HQ:NSC15/Hard/Al BS

Long Scanning, DLC Hardened Tapping Mode AFM Probe

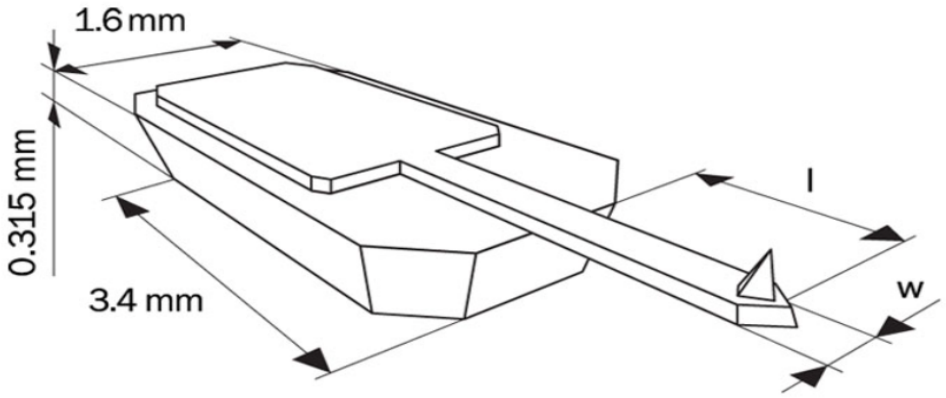
AFM probes of the HQ:NSC15 series are generally used in tapping mode for imaging hard samples when high topographic and phase contrast are necessary. These AFM probes are also suitable for non–contact mode.

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	40 N/m (20 – 80 N/m)*	325 kHz (265 – 410 kHz)*	125 µm (1 – 130µm)*	30 µm (27 – 33µm)*	4µm (3.5 – 4.5 µm)*

* typical values