

CENTRE FOR DEVELOPMENT OF ADVANCED COMPUTING

A Scientific Society of Ministry of Electronics & Information Technology,
Government of India

CDAC Knowledge Park, No. 1, Old Madras Road, Baiyppanahalli,
Bengaluru - 560038

Tel: +91-80-25093400

mmg-blrkp@cdac.in

www.cdac.in

Tender No: CDACB/RD24/181

CDAC, Bangalore invites bids for PCB Manufacturing, Components
Procurement, Assembly, Testing and packing of 3000 Nos. of Indus IoT
1V3 Boards / Kits

Prospective Bidders may download the Tender Document from www.cdac.in / <https://eprocure.gov.in/eprocure/app>. Bidders are advised to go through instructions provided at 'Instructions for online Bid Submission' and submit duly filled bids online on the website <https://eprocure.gov.in/eprocure/app> as per the schedule given in the Tender Document.

Section I: INVITATION FOR BIDS (IFB)

1. Introduction.

Centre for Development of Advanced Computing invites Request for Proposal (RFP) towards **PCB Manufacturing, Components Procurement, Assembly, Testing and packing of 3000 Nos. of Indus IoT 1V3 Boards / Kits**

2. Scope of Work:

The scope of work and specifications as detailed at Annexure I

3. Assistance to bidders :

Any query relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24*7 CPP Portal Helpdesk on :- 0120-4200 462, 0120-4001 002, 0120-4001 005, 0120-6277 787; e-mail for Technical - support-eproc@nic.in.

It is recommended for the interested vendors to attend the pre-bid meeting (at C-DAC, KP, Bangalore / Online) to get a better understanding about the scope/nature of work involved in PCB Manufacturing, Components Procurement, Assembly, Testing and packing.

The schedule with venue (online meeting link / venue address), of the pre-bid meeting shall be informed to the interested vendors through email. The interested vendors who are willing to attend the pre-bid meeting need to confirm the same by replying to the email for pre-bid meeting call within three working days.

4. Contact Address:

Manager, Admin, (MMG)

Centre for Development of Advanced Computing
C-DAC Knowledge Park, No.1, Old Madras Road,
Byappanahalli, Bangalore-560038
Phone Nos.080-25093400, email : mmg-blrkp@cdac.in

5. Pre-Bid Meeting:

In case of any doubts and/or queries pertaining to technical solution, specifications terms and conditions of the bid, prospective bidder may send their queries in writing through e-mail. (Refer point 4 mentioned above for contact details). The queries, requests for clarifications etc. must be sent at least two days prior to the date of pre-bid meeting. The bidders are requested to go through the entire bid document thoroughly, before raising any query. The pre-bid meeting will be held at C-DAC, Bengaluru as given in schedule, to address the queries raised by the bidders. C-DAC will try to sort out the queries during the meeting, as far as possible. The replies to queries would be made available on C-DAC's web site in due course of time. All the queries, doubts, clarifications

etc. must be submitted in xls format only.

| Name of the bidder | | | | |
|--------------------|-------------------|------------------|-------------------|----------------|
| Sl.No. | Section / Page No | Clause Reference | Query from bidder | C-DAC Response |
| | | | | |
| | | | | |

6. Two e-bids System:

The bids should be submitted Online through
<https://www.eprocure.gov.in/eprocure/app>:

The two ebids system will be followed for this tender. In this system, bidder must submit their offer-online in separate packets as explained below:

- **Online-ePacket No.1:** "Technical Bid" shall contain(PDF format only)
 - a. Covering letter, as per **Annexure–A**.
 - b. Authority letter as per **Annexure–B**.
 - c. Scanned copy of proof of remittance /transaction slip, by NEFT/RTGS in favour of C-DAC, Bangalore towards Earnest Money Deposit (EMD) of Rs 2,80,000/- /- (INR Two Lakhs Eighty Thousand Only) (The proof of remittance/transaction slip or supporting documents, exempting the bidder to submit the tender fees, must be uploaded along with the other documents on or before the Due Date & Time of the Tender). The document submitted for claiming exemption of EMD should clearly indicate the appropriate category matching the Item Description. The offer without the receipt for EMD shall not be considered. The EMD shall bear no interest. EMD will not be accepted in the form of cash /cheque / DD.

The account details for remittance are given below:

| | |
|-------------------------|--|
| Name of the Bank | State Bank of India |
| Branch | Kasturi Nagar Branch, Bangalore |
| Account No | 54005316791 |
| IFSC Code No | SBIN0010365 |

- d. A self-attested copy of Certificate of Incorporation, Partnership Deed/ Memorandum and Articles of Association / any other equivalent document showing date and place of incorporation, as applicable of the bidder.
- e. Copies of PAN and GST registration certificates of the bidder.
- f. Duly filled Technical Bid with proper seal and signature of the authorized person

(with name, designation, email id & contact no.).

- g. The certificate/s from a Chartered Accountant for last three financial years indicating the average annual sales turnover.
- h. Copies of similar orders and reports, as per eligibility requirements. Copies of min. Two orders in the name of bidder indicating that the bidder has carried out similar works.
- i. Copies of documents in support of eligibility requirements stipulated at para 4 Section – II.
- j. A photocopy of Section – VI of the bid (commercial bid) without prices (prices blocked). C-DAC reserves the right to reject the bid in case of discrepancy observed in the unpriced commercial bid and the actual commercial bid.
- k. Other documents necessary in support of eligibility criteria, product catalogues, brochures etc.
- l. **Undertaking from the supplier as per O.M. ref : F.No.6/18/2019-PPD of Public Procurement Division, Department of Expenditure, Ministry of Finance dated 23rd July 2020 and Order (Public Procurement No. 1) No. F.No.6/18/2019-PPD of Public Procurement Division, Department of Expenditure, Ministry of Finance dated 23rd July 2020 and further Order/OMs regarding restrictions on procurement from a bidder of a country which shares a land border with India as per **Annexure-C****

Note: C-DAC reserves the right to reject the bid if any of the above listed document/s is/are not submitted.

- **Online-ePacket2:**“Financial eBid”: (BOQ.xls format only)

The Financial e-Bid completed in all respects with Bidder name, email id, contact no. & Date in the BOQ.xls format attached. (In the space provided in the BOQ.xls as Bidder name/address etc.)

(END OF SECTION I)

SECTION II: GENERAL CONDITIONS OF CONTRACT (GCC)

1. Subject:

PCB Manufacturing, Components Procurement, Assembly, Testing and packing of 3000 Nos. of Indus IoT 1V3 Boards / Kits

2. Location, Order Placements & Payment by

Location of supply

Centre for Development of Advanced Computing
No. 68, Phase I, Electronic City, Bangalore - 560100

Order Placements & Payment by

Centre for Development of Advanced Computing
C-DAC Knowledge Park, No.1, Old Madras Road,
Byappanahalli, Bangalore-560038
Phone Nos.080-66116400-03

3. Delivery Period:

- 3.1 First 5 PCBs or 1-panel (which ever applicable) prototype assembled cards should be supplied to C-DAC for testing and evaluation within 60 days from the date of P.O.
- 3.2 C-DAC will confirm the result of testing within 7 days for further process.
- 3.3 The complete order should be delivered within 30 days from the date of positive confirmation (Successful testing of functionality of the first set of modules) from C-DAC.

4. Eligibility Criteria:

- 4.1 The bidder should have a minimum of three (3) years of experience in the field of Printed Circuit Board (PCB) manufacturing, component sourcing and assembly as on the date of bid submission. Documentary evidence such as work orders with completion certificates should be submitted in support.
- 4.2 The bidder must have annual turnover of not less than INR 70 Lakhs in each of the last three (3) financial years. Proof of Audited financial statements or certified copies from a Chartered Accountant should be submitted.
- 4.3 The bidder must have a fully functional PCB assembly facility located within India. Necessary documentary evidence to be provided.
- 4.4 The bidder shall possess an in-house PCB assembly line equipped with the required tools, machinery, and adequately trained technical personnel for PCB manufacturing and assembly. A self-declaration along with brief infrastructure details must be submitted.
- 4.5 Bidders should possess the following equipment
 - PCB Assembly lane with stencil printer, pick and place and reflow oven.
 - Automated Optical Inspection Systems with 2D inspection
 - X-Ray System (2D)
 - Vision System 40X to 100X

- ESD safe work area
 - LCR Meter
 - Burn in Chamber (-30°C to +100°C), Temperature and Humidity controlled parts storage facility
 - Process for Incoming and outgoing Quality inspection should be in place.
 - Bidders should be able to handle the following general component packages: SMD / Lead free, PTH / Lead free, Thermal Pad, pBGA, micro BGA, CBGA, and BGAs , LGA and QFN etc.
 - BGA Rework –Reball, Replace and Placement-lead-free and leaded.
 - Firmware flashing tool/ Gang programmer etc.
- 4.6 The bidder should have valid ISO 9001 certification. A copy the certificate should be enclosed with the bid.
- 4.7 The bidder should not be black-listed by any State/ Central Government, Government Department, PSU or an autonomous institute, as on date of submission of bids.

Note: Before submission of the bid, the bidders may please verify the eligibility criteria and ensure fulfillment of all the terms and conditions. In the absence of scanned copies of documents / certificates under eligibility criteria above, the bid is liable to be rejected.

5. Exemptions: If in the view of bidder, any exemption / relaxation are applicable to them from any of the eligibility requirements, under any Rules, process, Guidelines, Directives of Government of India, bidder may submit their claim for the applicable exemption /relaxation, quoting the valid Rule, process, Guidelines or Directives. In this case the bidder must submit necessary and sufficient valid documents along with the technical bid, in support of their claim. The relevant and valid certificates in support of claim of exemption must be submitted.

6. Amendment to Bidding Documents

- 6.1 At any time prior to the deadline for submission of bids, C-DAC may, for any reason, whether on its own initiative or in response to the clarification request by a prospective bidder, modify the bid document.
- 6.2 The amendments to the bid documents, if any, will be notified by release of Corrigendum Notice on www.eprocure.gov.in / www.cdac.in/ against this bid. The amendments/ modifications will be binding on the bidders.
- 6.3 C-DAC at its discretion may extend the deadline for the submission of bids if it thinks necessary to do so or if the bid document undergoes changes during the bidding period, in order to give prospective bidders time to take into consideration the amendments while preparing their bids.

7. Preparation of Bids: Bidders should avoid, as far as possible, corrections, overwriting, erasures or postscripts in the bid documents. In case however, any corrections, overwriting, erasures or postscripts have to be made in the bids, they should be supported by dated signatures of the same authorized person signing the bid documents. However, the bidder shall not be entitled to amend/ add/ delete/ correct the clauses mentioned in the entire bid document.

8. Earnest Money Deposit (EMD)

- 8.1 The Earnest Money Deposit (EMD) of Rs. 2,80,000/- (Rupees Two Lakhs Eighty Thousand only) must be submitted prior to the DUE DATE & TIME of submission of the online technical bid. The EMD will be returned to the bidder(s) whose offer is not accepted, within 30 days from the date of opening of commercial bid(s). In case of the bidder whose offer is accepted, the EMD will be returned on submission of Security Deposit (Refer Clause 3 of Section III). However, if the return of EMD is delayed for any reason, no interest/ penalty shall be payable to the bidder.
- 8.2 The successful bidder, on award of contract / order, must send the contract/ order acceptance in writing, within 10 days of award of contract/ order, failing which the EMD will be forfeited and the order will be canceled.
- 8.3 The EMD may be forfeited:
- If the bidder withdraws the bid during the period of bid validity specified in the bid.
 - In case a successful bidder fails to furnish the Security Deposit (Refer Clause 3 of Section III).
 - If the bidder fails to furnish the acceptance in writing, within 10 days of award of contract/ order.

NOTE: Bidders claiming EMD exemption with Vendor Registration from other organisation or any other document will not be considered for the EMD exemption.

9. **Offer Validity:** Offers should be valid for minimum Ninety (90) days from the date of opening of the Technical Bid. A bid, valid for a shorter period, is liable to be rejected. C-DAC Bangalore may ask the bidders to extend the period of validity, if required.

10. Submission of Bids- Online PDF format only.

The Bid documents shall be neatly arranged and all pages should be numbered. There should not contain any terms and conditions, printed or otherwise, which are not applicable to the Bid. The conditional bid will be summarily rejected. Insertions, postscripts, additions and alterations shall not be recognized, unless confirmed by bidder's signature.

11. Bid opening and Evaluation of Bids

- 11.1 The valid technical bids will be opened online on CPPP Portal.
- 11.2 The technical bids will be evaluated in two steps.
- 11.3 The bids will be examined based on eligibility criteria stipulated at Para 4 of Section – II to shortlist the eligible bidders. The technical bids of only the short listed eligible bidders shall be evaluated based on technical requirements stipulated in the RFP.
- 11.4 The duly constituted Tender Evaluation Committee (TEC) shall evaluate the bids. The TEC shall be empowered to take appropriate decisions on minor deviations, if any.

11.5 During evaluation of the Bids, TEC at its discretion may ask the Bidder for clarification of its Bid. The request for clarification and the response shall be in writing, and no change in the prices or substance of the Bid shall be sought, offered or permitted. If required CDAC may invite the Bidders for technical presentation on the solution / product. During the process of evaluation of bids, if any discrepancies are observed in the bid submitted, the bidders will be given an opportunity to clarify on same. If in the view of bidder, any change in quantity, or services is required or any additional items are required, for clearing the said discrepancy, the bidder has to arrange for said change and/or addition of material without any increase in the prices quoted.

11.6 If the information provided by the bidder is found to be incorrect/misleading at any stage/time during the Tendering Process, C-DAC reserves the right to reject all such incomplete bids.

12. Opening of Commercial Bids: The bidders whose technical bids are found to meet both the requirements as specified above will qualify for opening of the commercial bid.

13. Product Specifications & Compliance Statement: The bidder should quote strictly as per the tender specifications. A Statement of Compliance shall be given against each item in the prescribed format given in **Section V**. The compliance statements should be supported by authentic documents. Each page of the bid and cuttings / corrections shall be duly signed and stamped by the authorized signatory and is to be submitted along with the bid. Failure to comply with this requirement may result in the bid being rejected.

14. Award of Contract

14.1 C-DAC shall award the contract to vendor who has become L1 as per their pricing and C-DAC will issue Purchase Order.

14.2 However, C-DAC reserves the right and has sole discretion to reject the lowest evaluated bid.

14.3 If more than one bidder happens to quote the same lowest price, C-DAC reserves the right to decide the criteria and further process for awarding the contract, decision of C-DAC shall be final for awarding the purchase order.

15. C-DAC's Right to amend / cancel

15.1 C-DAC reserves the right to amend the eligibility criteria, commercial terms & conditions, Scope of the works, technical specifications etc.

15.2 If the information provided by the bidder is found to be incorrect/misleading at any stage/time during the Tendering process,

15.3 C-DAC reserves the right to reject all such incomplete bids.-DAC reserves the right to cancel the entire tender at any stage without assigning any reasons thereof.

16 Corrupt or Fraudulent Practices

16.1 It is expected that the bidders who wish to bid for this requirement have highest standards of ethics.

16.2 C-DAC will reject bid if it determines that the bidder recommended for award has engaged in corrupt or fraudulent practices while competing for this contract.

C-DAC may declare a vendor ineligible, either indefinitely or for a stated duration, to be awarded a contract if it at any time determines that the vendor has engaged in corrupt and fraudulent practices during the award / execution of contract.

17 **Interpretation of the clauses in the Tender Document / Contract Document**

In case of any ambiguity/ dispute in the interpretation of any of the clauses in this Tender Document, the interpretation of the clauses by Executive Director, C-DAC, Bangalore shall be final and binding on all parties.

15 **OPTION CLAUSE:** The Purchaser reserves the right to increase or decrease the quantity to be ordered up to 25 percent of tender quantity at the time of placement of contract. The purchaser also reserves the right to increase the ordered quantity up to 25% of the contracted quantity during the currency of the contract at the contracted rates.

16 **General Instructions:**

- a) C-DAC, Bangalore reserves the right to accept / reject / split the offers or cancel the whole tender proceedings at any stage without assigning any reason whatsoever. Offers through Email / Fax, etc and open offers shall not be accepted. Late / Delayed offers shall not be accepted under any circumstances. Incomplete offers will be rejected. In case the specified date for the submission of offers being a holiday or declared holiday for CDAC, the bid-closing deadline shall stand extended to the next working day up to the same time.
- b) CDAC shall not be responsible for delayed submission or non-submission of bid due to any reasons whatsoever. The bidders are requested to submit their bids much before date & time of submission, failing which CDAC shall not be responsible for any such technical problem.
- c) Any attempt of direct or indirect negotiations on the part of the bidder with the authority to whom he has submitted the tender or authority who is competent to finally accept / reject the same after he has submitted his tender or any endeavor to secure any interest for an actual or prospective bidder or to influence by any means the acceptance of a particular tender will render the tender liable to be rejected.
- d) **Unsatisfactory Performance: C-DAC, Bangalore, shall have the sole and absolute discretion to evaluate and assess the performance of the component(s) offered by the Bidder, whether at the preliminary or final stage. Should C-DAC, Bangalore, at any point during the pre-test and/or post-test phases, determine that the component(s) do not meet its requirements, standards, or expectations, it reserves the right to reject such component(s), either in part or in full, without incurring any liability, whether direct or indirect, and without any**

obligation to provide an explanation to the Bidder. The Bidder expressly agrees and undertakes to accept such decision of C-DAC, Bangalore, without protest or demur

e) **Disclaimer:** This Tender / Request for Proposal (RFP) is not an offer by C-DAC, Bangalore, but an invitation for bidder's response. No contractual obligation whatsoever shall arise from the RFP process.

f) **Declaration:**

The bidder would be required to give a certificate as below in his commercial bid.

“I/WE UNDERSTAND THAT THE QUANTITY AND THE SCOPE OF SERVICES PROVIDED ABOVE IS SUBJECT TO CHANGE. I/WE AGREE THAT IN CASE OF ANY CHANGE IN THE QUANTITIES /SCOPE OF SERVICES REQUIRED, I/ WE WOULD BE SUPPLYING THE SAME AT THE RATES AS SPECIFIED IN THIS PRICE BID. I/WE AGREE TO ADHERE TO THE PRICES GIVEN ABOVE EVEN IF THE QUANTITIES /SCOPE OF SERVICES UNDERGO A CHANGE”.

(END OF SECTION II)

SECTION III: SPECIAL CONDITIONS OF CONTRACT (SCC)

1. Price

- 1.1 The price quoted shall be considered firm and no price escalation will be permitted. (Except Govt. levies/Taxes).
- 1.2 The prices quoted must be "F.O.R.-CDAC, Bangalore" inclusive of allied charges till destination.
- 1.3 Bidder must indicate exact rate of applicable GST separately for each item. with the HSN Code, in the 'commercial bid format'. The bidder should exercise utmost care to quote the correct percentage of applicable duty and GST on each item. The GST at the time of supply of material shall be applicable. TDS@ 2% on the GST will be deducted at source on all supplies, services for value above Rs. 2.50 lacs. TDS Certificate to this effect will be issued by C-DAC in all such cases.
- 1.4 In case due to any error/ oversight, the GST rate quoted by the bidder is different than the actual rate as per the tariff, the bidder will not be permitted to rectify the error/oversight. The orders/ contract will be placed with the rate quoted by the bidder or actual tariff rate (as on placement of order), whichever is LOWER. The difference amount payable, if any, between the quoted rate and actual tariff rate shall be borne by the bidder
- 1.5 Notwithstanding the para 1.2 and 1.3 mentioned above, if GST is not quoted separately and the bid is silent whether GST is included or excluded in price, then for the purpose of evaluation of bids, the prices shall be taken as including GST. In this case, GST applicable, if any will be borne by the bidder/contractor.
- 1.6 The prices quoted must be including of packing, forwarding, insurance, loading/un- loading charges, and all incidental charges till destination.
- 1.7 The exact rate of taxes, charges currently applicable (as per Tariffs) must be mentioned in the 'commercial bid format'. The statutory taxes and duties applicable at the time of supply of material shall be applicable.
- 1.8 The responsibility, cost and risk of the consignment shall rest with the bidder till receipt of goods is acknowledged by the end user at C-DAC, Bengaluru/Bengaluru. However, such receipt/ acknowledgement shall not be treated as acceptance of goods

2. Payments :

- 2.1 **97% of the payment will be made within 30 days of Supply, installation & acceptance. Balance 3% payment will be made on the completion of warranty period OR against submission of Performance Bank Guarantee of equivalent amount from any Indian bank valid for 14 (fourteen Months)**
- 2.2 All statutory deductions like Income Tax, GST as applicable, other taxes and levies as per Rules etc. will be deducted from Contractor's bills.

3. **Security Deposit (SD)** The successful bidder will be required to furnish the Security Deposit in INR equivalent to 5% of the order value within 10 days of receipt of Supply Order. The Security Deposit should be submitted in the form of Demand Draft/Bank Guarantee drawn in favour of C- DAC payable at Bengaluru. The Security Deposit will be valid for the period till completion of contract obligations and will be returned upon on submission of Performance Bank Guarantee (PBG).
4. **Liquidated Damages:** Any inordinate delay that could be attributable to party shall attract a Liquidated Damage at the rate of 0.5% (one percent) of the order value (of individual job work) for each fortnight, with a ceiling of 10% (Ten percent) of the order value.
5. **Warranty:** Warranty period of the supplied products shall be One year from the date of final acceptance of The seller should guarantee the rectification of goods in case of any repairs during the warranty period.
6. **Confidentiality:** Contractor shall not divulge the information relating to the circuits, layout design, fabrication procedures, quality control methods etc., that are not in public domain and exclusively provided by C-DAC for C-DAC's own requirements, to any third party and shall not use for Contractor's own commercial purpose.
7. **Sub-Contract:** Bidder shall not sub-contract any work or part of that work contracted by C-DAC to others, or to a third party.
8. **Non disclosure Agreement:** The technical information, drawings and other related documents given by C-DAC-KP in the course of the work should remain the property of Government of India, Ministry of Electronics and Information Technology. The given Material / Documents should not be used for any other purpose or be duplicated in any case. The successful bidder should execute Non Disclosure Agreement with CDAC.
9. **Purchase preference to Micro and Small Enterprises (MSEs):** Purchase preference will be given to MSEs as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail the Purchase preference for services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered service. If L-1 is not an MSE and MSE Service Provider (s) has/have quoted price within L-1+ 15% of margin of purchase preference /price band as defined in the relevant policy, then 100% order quantity will be awarded to such MSE bidder subject to acceptance of L1 bid price. The buyers are advised to refer to the OM_No.1_4_2021_PPD_dated_18.05.2023 for compliance of Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017.
10. **Preference to Make In India products:** (For bids < 200 Crore):Preference shall be given to Class 1 local supplier as defined in public procurement (Preference to Make in India), Order 2017 as amended from time to time and its subsequent Orders/Notifications issued by concerned Nodal Ministry for

specific Goods/Products. If the bidder wants to avail the Purchase preference, the bidder must upload a certificate from the OEM regarding the percentage of the local content and the details of locations at which the local value addition is made along with their bid, failing which no purchase preference shall be granted.

Only Class-I and Class-II Local suppliers as per MII order dated 4.6.2020 will be eligible to bid. Non - Local suppliers as per MII order dated 04.06.2020 are not eligible to participate.

- 11. Jurisdiction:** The disputes, legal matters, court matters, if any shall be subject to Bangalore jurisdiction only.
- 12. Force Majeure:** C-DAC may consider relaxing the penalty and delivery requirements, as specified in this document, if and to the extent that, the delay in performance or other failure to perform its obligations under the contract is the result of an Force Majeure. Force Majeure is defined as an event of effect that cannot reasonably be anticipated such as acts of God (like earthquakes, floods, storms etc.), acts of states / state agencies, the direct and indirect consequences of wars (declared or undeclared), hostilities, national emergencies, civil commotion and strikes at successful Bidder's premises or any other act beyond control of the bidder.
- 13. Arbitration:** In the event of any dispute or difference between the Parties in respect of any matter relating to or arising out of this Agreement, they shall endeavour to negotiate a mutually satisfactory solution. If solution cannot be reached within a reasonable time, the said dispute or difference shall be referred to a sole arbitrator to be appointed by the Executive Director of C-DAC, Bangalore. The arbitration proceedings shall take place in Bangalore and be conducted in English language and governed by the provisions of the Arbitration and Conciliation Act, 1996."
- 14. Indemnity:** The successful bidder shall indemnify, protect and save C-DAC from/against all claims, losses, costs, damages, expenses, action suits and other proceeding, resulting from/arising out of:
 - Infringement of any law pertaining to intellectual property, patent, trademarks, copyrights etc. by the bidder or
 - Such other statutory infringements in respect of all the equipment's supplied by successful bidder, or
 - Caused due to any act/omission/performance/under or non or part performance/failure of the bidder.
- 15. Assignment:** Selected bidders/ Parties shall not assign, delegate or otherwise deal with any of its rights or obligation under this Contract without prior written permission of C-DAC.
- 16. Integrity pact :** Bidder will have to sign the integrity pact as per Annexure E and upload the document with the bid duly filled and signed on all pages. Details of the Independent External Monitor (IEM)s are as follows

Shri Vijay Kumar Singh
House No. 25, Police Housing
Cooperative Society
Kerwa Dam Road,
Bhopal – 4620044
Mob: 8989161940
Email :- vijaysinghs10@gmail.com

Shri. M Peter Johnson
Door No. 2-2-647/211
Tirumala Narayanadri Apartments
Flat No. GA Central Excise Colony
BAG Amerpet, Hyderabad – 500013
Mob: 9958727979
Email :- johnson.mp@nic.in

17. Severability: If any provision of this Contract is determined to be invalid or unenforceable, it will be deemed to be modified to the minimum extent necessary to be valid and enforceable. If it cannot be so modified, it will be deleted and the deletion will not affect the validity or enforceability of any other provision

(END OF SECTION III)

SECTION IV- SCHEDULE OF REQUIREMENTS

Annexure I

Scope of the Work, Technical Specification

The scope of work towards PCB Manufacturing, component procurement, assembly, testing and packing of 3000 Nos. of Indus IoT 1V3 boards / Kits is as below.

1. PCB Fabrication (Gerber to be supplied by C-DAC)
2. Component (BoM) Procurement (BoM details to be provided by C-DAC)
3. PCB Assembly (Assembly drawing with instructions to be provided by C-DAC)
4. Basic Hardware Testing (Test Procedure document to be provided by C-DAC)
5. Firmware flashing (Firmware executables and flashing procedure to be provided by C-DAC)
6. Functionality Testing (QC)
7. Product Packaging with customized Cardboard/Paper case/box and required anti-static cushioning (the box/case design to be provided by C-DAC)

Deliverables:

1. Supply of fully fabricated, assembled, tested, firmware flashed and fully functional cards, properly packaged as per the requirement
2. Hardware test and Quality Compliance Report for all the cards

Section-1: PCB Fabrication

The required number of the PCB shall be fabricated by the vendor adhering to the technical specifications, relevant standards, and the instructions. The quality and the technical compliance to be met.

The Gerber of the single PCB shall be provided by C-DAC. The vendor may choose to go for fabrication in single PCB or panel form. The panel Gerber and related works to be done by the vendor in consultation with C-DAC.

PCB Details:

- Board Size: 70mm*50mm
- PCB Shall be fabricated to IPC standards.
- Board Material to be as per the stack-up provided & is to meet IPC standards.
- Minimum copper wall thickness of plated through holes to be 1 Mils.
- Over all finished board thickness to be 1.61 mm (63.44 Mils)

- Maximum warp & twist to be 0.1778 mm / sq inch
- Board must be electrically tested using supplied netlist.
- Minimum drill size is 12 Mils
- Minimum trace width is 8 Mils
- Minimum trace Spacing is 5.6 Mils
- All films viewed from component side
- Copper finish - 35 micron
- Surface finish – ENIG
- Provide gang solder mask wherever solder dam can not be provided.
- Solder mask color : Green, Solder mask shall confirm to IPC standards.
- Silkscreen both sides using non-conductive EPOXY INK, Color : white
- All silkscreen ink must be chopped to 3 mils away from mask opening.
- RoHS process to be followed

PCB Stack up:

| Layer | Name | Material | Thickness | Constant |
|------------------------|------------------|--------------------------|-----------|----------|
| | Top Overlay | | | |
| | Top Solder | Solder Resist | | 3.5 |
| 1 | Top Layer | Copper Foil 12 microns | 1. 65mil | |
| | Dielectric 4 | Iteq IT180A Prepreg 106 | 1. 99mil | 4.1 |
| | D1elec1ric 2 | Jteq JT180A Prepreg 1080 | 3.20m1l | 4.1 |
| 2 | GND | Copper | 1. 26mll | |
| | Dielectric 1 | IT 180A 50 mil core/l | 47.24mil | 4.8 |
| 3 | IJCC | Copper | 1. 26mil | |
| | D1elec1ric 3 | Jteq IT180A Prepreg 1080 | 3.20m1l | 4.1 |
| | D1elec1r1c 5 | Iteq IT180A Prepreg 106 | 1. 99mil | 4.1 |
| 4 | Bottom Layer | Copper Foil 12 m1crons | 1. 65mil | |
| | Bot 1om Solder | Solder Resist | | 3.5 |
| | Bot 1om Over 1ay | | | |
| Total board th1ckness: | | | 63. 44m1l | |

| IMPEDANCE CONTROL TABLE | | | |
|--|--------------------------------|---------------------------------|-----------------------------------|
| LAYERS | FOR 50OHMS TRACK WIDTH IN MILS | FOR 90 OHMS TRACK WIDTH IN MILS | FOR 90 OHMS TRACK SPACING IN MILS |
| TOP | - | 8 | 5.6 |
| BOTTOM | - | - | - |
| FOR ANY OTHER DETAILS NOT MENTIONED IN FABTRICATION NOTE MUST BE TAKEN FROM CUSTOMER BEFORE STARTING FABRICATION | | | |

Section-2: Component (BoM) Procurement

All the required components to be sufficient quantity by the vendor. The BoM with manufacturer part number, description, manufacturer name etc. shall be provided by C-DAC. For cost optimization, drop-in replacement parts with equal or better quality may be accepted, subject to the approval of C-DAC. This option may not be applicable to the major parts like the ICs, modules etc.). All the parts/components to be used for production should be of brand new condition, genuine and good quality.

Components List (BoM) required for 01 Board.

| Part Number | Description | Qty Per Board | Drop-in Replacement part acceptable? **(Yes/No) |
|--------------------|--|---------------|--|
| 2N7002NXAKR | MOSFET n-Channel 60V 300mA_SOT23 | 1 | Yes |
| AP2114H-3.3TRG1 | LDO CMOS low noise 3.3V 1A_SOT-223-3 | 1 | Yes |
| ATA6561-GAQW-N | CAN Transceiver_5 Mb/s_SOIC-8 | 1 | No |
| BAT60AE6327HTSA1 | Schottky Diode 3A Vrev 10V low_SOD-323-2 | 4 | Yes |
| PKHPS0013E4000-A2 | Piezoelectric Buzzer 4kHz 12.6mm | 1 | Yes |
| 0402YC104KAT2A | CAP CER 0.1UF 16V X7R 0402 | 24 | Yes |
| C0603C105K4RAC7411 | CAP X7R 1UF 10% 16V 0603 | 2 | Yes |
| GRM188R61A225ME34D | CAP CER 2.2UF 10V 20% X5R 0603 | 2 | Yes |
| CL10A475KP8NNNC | CAP X5R 4.7UF 10V 10% 0603SMD | 7 | Yes |
| GCM1555C1H5R1FA16D | Cap Cer 5.1pF 1% 50V 0402 SMD | 2 | Yes |
| GCM1555C1H6R8FA16D | Cap Cer 6.8pF 1% 50V 0402 SMD | 2 | Yes |
| CG0603MLC-05LEA | TVS diode bidirectional 5V_0603 | 7 | Yes |
| BLM18HE152SN1 | FERRITE CHIP 1500 OHM 500MA 0603 | 3 | Yes |
| 61301011821 | Socket Female Header 1X10 2.54mm | 2 | Yes |
| 61300411821 | Socket Female Header 1X4 2.54mm | 2 | Yes |
| LTE-309 | IR LED 940nm TH | 1 | Yes |
| TSOP98638 | IR Receiver Demodulator 38kHz AGC6 TH | 1 | Yes |
| LTST-C190KGKT | LED GREEN CLEAR 0603 | 3 | Yes |

| Part Number | Description | Qty Per Board | Drop-in Replacement part acceptable? ** (Yes/No) |
|-------------------------|---|---------------|---|
| | SMD | | |
| LTST-C190KRKT | LED RED CLEAR 0603 SMD | 1 | Yes |
| LMT86QDCKRQ1 | Analog Temperature Sensor 2.2-5.5V_SC70-5 | 1 | No |
| LSM6DSMTR | Inertial Measurement Units Ine_LGA-14 | 1 | No |
| LTR-329ALS-01 | Digital Light Sensor I2C _ChipLED-4 Package | 1 | No |
| M95320-WMN6TP | EEPROM 32kBit SPI SO8 SMD | 1 | No |
| 10118194-0001LF | Conn. Micro US 2.0 type-B 5pin | 1 | Yes |
| MP23DB02MMTR | MEMS Microphones Multi-mode Digital bottom port MEMS microphone | 1 | No |
| 3352W-1-104LF | Potentiometer Through Hole 3/8 | 1 | Yes |
| ERJ-3GEY0R00V | 0 Ohms 100 mW (1/10 W) SMD 0603 | 9 | Yes |
| ERJ-P06J121V | 120Ohms 5% SMD 0805 | 1 | Yes |
| ERJ-3EKF1001V | 1K OHM 1% 1/10W 0603 | 1 | Yes |
| CRCW06031K50JNEA | 1.5Kohms 5% _0603 | 1 | Yes |
| RC0402JR-071ML | 1M Ohms 0402 5% 1/16W | 1 | Yes |
| ERJ-3EKF2210V | RES SMD 221 OHM 1% 1/10W 0603 | 6 | Yes |
| <u>AC0603FR-10330RL</u> | RES 330 OHM 0603 SMD | 3 | Yes |
| RT0402FRE074K7L | SMD 1/16W 4.7K ohm 1% 0402 | 12 | Yes |
| SR0603KR-075K1L | 5.1 kOhms 1/10 W 0603 10 % | 2 | Yes |
| AC0402JR-0750RL | 50 Ohms 62.5mW 0402 5% | 1 | Yes |
| SHTC3 | Humidity and Temperature Sensor_DFN-4 | 1 | No |
| SMTU2032-C | COIN CELL HOLDER FOR CR2032 | 1 | Yes |
| STM32F072C8U6 | ARM Cortex M0 16kB 64kB UFQFPN-48 | 1 | No |
| STM32G431MBT6 | MCU ARM Cortex M4 32kB 128kB _ LQFP-80 | 1 | No |
| B3F-1000 | Switch Tactile SPST 0.05A 24V 6X6mm | 3 | Yes |
| 39773-0002 | Terminal 2Pin 2.54mm Pitch | 1 | Yes |
| 216990-0003 | USB Connectors Mid-Mnt SMT CH0_Type C Rec | 1 | Yes |

| Part Number | Description | Qty Per Board | Drop-in Replacement part acceptable? ** (Yes/No) |
|-----------------------------------|---|---------------|---|
| BC101HZ-22P | Bluetooth & Wi-Fi 802.11 a/b/g/ Module | 1 | No |
| NX2016SA-24MHz-EXS00A-CS10820 | Crystal Oscillator 24MHz 6pF 2_2mm x 1.6mm | 1 | No |
| NX3215SA-32.768kHz-EXS00A-MU00525 | Crystal 32.768kHz 6pF 20ppm 2P_ 3.2 mm x 1.6 mm | 1 | No |

****Note:** The written approval for acceptance of the alternative/drop-in replacement part (item-wise) to be taken by the vendor from C-DAC

Section-3: PCB Assembly

The PCB assembly to be done as per the Gerber (in individual PCB format), BoM, XY-coordinate file, assembly drawing and assembly instructions (if any) provided by C-DAC. The stencil and d/or any other item required for the assembly to be taken care of by the vendor. Proper soldering quality and materials used to be as per the standards.

Section-4: Basic Hardware Testing

The hardware testing of the cards for the bare PCBs and post assembly to be done by the vendor. The detailed procedure/instruction on Bare PCB testing and assembled Card hardware testing to be provided by C-DAC. The test results along with the measured parameters to be captured for each card and the same to be submitted to C-DAC as Hardware test report. The required rework/repair required for the Cards (if any) to be done by the vendor at their expenses. The cards which qualify for the functionality and quality requirements to be supplied to C-DAC.

Section-5: Firmware flashing

The qualified cards after the assembly to be flashed with two different executables provided by C-DAC. The firmware executable to be flashed to the main microcontroller and the secondary microcontroller through the corresponding SWD interface. The flashing tool for this purpose to be arranged by the vendor. Details about this process to be shared by C-DAC.

Section-6: Functionality Testing (QC)

A test jig hardware, a default test firmware and a PC (Linux/Windows) based tool to be provided by C-DAC for the functionality testing by the vendor. The test logs for each card to be captured by the vendor and supplied to C-DAC. Detailed procedure and the instructions for the functionality testing to be the provided by C-DAC.

Section-7: Product Packaging

The manufactured, tested and QC passed Cards to be packaged with a suitable paper/plastic case/box along with suitable ESD safe foam/sheet cushion for safe transport and storage. The design, material, and branding/graphics details to be shared by C-DAC.

SECTION V – TECHNICAL BID

Technical Specifications and compliance sheet

PCB Details:

| Srl | Description and parameter | Compliance Yes / No | Remarks |
|------------|---|--------------------------------|----------------|
| 1. | Board Size: 70mm*50mm | | |
| 2. | PCB Shall be fabricated to IPC standards. | | |
| 3. | Board Material to be as per the stack-up provided & is to meet IPC standards. | | |
| 4. | Minimum copper wall thickness of plated through holes to be 1 Mils. | | |
| 5. | Over all finished board thickness to be 1.61 mm (63.44 Mils) | | |
| 6. | Maximum warp & twist to be 0.1778 mm / sq inch | | |
| 7. | Board must be electrically tested using supplied netlist. | | |
| 8. | Minimum drill size is 12 Mils | | |
| 9. | Minimum trace width is 8 Mils | | |
| 10 | Minimum trace Spacing is 5.6 Mils | | |
| 11 | All films viewed from component side | | |
| 12 | Copper finish - 35 micron | | |
| 13 | Surface finish – ENIG | | |
| 14 | Provide gang solder mask wherever solder dam can not be provided. | | |
| 15 | Solder mask color : Green, Solder mask shall confirm to IPC standards. | | |
| 16 | Silkscreen both sides using non-conductive EPOXY INK, Color : white | | |
| 17 | All silkscreen ink must be chopped to 3 mils away from mask opening. | | |
| 18 | RoHS process to be followed | | |

PCB Stack up:

| Layer | Name | Material | Thickness | Constant | Compliance Yes / No | Remarks |
|------------------------|------------------|--------------------------|-----------|----------|------------------------|---------|
| | Top Overlay | | | | | |
| | Top Solder | Solder Resist | | 3.5 | | |
| 1 | Top Layer | Copper Foil 12 microns | 1. 65mil | | | |
| | Dielectric 4 | Iteq IT180A Prepreg 106 | 1. 99mil | 4.1 | | |
| | D1elec1ric 2 | Jteq JT180A Prepreg 1080 | 3.20m1l | 4.1 | | |
| 2 | GND | Copper | 1. 26mll | | | |
| | Dielectric 1 | IT 180A 50 mil core/l | 47.24mil | 4.8 | | |
| 3 | IJCC | Copper | 1. 26mil | | | |
| | D1elec1ric 3 | Jteq IT180A Prepreg 1080 | 3.20m1l | 4.1 | | |
| | D1elec1r1c 5 | Iteq IT180A Prepreg 106 | 1. 99mil | 4.1 | | |
| 4 | Bottom Layer | Copper Foil 12 m1crons | 1. 65mil | | | |
| | Bot 1om Solder | Solder Resist | | 3.5 | | |
| | Bot 1om Over 1ay | | | | | |
| Total board th1ckness: | | | 63. 44m1l | | | |

| IMPEDANCE CONTROL TABLE | | | | Compliance Yes / No | Remarks |
|---|--------------------------------------|---------------------------------------|---|------------------------|---------|
| LAYERS | FOR 50OHMS TRACK WIDTH IN MILS | FOR 90 OHMS TRACK WIDTH IN MILS | FOR 90 OHMS TRACK SPACING IN MILS | | |
| TOP | - | 8 | 5.6 | | |
| BOTTOM | - | - | - | | |
| FOR ANY OTHER DETAILS NOT MENTIONED IN FABTRICATION NOTE MUST BE TAKEN FROM CUSTOMER BEFORE STARTING FABRICATION | | | | | |

| Srl | Part Number | Description | Qty | Drop-in Replacem ent part acceptable ? **(Yes/No) | Compliance Yes / No | Remarks |
|-----|-------------------|--|-----|--|------------------------|---------|
| 1. | 2N7002NXAKR | MOSFET n-Channel 60V 300mA_SOT23 | 1 | Yes | | |
| 2. | AP2114H-3.3TRG1 | LDO CMOS low noise 3.3V 1A_SOT-223-3 | 1 | Yes | | |
| 3. | ATA6561-GAQW-N | CAN Transceiver_5 Mb/s_SOIC-8 | 1 | No | | |
| 4. | BAT60AE6327HTSA1 | Schottky Diode 3A Vrev 10V low_SOD-323-2 | 4 | Yes | | |
| 5. | PKHPS0013E4000-A2 | Piezoelectric Buzzer 4kHz 12.6mm | 1 | Yes | | |
| 6. | 0402YC104KAT2A | CAP CER 0.1UF 16V X7R 0402 | 24 | Yes | | |

| Srl | Part Number | Description | Qty | Drop-in Replacem ent part acceptable ? **(Yes/No) | Compliance Yes / No | Remarks |
|-----|--------------------|---|-----|--|---------------------|---------|
| 7. | C0603C105K4RAC7411 | CAP X7R 1UF 10% 16V 0603 | 2 | Yes | | |
| 8. | GRM188R61A225ME34D | CAP CER 2.2UF 10V 20% X5R 0603 | 2 | Yes | | |
| 9. | CL10A475KP8NNNC | CAP X5R 4.7UF 10V 10% 0603SMD | 7 | Yes | | |
| 10. | GCM1555C1H5R1FA16D | Cap Cer 5.1pF 1% 50V 0402 SMD | 2 | Yes | | |
| 11. | GCM1555C1H6R8FA16D | Cap Cer 6.8pF 1% 50V 0402 SMD | 2 | Yes | | |
| 12. | CG0603MLC-05LEA | TVS diode bidirectional 5V_0603 | 7 | Yes | | |
| 13. | BLM18HE152SN1 | FERRITE CHIP 1500 OHM 500MA 0603 | 3 | Yes | | |
| 14. | 61301011821 | Socket Female Header 1X10 2.54mm | 2 | Yes | | |
| 15. | 61300411821 | Socket Female Header 1X4 2.54mm | 2 | Yes | | |
| 16. | LTE-309 | IR LED 940nm TH | 1 | Yes | | |
| 17. | TSOP98638 | IR Receiver Demodulator 38kHz AGC6 TH | 1 | Yes | | |
| 18. | LTST-C190KGKT | LED GREEN CLEAR 0603 SMD | 3 | Yes | | |
| 19. | LTST-C190KRKT | LED RED CLEAR 0603 SMD | 1 | Yes | | |
| 20. | LMT86QDCKRQ1 | Analog Temperature Sensor 2.2-5.5V_SC70-5 | 1 | No | | |
| 21. | LSM6DSMTR | Inertial Measurement Units Ine_LGA-14 | 1 | No | | |
| 22. | LTR-329ALS-01 | Digital Light Sensor I2C _ChipLED-4 Package | 1 | No | | |
| 23. | M95320-WMN6TP | EEPROM 32kBit SPI SO8 SMD | 1 | No | | |
| 24. | 10118194-0001LF | Conn. Micro US 2.0 type-B 5pin | 1 | Yes | | |
| 25. | MP23DB02MMTR | MEMS Microphones Multi-mode Digital | 1 | No | | |

| Srl | Part Number | Description | Qty | Drop-in Replacem ent part acceptable ? **(Yes/No) | Compliance Yes / No | Remarks |
|-----|-------------------------|--|-----|--|---------------------|---------|
| | | bottom port MEMS microphone | | | | |
| 26. | 3352W-1-104LF | Potentiometer Through Hole 3/8 | 1 | Yes | | |
| 27. | ERJ-3GEY0R00V | 0 Ohms 100 mW (1/10 W) SMD 0603 | 9 | Yes | | |
| 28. | ERJ-P06J121V | 120Ohms 5% SMD 0805 | 1 | Yes | | |
| 29. | ERJ-3EKF1001V | 1K OHM 1% 1/10W 0603 | 1 | Yes | | |
| 30. | CRCW06031K50JNEA | 1.5Kohms 5% _0603 | 1 | Yes | | |
| 31. | RC0402JR-071ML | 1M Ohms 0402 5% 1/16W | 1 | Yes | | |
| 32. | ERJ-3EKF2210V | RES SMD 221 OHM 1% 1/10W 0603 | 6 | Yes | | |
| 33. | <u>AC0603FR-10330RL</u> | RES 330 OHM 0603 SMD | 3 | Yes | | |
| 34. | RT0402FRE074K7L | SMD 1/16W 4.7K ohm 1% 0402 | 12 | Yes | | |
| 35. | SR0603KR-075K1L | 5.1 kOhms 1/10 W 0603 10 % | 2 | Yes | | |
| 36. | AC0402JR-0750RL | 50 Ohms 62.5mW 0402 5% | 1 | Yes | | |
| 37. | SHTC3 | Humidity and Temperature Sensor_DFN-4 | 1 | No | | |
| 38. | SMTU2032-C | COIN CELL HOLDER FOR CR2032 | 1 | Yes | | |
| 39. | STM32F072C8U6 | ARM Cortex M0 16kB 64kB UFQFPN-48 | 1 | No | | |
| 40. | STM32G431MBT6 | MCU ARM Cortex M4 32kB 128kB _ LQFP-80 | 1 | No | | |
| 41. | B3F-1000 | Switch Tactile SPST 0.05A 24V 6X6mm | 3 | Yes | | |

| Srl | Part Number | Description | Qty | Drop-in Replacement part acceptable ? **(Yes/No) | Compliance Yes / No | Remarks |
|-----|-----------------------------------|---|-----|---|---------------------|---------|
| 42. | 39773-0002 | Terminal 2Pin 2.54mm Pitch | 1 | Yes | | |
| 43. | 216990-0003 | USB Connectors Mid-Mnt SMT CH0 _Type C Rec | 1 | Yes | | |
| 44. | BC101HZ-22P | Bluetooth & Wi-Fi 802.11 a/b/g/ Module | 1 | No | | |
| 45. | NX2016SA-24MHz-EXS00A-CS10820 | Crystal Oscillator 24MHz 6pF 2 _2mm x 1.6mm | 1 | No | | |
| 46. | NX3215SA-32.768kHz-EXS00A-MU00525 | Crystal 32.768kHz 6pF 20ppm 2P_ 3.2 mm x 1.6 mm | 1 | No | | |

**Note: The written approval for acceptance of the alternative/drop-in replacement part (item-wise) to be taken by the vendor from C-DAC

SECTION VI – PRICE BID

Annexure II

SECTION VI – UNPRICED BID / PRICE BOQ.xls (PLEASE DO NOT FILL IN THE PRICES)

The vendor shall quote for all the line items below table and the L1 shall be arrived based on the cumulative cost of all the works mentioned in the table below.

| Validate | Print | Help | Item Wise BoQ | | | | | | | | | |
|--|---|------------------|-------------------------------|--------|-------------------------|--|-----------------------------------|---------------------|----------------|---------------------------------------|---------------------------------------|-----------------------|
| Tender Inviting Authority: CENTRE FOR DEVELOPMENT OF ADVANCED COMPUTING | | | | | | | | | | | | |
| Name of Work: PCB Manufacturing, Component procurement, assembly, tetsing and packing - INDUS IoT Kit / Board | | | | | | | | | | | | |
| Contract No: CDACB/RD24/181 | | | | | | | | | | | | |
| Name of the Bidder/ Bidding Firm / | | | | | | | | | | | | |
| PRICE SCHEDULE (This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevent columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only) | | | | | | | | | | | | |
| NUMBER # | TEXT # | TEXT # | NUMBER | TEXT # | NUMBER | NUMBER # | NUMBER | NUMBER | NUMBER # | NUMBER # | NUMBER # | TEXT # |
| Sl. No. | Item Description | Item Code / Make | Quantity | Units | Estimated Rate in Rs. P | BASIC RATE In Figures To be entered by the Bidder in Rs. P | GST (If applicable in Percentage) | GST Amount in Rs. P | HSN / SAC Code | TOTAL AMOUNT excluding taxes in Rs. P | TOTAL AMOUNT including taxes in Rs. P | TOTAL AMOUNT In Words |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| | PCB Manufacturing, Component procurement, assembly, tetsing and packing - INDUS IoT Kit / | | | | | | | | | | | |
| 1.01 | PCB Manufacturing | Item1 | 3000.00 | Nos | 0.00 | | | 0.00 | | 0.00 | 0.00 | INR Zero Only |
| 1.02 | Component Procurement | Item2 | 3000.00 | Nos | 0.00 | | | 0.00 | | 0.00 | 0.00 | INR Zero Only |
| 1.03 | Assembly of Components | Item3 | 3000.00 | Nos | 0.00 | | | 0.00 | | 0.00 | 0.00 | INR Zero Only |
| 1.04 | Testing | Item4 | 3000.00 | Nos | 0.00 | | | 0.00 | | 0.00 | 0.00 | INR Zero Only |
| 1.05 | Packing | Item5 | 3000.00 | Nos | 0.00 | | | 0.00 | | 0.00 | 0.00 | INR Zero Only |
| Total in Figures | | | | | | | | | | 0.00 | 0.00 | INR Zero Only |
| Quoted Rate in Words | | | INR Zero Only | | | | | | | | | |

Note: Commercial bids must be offered in the format above.

Authorized Signatory:
Name and Title of Signatory:
e-mail:

Annexure – A: Covering / Tender Acceptance Letter

Date:

To:

The Centre Head,
Centre for Development of Advanced Computing(C-DAC)
Bengaluru.

Subject: Submission of the Technical bid for Manufacturing, component procurement, assembly, testing and packing of 3000 Nos. Indus IoT 1V3 Boards / kits

Dear Sir,

- 1) We, the undersigned, offer our bid for in response to your Tender Enquiry No. CDACB/RD25/181. We are hereby submitting our proposal for same, which includes this Technical bid and the Financial Bid
- 2) I / We hereby certify that I / We have read the entire terms and conditions of the tender documents from Page No.1 to 39 (including all documents like annexure(s), schedules (s), etc.), which form part of the contract agreement and I / We shall abide hereby by the terms / conditions/ clauses contained therein.
- 3) I / We have downloaded / obtained the tender document(s) for the above mentioned 'Tender/Work' from the web site namely www.eprocure.gov.in; as per your NIT / advertisement, given in the above-mentioned website(s).
- 4) The corrigendum(s) issued from time to time by your department / organization too has also been taken into consideration, while submitting this acceptance letter.
- 5) We hereby declare that all the information and statements made in this Technical bid are true and we accept that any misinterpretation contained in it, may lead to our disqualification.
- 6) We undertake, if our proposal is accepted, to initiate the Implementation activities towards supply of material and services, as stipulated in the referred RFP.
- 7) We would hold the terms of our bid valid for **90 days** as stipulated in the RFP document.
- 8) I /We do hereby declare that our firm has not been blacklisted / debarred by any Govt. Department / Public sector undertaking.
- 9) I /We certify that all information furnished by the our firm is true & correct and in the event that the information is found to be incorrect / untrue or found violated, then your department/ organization shall without giving any notice or reason thereof or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy.
- 10) We understand you are not bound to accept any Proposal you receive.
- 11) The undersigned is authorised to sign this bid document. The authority letter to this effect is enclosed.

Yours sincerely,

Authorized Signatory:
Name and Title of Signatory:
e-mail:Mobile No:

Annexure – B: Authority Letter

Date:

To:

The Centre Head,
Centre for Development of Advanced Computing
Bengaluru.

Subject: Authority Letter

Reference: RFP document

Dear Sir,

We, M/s _____ (Name of the bidder) having registered office at _____ (address of the bidder) herewith submit our bid against the said RFP document.

Mr./Ms. _____ (Name and designation of the signatory), whose signature is appended below, is authorized to sign and submit the bid documents on our behalf against said RFP

Specimen Signature:

The undersigned is authorised to issue such authorisation on behalf of us.
For M/s _____ (Name of the bidder)

Signature and company seal
Name
Designation
Email
Mobile No.

Annexure - C

CERTIFICATE FROM BIDDER

Executive Director,
Centre for Development of Advance Computing,
C-DAC Knowledge Park, No.1, Old Madras Road,
Byappanahalli, Bangalore-560038
Phone Nos.080-25093400

Ref: Tender No:

We hereby certify that the goods being offered by us vide our proposal, comply with the provisions of order No. Order No P-45021/2/2017-PP (BE-II), dated 4th June, 2020(as amended), issued by Public Procurement Division, Department for Industry and Internal Trade, Ministry of Commerce & Industry, Gol, read with order number W-43/4/2019-IPHW- MeitY, dated 7th September, 2020 issued by IPWH division of MeitY, Gol.

We hereby certify the details pertaining to goods offered by us, as given below:

| Sr. No | Item Description | Make & Model No. | Country of origin of OEM | Country of Manufacture of item | Country of Shipment | Percentage of local contents as defined by order number W-43/4/ 2019-IPHW-MeitY, dated 7th Sept, 2020 issued by IPWH division of MeitY, Gol |
|--------|---|------------------|--------------------------|--------------------------------|---------------------|---|
| 1 | PCB Manufacturing, Components Procurement, Assembly, Testing and packing of Indus IoT 1V3 Boards / Kits | | | | | |

We also certify that, we are not from a country sharing land border with India as defined in order No. F/No/6/18/2019-PPD dated 23 July 2020 issued by public procurement Division, Dept. of Expenditure, Ministry of Finance, Gol and the goods offered by us comply with the provisions of said order.

For (Name of bidder)

Authorized Signatory

Name & Designation:

Mobile No:

Request for Proposal for PCB Manufacturing, Components Procurement, Assembly, Testing and packing

Annexure - D

On your letterhead

Self-Certification under preference to Make in India order

CERTIFICATE

In line with Government Public Procurement Order No. P-45021/2/2017-BE-II dt. 15.06.2017 & P45021/2/2017-PP (BE-II) dated 28.05.2018, we hereby certify that we M/s are local supplier meeting the requirement of minimum local content (...%) as defined in above orders for the material against GeM Bid No. dated Details of location at which local value addition will be made is as follows:
Address.....

We also understand, false declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for upto two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as maybe permissible under law. Seal and Signature of Supplier

Thanking You

for M/s

(Authorized Signatory)

Annexure - E

Integrity Pact

(To be executed on plain paper)

This Integrity Pact ("the Pact") is made and executed on this _____ Day of _____ Two Thousand Twenty _____ at _____.

By and Between

Centre for Development of Advanced Computing (C-DAC), an autonomous scientific Society under the Ministry of Electronics and Information Technology, Government of India, registered under the Societies Registration Act 1860 and the Bombay Public Trusts Act 1950, having its registered Office at Savitribai Phule Pune University Campus, Pune 411 007, hereinafter referred to as "C-DAC/Principal", which expression shall unless repugnant to the context or meaning thereof be deemed to mean and include its administrators, successors or assignees, as the case may be.

and

..... hereinafter referred to as "The Bidder(s)/Contractor(s)", which expression shall unless repugnant to the context or meaning thereof be deemed to mean and include its administrators, successors or assignees, as the case may be.

(The Principal and the Bidder (s)/Contractor(s) are collectively referred to as "the Parties".

Preamble

The Principal intends to award, under laid down organizational procedures, contract/s for ----- ("the Contract"). The Principal values full compliance with all relevant laws and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder/s and Contractor/s. The Principal intends to avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into. The Principal also intends that Bidder/s and Contractor/s should abstain from bribing or indulging in any corrupt practices in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the Bidder/s and Contractor/s shall commit to prevent corruption, in any form, by its officials by following transparent procedures.

In order to achieve these goals, the Principal, by way of this Integrity Pact ("the Pact") will appoint Independent External Monitor ("IEM") who will monitor the tender process and the execution of the Contract for compliance with the principles mentioned above.

The parties hereto hereby agree to enter into this Pact and agree as mentioned below.

Section 1

Commitments of the Principal

1. The Principal commits itself to take all measures necessary to prevent corruption and to observe the following:-
 - a. No employee of the Principal, personally or through relatives or any other person, will in connection with the tender, or for the execution of the Contract, demand, promise or accept for himself/herself or any third person, any material or immaterial benefit or any other advantage from the bidder/s or contractor/s which he/she is not legally entitled to.
 - b. The Principal will, during the tender process treat all Bidder/s and Contractor/s with equity and reason. The Principal will in particular, before and during the tender process, provide to all bidder/s and contractor/s the same information and will not provide to any bidder/s or contractor/s additional/confidential information through which the bidder/s and contractor/s could obtain an advantage in relation to the tender process or the contract execution.
 - c. The Principal will exclude from the process all known prejudiced persons.
2. If the Principal obtains information on the conduct of any of its employees, which is a criminal offence under the relevant Anti-Corruption Laws of India, or if there be a substantive suspicion and the same is prima facie found to be correct in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions. In such a case while such enquiry is being conducted by the Principal, the proceedings under the contract shall not be stalled.

Section 2

Commitments of the Bidder/ contractor

1. The Bidder / Contractor commits to take all measures necessary to prevent corrupt practices, unfair means and illegal activities. He commits himself to observe the following during his participation in the tender process and during the contract execution:
 - a. The Bidder / Contractor undertakes that he/she has not given, offered or promised to give directly or indirectly any bribe, gift, consideration, reward, favour any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Principal, for which benefit etc. he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
 - b. The Bidder / Contractor will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Principal, for which benefit etc. he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
 - c. The Bidder / Contractor will not enter into any agreement or understanding with other Bidders in connection with the bid, including but not limited to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelisation in the bidding process.
 - d. The Bidder / Contractor will not commit any offence under the relevant provisions of Anti-Corruption Laws of India/Indian Penal Code, 1860, Information and Technology Act, 2000, Competition law or any other relevant laws, enactments, rules and regulations. Further the Bidder / Contractor will not use improperly, for purposes of competition or personal gain,

- or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically. The Bidder / Contractor also undertakes to exercise due and adequate care of any such information so divulged.
- e. The Bidder / Contractor further confirms and declares to the Principal that the Bidder / Contractor is the original manufacturer / integrator / authorised government sponsored export entity and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the Principal or any of its functionaries, whether officially or unofficially to the award of the contract to the Bidder / Contractor, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.
 - f. The Bidder / Contractor will, when presenting his bid, disclose any and all payments he has made, is committed to make or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract and the details of the services agreed upon for such payments.
 - g. The bidder(s)/ contractor (s) of foreign origin shall disclose the name and address of agents and representatives in India related to this tender. Similarly, the bidder(s)/ contractor(s) of Indian nationality shall furnish the name and address of their foreign principals or associates, if any, related to this tender.
 - h. The Bidder / Contractor shall not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
 - i. If the Bidder / Contractor or any employee of the Bidder / Contractor or any person acting on behalf of the Bidder / Contractor, either directly or indirectly, is a relative of any of the officers of the Principal, or alternatively, if any relative of an officer of the Principal has financial interest / stake in the Bidder's / Contractor's firm, proprietorship, company, etc. the same shall be disclosed by the Bidder / Contractor at the time of filing of tender/EoI. The term 'relative' for this purpose would be as defined in Section 6 of the Companies Act, 2013.
 - j. The Bidder / Contractor shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the Principal.
 - k. The bidder / contractor shall disclose the circumstances, arrangements, undertakings or relationships that constitute, or may reasonably be considered to constitute, an actual or potential conflict of interest with its obligations specified in the tender process or under any Agreement which may be negotiated or executed with Principal. Bidder / Contractor and its employees, agents, advisors and any other person associated with the bidder / contractor must not place themselves in a position which may, or does, give rise to conflict of interest (or a potential conflict of interest between the interests of Principal or any other interests during this tender process or through operation of the Agreement.
 - l. The bidder(s)/ contractor (s) who have signed the Pact shall not approach the Courts while the matters/disputes/issues, related to tender process or the Contract are presented before the IEM and awaiting the final decision.
2. The Bidder / Contractor will not instigate third persons to commit above mentioned acts / omissions / offences outlined above or be an accessory to such offences.

Section 3

Disqualification from tender process and exclusion from future contracts

1. If the Bidder, before the Contract is awarded, has committed a transgression through a violation of Section 2 or in any other form such as to put his reliability or credibility as Bidder into question:
 - a. the Principal is entitled to disqualify the Bidder from the tender process or to terminate the Contract, if already signed, for such reason.
 - b. the Principal is entitled to exclude the Bidder / Contractor from participating in future contracts/tenders. The imposition and duration of the exclusion will be determined by the Principal based on the severity of the transgression. The severity will be determined by the circumstances of the case, in particular the number of transgressions, the position of the transgressors within the company hierarchy of the Bidder / Contractor and the amount of the damage. The exclusion will be imposed for a minimum of six (6) months and maximum of three (3) years.
2. An act/omission would be treated as a transgression after due consideration of the available evidence by the Principal.
3. The Bidder / Contractor accepts and undertakes to respect and uphold the Principal's absolute right to resort to and impose such disqualification/exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any hearing before the decision of disqualification/exclusion is taken. This undertaking is given freely and after obtaining independent legal advice.
4. If the Bidder / Contractor can prove that he has restored the damage caused by him and has installed a suitable corruption prevention system, the Principal may revoke the aforesaid disqualification/exclusion prematurely.

Section 4

Compensation for Damages

1. Without prejudice to any rights that may be available to the Principal under any law or the contract or its laid down policies and procedures, the Principal shall have the following rights in case of breach of this Pact by the Bidder/Contractor:
 - a. To forfeit the Earnest Money/Bid Security if the Bidder is disqualified from the tender process prior to the award in terms of Section 3;
 - b. To forfeit/invoke the Security Deposit/ Performance Bank Guarantee if the Principal has either terminated or is entitled to terminate the Contract of the Bidder in terms of Section 3.
 - c. To immediately call off the pre contract negotiations without assigning any reason or giving any compensation to the Bidder / Contractor.
 - d. To immediately cancel the contract, if already signed, without giving any compensation to the bidder / contractor. The Bidder / Contractor shall be liable to pay the compensation for any loss or damage to the Principal resulting from such cancellation / rescission and the Principal shall be entitled to deduct the amount so payable from the amount due to the Bidder / Contractor.
 - e. To recover all sums already paid by the Principal, with interest at ___% @ p.a. if any outstanding payment is due to the Bidder / Contractor from the Principal in connection with any other contract, such outstanding payment could also be set off to recover the aforesaid sum and interest.
 - f. To recover all sums paid in violation of this Pact by the Bidder / Contractor to any middleman or agent or broker with a view to securing the contract.

Section 5

Previous transgression

1. The Bidder declares that he has not committed any transgressions in the last three (3) years against any Company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could invite/justify his exclusion from this tender process.
2. Any concealment of information or misrepresentation of facts, in regard to the aforesaid, can lead to his disqualification from the tender process or termination of the Contract, if already awarded, or invite any other appropriate action(s) as deemed fit.

Section 6

Equal treatment of all Bidders / Contractors / Subcontractors

1. The Principal will enter into Pacts on identical terms with all bidders and contractors.
2. The Bidder(s) / Contractor(s) assures to procure from all their subcontractors an undertaking for the adoption of this Pact. The Bidder (s) / Contractor(s) shall alone be responsible for any violation (s) of the provisions laid down in the Pact by any/all of their sub-contractor (s) or sub-vendor (s).
3. The Principal will be entitled to disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 8

Independent External Monitor / Monitors

1. The Principal appoints competent and credible Independent External Monitor as nominated and approved by the Central Vigilance Commission. The task of the IEM is to review independently and objectively, whether and to what extent the Parties comply with the obligations under this Pact. The IEM would be required to sign 'Non- Disclosure Agreements' alongwith a declaration of 'Absence of Conflict of Interest'. In case of any conflict of interest arises at a later date, the IEM shall inform Chairperson of the Board of the Principal and recuse himself/herself from that case.
2. The IEM is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Chairperson of the Board of the Principal. The IEM would be provided access to all documents/records pertaining to the contract for which a complaint or issue is raised before them, as and when warranted. However, the documents/records/ information having National Security implications and those documents which have been classified as Secret/Top Secret are not to be disclosed.
3. The Bidder / Contractor accepts that the IEM has the right to access, without restriction, all Project documentation available with the Principal including the documents/ records/ information provided by the Bidder/Contractor. The Bidder/Contractor will also grant the IEM, upon their request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The IEM is under contractual obligation to treat the documents/ records/ information of the Bidder/Contractor/ Subcontractor with confidentiality.
4. The Principal will provide to the IEM sufficient information about all meetings among the parties related to the Project provided that such meetings could have an impact on the

contractual relations between the Principal and the Bidder/Contractor. The Parties will offer to the IEM the option to participate in such meetings.

5. As soon as the IEM notices, or suspects, a violation of this Pact, he will inform the Management of the Principal and request the Management to discontinue or rectify the violation, or take any other relevant action. The IEM can in this regard submit nonbinding recommendations. Beyond this, the IEM has no right to demand from the Parties that they act in a specific manner, refrain from action or tolerate action. However, the IEM shall give an opportunity to the Bidder / Contractor to present his case before making its recommendations to the Principal.
6. The IEM is expected to tender their recommendation on all the complaints within 30 days of their receipt, to the Chairperson of the Board of the Principal. Further, should the occasion arise, the IEM may submit proposals for correcting problematic situations.
7. If the IEM has reported to the Chairperson of the Board of the Principal a substantiated suspicion of an offence under relevant Anti-Corruption Laws of India/Indian Penal Code, 1860, or any other relevant laws and the Chairperson has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the IEM may transmit this information directly to the Central Vigilance Commissioner, Government of India.
8. The word 'IEM' would include both singular and plural.

Section 9

Pact Duration

1. This Pact comes into force when both parties have signed it. It expires for the Bidder / Contractor 12 months after the last payment under the respective contract, and for all other Bidders / Contractors 6 months after the contract has been awarded.
2. If any claim is made / lodged during the aforesaid duration, the same shall continue to be valid despite the lapse of this pact as specified above, till it is discharged / determined by Chairperson of the Board of the Principal.

Section 10

Other provisions

1. This Pact is subject to Indian Laws. Place of performance and jurisdiction is the Registered Office of the Principal, i.e. Pune. The Arbitration clause provided in the main tender document / contract shall be applicable to any issue / dispute arising under this Pact.
2. If the Contractor is a partnership or a consortium, this Pact must be signed by all partners or consortium members.
3. In case of any allegation of violation of any provisions of this Pact or payment of commission etc. the Principal or its agencies shall be entitled to examine all the documents including the Books of Accounts of the Bidder / Contractor and Bidder / Contractor shall provide necessary information and documents and shall extend all possible help for the purpose of such examination.
4. If one or several provisions of this Pact are held to be invalid/unenforceable, the remainder of this Pact shall remain valid as though the invalid or unenforceable parts had not been included herein. In this case, the parties will strive to come to an agreement to their original intentions.
5. Issues like warranty/ guarantee etc. shall be outside the purview of IEM.

For the Principal

For the Bidder / Contractor

Place -----

Witness 1 : -----

Date -----

Witness 2

DOCUMENTS CHECK-LIST

| Sl. No | Document | Page Numbers | Yes/No |
|--------|---|--------------|--------|
| | e-Packet – A | | |
| 1. | Covering Letter / Tender Acceptance letter (Annexure-A) | | |
| 2. | Authority Letter (Annexure-B) | | |
| 3. | Transaction details towards online payment of EMD / Valid exemption certificates | | |
| 4. | A self-attested copy of Partnership deed / Memorandum and Articles of Association as applicable. | | |
| 5. | Self-attested copies of GST registration certificate, PAN card | | |
| 6. | Technical Bid - Duly filled compliance statements | | |
| 7. | Unpriced Bid – as per Section VI | | |
| 8. | Undertaking from the supplier as per Annexure – C | | |
| 9. | Self-Certification under preference to Make in India order as per Annexure - D | | |
| 10. | Integrity Pact as per Annexure - E | | |
| 11. | Copies of purchase orders and completion reports, as per eligibility criteria and any other documents in support of eligibility showing experience of two (2) Years. | | |
| 12. | Audited financial statements or certified copies from a Chartered Accountant showing annual turnover of INR 70 Lakhs for last 03 financial years. | | |
| 13. | Documentary evidence of having PCB assembly facility | | |
| 14. | Valid ISO 9001 Certificate | | |
| 15. | Declaration letter – 1) bidder is not black-listed by any State/ Central Government, Government Department, PSU or an autonomous institute 2) Bidders Financial Standing | | |

| | | | |
|---|--------------------------|--|--|
| | e-Packet – B | | |
| 1 | Commercial bid (BOQ.XLS) | | |

(END OF DOCUMENT)