

## **DOMESTIC TENDER NOTICE**

### **Supply and Installation of Compact Multi-Wavelength LASER Combiner**



**TENDER DOCUMENT**

**PH/PRSH/603/2025-26**

**Department of Physics  
Indian Institute of Science, Bangalore**

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### BID SCHEDULE

1	Tender Number	PH/PRSH/603/2025-26
2	Tender date	29 <sup>th</sup> August 2025
3	Item description	Supply and installation of Compact Multi-Wavelength LASER Combiner
4	Tender type	Two bid system: a. Technical Bid (Part A) b. Commercial Bid (Part B)
5	Place of tender submission	Office, Department of Physics, Indian Institute of Science, Bangalore 560012 080-2293-2010
6	Last date and time for tender submission	19 <sup>th</sup> September 2025, 5:00 PM
7	For further clarification	Prof. Purna Sharma Department of Physics Indian Institute of Science, Bangalore 560012 Email: <a href="mailto:prerna@iisc.ac.in">prerna@iisc.ac.in</a>

## **Eligibility Criteria**

Prequalification criteria:

1. The Bidder's firm should have existed for at least three years. Bidders should enclose the Company Registration Certificate.
2. The Bidder should belong to Class-1 or Class-2 suppliers distinguished by their "local content" as defined by recent edits to GFR. They should mention clearly which class they belong to in the cover letter.
  - a) Class-1 supplier: Goods and services should have local content equal to or more than 50%.
  - b) Class-2 supplier: Goods and services should have local content equal to or more than 20 % and less than 50%.
3. The quote should come only from Indian Original Equipment Manufacturer (OEM) or their Indian authorized distributor.
4. The quotations should be on FOR-IISc Bangalore basis in INR only.
5. Bidders offering imported products will fall under the category of non-local suppliers. They cannot claim themselves as Class-1 local suppliers/Class-2 local suppliers by claiming the services such as transportation, insurance, installation, commissioning, training, and other sales service support like AMC/CMC, etc., as local value addition.
6. Purchase preference, as defined by the recent edits to GFR (within the "margin of purchase preference") will be given to the Class-1 supplier.
7. MSMEs can seek an exemption to some qualification criteria. IISc follows GFR2017 for such details.
8. The bidder should sign and submit the declaration for Acceptance of Terms and Conditions as per -Annexure 4.
9. The Bidder must not be blacklisted/banned/suspended or have a record of any service-related dispute with any organization in India or elsewhere. A declaration to this effect has to be given as per Annexure 3.
10. Manufacturers should have ISO or equivalent international standard certificate. Please attach the required certificate with the bid.
11. Details of experienced service engineer including contact details should be provided in tender document.
12. System Catalogue and operation manual should be produced with the Technical Bid.

## **Terms and conditions**

### **A. Submission of Tender:**

1. All documentations in the submission should be in English.
2. The bid should be submitted in the two-cover system, i.e., technical bid and commercial bid separately in sealed covers.
  - a. Technical Bid (Part-A) – The technical proposal should contain a compliance table besides the technical specifications listed in the description section below.

The compliance table should include all the items and in the same order. The first column should describe your compliance in a “Yes” or “No” response. The second column should state the extent of deviation if the answer was no or describe the exact specifications if the answer is yes. The “third” column should state the reasons for the deviation if the answer was No. The fourth column can be used to compare your solution with that of your competitors or provide details as requested in the technical requirements table below. Suppliers who include any indication of prices in the technical bid will be automatically disqualified.
  - b. Commercial Bid (Part-B) – Commercial bid indicating item wise price breakdown for the items mentioned in the technical bid, as per the format provided in tender, and other commercial terms and conditions. The price should be inclusive of all discounts and installation and training.
  - c. The technical bid and price bid should each be placed in separate sealed covers, superscripting on both the envelopes the tender no. and the due date. Both these sealed covers are to be placed in a bigger cover which should also be sealed and duly superscripted with the Tender No, Tender Description & Due Date.
  - d. The SEALED COVER superscripting tender number / due date should reach the address mentioned above on or before due date mentioned in the tender notice. In case the due date happens to be a holiday, the tender will be accepted and opened on the next working day. If the quotation cover is not sealed, it will be rejected.
3. GST/other taxes, levies etc., are to be indicated separately. The BIDDER should mention GST Registration and PAN in the tender document and provide a copy of both documents (Indian Bidders only).
4. If price is not quoted in Commercial Bid as per the format provided in tender document the bid is liable to be rejected.
5. Quote should come only from Indian Original Equipment Manufacturer (OEM) or their Indian authorized distributor. The quotations should be on FOR-IISc Bangalore basis in INR (Indian Rupee) only.
6. The Institute reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time prior to the award of contract, without there by

incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders.

7. A technical evaluation by the purchase committee may include a demonstration to verify the functionalities and capabilities of the system quoted. The purchase committee reserves the right to reject the bids based on their technical evaluation of the quality of data, capability demonstration, and service. If the data/requested capability demonstration does not happen within a stipulated timeframe, the bid will be rejected. Any discrepancy between the promised specifications and measurements will be deemed as technical non-compliance. Imported items should be shipped on C.I.P. Bangalore basis (by Air Freight only), and all components and accessories indicate component-wise and itemized breakup. Provide certificates for the country of origin of manufacturing for each line item. The price of every line item in the commercial bid should be quoted along with the total quoted price for the instrument to be operational (installed and ready to use) in our facility.
8. The purchase committee reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time prior to the award of contract, without there by incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders.
9. Incomplete bids will be summarily rejected.
10. The decision of purchase committee will be final.

**B. Cancellation of Tender:**

Notwithstanding anything specified in this tender document, IISc Bangalore, in its sole discretion, unconditionally and without having to assign any reason, reserves the rights:

- a. To accept OR reject lowest tender or any other tender or all the tenders.
- b. To accept any tender in full or in part.
- c. To reject the tender, offer not confirming to the tender terms.

**C. Validity of the offer:**

The offer shall be valid 90 Days from the date of opening of the commercial bid.

**D. Evaluation of the offer:**

1. The technical bid (Part A) will be opened first and evaluated.
2. Bidders meeting the required eligibility criteria as stated in Section 2 of this document shall only be considered for Commercial Bid (Part B) opening. Further, agencies not furnishing the documentary evidence as required will not be considered.
3. Pre-qualification of the bidders shall not imply final acceptance of the Commercial Bid. The agency may be rejected at any point during technical evaluation or during commercial evaluation. The decision in regard to acceptance and / or rejection of any offer in part or full shall be the sole discretion of IISc Bangalore, and decision in this regard shall be binding on the bidders.

4. The award of contract will be subject to acceptance of the terms and conditions stated in this tender.
5. Any offer which deviates from the vital conditions (as illustrated below) of the tender is liable to be rejected:
  - a. Non-submission of complete offers.
  - b. Receipt of bids after due date and time and or by email / fax (unless specified otherwise).
  - c. Receipt of bids in open conditions.
6. In case any BIDDER is silent on any clauses mentioned in these tender documents, IISc Bangalore shall construe that the BIDDER had accepted the clauses as of the tender and no further claim will be entertained.
7. No revision in the terms and conditions quoted in the offer will be entertained after the last date and time fixed for receipt of tenders.
8. Lowest bid will be calculated based on the total price of all items tendered for Basic equipment along with accessories selected for installation, operation, pre-processing and post processing, optional items, recommended spares, warranty, annual maintenance contract.

**E. Pre-requisites:**

The bidder will provide the prerequisite installation requirement of the equipment along with the technical bid.

**F. Warranty:**

The complete system is to be under warranty period of minimum 5 years including free supply of consumables, spare parts, and data analysis software from the date of functional installation. Vendor should include cost of any spares that are expected to be needed during the warranty period, including electronics, subcomponents, and software. If the instrument is found to be defective, it must be replaced or rectified at the cost of the bidder within 30 days from the date of receipt of written communications from IISc Bangalore. If there is any delay in replacement or rectification, the warranty period should be correspondingly extended.

**G. Annual Maintenance Contract (AMC):**

An annual maintenance contract is not required for this purchase.

**H. Purchase Order:**

1. The order will be placed on the bidder whose bid is accepted by IISc Bangalore based on the terms & conditions mentioned in the tender document.
2. The quantity of the items in tender is only indicative. IISc Bangalore reserves the right to increase /decrease the quantity of the items depending on the requirement.
3. If the quality of the product and service provided is not found satisfactory, IISc Bangalore reserves the right to cancel or amend the contract.
4. After the award of the purchase order, the vendor must provide an Order Acknowledgement within 30 days from the receipt of the Purchase Order

**I. Delivery, Installation and Training:**

The bidder shall provide the lead time to delivery, installation and made functional at IISc Bangalore from the date of receipt of purchase order. The system should be delivered, installed,

and made functional within 4-6 months from the date of receipt of purchase order. The supply of the items will be considered as effected only on satisfactory installation and inspection of the system and inspection of all the items and features/capabilities tested by the IISc Bangalore. After successful installation and inspection, the date of taking over of entire system by the IISc Bangalore shall be taken as the start of the warranty period. No partial shipment is allowed. The bidder should also arrange for technical training to the local facility technologists and users. The bidder should provide onsite application training for the local facility technologists and users. The bidder should also arrange technical training for the local facility technologists and users.

**J. Payment Terms:**

For INR quotes, 100% payments will be released after completion of delivery, satisfactory installation, and qualification, subject to TDS as per rules. As per GFR no advance payment can be made to domestic vendors. For INR quotes, the price must be on FOR IISc Bangalore basis only.

**K. Statutory Variation:**

Any statutory increase in the taxes and duties subsequent to bidder's offer, if it takes place within the original contractual delivery date, will be borne by IISc, Bangalore subject to the claim being supported by documentary evidence. However, if any decrease takes place the advantage will have to be passed on to IISc Bangalore.

**L. Dispute and Jurisdiction:**

Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within the city of Bangalore, India.

**M. General:**

1. All amendments, time extension, clarifications etc., within the period of submission of the tender will be communicated electronically. No extension in the bid due date/time shall be considered on account of delay in receipt of any document(s) by mail.
2. The bidder may furnish any additional information, which is necessary to establish capabilities to successfully complete the envisaged work. It is however, advised not to furnish superfluous information.
3. The bidder may visit the installation site before submission of tender, with prior intimation.
4. Any information furnished by the bidder found to be incorrect, either immediately or at a later date, would render the bidder liable to be debarred from tendering/taking up of work in IISc Bangalore.



## **Technical specifications**

### **Laser combiners with laser diodes and its accessories.**

#### **Feature of Control Box:**

1. One box system with all electronic integrated. The combiner should come with control software, remote controller and power supply.
2. Laser Diode and DPSS Sources: All in one module with an output coupled to a multi-wavelength single fiber
3. Remote access: Need to provide Remote box with safety key, LED Status, Blanking switch, 1.5m long cable.
4. Interfaces: Should have USB (Software provided), Input modulation ports for analog signal/TTL (One for each laser source), blanking port, I/O DB 25 connector with ports for electromechanical shutters and other options. The lasers should be able to be controlled via external microscope operating software and compatible with commercial microscope imaging software.
5. Interlock shutter on main output port. Could be connected to microscope safety port.
6. Startup time:  $\leq 10$  minutes
7. Supply Voltage: 100-240 VAC (external power supply)
8. The life time of each laser should be at least 20,000 hours

#### **Laser1:**

Central Wavelength: 405 nm

Maximum Spectral line width:  $< 1.5$  nm

Minimum Power: 50 mW

Type: Continuous laser

Modes of Control: Automatic Power Control (APC), Automatic Current Control (ACC)

Modulation method: Direct

Power adjustment range: 0-100%

Technology: Laser diode

Beam Transverse Mode: TEM 00

External Analog Modulation: 0-5V

Amplitude Modulation Bandwidth (min), -3db cut off frequency: DC- 1 MHz

External Digital Modulation (ACC Mode): TTL, DC- 150 MHz

Maximum Rise/Fall Time (10%-90%): <2ns

Extinction depth: Infinite

Maximum power consumption:  $\leq 10W$

### **Laser 2:**

Technology: Laser diode

Central Wavelength: 488 nm

Maximum Spectral line width: < 1.5 nm.

Clean up filter: 70dB attenuation above 500nm.

Minimum Power: 100 mW

Type: Continuous laser

Modes of Control: Automatic Power Control (APC), Automatic Current Control (ACC)

Modulation method: Direct

Power adjustment range: 0-100%

Beam Transverse Mode: TEM 00

External Analog Modulation: 0-5V

Amplitude Modulation Bandwidth (min), @ -3db cut off frequency: DC- 1 MHz

External Digital Modulation (ACC Mode): TTL, DC- 150 MHz

Maximum Rise/Fall Time (10%-90%) : <2ns

Extinction depth: Infinite

Maximum power consumption:  $\leq 10W$

### **Laser 3:**

Technology: DPSS Low Noise

Central Wavelength: 532 nm plus minus 5 nm

Maximum Spectral line width: < 0.1 nm

Minimum Power: 200 mW

Type: Continuous laser

Modes of Control: Automatic Power Control (APC), Automatic Current Control (ACC)

Modulation method: AOM (should be included)

Power adjustment range: 0.01-100%

Beam Transverse Mode: TEM 00

External Analog Modulation: 0-5V – linearized.

Amplitude Modulation Bandwidth (min), @ -3db cut off frequency: DC- 3 MHz

External Digital Modulation (ACC Mode): TTL, DC- 3 MHz

Maximum Rise/Fall Time (10%-90%) : <300ns

Extinction depth: > 45db, and infinite with included Electromechanical shutter

Maximum power consumption: <= 12W

#### **Laser 4:**

Technology: DPSS Low Noise

Central Wavelength: 561 nm

Maximum Spectral line width: < 0.1 nm

Minimum Power: 250 mW

Type: Continuous laser

Modes of Control: Automatic Power Control (APC), Automatic Current Control (ACC)

Modulation method: AOM (should be included)

Power adjustment range: 0.01-100%

Beam Transverse Mode: TEM 00

External Analog Modulation: 0-5V - linearized.

Amplitude Modulation Bandwidth (min), @ -3db cut off frequency: DC- 3 MHz

External Digital Modulation (ACC Mode): TTL, DC- 3 MHz

Maximum Rise/Fall Time (10%-90%) : <300ns

Extinction depth: > 45db, and infinite with included Electromechanical shutter

Maximum power consumption: <= 20W

#### **Laser 5:**

Technology: DPSS Low Noise

Central Wavelength: 640 nm

Maximum Spectral line width: < 0.1 nm

Minimum Power: 500 mW

Type: Continuous laser

Modes of Control: Automatic Power Control (APC), Automatic Current Control (ACC)

Modulation method: direct

Power adjustment range: 1-100%

Beam Transverse Mode: TEM 00

External Analog Modulation: 0-5V

Amplitude Modulation Bandwidth (min), @ -3db cut off frequency: DC - 1.5 kHz

External Digital Modulation (ACC Mode): DC-10 Hz with electromechanical shutter

Maximum Rise/Fall Time (10%-90%): 40  $\mu$ s analog and 1ms with electromechanical shutter

Extinction depth: infinite

Maximum power consumption: <= 20W

#### **Signal Delivery on main port:**

**RGVB PM Fiber coupling will be included with FC/APC connector with an appropriate fiber that connects the laser output to microscope. It includes repositionable mount for alignment free switch between free space and fiber coupling**

Delivered Optical power at the output @ 405 nm: 32 mW

Delivered Optical power at the output @ 488 nm: 60 mW

Delivered Optical power at the output @ 532 nm: 58 mW

Delivered Optical power at the output @ 561 nm: 156 mW

Delivered Optical power at the output @ 640 nm: 312 mW

PER: 20 db

Optical Noise: <0.2%

Optical power stability over 8 hours (Temp. within +/- 3°K : +/- 1% (pk to pk)

**The quotation should also include the following items:**

1. Active heat sink, providing stable operating temperature
2. Clean up filter @ 488 nm
3. Repositionable fiber coupling
4. Interlock shutter

**Training and Warranty**

1. On-site installation to connect to an epi/TIRF microscope via optical fiber. Laser box should be able to control using software that operates microscope. All the necessary training should be provided.

2. 5 years complete system warranty

**Tender Evaluation Criteria:**

1. All the lasers should be compact design with smallest available footprint for the highest output power.
2. All the lasers must have the highest power efficiency and also need to have the best output power stability.
3. Flexibility: The laser combiners should be most flexible. It needs to be possible to add/upgrade lasers in the field or add extension module for multiple outputs
4. The Combiner should be able to integrate lasers from 375 up to 1064nm and repositionable PM fiber couplings covering at least from 405 up 1064nm from one fiber.
5. Total power consumption of this laser combiner should be typically 50W, and maximum 80 W.

The above-mentioned technical specifications are highly desirable. However, lower technical specifications may be considered if the above-mentioned specifications are found to be unsuitable in financial terms. The Institute reserves the right to go for lower specifications taking into considerations its financial constraints and technical preferences.

## **Section 5- Technical Bid**

The technical bid should furnish all requirements of the tender along with all annexures in this section and be submitted to

The Chairperson,  
Attn: Prof. Prerna Sharma  
Department of Physics,  
Indian Institute of Science,  
Bangalore – 560012, India.

**Annexure-1:****Details of the Bidder**

The bidder must provide the following mandatory information & attach supporting documents wherever mentioned:

**Details of the Bidder**

Sl. No.	Item	Details
1	Name of the bidder	
2	Nature of Bidder (Attach an attested copy of Certificate of Incorporation/ Partnership Deed)	
3	Registration No/ Trade License, (attach attested copy)	
4	Registered Office Address	
5	Address for communication	
6	Email ID	
7	Website	
8	Contact person- Name and Designation	
9	Telephone No	
10	PAN No. (attach copy) For Indian Vendor only	
11	GST No. (attach copy) For Indian Vendor only	

Signature of the bidder

Name

Designation, Seal

Date

**Annexure-2:**

Declaration regarding experience

To,  
The Chairperson,  
Attn: Prof. Prerna Sharma  
Department of Physics,  
Indian Institute of Science,  
Bangalore – 560012, India.

Ref: Tender No: XXXXXXXXXX  
Dated: XXXXX

Dear Sir/Madam

I've carefully reviewed the Terms & Conditions in the above-referred tender. I hereby declare that my company/firm has ----- years of experience in supplying and installing the proposed equipment.

(Signature of the Bidder)

Printed Name  
Designation, Seal

Date:



**Annexure-3:**

Declaration regarding track record

To,  
The Chairperson,  
Attn: Prof. Prerna Sharma  
Department of Physics,  
Indian Institute of Science,  
Bangalore – 560012, India.

Ref: Tender No: XXXXXXXX  
Dated: XXXXX

Dear Sir/Madam,

I've carefully reviewed the Terms & Conditions in the above-referred tender. I hereby declare that my company/ firm is not currently debarred/blacklisted by any Government / Semi-Government organizations/institutions in India or abroad. I further certify that I'm a competent officer in my company/firm to make this declaration.

Or

I declare the following

Sl. No.	Country in which the company is Debarred /blacklisted / case is Pending	Blacklisted/debarred by Government / SemiGovernment/Organizations/Institutions	Reason	Since when and for how long
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(NOTE: In case the company/firm was blacklisted previously, please provide the details regarding the period for which the company/firm was blacklisted and the reason/s for the same).

Yours faithfully

(Signature of the Bidder)

Name  
Designation, Seal

Date

**Annexure – 4:**

Declaration for acceptance of terms and conditions

To,  
The Chairperson,  
Attn: Prof. Prerna Sharma  
Department of Physics,  
Indian Institute of Science,  
Bangalore – 560012, India.

Ref: Tender No: XXXXXX  
Dated: XXXX

Dear Sir/Madam,

I've carefully reviewed the Terms & Conditions mentioned in the above-referred tender document. I declare that all the provisions of this tender document are acceptable to my company. I further certify that I'm an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours faithfully,

(Signature of the Bidder)

Name  
Designation, Seal

Date:

## **Annexure – 5:**

Details of items quoted:

- a. Company Name
- b. Product Name
- c. Part / Catalogue number
- d. Product description / main features
- e. Detailed technical specifications
- f. Remarks

Instructions to bidders:

- 1. Bidder should provide technical specifications of the quoted product/s in detail.
- 2. Bidder should attach product brochures along with the technical bid.
- 3. Bidders should clearly indicate compliance or non-compliance with the technical specifications provided in the tender document.

## **Annexure 6 – Support Certification**

Declaration for instrument support

To,  
The Chairperson,  
Attn: Prof. Prerna Sharma  
Department of Physics,  
Indian Institute of Science,  
Bangalore – 560012, India.

Ref: Tender No: XXXXXX  
Dated: XXXX

Dear Sir/Madam,

I've carefully reviewed the Terms & Conditions mentioned in the above-referred tender document. I declare that the model quoted has not been discontinued by our organization and the repair parts will be available for at least another five years. I further certify that I'm an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours faithfully,

(Signature of the Bidder)

Name  
Designation, Seal

Date:

## Section 7 – Commercial Bid

The commercial bid should be furnished with all requirements of the tender with supporting documents as mentioned under:

S. No.	Description	Cat. Number	Quantity	Unit Price	Sub Total
1.	Essential items noted in the technical specification				
1a	...(details of essential items)				
1b	...				
2.	Optional items noted in the technical specification				
2a	...(details of Optional items)				
2b	...				
3.	Accessories for operation and installation				
4.	All Consumables, spares and software to be supplied locally				
5.	Warranty (5 years)				
6.	Cost of Insurance and air freight				
7.	CIP/CIF IISc, Bengaluru				

Any additional items

S. No.	Description	Cat. Number	Quantity	Unit Price	Sub Total

Addressed to

The Chairperson,  
Attn: Prof. Prerna Sharma  
Department of Physics,  
Indian Institute of Science,  
Bangalore – 560012, India.

## **Section 7 – Checklist**

(This should be enclosed with technical bid - Part A)

The following items must be checked before the Bid is submitted:

### **A. Sealed Envelope “A”: Technical Bid**

1. Section 5 - Technical Bid (each page signed by the authorized signatory and sealed) with the below annexures:
  - a. Annexure 1: Bidders details
  - b. Annexure 2: Declaration regarding experience
  - c. Annexure 3: Declaration regarding clean track record
  - d. Annexure 4: Declaration for acceptance of terms and conditions
  - e. Annexure 5: Details of items quoted
  - f. Annexure 6: Support Certification
2. Copy of this tender document duly signed by the authorized signatory on every page and sealed.

### **B. Sealed Envelop “B”: Commercial Bid**

#### **Section 6: Commercial Bid**

Your quotation must be submitted in two envelopes: Technical Bid (Envelope A) and Commercial Bid (Envelope B) super scribing on both the envelopes with Tender No. and due date and both of these in sealed covers and put in a bigger cover which should also be sealed and duly super scribed with Tender No., Tender description & Due Date.