

Micro cantilever

Product name

OMCL-AC55TN-R3

| Micro Cantilever | |
|----------------------------------|--------------------|
| OmegaLever OMCL-AC55TN-R3 | |
| Lot No. | |
| Nominal value | Inspection result |
| Resonant frequency 1.6 (MHz) | - |
| Spring constant 85 (N/m) | (Calculated value) |
| Inspector | |
| OLYMPUS Made in Japan | |

Olympus Mega Hz Silicon cantilever with a sharpened tetrahedral tip

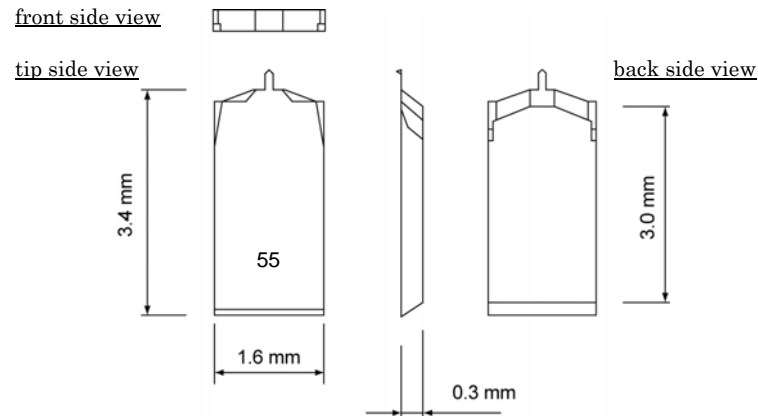
OMCL - AC 55 T N - R3

OMCL : Olympus Micro Cantilever
 AC : Main application is AC mode measurement
 55 : Lever length of 55 μm
 T : Sharpened Tetrahedral tip
 N : No reflex metal coating
 R3 : 100 chips / unit
 Rectangular cross section chip

Chip

The chip has a pentagonal cantilever on beveled chip shoulders side.

Dimensions

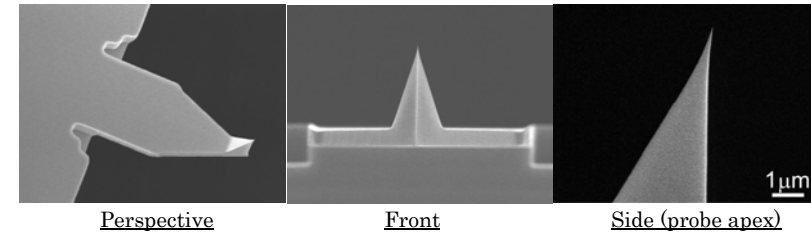


Material

| | |
|-----------------------------|--------------------------------------|
| Tip & Lever | Silicon (n-type, 0.01 – 0.02 ohm.cm) |
| Metal coating (tip side) | Non |
| Metal coating (reflex side) | Non |
| Chip | Silicon (n-type, 0.01 – 0.02 ohm.cm) |

Probe

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



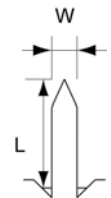
Dimensions

| | Nominal value | Typical range |
|-----------------------------------|--|---------------|
| Probe length (μm) | 12 | 8 - 16 |
| 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

Dimensions

| | |
|---|--------------------|
| Cantilever length L (μm) | 55 (± 10) |
| Cantilever width W (μm) | 31 (± 1) |
| Cantilever thickness t (μm) | 2.35 (± 0.3) |



Calculated mechanical properties

| | Nominal value | Typical range |
|--------------------------|---------------|---------------|
| Resonant frequency (MHz) | 1.6 | 0.85 - 2.5 |
| Spring constant (N/m) | 85 | 38 - 184 |

OLYMPUS

OMCL-AC55TN-R3

Ver. 1.0 Jul 1, 2011