



IIITDM
KANCHEEPURAM

TENDER NOTICE FOR PROCUREMENT

Tender Enquiry No: **IIITDMK/24-25/SP/PCBPM/013 Dt30/08/24**



Tender (E-Procurement Mode)

For

**Supply and Installation of PCB Prototyping
Machine**



Notice Inviting E-Tender (E-Procurement Mode)

Date: 30.08.2024

IIITDM Kancheepuram is intent to procure in E-Procurement of the articles mentioned below as per the terms and conditions attached. Please submit your bid documents on <https://eprocure.gov.in/eprocure/app> as per the due date and time.

Item	:	Supply and Installation of PCB Prototyping Machine (Specification/Quantity details enclosed as Annexure-1)
Tender Enquiry No	:	IIITDMK/24-25/SP/PCBPM/013 Dt30/08/24
EMD	:	Payment proof for EMD of Rs.1,64,730/- or a valid MSME Registration Certificate for EMD exemption must be attached.

CRITICAL DATE SHEET

STAGE	DATE & TIME
Bid Submission End Date & Time	30 th September 2024 - 15:00 HRS
Bid Opening Date & Time	01 st October 2024 - 15:30 HRS

NOTE:

- The bidder should be a Class-I / Class-II Local Supplier meeting the requirement as per the Order No. P-45021/2/2017-PP (BE-II) issued by the Public Procurement Section, DPIIT, Ministry of Commerce and Industry, GOI dated 16-09-2020.**
- Bidders other than Class-I / Class-II Local Suppliers will not be considered and bids will be rejected outright.**

Important:

All communications are to be addressed to in the name of The Registrar, IIITD&M Kancheepuram only and not in the name of any officer and mails has to be sent to official purchase email id purchase@iiitdm.ac.in



Terms and Conditions

1. The Bidders are requested to give detailed tender in two bid format.

Bid-I : **Technical Bid**
Bid-II : **Commercial Bid**

2. The tender document can be downloaded from the CPPP Portal <https://eprocure.gov.in/eprocure/app>. The duly filled tenders should be submitted **on or before due date 15.00 HRS, 30th September 2024**. Extension of due date will not be entertained. The instruction regarding e-bidding is enclosed.

3. Tenders submitted without following the two bid offer system will summarily be rejected.

4. Bid -1: Technical Bid

The online Technical bids should be uploaded containing the scanned copy of the following documents in (.pdf file)

- I. The technical bid compliance sheet & Eligibility Criteria (**Annexure-1**)
- II. Payment proof for EMD of **Rs.1,64,730/-** or valid MSME Registration Certificate for EMD exemption (**Annexure-2**).
- III. Declaration of Local Content (**Annexure-3**)
- IV. Authorization Letter from OEM (**As Annexure-4**)
- V. Experience Certificate: Should have Supplied Two similar equipment to reputed organizations/ research institutions/ Universities etc. on or after 1/1/2018 (PO copies to be enclosed) (**As Annexure -5**)
- VI. Item Description Leaflet. (**Annexure-6**)
- VII. Bids should have a validity of **90 days**. The technical offer should not contain any information on price.

Important:

The Technical bid consisting of all annexures and other documents should be serially numbered and to be uploaded as a single pdf file and the page number details has to be furnished in the compliance sheet. The total number of pages uploaded to be mentioned in the relevant column.

Earnest Money Deposit:

- Bidders shall Deposit EMD in the following bank. The amount must be through online mode and it shall be received on or before the last date and time of bid submission and the payment proof of EMD shall be attached along with the technical bid. No other mode of payment is accepted.

Steps for submission of EMD through SBI E'Collect.

- Go to link - <https://www.onlinesbi.sbi/sbicollect/icollecthome.htm>
- Please select category as "Educational Institutions"
- Please select "IIITDM – KANCHEEPURAM A/C" from drop down list
- Please select "Earnest Money Deposit (EMD)" from Payment Category drop down list
- Kindly fill all tender details, contact details, EMD amount and make payment.
- After successful payment, the payment proof of EMD shall be attached along with the technical bid.



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- In the case of payment failure/ mismatch of particulars leads to cancellation of bid.
- For the successful bidder, the EMD will be retained/ adjusted against the security deposit.
- For the unsuccessful bidders, EMD amount will be refunded within 30 days from the date of issue of work order.
- The bidder shall enclose cancelled cheque/bank details to refund the EMD amount in case of unsuccessful bids.
- EMD shall be forfeited if any tenderer withdraws their offer within the bid validity period.
- In case of bidder with MSME exemption, valid proof shall be uploaded for to waive off the EMD.

5. Bid-2: Commercial Bid / Price

- i. **The Institute is exempted from custom duty (as applicable to Research Institutes/University) vide Custom notification no. 51/96 dt 23.07.1996 based on the DSIR notification in this regard.**
- ii. The Price may be quoted in INR only.
- iii. The price quoted should be for FOR Destination at IIITD&M Kancheepuram, Melakkottaiyur, Off Vandalur-Kelambakkam Road, Chennai – 600 127.
- iv. The packing, forwarding, freight, insurance and commissioning charges, if any extra may be quoted separately in commercial bid.
- v. This should contain only the price information along with commercial terms & conditions.
- vi. Submission of commercial bids by any other means shall not be accepted by the Institute in any circumstances.
- vii. Online submission of the bid will not be permitted on the portal after expiry of submission time and the bidder shall not be permitted to submit the same by any other mode.
- viii. **The Institute is Government Funded Educational Institution offering UG/PG and PhD programmes. The Item is required for student laboratory purpose and prices may be quoted at applicable “Academic Pricing”.**

6. Technical Evaluation

All the technical aspects of the bids will be evaluated by a committee constituted by the Director. Further, the institute may verify from the end users specified in the technical bid about the execution and satisfactory functioning of the item quoted if required.

7. Opening of Commercial Bids

IIITD&M Kancheepuram will open commercial bids of only the shortlisted bidders after technical evaluation.

8. Make in India Policy

1. This Institute is following and will abide with the Public Procurement (Preference to Make in India), Order 2017 issued from time to time. The Institute will award the Contract to the Bidder whose bid has been determined to be substantially responsive as per the Order No. P-45021/2/2017-PP(BE-II) dated 16- 09-2020 from Department for Promotion of Industry and Internal Trade (Public Procurement Section), Ministry of Commerce and Industry, Govt. of India.



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2. The bidder should be a Class-I / Class-II Local Supplier meeting the requirement of minimum 20% Local Content in line with the Public Procurement (Preference to Make in India) Order 2017 No. P-45021/2/2017-PP(BE-II) dated 16-09-2020.
 - i. Class I local supplier – has local content equal to more than 50%
 - ii. Class II local supplier – has local content 20% to less than 50%
 3. Further among all technically qualified bids during the price evaluation the lowest bid will be termed as L1. If L1 is Class I local supplier the contract will be awarded to L1. If L1 is not Class I Local supplier the lowest bidder among the class I local supplier will be invited to match the L1 price subject to class I local supplier quoted price falling within the margin of purchase preference and the contract shall be awarded to such class I local supplier subject to match the L1 price. In case the lowest eligible class I supplier fails to match the L1 price, the class I local supplier with next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and the contract shall be awarded accordingly. In case none of the class I local supplier within the margin of purchase preference matches the L1 price the contract shall be awarded to the L1 bidder (Class II Local supplier). Class II Local supplier will not get any purchase preference.
 4. The margin of purchase preference for Class I local supplier is 20% from L1 price (without tax).
9. **Delivery Period / Timelines**
The deliveries and installation must be completed **within 08 weeks** from the date of purchase order. The time is the essence of the contract. It is mandatory for the bidders who respond to this bid to meet this expectation, as this is linked to student's Labs / classes.
10. **Supply & services**
 - i) The items covered by this document is required to be supplied and installed at **Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram, Off Vandalur-Kelambakkam Road, Melakkottaiyur, Chennai – 600 127, Tamil Nadu.**
 - ii) IIITD&M Kancheepuram will not provide any accommodation / transportation for the engineers / representatives for attending installation, commissioning and demonstration work. It is the absolute responsibility of the principal supplier / agent to make their own arrangements.
11. **Restriction on Purchase on Grounds of Defense of India**
The Institute follows Ministry of Finance and Department of Expenditure OM No.6/18/2019-PPD dated 23rd July 2020 and subsequent order dated 23rd July 2020 which are binding and the evaluation will be done accordingly.



12. Installation

- i) Bidder shall be responsible for installation / demonstration as applicable and for after sales service during the warranty and thereafter.
- ii) Installation and demonstration to be arranged by the supplier free of cost and the same is to be done within 15 days of the arrival of the equipment at site.

13. Warranty / Support

- i) The items supplied shall carry the warranty as per the requirement mentioned in the technical specification.
- ii) The defects, if any, during the guarantee / warranty period are to be rectified free of charge by arranging free replacement wherever necessary.

14. Indemnity

The vendor shall indemnify, protect and save IITD&M Kancheepuram against all claims, losses, costs, damages, expenses, action suits and other proceeding, resulting from infringement of any law pertaining to patent, trademarks, copyrights etc., or such other statutory infringements in respect of all the items supplied by them.

15. Freight and Insurance

The items to be supplied will be insured by the vendor against all risks of loss or damage from the date of shipment till such time it is delivered at IITD&M Kancheepuram site.

16. Payment

100% payment after delivery, installation and acceptance by IITD&M on submission of Bank Guarantee for an equivalent value of 3% of PO value valid till warranty period plus 2 months

17. Penalty for delayed services / LD

- i) As time is the essence of the contract, delivery period mentioned in the purchase order should be strictly adhered to. Otherwise LD clause will be applied / enforced.
- ii) If the supplier fails to supply, and fix the item as per specifications mentioned in the order within the due date, the supplier is liable to pay liquidated damages of 1% of order value for delay of every week or part thereof subject to a maximum of 10% beyond the due date. Such money will be deducted from any amount due or which may become due to the supplier.
- iii) IITD&M Kancheepuram reserves the right to cancel the order in case the delay is more than 04 weeks and the contractor is not eligible for any damage from the Institute and contractor will forfeit his claim for EMD.

18. Jurisdiction

The disputes, legal matters, court issues, if any, shall be subject to Courts in the district of Chengalpattu Jurisdiction only.



19. Force Majeure

- a) IIITD&M Kancheepuram may consider relaxing the penalty and delivery requirements, as specified in this document, if and to the extent that the delay, in performance or other failure to perform its obligations under the contract, is the result of a force majeure.
- b) If the due date of submission of tender / tender opening is declared a holiday for the Institute, the due date for submission of tender / tender opening will be extended to same time on next working day.

20. Arbitration

All disputes of any kind arising out of supply, commissioning, acceptance, warranty maintenance etc., shall be referred by either party (IIITD&M Kancheepuram or the bidder) after issuance of 30 days notice in writing to the other party clearly mentioning the nature of dispute and will be referred to the arbitrator to be nominated by Director, IIITD&M Kancheepuram, India. The Venue for arbitration shall be Chennai, India.

21. Acceptance of the terms and conditions of tender document

The bidders has to accept all the terms and conditions of this tender document and it is made known that the bidders quoting for this tender had impliedly accepted the terms and conditions of this tender.

22. Interpretation of the clauses in the Tender Document

In case of any ambiguity / dispute in the interpretation of any of the clause in this tender document, interpretation of Director, IIITD&M Kancheepuram shall be final and binding on all parties. The IIITD&M Kancheepuram reserves the right to accept the offer in full or in parts or reject the offer summarily or partly without assigning any reasons.

23. Integrity Clause

No official of a procuring entity or a bidder shall act in contravention of the codes which includes prohibition of making offer, solicitation or acceptance of bribe, reward or gift or any material benefit, either directly or indirectly, in exchange for an unfair advantage in the procurement process or to otherwise influence the procurement process.

24. The competent authority reserves the right to either accept or reject the tender without assigning any reason.

कुलसचिव / Registrar
IIITD&M Kancheepuram



ANNEXURE-1

TECHNICAL BID

Technical Compliance Sheet (to be filled and uploaded)

Name of the Agency	
Office Address:	
Name and Mobile No. of contact person:	

ITEM: Supply and Installation of PCB Prototyping Machine (QTY: 01 No)

SI No	Parameter	Technical Specification	Compliance Yes/No/N.A.	Deviati on (If Any)	Remar ks
1.	The maximum size of the PCB that can be milled	At least 225 mm x 300 mm x 10 mm			
2.	X/Y travel speed	At least 150mm/sec			
3.	Spindle	Speed up to 100000 rpm, with integrated automatic milling depth adjustment sensor with $\pm 1\mu\text{m}$ and self-cleaning features			
4.	Isolation and Track width	Machine should be capable of making tracks and isolation up to 0.1 mm (4 mil)			
5.	Tools for Spindle	Automatic Tool Changer. Minimum 20 tool positions			
6.	Material thickness measurement	Automatic detection of material and copper thickness.			
7.	Machine construction base	On Granite for vibration free and optimum accuracy			
8.	Acoustic Cabinet	Should be enclosed in an Acoustic Cabinet			
9.	Glue/epoxy/solder paste dispenser	Machine should have in -built dispenser to apply glue/epoxy / solder paste onto the substrates fully automatically with minimum data preparation.			
10.	Vacuum Table	Should be integrated type and for holding the work substrate firmly.			
11.	Stencil fabrication	Machine should be capable of cutting SMD stencil on polyamide films.			



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12.	Dust extraction system	Software controlled highly efficient automated system to be integral part of the machine			
13.	Layers	Provided system configuration should be able to make Double side PCBs and more with additional system if needed.			
14.	PCB board material	Should be capable to make single side/ double side and multilayer circuits on FR4, FR3, RT/ Duroid, Kapton, LTCC (unfired) and also to make polyamide stencil, special films, aluminium panel engraving etc.			
15.	CAM software	Machine should be supplied with necessary CAM software to accept import format Gerber Standard (RS-274-D), Extended Gerber (RS-274-X), Excellon NC Drill (Version 1 and 2), Sieb & Meier NC Drill, HP-GL™, DPF, Auto-CAD™, DXF, ODB ++R etc.			
16.	Drill	Min hole dia 0.15 mm, Speed 100 strokes/minute			
17.	Engraving capability	2.5D control for engraving on aluminium/plastic			
18.	Camera system	System should have camera for fiducial/Optical mark recognition, alignment, Automatic offset correction as well as drill bit inspection.			
19.	Alarm/ Signal light	Signal light LED Ø30 with angle support to be provided.			
20.	Computer Hardware and Software	To be mentioned by vendor with detailed specifications.			

Accessories required for Milling machine:

21.	Compressor	Silent Compressor: Power supply: 230V/50Hz, tank 24ltr max. P. 8bar, 128L/min @0bar, 55 dB(A), max. pressure 8 bar/116 psi.			
22.	Vacuum Cleaner	Extraction unit 230V, 50Hz, atleast 800W complete with all filters, automatic switching of the vacuum cleaner, software controlled vacuum suitable for vacuum table			
23.	Dispenser	Solder paste or Glue dispensing set should be quoted.			
24.	Microscope	Hand held Measuring microscope with 100x magnification with metric scale and lighting			
25.	The set of accessories to be quoted should contain	High Precision Sinter Plate 315 X 239 X 1,5 mm Plane parallel white – Min. 1 No Base Plate FR4, 229mm x 305mm (9"x12"), 0/35µm (predrilled) – Min. 05 Nos			



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	<p>Base Plate FR4, 229mm x 305mm (9"x12"), 35/35µm (predrilled) – Min 3 Nos</p> <p>Base Plate FR4, 229mm x 305mm (9"x12"), 18/18µm (predrilled) – Min. 3 Nos</p> <p>Micro Cutter with distance ring 1/8", 36 mm, d = 0.1 - 0.15 mm (4 - 6 mil) – Min. 3 Nos</p> <p>End Mill (RF) with distance ring 1/8", 36mm, d = 0.15mm - Min. 2 Nos</p> <p>End Mill (RF) with distance ring 1/8", 36mm, d = 0.25mm - Min. 3 Nos</p> <p>End Mill (RF) with distance ring 1/8", 36mm, d = 0.40mm – Min 2 Nos</p> <p>End Mill with distance ring 1/8", 36mm, d = 1.00mm - Min 2 Nos</p> <p>End Mill with distance ring 1/8", 36mm, d = 2.00mm – Min 2 Nos</p> <p>End Mill with distance ring 1/8", 38mm, d = 2.00mm – Min. 2 Nos</p> <p>Tool Set 1/8" shaft with distance rings - 1 Set</p> <p>Consisting of the following:</p> <p>Universal Cutter 1/8", 36 mm, 0.2 – 0.5 mm (8 - 20 mil) - 10 Nos</p> <p>Micro Cutter 1/8", 36mm, 0.10 – 0.15 mm (4 – 6 mil) - 2 Nos</p> <p>End mill 1/8", 36mm, d = 0.8mm - 1 Nos</p> <p>End mill 1/8", 36mm, d = 1.00mm (39 mil) - 2 Nos</p> <p>End mill 1/8", 36mm, d = 2.00mm (79 mil) - 2 Nos</p> <p>End mill long, 1/8", 38mm, d = 1.00mm (39 mil) - 1 Nos</p> <p>End mill long, 1/8", 38mm, d = 2.00 mm (79 mil) - 1 Nos</p>			
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		Counter Router, 1/8, 38mm, d = 1.00mm (39 mil) - 2 Nos			
		Counter Router, 1/8", 38mm, d = 2.00 (79 mil) - 2 Nos			
26.	The set of Accessories to be quoted should contain	<p>Spiral Drill, 1/8", 38mm, d= 0.40 (16 mil) - 2 Nos</p> <p>Spiral Drill, 1/8", 38mm, d= 0.50 (20 mil) - 2 Nos</p> <p>Spiral Drill, 1/8", 38mm, d= 0.60 (24 mil) - 2 Nos</p> <p>Spiral Drill, 1/8", 38mm, d= 0.70 (28 mil) - 2 Nos</p> <p>Spiral Drill, 1/8", 38mm, d= 0.80 (31 mil) - 2 Nos</p> <p>Spiral Drill, 1/8", 38mm, d= 0.90 (35 mil) - 2 Nos</p> <p>Spiral Drill, 1/8", 38mm, d= 1.00 (39 mil) - 2 Nos</p> <p>Spiral Drill, 1/8", 38mm, d= 1.20 (47 mil) - 1 Nos</p> <p>Spiral Drill, 1/8", 38mm, d= 1.40 (55 mil) - 1 Nos</p> <p>Spiral Drill, 1/8", 38mm, d= 1.50 (59 mil) - 2 Nos</p> <p>Spiral Drill, 1/8", 38mm, d= 1.60 (63 mil) - 1 Nos</p> <p>Spiral Drill, 1/8", 38mm, d= 1.80 (71 mil) - 1 Nos</p> <p>Spiral Drill, 1/8", 38mm, d= 2.00 (79 mil) - 2 Nos</p> <p>Spiral Drill, 1/8", 38mm, d= 3.00 (118 mil) - 2 Nos</p>			

Chemical Free Through-hole plating:

27.	Chemical Free Through Hole plating	The system should use specially-developed plating technology to rapidly plate diameter as small as 0.4 mm (15 mil) up to an aspect ratio of 1:4. The entire process should be completed in just a few minutes for double-sided and even multilayer boards.			
28.	Max. base material applicable	229 mm x 305 mm (9" x 12")			
29.	Min. hole diameter	0.4 mm (15 mil) up to an aspect ratio of 1:4			
30.	Number of holes	No limit			



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31.	Solderability	Reflow soldering 250° C, manual soldering 380° C			
32.	Base material types	FR4, Rogers, RF, and microwave materials (incl. PTFE-based materials)			
33.	Processing time	Approx. 35 min			
34.	Electric resistance	Average 19.2 mOhm with standard deviation of 7.7 mOhm (on Hole diameter 0.4 - 1.0 mm at 1.6 mm material thickness)			
35.	Other Accessories	Protection film foil - 20 Nos Filter fleece - 10 Nos Paste pack of 2.9 g - 20 Nos Screen printing rakel - 1 Nos Brush, 1 x Pinch roll - 1 Nos PCB Cleaner- 1 Nos Labor glove (pack of 100 pieces)- 1 Nos Glove with amplified inner life- 1 Nos Desktop vacuum table with Honeycomb materials for desktop table thickness 5mm, dia. 3.5mm, pack of 4 pcs			
36.	Warranty	03 Years (Comprehensive Onsite Warranty)			

Note: The total cost will be taken into account for arriving L-1.



ELIGIBILITY CRITERIA

Sl.No	Description	Compliance Yes/No/N.A.	Page No.
1.	Technical Sheet	The technical bid compliance sheet & Eligibility Criteria (Annexure-1)	
2.	EMD	Payment proof for EMD of Rs.1,64,730/- or valid MSME Registration Certificate for EMD exemption must be attached. (Annexure-2)	
3.	Declaration of Local Content	Declaration of Local Content (Annexure-3)	
4.	Authorization Letter from OEM	Authorization Letter from OEM (As Annexure-4)	
5.	Experience Certificate	Experience Certificate: Should have Supplied Two similar equipment to reputed organizations/ research institutions/ Universities etc. on or after 1/1/2018 (PO copies to be enclosed) (As Annexure -5)	
6.	Leaflet	Product Leaflet (Annexure-6)	
7.	Bid Validity	90 Days	
8.	Total Number of pages uploaded in the technical bid		
Please Enclose Relevant Document Only.			



ANNEXURE-3

**SELF-CERTIFICATION REGARDING LOCAL CONTENT (LC) FOR GOODS,
SERVICES OR WORKS ISSUED BY OEM UNDER PREFERENCE TO MAKE IN INDIA
ORDER CERTIFICATE FOR CLASS-I or CLASS- II LOCAL SUPPLIER**

Tender No.: _____; Date: _____

Date: [insert date (as day, month and year) of Bid Submission]

We hereby declare that the items under our Quotation
No. _____ in the brand name of
_____ & (equipment details)
_____ are manufactured at
(complete address) _____.

Hence, it contains the local content of: _____% as defined under the Make in India policy
of the Department for Promotion of Industry & Internal Trade, DPIIT, Govt. of India.

The value addition for the local content is done at (Name of the place & address)
_____.

The Country of Origin of the item(s) is/are _____.

**Further, it is declared that finished Equipment is not imported and local Content not
calculated on the basis of Transportation, Insurance, Installation, Commissioning, and
Training & after sales services. But Equipment is Manufactured/Assembled in India at out
Factory address _____.**

The false declaration will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of
the General Financial Rules of which a bidder or its successors can be debarred for up to two years
as per Rule 151(iii) of the General Financial Rules along with such other actions as may be
permissible under Law.

We also declare that the goods are not manufactured in a country that shares its land border
with India nor the beneficial owner belong to those country.

We shall be held responsible if the certificate is found to be incorrect.

Seal and Signature of OEM & Bidder