

Product Description

High Resolution High Resonant Frequency AFM Cantilevers HA_FM series are designed for Semicontact (Intermittent), Noncontact applications. 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 side coating to increase laser signal. Probes are also available with no coating as well as with conductive 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 | No |
| Tip curvature radius | < 10nm |
| Available tip coatings | Pt, Au, W2C |

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 | 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 |