

CENTRE FOR MATERIALS FOR ELECTRONICS TECHNOLOGY,

(A Scientific Society, Ministry of Electronics and Information Technology, Govt. of India)

SHORANUR ROAD, M.G. KAVU, P.O. ATHANI, THRISSUR 680 581, Kerala, India

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TENDER NOTICE

Sealed Tenders (Double bid system) are invited from either the Principal/OEM itself, or by Agent/Dealer on behalf of the Principal/OEM, for the supply, installation, commissioning and demonstration of stores mentioned below, in the prescribed tender format, as in **Annexure-II.** The General terms and conditions shall be as per the **Annexure-III** attached herewith.

S.No	Brief Description of Stores	Tender No.	Qty		
1	Broad Band Impedence Analyser (Specification as per Annexure – I)	TR/PUR/073/2020	1 No		
Last Date for Receipt of Tender		22.03.2021 (upto 15.00 hrs)			
Date of Opening of Bids		22.03.2021 (at 15.30 hrs)			

Tender shall be prepared in the prescribed format

It is requested that the quotations along with literature, if any, may please be sent so as to reach The Administrative Officer, C-MET at the address given above, on or before the due date and time. The envelope should be superscripted with the **enquiry reference number and name of the item and date of tender opening**. Please submit your quotation **on or before 15.00 hrs on the due date**, in accordance with the terms and conditions

TENDERS NOT IN THE PRESCRIBED FORMAT AS PER ANNEXURE II WILL BE TREATED AS NON- RESPONSIVE & WILL BE REJECTED (Ref. Sl. No. 3 of Terms & conditions, Annexure –III)

All tenderers shall submit a checklist as in the attached format and submit alongwith the technical bid.

Our GST No. is 32AAAAC0801E1ZS

C-MET is eligible for concessional GST/IGST rates @ 5% for Research Institutions as per Notification No. 45/2017-Central Tax (Rate) & 47/2017- Integrated Tax (Rate) dated 14.11.2017

Sd/-

Administrative Officer

[&]quot; The greatness of humanity is not in being human, but in being humane." - Mahatma Gandhi

TECHNICAL SPECIFICATIONS OF

Specifications for Broad Band Dielectric Impedance Analyzer

• The Impedance analyzer should have a broad Frequency range from 5 µHz to ≥3GHz

The system can have single or two separate analyzers (i.e. low and High frequency) and it should be integrated and controlled with single software with the following necessary requirements

√ For low frequency part the system requirements should be as follows

Frequency Range : 5µHz to 35MHz or above

Frequency resolution : 10 ppm or higher

Signal Amplitude : Voltage: 0 - 3Vrms, Current: 0-60mA or higher

AC resolution : 1mV or lesser
DC Bias : +/- 40 VDC, +/- 70mA

DC resolution : ≥1mV

Resistance Range : $10 \text{ m}\Omega$ - $100T\Omega$ or higher Capacitance Range : 0.001pF -1F or higher

Tan delta accuracy : ≥10⁻⁵ or higher Tan delta resolution : ≥10⁻⁵ or better

Measuring current : ≥10fA to ≤70mA or better

Sweep Parameters : Voltage AC/DC, Frequency lin./ log.

Result Parameters : Real / Imaginary / Vector / parts of Z, R, X, Y, G, B, C, L plus Q,

conductivity,

Permittivity, Tan delta, Voltage – gain and phase angle etc.

Interface : IEEE 488(GPIB) or better (Compatible with PC or USB computer Interfacing

card

& connecting cable)

Input Terminal : 2 wire, 4 wire and provision for 3 wire
Power Supply : 230V AC +/- 10% and 50 Hz +/- 3%
User Calibrations/ : Load, Short, Open, Internal Self Calibration

Sample Cell : Sample cell should be provided for low conductivity materials; it should have

gold-plated electrodes capable of holding solid specimens in the dimensions of around 1-30 mm in diameter and thickness between 0.1 − 10mm or higher. The sample cell should have an integrated temperature sensor for working in the range from ambient Temperature to≤400°C and the temperature sensor should

be compatible with Eurotherm 2204e controller

Measurements : Fully automated with software for result/sweep parameters over the entire

specified frequency and temperature range through software

Control : Frequency, temperature, DC bias, AC voltage and time in any multi-

dimensional combination.

External Interface : 1. The provided software should be compatible with our existing

temperature controller (Eurotherm 2204e) for 2-wire high temperature

dielectric measurements or for any 4 Wire Measurements.

2. Unit should have the provision for measuring thin films through external

probe stations

Display : Real time Graphical online display of measured data, temperature curve

and system status with facility for multiple data sets in a single graph, Bode

and Cole-Cole Plots

Graphics : 2D and 3D representation of acquired / analytical data

Analysis software : Software having advanced curve fitting functions for frequency domain, time

domain and temperature domain datas.

Calibration : Automatic calibration of Hardware and Sample cell

Data : Export and imports data in several flexible ASCII formats

Compatibility : All Microsoft Windows versions 7, 8, 10 (64 bit and 32 bit)

√ For High Frequency (i.e. RF frequency) part the system requirements should be as follows.

Frequency Range : ≥1MHz to 3 GHz or higher

Frequency resolution : 1 mHz or lesser

Impedance range : 150 m Ω to 50 k Ω (at 1 MHz) or better DC Bias : +/- 40 VDC; 0 A to ±100 mA or better

Loss factor accuracy $:>1x10^{-3}$ Loss resolution $:>1x10^{-3}$

Sample cell : 1. RF sample cell for measuring magnetic permeability of solids

2. RF Sample cell with gold plated electrodes for measuring dielectric permittivity of solids in the temperature range from -80 °C to 400 °C.

3. RF electrodes for powders and liquids

Sweep parameters : Voltage AC/DC, Frequency lin./ log.

Result parameters : Real / Imaginary / Vector / parts of Z, R, X, Y, G, B, C, L plus Q,

conductivity, theta Electric Permittivity, loss (i.e., $|\epsilon r|$, $\epsilon r'$, $\epsilon r''$, $\tan \delta(\epsilon)$),

magnetic permittivity, permeability, magnetic loss (i.e., $|\mu r|$, $\mu r'$, $\mu r''$, $\tan \delta(\mu)$), etc.

Measurements : Fully automated with software for result/sweep parameters over the entire

specified frequency and temperature range through software

Control : Frequency, temperature, DC bias, AC voltage and time in any multi-

dimensional combination.

Interface : IEEE 488(GPIB) or better (Compatible with PC or USB computer Interfacing

card & connecting cable)

Calibration : Automatic calibration of Hardware and Sample cell
Data : Export and import of data in flexible ASCII formats
Compatibility : Microsoft Windows versions 7, 8, 10 (64 bit and 32 bit)

Online : Realtime Graphic Display & Text compliance with explanations.

Power Supply : 230V AC +/- 10% with frequency range 50 Hz +/- 3%

Input Terminal : 2 wire

Other mandatory requirements:

- > The entire unit including hardware, software and other accessories should have a minimum of three-year warranty from the date of installation.
- > The entire unit supplied should be of the latest model from the manufacturer (year of manufacturing should be specified).
- > The Analysis and data logging software's supplied should be of the latest version and if any updates in the software for the next 10 years should be plugged in free of cost.
- Spare parts for the entire unit should be made available for the next 10 years from the date of supply
- > Manuals (hard and soft copy) for operation of all hardware and software should be included
- A proper training session should be included after installation thereby explaining all the features of hardware and software with some test experiments of standard specimens.
- > Standard capacitors (different range), resistors (different range) etc. should be included for calibration/test measurement.
- > The party should mention the details of similar units supplied elsewhere in India along with all contact details at the time of tendering.
- > The entire unit should be rack mounted with ease of accessibility for operation and maintenance
- Computer loaded with Windows 10 and MS office should be included and warranty should be there for 3 years.(Monitor:>23-inch Full HD LED monitor with HDMI support, CPU: 10th Gen i5 processor, HDMI/VGA/GPIB/USB port, 8GB RAM, 1TB HDD, DVD/CD reader/writer, Graphics card)

Annexure - II

*(MANDATORY FORM) (Ref. Sl. No. 3 of Terms &conditions , Annexure –III) Tender Format

Name of the Firm:

(Specify whether authorized agent or OEM)

Name of the Manufacturer:

Firm Regi	stration No. ((If any)				Date			
GST No	GST No.				PAN				
301 110.						n photocopy)			
Phone				Addres	ss ·				
Fax				, (44)					
Email				1					
URL				1					
	T	ender Schedule :	All rates i	n Figure	s and	l in Wo	rds in Rupees	3	
Tender No. and Date					1				
Sr. No.	Description a	nd Specification			Qty	Unit	Rate per unit		Amount
Packing / F	orwarding cha	araee							
Packing / Forwarding charges GST									
Total value									
Delivery Terms									
Delivery S	Schedule :								
		s/Drawings/Specia		ons of Co	ontrac	ct:			
Item /Tender Specific Conditions of this Tender :									
I/we engage to supply the material(s) to your office and comply the following 1) Item quoted has more than 20% domestic value addition/local content									
		d technical specif			1/10Ca	Conte	TIL		
					d con	ditions	as per Anne	xure III	
 3) Item/tender specific conditions for this tender Terms and conditions as per Annexure III 4) General conditions of contract signed by me at the time of supplier registration 									
(for registered suppliers)									
5) I/we confirm that set off for the GST paid on the inputs have been taken into consideration									
in the above quoted price and further agree to pass on such additional duties as sets offs as					S				
may become available in future under GST 6) This offer is valid for 90 (ninety) days from the date of opening of the tender									
7) That we have not been debarred by any Government /Undertaking									
8) That the rates quoted are not higher than the rates quoted for same item to any									
Government/ Undertaking									
9) That the bid submitted by us is properly sealed and prepared as to prevent any subsequent					t				
Signature	ion and repla	cement.			No		Authorised		
Place & D						me or Inatory	Authorisea		
Address	4.0				Tel. No/Fax No/				
	Addicas						. /Email id		

^{*} TENDERS NOT IN THE PRESCRIBED FORMAT WILL BE TREATED AS NON-RESPONSIVE & WILL BE REJECTED

TERMS AND CONDITIONS

- 1. The tender shall be submitted by either the Principal/OEM itself, or by Agent/Dealer on behalf of the Principal/OEM, but both cannot bid simultaneously for the same product in the same tender. If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another principal/OEM in the same tender for the same item/product. When a firm sends quotation for an item manufactures by some different company, the firm is also required to attach in its quotation, the manufacture's authorisation certificate and also manufacture's confirmation of extending the required warranty for that product. In cases where the manufacturer has submitted the bid, the bids of its authorised dealer will not be considered.
- 2. Only items with more than 20% domestic value addition/local content can participate in the tender.
- 3. The quotation must be in the prescribed form, which contains the declarations, furnished by Procuring Entity (C-MET) and should be free from corrections/erasures. In case there is any unavoidable correction it should be properly attested; if not, the quotation will not be considered. Quotation written in pencil will not be considered. The seal and signature of the authorised signatory shall be put on all the pages. Tenderers may use the form attached or may type the same on their letter head. Tenders not in the prescribed form will be treated as non responsive and will be rejected
- 4. The tender shall be properly sealed and Name of the item, tender Reference No., and Due date shall be clearly super scribed on outer envelope.
- 5. The specifications for the items quoted should be explicitly clear and all available technical literature, catalogues and other data in support of the specification of the items should be furnished along with the quotation.
- 6. Only one quotation should be sent in one envelope for a specified equipment/instrument.
- 7. Quotation should be valid for a minimum period of Ninety Days from the due date.
- 8. Earnest Money Deposit (EMD)

In lieu of EMD, the Bidder may submit a Bid Security on a Stamp paper of value Rs.500 in the prescribed format(attached format).

- 9. The quotation should reach **on or before 22nd March, 2021 by 15.00 hrs**, to the Administrative Officer, C-MET, (Centre for Materials for Electronics Technology, Shornur Road, Mulankunnathukavu (P.O), Athani 680 581, Kerala State, India. The bid will be opened on **22nd March, 2021** at **15.30 hrs** at C-MET, Thrissur.
- 10. C-MET reserves the right to accept the offer by individual items and reject any or all tenders without assigning any reason thereof and does not bind itself to accept lowest quotations.
- 11. Manufacturer's name and country of origin of materials offered must be clearly specified. Please quote whether your organization is large scale industry or small scale industry. If you have NSIC/MSE/MSI/DGS & D Certificate. Please attach it to the quotation . Mention your registration details.
- 12. Complete details and ISI specification if any must accompany the quotation. Make/brand of the item shall be stated wherever applicable. If you have got any counter offer as suitable to the material required by us, the same may be shown separately.

- 13. Samples must be submitted where specified along with the quotations. Samples must be carefully packed, sealed and labeled clearly with enquiry number, subject and sender's name for easy identification. Rejected samples, will be returned at your cost if insisted.
- 14. All drawings sketches and samples, if any, sent along with this enquiry must be returned along with quotations duly signed .
- 15. All supplies are subject to inspection and approval before acceptance. Manufacturer/supplier warranty certificates and manufacturer/Government approved lab test certificates shall be furnished along with the supply, wherever applicable.
- 16. C-MET reserves the right to modify the quantity specified in this enquiry.
- 17. <u>Currency of quote</u>: All quote shall be in Indian Rupees and the quotations other than in Indian Rupees will be treated as no-responsive and hence be rejected.
- 18. The prices quotedshould be firm till the supplies are completed. Please quote the rates in words and figures. Rates quoted should be free delivery at destination including all charges otherwise the quotation is likely to be rejected. If there is no indication regarding the FOR, in the quotation, then it will be considered as FOR destinations. Price quoted should be net and valid for a minimum period of three moths from the date of opening of the quotation.
- 19. In case the items in the enquiry are covered by any rate contract or running contract finalized by the DGS & D or any other state or central Government, is should be specified in your quotation and accepted contract rates should also be mentioned. It should be confirmed whether you could supply at the RC rates outside rate contract.
- 20. Payment of GST; C-MET is eligible for concessional GST/IGST rates @ 5% for Research Institutions as per Notification No. 45/2017-Central Tax (Rate) & 47/2017- Integrated Tax (Rate) dated 14.11.2017. In the case of supplier registered under GST, is primarily responsibility of the seller and will not be paid unless the percentage value is clearly mentioned in the quotations. If no indication regarding GST is recorded in the quotation, the GST will be considered as included.
- 21. Delivery period required for supplying the material should be invariably specified in the quotation.
- 22. In case your quotation is accepted and order is placed on you, the supply against the order should be made within the period stipulated in the order, C-MET reserves the right to recover any loss sustained due to delayed delivery by way of penalty. In case of failure to supply within the time specified in the Purchase order, a penalty/LD of 0.5% of the total value per week or a part thereof shall be levied subject to a maximum of 10% in respect of items which are not supplied. The decision of C-MET shall be final in this regard.
- 23. If the deliveries are not maintained and due to that account Procuring Entity (C-MET) is forced to buy the material at your risk and cost from elsewhere, the loss or damage that may be sustained there by will be recovered from the defaulting supplier.

- 24. Dispute clause: Any dispute relating to the enquiry shall be subject to the jurisdiction of the court at Thrissur only.
- 25. Our normal payment terms are 100% (hundred percent) within 30 (thirty) days on receipt and acceptance of material at our site in good condition.

26. Evaluation of Tenders

- a. All tenders are evaluated strictly on the basis of the terms and conditions incorporated in the tender document and those stipulated by the tenderers in their tenders. Tenders that do not meet the basic requirements specified in the bid documents are treated as unresponsive and ignored.
- b. Evaluation is based only on the conditions included in the tender document and any other condition will not form the basis of this evaluation.
- c. Evaluation of eligibility/qualification Criteria: Procuring Entity will determine, to its satisfaction, whether the tenderers are eligible, qualified and capable in all respects to perform the contract satisfactorily. Tenders that do not meet the required eligibility/qualification criteria prescribed will be treated as unresponsive and not considered further.
- d. **Evaluation of Technical Suitability:** The description, specifications, drawings and other technical terms and conditions are examined with respect to the specifications Procuring Entity. Minor exceptions/deviations may be waived provided they do not constitute any material deviation and do not have significant financial impact and, also, would not prejudice or affect the ranking order of the price bid. Exceptions/deviations should not grant the tenderer any undue advantage vis-à-vis other tenders and Procuring Entity.
- e. **Evaluation of Commercial Conditions:** The commercial conditions quoted by the Tenderer are evaluated to confirm that all terms and conditions specified in the Tender have been accepted without reservations by the tenderer. Only minor deviations may be accepted/allowed, provided these do not constitute material deviations without financial impact and do not grant the tenderer any undue advantage vis-à-vis other tenders and Procuring Entity.

f. Evaluation of Financial Bids and Ranking of Tenders in general:

- a) The financial bids of only responsive and technically accepted tenders will be opened and evaluated.
- b) If the price bid is ambiguous so that it may very well lead to two equally valid total price amounts, then the bid should be treated as unresponsive.
- c) Sometime certain bidders offer suo motu discounts and rebates after opening of the tender(techno-commercial or financial). Such rebates/discounts should not be considered for the purpose of ranking the offer but if such a firm does become L1 at its original offer, such suo motu rebates can be incorporated in the contracts. This also applies to conditional rebates, for example, rebate for faster payments, and so on.
- d) Normally, the comparison of the responsive tenders shall be on total outgo from the Procuring Entity's pocket, for the procurement to be paid to the supplier or any third party, including all elements of costs as per the terms of the proposed contract, including any taxes, duties, levies etc, freight insurance etc. Therefore it should normally be on the basis of FOT/FOR destination basis, duly delivered, commissioned, as the case may be.
- e) Unless otherwise specifically indicated as inclusive in the total price, if any of the bidders has failed to quote any cost element; such as freight, packing charge etc., the highest of the charge quoted by other parties shall be taken for comparison and ranking.
- f) In the case of bidders who are not registered with GST, the price comparison shall be after adding reverse tax payable by Procurement entity.
- g) In the case of goods manufactured in India or goods of foreign origin already located in India, GST and other similar taxes and duties, which will be contractually payable (to the tenderer) on the goods are to be added.

- h) As per policies of the Government from time to time, the purchaser reserves his option to give price/purchase preferences as indicated in the tender document.
- i) Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If the supplier does not accept the correction of errors, its bid will be rejected. If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail

27. Procurement Preference:

- i. Procurement preference is given to Micro and Small Enterprises registered with any agency mentioned in the notification of the Ministry of Micro, Small and Medium Enterprises, indicated below, as per Public Procurement preference Policy of Govt. of Inda:
 - a) District Industries Centres;
 - b) Khadi and Village Industries Commission;
 - c) Khadi and Village Industries Board;
 - d) Coir Board;
 - e) National Small Industries Corporation;
 - f) Directorate of Handicraft and Handloom; and
 - g) Any other body specified by the Ministry of MSME
- ii. The benefit is also available to MSEs, who are having Udyog Aadhar Memorandum
- iii. This benefit is available only for procurement of only goods produced and services rendered by MSEs and not for any trading activities by them.
- iv. An MSE Unit will not get any purchase preference over another MSE Unit.
- v. Procurement Preference is also extended to suppliers registered under "Make in India" and where the minimum local content is 50%, as per Public Procurement (Preference to Make in India), order, 2017.
- 28. **Warranty clause:** The items covered under this tender, shall be covered minimum **three year** on site comprehensive warranty. The warranty shall be given by the Original Equipment Manufacturer. If any item covered under warranty fails, the same shall be replaced free of cost including all the applicable charges including transporting cost both the ways.
- 29. **Availability of Spare Parts :** The availability of spare parts shall be ensured for period of 10 years from the date of installation.
- 30. On selection, he/she shall be required to provide security deposit as performance guarantee for an amount of 3% of the purchase value of the equipment(s) in the form of Demand Draft, Fixed Deposit Receipt or Bank Guarantee from the Commercial Bank, which shall be valid for entire performance guarantee period plus 60 days, within 14 days from the date of communication Purchase Order.

Sd/(Administrative officer)

Check list for Tender No. TR/PUR/073/2020 dt. 01.03.2021

SI.No	Particulars	Please put '√ 'mark
1	Whether tender submitted in the prescribed format (Either in the attached format or format typed in the letter head)	Yes/No
2	Whether registered under GST ACT	Yes/No
3	Whether submitted in two bid system/ single bid system	Yes/No
4	Whether eligible for procurement preference	Yes/No
5	Whether warranty as required by us quoted	Yes/No
6	Whether the envelope containing quotations properly addressed, sealed and super scribed as required	Yes/No
7	Whether principal supplier/ OEM itself or Agent /Dealer of behalf of Principal/OEM	Principal Supplier/OEM or Agent or Dealer of Principal supplier/OEM
8	Whether item quoted has more than 20% domestic value addition/local content	Yes/No

Name, Signature & Seal
of Authorised Signatory

Place: Date:

$\frac{\text{BID SECURITY IN LIEU OF EMD}}{\text{(ON STAMP PAPER WORTH Rs.500/-}^*)}$

Date:		·					
Tender Reference No.:							
	Item No.:						
Name o	of Stores/Go	ods/Equipment:					
т-							
То	Cantua fau N	Matariala fan Flaatnan	iaa Taabaala	~ (C NACT)			
		Materials for Electron	ics recnnolog	gy (C-IVIET)			
	Shoranur Ro	•					
	-	P.O. Athani,					
Sir,	minssur – o	80 581, Kerala, India	1				
-	avaminad th	ne Bidding Document	s of Tandar	No		(Inc	sert Tender
No.),	examined ti	ie blading bocament	3 Of Terruer	NO		(III)	sert render
We	the	undersigned,	offer	to	supply	and	deliver
					55,64.7		description
of Goo	ds and Servi	<i>ces)</i> in conformity w	ith the said	bidding do	ocuments for t	·	•
-		mercial Bid or such		_			•
•		ttached with the Con					
We und	dertake, if o	ur bid is accepted, to	deliver the g	goods in ac	ccordance with	the deliver	y schedule
specifie	ed in the Tec	hno-Commercial bid	of the Tende	r Documer	nt.		
If our	bid is accep	ted, we will submit	the perform	nance secu	urity deposit a	s directed	in Tender
Docum	ent for the d	ue performance of th	ne Contract, i	n the form	prescribed by	C-MET.	
_		by this bid for a pe		•	• •		
•	_	ll remain binding upo	n us and may	y be accep	ted at any time	e before the	expiration
of that	period.						
	•	e withdraw or modif	•				
		we fail to sign the o			•	•	
	deadline defined in the bid document, we will be suspended for a period of three years from being						
eligible	to submit B	ids for contracts with	C-MET.				
114:1 -	f			عند ادندا عدد			
		ract is prepared and			-		acceptance
thereoi	and your no	tification of award sh		_			- D: J J - J
		(Sign	ature of the	e authoriz	zed represent	tative of th	e Blader)
				NT -			
				ina	me and desig	gnation of t	ne omcer
Casl							
Seal,							

Note (*) – In case of a Foreign Supplier with no Indian agent, the Guarantee Bond can be given on the letterhead of the Supplier after notarizing it.

MODEL BANK GUARANTEE FORMAT FOR PERFORMANCE SECURITY

То

Centre for Materials for Electronics Technology (C-MET), Shornur Road, Athani P.O., Thrissur, Kerala, Pin – 680 581			
WHEREAS			
AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial recognized by you for the sum specified therein as security for compliance with its obligations in accordance with the contract;			
AND WHEREAS we have agreed to give the supplier such a bank guarantee;			
NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of			
We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand.			
We further agree that no change or addition to or other modification of the terms of the contract to be performed thereunder or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.			
This guarantee shall be valid until the day of, 20			
(Signature of the authorized officer of the Bank)			
Name and designation of the officer			
Seal, name & address of the Bank and address of the Branch			