

# HQ:NSC35/Pt

## AFM Probe with 3 Different Conductive Soft Tapping Mode AFM Cantilevers

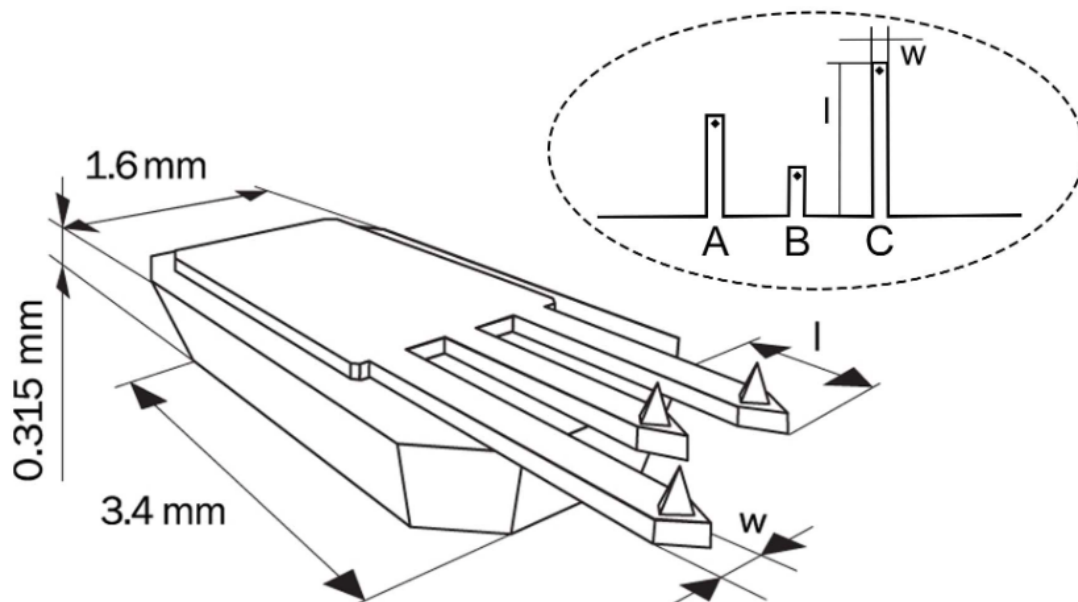
AFM probes of the HQ:NSC35 series have three different soft tapping mode AFM cantilevers on one side of the holder chip. They can be used in various applications.

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

The overall 30 nm platinum coating is electrically conductive and chemically inert. It also enhances the laser reflectivity of the AFM cantilevers. The resulting coated AFM tip radius is below 30 nm.

### Coating

Electrically Conductive



## AFM Probe Specifications

### AFM Tip

SHAPE	HEIGHT	FULL CONE ANGLE	RADIUS
Rotated	15 $\mu\text{m}$ (12 – 18 $\mu\text{m}$ )*	40°	< 30 nm

### AFM Cantilever

CANTILEVER	SHAPE	FORCE CONST.	RES. FREQ.	LENGTH	WIDTH	THICKNESS
Cantilever A	Beam	8.9 N/m (2.7 – 24 N/m)*	205 kHz (130 – 290 kHz)*	110 $\mu\text{m}$ (1 – 115 $\mu\text{m}$ )*	35 $\mu\text{m}$ (32 – 38 $\mu\text{m}$ )*	2 $\mu\text{m}$ (1.5 – 2.5 $\mu\text{m}$ )*
Cantilever B	Beam	16 N/m (4.8 – 44 N/m)*	300 kHz (185 – 430 kHz)*	90 $\mu\text{m}$ (1 – 95 $\mu\text{m}$ )*	35 $\mu\text{m}$ (32 – 38 $\mu\text{m}$ )*	2 $\mu\text{m}$ (1.5 – 2.5 $\mu\text{m}$ )*
Cantilever C	Beam	5.4 N/m (1.7 – 14 N/m)*	150 kHz (95 – 205 kHz)*	130 $\mu\text{m}$ (1 – 135 $\mu\text{m}$ )*	35 $\mu\text{m}$ (32 – 38 $\mu\text{m}$ )*	2 $\mu\text{m}$ (1.5 – 2.5 $\mu\text{m}$ )*

\* typical values