

Cantilever Data	Value	Range*
Resonance Frequency	190 kHz	160 - 210 kHz
Force Constant	48 N/m	31 - 71 N/m
Length	225 µm	220 - 230 µm
Mean Width	38 µm	33 - 43 µm
Thickness	7 µm	6.5 - 7.5 µm

NanoWorld® Pointprobe® NCL probes are designed for non-contact or tapping mode imaging and offer an alternative to our high frequency non-contact type NCH. The NCL type is recommended if the feedback loop of the microscope does not accept high frequencies or if the detection system needs a minimum AFM cantilever length (> 125 µm). This AFM probe combines high operation stability with outstanding sensitivity. Compared to the high frequency non-contact type NCH the maximum scanning speed is slightly reduced.

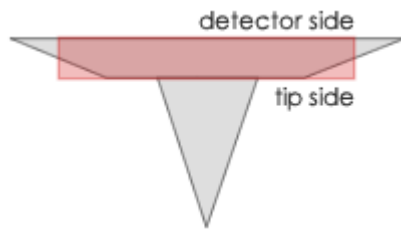
All SPM and AFM probes of the Pointprobe® series are made from monolithic silicon which is highly doped to dissipate static charge. They are chemically inert and offer a high mechanical Q-factor for high sensitivity. The AFM tip is shaped like a polygon based pyramid with a typical height of 10 - 15 µm.

For enhanced resolution of nanostructures and microroughness we have developed an advanced tip manufacturing process leading to unrivalled sharpness of the SuperSharpSilicon™ tip.

This AFM probe offers unique features:

- Typical AFM tip radius of curvature of 2 nm
- Guaranteed AFM tip radius of curvature 5 nm (yield >80%)
- Half cone angle < 10° at the last 200 nm of the AFM tip

For applications allowing higher resonance frequencies or a shorter AFM cantilever length we recommend our Pointprobe® type [SSS-NCH](#).



A trapezoidal cross section of the AFM cantilever and therefore 30% wider (e.g. NCH) AFM cantilever detector side result in easier and faster laser adjustment. Additionally, because there is simply more space to place and reflect the laser beam, a higher SUM signal is reached.

Tip shape: Supersharp

Coating: none

Order Code	Quantity	Data Sheet
SSS-NCL-10	10	yes
SSS-NCL-20	20	yes
SSS-NCL-50	50	no