**Technical Specifications for 600 MHz 4 Channel Oscilloscope**

**Please give technical compliance for the specs below. Only minor deviations in specs not affecting end use performance will be accepted.**
**A) The units must be benchtop models. If quoting digitizers units must also work as a stand alone unit with touch screen and knobs.**

| Sl No. | Parameters | Specification |
|---|---|---|
| 1 | Input channels | 4 analog min BNC or SMA |
| 2 | Analog Bandwidth | 600 MHz min, Upgradable to 2 GHz(quote upgrade as option .) |
| 3 | Input Impedance | 50Ω & 1 MΩ or higher impedance. |
| 4 | Voltage axis sensitivity setting range | 1 mV/div to 10 V/div, over entire bandwidth. |
| 5 | Sample rate | 10 GS/s per Channel in Real Time or better |
| 6 | Memory Depth | 20M sample per Channel &<br>80M samples on 1 Channel (please quote for upgrade option) |
| 7 | Effective No. of Bits | >7 or Better |
| 8 | Waveform Acquisition Rate | ≥1,000,000 Waveforms/sec |
| 9 | Time axis setting range | 25 pS/div to 50 S/div |
| 10 | Time base Accuracy | ±0.02 PPM or better Provision<br><br>Ext Ref in & Ref out should be available for a 10MHz clock source. |
| 11 | Channel-to-channel isolation | > 60 dB, or better |
| 12 | Trigger Modes | Edge,Glitch,Width,Runt,Window,Timeout,Interval, Slew rate, pattern trigger |
| 13 | Display | ≥10.4 in.Colour display with Touch Screen |
| 14 | Operating System | Windows XP Embedded/Windows 7 or better. |
| 15 | Waveform streams per channel | upto 3 waveforms with independent selection of decimation modes and waveform arithmetic |
| 16 | Smallest detectable glitch width | 100 ps |
| 17 | Trigger Jitter | < 1 ps RMS |
| 18 | Acquisition Modes | Normal,Envelope,Average, RMS |
| 19 | Display Format | Analog waveforms should be split into 1,2,3 or 4 windows. User Configurable Positioning of Windows. |
| 20 | Zooming windows, Horizontal and Vertical Zoom | Required |
| 21 | Automated measurement of waveform parameters | amplitude ,high,low,maximum,minimum,peak to peak,mean,RMS,sigma,overshoot,area,rise time ,fall time,positive width,negative width, period,frequency,duty ycle,delay,phase,burst width,pulse count,positive switching,negative switching,cycle area,cycle mean,cycle RMS,Cycle Sigma,DC Voltmeter,eye diagram,spectrum |
| 22 | Action on Trigger modes | Should give Buzzer output/print/save/mail on achieving a trigger condition |
| 23 | Connectivity | a.) Two USB 2.0 Host Ports on the front panel and two on the rear panel for quick and easy data storage,Printing,<br>b) Integrated 10/100/1000 BASE-T Ethernet Port for Network Connection<br>c) DVI-D O/p Port for Display on external Monitor |

| | | |
|---|---|---|
| **24** | **Additional Measurements** | **Start Stop Freq In FFT, Total Harmonic Distortion or Power Spectral Density, Mask testing on FFT and correlate with Time domain etc** |
| **25** | **Accessory Supplied** | **Passive Probe per Channel & Operation & Maintenance Guide.** |
| **26** | **Upgradability** | **Analog Bandwidth of 4 Channels to 2 GHZ & Above, & Scope should also support MSO Upgradability to 16 Channels.** |
| **27** | **DRIVERS** | **Must have Labview drivers for remote interfacing and storage of data. MATLAB drivers will also be preferred if available.** |
| **26** | **Warranty & Training** | **Three Year & installation with demo/trainimg Required** |