

Date: 05 February 2024

Global Tender

(As per the OM no.F.4/1/2023-PPD dt.23.03.2023- Government of India relaxation on global tender enquiry)

To Whom It May Concern

This order is being processed using Government of India funds. As such these funds are governed by GFR 2017 rules. The Government recently amended the GFR rules of global tender enquiry (GTE), and vendors must submit bids that are compliant with the latest rules.

This is a Request for Quote (RFQ) from the Indian Institute of Science (IISc), Bangalore, for the supply of **Procurement of SQUID components, associated FLL and PC electronics** to National Nanofabrication centre, CeNSE, IISc Bangalore.

A. Procedure:

1. Vendors will be required to submit a technical proposal and a commercial proposal in **two separate sealed envelopes**. Only vendors who meet the technical requirement will be considered for the commercial negotiation.
2. The deadline for submission of proposals is **26th February 2024, 5:30 pm** Indian Standard Time. Bids should arrive at the office of **The chairman, kind attention: Prof. Akshay Naik, FF-13, Centre for Nano Science and Engineering, Indian Institute of Science, Bangalore 560012**, India, by the above deadline.
1. The commercial bid and technical bids must be submitted in two separate envelopes. A technical bid must contain a point-by-point technical compliance document. The technical bid must not contain any price information.
2. The technical proposal should contain a compliance table with 5 columns. The first column must list the technical requirements in the order that they are given in the technical configuration below. The second column should describe your compliance in a "Yes" or "No" response. If "No" the third column should provide the extent of the deviation (please provide quantitative responses). The fourth column should state the reasons 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 requirements table below.
3. As an option, please provide itemized cost for any suggested accessories/add-ons that may enhance the usability, capability, accuracy, or reliability of the tool. Vendors are encouraged to quote for as many add-ons as their tool portfolio permits under the optional items.
4. Clarify if periodic (preventive) maintenance be done by a trained on-site engineer or requires a specialist from the OEM.
5. If maintenance requires OEM, as an additional option, provide the cost of an annual maintenance contract (AMC) for 3 years, post-warranty. The AMC must cover 1 scheduled and 1 emergency visit per year. It must also indicate who will service the AMC, an Indian

- agent, or the OEM. The AMC cost must also include an itemized list of spares that are essential for the scheduled visits.
6. The bid must include references of 3 previous installations, preferable in India. Please provide the names and contact addresses of the referees so that the committee can contact them independently.
 7. A pre-tender meeting for any technical clarifications can be scheduled with the undersigned by sending an email.
 8. Payment terms should be mentioned in the technical bid. The payment terms have to be CIF or CIP.
 9. If multiple systems can fulfill the requirements, vendors can submit multiple bids.
 10. After the award of the Purchase Order (PO), the vendor must provide an Order Acknowledgement within 15 days from the receipt of the PO.
 11. Training for at least 2 users from IISc should be provided to make them well familiar with the operation of various components and successful day-to-day operation.
 12. The purchase of optional items is subject to budgetary constraints.
 13. The bidder must confirm that the system manufacturer runs their own clean room with at least 2 systems of the quoted type installed there for ten years.
 14. Spare parts of the system must be available for min 7 years.
 15. Supplier must confirm that he runs a free of charge service hotline. Include the telephone number and email and persons on the hotline. Telephone response time max 30 min.
 16. Service visit response time by OEM engineer not agent max 5 working days.
 17. Provide audited financial statements of last three financial years.
(F.Y2020-21,2021-22,2022-23)
 18. The purchaser reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time before the award of contract without thereby incurring any liability of the affected bidder or bidders. The tender opening date is tentatively set for **04 March 2024**
 19. Any questions or clarifications can be directed to:
The chairman,
kind attention: Prof. Akshay Naik,
FF-13, Centre for Nano Science and Engineering,
Indian Institute of Science, Bangalore 560012
anaik@iisc.ac.in
 20. The **validity of commercial quotation should be at least 60 days** from the last date for the submission of tender documents
 21. The decision of purchase committee will be final.

Technical Requirements:

A. Technical Specifications of Procurement of SQUID components, associated FLL and PC electronics

Technical Specifications:

General terms and conditions:

1. The commercial bid and technical bids must be submitted in two separate envelopes. A technical bid must contain a point-by-point technical compliance document. The technical bid must not contain any price information.
2. The technical proposal should contain a compliance table with 5 columns. The first column must list the technical requirements in the order that they are given in the technical configuration below. The second column should describe your compliance in a "Yes" or "No" response. If "No" the third column should provide the extent of the deviation (please provide quantitative responses). The fourth column should state the reasons 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 requirements table below.
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4. Clarify if periodic (preventive) maintenance be done by a trained on-site engineer or requires a specialist from the OEM.
5. If maintenance requires OEM, as an additional option, provide the cost of an annual maintenance contract (AMC) for 3 years, post-warranty. The AMC must cover 1 scheduled and 1 emergency visit per year. It must also indicate who will service the AMC, an Indian agent, or the OEM. The AMC cost must also include an itemized list of spares that are essential for the scheduled visits.
6. The bid must include references of 3 previous installations, preferable in India. Please provide the names and contact addresses of the referees so that the committee can contact them independently.
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10. After the award of the Purchase Order (PO), the vendor must provide an Order Acknowledgement within 15 days from the receipt of the PO.
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12. The purchase of optional items is subject to budgetary constraints.
13. The bidder must confirm that the system manufacturer runs his own clean room with at least 2 systems of the quoted type installed there for ten years.
14. Spare parts of the system must be available for min 7 years.

15. Supplier must confirm that he runs a free of charge service hotline. Include the telephone number and email and persons on the hotline. Telephone response time max 30 min.
16. Service visit response time by OEM engineer not agent max 5 working days.
17. Provide audited financial statements of last three years
18. The purchaser reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time before the award of contract without thereby incurring any liability of the affected bidder or bidders.

Technical Specifications:

A. Technical specifications SQUID sensor:

General	Chip size	mm ²	2.5 × 2.5 – 12.5 × 12.5
	Sensor type		Nb based low Tc (~ 9K)
Technical	Input inductance L _i	nH	300
	Maximum load inductance	nH	~ 300
	Input sensitivity/ coupling $1/M_i$	μA/Φ ₀	< 2.5
	Typical flux noise @ 4K $S_{\Phi}^{1/2}$	μΦ ₀ /Hz ^{1/2}	< 4
	Current noise $S_I^{1/2}$	pA/Hz ^{1/2}	< 10
	Critical current	μA	100 -150
	Screened SQUID inductance L _{dc}	pH	~100
	Energy resolution @4K		100h - 1000h
others	SQUID packaged on proper chip carrier		
	Appropriate shielding can		

B. Technical specifications of Electronics of corresponding SQUID sensor:

Programmable Feedback Loop:

No. of Channels	Atleast three independent SQUID channels, remotely controllable
Remote Control	PC-based
Sensor Types	LTS
Bias	Around 0 -160 μA DC for current Around 0-1300 uV for voltage
Modulation	0 – 200 μAp-p
Feedback	Internal or External

Ranges	From $\pm 10 \mu\text{A}$ to $\pm 10 \text{ mA}$
Integrator	From $5 \mu\text{s}$ to 5 ms time constants
Reset	Via software External reset time $< 5 \mu\text{s}$ Optional auto-reset function
Bandwidth	Atleast up to 100 kHz
SQUID outputs	$\pm 10 \text{ V}$ for each channel
Test signal inputs	Differential; $1 \text{ mV}/\mu\text{A}$, $10 \text{ mV}/\mu\text{A}$, $100 \text{ mV}/\mu\text{A}$, $1 \text{ V}/\mu\text{A}$, Remotely configurable for each channel 10 mA maximum current, $10 \text{ k}\Omega$ input impedance
Remote interface I/O	Proper interface
Heater Supply	Proper heater supply (mention maximum current)
Power requirements	Should match with Indian power requirements

C. PC interface electronics:

Should fit/match with the provided SQUID sensors and Feedback Loop electronics. A few requirements are given below.

No. of Channels	Minimum three SQUID independent channel
Communications	From PC: RS-232 or/and USB
Analog outputs	$\pm 10\text{V}$ buffered PFL output Front panel: Wideband or filtered, remotely configurable for each channel Rare panel: Wideband or filtered, remotely configurable
Test signal input	Front panel BNC: differential, remotely configurable for each channel, $\pm 10\text{V}$ max, 50 ohms
Test signal generator	$0 - 2 \text{ Vp-p}$, $50 - 5000 \text{ Hz}$, remotely controllable
Power requirements	Indian power requirements

D. Delivery:

The items need to be delivered within 14 weeks after the acceptance of order.