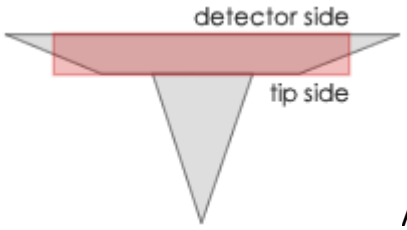
Cantilever Data	Value	Range*
Resonance Frequency	75 kHz	60 - 90 kHz
Force Constant	2.8 N/m	1.2 - 5.5 N/m
Length	225 µm	220 - 230 µm
Mean Width	28 µm	22.5 - 32.5 µm
Thickness	3 µm	2.5 - 3.5 µm

NanoWorld® Pointprobe® FM probes are designed for force modulation mode imaging. The force constant of the FM type fills the gap between contact and non-contact probes. Furthermore non-contact or tapping mode imaging is possible with this AFM probe.

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.

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



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

Aluminum Reflex Coating

The aluminum reflex coating consists of a 30 nm thick aluminum layer deposited on the detector side of the AFM cantilever which enhances the reflectance of the laser beam by a factor of 2.5. Furthermore it prevents light from interfering within the AFM cantilever.

As the coating is almost stress-free the bending of the AFM cantilever due to stress is less than 2 degrees.

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