

SEM image of uncoated silicon SPM probe tip

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Silicon etched probe tip of the NSC series has a conical shape.

**Typical probe tip radius** of uncoated tip  
10 nm

**Full tip cone angle\***  
40°

**Tip aspect ratio**  
more than 3:1 (4:1 typical)

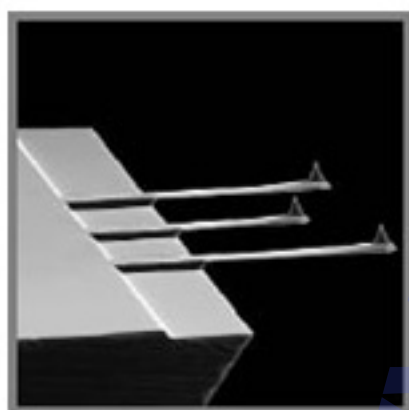
**Total tip height**  
20..25 μm

**Probe material**  
n-type silicon (phosphorus doped)

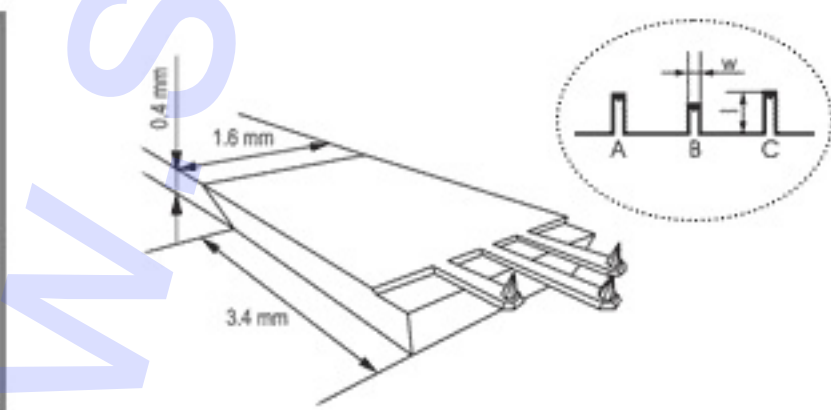
**Probe bulk resistivity**  
0.01..0.05 Ohm\*cm

\*The full cone angle may be less than 40° at the last 200 nm of the tip end.

## CANTILEVERS



SEM image of 3 cantilevers (A, B, C) on chip of the 36<sup>th</sup> series.



Schematic drawing of the probe chip.

36 Series, Cantilevers	Resonant Frequency, kHz			Spring Constant, N/m			Length l ± 5, μm	Width w ± 3, μm	Thickness t ± 0.3, μm
	min	typ	max	min	typ	max			
A	65	<b>105</b>	150	0.25	<b>0.95</b>	2.5	110	35	1.0
B	95	<b>155</b>	230	0.45	<b>1.75</b>	5.0	90		
C	50	<b>75</b>	105	0.15	<b>0.6</b>	1.5	130		