

Micro cantilever

Product name

OMCL-AC240TM-B2

Platinum coated Silicon cantilever with tetrahedral tip

Product name	
Micro Cantilever	
OMCL-AC240TM-B2	
LotNo.	
Typical Value	Inspection result
Resonant frequency 70 (kHz)	
Spring constant 2 (N/m)	(Calculated Value)
http://www.olympus.co.jp/probe/	
OLYMPUS	

Inspection result

OMCL - AC 240 T M - B 2

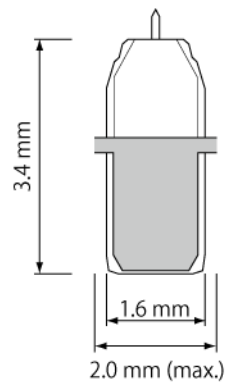
OMCL : Olympus Micro Cantilever
 AC : main application is AC mode measurement
 240 : Lever length of 240 μm
 T : Tetrahedral tip
 M : Platinum coated on Tip side
 B : 18 chips / unit
 2 : Chip thickness 0.3 mm

Chip

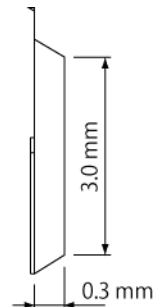
There is a rectangular cantilever on one side of the silicon chip.

Dimension

tip side view



side view

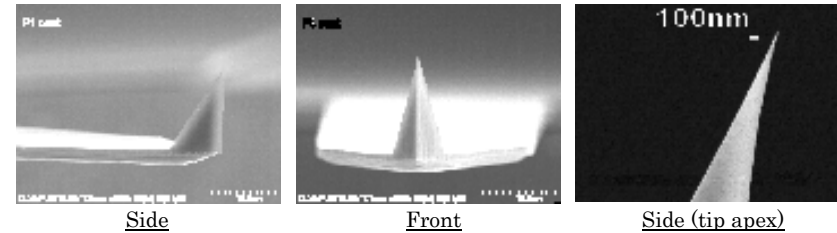


Material

Tip & Lever	Silicon (4 - 6 ohm.cm)
Metal coating (tip side)	Platinum / Titanium on Silicon cantilever
Metal coating (back side)	Aluminum on Silicon cantilever
Chip	Silicon (4 - 6 ohm.cm)

Tip

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



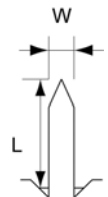
Dimension

	Typical value	Typical range
Tip height (μm)	15	9 - 19
Tip radius (nm)	15	less than 25
Tip angle (deg.)		(side) less than 35 (front) less than 35

Cantilever

Dimension

Cantilever length L (μm)	240 (± 20)
Cantilever width W (μm)	30 (± 2)
Cantilever thickness t (μm)	2.8 (± 0.8)
Metal coat thickness tm (μm)	Platinum 0.02 (± 0.01) Aluminum 0.1 (± 0.04)



Calculated mechanical properties

	Typical value	Typical range
Resonant frequency (kHz)	70	45 - 95
Spring constant (N/m)	2	0.5 - 4.4

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