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.

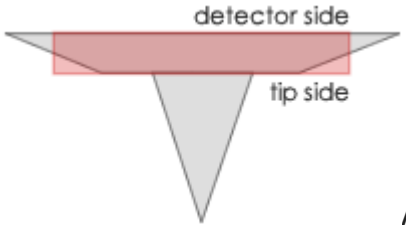
All SPM and AFM probes of the Pointprobe® series are made from monolithic silicon which is highly doped to dissipate static charge. They are chemically inert and offer a high mechanical Q-factor for high sensitivity. The AFM tip is shaped like a polygon based pyramid with a typical height of 10 - 15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

For measurements on samples with sidewall angles approaching 90° we offer specially tailored AFM tips showing a high aspect ratio portion with near-vertical sidewalls.

These AFM probes offer unique features:

- length of the high aspect ratio portion of the AFM tip > 2 µm
- typical aspect ratio of this portion in the order of 7:1 (when viewed from side as well as along AFM cantilever axis)
- half cone angle of the high aspect ratio portion typically < 5°
- excellent AFM tip radius of curvature

For applications allowing higher resonance frequencies or a shorter AFM cantilever length we recommend our Pointprobe® type AR5-NCHR.



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: High-Aspect-Ratio
Coating: Reflective Aluminum

Order Code	Quantity	Data Sheet
AR5-NCLR-10	10	yes
AR5-NCLR-20	20	yes
AR5-NCLR-50	50	no
AR5-NCLR-W	380	yes