

Government of India
Bhabha Atomic Research Centre
Environmental Monitoring and Assessment Division

Trombay,
Mumbai - 400 085

NOTICE INVITING e-TENDER

TENDER NOTICE No. BARC/EMAD/01/2025-2026

I. NIT Details :

1. Online item-rate tender in two parts i.e. Cover-1 –Techno-commercial Bid and Cover-2 – Financial Bid are hereby invited through e-Tendering mode on behalf of the President of India by Tender inviting Authority as below, Bhabha Atomic Research Centre, Trombay, Mumbai-400 085 for the following work from eligible bidders.

I.	Name of Work	:	Fabrication of spare IERMON PCBs as per BOM given in Annexure-1 and terms and conditions given in Annexure-5.
II.	Delivery Location (s) & Pin Code (s)	:	102 ESC building, BARC, Trombay, Mumbai-400085,
III.	Tender inviting Authority	:	Director, BARC
IV.	Inviting Officer Address	:	EMAD Office, BARC, Trombay, Mumbai -400085
V.	Earnest Money	:	₹4,00,000.00
VI.	Cost of tender Document	:	NIL
VII.	Tender Processing Fee	:	NIL
VIII.	Delivery Period	:	240 Calendar days (Two Hundred Forty calendar days).
	'Start/End Date of Download of Bid Documents'	:	From 13-06-2025 0900 Hrs to 30-06-2025 1500 Hrs To Download – please visit CPPP website on https://eprocure.gov.in/eprocure/app Detailed NIT is also available on website www.barc.gov.in for view only.
IX.	Bid Submission Start Date	:	13-06-2025 0900 Hrs
X.	Bid Submission End Date	:	30-06-2025 1500 Hrs
XI.	Submission of EMD in physical form. Address for submission of physical EMD Form.	:	On or before 30-06-2025 1500 Hrs EMD shall be submitted/Received in physical form at the following address before due date & time: To, Room No. 316, CT&CRS Building, AERB Complex, Anushakti Nagar, Mumbai 400094 Ph. 022 25598694/96 and 25593237 Ph. 022 69298694/96 and 69293237

			Note: EMD Exemption applicable as per Govt. regulations, subject to submission of supporting documents.
XII.	Bid opening Date /Date and time of online opening of Cover-1	:	01-07-2025 15:30 (Hrs.)
XIII.	Date of opening of Cover-2 of qualified bidders	:	Will be notified at a later date through corrigendum (please visit CPPP website on https://eprocure.gov.in/eprocure/app for date)
XIV.	Validity of Tender (in days)	:	180 (One Hundred Eighty)

II. Initial Eligibility Criteria:

2. The bidder should have the following:

- Performance Certificates of all completed similar works cited as experience of similar works.
- Certificate of Registration for GST.
- Permanent Account Number (PAN)
- Certificate for registration under MSME/NSIC/etc.



3.

- Vendor should have minimum 5 years of experience in PCB manufacturing and assembly.
- Vendor should have executed similar work in BARC, DAE or other government institutions. Vendor shall submit the list of similar orders completed by vendor firm, along with list and contact details of corresponding end users.
- Vendor should have their own PCB fabrication and assembly line including automated pick and place machines.
- Vendor should have their own fabrication and assembly team with at least 3 dedicated technician level man-power.
- Vendor should quote in as single entity. Consortium bidding is not allowed. In case there is a third-party alliance, the relationship, dependencies, etc., should be clearly mentioned.

4. Bidder should be a registered firm in India.

III. Information:

- Tender document is prepared in two parts viz. Cover-1 (Technical Documents) and Cover-2 (Financial Bid). Cover-1 consists of Section I – Notice Inviting e-Tender, Annexure-1: Bill of Material (BOM), Annexure-2 & 3: Specifications of the GM-Tubes, Annexure-4: Test Procedure, and Annexure-5: General Terms and Condition, Cover-2 (Financial bid) consists of Schedule 'B' - Schedule of Quantities. All the above documents will form part of Agreement after award of work to the successful bidder.

Obtaining of tender documents: Prospective Bidders or general public can see and download free of cost **PDF format** of the above documents from CPPP website. Some part of the tender documents will be available for download from BARC website www.barc.gov.in  [Tenders and NITs](#),  [Other Information](#). Bidders must refer both websites and follow the instructions given to obtain complete set of tender documents. Referring only one site may result access to partial tender document.

IV. Guidelines for e-Tendering participation in CPPP website:

To participate in the Tendering process on the CPP Portal, Prospective Bidders require a valid Class III Digital Signature Certificates. Data and copy of all the documents related to the eligibility criteria of tender should be submitted electronically through CPPP portal only. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal. More information useful for submitting online bids on the CPP Portal may be obtained at: <https://eprocure.gov.in/eprocure/app>.

6. Registration

- (i) Bidders are required to enrol on the e-Procurement module of the Central Public Procurement Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link “**Online Bidder Enrolment**” on the CPP Portal which is free of charge.
- (ii) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- (iii) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- (iv) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.
- (v) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- (vi) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

7. Searching for Tender Documents

- (i) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.
- (ii) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective ‘My Tenders’ folder. This would enable the CPP Portal to intimate the bidders through SMS/e- mail in case, there is any corrigendum issued to the tender document.
- (iii) The bidder should make a note of the unique Tender ID assigned to each tender, in case, they want to obtain any clarification / help from the Helpdesk.

8. Preparation of Bids

- (i) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- (ii) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid. Bidders shall ensure no price bid information gets disclosed through any data/ document/ correspondences submitted by them and available for view before scheduled date of opening of price bid. The tender shall be summarily rejected if any price bid information gets disclosed before scheduled price bid opening date and time.
- (iii) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/ JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- (iv) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" or "Other Important Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

Note: *My Documents space is only a repository given to the Bidders to ease the uploading process. If Bidder has uploaded his Documents in My Documents space, this does not automatically ensure these Documents being part of Technical Bid.*

9. Submission of Bids

- (i) Bids shall be submitted online only at CPPP website : <https://eprocure.gov.in/eprocure/app>
- (ii) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- (iii) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- (iv) Bidder has to select the payment option as "offline" to pay the EMD as applicable and enter details of the instrument.
- (v) Bidder should prepare the EMD as per the instructions specified in the tender document as applicable. The original should be posted/couriered/given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time.

Otherwise the uploaded bid will be rejected.

- (vi) The agency shall download the pre bid clarification if any for the work and upload the same (scanned copy) duly signed and sealed. The revised documents (if any) shall be uploaded in e tender portal. Submission of bid by a bidder shall mean they have understood the full scope of work and agree to all the tender conditions including amendments vide pre-bid clarification document uploaded by department.
- (vii) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BOQ file, open it and complete the SKYBLUE coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.
- (viii) Tenderers are advised to upload their documents well in advance, to avoid last minutes rush on the server or complications in uploading. BARC, in any case, shall not be held responsible for any type of difficulties during uploading the documents including server and technical problems whatsoever.
- (ix) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- (x) Submission of the tender documents after the due date and time (including extended period) shall not be permitted.
- (xi) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener's public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- (xii) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- (xiii) Upon the successful and timely submission of bids (i.e. after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.

- (xiv) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.
- (xv) Intending Bidders are advised to visit this website regularly till closing date of submission to keep themselves updated as any change/ modification in the tender will be intimated through this website only by corrigendum / addendum/ amendment.
- (xvi) The technical specifications of some of the items/ materials of the tender suggest makes and brands as general recommendation and guidance for bidders to match performance parameters and tender specifications. Bidders can, however, suggest alternate / equivalent makes and brands subject to achieving the performance parameters and tender specifications, by providing technical details to substantiate the same. In order to ensure equal opportunity and fair and equitable treatment to all the bidders and also to avoid delays during execution of work, the pre-bid clarification stage before submission of bid is the appropriate stage to suggest alternate makes/ brands and recognition of the same by the department in the uploaded pre-bid clarification document after due verification of the submitted technical details. After award of work, delays due to time taken for conveying acceptance/ rejection of alternate / equivalent makes suggested by contractor (if any) shall be attributable to the contractor. Extra cost due to superior specification/ performance of items/ materials shall not be payable.

10. Assistance to Bidders

- 1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- 2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.

V. Conditions :

- 11.** After opening of Cover-1, tender inviting authority may constitute an evaluation team to evaluate the eligibility of the tenderers based primarily on the following.
 - a) Experience in PCB manufacturing and assembly.
 - b) Similar orders successfully executed by the vendor firm.
 - c) Availability of own PCB fabrication and assembly line, including automated pick and place machines.
 - d) Availability of man-power.
 - e) Registration of the bidder with PAN, GST, MSME/NSIC authorities.

Additional/ alternate/ substituted document shall be sought by the department by e-mail correspondences for confirmation in respect of eligibility of bidders. The documents thus sought be submitted by reply mail within allowed time for the competent authority to decide on the eligibility. In case required documents are not made available by reply mail within the allowed time, the bid shall be liable for rejection.

12. Department would also assess the capability and readiness of the bidder to carry out the job and highlight improvements required.

- a. Technical capabilities of the company in the light of subject work.
- b. Nature of works executed by the tenderer during last 3 years.
- c. Organizational structure of the company.
- d. Necessary Resource required by company to carry out the subject work.
- e. Time & quality consciousness.
- f. Tendency of the company with regard to making extraneous claims and disputes.
- g. Site planning ability.
- h. Tendency of the company to award the work on back to back / subletting.

13. No modifications in the tender shall be allowed after opening Cover-1.

14. Debarring of bidder from participating in tenders of BARC/ DAE:

- (i) If any information furnished by the applicant is found to be incorrect at a later stage, they shall be liable to be debarred from tendering / taking up works in BARC. Also, if such a violation comes to the notice of BARC before deposit of performance security, BARC shall forfeit the entire amount of EMD along with debarring. If such a violation comes to the notice of Department after deposit of performance security, BARC shall forfeit the entire amount of Performance Guarantee, EMD (if not released) along with debarring.
- (ii) A bidder / contractor shall be debarred from participating in any procurement / tenders in BARC / DAE, as decided by the Competent Authority of BARC, if the competent authority of BARC finds the bidder has rendered themselves liable for action under Rule 151 & 175 (1) of General Financial Rules 2017 or its amendment(s) [<https://doe.gov.in/ordercircular/general-financial-rules2017-0>]; and / or clause 7.5 and sub-clauses (chapter 7) of Manual of Procurement of Works 2022 or its amendment(s) [<https://doe.gov.in/manuals/manual-procurement-works-updated-june-2022>]; and/or clause 2.4 and sub-clauses (chapter 2) Manual for Procurement of Consultancy & Other Services 2022 or its amendments [<https://doe.gov.in/divisions/manual-procurement-consultancy-other-services>]. Decision of Competent Authority of BARC in this regard shall be final and binding on the bidder.
- (iii) Bidders must inform unambiguously if they have been debarred to bid for any duration OR an awarded work was terminated due to poor performance OR they are informed by client agency that an awarded work had been relinquished by them before completion in respect of any Government, Semi Government clients. Competent authority of BARC shall review the case and decide if the restriction to bid is applicable for current work.

15. Tender will be kept valid for 180 (**One Hundred Eighty**) days from the Last date of closing of online submission of tenders.

16. In case the last date of receipt of “**EMD**” in physical form and opening of tender come on a holiday or declared as holiday, the respective dates shall be treated as postponed to the date of next working day.

- 17.** Earnest Money in physical form to be submitted in the form of Fixed Deposit Receipt / Demand Draft / Bankers Cheque / Pay Order of a Scheduled Bank, issued in favour of “Accounts Officer”, BARC, Mumbai with bank details (if required), as State Bank of India, BARC, Trombay Branch, IFSC: SBIN0001268. Further, Receipt of Hard copy of EMD shall be submitted at afore-mentioned place given in Sr No. 1, sealed, super scribed envelope mentioning name of work and NIT Number.

Further, EMD in physical form should be submitted preferably in person. It should not be put in drop box at North gate or any other location. Dispatch by post or courier may be considered subject to the condition the delivery is received within due date & time on said address given in Sr No. 1. Submission of EMD is compulsory. Bid of bidder shall not be opened in case EMD of respective bidder in recommended physical form is not received within due date and time.

- 18.** The bidder whose tender is accepted will be issued letter of acceptance (LOA) by BARC. After receipt of LOA, the bidder shall be required to deposit an amount equal to 3% of the tendered value (Work order value) of the contract as performance security and after acceptance of performance security by BARC, work order shall be awarded to the bidder. Time allowed for submission of Performance Guarantee shall be 30 days from the date of issue of letter of acceptance. Performance Security of 3% can also be accepted in the form of Bank guarantees (in case Performance Security exceeds ₹ 1.00 lakhs), fixed deposit receipts of Scheduled Banks or in the form of Government Securities. If letter of acceptance is issued, Earnest Money Deposit (EMD) of L1 bidder shall be retuned / refunded after acceptance of Performance Security Deposit. If letter of acceptance is not issued EMD of L1 bidder shall be retuned / refunded after cancellation of job by BARC or lapse of validity of offer whichever is earlier. EMD of L2 and other bidders shall be retuned back / refunded after acceptance of Comparative Financial statement (CST) by competent authority of BARC. In case of two/ three bid system EMD of unsuccessful bidders during technical bid evaluation shall be returned within 30 days of uploading of technical bid evaluation in CPPP.
- 19.** If the successful tenderer, fails to furnish the prescribed performance guarantee on or before stipulated dates as mentioned in letter of acceptance, BARC shall without prejudice to any other right or remedy, reserves the right to forfeit EMD and further debarment procedure as per extant GFRs.
- 20.** The acceptance of tender shall rest with department which does not bind itself to accept the lowest tender and reserves to itself the authority to reject any or all of the tenders received, without assigning any reason. All tenders in which any of the prescribed conditions are not fulfilled or incomplete in any respect are liable to be rejected.
- 21.** Canvassing in connection with tenders is strictly prohibited and the tenders submitted by the bidders who resort to canvassing will be liable for rejection.
- 22.** On acceptance of the tender, the name of the accredited representative(s) of the bidder who would be responsible for taking instructions from the Engineer-In-charge shall be communicated to the Engineer-In-charge.
- 23.** The department reserves the right to accept the whole or only part of the tender and the tenderer shall be bound to perform the same at the rates quoted.
- 24.** i) GST shall mean Goods and Service Tax – Central, State and Inter State.

- ii) All tendered rates quoted in Schedule-B shall be excluding GST but inclusive of all other taxes, royalties, levy or cess applicable on last stipulated date of receipt of tender including extension “if any”.
- iii) GST as applicable duly certified by Chartered Accountant on this work contract is reimbursable by BARC subject to production of original documentary proof of GST payment for this work. Any other taxes, insurance expenses, charges in respect of inputs or outputs for this contract shall be payable by the Bidder and Government will not entertain any claim whatsoever in respect of the same.
- iv) The bidders should ensure that they are GST compliant and their quoted tax structure /rates are as per GST Law.
- v) 2% TDS on GST shall be recovered from each bill paid to the bidder.
- vi) Income tax and cess as applicable shall be deducted from each bill paid to the bidder.
- vii) Any other taxes / cess as per Government directives shall be deducted from each bill paid to the bidder from time to time.

25. If any tenderer withdraws his tender within the validity period and before award of work whichever is earlier or make any modifications in the terms and conditions of the tender which are not acceptable to the department, then BARC shall without prejudice to any right or remedy, be at liberty to forfeit 50 % (Fifty Percent) of the Earnest Money Deposit.

Further, the bidder shall not be allowed to participate in the re-tendering process of the work.

Instructions:

- 26.** The bidder should be registered with <https://eprocure.gov.in/eprocure/app>. Those bidders not registered on the website mentioned above, are required to get registered.
- 27.** The intending bidder must have valid class-III digital signature for Request for purchase / Download of Tender Document (excel / word formats). The bid should only be submitted/uploaded after providing details of Fixed Deposit Receipts and or Bank Guarantee of any Scheduled Bank towards Earnest Money Deposit and other documents as specified
- 28.** Tenders will be received online up to time & date as mentioned in the NIT details above. Cover-1 will be opened on the time & date as mentioned in the NIT details above. After opening of Cover-1, for evaluation, the bidder's Techno-commercial Bid related documents shall be evaluated and accordingly tenderers will be qualified/disqualified by the Competent Authority. The Cover-2 (Financial Bid) of the qualified tenderers shall then be opened at notified date and time. Date of opening of Cover-2 (Financial Bid) will be intimated to all bidders through the CPP Portal website.
- 29.** The Financial Proposal/Commercial bid / BOQ format is provided as BOQ_XXXX.xls along with this tender document at <https://eprocure.gov.in/eprocure/app>. Bidders are advised to download this BOQ_XXXX.xls as it is and quote their offer/rates in the permitted column and upload the same in the commercial bid. Bidder shall not tamper/modify downloaded price bid template in any manner. In case if the same is found to be tampered/modified in any manner, tender will be completely rejected.
- 30.** On opening date, the bidder can login and see the status of Bids after opening.
- 31.** Bidder must ensure to quote rate of each item. The column meant for quoting rate in figures appears in SKY BLUE colour. While selecting any of the cells a warning appears to

mandatorily fill all such cells with any value, including “0” (ZERO).

Note: Prospective agencies shall satisfy themselves of fulfilling all the NIT criteria before submission of tender. Department reserves the right of non-consideration of tender of the agencies not fulfilling the stipulated criteria.

32. Eligible source countries:

Any Bidder, from a country which shares a land border with India must comply to the Order (Public Procurement No.1) & Order (Public Procurement No. 2) issued by Public Procurement Division, Department of Expenditure, ministry of Finance, Government of India vide F. No. 6/18/2019-PPD dated 23.07.2020 and its addendum from time to time.

33. List of Documents to be scanned from original & uploaded within the period of bid submission by bidder:

- i. Financial Turn Over certified by CA with valid Unique Document Identification Number (UDIN) of the practicing Chartered Accountant.
- ii. Profit & Loss statement certified by CA with valid Unique Document Identification Number (UDIN) of the practicing Chartered Accountant.
- iii. Latest Bank Solvency Certificate.
- iv. List of Construction Plants and Machinery “if applicable for this work”
- v. List of Technical Staff
- vi. Certificates:
 1. Registration certificate, if any
 2. Certificates of Work Experience / Performance Certificates
 3. Certificate of Registration for GST.
 4. PAN (Permanent Account Number) Registration
 5. Certificate of Registration for MSME/NSIC if applicable.
- vii. Undertaking in bidder letter head as indicated in Technical Bid (Excel format).
- viii. List of Similar Works completed in last seven years indicating i) Agency for whom executed, ii) Value of work, iii) Stipulated and Actual time of completion, iv) Performance certificates of the eligible similar works from the clients.
- ix. Undertaking/Declarations – Annexure-6 to Annexure-8 as given below
- x. Earnest Money Deposit (EMD) for this work.

Note: During technical evaluation missing documents, if any, or additional/ substitute documents can be asked by evaluation committee for submission.

34. The Bidder is required to fill and submit the following complete in all respect:

- a) Part - ‘A’ : Technical Bid” along with EMD
- b) Part – ‘B’ i.e. Financial Bid (Schedule - ‘B’)

Notes:

1. Interested agencies may visit website <https://eprocure.gov.in/eprocure/app> for registration and Bid Submission.
2. Contact for assistance for registration and participation in e-Tendering:
 - 2.1) 24x7 CPP Portal Helpdesk - 0120-4001 002, 0120-4001 005, 0120-6277 787
 - 2.2) Local Helpdesk - Shri. Bhushan / Shri. Mayur at 022-2548 6322/74 (bhushanborse2411@gmail.com/mayurj642@gmail.com)
 - 2.3) email at support-eproc@nic.in



11/06/2025

(Dr. A. Vinod Kumar)
Head, EMAD, BARC
Bhabha Atomic Research Centre
For and on behalf of the President of India

1.1. Details and Bill of Material for IERMON PCB:

Type: Gold Plated, Double sided PTH

Dimension: 45.0 cm × 8.5 cm

Thickness: 2.5 ± 0.2 mm

Class: IPC-2222/IPC-6012 Class 2

RHoS compliance: Yes

Layout/circuit design: Gerber will be shared along with final PO

Sl. No.	Circuit Ref.	Description	Manufacturer/Probable Supplier	Qty.
1	R 7,10,13	3.3M , MF,1/2W, 1%,50PPM VR37 (High Voltage)	Vishay (VR37000003304FA100)	3
2	R 1	820K , MF,1/2W, 1% / 5%,25PPM	Vishay/Panasonic	1
3	R 6,9,12	330R, MF, 1/4W,1%,25PPM	Vishay/Panasonic	3
4	R 2	220K, MF, 1/4W,1%,25PPM	Vishay/Panasonic	1
5	R 3,4,5,8,11,15	10K , MF, 1/4W,1%,25PPM	Vishay/Panasonic	6
6	R 14	220R, MF, 1/2W,1%,25PPM	Vishay/Panasonic	1
7	C 2	470μF, 25/50V, RADIAL CAP, ELEC	Nichicon/Samwah	1
8	C 3,9	10μF, 40/25V, RADIAL CAP, ELEC	Nichicon/Samwah	2
9	C 5	4.7μF, 25V, RADIAL CAP, ELEC	Nichicon/Samwah	1
10	C 4	1μF, 16/63 V, RADIAL CAP, ELEC	Nichicon/Samwah	1
11	C 1,14,15,16	0.1μF, 16/63 V, RADIAL CAP, ELEC	Nichicon/Samwah	4
12	C6,7,8	47pF,DISC CAP 1KV	TDK (CC45SL3AD470JYVNA)	1
13	C 10,11	22pF, 16V CERA	AEC/Cedicom	2
14	C 12,13	15pF, 16V CERA	AEC/Cedicom	2
15	TSD	TRANSORB 15V TYPE P6KE15	Vishay (S470K25SL0N63L6R)	1
16	D 4,5,6,7,8,9	DIODE 1N4148	NXP/Fairchild	6
17	D 1,2,3	DIODE TYPE 1N4007	DC/Goodark	3
18	RSW	Micro Miniature Reed Switch. MDCG-4-12-23		1
19	U1	+5V Voltage Regulator 8Pin DIP MAX667 EPA+	Maxim	1
20	U2	LP2950-33LPRE3	Texas Instrument	1

21	XL1	Crystal 11.0592 MHz KDS.60	TXC	1
22	XL2	Crystal 32.768 KHz R 38-32, 768-12.5 30PPM	TXC/Mercury	1
23	LAN	LAN socket Modem, 3.3V TTL interface. Power Consumption < 40mA. 10 mbps speed. Model No. : Tibbo, DS100TTL3V3 SE.	Amwil Inc (www.amwillinc.com) and Dyptronics (dyptronics.com)	1
24	GSM Antenna Cable	RG316 Cable crimped on one end with rear mount type bulk head SMA jack female (7.9 mm). Other end SMA Coaxial Straight Plug (MOLEX 73251-0450). Length of cable should be 12 cm including connector.	www.robu.in or other online platforms	1
25	GSM Interfacing Board	2"x2" PCB for GSM modem mounting, fixed on main board. Details and BOM of the interfacing board is attached as A.2 below	2" x 2" PCB as per specification given in annexure A.2	1
26	EHT 1, 2	HV Module. I/P: +5V/10 mA (Max.), O/P: 550V /100 μ A, with mounting arrangement for existing frame	Rato Communication Pvt. Ltd.	2
27	U3	PIC Microcontroller Type PIC 24FJ64GA002-I/SP	MICROCHIP	1
28	SK1	7 PIN SOCKET PANEL MOUNTING MG 02R-14SA-61S		1
29	U3 -SKT	28 PIN DIP SOCKET DUAL-N-LINE P8053 SERIES		1
30	U1-SKT	8 PIN DIP IC SOCKET M/C CONTACT P8053 SERIES		1
31	JP1	MINI JUMPERS TYPE N 9201 2.54 PITCH		1
32	CON1	7 PIN HEADER 2.54 mm 6373 SERIES TYPE 22-11-2082		1
33	Strip Header	20 PIN BERG STRIP HEADER		1
34	GM2, GM3	GM tube for low dose rate range (Mounted on PCB)	As per specifications given in annexure-2	2
35	Spare of GM2, GM3	GM tube for low dose rate range (Spare, to be supplied separately)	As per specifications given in annexure-2	2
36	GM1	GM tube for high dose rate range (Mounted on PCB)	As per specifications given in annexure-3	1

37	Spare of GM1	GM tube for high dose rate range (Spare, to be supplied separately)	As per specifications given in annexure-3	1
38	Spare/NA	Big GM tube mounting clamp	Sample may be shared	1 set
39	Spare/NA	Small GM tube mounting clamp	Sample may be shared	1 set
40		20 Pin Berg Strip Header		1
41		3 mm click nut made up of brass (fixed on the PCB aligned with mounting holes)	Sample may be shared	14
42		MG Connector Male 6pin	Allied connector part no : MG06F 14S-6P	1
43		MG Connector Male 6 pin with 8 pin jst connector solder with wire	Allied connector part no : MG02R 14SL-61S	1

1.2. Details and Bill of Material for GSM Interfacing Board:

Type: Gold Plated, Double sided PTH

Dimensions: 6 cm × 5 cm

Thickness: 1.5 ± 0.2 mm

Class: IPC-2222/IPC -6012 CLASS 2

RHoS compliance: Yes

Layout/circuit design: Gerber will be shared along with final PO

Sl. No.	Circuit Ref.	Description/Value	Manufacturer/Probable Supplier PartNo	Quantity
1	C1	22u/16V	TMCMA1C226MTRF	1
2	C2	47u/10V	TMCMA1A476MTRF	1
3	C3	TMCMB0J227 MTRF	TMCMB0J227MTRF	1
4	C4-C5	FYD0H104ZF	FYD0H104ZF	2
5	C6,C11,C12,C13, C14,C15,C17,C18, C19,C20,C21,C26	100nF/100V	GENERIC	12
6	C7	8.2nF/100V	GENERIC	1
7	C8	82pF/100V	GENERIC	1
8	C9	15pF/100V	GENERIC	1
9	C10	8.2pF/100V	GENERIC	1
10	C16	10uF/100V	GENERIC	1
11	C22	1uF/100V	GENERIC	1
12	C23,C24,C25	47pF/100V	GENERIC	3
13	R1,R3	470R	GENERIC	2
14	R2,R7	220R	GENERIC	2
15	R4-R5	10K	GENERIC	2
16	R6	1K	GENERIC	1
17	U1	MIC29302	MIC29302WU	1
18	U2	LENA-R8001-00C	LENA-R8001-00C	1
19	U3	PIC24FJ32GP202-I_ML	PIC24FJ32GP202-I_ML	1
20	U4,U6,U8-U9	SN74LVC1T45DCKR	SN74LVC1T45DCKR	4
21	U5	NUP4114UCW1T2G	NUP4114UCW1T2G	1
22	U7	MIC5365-3	MIC5365-3.3YD5-TR	1
23	Q1,Q2,Q3,Q4	PDTC114EU_115	PDTC114EU_115	4
24	D1	BZT52H-C3V3_115	BZT52H-C3V3_115	1
25	D2	KS_EELP41	KSEELP4122P1R25 8A8J8020R18	2
26	J1	CONN-SIL8	FEMALE BUG STRIP	1
27	J2	CONN-SIL5	MALE BUG STRIP	1
28	J5	MOLEX SIM TRAY	473882001	1
29	SMA	SMA_CONNECTOR	GENERIC	1

Specification of GM tube for low dose rate range

Sr. No.	Parameter	Value
1	Maximum Length	270 mm
2	Maximum Diameter	27 mm
3	Connector	Flying Lead
4	Operating Temperature Range	-10 °C to +75 °C
5	Dose Rate Range	0.2 µGy/h to 3×10^3 µGy/h
6	Gamma Sensitivity (^{137}Cs)	16 cps/µGy/h or better
7	Dead Time	< 150 µs
8	Plateau Voltage Range	400-600 V
9	Maximum Plateau Voltage Slope	10 % / 100V
10	Maximum Background Shielding (50 mm Pb + 2 mm Al)	< 120 cpm

Specification of GM tube for high dose rate range

Sr. No.	Parameter	Value
1	Maximum Length	43 mm
2	Connector	Flying Lead
3	Operating Temperature Range	-10 °C to +75 °C
4	Dose Rate Range	100 µGy/h to 2×10^7 µGy/h
5	Gamma Sensitivity (^{137}Cs)	0.02 cps/µGy/h or better
6	Dead Time	< 20 µs
7	Plateau Voltage Range	520-620 V
8	Maximum Plateau Voltage Slope	30 % / 100V
9	Maximum Background Shielding (50 mm Pb + 2 mm Al)	< 2 cpm

Test Procedure

Vendor shall perform the following tests on the fabricated IERMON PCBs:

1. HV Supply test:

- 1.1. Output of EHT1 and EHT2 should give $550\text{ V} \pm 2\%$.
- 1.2. $400\text{ V} \pm 10\%$ should be measured at GMHV points of GM1, GM2, GM3.

2. Power supply Test:

- 2.1. $6\text{ V} \pm 10\%$ should be measured at pin no. 1 of CON1.
- 2.2. $3.3\text{ V} \pm 5\%$ should be measured at pin no. 13 and 28 of U3.
- 2.3. $5\text{ V} \pm 5\%$ should be measured at i/p of EHT1 and EHT2.
- 2.4. $5\text{ V} \pm 5\%$ should be measured at pin no. 2 of U1.
- 2.5. $3.3\text{ V} \pm 5\%$ should be measured at pin no. 1 of U2.

3. Output pulse shape of big GM tube:

- 3.1. Output pulse of big GM tube can be checked at C7 and C8. It should be an inverted Gaussian pulse with maximum amplitude of 3.3 V and pulse duration of $15\text{ }\mu\text{s} \pm 30\%$ (Fig. 1).

4. Output pulse shape of small GM tube:

- 4.1. Output pulse of small GM tube can be checked at C6. It should be an inverted Gaussian pulse with maximum amplitude of 3.3 V and pulse duration of $10\text{ }\mu\text{s} \pm 30\%$.

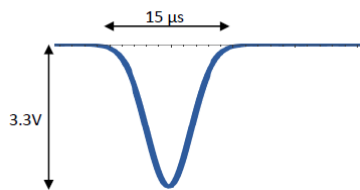


Fig 1: General Pulse Shape of Big GM Tube output

Acceptance criteria:

BARC reserves rights to accept or reject the material based on the testing as IPC standards listed below:

1. Acceptability of printed boards will be tested as per IPC-A-600 standard.
2. Acceptability of electronic assemblies will be tested as per IPC-A-610 standard.
3. Generic performance specification for printed boards will be tested as per IPC-6011 standard.
4. Electrical testing of unpopulated printed boards will be tested as per IPC-ET-652 standard.
5. Qualification and performance specification for rigid printed boards should be as per IPC-6012 standard.
6. Specification for printed wiring, flexible and rigid-flex should be as per IPC-6013 standard.
7. Electrically conductive surface mount adhesives should comply with IPC-3406 standard.
8. In the instance of partial or complete failure in the above mentioned tests, concerned unit of supplied items shall be rejected and vendor shall be required to reproduce the same confirming to all T&C and standard as mentioned in the order.

General Terms and Conditions

1. Offers are invited for Fabrication, assembly, testing and supply of spare IERMON PCBs as per BoM given along with NIT.
2. Gerber file and Circuit diagram for manufacturing of PCBs will be shared to only finally qualified bidder (Vendor) along with the Work Order.
3. Your offer should reach us on or before the due date and time, as mentioned in the NIT. Late offers received after the due date and time will not be considered.
4. Bidders may note that BARC also reserves the right of not considering an offer, if there are any deviations in the commercial and/or general terms and conditions offered against the requirements as per this enquiry, even if the offer is technically suitable.
5. In production and pre-despatch inspection:
 - 5.1 BARC reserves the right to test and inspect the product during any stage of production, with or without advance intimation to the vendor.
 - 5.2 BARC engineers shall be allowed, during normal working hours of normal working days of the vendor's production/fabrication facility, to inspect the quality of the product.
 - 5.3 Based on assessment of BARC engineers, vendor may be asked to modify and correct their practice/approach, for better product quality.
 - 5.4 Vendor should allow BARC engineers to enter into production/fabrication facility and access the production line and assess the quality of unfinished/semi-finished/finished product.
 - 5.5 After completion of production, pre-despatch inspection shall be carried out by BARC engineers at vendor's facility. Material shall be delivered only after successful pre-despatch inspection.
6. Commercial Terms:
 - 6.1 The Price shall be quoted inclusive of delivery, handling, transportation charges, transit insurance and any other levy required for safe delivery at BARC, Trombay, Mumbai -400085.
 - 6.2 Taxes and duties, wherever applicable and payable shall be indicated separately.
 - 6.3 Basic amount and taxes (with applicable percentage) shall be mentioned separately in the quotation. Final amount (including taxes) shall be mentioned both in figure and words.
 - 6.4 Bidder shall submit the EMD of Rs. 4,00,000 along with the offer. The EMD shall be in form of Demand Draft in favor of Account Officer, BARC.
 - 6.5 Payment terms, warranty clause and validity of quotation shall be clearly mentioned.
 - 6.6 Performance Guarantee: Vendor shall have to submit the Performance Guarantee, along with the final bill/invoice. The Performance Guarantee will be equivalent to 3% of the order value and can be submitted as Bank Guarantee

drawn in favour of Accounts Officer, BARC, Mumbai or Fixed Deposit Receipt (FDR) from a nationalized/ reputed commercial Bank made in the name of contractor firm but hypothecated to the Accounts Officer, BARC. The Performance Guarantee should remain valid till the end of warranty period plus 3 months with a claim period of three months.

- 6.7 Liquidated Damages: Timely execution of the project is the essence of this contract and shall be strictly adhered to failing which Liquidated Damages will be levied. Vendor is liable to pay liquidated damages at 0.5% per week of delay or part thereof subject to a maximum of 5% on pro-rata basis

7. Others Terms:

- 7.1 Transit Insurance: Vendor shall insure the items at his own cost.
- 7.2 Validity of the Offer: Offer shall be valid for 180 days from the due date of submission of the offers.
- 7.3 BARC shall have the rights to Purchase the items in Whole lot or Part, as the case may be.
- 7.4 Comprehensive Warranty: The vendor shall provide comprehensive warranty of minimum 6 months for all components from the date of final acceptance of material.
- 7.5 Bidders will be evaluated based on their infrastructure, experience, skilled persons, past experience in conducting similar works etc. Bidders may submit copy of work order for similar work and similar or higher amount carried out at BARC, DAE or other government institute. BARC personnel may visit bidder's premises to carry out evaluation.
- 7.6 Documents: Bidder shall upload self-attested scanned copies of following documents with the quotation:
- (a) Registration Copy for GST
 - (b) Company incorporation Certificate
 - (c) Valid PAN Card
- 7.7 If any vendor refuses to carry out the work after acceptance of the quotation without valid reasons, in addition to ceasing of EMD, they shall be disqualified for submission of quotation in future for a period of minimum of three (03) years.
- 7.8 The contractor shall not be allowed to transfer or assign the contract to any other person / Company / Firm without obtaining written consent of awarding authority.
- 7.9 Specific terms and condition, if any, should be clearly mentioned in the quotation.

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

Date :

To,
Tender Inviting Authority

BARC, Mumbai- 400085

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No: BARC/ CSS/ Dated

Name of Tender / Work : -

Dear Sir,

1. I / We have downloaded / obtained the tender document(s) for the above-mentioned Tender / Work from the web site(s) namely: <https://eprocure.gov.in/eprocure/app> and www.barc.gov.in as per your advertisement, given in the above mentioned website(s).
2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents which will form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.
3. The corrigendum(s) issued from time to time by your department/ organisation too have also been taken into consideration, while submitting this acceptance letter.
4. I / We hereby unconditionally accept the tender conditions of above-mentioned tender document(s)/ corrigendum(s) in its totality /entirety.
5. I / We do hereby declare that our Firm has not been blacklisted/ debarred by any Govt. Department/Public sector undertaking

OR

Instances of debar/black listing is attached separately

6. I / We certify that all information furnished by our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organisation shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including actions taken by Department.

Yours Faithfully,

(Signature of the Bidder, with Official Seal)

(To be given on Company Letter Head)
TO WHOMSOEVER IT MAY CONCERN

Undertaking Pursuant to Section 206 AB of the Income Tax Act 1961
Declaration confirming filing of Income Tax Return from immediate two preceding Years.

I, _____ [Name], in the capacity of Individual / Proprietor/ Partner/ Director/Authorized signatory of _____[Entity Name] with PAN _____, do hereby make the following declaration as required under the relevant provisions of the Income Act, 1961 (hereinafter referred as 'the Act'):

1. That I/We am /are authorized to make this declaration in the capacity as Individual / Proprietor/Partner/Director.
2. I/We hereby declare and confirm that I/We do not fall under the definition of 'specified person' as provided in section 206AB of the IT Act.
3. I/We have duly filed return of income for FY 2021-22 & FY 2023 - 24 within due date as per Section 139 (1) of the Income-tax Act, 1961 -**Yes/No (strike out whichever is not applicable)**.
- 4.
5. If return has been filled the details are as follows:

I/We, _____ having PAN _____, hereby confirm that the provision of Section 206 AB is not applicable in my/our case as I/we am/are regular in filling of Income Tax Return. The details (along with proof of documents) of acknowledgement numbers and date of filling of Income Tax Returns for last two financial years are furnished below:

S. No.	Financial Year / (Assessment Year)	Date of Filing Income Tax Return	ITR Acknowledgement Number
1	2021-22 / (2023 - 24)		
2	2023 - 24 / (2024 - 25)		

6. I /We hereby take responsibility for any loss/liability fully including any tax, interest, penalty, etc. that may arise due to incorrect reporting of above Information.

All the aforesaid representations are true and correct, and we /I agree to furnish any evidence required at any time in support thereof.

On behalf of _____

<< Name of the authorised signatory >>

<< Designation >> Name of the Entity:

**GST UNDERTAKING BY FIRMS/AGENCY
(To be given on Company Letter Head)**

Name of Tender / Work: -

Dear Sir,

1. I/We are registered under GST and compliant to GST provisions.
2. In case non-compliance of GST provisions and blockage of any input credit by us, I/we shall be responsible to indemnify BARC.
3. All the input credits for this work shall be/have been passed on to BARC by us.

Place:

Date:

Yours Faithfully,

(Signature of the Bidder, with Official Seal)