

# Tap300-AI

## AFM Probe Specifications:

### AFM Tip

SHAPE	HEIGHT	SETBACK	RADIUS	HALF CONE ANGLE
Rotated	17 $\mu\text{m}$ (15 - 19 $\mu\text{m}$ )*	15 $\mu\text{m}$ (10 - 20 $\mu\text{m}$ )*	10 nm	20°-25° along cantilever axis, 25°-30° from side, 10° at the apex

### AFM Cantilever

Cantilever A	
Shape	Beam
Force Constant	40 N/m (20 - 75 N/m)*
Resonance Frequency	300 kHz (200 - 400 kHz)*
Length	125 $\mu\text{m}$ (115 - 135 $\mu\text{m}$ )*
Width	30 $\mu\text{m}$ (25 - 35 $\mu\text{m}$ )*
Thickness	4 $\mu\text{m}$ (3 - 5 $\mu\text{m}$ )*

\* typical range

### Coating

Aluminium reflex coating on detector side of the cantilever, 30 nm thick

### Alignment Grooves

This product features alignment grooves on the back side of the holder chip.

### Additional Info

Monolithic silicon AFM probe for high frequency non-contact and tapping mode operation.

The rotated AFM tip allows for more symmetric representation of high sample features. The consistent AFM tip radius ensures good resolution and reproducibility.

The AFM holder chip fits most commercial AFM systems as it is industry standard size.