

PointProbe® Plus Contact Mode Short Cantilever -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.

The NANOSENSORS™ PPP-CONTSCAuD is an alternative AFM cantilever type for contact mode applications. The length of AFM cantilever is reduced with respect to the preferred contact mode type enabling easier exchange with non-contact mode AFM probes for some AFM instruments. Additionally, this AFM probe type allows the application for lateral or friction force mode.

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
- alignment grooves on backside of silicon holder chip
- precise alignment of the AFM cantilever position (within +/- 2 µm) when used with the Alignment Chip
- compatible with PointProbe® Plus XY-Alignment Series

A metallic layer (gold) 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]	25	1 - 57
Force Constant [N/m]	0.2	0.01 - 1.87
Length [µm]	225	215 - 235
Mean Width [µm]	48	40 - 55
Thickness [µm]	1	0.1 - 2

Order codes and shipping units:

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