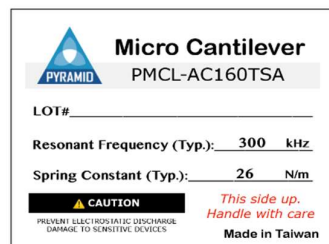


Micro Cantilever

Product name

PMCL-AC160TSA

Silicon AFM probe with a sharpened tetrahedral tip



Product name

PMCL - AC160TSA

PMCL: Pyramid Micro Cantilever

AC: Tapping mode measurement

160: Cantilever length of 160 μm

T: Sharpened tetrahedral tip

S: Silicon (No tips coating)

A: Reflex coating (Gold)

Specification

Material

Micro Cantilever Tip & lever	Silicon (n-type, 0.01 – 0.02 ohm.cm)
Metal coating (tip side)	None
Metal coating (reflex side)	Gold/Chromium on Silicon probe lever
Chip	Silicon (n-type, 0.01 – 0.02 ohm.cm)

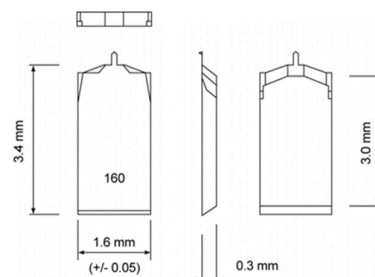
Chip

A rectangular shape silicon probe on one side of the silicon chip

Dimension

Front side view

Tip side view



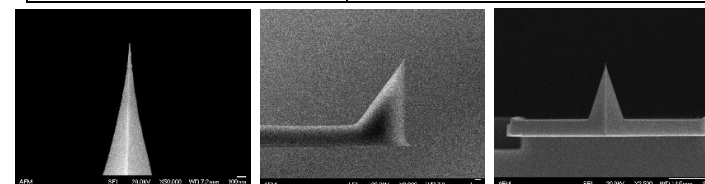
Back side view

Probe Tip

The probe tip is a sharpened tetrahedral. The tip is fabricated on the exact end of each probe.

Dimensions

	Typ. Value	Typ. Range
Tip length (μm)	14	9 - 19
Tip radius (nm)	7	4 - 10
Probe tip half angle (deg.)	(axis) less than 17.5 (side) less than 17.5	
Probe side tip angle (deg.)	(front) 0, (back) 35. (side) 18, 18	

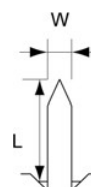


Cantilever

Calculated mechanical properties

	Typical value	Typical range
Resonant frequency (kHz)	300	200 - 400
Spring constant (N/m)	26	8.4 - 57

Dimensions



Cantilever length L (μm)	160 (± 15)
Cantilever width W (μm)	40 (± 2)
Cantilever thickness t (μm)	3.7 (± 0.5)
Coated metal thickness t_m (μm)	Gold/Chromium 0.05

