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

Certificate of Accreditation

(Certificate No：L0954-250718)

This is to certify that

Gong-Hung Technology Co., Ltd.

GCH Technology Calibration Laboratory(Length)

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	：	0954
Originally Accredited	：	January 01, 2003
Effective Period	：	July 20, 2025 to July 19, 2028
Accredited Scope	：	Calibration Field, see described in the Appendix

Scan to verify

Yi-Ling Chen

Yi-Ling Chen
President, Taiwan Accreditation Foundation
July 18, 2025

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

Accreditation Number ：0954
Laboratory Head ：HUNG, Chuan-Hsi

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 vernier caliper digimatic caliper dial caliper	Mitutoyo /515-556-2 KOBA /600 mm	In-house method: caliper calibration procedure (Document No.: GCH-SCP-L01)	0	mm	300	mm	vernier outside diameter (resolution: 0.02 mm)	0.02	mm
			0	mm	300	mm	vernier inside diameter (resolution: 0.02 mm)	0.02	mm
			0	mm	300	mm	vernier outside diameter (resolution: 0.05 mm)	0.05	mm
			>300	mm	600	mm	vernier outside diameter (resolution: 0.05 mm)	0.05	mm
			0	mm	300	mm	digimatic inside diameter (resolution: 0.01 mm)	0.05	mm
			>300	mm	600	mm	digimatic inside diameter (resolution: 0.01 mm)	0.05	mm
			0	mm	200	mm	digimatic outside diameter (resolution: 0.01 mm)	0.02	mm
			0	mm	200	mm	digimatic inside diameter (resolution: 0.01 mm)	0.02	mm
			0	mm	300	mm	digimatic outside diameter (resolution: 0.01 mm)	0.02	mm
			>300	mm	600	mm	digimatic outside diameter (resolution: 0.01 mm)	0.02	mm
			0	mm	300	mm	digimatic inside diameter (resolution: 0.01 mm)	0.02	mm
			>300	mm	600	mm	digimatic inside diameter (resolution: 0.01 mm)	0.02	mm

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
KA2003 vernier caliper digimatic caliper dial caliper	Mitutoyo /515-556-2 KOBA /600 mm	In-house method: caliper calibration procedure (Document No.: GCH-SCP-L01)	0	mm	200	mm	dial outside diameter (resolution: 0.01 mm)	0.02	mm
			0	mm	200	mm	dial inside diameter (resolution: 0.01 mm)	0.02	mm
			0	mm	300	mm	dial outside diameter (resolution: 0.02 mm)	0.03	mm
			0	mm	300	mm	dial inside diameter (resolution: 0.02 mm)	0.03	mm
Approval Signatory: HUNG, Chuan-Hsi; CHEN, Chih-Chuan									
KA2005 digimatic outside micrometer vernier outside micrometer digit outside micrometer	Mitutoyo /BMI-10N-0 /PD Mitutoyo /BM1-8M-0 /D Mitutoyo /30 mm-90 mm	In-house method: outside micrometer calibration procedure (Document No.: GCH-SCP-L03)	0	mm	25	mm	digimatic (resolution: 0.001 mm)	0.003	mm
			25	mm	50	mm	digimatic (resolution: 0.001 mm)	0.003	mm
			50	mm	75	mm	digimatic (resolution: 0.001 mm)	0.003	mm
			75	mm	100	mm	digimatic (resolution: 0.001 mm)	0.003	mm
			0	mm	25	mm	vernier (resolution: 0.01 mm)	0.01	mm
			25	mm	50	mm	vernier (resolution: 0.01 mm)	0.01	mm
			50	mm	75	mm	vernier (resolution: 0.01 mm)	0.01	mm
			75	mm	100	mm	vernier (resolution: 0.01 mm)	0.01	mm
			0	mm	25	mm	vernier (resolution: 0.001 mm)	0.003	mm
			25	mm	50	mm	vernier (resolution: 0.001 mm)	0.003	mm
			50	mm	75	mm	vernier (resolution: 0.001 mm)	0.003	mm
			75	mm	100	mm	vernier (resolution: 0.001 mm)	0.003	mm
			0	mm	25	mm	digit (resolution: 0.001 mm)	0.003	mm
Approval Signatory: HUNG, Chuan-Hsi; CHEN, Chih-Chuan									

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
KA2008 2D Height Gauge (on-site calibration included)	Step Gauge	In-house method: Calibration Procedure for 2D Height Gauge (Document No.: GCH-SCP-L06) (on-site calibration included)	0	mm	600	mm	resolution 0.0001 mm	11	μm
			0	mm	600	mm	resolution 0.001 mm	11	μm
			0	mm	600	mm	resolution 0.0001 mm (on- site calibration)	14	μm
			0	mm	600	mm	resolution 0.001 mm (on- site calibration)	14	μm
Approval Signatory: HUNG, Chuan-Hsi; CHEN, Chih-Chuan									
KA2008 Height Gauge (on-site calibration included)	Step Gauge Mitutoyo /515-743	In-house method: Calibration Procedure for Height Gauge (on-site calibration included) (Document No.: GCH-SCP-L05)	0	mm	600	mm	digimatic (resolution: 0.01 mm) (on-site calibration included)	0.02	mm
			0	mm	600	mm	dial (resolution: 0.01 mm) (on-site calibration included)	0.02	mm
Approval Signatory: HUNG, Chuan-Hsi; CHEN, Chih-Chuan									
KA2010 dial indicator digimatic indicator	Mitutoyo /1.005 mm-9 mm Mitutoyo /BMI-10N-0/PD Mitutoyo /516-115-10 Mitutoyo /30 mm-90 mm Mitutoyo/170-102	In-house method: indicator calibration procedure (Document No.: GCH-SCP-L02)	0	mm	5	mm	dial (resolution: 0.001 mm)	0.004	mm
			0	mm	20	mm	dial (resolution: 0.01 mm)	0.01	mm
			0	mm	50	mm	dial (resolution: 0.01 mm)	0.01	mm
			0	mm	25	mm	digimatic (resolution: 0.01 mm)	0.01	mm
			0	mm	25	mm	digimatic (resolution: 0.001 mm)	0.004	mm
			0	mm	50	mm	digimatic (resolution: 0.01 mm)	0.01	mm
			0	mm	50	mm	digimatic (resolution: 0.001 mm)	0.001	mm
Approval Signatory: HUNG, Chuan-Hsi; CHEN, Chih-Chuan									

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 Test indicat	Dial Gauge Calibrator	In-house method: Test indicat Calibration Procedure (Document No.: GCH-SCP-L04)	0	mm	0.2	mm	resolution: 0.001 mm	0.004	mm
			0	mm	0.2	mm	resolution: 0.002 mm	0.004	mm
			0	mm	0.8	mm	resolution: 0.01 mm	0.01	mm
Approval Signatory: HUNG, Chuan-Hsi; CHEN, Chih-Chuan									
KA4008 3D Coordinate Measuring Machine (on-site calibration)	Mitutoyo /30 mm Mitutoyo /BM1-8M-0 KOBA/ (200 to 500) mm KOBA /600 mm KOBA /700 mm SAGER /24.99505 mm	In-house method: Calibration Procedure for 3D Coordinate Measuring Machine (on-site calibration) (Document No.: GCH-SCP-L08)	0	mm	500	mm	X Axis/ (20 ± 2) °C / (resolution: 0.001 mm)	$[(2.4)^2+(9.1\,L)^2]^{1/2}$, Length L in m	μm
			0	mm	700	mm	Y Axis/ (20 ± 2) °C / (resolution: 0.001 mm)	$[(3.5)^2+(9.1\,L)^2]^{1/2}$, Length L in m	μm
			0	mm	500	mm	Z Axis/ (20 ± 2) °C / (resolution: 0.001 mm)	$[(2.2)^2+(9.1\,L)^2]^{1/2}$, Length L in m	μm
			0	mm	700	mm	space/ (20 ± 2) °C / (resolution: 0.001 mm)	$[(3.6)^2+(9.1\,L)^2]^{1/2}$, Length L in m	μm
							probing error/ (20 ± 2) °C / (resolution: 0.001 mm)	1	μm

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
KA4008 3D Coordinate Measuring Machine (on-site calibration)	Mitutoyo /30 mm Mitutoyo /BM1-8M-0 KOBA/ (200 to 500) mm KOBA /600 mm KOBA /700 mm SAGER /24.99505 mm	In-house method: Calibration Procedure for 3D Coordinate Measuring Machine (on-site calibration) (Document No.: GCH-SCP-L08)	0	mm	500	mm	X Axis/ (20 ± 5) °C / (resolution: 0.001 mm)	$[(2.4)^2+(22\,L)^2]^{1/2}$, Length L in m	μm
			0	mm	700	mm	Y Axis/ (20 ± 5) °C / (resolution: 0.001 mm)	$[(3.5)^2+(22\,L)^2]^{1/2}$, Length L in m	μm
			0	mm	500	mm	Z Axis/ (20 ± 5) °C / (resolution: 0.001 mm)	$[(2.2)^2+(22\,L)^2]^{1/2}$, Length L in m	μm
			0	mm	700	mm	space/ (20 ± 5) °C / (resolution: 0.001 mm)	$[(3.6)^2+(22\,L)^2]^{1/2}$, Length L in m	μm
							probing error / (20 ± 5) °C / (resolution: 0.001 mm)	1	μm
			0	mm	500	mm	X Axis/ (20 ± 10) °C / (resolution: 0.001 mm)	$[(2.4)^2+(43\,L)^2]^{1/2}$, Length L in m	μm
			0	mm	700	mm	Y Axis/ (20 ± 10) °C / (resolution: 0.001 mm)	$[(3.5)^2+(43\,L)^2]^{1/2}$, Length L in m	μm

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
KA4008 3D Coordinate Measuring Machine (on-site calibration)	Mitutoyo /30 mm Mitutoyo /BM1-8M-0 KOBA/ (200 to 500) mm KOBA /600 mm KOBA /700 mm SAGER /24.99505 mm	In-house method: Calibration Procedure for 3D Coordinate Measuring Machine (on-site calibration) (Document No.: GCH-SCP-L08)	0	mm	500	mm	Z Axis/ (20 ± 10) °C / (resolution: 0.001 mm)	$[(2.2)^2+(43\,L)^2]^{1/2}$, Length L in m	μm
			0	mm	700	mm	space/ (20 ± 10) °C / (resolution: 0.001 mm)	$[(3.6)^2+(43\,L)^2]^{1/2}$, Length L in m	μm
							probing error / (20 ± 10) °C / (resolution: 0.001 mm)	2	μm
			0	mm	500	mm	X Axis/ (20 ± 2) °C / (resolution: 0.0001 mm)	$[(2.4)^2+(9.1\,L)^2]^{1/2}$, Length L in m	μm
			0	mm	700	mm	Y Axis/ (20 ± 2) °C / (resolution: 0.0001 mm)	$[(2.8)^2+(9.1\,L)^2]^{1/2}$, Length L in m	μm
			0	mm	500	mm	Z Axis/ (20 ± 2) °C / (resolution: 0.0001 mm)	$[(2.0)^2+(9.1\,L)^2]^{1/2}$, Length L in m	μm
			0	mm	700	mm	space/ (20 ± 2) °C / (resolution: 0.0001 mm)	$[(3.4)^2+(9.1\,L)^2]^{1/2}$, Length L in m	μm

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
KA4008 3D Coordinate Measuring Machine (on-site calibration)	Mitutoyo /30 mm Mitutoyo /BM1-8M-0 KOBA/ (200 to 500) mm KOBA /600 mm KOBA /700 mm SAGER /24.99505 mm	In-house method: Calibration Procedure for 3D Coordinate Measuring Machine (on-site calibration) (Document No.: GCH-SCP-L08)					probing error / (20 ± 2) °C / (resolution: 0.0001 mm)	0.4	μm
			0	mm	500	mm	X Axis/ (20 ± 5) °C / (resolution: 0.0001 mm)	$[(2.4)^2+(22\,L)^2]^{1/2}$, Length L in m	μm
			0	mm	700	mm	Y Axis/ (20 ± 5) °C/ (resolution: 0.0001 mm)	$[(2.8)^2+(22\,L)^2]^{1/2}$, Length L in m	μm
			0	mm	500	mm	Z Axis/ (20 ± 5) °C / (resolution: 0.0001 mm)	$[(2.0)^2+(22\,L)^2]^{1/2}$, Length L in m	μm
			0	mm	700	mm	space/ (20 ± 5) °C / (resolution: 0.0001 mm)	$[(3.4)^2+(22\,L)^2]^{1/2}$, Length L in m	μm
							probing error / (20 ± 5) °C / (resolution: 0.0001 mm)	0.6	μm
			0	mm	500	mm	X Axis/ (20 ± 10) °C / (resolution: 0.0001 mm)	$[(2.4)^2+(43\,L)^2]^{1/2}$, Length L in m	μm

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
KA4008 3D Coordinate Measuring Machine (on-site calibration)	Mitutoyo /30 mm Mitutoyo /BM1-8M-0 KOBA/ (200 to 500) mm KOBA /600 mm KOBA /700 mm SAGER /24.99505 mm	In-house method: Calibration Procedure for 3D Coordinate Measuring Machine (on-site calibration) (Document No.: GCH-SCP-L08)	0	mm	700	mm	Y Axis/ (20 ± 10) °C / (resolution: 0.0001 mm)	$[(2.8)^2+(43\,L)^2]^{1/2}$, Length L in m	µm
			0	mm	500	mm	Z Axis/ (20 ± 10) °C / (resolution: 0.0001 mm)	$[(2.0)^2+(43\,L)^2]^{1/2}$, Length L in m	µm
			0	mm	700	mm	space/ (20 ± 10) °C / (resolution: 0.0001 mm)	$[(3.4)^2+(43\,L)^2]^{1/2}$, Length L in m	µm
							probing error / (20 ± 10) °C / (resolution: 0.0001 mm)	0.9	µm
Approval Signatory: HUNG, Chuan-Hsi; CHEN, Chih-Chuan									

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
KA4010 video measurement system (linearscale type) (on-site calibration)	Mitutoyo /BM1-8M-0 Nikon/50 mm Nikon/300 mm Mitutoyo /182-532 Mitutoyo /HL3-1000	In-house method: Calibration Procedure for video measurement system (on-site calibration) (Document No.: GCH-SCP-L07)	0	mm	50	mm	X Axis/ (20 ± 2) ℃ / (resolution: 0.001 mm)	2.3	μm
			0	mm	300	mm	X Axis/ (20 ± 2) ℃ / (resolution: 0.001 mm)	2.4	μm
			0	mm	500	mm	X Axis/ (20 ± 2) ℃ / (resolution: 0.001 mm)	2.6	μm
			0	mm	780	mm	X Axis/ (20 ± 2) ℃ / (resolution: 0.001 mm)	3.3	μm
			0	mm	50	mm	Y Axis/ (20 ± 2) ℃ / (resolution: 0.001 mm)	1.4	μm
			0	mm	300	mm	Y Axis/ (20 ± 2) ℃ / (resolution: 0.001 mm)	1.7	μm
			0	mm	500	mm	Y Axis/ (20 ± 2) ℃ / (resolution: 0.001 mm)	2.1	μm
			0	mm	580	mm	Y Axis/ (20 ± 2) ℃ / (resolution: 0.001 mm)	2.4	μm
			0	mm	150	mm	Z Axis/ (20 ± 2) ℃ / (resolution: 0.001 mm)	2.0	μm
			0	mm	50	mm	Exy diagonal axis/ (20 ± 2) ℃ / (resolution: 0.001 mm)	3.9	μm
			0	mm	300	mm	Exy diagonal axis/ (20 ± 2) ℃ / (resolution: 0.001 mm)	3.7	μm
			0	mm	500	mm	Exy diagonal axis/ (20 ± 2) ℃ / (resolution: 0.001 mm)	3.7	μm
			0	mm	900	mm	Exy diagonal axis/ (20 ± 2) ℃ / (resolution: 0.001 mm)	4.2	μm
			0	mm	50	mm	X Axis/ (20 ± 5) ℃ / (resolution: 0.001 mm)	2.3	μm
			0	mm	300	mm	X Axis/ (20 ± 5) ℃ / (resolution: 0.001 mm)	2.8	μm
			0	mm	500	mm	X Axis/ (20 ± 5) ℃ / (resolution: 0.001 mm)	3.8	μm

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
KA4010 video measurement system (linearscale type) (on-site calibration)	Mitutoyo /BM1-8M-0 Nikon/50 mm Nikon/300 mm Mitutoyo /182-532 Mitutoyo /HL3-1000	In-house method: Calibration Procedure for video measurement system (on-site calibration) (Document No.: GCH-SCP-L07)	0	mm	780	mm	X Axis/ (20 ± 5) ℃ / (resolution: 0.001 mm)	5.4	μm
			0	mm	50	mm	Y Axis/ (20 ± 5) ℃ / (resolution: 0.001 mm)	1.4	μm
			0	mm	300	mm	Y Axis/ (20 ± 5) ℃ / (resolution: 0.001 mm)	2.4	μm
			0	mm	500	mm	Y Axis/ (20 ± 5) ℃ / (resolution: 0.001 mm)	3.5	μm
			0	mm	580	mm	Y Axis/ (20 ± 5) ℃ / (resolution: 0.001 mm)	4.0	μm
			0	mm	150	mm	Z Axis/ (20 ± 5) ℃ / (resolution: 0.001 mm)	3.5	μm
			0	mm	50	mm	Exy diagonal axis/ (20 ± 5) ℃ / (resolution: 0.001 mm)	4.0	μm
			0	mm	300	mm	Exy diagonal axis/ (20 ± 5) ℃ / (resolution: 0.001 mm)	3.7	μm
			0	mm	500	mm	Exy diagonal axis/ (20 ± 5) ℃ / (resolution: 0.001 mm)	4.3	μm
			0	mm	900	mm	Exy diagonal axis/ (20 ± 5) ℃ / (resolution: 0.001 mm)	6.5	μm
			0	mm	50	mm	X Axis/ (20 ± 10) ℃/ (resolution: 0.001 mm)	2.3	μm
			0	mm	300	mm	X Axis/ (20 ± 10) ℃/ (resolution: 0.001 mm)	4.2	μm
			0	mm	500	mm	X Axis/ (20 ± 10) ℃/ (resolution: 0.001 mm)	6.6	μm
			0	mm	780	mm	X Axis/ (20 ± 10) ℃/ (resolution: 0.001 mm)	11	μm
			0	mm	50	mm	Y Axis/ (20 ± 10) ℃/ (resolution: 0.001 mm)	1.5	μm
			0	mm	300	mm	Y Axis/ (20 ± 10) ℃/ (resolution: 0.001 mm)	4.0	μm

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
KA4010 video measurement system (linearscale type) (on-site calibration)	Mitutoyo /BM1-8M-0 Nikon/50 mm Nikon/300 mm Mitutoyo /182-532 Mitutoyo /HL3-1000	In-house method: Calibration Procedure for video measurement system (on-site calibration) (Document No.: GCH-SCP-L07)	0	mm	500	mm	Y Axis/ (20 ± 10) ℃/ (resolution: 0.001 mm)	6.5	μm
			0	mm	580	mm	Y Axis/ (20 ± 10) ℃/ (resolution: 0.001 mm)	7.5	μm
			0	mm	150	mm	Z Axis/ (20 ± 10) ℃/ (resolution: 0.001 mm)	6.5	μm
			0	mm	50	mm	Exy diagonal axis/ (20 ± 10) ℃ / (resolution: 0.001 mm)	4.0	μm
			0	mm	300	mm	Exy diagonal axis/ (20 ± 10) ℃ / (resolution: 0.001 mm)	4.7	μm
			0	mm	500	mm	Exy diagonal axis/ (20 ± 10) ℃ / (resolution: 0.001 mm)	6.8	μm
			0	mm	900	mm	Exy diagonal axis/ (20 ± 10) ℃ / (resolution: 0.001 mm)	12	μm
			0	mm	50	mm	X Axis/ (20 ± 2) ℃ / (resolution: 0.0001 mm)	2.8	μm
			0	mm	300	mm	X Axis/ (20 ± 2) ℃ / (resolution: 0.0001 mm)	2.5	μm
			0	mm	500	mm	X Axis/ (20 ± 2) ℃ / (resolution: 0.0001 mm)	2.7	μm
			0	mm	780	mm	X Axis/ (20 ± 2) ℃ / (resolution: 0.0001 mm)	3.3	μm
			0	mm	50	mm	Y Axis/ (20 ± 2) ℃ / (resolution: 0.0001 mm)	1.7	μm
			0	mm	300	mm	Y Axis/ (20 ± 2) ℃ / (resolution: 0.0001 mm)	1.9	μm
			0	mm	500	mm	Y Axis/ (20 ± 2) ℃ / (resolution: 0.0001 mm)	2.3	μm
			0	mm	580	mm	Y Axis/ (20 ± 2) ℃ / (resolution: 0.0001 mm)	2.5	μm
			0	mm	150	mm	Z Axis/ (20 ± 2) ℃ / (resolution: 0.0001 mm)	2.0	μm

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
KA4010 video measurement system (linearscale type) (on-site calibration)	Mitutoyo /BM1-8M-0 Nikon/50 mm Nikon/300 mm Mitutoyo /182-532 Mitutoyo /HL3-1000	In-house method: Calibration Procedure for video measurement system (on-site calibration) (Document No.: GCH-SCP-L07)	0	mm	50	mm	Exy diagonal axis/ (20 ± 2) ℃ / (resolution: 0.0001 mm)	3.3	μm
			0	mm	300	mm	Exy diagonal axis/ (20 ± 2) ℃ / (resolution: 0.0001 mm)	3.2	μm
			0	mm	500	mm	Exy diagonal axis/ (20 ± 2) ℃ / (resolution: 0.0001 mm)	3.2	μm
			0	mm	900	mm	Exy diagonal axis/ (20 ± 2) ℃ / (resolution: 0.0001 mm)	3.8	μm
			0	mm	50	mm	X Axis/ (20 ± 5) ℃ / (resolution: 0.0001 mm)	2.9	μm
			0	mm	300	mm	X Axis/ (20 ± 5) ℃ / (resolution: 0.0001 mm)	2.8	μm
			0	mm	500	mm	X Axis/ (20 ± 5) ℃ / (resolution: 0.0001 mm)	3.8	μm
			0	mm	780	mm	X Axis/ (20 ± 5) ℃ / (resolution: 0.0001 mm)	5.5	μm
			0	mm	50	mm	Y Axis/ (20 ± 5) ℃ / (resolution: 0.0001 mm)	1.8	μm
			0	mm	300	mm	Y Axis/ (20 ± 5) ℃ / (resolution: 0.0001 mm)	2.5	μm
			0	mm	500	mm	Y Axis/ (20 ± 5) ℃ / (resolution: 0.0001 mm)	3.6	μm
			0	mm	580	mm	Y Axis/ (20 ± 5) ℃ / (resolution: 0.0001 mm)	4.1	μm
			0	mm	150	mm	Z Axis/ (20 ± 5) ℃ / (resolution: 0.0001 mm)	3.5	μm
			0	mm	50	mm	Exy diagonal axis/ (20 ± 5) ℃ / (resolution: 0.0001 mm)	3.3	μm
			0	mm	300	mm	Exy diagonal axis/ (20 ± 5) ℃ / (resolution: 0.0001 mm)	3.2	μm
			0	mm	500	mm	Exy diagonal axis/ (20 ± 5) ℃ / (resolution: 0.0001 mm)	4.0	μm

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
KA4010 video measurement system (linearscale type) (on-site calibration)	Mitutoyo /BM1-8M-0 Nikon/50 mm Nikon/300 mm Mitutoyo /182-532 Mitutoyo /HL3-1000	In-house method: Calibration Procedure for video measurement system (on-site calibration) (Document No.: GCH-SCP-L07)	0	mm	900	mm	Exy diagonal axis/ (20 ± 5) ℃ / (resolution: 0.0001 mm)	6.3	μm
			0	mm	50	mm	X Axis/ (20 ± 10) ℃ / (resolution: 0.0001 mm)	2.6	μm
			0	mm	300	mm	X Axis/ (20 ± 10) ℃ / (resolution: 0.0001 mm)	4.2	μm
			0	mm	500	mm	X Axis/ (20 ± 10) ℃ / (resolution: 0.0001 mm)	6.6	μm
			0	mm	780	mm	X Axis/ (20 ± 10) ℃ / (resolution: 0.0001 mm)	11	μm
			0	mm	50	mm	Y Axis/ (20 ± 10) ℃ / (resolution: 0.0001 mm)	1.8	μm
			0	mm	300	mm	Y Axis/ (20 ± 10) ℃ / (resolution: 0.0001 mm)	4.0	μm
			0	mm	500	mm	Y Axis/ (20 ± 10) ℃ / (resolution: 0.0001 mm)	6.5	μm
			0	mm	580	mm	Y Axis/ (20 ± 10) ℃ / (resolution: 0.0001 mm)	7.5	μm
			0	mm	150	mm	Z Axis/ (20 ± 10) ℃ / (resolution: 0.0001 mm)	6.5	μm
			0	mm	50	mm	Exy diagonal axis/ (20 ± 10) ℃ / (resolution: 0.0001 mm)	3.4	μm
			0	mm	300	mm	Exy diagonal axis/ (20 ± 10) ℃ / (resolution: 0.0001 mm)	4.4	μm
			0	mm	500	mm	Exy diagonal axis/ (20 ± 10) ℃ / (resolution: 0.0001 mm)	6.7	μm
			0	mm	900	mm	Exy diagonal axis/ (20 ± 10) ℃ / (resolution: 0.0001 mm)	12	μm
Approval Signatory: HUNG, Chuan-Hsi; CHEN, Chih-Chuan									

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