| Cantilever Data | Value | Range* |
|---|---|---|
| Resonance Frequency | **400 kHz** | 280 - 510 kHz |
| Force Constant | **80 N/m** | 42 - 142 N/m |
| Length | **125 µm** | 120 - 130 µm |
| Mean Width | **30 µm** | 25 - 35 µm |
| Thickness | **4 µm** | 3.5 - 4.5 µm |

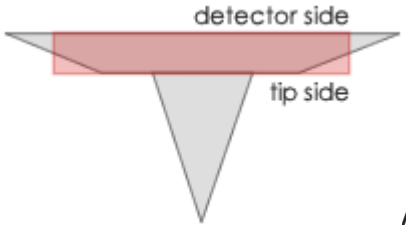
NanoWorld® Pointprobe® NCH probes are designed for non-contact or tapping mode imaging. This AFM probe type combines high operation stability with outstanding sensitivity and fast scanning ability.

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 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.

The CDT features a conductive diamond coating. Some typical applications for this AFM tip are Tunneling AFM (Conducting AFM) and Scanning Capacitance Microscopy (SCM).

For applications requiring lower resonance frequencies or an AFM cantilever length exceeding 125 µm we recommend our Pointprobe® type CDT-NCLR.




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 |
|---|---|---|
| CDT-NCHR-10 | 10 | yes |
| CDT-NCHR-20 | 20 | yes |
| CDT-NCHR-50 | 50 | no |