

## Tender Details

**Tender No:** SCL/PS2/2018E0117601

**Tender Date:** 15/10/2018

**Purchase Entity:** Pur\_Entity2

## Tender Notice

E-Procurement Tender No. SCL/PS2/2018E0117601 dated 15.10.2018. SEMI-CONDUCTOR LABORATORY [SCL] invites ONLINE offers in Two Part through e-tender portal <https://eprocure.isro.gov.in> for Photo Masks for 180nm CMOS Process & Other Processes Developments. Tender documents can be downloaded from 17.10.2018 - 1601 hrs. to 14.11.2018 upto 1500 hrs. The vendors need to get registered in the e-tender portal to access tender and submit their offer online. Vendors need to have Digital Signature Certificate as detailed on our e-portal and corporate e-mail ID to register on the above portal. Only online tenders will be accepted. No Manual/Postal/courier/e-mail/fax tender will be entertained. Please note Tender fee shall not be applicable for tenders submitted on-line through this portal.

Vendors interested to participate in this e-Tender are required to register themselves as vendors, if not already registered, in our e-procurement portal <https://eprocure.isro.gov.in> by downloading plugins and help demos listed on the home page of the e-procurement link mentioned above to complete the vendor registration process. They can seek help from help desk 020 25315555 / 9167969601 (Email: [support.isro@nextenders.com](mailto:support.isro@nextenders.com)) also the home page of e-procurement portal may be accessed for any technical help for registration and subsequent process. Vendors may please note that without registering in our E-procurement portal they will not be able to quote for this tender.

## **Tender Attachments**

### **Technical Write-up/Drawings**

#### **Attachment - I:**

IDT001938000000000000isro05401.pdf

#### **Attachment - II:**

IDT001938000000000000isro05402.pdf

#### **Attachment - III:**

IDT001938000000000000isro05403.pdf

#### **Attachment - IV:**

#### **Attachment - V:**

### **Instructions to Tenderers (PT)**

∴

1. Interested tenderers may, at their option, login to <http://eprocure.isro.gov.in> and submit offers as per details in the tender notification.
2. Request for the extension of the due date will not be considered.
3. 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.
4. 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.

5. 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.
6. The tenders of vendors who have not agreed to furnish Security Deposit and Performance Bank Guarantee as sought vide this tender shall be excluded from the procurement process.
7. The tenders of bidders where the validity of the tender is shorter than the period specified in the tender enquiry shall be excluded from the procurement process.
8. Late tenders, delayed tenders, fax quotations and e-mail quotations are not considered.
9. SCL reserves the right to verify all claims made by the bidder.
10. SCL reserves the right to change any milestone date of the tendering activity / tender schedule.
11. Tender which is not submitted in terms of instructions mentioned herein is liable to be rejected .
12. 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.
13. It is expressly agreed that the acceptance of the Stores Contracted for is subject to final approval in writing by the Purchaser.
14. 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.
15. 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.
16. 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.
17. 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.
18. 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.
19. 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.

20. Approximate net and gross weight of the items offered shall be indicated in your offer. If dimensional details are available the same should also be indicated in your offer.
21. 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.
22. 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.
23. The Purchaser reserves the right to place order on the successful tenderer for additional quantities up to 25% of the quantity offered by them at the rates quoted.
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 save with the previous 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. This being a two part tender -Technical and Commercial part separate, the Technical part should not contain Pricing information. The tenders containing Price details in Technical part will be treated as unsolicited offers and rejected. Prices should be indicated in the Price Bid template only.
29. The bids shall be opened on first day of tender opening schedule as indicated in the Tender in the presence of the bidders/their authorized representatives who may like to attend the tender opening against presentation of Authorization letter.

Due to any breakdown in Server/Link, bid opening will be continued on the following dates.

The schedule of opening of Price bids shall be intimated separately to the technically qualified bidders only.

30. If tender opening date happens to be a public holiday, tender will be opened on the next working day and interested bidders may depute their representatives to attend the Tender Opening, with proper authorization.

#### 31. PROCEDURE FOR EVALUATION OF TENDERS:

##### Technical Evaluation Criteria:

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

##### Evaluation of Price Bids

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

- a. Price quoted by the bidder in the price bid template for meeting the functionalities given in the Tender and Technical Specifications sheet. Bid shall be evaluated on the lowest overall cost basis
- b. 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 based on MCLR of SBI prevailing on the date of opening of price bids.

#### **Terms and Conditions - Imported Items**

.:

1. The Tenderers should submit the bids through e-procurement portal <http://eprocure.isro.gov.in> and complete in all respects with technical specifications, including pamphlets and catalogues.

2. The bid should contain the following information:-

a. The FCA value for import by Air Freight upto IGI Airport, New Delhi.

b. Agency Commission: Bidders are required to provide the following information in respect of their authorised Indian Agent, if any, alongwith technical bid as the same is mandatory as is required for consideration of the bid.

Name, Address, Telephone no. , fax no., email of the Indian Agent including the contact person.

A letter from the Manufacturer/supplier in the current date certifying that the said Indian Agent is their authorised Indian Agent and also indicating the responsibilities/role of the Indian Agent under the proposed purchase.

Remuneration/service charges payable to the Indian Agent under the proposed purchase.

The amount of agency commission included in the price and payable to Indian Agent of the contractor shall be paid directly to the Indian Agents by the Purchasers in equivalent in Indian rupees on the basis of an invoice from him applying TT buying rate of exchange ruling on the date of placement of the Purchase Order and which shall not be subject to any further exchange variations. The payment will be released to the Indian Agents within 30 days from the date of acceptance of the goods.

- c. The earliest delivery period and country of origin of the Stores.
  - d. Bankers name and address of the contractor.
  - e. The approximate net and gross weight and dimensions of packages/cases.
  - f. Details of any technical service, if required for erection, assembly, commissioning and demonstration as applicable.
3. The prices quoted should be inclusive of all taxes, levies, duties arising in the tenderers country.
  4. The offer should be valid for a minimum period of 120 days from the due date of opening of the tender.
  5. Samples, if called for should be sent free of all charges.
  6. Bids will not be entertained after the due date and time.
  7. Offers made by Indian Agents on behalf of their Principals, should be supported by the necessary authorization letter from their Principals.
  8. The details of Import License will be furnished in the Purchase Order.
  9. The Authority of person submitting the tender, if called for, shall be produced.
  10. Instruction/operation manual containing all assembly details including wiring diagrams should be sent wherever necessary in duplicate. All documents/correspondence should be in English Language only.
  11. The Purchaser reserves the right to accept or reject the lowest or any other offer in whole or in part without assigning any reason.
  - 12 It is expressly agreed that the acceptance of the stores contracted for is subject to final approval in writing by the Purchaser.
  - 13 a. Part shipment is not allowed unless specifically agreed to by us.
  - b. As far as possible, stores should be dispatched by Indian Flagged Vessels/ Air India or through any Agency nominated by us.

14. Inspection/Test Certificates should be provided for the goods after testing it thoroughly at the Contractors works. If any inspection by Lloyds or any other testing agency is considered necessary, it shall be arranged by Contractors.

15. Where erection or assembly or commissioning is a part of the contract, it should be done immediately on notification. The Contractor shall be responsible for any loss / damages sustained due to delay in fulfilling this responsibility.

16. For items having shelf life / those with maximum shelf should be supplied, if order is placed.

### **Standard Terms and Conditions**

∴

#### **1. Definitions:**

a) The term Purchaser shall mean the Director, Semi-Conductor Laboratory 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 Contractors 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, Software or equipment or part thereof.

d) The term Stores shall mean all that the Contractor agrees to supply under the Contract as specified in the Purchase Order including its installation, testing and commissioning as per the specifications.

#### **2. PRICES:**

Tenders offering firm prices will be preferred. Where a price variation clause is insisted upon by a tenderer, quotations with a reasonable ceiling should be submitted. Such offers should invariably be supported by the base price taken into account at the time of tendering and also the formula for any such variations.

#### **3. 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.

#### 4.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.

#### 5.INSPECTION AND ACCEPTANCE TEST:

5.1The Purchasers representatives shall also be entitled at all reasonable times during manufacture to inspect, examine and test on the Contractors 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 purchasers representative permission to inspect, examine and test as if the equipment were being manufactured on the Contractors premises. Such inspection, examination and testing shall not release the Contractor from the obligations under this Contract.

5.2For 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 purchasers representative to carry out the tests efficiently.

5.3When the stores have passed the specified test, the purchasers 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.

#### 6.PORT OF ENTRY:

New Delhi (for air shipment) / Nhava Sheva Mumbai (for sea shipment)

#### 7.CONSIGNEE:

Purchase and Stores Officer, Stores,

#### 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

GOVERNMENT OF INDIA

DEPARTMENT OF SPACE

SEMI-CONDUCTOR LABORATORY

DESTINATION:

PORT OF ENTRY:



## 9.CONTRACTORS 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 judgement 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.

10.In the event the Purchaser terminates the Contract in whole or in part as provided in Contractor Default Liability, 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 LD Clause until such reasonable time as may be required for the final supply of stores.

10.1. If this Contract is terminated as provided in Clause Contractor Default Liability, 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.

10.2.In the event the Purchaser does not terminate the Contract as provided in Contractor Default Liability, 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 LD Clause until the stores are accepted.

## 11.REPLACEMENT:

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.

## 12.REJECTION:

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. If the Contractor 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 as provided under Contractor Default Liability, above, or

c. acquire the defective stores at a reduced price considered equitable under the circumstances. The provision of this article shall not prejudice the Purchaser's rights under LD Clause

### 13. EXTENSION OF TIME:

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.

### 14. GUARANTEE AND 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 twelve 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 14 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 14 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 12 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 fulfil guarantee conditions outlined in Guarantee and Replacement 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 12 months from the date of arrival of stores at purchasers site.

h. Even while the 12 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 14 months referred to in Guarantee and Replacement shall be asked for guarantee period plus two months.

#### 15. 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.

#### 16. 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 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 despatch 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:

a. 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.

#### 17.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.

#### 18. 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 fulfilment of the Contract.

#### 19.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.

#### 20.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.

#### 21.TRAINING:

The Contractor shall, if required by the purchaser, provide facilities for the practical training of Purchasers 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.

#### 22.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.

### 23.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.

## Bid Templates

### Specs-MEMS

#### Item Specifications

Sl. No	Specifications	Compliance (Yes /No)	Offered Specifications	Re
1.	Specifications for Grade 7M photo masks :			
	Tool Name : Suss Microtek MA-150			
	Substrate : 7"x7"x0.120" Sodalime with AR Chrome.			
	Minimum Feature Size (MFS) : 5.0 um			
	Critical Dimension(CD) Tolerance : +/- 1.0 um			
	Defect Density : Maximum 3 defects per square inch of size greater than or equal to 2.0 um			
	Data : Data will be provided in GDSII format.			
	Inspection : Die-to-die			
	Pattern Generation Method : E-beam / Laser / Optical			
	Quality Area : 100% inspection required within image field.			

Packing : Standard compact boxes with clean room compatible labels.				
Pellicle : None.				
2.	Specifications for Grade 5M photo masks :			
Tool name : GCA Auto-step 200				
Specification : 1.2 um Design Rule Product, Critical				
Minimum Feature Size(MFS) : 6 - 12.5 um				
Critical Dimension(CD) Tolerance : +/-0.2um				
Registration : +/- 0.12 um				
Defect Count : Zero for defects of size greater than or equal to 0.6 um				
Address Size : 0.25 um				
Substrate : 5"x5"x0.09" Quartz with AR Chrome Substrate, 2 um flatness & Optical Density (OD) >= 2.5				
Data : Data will be provided in GDSII.				
Inspection : Die to Die or Die to database inspection depending on the mask layout.				
Quality Area : 100% inspection required within				

image Field of 75x75 mmSquare.				
Pattern Generation method : E beam / Laser				
Pellicle : Required on both sides. Should have high Transmission at i-line (365nm). Preferably GC-52P-5211H for GCA Stepper and AS501P-5211D/AS506P/G-5011H for ASM Steppers.				

### Specs-MEMS

#### Item Specifications -I

Sl. No	Specifications	Compliance (Yes /No)	Offered Specifications	Re
3.	SCL REQUIREMENTS FROM MASK SHOP:			
	GENERAL REQUIREMENTS : • Mask shop must retain data of all mask orders for a period as specified in purchase order (PO).			
	• Any products based upon the design and other information provided by SCL should not be disclose/sold to any 3rd party without the express permission of SCL.			
	• SCL requires to be informed of any equipment down, or			



<p>process change, or any raw material change that potentially may affect SCL photomasks.</p>				
<p>WARRANTY :• Mask shop should provide warranty of mask to be free from defects in material and workmanship for period of atleast 1 year from the date of acceptance.</p>				
<ul style="list-style-type: none"> <li>• SCL requires that the products will be free from defects in materials and workmanship under normal use. In case of discrepancies of products compared to the agreed products specifications, SCL will return products with description of the discrepancies.</li> </ul>				
<ul style="list-style-type: none"> <li>• It is mask vendor's responsibility to repair, replace for the defective products. In this case mask shop shall defray the total cost including transportation cost, custom duty etc. already paid by SCL.</li> </ul>				
<ul style="list-style-type: none"> <li>• SCL requires that as part of problem solving and handling for masks found defective in SCL, the Mask shop would not wait for ship back and analysis in order to make a</li> </ul>				

replacement mask.				
DATA SUPPORT:• SCL will provide the Backcloth data in GDSII format to the vendor along with location, size, orientation information. Vendor has to retain the data & information for the duration of contract. SCL will modify the data & information as and when required.				
DELIVERY :Vendor shall arrange shipments on DAP-SCL, S.A.S. Nagar, India. Each mask-set comprising of 24-32 masks shall be scheduled for shipment in 3-4 weeks (at least 8 masks per week ) from the data of MEBES data approval. Preferably, delivery time for a mask (excluding time for custom clearance) shall be 5-6 working days from the date of shipment from mask facility. SCL will provide the required custom clearance documents/support.				
4.	SHELF LIFE :Vendor to specify separately for pellicle and glass plate.			
5.	PACKING REQUIREMENTS :• Packaging shall be ESD protected. Each reticle shall be packed in a			

	separate box and properly sealed.			
• Standard compact boxes with clean room Compatible labels.				
6.	SAFETY/HANDLING :• Appropriate labeling to be applied on the outside of the box in order to inform the transportation companies and customs to handle the box with care. Labeling can be like: “PHOTOMASK INSIDE, CLASS-10 MATERIAL, NOT TO BE EXPOSED TO NORMAL ATMOSPHERE”.			
• Shipment confirmation should be sent via E-mail to SCL.				
7.	STORAGE CONDITIONS : Vendor to specify			
8.	TEST SPECIFICATIONS : Vendor has to provide the certificate of acceptance conforming to the specifications as specified.			

### Specs-CMOS

#### Item Specifications -II

Sl. No	Specifications	Compliance (Yes /No)	Offered Specifications	Re
Reference Document : Specs-CMOS.pdf entitled				

"Mask Procurement Specifications for 180nm CMOS Technology".				
1.	RETICLE SPECIFICATIONS (S.No. 2.1. of the attached document) :			
1.1	For 6" Quartz Glass (5X) :  Mask size : 6" +/- 0.03" square quartz glass			
Mask thickness : 0.25"				
Flatness : 2 um				
Pinhole : <0.5 um				
Printing : Chrome side down				
Grid Standard : Vendor's standard (traceable to NIST/ any global standard)				
CD Standard : Vendor's standard (traceable to NIST/ any global standard)				
Pellicle : Single (Chrome side)				
Pellicle transmission : Minimum 99% at 436 & 365nm				
Array centre vs reticle centre (Max.) : 500 um				
Array parallel to reticle edge : 1 degree				

MoSi transparency : -NA-				
Phase shift : -NA-				
1.2	For 6" Quartz Glass (4X) : Mask size : 6" +/- 0.03" square quartz glass			
Mask thickness : 0.25"				
Flatness : 1 um				
Pinhole : <0.5 um				
Printing : Chrome side down				
Grid Standard : Vendor's standard (traceable to NIST/ any global standard)				
CD Standard : Vendor's standard (traceable to NIST/ any global standard)				
Pellicle : Single (Chrome side)				
Pellicle transmission : Minimum 99% at 365 & 248nm				
Array centre vs reticle centre (Max.) : 500 um				
Array parallel to reticle edge : 1 degree				
MoSi transparency : -NA-				
Phase shift : -NA-				

--	--	--	--	--

**Specs-CMOS**

**Item Specifications -III**

Sl. No	Specifications	Compliance (Yes /No)	Offered Specifications	Re
1.3	For 6" Quartz Glass (4X, PSM) :  Mask size : 6" +/- 0.03" square quartz glass			
	Mask thickness : 0.25"			
	Flatness : 1 um			
	Pinhole : <0.5 um			
	Printing : Chrome side down			
	Grid Standard : Vendor's standard (traceable to NIST/ any global standard)			
	CD Standard : Vendor's standard (traceable to NIST/ any global standard)			
	Pellicle : Single (Chrome side)			
	Pellicle transmission : Minimum 99% at 365 & 248nm			
	Array centre vs reticle centre (Max.) : 500 um			

Array parallel to reticle edge : 1 degree				
MoSi transparency : 6% +/- 0.5% (MoSi vs. quartz)				
Phase shift : 180 degree +/- 5 degree				
Note :  Mask titles must be on plates, right reading glass up. No overlap is allowed between titles and other cells. Required titles are:				
• Device name, layer and revision				
• Date - date of plate manufacture				
• Plate identify number, individual to every plate				
• Machine Title				
2.	INSPECTION STANDARDS FOR 6" RETICLES (S.No. 2.2 of the attached document) :  Reticles are classified in to different categories like 6A, 6E, 6F, 6G, 6H, 6I, 6K, 6L, 6LH. depending upon the parameters related to mask like smallest feature size, max. defect size, registration, PSM etc. Masks of grade 6A are least and of 6LH are most			

	critical among all of these.  Inspection standards for different categories of mask are given below. All sizes are in microns on mask.			
2.1	Inspection Standards for reticles of grade 6A :  Min. Line/Space (L/S) : 4			
Min. Contact/Hole (C/H) : 5				
Max. Defect size Iso/Edge : 2.0  Refer S.No. 2.6.1 of the attached document for types of defect.				
Max. Defect size corner : 2.5				
CD Mean to Nominal (+/-) : 0.25				
Registration +/- : 0.4				
2.2	Inspection Standards for reticles of grade 6E :  Min. Line/Space (L/S) : 3			
Min. Contact/Hole (C/H) : 4				



Max. Defect size Iso/Edge : 1.25				
Max. Defect size corner : 1.5				
CD Mean to Nominal (+/-) : 0.2				
Registration +/- : 0.3				

### Specs-CMOS

#### Item Specifications -IV

Sl. No	Specifications	Compliance (Yes/No)	Offered Specifications	Re
2.3	Inspection Standards for reticles of grade 6F :  Min. Line/Space (L/S) : 3			
Min. Contact/Hole (C/H) : 4				
Max. Defect size Iso/Edge : 1.0				
Max. Defect size corner : 1.25				
CD Mean to Nominal (+/-) : 0.15				
Registration +/- : 0.2				
2.4	Inspection Standards for reticles of grade 6G :  Min. Line/Space (L/S) : 2			

Min. Contact/Hole (C/H) : 3				
Max. Defect size Iso/Edge : 0.75				
Max. Defect size corner : 1.0				
CD Mean to Nominal (+/-) : 0.1				
CD 3sigma : 0.1				
Registration +/- : 0.15				
2.5	Inspection Standards for reticles of grade 6H :  Min. Line/Space (L/S) : 1.5			
Min. Contact/Hole (C/H) : 2.0				
Max. Defect size Iso/Edge :0.5				
Max. Defect size corner : 0.75				
CD Mean to Nominal (+/-) : 0.1				
CD 3sigma : 0.1				
Registration +/- : 0.1				
2.6	Inspection Standards for reticles of grade 6I :  Min. Line/Space (L/S) : 1.2			

Min. Contact/Hole (C/H) : 1.6				
Max. Defect size Iso/Edge : 0.35				
Max. Defect size corner : 0.5				
CD Mean to Nominal (+/-) : 0.075				
CD 3sigma : 0.1				
Registration +/- : 0.1				
Note :  For Grades 6G, 6H and 6I 3sigma is the difference between max to min value.				

### Specs-CMOS

#### Item Specifications -V

Sl. No	Specifications	Compliance (Yes/No)	Offered Specifications	Re
2.7	Inspection Standards for reticles of grade 6K :  Min. L/S : 1.0			
	Min. C/H : 1.2			
	PSM : No			

Optical Proximity Correction (OPC) : No				
Max. Defect size Iso/Edge : 0.25				
Max. Defect size corner : 0.45				
CD Mean to Nominal (+/-) : 0.04				
CD 3sigma: 0.06				
X-Y +/- : 0.015				
Registration +/- Magnification, Orthogonality : +/- 1.5 ppm				
Reg. Residual Difference : 0.05 (3sigma)				
Transmission repaired point : 93% - 104%				
Dimension on repaired point : 94% - 106%				
2.8	Inspection Standards for reticles of grade 6L :  Min. L/S: 0.8			
Min. C/H : 1.0				
PSM :No				
Optical Proximity Correction (OPC) : Yes				
Max. Defect size Iso/Edge : 0.2				

Max. Defect size corner : 0.4				
CD Mean to Nominal (+/-) : 0.03				
CD 3sigma: 0.045				
X-Y +/- : 0.012				
Registration +/- Magnification, Orthogonality : +/- 1.5 ppm				
Reg. Residual Difference : 0.04 (3sigma)				
Transmission repaired point : 93% - 104%				
Dimension on repaired point : 94% - 106%				

### Specs-CMOS

#### Item Specifications -VI

Sl. No	Specifications	Compliance (Yes /No)	Offered Specifications	Re
2.9	Inspection Standards for reticles of grade 6LH :  Min. L/S : 0.7			
	Min. C/H : 0.8			
	PSM : Yes			
	Optical Proximity			

Correction (OPC) : Yes				
Max. Defect size Iso/Edge : 0.2				
Max. Defect size corner : 0.4				
CD Mean to Nominal (+/-) : 0.03				
CD 3sigma : 0.045				
X-Y +/- : 0.012				
Registration +/- Magnification, Orthogonality : +/-1.5ppm				
Reg. Residual Difference : 0.04 (3sigma)				
Transmission repaired point : 93% - 104%				
Dimension on repaired point : 94% - 106%				
Note:  • No. of defects of size greater than 10 um must be zero inside fiducial.				
• Transmission is to be measured with AIMS wavelength 248 nm for masks of grade 6LH.				
• For grades 6K-6L, transmission is to be measured with Starlight.				

<ul style="list-style-type: none"> <li>• For grade 6K-6LH Magnification, orthogonality +/- 1.5 ppm or less</li> </ul>				
<ul style="list-style-type: none"> <li>• For each grade, frame CD (Refer S.No. 2.6.2 of the attached document) and registration (Refer S.No. 2.6.3 of the attached document) is to be measured in 4 corners and center if available.</li> </ul>				
<ul style="list-style-type: none"> <li>• For masks of grade 6K-6LH, PCI mark (Refer S.No. 2.6.4 of the attached document) is to be measured in frame for X-Y measurements in 9 locations around the frame.</li> </ul>				
<p>3.</p>	<p>PELLICLE AND BLANK MATERIAL (S.No. 2.3 of the attached document) :</p> <p>Required pellicle and blank are mentioned below. Mask shops are required to use these (or equivalent).</p>			
<p>3.1</p>	<p>For 6" (KrF, 4X) :</p> <p>BLANK : Vendor to specify Part Number used.</p>			
<p>Pellicle:</p>				

1)Shin-etsu 6A2HF-EXN 2) INKO DUV-HF-1A 149mm x 113mm x 5mm				
3.2	For 6" (I-Line, 5X) :  BLANK : Vendor to specify Part Number used.			
Pellicle:  Mitsui Petrochemical LTD.  N62FP-IC1  MLI:  NIK43P-122-1017(H)FLC  NIK49P-122-1017(H)FLC				

### Specs-CMOS

### Item Specifications -VII

Sl. No	Specifications	Compliance (Yes /No)	Offered Specifications	Re
4.	MEASUREMENTS (S.No. 2.4 of the attached			



	document) :			
4.1	<p>Critical Dimension (CD) Measurement :</p> <ul style="list-style-type: none"> <li>• Frame CD Cell is placed at four corners of the frame and in the center if possible. The Mask shop is requested to measure all five cells in the frames.</li> </ul>			
	<ul style="list-style-type: none"> <li>• For grades 6A-6H, four corners and center CD cells of frame is to be inspected including CD cell placed in prime die if exist. For the rest of the grade, CD uniformity is to be measured at particular locations that will be provided with each product.</li> </ul>			
	<ul style="list-style-type: none"> <li>• For mask grade 6K-6LH, X-Y delta CD is to be measured.</li> </ul>			
	<ul style="list-style-type: none"> <li>• CD measurements are to comply with the paper work otherwise order should be placed on hold.</li> </ul>			
	<ul style="list-style-type: none"> <li>• The vendor has to provide CD measurements of four corners and center in the order as mentioned in S.No. 2.4 of the</li> </ul>			

attached document.				
4.2	<p>Defect Inspection :</p> <p>After pellicle mounting,</p> <ul style="list-style-type: none"> <li>• On top of pattern surface shield area, particles of mobile characters shall be 0.</li> </ul>			
<ul style="list-style-type: none"> <li>• Pellicle is to be placed symmetrically to enable mask picks usage by SCL.</li> </ul>				
<ul style="list-style-type: none"> <li>• No defects bigger than 15 um are allowed on pellicle.</li> </ul>				
<ul style="list-style-type: none"> <li>• No defects bigger than 15 um are allowed on glass side.</li> </ul>				
<ul style="list-style-type: none"> <li>• Any abnormal findings including repairs are to be reported to SCL with each mask.</li> </ul>				
4.3	<p>Aerial Imaging Monitoring System (AIMS) :</p> <ul style="list-style-type: none"> <li>• AIMS only required on features less than 1.0 um in size.</li> </ul> <p>AIMS specis +/- 10% CD variation on all features/repairs.</p>			
4.4	<p>Layer Names and Revisions :</p>			

	<ul style="list-style-type: none"> <li>• Every device must have a layer name and a revision letter digitized in every mask (Refer S.No. 2.6.5 of the attached document). If the layout digitized in a mask has been modified, the revision letter for that layer must change. Mask shop is requested to inspect layer revisions to assure proper data was used.</li> </ul>			
5.	SCL REQUIREMENTS FROM MASK SHOP (S.No. 2.5 of the attached document) :			
5.1	<p>General Requirements :</p> <ul style="list-style-type: none"> <li>• Mask shop must retain data of all mask orders for the period specified in respective purchase order (PO).</li> </ul>			
	<ul style="list-style-type: none"> <li>• Any products based upon the design and other information provided by SCL should not be disclose/sold to any 3rd party without the express permission of SCL.</li> </ul>			
5.2	<p>Data Support :</p> <ul style="list-style-type: none"> <li>• Mask shop will have</li> </ul>			

	<p>technical capability to support data manipulation such as performing Boolean functions with different layers, sizing and other front end capabilities (fracture; job deck, etc).</p>			
<ul style="list-style-type: none"> <li>• In case of off grid, mask shop is required to notify SCL before manufacturing Masks.</li> </ul>				
<ul style="list-style-type: none"> <li>• Work Plate Nominal (WPN) CD's, Registration measurements and Defect detection log shall be sent with the mask (including a list of repairs and their locations).</li> </ul>				
<ul style="list-style-type: none"> <li>• Mask shop needs to provide % chrome or % Clear report for every mask (% chrome/Clear is calculated with frame extents). Data is provided during data preparation step. Mask shop needs to alert SCL in the following cases: <ul style="list-style-type: none"> <li>a) % Chrome of GC mask is (less 14% or greater 40%) OR (% Clear is greater 86% or less 60%).</li> <li>b) % Chrome of M1 is (less 20% or greater 70%) OR (% Clear is greater 80%</li> </ul> </li> </ul>				

<p>or less 30%).</p> <p>c) % Chrome of M2/3 and ML is less 20% OR % Clear is greater 80%.</p>				
<ul style="list-style-type: none"> <li>SCL will provide the Backcloth data in GDSII format to the vendor along with location, size, orientation information. Vendor has to retain the data &amp; information for the duration of contract. SCL will modify the data &amp; information as and when required.</li> </ul>				
<p>5.3</p>	<p>Responsibilities of Mask Shop :</p> <ul style="list-style-type: none"> <li>In order to ensure proper cycle time is met, the mask shops are required to monitor its own cycle time from the moment the order was received until the masks were sent to SCL.</li> </ul>			
<ul style="list-style-type: none"> <li>Technical data will be sent (hard copy and electronically) with each Mask by the Mask Shop. The technical data shall contain information regarding mask Registration, Defects and CD measurements.</li> </ul>				

<ul style="list-style-type: none"> <li>• SCL requires to be informed of any equipment down, or process change, or any raw material change that potentially may affect SCL reticles.</li> </ul>				
<ul style="list-style-type: none"> <li>• Mask shop needs to fill and send back to SCL, the order inspection check-list as specified in S.No. 2.6.6 of the attached document before commencing the production.</li> </ul>				
5.4	<p>Delivery :</p> <p>Vendor shall arrange shipments on DAP-SCL, S.A.S. Nagar, India. Each mask-set comprising of 24-32 masks shall be scheduled for shipment in 3-4 weeks (at least 8 masks per week) from the date of MEBES data approval. Preferably, delivery time for a mask (excluding time for custom clearance) shall be 5-6 working days from the date of shipment from mask facility. SCL will provide the required custom clearance documents/support.</p>			
5.5	<p>Warranty :</p> <ul style="list-style-type: none"> <li>• Mask shop should</li> </ul>			

	provide warranty of mask to be free from defects in material and workmanship for period of atleast 1 year from the date of acceptance.			
<ul style="list-style-type: none"> <li>• SCL requires that the products will be free from defects in materials and workmanship under normal use. In case of discrepancies of products compared to the agreed products specifications, SCL will return products with description of the discrepancies.</li> </ul>				
<ul style="list-style-type: none"> <li>• It is mask vendor's responsibility to repair, replace or giving credits for the defective products. In this case mask shop shall defray the total cost including transportation cost, custom duty etc. already paid by SCL.</li> </ul>				
<ul style="list-style-type: none"> <li>• SCL requires that as part of problem solving and handling for masks found defective in SCL, the Mask shop would not wait for ship back and analysis in order to make a replacement mask.</li> </ul>				

**Specs-CMOS**

**Item Specifications -VIII**

Sl. No	Specifications	Compliance (Yes /No)	Offered Specifications	Re
6.	SHELF LIFE : Vendor to specify separately for pellicle and glass plate.			
7.	PACKING REQUIREMENT :  <ul style="list-style-type: none"> <li>• Packaging shall be ESD protected. Each reticle shall be packed in a separate box and properly sealed. For each reticle please place the label on the bag or use removable labels to enable SCL to reuse the compact.</li> </ul>			
<ul style="list-style-type: none"> <li>• Photomasks/reticles to be packed in individual Class-1 compatible cleanroom compact packages with following markings on the package: "PHOTOMASK INSIDE, CLASS-1 MATERIAL, NOT TO BE EXPOSED TO NORMAL ATMOSPHERE".</li> </ul>				
<ul style="list-style-type: none"> <li>• Packaging box for each reticle should be equivalent or smaller than DMS Reticle Box P/N. DMS 6 x 250 Black Antistatic Compact with total box thickness of approximately 39 mm and</li> </ul>				



overall size of 187.1 mm (one side w/o hinges)				
8.	<p>SAFETY / HANDLING :</p> <ul style="list-style-type: none"> <li>• Appropriate labeling to be applied on the outside of the box in order to inform the transportation companies and customs to handle the box with care.</li> </ul>			
<ul style="list-style-type: none"> <li>• Shipment confirmation should be sent via E-mail to SCL.</li> </ul>				
<ul style="list-style-type: none"> <li>• Mask Shops are required to maintain lead time according to contract. The reticles are to be sent in a sequential order, from first layer to the last, first and second together or as per the SCL requirements.</li> </ul>				
9.	<p>STORAGE CONDITIONS :</p> <p>Vendor to Specify</p>			
10.	<p>TEST SPECIFICATIONS :</p> <ul style="list-style-type: none"> <li>• Vendor to provide the certificate of acceptance conforming to the specifications as specified.</li> </ul>			
<ul style="list-style-type: none"> <li>• Mask vendors are required to specify the name of the tools which they will be using for defect inspection, exposure etc., for each of</li> </ul>				

the mask category in the table given in S.No. 7 of the attached document.				
---	--	--	--	--

### Scope of Mask Procurement

### Item Specifications -IX

Sl. No	Specifications	Compliance (Yes /No)	Offered Specifications	Re
1	For each maskset order containing CMOS/MEMS designs data, SCL will send the mask data(GDSII) along with tooling form. Vendor shall provide MEBES data for the same for final approval mask fabrication from SCL. All the masks in each maskset per order should be ready for delivery within 3-4 weeks from the date of MEBES data approval from production site.			
2	Vendor to note that the estimated mask quantities and mask types indicated in the scope are tentative and may change as per the actual requirement based on the designs during ordering.			
3	Vendor to note that the scope of the PO should also include the PO extension by appropriate period on mutually agreed			

	terms and conditions.			
4	Vendor must submit their technical and commercial offers separately under the heads of technical and commercial offer. Inclusion of price information in the technical part of the bid will lead to disqualification of the bid.			
5	Vendor to note that the fabricated masks against each mask order shall be delivered by the vendor in multi-shipments as per SCL requirement to enable timely wafer fabrication activities by SCL in its fab facility.			
6	Eligibility criteria: Vendor fulfilling the following criteria are eligible to bid. I) Vendor should have at least five (5) years experience in the manufacture and supply of Masks to reputed wafer foundries engaged in IC manufacturing in sub-micron CMOS process technology. II) Vendor should have manufactured and supplied Masks to at least three (3) such wafer foundries in the last five (5) years.			

**Specs-MEMS**

**Item Specifications -X**

Sl. No	Specifications	Compliance (Yes /No)	Offered Specifications	Re
1	Specifications for Grade 7MC photo masks:			
	Tool Name: Suss Microtek MA-150			
	Substrate: 7' X 7' X 0.120' Sodalime with AR Chrome			
	Minimum Feature Size: 5.0 micron			
	Critical Dimension Tolerance: +/- 1.0 micron			
	Defect Density: maximum 3 defects per square inch of size >= 2.0 micron			
	Data: Data will be provided in GDSII format.			
	Inspection: Die-to-Die			
	Pattern Generation Method: E-beam / Laser/ Optical			
	Quality Area: 100% inspection required within image field.			
	Packing: Standard compact boxes with clean room compatible labels			
	Pellicle: None.			

<p>Mask Protective Coating:  Chemical resistant  fluoropolymer; Anti-  stiction; abrasion  resistant; Thickness &lt; 100  nm; Contact Angle  w/water 105 degree;  Surface Energy &lt; 15  dynes/cm; Refractive  index 1.34; Resistant to  Mask Cleaning Chemicals.</p>				
--	--	--	--	--

**Supporting Documents from Vendor**

**Attachment - I:**

**Attachment - II:**

**Vendor Specified Terms-SCL**

<b>Delivery Term:</b>	<b>Vendor Terms</b>
<p>1.1 For imported stores, vendor shall arrange shipments with Incoterms DAP, SCL, S.A.S Nagar, India. Preferably, delivery time for each mask shipment (excluding time for custom clearance) shall be 5 to 6 working days from the date of shipment from mask facility. SCL will provide the required custom clearance documents/support.</p> <p>1.2 For indigenous stores, prices shall be quoted on F.O.R destination basis i.e. SCL, S.A.S. Nagar, Mohali, Punjab exclusive of taxes as may be applicable.</p> <p>1.3 For indigenous stores, please indicate the rate of GST /any other Govt levy as applicable.</p> <p>1.4 Purchaser is eligible for concessional CGST of 2.5 % and IGST of 5 % as per Ministry of Finance, Department of Revenue, Notification Nos. 45/ 2017 Central Tax (Rate) and 47/2017 Integrated Tax (Rate) both</p>	

<p>dated 14th November, 2017 respectively. The necessary exemption certificate will be provided by the Purchaser for the items covered under the said notification.</p> <p>1.5 The prices of the indigenous items shall also be exclusive of transit insurance which shall be arranged by the Purchaser and shall be to Purchaser account.</p> <p>1.6 For imported materials, the Purchaser is eligible 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. CVD under this notification is nil. 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><b>2. SECURITY DEPOSIT:</b></p> <p>On acceptance of the tender, the Contractor shall submit security deposit for ten percent (10 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 for a period of sixty (60) days beyond the date for completion of the Purchase Order.</p> <p>(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>3. DELIVERY PERIOD:</b></p> <p>A typical fabrication time (cycle time) for any mask-set, consisting of 24-32 mask plates, shall be within 3-4 weeks. i.e. 8 masks per week from the date of MEBES data approval.</p>	
<p><b>4. GUARANTEE &amp; REPLACEMENT:</b></p>	

(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 twelve (12) 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 14 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 14 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 12 months or as to whether the nature of the defects requires renewal or replacement, shall be final, conclusive and binding on the Contractor.

(f) PERFORMANCE BANK GUARANTEE:

To fulfil guarantee conditions outlined in clause 4 (a) to (e) above, the Contractor shall furnish a Bank Guarantee (as per format given by purchaser) from any scheduled bank/ bank approved by the Purchaser for an amount equivalent to 10% of the value of the Contract 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.

(g) All the replacement stores shall also be guaranteed for a period of

<p>12 months from the date of arrival of the stores at purchasers site.</p> <p>(h) Even while the 12 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 14 months referred to in clause 4 (b) &amp; (c) shall be the asked for guarantee period plus two months.</p>	
<p>5. TERMS OF PAYMENT IN CASE OF OVERSEAS SUPPLIER[S]:</p> <p>5.1 Being a Department of the Government of India, the normal terms of payment are by Sight Draft.</p> <p>5.2 While the purchasers bank charges shall be borne by the purchaser, the contractor shall bear the bank charges payable to his banker.</p>	
<p>6. TERMS OF PAYMENT IN CASE OF INDIGENOUS SUPPLIER[S]:</p> <p>100% Payment shall be made for the accepted stores within 30 days from the date of receipt of the materials at SCL.</p> <p>While the purchasers bank charges shall be borne by the purchaser, the contractor shall bear the bank charges payable to his banker.</p>	
<p>7.1. ADDRESS OF INDIAN AGENT, if any</p> <p>7.2. PERCENTAGE OF AGENCY COMMISSION, if any</p>	
<p>8. VALIDITY:</p> <p>The tender must be valid for a minimum period of 120 days from the date of opening of bids.</p>	
<p>9. MODE OF DESPATCH:</p>	



<p>The vendor shall arrange shipments with Incoterms DAP (Delivered at Place) SCL, S.A.S Nagar, India. Preferably, delivery time for each Mask shipment (excluding time for custom clearance) shall be 5-6 working days from the date of shipment from mask facility. SCL will provide the required custom clearance documents/support.</p> <p>A copy of the invoice and packing list should invariably be kept inside each of the packages.</p>	
<p>10. 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>	
<p>11. REJECTION:</p> <p>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. If the Contractor fails to do so, the purchaser may at his option either:</p> <ul style="list-style-type: none"> <li>a) replace or rectify such defective stores and recover the extra cost so involved from the Contractor, or</li> <li>b) terminate the Contract for default as provided under clause contractors default liability, or</li> <li>c) acquire the defective stores at a reduced price considered equitable under the circumstances. The provision of this article shall not</li> </ul>	

<p>prejudice the Purchasers rights under clause 12.</p>	
<p><b>12. DELAY IN COMPLETION/LIQUIDATED DAMAGES:</b></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 of the undelivered stores for each calendar week of delay. The total liquidated damages shall not exceed ten percent (10percent) of the Contract price of the unit or units so delayed. Stores will be deemed to have been delivered only when all their component parts are also delivered. If certain components are not delivered in time, the stores will be considered as delayed until such time as the missing parts are delivered.</p> <p>Delivery of stores shall be complete on Installation, commissioning, Testing and Acceptance wherever applicable.</p>	
<p><b>13. PACKING &amp; FORWARDING:</b></p> <p>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.</p>	
<p><b>14. ARBITRATION:</b></p> <p>If at any time any question, dispute or difference whatsoever shall arise between the purchaser and the Contractor upon or in connection with this Contract, either party may forthwith give to the other notice in writing of the existence of such question, dispute or difference and the same shall be referred to the adjudication of two arbitrators, one to be nominated by purchaser, other by a Contractor and in the event of any difference of opinion, the arbitrators will refer the matter to the umpire. The arbitration shall be conducted in accordance with the rules and procedure for arbitration of the International Chamber of Commerce at Paris. The expenses of the arbitrators and umpire shall</p>	

<p>be paid as may be determined by them. However, the venue of such arbitration should be in India.</p> <p>In case of dispute arises with domestic/Indian suppliers, the applicable Arbitration procedure shall be as per Indian Arbitration &amp; Conciliation Act, 1996.</p>	
<p><b>15. APPLICABLE LAW:</b></p> <p>The Contract shall be interpreted, construed and governed by the laws of India.</p>	
<p><b>16. INDEMNITY:</b></p> <p>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 fulfilment of the Contract.</p>	
<p><b>17. Fall Clause:</b></p> <p>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.</p>	
<p><b>18. Vendor to note that the estimated mask quantities and mask types indicated in the scope are tentative and may change as per the actual requirement based on the designs during ordering.</b></p>	

19. The vendor has to supply the tendered mask types over a period of two years which is extendable further by appropriate period on mutually agreed terms and conditions.	
20. Every mask set should be accompanied with run card information, mask inspection report, mask quality data and certificate of conformance.	
21. Any Other Term:	

**Price Bid Form**

Item Description	Slab Range	Qty	UOM	Currency	Unit Price
Grade 6A Mask for 180nm CMOS Technology Photomasks	-	60	No.	-	-
Grade 6E Mask for 180nm CMOS Technology Photomasks	-	60	No.	-	-
Grade 6G Mask for 180nm CMOS Technology Photomasks	-	570	No.	-	-
Grade 6I Mask for 180nm CMOS Technology Photomasks	-	30	No.	-	-
Grade 6K Mask for 180nm CMOS Technology Photomasks	-	120	No.	-	-

Grade 6L Mask for 180nm CMOS Technology Photomasks	-	210	No.	-	-
Grade 6LH Mask for 180nm CMOS Technology Photomasks	-	60	No.	-	-
Grade 7M photo mask for MEMS Photomasks	-	180	No.	-	-
Grade 5M photo mask for MEMS Photomasks	-	120	No.	-	-
Grade 7MC photo mask for MEMS Photomasks	-	40	No.	-	-

Break-up of other taxes and other costs should be specified in respective narration columns.

Sum of these Break-up values should be specified in respective value columns.

**Supporting Documents from Vendor (Commercial)**

**Document attachment with price bid**

**Attachment - I:**

**Attachment - II:**