

Tender Details

Tender No: SCL/PS4/2020E0188801

Tender Date: 15/12/2020

Purchase Entity: Pur_Entity4

Tender Notice

Tender Notice E-Procurement Tender No. SCL/PS4/2020E0188801 dated 28.12.2020. SEMI-CONDUCTOR LABORATORY [SCL] invites ONLINE bids in TWO part system through e-tender portal <https://eprocure.isro.gov.in> for Rate Contract for PCB Fabrication (3 Years). Tender documents can be downloaded from 31.12.2020 to 27.01.2020. The vendors need to get enrolled 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) 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.

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.

Tender Attachments

Technical Write-up/Drawings

Attachment - I:

IDT002965000000000000isro05401.pdf

Attachment - II:

Attachment - III:

Attachment - IV:

Attachment - V:

DOS PM 20

DOS PM 20:

INSTRUCTIONS TO TENDERERS AND TERMS and CONDITIONS OF TENDER

1. Tenderers may, login to <http://eprocure.isro.gov.in> and submit offers as per details in the tender notification.

Bid /Open Authorization shall be submitted online only complying specified schedule.

2. Late tenders and delayed tenders will not be considered.

3. GST and/or other duties/levies legally leviable and intended to be claimed should be distinctly shown separately in the tender.

4. (a) Your quotation should be valid for 90 days (single part tender) and 120 days (two part tender) from the date of opening of the tender.

(b) Prices are required to be quoted according to the units indicated in the annexed tender form. 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.

5. (a) 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.

(b) 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.

(c) 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.

(d) Specifications: Stores offered should strictly confirm to our specifications. Deviations, if any, should be clearly indicated by the tenderer in his quotation. 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.

6. 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 tenderers shall supply the same at the rates quoted.

7. The tenderer should supply along with his tender, the name of his/her banking details such as account no. IFSC Code etc.

8. The Purchaser reserves the right to place order on the successful tenderer for additional quantity up to 25 percentage of the quantity offered by them at the rates quoted.

9. The authority of the person signing the tender, if called for, should be produced.

TERMS and CONDITIONS OF TENDER(

1. DEFINITIONS:

(a) The term PURCHASER shall mean the President of India or his successors or assigns.

(b) The term CONTRACTOR/Vendor/Supplier 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.

(c) The term STORES shall mean what the Contractor agrees to supply under the Contract as specified in the Purchase Order including erection of plants and machinery and subsequent testing, should such a condition is included in the Purchase Order.

(d) The term PURCHASE ORDER shall mean the communication signed on behalf of the Purchaser by an Officer duly authorised intimating the acceptance on behalf of the Purchaser on the terms and conditions mentioned or referred to in the said communication accepting the tender or offer of the Contractor for supply of stores or plant, machinery or equipment or part thereof.

2. PRICES: Tender offering firm prices will be preferred. Where a price variation clause is insisted upon by a tenderer, quotation 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 variation/s.

3. SECURITY DEPOSIT: if applicable a) On acceptance of the tender by Purchaser, the Contractor shall submit security deposit for ten percent (10 percent) of the value of the Contract within 15 days from the date of purchase order. In case the contractor fails to furnish the security deposit within the specified date or extended due date, the Purchase Order/Contract shall be cancelled and, in addition, appropriate penal action may also be considered.

b) Security Deposit shall be submitted through Demand Draft /Bankers Cheque/ fixed deposit receipt or Bank Guarantee from any of the Scheduled Banks executed on nonjudicial 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/Contract.

c) After the Purchase Order/Contract is successfully executed in all respects, the Security Deposit may be discharged.

d) In the event of non execution of the Purchase order/Contract or breach of any terms and conditions of the Purchase Order, the Security Deposit shall be forfeited. On acceptance of the tender, the Contractor shall, at the option of the Purchaser and within the period specified by him, deposit with him, in cash or in any other form as

4. 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) During the Warranty Period (If any) after the acceptance /installation 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 the Warranty Period + 60 days from the date of acceptance/installation 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 Warranty Period from the date of acceptance/installation 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 Warranty Period 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 clause 4 (a) to (e) above, the Contractor shall, at the option of the purchaser, furnish a Bank Guarantee (as prescribed by the purchaser shall be provided at the time of placement of order) from a Bank for an amount equivalent to 10 percentage of the value of the Contract along with first shipment documents/ before release of payment. 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 the Warranty Period (if any) from the date of arrival of the stores at purchaser site.

(h) Even while the Warranty Period (if any) 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 Warranty period referred para 4 (b) and (c) shall be the asked for Warranty period plus two months.

5. PACKING FORWARDING and INSURANCE: The Contractor will be held responsible for the stores being sufficiently and properly packed for transport by rail, road, sea or air to withstand transit hazards and ensure safe arrival at the destination. The packing and marking of packages shall be done by and at the expense of the Contractor. The purchaser will not pay separately for transit insurance, all risks in transit

being exclusively of the Contractor and the Purchaser shall pay only for such stores as are actually received in good condition in accordance with the Contract.

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

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

8. ACCEPTANCE OF STORES:

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

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

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

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

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

10. DELIVERY:

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

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

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

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

(iii) to cancel the Contract or a portion thereof and if so desired to purchase or authorise the purchase of stores not so delivered or others of a similar description (where others exactly if complying with the particulars are not, in the opinion of the purchaser, readily procurable, such opinion final) at the risk and cost of the Contractor. In the event of action being taken under subclause (ii) and (iii) of clause 10 (b) above, the Contractor shall be liable for any loss which the purchaser may sustain on that account, provided that the repurchase or if there is an agreement to repurchase then such agreement is made within six months from the date of such failure. But the Contractor shall not be entitled to any gain on such repurchase made against default. The manner and method of such repurchase shall be at the

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

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

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

13. PAYMENT:Contractors bill will be passed for payment only after the stores have been received, inspected and accepted /installed by the Purchaser.

14. MODE OF PAYMENT:Normally payment will be made for the accepted stores within 30 days from the date of receipt and acceptance of materials.

15. 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.

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

17. ARBITRATION: In the event of any dispute/s, difference/s or claim/s arising out of or relating to the interpretation and application of the Contract, such dispute/s or difference/s or claim/s shall be settled amicably by mutual consultations of the 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. 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.

18. COUNTER TERMS AND CONDITION OF SUPPLIERS: Where counter terms and conditions printed or cyclostyled conditions have been offered by the supplier, the same shall not be deemed to have been accepted by the Purchaser, unless specific written acceptance thereof is obtained.

19. 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.

20. In eprocurement system submission of bid is a on line process . After submission of bids, bidders have to wait for bid sealing by Purchaser. Subsequently, bidders have to complete open authorization in the eprocurement system to enable the Purchaser to open the bid. If open authorization is not completed by the bidder, then Purchaser will not be able to open the bid and the bid becomes invalid.

In case bidder encounters any technical snag pertaining to eprocurement system while acting on the tender, computer screen shot of the error message with date and time stamp on the web browser along with the query shall be emailed by the bidder to the help desk, for resolution of the problem, at least 5 working days before the due date and time of bid submission. The contact detail of the help desk is available on the home page of the eprocurement website.

Purchaser will make all efforts to resolve technical queries reported by the bidders but will not be bound to do so if the problems are reported beyond the time mentioned above. Purchaser will not be responsible for non submission of bids for such cases.

The time taken to ascertain, evaluate and suggest a solution for the problem reported by bidder may vary from case to case. Hence bidders are advised to submit the bid well in advance before closing date and time to avoid last minute issues.

Bid Templates

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Item Specifications

Sl. No	Specifications	Compliance (Yes/No)	Offered Specifications	Remarks
1	Scope: a) The fabrication of PCBs upto 14 layers will be as and when required basis.b) GERBER data will be provided by SCL for PCB design.c) Period of rate contract is 3 years.d) The estimated price for a type of PCB may be calculated by considering 8 layers, 2.4mm, size(42.926 cm x 29.06 cm), base copper thickness(1.0oz / 1.0oz), solder mask(both sides), legend print(both sides), board surface finish(ENIG/HASL). The approximate requirement for such type of PCBs will			

	<p>be 50 No's on yearly basis. The L1 vendor is also computed by using the same.e) The vendor to quote as per (quote format) Annexure II in PDF format.</p>			
2	1) General specifications			
3	1.1) Printed Circuit board Base Material: High Tg (>1700C)/HR 370 Woven glass epoxy/Woven Glass polyimide Laminate as per IPC 4101			
4	1.2) Surface Finish: HASL/ENIG			
5	2) Visual Aspects			
6	2.1) Pattern Matching: 100% with respect to the qualification test pattern design.			
7	2.2) Edges: Nicks, burns & crazing along the edges of Rigid section shall be acceptable if penetration not exceeding 50% of			

	distance from edge to nearest conductor or 2.5 mm whichever is less.			
8	2.3) Scratches, dents & tool marks: No expose conductor or disrupt fiber			
9	2.4) Weaver texture, chipping, haloing, cut, scratches, pits/dents:(a) Laminate fiber not to be disturbed or exposed(b) Defect not to bridge patterns.(c) Dielectric spacing between the defect and pattern be ≥ 0.15 mm.(d) The imperfections do not propagate as a result of testing (such as rework simulation & thermal shock).			
10	2.5) Measling/ crazing:(a) Shall be < 10 Sq mm continuous(b) Shall not bridge $> 25\%$ areas of 'PCB per side(c) Shall not affect $> 2\%$ areas of PCB			

	perside			
11	2.6) Blistering/Delamination: Nil			
12	2.7) Laminate surface pits & Voids: Min 0.15 mm clearance from conductor and no bigger than 0.8 mm in the longest dim.			
13	2.8) Solder Coating appearance: Smooth uniform without wrinkles and bumps			
14	2.9) Other Unacceptable defects: Non wetting, pad lifting, solder splashes, foreign material imbedded, extra plating material on bare laminate, disturbed coating, burrs & nodules in PTH, white residue etc.			
15	2.10) Pattern defects (isolated):(a) Nicks, cuts, edge roughness, voids, pin holes, dents, scratches all			

	combined shall not change the conductor width by more than 20%(b) Tears/Cracks should not be there(c) Projections on conductor shall be <=10% of width and shall meet conductor spacing requirements			
16	3) Dimensional Characteristics			
17	3.1) Board Dimension: Specified +/- 0.2 mm			
18	3.2) Board Thickness: Specified +/- 10% or +/- 0.15 mm , whichever is minimum			
19	3.3) Tolerance on diameter of PTH			
20	(3.3a) +0.05/-0.00mm up to 1mm dia			
21	(3.3b) +0.10/-0.00mm beyond 1mm dia			
22	3.4) Conductor Pattern Tolerance (width):			

	Specified +/- 10%			
23	3.5) Conductor Pattern Tolerance (spacing): Specified +/-10%			
24	3.6) PTH Pitch: Specified +/- 0.1 mm			
25	3.7) PTH Pad Diameter: Specified +/- 0.1 mm			
26	4) Land pattern & Plated Through Hole (PTH) Requirements			
27	4.1) Basic Copper thickness in external Layers:			
28	(4.1a) 17 μm +/- 3 μm (0.5 oz)			
29	(4.1b) 35 μm +/- 5 μm (1 oz)			
30	4.2) Basic copper thickness in internal layer			

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Item Specifications -I

Sl. No	Specifications	Compliance (Yes /No)	Offered Specifications	Remarks
31	(4.2a) 35 µm +/- 5 µm (1 oz)			
32	(4.2b) 70 µm +/- 10 µm (2 oz)			
33	4.3) Conductor under cut: ≤ Total Cu thickness			
34	4.4) Conductor Overhang: Nil			
35	4.5) Insulation thickness between two consecutive layers of rigid portion			
36	(4.5a) 0.15 mm (min.) to penultimate layers			
37	(4.5b) 0.100 mm to adjacent layers			
38	4.6) Etch back (positive): 13 microns (preferred) However, good desmearing ensuring 100% connectivity of PTH barrel			

	with inner layers			
39	4.7) Negative Etch back: 5 microns (max.)			
40	4.8) Layer to Layer registration: <0.1 mm preferred, 0.25 mm max., with minimum annular ring criteria of pads meeting at all locations			
41	4.9) Internal Annular ring: 0.05 mm (minimum)			
42	4.10) External Annular ring for PTH: 0.130 mm (minimum)			
43	4.11) External Annular ring for NPTH: 0.250 mm (minimum)			
44	4.12) Drill hole perpendicularity: 90 degree +/- 5 degree			
45	4.13) Drilling irregularity: 0.080 mm (max.)			
46	4.14) Lifted lands (As			

	received): Nil			
47	4.15) Resin smear: Nil			
48	4.16) Resin recession: 0.080 mm in width or 40% of total base material thickness in cumulative length as applicable			
49	4.17) Laminated void: 0.080 mm max, in any direction			
50	4.18) No. of plating voids in PTH wall: Max, 3 no's with combined length < 5% of wall length & combined area < 10% of total wall area ; no circumferential void ; none at interconnection; none in same plane on opposite sides of a hole			
51	4.19) Nodules in PTH wall or solder coating: The Nodule shall not reduce specified hole diameter			
52	4.20) Nail heading: < 1.5 time internal layer cu			

	thickness			
53	4.21) Plating along the fiber: 80 µm maximum			
54	4.22) PTH wall crack, separation of PTH wall with internal layers: Nil			
55	5) Plating requirements			
56	5a) Electrolytic Copper Plating			
57	5a.1) Minimum purity: 99.5%			
58	5a.2) Cu thickness on surface pattern: 25 to 45 µm			
59	5a.3) Cu thickness in PTH: 25 to 45 µm			
60	5B) Tin Lead plating after HASL			

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Item Specifications -II

Sl. No	Specifications	Compliance (Yes /No)	Offered Specifications	Remarks
61	5b.1) Tin Content of alloy: Sn60/Pb40 meeting QQ-S-571			
62	5b.2) Thickness of Surface: 8 to 30 µm			
63	5b.3) Thickness of PTH: 8 to 30 µm			
64	5b.4) At PTH Knee: >=1µm			
65	7) Solder Mask requirements			
66	7.1) Material Type: Shall be liquid photo imageable meeting out-gassing requirements as per test ASTM-E-595 & Shall be compatible to parylene & polyurethane			
67	7.2) Class: High reliability and shall meet the requirements of IPC-SM-840C, latest version			
68	7.3) Pad to conductor spacing: Minimum 50 µm			

	& shall be uniform all around the periphery of the conductor pad.			
69	7.4) Thickness (on conductors): Uniform Coating thickness of 17-25 μm			
70	8) Mechanical Characteristics			
71	8.1) Warp & Twist: $\leq 1\%$ when measure in accordance with method 2.4, 22 of IPC-TM-650			
72	8.2) Conductor Adhesion/Peel Strength: $\geq 12 \text{ N/cm}$			
73	8.3) Pull strength for terminal pad 2mm: $\geq 12 \text{ N}$			
74	9) Electrical Characteristics			
75	9.1) Insulation resistance (Intra Layer): $\geq 10^4$ Mega ohm			
76	9.2) Insulation resistance (Inner Layer): $\geq 10^5$			

	Mega ohm			
77	9.3) Withstanding voltage for (intra & inter layers) per mm spacing between conductors: 1500 Vrms			
78	Note: Specifications herewith are as per ISRO-PAX-304, however, manufacturability aspects shall be discussed and cleared between vendor and SCL			

Vendor Specified Terms

Description	Vendor Terms
<p>1.This being two part Tender Technical and Commercial parts separate, the bidder should not attach any document(s) containing pricing information alongwith Technical Part. The tenders containing price information in Technical Part will be summarily rejected. Prices should be indicated in the Price Bid format only.</p> <p>If any pricing information, Vendor/s like to provide shall be uploaded</p>	

<p>as a separate PDF file under tab Supporting documents (Commercial).</p>	
<p>2.i) The GERBER Data shall be supplied by SCL to vendor.</p> <p>ii) Operating procedures are attached as Annexure IV.</p> <p>iii) Approximate 60 percent of the boards fabricated will be ENIG finish while remaining 40 percent will be HASL finish.</p>	
<p>3. Delivery Term:</p> <p>F.O.R. SCL, S.A.S. Nagar basis.</p>	
<p>4. GST:</p> <p>Purchaser is entitled to concessional CGST of 2.5 percent and IGST of 5 percent as per Ministry of Finance, Department of Revenue, Notification Nos. 45/ 2017 Central Tax (Rate) and 47/2017 Integrated Tax (Rate) both dated 14th November, 2017 respectively and would accordingly issue Exemption Certificate in favour of the contractor quoting in Indian Rupees. The bidder should take note of the same while quoting the prices in Indian Rupees.</p> <p>In case GST Exemption Certificate is not available, full GST as applicable shall be paid.</p>	

<p>5.Delivery Period:</p> <p>The contractor shall supply the fabricated PCBs within 10 days from the date of approval of final GERBER Data by SCL.</p>	
<p>6.Terms of Payment:</p> <p>100 percent Payment shall be made within 30 days from the date of receipt and acceptance of the fabricated PCBs at SCL.</p> <p>Bank charges of vendors bank shall be responsibility of the vendor and bank charges of purchasers bank shall be responsibility of purchaser.</p>	
<p>7.VALIDITY:</p> <p>The vendors bid shall be valid for a minimum period of 90 days from the due date of opening of tender.</p>	
<p>8.PRICES:</p> <p>Tenderer offering firm prices will be preferred. Where a price variation clause is insisted upon by a tenderer, quotation 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 variation/s.</p>	

<p>9.INSURANCE OF THE STORES:</p> <p>Insurance shall be to vendors responsibility.</p>	
<p>10.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 reject the stores. The Contractor, on receipt of such notification shall 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"> a) replace such defective stores and recover the cost so involved from the Contractor, or b) terminate the Contract for default as provided under clause contractors default liability, or c) acquire the defective stores at a reduced price considered equitable under the circumstances. The provision of this article shall not prejudice the Purchasers rights under clause 09. 	
<p>11.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</p>	

<p>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>12.DELAY IN COMPLETION/LIQUIDATED DAMAGES:</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 as applicable.</p>	
<p>13.Arbitration:</p> <p>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</p>	

<p>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 in 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>	
<p>14.APPLICABLE LAW:</p> <p>The Contract shall be interpreted, construed and governed by the laws of India.</p>	

<p>15. Fall Clause:</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>16. EXTENSION OF TIME :</p> <p>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.</p>	
<p>17. Vendor to note that the estimated PCB quantities and PCB Types indicated in the scope are tentative and may change as per the actual requirement based on the designs.</p>	
<p>18. The vendor has to supply the ordered PCBs over a period of three year which is extendable further for appropriate period on mutually agreed terms and conditions.</p>	

<p>19.Security Deposit (SD):</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>Central PSUs/PSEs/PSEs/Autonomous Bodies/MSEs shall be exempted from the payment of Security Deposit, and instead, an Indemnity Bond shall be secured from them in lieu of the Security Deposit.</p> <p>In case a BG is submitted vendor shall inform issuing bank to submit BG confirmation to us by sending e-mail to njain@scl.gov.in and copy to skumar@scl.gov.in and dhyani@scl.gov.in.</p>	
<p>20.Any Other Term:</p>	

Supporting Documents from Vendor

Attachment - I:

Attachment - II:

Price Bid Form

Item Description	Slab Range	Qty	UOM	Currency	Unit Price	Total Price
Rate Contract for PCB Fabrication Rate Contract for PCB Fabrication (3 years)	-	1	Lot	-	-	-

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.