

रामन अनुसंधान संस्थान
RAMAN RESEARCH INSTITUTE

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



**589 एनएम वेवलेंथ हाई पावर लेजर की आपूर्ति, स्थापना, परीक्षण और
कमीशनिंग के लिए निविदा**

**Tender for Supply, Installation, Testing &
Commissioning of High Power Laser at 589nm
Wavelength**

REF No: NIT-241262-2025-2026

निविदा प्रलेख
TENDER DOCUMENT
2025 – 2026

22.04.2025



THE DUE DATE FOR SUBMISSION OF QUOTATION : 21.05.2025 UPTO 3:00 PM

The Raman Research Institute invites sealed offline Tenders for **Supply, Installation, Testing & Commissioning of High Power Laser at 589nm Wavelength** directly from the manufacturers or their authorized agents, adhering to the specification, terms and conditions given below:

TECHNICAL SPECIFICATION:

Sl. No	Item Description	Qty.	Compliance (Y/N)
1	High Power Laser at 589nm Wavelength End use: laser cooling and trapping and state preparation of neutral Sodium atoms. · Design wavelength: 589 nm · Output power: 10 Watts · Coarse tuning: +/- 2 nm · Linewidth (5 μs): < 100 kHz (< 50 kHz typ.) · Frequency stability: < 200 MHz/K · Mode hop-free tuning: > 15 GHz (20 GHz typ.) General description A grating-stabilized external-cavity diode laser (ECDL) should be optically isolated, amplified in a tapered semiconductor chip (TA), beam shaped, optically isolated again, and coupled into a resonant second harmonic generation (SHG) stage. A selected non-linear crystal generates cw laser light at half the wavelength of the fundamental laser. Additionally, a Raman Fiber amplifier stage should provide high power output. Kindly quote for similar technologies with required specs, if applicable. Features • High quality digital Pound-Drever-Hall stabilization of SHG resonator length with automatic relocking to the correct resonator mode. Lock bandwidth 30 kHz w/ fast PZT, bandwidth extension with ECDL current lock. • Full digital control via touchscreen, PC GUI or command language (TCP/IP, USB), and analog remote control and monitoring	01 No.	



	• PowerLock: Output power stabilization (TA, SHG, opt. FiberMon stage output can be selected) • Beam shaping of SHG output with nearly diffraction limited beam profile. • Probe beam output at fundamental wavelength. • TA beam output at fundamental wavelength should be available through flip mirror. Preferred Options • AutoAlign option: Automatic optimization of input beam steering into TA, SHG and output FiberMon stage. • FiberMon option: Monitoring and stabilization of fiber-coupled SHG output. • Fiberdock probe IR / Fiberdock SHG options: Fiber coupling of SHG output and/or fundamental probe beam output. • Narrow linewidth option for ECDL. • EOM option: Improves ECDL amplitude modulation and MHFTR characteristics. • PDH + DLC ext + FALC or DLC ext + Digilock for frequency locking to an external reference and linewidth reduction. • Ideally the laser head should be Manufactured from a solid metal block for best amplitude stability (long & short term) • Alignment-free, grating-stabilized master laser Narrow linewidth, optimized stability against temperature variations, vibrations and acoustic noise (eigen resonance of grating holder > 3.5 kHz). Resonator design with virtual pivot point for increased mode hop free tuning. • Connectors for fast frequency modulation of master laser (one DC coupled, one AC coupled, electric bandwidth > 100 MHz, protective circuit for laser diode). • High quality optical isolators to protect the master laser and the tapered amplifier. • Tapered amplifier with selected TA chip, optimized heat management and unique collimation and beam shaping optics for best beam profile. • Air sealed frequency doubling resonator (manufactured from a solid block with entrance/ exit windows) with temperature controlled, AR coated crystal. Crystal and resonator mirrors can be adjusted without opening the air sealed resonator. Res. leak rate < 10e-3 mbar l/s • Beam shaping optics for frequency converted output. Electronics should include		
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	• Lowest noise and drift, high resolution current, temperature and piezo drivers • Up to 10 A driving current for amplifier chip, water cooling plate included) • Flexible control by integrated CPU & FPGAs for intelligent features: scanning, signal display, locking, relock, FFT, power stabilization etc. • Wide scan mode with synchronized data recording for spectroscopy and component testing • Capacitive touch display together with four rotary knobs for comfortable and efficient front panel control • Graphical PC user interface as well as command based (USB+TCP/IP) interface for remote control • Set of required connector cables Special warranty on laser diode and amplifier chip required. • Installation and support required.		
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Note: Please enclose Manuals and all other documents along with technical bid.

DEMONSTRATION OF QUOTED ITEM:

The Technical Evaluation Committee may evaluate your bid based on the documents submitted. However, in case of any technical clarifications, the Committee may request the bidder to make a detailed presentation of the quoted model including product demonstration. Seller need to be equipped to arrange one sample for technical demonstration within two days of receipt of such requests without any additional charges. Cost involved in arrangements for the demonstration/presentation etc. shall be borne by the bidder. The date and time for demonstration will be communicated to the potential bidder through email



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

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.
Copies of relevant contracts to be submitted along with bid in support of having supplied some quantity during each of the year. In case of bunch bids, the primary product having highest value should meet this criterion.
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.
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. **Net-Worth:** The net worth of the Bidder firm should not be negative on as on 31.03.2025 and should have not eroded by more than 30% (thirty per cent) in the last three financial years. **A Certificate to this effect as Certified by a Chartered Accountant should be submitted along with the Technical Bid.**
7. 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 NonChartered Accountant – 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 before 3:00 PM on 21.05.2025. The technical bid will be opened 4:00 PM on 22.05.2025. The authorized representatives of participating firms, desirous can be present at the time of tender opening.**
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 High Power Laser at 589nm Wavelength, and EMD for Rs. 3,60,000/-**. 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).
2. Bidder should submit on **EMD of Rs. 3,60,000/- (Rupees Three Lakhs Sixty 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.
3. 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 items 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** in lieu of EMD as per the Form of Bid-Security Declaration as per **Annexure-1**
4. The successful Bidder’s EMD will be discharged upon the Bidder furnishing the Performance Security (Bank Guarantee), without any interest.
5. The refund of EMD for unsuccessful bidders will be made through Cheque or Electronic mode within a month after finalization of bid.
6. **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 contract and/or fails to furnish Performance Bank Guarantee within 15 days from the date of issue of Contract/Order.
7. The successful bidder immediately after the award of the Contract 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.



8. **Performance Bank Guarantee (PBG):** On award of the work, the bidder shall provide **5%** (Five percent) of the order value in the form of a Bank Guarantee towards satisfactory performance within 15 days of receipt of order. The PBG should be valid throughout the warranty period of **Three Years plus six months** as claim period, from the date of acceptance. Difference in the duration of PBG i.e., from the date of PBG issuance after the receipt of contract and actual date of acceptance shall get extended accordingly. The said PBG shall be returned/refunded to the bidder after satisfactory completion of supply of goods as well as warranty period and claim period as per the terms of the Contract. In case of failure to render the contracted service, either at the time of execution or during the warranty period or non-compliance of due performance of contract, the PBG will be forfeited.
9. The Bidder shall not assign the Contract in whole or part without obtaining the prior written consent of buyer. The Bidder shall not sub-contract the Contract in whole or part to any entity without obtaining the prior written consent of buyer and the Bidder shall, notwithstanding the consent and assignment/sub-contract, remain jointly and severally liable and responsible to buyer together with the assignee/ sub-contractor, for and in respect of the due performance of the Contract and the Bidder's obligations there under.
10. Without prejudice to Buyer's right to price adjustment by way of discount or any other right or remedy available to Buyer, Buyer may terminate the Contract or any part thereof by a written notice to the Bidder, if:
 - a) The Bidder fails to comply with any material term of the Contract.
 - b) The Bidder inform Buyer 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 Buyer, acting on which misrepresentation buyer has placed the contract on the Bidder.
11. Delivery of goods should be made at our stores located on campus near Mekhri Circle, Bengaluru – 560 080, at suppliers cost and risk.
12. **Factory Test Certificates:**
Material test certificate should be sent along with the supply. The material will be checked by buyer's lab & the results of the lab will be the sole criteria for acceptance of the Item.
13. **Warranty: One year standard plus Two years additional Warranty to be quoted separately.** from date of installation, testing & commissioning.
14. Defects, if any, during the warranty period are to be rectified free of charge by arranging free replacement wherever necessary.



15. 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 Contract.
16. **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 5% as per **point no. 8.**
17. **LD Clause:** Time is the essence of this supply, delivery period mentioned in the Contract should be strictly adhered to, otherwise LD clause will be applicable/enforced. All deliveries should be completed within the stipulated delivery time of the Contract 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 a maximum of 10% will be levied. Exceptions: Force Majeure
18. **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 contract. Bidder/ OEM should provide the details of on-site support to be extended during the warranty period.
19. 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 Service level agreement indicated in the relevant clause of the bid.
20. 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-241262-2025-2026 dated: 22.04.2025**

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-241262-2025-2026 dated: 22.04.2025** for **Supply, Installation, Testing & Commissioning of High Power Laser at 589 nm Wavelength** 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 contract 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 Contracting 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-241262-2025-2026 dated: 22.04.2025**

OR

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

We know that this Bid – Security Declaration will expire, if contract 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

