



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

# Certificate of Accreditation

(Certificate No : L1734-240307)

This is to certify that

**Measurement Technology Co.,Ltd**  
**Calibration Laboratory of Middle Region Service Department**  
No.32 , Fu'an 3rd St. , Xitun Dist. ,Taichung 407017, Taiwan, (R. O. C.)

**is accredited in respect of laboratory**

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

**Accreditation Number** : 1734

**Originally Accredited** : December 29, 2006

**Effective Period** : January 04, 2022 to January 03, 2025

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



Scan to verify

*Yi-Ling Chen*

Yi-Ling Chen  
President, Taiwan Accreditation Foundation  
March 07, 2024

Accreditation Number : 1734

Laboratory Head : HWANG, Shu-Hai

## Length

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
KA2003 Caliper (Digimatic) Caliper (Vernier) Caliper (Dial)	GAUGE BLOCK SET (PTW/B4)	Caliper calibration procedure (Document No.: MT-C-95-032)	0	mm	300	mm	outside (Digimatic) (resolution: 0.01 mm)	0.02	mm
	GAUGE BLOCK SET (KOBA/1112M)		300	mm	600	mm	outside (Digimatic) (resolution: 0.01 mm)	0.03	mm
	CALIPER CHECKER/Mitutoyo (515-551)		0	mm	600	mm	inside (Digimatic) (resolution: 0.01 mm)	0.03	mm
			0	mm	300	mm	outside (Vernier) (resolution: 0.02 mm)	0.04	mm
			300	mm	600	mm	outside (Vernier) (resolution: 0.02 mm)	0.04	mm
			0	mm	600	mm	inside (Vernier) (resolution: 0.02 mm)	0.03	mm
			0	mm	300	mm	outside (Dial) (resolution: 0.02 mm)	0.03	mm
			0	mm	300	mm	inside (Dial) (resolution: 0.02 mm)	0.03	mm
			0	mm	200	mm	depth (Digimatic) (resolution: 0.01 mm)	0.02	mm
			0	mm	200	mm	depth (Vernier) (resolution: 0.02 mm)	0.03	mm
	0	mm	200	mm	depth (Dial) (resolution: 0.02 mm)	0.03	mm		
Approval Signatory: CHANG, Kuo-Dein; HWANG, Shu-Hai									



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
KA2005 Outside Micrometer	GAUGE BLOCK SET (PTW/B4) GAUGE BLOCK SET (KOB/1112M)	OUTSIDE MICROMETER CALIBRATION PROCEDURE (Document No.: MT-C-96-011)	0	mm	25	mm	outside (resolution 0.01 mm)	0.009	mm
			25	mm	50	mm	outside (resolution 0.01 mm)	0.009	mm
			0	mm	25	mm	outside (resolution 0.001 mm)	0.002	mm
			25	mm	50	mm	outside (resolution 0.001 mm)	0.002	mm
Approval Signatory: CHANG, Kuo-Dein; HWANG, Shu-Hai									
KA2008 Height Gauge (Digital/Dial) Digital Height Gauge (on-site calibration included)	Caliper Checker (Mitutoyo/515-551) Gauge Block SET (PTW/B-4)	Calibration Procedure for Height Gauge (Document No.: MT-C-105-014) Calibration Procedure for Digital Height Gauge (Document No. MT-C-105-032) (on-site calibration included)	0	mm	300	mm	Digital (Resolution 0.01 mm)	0.02	mm
			300	mm	600	mm	Digital (Resolution 0.01 mm)	0.02	mm
			0	mm	300	mm	Dial (Resolution 0.01 mm)	0.012	mm
			300	mm	600	mm	Dial (Resolution 0.01 mm)	0.015	mm
			0	mm	300	mm	Electronic (Resolution 0.001 mm)	0.009	mm
			300	mm	600	mm	Electronic (Resolution 0.001 mm)	0.012	mm
Approval Signatory: CHANG, Kuo-Dein; HWANG, Shu-Hai									



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
KA2010 Dial & Digital Indicator (& Linear Gauge) Test Indicator	i-CHECKER (Mitutoyo /IC1000)	Calibration Procedure of Dial & Digital Indicator (Document No.: MT-C-96-012)	0	mm	5	mm	Dial & Digital Indicator (& Linear Gauge) (resolution: 0.01 mm)	0.006	mm
		Calibration Procedure of Test indicator (Document No.: MT-C-98-004)	0	mm	10	mm	Dial & Digital Indicator (& Linear Gauge) (resolution: 0.01 mm)	0.006	mm
			0	mm	25	mm	Dial & Digital Indicator (& Linear Gauge) (resolution: 0.01 mm)	0.007	mm
			0	mm	50	mm	Dial & Digital Indicator (& Linear Gauge) (resolution: 0.01 mm)	0.008	mm
			0	mm	5	mm	Dial & Digital Indicator (& Linear Gauge) (resolution: 0.001 mm)	0.0010	mm
			0	mm	10	mm	Dial & Digital Indicator (& Linear Gauge) (resolution: 0.001 mm)	0.0013	mm
			0	mm	25	mm	Dial & Digital Indicator (& Linear Gauge) (resolution: 0.001 mm)	0.0027	mm
			0	mm	50	mm	Dial & Digital Indicator (& Linear Gauge) (resolution: 0.001 mm)	0.0052	mm
			0	mm	0.2	mm	Test indicator (resolution: 0.002 mm)	0.0024	mm
			0	mm	0.8	mm	Test indicator (resolution: 0.01 mm)	0.010	mm
Approval Signatory: CHANG, Kuo-Dein; HWANG, Shu-Hai									



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
KA2016 Extensometer (Displacement) (on-site calibration included)	LASER INTERFERO METER (RENISHAW /XL-80)	Calibration Procedure for Extensometer (Displacement) (on-site calibration included) (Document No.: MT-C-99-008)	0	mm	1000	mm	L: m	2X (3.6+4.8XL) (L: 公尺 (m))	μm
Approval Signatory: CHANG, Kuo-Dein; HWANG, Shu-Hai									
KA2017 Velocity of Testing Machine (on-site calibration included)	Laser Interframer (RENISHAW /XL-80)	Calibration Procedure for Velocity of Testing Machine (on-site calibration included) (Document No.: MT-C-104-022)	0	mm/min	100	mm/min	Velocity	0.003	mm/min
			100	mm/min	500	mm/min	Velocity	0.011	mm/min
			500	mm/min	1000	mm/min	Velocity	0.021	mm/min
			1000	mm/min	2000	mm/min	Velocity	0.042	mm/min
Approval Signatory: CHANG, Kuo-Dein; HWANG, Shu-Hai									
KA4006 Measuring Microscope (on-site calibration included)	Standard Ruler (OLYMPUS /OB-MM) Standard Ruler (RSF/ML310)	Calibration Procedure for Measuring Microscope (on-site calibration included) (Document No. MT-C-95-104)	0	mm	1	mm	Eyepiece scale	0.0010	mm
			0	mm	200	mm	stroke of stage (X AXIS)	0.0023	mm
			0	mm	150	mm	stroke of stage (Y AXIS)	0.0019	mm
Approval Signatory: CHANG, Kuo-Dein; HWANG, Shu-Hai									



## 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
KC1001 Standard Weight	METTLER/15880	Standard Weight calibration procedure (1 mg to 20 kg) (Document No.: MT-C-110-007)	1	mg	1	mg	Class F1	0.0011	mg
	METTLER/15882		2	mg	2	mg	Class F1	0.0011	mg
	METTLER/15883		5	mg	5	mg	Class F1	0.0013	mg
	METTLER/15851		10	mg	10	mg	Class F1	0.0012	mg
	METTLER/73226		20	mg	20	mg	Class F1	0.0011	mg
	METTLER/73227		50	mg	50	mg	Class F1	0.0015	mg
	METTLER/73338		100	mg	100	mg	Class F1	0.0017	mg
	HAFNER/F1		200	mg	200	mg	Class F1	0.0020	mg
			500	mg	500	mg	Class F1	0.0027	mg
			1	g	1	g	Class F1	0.00003	g
			2	g	2	g	Class F1	0.00003	g
			5	g	5	g	Class F1	0.00004	g
			10	g	10	g	Class F1	0.00004	g
			20	g	20	g	Class F1	0.00004	g
			50	g	50	g	Class F1	0.00004	g
			100	g	100	g	Class F1	0.00005	g
			200	g	200	g	Class F1	0.00008	g
			500	g	500	g	Class F1	0.0005	g
			1	kg	1	kg	Class F1	0.0007	g
			2	kg	2	kg	Class F1	0.0011	g
			5	kg	5	kg	Class F1	0.03	g
			10	kg	10	kg	Class F1	0.03	g
			20	kg	20	kg	Class F1	0.03	g
			1	mg	1	mg	Stainless Steel (Class F1 and lower)	0.0015	mg
			2	mg	2	mg	Steel (Class F1 and lower)	0.0016	mg
			5	mg	5	mg	Steel (Class F1 and lower)	0.0018	mg
			10	mg	10	mg	Steel (Class F1 and lower)	0.0018	mg
	20	mg	20	mg	Steel (Class F1 and lower)	0.0018	mg		
	50	mg	50	mg	Steel (Class F1 and lower)	0.0022	mg		
	100	mg	100	mg	Steel (Class F1 and lower)	0.0027	mg		



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
KC1001 Standard Weight	METTLER/15880	Standard Weight calibration procedure (1 mg to 20 kg) (Document No.: MT-C-110-007)	200	mg	200	mg	Steel (Class F1 and lower)	0.0034	mg
	METTLER/15882		500	mg	500	mg	Steel (Class F1 and lower)	0.0042	mg
	METTLER/15883		1	g	1	g	Steel (Class F1 and lower)	0.00004	g
	METTLER/15851		2	g	2	g	Steel (Class F1 and lower)	0.00004	g
	METTLER/73226		5	g	5	g	Steel (Class F1 and lower)	0.00005	g
	METTLER/73227		10	g	10	g	Steel (Class F1 and lower)	0.00005	g
	METTLER/73338		20	g	20	g	Steel (Class F1 and lower)	0.00005	g
	HAFNER/F1		50	g	50	g	Steel (Class F1 and lower)	0.00006	g
			100	g	100	g	Steel (Class F1 and lower)	0.00008	g
			200	g	200	g	Steel (Class F1 and lower)	0.00011	g
			500	g	500	g	Steel (Class F1 and lower)	0.0007	g
			1	kg	1	kg	Steel (Class F1 and lower)	0.0010	g
			2	kg	2	kg	Steel (Class F1 and lower)	0.0012	g
			5	kg	5	kg	Steel (Class F1 and lower)	0.03	g
			10	kg	10	kg	Steel (Class F1 and lower)	0.04	g
			20	kg	20	kg	Steel (Class F1 and lower)	0.04	g
			1	mg	1	mg	Copper	0.0015	mg
			2	mg	2	mg	Copper	0.0016	mg
			5	mg	5	mg	Copper	0.0018	mg
			10	mg	10	mg	Copper	0.0018	mg
			20	mg	20	mg	Copper	0.0018	mg
			50	mg	50	mg	Copper	0.0022	mg
			100	mg	100	mg	Copper	0.0027	mg
			200	mg	200	mg	Copper	0.0032	mg
			500	mg	500	mg	Copper	0.0042	mg
			1	g	1	g	Copper	0.00004	g
			2	g	2	g	Copper	0.00004	g
			5	g	5	g	Copper	0.00005	g
			10	g	10	g	Copper	0.00005	g
			20	g	20	g	Copper	0.00006	g
	50	g	50	g	Copper	0.00007	g		



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
KC1001 Standard Weight	METTLER/15880	Standard Weight calibration procedure (1 mg to 20 kg) (Document No.: MT-C-110-007)	100	g	100	g	Copper	0.00012	g
	METTLER/15882		200	g	200	g	Copper	0.00022	g
	METTLER/15883		500	g	500	g	Copper	0.0008	g
	METTLER/15851		1	kg	1	kg	Copper	0.0014	g
	METTLER/73226		2	kg	2	kg	Copper	0.0025	g
	METTLER/73227		5	kg	5	kg	Copper	0.03	g
	METTLER/73338		10	kg	10	kg	Copper	0.04	g
	HAFNER/F1		20	kg	20	kg	Copper	0.04	g
			500	g	500	g	Cast Iron	0.0012	g
			1	kg	1	kg	Cast Iron	0.0023	g
			2	kg	2	kg	Cast Iron	0.0044	g
			5	kg	5	kg	Cast Iron	0.03	g
			10	kg	10	kg	Cast Iron	0.04	g
	20	kg	20	kg	Cast Iron	0.06	g		
Approval Signatory: CHANG, Kuo-Dein; HWANG, Shu-Hai									
KC1002 Balance (on-site calibration included)	METTLER/73226	Calibration procedure for electronic balance (Document No.: MT-C-95-023) (Document No.: MT-C-103-027) (Document No.: MT-C-103-028)	0.001	g	50	g	Readability $\geq 0.00001$ g	0.00011	g
	METTLER/73227		>50	g	100	g	Readability $\geq 0.0001$ g	0.00012	g
	METTLER/73338		>100	g	200	g	Readability $\geq 0.0001$ g	0.00018	g
	HANFER/F1		0.001	g	2000	g	Readability $\geq 0.0001$ g	0.0019	g
			0.1	g	10000	g	Readability $\geq 0.01$ g	0.39	g
			>10000	g	30000	g	Readability $\geq 0.01$ g	0.45	g
Approval Signatory: CHANG, Kuo-Dein; HWANG, Shu-Hai									





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 (on-site calibration included)	METTLER 1 mg~200 g/23EA METTLER 1 g~2 Kg/14EA CHINA_SCALE 100 g~10 kg/32EA	Calibration procedure for electronic scale (0 kg to 100 kg) (Document No.: MT-C-110-006)	0.1	kg	100	kg	Readability >=0.01 kg	0.07	kg
Approval Signatory: CHANG, Kuo-Dein; HWANG, Shu-Hai									
KC2002 Load Cell	Standard Weight (CHINA SCALE #21) Load Cell (HBM/U10M_2.5 kN, HBM/U10M_12.5 kN)	Calibration Procedure for Load Cell (Document NO.: MT-C-99-009)	0.98 (0.1)	N (kgf)	19.61 (2)	N (kgf)	COMPRESSION (MASS)	0.012 (0.0012)	N (kgf)
			19.61 (2)	N (kgf)	196.1 (20)	N (kgf)	COMPRESSION (MASS)	0.08 (0.008)	N (kgf)
		Calibration Procedure for Force Transducer (Load Cell) (Document NO.: MT-C-109-005)	196.1 (20)	N (kgf)	1961 (200)	N (kgf)	COMPRESSION (MASS)	1.6 (0.16)	N (kgf)
			0.98 (0.1)	N (kgf)	19.61 (2)	N (kgf)	TENSION (MASS)	0.014 (0.0014)	N (kgf)
			19.61 (2)	N (kgf)	196.1 (20)	kN (kgf)	TENSION (MASS)	0.10 (0.010)	N (kgf)
			196.1 (20)	kN (kgf)	1961 (200)	kN (kgf)	TENSION (MASS)	0.6 (0.06)	N (kgf)
			200 (20.4)	N (kgf)	2 (204)	kN (kgf)	COMPRESSION (LOAD CELL)	1.3 (0.13)	N (kgf)
			1 (101.97)	kN (kgf)	10 (1019.72)	kN (kgf)	COMPRESSION (LOAD CELL)	5.2 (0.52)	N (kgf)
			200 (20.4)	N (kgf)	2 (204)	kN (kgf)	TENSION (LOAD CELL)	0.6 (0.06)	N (kgf)
			1 (101.97)	kN (kgf)	10 (1019.72)	kN (kgf)	TENSION (LOAD CELL)	3.8 (0.38)	N (kgf)
Approval Signatory: CHANG, Kuo-Dein; HWANG, Shu-Hai; YANG, Chih-Chieh									



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
KC2005 Material Testing Machine (on-site calibration included)	Standard Weight (CHINA SCALE #21) Load Cell (NTS/LRM-2 kN, NTS/LRM-20 kN)	Calibration Procedure for Material Testing Machine (on-site calibration included) (Document No.: MT-C-99-010)	0.98 (0.1)	N (kgf)	19.6 (2)	N (kgf)	TENSION (MASS)	0.007 (0.0007)	N (kgf)
			196 (20)	N (kgf)	1961 (200)	N (kgf)	TENSION (MASS)	0.6 (0.06)	N (kgf)
			0.98 (0.1)	N (kgf)	19.6 (2)	N (kgf)	COMPRESSION (MASS)	0.011 (0.0011)	N (kgf)
		Calibration Procedure for Material Testing Machine (on-site calibration included) (Document No: MT-C-109-006)	196 (20)	N (kgf)	1961 (200)	N (kgf)	COMPRESSION (MASS)	1.5 (0.15)	N (kgf)
			200 (20.4)	N (kgf)	2 (204)	kN (kgf)	TENSION (LOAD CELL)	0.10	%
			1 (101.97)	kN (kgf)	10 (1019.7)	kN (kgf)	TENSION (LOAD CELL)	0.05	%
			200 (20.4)	N (kgf)	2 (204)	kN (kgf)	COMPRESSION (LOAD CELL)	0.13	%
			1 (101.97)	kN (kgf)	10 (1019.7)	kN (kgf)	COMPRESSION (LOAD CELL)	0.06	%
			19.6 (2)	N (kgf)	196 (20)	N (kgf)	TENSION (MASS)	0.10 (0.01)	N (kgf)
19.6 (2)	N (kgf)	196 (20)	N (kgf)	COMPRESSION (MASS)	0.08 (0.008)	N (kgf)			
Approval Signatory: CHANG, Kuo-Dein; HWANG, Shu-Hai; YANG, Chih-Chieh									
KC4001 Torque Wrench	NORBAR /43228/50590.LOG	Calibration for procedure (Document No.: MT-C-99-011)	1 (10)	N.m (kgf cm)	10 (102)	N.m (kgf cm)	INDICATE (TYPE I)	0.54	%
	NORBAR /43228/50593.LOG		10 (102)	N.m (kgf cm)	100 (1020)	N.m (kgf cm)	INDICATE (TYPE I)	0.42	%
	NORBAR /43228/50772.LOG		100 (1020)	N.m (kgf cm)	1000 (5610)	N.m (kgf cm)	INDICATE (TYPE I)	0.38	%



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
KC4001 Torque Wrench	NORBAR/43228/50590.LOG NORBAR/43228/50593.LOG NORBAR/43228/50772.LOG	Calibration for procedure (Document No.: MT-C-99-011)	1 (10)	N.m (kgf cm)	10 (102)	N.m (kgf cm)	PRESET (TYPE II)	0.57	%
			10 (102)	N.m (kgf cm)	100 (1020)	N.m (kgf cm)	PRESET (TYPE II)	0.39	%
			100 (1020)	N.m (kgf cm)	1000 (10197)	N.m (kgf cm)	PRESET (TYPE II)	0.27	%
Approval Signatory: CHANG, Kuo-Dein; HWANG, Shu-Hai									
KC4002 Torque Driver	NORBAR/43212 NORBAR/43228/50590.LOG	Calibration for Procedure Torque Driver (Document No.: MT-C-101-058)	0.02 (0.204)	N.m (kgf cm)	2 (20.4)	N.m (kgf cm)	INDICATED (TYPE I)	1.0	%
			2 (20.4)	N.m (kgf cm)	10 (102)	N.m (kgf cm)	INDICATED (TYPE I)	1.1	%
			0.02 (0.204)	N.m (kgf cm)	2 (20.4)	N.m (kgf cm)	PRESET (TYPE II)	0.4	%
			2 (20.4)	N.m (kgf cm)	10 (102)	N.m (kgf cm)	PRESET (TYPE II)	0.6	%
Approval Signatory: CHANG, Kuo-Dein; HWANG, Shu-Hai; YANG, Chih-Chieh									
KC4004 Torque Calibrator	HIOS/40 cm NORBAR/21407 NORBAR/21408 NORBAR/2 N~100 N	torque calibrator calibration procedure (Document No.: MT-C-95-027)	1 (10)	N.m (kgf cm)	10 (102)	N.m (kgf cm)		0.24	%
			10 (102)	N.m (kgf cm)	100 (1020)	N.m (kgf cm)		0.11	%
			100 (1020)	N.m (kgf cm)	1000 (10197)	N.m (kgf cm)		0.12	%
Approval Signatory: CHANG, Kuo-Dein; HWANG, Shu-Hai; YANG, Chih-Chieh									



## 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 Anemometer	Anemometer	MT-C-103-004	0.5	m/s	1	m/s		0.03	m/s
	TSI/8465-300-1		1	m/s	5	m/s		0.15	m/s
	Anemometer		5	m/s	25	m/s		0.30	m/s
	Furness Controls/FCO352-2w		25	m/s	30	m/s		0.40	m/s
Approval Signatory: CHANG, Kuo-Dein; HWANG, Shu-Hai									

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

