



**GOVT. OF ASSAM :: OFFICE OF THE PRINCIPAL
JORHAT INSTITUTE OF SCIENCE AND TECHNOLOGY (JIST, ESTD. 2009)
(FORMERLY SCIENCE COLLEGE, JORHAT, (SCJ, ESTD. 1971))
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No. JIST/Quotation/2025-26/6702

Date: 17/01/2026

Invitation of quotation for supply of FTIR Spectrophotometer

Sealed Quotations are hereby invited by the undersigned for Supply of FTIR Spectrophotometer for Chemistry Laboratory, Jorhat Institute of Science and Technology, Jorhat as per **Annexure-I**. The filled quotations along with all the required document must reach in the office of the undersigned on or before 02/02/2026 upto 2.00 pm and will be opened on 03/02/2026 at 4.00 pm. The Envelope containing the quotation would please be sealed and superscribed as under:

“Quotation for supply of FTIR Spectrophotometer”

Terms and conditions:

1. The quotations received after this deadline & unsealed shall not be entertained under any circumstances whatsoever. In case of postal delay this Institute will not be responsible. The offer submitted by Fax/Email shall not be considered, and no correspondence will be entertained in this matter.
2. Quotations must be on the letter head of the firm duly signed by the Proprietor/Partner/Director or their authorized representative. In case of signing of quotation by the authorized representative, letter of authorization must be attached with the quotation.
3. Rates must be quoted in Indian rupees and as per the format specified; taxes extra if any must be written separately.
4. No overwriting or cutting is permitted in the rate. If found, the quotation shall be summarily rejected.
5. The rates quoted will remain valid only for 60 days from the date of opening of the quotation and silence of any tenderer on this issue shall be treated as agreed with this condition.
6. Becoming **L1** will not be the criteria for awarding of purchase order unless the rates are reasonable & justified, and technical specification must be met.
7. The firm/agency may satisfy the following conditions and attach self-attested copy of the same with the quotation:
 - a) Firm shall be registered with the Government of Assam / Central Government.
 - b) The firm shall have valid GST/Other taxes and IT PAN.
 - c) The firm should not be black listed by any Govt. Agency/Dept.
8. Delivery Period – within 30 days from Purchase order.
9. Payment Terms: Payment will be only after satisfactorily delivery / commissioning of material.
10. Bidder must quote the product as per specification provided in **Annexure-I**.
11. Warranty of the FTIR Spectrophotometer must be minimum 3 years or more.
12. Original Equipment Manufacturer authorization must be included.
13. Some supply order copies of other institute is desirable to be enclosed with tender document.

R 17/01/2026
Principal i/c, **Principal**
Jorhat Institute of Science & Technology, **Jorhat Institute of Science & Technology**,
Jorhat-785010, Assam

Annexure-I

Technical Specifications for FT-IR Spectrophotometer for Chemistry Department, JIST

Portable, compact and PC based FT-IR (Fourier Transform – InfraRed) spectrophotometer, with two-sided sample compartment covering the spectral range $7800\text{ cm}^{-1} – 350\text{ cm}^{-1}$ for rapid and accurate testing of both known and unknown samples in the laboratory.

Sl. no	Description	Minimum Technical Specification
1	Optics	Completely sealed and desiccated optics
2	Spectral Range	$7800\text{--}350\text{ cm}^{-1}$ or better
3	Spectral Resolution	0.9 cm^{-1} or better
4	Wavenumber Accuracy	Better than or equal to $\pm 0.1\text{ cm}^{-1}$ at calibration reference position, traceable to internal He-Ne laser
5	Wavenumber Repeatability	$\pm 0.0005\text{ cm}^{-1}$ or better
6	Signal to Noise Ratio	37,000:1 or better (peak-to-peak) in 1 min accumulation
7	IR Source	High-energy long life Ceramic IR source
8	Detector	Temperature-controlled DLATGS detector covering $7800\text{ cm}^{-1} – 350\text{ cm}^{-1}$
9	Beam Splitter	Germanium coated KBr beam splitter with moisture resistant coatings on surface
10	Interferometer	Michelson's interferometer with 30° incident angle
11	Laser Source	Stable Helium-Neon (He-Ne) laser source
12	Sampling Accessories	Compatible with conventional accessories; automatic accessory recognition
13	ATR Details	Supported via accessories
14	Transmission / Liquid / Gas Handling	Supported via accessories
15	NaCl Demountable Cell	Demountable NaCl cell for direct liquid sample analysis must be supplied
16	Window Plate	Humidity resistant type
17	Connectivity	Should be provided with suitable power cable, USB and must have Built-in security functions for to meet the requirements of USB interface for PC connectivity.
18	Power & Mobility	Portable; compact design
19	Warranty of Parts	<ol style="list-style-type: none">1. Light Source – 10 years warranty2. Interferometer – 10 years warranty3. Laser – 10 years warranty4. Detector – 10 years warranty5. Electronic Substrate – 10 years warranty
20	Others	<ol style="list-style-type: none">(a) Should have built-in atmospheric correction function for automatic elimination of water vapor and CO_2 peaks.(b) Should have Automatic accessory recognition (ATR recognition) function with optional Quick-Start accessories.(c) Should have Built-in self-diagnostic function for checking, logging and status monitoring of interferometer conditions and key components in the interferometer & sequential display of result.(d) frictionless Flexible moving mirror mechanism for smooth moving mirror motion and high quality IR spectra.(e) The instrument must have built-in validation and performance verification software, and shall be equipped with a high-intensity, long-life ceramic IR source, conforming to the requirements of ASTM standards and the European Pharmacopoeia (Ph. Eur.).(f) Accessory kit in English.

Standard Accessories

Sl.no	Item	Specification
1	2.15 Ton Hydraulic press, KBr die set	<p>(a) Bench-top manual hydraulic press suitable for FT-IR pellet preparation using KBr. Minimum 2.15 Ton pressing capacity, hardened steel platens, sufficient clearance for standard IR pellet die and corrosion-resistant surface finish. Rigid, heavy-duty steel frame, Vibration-free operation during pellet pressing, Pressure relief valve to prevent over-pressurization, Stable base with non-slip feet.</p> <p>(b) Standard KBr pellet die set compatible with FT-IR spectrometers. Pellet Diameter around 13 mm (standard). High-grade hardened stainless steel or alloy steel. Mirror-polished internal surfaces.</p> <p>Components –</p> <ol style="list-style-type: none"> 1. Die body 2. Upper and lower plungers 3. Pellet ejector 4. Protective storage box <p>Compatible with \geq 2.15-ton pressing force without deformation. Polished to optical quality for transparent pellet formation.</p>
2	Mortar and pestle	Material: Agate (OD: standard size, 65 mm)
3	Dehumidifier	Portable and suitable for dehumidifying a room of dimension (430cm \times 735cm \times 427cm)

Software, Warranty and Other Requirements

Component	Details
Software	<p>(a) System must be supplied with 32-bit / 64-bit Windows 10 based FTIR software for complete instrument control full data processing including Arithmetic calculations; Dynamic spectral subtraction; Peak detection; Baseline correction; Normalization; Derivatives etc.</p> <p>(b) Must be supplied with advanced data processing capabilities include Full Quantitation; Spectrum search; Private library search; Multi-linear regression; Deconvolution; Kubelka-Munk conversion; Kramer-Kronig Analysis; ATR-correction; JCAMP conversion; ASCII conversion; Contaminant / Foreign Material Analysis Program and Pharma Report Program etc.</p>
Computer	Desktop PC with core i7, 16GB RAM, 512 SSD, 21" LED FHD Monitor, Windows 11 OS, Keyboard, Mouse etc.
Electrical & UPS	3KVA Online UPS with minimum 30 min back up
Warranty	The complete system shall be covered under the Original Equipment Manufacturer (OEM) warranty for a minimum period of thirty six (36) months from the date of installation and commissioning. Warranty shall include free maintenance of the whole equipment supplied including free replacement of parts. The defects, if any, shall be attended to on immediate basis.
Warranty of parts	The below items should be covered under 10 years warranty:

	<ol style="list-style-type: none"> 1. Light Source – 10 years warranty 2. Interferometer – 10 years warranty 3. Laser – 10 years warranty 4. Detector – 10 years warranty 5. Electronic Substrate – 10 years warranty. <p style="text-align: center;">Warranty shall include free maintenance of the whole equipment supplied including free replacement of parts. The defects, if any, shall be attended to on immediate basis.</p>
Installation & Training	On-site installation and user training included

The following terms and conditions should be included in the document:

1. **Supplier Experience:** The Supplier should have the experience of supplying these items in national research laboratories/national educational institutes and state/central universities. Previous purchase order of these items should be provided along with other tender documents.
2. **Pricing:** The price quoted shall be considered firm and no price escalation will be permitted.
3. **Training/installation:**
 - o **Installation testing:** suppliers of the instrument must provide free installation, commissioning and testing of the equipment in the laboratory.
 - o **Comprehensive training:** training of faculty & staff after installation should be provided after installation and an update in every six months for the first two years and every year (1 week) for the next three years.
4. **Post warranty, AMC rates:**
 - o At least for 5 years after warranty with 2 (two) preventive and 1 (one) breakdown visit for each year should be mentioned in the offer but it will not be taken for price comparison and decision for AMC will be taken afterwards.
5. **Performance Security:** Performance Security will be required @3% of Order/Contract value valid for a period of warranty period plus two months (i.e. 3 years + 2 months).
6. **Availability of spare parts & Consumables:** A declaration to be submitted that the Spare Parts & Consumables for the item will be available for a period of at least 10 years. All hardware & software including drivers, device interface cards/network adaptor card must be pre-installed & pre-configured in the computer /equipment provided. Licensed version of system software should be provided in CD (with up-gradable version).
7. **Manual:** Hard copies of instruction/operation/service manuals should be supplied.

List of important Consumable/ Spares and parts having sufficient shelf life for trouble free operation of three years should also be provided.

8. **Warranty:**
 - o **a)** A minimum of three Year on site comprehensive warranty with the statement of availability of spares for at least 10 years from the date of the installation of Goods against any manufacturing defects. Provide a warranty declaration that everything supplied shall be free from all defects and faults in material, workmanship, transportation hazards, and shall be of the highest quality and material of the type ordered. Replacement of parts or rectification of defects will be free of cost during the warranty period, including regular software upgrades.
 - o **b)** Any deviation in the material and the specifications from the accepted terms may be liable to be rejected. Bidders must supply all goods in the specified form to the satisfaction of the Institute authorities. Payments shall be made only after receiving material in the required specifications and quality.
 - o **c) Downtime:** During warranty period not more than 5% downtime will be permissible. For downtime exceeding this, a penalty equivalent to 0.50% of the F.O.R. value of the equipment for every week or part thereof may be imposed.

Downtime will be counted from the date and time of the filing of complaints within the business hours of the tenderer.

d) The Vendor warrants that any Material supplied hereunder shall conform to generally recognized manufacturing and safety standards as per Indian Standard Institution (ISI) or similar standard. Vendor's specifications on performance as detailed in brochures and sales literature shall be available to the institute.

9. Vendor must have dedicated service centre at NE region especially at Guwahati; Assam to get prompt service.

10. In addition to other warranties, the Vendor warrants that the material will be:

(a) Free from defects in design (except those complying with institute designs); of merchantable quality and suitable for the purposes stated in the tender/quotation.

(b) Vendor should provide insurance up to the delivery point (on-site and not up to the nearest international airport) and until the time of installation.

This warranty provision shall survive any inspection, delivery, acceptance, payment, expiration or earlier termination of this order.

(c) Site preparation: The supplier shall inform the Institute about the site preparation, if any needed for installation, immediately after receipt of the supply order. Suppliers must provide complete details regarding space and all infrastructural requirements needed for the equipment, which the institute should arrange before arrival of equipment to ensure its early installation and smooth operation thereafter. The supplier may offer his advice and render assistance to the institute in the preparation of the site and other pre-installation requirement.

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17/01/2026

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Jorhat Institute of Science and Technology, *Jorhat-10, Assam*