

INDIAN INSTITUTE OF TECHNOLOGY KANPUR
Department of Electrical Engineering

Enquiry No.: EE/YSC/2013/15
Opening Date: 13th September, 2013
Closing Date: 30th September, 2013

Sub.: Purchase of 200mm Probe station with RF measurement and thermal chuck and temperature unit

Our organization is an educational institute of the repute and liable to get education discount from manufacturer.

Specifications:

- Please see technical specifications and compliance table. Mark, whether your system complies or not.
- Parent company should be an established company with good number of installations and after sales support in India as well: Attach details.
- Vendor must provide 3(THREE)-years onsite warranty for all parts/components and servicing.
- Installation charges and training should be included in the quotation.

Your quotation must reach to us by 10AM on closing date.

Note:

1. Your quotation shall contain Authorization Letter from manufacturer.
2. Quotation must be valid for 90 days.
3. Delivery period should not be more than **14 weeks** and delivery should be at IIT Kanpur.
4. Send complete detail of the product(s).
5. Payments terms: 90% on installation and 10% satisfactory report.
- 6. IITK is exempted from excise/custom duty. Payment can be made in USD for import.**
7. Price must include all taxes and charges.
- 8. All prices are to be FOR IIT Kanpur.**

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COMPLIANCE CHART and Specifications of 200mm Manual Wafer Prober with Integrated Shield Enclosure

S.No.	Description of systems	Compliance (YES/NO)
	The system will be used for wafer level DC-IV, CV and RF characterization of semiconductor devices fabricated on 6" and 8" silicon wafers using probe manipulators and/or probe card. The system has provision for hot/cold chuck to carry out the testing at different temperatures in -60 to 200°C range.	
1	<u>Base system:</u>	
a	Local integrated enclosure for dark, dry and EMI shielded probing	
b	Front access with roll-out stage for easy wafer loading	
c	Platen lift mechanism required	
d	X, Y travel: 203mm x 203mm	
e	X, Y resolution: 5mm / turn	
f	Bearings: Precision cross-roller	
g	Z stage Probe-force deflection: $\leq 0.0015\mu\text{m}/\mu\text{m}$ slope per 10kg load	
h	Theta stage travel range: $\pm 5.7^\circ$	
i	Theta stage resolution: 0.8° / turn	
j	Interface connector plate:	
i	Inputs: Compatible to standard triax cables	
ii	Output: Compatible to Triax or Coax-cables to probe holder	
iii	Connectors should carry Guard of triax-input to output as a minimum requirement	
2	<u>Thermal Chuck:</u>	
a	Configuration: Coaxial chuck, 8" diameter	
b	Chuck flatness: $\leq 30\mu\text{m}$ (for full temperature range)	
c	Temperature range: $\leq -60^\circ\text{C}$ to 200°C	
d	Temperature resolution: $\pm 0.3^\circ\text{C}$ (with calibrated controller)	
e	Temperature Uniformity: $\leq 0.5^\circ\text{C}@25^\circ\text{C}$, $\leq 2^\circ\text{C}@-60^\circ\text{C}$, $\leq 2^\circ\text{C}@200^\circ\text{C}$	
f	Temperature accuracy: 0.1°C	
3	<u>High Power Microscope includes:</u>	
a	- Microscope body with 1X-2X Zoom	
b	- 4 Objective manual turret	
c	- Eyepieces: 10X wide field	
d	- Objectives: 2.5X, 10X, 20X Long Working Distance : IR/1064nm - Green/532nm compatible (M Plan APO)	
e	- 2" Heavy duty manual focus block	
f	- Fiber optic Illuminator (90-250 VAC / 47-63Hz CE)	
g	- Spare Lamp bulb, 150W	

h	- 'C-mount' video adapter	
4	<u>DC Probe manipulators:</u>	
a	Quantity: 4 nos. (in left and right combination)	
b	Holding on platen: Magnetic	
c	Feature resolution: 2um	
d	Travel range (X / Y / Z): 12.5 mm / 12.5 mm / 12.5 mm	
e	Footprint (W x D): 90 mm x 60 mm	
f	Probe holders (04 nos.) for use with probe manipulators should be supplied.	
	Corresponding adapters, if needed, should also be included.	
g	Interface cables from probe holders to prober side of interface connector plates should be included.	
h	Probe tip material: Tungsten or Tungsten-Rhenium	
i	10 nos. of compatible probe tip of typical 19 µm tip diameter	
j	Probe leakage (Thermal controller OFF): ≤ 1fA	
5	<u>RF Probe manipulators:</u>	
a	Quantity: 2 nos. (in left and right combination)	
b	Holding on platen: Magnetic	
c	Feature resolution: 3um	
d	Travel range (X / Y / Z): 12.5 mm / 12.5 mm / 12.5 mm	
e	Footprint (W x D): 90 mm x 60 mm	
6	<u>RF accessories: (Options)</u>	
a	02 nos. 50Ghz, 48" cable 2.4(F) TO 2.4(M) for angled probe	
b	Vendor should provide their own RF calibration software.	
7	Vibration isolation table of appropriate size	
8	3M PIXEL 1/2" CMOS Digital CCD that includes image processing software to be provided	
9	Standard configurations will be required. NO CUSTOM BUILT SYSTEMS WILL BE ENTERTAINED.	
10	Parent company should be an established company with good number of installations and after sales support in India as well. Attach details.	
11	All the required accessories to be compatible for connection with parametric analyzers like Agilent B1500 (tri-axial) or equivalent.	