

All-In-One-Tipless

SHAPE

Tipless

4 AFM Cantilevers

Cantilever A – Contact Mode		Cantilever B – Force Modulation	
Shape	Beam	Shape	Beam
Force Constant	0.2 N/m (0.04 – 0.7 N/m)*	Force Constant	2.7 N/m (0.4 – 10 N/m)*
Resonance Frequency	15 kHz (10 – 20 kHz)*	Resonance Frequency	80 kHz (50 – 110 kHz)*
Length	500 µm (490 – 510 µm)*	Length	210 µm (200 – 220 µm)*
Width	30 µm (35 – 45 µm)*	Width	30 µm (25 – 35 µm)*
Thickness	2.7 µm (1.7 – 3.7 µm)*	Thickness	2.7 µm (1.7 – 3.7 µm)*
Cantilever C – Soft Tapping		Cantilever D – Tapping Mode	
Shape	Beam	Shape	Beam
Force Constant	7.4 N/m (1 – 29 N/m)*	Force Constant	40 N/m (7 – 160 N/m)*
Resonance Frequency	150 kHz (70 – 230 kHz)*	Resonance Frequency	350 kHz (200 – 500 kHz)*
Length	150 µm (140 – 160 µm)*	Length	100 µm (90 – 110 µm)*
Width	30 µm (25 – 35 µm)*	Width	50 µm (45 – 55 µm)*
Thickness	2.7 µm (1.7 – 3.7 µm)*	Thickness	2.7 µm (1.7 – 3.7 µm)*

* typical range

Coating

Uncoated

Alignment Grooves

none

Additional Info

Versatile monolithic silicon AFM probe with 4 different tipless AFM cantilevers on a single AFM holder chip for various applications: contact mode, force modulation mode, soft tapping mode and high frequency tapping/ non-contact mode.

The AFM holder chip fits most commercial AFM systems as it is industry standard size.

The main advantage of this product compared to regular, single-cantilever AFM probes is the freedom to choose in the very last moment the right AFM cantilever for each application. You don't need to stock various AFM probe types any more. Nevertheless, this product is not meant as a substitution to comparable single-cantilever AFM probes, because the geometry of each one of the All-In-One AFM cantilevers differs from the geometry of comparable specialized single-cantilever AFM probes.