



ENQUIRY

All Communications to be addressed to The Director IISER PUNE for the attention of INCHARGE S & P FOR DIRECTOR

Tender Enquiry No:

IISER/PUR/0117/20

Date

29/06/2020

Sir/Madam,

Subject: REQUEST FOR QUOTATION DUE DATE: 06/07/2020

Please send your Principal quotation in a sealed cover for the following items with complete specifications and literature showing delivery period, on or before the due date to reach this office. In case of difficulty please contact us at purchase@iiserpune.ac.in

S.No:	Description of Material	Quantity
1.	A synchronized system of Nano-Voltmeter and Pico-Ammeter for combined Measurements (As per attached specifications) Note: Copy of 2 purchase orders of similar items should be attached along with the quotation.	01 No
<ol style="list-style-type: none">1. Quotation received after due date will not be considered at all2. /Fax/Telex Quotation will not be considered.3. Our Enquiry No, date and DUE date as above must be subscribed on the sealed envelope containing your quotation.4. We do not accept the advance payment terms or through bank against documents.		Yours Faithfully Salim Shaikh

Specifications for

A synchronized system of Nano-Voltmeter and Pico-Ammeter for combined Measurements

- 1) System should have very precise pA current source as well as nano-volt voltage measurement system.
- 2) Applying currents Pico Ammeter Current Source and Measurements of voltage and resistance using Nanovoltmeter must be synchronized at up to 24Hz with 30nV p-p noise (typical) for one reading. Averages multiple readings for greater noise reduction with 110dB NMRR and minimizes the effect of AC common-mode currents
- 3) System should have capability to control the applied current and measure voltage using the software.
- 4) System should have capability of
 - Low current sourcing
 - Resistance measurement
 - Conductance measurement
 - Differential conductance measurement
 - Pulse IV measurement
 - ARB waveform generator
- 5) System should have GPIB and Ethernet communication facility.**
- 6) Current source should have following capability**
 - Source and sink (programmable
 - load) 100fA to 100mA
 - • 1014W output impedance
 - ensures stable current sourcing
 - into variable loads
 - • 65000-point source memory
 - allows executing comprehensive
 - test current sweeps directly
 - from the current source
 - • Built-in RS -232, GPIB, Trigger
 - Link, and digital I/O interfaces
 - • Reconfigurable triax output
 - simplifies matching the
 - application's guardingDC Source Resolution: 5 bits + sign
 - ~2 nA-100 mA Range (better lower range is preferred with matching higher range)
 - Ac current from 4 pA to 210 mA.
 - 10MHz output update rate
 - generates smooth sine waves up to 100kHz
 - Build in current ARB waveform generator with Frequency 1 mHz to 100KHz.
 - Voltage Compliance: ~-100 V (Better lower range and steps are preferred)

- Output Impedance: $\sim 10^{14}$ Ohms
- Noise on (2 nA Range): ~ 400 fA p-p
- Response Time: $\sim 1-20$ μ s
- Built in Guarded Sourcing for Faster Low Current
- Automatic reversal of current
- Suitable for Applications in complex programmable load or sensor signal and for noise emulation
- Programmable pulse widths as short as 5 μ s,
- limiting power dissipation in delicate components.
- Supports pulsed I-V measurements down to 50 μ s
- Built-in Ethernet interface for easy remote control without a GPIB controller card

7) Voltmeter should have following capabilities

- Minimum Resolution: 1nV @ 10 mV range Sensitivity
- 7(1/2) Digits Display Resolution
- Typical 15nV p-p noise at 1s response time,
- 40–50nV p-p noise at 60ms
- Noise @ 0.1 sec response (lowest range) ~ 50 nV p-p
- Noise @ 1 sec response ~ 13 nV p-p
- Accuracy @ 10 mV/ 90 day ~ 40 ppm + 40 nV
- Accuracy @ 10 V/24 hr ~ 2 ppm + 10 μ V
- Speed @ rated accuracy ~ 0.5 sec/rdg
- Dual channels (Maximum range Ch1 100V and Ch2 10 V)
- Input Resistance should be >10 GOHM (~ 10 MOHM for 100 V range).
- Ratio mode should be available.
- Temperature (T/C) mode should be available
- 1024 readings of Measurement Memory
- Math Functions like Rel, Min/Max/Std Dev, and Peak-to-peak of stored reading, Limit test, % and $mX + b$ with user defined units displayed.

8) Required Accessories Each to be supplied in 2 Quantities:

- a) 1x 237-ALG-2 6.6 ft (2m)
Low Noise, Input Cable with Triax to-Alligator Clips
- b) 1x 8501-2 6.6 ft (2m)
Trigger Link Cable to connect 6221 to 2182A
- c) 1x CA-180-3A Ethernet Crossover
Cable (6221 only)
- d) 1x CA-351 Communication Cable
between 2182A and 6221



- e) 1x CS-1195-2 Safety Interlock Connector
 - f) 1x 2107-4 Low Thermal Input Cable with spade lugs,
 - g) 1.2m (4 ft). User manual contact cleaner,
line cord, alligator clips.
 - h) Shielded GPIB Cable:2M (6.5FT) IEEE-488.2 USB-To-GPIB Interface
Adapter
 - i) 3 Slot Triax Cable
 - j) Triax to BNC adapters
- 9) All necessary cables, adapters, clips etc accessories for completely synchronized remote operation of Nanovoltmeter and Picoammeter source using an USB port of an existing lab PC should be provided.

*****A Compliance Chart for the above specifications must be provided.**



TERMS AND CONDITIONS FOR ENQUIRY.

1. Quotation should be SEALED and mention the ENQUIRY NO: DATE and DUE DATE on the envelope.
2. The quotations will be accepted only upto 5.00 p.m. The quotations will be opened in the presence of the representatives, if any, of the quoting firm at 3.30 p.m. on the next working day of the due date.
3. Your offer should be valid for a period of 60 days from the date of opening of the quotations/tenders
4. Break up of individuals cost of items should be provided.
5. Your rate should include packaging and forwarding charges. In case of quotation F.O.R. destination Insurance should also be covered. The good should be insured in your favor against theft, loss, damage or breakage during transit.
6. We are prepared to consider the offer for the material, either from indigenous manufacturer or of foreign manufacturer or available from ready stock. Any offer to supply on forward Delivery Basis under supplier's own import quota license will also be considered.
7. The RATE OF GST should be clearly indicated wherever chargeable. For Research Related Item the GST will be 5% and the Certificate to the effect will be provided along with the PO.
8. The Quotation should have the following (In case the quote is in foreign currency):
 - **FOB Airport price including packing forwarding and inland freight charges**
 - **CIF Mumbai price by Airfreight.**
 - Name & address of the Indian agents and their contact details.
 - Amount of agency commission payable to Indian agent in Indian currency after receipt of consignments in good condition at our stores and in case of equipment, after satisfactory installation & commissioning. Indian Foreign Exchange and Regulations act requires that commission to Indian agency, discount etc if any indicated separately.
 - Indicate names of reputed Indian organizations where you have supplied similar equipment and may attach satisfactory performance report of equipment from users.
 - Prices eventually or finally paid in case you have supplied similar or identical equipment to other IISER institutes in the preceding 3 years
 - All Bank charges outside India shall be borne by the beneficiary
 - Details of services to be rendered by you.
 - Delivery period
 - Details Terms including warranty period.
9. **Security Deposit:**
 - 8.1 Within fifteen (15) days of the award of contract, the vendor shall furnish a Security Deposit amounting to 10% of the purchase order value in the form of Demand Draft/Bank Guarantee (**from scheduled Bank only**) favoring the Director, Indian Institute of Science Education and Research, Pune.
 - 8.2 The IISER will forfeit the 10% security deposit if vendor fails to execute the order as per the Purchase Order. This Security Deposit will be refunded to the vendor only on successful installation of the EQUIPMENT / SYSTEM.
 - 8.3 The Security Deposit should be valid for a period of warranty period as we plan to extend the same as Performance Bank Guarantee.
10. **We do not accept advance payment terms or payment against documents. See below details of accepted payment terms.**



Modes of Payment

i) Payment will be made directly to the suppliers by wire transfer for 100% of the Invoice value after receipt of the goods in our Stores, tested /inspected and found satisfactory with regard to quality, quantity, and specifications ordered for and after satisfying that the terms and conditions of supply have been fulfilled.

OR

ii) By Irrevocable Letter of Credit for 100% of the Invoice value. However, 90% of the Invoice value will be paid on presentation of original shipping documents to our bankers and balance 10% will be paid after receipt of material and acceptance of the goods at IISER Pune.

11. **WARRANTY**

The items covered by the schedule of requirement shall carry minimum **One year on the equipment/item comprehensive warranty after installation** from the date of acceptance of the equipment by IISER, PUNE. Warranty shall include free maintenance of the whole equipment supplied including free replacement of parts. The defects, if any, shall be attended to on immediate basis but in no case any defect should prolong for more than 24 hours. The comprehensive warranty includes onsite warranty with parts.

The defects, if any, during the guarantee/warranty period are to be rectified free of charge by arranging free replacement wherever necessary. This includes cost, insurance, freight, custom duty & Clearance octroi, local taxes if any should be borne by the beneficiary or his agent. A clear confirmation should be given for this item.

12. Please provide a compliance table with your quotation in the following format:

Item	Specification asked	Specification Quoted for	Departure and remarks

Please provide sufficient technical details with your quotation (in the form of brochures, spec sheets or tech notes) such that every point should be independently verifiable. Marking the details on the accompanying material will be greatly appreciated.

13. **Fall clause:**

The commercial offer shall in no way exceed the lowest price at which the contractor sells the stores of identical description to any other person/organization during the currency of the contract.

14. Details of 2 supplies of similar equipment's should be attached along with quotation.

15. The quotations are liable to be rejected if any of the above condition is not complied.

16. Printed condition of the tenders/quotations shall not be binding on us.

17. The acceptance of the quotation will rest with the Director, Indian Institute of Science Education and research (IISER) Pune who does not bind himself to accept the lowest quotation and reserves the right to himself to reject or partially accept any or all the quotations received without assigning any reason.