	KIKUSUI /149-10A KIKUSUI /Tos5101	In-house method: DC High Voltage calibration procedure (on-site calibration included) (Document No: GCH-SCP-E06)	1	kV	1	kV	voltage source	1.0	%
			2	kV	2	kV	voltage source	0.8	%
			3	kV	3	kV	voltage source	0.8	%
			4	kV	4	kV	voltage source	0.8	%
			5	kV	5	kV	voltage source	0.7	%
			6	kV	6	kV	voltage source	0.7	%
			7	kV	7	kV	voltage source	0.7	%
			8	kV	8	kV	voltage source	0.7	%
			9	kV	9	kV	voltage source	0.7	%
			10	kV	10	kV	voltage source	1	%
			1	kV	10	kV	voltage source	1.0	%
			1	kV	1	kV	voltage meter	2.1	%
			2	kV	2	kV	voltage meter	2.0	%
			3	kV	3	kV	voltage meter	2.0	%
			4	kV	4	kV	voltage meter	1.9	%
			5	kV	5	kV	voltage meter	1.9	%
			6	kV	6	kV	voltage meter	1.9	%
			7	kV	7	kV	voltage meter	1.9	%
			8	kV	8	kV	voltage meter	1.9	%
			9	kV	9	kV	voltage meter	1.9	%
10	kV	10	kV	voltage meter	3	%			
1	kV	10	kV	voltage meter	3.0	%			



calibration items	working standard brand /model	calibration method document name /no.	measurand level or range				measurement conditions /independent variable explanation	smallest uncertainty	
			minimum value	units	maximum value	units		value	units
KF1003 DC High Voltage Source DC High Voltage Meter (on-site calibration included)	KIKUSUI /149-10A KIKUSUI /Tos5101	In-house method: DC High Voltage calibration procedure (on-site calibration included) (Document No: GCH-SCP-E06)	1	kV	1	kV	voltage source (on-site calibration)	1.0	%
			2	kV	2	kV	voltage source (on-site calibration)	0.9	%
			3	kV	3	kV	voltage source (on-site calibration)	0.8	%
			4	kV	4	kV	voltage source (on-site calibration)	0.8	%
			5	kV	5	kV	voltage source (on-site calibration)	0.7	%
			6	kV	6	kV	voltage source (on-site calibration)	0.7	%
			7	kV	7	kV	voltage source (on-site calibration)	0.7	%
			8	kV	8	kV	voltage source (on-site calibration)	0.7	%
			9	kV	9	kV	voltage source (on-site calibration)	0.7	%
			10	kV	10	kV	voltage source (on-site calibration)	1	%
			1	kV	10	kV	voltage source (on-site calibration)	1.0	%
			1	kV	1	kV	voltage meter (on-site calibration)	2.1	%
			2	kV	2	kV	voltage meter (on-site calibration)	2.0	%
			3	kV	3	kV	voltage meter (on-site calibration)	2.0	%
			4	kV	4	kV	voltage meter (on-site calibration)	1.9	%
			5	kV	5	kV	voltage meter (on-site calibration)	1.9	%



calibration items	working standard brand /model	calibration method document name /no.	measurand level or range				measurement conditions /independent variable explanation	smallest uncertainty	
			minimum value	units	maximum value	units		value	units
KF1003 DC High Voltage Source DC High Voltage Meter (on-site calibration included)	KIKUSUI /149-10A KIKUSUI /Tos5101	In-house method: DC High Voltage calibration procedure (on-site calibration included) (Document No: GCH-SCP-E06)	6	kV	6	kV	voltage meter (on-site calibration)	1.9	%
			7	kV	7	kV	voltage meter (on-site calibration)	1.9	%
			8	kV	8	kV	voltage meter (on-site calibration)	1.9	%
			9	kV	9	kV	voltage meter (on-site calibration)	1.9	%
			10	kV	10	kV	voltage meter (on-site calibration)	3	%
			1	kV	10	kV	voltage meter (on-site calibration)	3.0	%
Approval Signatory: HUNG, Chuan-Hsi; CHEN, Chin-Chuan									
KF1011 AC Voltage Source AC Voltage Meter (on-site calibration included)	FLUKE/8588A FLUKE/5502A	In-house method: AC Voltage calibration procedure (on-site calibration included) (Document No.: GCH-SCP-E03)	10	mV	10	mV	voltage source (@ 60 Hz)	0.60	mV/V
			100	mV	100	mV	voltage source (@ 60 Hz)	0.17	mV/V
			1	V	1	V	voltage source (@ 60 Hz)	0.15	mV/V
			10	V	10	V	voltage source (@ 60 Hz)	0.15	mV/V
			100	V	100	V	voltage source (@ 60 Hz)	0.17	mV/V
			1000	V	1000	V	voltage source (@ 60 Hz)	0.24	mV/V
			0.1	V	1	V	voltage source (@ 60 Hz)	0.17	mV/V
			>1	V	10	V	voltage source (@ 60 Hz)	0.15	mV/V
			>10	V	100	V	voltage source (@ 60 Hz)	0.17	mV/V
			>100	V	1000	V	voltage source (@ 60 Hz)	0.24	mV/V
			10	mV	10	mV	voltage source (@1 kHz)	0.60	mV/V
			100	mV	100	mV	voltage source (@1 kHz)	0.17	mV/V
			1	V	1	V	voltage source (@1 kHz)	0.15	mV/V
			10	V	10	V	voltage source (@1 kHz)	0.15	mV/V
			100	V	100	V	voltage source (@1 kHz)	0.17	mV/V
			1000	V	1000	V	voltage source (@1 kHz)	0.24	mV/V
0.1	V	1	V	voltage source (@1 kHz)	0.17	mV/V			



calibration items	working standard brand /model	calibration method document name /no.	measurand level or range				measurement conditions /independent variable explanation	smallest uncertainty	
			minimum value	units	maximum value	units		value	units
KF1011 AC Voltage Source AC Voltage Meter (on-site calibration included)	FLUKE/8588A FLUKE/5502A	In-house method: AC Voltage calibration procedure (on-site calibration included) (Document No.: GCH-SCP-E03)	>1	V	10	V	voltage source (@1 kHz)	0.15	mV/V
			>10	V	100	V	voltage source (@1 kHz)	0.17	mV/V
			>100	V	1000	V	voltage source (@1 kHz)	0.24	mV/V
			10	mV	10	mV	voltage meter (@60 Hz)	5.1	mV/V
			100	mV	100	mV	voltage meter (@60 Hz)	1.1	mV/V
			1	V	1	V	voltage meter (@60 Hz)	0.93	mV/V
			10	V	10	V	voltage meter (@60 Hz)	0.93	mV/V
			100	V	100	V	voltage meter (@60 Hz)	1.1	mV/V
			1000	V	1000	V	voltage meter (@60 Hz)	0.65	mV/V
			0.1	V	1	V	voltage meter (@60 Hz)	1.1	mV/V
			>1	V	10	V	voltage meter (@60 Hz)	0.94	mV/V
			>10	V	100	V	voltage meter (@60 Hz)	1.1	mV/V
			>100	V	1000	V	voltage meter (@60 Hz)	1.1	mV/V
			10	mV	10	mV	voltage meter (@1 kHz)	4.8	mV/V
			100	mV	100	mV	voltage meter (@1 kHz)	0.69	mV/V
			1	V	1	V	voltage meter (@1 kHz)	0.57	mV/V
			10	V	10	V	voltage meter (@1 kHz)	0.57	mV/V
			100	V	100	V	voltage meter (@1 kHz)	0.78	mV/V
			1000	V	1000	V	voltage meter (@1 kHz)	0.65	mV/V
			0.1	V	1	V	voltage meter (@1 kHz)	0.70	mV/V
>1	V	10	V	voltage meter (@1 kHz)	0.57	mV/V			
>10	V	100	V	voltage meter (@1 kHz)	0.78	mV/V			
>100	V	1000	V	voltage meter (@1 kHz)	0.78	mV/V			



calibration items	working standard brand /model	calibration method document name /no.	measurand level or range				measurement conditions /independent variable explanation	smallest uncertainty	
			minimum value	units	maximum value	units		value	units
KF1011 AC Voltage Source AC Voltage Meter (on-site calibration included)	FLUKE/8588A FLUKE/5502A	In-house method: AC Voltage calibration procedure (on-site calibration included) (Document No.: GCH-SCP-E03)	10	mV	10	mV	voltage source (on-site calibration) (@ 60 Hz)	0.61	mV/V
			100	mV	100	mV	voltage source (on-site calibration) (@ 60 Hz)	0.17	mV/V
			1	V	1	V	voltage source (on-site calibration) (@ 60 Hz)	0.15	mV/V
			10	V	10	V	voltage source (on-site calibration) (@ 60 Hz)	0.15	mV/V
			100	V	100	V	voltage source (on-site calibration) (@ 60 Hz)	0.17	mV/V
			1000	V	1000	V	voltage source (on-site calibration) (@ 60 Hz)	0.24	mV/V
			0.1	V	1	V	voltage source (on-site calibration) (@ 60 Hz)	0.17	mV/V
			>1	V	10	V	voltage source (on-site calibration) (@ 60 Hz)	0.16	mV/V
			>10	V	100	V	voltage source (on-site calibration) (@ 60 Hz)	0.17	mV/V
			>100	V	1000	V	voltage source (on-site calibration) (@ 60 Hz)	0.24	mV/V
			10	mV	10	mV	voltage source (on-site calibration) (@ 1 kHz)	0.60	mV/V
			100	mV	100	mV	voltage source (on-site calibration) (@ 1 kHz)	0.17	mV/V
			1	V	1	V	voltage source (on-site calibration) (@ 1 kHz)	0.15	mV/V
			10	V	10	V	voltage source (on-site calibration) (@ 1 kHz)	0.15	mV/V
			100	V	100	V	voltage source (on-site calibration) (@ 1 kHz)	0.17	mV/V
			1000	V	1000	V	voltage source (on-site calibration) (@ 1 kHz)	0.24	mV/V



calibration items	working standard brand /model	calibration method document name /no.	measurand level or range				measurement conditions /independent variable explanation	smallest uncertainty	
			minimum value	units	maximum value	units		value	units
KF1011 AC Voltage Source AC Voltage Meter (on-site calibration included)	FLUKE/8588A FLUKE/5502A	In-house method: AC Voltage calibration procedure (on-site calibration included) (Document No.: GCH-SCP-E03)	0.1	V	1	V	voltage source (on-site calibration) (@ 1 kHz)	0.17	mV/V
			>1	V	10	V	voltage source (on-site calibration) (@ 1 kHz)	0.15	mV/V
			>10	V	100	V	voltage source (on-site calibration) (@ 1 kHz)	0.17	mV/V
			>100	V	1000	V	voltage source (on-site calibration) (@ 1 kHz)	0.24	mV/V
			10	mV	10	mV	voltage meter (on-site calibration) (@60 Hz)	5.1	mV/V
			100	mV	100	mV	voltage meter (on-site calibration) (@60 Hz)	1.1	mV/V
			1	V	1	V	voltage meter (on-site calibration) (@60 Hz)	0.93	mV/V
			10	V	10	V	voltage meter (on-site calibration) (@60 Hz)	0.93	mV/V
			100	V	100	V	voltage meter (on-site calibration) (@60 Hz)	1.1	mV/V
			1000	V	1000	V	voltage meter (on-site calibration) (@60 Hz)	0.65	mV/V
			0.1	V	1	V	voltage meter (on-site calibration) (@60 Hz)	1.1	mV/V
			>1	V	10	V	voltage meter (on-site calibration) (@60 Hz)	0.94	mV/V
			>10	V	100	V	voltage meter (on-site calibration) (@60 Hz)	1.1	mV/V
			>100	V	1000	V	voltage meter (on-site calibration) (@60 Hz)	1.1	mV/V
			10	mV	10	mV	voltage meter (on-site calibration) (@1 kHz)	4.8	mV/V
			100	mV	100	mV	voltage meter (on-site calibration) (@1 kHz)	0.69	mV/V



calibration items	working standard brand /model	calibration method document name /no.	measurand level or range				measurement conditions /independent variable explanation	smallest uncertainty	
			minimum value	units	maximum value	units		value	units
KF1011 AC Voltage Source AC Voltage Meter (on-site calibration included)	FLUKE/8588A FLUKE/5502A	In-house method: AC Voltage calibration procedure (on-site calibration included) (Document No.: GCH-SCP-E03)	1	V	1	V	voltage meter (on-site calibration) (@1 kHz)	0.57	mV/V
			10	V	10	V	voltage meter (on-site calibration) (@1 kHz)	0.57	mV/V
			100	V	100	V	voltage meter (on-site calibration) (@1 kHz)	0.78	mV/V
			1000	V	1000	V	voltage meter (on-site calibration) (@1 kHz)	0.65	mV/V
			0.1	V	1	V	voltage meter (on-site calibration) (@1 kHz)	0.70	mV/V
			>1	V	10	V	voltage meter (on-site calibration) (@1 kHz)	0.57	mV/V
			>10	V	100	V	voltage meter (on-site calibration) (@1 kHz)	0.78	mV/V
			>100	V	1000	V	voltage meter (on-site calibration) (@1 kHz)	0.78	mV/V
Approval Signatory: HUNG, Chuan-Hsi; CHEN, Chin-Chuan									
KF1012 AC Current Source AC Current Meter (on-site calibration included)	FLUKE/8588A FLUKE/5502A	In-house method: AC Current calibration procedure (on-site calibration included) (Document No.: GCH-SCP-E04)	0.1	mA	0.1	mA	current source (@60 Hz)	0.60	mA/A
			1	mA	1	mA	current source (@60 Hz)	0.51	mA/A
			10	mA	10	mA	current source (@60 Hz)	0.51	mA/A
			100	mA	100	mA	current source (@60 Hz)	0.51	mA/A
			1	A	1	A	current source (@60 Hz)	0.59	mA/A
			10	A	10	A	current source (@60 Hz)	1.9	mA/A
			20	A	20	A	current source (@60 Hz)	2.2	mA/A
			0.1	mA	1	mA	current source (@60 Hz)	0.60	mA/A
			>1	mA	10	mA	current source (@60 Hz)	0.51	mA/A
			>10	mA	100	mA	current source (@60 Hz)	0.52	mA/A
			>0.1	A	1	A	current source (@60 Hz)	0.59	mA/A
			>1	A	10	A	current source (@60 Hz)	1.9	mA/A
			0.1	mA	0.1	mA	current source (@1 kHz)	0.60	mA/A



calibration items	working standard brand /model	calibration method document name /no.	measurand level or range				measurement conditions /independent variable explanation	smallest uncertainty	
			minimum value	units	maximum value	units		value	units
KF1012 AC Current Source AC Current Meter (on-site calibration included)	FLUKE/8588A FLUKE/5502A	In-house method: AC Current calibration procedure (on-site calibration included) (Document No.: GCH-SCP-E04)	1	mA	1	mA	current source (@1 kHz)	0.51	mA/A
			10	mA	10	mA	current source (@1 kHz)	0.51	mA/A
			100	mA	100	mA	current source (@1 kHz)	0.51	mA/A
			1	A	1	A	current source (@1 kHz)	0.59	mA/A
			10	A	10	A	current source (@1 kHz)	1.9	mA/A
			20	A	20	A	current source (@1 kHz)	2.2	mA/A
			0.1	mA	1	mA	current source (@1 kHz)	0.60	mA/A
			>1	mA	10	mA	current source (@1 kHz)	0.51	mA/A
			>10	mA	100	mA	current source (@1 kHz)	0.52	mA/A
			>0.1	A	1	A	current source (@1 kHz)	0.59	mA/A
			>1	A	10	A	current source (@1 kHz)	1.9	mA/A
			0.1	mA	0.1	mA	current meter (@60 Hz)	2.9	mA/A
			1	mA	1	mA	current meter (@60 Hz)	1.8	mA/A
			10	mA	10	mA	current meter (@60 Hz)	1.3	mA/A
			100	mA	100	mA	current meter (@60 Hz)	1.3	mA/A
			1	A	1	A	current meter (@60 Hz)	1.4	mA/A
			10	A	10	A	current meter (@60 Hz)	1.1	mA/A
			20	A	20	A	current meter (@60 Hz)	1.8	mA/A
			0.1	mA	1	mA	current meter (@60 Hz)	3.0	mA/A
			>1	mA	10	mA	current meter (@60 Hz)	1.9	mA/A
			>10	mA	100	mA	current meter (@60 Hz)	1.4	mA/A
			>0.1	A	1	A	current meter (@60 Hz)	1.4	mA/A
			>1	A	10	A	current meter (@60 Hz)	1.6	mA/A
			0.1	mA	0.1	mA	current meter (@1 kHz)	2.9	mA/A
			1	mA	1	mA	current meter (@1 kHz)	1.8	mA/A
			10	mA	10	mA	current meter (@1 kHz)	0.93	mA/A
			100	mA	100	mA	current meter (@1 kHz)	0.94	mA/A
			1	A	1	A	current meter (@1 kHz)	1.6	mA/A
			2	A	2	A	current meter (@1 kHz)	2.1	mA/A
			0.1	mA	1	mA	current meter (@1 kHz)	2.9	mA/A
>1	mA	10	mA	current meter (@1 kHz)	1.9	mA/A			



calibration items	working standard brand /model	calibration method document name /no.	measurand level or range				measurement conditions /independent variable explanation	smallest uncertainty	
			minimum value	units	maximum value	units		value	units
KF1012 AC Current Source AC Current Meter (on-site calibration included)	FLUKE/8588A FLUKE/5502A	In-house method: AC Current calibration procedure (on-site calibration included) (Document No.: GCH-SCP-E04)	>10	mA	100	mA	current meter (@1 kHz)	0.95	mA/A
			>0.1	A	1	A	current meter (@1 kHz)	1.6	mA/A
			0.1	mA	0.1	mA	current source (on-site calibration) (@60 Hz)	0.60	mA/A
			1	mA	1	mA	current source (on-site calibration) (@60 Hz)	0.51	mA/A
			10	mA	10	mA	current source (on-site calibration) (@60 Hz)	0.51	mA/A
			100	mA	100	mA	current source (on-site calibration) (@60 Hz)	0.51	mA/A
			1	A	1	A	current source (on-site calibration) (@60 Hz)	0.59	mA/A
			10	A	10	A	current source (on-site calibration) (@60 Hz)	1.9	mA/A
			20	A	20	A	current source (on-site calibration) (@60 Hz)	2.2	mA/A
			0.1	mA	1	mA	current source (on-site calibration) (@60 Hz)	0.60	mA/A
			>1	mA	10	mA	current source (on-site calibration) (@60 Hz)	0.51	mA/A
			>10	mA	100	mA	current source (on-site calibration) (@60 Hz)	0.52	mA/A
			>0.1	A	1	A	current source (on-site calibration) (@60 Hz)	0.59	mA/A
			>1	A	10	A	current source (on-site calibration) (@60 Hz)	1.9	mA/A
			0.1	mA	0.1	mA	current source (on-site calibration) (@1 kHz)	0.60	mA/A
			1	mA	1	mA	current source (on-site calibration) (@1 kHz)	0.51	mA/A



calibration items	working standard brand /model	calibration method document name /no.	measurand level or range				measurement conditions /independent variable explanation	smallest uncertainty	
			minimum value	units	maximum value	units		value	units
KF1012 AC Current Source AC Current Meter (on-site calibration included)	FLUKE/8588A FLUKE/5502A	In-house method: AC Current calibration procedure (on-site calibration included) (Document No.: GCH-SCP-E04)	10	mA	10	mA	current source (on-site calibration) (@1 kHz)	0.51	mA/A
			100	mA	100	mA	current source (on-site calibration) (@1 kHz)	0.51	mA/A
			1	A	1	A	current source (on-site calibration) (@1 kHz)	0.59	mA/A
			10	A	10	A	current source (on-site calibration) (@1 kHz)	1.9	mA/A
			20	A	20	A	current source (on-site calibration) (@1 kHz)	2.2	mA/A
			0.1	mA	1	mA	current source (on-site calibration) (@1 kHz)	0.60	mA/A
			>1	mA	10	mA	current source (on-site calibration) (@1 kHz)	0.51	mA/A
			>10	mA	100	mA	current source (on-site calibration) (@1 kHz)	0.52	mA/A
			>0.1	A	1	A	current source (on-site calibration) (@1 kHz)	0.59	mA/A
			>1	A	10	A	current source (on-site calibration) (@1 kHz)	1.9	mA/A
			0.1	mA	0.1	mA	current meter (on-site calibration) (@60 Hz)	2.9	mA/A
			1	mA	1	mA	current meter (on-site calibration) (@60 Hz)	1.8	mA/A
			10	mA	10	mA	current meter (on-site calibration) (@60 Hz)	1.3	mA/A
			100	mA	100	mA	current meter (on-site calibration) (@60 Hz)	1.3	mA/A
			1	A	1	A	current meter (on-site calibration) (@60 Hz)	1.4	mA/A
10	A	10	A	current meter (on-site calibration) (@60 Hz)	1.1	mA/A			



calibration items	working standard brand /model	calibration method document name /no.	measurand level or range				measurement conditions /independent variable explanation	smallest uncertainty	
			minimum value	units	maximum value	units		value	units
KF1012 AC Current Source AC Current Meter (on-site calibration included)	FLUKE/8588A FLUKE/5502A	In-house method: AC Current calibration procedure (on-site calibration included) (Document No.: GCH-SCP-E04)	20	A	20	A	current meter (on-site calibration) (@60 Hz)	1.8	mA/A
			0.1	mA	1	mA	current meter (on-site calibration) (@60 Hz)	3.0	mA/A
			>1	mA	10	mA	current meter (on-site calibration) (@60 Hz)	1.9	mA/A
			>10	mA	100	mA	current meter (on-site calibration) (@60 Hz)	1.4	mA/A
			>0.1	A	1	A	current meter (on-site calibration) (@60 Hz)	1.4	mA/A
			>1	A	10	A	current meter (on-site calibration) (@60 Hz)	1.6	mA/A
			0.1	mA	0.1	mA	current meter (on-site calibration) (@1 kHz)	2.9	mA/A
			1	mA	1	mA	current meter (on-site calibration) (@1 kHz)	1.8	mA/A
			10	mA	10	mA	current meter (on-site calibration) (@1 kHz)	0.93	mA/A
			100	mA	100	mA	current meter (on-site calibration) (@1 kHz)	0.94	mA/A
			1	A	1	A	current meter (on-site calibration) (@1 kHz)	1.6	mA/A
			2	A	2	A	current meter (on-site calibration) (@1 kHz)	2.1	mA/A
			0.1	mA	1	mA	current meter (on-site calibration) (@1 kHz)	2.9	mA/A
			>1	mA	10	mA	current meter (on-site calibration) (@1 kHz)	1.9	mA/A
			>10	mA	100	mA	current meter (on-site calibration) (@1 kHz)	0.95	mA/A



calibration items	working standard	calibration method	measurand level or range				measurement conditions /independent variable	smallest uncertainty	
	brand /model	document name /no.	minimum value	units	maximum value	units	explanation	value	units
KF1012 AC Current Source AC Current Meter (on-site calibration included)	FLUKE/8588A FLUKE/5502A	In-house method: AC Current calibration procedure (on-site calibration included) (Document No.: GCH-SCP-E04)	>0.1	A	1	A	current meter (on-site calibration) (@1 kHz)	1.6	mA/A
Approval Signatory: HUNG, Chuan-Hsi; CHEN, Chin-Chuan									
KF1013 AC High Voltage Source AC High Voltage Meter (on-site calibration included)	KIKUSUI/149-10A KIKUSUI/Tos 5101	AC High Voltage calibration procedure (on-site calibration included) (Document No.: GCH-SCP-E07)	1	kV	1	kV	voltage source (@60 Hz)	1.8	%
			2	kV	2	kV	voltage source (@60 Hz)	1.5	%
			3	kV	3	kV	voltage source (@60 Hz)	1.4	%
			4	kV	4	kV	voltage source (@60 Hz)	1.4	%
			5	kV	5	kV	voltage source (@60 Hz)	1.3	%
			6	kV	6	kV	voltage source (@60 Hz)	1.3	%
			7	kV	7	kV	voltage source (@60 Hz)	1.3	%
			8	kV	8	kV	voltage source (@60 Hz)	1.3	%
			9	kV	9	kV	voltage source (@60 Hz)	1.3	%
			10	kV	10	kV	voltage source (@60 Hz)	2	%
			1	kV	10	kV	voltage source (@60 Hz)	2.0	%
			1	kV	1	kV	voltage meter (@60 Hz)	2.6	%
			2	kV	2	kV	voltage meter (@60 Hz)	2.4	%
			3	kV	3	kV	voltage meter (@60 Hz)	2.3	%
			4	kV	4	kV	voltage meter (@60 Hz)	2.3	%
			5	kV	5	kV	voltage meter (@60 Hz)	2.2	%
			6	kV	6	kV	voltage meter (@60 Hz)	2.2	%
			7	kV	7	kV	voltage meter (@60 Hz)	2.2	%
			8	kV	8	kV	voltage meter (@60 Hz)	2.2	%
			9	kV	9	kV	voltage meter (@60 Hz)	2.2	%
10	kV	10	kV	voltage meter (@60 Hz)	3	%			
1	kV	10	kV	voltage meter (@60 Hz)	3.0	%			



calibration items	working standard brand /model	calibration method document name /no.	measurand level or range				measurement conditions /independent variable explanation	smallest uncertainty	
			minimum value	units	maximum value	units		value	units
KF1013 AC High Voltage Source AC High Voltage Meter (on-site calibration included)	KIKUSUI /149-10A KIKUSUI /Tos5101	AC High Voltage calibration procedure (on-site calibration included) (Document No: GCH-SCP-E07)	1	kV	1	kV	voltage source (on-site calibration) (@60 Hz)	1.8	%
			2	kV	2	kV	voltage source (on-site calibration) (@60 Hz)	1.5	%
			3	kV	3	kV	voltage source (on-site calibration) (@60 Hz)	1.4	%
			4	kV	4	kV	voltage source (on-site calibration) (@60 Hz)	1.4	%
			5	kV	5	kV	voltage source (on-site calibration) (@60 Hz)	1.3	%
			6	kV	6	kV	voltage source (on-site calibration) (@60 Hz)	1.3	%
			7	kV	7	kV	voltage source (on-site calibration) (@60 Hz)	1.3	%
			8	kV	8	kV	voltage source (on-site calibration) (@60 Hz)	1.3	%
			9	kV	9	kV	voltage source (on-site calibration) (@60 Hz)	1.3	%
			10	kV	10	kV	voltage source (on-site calibration) (@60 Hz)	2	%
			1	kV	10	kV	voltage source (on-site calibration) (@60 Hz)	2.0	%
			1	kV	1	kV	voltage meter (on-site calibration) (@60 Hz)	2.6	%
			2	kV	2	kV	voltage meter (on-site calibration) (@60 Hz)	2.4	%
			3	kV	3	kV	voltage meter (on-site calibration) (@60 Hz)	2.3	%
			4	kV	4	kV	voltage meter (on-site calibration) (@60 Hz)	2.3	%
			5	kV	5	kV	voltage meter (on-site calibration) (@60 Hz)	2.2	%



calibration items	working standard brand /model	calibration method document name /no.	measurand level or range				measurement conditions /independent variable explanation	smallest uncertainty	
			minimum value	units	maximum value	units		value	units
KF1013 AC High Voltage Source AC High Voltage Meter (on-site calibration included)	KIKUSUI /149-10A KIKUSUI /Tos5101	AC High Voltage calibration procedure (on-site calibration included) (Document No: GCH-SCP-E07)	6	kV	6	kV	voltage meter (on-site calibration) (@60 Hz)	2.2	%
			7	kV	7	kV	voltage meter (on-site calibration) (@60 Hz)	2.2	%
			8	kV	8	kV	voltage meter (on-site calibration) (@60 Hz)	2.2	%
			9	kV	9	kV	voltage meter (on-site calibration) (@60 Hz)	2.2	%
			10	kV	10	kV	voltage meter (on-site calibration) (@60 Hz)	3	%
			1	kV	10	kV	voltage meter (on-site calibration) (@60 Hz)	3.0	%

Approval Signatory: CHEN, Chin-Chuan

KF3001 high resistor megohmmeter (on-site calibration included)	SOUKOU /HMR-100G FLUKE/1507	In-house method: high resistance calibration procedure (on-site calibration included) (Document No.: GCH-SCP-E08)	10	MΩ	10	MΩ	high resistor	3	%
			100	MΩ	100	MΩ	high resistor	2.2	%
			1	GΩ	1	GΩ	high resistor	2.2	%
			10	GΩ	10	GΩ	high resistor	3	%
			10	MΩ	10	MΩ	megohmmeter	2	%
			100	MΩ	100	MΩ	megohmmeter	1.2	%
			1	GΩ	1	GΩ	megohmmeter	1.2	%
			10	GΩ	10	GΩ	megohmmeter	2	%
			10	GΩ	10	GΩ	high resistor (on-site calibration)	4	%
			1	GΩ	1	GΩ	high resistor (on-site calibration)	2.7	%
			100	MΩ	100	MΩ	high resistor (on-site calibration)	2.7	%
			10	MΩ	10	MΩ	high resistor (on-site calibration)	4	%
			10	GΩ	10	GΩ	megohmmeter (on-site calibration)	2	%
			1	GΩ	1	GΩ	megohmmeter (on-site calibration)	1.3	%
			100	MΩ	100	MΩ	megohmmeter (on-site calibration)	1.3	%
10	MΩ	10	MΩ	megohmmeter (on-site calibration)	2	%			

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calibration items	working standard brand /model	calibration method document name /no.	measurand level or range				measurement conditions /independent variable explanation	smallest uncertainty	
			minimum value	units	maximum value	units		value	units
KF3001 resistor ohmmeter (on-site calibration included)	HIOKI/RM3545 HP/3458A FLUKE/8588A FLUKE/5502 Cropico/MTS 1A	In-house method: resistance calibration procedure (on-site calibration included) (Document No.: GCH-SCP-E05)	1	mΩ	1	mΩ	resistor	3.1	mΩ/Ω
			10	mΩ	10	mΩ	resistor	0.93	mΩ/Ω
			100	mΩ	100	mΩ	resistor	0.81	mΩ/Ω
			1	Ω	1	Ω	resistor	0.24	mΩ/Ω
			10	Ω	10	Ω	resistor	20	μΩ/Ω
			100	Ω	100	Ω	resistor	18	μΩ/Ω
			1	kΩ	1	kΩ	resistor	18	μΩ/Ω
			10	kΩ	10	kΩ	resistor	17	μΩ/Ω
			100	kΩ	100	kΩ	resistor	18	μΩ/Ω
			1	MΩ	1	MΩ	resistor	30	μΩ/Ω
			10	MΩ	10	MΩ	resistor	0.10	mΩ/Ω
			100	MΩ	100	MΩ	resistor	1.2	mΩ/Ω
			1000	MΩ	1000	MΩ	resistor	12	mΩ/Ω
			1	mΩ	1	mΩ	ohmmeter	4.9	mΩ/Ω
			10	mΩ	10	mΩ	ohmmeter	0.62	mΩ/Ω
			100	mΩ	100	mΩ	ohmmeter	0.31	mΩ/Ω
			1	Ω	1	Ω	ohmmeter	0.25	mΩ/Ω
			10	Ω	10	Ω	ohmmeter	1.3	mΩ/Ω
			100	Ω	100	Ω	ohmmeter	0.28	mΩ/Ω
			1	kΩ	1	kΩ	ohmmeter	0.13	mΩ/Ω
			10	kΩ	10	kΩ	ohmmeter	0.12	mΩ/Ω
			100	kΩ	100	kΩ	ohmmeter	0.15	mΩ/Ω
			1	MΩ	1	MΩ	ohmmeter	0.19	mΩ/Ω
			10	MΩ	10	MΩ	ohmmeter	0.73	mΩ/Ω
			100	MΩ	100	MΩ	ohmmeter	5.9	mΩ/Ω
			1000	MΩ	1000	MΩ	ohmmeter	18	mΩ/Ω
			1	mΩ	1	mΩ	resistor (on-site calibration)	4.4	mΩ/Ω
			10	mΩ	10	mΩ	resistor (on-site calibration)	1.4	mΩ/Ω
100	mΩ	100	mΩ	resistor (on-site calibration)	1.2	mΩ/Ω			
1	Ω	1	Ω	resistor (on-site calibration)	0.34	mΩ/Ω			
10	Ω	10	Ω	resistor (on-site calibration)	79	μΩ/Ω			



calibration items	working standard brand /model	calibration method document name /no.	measurand level or range				measurement conditions /independent variable explanation	smallest uncertainty	
			minimum value	units	maximum value	units		value	units
KF3001 resistor ohmmeter (on-site calibration included)	HIOKI/RM3545 HP/3458A FLUKE/8588A FLUKE/5502 Cropico/MTS 1A	In-house method: resistance calibration procedure (on-site calibration included) (Document No.: GCH-SCP-E05)	100	$\Omega$	100	$\Omega$	resistor (on-site calibration)	74	$\mu\Omega/\Omega$
			1	$k\Omega$	1	$k\Omega$	resistor (on-site calibration)	25	$\mu\Omega/\Omega$
			10	$k\Omega$	10	$k\Omega$	resistor (on-site calibration)	28	$\mu\Omega/\Omega$
			100	$k\Omega$	100	$k\Omega$	resistor (on-site calibration)	29	$\mu\Omega/\Omega$
			1	$M\Omega$	1	$M\Omega$	resistor (on-site calibration)	37	$\mu\Omega/\Omega$
			10	$M\Omega$	10	$M\Omega$	resistor (on-site calibration)	0.11	$m\Omega/\Omega$
			100	$M\Omega$	100	$M\Omega$	resistor (on-site calibration)	1.2	$m\Omega/\Omega$
			1000	$M\Omega$	1000	$M\Omega$	resistor (on-site calibration)	12	$m\Omega/\Omega$
			1	$m\Omega$	1	$m\Omega$	ohmmeter (on-site calibration)	4.9	$m\Omega/\Omega$
			10	$m\Omega$	10	$m\Omega$	ohmmeter (on-site calibration)	0.62	$m\Omega/\Omega$
			100	$m\Omega$	100	$m\Omega$	ohmmeter (on-site calibration)	0.37	$m\Omega/\Omega$
			1	$\Omega$	1	$\Omega$	ohmmeter (on-site calibration)	0.33	$m\Omega/\Omega$
			10	$\Omega$	10	$\Omega$	ohmmeter (on-site calibration)	1.9	$m\Omega/\Omega$
			100	$\Omega$	100	$\Omega$	ohmmeter (on-site calibration)	0.41	$m\Omega/\Omega$
			1	$k\Omega$	1	$k\Omega$	ohmmeter (on-site calibration)	0.19	$m\Omega/\Omega$
			10	$k\Omega$	10	$k\Omega$	ohmmeter (on-site calibration)	0.18	$m\Omega/\Omega$
			100	$k\Omega$	100	$k\Omega$	ohmmeter (on-site calibration)	0.21	$m\Omega/\Omega$
			1	$M\Omega$	1	$M\Omega$	ohmmeter (on-site calibration)	0.28	$m\Omega/\Omega$
			10	$M\Omega$	10	$M\Omega$	ohmmeter (on-site calibration)	1.1	$m\Omega/\Omega$
			100	$M\Omega$	100	$M\Omega$	ohmmeter (on-site calibration)	8.5	$m\Omega/\Omega$
1000	$M\Omega$	1000	$M\Omega$	ohmmeter (on-site calibration)	27	$m\Omega/\Omega$			
Approval Signatory: HUNG, Chuan-Hsi; CHEN, Chin-Chuan									

Note: Smallest uncertainty represents an expanded uncertainty using a coverage factor approximately 95 % level of confidence. (Null Below)

