SuperSharpSilicon™- Force Modulation Mode

NANOSENSORS™ SSS-FM AFM probes are designed for force modulation mode.

For enhanced resolution of nanostructures and microroughness we offer our **SuperSharpSilicon™** AFM tip with unrivalled sharpness.

The FM type is offered for force modulation microscopy. The force constant of this AFM probe spans the gap between contact and non-contact mode and is specially tailored for the force modulation mode. The **SSS-FM** tip serves also as a basis for high resolution AFM tips with magnetic coatings (SSS-MFMR). Furthermore non-contact or tapping mode operation is possible with the FM tip but with reduced operation stability.

The AFM probe offers unique features:

- guaranteed AFM tip radius of curvature < 5 nm
- typical AFM tip radius of curvature of 2 nm
- typical aspect ratio at 200 nm from tip apex in the order of 4:1
- half cone angle at 200 nm from apex < 10°
- monolithic material
- highly doped to dissipate static charge
- chemically inert
- high mechanical Q-factor for high sensitivity

Cantilever data:

Property	Nominal Value	Specified Range
Resonance Frequency [kHz]	75	45 - 115
Force Constant [N/m]	2.8	0.5 - 9.5
Length [µm]	225	215 - 235
Mean Width [µm]	30	20 - 35
Thickness [µm]	3	2 - 4

Order codes and shipping units:

Order Code	AFM probes per pack	Data sheet
SSS-FM-10	10	of all probes
SSS-FM-20	20	of all probes
SSS-FM-50	50	....