

PointProbe® Plus Force Modulation Mode - Au coating (Detector side)

The PointProbe® Plus (PPP) combines high application versatility and compatibility with most commercial SPMs. The typical AFM tip radius of less than 7 nm and the minimized variation in AFM tip shape provide reproducible images and enhanced resolution.

NANOSENSORS™ PPP-FMAuD is offered for force modulation microscopy. The force constant of this AFM probe spans the gap between contact and non-contact mode and is specially tailored for the force modulation mode. Furthermore non-contact or tapping mode operation is possible with the FM tip but with reduced operation stability.

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
- Au coating on detector side of AFM cantilever
- chemically inert

A metallic layer (Au) is coated on the detector side of the AFM cantilever which enhances the reflectivity of the laser beam by a factor of about 2.5. Furthermore it prevents light from interfering within the AFM cantilever. As the coating is nearly stress-free the bending of the AFM cantilever due to stress is less than 2 degrees.

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]	75	45 - 115
Force Constant [N/m]	2.8	0.5 - 9.5
Length [µm]	225	215 - 235
Mean Width [µm]	28	20 - 35
Thickness [µm]	3	2 - 4

Order codes and shipping units:

Order Code	AFM probes per pack	Data sheet
PPP-FMAuD-10	10	of all probes