Cantilever Data	Value	Range*
Resonance Frequency	**75 kHz**	58 - 97 kHz
Force Constant	**2.8 N/m**	1.4 - 5.8 N/m
Length	**240 µm**	235 - 245 µm
Mean Width	**35 µm**	30 - 40 µm
Thickness	**3 µm**	2.5 - 3.5 µm

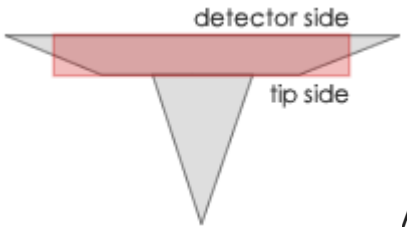
Optimized positioning through maximized AFM tip visibility

NanoWorld® Arrow™ FM probes are designed for Force Modulation Mode imaging. The Force Constant of the FM type fills the gap between Contact and Non-Contact AFM probes. Furthermore Non-Contact / TappingMode™ imaging is possible with this AFM probe.

All SPM and AFM probes of the Arrow™ 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. These AFM probes feature a rectangular AFM cantilever with a triangular free end and a tetrahedral AFM tip with a typical height of 10 - 15 µm.

Additionally, this AFM probe offers an AFM tip radius of curvature of less than 10 nm.

The unique Arrow™ shape with the AFM tip position at the very end of the AFM cantilever allows easy positioning of the AFM tip on the area of interest.



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: Arrow

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.

Order Code	Quantity	Data Sheet
ARROW-FMR-10	10	Nominal values
ARROW-FMR-20	20	Nominal values
ARROW-FMR-50	50	Nominal values
ARROW-FMR-W	380	Nominal values