

COLLEGE OF ENGINEERING TRIKARIPUR

Approved By AICTE, Affiliated To APJ Abdul Kalam Technological University

An ISO 9001-2015 Certified Institution

Accredited By NAAC and NBA (CSE)

No.D-2269/2024/CET

24/01/2026

Tender Notice No.01/2026

Sealed competitive tenders are invited by the undersigned from original manufactures/ authorized suppliers for the supply of Digital Storage Oscilloscope (DSO) . The cost of tender document and EMD along with the Bid in the form of D.D shall be drawn in favour of Principal, College of Engineering Trikaripur at Cheemeni

1.	Name of item	:	Digital Storage Oscilloscope (DSO)
2	Quantity	:	5Nos
3	Cost of Tender Documents	:	400+ GST
4	EMD	:	1% of quoted value
5	Issue of Tender documents	:	24/01/2026, 2.00 P.M
6	Last date and time of submission of tender	:	03/02/2026, 2.00 P.M
7	Date and time opening of Re- Tender	:	03/02/2026, 3.00 P.M

The details of the item, tender conditions and documents can be downloaded from the website www.cetkr.ac.in from 24/01/2026 onwards.

Yours Faithfully,

PRINCIPAL
Principal
College of Engineering
Trikaripur, P.O. Cheemeni
Pin 671313

Tender Specification for DSO, 50MHz

Sl.No	Parameter	specification
1.	Bandwidth	50 Mega Hertz
2.	Analog channels	2
3.	No of digital channel	1
4.	External trigger	1
5.	Maximum sample rate	1 Gsa/s in total channels
6.	Maximum memory depth	200,00 points in total channels
7.	Waveform update rate	100,000 wps
8.	Serial protocol	Standard: UART/RS-232, I2C
9.	Integrated digital voltmeter	3-digit voltmeter
10.	Frequency counter	5-digit frequency counter
11.	Built-in signals	Standard functions
12.	Waveform math	Standard functions
13.	Automatic measurements	Minimum 30 parameter including amplitude, frequency time
14.	Display	7-inch TFT LCD WVGA
15.	Connectivity	LAN connectivity,
16.	Calculated rise time from 10% to 90%	≤ 8 nano seconds
17.	Time base range	5 ns/div to 50 s/div
18.	Horizontal resolution	2.5 ps
19.	Timebase accuracy	50 ppm ± 5 ppm per year (aging)
20.	Channel to channel deskew range	± 100 ns
21.	Display modes	Main, zoom, roll, XY
22.	Input coupling	DC, AC, GND
23.	Input impedance/capacitance	1 Mohm ± 2%, 16 PF±3pF
24.	Input sensitivity range	500 uV/div to 10 V/div
25.	Standard probes	1/10 switchable 75 MHz and 200 MHz
26.	Probe attenuation factor	0.1X to 10,000X in 1-2-5 sequence
27.	Hardware bandwidth limits	Approximately 20 MHz
28.	Vertical resolution	8 bits
29.	Invert signal	User defined
30.	Maximum input voltage	150 Vrms, 200 vpk
31.	DC vertical gain accuracy 1	3% full scale (2 10 mV/div) 4% full scale (< 10 mV/div)
32.	Skew	Channel to channel: 1 ns (without deskew) Channel to external: 2 ns (without deskew)
33.	Offset range	500 uV/div to 200 mV/div: +2 V > 200 mV/div to 10 V/div: +100 V
34.	Maximum record length	200 k points
35.	Acquisition mode	Normal, Peak detect, averaging, Highresolution, segmented
36.	Time mode	Roll, normal, XY
37.	Trigger sources	Channel 1&2, line, external, Wave generator
38.	Trigger modes	Normal, Auto, single and force
39.	Trigger coupling	DC, AC, HF Rejection, LF Rejection and noise Rejection
40.	Trigger holdoff range	60 ns to 10 s
41.	Internal	Preferable among 0.6 div or 2.5 mV (<=10 MHz) 0.9 div or 3.8 mV (10 to 50 MHz)

42.	External	10 MHz: 250 mvpp, 10 to 50 MHz: 500 mvpp
43.	Internal	± 6 div from center-screen
44.	external	+/-8V
45.	Edge	rising, falling, either
46.	RS-232/422/485/UART	Trigger on Rx or Tx start bit, stop bit, data content or parity error
47.	I2c	standard
48.	UART/RS232	standard
49.	Cursors	2 pairs pf XY cursors
50.	Math functions	A+B, A-B, A * B, A/B, FET, Low pass filter
51.	Record size	Minimum 60k resolution
52.	FFT	different windows like hanning, Flat top, rectangular, blackman-harris
53.	Functions	DC, AC RMS and DC RMS
54.	Resolution	3 digits
55.	Auto ranging	Automatic adjustment for optimal measurement
56.	Range meter	recent measurement display
57.	Resolution	4 digits
58.	Measuring rate	100 times/second
59.	Auto ranging	Automatic adjustment for optimal measurement
60.	Range meter	recent measurement display
61.	Frequency range	10 Hz to 20 MHz
62.	Number of test points	1 to 1000
63.	Test amplitude	1 mVpp to 9 Vpp into 50ohm
64.	Reference waveform display	One USB 2.0, USBTMC protocol, Supports memory devices; One Ethernet port
65.	waveform display	Internal waveforms / USB thumb drive
66.	Waveform/data storage	Setups (.scp), images (.bmp, .png), channel waveforms (.csv, .bin), reference waveforms (.h5), mask (.msk), serial protocol data (.csv), Bode gain & phase data (.csv)
67.	USB drive size	Standard
68.	Provision without USB drive	10 internal setups
69.	USB drive format	FAT32 , NTFS, EXT2/3/4
70.	Power line consumption	50 W max
71.	Power voltage range	Voltage: 100 to 240 V, frequency: 50Hz.
72.	Environmental rating	0 to +50 °C, Humidity (non-condensing): 95%RH
73.	Electromagnetic compatibility	IEC 61326-12005/EN61326-1:2013 (basic) IEC 61000-4-2/EN 61000-42, [EC 61000-4-3/EN 61000-4-3, IEC 61000-4-4/EN 61000-4-4, [EC 61000-4-5/EN 61000-4-5, IEC 61000-4-6/EN 61000-4-6, [EC 61000-48/EN 61000-4-8, IEC 61000-4-11/EN 61000-4-11, EMC directive (2004/108/EC)
74.	Safety	ANSI/UL Std. No. 61010-1:2012; CAN/CSA-C22.2 No. 61010-1-12 ANSI/UL Std. No. 61010-2-030:2012; CAN/CSA-C22.2 No. 61010-2-030-12
75.	Weight	Maximum 4Kg
76.	Service center location	Authorised service center shall be inside Kerala and document proof tike rental agreement must be provided.
77.	Warranty	Minimum 3 years onsite warranty
78.	Test report	Test report from NABL approved laboratory shall be provided

79.	Delivery	The item shall be delivered in the concerned department at National Institute of Technology Calicut
80.	Documents and proof	Proper printed document proof like data sheets, brochure shall be provided against each specification mentioned from sl. no. 1 to 79, mere acceptance shall not be considered without proper document proof. And undertaking on letter head must be provided to ensure compliance with all other requirements sought.