

रामन अनुसंधान संस्थान
RAMAN RESEARCH INSTITUTE

सी.वी. रामन अवेन्यू, सदाशिवनगर
C.V. Raman Avenue, Sadashivanagar
बेंगलूरु/ Bengaluru – 560080



स्पेक्ट्रम विश्लेषक की आपूर्ति, स्थापना, परीक्षण और कमीशनिंग के
लिए निविदा

**Tender for Supply, Installation, Testing &
Commissioning of Spectrum Analyser**

REF No: NIT-241611-SA-2025-2026

The sealed quotation should be submitted offline only, in a Two-Bid System (as per the tender document)

निविदा प्रलेख
TENDER DOCUMENT
2025 – 2026

21.07.2025



Due date and time for submission of Bids: 11.08.2025; 02:00 PM

Technical Bid will be opened on 12-08-2025 at 4:00 PM.

The Raman Research Institute invites Sealed offline Tenders for **Supply, Installation, Testing & Commissioning of Spectrum Analyser** directly from the manufacturers or their authorized agents, adhering to the specification, terms and conditions given below:

TECHNICAL SPECIFICATION:

Detailed Specification		Qty.	Compliance YES/NO
Frequency		01 No.	
Range	9 kHz to 7 GHz		
Resolution	1 Hz		
Frequency reference			
Nominal frequency	10 MHz		
Aging rate	$\pm 1 \times 10^{-7}$ /Year		
Temperature stability			
20 to 30°C	$\pm 1.5 \times 10^{-8}$		
5 to 45°C	$\pm 5 \times 10^{-8}$		
Achievable initial calibration accuracy	$\pm 4 \times 10^{-8}$		
Marker frequency counter			
Resolution	1 Hz		
Frequency span (FFT and swept mode)			
Range	0 Hz (zero span), 50 Hz to 7 GHz		
Resolution	1 Hz		
Sweep time and triggering			
Range	2 ms to 1000 s (span>100Hz)		
	600 ns to 1000 s (span=0Hz)		
Resolution bandwidth (RBW)			
Range (-3 dB bandwidth)	10 Hz to 3 MHz		
Accuracy	$\pm 5\%$, nominal		
Resolution filter shape factor	< 5 : 1, nominal		
EMI bandwidth (CISPR compliant)	200 Hz, 9 kHz, 120 kHz, 1 MHz		
Accuracy	$\pm 10\%$ nominal		
Displayed average noise level (DANL)			
Preamp off			



9 to 100 kHz	-100 dBm, nominal	
100 kHz to 1 MHz	-108 dBm, -127 dBm typical	
1 to 10 MHz	-128 dBm, -146 dBm typical	
10 to 500 MHz	-142 dBm, -146 dBm typical	
500 to 2.5 GHz	-141 dBm, -145 dBm typical	
2.5 to 4 GHz	-140 dBm, -144 dBm typical	
4 to 6 GHz	-138 dBm, -140 dBm typical	
6 to 7 GHz	-136 dBm, -138 dBm typical	
Preamp on		
9 to 100 kHz	-110 dBm, nominal	
100 kHz to 1 MHz	-131 dBm, -150 dBm typical	
1 to 10 MHz	-148 dBm, -163 dBm typical	
10 to 500 MHz	-161 dBm, -164 dBm typical	
500 to 2.5 GHz	-159 dBm, -162 dBm typical	
2.5 to 4 GHz	-158 dBm, -161 dBm typical	
4 to 6 GHz	-155 dBm, -158 dBm typical	
6 to 7 GHz	-150 dBm, -154 dBm typical	
Measurement range		
100 kHz to 1 MHz	Displayed average noise level (DANL) to +10 dBm	
1 MHz to 7 GHz	Displayed average noise level (DANL) to +20 dBm	
Input attenuator range	0 to 50 dB, in 1 dB steps	
Frequency response		
9 to 100 kHz	± 0.5 dB nominal	
100 kHz to 3 GHz	± 0.7 dB	
3 to 4 GHz	± 0.85 dB	
4 to 7 GHz	± 1.0 dB	
100 kHz to 3 GHz	± 0.7 dB	
3 to 4 GHz	± 0.9 dB	
4 to 7 GHz	± 1.1 dB	

Note: Please enclose Manuals and all other documents along with technical bid.



GENERIC:

1. The Institute is eligible to issue Central Excise Duty Exemption Certificate or Customs Duty Concession Certificate. The Institute is not eligible to issue State Goods and Service Tax/ Central Goods and Service Tax Concession Certificate.
2. The Institute reserves the right to modify the technical specification or the required quantity at any time but within one week before the due date.
3. The Institute reserves the right to reject any or all of the bids received without assigning any reason. It also reserves the right to accept an offer other than the lowest.
4. The Institute reserves the right to postpone/extend the due date for submission of the bid without assigning any reason.
5. The Institute reserves the right to call potential suppliers for technical discussions and product demonstrations.
6. Any Technical clarification required towards submission of offer may please be mailed to purchase@rri.res.in
7. Installation, Commissioning, Testing, Training (if any - whichever is applicable as per scope of supply) is to be carried out by OEM / OEM Certified resource or OEM authorized Reseller.

ELIGIBILITY CRITERIA:

1. **Experience Criteria:** The Bidder or its OEM {themselves or through reseller(s)} should have regularly, manufactured and supplied same or similar Category Products to any Central / State Govt Organization / PSU / Public Listed Company for **3 years** before the bid opening date. A proof should be attached.
 - a. List of users world-wide should be provided.
 - b. Supply, Installation Certificate for similar equipment, along with PO/order copy should be enclosed. Copies of relevant orders to be submitted along with bid in support of having supplied some quantity during each of the year.
2. **Manufacturer Authorization Form (MAF):** Bidder should be Original Equipment Manufacturer (OEM). In case of an authorized agent/partner/distributor service provider having direct purchase and support agreement with OEM and/or submitting the bid on behalf of OEM, should submit a valid MAF/Certificate from OEM/ or Original Service provider to that effect and the certificate submitted should be specific to this bid.
3. Details with contact information and telephone numbers for service support of the products should be provided. Escalation matrix with contact information and telephone numbers should also be provided.
4. The bidder must NOT be blacklisted by Central Government, State Government or any Organization in India. A certificate or undertaking to this effect must be submitted.
5. The bidder should NOT be under liquidation, court receivership or similar proceedings, should NOT be bankrupt. Bidder to upload undertaking to this effect with bid.



6.

- I. As per the Government of India, Ministry of Commerce and Industry and Department for Promotion of Industry and Internal Trade (Public Procurement Section) Order No. P-45021/2/2017-PP(BE-II)-Part(4) Vol. II dated: 19/07/2024
 - a. The Bidder shall produce a certificate whether he/she belong to “Class – I and Class – II supplier’ and ‘Non – Local suppliers’ with percentage of local content.
 - b. Class – I’ and ‘Class – II supplier’ and Non – Local suppliers as classified under above mentioned Order are eligible to submit the offer. While finalizing the quotation, the instructions given in the above order shall prevail.
- II. As per the Government of India, Ministry of Finance and Department of Expenditure, Public Procurement Division – Office Memorandum No. F.No.6/18/2019-PPD dated 23.07.2020, the Institute reserves the right by order in writing, impose restrictions, including prior registration and/or screening, on procurement from bidders from a country or countries, or a class of countries, on grounds of Defense of India, or matters directly or indirectly related thereto including national security; no procurement shall be made in violation of such restrictions.

EVALUATION OF BIDS:

1. The bids should be complete in all respects and the details specified in this request should be adhered to and **submitted on or before the bid end date.**
2. Bids should be valid for **180** days from bid end date or any extension to it.
3. The quoted price should include P&F and Freight Charges, Insurance, Loading & Unloading Charges etc.
4. The bids conforming to the eligibility criteria only will be considered for further evaluation.
5. The bids will be shortlisted on the basis of technical parameters, features, standards compliance of all materials and equipment used, etc.
6. For Technical evaluation, bidders have to ensure the availability of appropriate expert, along with every type of documentation from their organization for interacting with the Institute
7. The Financial Bids will be opened only of those technical bids found suitable and approved by our Technical Evaluation Committee.

TERMS & CONDITIONS:

1. The bid shall be divided into two parts:
 - I. The first part should be “Technical” Bid containing only detailed specifications for tendered: **Supply, Installation, Testing & Commissioning of Spectrum Analyser, and EMD for Rs. 28,000/-**. The details include:
 - a. Detailed literature including Data Sheets of quoted products.
 - b. Supporting Documents eligibility criteria such as MSME, OEM authorization letter, Experience certificate, etc.
 - c. **The first part (Technical Bid) shall not contain any financial aspects of the offer.** It shall contain only a cross reference to the second part (Financial Bid).
 - II. The Second part (Financial Bid) shall contain detailed financial outlay with List of deliverables / Bill of materials / Bill of Quantities and services, unit price of items as in the



- technical bid (i.e., First Part), taxes etc.
3. Bidder should submit an **EMD of Rs. 28,000/- (Rupees Twenty-Eight Thousand only)** along with technical bid. Payment should be by way of DD / Banker's cheque only, drawn in favour of **"The Administrative Officer, Raman Research Institute, Bengaluru"**. No other form of payment will be accepted. The Tenders without the EMD will be rejected.
 4. The MSME Units/Enterprises claiming exemption of EMD should submit MSME UDYOG AADHAAR MEMORANDUM or registration certificate issued by District Industries Centre (DIC) / Khadi & Industries board (KVIB) / Coir board / National Small Industries Corporation (NSIC) / Directorate of Handicrafts and handlooms or any other body specified by Ministry of MSME. **The memorandum / certificate submitted should be for the scheduled item of this bid and shall be valid as on bid end date /extended due date of the bid.** However, MSME Unit/Enterprises must submit a duly signed **Bid Security Declaration as per Annexure – I** in lieu of EMD as per the Form of Bid-Security Declaration.
 5. The successful Bidder's EMD will be discharged upon the Bidder furnishing the Performance Security (Bank Guarantee), without any interest.
 6. The refund of EMD for unsuccessful bidders will be made through Cheque or Electronic mode within a month after finalization of bid.
 7. **The EMD may be forfeited:**
 - a) If a Bidder withdraws or amends or modifies or impairs or derogates their bid during the period of bid validity specified by the Bidder on the Bid form;

OR

 - b) In case of a successful Bidder, if the Bidder fails to furnish order acceptance or fails to sign the order and/or fails to furnish Performance Bank Guarantee within 15 days from the date of issue of Order/Order.
 8. The successful bidder immediately after the award of the Order shall prepare a detailed plan of Supply, Installation. Testing & Commissioning as proposed to be followed by placement of equipment, etc. in consultation/ co-ordination with the end user.
 9. **Performance Bank Guarantee (PBG):** The successful bidder should provide **3%** (Three percent) of the order value in the form of a Bank Guarantee towards satisfactory performance after supply installation test and commissioning. The PBG should be valid throughout the warranty period of **One Year plus Six months** as claim period, from the date of installation, testing and commissioning. The said PBG shall be returned/refunded to the bidder after satisfactory completion of supply, installation, testing and commissioning of goods as well as warranty period and claim period as per the terms of the Order. In case of failure to render the ordered service, either at the time of execution or during the warranty period or non-compliance of due performance of order, the PBG will be forfeited.
 10. The Bidder shall not assign the Order in whole or part without obtaining the prior written consent of institute. The Bidder shall not sub-contract the Order in whole or part to any entity without obtaining the prior written consent of institute and the Bidder shall, notwithstanding the consent and assignment/sub-order, remain jointly and severally liable and responsible to institute together with the assignee/ sub-contractor, for and in respect of the due performance of the Order and the Bidder's obligations there under.



11. Without prejudice to Institute's right to price adjustment by way of discount or any other right or remedy available to Institute, Institute may terminate the Order or any part thereof by a written notice to the Bidder, if:
 - a) The Bidder fails to comply with any material term of the Order.
 - b) The Bidder inform Institute of its inability to deliver the Material(s) or any part thereof within the stipulated Delivery Period or such inability otherwise become apparent.
 - c) The Bidder fails to deliver the Material(s) or any part thereof within the stipulated Delivery Period and/or to replace/rectify any rejected or defective Material(s) promptly.
 - d) The Bidder becomes bankrupt or goes into liquidation.
 - e) The Bidder makes a general assignment for the benefit of creditors.
 - f) A receiver is appointed for any substantial property owned by the Bidder.
 - g) The Bidder has misrepresented to Institute, acting on which misrepresentation institute has placed the order on the Bidder.
12. Delivery of goods should be made at our stores located on campus near Mekhri Circle, Bengaluru – 560 080, at suppliers cost and risk.
13. **Factory Test Certificates:**

Material test certificate should be sent along with the supply. The material will be checked by institute's lab & the results of the lab will be the sole criteria for acceptance of the Item.
14. **Warranty: One Year Standard warranty from the date of installation, testing & commissioning.**
15. Defects, if any, during the warranty period are to be rectified free of charge by arranging free replacement wherever necessary. The Expenditure involved like Freight Charges, Custom Duty, Insurance Charges, Clearance Charges etc., is to be borne by the successful bidder.
16. In case the Equipment/System remains non-operational or performs below the desired level for more than One week after intimation of the fault in the Equipment/System then the Warranty period shall be extended for such downtime period for which the Equipment/System remained non-operational or performed below the desired level, without prejudice to any other terms and conditions of the Order.
17. **Payment:** 80% Payment after delivery and acceptance of the goods/ material/ ordered item, and balance 20% after successful installation, testing and commissioning and submission of Performance Bank Guarantee for 3% as per **point no. 8.**
18. **LD Clause:** Time is the essence of this supply, delivery period mentioned in the Order should be strictly adhered to, otherwise LD clause will be applicable/enforced. All deliveries should be completed within the stipulated delivery time of the Order due date. While the Institute reserves the right not to accept delivery in part or full, beyond the due date of delivery, liquidated damages at 0.5% per every week of delay to maximum of 10% will be levied. **Exceptions: Force Majeure**
19. **Post-Sales Support:**

The Equipment must be supported by service centre post sales manned by the principal Bidder's technical support Engineers. The post-sales support through this centre must be



available 24 hours in a day, 7 days in a week and 365 days in a year, also it should be possible to contact the Principal bidder's support centre on a toll free number/ web mail. If Service Centre doesn't exist at the time of bidding, successful bidder / OEM shall have to establish one within 30 days of award of order. Bidder/ OEM should provide the details of on-site support to be extended during the warranty period.

20. Successful bidder will have to ensure that adequate number of dedicated technical service personals / engineers are designated / deployed for attending to the Service Request in a time bound manner and for ensuring Timely Servicing / rectification of defects during warranty period, as per the order indicated in the relevant clause of the bid.
21. All disputes, arbitration, if any, are subject to jurisdiction of courts in Bengaluru, Karnataka, India only.



FORM OF BID-SECURITY DECLARATION

[The Bidder should fill in this Form on Letter Head in accordance with the instructions indicated]

To
The Administrative Officer,
Raman Research Institute,
C.V. Raman Avenue, Sadashivanagar,
Bengaluru – 560 080.

Ref: Tender Ref. No. **NIT-241611-2025-2026 dated: 21.07.2025**

We, the undersigned declare that:

We know that the bid should be supported by a Bid Security Declaration in accordance with your conditions.

We hereby declare that the prices offered by us against RRI bid Document No. **NIT-241611-2025-2026 dated: 21.07.2025** for **Supply, Installation, Testing & Commissioning of Spectrum Analyser** will be firm for a period of 180 days or the date when the tenders are finalized, whichever is earlier.

We accept to automatically be suspended from being eligible for bidding in any order in RRI for a period of 3 years from the date of opening of Bid, if we are in breach of our obligation(s) under the bid conditions, because we:

After having been notified of the acceptance of our bid by the Ordering Authority within the period of bid validity:

- 1) We failed or refused to furnish a Performance Security in accordance with the Condition of the Bid Document No. **NIT-241611-2025-2026 dated: 21.07.2025.**

OR

- 2) We failed or refused to sign the order.

We know that this Bid – Security Declaration will expire, if order is not awarded to us, upon:

- 1) Your notification to us of the name of the successful bidder or
- 2) Twenty – eight days after the expiration of our Bid validity or any extension to it

Dated this ____ day of _____

For and on behalf of M/s. _____

Address:

Signature

Name

In the capacity of

seal/ stamp

