

COMPLETE THIS FORM TO INITIATE SUPPLIER SCOUTING MEPNN Supplier Scouting Opportunity Synopsis

*The submitting entity agrees to notify NIST MEP of the status of actions taken as a result of this scouting instance within 30 days after receiving a results report. For instances where the submitting entity is an MEP Center submitting on behalf of a client, the MEP Center agrees to notify NIST MEP on behalf of their client. For instances where the submission is direct from federal/state agencies or is a private company, the submitting federal/state agency or private company entity agrees to notify NIST MEP. Notification should be via email to scouting@nist.gov, indicating the following:

- Contact with matches identified in report complete and supply contract awarded, process complete
- Contact with matches identified in report complete and no supply contract awarded, process complete
- Contact with matches identified in report complete and supply negotiations underway, process in progress
- Contact with matches identified in report underway; supply negotiations not yet begun; process in progress
- · Contact with matches identified in report not yet begun, process in progress
- Contact with matches identified in report will not occur within the next 6-months, process complete

Atomic Force Microscope

Opportunities will be postedfor 30 days unless specified

Item to be Scouted

Please describe the item application/ the end use of item.* Provide the item number if applicable: (N95 Mask vs Protective Mask).

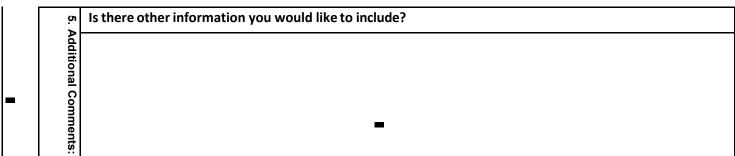
The National Institute of Standards and Technology (NIST) seeks information on commercial vendors that are capable of providing a large sample, wafer scale (at least 150 mm diameter) Atomic Force Microscope/Scanning Probe Microscope (AFM/SPM) in support of nanofabrication activities in the Center for Nanoscale Science and Technology (CNST) user facility. The system will be sited and used as a shared resource accessible to researchers from industry, academia, NIST, and other government agencies in the NIST NanoFab cleanroom. The system will be used to investigate a wide range of materials and nanostructures. High-resolution, high speed imaging and analysis of surface topography and other surface properties will be required.

| 2022-113 | | | |
|------------------------|---|--|--|
| Supplier | r Scouting | Number (NIST MEP use) | |
| 3345 | 16 | | |
| Scouting | g custome | r/product NAICS Code, if known | |
| ΞL | 1. | a. Type of supplier being sought* | |
| Ë | รเ | Manufacturer Image: Contract Manufacturer Image: Distributor | |
| NIC | Supplier | □ Other | |
| TECHNICAL INFORMATION: | | | |
| | Info | b. Reason for scouting submission* | |
| | rma | □ 2 nd Supplier □ Price □ Re-shore □ Past supplier no longer available | |
| MA | Information | New Product Startup | |
| TIO | - | Other | |
| | | | |
| | 2. and | a. Describe the manufacturing processes (elaborate to provide as much detail as possible).* | |
| | Sun d Pe | Durahagad as a complete unit | |
| | ١mə erfo | Purchased as a complete unit | |
| | 2. Summary of Technical and Performance Require | b. Provide dimensions / size / tolerances / performance specifications for the item.* | |
| | of Te | Because of increasing demand for wafer-scale characterization in the CNST NanoFab, NIST has a need for an | |
| | ų. | AFM/SPM that has the capability to perform non-destructive, nanoscale surface topography and related | |
| | chnical Specifi Requirements: | measurements at several sites across a wafer as large as 150 mm in diameter with high scanning speed. Additional requirements for a stand-alone AFM/SPM are as follows:MEASURERMENT CAPABILITIES: The | |
| | • – | Additional requirements for a stand-alone Al M/SFM are as follows. MEASORERMENT CALABIENTES. The AFM/SPM shall be capable of multiple imaging modes, including: • Electric Force Microscopy (EFM); • | |
| | Specifica ments: | Magnetic Force Microscopy (MFM); • Conductive AFM; and • Frequency Modulation (FM). The AFM/SPM | |
| | c | shall be capable of: • closed loop scanning for accurate and linear measurements; and atomic resolution | |
| | Ē. | imaging with closed loop scanning enabled. SAMPLE HANDLING: • The AFM/SPM shall have a motorized | |
| | | sample stage that can accommodate round substrates up to at least 150 mm in diameter and samples at least 10 mm thick. The stage should be capable of accessing the full 150 mm-diameter area. PROBE AND | |
| | | | |



| - | | SAMPLE IMAGING: • The AFM/SPM shall include top-view optics for probe imaging and alignment. • The AFM/SPM shall include top-view optics with zoom capability to image the scanning regions of interest. COMPUTER: • The computer system used to operate the tool shall have at least a Windows 10 operating system. TRAINING: • The vendor shall provide at least three business days of on-site application training. OPTIONAL TRADE-IN: Subsequent purchase contracts that may include the trade-in of an existing, Bruker FastScan AFM system will be considered to provide additional value to the government. c. List required materials needed to make the product, including materials of product components.* |
|-----------------------|---------|---|
| | Cont: | |
| | | e. Are there applicable regulations?* Yes No Please explain |
| | | |
| | | |
| BUSINESS INFORMATION: | Pricing | 3a. Estimated potential business volume (i.e., # Units Per Day, Month, Year) *: |
| | | b. Estimated target price / unit cost information (flexible and negotiable <u>not</u> accepted) *: \$500,000.00 |
| | _ | a. When is it needed by? (Immediate, 30 Days, 6 months, etc.)* |
| <u>.</u> | | |
| | | b. Describe packaging requirements (i.e., individually/group packaging)* |
| | | Flexible |
| | | c. Where will this item be shipped?* |
| | | NIST, 100 Bureau Drive, Gaithersburg, MD 20899 |





Photos or diagrams of the item (helpful but not required).