

SEM image of uncoated silicon SPM probe tip

Silicon etched probe tip of the CSC 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)

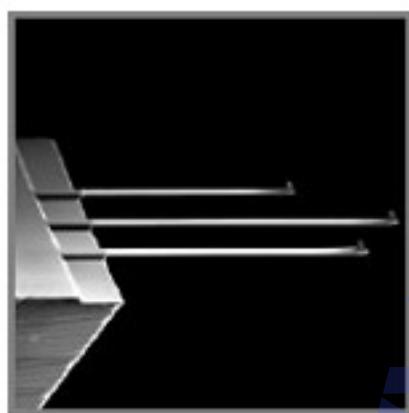
**Total tip height**  
20..25 μm

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

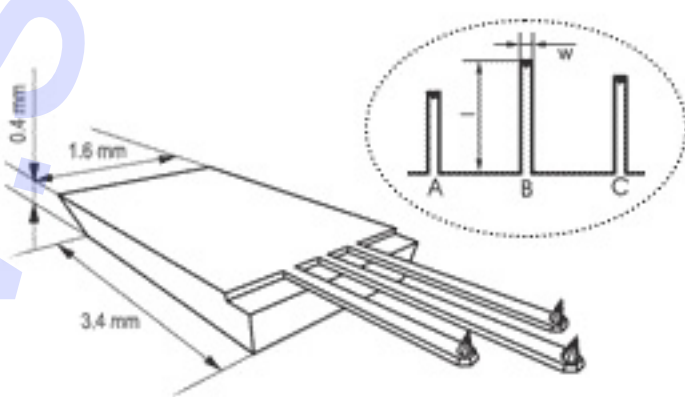
**Probe bulk resistivity**  
0.01..0.05 Ohm\*cm

\*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 38<sup>th</sup> series.



Schematic drawing of the probe chip.

38 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	14	20	28	0.02	0.08	0.2	250	35	1.0
B	7	10	14	0.01	0.03	0.08	350		
C	9.5	14	19	0.01	0.05	0.1	300		