

Dept. of Electrical Engineering

Indian Institute of Technology Delhi

18th January, 2013.

Sealed quotations are invited (**in two bids: technical, commercial sealed separately**) for supply of Digital Storage Oscilloscope with Accessories having the following specifications:

1	Number of Channels	Four (Channels must be simultaneous)
2	Bandwidth	1.0 GHz
3	Real time Sampling rate	With one channel ≥ 20 GS/s; with four channels ≥ 5 GS/s
4	Equivalent time Sampling	At Least 3 Terra Samples/ sec.
5	Memory	With one channel ≥ 50 M ; with four Channels ≥ 10 M
6	Rise time (10-90% measurement range)	≤ 300 ps
7	Acquisition Modes	Fast acquisition with capture rate $\geq 250,000$ wfms/sec, Fast frame acquisition $\geq 250,000$ wfms/sec, Averaging, Envelop, Hi-Resolution, Waveform data base with three dimensional storage array
8	DC Gain accuracy	$\pm 1\%$ with offset position set to zero
9	Vertical resolution	8 Bits or higher
10	Vertical sensitivity	1mV/div – 1V/div @ 50 Ohm 1mV/div – 10V/div @ 1 M Ohm
11	Input Coupling	DC, AC, GND
12	Operating Temperature	+5 to +40 °C
13	Computer Processor	Built-in Intel Core 2 Duo, ≥ 3 GHz processor; ≥ 6 GB RAM, ≥ 400 GB Hard disc, Windows-7 64 bit operating System, CDR/W Drive, 12 “ XGA display and other software features/accessories, USB mouse, Key board etc.
14	Interface	GPIB, USB & LXI ports
15	Analysis/ Controlling Function/Probe	(i) Instrument should have 10 vertical and 10-horizontal divisions (ii) Instruments should have Independent vertical control per channel (iii) Time Base Range: At least 2 ps/div to 50 sec/div (iv) Instrument should have dedicated front panel search control button for search and mark function (min: 4 events) (v) Instrument should have built-in spectrum analysis capabilities: Channel power, Adjacent channel power, Occupied bandwidth, dBm/Hz and dBc/Hz marker (vi) Instrument should have integrated on-line time co-related display feature: Amplitude, Power, Frequency, Phase, RFIQ -vs- Time feature. (vii) User can customize function window in Windows environment to use them online for real-time waveform analysis. (viii) Voltage probe: 4 Nos. 500 MHz, 8pf Passive probe
16	Accessories	High Frequency AC/DC 35 Amp, 50 MHz current probe compatible for all oscilloscopes and powered from external source
17	Weight	Not more than 16.0 kg
18	Power Supply	100 ~ 240 V, 50 Hz ac supply

Terms & Conditions: (i) Vendors need to quote the price of equipment on F.O.R/F.O.B basis, (ii) applicable taxes, (iii) Vendors have to supply the agency certificate and other essential documents, (iv) Warranty period, (v) quote delivery period, (vi) validity of quotation must be three months, (vii) LC terms must be specified clearly, (viii) **compliance sheet** and **checklist of technical specifications** (mentioned above) must be supplied along with the quotation.

Complete technical information of the equipment should be supplied along with the quotation/ tender documents. Quotations with in-sufficient details of specifications, terms and conditions will not be considered. IIT Delhi reserves the right to reject any quotation or all without assigning any reason. Quotations (Technical and financial bids must be sealed in separate covers) in sealed cover should reach the undersign on or before **5.00 P.M of 12th February, 2013.**

Terms & Conditions:

1. Please submit the TECHNICAL and FINANCIAL bids in separate sealed envelopes. Mark the two envelopes clearly as "Technical Bid" and "Financial Bid". Both the sealed envelopes should be sent in a single sealed envelope, with clearly marked as "Digital Storage Oscilloscope with Accessories". The quote should reach the following address on or before **12/02/2013 up to 5.00 P.M.**

Name: *Dr. M. Veerachary,*

Dept. of Electrical Engineering, Indian Institute of Technology Delhi, Hauz Khas, NEW DELHI – 110 016

2. Please quote prices at F.O.R/F.O.B New Delhi, inclusive of installation charges.
3. Quote should be in Indian Rupees as well as US Dollars and to be valid for at least three months.
4. Attach all the technical literature of the above item.
5. A minimum of three years comprehensive onsite warranty, also exclude warranty for three years.
6. Mention if you can provide any technical support like training of IIT Delhi personnel at IIT Delhi or in your factory and providing a technical person for operation of the machine for the initial period of 2 years. Kindly mention about this in the technical bid.
7. If the quote is being submitted by the representative of the Principals/manufactures themselves, a valid Agency ship/Dealership Certificate authorizing the agent to quote to IIT Delhi on behalf of the Principals should be enclosed.
8. The Institute reserves the rights to accept/reject any/all quotations without assigning any reasons thereof.
9. Complete set of manuals for the operation and servicing of equipment should be given. All circuit diagrams, other mechanical and electrical schematics must be provided to Main unit, sub systems and accessories.
10. Spare set- A complete set of spares and consumables should be supplied for three years of trouble free operation.
11. Delivery period 4-6 weeks on receipt of PO.
12. Clearly specify the installation requirements - such as space, power, frequency, environment (Temperature and humidity) etc.

13. If the items quoted are proprietary in nature, please enclose proprietary certificate from the principals stating "certified that ----- is a proprietary item of M/s. -- _____ and no other manufacture make these items".
14. If the bidder is Indian agent, the agency certificate should be enclosed.
15. Please produce compliance certificate for the specification.
16. Please ensure that the Indian agent has been enlisted with the Department of Expenditure, evidence may please be attached.

Compliance Sheet

S.No	Specification	Yes (or) No	If "YES" mention the range
1	Number of Channels		
2	Bandwidth		
3	Real time Sampling rate		
4	Equivalent time Sampling		
5	Memory		
6	Rise time (10-90% measurement range)		
7	Acquisition Modes		
8	DC Gain accuracy		
9	Vertical resolution		
10	Vertical sensitivity		
11	Input Coupling		
12	Operating Temperature		
13	Computer Processor		
14	Interface		
15	Analysis/ Controlling Function/Probe	(i) (ii) (iii) (iv) (v) (vi) (vii) (viii)	
16	Accessories		
17	Weight		
18	Power Supply		