HQ:NSC16/Al BS

Tapping Mode AFM Probe with Long AFM Cantilever

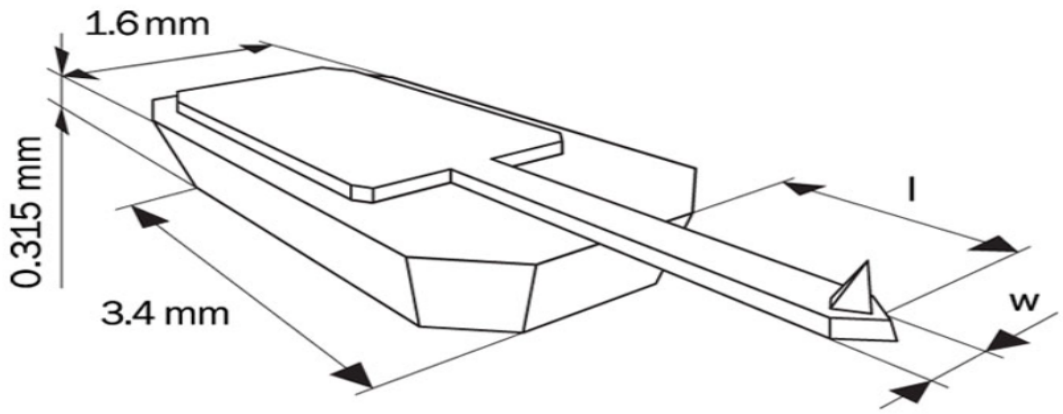
AFM probes of the HQ:NSC16 series have AFM cantilevers with a high spring constant and low resonance frequency (below 250 kHz) that can be used in tapping mode in SPMs with low–frequency feedback loops. These AFM probes also fit SPM systems that do not support short AFM cantilever arms.

The HQ AFM probes offer high consistency of the AFM tip radius, the AFM cantilever reflectivity and the quality factor.

The aluminum reflective coating enhances the laser reflectivity of the AFM cantilever by approximately 2.5 times. For operation in liquids we recommend using the HQ:NSC16/Cr–Au BS with a reflective gold coating.

Coating

Reflective Aluminum



AFM Probe Specifications

AFM Tip

SHAPE	HEIGHT	FULL CONE ANGLE	RADIUS
Rotated	15 µm (12 – 18 µm)*	40°	< 8 nm

AFM Cantilever

CANTILEVER	SHAPE	FORCE CONST.	RES. FREQ.	LENGTH	WIDTH	THICKNESS
Cantilever A	Beam	45 N/m (30 – 70 N/m)*	190 kHz (170 – 210 kHz)*	225 µm (1 – 230µm)*	37.5 µm (34.5 – 40.5µm)*	7µm (6.5 – 7.5 µm)*

* typical values