INDIAN INSTITUTE OF TECHNOLOGY KANPUR
Department of Electrical Engineering

Enquiry No.: EE/SA/INQ/2017-18/15
Opening Date: 2-Feb-2018
Closing Date: ~~22-Feb-2018~~ 26-Feb-2018

Sub: Inquiry for oscilloscope and related accessories

We are interested in purchase of oscilloscope and related accessories of the following configuration. Our organization is an educational institute of repute and liable to get **educational discount** from the manufacturer / supplier. Please specify the discount separately.

There will be **two steps in the tender process**:

1. Technical specifications should be put in one sealed envelope. SPECIFY company name and model number, and attach detailed technical specification for each part/component. Also attach technical brochure.
2. Financial details i.e. budget quotation should be in a separate sealed envelope. This quotation will not be opened if technical details of the product do not meet this inquiry specifications.

Please send your **Sealed Quotation** to the undersigned for the same. The envelope should be marked as "**Oscilloscope and Related Accessories - EE/SA/INQ/2017-18/15**"

Items required:

Item required	Specifications	Quantity
Oscilloscope with data logging facility	Modular design to incorporate different plug-in modules to enable simultaneous measurements of isolated voltage, temperature and communication protocols (ex: CAN). Should have at least 8 slots for different plug-in modules. It should have capability to expand to 16 nos. analogue channels, each 100MS/s, 20MHz, 1000V isolated channels. Record Length: At least 1 Gpts record length for one channel. Internal HDD – At least 500GB Continuous PC based data acquisition. Should have Ethernet post for connecting to LAN and to other computers for data acquisition. Minimum time /div ≤100ns/div, maximum time /div ≥20 days/div with time axis accuracy +-≤0.005%. Trigger: with any channel, rising, falling, enhanced and time triggering. Display: At least 10.4-inch TFT color LCD monitor with 1024×768 resolution integrated with the product. Acquisition mode: should have at least normal, envelope, averaging and box averaging acquisition mode.	1

	Real time hard disc recording, sampling rate of ≥1MS/s (1CH used) and ≥100kS/s (16CH used) Memory history- should be at least 5000 waveforms. Should have facility of at least, not limited to, cursor based measurement, zoom, waveform parameter and statistical processing display, math operation. Fast Fourier Transform (FFT) should be built in for both channel and math mode. Maximum 64 trace per display group Acquisition software: max transmission rate-100KS/s (16 ch) compatible with windows 8. PC Connectivity: Both USB and Ethernet Power source: 230V, 50Hz nominal supply. Should have inbuilt option for supplying power to the different external voltage / current probes. Operating temperature range 5 °C to +40 °C The product must be tested and calibrated at manufacturer's facility before shipping. Should have at least **3 years complete warranty including labour, parts and transportation charges**.	
High Frequency Module	Same manufacture as that of above mentioned Oscilloscope, Should be compatible to the above mentioned Oscilloscope, Isolated 2 analog input channels per module 12 bit resolution Sampling rate:100Ms/s Frequency range: DC to 20 MHz Maximum Input voltage=> 1000V. DC accuracy=<+-0.5% of 10 division CMRR=> 80dB Probe attenuation setting: 1:1,1:10,100:1,1000:1 (for voltage probe 1A:1V,10A:1 V (for current probe) Input connector type: BNC connector (isolated type) Should have at least **3 year complete warranty**.	3
Voltage probe	Same manufacture as that of above mentioned Oscilloscope, Should be compatible to the above mentioned module. Bandwidth: DC to 100MHz Attenuation ratio: 10:1 Connector Type: BNC Maximum input voltage>=1,000V (DC + ACpeak) and CAT II Should have at least **3 year complete warranty**.	7
CAN Bus Module	Should have at least 2 CAN ports. Sample rate: 100 kS/s (60-CH x 5 kS/s per port) Allowable voltage range: -3 to 10 V (CAN port) Maximum allowable common mode voltage >=30 Vrms (CAT I and CAT II.	1

	Input connector: D-sub 9-pin Should have at least **3 years complete warranty**.	
High Bandwidth Current Probe	Same manufacture as that of above mentioned Oscilloscope, Should be compatible to the above mentioned Oscilloscope, Should have standard bnc connector for connecting it to oscilloscopes, **should draw its power for operation from an internal power supply in aforementioned oscilloscope.** Rating at least $30A_{RMS}$ continuous, at least 50A Peak Pulse (non-continuous), Amplitude accuracy*=< ±1.0% rdg ±1 mV; 0 to 30 A_{rms} Bandwidth ≥50MHz, Operating temperature: 0 to 40^{o}C Should have degauss option, Should have at least **3 year complete warranty**.	2

Note:

1. In case you are not manufacturer of the product, your quotation shall contain Authorization Letter from manufacturer.
2. Quotation must be valid for minimum of 60 days.
3. Delivery period should not be more than 8 weeks. And delivery should be CIF IIT Kanpur
4. As per Notification No. 45/2017-Central Tax (Rate) dated 14/11/2017, IIT Kanpur has been allowed for GST rate of 5%. Suitable certificate can be provided by IIT Kanpur if required.
5. Send complete detail / brochure of the product(s).
6. Payments terms: 100% after successful installation and commissioning.
7. Price must include installation, taxes and all charges.
8. Ambiguous offers, without suitable technical documentation, not mapping compliance to required specifications, may be rejected without any further notification
9. Mere compliance is not sufficient, the technical details must be supported by detailed technical datasheets of the offered product(s)
10. The Institute reserves the right of accepting and rejecting any quotations without assigning any reason.

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