

TECHNICAL SPECIFICATIONS AND OTHER ALLIED REQUIREMENTS

| NAME OF THE ITEM | QUANTITY |
|--|----------|
| MINIATURE TRIPLE BEAM PLANE MIRROR INTERFEROMETER SYSTEM | 1 SET |

1. INSTALLATION, COMMISSIONING AND TRAINING

- 1.1. The ordered goods are required to be installed within 30 days of receipt of goods at final destination. Installation should be carried out only by expert engineers of Supplier / Manufacturer. During the course of installation, necessary training on operation and maintenance of the goods shall be imparted to Institute's Scientist / Engineers/Technicians.

2. WARRANTY

- 2.1. Comprehensive on-site warranty for **one year** must be provided to be effective from the date of completion of installation and commissioning and/or final acceptance of the items / equipment at the final destination.

Annexure-1

1. End Use: To be used for detection of translation along one axis and rotations about two axes, simultaneously of the moving platform with high resolution in Project No. GAP 227612

2. Detailed specification:

Miniature Triple Beam Plane Mirror Interferometer System having:

- i. Sensor head for model SP 5000 TR beam distance 12 mm selected configuration: (Aluminium material, 3 m cable length) - One
- ii. Evaluation and supply unit for SP 5000 TR (Standard [450 x 400 x 150] mm³ / without alignment card / Europa / external trigger ET-10) - One
- iii. Adjustable mount for beam direction alignment with adjusting screws (Aluminium), for SP 5000 TR
- iv. Interface board DP-11 for parallel data output environmental corrected, 36 data bit, 4 channels - One
- v. Temperature transducer TT-01 including temperature sensor (Pt100) - 3m Cable length - air temperature sensor - One
- vi. Factory calibration of laser frequency with calibration certificate (relative uncertainty $\pm 1.2 \text{ E-10}$)
- vii. Software for storage and measuring data

Laser wavelength: 632.8 nm (Frequency Stability: $2\text{E}10^{-8}$)

Length Measuring Range: 5m, Length resolution: 5 pm,

Beam Distances (Horizontal and vertical): 12 mm, Tilt/Angular resolution: 0.002 arcsec, Tilt range: ± 1.5 arcmin

Operating temperature range: 15 to 30 deg C

3. Scope of supply & incidental services: At CSIR-CMERI, Durgapur

4. Inspection and Tests required: Yes

5. Acceptance test: Calibration certificate (Factory calibration) of laser frequency with (relative uncertainty $\pm 1.2 \text{ E-10}$) is required

6. Qualification criteria if any: Not Applicable

Samik Dutta
(SAMIK DUTTA)
I/O

Abhijit Mahapatra
(Abhijit Mahapatra)
PI/PL
17/10/19