



**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 2296100/200/300/400 (Ext. 6169)  
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### **INVITATION TO TENDER NO.: 45183**

E-tender /Online bid is invited for **One year Rate Contract for Packages & Lids** 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)

**PSO**



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## **Tender Document**

**For**

**One Year Rate Contract for Packages & Lids**

**TENDER NO.: 45183**

**TENDER INVITING AUTHORITY**

**SEMI-CONDUCTOR LABORATORY**

**MINISTRY OF  
ELECTRONICS AND  
INFORMATION  
TECHNOLOGY**

**GOVERNMENT OF INDIA**

**SECTOR 72, SAS NAGAR MOHALI**

**PUNJAB – 160 071**

**Mr. Naresh Singh**

**PSO**

**Direct - 0172-2296169**

**Email: [naresh@scl.gov.in](mailto:naresh@scl.gov.in)**



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### **Tender Document**

TENDER NO.: 45183

Subject: One Year Rate Contract for Packages & Lids

We intend to procure as per details given below:

<b>Sr. no</b>	<b>SCL Material Code</b>	<b>Item Description / Specification and drawings</b>	<b>Qty. (Nos.)</b>
1	As per annexure-I	As per annexure-I	As per annexure-I
2.	Scope of work attached as annexure – II		

Kindly submit your quotation online as per tender schedule.

#### **Note:**

- Tender details may be viewed and downloaded from the website. <https://eprocure.gov.in/eprocure/app>
- The bids have to be submitted online in electronic form on [www.eprocure.gov.in](http://www.eprocure.gov.in) only. No physical bids will be accepted.
- For any queries please mail us at [naresh@scl.gov.in](mailto:naresh@scl.gov.in) , [vmehhta@scl.gov.in](mailto:vmehhta@scl.gov.in) Contact No. 0172-296169/2296175

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<https://www.scl.gov.in>

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## **TENDER NO.: 45183**

### **Online bid invited for and on behalf of SCL, S.A.S Nagar, Punjab**

Interested parties may view and download the tender document containing the detailed terms & conditions from the website <https://eprocure.gov.in/eprocure/app>

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

#### **Terms and Conditions:**

1. SCL reserves the right of accepting or rejecting any quotations without assigning any reason thereof.
2. Samples, if called for, shall be submitted free of charge and with no obligation to SCL basis.
3. This is only an enquiry and not a purchase order.
4. The Purchaser reserves the right at the time of Contract award to increase or decrease the quantity of goods and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions.
5. 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.

**Filled up response fully stamped and signed by authorized bidder to be scanned and uploaded**

**TENDER ACCEPTANCE LETTER**

**(To be given on Company Letter Head)**

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)**

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<https://www.scl.gov.in>

## **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](https://eprocure.gov.in/eprocure/app)) by clicking on the link “Online Bidder Enrolment” option available on the home page.
- (ii) **Enrolment on the CPP Portal is free of charge.**
- (iii) 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.
- (iv) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- (v) 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).
- (vi) 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.
- (vii) Upon enrolment on CPP Portal for e-tendering, the bidders shall register their valid Digital Signature Certificate with their profile.
- (viii) 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.
- (ix) Bidders can 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 online 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 & Prices and any change/modification of the price schedule shall render it unfit for bidding.**

**Bidders shall download the Schedule of Quantities & 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 & Prices file is found to be modified/corrupted in the eventuality by the bidder, the bid will be rejected and EMD if any shall be forfeited.**

- (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

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conditions contained therein should be addressed to the Tender Inviting Authority as per e-mail ID given 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](mailto: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 uploaded online separately.**
- b. **Both Technical and Financial Bid cover should be placed online on the CPPP separately.**
- c. 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)

### **b) For Import Shipments – Shipping Terms Ex-Works/FOB**

international airport basis.

#### 4. Financial Bid

- a. 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/Specifications, service conditions and other terms of the Tender document. It should include all costs associated with the Terms of Reference/Scope of Work/Specifications of the assignment.

#### 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. TIA 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, Mohali 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 and tender fee shall not be refunded 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 (Global 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.15,00,000.00 (Fifteen Lakh 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. 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. **Foreign bidders can submit EMD in INR or in foreign currency of equivalent value.**
- d. **Indian agent/Indian counterpart submitting bid on behalf of foreign principal shall not be exempted for submitting EMD.**
- e. **MSME submitting bid on behalf of foreign vendor shall not be exempted for submitting EMD.**
- f. The bid submitted by vendor without EMD will not be considered.
- g. 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.
- h. Vendors/firms name and tender no. shall be indicated on the reverse side of the EMD instrument.
- i. EMD instrument should not be dated prior to the date of tender.
- j. SCL will not be responsible for non-receipt of EMD instrument due to postal delay / loss in transit.
- k. Any tender not accompanied with EMD shall be treated as invalid tender and rejected.
- l. 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

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deposit/performance bond by a successful vendor within the specified period shall also result in forfeiture of EMD.

- m. 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 financial 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.

## **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.

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**Commercial Terms Conditions to Tender Ref. No. 45183**

**Filled up response fully stamped and signed by authorized bidder to be scanned and uploaded in Technical part Cover-1 only**

<b>Sr.no</b>	<b>Description</b>	<b>Vendor's Compliance</b>
1.	<p><b>DEFINITIONS:</b> The term PURCHASER shall mean Semi-Conductor Laboratory, Sector-72, Mohali, Punjab 160071, under the administrative control of MEITY, Government of India.</p> <p>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>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 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.</p>	
2.	<p>Being a <b>Two Part</b> Tender Technical and Commercial part are separate. <b>The Technical part (Cover-1) should contain unpriced bid and not contain any Pricing information.</b></p> <p><b>The tenders containing Price details in Technical part (Cover-1) will be summarily rejected.</b></p> <p><b>The prices should be quoted in Price-Bid Form BOQ and to be uploaded in BOQ-Commercial (Cover-2) only along with pdf duly signed and stamped to be uploaded.</b></p>	
3.	<p>The Vendor / Contractor shall confirm that they have submitted the offer for NEW Items only.</p>	
4.	<p><b>Compliance/acceptance to :</b></p> <ul style="list-style-type: none"> <li>I. Item description attached as Annexure – I.</li> <li>II. Scope of Work attached as Annexure-II.</li> <li>III. Material Specification of packages and Sealing Lids attached as Annexure – III.</li> <li>IV. Design drawings of Ceramic IC Packages and Sealing Lids</li> </ul>	

	<p>attached as Annexure – IV.</p> <p>V. This tender document (Containing Specification, scope of work and drawings) is SCL's property and controlled documents. Not to be used otherwise"</p> <p>VI. Tender Acceptance Letter.</p> <p>VII. BOQ in xls. and as well as signed, stamped and scanned copy.</p> <p>VIII. The bids have to be submitted online in electronic form on <a href="http://www.eprocure.gov.in">www.eprocure.gov.in</a> only.</p> <p>IX. No physical bids will be accepted.</p>	
5.	<p><b>Earnest Money Deposit (EMD):</b> Bidders are required to submit offers along with prescribed Earnest Money Deposit (EMD) amount of Rs. 15,00,000.00 (Fifteen Lakh 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</p>	
6.	<p><b>Validity of Bid:</b> 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>	
7.	<p><b>Delivery Terms (For imported stores):</b> Prices shall be quoted on FOB/FCA nearest International/Gateway airport basis inclusive of all taxes, levies, duties arising in the tenderer country.</p>	
8.	<p><b>Export Formalities, Taxes &amp; Duties:</b> 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>	
9.	<p><b>Delivery Terms (For Indigenous stores):</b> 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>	
10.	<p><b>For imported materials:</b> 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. 45/25 dated 24.10.2025 and subsequent amendments to enable the contractor to avail off the benefit of concessional rate of customs duty. Under this notification, basic Customs Duty shall be applicable at the rate 5.5 percent plus GST as applicable. 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> <p>(Purchaser will provide Customs Duty Exemption Certificate in case of Import Orders/ imported supplies/ High Sea Sales).</p>	

11.	<b>Goods and Service Tax (GST):</b> GST shall be payable extra if applicable. Please mention percentage of applicable GST along with HSN Code in your response.	
12.	<p><b>Security Deposit (SD):</b> On acceptance of the tender, the Vendor shall submit security deposit for three percent (3% percent) value of the Purchase Order (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 till execution of PO and should remain 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.</p> <p><b>Note:</b> 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, genuineness of the BG will be verified by SCL's banker by checking into SFMS gateway.</p> <p>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 Banker gives Bank Guarantee (BG) confirmation over email from their Domain immediately after issuance of the same at the following email Ids followed by hard copy:</p> <p><a href="mailto:s_sahore@scl.gov.in">s_sahore@scl.gov.in</a>  CC: <a href="mailto:naresh@scl.go.in">naresh@scl.go.in</a> and <a href="mailto:vmehta@scl.gov.in">vmehta@scl.gov.in</a></p> <p>In addition, the banker may send a scanned copy of the BG as an attachment.</p>	
13.	<p><b>Terms of Payment in case of overseas supplier(s):</b> 100% payment shall be made through SIGHT DRAFT after shipment. Vendor is requested to send the original documents (i.e Invoice, Packing List, AWB or BL etc.) to PURCHASER BANKER routed through VENDOR BANK for payment at the following address:</p> <p>State Bank of India(61229)  Semi-Conductor Laboratory  Sector 72, Mohali, Punjab - 160071, INDIA.</p>	
14.	<b>Bank Charges:</b> 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.	
15.	<b>Terms of payment in case of Indigenous supplier(S):</b> 100% payment shall be made for the accepted stores with 30 days from the	

	date of receipt and acceptance of the materials at SCL.	
16.	<b>Delivery Period:</b> Within four months from the date of raising of requirement by SCL.	
17.	<b>Delay in Completion/Liquidated Damages(LD):</b> 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 undelivered stores for each calendar week of delay. The total liquidated damages shall not exceed ten percent (10 percent) of the Contract price of the unit or units so delayed.	
18.	<b>Extension of Time:</b> If the completion of supply of stores is delayed due to reason of force majeure such as acts of 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.	
19.	<b>Mode of Despatch:</b>  (i) <b>Overseas Supplier,</b> stores should be despatched by Indian Flag Vessels/Air India or through any Agency nominated by SCL whose contact details shall be indicated in the purchase order.  (ii) <b>Indigenous orders:</b> Vendor responsibility.	
20.	<b>Packing and Forwarding:</b> 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.	
21.	<b>Fall Clause:</b> The prices charged for the stores supplied under the Contract by the vendor should in no event exceed the lowest price at which the vendor sells the stores of identical description to any other person during the period of the Contract. If at any time, the prices are reduced, the same shall be notified to the Purchaser and shall stand correspondingly reduced.	
22.	<b>Rejection:</b> In the event that any of the stores supplied by the Contractor 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.	
23.	<b>Replacement:</b> 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.	
24.	<p><b>Arbitration:</b> 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 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>	
25.	<b>Applicable Law:</b> The Contract shall be interpreted, construed and governed by the laws of India.	
26.	Whether the Vendor / Supplier is from any 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.	
27.	<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)-Part(4)Vol.II dt. 19th July, 2024.</p> <p>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. Purchase preference shall be Governed by the above mentioned orders and subsequent orders issued from time to time.</p>	
28.	Indian agent remuneration/service charge (If applicable) 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.	
29.	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.	
30.	Any Other Term:	

**Yours Faithfully,**  
**(Signature of the Bidder, with Official Seal)**

**Table1: List of Items - Rate Contract for One Year for Ceramic IC Packages**

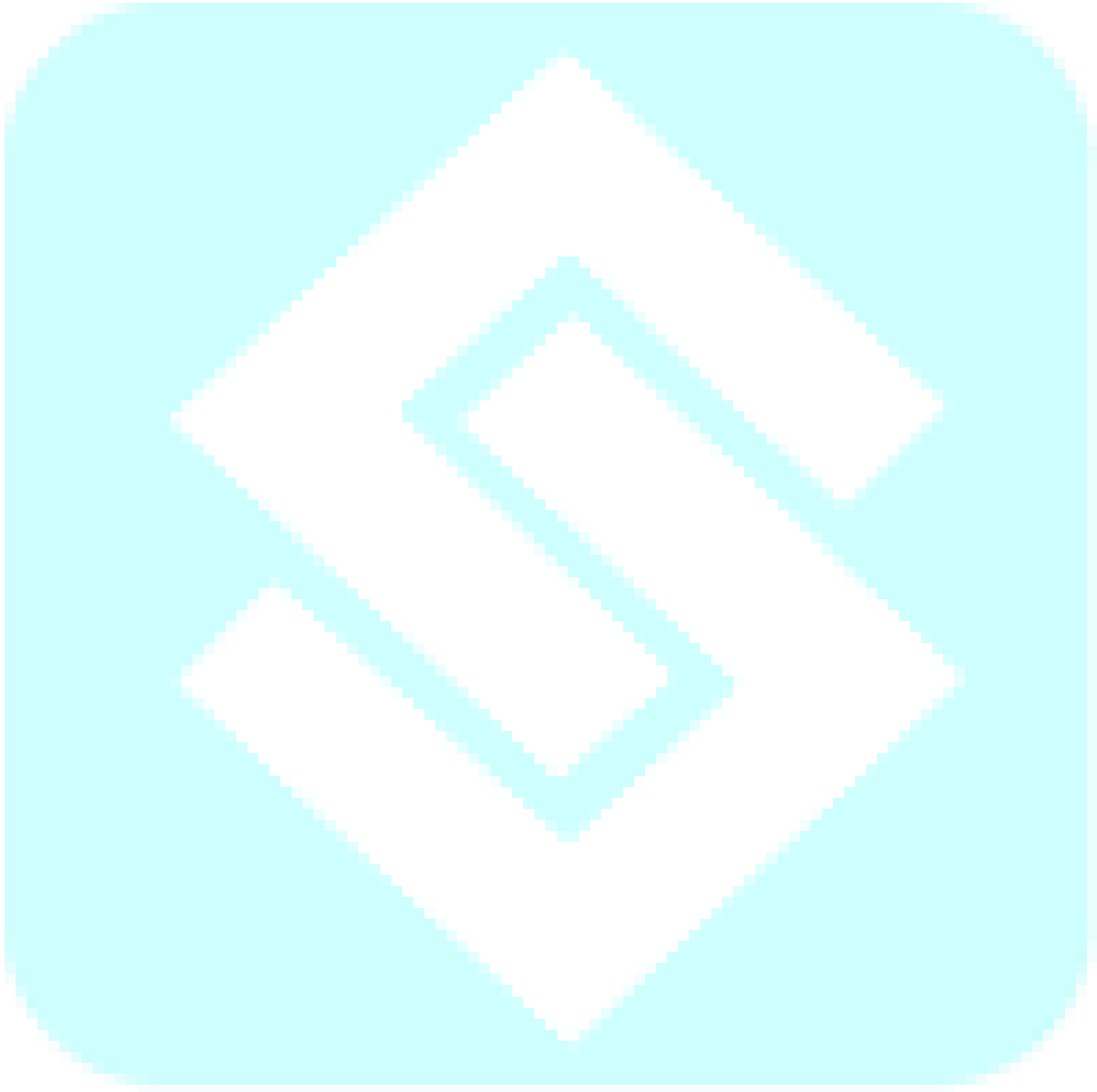
Sr no	SCL Item code	Item name	Minimum Lot size / Qty. per year, Nos.	Drawing numbers
1	230216171	Ceramic IC Package - 8 pin CSOP (die cavity 3.3mm x 3.3mm)	1000	C15E42020004
2	230216110	Ceramic IC Package - 14pin CSOP (die cavity 3.81 mm x 3.81 mm)	1000	A1542020322
3	230216124	Sealing Lid With Preform: Drawn OD 250mils x 250mils ID 210mils x 210mils	1000	A1542020329
4	230216109	Ceramic IC Package - 14pin CSOP (die cavity 6.47 mm x 3.96 mm)	1000	A1542020323
5	230216123	Sealing Lid With Preform: LWP OD 380 mils x 245mils, ID 0340mils x 215mils	1000	A1542020328
6	230216088	Ceramic IC Package - 16pin CSOP (die cavity 4.19 mm x 3.81 mm)	1000	A1542020236
7	230216090	Sealing Lid With Preform: Drawn OD300 mils x 250mils ID 250mils x 205mils	1000	A0342020247
8	230216200	Ceramic IC Package 22 Pin CDIP, Die cavity: 7.11mm x 6.6mm	1000	A1542020458
9	230216202	Sealing Lid with Preform (LWP)- OD470x370 ID410x345	1000	C15E42020007
10	230216162	Ceramic IC Package - 24pin CQFP (die cavity 8 mm x 8 mm)	500	A1542020393
11	230216163	Sealing Lid With Preform: OD476 mils x 476mils ID 445mils x 445mils	500	A1542020386
12	230216045	Ceramic IC Package 28 Pin CDIP, Die cavity: 5.58mm x 5.58mm	2000	A1542020411
13	230215010	Sealing Lid With Preform: OD493 mils x 493mils ID 423mils x 423mils	2000	A1542020370
14	230216281	Ceramic IC Package CLCC 28Pin (cavity size 5mm sq )	100	SCL/VAHD/DWG/2025/03
15	230216290	Sealing Lid WithStep for Seam Sealing OD 9.11 mm sq	100	SCL/VAHD/DWG/2025/13
16	230216282	Ceramic IC Package CLCC 44 Pin (cavity size 6.35mm sq)	200	SCL/VAHD/DWG/2025/04
17	230216291	Sealing Lid WithStep for Seam Sealing OD 11.4 mm sq	200	SCL/VAHD/DWG/2025/15
18	230116237	Ceramic IC Package CLCC 44 (Cavity 12.mm x 12mm)	500	SCL/VAHD/DWG/2025/05

Tender: 45183

<https://www.scl.gov.in>

Sr no	SCL Item code	Item name	Minimum Lot size / Qty. per year, Nos.	Drawing numbers
19	230116238	Sealing Lid With Preform OD 620" ID 570"	500	SCL/VAHD/DWG/2025/18
20	230216118	Ceramic IC Package - 48 pin CDFP (die cavity 4 mm x 5.3 mm)	300	C15E42020002
21	230216117	Ceramic IC Package - 48 pin CDFP (die cavity 4 mm x 8.65 mm)	1000	C15E42020005
22	230216122	Sealing Lid With Preform: LWP OD 472mils x 360mils, ID420mils x 308mils	1000	A1542020327
23	230216141	Ceramic IC Package - 64 pin CQFP (die cavity 5.6 mm x 5.6 mm)	500	C15E42020003
24	230216147	Sealing Lid With Preform: LWP OD 362 mils x 362 mils, ID 323 mils x 323 mils	500	A1542020350
25	230216296	Ceramic IC Package CLCC 68 Pin (cavity size 8.12mm sq)	200	SCL/VAHD/DWG/2025/06
26	230216293	Sealing Lid With Step for Seam Sealing OD 12.42 mmsq	200	SCL/VAHD/DWG/2025/14
27	230216143	68 Pin CQFJ, (Die cavity: 8.255 mm x 8.255mm)	4000	A1542020891
28	211215011	Sealing Lid with Preform (LWP)-OD 590mils x 590mils ID 520mils x 520mils	4000	A1542020367
29	230216284	Ceramic IC Package CLCC 84 Pin (cavity size 8.89 mm sq)	100	SCL/VAHD/DWG/2025/07
30	230216297	Sealing Lid With Step for Seam Sealing OD 16.48 mm sq	100	SCL/VAHD/DWG/2025/16
31	230216001	100 Pin Cerquad Lead frame , (Die cavity: 8.99 mm x 8.99 mm)	3000	A0342020148
32	230216027	Sealing Lid with Frit Glass Ceramic OD:787x551 mils ID 689 x 449mils	3000	A1542020243
33	230216137	Ceramic IC Package - 132 pin CQFP (die cavity 10.16 mm x 10.16 mm)	200	C15E42020001
34	230216280	Ceramic IC Package 132 Pin CQFP ((Die cavity: 11.4 mm sq )	1000	SCL/VAHD/DWG/2025/08
35	230216164	Sealing Lid With Preform: LWP OD 710 mils x 710 mils, ID 660 mils x 660 mils	1000	A1542020387
36	230216279	208 Pin CQFP , (Die cavity: 9.5 mm x 9.5 mm)	200	SCL/VAHD/DWG/2025/10
37	230216287	208 Pin CQFP , (Die cavity: 12 mm x 12 mm)	300	SCL/VAHD/DWG/2025/11
38	230216289	Sealing Lid With Step for Seam Sealing OD 20.6 mmsq	300	SCL/VAHD/DWG/2025/17
39	230216146	256 Pin CQFP, Die cavity: 16.5 x 16.5	500	C15E42020006
40	230216142	Sealing Lid With Preform: LWP OD: 867x867, ID: 803x803 mils	500	A1542020349

Sr no	SCL Item code	Item name	Minimum Lot size / Qty. per year, Nos.	Drawing numbers
41	230216174	Ceramic IC Package 20 Pin CDFP, Die cavity: 6.350 x 3.556	1000	SCL/VAHD/DWG/2026/23
42	230215024	Sealing Lid With Preform LWP OD460X280 ID420x240	500	SCL/VAHD/DWG/2026/24
43	230216298	Ceramic IC Package - 10 pin CSOP (die cavity 3.3mmsq)	500	SCL/VAHD/DWG/2026/22



**Scope of Work for One Year Rate Contract  
Ceramic IC Packages and Sealing Lids**

Sl. NO.	Description	Vendor's compliance
1.	These ceramic IC packages and Sealing lids are required for high reliability hermetic packaging of Integrated Circuits and ASICs.	
2.	General Material specification of Ceramic IC packages and Sealing Lids are given in Annexure III.	
3.	Design Drawings of Ceramic IC packages and Sealing Lids are given in Annexure IV.	
4.	This is a Rate Contract tender for the items listed in Table 1 which will be valid for one year starting from PO placement.	
5.	The quantities given in Table 1 for each item are approximate requirements for one year and it is solely SCL decision to take up the production of these items whenever need arises. Some items may not be taken for Production if there is no requirement during the period.	
6.	If the production of any item is taken during rate contract period, the quantity of the item may be increased by multiple of 100 Nos. in the existing Minimum Lot Size mentioned in the Table 1.	
7.	Before initiation of fabrication of particular item, the final fabrication drawing to be submitted for SCL approval.	
8.	During rate contract period, the delivery of the item has to be within four months or earlier after intimation of lot initiation from SCL.	
9.	OEM or authorized distributor/representatives of OEM can participate in the tender and an authorization certificate from OEM to be submitted along with Technical bid (cover 1) of the bid.	
10.	Bidder can offer all or selected items from the tendered items	
11.	Bidder to submit the compliance to scope of work, Material Specifications and Drawings of corresponding item in Technical bid (cover 1) of the bid.	
12.	The offer must be supported by relevant standard documents from OEM/ literature etc. to support the compliance.	
13.	Only bidder qualifying Technically, will only be considered for further evaluation.	
14.	This is two-part tender. Technical bid in (cover 1) is technical.	
15.	No commercial value term to be put in Technical bid (cover 1) of the tender by the bidder.	
16.	For the qualified bidder(s) Technically, comparative statement will be made for each tendered item separately to evaluate the best offer for each item.	
17.	Rate of contract for first year may be extended for second year also.	

## Material Specification of Multilayer HTCC packages

Item	Values	Vendor Response/Offer	Remarks
<b>1. Application:</b>	Packaging of Silicon die using Silver Glass die attach adhesive cured at $\geq 430^{\circ}\text{C}$ , aluminium wire bonding using ultrasonic wire bonder and Kovar lid with Au-Sn solder for hermetic seal meeting MIL-STD-883 requirements.		
<b>2. Technical Specifications:</b>			
<b>A Material:</b>			
a) Material of the base	: Ceramic: 90% minimum Alumina.		
b) Metallization	: Tungsten or equivalent (refractory metal).		
c) Lead material	: Kovar, Alloy-42 or equivalent with gold metallization.		
d) Gold Plating	: 99.9% minimum Pure Gold per MIL-G-45204 over Ni plating on all exposed metallization area. Gold plating thickness shall be 60 micro inches minimum over a minimum thickness of 50 micro inches of Nickel plating.		
<b>B. Dimensions:</b>	As Per Package drawing		
<b>C. Physical characteristics:</b>			
<b>a) Ceramic area (other than seal area):</b>			
i. Cracks	: Not allowed		
ii. Chip	maximum 0.030" x 0.030" x 0.060" ,. Chip should not remove or expose any metallization area.		
iii. Flakes	: maximum 0.10" x 0.100" x 0.100"		
iv. Bumps/ Excess	: On ceramic surface (bottom & top) should not exceed material 0.002" and 0.010" in height on		

Item	Values	Vendor Response/Offer	Remarks
	any other surface.		
v. Camber	: should be 0.004"/inch maximum not less than 0.002".		
vi. Foreign Material/ discoloration/stains / Gold on Ceramic surface:	should not exceed 20 mils in size on the top or bottom of package and 50 mils in size on sides.		
<b>b) Die-attach area:</b>			
i)Voids/peeling/blistering/Foreign material:	maximum 0.010" in diameter with not more than 3 defects 0.030" apart in critical die attach area.		
ii) Flatness (excluding perimeter path of 0.015" from cavity wall)	:0.002" maximum (upto cavity size 0.5" sq) , 0.0035" (for cavity 0.501" to 0.75")		
iii) Bumps/ excess material:	maximum 0.001" in height in critical die attach area.		
iv)Near Shorts (Excess metallization that could cause a short):	Distance between die attach area and bond pad should not reduce more than 50% of ceramic wall height.		
<b>c) Seal Area:</b>			
i) Seal area Flatness:	0.002" maximum for Seal ring area upto 0.5" sq, 0.003" maximum for area 0.501" sq to 0.750"sq; 0.004" maximum for area over 0.750" sq.		
ii)Bumps/ excess material/ depressions/ pits:	0.001" Maximum		
iii)Voids/Chips/peeling/blistering /foreign material:	On the seal area no larger than 0.010" or 25% of the width of the seal ring (whichever is smaller).		
<b>d) Wire bond finger area:</b>			
i) Bumps/ excess material/ of depression:	Not allowed in critical bond area (square area 2/3 the bond pad width, starting at 5 mil from tip of bond pad). In non critical bond area 0.002" maximum.		
ii) Voids/ Chips/peeling/bond blistering/foreign material/scratches:	Not allowed in critical bond area. In non critical area it should not be more than half of the bond pad width.		

Item	Values	Vendor Response/Offer	Remarks
<b>e) Lead/Pin Attachment:</b>			
i) Pits/ Scratches/gouges/rough gold	Burrs/Scratches expose the nickel underplate or base metal		
ii) Lead/ Pad alignment (For CQFP/CQFJ)	: The leads should not overhang the braze pads by more than 25% of the lead width.		
ii) Pin/ Pad alignment (For CPGA)	: The leads should not overhang the braze pads. Whole 100% of entire diameter of the pin to be on braze pad.		
iii) Lead alignment (For CQFP/CQFJ)	: Opposite leads offset not greater than a total of 10 mils.		
iv) Braze Fillet	: Braze fillet should be visible around at least 75% of the lead area brazed on metalized pad.		
v) Braze Pad Near Shorts	: Space between braze pads should not reduce by 50% due to metallization smear.		
<b>f) Castellation Area (If present)</b>			
i) Castellation Near Shorts	: Distance between any two castellation should not reduce by 50% of the space.		
<b>g) Gold Plating:</b>			
i) Blister/ flaking/Discoloration	On bare package, it shall not be there when viewed under 10X magnification & no discoloration allowed visible to naked eye.		
ii) Adhesion	: Gold plating shall withstand peel off test using scotch tape.		
iii) Solderability	: Leads with gold plating shall withstand solderability test.		
iv) Bake test	: Package bases after placing on a heater block at 450± 10°C in air for one minute. Gold plating shall not show discoloration after cooling, visible to the naked eye & blisters, peeling or flaking at 10X		

Item	Values	Vendor Response/Offer	Remarks
<b>h) Appearance:</b>			
i) Visual	: At 10X magnification, package base shall present a clean appearance, free of loose foreign particles. Foreign particles which can be removed with the blow of Nitrogen gas or dry air (30psi) from a distance shorter than one inch may not be considered as foreign particles.		
<b>3. Shelf Life</b>	: Package base should have not been manufactured more than five years before the date of dispatch. Vendor to provide manufacturer certificate of conformance to specifications along with manufacturer lot no. and date of manufacturer with the supplied material.		
<b>4. Packing requirement: a)</b>	Package to be packed in trays and then in air-tight (vacuum sealed) aluminum foil packing.		
b) The container containing these package bases	Should protect these against oxidation, dust, mechanical damage, spillage etc.		
<b>5. Safety/Handling</b>	: Package bases should not be exposed to dust & should never be touched with bare hands.		
<b>6. Storage Condition</b>	: Packages should be stored in manufacturer's original vacuum seal packing & these sealed packets should be stored in dry N2 ambient in dust free environment. Vendor to provide confirmation with respect to storage conditions.		
<b>7. Test Conditions:</b>			
a) Conformance to specs :	Specified at serial no. 2		
b) The package after die attach using silver glass epoxy & aluminum wire bonding using ultrasonic wire bonder	Should be able to withstand the following tests:		
i. Die shear evaluation	– MIL-STD-883, Method 2019.		

Item	Values	Vendor Response/Offer	Remarks
ii. Destructive bond pull	– MIL-STD-883, Method 2011.		
c) The package after sealing with lid preform	Should be able to withstand the following tests:		
i. Thermal Shock	- MIL-STD-883, Method 1011, Condition C, 15 Cycles.		
ii) Thermal Cycling	-MIL-STD-883, Method 1010, Condition C, 100 Cycles		
iii) Mechanical Shock	- MIL-STD-883, Method 2002, Condition B		
iv) Vibration	-MIL-STD-883, Method 2007,Condition A, 20g.		
v) Constant Acceleration	- MIL-STD-883, Method 2001, Condition D.		
vi) Stabilization Bake	-MIL-STD-883, Method 1008, 150oC, 1000 hrs.		
vii) Seal Test-	MIL-STD-883, Method 1014, Fine leak-Condition A; Gross leak - Condition C		
viii) Metal Package Isolation (If applicable)	- MIL-STD-883, Method 1003, 600V DC, 100 nA max.		
ix) Solderability-	MIL-STD-883, Method 2003,		
x) Lead Integrity	- MIL-STD-883, Method 2004		
<b>8. Acceptance Criteria:</b>	The Packages should meet all the above mentioned specifications and test conditions during evaluations at SCL after assembly.		

**Material Specification for Sealing Lids**

1. **Purpose:** The LID with PREFORM is used for hermetic sealing of ceramic package base.

2. **Technical data:**

I. **Material:**

- a) Material of Lid : KOVAR / ALLOY-42
- b) Preform : Gold Tin Alloy (Gold 80%±1%, Tin 20%)

II. **Dimensions:**

- a) Outer / Inner dimension : as specified in Part drawing
- b) Outer / Inner radius : as specified in Part drawing
- c) Lid thickness : as specified in Part drawing
- d) Preform thickness : as specified in Part drawing
- e) Tolerances : as specified in Part drawing

III. **Product design:**

- a) Ni plating : As per MIL-M-38510H
- b) Gold Plating (min.99.7% pure) : As per MIL-G45204B Type III,Grade A
- c) Plating Type : 2 layers:- 1st Layer 50 to 350 micro inches of Ni, 2nd Layer 50 micro inches minimum of Au.

IV. **Physical characteristics:**

- a) Parts shall not have any burrs greater than 0.001" per ½ inch TIR (Total indicator reading).
- b) There shall be no burrs greater than 0.001" on the lid or preform.
- c) Voids or bare spots in gold plating must not exceed 0.003" in diameter.
- d) Preform should be aligned on the lid within 0.005" of true position.
- e) Radius mismatch between lid & preform shall not exceed 0.005".
- f) The preform shall not be chipped more than 1/5 inch, the width of the frame.
- g) Lids may exhibit a maximum of 5% corrosion over the finish area.
- h) Parts shall be free of foreign material which cannot be removed by blowing dry air or Nitrogen at 50 psi (such as strains, finger prints, dirt, dust or other materials not required for fabrication of the LID with PREFORM assembly), either on the surface of the assembly or protruding from underneath the preform.
- i) Pits, grooves, voids or scratches shall not expose lid's base material.
- j) Preforms shall be attached to the lid on at least three corners & the attach mark shall not be visible on the lid surface, opposite the preform.
- k) The parts should pass the bake test, wherein, the lids shall be heated at a temperature of 400<sup>0</sup>C ± 10<sup>0</sup>C for 3 minutes ± 0.5 minutes in the atmosphere. After heating they shall not exhibit:

- i) Blistering of gold shall not be permitted on plating. Surface imperfections smaller than 0.005" in diameter (such as nodules or high spots) shall not be cause for rejections unless they are confirmed as blisters by means of puncturing or lifting the localized area.
    - ii) Peeling & cracks.
  - l) The parts should pass solder melt test, wherein, combo will be clipped into a package with the preform facing up. The packages will be run through belt furnace at the sealing temperature profile (in Nitrogen ambient) to reflow the solder. The reflowed solder shall appear smooth & shiny, with no discontinuity. An irregular edge appearance is allowed & small voids are allowed as long as there is no break in continuity.
3. **Shelf life:** LID with PREFORM should have not been manufactured more than 3 months before the dispatch.
  4. **Packing requirements:** - a) LID with PREFORM to be packed in proper vacuum sealed plastic trays to avoid any mechanical damage or contamination during transportation.  
b) Vendor to provide lot nos. & manufacturing dates.
  5. **Certificate of conformance:** - Vendor to supply certificate of conformance. Vendor shall also provide the test method followed and test results of qualification tests conducted at the manufacture's end.
  6. **Safety/Handling:** LID with PREFORM should not be exposed to dust & should never be touched with bare hands.
  7. **Storage conditions at Vendor's facility:** LID with PREFORM should be stored in vacuum / dry N<sub>2</sub> ambient in a dust free environment.
  8. **Test Conditions:**
    - a) Conformance to specifications specified in section 2.
    - b) The LID with PREFORM after sealing with package should be able to withstand the following tests:
      - i) Thermal Shock- MIL-STD-883, Method 1011, Condition C, 15 Cycles.
      - ii) Thermal Cycling- MIL-STD-883, Method 1010, Condition C, 100 Cycles.
      - iii) Mechanical shock- MIL-STD-883, Method 2002, Condition B.
      - iv) Vibration- MIL-STD-883, Method 2007, Condition A, 20g.
      - v) Constant acceleration- MIL-STD-883, Method 2001, Condition D.
      - vi) Stabilization Bake - MIL-STD-883, Method 1008,
      - vii) Seal Test: MIL-STD-883, Method 1014,  
Fine Condition A  
Gross Condition C
  9. **Acceptance Criteria:** The sealing lids should meet all the above mentioned specifications and test conditions during evaluations at SCL after assembly.