HQ:XSC11/Pt

AFM Probe with 4 Different Conductive AFM Cantilevers

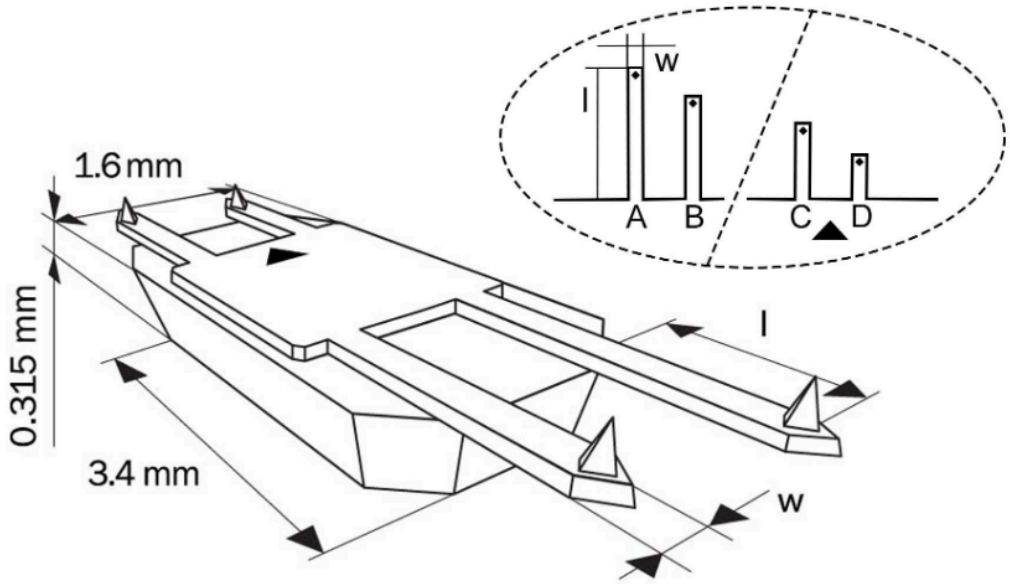
AFM probes of the HQ:XSC11 series have four different AFM cantilevers, two on each side of the holder chip. They can be used in various applications.

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 µm (12 – 18 µm)*	40°	< 30 nm

AFM Cantilever

CANTILEVER	SHAPE	FORCE CONST.	RES. FREQ.	LENGTH	WIDTH	THICKNESS
Cantilever A	Beam	0.2 N/m (0.1 – 0.4 N/m)*	15 kHz (12 – 18 kHz)*	500 µm (1 – 505µm)*	30 µm (27 – 33µm)*	2.7µm (2.2 – 3.2 µm)*
Cantilever B	Beam	2.7 N/m (1.1 – 5.6 N/m)*	80 kHz (60 – 100 kHz)*	210 µm (1 – 215µm)*	30 µm (27 – 33µm)*	2.7µm (2.2 – 3.2 µm)*
Cantilever C	Beam	7 N/m (3 – 16 N/m)*	155 kHz (115 – 200 kHz)*	150 µm (1 – 155µm)*	30 µm (27 – 33µm)*	2.7µm (2.2 – 3.2 µm)*
Cantilever D	Beam	42 N/m (17 – 90 N/m)*	350 kHz (250 – 465 kHz)*	100 µm (1 – 105µm)*	50 µm (47 – 53µm)*	2.7µm (2.2 – 3.2 µm)*

* typical values