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

# Certificate of Accreditation

(Certificate No: L1733-260617)

This is to certify that

## Measurement Technology 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, 2024 to December 27, 2027 |
| **Accredited Scope** | : | Calibration Field, see described in the Appendix |

Scan to verify

Yi-Ling Chen

Yi-Ling Chen
President, Taiwan Accreditation Foundation
June 17, 2026



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

Accreditation Number : 1733
Laboratory Head : LI, Yueh-Hsun

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 re 20 μPa | 94 | dB re 20 μPa | (1 kHz) | 0.4 | dB |
| | | | 114 | dB re 20 μPa | 114 | dB re 20 μPa | (250 Hz) | 0.4 | dB |
| Approval Signatory: LI, Yueh-Hsun; 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 (On-Site Calibration) | METTLER/1 mg-200 g/F1<br>SARTORIUS/1 mg-1 kg/F1<br>CHINA SCALE/2 kg/F1<br>CHINA SCALE/5 kg-20 kg/F1<br>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) | 1 | mg | 50 | g | Readability>=0.00001 g | 0.15 | mg |
| | | Calibration procedure for electronic balance (200 g_2000 g) (Document No.: MT-C-111-002) | >50 | g | 200 | g | Readability>=0.00001 g | 0.38 | mg |
| | | | 200 | g | 2 | kg | Readability>=0.001 g | 4 | mg |
| | | Calibration procedure for electronic balance (2 kg_30 kg) (Document No.: MT-C-111-003) | 2 | kg | 30 | kg | Readability>=0.1 g | 0.3 | g |
| Approval Signatory: LI, Yueh-Hsun; LIN, Chin-Hua; HUANG, Chun-Lin; LIU, Li-Ming | | | | | | | | | |
| | | | | | | | | | |
| KC1004 Platform Scale (On-Site Calibration) | METTLER/1 mg-200 g/F1<br>SARTORIUS/1 mg-1 kg/F1<br>CHINA SCALE/2 kg/F1<br>CHINA SCALE/5 kg-20 kg/F1<br>CHINA SCALE/50 g-1 kg/F1<br>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; HUANG, Chun-Lin; 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 Barometer | Pressure Calibrator DHI/PPC3 | In-house method: Calibration Procedure for Barometer (Document No.: MT-C-109-008) | 820 | hPa | 1045 | hPa | | 0.21 | hPa |
| Approval Signatory: LI, Yueh-Hsun; LI, Jian-Yi; LIN, Yen-Chiu; LIN, Chin-Hua | | | | | | | | | |
| KD1004 Pressure Gauge (Hydraulic Pressure Gauge) | Pressure Calibrator DHI/RPM3 | In-house method: Calibration Procedure for Hydraulic Pressure Gauge/Pressure Transducer (Document No.: MT-C-101-012) | 49 (0.5) | kPa ($kgf/cm^2$) | 96105 (980) | kPa ($kgf/cm^2$) | | 21 (0.21) | kPa ($kgf/cm^2$) |
| Approval Signatory: LI, Yueh-Hsun; LI, Jian-Yi; LIN, Yen-Chiu; LIN, Chin-Hua | | | | | | | | | |
| KD1004 Pressure Gauge | Pressure Calibrator DHI/PPC2+ | In-house method: Pressure Gauge/Pressure Transducer Calibration Procedure (Document No.: MT-C-95-007) | 20 | kPa | 343 | kPa | Gauge pressure | 0.11 | kPa |
| | | | >343 | kPa | 1863 | kPa | Gauge pressure | 0.33 | kPa |
| | | | >1863 | kPa | 2940 | kPa | Gauge pressure | 0.52 | kPa |
| Approval Signatory: LI, Yueh-Hsun; LI, Jian-Yi; 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 |
| KD1005 Pressure Transducer | Pressure Calibrator DHI/PPC2+ | In-house method: Pressure Gauge/Pressure Transducer Calibration Procedure (Document No.: MT-C-95-007) | 20 | kPa | 343 | kPa | Gauge pressure | 0.07 | kPa |
| | | | >343 | kPa | 1863 | kPa | Gauge pressure | 0.32 | kPa |
| | | | >1863 | kPa | 2940 | kPa | Gauge pressure | 0.49 | kPa |
| Approval Signatory: LI, Yueh-Hsun; LI, Jian-Yi; LIN, Yen-Chiu; LIN, Chin-Hua | | | | | | | | | |
| | | | | | | | | | |
| KD1007 Differential Gauge Digital Differential Gauge | Pressure Calibrator DHI/PPC 3 | In-house method: Differential Gauge/Digital Differential Gauge Calibration Procedure (Document No.: MT-C-95-074) | 0 | Pa | 10000 | Pa | | 1.1 | Pa |
| Approval Signatory: LI, Yueh-Hsun; LI, Jian-Yi; LIN, Yen-Chiu; LIN, Chin-Hua | | | | | | | | | |
| | | | | | | | | | |
| KD2006 Vacuum Gauge | Pressure Calibrator DHI/PPC3 | In-house method: Vacuum Gauge /Vacuum Transducer Calibration Procedure (Document No.: MT-C-101-022) | -95 | kPa | 0 | kPa | | 0.020 | kPa |
| Approval Signatory: LI, Yueh-Hsun; LI, Jian-Yi; LIN, Yen-Chiu; LIN, Chin-Hua | | | | | | | | | |

Temperature/Humidity

| calibration items | working standard brand /model | calibration method document name /no. | measurand level or range minimum value | units | maximum value | units | measurement conditions /independent variable explanation | smallest uncertainty value | units |
|---|---|---|---|---|---|---|---|---|---|
| KE1007 Radiation Thermometer | Platinum Resistance Thermometer RKC/REX-D900 WADE/PT100 (4W) Radiation Thermometer OPTEX/VF-1600S Impac/IGA 8 PRO | 1.In-house method: Instrument calibration technical for the comparative calibration of the radiation thermometers (25 °C to 300 °C) (Document No.: MT-C-99-012) 2.In-house method: Instrument calibration technical for the comparative calibration of the radiation thermometers (300 °C to 1500 °C) (Document No.: MT-C-112-005) 3.In-house method: Instrument calibration technical for the comparative calibration of the radiation thermometers (800 °C to 1500 °C) (Document No.: MT-C-98-013) | 25 | °C | ≦ 150 | °C | ε: 0.95 | 2.4 | °C |
| | | | >150 | °C | ≦ 200 | °C | ε: 0.95 | 2.8 | °C |
| | | | >200 | °C | 250 | °C | ε: 0.95 | 3.0 | °C |
| | | | 50 | °C | ≦ 250 | °C | ε: 1.00 | 2.4 | °C |
| | | | >250 | °C | 300 | °C | ε: 1.00 | 2.5 | °C |
| | | | 300 | °C | 700 | °C | ε: 1.0 | 4.4 | °C |
| | | | 800 | °C | 1500 | °C | ε: 1.0 | 13 | °C |
| Approval Signatory: LI, Yueh-Hsun; LIN, Chin-Hua; KAO, Chi-Hsiang; 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) | Hydra Data Bucket FLUKE/2635A (K type) | In-house method: Temperature Chamber Calibration Procedure (Document No.: MT-C-100-004) | -30 | ℃ | 300 | ℃ | | 2.5 | ℃ |
| Approval Signatory: LI, Yueh-Hsun; LIN, Chin-Hua; HUANG, Chun-Lin; LIU, Li-Ming | | | | | | | | | |
| KE1010 Temperature Controlled Chamber (On-Site Calibration) | MobileCorder YOKOGAWA /MV200 (K type) | In-house method: High Temperature Chamber Calibration Procedure (Document No.: MT-C-108-001) | 50 | ℃ | 450 | ℃ | | 3.6 | ℃ |
| Approval Signatory: LI, Yueh-Hsun; 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) | 20 | ℃ | 50 | ℃ | 40 % to 90 % | 1.0 | ℃ |
| | | | 40 | % | 90 | % | 15 ℃ to 50 ℃ | 2.7 | % |
| Approval Signatory: LI, Yueh-Hsun; 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) | 20 | ℃ | 50 | ℃ | 40 % to 90 % | 1.0 | ℃ |
| | | | 40 | % | 90 | % | 20 ℃ to 50 ℃ | 2.7 | % |
| Approval Signatory: LI, Yueh-Hsun; 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 (On-Site Calibration) | 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: LI, Yueh-Hsun; 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 (On-Site Calibration) | 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 | 0.95 | mV/V |
| | | | 10 | mV | <100 | mV | DC Volt Source | 95 | μV/V |
| | | | 100 | mV | 100 | mV | DC Volt Source | 12 | μV/V |
| | | | 100 | mV | 1000 | V | DC Volt Source | 15 | μV/V |
| | | | 1 | V | 1 | V | DC Volt Source | 6.0 | μV/V |
| | | | 10 | V | 10 | V | DC Volt Source | 6.0 | μV/V |
| | | | 100 | V | 100 | V | DC Volt Source | 11 | μV/V |
| | | | 1000 | V | 1000 | V | DC Volt Source | 11 | μV/V |
| | | | 0.1 | mV | <1 | mV | DC Volt Meter | 14 | mV/V |
| | | | 1 | mV | <10 | mV | DC Volt Meter | 1.4 | mV/V |
| | | | 10 | mV | <100 | mV | DC Volt Meter | 0.14 | mV/V |
| | | | 100 | mV | 100 | mV | DC Volt Meter | 18 | μV/V |
| | | | 100 | mV | 1000 | V | DC Volt Meter | 18 | μV/V |
| | | | 1 | V | 1 | V | DC Volt Meter | 17 | μV/V |
| | | | 10 | V | 10 | V | DC Volt Meter | 8.0 | 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 (On-Site Calibration) | Selfcal Digital Multimeter FLUKE/8508A Calibrator FLUKE/5730A | In-house method: DC voltage calibration procedure (Document No.: MT-C-104-001) | 100 | V | 100 | V | DC Volt Meter | 16 | 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 ampere meter DC ampere source DC Shunt (On-Site Calibration) | Selfcal Digital Multimeter FLUKE/8508A Calibrator FLUKE/5730A Shunt LABS CS-50/CS-200 Current amplifier VALHALLA/2555A | In-house method: DC current calibration procedure (Document No.: MT-C-104-003) In-house method: DC Current (2 A to 100 A) Calibration Procedure (Document No.: MT-C-104-036) | 100 | μA | 100 | μA | DC Current Source | 0.033 | mA/A |
| | | | 1 | mA | 1 | mA | DC Current Source | 0.031 | mA/A |
| | | | 10 | mA | 10 | mA | DC Current Source | 0.035 | mA/A |
| | | | 100 | mA | 100 | mA | DC Current Source | 0.078 | mA/A |
| | | | 1 | A | 1 | A | DC Current Source | 0.11 | mA/A |
| | | | 100 | μA | 19 | mA | DC Current Source | 0.060 | mA/A |
| | | | >190 | mA | 2 | A | DC Current Source | 0.15 | mA/A |
| | | | 2 | A | <40 | A | DC Current Source | 0.25 | mA/A |
| | | | 40 | A | 100 | A | DC Current Source | 0.33 | mA/A |
| | | | 100 | μA | 100 | μA | DC Current Meter | 0.070 | mA/A |
| | | | 1 | mA | 1 | mA | DC Current Meter | 0.045 | mA/A |
| | | | 10 | mA | 10 | mA | DC Current Meter | 0.045 | mA/A |
| | | | 100 | mA | 100 | mA | DC Current Meter | 0.086 | mA/A |
| | | | 1 | A | 1 | A | DC Current Meter | 0.15 | mA/A |
| | | | 100 | μA | 20 | mA | DC Current Meter | 0.096 | mA/A |
| | | | >20 | mA | 2 | A | DC Current Meter | 0.18 | 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 |
| | | | 0.1 | μA | 0.1 | μA | DC Current Source | 5.8 | mA/A |
| | | | 1 | μA | 1 | μA | DC Current Source | 0.65 | mA/A |
| | | | 10 | μA | 10 | μA | DC Current Source | 0.15 | 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<br>DC ampere meter<br>DC ampere source<br>DC Shunt<br>(On-Site Calibration) | Selfcal Digital Multimeter FLUKE/8508A<br>Calibrator FLUKE/5730A<br>Shunt LABS CS-50/CS-200<br>Current amplifier VALHALLA/2555A | In-house method: DC current calibration procedure (Document No.: MT-C-104-003)<br>In-house method: DC Current (2 A to 100 A) Calibration Procedure (Document No.: MT-C-104-036) | 0.1 | μA | <10 | μA | DC Current Source | 5.8 | mA/A |
| | | | 1 | μA | <100 | μA | DC Current Source | 0.65 | mA/A |
| | | | 10 | μA | <150 | μA | DC Current Source | 0.15 | mA/A |
| | | | >19 | mA | 190 | mA | DC Current Source | 0.091 | mA/A |
| | | | 0.1 | μA | 0.1 | μA | DC Current Meter | 35 | mA/A |
| | | | 1 | μA | 1 | μA | DC Current Meter | 3.5 | mA/A |
| | | | 10 | μA | 10 | μA | DC Current Meter | 0.40 | mA/A |
| | | | 0.1 | μA | <10 | μA | DC Current Meter | 35 | mA/A |
| | | | 1 | μA | <100 | μA | DC Current Meter | 3.5 | mA/A |
| | | | 10 | μA | <150 | μA | DC Current Meter | 0.40 | mA/A |
| Approval Signatory: LI, Yueh-Hsun; LIN, Chin-Hua; KAO, Chi-Hsiang | | | | | | | | | |
| | | | | | | | | | |
| KF1011<br>AC Volt meter<br>AC Volt Source<br>(On-Site Calibration) | Selfcal Digital Multimeter FLUKE/8508A<br>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, 50 Hz) | 0.14 | mV/V |
| | | | 1 | V | 1 | V | AC Volt Source (@1 kHz, 60 Hz, 50 Hz) | 0.10 | mV/V |
| | | | 10 | V | 10 | V | AC Volt Source (@1 kHz, 60 Hz, 50 Hz) | 0.12 | mV/V |
| | | | 100 | V | 100 | V | AC Volt Source (@1 kHz, 60 Hz, 50 Hz) | 0.12 | mV/V |
| | | | 1000 | V | 1000 | V | AC Volt Source (@1 kHz, 60 Hz, 50 Hz) | 0.19 | mV/V |
| | | | 5 | mV | <50 | mV | AC Volt Source (@1 kHz, 60 Hz, 50 Hz) | 1.3 | mV/V |
| | | | 50 | mV | 1000 | V | AC Volt Source (@1 kHz, 60 Hz, 50 Hz) | 0.19 | mV/V |
| | | | 100 | mV | 100 | mV | AC Volt Meter (@1 kHz, 60 Hz, 50 Hz) | 0.18 | mV/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 |
| KF1011 AC Volt meter AC Volt Source (On-Site Calibration) | Selfcal Digital Multimeter FLUKE/8508A Calibrator FLUKE/5730A | In-house method: AC voltage calibration procedure (Document No.: MT-C-104-002) | 1 | V | 1 | V | AC Volt Meter (@1 kHz, 60 Hz, 50 Hz) | 0.12 | mV/V |
| | | | 10 | V | 10 | V | AC Volt Meter (@1 kHz, 60 Hz, 50 Hz) | 0.14 | mV/V |
| | | | 100 | V | 100 | V | AC Volt Meter (@1 kHz, 60 Hz, 50 Hz) | 0.14 | mV/V |
| | | | 1000 | V | 1000 | V | AC Volt Meter (@1 kHz, 60 Hz, 50 Hz) | 0.20 | mV/V |
| | | | 5 | mV | <50 | mV | AC Volt Meter (@1 kHz, 60 Hz, 50 Hz) | 1.5 | mV/V |
| | | | 50 | mV | 1000 | V | AC Volt Meter (@1 kHz, 60 Hz, 50 Hz) | 0.20 | mV/V |
| | | | 1 | mV | <10 | mV | AC Volt Source (@1 kHz, 60 Hz, 50 Hz) | 13 | mV/V |
| | | | 10 | mV | <100 | mV | AC Volt Source (@1 kHz, 60 Hz, 50 Hz) | 0.80 | mV/V |
| | | | 1 | mV | <10 | mV | AC Volt Meter (@1 kHz, 60 Hz, 50 Hz) | 15 | mV/V |
| | | | 10 | mV | <100 | mV | AC Volt Meter (@1 kHz, 60 Hz, 50 Hz) | 0.90 | 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 AC ampere meter<br>AC ampere source<br>AC Shunt (On-Site Calibration) | Selfcal Digital Multimeter FLUKE/8508A<br>Calibrator FLUKE/5730A<br>Shunt LABS CS-50/CS-200<br>Current amplifier VALHALLA/2555A | In-house method: AC current calibration procedure (Document No.: MT-C-104-004)<br>In-house method: DC Current (2 A to 100 A) Calibration Procedure (Document No.: MT-C-104-037) | 100 | μA | 100 | μA | AC Current Source (@1 kHz, 60 Hz, 50 Hz) | 0.35 | mA/A |
| | | | 1 | mA | 1 | mA | AC Current Source (@1 kHz, 60 Hz, 50 Hz) | 0.15 | mA/A |
| | | | 10 | mA | 10 | mA | AC Current Source (@1 kHz, 60 Hz, 50 Hz) | 0.15 | mA/A |
| | | | 100 | mA | 100 | mA | AC Current Source (@1 kHz, 60 Hz, 50 Hz) | 0.18 | mA/A |
| | | | 1 | A | 1 | A | AC Current Source (@1 kHz, 60 Hz, 50 Hz) | 0.25 | mA/A |
| | | | 10 | μA | <150 | μA | AC Current Source (@1 kHz, 60 Hz, 50 Hz) | 1.5 | mA/A |
| | | | 100 | μA | 2 | A | AC Current Source (@1 kHz, 60 Hz, 50 Hz) | 0.35 | mA/A |
| | | | 2 | A | <10 | A | AC Current Source (@60 Hz) | 1.7 | mA/A |
| | | | 10 | A | <40 | A | AC Current Source (@60 Hz) | 0.51 | mA/A |
| | | | 40 | A | 100 | A | AC Current Source (@60 Hz) | 0.70 | mA/A |
| | | | 100 | μA | 100 | μA | AC Current Meter (@1 kHz, 60 Hz, 50 Hz) | 0.40 | mA/A |
| | | | 1 | mA | 1 | mA | AC Current Meter (@1 kHz, 60 Hz, 50 Hz) | 0.20 | mA/A |
| | | | 10 | mA | 10 | mA | AC Current Meter (@1 kHz, 60 Hz, 50 Hz) | 0.20 | mA/A |
| | | | 100 | mA | 100 | mA | AC Current Meter (@1 kHz, 60 Hz, 50 Hz) | 0.20 | mA/A |
| | | | 1 | A | 1 | A | AC Current Meter (@1 kHz, 60 Hz, 50 Hz) | 0.30 | mA/A |
| | | | 100 | μA | <150 | μA | AC Current Meter (@1 kHz, 60 Hz, 50 Hz) | 2.0 | 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 ampere meter AC ampere source AC Shunt (On-Site Calibration) | Selfcal Digital Multimeter FLUKE/8508A Calibrator FLUKE/5730A Shunt LABS CS-50/CS-200 Current amplifier VALHALLA/2555A | In-house method: AC current calibration procedure (Document No.: MT-C-104-004) In-house method: DC Current (2 A to 100 A) Calibration Procedure (Document No.: MT-C-104-037) | 100 | μA | 2 | A | AC Current Meter (@1 kHz, 60 Hz, 50 Hz) | 0.40 | 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 | | | | | | | | | |
| KF1018 Induction Type Current meter | Multifunction Calibrator FLUKE/5730A Current Calibrator Valhalla/2555A Current Coil FLUKE/1kA | In-house method: CLAMP-METER (1 kA) MEASURING SYSTEM CALIBRATION PROCEDURE (Document No.: MT-C-104-039) | 1 | A | 30 | A | DC Clamp Meter | 6.0 | mA/A |
| | | | >30 | A | 1000 | A | DC Clamp Meter | 26 | mA/A |
| | | | 1 | A | 30 | A | AC Clamp Meter (@ 60 Hz) | 36 | mA/A |
| | | | >30 | A | 90 | A | AC Clamp Meter (@ 60 Hz) | 62 | mA/A |
| | | | >90 | A | 1000 | A | AC Clamp Meter (@ 60 Hz) | 29 | 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 |
| KF2001 THREE PHASE POWER METER /SOURCE (On-Site Calibration) | Power Calibrator CALMET/C300 Power Analyzer FLUKE /NORMA 4000 | In-house method: AC POWER MEASURING SYSTEM CALIBRATION PROCEDURE (Document No.: MT-C-104-013) | 3.3 | W | <165 | W | Power Meter 110 V/0.01 A to 0.5 A @ Freq: 50 Hz/60 Hz,, PF: 1.0 | 2.5 | mW/W |
| | | | 165 | W | 6600 | W | Power Meter 110 V/0.5 A to 20 A @ Freq: 50 Hz/60 Hz,, PF: 1.0 | 0.51 | mW/W |
| | | | 6.6 | W | <330 | W | Power Meter 220 V/0.01 A to 0.5 A@ Freq: 50 Hz/60 Hz,, PF: 1.0 | 2.5 | mW/W |
| | | | 330 | W | 13200 | W | Power Meter 220 V/0.5 A to 20 A @ Freq: 50 Hz/60 Hz,, PF: 1.0 | 0.51 | mW/W |
| | | | 3.3 | W | 6600 | W | Power Source 110 V/0.01 A to 20 A @ Freq: 60 Hz, PF: 1.0 | 3.0 | mW/W |
| | | | 6.6 | W | 13200 | W | Power Source 220 V/0.01 A to 20 A @ Freq: 60 Hz, PF: 1.0 | 3.0 | mW/W |
| Approval Signatory: LI, Yueh-Hsun; LIN, Chin-Hua; KAO, Chi-Hsiang | | | | | | | | | |
| | | | | | | | | | |
| KF2001 SINGLE PHASE POWER METER /SOURCE (On-Site Calibration) | Power Calibrator CALMET/C300 Power Analyzer FLUKE /NORMA 4000 | In-house method: AC POWER MEASURING SYSTEM CALIBRATION PROCEDURE (Document No.: MT-C-104-013) | 1.1 | W | <55 | W | Power Meter 110 V/0.01 A to 0.5 A @ Freq: 50 Hz/60 Hz, PF: 1.0 | 1.2 | mW/W |
| | | | ≧ 55 | W | 2200 | W | Power Meter 110 V/0.5 A to 20 A @ Freq: 50 Hz/60 Hz, PF: 1.0 | 0.45 | mW/W |
| | | | 2.2 | W | <110 | W | Power Meter 220 V/0.01 A to 0.5 A @ Freq: 50 Hz/60 Hz, PF: 1.0 | 1.2 | mW/W |
| | | | ≧ 110 | W | 4400 | W | Power Meter 220 V/0.5 A to 20 A @ Freq: 50 Hz/60 Hz, PF: 1.0 | 0.45 | mW/W |
| | | | 1.1 | W | 2200 | W | Power Source 110 V/0.01 A to 20 A @ Freq: 60 Hz, PF: 1.0 | 2.8 | mW/W |
| | | | 2.2 | W | 4400 | W | Power Source 220 V/0.01 A to 20 A @ Freq: 60 Hz, PF: 1.0 | 2.8 | 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 |
| 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 |
| | | | 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 |

| 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) | 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 (Document No.: 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 (Document No.: 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)