



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

Certification Accreditation

(Certificate No: L2360-230224)

This is to certify that

Taiwan Testing and Certification Center
Taiwan Testing and Certification Center, Tainan Calibration Laboratory
No. 5, Xinhe 2nd Rd., South Dist., Tainan City 702, Taiwan (R.O.C.)

is accredited in respect of laboratory

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

Accreditation Number : 2360

Originally Accredited : February 21, 2011

Effective Period : February 21, 2023 to February 20, 2026

Accredited Scope : Calibration Field, see described in the Appendix



Scan to verify

Ching-Chang Lien

Ching-Chang Lien
President, Taiwan Accreditation Foundation
February 24, 2023

Accreditation Number : 2360

Laboratory Head : LO, Hsi-Chien

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
KE1006 Temperature Indicator (on-site calibration included)	Thermocouple simulation Calibrator & Ectron 1140A	Calibration Procedure For Temperature indicators by electrical simulation (Document No.: N00-CD-910)	-50	°C	1000	°C	K type	0.56	°C		
			-50	°C	870	°C				J type	°C
			-50	°C	399	°C				T type	°C
Approval Signatory: WANG, Chiu-Wen; LIN, Yi-Hong											
KE1008 Thermocouple Simulator (on-site calibration included)	Thermocouple Simulator Calibrator/ Ectron 1140A	Calibration Procedure For Thermocouple simulator (Document No.: N00-CD-911)	-50	°C	1000	°C	K type	0.55	°C		
			-50	°C	870	°C				J type	°C
			-50	°C	399	°C				T type	°C
Approval Signatory: WANG, Chiu-Wen; LIN, Yi-Hong											



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)	Hybrid Recorder & YOKOGAWA MV2008-1-4- 2-1-1D	Calibration Procedure For Temperature Controlled Chamber (Document No.: N00-CD-912)	-70	°C	0	°C	Temperature	1.1	°C
			>0	°C	150	°C	Temperature	1.0	°C
			>150	°C	250	°C	Temperature	1.3	°C
Approval Signatory: WANG, Chiu-Wen; LIN, Yi-Hong									
KE2001 Thermo- Hygrometer	Thermo- Hygrometer/ ROTRONIC/ HYGRO PALM HP23 A	Calibration Procedure For Thermo- Hygrometer System (Document No.: N00-CD-908)	10	°C	40	°C		0.59	°C
			30	%	90	%		3.2	%
Approval Signatory: WANG, Chiu-Wen; LIN, Yi-Hong									
KE2004 Temperature & Humidity recorder	Thermo- Hygrometer/ ROTRONIC/ HYGRO PALM HP23 A	Calibration Procedure For Thermo- Hygrometer System (Document No.: N00-CD-908)	10	°C	40	°C		0.59	°C
			30	%	90	%		3.2	%
Approval Signatory: WANG, Chiu-Wen; LIN, Yi-Hong									



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 Temperature & Humidity Controlled Chamber (on-site calibration included)	Hybrid Recorder/ YOKOGAWA MV2008-1-4-2-1-1D	Calibration Procedure For Temperature & Humidity Controlled Chamber (Document No.: N00-CD-913)	20	°C	85	°C	Temperature	1.1	°C
			30	%	95	%	Humidity	4.7	%
Approval Signatory: WANG, Chiu-Wen; LIN, Yi-Hong									



Electricity

calibration items	working standard	calibration method	measurand level or range				measurement conditions /independent variable	smallest uncertainty	
			minimum value	units	maximum value	units		value	units
KF1001 DCV Source (on-site calibration included) DC Volt Meter (on-site calibration included)	Multimeter/ Keysight 3458A Calibrator/ Fluke 5700A	Calibration procedure for DC Voltage system (Document No.: N00-CD-901)	1	mV	10	mV	Source	5.4	mV/V
			> 10	mV	100	mV	Source	1.4	mV/V
			> 100	mV	1	V	Source	0.14	mV/V
			> 1	V	1000	V	Source	35	μV/V
			1	mV	10	mV	Meter	1.9	mV/V
			> 10	mV	100	mV	Meter	1.3	mV/V
			> 100	mV	1	V	Meter	0.14	mV/V
			> 1	V	1000	V	Meter	36	μV/V
Approval Signatory: WANG, Chiu-Wen; LIN, Yi-Hong									
KF1002 DCA Source (on-site calibration included) DC Current Meter (on-site calibration included)	Multimeter/ Keysight 3458A Calibrator/ Fluke 5700A	Calibration procedure for DC Current system (Document No.: N00-CD-903)	100	μA	1	A	Source	0.41	mA/A
			100	μA	1	A	Meter	1.9	mA/A
Approval Signatory: WANG, Chiu-Wen; LIN, Yi-Hong									



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
KF1003 DC High Voltage Source DC High Volt Meter (on-site calibration included)	High voltage Digital meter/kikusui 149-10A	Calibration procedure for DC High Voltage System (Document No.: N00-CD-906)	1	kV	10	kV		10	mV/V
Approval Signatory: WANG, Chiu-Wen; LIN, Yi-Hong									
KF1004 DC High Current Meter (on-site calibration included)	Calibrator/ Fluke 5700A Transconductance Amplifier/BALL ANTINE 1620A	Calibration Procedure for DC High Current N00-CD-915	1	A	2	A		5.3	mA/A
			>2	A	20	A		5.5	mA/A
			>20	A	80	A		7.6	mA/A
Approval Signatory: WANG, Chiu-Wen; LIN, Yi-Hong									



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
KF1004 DC High Current Source (on-site calibration included)	Current Shunt/Prodigit 7550A Multimeter/ Keysight 3458A	Calibration Procedure for DC High Current N00-CD-915	1	A	2	A		0.27	mA/A
			>2	A	20	A		4.8	mA/A
			>20	A	80	A		2.4	mA/A
Approval Signatory: WANG, Chiu-Wen; LIN, Yi-Hong									
KF1011 ACV Source (on-site calibration included), AC Volt Meter (on-site calibration included)	Multimeter/ Keysight 3458A Calibrator/ Fluke 5700A	Calibration procedure for AC Voltage system (Document No.: N00-CD-902)	1	mV	10	mV	(@ 60 Hz)	6.5	mV/V
			>10	mV	1	V	(@ 60 Hz)	1.4	mV/V
			>1	V	700	V	(@ 60 Hz)	0.54	mV/V
			1	V	700	V	(@ 1 kHz)	0.55	mV/V
Approval Signatory: WANG, Chiu-Wen; LIN, Yi-Hong									



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 ACA Source (on-site calibration included) , AC Current Meter (on-site calibration included)	Multimeter/ Keysight 3458A Calibrator/ Fluke 5700A	Calibration procedure for AC Current system (Document No.: N00-CD-904)	1	mA	10	mA	(@ 60 Hz)	2.3	mA/A
			> 10	mA	1	A	(@ 60 Hz)	0.71	mA/A
			10	mA	1	A	(@ 1 kHz)	0.82	mA/A
Approval Signatory: WANG, Chiu-Wen; LIN, Yi-Hong									
KF1013 AC High Voltage Source, AC High Volt Mete (on-site calibration included)	High voltage Digital meter/Kikusui 149-10A	Calibration procedure for AC High Voltage System (Document No.: N00-CD-907)	1	kV	10	kV	(@ 60 Hz)	20	mV/V
Approval Signatory: WANG, Chiu-Wen; LIN, Yi-Hong									



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
KF1014 AC High Current Meter (on-site calibration included)	Calibrator/ Fluke 5700A Transconductance Amplifier/BALL ANTINE/1620A	Calibration Procedure for AC High Current Calibration N00-CD-916	1	A	2	A	@ 60 Hz	3.2	mA/A
			>2	A	20	A	@ 60 Hz	10	mA/A
			>20	A	100	A	@ 60 Hz	5.8	mA/A
Approval Signatory: WANG, Chiu-Wen; LIN, Yi-Hong									
KF1014 AC High Current Source (on-site calibration included)	Current Shunt/Prodigit 7550A Multimeter/ Keysight 3458A	Calibration Procedure for AC High Current Calibration N00-CD-916	1	A	2	A	@ 60 Hz	1.1	mA/A
			>2	A	20	A	@ 60 Hz	4.0	mA/A
			>20	A	100	A	@ 60 Hz	4.0	mA/A
Approval Signatory: WANG, Chiu-Wen; LIN, Yi-Hong									



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 A.C. Electrical Power Meter (on-site calibration included)	A.C. Power Source/ FLUKE/ 5500A	Calibration procedure for A.C. Electrical Power N00-CD-914	110	W	110	W	110 V, 1 A, PF=1, 60 Hz	0.88	mW/W
			55	W	55	W	110 V, 1 A, PF=0.5 Lead, 60 Hz	3.0	mW/W
			55	W	55	W	110 V, 1 A, PF=0.5 Lag, 60 Hz	2.7	mW/W
			550	W	550	W	110 V, 5 A, PF=1, 60 Hz	0.72	mW/W
			275	W	275	W	110 V, 5 A, PF=0.5 Lead, 60 Hz	2.7	mW/W
			275	W	275	W	110 V, 5 A, PF=0.5, 60 Hz, Lag	2.7	mW/W
			1100	W	1100	W	110 V, 10 A, PF=1, 60 Hz	0.62	mW/W
			550	W	550	W	110 V, 10 A, PF=0.5 Lead, 60 Hz	2.7	mW/W
			550	W	550	W	110 V, 10 A, PF=0.5 Lag, 60 Hz	2.7	mW/W
			120	W	120	W	120 V, 1 A, PF=1, 60 Hz	0.83	mW/W
			60	W	60	W	120 V, 1 A, PF=0.5 Lead, 60 Hz	2.7	mW/W
			60	W	60	W	120 V, 1 A, PF=0.5 Lag, 60 Hz	2.7	mW/W
			600	W	600	W	120 V, 5 A, PF=1, 60 Hz	0.69	mW/W
			300	W	300	W	120 V, 5 A, PF=0.5 Lead, 60 Hz	2.7	mW/W
			300	W	300	W	120 V, 5 A, PF=0.5 Lag, 60 Hz	2.7	mW/W
			1200	W	1200	W	120 V, 10 A, PF=1, 60 Hz	0.58	mW/W
			600	W	600	W	120 V, 10 A, PF=0.5 Lead, 60 Hz	2.7	mW/W
			600	W	600	W	120 V, 10 A, PF=0.5 Lag, 60 Hz	2.7	mW/W
			220	W	220	W	220 V, 1 A, PF=1, 60 Hz	0.77	mW/W
			110	W	110	W	220 V, 1 A, PF=0.5 Lead, 60 Hz	2.7	mW/W
110	W	110	W	220 V, 1 A, PF=0.5 Lag, 60 Hz	2.7	mW/W			
1100	W	1100	W	220 V, 5 A, PF=1, 60 Hz	0.81	mW/W			
550	W	550	W	220 V, 5 A, PF=0.5 Lead, 60 Hz	2.7	mW/W			
550	W	550	W	220 V, 5 A, PF=0.5 Lag, 60 Hz	2.7	mW/W			
2200	W	2200	W	220 V, 10 A, PF=1, 60 Hz	0.53	mW/W			



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 A.C. Electrical Power Meter (on-site calibration included)	A.C. Power Source/ FLUKE/ 5500A	Calibration procedure for A.C. Electrical Power N00-CD-914	1100	W	1100	W	220 V, 10 A, PF=0.5 Lead, 60 Hz	2.7	mW/W
			1100	W	1100	W	220 V, 10 A, PF=0.5 Lag, 60 Hz	2.7	mW/W
			240	W	240	W	240 V, 1 A, PF=1, 60 Hz	0.77	mW/W
			120	W	120	W	240 V, 1 A, PF=0.5 Lead, 60 Hz	2.7	mW/W
			120	W	120	W	240 V, 1 A, PF=0.5 Lag, 60 Hz	2.7	mW/W
			1200	W	1200	W	240 V, 5 A, PF=1, 60 Hz	0.62	mW/W
			600	W	600	W	240 V, 5 A, PF=0.5 Lead, 60 Hz	2.7	mW/W
			600	W	600	W	240 V, 5 A, PF=0.5 Lag, 60 Hz	2.7	mW/W
			2400	W	2400	W	240 V, 10 A, PF=1, 60 Hz	0.51	mW/W
			1200	W	1200	W	240 V, 10 A, PF=0.5 Lead, 60 Hz	2.7	mW/W
			1200	W	1200	W	240 V, 10 A, PF=0.5 Lag, 60 Hz	2.7	mW/W
Approval Signatory: WANG, Chiu-Wen; LIN, Yi-Hong									



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 Ohmmeter (on-side calibration Included)	Decade Resistance	N00-CD-920Calibration Procedure For Resistance	1	Ω	10	Ω		0.61	m Ω / Ω
	Substitutor/IET/HARS-X-7-0.1		> 10	Ω	100	Ω		0.11	m Ω / Ω
	High Resistance		> 100	Ω	1000	Ω		0.10	m Ω / Ω
	Decade Box/IET/HRRS-B-5-1M		> 1	k Ω	10	k Ω		0.10	m Ω / Ω
	Standard		> 10	k Ω	100	k Ω		0.10	m Ω / Ω
	Resistor/IET/SRL-1T		> 100	k Ω	1000	k Ω		0.31	m Ω / Ω
	Picoammeter and Electrometer/High Resistance		> 1	M Ω	10	M Ω		1.0	m Ω / Ω
	Meter/Keysight/B2985A		> 10	M Ω	100	M Ω		1.2	m Ω / Ω
	Multimeter/Keysight/3458A		> 100	M Ω	1000	M Ω		4.2	m Ω / Ω
			> 1	G Ω	10	G Ω		8.6	m Ω / Ω
			> 10	G Ω	100	G Ω		16	m Ω / Ω
	1	T Ω	1	T Ω		26	m Ω / Ω		
Approval Signatory: WANG, Chiu-Wen; LIN, Yi-Hong									



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 (on-site calibration included) , Ohmmeter (on-site calibration included)	Multimeter/ Keysight 3458A Calibrator/ Fluke 5700A	Calibration procedure for DC Resistance system (Document No.: N00-CD-905)	1	Ω	1	Ω		0.11	m Ω / Ω
			10	Ω	10	Ω		0.031	m Ω / Ω
			100	Ω	100	Ω		0.029	m Ω / Ω
			1	k Ω	1	k Ω		0.021	m Ω / Ω
			10	k Ω	10	k Ω		0.014	m Ω / Ω
			100	k Ω	100	k Ω		0.018	m Ω / Ω
			1	M Ω	1	M Ω		0.029	m Ω / Ω
			10	M Ω	10	M Ω		0.095	m Ω / Ω
			100	M Ω	100	M Ω		0.47	m Ω / Ω
Approval Signatory: WANG, Chiu-Wen; LIN, Yi-Hong									
KF4099 Electrostatic Fieldmeter	Calibrator/ FLUKE/5700A High voltage digitalmeter/ kikusui/149-10A	N00-CD-919 Calibration Procedure For Electrostatic Fieldmeter	0.01	kV	10	kV		76	mV/V
Approval Signatory: WANG, Chiu-Wen; LIN, Yi-Hong									



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
KF4099 Charge Plate Monitor	Calibrator/ FLUKE/5700A Digital Phosphor Oscilloscope/ Tektronix/ TDS 3052	N00-CD-918 Calibration Procedure For Charge Plate Monitor	1	V	1000	V		65	mV/V
			-1	V	-1000	V		65	mV/V
			1	s	40	s		0.081	s
Approval Signatory: WANG, Chiu-Wen; LIN, Yi-Hong									

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

