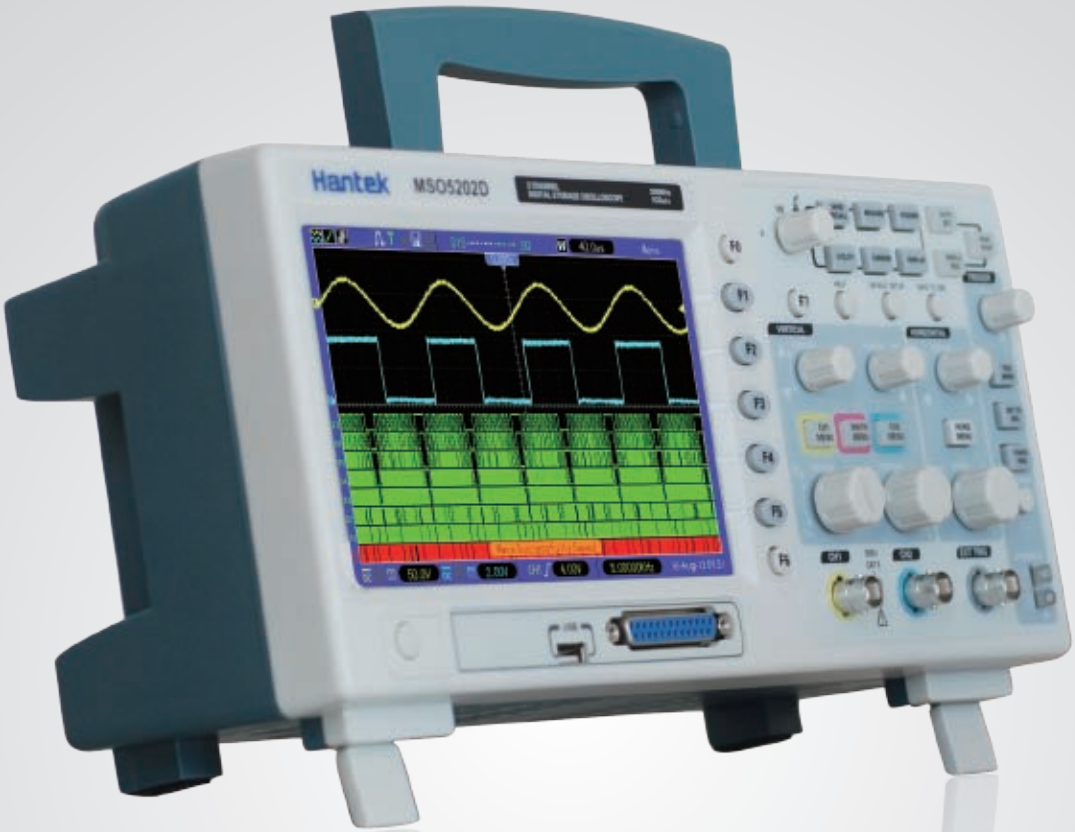
Mixed Signal Oscilloscope

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

MSO5000D 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 30 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	MSO5202D	MSO5102D	MSO5062D
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		
Vertical	VOLTS/DIV Range	2mV/div ~ 10V/div at input BNC		
	Position Range	±400mV (2mV/div ~20mV/div); ±2V (50mV/div ~200mV/div) ±40V (500mV/div ~2V/div); ±50V (5V/div)		
	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		
Trigger	Trigger Sensitivity (Edge Trigger Type)	DC(CH1, CH2): 1div from DC to 10MHz, 1.5div from 10MHz to 100MHz, 2div from 100MHz to 200MHz; DC(EXT): 200mV from DC to 100MHz, 350mV from 100MHz to 200MHz; DC(EXT/5): 1V from DC to 100MHz, 1.75V from 100MHz to 200MHz; 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.		
	Trigger Level Range	CH1, CH2: ±8 divisions from center of screen; EXT: ±1.2V; EXT/5: ±6V		
	Typical accuracy for signals having rise and fall time ≥ 20ns)	CH1, CH2: ±(0.2div × V/div) (within ±4 divisions from center of screen); EXT: ±(6% of setting+40mV); EXT/5: ±(6% of setting+200mV)		
	Holdoff Range	100ns-10s		
	Set Trigger Level to 50% (typical)	For the input signals ≥ 50Hz		
	Video Trigger	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		
	Pluse Width Trigger	Trigger(when >,<,≠,=) on positive or negative pulses, Pluse Width Range: 20ns-10s		
	Slope Trigger	Trigger(when >,<,≠,=) on positive or negative slope, set time: 20ns-10s		
	Overtime Trigger	From the rising or falling edge, set time: 20ns-10s		
	Alternate Trigger	Internal trigger on edge, pluse 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		
Acquisition	Sample, peak value detect	Upon single acquisition on all channels simultaneously		
	Average	After N acquisitions on all channels simultaneously, N can be set to 4, 8, 16, 32, 64 or 128		
Input	Input Coupling	DC, AC or GND		
	Input Impedance, DC Coupling	1MΩ±2% for 20pF±3 pF		
	Support Probe Attenuation Coefficients	1X, 10X, 100X, 1000X		
	Max. Input Voltage	CAT I and CAT II: Installation type: 300VRMS(10×); CAT III: 150VRMS(1×)		
Measurement	Cursors	The difference between voltage cursors △V; the difference between time cursors △T; 1/△T calculated by Hz.		
	Automatic	Frequency, Period, Mean, Pk-Pk, Cycli RMS, Minimum, Maximum, Rise time, Fall Time, +Pulse Width, -Pulse Width, Delay1-2Rise, Delay1-2Fall, +Duty, -Duty, Vbase, Vtop, Vmid, Vamp, Overshoot, Preshoot, Preiod Mean, Preiod RMS, FOVShoot, RPREShoot, BWIDTH, FRF, FFR, LRR, LRF, LFR, LFF		
Other	Display	7" TFT, 64K color LCD, 800x480 dots, 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		
	Size	313mm(L)x108mm(W)x142mm(H)		
	Weight	2.08KG(Not including the package and accessories)		
Logic Analyzer Specification	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	512K Sample		
	Measurement	Period and Frequency		