

**DEPARTMENT OF PHYSICS
INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR**

Dated: 24.01.2019

CORRIGENDUM

Sub.: Specification for vertical scan range is modified to '1000 micron or more'

Ref.: IIT/PHY/2018-19/T.ENQ/071/SD/04, DT. **21/01/2019**

A modification is made in the specifications of the tender document. Particularly, the specification for the vertical scan range of the profilometer is now '1000 micron or more' instead of '1200 micron or more'. The date of submission & opening of Technical bid is kept unchanged.

Specifications for the profilometer are given below:

Specifications:

- Measurement Technique: Contact stylus profilometry.
- Measurement Capability: Two-dimensional surface profile measurements.
- Sample viewing: > 3 Mega pixel color camera with at least 4X digital zoom.
- Stylus Sensor: Low Inertia Sensor / laser based technology will be preferred.
- Stylus Force: 0.05 to 15 mg or better (programmable).
- Stylus radius: 2 μm or better.
- Sample Stage: Manual X/Y, 70x20 mm or better X-Y translation, 360° rotation.
- Scan Length Range: 30 mm or above
- **Sample Thickness: Up to 15-20 mm or more.**
- Step Height Repeatability: 5 Å on 1 μm step or better.
- **Vertical Range: 1000 μm or higher.**
- Vertical Resolution: 5 Å or better
- Lateral Resolution: < 150 nm or better
- LCD Flat panel Monitor with 1920 x 1080 @ 50 - 60Hz resolution or better
- Vacuum chuck with adjustable alignment pins for optimum placement of at least 5 inch wafers
- Desktop Computer with windows OS, intel core processor, 2GB RAM, 250GB or better hard drive.
- Certified Calibration Standards to be provided.
- Optional:
 - 1) 2 μm stylus – 2 nos.
 - 2) 5 μm stylus – 2 nos.
 - 3) 25 μm stylus – 2 nos.
 - 4) Provision for 2D stress measurement
 - 5) Calibration standard

4. Utility Requirements:
 - Electrical supply provided by the institute: 230+15 Volt, Single Phase (3 wires), 50 +1 Hz and: 415±10% V,50 Hz, 3Phase with separate neutral and earthing.
 - Other utility requirements at our site should be specified in quote.
5. Safety features
 - Standard safety measures to be provided.
6. Documentation:
 - All documents should be in English in .doc or .pdf format.
 - Safety instructions should be provided.
7. Equipment Installation, commissioning, demonstration and acceptance:
 - The system should be installed and commissioned at our site at IIT Kharagpur.
 - The vendors shall arrange necessary tool kits and accessories required for installation.
8. Training:
 - Hands on training should be provided on equipment operation, maintenance, troubleshooting and process at our site.
9. After sale support:
 - Maintenance support, Spares/consumables supply and unlimited technical support for process and equipment troubleshooting to be ensured for at least 5 years after commissioning and acceptance.
10. Warranty:
 - 1 year onsite warranty for equipment and accessories from the date of successful installation, commissioning and acceptance. Any problem during the warranty period should be attended within seven days.
 - Post warranty maintenance: Vendor should provide post warranty maintenance support. AMC charge for the same should be provided.
11. Additional Information to be provided:-
 - I. Payment terms and conditions
 - II. Validity of the quote
 - III. Delivery period
 - IV. Installation & commissioning
 - V. Warranty
 - VI. Any other information

Date of Submission of Bid	12/02/2019 at 3.00 PM
Date of Opening of Technical Bid	12/02/2019 at 4.00 PM

Head Department of Physics.

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