

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE
2A & 2B , Raja S.C. Mullick Road, Jadavpur, Kolkata-700032

Notice Inviting Tender No. : IACS/ SSP/SD/2017-18 / 09 Dated: 02/05/2017

Sub: Invitation of Tender for the supply of "Thin Wire Wedge Bonder"

Sealed tender in two bids system (technical bid and price bid) is invited from bonafide, resourceful and eligible manufacturer/exclusive distributor/vendors for a **Universal thin wire wedge bonder that can be used to connect aluminium or gold wires to semiconductor devices**. Part-I (Technical Bid) of the tender should contain technical specifications in detail as well as commercial terms and conditions. Part-II (Price Bid) should clearly indicate group-wise price, if needed, as mentioned in the technical bid. The Technical Bid and Price Bid are to be submitted in separately sealed envelopes, distinctly marked accordingly and both to be put inside another envelop, that should be sealed and super scribed with tender notice no. and due date. The bidders may submit bids duly signed in their own letterheads. Completed tender bids should reach the office of the **"Office of the Solid State Physics, Indian Association for the Cultivation of Science (IACS), 2A & 2B Raja S. C. Mullick Road, Jadavpur, Kolkata-700032"** on or before the scheduled date and time specified below:

Tender Notice No.	NIT No. IACS/SSP/SD/2017-18/09 Date: 02/05/2017
Last date and time of submitting tender	2/06/2017 within 2 PM
Pre-bid meeting to discuss technical specification	26/05/2017 at 4 PM in Raychaudhuri Hall, IACS, Centenary Building
Date and time of opening tender (Technical Bid)	9/06/2017 at 4 PM
Place of opening tender	Venue would be declared later
Date and time of opening of Price Bid	The Price Bids of the bidders qualifying the technical bid will only be opened, the date of which will be intimated to the short-listed bidders at their email addresses. The rest of the bids will be rejected.
Contact	Dr. Subhadeep Datta Email: sspsdd@iacs.res.in Tel.+91 9748285438

1. The technical bids will be opened first to judge/evaluate the technical specifications of the said instrument and thereafter the price bids of only technically qualified bidders will be opened.
2. Technical Bid Evaluation: The Technical Bids will be evaluated in the presence of the representatives of intending bidders who will be able to clarify technical aspects of their bids, if any, required by the Technical Evaluation Team.
3. Opening of price-bid: The Price Bids of the bidders qualifying the technical bid will only be opened, the date of which will be intimated to the short-listed bidders at their email addresses. The rest of the bids will be rejected.

4. Please note that IACS will not provide any accommodation or reimburse any expenses to any of the bidders for attending opening of technical bid.
5. Quotations received incomplete or beyond the stipulated time will be summarily rejected.
6. Bidders should submit their past experience for supplying and successful installation of similar units to other research Institutes/Universities/other organizations in India and abroad. Please provide documentary proofs of such successful installation and supportive documents that the instruments are running successfully.

1. TECHNICAL BID

The technical bid should contain technical specifications and should be kept in a separate sealed envelope duly super scribed as 'TECHNICAL BID' on the outer cover of the envelope as already detailed above. It should be clearly mentioned on the envelope as "Technical Specification for **"Thin Wire Wedge Bonder"**".

Technical Specification for 'Thin Wire Wedge Bonder' :

1/8	Bonding Method and clamping
	1a. Semi auto programmed
	1b. PC menu controlled initial Z-height engagement
	1c. Sample stage would be moving by a joystick after first bonding for making loop
	1d. Motorized Z-linear -axis single-board-PC menu controlled motion
	1e. automatic feed- and tail-functioned bond head. Should be user-friendly bonding
	1f. Electronic touch-down sensor should be provided
	1g. Double clamping
2/8	Bonding Process
	2a. Ultrasonic
3/8	Bondable wires and diameters
	3a. Al, Au
	3b. A tool kit with Al and Au wire, gram gauge, and unplugging tool should be provided
4/8	Substrate-holder and heater controller
	4a. Mechanical clamping
	4b. can be rotated manually
	4c. Heater attachment: Working temperature 250-degree C,
	4d. Heater controller should be provided
	4e. Heating with vacuum

5/8	Substrate
	5a. The bonder is required to work on conductor surface (e.g. Au) which might be on top of thin layer of SiO ₂ (90-300 nm)/Si wafers. Bonder could be adjusted to minimize the possibility of breaking of SiO ₂ layer.
6/8	Bonding parameter
	Bond force. Bond loop height, bonding time, US power should be adjusted via software
7/8	Wire termination method
	7a. After the completion of the loop and bonding (as programmed in the software), the wire should automatically be terminated.
8/8	Bonder optics, software and display
	8a. Microscope with focusing arm, adjustable height and position
	8b. Illumination with cold light source
	8c. Software should be user friendly, and store information for repeatable use.
	8d. TFT color display
	8e. Data entry would be done with the help of a keyboard

Warranty:

i) On-site OEM warranty (3 years) for all components and parts and labor. The warranty period will commence from the date of certification of successful installation of the equipment.

ii) **Installation and Commissioning:** Free of cost at IACS, Kolkata. The vendors are required to give an estimate of the time required for installation and hand-holding/training of the principal users in the technical bid.

iii) **Servicing facility within India** is a must while service engineer stationed at Kolkata will be preferred.

A list of other places where the instrument has been installed should also be provided.

A compliance table (see below) must be prepared and submitted along with the technical bid.

Sr. No	Tender specification	Your offered instrument specification	Extent of compliance

Vendor Eligibility:

(I) The bids must be submitted by OEMs or OEM supported single vendors (one vendor one OEM and each OEM can only authorize a single vendor) only with original authorization certificates from the OEMs. Vendors should have proven experience in setting up wire bonders in the last three years in India. A brief proof for such experience (copies of orders/installation certificate) should be included in the technical bid.

(II) Vendor should be responsible along with OEM in providing support (software and hardware) for the machine during the warranty period. Hence the vendor should be the service provider and OEM would provide the parts. Vendor should provide that they have technical know-how to troubleshoot and provide proper service.

(III) Vendor should have service engineers stationed in India and should respond to service calls within 24 hours of receiving a notice from IACS. Additionally, the vendor (service provider) should have an office in Kolkata. The vendor must provide contact details of service engineers and its office in Kolkata.

Additional Information to be furnished by the vendor:

(i) **UPS back up:** The vendor should furnish information regarding UPS and associated battery requirements for operating the wire bonder.

(ii) **Power, Heating and Cooling:** Power consumption and heat dissipation estimate for the total cluster should be mentioned clearly

Additional Requirements:

(i) **Compliance List:** The vendor must submit a table indicating the compliance of the features of the model of the components being quoted with those given in the indent. In case of non-compliance against any item, the vendor should justify that.

(ii) **Training:** Free training on operation, maintenance and troubleshooting of the whole wire bonding should be imparted to at least 2 persons for a period of one week at the site of installation.

****Please Note: The decision of the Technical Committee on technical competence and eligibility of any technical bid submitted by any vendor would be final and cannot be contested.**

2. PRICE BID: The financial bid indicating item-wise price for the items mentioned in the technical bid should be kept in a separate sealed envelope duly superscribed as "PRICE BID" on the outer cover of the envelope as already detailed above.

(a) The total price of the HPCC solution has to be **quoted in dollars on CIF/FOB basis.**

(b) **The price bid of only technically qualified bidders will be opened and they will be intimated of the date and time of opening to their respective email id-s. Rest of the bids will stand rejected.**

(c) **Payment Terms:** payment would be made through LC of a nationalized BANK by IACS.

3. BID SECURITY:

1. An Account Payee Demand Draft/ Pay Order for Rs. 70,000/- (Rupees Seventy thousand only) drawn in favor of "Indian Association for the Cultivation of Science" is to be furnished along with Technical Bid as Bid Security money (or EMD). Bidders registered with the Central Purchase Organizations, National Small Industries Corporation etc. may be exempted from paying EMD subject to their submission of a copy of valid registration certificate with their Technical Bids, failing which their bids will be rejected.

2. The Demand Draft/ Pay Order for the Bid-Security money should have at least 60 (sixty) days validity period after the opening of the Bids.

3. In case of non-award of the work, the Bid Security money would be returned to the bidders.

4. PERFORMANCE SECURITY:

1. An Account Payee Demand Draft/Bank Guarantee of Rs. 1,40,000/- (Rupees One Lakh Forty Thousand Only) drawn in favor of "Indian Association for the Cultivation of Science" is to be furnished by the successful bidder to be awarded the contract, as "Performance Security" money.

2. Performance Security should remain valid for a period of 60 (sixty) days beyond the date of completion of all contractual obligations of the supplier including warranty obligations.

3. Bid Security of the successfully bidder would be refunded to the bidder on receipt of the Performance Security.

5. TERMS OF PAYMENT:

Payment will be made through irrevocable Letter of Credit in two instalments. 90% of the money will be released on submission of shipping of documents. Remaining 10% will be released after successful installation of the instrument.

6. GENERAL INSTRUCTIONS

1. **Submitting Tender:** The Tender must contain materials related to these specifications and should not contain materials that can overtly or covertly try to canvass for the vendor. The vendors can deviate from the specifications given below only when such deviations are demonstrated to be technically superior.

Additional features in the quoted items which are better than those in the indent – may be highlighted. The technical bid should not have any mention of pricing. The commercial bid should have the pricing for each option separately. Prices should be inclusive of all charges (taxes/duties as applicable, shipping charges, delivery at site, installation etc.) with clearly indicated break- ups. Fax, e-mail Tender will not be accepted. Duplicate Bid document must be submitted in Separate closed cover.

2. **Post-sale service:** The vendor must submit the names of the service engineers employed by them who are competent to serve the wire bonder installation along with their contact details in India.

3. **Tender updates:** Prospective bidders may please refer to our website <http://www.iacs.res.in>, occasionally for any update on the tender which may appear from time to time either in respect of pre-bid meeting or otherwise.

4. **Ineligible Tenders:** Incomplete and conditional tenders and tenders received after the due date will be summarily rejected without assigning any reasons thereof. Tender Notice and tender for 'thin wire wedge bonder' should clearly be written on the envelope. The technical committee holds the sole right to declare any submitted tender ineligible based on technical grounds. In such cases decisions taken by tender committee would be final and incontrovertible. Technical committee may ask for additional document

5. In case of any dispute, the decision of the Institute authority shall be final and binding on the bidders.

6. **Legal:** The courts of Calcutta would have jurisdiction over any legal issue arising out of this tender notice.

7. **Validity of tender:** Tender submitted should remain valid for at least six months from the date of opening the tender. Validity beyond six months from the date of opening of the tender shall be lapsed by mutual consent.

8. The tender should accompany a compliance chart.

9. Incomplete and conditional tenders as well as tenders received after the due date will be summarily rejected without assigning any reasons thereof.

10. At any time prior to the bid due date, IACS may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder during pre-bid meeting, modify the

bidding documents. The amendment(s) will be notified on the institute website. Prospective bidders are advised to occasionally visit the website (www.iacs.res.in/tender) for any amendment.

11. Installation/Demonstration/Application training at site: Installation & user training at IACS, free of cost by the supplier.

12. Proposed delivery schedule should be mentioned clearly.

13. Manufacturers / exclusive distributors / vendors should have history of supplying this type of instruments to this or other scientific organizations. Availability of a list in this regard would be preferred.

14. Authorized dealership certificate should be provided in case of principal manufacturing company is not quoting directly.

15. Guarantee certificate, users manuals etc. are to be handed over to the user after successful commissioning of the system.

16. In the event of date being declared a closed holiday for purchaser's office, the due date for submission of bids and opening of the technical bids will be the following working day at the appointed time.

17. In case of any dispute, the decision of IACS authority shall be final and binding on the bidders.

18. For any clarification regarding technical specifications, information etc., please send your queries to Dr. Subhadeep Dutta (sspsdd@iacs.res.in).

19. The authority of IACS reserves the right to reject any or all of the tenders received without assigning any reason thereof.

Acting Registrar