Cantilever Data	Value	Range*
Resonance Frequency	210 kHz	175 - 245 kHz
Force Constant	72 N/m	48 - 105 N/m
Length	225 µm	220 - 230 µm
Mean Width	37.5 µm	32.5 - 42.5 µm
Thickness	7 µm	6.5 - 7.5 µm

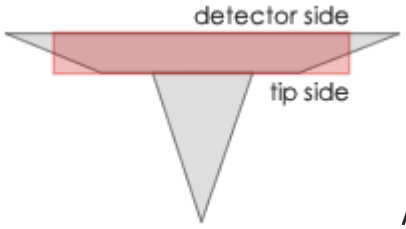
NanoWorld® Pointprobe® NCL probes are designed for non-contact or tapping mode imaging and offer an alternative to our high frequency non-contact type NCH. The NCL type is recommended if the feedback loop of the microscope does not accept high frequencies or if the detection system needs a minimum AFM 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 applications that require hard contact between AFM tip and sample this AFM probe offers a real diamond tip-side coating. This coating features extremely high wear resistance due to the unsurpassed hardness of diamond.

The typical macroscopic AFM tip radius of curvature lies in the range between 100 and 200 nm. Nanoroughnesses in the 10 nm regime improve the resolution on flat surfaces.

For applications allowing higher resonance frequencies or a shorter AFM cantilever length we recommend our Pointprobe® type DT-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: Standard
Coating: Diamond

Order Code	Quantity	Data Sheet
DT-NCLR-10	10	yes
DT-NCLR-20	20	yes
DT-NCLR-50	50	no