

Product description

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-CONTSCR** 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
- Al coating on detector side of AFM cantilever
- high mechanical Q-factor for high sensitivity
- 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**

The reflective coating is an approximately 30 nm thick aluminum coating 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-CONTSCR-10	10	of all probes
PPP-CONTSCR-20	20	of all probes
PPP-CONTSCR-50	50
PPP-CONTSCR-W	380	of up to 32 probes