

Proprietary

Government of India
Bhabha Atomic Research Centre
Beam Technology Development Group
Advance Tunable Laser Application Facility
Trombay

Ref: BTDG/ATLAF/WORKS/VSR/MF/2022/ 43236
To,

Mumbai - 400 085.
June 13, 2022

To whom it may concern

Sub: Repair of Laser Wavelength Meters Angstrom Make WS 7L
Invitation of Quotations

DUE DATE: June 23, 2022

Dear Sirs,

Quotations are invited for the fabrication job as per the enclosed job details.

1. The quotations must reach. **Director Beam Technology Development Group by June 23, 2022** and must be sent in a sealed envelope super scribed with the above reference number, subject and due date given above.

2. The address on the envelope should read
(Attn. Dr Vinod Singh Rawat)

To,
Director
Beam Technology Development Group
BARC, Trombay,
Mumbai - 400 085.

3. The bidder may contact on Telephone Nos. +91-22-25595694/6600 or by email at vrawat@barc.gov.in for any clarifications in the enquiry.

4. Sealed Quotations should be submitted only through Registered post/speed post through Indian Postal Service. Offers sent by telegram, telex, courier, fax or e-mail will not be considered

Associate Director, Beam Technology Development Group BARC reserves the right to accept or reject any or all quotations without assigning any reason.

Yours faithfully,


13-6-2022

Director
BTDG

Encl: One (Job details)

C.C.: AAO, (WORKS) CC, BARC

Job specification

Repair of Laser Wavelength Meters

S.No.	Items	Quantity
1	Repair of Laser Wavelength Meters make Angstrom Model No. WS 7L	2 Nos.

The laser wavelength meters are used for accurate measurement of wavelength using interferometric technique. There are total seven hermetically sealed interferometers for accurately measuring the laser wavelength.

1. Repair of Wavelength Meter

2 Nos.

The specifications for Laser Wavelength Meter are given below.

1.1 Wavelength Range (nm) : 350 – 1100 (VIS)

1.2 Relative Accuracy : 10^{-7}

1.3 Absolute Accuracy (MHz) : 60 or better

1.4 Display Resolution (MHz) : 10 or better

1.5 Required input power for CW laser (μ W) : 20 – 200

1.6 Required input power for pulsed laser (μ J) : 50 – 500

1.7 Measurement Technique : Interferometric

1.8 Type of interferometer : Fizeau

1.9 Fizeau Maximum BW (GHz) : 100 , 15, 4

1.10 Fizeau Spectral resolution (GHz) : 10, 3 , 0.8

1.11 Finesse of the interferometer : 10, 5, 5

1.12 Line width measurement range (GHz) : 0.2 – 20

1.13 Resolution line width measurement (GHz) : 0.1 – 0.5

1.14 Exposure time (Sec) : 0.001 – 10

1.15 Linewidth Option

a. Maximum bandwidth (GHz) : 60 or better

b. Accuracy (MHz) : 200 or better

1.16 Instruments data acquisition rate : up-to 400 Hz

2. General specifications

2.1 The wavelength meter must be recalibrated with the standard light source and calibration certificates must be provided with the wavelength meters.

2.2 The deviation if any after repair may be clearly mentioned before execution of the job must be thoroughly discussed with the user.



- 2.3 The fresh electronic boards may be installed instead of repair of the old electronic boards.
- 2.4 The latest software may be provided with the repaired laser wavelength meters.
- 2.5 The interferometers must be changed in the optics module of the laser wavelength meters.
- 2.6 The temperature sensor must be calibrated before installing inside the laser wavelength meters.
- 2.7 Both the laser wavelength meters need to be updated with the latest version of the hardware if required.
- 2.8 The required changes in the components must be tested before using in the laser wavelength meters.
- 2.9 The final test report must be endorsed by the user.

3. Operating Conditions

- 3.1 Operating Temperature : 20 – 40 °C
- 3.2 Relative Humidity : 70 % RH

4. Packing and Forwarding

These items are to be packed for damage free transport to the BARC, Mumbai.

5. Inspection and Acceptance Criteria

- 5.1 The repaired wave meters need to be inspected by user representative before delivery.
- 5.2 The form factor of the wavelength meters must be kept the same.
6. The wavelength meters after repair shall be delivered to BARC only after final acceptance from the user. The complete order has to be supplied within **10 Weeks** of the issue of the purchase order. The wavelength meters are to be supplied at UCUF building South Site, BARC Trombay. Shorter delivery period will be preferred.
7. The bidder should submit the details of the repair plan along their respective quotation.
8. The delivery shall be in good quality packing materials to avoid any type of damage during transit.
9. The repaired wavelength meters shall cover the guarantee/warranty of minimum one year against any form of defect and quality degradation after acceptance by user.

