

Mixed Signal Oscilloscope

16 CH logic analyzer, 2 CH oscilloscope, External trigger.

DSO5000 Series



Feature

- 16 channels logic analyzer + 2 channels oscilloscope + external trigger.
- Big and clear display (7.0-inch color LCD, high resolution 800 x 480), clear lifelike waveform display.
- Ultrathin design, handy volume, easily portable.

* Oscilloscope Function

- Bandwidth 60-200MHz ; Real time sampling rate up to 1GSa/s; 1M record length.
- Powerful trigger function.
- More than 20 kinds of automatic measurement function.

* Logic Analyzer Function

- 16 channels divided into 2 groups which is able to setup threshold level individually.
- Real time sampling rate up to 500MSa/s.
- Powerful trigger function: edge, pulse width, code-type, duration, queen, repeat.



Specification

| | Model | DSO5200D | DSO5100D | DSO5060D |
|------------------------------|--|---|--|----------------------------|
| Horizontal | Bandwidth | 200MHz | 100MHz | 60MHz |
| | Sampling Rate Range | Max. 1GS/s | | |
| | Waveform Interpolation | (sin x) / x | | |
| | Memory Depth (Sample Points) | Single-channel: maximum 1M; Dual-channel: maximum 512K (4K, 16K, 40K optional) | | |
| | SEC/DIV Range | 8ns/div-40s/div (stepping in a sequence: 2,4,8) | | |
| | Sampling Rate and Delay Time Accuracy | ±50ppm in any ≥1ms time intervals | | |
| | Delta Time Measurement Accuracy (full bandwidth) | Single, "sampling" mode, ± (1 sampling interval + 100ppm × readings + 0.6 ns) > 16 times above average, ± (1 sampling interval + 100ppm × readings + 0.4 ns) Sampling interval = SEC/DIV+200 | | |
| | A/D Converter | 8-bit resolution, each channel sampled simultaneously | | |
| | VOLTS/DIV Range | 2mV/div ~ 5V/div at input BNC | | |
| | Position Range | ±400mV (2mV/div ~20mV/div); ±2V (50mV/div ~200mV/div) ±40V (500mV/div ~2V/div); ±50V (5V/div) | | |
| Vertical | Optional Analog Bandwidth Limit (typical) | 20MHz | | |
| | Low Frequency Response (-3db) | ≤10Hz at output BNC | | |
| | Rising Time at output BNC (typical) | ≤1.8ns | ≤3.5ns | ≤5.8ns |
| | Vertical Gain Accuracy | ±3% for sample or average acquisition mode, 5V/div to 10mV/div; ±4% for sample or average acquisition mode, 5mV/div to 2mV/div | | |
| | Voltage Measurement Repeatability Average Acquisition Mode | In the same settings and environmental conditions, acquisition ≥ the voltage increment between any two groups average of 16 above waveforms : ± (3% × readings + 0.05 div) | | |
| Trigger | Trigger Sensitivity (Edge Trigger Type) | DC: CH1/CH2:1.5div from 10MHz to 100MHz, 2div from 100MHz to full EXT: 200mV from DC to 100MHz, 350mV from 100MHz to full | DC: CH1/CH2:1div from DC to 10MHz, 1.5div from 10MHz to full | EXT: 200mV from DC to full |
| | Trigger Level Range | EXT: 200mV from DC to 100MHz, 1.75V from 100MHz to full | EXT: 200mV from DC to full | EXT: 200mV from DC to full |
| | Typical accuracy for signals having rise and fall time ≥ 20ns) | AC: Attenuates signals below 10Hz; HF Reject: Attenuates signals when above 80kHz; LF Reject: The same as DC coupling limit when frequency above 150kHz; Attenuates signals when below 150kHz. | | |
| | Holdoff Range | CH1, CH2: ±8 divisions from center of screen; EXT: ±1.2V; EXT/5: ±6V CH1, CH2: ±(0.2div × V/div) (within ±4 divisions from center of screen); EXT: ±(6% of setting+40mV); EXT/5: ±(6% of setting+200mV) | | |
| | Set Trigger Level to 50% (typical) | 100ns-10s | | |
| | Video Trigger | For the input signals ≥ 50Hz CH1, CH2: The amplitude of 2 points peak-peak; EXT: 400mV; EXT/5: 2V; Trigger on an NTSC, PAL, or SECAM standard video signal; line Range:1-525(NTSC), 1-625(PAL/SECAM) | | |
| | Edge Trigger | Trigger on the rising or the falling edge | | |
| | Pulse Width Trigger | Trigger(when >, <, ≠, =) on positive or negative pulses, Pulse Width Range: 20ns-10s | | |
| | Slope Trigger | Trigger(when >, <, ≠, =) on positive or negative slope, set time: 20ns-10s | | |
| | Pvertime Trigger | From the rising or falling edge, set time: 20ns-10s | | |
| Trigger Type | Alternate Trigger | Internal trigger on edge, pulse width, video or slope | | |
| | Code-type | D0-D15 select code-type (H, L, X) | | |
| | Duration | D0-D15 select persist time and trigger when (data terminate, data start, and data delay) | | |
| | Queue | D0-D15 select specific data index (0-3) and code-type (H, L, X) | | |
| | Repeat | D0-D15 select code-type (H, L, X) and repeat times | | |
| | Sample, peak value detect | All communications start to single acquisition simultaneously | | |
| | Average | All communications start to N times acquisition simultaneously, and N could be 4, 8, 16, 32, 64 or 128 | | |
| | Input Coupling | DC, AC or GND | | |
| | Input Impedance, DC Coupling | 1MΩ±2% for 20pF±3 pF | | |
| | Support Probe Attenuation Coefficients | 1X, 10X, 100X, 1000X | | |
| Measurement | Max. Input Voltage | CAT I and CAT II: Installation type: 300VRMS(10×); CAT III: 150VRMS(1×) | | |
| | Cursors | The difference between voltage cursors ΔV; the difference between time cursors ΔT; 1/ΔT calculated by Hz. | | |
| Display | Automatic | Frequency, Period, Mean, Pk-Pk, Cyc RMS, Min, Max, Rise Time, Fall Time, Positive Width, Negative Width. | | |
| | Type | 7" TFT, 64K true color LCD, | | |
| Power Supply | Resolution | 800x480 dots | | |
| | Contrast | 16 gears with the progress bar to show adjustment | | |
| | Voltage | 100-120VACRMS(±10%),45Hz to 440Hz, CAT II :120-240VACRMS(±10%),45Hz to 66Hz, CAT II | | |
| Mechanical | Power | < 30W | | |
| | Fuse | 2A, T rating, 250V | | |
| | Size | 313mm(L)x108mm(W)x142mm(H) | | |
| Logic Analyzer Specification | Weight | 2.08KG(Not including the package and accessories) | | |
| | Sampled Channels | 16 (divided into 2 groups) | | |
| | Max. Input Impedance | 200K (C=10p) | | |
| | Input Voltage Range | -60V~60V | | |
| | Logic Threshold Range | -8V~8V | | |
| | Max. Sample Rate | 500MHz | | |
| | Compatible Input | TTL, CMOS, ECL | | |
| Sample Depth | 512KSample | | | |
| Measurement | Period and Frequency | | | |