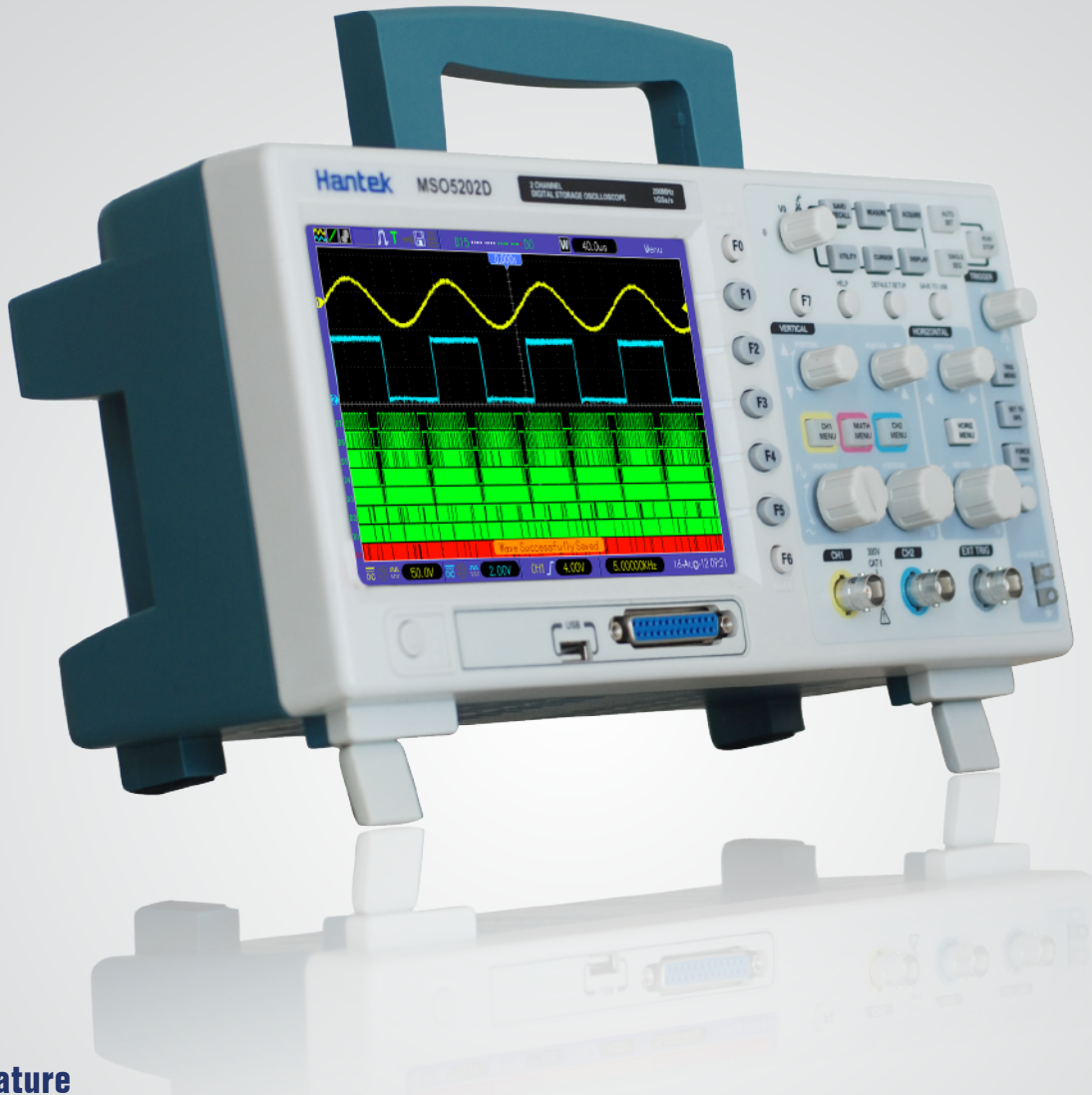


## Mixed Signal Oscilloscope

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 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	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)			
	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 EXT/5: 1V from DC to 100MHz, 1.75V from 100MHz to full	DC: CH1/CH2:1div from DC to 10MHz, 1.5div from 10MHz to full EXT: 200mV from DC to full EXT/5: 1V from DC to full	
		Trigger Level Range	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.		
		Typical accuracy for signals having rise and fall time ≥ 20ns)	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)		
		Holdoff Range	100ns-10s		
	Trigger Type	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			
Pvertime 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)			
Acquisition	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	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	Automatic			
	Automatic	The difference between voltage cursors ΔV; the difference between time cursors ΔT; 1/ΔT calculated by Hz. Frequency, Period, Mean, Pk-Pk, Cyc RMS, Min, Max, Rise Time, Fall Time, Positive Width, Negative Width.			
Display	Type	7" TFT, 64K true color LCD,			
	Resolution	800x480 dots			
	Contrast	16 gears with the progress bar to show adjustment			
Power Supply	Voltage	100-120VACRMS(±10%),45Hz to 440Hz, CAT II ;120-240VACRMS(±10%),45Hz to 66Hz, CAT II			
	Power	< 30W			
	Fuse	2A, T rating, 250V			
Mechanical	Size	313mm(L)x108mm(W)x142mm(H)			
	Weight	2.08KG(Not including the package and accessories)			
	Sampled Channels	16 ( divided into 2 groups)			
Logic Analyzer Specification	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			