AFM Probe Specifications:
Coating
Reflective Aluminum
Additional Info
AFM probes of the 3XC series feature three different AFM cantilevers for various measurement modes:
500DC - Contact mode AFM cantilever
240AC - Soft tapping mode AFM cantilever for imaging soft samples
200AC - Standard tapping mode AFM cantilever
The tetrahedral AFM tips are located precisely at the free ends of the AFM cantilevers. This allows the AFM tips to be positioned accurately over the area of interest on the sample surface.
The uncoated AFM tips offer sharp AFM tip apexes and chemical inertness. The back side aluminum coating significantly enhances the AFM cantilever reflectivity in air and vacuum. For operation in liquids we recommend using the 3XC-GG with an overall gold coating.

AFM Tip:

Shape	Height	Setback	Radius	Half Cone Angle
Optimized Positioning	14 µm (12 - 16 µm)*	0 µm	< 7 nm	0° front, 35° back, <9° side

* typical values

AFM Cantilever:

Cantilever	Shape	Force Const.	Res. Freq.	Lenght	Width	Thickness
Contact mode AFM cantilever	Beam	0.3 N/m (0.1 - 0.6 N/m)*	17 kHz (11 - 22 kHz)*	500 µm (1 - 510µm)*	30 µm (28 - 32µm)*	3µm (2.5 - 3.5 µm)*
Standard tapping mode AFM cantilever	Beam	9 N/m (2.8 - 21 N/m)*	150 kHz (100 - 200 kHz)*	175 µm (1 - 185µm)*	40 µm (38 - 42µm)*	3µm (2.5 - 3.5 µm)*
Soft tapping mode AFM cantilever	Beam	2.5 N/m (0.75 - 5.3 N/m)*	75 kHz (50 - 100 kHz)*	240 µm (1 - 250µm)*	30 µm (28 - 32µm)*	3µm (2.5 - 3.5 µm)*

* typical values