## NIQ FOR 100 MHz DIGITAL STORAGE OSCILLOSCOPE

26<sup>th</sup> February, 2014.

Sealed quotations are invited (in two bids: technical, commercial sealed separately) for supply of "100 MHz Digital Storage Oscilloscope" (not window based) having the following specifications:

S. No	Parameter	Specification	
1	Analog Channels	4	
2	Analog Bandwidth	100MHz (Bandwidth upgradable upto 1GHz)	
3	Display	≥ 8.5 inch WVGA color display	
4	Rise Time	≤4 nsec	
5	Waveform Capture Rate	>2,00,000 Wfms/Sec	
6	Record Length	1 M points per channel	
7	Sampling Rate	2.0 Gs/s Per Channels	
8	Vertical Resolution	8 bits	
9	Input Coupling and Impedance	AC, DC; 1 M $\Omega$ , 50 $\Omega$	
10	Sensitivity Range	1 mV/div to 5 V/div	
11	Time Base Range	5 ns/div to 25 s/div	
12	Time-Domain Measurement	Built-in features: Standard time-domain	
		measurement features, Power measurement	
		features, Slew rate features, etc.	
13	Math function	Arithmetic and Math functions features such as	
		(Multiplication, addition, FFT, Intg, Diff, etc,.)	
14	Standard accessories	One passive probe per analog channel (150	
		MHz, 10X)	
15	Warranty	Standard Three Years Warranty	
16	Upgradable Options	(a) Oscilloscope Bandwidth Upgradable	
		upto 1.0 GHz	
		(b) 16 Digital channel	
		(c) Upgraded to Arbitrary Function	
		Generator output(Single Channel)	
		upto 20 MHz	
17	Innut AC Supply requirement	220 V (+100/) 50 Hz AC gyrsty	
17	Input AC Supply requirement	220 V (±10%), 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 (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 14<sup>th</sup> March, 2014**.

## **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 "100 MHz Digital Storage

Oscilloscope ". The quote should reach the following address on or before 14/03/2014 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	Parameter	Specification	Compliance (Yes or No)
1	Analog Channels	4	
2	Analog Bandwidth	100MHz (Bandwidth	
		Upgradable upto 1GHz)	
3	Display	≥ 8.5 inch WVGA color display	
4	Rise Time	≤ 4 nsec	
5	Waveform Capture Rate	>2,00,000 Wfms/Sec	
6	Record Length	1 M points per channel	
7	Sampling Rate	2.0 Gs/s Per Channels	
8	Vertical Resolution	8 bits	
9	Input Coupling and	AC, DC; 1 M $\Omega$ , 50 $\Omega$	
	Impedance	AC, DC, 1 MS2, 30 S2	
10	Sensitivity Range	1 mV/div to 5 V/div	
11	Time Base Range	5 ns/div to 25 s/div	
12	Time-Domain Measurement	Built-in features: Standard time-	
		domain measurement features,	
		Power measurement features,	
		Slew rate features, etc.	
13	Math function	Arithmetic and Math functions	
		features such as (Multiplication,	
		addition, FFT, Intg, Diff, etc,.)	
14	Standard accessories	One passive probe per analog	
		channel (150 MHz, 10X)	
15	Warranty	Standard Three Years Warranty	
16	Upgradable Options	(a) Oscilloscope Bandwidth	
		Upgradable upto 1.0 GHz	
		(b) 16 Digital channel	
		(c) Upgraded to Arbitrary	
		Function Generator	
		output(Single Channel) upto	
		20 MHz	
17	Input AC Supply	220 V (±10%), 50 Hz	
	requirement	AC supply	