

**Global Tender notification for the procurement of 3KW fibre/diode laser source  
(Last date: 02.06.2024)  
GTE: IISc-GTE-2024-348  
Date: 02.05.2024**

Dear Sir/Madam,

This is a tender for the procurement of a 3KW fibre/diode laser. In order to accomplish the goals of a DRDO funded project we plan to acquire a laser source. In the following we list the minimum specifications.

**Minimum specifications**

**Optical specifications**

- a) Maximum average power : 3KW
- b) Mode of Operation : CW/Modulated
- c) Polarization : Random
- d) Power Tunability : 5 – 100%
- e) Power Variation, 8-Hour :  $\leq 1\%$
- f) Modulation Frequency :  $\leq 100\text{kHz}$
- g) Rise and Fall Times :  $\leq 5\mu\text{s}$
- h) Beam Quality : Programmable (At least five modes with rapid switchability. Possible modes should include small-to-large flat-top, as well ring/donut modes with variable beam diameters. The range of programmable beam diameters should be from 100–350 micrometers with beam quality ranging from 3–20 mm-rad for the smallest and largest beam diameters. In the event of price-conflict, the vendor providing more number of modes for the same price would be preferred.)
- i) Wavelength :  $1070 \pm 10\text{nm}$
- j) Guide laser wavelength : red or near wavelength

**Electrical specifications**

Control Interface, Standard : External hardware control, analog power control, analog monitors, Ethernet control, GUI, and API

Emergency STOP Pushbutton, Power ON Key switch.

**Mechanical Specifications**

- a) Optical fiber : atleast 5m QBH/LLK-D connectors (give cost per unit length)
- b) Cooling method : Water

**GENERAL CONDITION**

Only those OEM/Supplier are considered who has the necessary spare parts available

In case delivery fibre gets damaged, the laser system should have provision for change of the delivery fibre by OEM authorized service engineer in India.

### **Safety Standard**

The laser and its components should conform to relevant EN/ CE/ UL/ BIS regulatory standards for Safety and Emission

### **Installation & Commissioning:**

The installation of the laser will be carried out by the OEM/ Supplier at the user's site at IISc Bangalore. Specify the utilities required for operation of the system. User manual to be provided .

**Training at site:** The supplier or his representative should impart training to IISc Bangalore.

### **Other specifications**

- a) Warranty of three years for all parts
- b) Spares should be provided for components for the period of warranty
- c) All requirements with respect to cooling and compressed air requirements should be mentioned technical-bid.

### **Terms and conditions**

1. Two-bid system (separate technical and financial bids) in sealed tenders.
2. The technical bid must clearly specify the prescribed technical specifications without including the prices. Please provide in detail the specifications under each subhead and bullet point. Unique characteristics may be highlighted.
3. Vendors who include price information in the technical bids will be automatically disqualified.
4. Technical bids will be opened first. IISc may seek clarifications after opening of technical bids and may ask vendors to perform some example experiments on the samples given by IISc to demonstrate the promised technical specifications. Vendors may be required to give presentations.
5. There are several items that require detailed information to be provided by the supplier. If information is not provided against any of these items, this will disqualify the supplier.
6. After technical evaluation by a committee, vendors may be asked to re-quote in a specific format to facilitate comparison of prices.
7. Price bids of only technically qualified vendors will be considered.
8. The price bids must offer CIF Bangalore prices.
9. IISc also reserves the right to cancel the tender at any time without assigning any reason whatsoever.
10. Indicate delivery period.
11. Order will be placed on lowest bid from technically qualified vendor.

13. Prices for the individual items should be quoted separately.

14. The tender documents can be sent at the following address:

The Chairman  
Department of Materials Engineering  
Indian Institute of Science, Bangalore 560012  
Karnataka (INDIA)  
Attn: Prof. Abhik Narayan Choudhury