

Product Description

High Resolution High Resonant Frequency AFM Cantilevers HA_FM/W2C+ series are designed for Semicontact (Intermittent), Noncontact and electrical applications (SKM, SCM, SRIM, EFM, LAO Lithography).

Hard and stable coating provides long time performance in all electrical modes. Specially doped W2C+ coating allows to avoid probes from oxidation, extends probe lifetime and makes it possible to operate at high-humidity conditions.

Each probe has 2 rectangular cantilevers. Typical Resonant Frequency 114kHz / 77kHz (dispersion $\pm 10\%$). Typical Force Constant 12N/m / 3.5N/m (dispersion $\pm 20\%$). Cantilever has Au reflective and W2C+ tip side coatings. Probes are also available without tip coating.

Probes are packed in boxes with 15 and 50 pieces. Amount discount is included in the package price.

High Accuracy composite ETALON probes combine the main features allowing to obtain high quality AFM images:

- Sharp tip - curvature radius < 10 nm.
- Resonance frequency, specified with high accuracy - $\pm 10\%$ within a wafer.
- Special chip geometry with vertical sidewalls for convenient operating.
- High aspect ratio tip.
- Enhanced back-side reflection of the cantilever.
- Cost effective price.

General Features

Material	Polysilicon cantilever, silicon tip
Chip size	3.6x1.6x0.4mm
Reflective side coating	Au
Tip coating	W2C
Tip curvature radius	< 35nm
Available tip coatings	Au, Pt

Special Features

Cantilever series	Cantilever	Cantilever length, L $\pm 2\mu\text{m}$	Cantilever width, W $\pm 3\mu\text{m}$	Cantilever thickness, T $\pm 0.15\mu\text{m}$	Resonant frequency, kHz			Force constant, N/m		
					min	typical	max	min	typical	max
HA_FM/W2C	A	183	34	3.0	100	114	130	4.5	6	7.5
	B	223	34	3.0	60	77	95	2.5	3.5	4.5