

भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान मोहाली

शिक्षा मंत्रालय, भारत सरकार द्वारा स्थापित

सैक्टर 81,नॉलेज सिटी,प. ओ. मनोली, एस. ए. एस. नगर, मोहाली, पंजाब 140306 INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH MOHALI

(Established by Ministry of Education, Govt. of India) Sector-81, Knowledge city, PO-Manauli, SAS Nagar Mohali-140306, Punjab PAN No. - AAAAI1781K GSTIN – 03AAAAI1781K2ZS

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CPPP/Institute Website

IISERM(1522)21/22-Pur

दिनांक/Date: 04th March 2022

ई - निविदा आमंत्रण सूचना NOTICE INVITING E-TENDER

आरएफ ग्रेड पीसीबी मिलिंग मशीन और इलेक्ट्रोप्लेटिंग टूल्स की आपूर्ति और स्थापना के लिए दो बोली प्रणाली में निदेशक, आईआईएसईआर मोहाली की ओर से ऑनलाइन निविदाएं आमंत्रित की जाती हैं। तकनीकी विनिर्देश और नीचे दिए गए विवरण के अनुसार और सीपीपीपी पर मूल निर्माता / आपूर्तिकर्ता से बीओक्यू सूची अर्थात https://eprocure.gov.in/eprocure/app निवदा दस्तावेज ई-प्रोक्योरमेंट पोर्टल की वेबसाइट https://eprocure.gov.in/eprocure/app और संस्थान की वेबसाइट www.iisermohali.ac.in से डाउनलोड किए जा सकते हैं।

Online tenders are invited on behalf of the Director, IISER Mohali in **TWO BID SYSTEM** for the **Supply and Installation of RF Grade PCB milling machine and electroplating tools** as per technical specification and details given below and BOQ list from the original manufacturer/supplier at CPPP i.e. https://eprocure.gov.in/eprocure/app. Tender documents may please be downloaded from the E-procurement portal website https://eprocure.gov.in/eprocure/app & Institute website www.iisermohali.ac.in.

-Sd-सहायक कुलसचिव (क्रय तथा भंडार) Assistant Registrar (Stores & Purchase)

NOTE: This is a domestic Tender according to the DPIIT Order dated 15/07/2017 and subsequent amendments to the order for Public Procurement Preference & PROVISION FOR LOCAL SUPPLIERS TOWARDS PREFERENCE TO MAKE IN INDIA. The bidder required to declare on the letter head the percentage of Local content for the quoted instrument and submit with the Technical Bid. Bidder should also give details of the location(s) at which the local value addition is made.



भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान मोहाली

शिक्षा मंत्रालय, भारत सरकार द्वारा स्थापित सैक्टर 81,नॉलेज सिटी,प. ओ. मनोली, एस. ए. एस. नगर, मोहाली, पंजाब 140306 INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH MOHALI

(Established by Ministry of Education, Govt. of India)
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ई - निविदा आमंत्रण सूचना / E-TENDER NOTICE

Tender Ref.- IISERM(1522)21/22-Pur दिनांक/Date: 04th March 2022

Critical Date Sections

Sr.	Description	Date	Time
1.	Tender Publishing Date and time	04 th March 2022	6:00pm
2.	Tender Document download start Date & Time	04 th March 2022	6:00pm
3.	Bid Submission start Date &Time	04 th March 2022	6:00pm
4.	Bid Submission End date and Time	24 th March 2022	Upto 11:00am
5.	Tender opening Date and Time	25 th March 2022	At 11:30am

Online tenders are invited on behalf of the Director, IISER Mohali in TWO BID SYSTEM **CPPP** following the original manufacturer/supplier i.e. item(s) from https://eprocure.gov.in/eprocure/app. Tender documents may please be downloaded from the Ehttps://eprocure.gov.in/eprocure/app & procurement portal website Institute website www.iisermohali.ac.in. Online Tender fee of Rs 590/- (Non-refundable) should be submitted by bidder in favour of the Registrar, IISER Mohali payable at Mohali or through Online mode in Institute Account (Canara Bank Saving Account Number 4790101001912 and IFSC Code CNRB0004790) However, scanned copy of the Tender fee/UTR copy should be uploaded on website along with technical bid. Micro & MSME/NSIC and Firms registered and the firms registered with concerned Ministries/ Departments, the bidders are exempted from payment of Tender Fee as per GOI notifications/GFR (2017) and Ministry of Finance OM No. F.9/4/2020-PPD dated 12 November 2020.

Bidders will also be required to execute bond/undertaking Bid Security Declaration Form attached as ANNEXURE-I for availing exemption to submit Tender Fee.

ITEM WISE DETAILS

Sr. No.	Description	Qty. (in units)	
1.	Supply and Installation of RF Grade PCB milling machine and electroplating tools	01	
	TECHNICAL SPECIFICATIONS: AS PER ANNEXURE-III		
	*The attached ANNEXURE-III must be filled by the bidder duly stamped and signed.		

A) IMPORTANT NOTES:-

- I. This is a domestic Tender according to the DPIIT Order dated 15/07/2017 and subsequent amendements to the order for Public Procurement Preference & PROVISION FOR LOCAL SUPPLIERS TOWARDS PREFERENCE TO MAKE IN INDIA. Bidders should also give details of Localtions(s) ;at which the local value addition is made. Bidders are requested to furnish the declaration regarding local content/locations in Annexure II through CPPP portal, Non submission and incomplete information will lead to disqualification of bid.
- II. Restriction under Rule 144 (xi) of the General Financial Rules (GFRs). 2017 under sub clause 3, in terms of DOE, MoF No. F.18/37/2020-PPD dated: 8th February, 2021:
 - (i) A bidder is permitted to procure raw material, components, sub-assemblies etc. from the vendors from countries which shares a land border with India. Such vendors will not be required to be registered with the Competent Authority, as it is not regarded as "sub-contracting".
 - (ii) However, in case a bidder has proposed to supply finished goods procured directly/indirectly form the vendors from the countries sharing land border with India, such vendor will be required to be registered with the Competent Authority.
- III. The online updated Price BOO is in INR format. Bids are invited in INR only against domestic tender.
- IV. The Online bids should be submitted directly by the original manufacturer/supplier (The OEM Bidder should furnish declaration to this effect). If quotation is submitted/filled by any representative/agent/dealer then they must upload a authority certificate from the principal company.
- V. <u>All MSME/NSIC/Startup Units shall be considered as per provisions/rules prescribed by Govt of India.</u>
- VI. Auto-extension of last date for E-Tenders has been activated by CPP Portal which has participation 2 bids or less.

B) SUBMISSION OF TENDER

I. All bid/ tender documents are to be uploaded online at Central Public Procurement portal i.e. https://eprocure.gov.in/eprocure/app only and in the designated cover/ part on the website against tender ID. Tenders/ bids shall be accepted only through online mode and

- no manual submission of the same shall be entertained except tender fee and Annexure I (Bid Securing Declaration Form). Late tenders will not be accepted.
- II. The online bids shall be opened at the office of the Assistant Registrar (P&S), IISER Mohali, on above given date and time. If the tender opening date happens to be on a holiday or non-working day due to any other valid reason, the tender opening process will be attended on the next working day at same time and place. IISER Mohali will not be responsible for any error like missing of schedule data while downloading by the Bidder.
- III. The bidder shall upload the tender documents duly filled in and stamped by the authorized signatory on each and every page. Tender not submitted/uploaded in the prescribed form and as per the tender terms and conditions shall be liable for rejection.
- IV. The bidder shall upload scanned copy of the PAN Card, GST number duly signed and stamped. Also bidders applying against 'MSME/NSIC Certificate" issued by appropriate Authority, should ensure that the certificate attached is relevant to the area of service/supply. For example, If the tender is for "supply & installation of Desktop" the certificate should be issued for activity/area of "Computer supply and services activities etc" otherwise bid will be REJECTED without notice.
- V. E-procurement system ensures locking on the scheduled date and time. The system will not accept any bid after the scheduled date and time of submission of bid.

C) <u>INSTRUCTIONS</u>

- 1. The Online bids should be submitted directly by the original manufacturer/supplier, If quotation is submitted/filled by any representative/agent/dealer then they must upload a authority certificate from the principal company for quoting the price otherwise such quotation will be rejected.
- 2. 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. Before the deadline for submission of the online bid, IISER Mohali reserves the right to modify the tender document terms and conditions. Such amendment/modification will be notified on website against said tender ID
- 3. 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. Conditional tenders will be summarily rejected.
- 4. 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 payments towards any purchase, Letter of credit can be opened if required.
- 5. THE INSTITUTE IS EXEMPTED FROM CUSTOM DUTY under notification no-TU/V/RG-CDE(1062)/2016 CUSTOM DT. 12.10.2018.
- 6. Tax: This Institute is not exempted from the payment of GST. The current rate (i.e. percentage of GST should be clearly indicated included or excluded) wherever chargeable. Please also provide/upload the copy of PAN card, GST number duly self-attested.
- 7. Concessional GST is applicable for all the items purchased for Research labs vide Ministry of Finance, notification no. 45/22017 dated 14.11.2017 and 47/2017 dated 14.11.2017.

- 8. Bidder/s quoting in currency other than **Indian Rupee** (**INR**) should explicitly mention the currency in which tender quoted wherever applicable in <u>Technical Bid</u> along the tender documents.
- 9. The delivery period should be specifically stated. Earlier delivery will be preferred.
- 10. The firms are requested to provide/upload detailed description and specifications together with the detailed drawings, printed leaflets & literature of the article quoted and also should enclose **Technical Compliance Sheet.** 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. Tenders not accompanied by detailed information as required, are liable to be rejected.
- 11. If any information furnished by the bidder is, at any stage found to be incorrect, false or fabricated, the Institute/purchaser shall have the absolute right to forfeit E.M.D. and security deposits, in addition to cancellation of contract, forfeiting the warranty/performance Guarantees and other action in accordance with law, such as black-listing, risk & cost etc.
- 12. Validity of offer: 90 days.
- 13. The warranty period after satisfactory installation should be mentioned and firm should replace all manufacturing defect parts/ whole item under warranty without any extra cost including clearance, freight, taxes. Security deposit/ Bank Performance Guarantee @ 3% of the value of supply order, in terms of *Ministry of Finance, DoE, GOI, OM. No. F.9/42020-PPD dated 12-11-2020* and extension vide circular of even number dated 30th December, 2021, as per norms may be sought from the firms.
- 14. The right to reject all or any of the quotation and to split up the requirements for itemized L-1 or relax any or all the above conditions without assigning any reason is reserved by the IISER Mohali. For any corrigendum and addendum please be checked the website https://eprocure.gov.in/eprocure/app and https://eprocure.gov.in/eprocure/app and https://eprocure.gov.in/eprocure/app and https://eprocure.gov.in/eprocure/app and https://www.iisermohali.ac.in
- 15. Disputes, if any, shall be subject to jurisdiction in the court of Mohali only.

—Sd− **सहायक कुलसचिव (क्रय तथा भंडार)** Assistant Registrar (Stores & Purchase)

ANNEXURE-I

Bid Securing Declaration Form

Date:	_ E-Tender No	E-Tender ID
To (insert complete name a I/We. The undersigned, dec	-	ser)
I/We understand that, acc Declaration.	ording to your condition	ns, bids must be supported by a Bid Securing
-	-	ding for any contract with you for a period of one re in a breach of any obligation under the bid
period of bid validity specification b) having been notified of the control of th	fied in the form of Bid; on the acceptance of our Bid the contract, if required with the Instructions to be valid if I am/we are no of the name of the succe	derogates from the tender, my/our Bid during the r by the purchaser during the period of bid validity, or (ii) fail or refuse to furnish the Performance of Bidders. I/We understand this Bid Securing of the successful Bidder, upon the earlier of (i) the ssful Bidder; or (ii) thirty days after the expiration
Signed: (insert signature of in the capacity of (insert leg		capacity are shown) ning the Bid Securing Declaration)
Name: (insert complete name) Duly authorized to sign the	1 0	Bid Securing Declaration) nsert complete name of Bidder)
Dated on d Corporate Seal (where appr		(insert date of signing)
(Note: In case of a Joint Vetthe Joint Venture that subm		Declaration must be in the name of all partners to
PS: Furnish the above in origina	l stationary/letter head with s	igned and sealed.

ANNEXURE-II

SELF DECLARATION

[For Local Content of Products, Services or Works]

To,

(Establi	rector Institute of Science Education and Research Ished by Ministry of Education, Govt. of India) 81, Knowledge city, PO-Manauli, agar Mohali-140306, Punjab
450 of I	h reference to Order no P45021/2/2017 PP (BE-II) dated 04.06.2020 and No. P-21/2/2017-PP(BE-II) dated 16-09-2020 of DPIIT, Ministry of Commerce and Industry, Govt. ndia, we fall under the following category of supplier (please tick the correct category) for the as for which this tender has been floated and being bided.
	Class I local supplier – has local content equal to more than 50%. Local contents added at
	(name of location).
	Class II local supplier – has local content more than 20% but less than 50%. Local contents
	added at (name of location).
	Non-local supplier – has local content less than or equal to 20%. Local contents added at (name of location).
Fals Gen	are solely responsible for the abovementioned declaration in respect of category of supplier. se declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the neral Financial Rules for which we may can be debarred for up to 2 years as per Rule 151(iii) the General Financial Rules along with such other actions as may be permissible under law.
Signatu	re & seal of the company
	nd address of the organization
	······································
	In cases of procurement for a value in excess of Rs. 10 crores, the 'Class-I local supplier' / 'Class-II local supplier' shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or

practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.

ANNEXURE-III

Supply and Installation of RF Grade PCB milling machine and electroplating tools

RF Grade PCB milling machine and electroplating tools			
Unit 1	RF Grade PCB millin	g machine	
Microwa	tem must be a high end p ave grade circuits and p Must work on variety of		
S.No.	PCB Milling Equipment for RF and Microwave grade tracks	Required specification	Compliance (compliance must also be supported by brochures, Data Sheets and application notes and videos in technical bid)
1	Machine must be capable of producing RF grade finishes with appropriate end mills	Must provide smooth finish with high quality performance for RF and microwave circuits On both sides with alignments	
2	The maximum size of the PCB that can be milled	At least 225 mm x 300 mm	
3	Mechanical Resolution X,Y plane	0.5 microns or better	
4	Mechanical Resolution Z	0.2 microns or better	
5	Depanellng	Same unit must be able to depanel individual copies of designs into smaller PCBs	
6	X/Y travel speed	At least 150mm/sec	
7	Spindle	Adjustable speed u up-to 100000 rpm or more adjustable speed from 5000 rpm , with integrated automatic milling depth adjustment sensor with $\pm~1\mu m$ and self cleaning features, Must have non-contact pneumatic height adjustment	
8	Isolation and Track width	Machine should be capable of making tracks and isolation upto 0.1mm (4mil)	
9	Tools for Spindle	Automatic Tool Changer. Minimum 20 tool positions	

10	Material thickness measurement	Automatic detection of material and copper thickness with +/1-1 um	
11	Machine construction base	Heavy base of granite or metal. Any base must guarantee the accuracy.	
12	Acoustic Cabinet	Should be enclosed in an Acoustic Cabinet	
13	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.	
14	Vacuum Table	Should be integrated type and for holding the work substrate firmly.	
15	Stencil fabrication	Machine should be capable of cutting SMD stencil on polyimide films.	
16	Dust extraction system	Software controlled high efficient automated system to be integral part of the machine	
17	Layers	Provided system configuration should be able to make Double side PCBs.	
18	PCB board material	Should be capable to make single side/double side and multilayer circuits on FR4, FR3, RT/ Duroid, Kapton, LTCC (unfired) ,CER-10 ,Taconic ,PTFE boards and also to make polyamide stencil, special films, aluminium panel engraving etc. All ceramic filled laminates (except Al2O3) Machineablity of Ceramics or Silicon wafers at the risk of breaking drills or end mills alone can be additional option.	
19	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 TM , DPF, Auto-CAD TM , DXF, ODB ++R etc.	
20	Drill	Min hole dia 0.15 mm, Speed 100 strokes/minute	
21	Engraving capability	2.5D control for engraving on aluminium/plastic	

22	Comono avvitano	Crystage alegald have come for	
22	Camera system	System should have camera for	
		fiducial/Optical mark recognition,	
		alignment, Automatic offset correction as	
		well as drill bit inspection. Accuracy	
		should be 1 micron on both front and	
22		back sides.	
23	Computer Hardware	1 interface PC to be supplied with minimal	
	and Software	hardware and software Intel I7 11th	
		generation, 17" monitor with SSD hard	
		drive 500 GB, 16GB RAM Windows 10	
24		and required OEM software.	
24		e quoted containing the below:	
25		ite, 315mm x 239 mm x 5 mm - 2 Nos	
26	-	n x 305mm (9"x12"), 0/35μm (predrilled) -	
27	10 Nos	205 (02 102) 25/25 (1:11 1)	
27	-	n x 305mm (9"x12"), 35/35μm (predrilled) -	
20	5 Nos	205 (02 122) 10/10 (1 11 1)	
28		n x 305mm (9"x12"), 18/18μm (predrilled) -	
20 DE	5 Nos		
28 RF		nce ring $1/8$ ", 36 mm, d = $0.1 - 0.15$ mm (4	
Tools	- 6 mil) – 10 Nos	ton as vin a 1/8? 26 mm d = 0.15 mm 10	
T1	End Mill (RF) with distance ring 1/8", 36mm, d = 0.15mm - 10		
T2	Nos		
12	End Mill (RF) with distance ring 1/8", 36mm, d = 0.25mm - 10Nos		
T3	End Mill (RF) with distance ring 1/8", 36mm, d = 0.40mm – 10		
13	Nos		
T4	End Mill (RF) with distance ring 1/8", 36mm, d = 1.00mm - 5 Nos		
T5			
T6	End Mill (RF) with distance ring 1/8", 36mm, d = 2.00mm - 5 Nos End Mill (RF) with distance ring 1/8", 38mm, d = 2.00mm - 5 Nos		
T7			
1 /	Tool Set 1/8" shaft with distance rings - 1 Set Consisting of the		
T8	following: Universal Cutter 1/8", 36 mm, 0.2 – 0.5 mm (8 -20 mil) - 10 Nos		
T9	Micro Cutter 1/8", 36mm, 0.10 – 0.15 mm (4 – 6 mil) - 10 Nos		
T10	End mill 1/8", 36mm, d = 0.8mm - 1 Nos		
T11	End mill 1/8", 36mm, d = 1.00mm (39 mil) - 2 Nos		
T12	End mill 1/8", 36mm, d = 2.00mm (79 mil) - 2 Nos		
T13	End mill 1/8, 36mm, d = 2.00mm (79 mil) - 2 Nos End mill long, 1/8", 38mm, d = 1.00mm (39 mil) - 1 Nos		
T14	End mill long, 1/8", 38mm, d = 2.00 mm (79 mil) - 1 Nos		
T15	Counter Router, 1/8, 38mm, d = 1.00mm (39 mil) - 2 Nos		
T16	Counter Router, 1/8', 38mm, d = 1.00mm (39 mm) - 2 Nos		
T17	Spiral Drill, 1/8", 38mm, d= 0.40 (16 mil) - 2 Nos		
T18	Spiral Drill, 1/8", 38mm, d= 0.40 (10 mil) - 2 Nos		
T19	Spiral Drill, 1/8", 38mm, d= 0.60 (24 mil) - 2 Nos		
T20	Spiral Drill, 1/8", 38mm, d= 0.00 (24 mil) - 2 Nos		
T21	Spiral Drill, 1/8", 38mm, d= 0.70 (28 mil) - 2 Nos		
T22	Spiral Drill, 1/8", 38mm, d= 0.90 (35 mil) - 2 Nos		
122	Spirai Dini, 1/6, 36min, u= 0.50 (33 min) - 2 Nos		

	SOITAL LATHE 1/8". SXMM	(1011 1 3 M 1011 1 1 / 1010 C	
TO 4	Spiral Drill, 1/8", 38mm, d= 1.00 (39 mil) - 2 Nos		
	Spiral Drill, 1/8", 38mm, d= 1.20 (47 mil) - 1 Nos		
	Spiral Drill, 1/8", 38mm, d= 1.40 (55 mil) - 1 Nos		
	Spiral Drill, 1/8", 38mm, d= 1.50 (59 mil) - 2 Nos		
	Spiral Drill, 1/8", 38mm, d= 1.60 (63 mil) - 1 Nos		
	Spiral Drill, 1/8", 38mm, d= 1.80 (71 mil) - 1 Nos		
	*	n, d= 2.00 (79 mil) - 2 Nos	
		n, d= 3.00 (118 mil) - 2 Nos	
30	Vacuum Cleaner	Integrated vacuum extractor capable of	
		handling heavy jobs. Must be	
		automatically turned on from system	
		while milling.	
31	Compressor	Compressor type: single phase with SS	
	Compressor	container with drain operation to remove	
		moisture, having noise not more than 68	
		db(A) at 2 m, Must be over specified	
		roughly twice the systems CFM	
		requirement and approx. twice volume of	
		lpm in tank with pressure settable upto	
		around 8 bar or over rated than	
		requirement of machine must be dry oil	
		free and reliable brand like Hitachi ELGI	
		or Anwest IWATA with local service.	
32	Solder paste dispenser	Integrated solder paste dispenser	
	-		
33	Control PC	Control PC Windows 10 with all	
		necessary OEM software 16 GB RAM	
		,Solid State drive 500 GB and Intel I-5	
		processer with large monitor. Must be	
2.4	M 10 D 1	known make like ASUS, HP or DELL	
	Manual & Brochures	Provide PDF copy of user manual,	
	application notes	brochure and application notes (if any).	
35	Back alignment	Please provide video by link web page or	
		application note etc showing how system	
		works especially both front and back	
		alignment.	
36	References	Provide 5 references from National	
		Institutes like IITs, IISERs, TIFR etc with	
		RF grade PCB models.	
37	Evaluation	Items 34 to 36 will be used for evaluation	
		of compliance and performance along with	
		compliance provided by supplier.	
38	Samples	We may ask for samples of designs	
30	Dampies	implemented on specific boards if not	
		satisfied with information.	
		sausmed with information.	

39	Installation and Training	Free onsite training for 1 week after installation and one review for 2 to 3 days as well as phone/online support for queries must be provided.	
40	Warranty	3 years comprehensive except for bits and end mills.	
41	OEM	Main unit and tools must be from one OEM. Utilities must be from high quality OEMS with 3 years warranty.	
	Make in India	Provide appropriate documents for Class 1 or Class II suppliers	
	countries sharing border with India	Provide appropriate Govt of India approvals for selling in India if manufactured from country sharing border with India	
	Items to be quoted		
	UNIT 1	RF Grade PCB milling machine & Accessories	
	1	PCB milling system with all accessories set of specified including table, compressor Vacuum, cabinet, sample boards and control PC as well as other necessary accessories to run the system.	
	2	Batch reflow oven made from Toaster grill with external PID controls	
	3	Manual Large PCB slicer (board with handle like paper cutter)	
	4	3KVA UPS with 20 mins backup and isolation transformer. Essar Engineers or Power one make with local service in Mohali.	
	Price Comparison	While all items will be used to infer L1 IISER may chose to drop some accessories based on funds.	