

Annexure-1

SPECIFICATIONS OF PORTABLE DIGITAL STORAGE OSCILLOSCOPE

S.No.	Parameters	Specification
1	Analog Bandwidth	200 MHz
2	Input channels	4 Isolated Channels (All the channels should be isolated from each other and from ground)
3	Min Sampling rate/channel	a. 5 GS/s (when only one channel is used) b. 1.25 GS/s (when all the four channels are used)
4	Maximum Input Voltage	≥ 300 V(rms) CAT III from BNC signal to BNC shell when applied directly
5	Float Voltage	≥ 600 V(rms) CAT III from BNC shell to earth ground
6	Vertical Resolution	8 bits or more
7	Input Sensitivity	2 mV/div to 100 V/div
8	Rise time	≤ 1.75 ns
9	Input coupling	AC, DC, with ground level indicator
10	Accuracy	$\pm (2.1\% \text{ of reading} + 0.04 \times \text{range/div})$ @ 5mV/div to 100 V/div or better
11	Input Impedance	$1 \text{ M}\Omega \pm 1\%$
12	Time Base range	≤ 2 ns/div (min) to ≥ 4 s/div (max)
13	Record Length	$\geq 10,000$ samples per channel
14	Frequency spectrum analysis	FFT analysis should be available
15	Math operators	Add, Subtract and Multiply
16	Automatic waveform measurements	Period, Frequency, Positive pulse width, Negative pulse width, Positive duty cycle, Negative duty cycle, rise time, fall time, Max, Min, peak to peak, mean value, RMS value
17	Cursors	Two vertical and two horizontal cursors should be available for the measurement of ΔV and ΔT respectively.
18	Acquisition modes	Glitch detect, Sample, Average

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19	Trigger	Edge (Rising or falling), Pulse width (glitch)
20	Interface	USB port should be available for storage of waveform data to external flash memory drive
21	Software	PC connectivity should be available. It Should also enable fast and easy communication between a Windows PC and oscilloscope
22	Display	>= 6 in. (153 mm) color LCD display
23	Battery Type	Rechargeable
24	Battery operating time	>= 4 Hours
25	Operating Temperature range	0 °C to +50 °C (without battery)
26	Warranty	3 years on instrument & 1 year on accessories
27	Accessories	a. Standard (battery, battery charger, USB interface cable for PC connectivity, software, AC adapter with power cord) b. 4 No.s of suitable passive probes which can measure CAT III 1000 V/ CAT IV 600V of different colors and the bandwidth should be greater than or equal to 200 MHz c. Hard case and soft case for carrying instrument
28	Dimensions	<= 293 mm x 201 mm x 74 mm (11.54 in x 7.91 in x 2.91 in)
29	Documents	User manual, calibration certificate and warranty certificate should be provided along with the instrument
30	Source voltage and frequency	230V +/- 10 % and 50Hz
31	Weight	<= 2.8 Kgs with battery
32	Erection & Commissioning charges	E&C Charges Shall be quoted separately

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