

PointProbe® Plus XY-alignment Non-Contact / Tapping Mode - High Resonance Frequency - Reflex Coating

The XY-auto-alignment AFM probes for Non-Contact / Tapping mode application (High resonance frequency) with a Reflective coating extend the plug-and-fit alignment concept of the Alignment Chip (ALIGN) to 125 µm short AFM cantilevers optimized for high speed non-contact / tapping mode applications. AFM probe exchange with an AFM tip repositioning accuracy of better than ± 8 µm is possible for all AFM probes of the XY-alignment AFM probes series - independent of their AFM cantilever length. This series is adjusted to the AFM tip position of AFM probes with an AFM cantilever length of 225 µm.

As a matter of course, the features of the proven PointProbe® Plus series such as high application versatility, compatibility with most commercial SPMs, extremely low and reproducible AFM tip radius as well as a precisely defined AFM tip shape are maintained. The typical AFM tip radius of less than 7 nm and the minimized variation in AFM tip shape provide more reproducible images and enhanced resolution.

NANOSENSORS™ PPP-NCHR AFM probes are designed for non-contact mode or tapping mode AFM (also known as: attractive or dynamic mode). This type of AFM probe combines high operation stability with outstanding sensitivity and fast scanning ability.

The AFM probe offers unique features:

- guaranteed AFM tip radius of curvature < 10 nm
- AFM tip height 10 - 15 µm
- highly doped silicon to dissipate static charge
- Al coating on detector side of AFM cantilever
- chemically inert
- high mechanical Q-factor for high sensitivity
- AFM tip repositioning accuracy of better than ± 8 µm (in combination with Alignment Chip)

This AFM probe features alignment grooves on the back side of the holder chip. These grooves fit to the NANOSENSORS Alignment Chip.

Cantilever data:

Property	Nominal Value	Specified Range
Resonance Frequency [kHz]	330	204 - 497
Force Constant [N/m]	42	10 - 130
Length [µm]	125	115 - 135
Mean Width [µm]	30	22.5 - 37.5
Thickness [µm]	4	3 - 5

Order codes and shipping units:

Order Code	AFM probes per pack	Data sheet
PPP-XYNCHR-10	10	of all probes
PPP-XYNCHR-20	20	of all probes
PPP-XYNCHR-50	50