

**Department of Materials Engineering
Indian Institute of Science (IISc), Bangalore, India**

Global Tender Notice

GTE Approval No. IISc-GTE-2022-154

For Procurement of ONE Monochrome High Speed Camera at IISc

Tender Notification Ref No.: MT/ENQ/TNDR/MT/22-23/01

Date: 30th Jun 2022

The Department of Materials Engineering, Indian Institute of Science Bangalore, invites global tenders for supply of **Monochrome High-Speed Camera**.

The scope of bid includes Supply, installation and configuration of “High-Speed Monochrome Camera”

Tender Summary

Tender Ref No.:	MT/ENQ/TNDR/MT/22-23/01
Tender Date:	30 th Jun 2022
Item description:	Monochrome High-Speed Camera
Tender type:	Two cover system – technical and commercial bids in separate covers
Contact person:	Prof. S. Karthikeyan, Materials Engineering Indian Institute of Science, Bangalore karthik@iisc.ac.in
Last Date of Submission of Tender:	5:00 PM, July 20 th , 2022

To whom it may concern

This is a **Request for Quote (RFQ)** from Global manufacturer for procurement of **High-Speed Monochrome Camera** and associated software at the department of Materials Engineering, Indian Institute of Science, Bangalore. All interested vendors shall submit a response demonstrating their capabilities to produce the requested equipment to the primary point of contact listed below.

The deadline for submission of proposals is **20th July 2022 by 5:00 PM**. Proposals should arrive at the office of **S. Karthikeyan, Department of Materials Engineering, Indian Institute of Science, Bangalore, Karnataka 560012, India**.

Kindly direct all questions concerning the acquisition to addresses to **Prof. S. Karthikeyan at: karthik@iisc.ac.in**

General Terms and Conditions

1. The bid should be submitted in the two-cover system, i.e. technical bid and commercial bid separately in sealed covers. The technical bid should contain all commercial terms and conditions, except the price.
2. The technical bid must contain a point-by-point technical compliance document (Annexure I). The technical proposal should contain a compliance table that should describe your compliance in a "yes" or "no" response against each of the items in the table listed in this RFQ. If "no" the second column should state the extent of deviation. The third column should state the reason for the deviation, if any. The fourth column can be used to compare your tool with that of your competitors or provide details as requested in the technical requirement table below.
3. In the commercial bid, the price should be inclusive of all discounts.
4. The quotations should be on CIF-IISc Bangalore basis. The equipment is required for research purposes only.
5. Import code (HSN code) of item should be indicated.
6. The vendor should have qualified technical service personnel for the equipment based in India (preferably in Bangalore). The level of service that can be locally provided must be indicated.
7. The lead time for the delivery of the camera should not be more than 3 months from the date of receipt of our purchase order. It should be clearly mentioned in the technical and commercial bids.
8. All the quotations must be valid for at least 90 days at the time of submission.
9. List of customers and references: **The Bidder should have supplied similar equipment in Central Universities preferably in centrally Funded Technical Institutes (IITs, IISc, IISER, NIT). Please provide the details and contact information.**

10. The Bidder must not be blacklisted/banned/suspended or have a record of any service-related dispute with any organization in India or elsewhere. A declaration to this effect should be provided.
11. Items in addition to that listed in the technical table that you would like to bring to the attention of the committee, such as data sheets, technical plots etc. can be listed at the end of the compliance table.
12. Vendors are encouraged to highlight the advantage of their cameras over comparable tools from the competitors.
13. If needed, a meeting for any technical clarifications can be scheduled with the undersigned by sending an email.
14. The Institute reserves the right to accept or reject any bid, or to annul the bidding process and reject all bids, at any time prior to the award of contract without thereby incurring any liability of the affected bidder or bidders.
15. Warranty terms and additional warranty options is a must for all the components. Please specify the service plan like whether the local distributor will address the issue or the parent company.
16. Terms and conditions for the annual maintenance contract beyond the warranty period should be mentioned.
17. After the award of purchase order, the vendor must provide an Order Acknowledgement within 30 days from the receipt of the Purchase Order.
18. Order will be placed on lowest bid from technically qualified vendor on the base items (not the options)
- 19. Please quote the price of each optional line item, separately.**

TECHNICAL SPECIFICATIONS

The following technical specifications must necessarily be met

S. No	Item	Specification
1.	Sensor	1.0 MP CMOS Sensor (or minimum)
2.	Full Resolution	1.0 MP (minimum)
3.	Bit Dept	12 bit monochrome (minimum)
4.	Frame rate at different resolutions	25000 fps (minimum) at 1024 x 1024 or 1280 x 800 (or equivalent*) 40000 fps (minimum) at 896 x 896 or 1280 x 640 (or equivalent*) 150000 fps (minimum) at 448 x 448 or 512 x 384 (or equivalent*) *Frame rate should be specified for resolutions between 1:1 and 2:1
5.	Max frame rate:	At least 500000 fps
6.	Pixel Size:	At least 25 microns (either in standard or binning mode)

7.	Light Sensitivity:	At least 50000 monochrome in daylight (either in standard or binning mode)
8.	Lens Mount	F- mount or C-mount
9.	Min exposure duration:	1 μ s (1 microsecond) (minimum)
10	Internal Memory:	64 GB (minimum)
11	Internal Memory Upgradation	Option to upgrade up to 200 GB
12	Data Transfer	Gigabit Ethernet
13	Data Transfer Upgrade:	Option to upgrade up to 10 GB ethernet
14	Camera control software	Software to control camera, allow play back and simple digital processing of the video
15	Triggering options:	BNC trigger, Software trigger
16	Power	AC Power: 220-240V, 50 Hz
17	Operating Temperature	0-50 °C
18	Packing and Storage	Hard carry case
19	Warranty:	Minimum one year from the date of installation
20	Installation:	Onsite Installation and commissioning

Other necessary specifications to be met:

21. The camera should not qualify for export control
22. Camera manufacturers should be able to demonstrate the capabilities for the application with the specified model or one with equivalent capabilities.
23. Additional memory (for 64 MB) must be quoted for as *an option*
24. Data transfer upgrade to 10GB ethernet must be quoted for as *an option*

The following options are preferred but not necessary:

- Back-side illumination for increased light sensitivity
- Ability to adjust effective pixel size by binning

Annexure I: Compliance Certificate

Note: Compliance Certificate must be enclosed with the Technical bid. Non submission of Compliance Certificate will lead to disqualification of the bidder.

S. No	Item	Specification	Comply	Non-comply	Deviation	Remarks
1.	Sensor	1.0 MP CMOS Sensor (or minimum)				
2.	Full Resolution	1.0 MP (minimum)				
3.	Bit Dept	12 bit monochrome (minimum)				
4.	Frame rate at different resolutions	25000 fps (minimum) at 1024 x 1024 or 1280 x 800 (or equivalent*) 40000 fps (minimum) at 896 x 896 or 1280 x 640 (or equivalent*) 150000 fps (minimum) at 448 x 448 or 512 x 384 (or equivalent*) *Frame rate should be specified for resolutions between 1:1 and 2:1				
5.	Max frame rate:	At least 500000 fps				
6.	Pixel Size:	At least 25 microns (either in standard or binning mode)				
7.	Light Sensitivity:	At least 50000 monochrome in daylight (either in standard or binning mode)				
8.	Lens Mount	F- mount or C-mount				
9.	Min exposure duration:	1 μ s (1 microsecond) (minimum)				
10.	Internal Memory:	64 GB (minimum)				

11.	Internal Memory Upgradation	Option to upgrade up to 200 GB				
12.	Data Transfer	Gigabit Ethernet				
13.	Data Transfer Upgrade:	Option to upgrade up to 10 GB ethernet				
14.	Camera control software	Software to control camera, allow play back and simple digital processing of the video				
15.	Triggering options:	BNC trigger, Software trigger				
16.	Power	AC Power: 220-240V, 50 Hz				
17.	Operating Temperature	0-50 °C				
18.	Packing and Storage	Hard carry case				
19.	Warranty:	Minimum one year from the date of installation				
20.	Installation:	Onsite Installation and commissioning				
21.	The camera should not qualify for export control					
22.	Camera manufacturers should be able to demonstrate the capabilities for the application with the specified model or one with equivalent capabilities.					
23.	Additional memory (for 64 MB) must be quoted for as <i>an option</i>					
24.	Data transfer upgrade to 10GB ethernet must be quoted for as <i>an option</i>					

Annexure II

MANUFACTURERS' AUTHORIZATION FORM

[The bidder shall require the manufacturer to fill in this form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by the person with the proper authority to sign documents that are binding on the Manufacturer.]

Date: [insert date (as day, month and year) of Bid Submission]

Tender No.: [insert number from Invitation for Bids]

To: The Chairman, Materials Engineering Dept, IISc, Bangalore-560012

WHEREAS

We [insert complete name of Manufacturer], who are official manufacturers of [insert full address of Manufacture's factories], do hereby authorize [insert complete name of Bidder] to submit a bid the purpose of which is to provide the following Goods, manufactured by us [insert name and or brief description of the Goods], and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty with respect to the Goods offered by the above firm.

Signed: [insert signature(s) of authorized representative(s) of the Manufacturer]

Name: [insert complete name(s) of authorized representative(s) of the Manufacturer]

Title: [insert title]

Duly authorized to sign this authorization on behalf of: [insert complete name of Bidder]