

# HQ:NSC14/Cr-Au

## Gold Coated Soft Tapping Mode AFM Probe

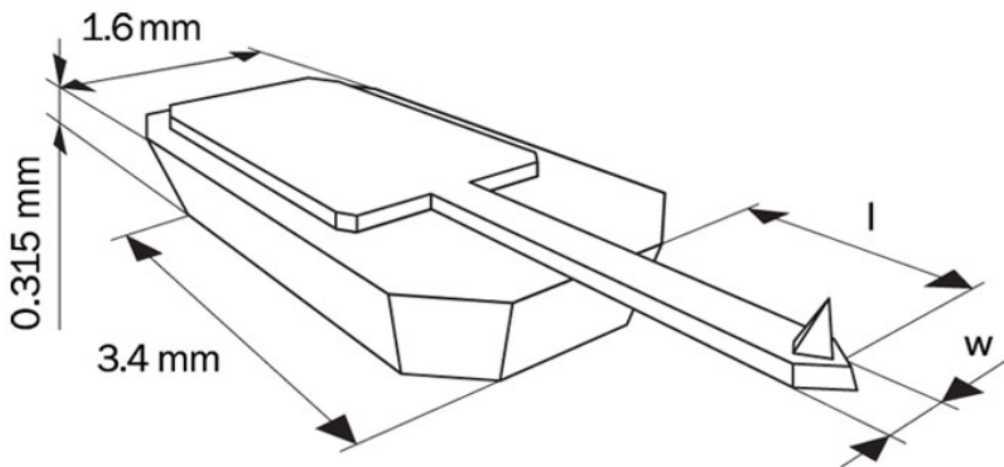
AFM probes of the HQ:NSC14 series are generally used in tapping mode for imaging relatively soft samples to obtain better phase contrast and reduce surface deformations caused by the tapping AFM tip.

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

The overall 30 nm Au coating with 20 nm Cr sublayer is electrically conductive and chemically inert. It also enhances the laser reflectivity of the AFM cantilever in air and liquids. The resulting coated AFM tip radius is below 35 nm. The coating may cause AFM cantilever bending up to 3°.

### Coating

Gold Overall



### AFM Probe Specifications

#### AFM Tip

SHAPE	HEIGHT	FULL CONE ANGLE	RADIUS
Rotated	15 $\mu\text{m}$ (12 - 18 $\mu\text{m}$ )*	40	< 35 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 $\mu\text{m}$ (1 - 130 $\mu\text{m}$ )*	25 $\mu\text{m}$ (22 - 28 $\mu\text{m}$ )*	2.1 $\mu\text{m}$ (1.6 - 2.6 $\mu\text{m}$ )*

\* typical values