

**Request for quote (RFQ) from Indian Original Equipment Manufacturer (OEM) or their Indian authorized distributor**

**Summary**

1.	Tender Number	IAP/CMC/23-24/D-04
2.	Tender Date	19 December 2023
3.	Item Description	<b>Four channel Single Photon Counting Module (SPCM)</b> with detection efficiency of not less than 45 % @810nm and active detection area of at least 150micrometer.
4.	Quantity	Four
5.	Tender Type	Two bid system : (a) Technical Bid (Part A) (b) Commercial Bid (Part B)
6.	Place of tender submission	Dr. C. M. Chandrashekar Department of Instrumentation and Applied Physics, Indian Institute of Sciences, Bengaluru 560012
7.	Last Date & Time for submission of tender	<b>09<sup>th</sup> January 2024, 5:00 PM</b>

## To whom it may concern

This is a **Request For Quote (RFQ)** from **Indian Original Equipment Manufacturer (OEM)** or **their Indian authorized distributor only** for procurement of **Four channel Single Photon Counting Module (SPCM) with detection efficiency of not less than 45 % @810nm and active detection area of at least 150micrometer** and associated software at the department of **Instrumentation and Applied Physics (IAP)**, 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.

With respect to this tender, the rules laid out by the Government of India in order No. P45021/2/2017-pp-BE-II issued by the Public Procurement Section, Department or Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, dated 4<sup>th</sup> June 2020 will be followed. As per the order the government has defined a 'Class-I local supplier' as "a supplier or service provider whose goods, services or work offered for procurement, has local content equal to or more than 50%". A 'Class-II local supplier' is "a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%". **Only Class-I and Class-II local suppliers are eligible to participate** in this open domestic tender. Any "Non-local supplier" i.e. "a supplier or service provider, whose goods, services or works offered for procurement, has local content less than 20%" is ineligible to participate in this tender.

The deadline for submission of proposals is **9<sup>th</sup> January 2024 by 5:00 PM**. Proposals should arrive at the office of **Dr. C. M. Chandrashekar, Department of Instrumentation and Applied Physics, Indian Institute of Science, Bangalore, Karnataka 560012, India**.

Direct all questions concerning the acquisition to addresses of **Dr. C. M. Chandrashekar** at: [chandracm@iisc.ac.in](mailto:chandracm@iisc.ac.in) or **Dr. M. Shafi** at : [muhammeds@iisc.ac.in](mailto:muhammeds@iisc.ac.in)

### General Terms and Conditions

1. The quote should come only from Indian Original Equipment Manufacturer (OEM) or their Indian authorized distributor.
2. The quotations should be on FOR-IISc Bangalore basis in INR only.
3. 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.
4. The technical bid must contain a point-by-point technical compliance document. 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.
5. In the commercial bid, the price should be inclusive of all discounts.
6. The vendor should have qualified technical service personnel for the equipment based in India (preferably in Bangalore).

7. The covering letter should clearly state that whether the vendor is a Class-I or Class-II local supplier. Failing this the bid will be automatically rejected.
8. The vendor to state the percentage of the local content and provide self-certification that the item offered meets the minimum local content requirement. They should also give details of the location(s) at which the local value addition is made.
9. Bidders offering imported products will fall under the category of non-local suppliers. They cannot claim themselves as Class-1 local suppliers/Class-2 local suppliers by claiming the services such as transportation, insurance, installation, commissioning, training, and other sales service support like AMC/CMC, etc., as local value addition.
10. Purchase preference as defined by the recent edits to GFR (within the “margin of purchase preference”) will be given to the Class-1 supplier.
11. MSMEs can seek an exemption to some qualification criteria. IISc follows GFR2017 for such details.
12. The lead time for the delivery of the equipment 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.
13. All the quotations must be valid for at least 90 days at the time of submission.
14. 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.
15. 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.
16. 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.
17. Vendors are encouraged to highlight the advantage of their tools over comparable tools from the competitors.
18. If needed, a meeting for any technical clarifications can be scheduled with the undersigned by sending an email.
19. 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.
20. 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.
21. Terms and conditions for the annual maintenance contract beyond the warranty period should be mentioned.
22. After the award of purchase order, the vendor must provide an Order Acknowledgement within 30 days from the receipt of the Purchase Order.
23. Please quote the price of each optional line item, separately.

**Technical requirements:** Please note that the requirements listed below are only guidelines. It does not disbar bids that do not meet the criteria listed. Vendors are requested to quote for equipment that meet the criteria to the best extent possible and list deviations. Deviations are NOT an automatic reason for disqualification. They will be discussed by the technical committee prior to making an informed decision.

### Four-Channel Single Photon Counting Module – Four quantity

**Description:** Two numbers of Four-Channel Single-Photon Avalanche Detectors (Single-Photon counting Module – SPCM) which operate with optimum performance in the 400-1000nm wavelength range to perform single-photon level detection are to be procured. Detectors with high sensitivity, detection efficiency, low dark count and high saturation electron rate are preferred

Sl. No.	Technical Specification	Value / Range
1.	Wavelength	400 to 1000 nm
2.	Quantum Efficiency	Around 60% efficiency at 650nm and more than 40% at 810 nm
3.	Sensor active area	180 micrometer
4.	Supply Voltage	India-compatible power plug - 5V (range to be specified)
5.	Dark count rate	100 – 500 counts /second (conditions to be specified)
6.	Timing resolution	200 - 800 picosecond (conditions to be specified)
7.	Optical Input	Fiber-coupled, single-mode fiber (SMF). Option to exchange between SMF, MMF or free-space at customer site to be included, if available
8.	Number of input channel	Four independent channels
9.	Dead time	< 1 microsecond
10.	Output pulse format	TTL/ NIM (pulse width to be specified)
11.	Output pulse duration	< 50 ns ( width size to be specified)
12.	Operation temperature	Surrounding - Room temperature. Detector temperature – sub-zero – with tuneable option (operation / tuneable range to be specified)
13.	Latency between input and output	Any latency between input and output to be specified
14.	Software to control and process data from the detector	Must be included with capabilities for controlling, time-stamping, histogramming and programming
15.	Any cables, connectors or other accessories required to connect the detectors to TCSPC	Must be included
15.	Warranty	Minimum of one year

### Other requirements:

1.	Compatible operating system(s) for the interface software should be specified. Suitable software drivers available should be specified.
2.	Please include other options currently available which can be added on in the future.
3.	Training and installation: Different options for training and installation by service engineer to be listed and quoted.
4.	The cost of shipping to IISc should be included.
5.	List of acceptance tests for on-site (vendor) inspection and after installation at IISc.

6.	A set of basic experiments for performing routine checks of acceptable operation with clear instructions to be provided.
7.	The payment terms will be specified in the commercial proposal and is subject to negotiations.
8.	Please provide details of the number of trained personnel in India, number in southern region or in Bangalore who can service the instrument.

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