

# HQ:CSC37/Cr-Au

## AFM Probe with 3 Different Gold Coated Contact Mode AFM Cantilevers

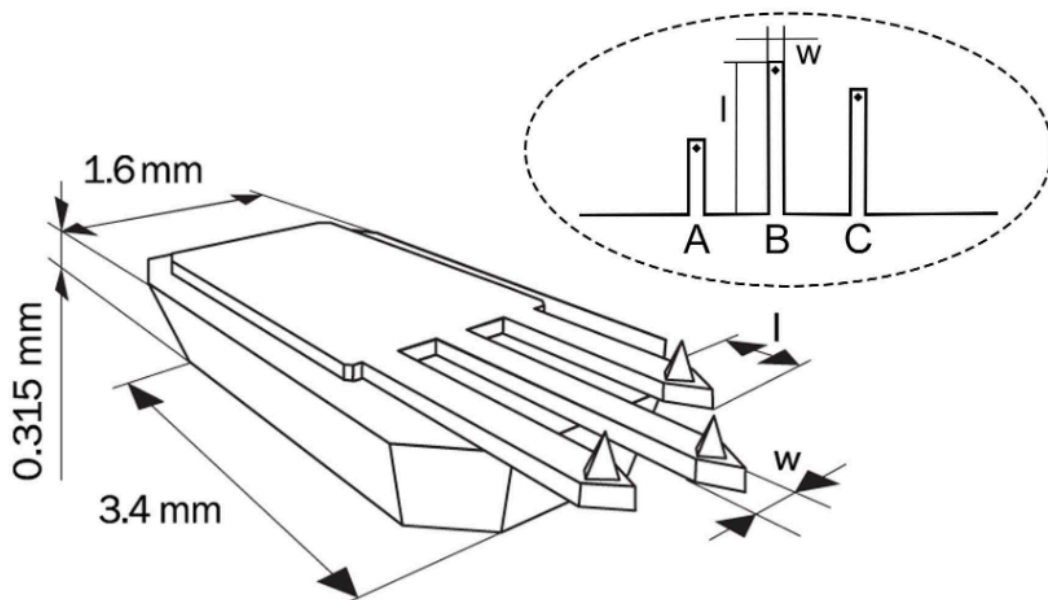
AFM probes of the HQ:CSC37 series have three different contact mode AFM cantilevers on one side of the holder chip. They can be used in various applications.

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

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

### 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	0.8 N/m (0.3 – 2 N/m)*	40 kHz (30 – 55 kHz)*	250 $\mu\text{m}$ (1 – 255 $\mu\text{m}$ )*	35 $\mu\text{m}$ (32 – 38 $\mu\text{m}$ )*	2 $\mu\text{m}$ (1.5 – 2.5 $\mu\text{m}$ )*
Cantilever B	Beam	0.3 N/m (0.1 – 0.6 N/m)*	20 kHz (15 – 30 kHz)*	350 $\mu\text{m}$ (1 – 355 $\mu\text{m}$ )*	35 $\mu\text{m}$ (32 – 38 $\mu\text{m}$ )*	2 $\mu\text{m}$ (1.5 – 2.5 $\mu\text{m}$ )*
Cantilever C	Beam	0.4 N/m (0.1 – 1 N/m)*	30 kHz (20 – 40 kHz)*	300 $\mu\text{m}$ (1 – 305 $\mu\text{m}$ )*	35 $\mu\text{m}$ (32 – 38 $\mu\text{m}$ )*	2 $\mu\text{m}$ (1.5 – 2.5 $\mu\text{m}$ )*

\* typical values