IAPG
Institut für
Angewandte Photogrammetrie
und Geoinformatik

JADE HOCHSCHULE
Wilhelmshaven Oldenburg Elsfleth

Acceptance test certificate

Tested system:	PhotoGAUGE with DXO One
Test procedure:	VDI/VDE 2634 part 3
Document No.	JHS-IAPG-2019.09.02_PG_DXOone
Date of certification:	12.09.2019

Measurement set-up

The results refer to the following acquisition and processing chain. The data acquisition for photogrammetric processing was carried out at the Institute for Applied Photogrammetry and Geoinformatics at the Jade University of Applied Sciences (IAPG) in Oldenburg, Germany. For system scale definitions two IAPG scale bars were used each calibrated with a standard deviation of 0.011mm (at 22.3°C). Temperature correction was not applied to the scale bar calibration since the resulting changes in lengths are significantly lower than the standard deviation of the tested photogrammetric system. The test artefact was placed on a turntable in 6 different positions within the measurement volume of the fixed camera. The images were automatically transferred to the data processing chain of the system manufacturer. All photogrammetric processing steps were solely carried out by the system manufacturer. The parameters of the acceptance test according to VDI/VDE 2634 part 3 are subsequently calculated using the delivered point clouds from the manufacturer's processing. No temperature correction was applied to the analysed point clouds. The results refer to the time of data acquisition.

The work was carried out in accordance with recognised rules of engineering technology.

General test information

Date of data acquisition	18.7.2019
Temperature during data acquisition	22.9°C – 23.3°C
Camera Type	DXO One
Camera serial no.	C01A1609-214548
Operator	Heidi Hastedt, M.Eng.

Test artefact

Manufacturer	Ingeniera y Servicios Metrologia Tridimensional S.L.
Certificate No.	ISM 2019-03-17-04
Artefact model	Dumbbell L125 D75
Date of calibration	17.3.2019
Reference temperature	20°C
Artefact uncertainty (k=2)	
Center distance	1.7µm
Diameter	2µm
Sphere diameter ball 1	75.58414mm
Sphere diameter ball 2	75.72714mm
Center distance	123.84185mm

Test results

The results are given as span (min/max) out of 18 repeated measurements.

Probing error (size)		
Ball 1 (range from .. to)	-0.09014 mm	0.01546 mm
Ball 2 (range from .. to)	-0.10314 mm	0.03826 mm
Sphere-spacing error		
(range from .. to)	-0.07754 mm	0.09775 mm

Date of certification: 12.09.2019

Signature Prof. Dr. Thomas Luhmann