



SEMI-CONDUCTOR LABORATORY
Ministry of Electronics and Information Technology
Government of India
Sector 72, S.A.S. Nagar – 160 071, Punjab, India
Phone: 0091 172 2296183, E-mail: abudhwar@scl.gov.in

INVITATION TO TENDER

E-tender/Online bid is invited for **“VLSI MIXED SIGNAL TESTER”** in accordance with the purchaser’s tender specifications. The invitation to tender, tendering conditions, general conditions of contract, special conditions of contract and additional conditions of contract, if any, which will govern the contract pursuant to tender are attached.

Bidders interested to submit bid are requested to go through the contents of this document and ensure that the bid is submitted online on or before the due date and time indicated in **NIT** and as per technical specifications and terms and condition indicated herein.

Please note all bid related documents scanned copy is to be submitted on the online portal, only **EMD** has to reach physical on mentioned address. (If applicable)

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Public Tender Enquiry

TENDER DOCUMENT
FOR
VLSI MIXED SIGNAL TESTER TENDER
NO.: SCL/PS/45063/VTAD/2024

TENDER INVITING AUTHORITY

SEMI-CONDUCTOR LABORATORY
MINISRTY OF ELECTRONICS AND INFORMATION TECHNOLOGY
GOVERNMENT OF INDIA
SECTOR 72, SAS NAGAR MOHALI
PUNJAB – 160 071
Mr. Anil Budhwar
DIRECT PHONE – 0172-2296172
Email: abudhwar@scl.gov.in

**(The bids have to be submitted online in
electronic form on www.eprocure.gov.in
only. No physical bids will be accepted.)**



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Tender No: SCL/PS/45063/VTAD/2024

Sub: Quotation for “**VLSI MIXED SIGNAL TESTER**”- reg.

We are interested in procuring the below mentioned material(s). Kindly submit your quotation online before bid closing date & time as per details given in tender document.

Sl. No.	SCL's Material Code	Brief description of the material (s)	Qty.
1	220518159	VLSI MIXED SIGNAL TESTER	01 No.

Terms and Conditions:

1. SCL reserves the right of accepting or rejecting any quotations without assigning any reason thereof.
2. For any queries please mail us at hps@scl.gov.in abudhwar@scl.gov.in
Contact Nos: 0172-2296166/2296172
3. This is only an enquiry and not a purchase order.
4. The Purchaser reserves the right to accept or reject any bid, and to amend the bidding process and reject all bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders.

INSTRUCTION FOR ONLINE BID SUBMISSION

The bidders are required to submit softcopies of their bids electronically on the Central Public Procurement (CPP) Portal i.e. <https://eprocure.gov.in/eprocure/app>, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

REGISTRATION

- (i) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL:<https://eprocure.gov.in/eprocure/app>) by clicking on the link “Online Bidder Enrolment” option available on the home page.
Enrolment on the CPP Portal is free of charge.
- (ii) During enrolment/registration, the bidders should provide the correct/true information including valid email-id, mobile no. All the correspondence shall be made directly with the contractors/bidders through email-id provided.
- (iii) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- (iv) Any bidder from a country which shares a land borders with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the competent authority as mentioned in the GFR 2017 Rule 144(xi).
- (v) For e-tendering possession of valid Digital Signature Certificate (Class III Certificates with signing key usage) is mandatory which can be obtained from SIFY /nCode/eMudra or any Certifying Authority recognized by CCA India on e-Token/Smartcard.
- (vi) Upon enrolment on CPP Portal for e-tendering, the bidders shall register their valid Digital Signature Certificate with their profile.
- (vii) Only one valid DSC should be registered by a bidder. Bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse and should ensure safety of the same.
- (viii) Bidders can then login to the site through the secured login by entering their user ID/password and the password of the DSC/ e-Token.

SEARCHING FOR TENDER DOCUMENTS

- 1) There are various search options built in the CPP Portal to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords, etc., to search for a tender published on the CPP Portal.
- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents/tender schedules. These tenders can be moved to the respective ‘My Tenders’ folder. This would enable the CPP Portal to intimate the

bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.

- 3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS:

- (i) For preparation of bid Bidders shall search the tender from published tender list available on site and download the complete tender document and should take into account corrigendum if any published before submitting their bids. After selecting the tender document same shall be moved to the 'My favorite' folder of bidders account from where bidder can view all the details of the tender document.
- (ii) Bidder shall go through the tender document carefully to understand the documents required to be submitted as part of the bid. Bidders shall note the number of covers in which the bid documents have to be submitted, the number of documents – including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- (iii) Any pre-bid clarifications if required, then same may be obtained on line through the tender site, or through the contact details given in the tender document.
- (iv) Bidders should get ready in advance the bid documents in the required format (PDF/xls/rar/dwf/jpg formats) to be submitted as indicated in the tender document/schedule.
- (v) Bidders can update well in advance, the documents such as experience certificates, annual report, PAN, EPF other details etc., under "My Space/ Other Important Document" option, which can be submitted as per tender requirements. This will facilitate the bid submission process faster by reducing upload time of bids.

SUBMISSION OF BIDS:

- (i) Bidder should log into the site well in advance for bid submission so that he/she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay.
- (ii) Bidder should prepare the EMD as per the instructions specified in the NIT/tender document. The details of the DD/BC/BG/ others physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.
- (iii) While submitting the bids online, the bidder shall read the terms conditions (of CPP portal) and accepts the same in order to proceed further to submit their bid.
- (iv) Bidders shall select the payment option as offline to pay the EMD and enter details of the DD/BC/BG/others.
- (v) Bidder shall digitally sign and upload the required bid documents one by one as indicated in the tender document.
- (vi) Bidders shall note that the very act of using DSC for downloading the tender document and uploading their offers is deemed to be a confirmation that they have read all sections and pages of the tender document without any exception

and have understood the complete tender document and are clear about the requirements of the tender document.

- (vii) If price quotes are required in XLS format, utmost care shall be taken for uploading Schedule of quantities and Prices and any change/modification of the price schedule shall render it unfit for bidding.
Bidders shall download the Schedule of Quantities and Prices i.e. Schedule-A, in XLS format and save it without changing the name of the file. Bidder shall quote their rate in figures in the appropriate cells, thereafter save and upload the file in financial bid cover (Price bid) only.
If the template of Schedule of Quantities and Prices file is found to be modified/corrupted in the eventuality by the bidder, the bid will be rejected and further dealt as per provision of clause no 23.0 of ITB including forfeiture of EMD if any.
- (viii) Bidders shall submit their bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the bid submission end date time (as per Server System Clock). The TIA will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders at the eleventh hour.
- (ix) After the bid submission (i.e. after Clicking "Freeze Bid Submission" in the portal), the bidders shall take print out of system generated acknowledgement number and keep it as a record of evidence for online submission of bid, which will also act as an entry pass to participate in the bid opening.
- (x) Bidders should follow the server time being displayed on bidder's dash board at the top of the tender site, which shall be considered valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system.
- (xi) All the documents being submitted by the bidders would be encrypted using PKI (Public Key Infrastructure) encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology.

ASSISTANCE TO BIDDERS:

- (i) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for tender or the relevant contract person indicated in the tender.
- (ii) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24X7 CPP Portal Helpdesk. The 24 x 7 Help Desk Number 0120- 4200462, 0120-4001002 and 0120-4001005. The helpdesk email id is **support-eproc@nic.in**

INSTRUCTION FOR e-PROCUREMENT

1. PREPARATION AND SUBMISSION OF BIDS:

- a. The detailed tender documents may be downloaded from <https://eprocure.gov.in/eprocure/app> till the last date of submission of tender. The Tender may be submitted online through CPP Portal <https://eprocure.gov.in/eprocure/app>
- b. The bidder should submit the bid online in two part viz. Technical Bid and Financial Bid. Technical Bid and Financial Bid should be uploaded online in separately.

2. SUBMISSION OF THE BID : All interested eligible bidders are requested to submit their bids online on CPP Portal: <https://eprocure.gov.in/eprocure/app> as per the criteria given in this document:

- a. Technical Bid and Financial Bid should be upload online in separately.
Both Technical and Financial Bid cover should be placed online on the CPP Portal (<https://eprocure.gov.in/eprocure/app>).

3. TECHNICAL BID: Signed and Scanned copies of the Technical bid documents as under must be submitted online on CPP Portal: <https://eprocure.gov.in/eprocure/app>.

a) List of Documents to be scanned and uploaded (Under Cover-1) within the period of bid submission: -

- i. Scanned copy of Bank details. (Bank details of principal supplier in case of Import shipments)
- ii. Scanned copy of certificate of GST. (GSTIN of Indian Agent in case of Import Shipments) (Not applicable in case of foreign vendor)
- iii. Scan copy of tender acceptance letter.
- iv. Scanned copy of specifications or brochures (if any).
- v. Scanned copy of other document mentioned in tender document (if any)

4. Financial Bid (Under Cover 2)

In preparing the financial bids, bidders are expected to take into account the requirements and conditions laid down in this Tender document. The financial bids should be uploaded online as per the specified “.Xls” format i.e. Price Bid Excel sheet attached as ‘Xls’ with the tender and based on the scope of work, service conditions and other terms of the Tender document. It should include all costs associated with the Terms of Reference/Scope of Work of the assignment.

The price break-up of main equipment, list of accessories and spares with quantity and unit price, if any, should be uploaded as a separate document if required as per tender document.

5. Last Date for Submission of Tender:

- a. Online bids complete in all respects, must be submitted on or before the last date and time specified in the schedule of events.
- b. The SCL, S.A.S. Nagar may, at its own discretion, alter/extend the last date for submission of ~~tender~~

6. Bid Validity

- a. All the Bids must be valid for a period of 120 day's from the last date of submission of the tender for execution of Contract. However, the quoted rates should be valid for the initial/extended period of the Contract from the effective date of the Contract. No request will be considered for price revision during the original Contract period.
- b. A bid valid for a shorter period shall be declared as non-responsive.
- c. In exceptional circumstances, prior to expiry of the original time limit, SCL, Mohall may request the bidders to extend the period of validity for a specified additional period. Beyond the original validity of 120 days.

The request and the bidders' responses shall be made in writing. The bidders, not agreeing for such extensions will be allowed to withdraw their bids without forfeiture of their Bid Security.

7. Modification / Substitution/ Withdrawal of bids:

- a. No Bid shall be modified, substituted or withdrawn by the Bidder after the Bid's due Date.
- b. Any alteration/ modification in the Bid or additional information supplied subsequent to the Bid's due Date, unless the same has been expressly sought for by the Authority, shall be disregarded.

8. Rejection of the Bid: The bid submitted shall become invalid if:-

- a. The bidder is found ineligible.
- b. The bidder does not upload all the documents as stipulated in the bid document.

Instructions to Tenderers (Public Tender)

The bidders are required to submit soft copies of their bids electronically on the Central Public Procurement (CPP) Portal i.e. <https://eprocure.gov.in/eprocure/app>, using valid Digital Signature Certificates (DSC). The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

1. Earnest Money Deposit (EMD):

- a. Bidders are required to submit offers along with prescribed Earnest Money Deposit (EMD) amount of Rs. 5,00,000.00 (Rupees Five Lakhs Only) as per details in the tender. EMD instrument in original should be sent in a sealed cover with a covering letter quoting tender number and same must reach us prior to due date of tender. The scanned copy of EMD instrument should be attached online with the tender.
- b. Foreign Bidder directly submitting bid (not through their Indian Agent or Indian Counterpart or Indian subsidy) in the currency other than INR, Central PSUs/PSEs/Autonomous Bodies, Micro and Small Enterprises (MSEs) having valid registration with MSME or NSIC or Udyog Aadhaar, Khadi and Village Industries Commission (KVIC), National Small Industries Corporation, produced and provided by MSE and startups recognized by Department of Industrial Policy & Promotion (DIPP) etc., shall be exempted from the payment of EMD. Bidders seeking exemption from payment of EMD shall submit necessary proof of relevant documents etc.
- c. MSME submitting bid on behalf of foreign vendor shall not be exempted for submitting EMD.
- d. Traders who are registered as MSMEs shall not be exempted for submitting EMD.
- e. The bid submitted by vendor without EMD will not be considered.
- f. EMD shall be submitted in a single installment through Demand Draft/Bankers Cheque/Fixed Deposit Receipts or Bank Guarantee in favour of Semi-Conductor Laboratory from any of the Scheduled Banks executed on non-judicial stamp paper of appropriate value. In case of fixed deposit receipt /bank guarantee, it shall be valid for a period of 45 days beyond the final tender validity date. EMD shall be interest free.
- g. Vendors/firms name and tender no. shall be indicated on the reverse side of the EMD instrument.
- h. EMD instrument should not be dated prior to the date of tender.
- i. SCL will not be responsible for non-receipt of EMD instrument due to postal delay / loss in transit.
- j. Any tender not accompanied with EMD shall be treated as invalid tender and rejected.
- k. EMD of a bidder shall be forfeited if the tenderer/Contractor withdraws or amends his tender or deviates from the tender in any respect within the period of validity of the tender. Failure to furnish security deposit/performance bond by a successful vendor within the specified period shall also result in forfeiture of EMD.
- l. EMD shall be refunded to all the unsuccessful bidders within thirty (30) days after placement of the Purchase Order. EMD shall be refunded to the successful tenderer/Contractor after payment of the Security Deposit or may be adjusted against the Security Deposit. EMD shall be refunded to all the participants in cases where the tender is cancelled or withdrawn by the purchaser, within thirty days from the date of such cancellation or withdrawal.

2. This being a two part (Cover) tender i.e. technical and commercial part separate, the Technical

part should not contain Pricing information of the Tendered stores. The tenders containing Price details of the Tendered stores in Technical Part (Cover-1) will be summarily rejected. Prices should be indicated in the Financial Part (Cover -2) only.

3. Request for the extension of the due date will not be considered.
4. SCL reserves the right to accept or reject any / or all the tenders in part or full without assigning any reasons thereof. The bidder is at liberty to seek information related to bidding conditions, bidding process and/or rejection of its bid.
5. In this tender either the Indian Agent on behalf of the Principal/OEM or the Principal/OEM itself can bid, but both cannot bid simultaneously for the same item. Indian agents while quoting on behalf of their principals shall provide necessary latest authorization letter obtained from their Principals/Manufacturers in their bid.
6. If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the tender for the same item. If submitted, all offers submitted by the said agent shall be excluded from the procurement process.
7. SCL reserves the right to exclude the bidder from procurement process who have not agreed to furnish Security Deposit and Performance Bank Guarantee as sought vide this tender.
8. In case the bidder gives shorter validity than the period specified in the tender enquiry. SCL reserves the right to exclude the bidder from procurement process.
9. Late tenders, delayed tenders, fax quotations and e-mail quotations are not considered. Only tender submitted through CPP Portal shall be considered.
10. SCL reserves the right to verify all claims made by the bidder.
11. SCL reserves the right to change any milestone date of the tendering activity / tender schedule.
12. Tender which is not submitted as per the of instructions mentioned herein is liable to be rejected.
13. The purchaser shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portions of the quantity offered and the tenderer shall supply the same at the rates quoted.
14. It is expressly agreed that the acceptance of the Stores Contracted for is subject to final approval in writing by the Purchaser.
15. It is to be noted that the drawings, specifications, end-use, etc., given by the purchaser, are confidential and shall not be disclosed to any third party.
16. Prices are required to be quoted according to the units indicated in the tender. When quotations are given in terms of units other than those specified in the tender form, relationship between the two sets of units must be furnished.
17. The Prices are to be mentioned both in figures as well as in words. The taxes, duties etc. are to be calculated and indicated in the column provided in online forms explicitly.
18. Bidders are expected to comply with commercial and other terms and conditions given in vendor specified terms of this tender. In case of any deviation, the reasons thereof should be clearly specified in the vendor specified terms column.
19. All available technical literature, catalogues and other data in support of the specifications and details of the items should be furnished along with the offer.
20. Samples, if called for, should be submitted free of all charges by the tenderer and the Purchaser shall not be responsible for any loss or damage thereof due to any reason whatsoever. In the event of non- acceptance of tender, the tenderer will have to remove the samples at his own expense.
21. Approximate net and gross weight of the items offered wherever required shall be indicated in your offer. If dimensional details are available the same should also be indicated in your offer.
22. Specifications: Stores offered should strictly confirm to our specifications. Deviations, if any, should be clearly indicated by the tenderer in his bid. The tenderer should also indicate the

Make/Type number of the stores offered and provide catalogues, technical literature and samples, wherever necessary, along with the quotations. Test Certificates, wherever necessary, should be forwarded along with supplies. Wherever options have been called for in our specifications, the tenderer should address all such options. Wherever specifically mentioned by us, the tenderer could suggest changes to specifications with appropriate response for the same.

23. The tenderer should supply along with his tender, the name of his bankers as well as the latest Income-Tax clearance certificate duly countersigned by the Income-Tax Officer of the Circle concerned under the seal of his office, if required by the Purchaser.
24. The contractor shall also undertake the supply of additional number of items covered by the order as considered necessary by the purchaser at a later date, the actual price to be paid shall be mutually agreed to after negotiations.
25. Subletting and Assignment: The contractor/supplier cannot sublet, transfer or assign the order/Contract or any part thereof or interests therein or benefit or advantage thereof in any manner whatsoever, to any other party without written consent of the purchaser. Such consent by the purchaser, however, shall not relieve or discharge the contractor/supplier from any obligation, duty or responsibility under the Purchase Order/ Contract.
26. The contractor/supplier shall indemnify the purchaser against Workmen Compensation Act.
27. The authority of the person submitting the tender, if called for, should be produced.

28. PROCEDURE FOR EVALUATION OF TENDERS:

Technical Evaluation Criteria:

Vendor meeting the eligibility criteria and basic technical specifications mentioned in SCL Tender are likely to be considered to be technically qualified.

Evaluation of Financial Bids:

The following elements shall be considered for evaluation of Price Bids:

- a. Price quoted by the bidder in the price bid template is for meeting the functionalities given in the Tender and Technical Specifications sheet.
- b. In case quotations are submitted in foreign currencies, during preparation of price tabulation, Foreign Exchange (FE) conversion rate vis-a-vis Indian currency (INR) will be worked out on the basis of FE TT selling rate prevailing on the day of opening of technical bids.
- c. Compliance with the Payment Terms prescribed in this tender document. In the event, the bidder offers Payment Terms stringent than SCL prescribed Payment Terms, the bid of the bidder shall be loaded as per prime lending rate of Reserve Bank of India (RBI) and added to the landed cost.
- d. In the event of the bidder requiring SCL to bear bank charges outside India (foreign bank charges), the bidders bid shall be loaded suitably on the quoted price towards bank charges outside India.
- e. In case, the price quoted is FCA/FOB/Ex-works, the charges towards Freight as quoted or a maximum of 5% of price quoted, Customs Duty taxes as applicable shall be taken into account to arrive landed cost.
- f. Comparison between Indigenous Imported Offers: If both indigenous offers and imported offers are to be compared, 2% of the total landed cost of foreign offers shall be added towards charges for Customs clearance and local transportation for delivery at SCL.
- g. Post warranty AMC charges and cost of recommended spares and Consumables shall not be taken into account for evaluation of price bids.
- h. Calibration charges at user site after warranty shall not be taken into account for evaluation of price bid.

STANDARD TERMS AND CONDITIONS (FOR IMPORTED STORES)

1. DEFINITIONS:

- a) The term 'Purchaser' shall mean the President of India or his successors or assignees.
- b) The term 'Contractor' shall mean, the person, firm or company with whom or with which the order for the supply of stores is placed and shall be deemed to include the Contractor's Successors, representatives, heirs, executors and administrators unless excluded by the Contract.
- c) The term 'Purchase Order' shall mean the communication signed on behalf of the Purchaser by an officer duly authorised intimating the acceptance on behalf of the Purchaser on the terms and conditions mentioned or referred to in the said communication accepting the Tender or offer of the Contractor for supply of stores of plant, machinery or equipment of part thereof.
- d) The term 'Stores' shall mean what the Contractor agrees to supply under the Contract as specified in the Purchase Order.

2. PRICES:

Tenderer offering firm prices will be preferred.

3. IMPORT LICENCE:

Reference to Import License No. & date and Contract number & date shall be prominently indicated in all the documents.

4. DEMURRAGE:

Supplier shall bear demurrage charges, if any, incurred by the purchaser due to delayed presentation of shipping documents as prescribed in para 3.2 to the bankers within a reasonable time (say within 10-12 days) from the date of bill of lading for sea consignments and within 3-4 days from the date of Air Way Bill for air consignments.

5. GUARANTEED TIME DELIVERY:

The time for and the date of delivery stipulated in the Purchase Order shall be deemed to be the essence of the Contract. Delivery must be completed within the date specified therein.

6. INSPECTION AND ACCEPTANCE TEST:

- 6.1. The Purchaser's representatives shall also be entitled at all reasonable times during manufacture to inspect, examine and test on the Contractor's premises the material and workmanship of all stores to be supplied under this Contract and if part of the said stores is being manufactured on other premises, the Contractor shall obtain for the purchaser's representative permission to inspect, examine and test as if the equipment were being manufactured on the Contractor's premises. Such inspection, examination and testing shall not release the Contractor from the obligations under this Contract.
- 6.2. For tests on the premises of the Contractor or of any of his sub-Contractors, the Contractor shall provide free of cost assistance, labour, material, electricity, fuel and

instruments as may be required or as may be reasonably needed by the purchaser's representative to carry out the tests efficiently.

- 6.3. When the stores have passed the specified test, the purchaser's representative shall furnish a certificate to the effect in writing to the Contractor. The Contractor shall provide copies of the test/s certificates to the purchaser as may be required.

7. CONSIGNEE:

Purchase & Stores Officer (Main Stores),
Semi-Conductor Laboratory,
Sector 72, S.A.S. Nagar (Mohali), Punjab,
India - 160 071

8. SHIPPING MARKS.

The mark on the shipping documents such as invoice, bill of lading and on the packages should be as follow:

PURCHASE ORDER NO. DATED

Semi-Conductor Laboratory,
Sector 72, S.A.S. Nagar (Mohali), Punjab,
India - 160 071

Destination: & Port of Entry:

9. INSURANCE OF THE STORES:

The necessity of insurance, if any, will be indicated in the Purchase Order.

10. CONTRACTOR'S DEFAULT LIABILITY:

The purchaser may upon written notice of default to the Contractor terminate the Contract in whole or in part in circumstances detailed hereunder:

- a) If in the judgment of the Purchaser the Contractor fails to make delivery of Stores within the time specified in the Contract/agreement or within the period for which extension has been granted by the Purchaser to the Contractor.
- b) If in the judgment of the Purchaser the Contractor fails to comply with any of the other provisions of this Contract.

11. In the event the Purchaser terminates the Contract in whole or in part as provided in Clause 10 the Purchaser reserves the right to Purchase, upon such terms and in such a manner as he may deem appropriate, stores similar to that terminated and the Contractor shall be liable to the Purchaser for any additional costs for such similar stores and/or for liquidated damages for delay as defined in Clause 12 until such reasonable time as may be required for the final supply of stores.

11.1 If this Contract is terminated as provided in Clause 10 the Purchaser in addition to any other rights provided in this Article, may require the Contractor to transfer title and

deliver to the Purchaser under any of the following clauses in the manner and as directed by the Purchaser:

- a) Any completed stores.
- b) Such partially completed stores, drawing, information and Contract rights (hereinafter called manufacturing material) as the Contractor has specifically produced or acquired for the performance of the Contract as terminated. The Purchaser shall pay to the Contractor the Contract price for completed stores delivered to and accepted, by the purchaser and for manufacturing material delivered and accepted.

11.2 In the event the Purchaser does not terminate the Contract as provided in Clause 10, the Contractor shall continue the performance of the Contract in which case he shall be liable to the purchaser for liquidated damages for delay as set out in Clause 12 until the stores are accepted.

12. GUARANTEE & REPLACEMENT:

- a) The Contractor shall guarantee that the stores supplied shall comply fully with the specifications laid down for material, workmanship and performance.
- b) For a period of twenty four months after the acceptance of the stores, if any defects are discovered therein or any defects therein are found to have developed under proper use arising from faulty materials, design or workmanship, the Contractor shall remedy such defects at his own cost provided he is called upon to do so within a period of 26 months from the date of acceptance thereof by the Purchaser who shall state in writing in what respect the stores or any parts thereof are faulty.
- c) If in the opinion of the purchaser it becomes necessary to replace or renew any defective stores, such replacements or renewals shall be made by the Contractor free of all costs to the purchaser provided the notice informing the Contractor of the defect is given by the purchaser in this regard within the said period of 24 months from the date of acceptance thereof.
- d) Should the Contractor fail to rectify the defects, the purchaser shall have the right to reject or repair or replace at the cost of the Contractor the whole or any portion of the defective stores.
- e) The decision of the Purchaser, notwithstanding any prior approval or acceptance or inspection thereof on behalf of the purchaser, as to whether or not the stores supplied by the Contractor are defective or any defects has developed within the said period of 24 months or as to whether the nature of the defects requires renewal or replacement shall be final, conclusive and binding on the Contractor.
- f) To fulfill guarantee conditions outlined in Clause 12 (a) to (e) above, the Contractor shall, at the option of the purchaser, furnish a Bank Guarantee (as prescribed by the purchaser - Bank Guarantee format enclosed) from a Bank approved by the purchaser for an amount equivalent to 10% of the value of the Contract along with first shipment documents. On the performance and completion of the Contract in all respects, the Bank Guarantee will be returned to the Contractor without any interest.
- g) All the replacement stores shall also be guaranteed for a period of 24 months from the date of arrival of stores at purchaser's site.
- h) Even while the 24 months guarantee applies to all stores, in case where a

greater period is called for by our specifications, then such a specification shall apply, and in such cases, the period of 26 months referred to in Clause 12 (b) and (c) shall be asked for guarantee period plus two months.

13. REQUIREMENT OF ADDITIONAL NUMBERS OF THE STORES/SPARE PARTS

ORDERED:

The Contractor shall also undertake the supply of additional number of items covered by the order as considered necessary by the purchaser at a later date, the actual price to be paid shall be mutually agreed to after negotiations.

14. PACKING:

- a) The Contractor wherever applicable shall pack and crate all stores for sea /air shipment as applicable in a manner suitable for export to a tropical humid climate, in accordance with internationally accepted export practices and in such a manner so as to protect it from damage and deterioration in transit by road, rail or sea for space qualified stores. The Contractors shall be held responsible for all damages due to improper packing.
- b) The Contractor shall ensure that each box / unit of shipment is legible and properly marked for correct identification. The failure to comply with this requirement shall make the Contractor liable for additional expenses involved.
- c) The Contractor shall notify the purchaser of the date of shipment from the port of Embarkation as well as the expected date of arrival of such shipment at the designated port of arrival.
- d) The Contractor shall give complete shipment information concerning the weight, size, content of each packages, etc.
- e) Transshipment of equipment shall not be permitted except with the written permission of the purchaser.
- f) Apart from the dispatch documents negotiated through Bank, the following documents shall also be airmailed to the purchaser within 7 days from the date of shipment by sea and within 3 days in case of air-consignments:
- g) Commercial Bill of Lading / Air Way Bill / Post parcel Receipt. (Two non-negotiable copies)
 - b) Invoice (3 copies)
 - c) Packing List (3 copies)
 - d) Test Certificate (3 copies)
 - e) Certificate of Origin.

The Contractor shall also ensure that one copy of the packing list is enclosed in each case.

15. LANGUAGE AND MEASURES:

All documents pertaining to the Contract including specification, schedule, notice, correspondence, operating and maintenance instructions, drawings or any other writings shall be written in English language. The metric system of measurement shall be used exclusively in the Contract.

16. INDEMNITY:

The Contractor shall warrant and be deemed to have warranted that all Stores supplied against this Contract are free and clean of infringement of any patent, copyright or trade mark and shall at all times indemnify the purchaser against all claims which may be made in respect of stores for infringement of any right protected by Patent, Registration of design or Trade Mark, and shall take all risk of accident or damage which may cause a failure of the supply from whatever cause arising and the entire responsibility for the sufficiency of all the means used by him for the fulfillment of the Contract.

17. COUNTER TERMS AND CONDITIONS OF SUPPLIERS:

Where counter terms and conditions/printed or cyclostyled conditions have been offered by the supplier, the same shall not be deemed to have been accepted by the purchaser unless specific written acceptance thereof is obtained.

18. SECURITY INTEREST:

On each item to be delivered under this Contract, including an item of work in progress in respect of which payments have been made in accordance with the terms of the Contract, purchaser shall have a security interest in such items which shall be deemed to be released only at the time when the applicable deliverable item is finally accepted and delivered to the purchaser in accordance with the terms of the Contract. Such security interest of the purchaser shall constitute a prior charge as against any other charge or interest created in respect of such items by any entity.

19. TRAINING:

The Contractor shall, if required by the purchaser, provide facilities for the practical training of Purchaser's engineering / technical personnel from India and for their active association on the manufacturing processes throughout the manufacturing period of the Contract / stores, number of such personnel to be mutually agreed upon.

STANDARD TERMS AND CONDITIONS FOR INDIGENOUS STORES

1. DEFINITIONS:

- (a) The term PURCHASER shall mean the Director, SCL or his successors or assigns.
- (b) The term CONTRACTOR shall mean, the person, firm or company with whom or with which the order for the supply of stores is placed and shall be deemed to include the Contractor's successors, representative, heirs, executors and administrators unless excluded by the Contract.
- (c) The term STORES shall mean what the Contractor agrees to supply under the Contract as specified in the Purchase Order including erection of plants machinery and subsequent testing, should such a condition is included in the Purchase Order.
- (d) The term PURCHASE ORDER shall mean the communication signed on behalf of the Purchaser by an Officer duly authorised intimating the acceptance on behalf of the Purchaser on the terms and conditions mentioned or referred to in the said communication accepting the tender or offer of the Contractor for supply of stores or plant, machinery or equipment or part thereof.

2. PRICES:

Tender offering firm prices will be preferred.

3. SECURITY DEPOSIT:

On acceptance of the tender and placement of order, the Contractor shall, at the option of the Purchaser and within the period specified by him, deposit with him, in cash or in any other form as the Purchaser may determine, security deposit not exceeding ten percent of the value of the Contract as the Purchaser shall specify. If the Contractor is called upon by the Purchaser to deposit, Security and the Contractor fails to provide the security within the period specified, such failure shall constitute a breach of the Contract, and the Purchaser shall be entitled to make other arrangements for the re -purchase of the stores contracted at the risk of the Contractor in terms of Sub-Clause (ii) and (iii) of clause 10(b) hereof and/or to recover from the Contractor, damages arising from such cancellation.

4. GUARANTEE REPLACEMENT:

- (a) The Contractor shall guarantee that the stores supplied shall comply fully with the specifications laid down, for material, workmanship and performance.
- (b) For a period of 24 months after the acceptance of the stores, if any defects are discovered therein or any defects therein found to have developed under proper use, arising from faulty stores design or workmanship, the Contractor shall remedy such defects at his own cost provided he is called upon to do so within a period of 26 months from the date of acceptance

thereof by the purchaser who shall state in writing in what respect the stores or any part thereof are faulty.

(c) If, in the opinion of the purchaser, it becomes necessary to replace or renew any defective stores such replacement or renewal shall be made by the Contractor free of all costs to the purchaser, provided the notice informing the Contractor of the defect is given by the purchaser in this regard within the said period of 26 months from the date of acceptance thereof.

(d) Should the Contractor fail to rectify the defects, the purchaser shall have the right to reject or repair or replace at the cost of the Contractor the whole or any portion of the defective stores.

(e) The decision of the purchaser notwithstanding any prior approval or acceptance or inspection thereof on behalf of the purchaser, as to whether or not the stores supplied by the Contractor are defective or any defect has developed within the said period of 24 months or as to whether the nature of the defects requires renewal or replacement, shall be final, conclusive and binding on the Contractor.

(f) To fulfill guarantee conditions outlined in clause 4 (a) to (e) above, the Contractor shall, at the option of the purchaser, furnish a Bank Guarantee (as prescribed by the purchaser) from a Bank approved by the purchaser for an amount equivalent to 10% of the value of the Contract along with first shipment documents. On the performance and completion of the Contract in all respects, the Bank Guarantee will be returned to the Contractor without any interest.

(g) All the replacement stores shall also be guaranteed for a period of 24 months from the date of arrival of the stores at purchaser's site.

(h) Even while the 24 months guarantee applies to all stores, in case where a greater period is called for by our specifications then such a specification shall apply in such cases the period of 26 months referred to in para 4 (b) (c) shall be the asked for guarantee period plus two months.

5. PACKING FORWARDING INSURANCE:

The Contractor will be held responsible for the stores being sufficiently and properly packed for transport by rail, road, sea or air to withstand transit hazards and ensure safe arrival at the destination. The packing and marking of packages shall be done by and at the expense of the Contractor. The purchaser will not pay separately for transit insurance, all risks in transit being exclusively of the Contractor and the Purchaser shall pay only for such stores as are actually received in good condition in accordance with the Contract.

6. DESPATCH:

The Contractor is responsible for obtaining a clear receipt from the Transport Authorities specifying the goods dispatched. The consignment should be dispatched with clear Railway Receipt/Lorry Receipt. If sent in any other mode, it shall be at the risk of the Contractor. Purchaser will take no responsibility for short deliveries or wrong supply of goods when the same are booked on said to contain basis. Purchaser shall pay for only such stores as are actually received by them in accordance with the Contract.

7. TEST CERTIFICATE: Wherever required, test certificates should be sent along with the dispatch documents.

8. ACCEPTANCE OF STORES:

(a) The stores shall be tendered by the Contractor for inspection at such places as may be specified by the purchaser at the Contractor's own risk, expense and cost.

(b) It is expressly agreed that the acceptance of the stores Contracted for, is subject to final approval by the purchaser, whose decision shall be final.

(c) If, in the opinion of the purchaser, all or any of the stores do not meet the performance or quality requirements specified in the Purchase Order, they may be either rejected or accepted at a price to be fixed by the purchaser and his decision as to rejection and the prices to be fixed shall be final and binding on the Contractor.

(d) If the whole or any part of the stores supplied are rejected in accordance with Clause No. 8 (c) above, the purchaser shall be at liberty, with or without notice to the Contractor, to purchase in the open market at the expense of the Contractor stores meeting the necessary performance and quality Contracted for in place of those rejected, provided that either the purchase, or the agreement to purchase, from another supplier is made within six months from the date of rejection of the stores as aforesaid.

9. REJECTED STORES:

Rejected stores will remain at destination at the Contractor's risk and responsibility. If instructions for their disposal are not received from the Contractor within a period of 14 days from the date of receipt of the advice of rejection, the purchaser or his representative has, at his discretion, the right to scrap or sell or consign the rejected stores to Contractor's address at the Contractor's entire risk and expense, freight being payable by the Contractor at actuals.

10. DELIVERY:

(a) The time for and the date of delivery of the stores stipulated in the Purchase Order shall be deemed to be the essence of the Contract and delivery must be completed on or before the specified dates.

(b) Should the Contractor fail to deliver the stores or any consignment thereof within the period prescribed for such delivery, the purchaser shall be entitled at his option either.

(i) to recover from the Contractor as agreed liquidated damages and not by way of penalty, a sum of 0.5% per week of the price of any stores which the Contractor has failed to deliver as aforesaid or during which the delivery of such store may be in arrears subject to a maximum of 10%, or

(ii) to purchase from elsewhere, without notice to the Contractor on the account and at the risk of the Contractor, the stores not delivered or others of a similar description (where others exactly complying with the particulars, are not, in the opinion of the purchaser, readily procurable, such opinion being final) without cancelling the Contract in respect of the consignment (s) not yet due for delivery, or

(iii) to cancel the Contract or a portion thereof and if so desired to purchase or authorise the purchase of stores not so delivered or others of a similar description (where others exactly if complying with the particulars are not, in the opinion of the purchaser, readily procurable, such opinion final) at the risk and cost of the Contractor.

In the event of action being taken under sub-clause (ii) (iii) of clause 10 (b) above, the Contractor shall be liable for any loss which the purchaser may sustain on that account, provided that the re-purchase or if there is an agreement to repurchase then such agreement is made within six months from the date of such failure. But the Contractor shall not be entitled to any gain on such re-purchase made against default. The manner and method of such re purchase shall be at the discretion of

the purchaser, whose decision shall be final. It shall not be necessary for the purchaser to serve a notice of such re purchase on the defaulting Contractor. This right shall be without prejudice to the right of the purchaser to recover damages for breach of Contract by the Contractor.

11. EXTENSION OF TIME:

As soon as it is apparent that the Contract dates cannot be adhered to, an application shall be sent by the Contractor to the purchaser. If failure, on the part of the Contractor, to deliver the stores in proper time shall have arisen from any cause which the purchaser may admit as reasonable ground for an extension of the time (and his decision shall be final) he may allow such additional time as he considers it to be justified by circumstances, of the case without prejudice to the purchaser's right to recover liquidated damages under clause 10 thereof.

12. ERECTION OF PLANT MACHINERY:

Wherever erection of a plant or machinery is the responsibility of the Contractor as per the terms of the Contract and in case the Contractor fails to carry out the erection as and when called upon to do so within the period specified by the purchaser, the purchaser shall have the right to get the erection done through any source of his choice. In such an event, the Contractor shall be liable to bear any additional expenditure that the purchaser is liable to incur towards erection. The Contractor shall, however, not be entitled to any gain due to such an action by the purchaser.

13. PAYMENT:

Contractor's bill will be passed for payment only after the stores have been received, inspected and accepted by the Purchaser.

14. RECOVERY OF SUM DUE:

Whenever any claim for the payment of, whether liquidated or not, money arising out of or under this Contract against the Contractor, the purchaser shall be entitled to recover such sum by appropriating in part or whole, the security deposited by the Contractor, if a security is taken against the Contract. In the event of the security being insufficient or if no security has been taken from the Contractor, then the balance or the total sum recoverable as the case may be, shall be deducted from any sum then due or which at any time thereafter may become due to

the Contractor under this or any other Contract with the purchaser. Should this sum be not sufficient to cover the full amount recoverable, the Contractor shall pay to the purchaser on demand the remaining balance due. Similarly, if the purchaser has or makes any claim, whether liquidated or not, against the Contractor under any other Contract with the purchaser, the payment of all moneys payable under the Contract to the Contractor including the security deposit shall be withheld till such claims of the purchaser are finally adjudicated upon and paid by the Contractor.

15. INDEMNITY:

The Contractor shall warrant and be deemed to have warranted that all stores supplied against this Contract are free and clean of infringement of any Patent, Copyright or Trademark, and shall at all times indemnify the purchaser against all claims which may be made in respect of the stores for infringement of any right protected by Patent Registration of design or Trade mark and shall take all risk of accidents or damage which may cause a failure of the supply from whatever cause arising and the entire responsibility for sufficiency of all means used by him for the fulfillment of the contract.

16. COUNTER TERMS AND CONDITION OF SUPPLIERS:

Where counter terms and conditions printed or cyclostyled conditions have been offered by the supplier, the same shall not be deemed to have been accepted by the Purchaser, unless specific written acceptance thereof is obtained.

17. SECURITY FOR PURCHASE OF MATERIALS:

Successful tenderer will have to furnish in the form of a bank guarantee or any other form as called for by the purchaser towards adequate security for the materials and properties provided by the Purchaser for the due execution of the Contract.

Commercial Terms & Conditions to Tender Ref. No. SCL/PS/45063/VTAD/2024

Filled up response fully stamped and signed by authorized bidder to be scanned and uploaded in Technical Part (Cover-1)

S. No.	Description	Vendor's response
1.	<p>DEFINITIONS:</p> <p>a. The term PURCHASER shall mean Semi-Conductor Laboratory, Sector-72, Mohali, Punjab 160071, under the administrative control of MEITY, Government of India.</p> <p>b. The term CONTRACTOR shall mean, the person, firm or company with whom or with which the order for the supply of stores is placed and shall be deemed to include the Contractors successors, representative, heirs, executors and administrators unless excluded by the Contract.</p> <p>c. The term STORES shall mean what the Contractor agrees to supply under the Contract as specified in the Purchase Order including erection of plants machinery and subsequent testing, should such a condition is included in the Purchase Order. The term PURCHASE ORDER shall mean the communication signed on behalf of the Purchaser by an Officer duly authorized intimating the acceptance on behalf of the Purchaser on the terms and conditions mentioned or referred to in the said communication accepting the tender or offer of the Contractor for supply of stores or plant, machinery or equipment or part thereof.</p>	
2.	<p>This being a two part tender Technical and Financial part separate; the bidder should not attach any document(s) containing pricing information along with Technical Part (Cover-1). The tenders containing Price information in technical part will be summarily rejected.</p> <p>The Prices should be indicated in the Financial Part (Cover-2) only.</p>	
3.	<p>Earnest Money Deposit (EMD):</p> <p>a. Bidders are required to submit offers along with prescribed Earnest Money Deposit (EMD) amount of Rs. 5,00,000.00 (Rupees Five Lakhs Only) as per details in the tender. EMD instrument in original should be sent in a sealed cover with a covering letter quoting tender number and same must</p>	

	<p>reach us prior to due date of tender. The scanned copy of EMD instrument should be attached online with the tender.</p> <p>b. Foreign Bidder directly submitting bid (not through their Indian Agent or Indian Counterpart or Indian subsidy) in the currency other than INR, Central PSUs/PSEs/Autonomous Bodies, Micro and Small Enterprises (MSEs) having valid registration with MSME or NSIC or Udyog Aadhaar, Khadi and Village Industries Commission (KVIC), National Small Industries Corporation, produced and provided by MSE and startups recognized by Department of Industrial Policy & Promotion (DIPP) etc., shall be exempted from the payment of EMD. Bidders seeking exemption from payment of EMD shall submit necessary proof of relevant documents etc.</p> <p>c. MSME submitting bid on behalf of foreign vendor shall not be exempted for submitting EMD.</p> <p>d. Traders who are registered as MSMEs shall not be exempted for submitting EMD.</p> <p>e. The bid submitted by vendor without EMD will not be considered.</p> <p>f. EMD shall be submitted in a single installment through Demand Draft/Bankers Cheque/Fixed Deposit Receipts or Bank Guarantee in favour of Semi-Conductor Laboratory from any of the Scheduled Banks executed on non-judicial stamp paper of appropriate value. In case of fixed deposit receipt /bank guarantee, it shall be valid for a period of 45 days beyond the final tender validity date. EMD shall be interest free.</p> <p>g. Vendors/firms name and tender no. shall be indicated on the reverse side of the EMD instrument.</p> <p>h. EMD instrument should not be dated prior to the date of tender.</p> <p>i. SCL will not be responsible for non-receipt of EMD instrument due to postal delay / loss in transit.</p> <p>j. Any tender not accompanied with EMD shall be treated as invalid tender and rejected.</p> <p>k. EMD of a bidder shall be forfeited if the tenderer/Contractor withdraws or amends his tender or deviates from the tender in any respect within the period of validity of the tender. Failure to furnish security deposit/performance bond by a successful vendor within the specified period shall</p>	
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	<p>also result in forfeiture of EMD.</p> <p>EMD shall be refunded to all the unsuccessful bidders within thirty (30) days after placement of the Purchase Order. EMD shall be refunded to the successful tenderer/Contractor after payment of the Security Deposit or may be adjusted against the Security Deposit. EMD shall be refunded to all the participants in cases where the tender is cancelled or withdrawn by the purchaser, within thirty days from the date of such cancellation or withdrawal.</p>	
4.	<p>Export License:</p> <p>The vendor shall inform whether Export License for the tendered equipment is required or not. If required, vendor to provide commitment that they will able to obtain Export License.</p>	
5.	<p>Delivery Terms (For imported stores):</p> <p>Prices shall be quoted on FOB/FCA nearest International/Gateway airport basis inclusive of all taxes, levies, duties arising in the tenderer country.</p>	
6.	<p>Export Formalities, Taxes & Duties:</p> <p>Any export approvals/Govt. clearances required, Taxes and duties as per laws of the exporting country shall be the responsibility of Vendor. Any Govt. formalities/Clearances required, Taxes and duties etc. payable as per Indian Laws shall be PURCHASERS responsibility.</p>	
7.	<p>Delivery Terms (For Indigenous stores):</p> <p>Prices shall be quoted on F.O.R. destination basis i.e. SCL, S.A.S. Nagar, Mohali, Punjab exclusive of GST as may be applicable.</p>	
8.	<p>For imported Stores:</p> <p>Vendors who are offering the delivery term as High Sea Sales/DDP/FOR basis, please note that Purchaser is entitled to issue Customs duty exemption certificate (CDEC) to the contractor under customs notification no.51/96 dated 23.07.1996 and subsequent amendments to enable the contractor to avail off the benefit of concessional rate of customs duty. Under this notification, basis Customs Duty shall be applicable @ 5.5% plus GST as applicable. While offering the price, vendor shall take into consideration the same.</p> <p>In addition to the above CDEC, any documentary support requested by the contractor from the purchaser for customs clearance of goods against the above CDEC shall be provided by the purchaser.</p>	

	(Purchaser will provide Customs Duty Exemption Certificate in case of Import Orders/ imported supplies/ High Sea Sales).	
9.	Goods and Service Tax (GST for Indigenous Stores): GST shall be payable extra as applicable. Please mention percentage of applicable GST along with HSN Code in your response.	
10.	Security Deposit (SD): On acceptance of the tender, the Vendor shall submit security deposit for three percent (3% percent) value of the Purchase Order (PO) or as applicable as per Govt. notification at the time of release of PO within 15 days from the date of PO towards successful execution of the PO. Security Deposit shall be submitted through Demand Draft / Bankers Cheque/ fixed deposit receipt or Bank Guarantee from any of the Scheduled Banks executed on non-judicial stamp paper of appropriate value, and shall be valid for a period of sixty (60) days beyond the date for completion of the Purchase Order. (This will be returned by SCL immediately on execution of the PO satisfactorily as per order terms. If not, the amount will be forfeited). Central PSUs/PSEs/PSEs/Autonomous Bodies/MSEs shall be exempted from the payment of Security Deposit, and instead, an Indemnity Bond shall be secured from them in lieu of the Security Deposit. Note: In case, Security Deposit is submitted in the form of Bank Guarantee (BG) and Issuing Bank utilizes SFMS (Structured Financial Messaging Solution) Gateway for issuing the BG in favour of SCL and mention IFSC code of SCL banker i.e. State Bank of India, SBIN00061229, and genuineness of the BG will be verified by SCL banker by checking into SFMS gateway. In case, Security Deposit is submitted in the form of Bank Guarantee (BG) and Issuing Bank not utilizes SFMS (Structured Financial Messaging Solution) Gateway for issuing the BG, Vendor to ensure that the issuing bank shall communicate	

	<p>the genuineness of BG through e-mail from issuing bank domain email ID immediately after issuance of the same at the following email Ids followed by hard copy: sunitagaur@scl.gov.in CC: abudhwar@scl.gov.in</p> <p>In addition the banker may send a scanned copy of the BG as an attachment.</p> <p>Note: In case Security Deposit is submitted in the form of Bank Guarantee (BG), the issuing bank shall communicate the genuineness of BG through e-mail from issuing bank domain e-mail ID to sunitagaur@scl.gov.in and copy to abudhwar@scl.gov.in followed by hard copy to Shri Anil Budhwar, Sr. Purchase and Stores Officer, Semi-Conductor Laboratory, Sector -72, Mohali-160071.</p> <p>In addition the banker may send a scanned copy of the BG as an attachment.</p>	
11.	<p>Terms of Payment in case of overseas supplier(s):</p> <p>Being a Department of the Government of India, the normal terms of payment are by Sight Draft. The payment shall be remitted as Under:</p> <p>90% of the PO value shall be paid through Sight Draft within 30 days of receipt of material at Purchaser site against presentation of shipping documents to SCL banker routed through contractor bank. The balance 10% amount shall be payable on successful installation, commissioning and acceptance of the equipment at Purchasers site against a Performance Bank Guarantee and same shall be paid through wire transfer.</p>	
12.	<p>Bank Charges:</p> <p>All bank charges outside India related to the payment shall be borne by the Contractor and all bank charges in India shall be borne by the purchaser.</p>	
13.	<p>Terms of payment in case of indigenous supplier(S):</p>	

	<p>The payment shall be remitted as under:</p> <p>90% of the PO value shall be paid within 30 days of the receipt of the materials at purchaser site and the balance 10% amount shall be payable on successful installation, commissioning and acceptance of the equipment at Purchasers site against a Performance Bank Guarantee.</p>	
14.	<p>Delivery Period:</p> <p>6-7 Months after establishment of Letter of Credit which includes supply as well as installation, commissioning & Training</p> <p>The vendor shall also provide breakup of the delivery period for</p> <ul style="list-style-type: none"> (i) Supply (ii) Installation and commissioning from the date of receipt of intimation from SCL regarding readiness of site. 	
15.	<p>Installation and Commissioning:</p> <p>Installation, commissioning, and demonstration of performance of the tendered stores as per Purchaser tendered specifications shall be carried out by the Contractor at Purchaser's site at S.A.S. Nagar, Punjab, India.</p> <p>The contractor shall provide in advance guidelines for preparation of installation site and list of items to be supplied by Purchaser during installation. On receipt of intimation from the Purchaser, the Contractor shall depute its engineer to the Purchaser site to carry out installation and commissioning and will demonstrate the functionality of the tendered equipment to Purchaser specifications as per mutually agreed acceptance procedure. The Contractor shall be responsible for any loss/damages sustained due to delay on the part of the Contractor to send its engineer for installation and commissioning.</p> <p>Failure to commission the tendered equipment successfully shall entitle Purchaser to full refund of the payment made and the interest thereon. Decision regarding successful installation and commissioning shall rest solely with the Purchase.</p>	

16.	<p>TRAINING:</p> <p>Vendor shall provide comprehensive hands on training on test program development and tester maintenance on site. It shall include test program development on generic device like ADC, DAC, and digital device with training on tools like, jitter measurement, eye diagram and vector conversion tools, etc. Initial training will be 3 weeks (2 Weeks test programming, 1 week maintenance). After 4-6 month there shall be two weeks requirement based advance training.</p> <p>Vendor shall provide standard training covering modules with examples using standard templates and in programming language for each tester resource covering at least following functional modes but not limited to</p> <ul style="list-style-type: none"> • Force/Measure current/voltage, waveform source/capture from device power supply instrument. • Force/Measure current/voltage from PPMU. • Digital pin programming in each mode. • Waveform source/capture from Analog instrument • Digital Source/Capture (Serial/parallel) from digital system. • Eye diagram, jitter tool for timing measurements, Shmoo tool. • Timing measurements (i.e. rise/fall time, propagation delay, duty cycle, frequency etc.) using TMU. <p>Vendor shall provide basic codes to test continuity, leakage, static/dynamic supply current, functional testing, VIL/VIH, VOL/VOH, ADC/DAC linearity test, SNR, SFDR, THD and Timing measurements.</p>	
17.	<p>Liquidated Damages (LD):</p> <p>If the Contractor fails to deliver the stores within the time specified in the contract or any extension thereof, the purchaser shall recover from the Contractor as liquidated damages a sum of one-half of one percent (0.5 percent) of the Contract price for each calendar week of delay. The total liquidated damages shall not exceed ten percent (10 percent) of the Contract price. Delivery of stores means supply, installation, commissioning & acceptance as applicable.</p>	
18.	<p>Extension of Time:</p> <p>If the completion of supply of stores is delayed due to reason of force majeure such as acts of</p>	

	<p>god, acts of public enemy, acts of Government, fires, floods, epidemics, quarantine restriction, strikes, freight embargoes, etc., the Contractor shall give notice within 15 days to the purchaser in writing of his claim for an extension of time. The purchaser on receipt of such notice after verification, if necessary, may agree to extend the Contract delivery date as may be reasonable but without prejudice to other terms and conditions of the Contract.</p>	
19.	<p>Warranty:</p> <p>The Contractor shall provide for the tendered equipment comprehensive warranty for parts as well as labor including parts of the equipment, faulty parts replacement/repair & assistance during fittings of parts at SCL minimum 24 months from the date of successful installation, commissioning, testing and acceptance of the equipment at Purchaser site at no extra charges against any manufacturing defect/faulty workmanship. In case any defect/faulty workmanship arises during warranty period, the Contractor should replace/rectify the same at its own cost at site/works.</p> <ul style="list-style-type: none"> • Vendor shall provide two preventive maintenance each year during warranty. • Vendor shall guarantee 90% minimum uptime for the tester based on 24 hours working 7 days a week. <p>All the software update shall be provided by the vendor free of cost during the warranty period.</p> <p>All expenses on the visit(s) of the contractor engineer such as To and Fro travel costs, local transportation, boarding and lodging etc. during warranty shall be borne by the contractor.</p> <p>List of consumable, if any, not covered under warranty shall be mentioned separately.</p>	
20.	<p>Warranty Replacements:</p> <p>If in the opinion of the purchaser it becomes necessary to replace or repair defective equipment during the warranty period, such replacement or repair shall be made by the Contractor free of all costs to the Purchaser provided the notice informing the Contractor of the defect is given by the Purchaser in this regard, within period of 26 months from the date of acceptance thereof.</p> <p>All replacement parts during the warranty period</p>	

	<p>shall be supplied by the Contractor, free-of-cost on DDP (Delivery Duty Paid) basis with freight and insurance upto Purchaser site at S.A.S. Nagar, Punjab and customs duty applicable in India to the Contractor account including compliance with the customs procedure in India as applicable from time to time.</p> <p>The indigenous replacement parts, if any, shall be supplied by the Contractor free of cost on F.O.R. Purchaser site at SAS Nagar, Punjab basis.</p> <p>All defective parts including the imported parts shall be returned by Purchaser to the Contractor, if requested, on Freight to pay basis after receipt of replacement parts.</p>	
21.	<p>Replacement:</p> <p>If the stores or any portion thereof is damaged or lost during transit, the Purchaser shall give notice to the Contractor setting forth particulars of such stores damaged or lost during transit. The replacement of such stores shall be effected by the contractor within a reasonable time to avoid unnecessary delay in the intended usage of the Stores. In case the purchaser agrees, the price towards replacement items shall be paid by the purchaser on the basis of original price quoted in the tender or as reasonably worked out from the tender.</p>	
22.	<p>Performance Bank Guarantee (PBG):</p> <p>The Contractor shall furnish a Bank Guarantee (as per format given by purchaser) from any nationalized/scheduled bank for an amount equivalent to (Three Percent) 3% of the value of the Purchase Order (PO) or as applicable as per Govt. notification at the time of Purchase Order and shall be valid for a period of 60 days beyond the expiry date of warranty period. On the performance and completion of the Contract in all respects, the Bank Guarantee will be returned to the Contractor without any interest.</p> <p>PBG can be submitted through Demand Draft/Bankers Cheque/fixed deposit receipt also.</p>	
23.	<p>POST WARRANTY SERVICE/SUPPORT:</p> <p>Vendor to provide service support including spares & consumable for a period of 07 years after expiry of warranty period.</p>	

24.	<p>Post Warranty AMC: The vendor shall quote separately for post warranty Comprehensive AMC charges yearly basis for a period of 05 years.</p> <p>The quote for the same shall be indicated under Additional column of Price bid form.</p> <p>(This would be for reference only and same shall not be considered during commercial evaluation of the tendered item. and for determination of L-1 vendor.).</p> <p>The price list for the above shall be uploaded as separate PDF file in Financial Part. (Cover 2).</p>	
25.	<p>Recommended Spares and Consumables:</p> <p>The Vendor shall provide separate itemized quote for recommended essential spares and consumables which may be required for meeting the above stated tool uptime. This quote is only for reference and shall not be considered for commercial evaluation of the bid.</p> <p>The price list for the above shall be uploaded as a separate PDF file in Financial Part (Cover-2).</p> <p>(This would be for reference only and same shall not be considered during commercial /price bid evaluation of the tendered item) and for determination of L-1 vendor).</p>	
26.	<p>Validity: The offer should be valid for a minimum period of 120 from the date of opening of Tehno-Commercial bid and 90 days after opening of Price Bid.</p>	
27.	<p>Mode of Dispatch (For imported stores):</p> <p>Stores should be dispatched to IGI Airport, New Delhi through SCLs designated Freight Forwarder nominated by the purchaser whose contact details shall be indicated in the purchase order.</p>	
28.	<p>Mode of Dispatch (For indigenous stores):</p> <p>Vendor responsibility.</p>	
29.	<p>Insurance of Stores: (For indigenous stores):</p>	

	In case of indigenous order, insurance shall be the responsibility of the vendor.	
30.	Packing & Forwarding: The Contractor shall pack and crate all stores for air/sea/road shipment as applicable in a manner suitable for export to a tropical humid climate, in accordance with internationally accepted export practices and in such a manner so as to protect it from damage and deterioration in transit by road, rail, air or sea. The Contractors shall be responsible for all damages due to improper packing.	
31.	New Machine Certificate: The vendor shall submit a certificate along with the equipment as well as with the documents for claiming payment indicating the date of manufacture and certifying that the equipment supplied is brand new equipment and not used/refurbished/ remanufactured/reconditioned equipment.	
32.	REJECTION: In the event that any of the stores supplied by the Vendor is found defective in material or workmanship or otherwise not in conformity with the requirements of the Contract specifications, the purchaser shall either reject the stores or request the Contractor, in writing, to rectify the same. The Contractor, on receipt of such notification, shall either rectify or replace the defective stores free of cost to the purchaser. If the Vendor fails to do so, the purchaser may at his option either : a. replace or rectify such defective stores and recover the extra cost so involved from the Contractor, or b. terminate the Contract for default or c. acquire the defective stores at a reduced price considered equitable under the circumstances. The provision of this article shall not prejudice the Purchasers rights under LD clause.	
33.	Arbitration: In the event of any dispute/s, difference/s or claim/s arising out of or relating to the interpretation and application of the Contract, such dispute/s or difference/s or claim/s shall be settled amicably by mutual consultations of the	

	<p>good Offices of the respective Parties and recognizing their mutual interests attempt to reach a solution satisfactory to both the parties. If such a resolution is not possible, within 30 days from the date of receipt of written notice of the existence of such dispute/s, then the unresolved dispute/s or difference/s or claim/s shall be referred to the Sole Arbitrator appointed by the Parties by mutual consent in accordance with the rules and procedures of Arbitration and Conciliation Act 1996 as amended from time to time. The arbitration shall be conducted in New Delhi in the Arbitration and Conciliation Centre, New Delhi (Domestic and International) as per its rules and regulations. The expenses for the Arbitration shall be shared equally or as may be determined by the Arbitrator. The considered and written decision of the Arbitrator shall be final and binding between the Parties. The applicable language for Arbitration shall be English only.</p> <p>Work under the Contract shall be continued by the CONTRACTOR during the pendency of arbitration proceedings, without prejudice to a final adjustment in accordance with the decision of the Arbitrator unless otherwise directed in writing by the DEPARTMENT or unless the matter is such that the works cannot be possibly continued until the decision (whether final or interim) of the Arbitrator is obtained.</p>	
34.	<p>Applicable Law: The Contract shall be interpreted, construed and governed by the laws of India.</p>	
35.	<p>Indicate the Name and address of the vendor for placing purchase order along with their e-mail ID, contact person name and designation , Telephone no. and fax no.</p>	
36.	<p>a. Name and address of Indian agent, if any?</p> <p>b. Percentage of Indian agent Remuneration/Service Charge, if any: Indian agent remuneration/service charge shall be payable by the Purchaser directly to the Indian agent in Indian Rupees based on T.T buying rate of exchange prevailing on the date of placement of purchase order within 30 days of acceptance of material at purchaser site.</p>	
37.	<p>Whether the Vendor / Supplier is from any</p>	

	country sharing land boundary with India or whether the vendor / supplier is representing any principal vendor /principal supplier sharing land boundary with India. If the vendor / supplier is from any country which shares land border with India or if the vendor /supplier is and Indian Agent representing principal vendor/principal supplier of a country which shares land border with India they need to submit a photo copy documentary proof of Registration with Registration Committee constituted by Department of promotion of Internal Industry and Trade DPIIT Offers received from vendors who fall in this category but does not submit copy of documentary proof of registration shall be rejected.	
38.	<p>The participating Indian Vendors/Suppliers/Service Providers shall indicate specifically whether they fall in the category of Class I local supplier or Class II local supplier or Nonlocal supplier for evaluation as per Ministry of Commerce & Industry office order no. P45021/2/2017PP(BEII) dt. 16th September, 2020. The vendor/supplier/Service Provider shall submit declaration as documentary proof in this regard.</p> <p>The provision of above referred OM shall apply for this procurement.</p>	
39.	<p>Technical Documentation: Vendor shall supply provide technical documentation (in English language) containing, but not limited to, the following:</p> <ul style="list-style-type: none"> • Installation, operation, maintenance and programming manuals in soft copy. • All the classroom training material in soft copy. • The soft copy shall be print enabled. • Schematic and board layout design files of all layers for Prober Interface board shall be provided. • Vendor shall share the detail of all the tester recourses (i.e. Pogo details, design guideline etc.) to develop DIB at SCL <p>Vendor shall provide full set of software with perpetual license for complete system.</p>	
40.	Any Other Term:	

TENDER ACCEPTANCE
LETTER
(To be given on Company Letter Head)

Filled up response fully stamped and signed by authorized bidder to be scanned and uploaded in Technical Part (Cover-1)

Date: _____

To,

Sub: Acceptance of Terms Conditions of

Tender. Tender Reference No: _____

Name of Tender / Work:- _____

Dear Sir,

1. I/ We have downloaded / obtained the tender document(s) for the above mentioned 'Tender/Work' from the web site(s) namely:

_____ as
per
your

advertisement, given in the above mentioned website(s).

2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents (including all documents like annexure(s), schedule(s), etc .), which form part of the contract agreement and I / we shall abide hereby by the terms

/ conditions / clauses contained therein.

3. The corrigendum(s) issued from time to time by your department/ organization too has also been taken into consideration, while submitting this acceptance letter.
4. I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.
5. I / We do hereby declare that our Firm has not been blacklisted/ debarred/ terminated/ banned by any Govt. Department/Public Sector Undertaking.
6. I / We certify that all information furnished by our Firm is true correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organization shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,

(Signature of the Bidder, with Official Seal)



Technical Specifications of VLSI Mixed Signal Tester

Sr. No	Sub Clause	Description	Vendor's Compliance	Supporting Document Clause/Reference /Remarks
1	1.00	Scope of Work		
	1.001	<p>Vendor's scope of work shall cover supply, installation & commissioning of one VLSI Mixed Signal tester.</p> <ul style="list-style-type: none"> • Installation of the tester and support equipment, including all utility connections. Commissioning of the tester and demonstration of its functionality as per the required specifications. • On-site training to concerned SCL personnel on operations, maintenance & trouble shooting of the equipment. • It is not the intent of this document to completely specify all details of design and construction. Nevertheless the systems shall conform in all respects to high standards of engineering, design and workmanship and shall be capable of performing the operations in a safe and efficient manner as per industry codes. • Vendor shall provide all the required software licenses on perpetual basis. • Equipment shall have power rating as per Indian standard of either (i) Single phase 230V, 50Hz or (ii) Three phase 415V, 50Hz. For any other supply requirement, the vendor shall supply the necessary hardware to convert it to required rating. 		
2	1.002	<p>Accessories:</p> <ul style="list-style-type: none"> • Vendor shall provide following items: <ul style="list-style-type: none"> - One stiffener for prober interface board - Two stiffeners for Device Interface board. - One full set of Pogo tower along with all the required accessories for wafer sorting. • Schematic and board layout design files of all layers for PIB shall be provided preferably in MENTOR format files (*.sch,*.pcb, etc) or other format like *.grb, *.dxf. • To develop DIB at SCL, Vendor shall share the detail of all the tester recourses (i.e. Pogo details, design guideline etc.) • Vendor shall provide full set of equipments, calibration kit and software with perpetual license for complete system level calibration of all the testers' modules. 		
3	1.01	Eligibility Criteria		
		<ul style="list-style-type: none"> • Only OEMs (Original Equipment Manufacturers) or their authorized agents/distributers of similar VLSI Mixed Signal Tester are eligible to participate in the tender. 		

		<ul style="list-style-type: none"> • Vendor shall provide the valid authorization certificate issued by the OEM. The equipments shall be supplied by the OEM. • The OEM shall have experience in the manufacture and maintenance support of such equipments and have supplied at least two similar well proven standard VLSI Mixed Signal Tester to semiconductor industry/test-houses/R&D labs during the last seven (7) years. Vendor shall provide list of these installations (with client details). • The OEM shall have established user base service support and proven track record of maintaining such equipments in India. 		
4	1.02	Scope of Supply		
5	1.02.001	<ul style="list-style-type: none"> • Vendor shall supply the equipment, including support tools if any required for performing the intended activity on supplied tool. 		
6	1.02.002	<ul style="list-style-type: none"> • Vendor shall supply all the auxiliary items like interconnect matching cables for electrical connections; interconnect fittings etc. for support tool installations; Foundation Pads/bolts, Clamps, etc. as may be required to complete the installation and commissioning of the tester. • Any items not specifically mentioned in the specifications but required for safe and efficient operations of the system shall deemed to be included in the scope of supply of the vendor unless explicitly indicated in the bid by the vendor. • Any third party hardware /software/license if required to run the system shall be provide by the vendor on perpetual basis. SCL shall not purchase any such item by itself. 		
7	1.03	Scope of Installation And Commissioning		
8	1.03.001	<ul style="list-style-type: none"> • Vendor shall be responsible for proper installation & commissioning of the tester at SCL. 		
9	1.03.002	<ul style="list-style-type: none"> • Vendor shall provide guidelines for preparation of installation site. 		
10	1.03.003	<ul style="list-style-type: none"> • Vendor shall supply the installation drawings giving detailed information regarding the size & type for the utility connections. 		
11	1.03.004	<ul style="list-style-type: none"> • SCL will uncrate and move the tester in the presence of the vendor to the respective area. 		
12	1.03.005	<ul style="list-style-type: none"> • SCL shall install the tool hook up connections as per the requirements to be given by the vendor along with the bid. Any special connectors for the tool to install/ interconnects between the main tool and the support tool shall be provided by the vendor. 		
13	1.03.006	<ul style="list-style-type: none"> • Vendor shall bring all the necessary tools/instruments etc. that may be required for successful commissioning/ installation/ verification of the system and sub systems of the equipment. 		
14	1.04	Training		
	1.04.001	Vendor shall provide comprehensive hands on training on test program development and tester maintenance on site. It shall include test program development on generic device like ADC, DAC, and digital device with training on tools like, jitter measurement, eye diagram and vector conversion tools, etc. Initial training will		

		<p>be 3 weeks (2 Weeks test programming, 1 week maintenance). After 4-6 month there shall be two weeks requirement based advance training.</p> <p>Vendor shall provide standard training covering modules with examples using standard templates and in programming language for each tester resource covering at least following functional modes but not limited to</p> <ul style="list-style-type: none"> • Force/Measure current/voltage, waveform source/capture from device power supply instrument. • Force/Measure current/voltage from PPMU. • Digital pin programming in each mode. • Waveform source/capture from Analog instrument • Digital Source/Capture (Serial/parallel) from digital system. • Eye diagram, jitter tool for timing measurements, Shmoo tool. • Timing measurements (i.e. rise/fall time, propagation delay, duty cycle, frequency etc.) using TMU. • Vendor shall provide basic codes to test continuity, leakage, static/dynamic supply current, functional testing, VIL/VIH, VOL/VOH, ADC/DAC linearity test, SNR, SFDR, THD and Timing measurements. 		
15	2.00	Acceptance Procedure		
16	2.00.001	<ul style="list-style-type: none"> • Final acceptance will be done after installation and demonstration of the functionality of the equipment, as per the acceptance procedure (Annexure-A). 		
17	3.00	Technical Specifications		
18	3.00.001	<ul style="list-style-type: none"> • Following are the detailed technical specifications of the required systems. Vendor shall provide complete information as required in various sections for proper evaluation of the system clause by clause. The statements in the compliance sheet shall be supported by relevant documents/brochures. 		
19	3.00.002	<p>Applications</p> <ul style="list-style-type: none"> • The systems will be used for testing of Digital and Mixed signal devices at die and package level and shall be upgradable/expandable for channel count and RF capabilities. 		
20	3.01	System Requirement		
21	3.01.001	General		
22	3.01.002	<ul style="list-style-type: none"> • The systems shall be capable of test program development, debugging, characterization and production testing for digital and mixed signal devices. 		
23	3.01.003	<ul style="list-style-type: none"> • The systems shall be expandable/ upgradeable for increased functionality including mixed signal, Digital and RF test capabilities and shall be modular in design and architecture. • The systems shall be expandable/ upgradeable on site for increased functionality without changing backplane of the tester. 		
24	3.01.004	<ul style="list-style-type: none"> • The systems shall have built-in instrument self test, calibration and diagnostic routines. All the required instruments to carry out system calibration and diagnostic shall be provided by the vendor as part of the system. 		

25	3.01.005	Universal Test Head Hardware <ul style="list-style-type: none"> Test heads shall support auto calibration up to DUT, traceable to national standards. Test head shall have universal slots for various types of instruments cards (i.e. Analog card, Digital, RF, card etc). 		
26	3.02	Digital Sub System		
27	3.02.001	Minimum 512 digital channels, upgradeable to 1024 digital channels. Minimum digital channels (I/O) per board shall be 128. Channels shall be programmable as single ended and differential. After upgradation the tester to 1024 digital channels & RF capability and populating the slots for applications like power supply, support board, etc., the tester shall have at least 2 vacant universal slots.		
28	3.02.002	<ul style="list-style-type: none"> I/O data rate 1600Mbps minimum. All the channels shall be capable for 1600Mbps data rate. I/O channels required for 1600Mbps data rate is minimum 128. I/O channels required for 800Mbps data rate is minimum 256. 400Mbps for remaining channels. The channels for different I/O rate shall be floating (i.e. any of the 1600/800/400 Mbps channels of different data rate from 512 channels shall be user programmable). 		
29	3.02.003	<ul style="list-style-type: none"> Digital channel modes per channel- drive, compare, HiZ etc. 		
30	3.02.004	<ul style="list-style-type: none"> Overall edge placement accuracy 200ps or better. 		
31	3.02.005	<ul style="list-style-type: none"> Pulse rise time / fall time 0.6ns or better for 1.0V swing. 		
32	3.02.006	<ul style="list-style-type: none"> Vendor to specify I/O channel dynamic impedance. 		
33	3.02.007	<ul style="list-style-type: none"> Per channel timing for drive, HiZ and compare. 		
34	3.02.008	<ul style="list-style-type: none"> Per channel timing generator with on the fly changeable times. 		
35	3.02.009	<ul style="list-style-type: none"> Formats: RZ, RO,NRZ, HI, LOW, CLK,SBC etc. 		
36	3.02.010	<ul style="list-style-type: none"> I/O voltage swing: Minimum -1V to 6V, with programming resolution of 5mV. 		
37	3.02.011	<ul style="list-style-type: none"> Pattern memory: Minimum 512M vector depth per pin. 		
38	3.02.012	<ul style="list-style-type: none"> Programmable active loads per pin (pull-up and pull down) up to +/-20mA with minimum resolution of 20uA or better. IOL and IOH shall be user programmable. 		
39	3.02.013	<ul style="list-style-type: none"> Digital signal source/capture: Minimum 16M Samples, 24 Bit minimum. 		
40	3.02.014	<ul style="list-style-type: none"> Serial or parallel data send and acquire or combination for ADC/DAC testing. Shall have ability to control from test pattern. Minimum one Digital Source engine and one Digital Capture Engine per digital card. 		
41	3.02.015	<ul style="list-style-type: none"> Different pattern OPCODE (i.e. Loop, repeat, jump, branch, match loop etc) 		
42	3.02.016	<ul style="list-style-type: none"> Timing measurement unit (TMU) capable of measuring frequency, time intervals, rise/ fall time, propagation delay, pulse width, jitter, eye diagram etc. The instrument shall be able to measure AC parameter up to 800MHz. 		
		<ul style="list-style-type: none"> Timing measurement accuracy better than 1ns. 		
		<ul style="list-style-type: none"> TMU shall be per pin. 		

43	3.02.017	<ul style="list-style-type: none"> Support for inbuilt I²C, SPI protocol etc. 		
44	3.03	Precision Parametric Measurement Unit(PPMU)		
45	3.03.001	<ul style="list-style-type: none"> Per-pin PPMU for DC parameter force/measurements in different ranges with minimum resolution of 1nA, 1mV. 		
46	3.03.002	<ul style="list-style-type: none"> Vendor shall specify different force/measure ranges for voltage and current. 		
47	3.03.003	<ul style="list-style-type: none"> Voltage up to -1V to 5.5V or better. Vendor shall specify different force/measure ranges. 		
48	3.04	Device Power Supply		
49	3.04.001	 Low Power DC Supply <ul style="list-style-type: none"> Minimum 16 channels, programmable device power supplies with current/voltage measurement capability in different ranges. Voltage required is up to 0 to 6V, $\pm 200\text{mA}$ or better per channel. Voltage resolution 5mV, Current resolution less than or equal to 10uA. Shall have capabilities to merge 2 or more channels for higher current requirement. Shall have different type of alarms to report state of the individual channels. There shall be no limitation of using Device power supply with digital subsystem and vector memory. The Device power supply unit shall not limit the digital subsystem speed and vector memory depth. 		
50	3.04.002	 High Power DC Supply <ul style="list-style-type: none"> Minimum 4 channels programmable device power supplies with current/voltage measurement capability in different ranges. Voltage required 0 to 4.0V, 10A (DC current) or better. Current requirement of 10A can be met using single channel or by ganging two channels. Voltage resolution 5mV or better, current resolution 5mA or better. Shall have different type of alarms to report state of the individual channels. There shall be no limitation of using Device power supply with digital subsystem and vector memory. The Device power supply unit shall not limit the digital subsystem speed and vector memory depth. 		
51	3.04.003	<ul style="list-style-type: none"> User power supply for relay drives: <ul style="list-style-type: none"> Voltage 3.3V, current 4A or better with isolated grounds minimum one Voltage 5.0V, current 4A or better with isolated grounds minimum one 		
52	3.04.004	<ul style="list-style-type: none"> User programmable bits for relay drive: Minimum 64 with minimum current sink capability of 50mA per bit. 		
53		Analog Subsystem		
54	3.05	High Frequency Analog Source/Capture		
55	3.05.001	<ul style="list-style-type: none"> Minimum two sources, two capture to force/capture different type of analog waveforms (i.e. sine, square, ramp, and any arbitrary waveforms). Each source/capture channel shall have its own PMU. 		
56	3.05.002	<ul style="list-style-type: none"> Mode: Single ended and differential with programmable amplitude, common mode voltage and offset. 		
57	3.05.003	<ul style="list-style-type: none"> Bandwidth: 120MHz Minimum. 		
58	3.05.004	<ul style="list-style-type: none"> Full scale range: 2Vp-p minimum. Shall have different ranges to source/capture low amplitude 		

		waveforms (i.e. 100mV sine wave).		
59	3.05.005	• Resolution: 16 bit minimum.		
60	3.05.006	• Memory size: 8M or better for source and 4M or better for capture.		
61	3.06	Low Frequency Analog Source/Capture		
62	3.06.001	• Minimum two source, two capture to force/capture different type of analog waveforms (like sine, square, ramp, and any arbitrary waveforms). Each source/capture channel shall have its own PMU.		
63	3.06.002	• Mode: Single ended and differential with programmable amplitude, common mode voltage and offset.		
64	3.06.003	• Bandwidth: DC to 50Khz Minimum		
65	3.06.004	• Full scale range: 5Vp-p. Shall have different ranges to source/capture low amplitude waveforms(i.e. 100mV sine wave)		
66	3.06.005	• Resolution: 24 bit minimum		
67	3.06.006	• Memory size: 8M or better for source and 4M or better for capture.		
68	3.06.007	• Shall support for different type of microcode (start, stop waveform etc) to have pattern communication with test program to force/capture analog waveforms for both high frequency and low frequency analog source/capture.		
69	3.06.008	• Flexible clocking scheme for various degree of synchronization between analog and digital subsystem. Shall support asynchronous mode of operation.		
70	3.07	Test Head Manipulator		
71	3.07.001	• Manual Test head manipulator (6-AXIS).		
72	3.08	Tester Controller		
73	3.08.001	• Work station for user interface, tester control and programming with minimum 16GB RAM, 24' monitor, minimum 240GB SSD for operating system and tester software, and minimum 1TB hard drive for storage, IEEE-488 bus interface support, Ethernet-with TCP/IP protocol.		
74	3.08.002	• Shall have control library of industry standard wafer probers, like Electroglas, TEL, TSK etc.		
75		Optional Items • Vendor shall quote separately for any other standard hardware required from tester side for “at-speed” wafer level testing using direct probe method for TEL/TSK etc probers. The model of the prober will be shared accordingly. The price shall not be included in the main bid.		
76	3.08.003	• GUI based environment for programming and debugging with features like digital and analog waveform display of all pins on monitor and digital scope. Detailed digital signal processing software with spectrum display on the monitor. Shmoo, characterization tools for DC/AC parameters characterization. Eye diagram, jitter tool for timing measurements. Vendor shall provide detailed math test library for digital signal processing.		
77	3.08.004	• Statistical analysis software. The offline license shall also support Statistical analysis software.		
78	3.08.005	• Minimum 2 off-line licenses for test program development and simulation.		

79	3.08.006	<ul style="list-style-type: none"> Operator Graphical User Interface (GUI) software for wafer production testing. 		
80	3.09	Installation And Commissioning		
81	3.09.001	<ul style="list-style-type: none"> At SCL, installation is complete when the tester passes diagnostic, calibration and as per Annexure -A. 		
82	4.00	Warranty		
83		<ul style="list-style-type: none"> Vendor shall provide comprehensive parts and labour warranty for two years after commissioning and acceptance of the system at site. Vendor shall provide two preventive maintenance each year during warranty. Vendor shall guarantee 90% minimum uptime for the tester based on 24 hours working 7 days a week. All the software update shall be provided by the vendor free of cost during the warranty period. 		
84	4.00.001	Annual Maintenance Contract (AMC)		
85		<ul style="list-style-type: none"> Vendor shall quote separately for five year comprehensive AMC on yearly basis. This list would be for reference only. Even the quote for main tool shall also NOT include any price information. 		
86	5.00	Post Warranty System Support		
87		<ul style="list-style-type: none"> Vendor shall be able to provide service support including spares and consumable for a period of 7 years post warranty. 		
88	6.00	Recommended Spares And Consumables		
89		<ul style="list-style-type: none"> Vendor shall provide separately the itemized price list of recommended spares and consumables which will be required to maintaining above stated tool uptime. This list would be for reference only. Even the quote for main tool shall also NOT include any price information for the spares and consumable. 		
90	7.00	Safety		
91		<p>Appropriate safety mechanism in terms of alarms and EMO shall be provided for operator safety. Vendor shall provide the details.</p> <ul style="list-style-type: none"> The system shall be design to be compliant with CE standards or other Industrial safety standard. The system shall be designed in a manner so that the radiation level (if any) outside is as per the industry standard. 		
92	8.00	Technical Documentation		
		<p>Vendor shall supply provide technical documentation (in English language) containing, but not limited to, the following:</p> <ul style="list-style-type: none"> Installation, operation, maintenance and programming manuals in soft copy. All the classroom training material in soft copy. The soft copy shall be print enabled. Schematic and board layout design files of all layers for Prober Interface board shall be provided. Vendor shall share the detail of all the tester recourses (i.e. Pogo details, design guideline etc.) to develop DIB at SCL Vendor shall provide full set of software with perpetual license for complete system. 		

Acceptance Procedure

SI No	Description	Compliance (Yes/No)	Supporting Document Clause/Reference/Remarks
1	<ul style="list-style-type: none">Vendor shall provide the system calibration certificate traceable to national standards.		
2	<ul style="list-style-type: none">The system shall pass built-in instrument self test, calibration and diagnostic routines at SCL		
3	<ul style="list-style-type: none">Vendor shall demonstrate the full functionality of the various tester recourses on standard digital and mixed signal devices at SCL using standard test method or training devices. The equipment will be accepted on successful demonstration of following features.<ul style="list-style-type: none">→ Different data rate up to 1600Mbps for digital channel I/Os.→ Per channel timing generator with on the fly changeable times.→ Different formats: RZ, RO, NRZ, HI, LOW, CLK, SBC etc.→ I/O voltage swing: -1V to 6.0V→ Active loads per pin (pull-up and pull down) on digital I/Os.→ Differential mode programming for digital I/Os.→ Serial or parallel capturing/Send data on digital pins→ Different pattern OPCODE (i.e. Loop, repeat, jump, branch, match loop etc)→ PMU voltage force/Measure, current force/Measure for digital I/Os and analog pins.→ Timing measurements (i.e. rise/fall time, propagation delay, duty cycle, frequency etc.) using TMU.→ Features such as Shmoo plots, jitter measurement, eye diagram.→ Analog source capture for Low Frequency and High Frequency for 16 bit/24 bit resolution within full bandwidth.→ Forcing Voltage/current for High Power DC Supply and Low Power DC Supply with Dynamic supply current measurement upto 1600Mbps→ Ganging of DC supplies channel for high current requirements.→ Controlling various parameters of Digital I/Os, PMU, Relay Bits, Analog Source, DC Supply etc in debug mode.→ Execute and explain procedure for system level diagnostic and calibration routines.→ Installation of 2 off-line licenses for test program development and simulation.Vendor shall bring all the required training boards and devices required to demonstrate the full functionality of the tester.		

Footprint and Utility Requirements			
S. No.	Utility	Specifications	
1	Environmental Conditions		
	Clean Room Class (Available at SCL : ISO class 7)		
	Tester footprints(LXWXH)		
	Temperature		
	RH		
2	Process Cooling Water		
3	Compressed Dry Air		
4	Process Vacuum		
5			
6			
7			
8			
9			
10			

NOTE: Power Mode Available at SCL:

(i) Single phase 230V, 50Hz

(ii) Three phase 415V, 50Hz. For any other supply requirement, the vendor shall supply the necessary hardware to convert it to required rating.