

Dept. of Electrical Engineering

Indian Institute of Technology Delhi

29th January, 2013.

Sealed quotations are invited (**in two bids: technical, commercial sealed separately**) for supply of 200 MHz Digital Storage Oscilloscope having the following specifications/ features:

S. No	Specification	Description
1	Bandwidth	200 MHz
2	Channels	4-channels (All channels must be fully isolated, Floating Channels with External Trigger feature)
3	Sample Rate per Channel	2 GS/s
4	Storage capability	Minimum 1 GB compact flash card with reader
5	Vertical Sensitivity	2 mV to 5 V/div
6	Vertical Zoom	Vertically expand or compress a live or stopped waveform
7	Max Input Voltage (1 M Ω)	300 VRMS (with electrical measurement safety: CAT II)
8	Floating voltage range	(0 ~ 600) VRMS (under CAT II)
9	Time Base Range	2.5 ns to 50 s/div
10	Input Coupling	AC, DC, GND
11	Acquisition Modes	Peak Detect, Sample, Average, Sequence, Scan/Roll Mode
12	Trigger Modes	Auto, Normal, Single Sequence
13	Automatic Waveform Measurements	Period, Frequency, +Width, -Width, Rise Time, Fall Time, Max, Min, Peak-to-Peak, Mean, Cycle RMS
14	Built-in online power measurement and analysis features	True real power(watts), Reactive Power(VAR), Power Factor, Crest Factor, RMS Measurements, Frequency Measurements, Phase Angles, Harmonics Measurements, THD, High frequency switching-loss measurements – Turn-on loss, Turn-off loss, Conduction Loss, Total switching loss.
15	Cursors(Type, Measurements)	Voltage, Time(ΔT , $1/\Delta T$ (frequency), ΔV , dv/dt , di/dt)
16	I/O interface	RS232 port along with RS232 to USB converter
17	Display	Minimum 5-inch TFT Color LCD display
18	Accessories	220V \pm 10%, 50 Hz single-phase AC utility supply
19	Battery run capability	Instrument must be powered through battery as well with AC-DC adaptor(battery pack for at least 4 Hrs fuel gauge indicator)

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 (if any) must be specified clearly, (viii) **compliance sheet** and **checklist of technical specifications 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 21st 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 "200 MHz Digital Storage Oscilloscope ". The quote should reach the following address on or before **21/02/2013 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	Bandwidth		
2	Channels		
3	Sample Rate per Channel		
4	Storage capability		
5	Vertical Sensitivity		
6	Vertical Zoom		
7	Max Input Voltage (1 MΩ)		
8	Floating voltage range		
9	Time Base Range		
10	Input Coupling		
11	Acquisition Modes		
12	Trigger Modes		
13	Automatic Waveform Measurements		
14	Built-in online power measurement and analysis features		
15	Cursors(Type , Measurements)		
16	I/O interface		
17	Display		
18	Accessories		
19	Battery run capability		