

Global Tender

This is Request for Quotation for Silicon-On-Insulator(SOI) wafers for National Nanofabrication Centre at Centre for Nano Science and Engineering (CeNSE) at IISc, Bangalore.

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Section 1 - Bid Schedule

1	Tender No	CeNSE/SKS/NNFC/2024-25/02
2	Tender Date	21st November 2024
3	Item Description	Silicon-On-Insulator wafers
4	Tender Type	Two bid system Technical Bid (Part A) Commercial Bid (Part B)
5	Place of tender submission	National Nanofabrication Centre, Centre for Nano Science and Engineering (CeNSE), Indian Institute of Science (IISc), Malleshwaram, Bangalore - 560012 Karnataka, INDIA.
6	Last Date & Time for submission of tender	12th December 2024, by 5pm IST
7	For further clarification	Saleem Ahmed B, National Nanofabrication Centre, Centre for NanoScience and Engineering, Indian Institute of Science, Bangalore-560012 Email: saleemb@iisc.ac.in



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Section 2 – Eligibility Criteria

Pre-qualification criteria:

- 1. If the Bidder is a local distributor/dealer/Agent, it is mandatory to attach authorization certificate along with the technical bid from the original equipment manufacturer.
- 2. The bidder should sign and submit the declaration for Acceptance of Terms and Conditions as per Annexure 4.
- 3. The Bidder must not be blacklisted/banned/suspended or have a record of any service- related dispute with any organization in India or elsewhere. A declaration to this effect has to be given as per Annexure 3.
- 4. The materials will be used for high-tech research work by academic researchers. The vendor should have supplied the required material either to CeNSE, Indian Institute of Science, Bangalore or other microelectronics fabrication unit of repute. Proof of the same should be attached.
- 5. CoA for the material quoted need to be attached with quotes.



Section 3 – Terms and Conditions

A) Submission of Tender:

- 1. All documentations in the tender should be in English.
- 2. Tender should be submitted in two envelops (two bid system).
 - a. Technical Bid (Part-A) Technical bid consisting of all technical details and check list for conformance to technical specifications.
 - i. The technical proposal should contain a technical compliance table with 5 columns.
 - ii. The first column must list the technical requirements, in the order that they are given in the technical requirement below.
 - iii. The second column should provide specifications of the instrument against the requirement. Please provide quantitative responses wherever possible.
 - iv. The third column should describe your compliance with a "Yes" or "No" only. Ensure that the entries in column 2 and column 3 are consistent.
 - v. The fourth column should state the reasons/explanations/context for deviations, if any.
 - vi. The fifth column can contain additional remarks from the OEM. You can use this opportunity to highlight technical features, qualify response of previous columns, or provide additional details, compare your solution with that of your competitors or provide details as requested in the technical requirements table below.
 - b. Commercial Bid (Part-B) Indicating item wise price for the items mentioned in the technical bid, as per the format of quotation provided in tender, and other commercial terms and conditions.
- 3. The technical bid and commercial bid should each be placed in separate sealed covers, superscribing on both the envelopes the tender no. and the due date. Both these sealed covers are to be placed in a bigger cover which should also be sealed and duly superscribed with the Tender No, Tender Description & Due Date.
- 4. The SEALED COVER superscribing tender number / due date & should reach NNFC Office, Centre for Nanoscience and Engineering, Indian Institute of Science, Bangalore – 560012, India, on or before due date mentioned in the tender notice. In case due date happens to be



holiday the tender will be accepted and opened on the next working day. If the quotation cover is not sealed, it will be rejected.

- 5. All queries are to be addressed to the person identified in "Section 1 Bid Schedule" of the tender notice.
- 6. GST/other taxes, levies etc., are to be indicated separately. The BIDDER should mention GST Registration and PAN in the tender document (Indian Bidders only).
- 7. If price is not quoted in Commercial Bid as per the format provided in tender document the bid is liable to be rejected.
- 8. The Institute reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time prior to the award of contract, without there by incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders.
- 9. Incomplete bids will be summarily rejected.

B) Cancellation of Tender:

Notwithstanding anything specified in this tender document, the purchase committee, IISc Bangalore, in its sole discretion, unconditionally and without having to assign any reason, reserves the rights:

- a. To accept OR reject lowest tender or any other tender or all the tenders.
- b. To accept any tender in full or in part.
- c. To reject the tender, offer not confirming to the tender terms.

C) Validity of the Offer:

The offer shall be valid 60 Days from the date of opening of the commercial bid.

D) Evaluation of Offer:

- 1. The technical bid (Part A) will be opened first and evaluated.
- 2. Bidders meeting the required eligibility criteria as stated in Section 2 of this document shall only be considered for Commercial Bid (Part B) opening. Further, agencies not furnishing the documentary evidence as required will not be considered.
- 3. Pre-qualification of the bidders shall not imply final acceptance of the Commercial Bid. The agency may be rejected at any point during technical evaluation or during commercial evaluation. The decision in regard to acceptance and / or rejection of any



offer in part or full shall be the sole discretion of IISc Bangalore, and decision in this regard shall be binding on the bidders.

- 4. The award of purchase-order will be subject to acceptance of the terms and conditions stated in this tender.
- 5. Any offer which deviates from the vital conditions (as illustrated below) of the tender is liable to be rejected:
 - a) Non-submission of complete offers.
 - b) Receipt of bids after due date and time and or by email / fax (unless specified otherwise).
 - c) Receipt of bids in open conditions.
- 6. In case any BIDDER is silent on any clauses mentioned in these tender documents, IISc Bangalore shall construe that the BIDDER had accepted the clauses as of the tender and no further claim will be entertained.
- 7. No revision in the terms and conditions quoted in the offer will be entertained after the last date and time fixed for receipt of tenders.
- 8. Lowest bid will be calculated based on the total price of all items tendered.

E) Purchase Order:

- 1. The order will be placed on the bidder whose bid is accepted by IISc based on the terms & conditions mentioned in the tender document.
- 2. The quantity of the items in tender is only indicative. IISc, Bangalore reserves the right to increase /decrease the quantity of the items depending on the requirement.
- 3. If the quality of the product and service provided is not found satisfactory, IISc, Bangalore reserves the right to cancel or amend the contract.

F) Delivery:

It is mandatory to specify the delivery period.

G) Payment Terms:

The payments to non domestic vendors will be through a Letter of Credit and milestone of the payment will be determined after the mutual discussions with the successful bidder. As per GFR no advance payment can be made to domestic vendors, unless an equal amount of bank guarantee is provided.



H) Statutory Variation:

Any statutory increase in the taxes and duties subsequent to bidder's offer, if it takes place within the original contractual delivery date, will be borne by IISc, Bangalore subject to the claim being supported by documentary evidence. However, if any decrease takes place the advantage will have to be passed on to IISc, Bangalore.

1) Disputes and Jurisdiction:

Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within the city of Bangalore, India.

J) General:

- 1. All amendments, time extension, clarifications etc., within the period of submission of the tender will be communicated electronically. No extension in the bid due date/time shall be considered on account of delay in receipt of any document(s) by mail.
- 2. The bidder may furnish any additional information, which is necessary to establish capabilities to successfully complete the envisaged work. It is however, advised not to furnish superfluous information.
- 3. The bidder may visit the installation site before submission of tender, with prior intimation.
- 4. All imported items should be quoted in the currency of the country of origin, and all locally sourced items should be quoted in Indian Rupees.
- 5. Any information furnished by the bidder found to be incorrect, either immediately or at a later date, would render the bidder liable to be debarred from tendering/taking up of work in IISc, Bangalore.



Section 4 – Technical Specifications

Item Number	Item Description	Quantity
	100mm SOI wafers	
	Device layer thickness: 10 μm ± 0.5μm	
	Device layer Orientation:<100>	
	Device layer Type/Doping: P-type (Boron-doped)	
	Device layer Resistivity: $(1 \sim 20) \Omega$ -cm	
	Buried oxide (BOX) thickness: $2\mu m \pm 5\%$	
	Handle layer Thickness: $500 \mu m \pm 25 \mu m$	
	Handle layer Orientation: <100>	
	Handle layer Type/Doping: P-type (Boron doped)	
	Handle layer Resistivity: $(1 \sim 20)$ Ω-cm	
1	Surface Finish: Double side polished Grade: Prime Grade	50 wafers
1	100mmSOI wafers	30 waters
	100mmSO1 waters	
	Device layer thickness: $2 \mu m \pm 0.3 \mu m$	
	Device layer Orientation:<100>	
	Device layer Type/Doping: P-type (Boron-doped)	
	Device layer Resistivity: $(1 \sim 20) \Omega$ -cm	
	Buried oxide (BOX) thickness: $2\mu m \pm 5\%$	
	Handle layer Thickness: 500 μm ± 25μm	
	Handle layer Orientation: <100>	
	Handle layer Type/Doping: P-type (Boron doped)	
	Handle layer Resistivity: $(1 \sim 20)$ Ω-cm	
2	Surface Finish: Double side polished	25 6
2	Grade: Prime Grade	25 wafers
	100mm SOI wafers	
	Device layer thickness: $5 \mu m \pm 0.25 \mu m$	
	Device layer Orientation:<100>	
	Device layer Type/Doping: P-type (Boron-doped)	
	Device layer Resistivity: $(1 \sim 20) \Omega$ -cm	
	Buried oxide (BOX) thickness: $2\mu m \pm 5\%$	
	Handle layer Thickness: $500 \mu m \pm 25 \mu m$	
	Handle layer Orientation: <100>	
	Handle layer Type/Doping: P-type (Boron doped)	
	Handle layer Resistivity: $(1 \sim 20)$ Ω-cm	
2	Surface Finish: Double side polished	50 6
3	Grade: Prime Grade	50 wafers



·	100mm SOI wafers Device layer thickness: 20 μm ± 0.5μm Device layer Orientation:<100> Device layer Type/Doping: P-type (Boron-doped) Device layer Resistivity: $(1 \sim 20) \Omega$ -cm Buried oxide (BOX) thickness: $2\mu m \pm 5\%$ Handle layer Thickness: $500 \mu m \pm 25\mu m$ Handle layer Orientation: <100> Handle layer Type/Doping: P-type (Boron doped) Handle layer Resistivity: $(1 \sim 20) \Omega$ -cm Surface Finish: Double side polished Grade: Prime Grade	
4		25 wafers
5	Device layer thickness: 50 μm ± 0.5μm Device layer Orientation:<100> Device layer Type/Doping: P-type (Boron-doped) Device layer Resistivity: (1 ~ 20) Ω-cm Buried oxide (BOX) thickness: 2μm ± 5% Handle layer Thickness: 500 μm ± 25μm Handle layer Orientation: <100> Handle layer Type/Doping: P-type (Boron doped) Handle layer Resistivity: (1 ~ 20) Ω-cm Surface Finish: Double side polished Grade: Prime Grade	50 wafers
	Device layer thickness: 15 μm ± 0.5μm Device layer Orientation:<100> Device layer Type/Doping: N-type (phosphorus-doped) Device layer Resistivity: (1 ~ 10) Ω-cm Buried oxide (BOX) thickness: 2μm ± 5% Handle layer Thickness: 400 μm ± 5μm Handle layer Orientation: <100> Handle layer Type/Doping: P-type (Boron doped) Handle layer Resistivity: (1 ~ 10) Ω-cm Surface Finish: Double side polished Surface Roughness: < 2 nm	
6	Grade: Prime Grade	25 wafers



	100mm SOI wafers	
	Device layer thickness: 25 μ m \pm 0.5 μ m	
	Device layer Orientation:<100>	
	Device layer Type/Doping: N-type (phosphorus-	
	doped)	
	Device layer Resistivity: $(1 \sim 10) \Omega$ -cm	
	Buried oxide (BOX) thickness: $2\mu m \pm 5\%$	
	Handle layer Thickness: 400 μm ± 5μm	
	Handle layer Orientation: <100>	
	Handle layer Type/Doping: P-type (Boron doped)	
	Handle layer Resistivity: $(1 \sim 10) \Omega$ -cm	
	Surface Finish: Double side polished	
	Surface Roughness: < 2 nm	
7	Grade: Prime Grade	25 wafers
,	100mm SOI wafers	23 Waters
	Device layer thickness: 50 μm ± 0.5μm	
	Device layer trickness. 30 µm ± 0.3µm Device layer Orientation:<100>	
	Device layer Orientation. \ 100\rightarrow Device layer Type/Doping: N-type (phosphorus-	
	doped)	
	Device layer Resistivity: $(1 \sim 10) \Omega$ -cm	
	Buried oxide (BOX) thickness: $2\mu m \pm 5\%$	
	Handle layer Thickness: $400 \mu m \pm 5 \mu m$	
	Handle layer Orientation: <100>	
	Handle layer Type/Doping: P-type (Boron doped)	
	Handle layer Resistivity: $(1 \sim 10)$ Ω-cm	
	Surface Finish: Double side polished	
8	Surface Roughness: < 2 nm Grade: Prime Grade	25 wafers
8		23 waters
	100mm SOI wafers	
	Device layer thickness: $110 \mu m \pm 0.5 \mu m$	
	Device layer Orientation:<100>	
	Device layer Type/Doping: N-type (phosphorus-	
	doped)	
	Device layer Resistivity: $(1 \sim 10) \Omega$ -cm	
	Buried oxide (BOX) thickness: $2\mu m \pm 5\%$	
	Handle layer Thickness: 400 μm ± 5μm	
	Handle layer Orientation: <100>	
	Handle layer Type/Doping: P-type (Boron doped)	
	Handle layer Resistivity: $(1 \sim 10) \Omega$ -cm	
	Surface Finish: Double side polished	
	Surface Roughness: < 2 nm	
9	Grade: Prime Grade	25 wafers



	100 mm COI mafama	
	100mm SOI wafers	
	Device layer thickness: $210 \ \mu m \pm 1 \mu m$ Device layer Orientation: $<100>$ Device layer Type/Doping: N-type (phosphorus-doped) Device layer Resistivity: $(1 \sim 10) \ \Omega$ -cm Buried oxide (BOX) thickness: $2\mu m \pm 5\%$	
	Handle layer Thickness: 400 μm ± 5μm	
	Handle layer Orientation: <100>	
	Handle layer Type/Doping: P-type (Boron doped)	
	Handle layer Resistivity: $(1 \sim 10) \Omega$ -cm	
	Surface Finish: Double side polished	
	Surface Roughness: < 2 nm	
10	Grade: Prime Grade	25 wafers

Section 5- Technical Bid

The technical bid should furnish all requirements of the tender along with all annexure in this section and submitted to:

The Chair, Centre for Nano Science and Engineering (CeNSE), Indian Institute of Science (IISc), Malleshwaram, Bangalore - 560012

Karnataka, INDIA.

Attention: Saleem Ahmed B, NNFC, 080 22933319



Annexure-1:

Details of the Bidder

The bidder must provide the following mandatory information & attach supporting documents wherever mentioned:

Sl. No	Items	Details
1.	Name of the Bidder	
2.	Nature of Bidder (Attach attested	
	copy of Certificate of Incorporation/	
	Partnership	
	Deed)	
3.	Registration No/ Trade License, (attach	
	attested copy)	
4.	Registered Office Address	
5.	Address for communication	
6.	Contact person- Name and Designation	
7.	Telephone No	
8.	Email ID	
9.	Website	
10.	PAN No. (attach copy)	
11.	GST No. (attach copy)	

Signature of the Bidder	
Name	
Designation, Seal	Date:

Declaration regarding experience

T +91 80 2293 3342 E shankarks@iisc.ac.in http://www.cense.iisc.ac.in/shankarks/



Date:

Annexure 2

I have carefully gone through the Terms & Conditions contained in the above referred tender. I hereby

declare that my company / firm has ____ years of experience in supplying and installing ___

(Signature of the Bidder)
Printed Name Designation, Seal



Annexure 3

Annexure 3			
Declaration regarding track recor	rd		
To, The Chairman, Centre for Nano Science and Eng Indian Institute of Science (IISc) Malleshwaram, Bangalore - 5600 Karnataka, INDIA.	,		
Ref: Tender No: CeNSE/SKS/NN Dated:	NFC/2024-25/02		
Supply of			
Sir, I have carefully gone through the declare that my company/ firm is Government organizations / instimy company / firm to make this of OR	not currently debarred / black tutions in India or abroad. I fu	listed by any Gov	vernment / Semi
I declare the following:			
Sl.No Country in which the company is Debarred /blacklisted / case is Pending	Blacklisted / debarred by Government / Semi Government/Organizations /Institutions	Reason	Since when and for how long
(NOTE: In case the company / fir period for which the company / f	¥ .		0 0
Yours faithfully (Signature of the Bidder)			
Name Designation, Seal:		Date:	



Annexure 4

Declaration for acceptance of terms and conditions

To,	
The Chairman,	
Centre for Nano Science and Engineering (CeNSE),	
Indian Institute of Science (IISc),	
Malleshwaram, Bangalore - 560012	
Karnataka, INDIA.	
Ref: Tender No: CeNSE/SKS/NNFC/2024-25/02	
Dated:	
Supply of	
Sir,	
I have carefully gone through the Terms & Conditions as mention	
document. I declare that all the provisions of this tender docume	
further certify that I am an authorized signatory of my company	and am, therefore, competent to make
this declaration.	
Yours faithfully,	
(Signature of the Bidder)	
Name	
Designation, Seal:	Date:



Annexure 5

Details of items quoted:

- a. Company Name
- b. Product Name
- c. Part / Catalogue number
- d. Product description / main features
- e. Detailed technical specifications.
- f. Remarks

Instructions to bidders:

- 1. Bidder should provide technical specifications of the quoted product/s in detail.
- 2. Bidder should attach product brochures along with technical bid.
- 3. Bidders should clearly indicate compliance or non-compliance of the technical specifications provided in the tender document.



Section 6 – Commercial Bid

The commercial bid should be furnished with all requirements of the tender with supporting documents as mentioned under:

S.No	Description	Cat. Number	Quantity	Unit Price	Sub total
1.	Essential items noted in the technical specification				
1.a	(details of essential items)				
1.b					
2.	Optional items noted in the technical specification				
2.a	(details of essential items)				
2.b					
7.	Cost of Insurance and Airfreight				
8.	CIP/CIF IISc, Bengaluru				

Any additional items

S.No	Description	Cat. Number	Quantity	Unit Price	Sub total

Addressed to

The Chairman,

Centre for Nano Science and Engineering (CeNSE), Indian Institute of Science (IISc), Malleshwaram, Bangalore - 560012 Karnataka, INDIA.

Attention : Saleem Ahmed B, NNFC, 080 22933319



Section 7 – Checklist

(This should be enclosed with technical bid- Part A)
The following items must be checked before the Bid is submitted:

1. Sealed Envelope "A": Technical Bid

- 1. Section 5- Technical Bid (each page signed by the authorized signatory and sealed) with the below annexures:
 - a. Annexure 1: Bidders details
 - b. Annexure 2: Declaration regarding experience
 - c. Annexure 3: Declaration regarding clean track record
 - d. Annexure 4: Declaration for acceptance of terms and conditions
 - e. Annexure 5: Details of items quoted
- 2. Copy of this tender document duly signed by the authorized signatory on every page and sealed.

2. Sealed Envelop "B": Commercial Bid

Section 6: Commercial Bid

Your quotation must be submitted in two envelopes: Technical Bid (Envelope A) and Commercial Bid (Envelope B) super scribing on both the envelopes with Tender No. and duedate and both of these in sealed covers and put in a bigger cover which should also be sealed and duly super scribed with Tender No., Tender description & Due Date.