# AFM Probe/Cantilever Holders

Bruker Dimension Series and MultiMode AFMs

# **Dimension Series AFMs**

### Air Imaging

#### General Use

Product #: DAFMCH (\$850) -6 on hand (1 of which has loose contact holes) + 5 mounting blocks?

Dimension AFM Cantilever Holder (DAFMCH) for Contact and Tapping Mode in air features piezo tip drive and tip bias connection. Supports Electrostatic Force Microscopy (EFM), Magnetic Force Microscopy (MFM), and Kelvin Probe Force Microscopy (KPFM). Included with Dimension Series AFMs, but available as a spare part. Non-magnetic version (Model # DCHNM) also available.



#### Product #: DCHNM (\$805) - 0 on hand?

Non-Magnetic Dimension Cantilever Holder (DCHNM) supports Contact and Tapping Mode operation in air. Useful for sensitive Magnetic Force Microscopy (MFM) imaging. Choose the regular cantilever holder, Model # DAFMCH, for general Contact, Tapping Mode, and MFM applications.



Product #: DFMA (\$2,450) - 1 on hand (labeled as "Harmonix")?

Force Modulation cantilever holder for scanning in air. Cantilever holder includes a large piezo (gray bar beneath spring clip) that drives the tip at low frequency and high amplitude, permitting force imaging in air. Can also be used in Contact and Tapping Mode. Force imaging support note included.



**Not shown**: Torsional Resonance (TR) Mode holder – 2 on hand (labeled on holder as TR Mode), but no longer used

Nanoelectrical Characterization Product #: DSCMSCH (\$2,050) – 1 on hand

This SCM cantilever holder supports the Scanning Capacitance Microscopy (SCM) application module. Integrated piezo can be actuated for Tapping Mode or Lift Mode operation. The holder comes with a short cable for connection to the SCM application module.



Product #: DSTM (\$2,050) - 0 on hand

STM tip holder fits directly onto Dimension SPM heads to enable Scanning Tunneling Microscopy (STM) operation. When performing STM imaging, the sample is biased (software controllable) while the tip measures current. Conductive STM tips included.



Product #: DTRCH-AM (\$2,250) – 5 on hand (only 2 functional)

This cantilever holder is designed for use with TUNA, CAFM, or SSRM application modules. Spring repair kits for this probe holder are available as Part # 990-031-500 (\$650), and include a replacement clip with attachment wire plus 3 replacement springs.





## Fluid Imaging

#### Electrochemistry

Product #: DECAFMCH-PFT (\$3,200) - 1 on hand (damaged but usable)

Peak Force Tapping Dimension EC-AFM Cantilever Holder for (DECAFMCH-PFT). Kel-F (PCTFE) cantilever holder for fluid operation designed for widest solvent compatibility provides a seal against the second generation Dimension Icon EC cell. Tilted glass window enhances optical view of sample surface. Enables contact mode and ScanAsyst/PeakForce-QNM, but *not* Tapping Mode. Included with the second generation Dimension Icon EC cell, but available as a spare part.



#### Product #: DECAFMCH-DD (\$3,900) - 1 on hand

Direct Drive Dimension EC-AFM Cantilever Holder (DECAFMCH-DD) for Tapping Mode. Kel-F (PCTFE) cantilever holder for fluid operation designed for widest solvent compatibility provides a seal against the second generation Dimension Icon EC cell. Provides highly-efficient Direct Drive for Tapping Mode in fluid via small built-in piezo; tilted glass window enhances optical view of sample surface. Enables contact mode, Tapping Mode, and ScanAsyst/PeakForce-QNM. Included with the second generation Dimension Icon EC cell, but available as a spare part. Same as DTFML-DD-HE-V2, but without the probes included?



**Not shown**: Peak Force Scanning Electrochemical Microscopy (PF-SECM) holder – 1 on hand + special probe holder mounting block

#### General Use

Product #: DTFML-DD-HE-V2 (\$3,990) – 0 on hand (but see note above re: DECAFMCH-DD)

High Efficiency Direct Drive Tapping Mode Probe Holder for scanning in fluid. PCTFE (Kel-F) probe holder for Contact Mode, Tapping Mode, ScanAsyst/PeakForce QNM, EC-AFM (with appropriate accessories), or Force Modulation (when used with Z Modulation) in fluid. Second generation probe holder is directly driven by a small piezo in the holder for lower driving power in Tapping Mode (replaces Models DTFML-DD and DTFMLSP). Tilted glass window enhances optical view of sample surface, while protruding tip design supports improved fluid flow near probe tip and allows for easier tip inspection. Includes 10 probes (Model SNL-10) and Viton splashguards for both standard and Hybrid Dimension scan heads.



# MultiMode AFM

# Air Imaging General Use Product #: MFMA (\$2,650) – 1 on hand

Stainless steel cantilever holder includes a large piezo to drive the tip for low-frequency, high amplitude force imaging in air. It can also be used for Tapping and Contact modes. This option includes a force imaging support note and a set of probes. Not compatible with LFM SPMs.



Product #: MMTRCH (\$1,840) – 1 on hand

Torsional Resonance (TR) mode cantilever holder includes dual piezos to oscillate the tip rotationally or vertically. Included with TR mode purchases but also available separately. Not compatible with LFM SPMs.



Not shown: High Rate (HR) Peak Force Tapping holder – 1 on hand (bulkier than standard probe holder)

#### Nanoelectrical Characterization

Product #: MMEFCH (\$2,150) - 1 on hand

Electrostatic Force Microscopy (EFM) probe holder for the Multimode SPM. This stainless steel probe holder enables electric field gradient imaging for the MultiMode SPM. The holder provides electrical contact to the AFM tip through both the cantilever clip and the stainless steel cantilever pocket. An integrated piezo oscillates the tip for Tapping Mode. This holder can also be used for Contact, Magnetic Force Microscopy (MFM), and Kelvin Probe Force Microscopy (KPFM) modes. This accessory includes a support note and is also a replacement for previous models MMMC, MC and MMNISCH.



#### Product #: MMCHAM (\$2,450) - 1 on hand

PF-TUNA Application Module Cantilever Holder for the MultiMode SPM. Included with MultiMode CAFM, TUNA, SCM, SSRM, and PF-TUNA packages. Also enables TR-TUNA on MultiMode SPMs equipped with both TUNA and TR Mode.



#### Product #: MM-SCM-CH (\$2,490) - 0 on hand

Cantilever Holder for Scanning Capacitance Microscopy (SCM) with the MultiMode SPM. Optimizes S:N ratio for SCM by minimizing stray capacitance. Included in the MM-SCM-V3 Scanning Capacitance Microscopy solution for MultiMode. For Scanning Capacitance Mode only; not for Conductive (CAFM) or Tunneling AFM (TUNA), Scanning Spreading Resistance (SSRM), or Torsional Resonance (TR) modes.



## Fluid Imaging

General Use Product #: MTFML-V2 (\$3,800) – 1 on hand of older version (V1)

Improved glass probe holder for fluid imaging. Higher performance measurements with lower noise are achievable with new design that holds probes in place more securely and reliably. Operates in PeakForce Tapping, Contact, Force Modulation, and Tapping Mode. Probe is acoustically driven by a separate piezo oscillator for larger amplitude modulation. Includes two ports, required fittings, FCPART accessories kit for adding and removing fluids, and pack of 10 SNL probes for soft samples.





#### EC-AFM

Product #: MMTMEC (\$3,850) - 1 on hand

The MultiMode electrochemistry fluid cell has an integrated piezo for Contact Mode or Tapping Mode electrochemistry experiments. Three fluid ports, an electrode support post, and an entry hole for counter and reference electrodes are integrated into the glass fluid cell. This fluid cell is shipped with Luer fittings and other accessories for fluids and electrochemistry, as well as an informative support note. Requires model UNIVECPOT bipotentiostat. This item is a replacement for the previous model ECFC.

