

HQ:NSC14/Hard/Al BS

Long Scanning, DLC Hardened, Soft Tapping Mode AFM Probe

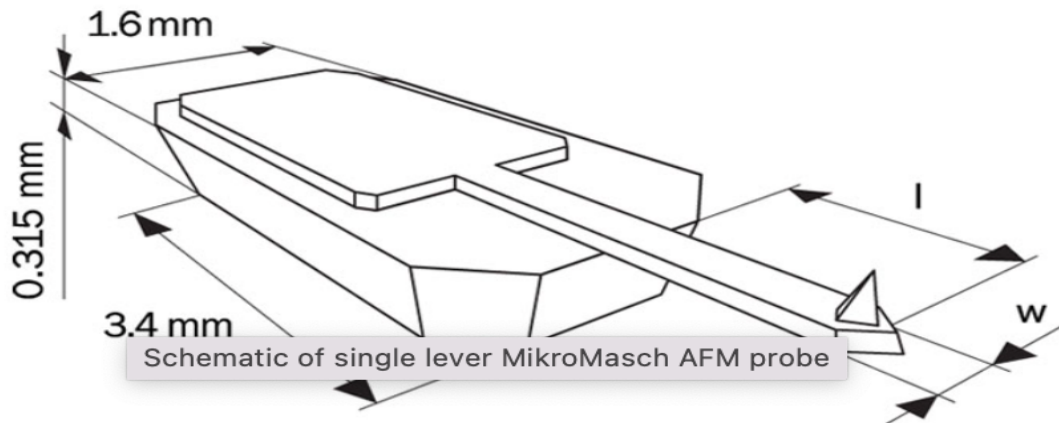
AFM probes of the HQ:NSC14 series are generally used in tapping mode for imaging relatively soft samples to obtain better phase contrast and reduce surface deformations caused by the tapping AFM tip.

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

A 20 nm wear-resistant DLC coating is applied to the tip side of the AFM cantilever. The coating is chemically inert and more hydrophobic than silicon with a natural oxide layer. The aluminum reflective coating enhances the laser reflectivity of the AFM cantilever by approximately 2.5 times.

Coating

Hard Diamond-Like-Carbon



AFM Probe Specifications

AFM Tip

SHAPE	HEIGHT	FULL CONE ANGLE	RADIUS
Rotated	15 μm (12 – 18 μm)*	40°	< 20 nm

AFM Cantilever

CANTILEVER	SHAPE	FORCE CONST.	RES. FREQ.	LENGTH	WIDTH	THICKNESS
Cantilever A	Beam	5 N/m (1.8 – 13 N/m)*	160 kHz (110 – 220 kHz)*	125 μm (1 – 130 μm)*	25 μm (22 – 28 μm)*	2.1 μm (1.6 – 2.6 μm)*

* typical values