



Certificate of Calibration

Certificate No: D111111A0D01
Manufacturer: JSB TECH Pte Ltd
Model No: DWL8500XY Bluetooth
Serial No: S/N 11A11111

Date: 1st January 2018
Description: Dual Axis Ultra Precision Digital Level & Vibrometer

Date of Calibration: 1st January 2018 (in storage: next cal. 5 years)

Temperature: 20° C ±1 °C
Procedure: DP_8500XYV1V1/temp_382793093

Humidity: 55 ± 10 %RH

This certifies that the above product (s) was calibrated in compliance with ISO9001:2015 using applicable *Digi-Pas®* procedures. These calibration procedure and test points are those recommended in the procedure developed by *Digi-Pas®*.

As received: Factory tested

As Shipping Conditions: At the completion of the calibration, measure values were In-Specification at the points tested.

Remarks or Special Requirements: The product (s) bear a CE and/or FCC marks which is tested and certified by TÜV SÜD & PSB to comply with the EC and/or USA directives.

Traceability Information: Supporting document related to traceability is available for review by appointment. This report shall not be reproduced accept in full, without prior written approval of the calibration facility.

Calibration Equipment Used:

<u>Model Number</u>	<u>Model Description</u>
SH-240 S3	ESPEC-TAIBAI Temperature & Humidity Chamber
P3- KPI897803	<i>Digi-Pas®</i> Reliability, Test & Evaluation Equipment
GT-0401008	Mitutoyo Granite Table (Grade Zero)
MSB-283800	Micrometer Sine Bar
BG-516-946R-10	Mitutoyo Block Gauge (Grade Zero)
LL000076 & LL001230	<i>Digi-Pas®</i> Precision Angle Jigs

Test/Inspection Report:

<u>Test Description</u>	<u>Specifications</u>	<u>Results</u>	<u>Judgments</u>
Resolution:	1 arcsec (≤5µm/M)	OK	PASS
Accuracy Cal:	±1 arcsec (0 to 1080 arcsec) ±3 arcsec for other angles	±1 arcsec ±3 arcsec	PASS PASS
Repeatability:	±1 arcsec	±1 arcsec	PASS
Symmetrical Check:	±1 arcsec	±1 arcsec	PASS
Metal Base Surface Flatness:			
Base Surface:	8µm	6µm	PASS
Vertical Surface:	8µm	7µm	PASS
Metal Base Angle:	90°± 0.01°	90°± 0.01°	PASS
Buzzer (Smart sensor):	>50dBA	65dBA	PASS
LCD display:	TFT LCD	OK	PASS
Operating Temp.:	0°C to + 40°C	0°C to + 40°C	PASS
Storage Temp.:	-10°C to + 50°C	-10°C to + 50°C	PASS

The result of this Certificate of Calibration apply only to the item described above. All reported accuracy values are as measured with no reduction by the uncertainty of measurement. Measurement uncertainty is expresses at a confidence level of 95% (coverage factor k=2).



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Uncertainty : ±2 arcsec
Units : arcsec

Single Axis:

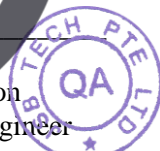
Description	Standard	Lower Limit	Upper Limit	As Found
(+ SLOPE)	0	-1	1	0
	5	4	6	5
	10	9	11	10
	15	14	16	15
	300	299	301	301
	1000	999	1001	1000
	5000	4997	5003	5002
	10000	9997	10003	10002
	14000	13997	14003	14002
	(- SLOPE)	0	-1	1
5		4	6	5
10		9	11	10
15		14	16	15
300		299	301	300
1000		999	1001	1001
5000		4997	5003	5002
10000		9997	10003	10001
14000		13997	14003	14003

Dual Axis:

Description	Standard	Lower Limit	Upper Limit	As Found	
X-axis					
(+ SLOPE)	0	-1	1	0	
	5	4	6	5	
	10	9	11	11	
	15	14	16	15	
	300	299	301	300	
	1000	999	1001	1000	
	7000	6997	7003	7003	
	(- SLOPE)	0	-1	1	0
		5	4	6	4
		10	9	11	10
15		14	16	16	
300		299	301	301	
1000		999	1001	1000	
7000		6997	7003	7002	
Y-axis					
(+ SLOPE)		0	-1	1	0
		5	4	6	5
	10	9	11	10	
	15	14	16	15	
	300	299	301	301	
	1000	999	1001	1000	
	7000	6997	7003	7002	
	(- SLOPE)	0	-1	1	0
		5	4	6	5
		10	9	11	10
15		14	16	14	
300		299	301	300	
1000		999	1001	1001	
7000		6997	7003	7002	

Checked By: _____

Simon
QA Engineer



Laboratory Authorized: _____

Kuu
Manager

