

Product Description

Grating set TGSFull+ consists of 8 calibration gratings: TGZ1, TGZ2, TGZ3, TGT1, TGG1, TGQ1, TGX1, TDG01.

Grating set TGSFull+ can be used for:

- SPM simultaneous calibration in X, Y and Z directions;
- submicron SPM calibration in X or Y direction;
- lateral and vertical calibration;
- detection of lateral non-linearity;
- detection of hysteresis, creep, and cross-coupling effects;
- detection of angular distortion;
- for 3-D visualization of the scanning tip;
- determination of tip sharpness parameters (aspect ratio and curvature radius), tip degradation and contamination control.

Click on the grating name below to see detailed specification.

[TGZ1](#) - for Z-axis calibration (step height $20,0 \pm 1.5$ nm) and nonlinearity measurements

[TGZ2](#) - for Z-axis calibration (step height $110,0 \pm 2$ nm) and nonlinearity measurements

[TGZ3](#) - for Z-axis calibration (step height 520 ± 3 nm) and nonlinearity measurements

[TGX1](#) - for lateral scanner calibration, detection of lateral non-linearity, hysteresis, creep, and cross-coupling effects, determination of the tip sharpness.

[TGG1](#) - for AFM calibration in X or Y axis, detection of lateral and vertical scanner nonlinearity, tip sharpness characterization.

[TGT1](#) - for tip shape and sharpness estimation, for image deconvolution and contamination control.

[TGQ1](#) - for simultaneous calibration in X,Y,Z directions. Step height 20 ± 1.5 nm.

[TDG01](#) - for AFM submicron calibration in the X or Y direction. Period is 278 nm.