

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

Autonomous Institution of the Department of Atomic Energy, Government of India
HOMI BHABHA ROAD, NAVY NAGAR, COLABA, MUMBAI - 400 005.

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January 01, 2018

Notice Inviting Tender cum Tender Document (One Part Limited Tender) for the following items:

Sr. No.	Item Description
1.	Long Wavelength Infra Red Camera for Research and Development with attached specifications

Tender No.	TIFR/PD/IC17-107/171939
Published on	01/01/2018
Type of Tender	One Part Limited Tender
Estimated Cost	Rs. 24.88 Lakh
Last date for Submission of Bid	24/01/2018 on or before 17.30 hours
Date of Opening Bids	25/01/2018 on 15.00 Hours

Tender should be submitted in One sealed envelope duly superscribed with the Tender No., Due Date in Bold Letters.

Please see attached sheet for conditions of tender.

ADMINISTRATIVE OFFICER

(PURCHASE SECTION)

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

1) Long wavelength Infra red camera for Research and Development with following specifications: - Qty. 1 Nos.

IR resolution: 640 × 480 pixels
Thermal sensitivity/NETD: < 0.03°C @ +30°C (+86°F) / 30 mK
Field of view (FOV): 45° × 34° (55° diagonal)
Minimum focus distance: 0.15 m (0.49 ft.)
Focal length: 13.1 mm (0.52 in.)
Spatial resolution (IFOV): 1.23 mrad
Lens identification: Automatic
F-number: 1.0
Image frequency: 50 Hz (100/200 Hz with windowing)
Focus: Automatic or manual (built in motor)
Detector type: Focal plane array (FPA), uncooled microbolometer
Spectral range: 7.5-14 μm
Detector pitch: Should not be larger than 17 μm
Detector time constant: Typical 8 ms
Object temperature range: -40°C to +150°C (-40°F to +302°F)
100 to +650°C (+212 to +1202°F)
Accuracy: ±2°C (±3.6°F) or ±2% of reading
Communication: Ethernet
Operating temperature range: -15°C to +50°C (+5°F to +122°F)
Storage temperature range: -40°C to +70°C (-40°F to +158°F)

The camera should be accompanied with an IR lens

IR lens, f=13.1 mm (45°) with case
45° incl. Case
Field of view (FOV): 45° × 34° (55° diagonally)
Minimum focus distance: 150 mm (5.91 in.)
Focal length: 13.1 mm (0.52 in.)
Spatial resolution (IFOV): 1.30 mrad
Lens identification: Automatic
F-number: 1.0

SOFTWARE

- Pre/post-recording.
- Mathematical processing toolbox.
- Image filtering toolbox.
- Radiometric digital detail enhancement (DDE) improves dramatically the understanding of the thermal image, while maintaining radiometric measurement accuracy.
- View, record and store images at high speed.
- Post-processing of fast thermal events.
- Generate time-temperature plots from live images or recorded sequences.
- Advanced start/stop recording conditions.
- Unlimited number of analysis functions (spot, line, area).
- File organizer.
- Zoom and pan allows a closer look.
- Multiple dockable objects for plots and statistics.
- Sliding subtraction to show in real time change between two images
- Export images and results to bitmap, video, Excel, MATLAB or CSV formats

Direct connection to Matlab, camera should be directly accessed from matlab
-Local scale gain control on measurement -automatically adjusts the contrast in a specific part of the image.
-Compatible software included

The OEM should have Calibration checking facility in India.
Supplier should have Direct OEM presence of the manufacturer in India for carrying out repairs

2) Close-up IR lens, 1.5× (25μm) with case - Qty. 1 No.

Field of view (FOV): 16 × 12 mm (20 mm diagonally)

Magnifying factor: 1.5×

Working distance: 46 mm

Depth of field: 0.21 mm

Focal length: 62 mm

Spatial resolution (IFOV): 25 μm

Lens identification: Automatic

F-number: 1.1

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

(Deemed University)

HOMI BHABHA ROAD, COLABA, MUMBAI – 400 005

(PURCHASE SECTION)

Terms and Conditions

1. The quotation shall be submitted in one sealed envelope duly superscribed with the tender enquiry number, and the due date in bold letters, addressed to the Admn. Officer (Purchase), Tata Institute of Fundamental Research, Homi Bhabha Road, Colaba, Mumbai – 400005. The envelopes should be clearly marked on top as the Tender Enquiry No., Due Date in bold letters. The sealed envelope has to be delivered by hand/courier at the Security Gate Officer of TIFR on or before 17.30 pm on the due date specified. Tenders submitted after 17.30 pm on last date will not be considered.
2. After downloading the documents please inform your company details such as name, address, telephone nos., contact person and email address etc. by email to us. (**deepak.baghele@tifr.res.in**, **sheela@tifr.res.in**, **triveni@tifr.res.in**, **mukesh.suroshe@tifr.res.in**) to enable us to inform prospective bidder for any corrigendum/changes if any; in the Tender document before due date.
3. Quotations must be valid for a period of 90 days from the due date.
4. Tenders containing correction, overwriting will not be considered. Late or delayed/Unsolicited quotations/offers shall not be considered at all. These will be returned to the firms as it is. Post tender revisions/corrections shall also not be considered.
5. Tenderer should sign on all the pages of the tender.
6. The price quoted for Import item must be on following basis :
 - Ex-Work/factory duly packed airworthy/seaworthy and of international standard.
 - FOB/FCA
 - CIF Indian Port (all inclusive i.e. Cost of Goods, Packing, Insurance, Inland transportation, freight etc.)

For local item /supply, offer should be on FOR basis (i.e. total landed cost for delivery at TIFR, Mumbai).

The dimension of the item (viz. H, W, L, weight etc.) shall be specifically stated and also mention whether the mode of shipping the item is Airworthiness / Seaworthiness or both. Accordingly the mode of shipment will be decided by TIFR.

Price must be quoted in the Price Bid Format attached herewith

7. If equipment offered is to be imported, arrangements for import will be made by us.
8. Tenders who do not comply with any of the condition are liable to be rejected.
9. The Institute shall be under no obligation to accept the lowest or any other tender received in response to this tender notice and shall be entitled to reject any tender without assigning any reason whatsoever.

10. TIFR reserves the right to place the order for part/reduced quantity than what is specified in the tender.
11. PAYMENT TERMS: 80% payment shall be made through irrevocable L/C on presentation of complete and clear shipping documents and balance 20% of the amount shall be released after the receipt, installation, commissioning and acceptance of the equipment.
12. For Import cases: No Agency commission will be paid as per Govt. of India rules.
13. TIFR is exempted from paying of Custom Duty under the notification No.51/96 dated 23.07.1996, for all procurements/supply meant exclusively for Educational, scientific and research purpose. Whenever the exemption certificate not honored by the authorities, the applicable duty will have to be paid.
14. The delivery period should be specifically stated and earlier delivery may be preferred.
15. **Bidders who have not accepted the job/order offered to them or withdraw from the tender process or whose EMD/Security deposit has been forfeited in the past will not be considered for this tender.**
16. **The Supplier shall arrange to ship the ordered materials within the mutually agreed delivery period mentioned in the order unless extended with/without penalty.**
 - In case of delay in supply on part of the supplier, a penalty @0.5% per week of order value will be charged for delayed period subject to a maximum of 10% order value.
 - If the delay in the shipment of the ordered materials attributable to the supplier exceeds agreed time period from the date of original agreed upon date of shipment and extended with/without penalty, the TIFR, Mumbai shall have the right to cancel the contract / purchase order and recover the liquidated damages from other dues of the party or by legal means. It will also affect the other/future business dealings with such suppliers.
 - The same rate of penalty shall be applicable for late installation of the equipment/instrument also.
17. COMMENCEMENT OF WARRANTY PERIOD: The warranty period of an item shall commence from the date of receipt of the item in good working condition and satisfactory installation/commissioning/demonstration at the project site.
18. ANNUAL MAINTENANCE CHARGES: The bidder shall quote the rate/amount of annual maintenance charges separately, however AMC shall be an optional, TIFR may or may not opt for it.
19. Specifications are basic essence of the product. It must be ensured that the offers must be strictly as per our specifications. At the same time it must be kept in mind that merely copying our specifications in the quotation shall not make the parties eligible for consideration of the quotation. A quotation has to be supported with the printed technical leaflet/literature of the quoted model of the item by the quoting party/manufacturer.
20. OBSERVANCE OF LOCAL LAWS: Wherever applicable (particularly for Local vendors), the vendor / contractor shall comply with all law, statutory rules & regulations etc. The vendor/contractor shall obtain all necessary permits / approval from the local Governing Body, Police, and other concerned Authorities as may be required under law. The vendor /contractor shall pay all types of taxes, fees, license charges, deposits, duties, tolls, royalty or other charges that may

be liable on account of any the operations connected with the execution of this work/ contract.

- 21.** In case of any interpretational issues arises in this tender, the interpretation/decision of TIFR shall be final and binding on the bidder.
- 22.** It is the responsibility of the vendor to make sure that the system being proposed can be exported to India with TIFR as the end user. All clarificatory documentation must be submitted with the Bid.
- 23.** TIFR reserves the right to ask for or to provide any clarification, changes after the release of this tender. Any changes or clarifications provided by TIFR may be checked at TIFR website: www.tifr.res.in/tenders

ADMINISTRATIVE OFFICER
(PURCHASE SECTION)

TIFR Enquiry No & Date: _____

Due date: _____

PRICE BID

Bidder's Quotation Ref No. & Date: _____

Financial Bid (Bidders must quote their rates using this Format)

Sr. no.	Item Description as per the Tender/Inquiry	Make/Brand/Type	Rate per unit	Qty	Basic Cost of main item (In Currency)_____
A					
B	Ex-Works cost (Duly packed Airworthy/Seaworthy of international standard)				
C	FOB /FCA Cost (Name of Airport_____)				
D	CIP/CIF Cost (Upto Mumbai Airport)(all inclusive i.e. Cost of Goods, Packing, Insurance, Inland transportation, freight etc.)				

Note:

1. All the cloumn should be appropriately filled and not left blank
2. Do not include any other charges, taxes, duties etc. in the Basic Cost of the item,
3. Any accessories, optional items should be shown separately using above format.
4. Use separate sheet for detail description, specification of the item, but prices should be quoted in same format.
5. Prices quoted in Indian Currency should be on F.O.R. basis and mentioned separately using different table format showing all the applicable taxes/Duties like SGST, CGST, IGST, Freight & Transportation charges and installation charges etc.
6. TIFR being educational & research institute, discounted price shall be offered.

Signature of the Bidder

Name, Address,contact no
& Email id of the
Bidder/Company
with company's stamp or seal

Date: _____

Place: _____