



K.S.P OCTATECH CO.,LTD.

730 SAKORNMONGKOL 2 RD., HATYAI, SOMGKHLA 90110, THAILAND

Tel : (074) 346011-13 Fax : (074) 346014-15

Email : iss.kan@gmail.com , www.ksp108.com, Email : kspoctatech.hatyai2@gmail.com

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Calibration Certification

Certificate No.65T150

Equipment : pH meter
Manufacturer : Mettler Toledo
Serial No. : 151000017107
Type : HQ411D
ID No. : PK5901001
Company : SOUTHERN THAI CONSULTING CO.,LTD.
Address : 59/45 Moo 5 T. Srisoontorn, A.Talang, Phuket 83110
Calibrated by : Miss Fatimah Maetimoh Calibration Date : 30 November 2022

(Signature)

Calibration Approve : Mr. Sudkhet Anuchit Approve Date: 7 December 2022

(Signature)

Date of Issue : 8 December 2022

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K.S.P Octatech Company Limited calibration laboratory

The uncertainties are base on estimated confidence probability of approximate

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Equipment : pH electrode
Manufacturer : PHC101
Serial No. : 220212562675
Type : HACH
ID No. : PK5901001
Calibration method

Calibration were conducted using in-house calibration procedure CP-T01 according to comparison method with certified Reference Material Conductivity solution and Digital thermometer

Reference Standard Instrument

Instrument	Serial No.	Change/Lot	Expire date	Traceability
1. Buffer pH 4.01	S/N: 51350004	1H164E	13.06.2024	MT
2. Buffer pH 7.00	S/N : 51350006	1H140D	20.05.2024	MT
3. Buffer pH 10.00	S/N: 51350010	1H031A	31.01.2024	MT
4. pH Simulator	S/N :2013379	-	01.07.2023	*Scal

*Scal = Southern Calibraion Service Co.,Ltd

Condition of this result of calibration

1. This result of calibration was found accurate as shown on date and place of calibration only

2. Calibration were performance under the following ambient condition

Temperature (25±5) C°

Humidity (55±15) %RH

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Input From	
External Source (pH)	Display (pH)
1.00	NA
1.68	NA
4.01	NA
7.00	NA
10.01	NA
12.45	NA

Input From	
External Source (mv)	Display (mv)
1800	NA
900	NA
390	NA
-390	NA
-900	NA
-1800	NA

Measurement values			
Test value 25°c	pH Reading	Correction	Uncertainty
Buffer	(pH)	(pH)	(pH)
4.01	3.95	0.06	0.015
7.00	7.03	-0.03	0.015
10.00	10.05	-0.05	0.036

Electrode calibration			
3 point	Temp °c	Slope value(%)	Zero point(mv)
Buffer pH 4.01	25.6	96	-13
Buffer pH 7.00			
Buffer pH 10.00			

...End...

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Certificate of Calibration

Number of Page(s) 1 of 3

Certificate No. BSCC-UV-378/22
Equipment UV/Vis Spectrophotometer
Model UV-1800
Manufacturer SHIMADZU
Serial No. A11635305233CD
ID No. UV-03
Date of receipt 4 November 2022
Date of calibration 4 November 2022
Date of issue 10 November 2022

Customer name Southern Thai Consulting Co., Ltd.

Address 59/45 Moo 5, Srisoontorn, Talang, Phuket 83110

Temperature (23.6-26.9) °C (On site)
Humidity (50.5-57.1) %RH (On site)

Equipment condition Good Operation

Calibration Location Laboratory

Calibration Procedure In-house method WI-UV-702-01 based on ASTM E275-01

Traceability Wavelength Accuracy is traceable to certificate No. 99394 and 99395
Photometric Accuracy is traceable to certificate No. 99380 and 99387
Stray Light is traceable to certificate No. 99385
The above certificate are traceable to SI unit through Sarna Scientific Ltd.
(UKAS accredited calibration laboratory NO. 0659)

Calibrated by Mr.Sarunkorn Pukaothong

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Approved by



Mr.Kanchit Choothep
Technical Manager

The above results are valid exclusively for the calibrated item(s) as mention in this report / certificate.
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except in full, without written approval of the Bara Scientific Co., Ltd.

Certificate of Calibration

Certificate No. **BSCC-UV-378/22**

Number of Page(s) **2 of 3**

Calibration Results:

1.Wavelength Accuracy

Certified Wavelength (nm)	UUC (nm)	Error (nm)	Uncertainty (\pm nm)
360.89	360.85	-0.04	0.18
418.53	418.51	-0.02	0.18
513.39	513.43	0.03	0.18
572.99	573.02	0.03	0.18
879.41	879.39	-0.02	0.18

2.Photometric Accuracy (UV)

Wavelength (nm)	Certified Absorbance (A)	UUC (A)	Error (A)	Uncertainty (\pm A)
235	CNR	CNR	CNR	CNR
	CNR	CNR	CNR	CNR
257	0.0000	0.0000	0.0000	0.0075
	0.8579	0.8574	-0.0005	0.0075
313	CNR	CNR	CNR	CNR
	CNR	CNR	CNR	CNR
350	0.0000	0.0000	0.0000	0.0075
	0.6376	0.6380	0.0004	0.0075

*CNR = Customer not request

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Certificate of Calibration

Certificate No. **BSCC-UV-378/22**

Number of Page(s)

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Calibration Results:

3. Photometric Accuracy (Visible)

Wavelength (nm)	Certified Absorbance (A)	UUC (A)	Error (A)	Uncertainty ($\pm A$)
420.0	CNR	CNR	CNR	CNR
	CNR	CNR	CNR	CNR
	CNR	CNR	CNR	CNR
	CNR	CNR	CNR	CNR
440.0	CNR	CNR	CNR	CNR
	CNR	CNR	CNR	CNR
	CNR	CNR	CNR	CNR
	CNR	CNR	CNR	CNR
465.0	0.0000	0.0000	0.0000	0.0042
	0.4894	0.4889	-0.0005	0.0042
	0.6798	0.6796	-0.0002	0.0042
	0.9691	0.9686	-0.0005	0.0042
546.1	0.0000	0.0000	0.0000	0.0042
	0.5042	0.5032	-0.0010	0.0042
	0.6899	0.6889	-0.0011	0.0042
	0.9822	0.9807	-0.0015	0.0042
590.0	CNR	CNR	CNR	CNR
	CNR	CNR	CNR	CNR
	CNR	CNR	CNR	CNR
	CNR	CNR	CNR	CNR
635.0	0.0000	0.0000	0.0000	0.0042
	0.5181	0.5168	-0.0013	0.0042
	0.6878	0.6867	-0.0011	0.0042
	0.9751	0.9733	-0.0018	0.0042

*CNR = Customer not request

4. Stray Light*

Standard cut-off wavelength (nm)	Unit Under Calibration(UUC)		
	Wavelength (nm)	Transmission (%T)	Absorbance (A)
200.98 \pm 0.11nm	200.80	2.0246	0.9450

The Stray light transmission reference is less than 1.0%T and Stray light absorbance reference is greater than 2.00A

*Stray Light not NSC-ONSC Accredited.

The measurement uncertainty is base on a standard uncertainty multiplied by a coverage factor k=2 providing a level of confidence of approximately 95%.

*****End of Certificate*****

The above results are valid exclusively for the calibrated item(s) as mention in this report / certificate.
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Calibration Certificate

Certificate No. 65T155

Equipment : Inclubator
Manufacturer : Accuplus
Serial No. : THL0408-0415-0034
Type : i250-DS
Company : SOUTHERN THAI CONSULTING CO.,LTD.
Address : 59/45 Moo 5 T. Srisoontorn, A.Talang, Phuket 83110
ID NO. : NA
Calibrated by : Mr.Sudkhet Anuchit Calibration Date: 30 November 2022

.....

(Signature)

Calibration Approve : Mr.Issara Ongkabin Approve Date: 8 December 2022

.....

(Signature)

Date of Issue : 9 December 2022

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Calibration method

This instrument was calibrated by comparison of indication with the temperature measured by the standards data acquisition with RTD sensor at specified locations inside the working space of chamber according to calibration procedure no. CP-S01-01

1. Reference instrument user: Temperature Data Logger with Sensor type RTD

RTD ID NO. TP-01 to TP-09

*S/N : 21260163

2. This result of test was found accurate as show on date and place

*Room Temperature : 25+/-10°C

*Room Humidity : 55+/-15% RH

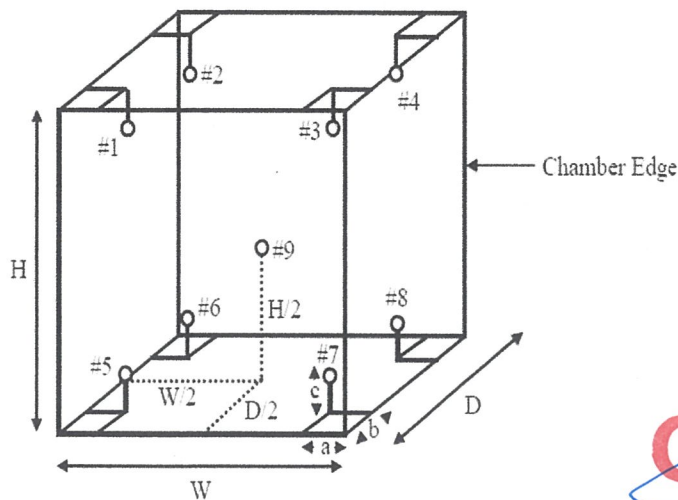
3. This calibration is traceable to:

*Cer.No. SPR21070116-2 to SPR21070116-10

Result of calibration

☒ With out Adjustment

☐ After Adjustment



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Interior Chamber Size	W x H x D	50.0 cm x 110.0 cm x 48.0 cm	Fresh Air Setting	-
Installation Sensor Position	a x b x c	5 cm x 5 cm x 5 cm	Fan Speed Setting	-

Result of Calibration (Without Adjustment)

Function : Temperature Generation

Reporting of Temperature Distribution

Indicating Temperature (°C)	Measured Temperature (°C) @ Probe No. (Probe No.#9 is REF)									Uncertainty of Meas. (± °C)
	#1	#2	#3	#4	#5	#6	#7	#8	#9	
20.0	20.61	20.63	20.51	20.99	20.75	20.70	20.62	20.67	20.90	0.38

Reporting of Temperature Enclosure Performance

Setting Temperature (°C)	Indicating Temperature (°C)	Measured* Uniformity (°C)	Measured** Stability (± °C)	Overall*** Variation (°C)
20.0	20	0.47	0.11	0.55

Measured Uniformity*

The maximum difference of measured temperatures at any sensors and the measured temperature at the reference location (# 9) which are observed at the same time or at as close an observation time as possible to determine the temperature pattern or homogeneity within the chamber under steady state conditions.

The reference sensor should preferably be located at the geometric center of the chamber.

Measured Stability**

One-half of the greatest maximum difference of measured temperatures at any one sensor, for at least half an hour after reaching steady state or after one achieved complete cycle of control whichever comes first.

The specific check of temperature stability at specific positions or locations of working space within the chamber according to the way of use should be specified.

Overall Variation***

The difference of the maximum and the minimum measured temperatures throughout observation time.

This reported uncertainty of measurement was based on a standard uncertainty multiplied by a coverage factor $k = 2$, providing a level of confidence of approximately 95%.

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Calibration Certificate

Certificate No. 65T154

Equipment : Freezer
Manufacturer : NA
Serial No. : NA
Type : NA
Company : SOUTHERN THAI CONSULTING CO.,LTD.
Address : 59/45 Moo 5 T. Srisoontorn, A.Talang, Phuket 83110
Reference : -
Calibrated by : Mr.Sudkhet Anuchi Calibration Date: 30 November 2022
.....
(Signature)
Calibration Approve : Mr.Issara Ongkabin Approve Date: 8 December 2022
.....
(Signature)
Date of Issue : 9 December 2022

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Page 2 of 3

Calibration method

This Instrument was calibrated by comparison with digital

thermometer temperature indicator selector switch Manufacture : Tutron

Condition of result of calibration

1. Reference instrument user: Digital Thermometer with probe type K

No.1 Type: TC-K

*S/N : L303962

2. This result of test was found accurate as show on date and place

*Room Temperature : $25 \pm 10^{\circ}\text{C}$

*Room Humidity : $55 \pm 15\% \text{ RH}$

3. This calibration is traceable to: Southern Calibration Service Co.,Ltd.

*Cer.No. 21DTH911

Result of calibration

☒ With out Adjustment

☐ After Adjustment

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Page 3 of 3

Calibrate Point °C	Equipment Reading °C	Temperature Standard °C	Correction °C
4	4	3.23	-0.77

The estimate uncertainty of measurement was $\pm 0.1^{\circ}\text{C}$

the reported uncertainty of measurement was based on a standard
uncertainty multiplied by a coverage factor $k=2$ providing at level
of confidence of approximately 95%

Note: True value = Equipment Reading + Correction

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Page 1 of 3

Calibration Certificate

Certificate No. 65T153

Equipment : Water Bath
Manufacturer : Memmert
Serial No. : L408.0264
Type : WNB14
Company : SOUTHERN THAI CONSULTING CO.,LTD.
Address : 59/45 Moo 5 T. Srisoontorn, A.Talang, Phuket 83110
Reference : -
Calibrated by : Mr.Sudkhet Anuchi Calibration Date: 30 November 2022

.....

(Signature)

Calibration Approve : Mr.Issara Ongkabin Approve Date: 8 December 2022

.....

(Signature)

Date of Issue : 9 December 2022

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Page 2 of 3

Calibration method

This Instrument was calibrated by comparison with digital

thermometer temperature indicator selector switch Manufacture : Tutron

Condition of result of calibration

1. Reference instrument user: Digital Thermometer with probe type K

No.1 Type: TC-K

*S/N : I.303962

2. This result of test was found accurate as show on date and place

*Room Temperature : $25 \pm 10^{\circ}\text{C}$

*Room Humidity : $55 \pm 15\% \text{ RH}$

3. This calibration is traceable to: Southern Calibration Service Co.,Ltd.

*Cer.No. 21DTH911

Result of calibration

☒ With out Adjustment

☐ After Adjustment

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Page 3 of 3

Calibrate Point °C	Equipment Reading °C	Temperature Standard °C	Correction °C
85	85	85.38	0.38

The estimate uncertainty of measurement was $\pm 0.1^{\circ}\text{C}$

the reported uncertainty of measurement was based on a standard

uncertainty multiplied by a coverage factor $k=2$ providing at level

of confidence of approximately 95%

Note: True value = Equipment Reading + Correction

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Calibration Certificate

Certificate No. 65T152

Equipment : Hot Air Oven
Manufacturer : Memmert
Serial No. : C405.0786
Type : UNE400
Company : SOUTHERN THAI CONSULTING CO.,LTD.
Address : 59/45 Moo 5 T. Srisoontorn, A.Talang, Phuket 83110
Reference : -
Calibrated by : Mr.Sudkhet Anuchi Calibration Date: 30 November 2022

.....

(Signature)

Calibration Approve : Mr.Issara Ongkabin Approve Date: 8 December 2022

.....

(Signature)

Date of Issue : 9 December 2022

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Calibration method

This Instrument was calibrated by comparison with digital

thermometer temperature indicator selector switch Manufacture : Tutron

Condition of resurt of calibration

1. Reference instrument user: Digital Thermometer with probe type K

No.1 Type: TC-K

*S/N : I.303962

2. This result of test was found accurate as show on date and place

*Room Temperature : 25+/-10°c

*Room Humidity : 55+/-15% RH

3. This calibration is traceable to: Southern Calibration Service Co.,Ltd.

*Cer.No. 21DTH911

Result of calibration

☒ With out Adjustment

☐ After Adjustmen1

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Page 3 of 3

Calibrate Point °C	Equipment Reading °C	Temperature Standard °C	Correction °C
104	104	106.09	2.09
150	150.0	150.11	0.11
180	180.0	180.78	0.78

The estimate uncertainty of measurement was $\pm 0.1^{\circ}\text{C}$

the reported uncertainty of measurement was based on a standard

uncertainty multiplied by a coverage factor $k=2$ providing at level

of confidence of approximately 95%

Note: True value = Equipment Reading + Correction

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Certificate of Calibration

Certificate No.65T149

Customer

Company	SOUTHERN THAI CONSULTING CO.,LTD.
Address	59/45 Moo 5 T. Srisoontorn, A.Talang, Phuket 83110
ID No.	NA

Balance Scale

Manufacturer	sartorius	S/N	0035106544
Model	PRACTUM224-1S	Readability (d)	0.0001 g
Max. capacity	220 g		

Reference weight

Weight set No.	30402717	Class OIML	F1
Certificate No.	22M141		
Date of issue	30 January 2022		
	7 December 2022		

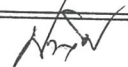

Technology Promotion
Association (Thailand-Japan)

The above mentioned balance/scale is meteorologically tested and the test results reported in this calibration certificate correspond with the manufacturer's specification. ☒ Yes ☐ No

Adjustment of balance scale has been necessary ☒ Yes ☐ No

(In case of "NO" "Before Adjustment" results are equal to "After Adjustment")

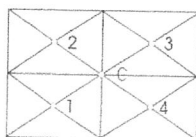
Remarks

Calibration date	30 November 2022	Approve date	8 December 2022
Calibrated by	Miss Fatimah Maetimoh	Calibration Approve	Mr. Sudkhet Anuchit
Signature		Signature	

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Measuring Result

1. Eccentricity test



Reference weight

50g

Position

Center

Left front

Left rear

Right rear

Right front

Maximum error

Within manufacturer's

Specification :

Increasing value(g)

50.0000

49.9999

49.9995

50.0002

50.0000

0.0000

After Adjustment

Yes ☒ NO ☐

2. Linearity Test

	Nominal Value	Displayed value(g)	Weight Value(g)	Deviation(g)	Uncertainty k=2(g)
1	0.1 g	0.0999	0.100015	0.00012	0.00014
2	1 g	1.0000	1.000031	0.00003	0.00014
3	2g	2.0001	2.000039	-0.00006	0.00014
4	5 g	4.9998	5.000051	0.00025	0.00015
5	10 g	10.0002	10.000068	-0.00013	0.00015
6	20 g	20.0001	20.000075	-0.00003	0.00015
7	50 g	49.9999	50.000060	0.00016	0.00016
8	100g	100.0003	100.00014	-0.00016	0.00016
9	150g	149.9999	150.00020	0.00030	0.00019
10	200 g	200.0000	200.00028	0.00028	0.00021

Within manufacturer's

Specification :

After Adjustment

Yes ☒ NO ☐

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3. Repeatability Test

		(After Adjustment only)		Ref. Weight
				200 g
No.	Empty	Loaded(g)	Difference(g)	
1	0	200.0001	0.0001	
2	0	200.0001	0.0001	
3	0	200.0001	0.0001	
4	0	200.0001	0.0001	
5	0	200.0004	0.0004	
6	0	200.0001	0.0001	
7	0	199.9999	-0.0001	
8	0	200.0003	0.0003	
9	0	200.0003	0.0003	
10	0	200.0001	0.0001	
SD =		0.00014		
Within manufacturer's		After Adjustment		
Specification :		Yes <input checked="" type="checkbox"/> NO <input type="checkbox"/>		

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Certificate of Calibration

Certificate No. 65T158

Customer

Company	SOUTHERN THAI CONSULTING CO.,LTD.
Address	59/45 Moo 5 T. Srisoontorn, A.Talang, Phuket 83110
ID No.	-

Balance Scale

Manufacturer	OHAUS	S/N	7124302108
Model	Scout Pro SPs402F	Readability (d)	0.01
Max. capacity	400 g		

Reference weight

Weight set No.	30402717	Class OIML	F1
Certificate No.	21M162		
Date of issue	30 January 2021		
	7 December 2022		
			Technology Promotion Association (Thailand-Japan)

The above mentioned balance/scale is meteorologically tested and the test results reported in this calibration certificate correspond with the manufacturer's specification. ☒ Yes ☐ No

Adjustment of balance scale has been necessary ☒ Yes ☐ No

In case of "NO" "Before Adjustment" results are equal to "After Adjustment"

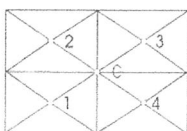
Remark

Calibration date	30 November 2022	Approve date	8 December 2022
Calibrated by	Mr. Sudkhet Anuchit	Calibration Approve	Mr. Issara Ongkabin
Signature		Signature	

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Measuring Result

1. Eccentricity test



Reference weight

100 g

Position

Center

Increasing value(g)

99.99

Left front

99.98

Left rear

99.98

Right rear

99.99

Right front

99.99

Maximum error

0.02

Within manufacturer's

After Adjustment

Specification :

Yes ☒ NO ☐

2. Linearity Test

	Nominal Value	Displayed value(g)	Weight Value(g)	Deviation(g)	Uncertainty(g) k=2
1	1 g	1.00	1.000027	0.0000	0.0048
2	5 g	5.00	5.000051	0.0001	0.0048
3	10 g	10.00	10.000063	0.0001	0.0048
4	20 g	20.00	20.000075	0.0001	0.0048
5	50 g	49.99	50.00006	0.010	0.0048
6	100 g	70.00	100.00017	30.000	0.0048
7	150 g	99.99	150.00023	50.010	0.0048
8	200 g	150.00	200.00034	50.000	0.0048
9	300 g	199.99	300.00051	100.0105	0.0048
10	400 g	398.54	400.0006	1.4606	0.0048

Within manufacturer's

After Adjustment

Specification :

Yes ☒ NO ☐

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3. Repeatability Test

		Ref. Weight	
(After Adjustment only)		200 g	
No.	Empty	Loaded(g)	Difference(g)
1	0	199.99	-0.01
2	0	199.98	-0.02
3	0	199.99	-0.01
4	0	199.99	-0.01
5	0	199.99	-0.01
6	0	199.98	-0.02
7	0	199.99	-0.01
8	0	199.99	-0.01
9	0	199.98	-0.02
10	0	199.99	-0.01
SD =		0.0048	
Within manufacturer's		After Adjustment	
Specification :		Yes <input checked="" type="checkbox"/> NO <input type="checkbox"/>	

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K.S.P OCTATECH CO.,LTD.

730 SAKORNMONGKOL 2 RD., HATYAI, SOMGKHLA 90110, THAILAND

Tel : (074) 346011-13 Fax : (074) 346014-15

Email : iss.kan@gmail.com , www.ksp108.com, Email : kspoctatech.hatyai2@gmail.com

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Calibration Certification

Certificate No. 65T151

Equipment : Conductivity meter

Manufacturer : HACH

Serial No. : 180700001018

Type : HQ14

ID No. : SCD-001

Company : SOUTHERN THAI CONSULTING CO.,LTD.

Address : 59/45 Moo 5 T. Srisoontorn, A.Talang, Phuket 83110

Calibrated by : Miss Fatimah Maetimoh Calibration Date 30 November 2022

.....

(Signature)

Calibration Approve : Mr. Sudkhet Anuchit Approve Date: 7 December 2022

.....

(Signature)

Date of Issue : 8 December 2022

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K.S.P Octatech Company Limited calibration laboratory

The uncertainties are base on estimated confidence probability of approximate

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Equipment : Conductivity electrode
Manufacturer : HACH
Serial No. : 180892587022
Type : CDC401
ID No. : NA
Calibration method

Calibration were conducted using in-house calibration procedure CP-T01 according to comparison method with certified Reference Material Conductivity solution and Digital thermometer

Reference Standard Instrument

Instrument	Serial No.	Change/Lot	Expire date	Traceability
1 84 μ S/cm	51302153	CS8421F1	28.06.2023	MT
2 1413 μ S/cm	51350092	1G041A	10.02.2023	MT
3 12.88 ms/cm	51350094	1G131M	11.05.2023	MT

Condition of this result of calibration

1. This result of calibration was found accurate as shown on date and place of calibration only

2. Calibration were performance under the following ambient condition

Temperature (25 \pm 5) C°

Humidity (55 \pm 15) %RH

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Calibration Data			
Test value 25°c	UCC Reading	Corection	Uncertainty
Conductivity sol.			
84 $\mu\text{s/cm}$	84.09 $\mu\text{s/cm}$	-0.1 $\mu\text{s/cm}$	1.5 $\mu\text{s/cm}$
1413 $\mu\text{s/cm}$	1413 ms/cm	0 $\mu\text{s/cm}$	9.1 ms/cm
12.88 ms/cm	12.85 ms/cm	0.03 ms/cm	0.12 ms/cm

Temperature calibration			
Test Measured values	Equipment Reading	Temperature Standard	Error
1413 $\mu\text{s/cm}$	25.1°c	25.1°c	0°c

...End...

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Page 1 of 3

Calibration Certificate

Certificate No. 65T156

Equipment : Inclubator
Manufacturer : Labtech
Serial No. : B100622019
Type : LBI-500E
Company : SOUTHERN THAI CONSULTING CO.,LTD.
Address : 59/45 Moo 5 T. Srisoontorn, A.Talang, Phuket 83110
ID NO. : NA
Calibrated by : Mr. Sudkhet Anuchit Calibration Date: 30 November 2022

.....
(Signature)

Calibration Approve : Mr.Issara Ongkabin Approve Date: 8 December 2022

.....
(Signature)

Date of Issue : 9 December 2022

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K.S.P Octatech Company Limited calibration laboratory

The uncertainties are base on estimated confidence probability of approximate

Calibration method

This instrument was calibrated by comparison of indication with the temperature measured by the standards data acquisition with RTD sensor at specified locations inside the working space of chamber according to calibration procedure no. CP-S01-01

1. Reference instrument user: Temperature Data Logger with Sensor type RTD

RTD ID NO. TP-01 to TP-09

*S/N : 21260163

2. This result of test was found accurate as show on date and place

*Room Temperature : 25+/-10°C

*Room Humidity : 55+/-15% RH

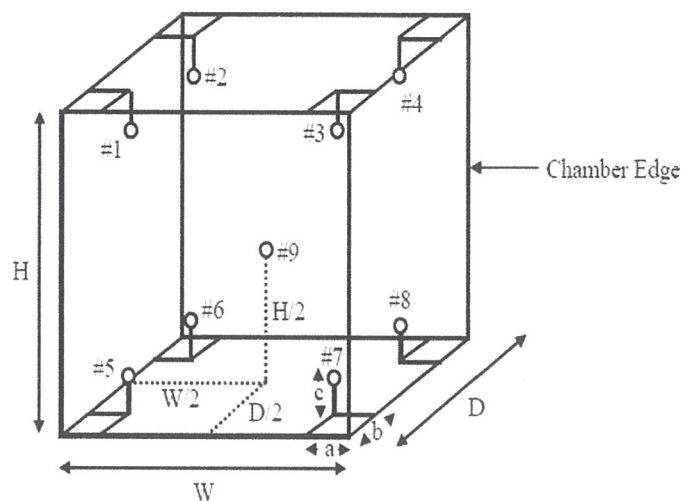
3. This calibration is traceable to:

*Cer.No. SPR21070116-2 to SPR21070116-10

Result of calibration

☒ With out Adjustment

☐ After Adjustment



Interior Chamber Size	W x H x D	50.0 cm x 60.0 cm x 50.0 cm	Fresh Air Setting	-
Installation Sensor Position	a x b x c	5 cm x 5 cm x 5 cm	Fan Speed Setting	-

Result of Calibration (Without Adjustment)

Function :. Temperature Generation

Reporting of Temperature Distribution

Indicating Temperature (°C)	Measured Temperature (°C) @ Probe No. (Probe No.#9 is REF)									Uncertainty of Meas. (± °C)
	#1	#2	#3	#4	#5	#6	#7	#8	#9	
35.0	31.75	32.03	31.66	31.92	32.03	31.83	31.75	32.12	32.01	0.49

Reporting of Temperature Enclosure Performance

Setting Temperature (°C)	Indicating Temperature (°C)	Measured* Uniformity (°C)	Measured** Stability (± °C)	Overall*** Variation (°C)
35.0	35	0.47	0.55	0.81

Measured Uniformity*

The maximum difference of measured temperatures at any sensors and the measured temperature at the reference location (# 9) which are observed at the same time or at as close an observation time as possible to determine the temperature pattern or homogeneity within the chamber under steady state conditions.

The reference sensor should preferably be located at the geometric center of the chamber.

Measured Stability**

One-half of the greatest maximum difference of measured temperatures at any one sensor, for at least half an hour after reaching steady state or after one achieved complete cycle of control whichever comes first. The specific check of temperature stability at specific positions or locations of working space within the chamber according to the way of use should be specified.

Overall Variation***

The difference of the maximum and the minimum measured temperatures throughout observation time.

This reported uncertainty of measurement was based on a standard uncertainty multiplied by a coverage factor $k = 2$, providing a level of confidence of approximately 95%.

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