

03/11/2017

Minutes of the Pre-Bid Meeting for Spectroscopic Ellipsometer

Date & Time: 03-11-2017 at 11:00 am.

Members Present: Dr. Debabrata Patra (Indenting Officer), Dr. Suvankar Chakraverty, Dr. Sonalika Vaidya and Mr. Jose Mathai.

Bidders present: (i) Anoop Kumar from **Lab India Instruments Pvt. Ltd.**

(ii) Avinash Kumar from **Laser Spectra.**

Important Queries from Bidders: (Original Tender specifications are underlined)

1. Spectral Range: 240 nm to 1000 nm (From UV to NIR, between 200 nm to 1000 nm; please quote for all available options).

2. Incident angle: 40 degree to 90 degree, 5 degree steps, repeatability 0.02 (0 to 90 degree).

3. Spot size: Microspot facility should be less than 200 micron (1-5 mm; microspot facility optional)

4. Size and Sample Stage: (Capable of holding both small wafers (1 cm x 1 cm) large wafers (\geq 150 mm). Vacuum mount sample stage; optional).

Height and tilt adjustable sample stage; Sample Alignment: Auto-collimating telescope for most accurate tilt alignment, Accuracy of tilt: 1 arc minute microscope for most accurate height alignment, Accuracy of height less than 8 micron.

5. Extra point added by one bidder:

Computer controlled polarizer and analyser for highest measurement accuracy. Highly stabilized compensator for UV-Vis range to measure the Ellipsometer angle Δ in the whole data range from 0 degree to 360 degree with extreme accuracy.

Summary: Most of the bidders asked to clarify the spectral range, angle of incidence and goniometer operation.

REQUESTED CHANGES TO BE EMPLOYED IN THE TECHNICAL SPECIFICATIONS BY COMMITTEE & IO

After discussion, the committee members and IO requested following changes in the technical specifications.

- 1. Spectral Range:** 200 ± 50 to 1000 ± 50 nm. (UV to NIR; May quote for other available options).
- 2. Incident Angle:** $0 < \text{angle} \leq 90$.
- 3. Goniometer:** Manual.
- 4. Spot Size:** 1-5 mm. Microspot facility optional.

Apart from above modified specs, other specs of the equipment and terms & conditions of the equipment will remain unchanged.