

PLANOTEC TEST SPECIMEN PROD. NO. 615 Series

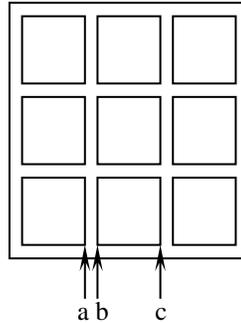
The Planotec Test Specimen is used for magnification calibration and image distortion check for both SEM or Reflected Light Microscopy. This test specimen consists of a square pattern of lines etched into a single crystal of Silicon 5mm x 5mm with a thickness of 675 μm . The squares repeat every 10 μm (.01mm). They have been written by electron beam lithography. The dividing lines are etched approximately 1.9 μm wide and 300nm deep. A square mesh of wider lines of 0.5 mm spacing occurs every 50 lines, which is useful for light microscopy. The repeated length of the structure has a guaranteed accuracy of 1%, except for the width of the etched bars. The line width may vary; furthermore, its pitch measurement is critical because of the slopes.

Orientation: $\langle 100 \rangle$

Wafer Type: P-Type/Boron Doped

Resistance: 1-30 ohm-cm

Typical Measurement Statistics



No	Pitch a-c (nm)	Line a-b (nm)
1	9985.6	1972.6
2	9978.4	1974.1
3	9981.8	1976.6
4	9980.9	1972.6
5	9990.4	1985.6
6	9977.4	1976.7
7	9982.0	1974.3
8	9977.3	1977.6
9	9979.0	1979.7
10	9969.6	1975.4
11	9976.6	1970.4
12	9986.0	1975.9
13	9986.6	1969.1
Mean	9980.9nm	1975.4nm
Δ	20.8nm	16.5nm
3Σ	16.3 nm	12.7nm