INDIAN INSTITUTE OF TECHNOLOGY, DELHI

DEPARTMENT MECHANICAL ENGINEERING

DATED: 09/10/2015

SUBJECT: N.I.Q. for the purchase of Oscilloscope

Quotations are invited for the purchase of a Oscilloscope as per the following specification. The quotation should reach in the office of Prof. M.R.Ravi (Room No.173 , Block III, Mechanical Engineering Dept., IIT Delhi, Hauz Khas, New Delhi) latest by 5:00 PM on 23-10-2015.

100 MHz, 4 Channel Digital Storage Oscilloscope		
S. No	**CHARACTERISITCS**	**SPECIFICATIONS**
1	No of Channels	4
2	Display	At least 8.5 inch Color Display.
	Analog Characteristics	
3	Analog Channel Bandwidth	100 MHz (Optional:-instrument should have the option to upgrade it to 1 GHz)
4	Record Length per channel	At least 4M points
5	Analog Channel Sample Rate	At least 2.0 GS/s on each channel
6	Input impedance	1 MΩ ±1%, 50 Ω ±1.5%
7	Vertical Sensitivity	1 mV/div to 10 V/div- 1 Mohm 1mV/div to 1 V/div- 50 & 75 Ohm
8	Horizontal System Time base Range	1ns/div to 50 s/div
9	Time Base Accuracy	At least ±25 ppm
10	Acquisition Modes	Sample ,Peak detect, Averaging, Envelope, Hi-Res, Roll, Fast Acq
11	Measurements	: Period, Frequency, Delay, Rise Time, Fall Time, Positive Duty Cycle, Negative Duty Cycle, Positive Pulse Width, Negative Pulse Width, Burst Width, Phase, Positive Overshoot, Negative Overshoot, Total Overshoot, Peak to Peak, Amplitude, High, Low, Max, Min, Mean, Cycle Mean, RMS, Cycle RMS, Positive Pulse Count, Negative Pulse Count, Rising Edge Count, Falling Edge Count, Area and Cycle Area.
13	Capture BW	100 MHz
14	Integrated Digital Voltmeter	Min 4-digit Digital voltmeter should be available
15	Function Generator	(Optional: Instrument should have the option to add an upgrade of Function generator up to 50 MHz)
16	I/O Ports	USB,LAN,VGA
17	Standard Accessories	250MHz 10X 3.9 pF passive probe per channel, Manual and calibration certificate, PC Software for analysis.
18	Warranty	3years on Instrument and 1 year on Accessories

The following aspects should also be taken care of.

1. Separate sealed technical and sealed financial bids should be given in a single sealed envelope.
2. Validity of the quote should be at least 120 days.
3. A company profile should be included in the technical bid.
4. The profile should include the following at the minimum:
   A. The parent company's base in India, its customer list.
   B. The Indian agent's profile highlighting its past experience and the number of pieces of oscilloscope sold by it in India.
   C. The Indian agent's plan on how the same shall be maintained, the capabilities of their maintenance team in India
5. In case the bid is a given through an agent, a valid agentship certificate should be attached.
6. If the item is a proprietary item, a proprietary certificate from the principal manufacturer should be included.
7. Essential accessories needed for functioning of the Oscilloscope should be included in the quote and clearly specified. Optional accessories available may also be quoted separately.
8. If some specifications are not being met, deviations may be clearly stated. In the unlikely event that none of the vendors are able to meet all the specifications, the committee reserves the right to waive or relax any of the requirements at the technical evaluation stage.
9. Training of Personnel: The supplier shall be required to undertake to provide the technical training to the personnel involved in the use of the equipment at the Institute premises, immediately after completing the installation of the equipment for a minimum period of one week at the supplier's cost.
10. Institute makes payment after delivery and successful installation. In case the payment terms are different, it should be mentioned clearly. If equipment is to be imported, the address of the company in whose name the LC is to be opened should be stated. Payment will be made through wire transfer after successful installation.
11. The Quotation received after due date will not be considered.
12. The Institute reserves the right to reject any quotation without assigning any reasons.

After opening the technical bids, a demonstration of the product may be sought in IIT. The committee will shortlist the bids based on an evaluation of the technical bid, the demo, the efficiency / efficacy / ease of use / ability to maintain and other aspects of the equipment vis-à-vis the requirements. Financial bid would be opened only for the shortlisted companies.

Prof. M.R.Ravi
Mech. Engg. Dept.
IIT Delhi