



भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान मोहाली

मानव संसाधन एवं विकास मंत्रालय, भारत सरकार द्वारा स्थापित
सैक्टर 81, नॉलेज सिटी, पी. ओ. मनोली, एस. ए. एस. नगर, मोहाली, पंजाब 140306

INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH MOHALI

(Established by Ministry of Human Resource Development, Govt. of India)

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E-mail/CPMP/Website

IISERM (541) 15/16 Pur.

Date: 15th May 2015

SHORT NOTICE INVITING QUOTATION

Sealed Quotations in Single bid system are invited on behalf of Director IISER Mohali for the purchase of following item(s) so as to reach latest by 29TH MAY 2015 before 1 pm. The Quotations will be opened on the same day at 4 pm in the presence of tenderers, if any

Sr.	Descriptions	Quantity
1.	Wire Bonder (Specifications attached)	01

Sd/-
(Mukesh Kumar)
Assistant Registrar (S&P)

INSTRUCTIONS

1. Inquiry will be sent by UPC/Courier/Speed Post and IISER Mohali will not be liable for any kind of postal delay.
2. The Quotation should be addressed to the Director IISER Mohali invariably giving on the envelop reference number, last date & time of receipt of tender and date & time of opening of the tender.
3. One time importers from China with custom made specifications are highly discouraged.
4. The quantity mentioned in this inquiry is and shall be deemed to be only approximate and will not in any manner be binding on the Institute.
5. Firms will quote separately for each article.
6. The rates offered should be FOR Chandigarh/Mohali, in case of firms situated outside Chandigarh/Mohali, and free delivery at the Institute premises in case of local firms. Suppliers outside India may please mention the FOB/FCA price clearly.
7. In case of Ex-godown terms the amount of packaging forwarding freight etc. should clearly be indicated by percentage or lump sum amount. Institute has policy not to make any advance payment towards any purchase, Letter of credit can be opened if required.
8. In case of foreign consignment CIF/FOB should be mentioned clearly. THE INSTITUTE IS EXEMPTED FROM EXCISE AND CUSTOM DUTY.
9. SALES TAX: - This Institute is not exempted from the payment of Sales Tax/Service Tax/VAT. The current rate (i.e. percentage of Sales Tax should be clearly indicated included or excluded) wherever chargeable.
10. The delivery period should be strictly adhered, the firm have to execute the supply according to purchase order.
11. The firms are requested to give detailed description and specifications together with the detailed drawings, printed leaflets and literature of the Article quoted. The name of the manufactures and country of manufacture should also invariably be stated. In the absence of these particulars, the quotation is liable for rejection.
12. Validity of offer: 90 days.
13. Late or delayed quotation will not be accepted.
14. Service Facility: Please mention the nearest service center to IISER Mohali and the time required to attend the call.
15. The right to reject all or any of the quotation and to split up the requirements or relax any or all the above conditions without assigning any reason is reserved.
16. For any query, tenderers may contact via email : stores@iisermohali.ac.in

SPECIFICATIONS FOR MANUAL OR SEMI-AUTOMATIC WIRE BONDER

Separate quotations should be submitted for the manual and the semi-automatic system respectively.

Overall specifications are given below.

1. Bonding Method : Wedge-wedge Bonding. Ball bonding is optional - should be quoted separately.
2. Bonding Process : Both ultrasonic and thermosonic processes should be integrated.
3. Controlling System (for semi-automatic):
 - a. Control Logic : Microcontroller based
 - b. Memory : battery backup RAM, 256KB or more
 - c. Data Entry : Through Key Board
 - d. Parameter Display : LCD
4. Ultrasonic System : Built in, PLL based, Self tuning between 60-65KHz
 - a. Ultrasonic Power : Programmable, 0-2W or better
5. Bonding tool heat : Digital temperature controller. Ambient to 250°C ± 5°C
6. Substrate Temperature (Optional, should be quoted separately) : Digital temperature controller, Ambient to 250°C ± 5°C
7. Bondable wires:
 - a. Wire Material : Aluminium and Gold
 - b. Wire Size : 0.7 mil, 1 mil & 2 mil
8. Bonding Parameters:
 - a. Bond force range : Adjustable 10 to 250 gm preferable
 - b. Bond time range : Adjustable 10 to 900mSec preferable
9. Bonding tool : Tungsten Carbide or ceramic bonding tools preferable
 - a. Vertical feed Wedge bond tool with preferable tool length 0.75 inch
 - i. For 0.7mil wire : 02 Nos.
 - ii. For 1 mil wire : 02 Nos.
 - iii. For 2 mil wire : 02 Nos.
 - b. Angle (45°) feed Wedge bond tool with preferable tool length 0.75 inch
 - i. For 0.7mil wire : 02 Nos.
 - ii. For 1 mil wire : 5 Nos.
 - iii. For 2 mil wire : 02 Nos.
10. Bond head movement :
 - a. XY positioning : Range - 0.4 inch or better
Resolution – 0.00025 inch or better
By Manipulator 8:1 or better
 - b. Motorized movement in Z : range - 0.5 inch or better
 - c. Independent Z axis movement from X-Y movement : required
 - d. Motorized wire feeding : required
 - e. Wire termination method : clamp tear
 - f. Adjustable tear : required
 - g. Adjustable tail length by 1 mil resolution : required
11. Bonder Optics and Vision System :
 - a. Microscope : White LED illuminator, Stereo zoom with 15X eyepiece or better, total optical magnification (10X-75X) or better
Field of View 20mm for 10x and 4mm for 75x or better
 - b. Monitor : LCD flat 15 inch Monitor
 - c. CCD camera (optional)
12. Work holder :
 - a. Heated Work holder for substrate 0.5"x0.5" to 2"x2" required with mechanical and vacuum clamping as an option
 - b. Dry Vacuum pump with dual port suitable for wire bonder.
 - c. Adjustable height of work platform 0.75inch or better required.
13. Bonding wire :
 - a. Aluminum wire : ½" spool of wire with 99% purity (1% Si).
 - i. 0.7 mil wire (length app. 100 ft) : 02Nos.
 - ii. 1 mil wire (length app. 90 ft) : 05 Nos.
 - iii. 2 mil wire (length app. 45 ft) : 05 Nos.
 - b. Gold Wire : ½" spool of wire (app. 90 ft) with 99.99% purity.
 - i. 1 mil wire (length app. 90 ft) : 02 Nos.
14. Power Supply : 230Volt, 50Hz, Single Phase

15. Wire bonder tool Kit having following items
 - a. Gram gauge – Dynamometer 10-100 grams: 1 No.
 - b. Tweezers for threading wire: 1 No.
 - c. Tweezers for threading Wire – Curved: 1 No.
 - d. Allen key Set: 1 No.
 - e. Cutting shear: 1 No.
 - f. Sharp micro Needle tip with interchangeable micro tool handle (For removing wires/bonds or testing bond strength): 1 No.
16. Manuals :
 - a) One Hard copies of Operating and Maintenance Manual having Electrical/Electronic Circuits diagrams
 - b) One soft copy of Operating and Maintenance Manual having Electrical/Electronic Circuits diagrams
17. Warranty : Standard Warranty should be provided including all spares and accessories for 2 year
18. Training : Training should be provided by Supplier on user site about basic routine maintenance and repair.
19. Installation and commissioning : Installation and commissioning at User's site free of cost. Installation data like machine size, machine weight, floor space required, total electrical load and other specific requirement should be provided by the supplier.
20. Company should provide at least five users/installations of system in reputed organizations /institutions in India.
21. Acceptance criteria : Demonstrate wedge-wedge on substrates (like Si, STO, LAO with or without metal coat) using gold and aluminium wire of different thickness.

Optional:

AMC & support for 10 Years including Spares (should be quoted separately).