

SEM image of uncoated silicon SPM probe tip

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)

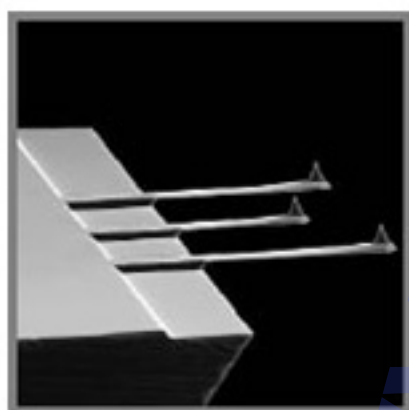
Total tip height
20..25 μm

Probe material
n-type silicon (phosphorus doped)

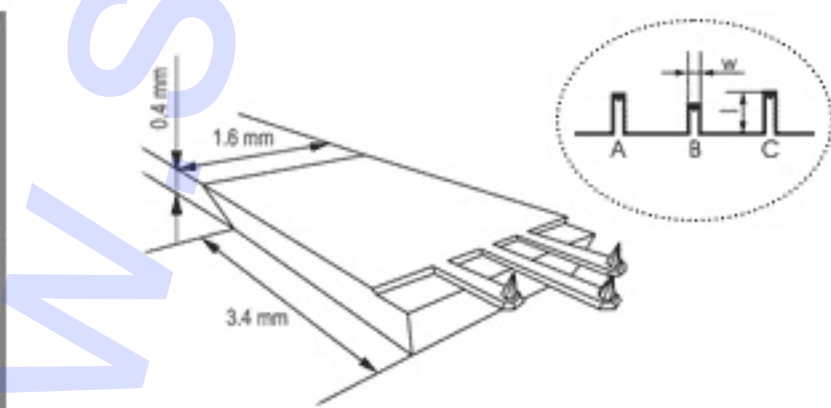
Probe bulk resistivity
0.01..0.05 Ohm*cm

*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 35th series.



Schematic drawing of the probe chip.

35 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	165	210	240	3.5	7.5	12.5	110	35	2.0
B	240	315	405	6.5	14.0	27.5	90		
C	120	150	190	3.5	4.5	8.5	130		

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