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

Certificate of Accreditation

(Certificate No：L1733-240228)

This is to certify that

Measurement Technolology Co.,Ltd

Calibration Laboratory of Northern Region Service Department

4F, 130, Sec. 3, Keelung Rd., Taipei 106, Taiwan, R.O.C.

is accredited in respect of laboratory

Accreditation Criteria	：	ISO/IEC 17025:2017；CNS 17025:2018
Accreditation Number	：	1733
Originally Accredited	：	December 28, 2006
Effective Period	：	December 28, 2021 to December 27, 2024
Accredited Scope	：	Calibration Field, see described in the Appendix

Scan to verify

Yi-Ling Chen
President, Taiwan Accreditation Foundation
February 28, 2024

The Appendix forms an integral part of this Certificate, which shall be invalid when use without the Appendix

Accreditation Number ：1733
Laboratory Head ：LIN, Chin-Hua

Vibration & Acoustics

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
KB2004 Sound Level Meter	1.Sound Pressure Level /RION/NC-73 2.Pistonphone /RION/NC-72	In-house method: Sound Level Meter Calibration Procedure (Document No.: MT-C-95-006)	94	dB	94	dB	(1 kHz)	0.4	dB
			114	dB	114	dB	(250 Hz)	0.4	dB
Approval Signatory: LIN, Chin-Hua; HUANG, Chun-Lin									

Mass/Force

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
KC1002 balance (including on-site calibration)	METTLER /1 mg-200 g/F1 SARTORIUS /1 mg-1 kg/F1 CHINA SCALE /2 kg/F1 CHINA SCALE /5 kg-20 kg/F1 CHINA SCALE /50 g-1 kg/F1	In-house method: Calibration procedure for electronic balance (1 mg 200 g) (Document No.: MT-C-111-001) Calibration procedure for electronic balance (200 g 2000 g) (Document No.: MT-C-111-002) Calibration procedure for electronic balance (2 kg 30 kg) (Document No.: MT-C-111-003)	0.001	g	50	g	Readability>=0.00001 g	0.00015	g
			>50	g	200	g	Readability>=0.00001 g	0.00038	g
			200	g	2	kg	Readability>=0.001 g	0.004	g
			2	kg	30	kg	Readability>=0.1 g	0.3	g
Approval Signatory: LI, Yueh-Hsun; LIN, Chin-Hua; LIU, Li-Ming									

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
KC1004 Platform Scale (including on-site calibration)	METTLER/1 mg-200 g/F1 SARTORIUS/1 mg-1 kg/F1 CHINA SCALE/2 kg/F1 CHINA SCALE/5 kg - 20 kg/F1 CHINA SCALE/50 g-1kg/F1 CHINA SCALE/100 g - 10 kg/F1	In-house method: Calibration procedure for electronic scale (0.05 kg 150 kg) (Document No.: MT-C-111-004)	0.05	kg	150	kg	Readability >=0.01 kg	0.04	kg
Approval Signatory: LI, Yueh-Hsun; LIN, Chin-Hua; LIU, Li-Ming									

Pressure/Vacuum

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
KD1004 Pressure Gauge (Hydraulic Pressure Gauge)	Hydraulic Pressure Gauge Digital Pressure Gauge (Hydraulic Pressure Gauge) DHI/RPM3	In-house method: Calibration Procedure for Hydraulic Pressure Gauge/Pressure Transducer (MT-C-101-012)	49 (0.5)	kPa (kgf/cm^2)	2942 (30)	kPa (kgf/cm^2)		17	kPa
			2942 (30)	kPa (kgf/cm^2)	29420 (300)	kPa (kgf/cm^2)		20	kPa
			29420 (300)	kPa (kgf/cm^2)	96105 (980)	kPa (kgf/cm^2)		30	kPa
Approval Signatory: LIN, Yen-Chiu; LIN, Chin-Hua									

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
KD1004 Pressure Gauge	Digital Pneumatic Pressure Calibrator DHI/PPC2+	In-house method: Pressure Gauge/Pressure Transducer Calibration Procedure (Document No.: MT-C-95-007)	20	kPa	490	kPa	Gauge pressure	6.7	kPa
			490	kPa	1460	kPa	Gauge pressure	6.7	kPa
			1460	kPa	2940	kPa	Gauge pressure	8.2	kPa
Approval Signatory: LIN, Yen-Chiu; LIN, Chin-Hua									
KD1005 Barometer	Digital Pneumatic Pressure Calibrator DHI/PPC3	In-house method: Calibration Procedure for Barometer /MT-C-109-008	820	hPa	1045	hPa		0.38	hPa
Approval Signatory: LIN, Yen-Chiu; LIN, Chin-Hua									
KD1005 Pressure Transducer	Digital Pneumatic Pressure Calibrator DHI/PPC2+	In-house method: Pressure Gauge/Pressure Transducer Calibration Procedure (Document No.: MT-C-95-007)	20	kPa	490	kPa	Gauge pressure	0.30	kPa
			490	kPa	1460	kPa	Gauge pressure	0.60	kPa
			1460	kPa	2940	kPa	Gauge pressure	1.0	kPa
Approval Signatory: LIN, Yen-Chiu; LIN, Chin-Hua									
KD1007 Differential Gauge Digital Differential Gauge	Digital Pressure Calibrator DHI/PPC 3	In-house method: Differential Gauge/Digital Differential Gauge Calibration Procedure (MT-C-95-074)	0	Pa	1900	Pa		10	Pa
			0	Pa	10000	Pa		40	Pa
Approval Signatory: LIN, Yen-Chiu; LIN, Chin-Hua									

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
KD2006 Vacuum Gauge	Digital Pressure Calibrator DHI/PPC3	In-house method: Vacuum Gauge/Vacuum Transducer Calibration Procedure (MT-C-101-022)	-95	kPa	0	kPa		0.042	kPa
Approval Signatory: LIN, Yen-Chiu; LIN, Chin-Hua									

Temperature/Humidity

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
KE1007 Radiation Thermometer	Platinum Resistance Thermometer RKC/REX-D900 WADE/PT100 (4W) Radiation Thermometer OPTEX/Q188 OPTEX/VF-1600S	1.In-house method: Instrument calibration technical for the comparative calibration of the radiation thermometers (25 ℃ to 300 ℃) (Document No.: MT-C-99-012) 2.In-house method: Instrument calibration technical for the comparative calibration of the radiation thermometers (800 ℃ to 1500 ℃) (Document No.: MT-C-98-013)	25	℃	≦150	℃	ε: 0.95	2.4	℃
			>150	℃	≦200	℃	ε: 0.95	2.8	℃
			>200	℃	250	℃	ε: 0.95	3.0	℃
			50	℃	≦250	℃	ε: 1.00	2.4	℃
			>250	℃	300	℃	ε: 1.00	2.5	℃
			800	℃	1500	℃	ε: 1.0	13	℃
Approval Signatory: LIN, Chin-Hua; HUANG, Chun-Lin									

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
KE1010 Temperature Controlled Chamber (on-site calibration included)	Hydra Data Bucket FLUKE/2635A	In-house method: Temperature Chamber Calibration Procedure (Document No.: MT-C-100-004)	-30	℃	300	℃		2.5	℃
Approval Signatory: CHIANG, Tsung-Yuan; LIN, Chin-Hua; HUANG, Chun-Lin; LIU, Li-Ming									
KE1010 Temperature Controlled Chamber (on-site calibration included)	MobileCorder YOKOGAWA /MV200 (K type)	In-house method: High Temperature Chamber Calibration Procedure/MT-C-108-001	50	℃	450	℃		3.6	℃
Approval Signatory: CHIANG, Tsung-Yuan; LIN, Chin-Hua; HUANG, Chun-Lin; LIU, Li-Ming									
KE2001 Hygrometer Hygrograph	Digital Hygrometer VAISALA/HMP233	In-house method: Hygrometer/Hygrograph Calibration Procedure (Document No.: MT-C-95-054)	15	℃	50	℃	40 % to 90 %	1.0	℃
			40	%	90	%	15 ℃ to 50 ℃	3.0	%
Approval Signatory: CHIANG, Tsung-Yuan; LIN, Chin-Hua; HUANG, Chun-Lin; LIU, Li-Ming									
KE2004 Temperature & Humidity recorder	Digital Hygrometer VAISALA/HMP233	In-house method: Hygrometer/Hygrograph Calibration Procedure (Document No.: MT-C-95-054)	15	℃	50	℃	40 % to 90 %	1.3	℃
			40	%	90	%	15 ℃ to 50 ℃	3.1	%
Approval Signatory: CHIANG, Tsung-Yuan; LIN, Chin-Hua; HUANG, Chun-Lin; LIU, Li-Ming									

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
KE2005 Temp./Humidity Chamber	Digital Hygrometer VAISALA /HMP233	In-house method: Temperature/Humidity Chamber Calibration Procedure (Document No.: MT-C-100-003)	20	℃	50	℃	40 % to 90 %	2.5	℃
			40	%	90	%	20 ℃ to 50 ℃	3.5	%
Approval Signatory: CHIANG, Tsung-Yuan; LIN, Chin-Hua; HUANG, Chun-Lin; LIU, Li-Ming									

Electricity

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
KF1001 DC Voltmeter DCV source	Selfcal Digital Multimeter FLUKE/8508A Calibrator FLUKE/5730A	In-house method: DC voltage calibration procedure (Document No.: MT-C-104-001)	0.1	mV	<1	mV	DC Volt Source	9.5	mV/V
			1	mV	<10	mV	DC Volt Source	0.85	mV/V
			10	mV	<100	mV	DC Volt Source	90	μV/V
			100	mV	100	mV	DC Volt Source	12	μV/V
			100	mV	1000	V	DC Volt Source	20	μV/V
			1	V	1	V	DC Volt Source	7.0	μV/V
			10	V	10	V	DC Volt Source	7.0	μV/V
			100	V	100	V	DC Volt Source	12	μV/V
			1000	V	1000	V	DC Volt Source	12	μV/V
			0.1	mV	<1	mV	DC Volt Meter	13	mV/V
			1	mV	<10	mV	DC Volt Meter	1.3	mV/V
			10	mV	<100	mV	DC Volt Meter	0.13	mV/V
			100	mV	100	mV	DC Volt Meter	21	μV/V
			100	mV	1000	V	DC Volt Meter	25	μV/V

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
KF1001 DC Voltmeter DCV source	Selfcal Digital Multimeter FLUKE/8508A Calibrator FLUKE/5730A	In-house method: DC voltage calibration procedure (Document No.: MT-C-104-001)	1	V	1	V	DC Volt Meter	10	μV/V
			10	V	10	V	DC Volt Meter	10	μV/V
			100	V	100	V	DC Volt Meter	15	μV/V
			1000	V	1000	V	DC Volt Meter	15	μV/V
Approval Signatory: LI, Yueh-Hsun; LIN, Chin-Hua; KAO, Chi-Hsiang									
KF1002 DC Current Meter/Source DC Shunt (On-Site Calibration)	Selfcal Digital Multimeter FLUKE/8508A Shunt LABS CS-50/CS-200 Current amplifier VALHALLA/2555A Calibrator FLUKE/5730A	In-house method: DC Current (2 A to 100 A) Calibration Procedure (Document No.: MT-C-104-036)	2	A	<40	A	DC Current Source	0.25	mA/A
			40	A	100	A	DC Current Source	0.32	mA/A
			2	A	<40	A	DC Current Meter	3.0	mA/A
			40	A	100	A	DC Current Meter	1.4	mA/A
			2	A	<40	A	DC Shunt	3.0	mA/A
			40	A	100	A	DC Shunt	1.4	mA/A
Approval Signatory: LI, Yueh-Hsun; LIN, Chin-Hua; KAO, Chi-Hsiang									
KF1002 DC ampere meter DCA source	Selfcal Digital Multimeter FLUKE/8508A Calibrator FLUKE/5730A	In-house method: DC current calibration procedure (Document No.: MT-C-104-003)	100	μA	100	μA	DC Current Source	35	μA/A
			1	mA	1	mA	DC Current Source	35	μA/A
			10	mA	10	mA	DC Current Source	40	μA/A
			100	mA	100	mA	DC Current Source	95	μA/A
			1	A	1	A	DC Current Source	0.23	mA/A
			100	μA	<20	mA	DC Current Source	70	μA/A
			20	mA	2	A	DC Current Source	0.30	mA/A
			100	μA	100	μA	DC Current Meter	0.11	mA/A
			1	mA	1	mA	DC Current Meter	55	μA/A
			10	mA	10	mA	DC Current Meter	55	μA/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 ampere meter DCA source	Selfcal Digital Multimeter FLUKE/8508A Calibrator FLUKE/5730A	In-house method: DC current calibration procedure (Document No.: MT-C-104-003)	100	mA	100	mA	DC Current Meter	0.12	mA/A
			1	A	1	A	DC Current Meter	0.24	mA/A
			100	μA	<20	mA	DC Current Meter	0.11	mA/A
			20	mA	2	A	DC Current Meter	0.30	mA/A
Approval Signatory: LI, Yueh-Hsun; LIN, Chin-Hua; KAO, Chi-Hsiang									
KF1011 AC volt meter ACV source	Selfcal Digital Multimeter FLUKE/8508A Calibrator FLUKE/5730A	In-house method: AC voltage calibration procedure (Document No.: MT-C-104-002)	100	mV	100	mV	AC Volt Source (@1 kHz, 60 Hz)	0.20	mV/V
			1	V	1	V	AC Volt Source (@1 kHz, 60 Hz)	0.14	mV/V
			10	V	10	V	AC Volt Source (@1 kHz, 60 Hz)	0.14	mV/V
			100	V	100	V	AC Volt Source (@1 kHz, 60 Hz)	0.15	mV/V
			1000	V	1000	V	AC Volt Source (@1 kHz, 60 Hz)	0.20	mV/V
			5	mV	<50	mV	AC Volt Source (@1 kHz, 60 Hz)	1.2	mV/V
			50	mV	1000	V	AC Volt Source (@1 kHz, 60 Hz)	0.26	mV/V
			100	mV	100	mV	AC Volt Meter (@1 kHz, 60 Hz)	0.25	mV/V
			1	V	1	V	AC Volt Meter (@1 kHz, 60 Hz)	0.15	mV/V
			10	V	10	V	AC Volt Meter (@1 kHz, 60 Hz)	0.15	mV/V
			100	V	100	V	AC Volt Meter (@1 kHz, 60 Hz)	0.16	mV/V
			1000	V	1000	V	AC Volt Meter (@1 kHz, 60 Hz)	0.21	mV/V
			5	mV	<50	mV	AC Volt Meter (@1 kHz, 60 Hz)	1.5	mV/V
			50	mV	1000	V	AC Volt Meter (@1 kHz, 60 Hz)	0.36	mV/V
Approval Signatory: LI, Yueh-Hsun; LIN, Chin-Hua; KAO, Chi-Hsiang									

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 Ampere Meter/Source AC Shunt (On-Site Calibration)	Multimeter FLUKE/8508A Shunt LABS CS-50/CS-200 Current Amplifier VALHALLA/2555A Calibrator FLUKE/5730A	In-house method: AC Current (2A to 100A) Calibration Procedure (MT-C-104-037)	2	A	<10	A	AC Current Source (@ 60 Hz)	1.7	mA/A
			10	A	<40	A	AC Current Source (@ 60 Hz)	0.50	mA/A
			40	A	100	A	AC Current Source (@ 60 Hz)	0.70	mA/A
			2	A	<10	A	AC Current Meter (@ 60 Hz)	19	mA/A
			10	A	<40	A	AC Current Meter (@ 60 Hz)	7.0	mA/A
			40	A	100	A	AC Current Meter (@ 60 Hz)	5.5	mA/A
			2	A	<10	A	AC Shunt (@ 60 Hz)	19	mA/A
			10	A	<40	A	AC Shunt (@ 60 Hz)	7.0	mA/A
			40	A	100	A	AC Shunt (@ 60 Hz)	5.5	mA/A
Approval Signatory: LI, Yueh-Hsun; LIN, Chin-Hua; KAO, Chi-Hsiang									
KF1012 AC ampere meter ACA source	Selfcal Digital Multimeter FLUKE/8508A Calibrator FLUKE/5730A	In-house method: AC current calibration procedure (Document No.: MT-C-104-004)	100	μA	100	μA	AC Current Source (@1 kHz, 60 Hz)	0.80	mA/A
			1	mA	1	mA	AC Current Source (@1 kHz, 60 Hz)	0.55	mA/A
			10	mA	10	mA	AC Current Source (@1 kHz, 60 Hz)	0.55	mA/A
			100	mA	100	mA	AC Current Source (@1 kHz, 60 Hz)	0.55	mA/A
			1	A	1	A	AC Current Source (@1 kHz, 60 Hz)	0.95	mA/A
			100	μA	<100	mA	AC Current Source (@1 kHz, 60 Hz)	1.4	mA/A
			100	mA	2	A	AC Current Source (@1 kHz, 60 Hz)	1.8	mA/A
			100	μA	100	μA	AC Current Meter (@1 kHz, 60 Hz)	1.1	mA/A
			1	mA	1	mA	AC Current Meter (@1 kHz, 60 Hz)	0.75	mA/A
			10	mA	10	mA	AC Current Meter (@1 kHz, 60 Hz)	0.75	mA/A
			100	mA	100	mA	AC Current Meter (@1 kHz, 60 Hz)	0.75	mA/A
			1	A	1	A	AC Current Meter (@1 kHz, 60 Hz)	1.4	mA/A
			100	μA	<100	mA	AC Current Meter (@1 kHz, 60 Hz)	1.9	mA/A
			100	mA	2	A	AC Current Meter (@1 kHz, 60 Hz)	2.4	mA/A
Approval Signatory: LI, Yueh-Hsun; LIN, Chin-Hua; KAO, Chi-Hsiang									

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
KF1018 AC Clamp Meter	Multifunction Calibrator FLUKE/5730A Current Calibrator Valhalla/2555A Current Coil FLUKE/1kA	In-house method: CLAMP-METER (1 kA) MEASURING SYSTEM CALIBRATION PROCEDURE (MT-C-104-039)	1	A	30	A	AC Clamp Meter (@ 60 Hz)	36	mA/A
			>30	A	>100	A	AC Clamp Meter (@ 60 Hz)	65	mA/A
			100	A	1000	A	AC Clamp Meter (@ 60 Hz)	35	mA/A
Approval Signatory: LI, Yueh-Hsun; LIN, Chin-Hua; KAO, Chi-Hsiang									
KF1018 DC Clamp Meter	Multifunction Calibrator FLUKE/5730A Current Calibrator Valhalla/2555A Current Coil FLUKE/1kA	In-house method: CLAMP-METER (1 kA) MEASURING SYSTEM CALIBRATION PROCEDURE (MT-C-104-039)	1	A	30	A	DC Clampmeter	6.0	mA/A
			>30	A	1000	A	DC Clampmeter	43	mA/A
Approval Signatory: LI, Yueh-Hsun; LIN, Chin-Hua; KAO, Chi-Hsiang									
KF2001 THREE PHASE POWER METER /SOURCE (On-Site Calibration)	Power Calibrator CALMET/C300 Power Analyzer FLUKE/4000	In-house method: AC POWER MEASURING SYSTEM CALIBRATION PROCEDURE (Document No.: MT-C-104-013)	3.3	W	6600	W	Power Meter 110 V/0.01 A~20 A @ Freq: 60 Hz, PF: 1.0	2.3	mW/W
			6.6	W	13200	W	Power Meter 220 V/0.01 A~20 A @ Freq: 60 Hz, PF: 1.0	2.3	mW/W
			3.3	W	6600	W	Power Soerce110 V/0.01 A~20 A @ Freq: 60 Hz, PF: 1.0	3.0	mW/W
			6.6	W	13200	W	Power Soerce220 V/0.01 A~20 A @ Freq: 60 Hz, PF: 1.0	3.0	mW/W
Approval Signatory: LI, Yueh-Hsun; LIN, Chin-Hua; KAO, Chi-Hsiang									

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
KF2001 SINGLE PHASE POWER METER /SOURCE (On-Site Calibration)	Power Calibrator CALMET/C300 Power Analyzer FLUKE/4000	In-house method: AC POWER MEASURING SYSTEM CALIBRATION PROCEDURE (Document No.: MT-C-104-013)	1.1	W	2200	W	Power Meter 110 V/0.01 A @ Freq: 60 Hz, PF: 1.0	0.70	mW/W
			2.2	W	4400	W	Power Meter 220 V/0.01 A @ Freq: 60 Hz, PF: 1.0	0.70	mW/W
			1.1	W	2200	W	Power Meter 110 V/0.01 A @ Freq: 60 Hz, PF: 1.0	2.8	mW/W
			2.2	W	4400	W	Power Meter 220 V/0.01 A @ Freq: 60 Hz, PF: 1.0	2.8	mW/W
Approval Signatory: LI, Yueh-Hsun; LIN, Chin-Hua; KAO, Chi-Hsiang									
KF3001 Resistor /Decimal resistance box Ohmmeter (on-site calibration included)	Selfcal digital multimeter FLUKE/8508A Standard Resistor Guildline/9330 IET/SRX-100M IET/SRC-1G IET/SRC-10G YEW/2792 Decimal Resistance Box ESI/RS925C BIDDLE/72-6346-1	In-house method: resistance calibration procedure (Document No.: MT-C-104-005)	1	mΩ	1	mΩ	Resistor	4.5	mΩ/Ω
			10	mΩ	10	mΩ	Resistor	0.50	mΩ/Ω
			100	mΩ	100	mΩ	Resistor	65	μΩ/Ω
			1	Ω	1	Ω	Resistor	30	μΩ/Ω
			10	Ω	10	Ω	Resistor	20	μΩ/Ω
			100	Ω	100	Ω	Resistor	15	μΩ/Ω
			1	kΩ	1	kΩ	Resistor	15	μΩ/Ω
			10	kΩ	10	kΩ	Resistor	15	μΩ/Ω
			100	kΩ	100	kΩ	Resistor	15	μΩ/Ω
			1	MΩ	1	MΩ	Resistor	25	μΩ/Ω
			10	MΩ	10	MΩ	Resistor	30	μΩ/Ω
			100	MΩ	100	MΩ	Resistor	0.21	mΩ/Ω
			1	GΩ	1	GΩ	Resistor	0.35	mΩ/Ω
			10	GΩ	10	GΩ	Resistor	3.5	mΩ/Ω
			0.001	Ω	<0.1	Ω	Resistor	4.5	mΩ/Ω
			0.1	Ω	<100	Ω	Resistor	65	μΩ/Ω
			100	Ω	10	MΩ	Resistor	35	μΩ/Ω
			>10	MΩ	100	MΩ	Resistor	0.21	mΩ/Ω
			1	mΩ	1	mΩ	Resistance Meter	4.7	mΩ/Ω
			10	mΩ	10	mΩ	Resistance Meter	0.51	mΩ/Ω
			100	mΩ	100	mΩ	Resistance Meter	0.12	mΩ/Ω

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
KF3001 Resistor /Decimal resistance box Ohmmeter (on-site calibration included)	Selfcal digital multimeter FLUKE/8508A Standard Resistor Guildline/9330 IET/SRX-100M IET/SRC-1G IET/SRC-10G YEW/2792 Decimal Resistance Box ESI/RS925C BIDDLE/72-6346-1	In-house method: resistance calibration procedure (Document No.: MT-C-104-005)	1	Ω	1	Ω	Resistance Meter	35	μΩ/Ω
			10	Ω	10	Ω	Resistance Meter	25	μΩ/Ω
			100	Ω	100	Ω	Resistance Meter	25	μΩ/Ω
			1	kΩ	1	kΩ	Resistance Meter	25	μΩ/Ω
			10	kΩ	10	kΩ	Resistance Meter	25	μΩ/Ω
			100	kΩ	100	kΩ	Resistance Meter	25	μΩ/Ω
			1	MΩ	1	MΩ	Resistance Meter	50	μΩ/Ω
			10	MΩ	10	MΩ	Resistance Meter	65	μΩ/Ω
			100	MΩ	100	MΩ	Resistance Meter	0.26	mΩ/Ω
			1	GΩ	1	GΩ	Resistance Meter	0.85	mΩ/Ω
			10	GΩ	10	GΩ	Resistance Meter	4.0	mΩ/Ω
			0.1	Ω	<1	Ω	Resistance Meter	0.90	mΩ/Ω
			1	Ω	<100	Ω	Resistance Meter	0.25	mΩ/Ω
			100	Ω	1	MΩ	Resistance Meter	50	μΩ/Ω
			>1	MΩ	100	MΩ	Resistance Meter	0.50	mΩ/Ω
Approval Signatory: LI, Yueh-Hsun; LIN, Chin-Hua; KAO, Chi-Hsiang									
KF3001 Clamp-on Resistance meter (on-site calibration included)	Decimal Resistance Box ESI/RS925C	In-house method: Clamp-on Resistance calibration procedure /MT-C-109-007	0.1	Ω	<1	Ω	Clamp-on Resistance Meter	0.11	Ω/Ω
			1	Ω	<100	Ω	Clamp-on Resistance Meter	11	mΩ/Ω
			100	Ω	1200	Ω	Clamp-on Resistance Meter	25	mΩ/Ω
Approval Signatory: LI, Yueh-Hsun; LIN, Chin-Hua; KAO, Chi-Hsiang									

Flow

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
KH3001 Hot wire anemometer, Pitot tube anemometer	Hot wire anemometer TSI/8465-300-1 Pitot tube anemometer Setra/276		In-house method: Anemometer Calibration Procedure /MT-C-111-006	0.2	m/s	<1	m/s		0.15	m/s
				1	m/s	<5	m/s		0.43	m/s
				5	m/s	<10	m/s		0.45	m/s
				10	m/s	30	m/s		0.70	m/s
Approval Signatory: LI, Yueh-Hsun; LIN, Chin-Hua; LIU, Li-Ming										

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