IR Camera

Tender is invited for the procurement of IR Camera according to the specifications below.

<u>**Requirements**</u>

Specification	Value
Detector Type	Indium Antimonide (InSb)
Spectral Range	3.0 – 5.0 µm to allow calibration to 350C without use of filter or apertures
Resolution	640 x 512 minimum
Detector Pitch	15 µm or smaller
Thermal Sensitivity/NETD	20 mK minimum
Sensor Cooling	Closed cycle rotary
Readout Type:	Snapshot
Readout Modes	Asynchronous integrate while read, Asynchronous integrate then read
Synchronization Modes	Sync-in, Frame Rate (Full Window).
Programmable	up to 60 Hz or faster
Sub-window Mode	Full, half, quarter or more flexible
Dynamic Range	14-bit
Standard Video	SDI
Command and Control	GigE
Temperature Measurement and Standard Temperature Range (with band matched optics)	-10°C to 350°C without use of any warm filters or apertures
Accuracy	≤ 100°C: ±1°
	> 100°C: ±1%
Ambient Drift Compensation	with factory calibration
Spectral band	3-5 microns
Focal length	1X microscope
f /number	2.5
Average Transmission	>90%
Distortion	<=0.4%
Object distance	3 cm
mm Horizontal field of view	9.6
mm Vertical field of view	7.7
Palettes	Selectable 8-bit
Automatic Gain Control	Manual, Linear, Plateau equalization, ROI, DDE
Overlay	Customizable
Video Modes SD	PAL
Zoom	1x, 4x Digital

Software features
- The software should be operable on any computer with a licenced dongle
- Analysis of data should be possible on any computer without needing the dongle
- Display, record and store image at high speed (60Hz or Higher)

- Post-processing of fast thermal events
- Dynamic filtering
- Generate time-temperature plots from live images or recorded sequences
- Advanced start/stop conditions (triggering external condition, time/date)
- Zoom and Pan for closer look (thermally and spatially)
- Auto-executable file to redo the test and live reporting.
- Customized calibration wizard with production of calibration files by user
- Operation (subtraction, average, multiplication)
- Camera and recording control - External Triggering
- Super-framing with independent exposure time to allow Dynamic Range extension in real time.
- Intuitive image colorization control
- User camera calibration and Non-Uniformity Calculation
- There should be direct MATLAB connection to the software

General Terms & conditions

- The vendor should have supported minimum of 10 cooled IR detectors in India in established laboratories, please provide user references of only cooled Infrared detectors (Performance Certificate)
- The system has to be set up with the experiment and, testing and demonstration should include the application interface.
- The detector should be a COTS product, provide a link to a video taken with the product offered that should demonstrate the key specifications, datasheet that is attached with the offer should be detailed and verifiable with datasheet available on the internet
- Service Personnel to provide efficient local service support with at least 2 Service engineers. The training certificate from the manufacturer should be provided to prove the capability of the service engineer
- System must have installation and on-site training included
- Compliance statement should be enclosed with the quotation.
- System should have minimum 3-year standard warranty.
- OEM authorization of local vendor must be provided.

Warranty
- Min warranty period: 3 years.
- AMC for 3 years post warranty, year wise should be quoted.

Support and Service

- Technical support should be available preferably through Indian counterparts

Training

- Training on this system should be provided free of any additional cost

Shipping and Handling

1. FOB prices should be quoted with
2. Insurance
3. Delivery time.

General Terms & Conditions

- The vendor should have supplied a system of a similar or a higher specification to Indian institutes like IITs, etc. or, to a reputed foreign institute in the last 5 years. The vendor should provide the contact details of the user of such a system. The vendor should provide proof of installation and maintenance of such systems. Proof can be provided as reference letters from the users of the systems.
- The above may be provided for at least 3 end users.