Dr. Krishnan Balasubramaniam
Professor

Ref: No. IITM/MDS/KB/22-23/Digital Storage Oscilloscope   **DATE: 06.03.2023**

Due Date: 16.3.2023

Time: 03.00P.M.

Sub: Quotation Invited for Purchase of Digital Storage Oscilloscope – Reg.

Dear Sir/Madam,

1. Quotations are invited in duplicate for the various items shown below / overleaf / **Enclosed list.**
2. The **quotations are to be in two parts as Technical Bid and as Financial Bid:** The two parts of the offer are to be clearly marked on the envelopes. The two parts of the offer in separate envelopes must be enclosed in the one bigger envelope duly sealed and super scribed with reference number and due date and must be addressed to the undersigned so as to reach him on or before the due date stipulated above.
3. **Fax and Email quotation are not acceptable.**
4. Quotations should be valid for 90 days from the due date and period of delivery required, warranty terms etc. should also be clearly indicated.
5. Imported supplies should be quoted **for CIF Madras.**
6. Local firms to quote for free delivery to this Institute. If quoted for Ex-Godown delivery charges be indicated separately.
7. Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples / machine/ equipment if called for should be submitted / demonstrated at free of charges, and collected back at the supplier's expenses. Compliancy certificate is to be provided indicating conformity to the technical specifications
8. Custom Duty / ED if applicable and such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. If this is not indicated no such claim will be admitted at any stage.
9. Goods should be supplied carriage paid and insured.
10. Goods shall not be supplied without an official supply order.
11. If the item is under DGS&D Rate contract No. and the price must be mentioned. It may also please be indicated whether the supply can be made direct to us at the Rate contract price (Please note that we are not Direct Demanding Officers). If so please send copy of the RC.
12. The Guarantee period of the item may be indicated clearly.
13. In case of LC. Payment, 90% of the payment will be made after completion of the supply. The balance 10% of the payment will be made after satisfactory installation of the equipment.
14. **Acceptance and Rejection:-** I.I.T. Madras has the right to accept the whole or any part of the Tender or portion of the quantity offered or reject it in full without assigning any reason.

[Dr. KRISHNAN BALASUBRAMANIAM]

Dr. KRISHNAN BALASUBRAMANIAM
Professor
Department of Mechanical Engineering.
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Chennai - 600 036, India

Note: Also enclose OEM authorization certificate, Local Content Certificate and Land Border declaration

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Phone Nos.: **(044) 22574662** / E-mail: balas@iitm.ac.in

Specifications for 200MHz Digital Storage Oscilloscope

- ❖ Display Update Rate: > 950,000 Waveforms/s in all operating modes
- ❖ Analog Channels: 4 Ch with 200MHz Bandwidth
- ❖ Sensitivity: 1mV/div to 5V/div
- ❖ Acquisition memory for Scope: 4MB & also Segmented Memory should be available
- ❖ Sample Rate for Scope: 5 GSa/s half channels, 2.5 GSa/s all channels
- ❖ Min Detectable Pulse Width: 5ns
- ❖ Input impedance Selectable: 1 MΩ, 50 Ω
- ❖ Time base: 2 ns/div to 50 s/div
- ❖ Time Base Accuracy: ± 1.6 ppm
- ❖ Mode: Main, zoom, roll, XY
- ❖ Standard 8-digit Frequency counter, DVM, gated FFT, Advance Math and totalizer
- ❖ Should be License based upgradeable in Bandwidth.
- ❖ Educator and training kit
- ❖ Should be License based upgradeable from DSO (Digital storage oscilloscope) to MSO (Mixed signal oscilloscope).
- ❖ Logic Channels: 16 Channel with Logic levels for TTL, CMOS, ECL & User defined levels (Optional).
- ❖ Inbuilt 20 MHz arbitrary/function generator (Optional).
- ❖ Waveforms: Sine, square, ramp, pulse, DC, noise, sine cardinal (sinc), exponential rise, exponential fall, cardiac, Gaussian pulse, and arbitrary
- ❖ Modulation types: AM, FM, FSK
- ❖ Trigger: Auto Level, Normal, Single
- ❖ Trigger Modes: Zone touch Trigger, Edge, Pattern, Pulse Width, Runt, Set up / Hold, Rise Time / Fall Time, Time Qualified Pattern, OR, Video & USB
- ❖ Combination Triggering: Should be able to set trigger condition Simultaneously & trigger on both Analog & Digital Channels
- ❖ Serial Protocol: CAN, CAN-FD (CAN-FD ISO), CAN-dbc, LIN, LIN symbolic , FlexRay, I²C, SPI, RS232/422/485/UART , SENT, CXPI (Optional)
- ❖ FRA, Power Analysis Application and Mask Limit Testing. (Optional)
- ❖ Independent vertical control knobs per channel for fast operation.
- ❖ Dedicated Search and Navigation Helps you Navigate Deep Memory
- ❖ Display: 8.5" WVGA Capacitive Touch Colour LCD Display
- ❖ Standard calibration cycle 3 Years
- ❖ Continuous record the trace data for all channels and measurement trend data logging
- ❖ Accessories: 4 Nos Passive Probe
- ❖ Maximum Input: 300Vrms
- ❖ Storage Facilities: Internal Memory & Built-in-Front Panel USB Flash Memory Port
- ❖ Interfaces Required: USB
- ❖ USB keyboard and mouse are supported for additional ease of use.
- ❖ Input Power: 240V AC, 50Hz
- ❖ Warranty-3 Years

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