

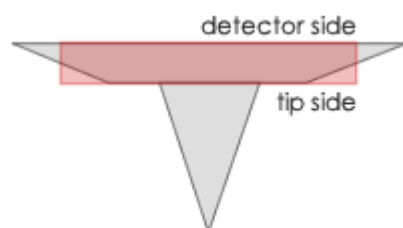
Cantilever Data	Value	Range*
<b>Resonance Frequency</b>	<b>190 kHz</b>	160 - 210 kHz
<b>Force Constant</b>	<b>48 N/m</b>	31 - 71 N/m
<b>Length</b>	<b>225 <math>\mu\text{m}</math></b>	220 - 230 $\mu\text{m}$
<b>Mean Width</b>	<b>38 <math>\mu\text{m}</math></b>	33 - 43 $\mu\text{m}$
<b>Thickness</b>	<b>7 <math>\mu\text{m}</math></b>	6.5 - 7.5 $\mu\text{m}$

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 ( $> 125 \mu\text{m}$ ). 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  $\mu\text{m}$ .

Additionally, this AFM probe offers typical AFM tip radius of curvature of less than 8 nm.

For applications allowing higher resonance frequencies or a shorter AFM cantilever length we recommend our Pointprobe® type [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: Reflective Aluminum

Order Code	Quantity	Data Sheet
<b>NCLR-10</b>	<b>10</b>	yes
<b>NCLR-20</b>	<b>20</b>	yes
<b>NCLR-50</b>	<b>50</b>	no
<b>NCLR-W</b>	<b>380</b>	yes