

Product Description

Unique Super Sharp probes with single crystal diamond tip for topography measurements.

The probes are highly resistant to mechanical destructions and keep their sharpness during the whole working day and more!

These probes enable highly repeatable high resolution operation to ensure you consistently get the best possible data from your system.

Nominal values: force constant – 40 N/m, resonance frequency – 180 kHz.

Upon customers' request the next options are available:

- super sharp probes with typical curvature radius 2nm;
- probes with another lever specification;
- probes with individually characterized spring constant and tip radius to enable fully quantitative nanomechanical measurements.

Cantilever specifications

Geometry:	Rectangular
Material:	Diamond coated Si
Cantilever bending:	< 3°

Bulk tip specifications

Si geometry:	Rotated (Symmetric)
Si tip height (h):	15 ± 2 μm
Front angle:	25 ± 2°
Back angle:	22 ± 2°
Side angle:	18 ± 2°
Tip offset:	10 - 20 μm

Single crystal diamond tip specifications

Geometry:	Cone
Tip radius:	Typical 2nm, guaranteed <5nm
Tip height (h):	300 nm ± 100 nm
Tilt angle:	0 ± 1°
Tip material:	Single crystal diamond
Cone ½ angle:	15 ± 2°

General Features

Chip size	3.4x1.6x0.3
Reflective side coating	Au
Tip coating	Single crystal diamond
Tip curvature radius	typical 2nm, guaranteed <5nm

Special Features

Cantilever series	Cantilever length, L±10μm	Cantilever width, W±5μm	Cantilever thickness, T±1.0μm	Resonant frequency, kHz			Force constant, N/m		
				min	typical	max	min	typical	max
DPR30_SS	225	28	3.0	140	180	220	20	40	60