

Notice Inviting Quotation (NIQ)

Name of the Equipment: Wafer Prober

A. Technical Specifications

General Description:

The wafer prober is required for the electrical measurements of the components (diode, transistors, resistors, capacitors, inductors etc.) on a processed wafer. With the help of fine probes attached to micromanipulators of the prober, a particular device on the wafer should be probed and its electrical parameters would be measured using external measurement set-up (power supply, voltage/current measuring units etc.). A microscope attached to the prober must be provided for positioning the probes on the particular device under test. The detailed specifications are given in the following Table.

S. No.	Feature	Specifications	Comments / compliance
1	Wafer stage (chuck) size	1. Should be able to accommodate wafers of diameter upto 3 inch or more. The wafer must be held on the chuck by vacuum. The vacuum pump will be provided by the user.	
2	Wafer stage movement	2.1 Should have X, Y and θ (rotation) movements. The X and Y motions should be sufficient to cover the entire wafer diameter. The theta (rotation) movement is for the purpose of proper alignment of the wafer on the chuck and should be $\pm 10^\circ$ or more. 2.2 For the movement in vertical (Z) direction to bring the probes in contact with the device under test, either the chuck (wafer stage) should have a Z-movement OR the ring that houses the probes should have a Z-motion. In either case, the purpose is to bring the device in contact with all the probes collectively (and not by individual probe movement) Z-motion must be minimum 5 mm for this purpose. This feature is essential to move from one device to another without disturbing the individual probe positioning.	
3	Heating of wafer chuck during measurement	Not required, the measurements will be done at room temperature.	

4	Micromanipulator and probes	Four independent probes attached to corresponding micromanipulator are required. The fine movement of the probe is required either by joy-stick or by micrometer screws to position the probe in the centre of the probe pad of the device on the wafer. The minimum movement of the probe must be 5 mm in X and Y directions. The minimum pad-size will be of 100 µm x 100 µm on the chip being probed . The fine z-movement is also required to lower the probe gently on the pad to bring it into electrical contact. Probe material and shape: soft and rounded so as not to cause damage to aluminum pads of the device.	
5	Viewing microscope with suitable illumination	Long working distance sterio-zoom with magnification of 100X or more to clearly observe the pads and the probe as these are brought in contact for measurement. The magnification should be continuously variable. Should have a port to attach is CCD camera (in future) to view the chip under test on a computer screen.	
6	CCD camera and viewing computer screen	Should be quoted separately as an attachment.	
7	Electrical connections from the probe to measurement set-up	The devices will be tested at dc and low frequencies. However, shielded cables with suitable connectors should be provided for low current (1 pA or less) / voltage (10 micro volt or less) measurements	
8	The platform	The prober should be mounted on a proper sturdy platform which will be kept on a Table for the measurement of devices.	
9	Spares	Spares parts for at least 3-year operation must be quoted separately.	
10	Warranty	On-site warranty for minimum 1 years from date of installation.	

TERMS AND CONDITIONS COVERING SUBMISSION OF QUOTATIONS, IIT DELHI

1. Method of Submission of Quotations	<p>1. Quotations should be sent in a sealed cover and marked at the top “our NIQ reference, due date for opening, the name of the item etc.” The quotation must be in 2 separate sealed cover marked: “Technical Bid” and “Price Bid”</p> <p>2. The quotations should reach Prof. Sudhir Chandra, Room No. III-214 Centre for Applied Research in Electronics, IIT Delhi, Hauz Khas, New Delhi 110016 latest by 5 PM, Tuesday January 22, 2013</p>
2. Local Offices	Please provide local office address.
3. Taxes	No Sales tax concession under Form “C” and “D” is admissible to this Institute.
4. Validity of Quotation	The validity of the quotations must be for three months or more
5. Delivery and rate	The rates quoted must be both FOB and CIF (inclusive of freight, insurance), taxes, duty etc. as applicable.
6. Institute Rights	The Institute reserves the right to accept or reject any or all quotations without assigning any reason. The discretion of increasing or decreasing of the quantity demanded or selecting only one items out of all quoted also vests with the Institute.
7. Terms of Payment	<p>Our normal term of Payment is by (i) Letter of Credit for Foreign Suppliers (ii) for Indian Suppliers, by cheque within 30 days after receipt of goods/material in sound condition. Please note that advance payment will not be made.</p> <p>State clearly the Name and address of the Supplier to whom the order will be placed. Also mention the “Cheque/Draft to be made in favour of and payable at(City/Country).”</p>
8. Rejection	Late receipt of quotation and the same not conforming to the set procedures as above will be rejected
9. Discount / Rebate	Special discount/rebate wherever admissible keeping in view that the supplies are being made for educational purpose in respect of Public Institution of National importance may please also be indicated.
10. Warranty /Compliance/ Certificate of meeting specifications	Minimum 1 year, to be clearly mentioned / provided by the Supplier.
11. Manufacturer’s name and full address and country of manufacturing	Must be provided
12. (a) Certification of registration for sales agent / agency-ship certificate.	Must be provided. Agency ship / authorization certificate from manufacturer for the local agent to submit quotation, respond to technical and commercial queries and other related matter must be provided.