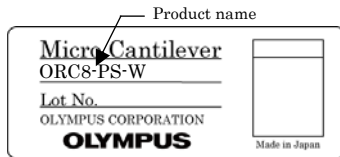


Micro cantilever

Product name

ORC8-PS-W

Silicon nitride Triangular cantilever with Sharpened Pyramidal tip



O - RC 8 P S - W

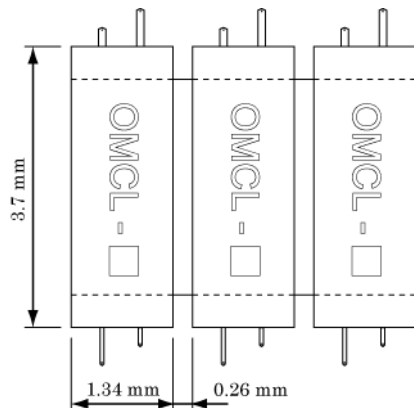
O : Olympus
 RC : Rectangular cantilever
 8 : Lever thickness of 800 nm
 P : Pyramidal tip
 S : Single side metal coating (reflex coat)
 W : wafer / unit (14 Strips / unit)
 (490 chips / unit)

Chip

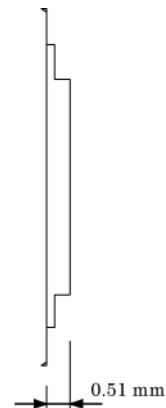
There are four types of rectangular cantilevers (100 μm and 200 μm long, 40 μm and 20 μm wide) on both sides of the glass chip.

Dimensions

tip side view



side view



Material

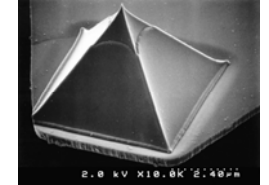
Tip & Lever	Silicon nitride
Metal coating	Gold / Chromium
Chip	Pyrex glass

Tip

The tip is a hollow pyramid with a sharp apex (oxide sharpened).

Dimensions

	Typical value
Tip height (μm)	2.9
Tip radius (nm)	< 20
Tip angle (deg.)	< 70



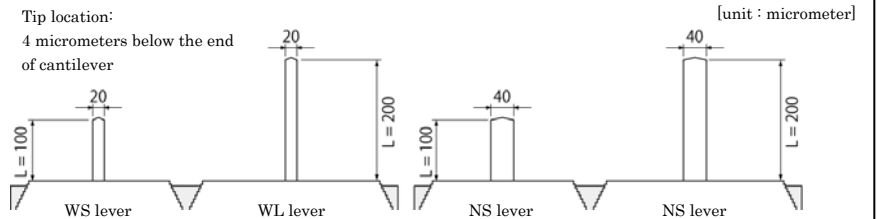
SEM micrograph of the sharpened pyramidal tip

Tip angle between diagonal ridges is less than 90 degrees.

Cantilever

Dimensions

	WS lever	WL lever	NS lever	NL lever
Cantilever width W (μm)	40		20	
Cantilever length L (μm)	100	200	100	200
Cantilever thickness t (μm)	0.8			
Metal coat thickness tm (μm)	0.065 (Reflex)			



Calculated mechanical properties

	WS lever	WL lever	NS lever	NL lever
Resonant frequency (kHz)	71	19	69	18
Spring constant (N/m)	0.76	0.10	0.39	0.05

OLYMPUS

ORC8-PS-W