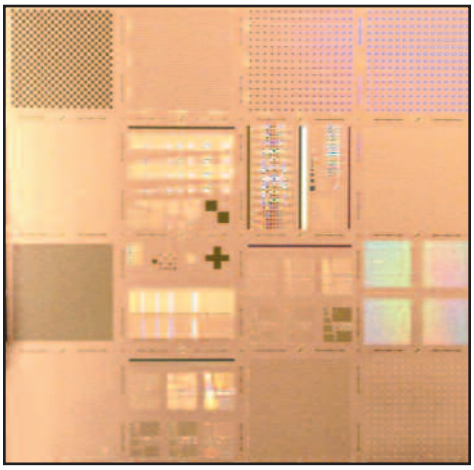
MetroChip
Microscope Calibration Target
For SEM, AFM and Light Microscopes

The Metro Chip Microscope Calibration Standard for SEM, AFM, Light Microscopy and Metrology Systems provides an extensive range of targets with periodic features for enhanced calibration down to the 100nm range. The Metro Chip standard is produced with today's nanotechnology demands in mind. It is designed for a long life use and presents a stable calibration platform. The standard is produced on a 20x20mm chip with a thickness of 750µm. It delivers high contrast images for analytical SEM with minimal charging and combines a huge calibration range from 4mm down to 100µm.

Target calibration for SEM features include alignment marks, linear microscale, distortion measurements, par-axial calibration (image shift), resolution measurements, focus star, stigmator calibration, gratings, concentric circles and squares. The combination of these targets on one standard makes the MetroChip ideal as an all-in-one standard for setting up and regular calibration checks of the SEM or FESEM. For Light Microscopy and AFM, there are a number of targets to check linearity, distortion and scan length. This standard is NIST traceable.



- Suitable for light microscopy, SEM, AFM and other metrology systems
- Large range of calibration, from a 4mm ruler down to 100nm geometrics
- Large array of features in both positive and negative structures
- 150nm feature depth with 90° wall angles
- Ease of navigation with dimension labels on most features
- High contrast images in Analytical SEM
- Minimal Charging
- Long Sample Life
- Sample size is 20 x 20mm
- Sample thickness is 750 microns, approximately
- The finished product has patterns of etched poly-crystalline silicon over a thin oxide on silicon substrate
- Polysilicon thickness is 150nm ±10%
- Oxide thickness under the polysilicon features is less than 5nm, typically 2.5 to 3nm

632 MetroChip Microscope Calibration Target

www.tedpella.com/metro_html/metrochip.htm

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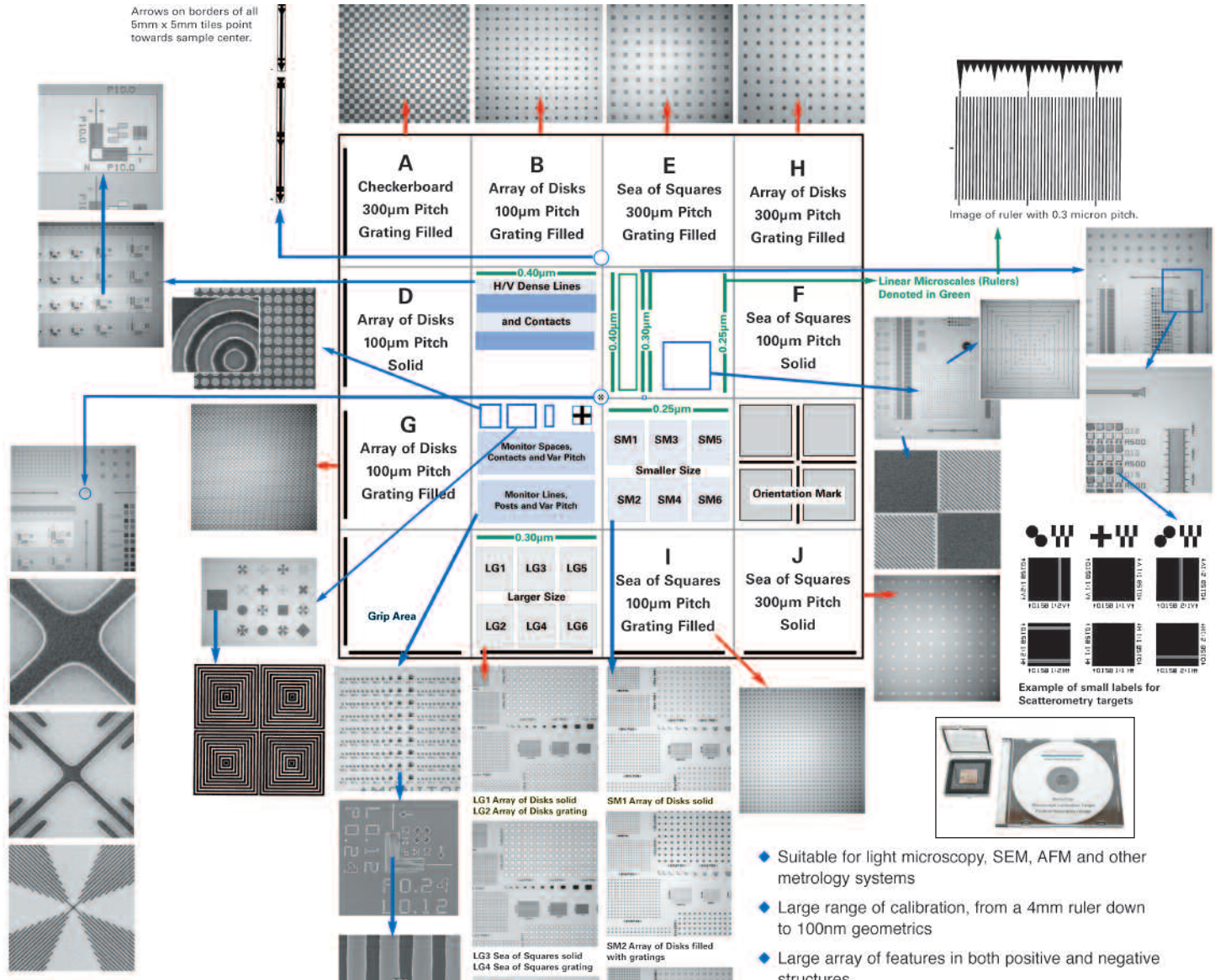
For SEM, AFM and Light Microscopes



- Sample size is 20 x 20mm
- Sample thickness is 750 microns, approximately
- The finished product has patterns of etched poly-crystalline silicon over a thin oxide on silicon substrate
- Polysilicon thickness is 150nm ±10%
- Oxide thickness under the polysilicon features is less than 50nm, typically 2.5 to 3nm

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