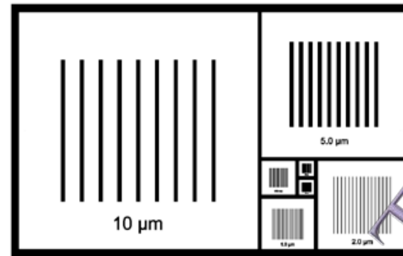
AISthesis Products, Inc.

Advanced Imaging Products for Nanotechnology, Engineering and Life Sciences

Certificate of Calibration for
Pelcotec™ Critical Dimension Standard



Product Number: **Pelcotec**™ 687-01 CDMS-0.1C

Product Description: 2.5x2.5mm **Pelcotec™** 2mm-100nm Critical Dimension Magnification Standard

Product Serial Number: CD-XE01-0000

Manufactured for and distributed by:

The accuracy of these products was determined by reference comparison to working standards traceable to the National Institute of Standards and Technology (NIST).

Line	Certified average pitch	Number of lines	Certified distance between first and last line (1σ)	Total expanded uncertainty (3σ)
2.0 mm	2.00 mm	2	2.00 mm ± 0.03%	± 0.09%
1.0 mm	1.00 mm	2	1.00 mm ± 0.03%	± 0.09%
0.5 mm	0.500 mm	2	0.500 mm ± 0.03%	± 0.09%
0.25 mm	0.250 mm	2	0.250 mm ± 0.03%	± 0.09%
10 µm	10.00 µm	9	79.99 µm ± 0.03%	± 0.09%
5.0 µm	5.00 µm	12	55.01 µm ± 0.03%	± 0.09%
2.0 µm	2.00 µm	16	30.00 µm ± 0.03%	± 0.09%
1.0 µm	1.00 µm	17	16.03 µm ± 0.03%	± 0.09%
500 nm	501.0 nm	20	9.52 µm ± 0.03%	± 0.09%
250 nm	251.3 nm	21	5.03 µm ± 0.03%	± 0.09%
100 nm	100.5 nm	52	5.12 µm ± 0.03%	± 0.09%

The certified average pitch is derived from the stated certified length that was determined using 10 measurements (taken center-to-center) over the stated number of lines (i.e., length divided by the number of lines minus one). The total expanded uncertainty includes both Type A and Type B uncertainties corrected for sample size using an appropriate Student t-factor.

Equipment used:

Instrument	Model number	Serial #	NIST Certified CD/Recalibration	Resolution	Repeatability
FE-SEM	FEI Verios	9922551	CD-PG01-0211/June 2018	0.9nm	0.03%

Certified by

Signature

Date

EXAMPLE CERTIFICATE

This certificate shall not be reproduced without the permission of AISthesis Products, Inc.

P.O. Box 1950, Clyde, North Carolina 28721 Tel: 828.627.6555 E-mail: CD@aisthesisproducts.com