PELCOTEC™ CDMS-XY CRITICAL DIMENSION STANDARD

- SCALE LINES IN BOTH X AND Y AXES ALLOWS MICROSCOPE CALIBRATION IN EITHER DIRECTION WITHOUT STAGE ROTATION
- AVAILABLE AS NIST TRACEABLE OR AS FULLY CERTIFIED
- TWO SCALE RANGES TO CHOOSE FROM:

  2mm - 1µm with nine scales for desktop SEM's and optical light microscopes

  2mm - 100nm with twelve scales for high resolution FESEM's
- MANUFACTURED WITH HIGH CONTRAST CHROMIUM AND CHROMIUM / GOLD ON ULTRA-FLAT SILICON DIES USING ADVANCED LITHOGRAPHY FOR THE BEST POSSIBLE LINE EDGE QUALITY
- AVAILABLE AS AN UNMOUNTED CHIP OR MOUNTED ON A STUB

Pelcotec™ CDMS-XY-1T: Fully traceable with features from 2.0mm to 1um for a magnification range from 10x - 20,000x. Ideal for desktop SEMs and low to medium magnification applications.

Pelcotec™ CDMS-XY-0.1T: Fully traceable with features from 2.0mm to 100nm for a magnification range up to 10 - 200,000x; for all SEM and most FESEM applications.

Pelcotec™ CDMS-XY-1C: Individually certified against a NIST standard with features from 2.0mm to 1µm for a magnification range from 10x - 20,000x. Ideal for desktop SEMs and low to medium magnification applications.

Pelcotec™ CDMS-XY-0.1C: Individually certified against a NIST standard with features from 2.0mm to 100nm for a magnification range from 10x - 200,000x; for all SEM and most FESEM applications.

The Pelcotec™ CDMS-XY Critical Dimensions and Magnification Standards are manufactured on an ultra-flat silicon substrate with a precise 50nm chromium deposition for the features up to 5µm and a combination of 35nm gold over 20nm chromium for the features sizes from 2µm to 100nm. The Cr and Au/Cr on Si provides excellent contrast both in SE and BSE imaging mode. As the substrate, the chromium and the chromium/gold features are all conductive there are no charging issues with this calibration standard. Due to its sturdy construction the CDMS standard can be cleaned using a plasma cleaner.

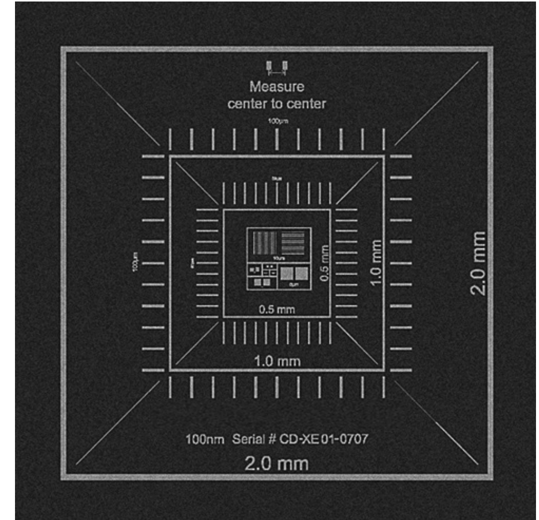
Pelcotec™ CDMS-XY-1T & 1C features: 2mm, 1mm, 0.5mm, 0.1 mm, 50µm, 10µm, 5µm, 2µm & 1µm pitch lines

Pelcotec™ CDMS-XY-0.1T & 0.1C features: 2mm, 1mm, 0.5mm, 0.1mm, 50µm, 10µm, 5µm, 2µm, 1µm, 500nm, 250nm & 100nm pitch lines

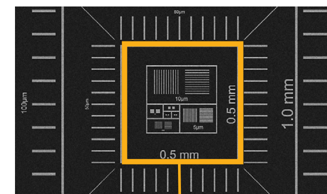
Pelcotec™ CDMS-XY calibration standards are available as unmounted or as mounted on most commonly available SEM stubs

Visit **www.tedpella.com** for product details and ordering information.

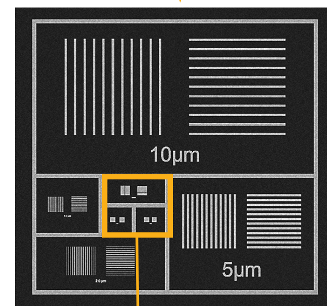
OVERVIEW of the 2mm to 100nm Standard



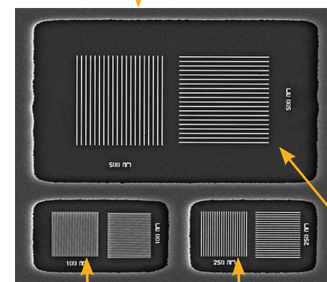
CLOSE-UP VIEW



Low Magnification Calibration



High Magnification Calibration



Calibration up to 200,000X

0.1T & 0.1C Standards Only

500nm pitch lines

100nm pitch lines 250nm pitch lines

www.tedpella.com sales@tedpella.com 800-237-3526

PELCOTEC™ CDMS CRITICAL DIMENSION STANDARD

- AVAILABLE IN NIST TRACEABLE OR CERTIFIED VERSIONS
- UNIQUE, ECONOMICALLY PRICED, YET FULLY TRACEABLE CALIBRATION STANDARDS
- EASY-TO-USE, QUICK AND PRECISE
- FOR SEM, FESEM, FIB, CD-SEM AND LM
- MADE USING HIGH CONTRAST Cr AND Au ON Si

The calibration standards are available with two feature size ranges, both offered as traceable or certified standards, making a total of 4 versions:

Pelcotec™ CDMS-1T; fully traceable with features from 2.0mm to 1µm for a magnification range from 10x – 20,000x. This is the ideal standard for LMs, desktop SEMs and low to medium SEM magnification applications.

Pelcotec™ CDMS-0.1T; fully traceable with features from 2.0mm to 100nm for a magnification range from 10x – 200,000x. Very useful calibration standard for all SEM and most FESEM applications.

Pelcotec™ CDMS-1C; individually certified against an NIST standard with features from 2.0mm to 1µm for a magnification range from 10x – 20,000x. This is the ideal certified standard for LMs, desktop SEMS and low to medium SEM magnifications.

Pelcotec™ CDMS-0.1C; individually certified against a NIST standard with features from 2.0mm to 100nm for a magnification range from 10x – 200,000x. Very useful certified calibration standard for all SEM and most FESEM applications.

The Pelcotec™ CDMS Critical Dimension Magnification Standards are manufactured on a conductive ultra flat silicon substrate with precise 50nm chromium deposition for all feature sizes from 2mm to 5µm. For feature sizes from 2µm to 100nm a 50nm gold over 20nm chromium has been used. The Cr and Au/Cr on Si provides excellent contrast in both SE and BSE imaging mode. The features are easier to determine than on etched Si standards. Since the ultra flat silicon substrate, the chromium and chromium/gold features are all conductive; there are no charging issues with this calibration standard. Due to its sturdy construction, the CDMS standards can be cleaned using a plasma cleaner. Features smaller than 10µm are nested for easy and quick navigation. The size of the standard is 2.5 x 2.5mm with a thickness of 675µm ±10µm. Each standard has a unique ID number.

Pelcotec™ CDMS-1T & 1C features: 2mm, 1mm, 0.5mm, 0.25mm, 10µm, 5µm, 2µm & 1 µm pitch lines.

Pelcotec™ CDMS-0.1T & 0.1C features: 2mm, 1mm, 0.5mm, 0.25mm, 10µm, 5µm, 2µm, 1µm, 500nm, 250nm & 100nm pitch lines.

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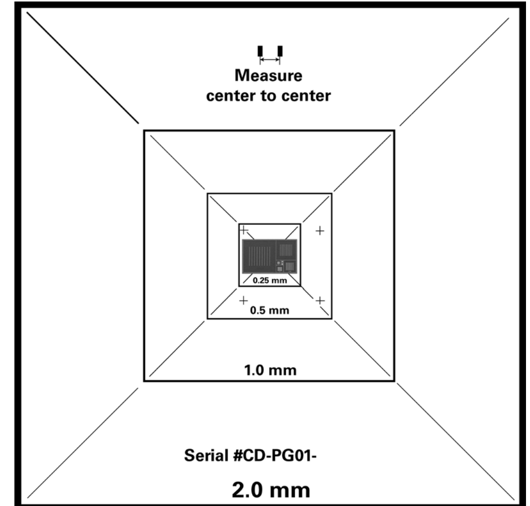
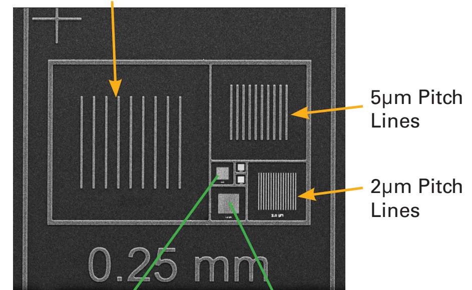
OVERVIEW



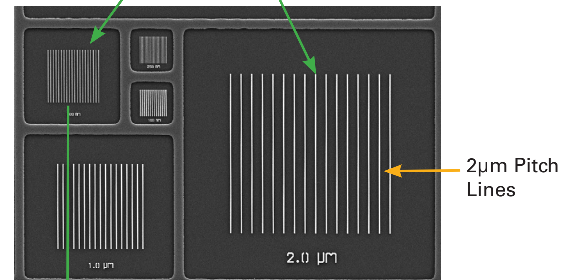
CLOSE-UP VIEW

10µm Pitch Lines

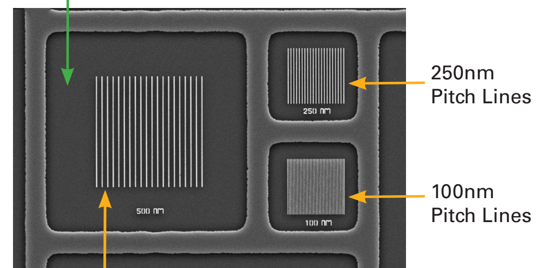


5µm Pitch Lines

2µm Pitch Lines



2µm Pitch Lines



250nm Pitch Lines

100nm Pitch Lines

500nm Pitch Lines

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