



भारतीय
प्रौद्योगिकी
संस्थान
काशी हिन्दू विश्वविद्यालय



INDIAN
INSTITUTE OF
TECHNOLOGY
BANARAS HINDU UNIVERSITY

SCHOOL OF MATERIALS SCIENCE AND TECHNOLOGY

QUOTATION ENQUIRY

Ref: IIT (BHU)/SMST/2015-16/ENQ/QTN/SPA

Date: November 26, 2015

(Date of tender enquiry)

Due Date: 20th December, 2015
(Last date of quotation receiving)

BID Opening Date: 26th December, 2015

To

Dear Sir,

Please submit your lowest rate for supplying the under mentioned items. Quotation in duplicate must reach us before the date marked above and should contain the following information:

1. Full specification and make of the item offered and its rate F.O.R. Varanasi/CIF New Delhi.
2. Sales tax at concessional rate as applicable to educational institution.
3. Your VAT / CST registration number, PAN & TAN numbers.
4. Conditions of supply and terms of payment.
5. If you are a manufacture of the item or if you have proprietary right over it, please mention it in the quotation and provide a certificate.
6. Please mention your agency commission in Indian Rs., if applicable (in case of imported items).
7. Please give an undertaking as per annexure-I-B.

Quotation must be sent in a **sealed envelope** with word "QUOTATION", our reference number, and due date as given above, clearly marked over it.

Sl. No.	ITEM	Approx. Qty.
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Semiconductor Parametric Analyzer Technical Specifications:

1 No.

Semiconductor Device Analyzer to support of 8 slot modules and including proper ground unit with High Power Source Measure Unit, High Resolution Source Measure Unit, Medium Power Source Measure Units (as applicable) & Capacitance Measure Unit for I-V and C-V measurements. It should support Industry standard device modeling software and parameter extraction software with desired specifications mentioned below.

- | | | |
|---|--|---|
| 1 | Medium Power source Measure Unit's Range & Resolution | 10pA / 0.5 μ V to 100mA/100V or better |
| 2 | High Power Source Measure Unit's Range & Resolution | 10pA / 2 μ V or better to 1A/200V or better |
| 3 | High Resolution Source Measure Unit Range & Resolution | 1fA / 0.5 μ V to 100mA/100V or better |

4	Ground Unit (Output Voltage)	0V \pm 100 μ V or better
5 (a)	Manual Sweep Control Mode	Instantaneous control of sweep parameter manually to stress the device beyond the specified limits & safeguarding the device, SMU's should support range management feature that can prevent damage to sensitive devices when making sweep measurements.
(b)	Sweep Measurements	
6	IV Sweep Mode	Single & double Staircase sweep, Pulsed sweep, staircase sweep with pulsed bias, IV sampling, CV, C-t Sweep, C-f Sweep. (List sweep Linear & log interval, and stop condition, bias hold and negative hold time).
7	IV Sampling Capability	1ms and 100 μ S in Fast sampling, linear and log sampling
8	QSCV Measurement	Quasi Static CV measurement with leak compensation.
9	CV measurement function	Cp-G, Cp-D, Cp-Q, Cp-Rp, Cs-Rs, Cs-D, Cs-Q, Lp-G, Lp-D, Lp-Q, Lp-Rp, Ls-Rs, Ls-D, Ls-Q, R-X, G-B, Z- θ , Y- θ
10	CV Measurement Test Signal Frequency	1kHz to 5MHz with 1mHz resolution or better and accuracy of \pm 0.2% 10mV to 250mV with 1mVrms resolution.
11	CV Measurement Range	CV measurement range up to bias of \pm 100V or better
12	IV CV measurement switching	Switching unit to switch between SMUs & CMU, to do IV & CV measurement without physically changing the connection.
13	Analysis Function	Normal mode, grad mode, tangent mode, and regression mode Lines. Automatic locating markers using the auto analysis setup. Parameters can be automatically determined using automatic analysis, user function, and read out functions.
14	Pulsed IV Measurement Capability	2 Pulse output Channels, Force & Voltage Waveform Monitor output. Curr & Volt range in Fast IV Mode \pm 10V & 10mA Pulse Period & Accuracy Minimum 100ns with in \pm 1% Sampling Rate 5ns to 1S variable.
15	Interfaces	GPIO, interlock, USB, LAN, trigger in/out, digital I/O
16	Offline software	Offline Desktop Software for data analysis & setup creation.
17	Application Libraries	Application libraries for testing CMOS, FET BJTs, Diode, solar cell etc.
18	Test Fixture	Test fixture to be furnished with the dual-in-line package socket module, universal socket modules, and connection wires for device connection.
19	Operating System	Windows 7 or latest.
20	Control from Remote PC	FLEX, VXI plug & play & Built in Graphical Programming environment.
21	Future Upgradable	Upgradable for pulsed IV Measurement & for High Power devices. High current device measurement upto 1500A High Voltage device measurement upto 10000V
22	User Interface Options	<i>Touch panel display</i> , knob, soft keys, USB keyboard & mouse
23	Device Modeling software, Instruments & Prober support	Hardware should support device modeling software like IC-CAP, Network Analyzer, LCR Meters, Pulse Generators & must be able to control standard Prober system
24	Warranty	<i>1 years Standard+2 years additional</i>

COORDINATOR
School of Materials Science and Technology
Indian Institute of Technology (BHU) Varanasi
Varanasi – 221005, U.P., INDIA

INDIAN INSTITUTE OF TECHNOLOGY (BHU) VARANASI, INDIA

TO BE RETURNED

Following proforma should be filled in and duly signed by the firm and sent alongwith the quotation. (Please refer to the detailed instructions/notes before filling this proforma).

1. Validity of the offer :
2. Approximate Delivery Period :
3. (a) Whether rates have been quoted F.O.R. site and covers packing forwarding and insurance charges. : YES / NO
- (b) If not, please mention the same :
4. (a) Whether the prices are inclusive of Sales Tax and other taxes. : YES / NO
- (b) If not, kindly specify the amount / rate :
5. If the Sales Tax is charged extra, declaration for charging Sales Tax correctly attached. : YES / NO
6. (a) Whether supply will be made directly or through any Local / Regional / Authorized Dealer / Stockist : Directly/Stockist/Authorized Dealer
- (b) If through a Stockist / Dealer: -
 - (i) Name and full address of the Party :
 - (ii) Whether the order to be placed with the : Principal / Stockist / Dealer
 - (iii) Who will raise the bill : Principal / Stockist / Dealer
 - (iv) Cheques will be drawn in favour of : Principal / Stockist / Dealer
 - (v) Whether any Delivery, Packing and Forwarding : YES / NO

Charges will be payable to local Stockist/Dealer: (Please specify the amount/percentage etc, if any)

7. Our terms of payment (Please indicate your preference by a (✓) mark). Please note that no other payment terms are likely to be accepted.

(a) For Local Firms or if the bills are raised by the Local Dealers.

- (i) 100% Payment on bill basis :

OR

- (ii) 100% payment against Proforma Invoice after receipt of materials in good condition, installation and satisfactory report.
(Only under exceptional cases)

(b) If the bills are raised by outstation Firms

- (i) 100% Payment on bill basis :

OR

- (ii) 100% payment against Proforma Invoice after receipt of materials in good condition, installation and satisfactory report :
- OR**
- (iii) D.G.S. & D. Terms of Payment for D.G.S. & D Rate Contract items :
- OR**
- (iv) 75% against Proforma Invoice (at site) or documents through Bank and 25% after receipt of materials in good condition, installation and satisfactory report. :
- OR**
- (v) 90% payment against Proforma Invoice (at site) or documents through bank and 10% after receipt of materials in good condition, installation and satisfactory report (Only under special Circumstances). :
- 8.** Whether any Excise Duty is payable on the items. : YES / NO
If yes, indicate the amount / percentage. :%
- 9.** Whether any installation charges are payable extra. : YES / NO
If yes, amount to be specified. :
- 10.** Whether any discount for educational institution offered on the printed price list of the manufacturer. : YES / NO
Please mention the amount / percentage. :
- 11.** Whether the product is on DGS & D/D.I. Rate contract. : YES / NO
If yes, please enclose a photocopy of the same. : YES / NO
- 12.** Whether the product bears I.S.I. Mark. : YES / NO
If yes, please mention the I.S.I. License no. :
- 13. (a)** Whether the firm is Sales Tax payer. : YES / NO
If yes, please mention the Sales Tax Numbers. :
- (b)** Whether the Local Dealer(s) is / are Sales Tax payer(s) : YES / NO
If yes, please mention the Sales Tax numbers of each :
- 14.** Whether printed / authenticated price list of the Firm's Products and Catalogue etc. enclosed. : YES / NO

Signature of the Authorised Official with Seal

TO BE RETURNED WITH QUOTATION

UNDERTAKING

WE HEREBY UNDERTAKE THE FOLLOWING:

- 1.** We will not sell the product (s) to other institutions, bodies and also in the market on the rates less than those quoted by us to the Institute.
- 2.** The goods on which Sales Tax has been charged are not exempted for payment of Sales Tax under C.S.T. Act or U.P.S.T. Act or the rules made there under and the amount mentioned on account of Sales Tax on goods is not more than what is payable under the provisions of the relevant Act or Rules made there under.
- 3.** The rate of Excise Duty mentioned in the quotation is in accordance with the provisions of the rules and the same is payable to the Excise Authorities in respect of the stores.
- 4.** The goods / Stores / articles offered shall be of the best quality and workmanship and their supply will be strictly in accordance with the technical specifications and particulars as detailed in the quotation.
- 5.** The information furnished by us in the quotation is true and correct to the best of our knowledge and belief.
- 6.** We have read and understood the rules, regulations, terms and conditions and agree to abide by them.

***Authorised Signatory
(Seal)***