

MIXED SIGNAL OSCILLOSCOPE WITH LOGIC ANALYSER

MSO-6102E

FEATURES

- 100MHz bandwidth
- 1GS/s half channel*, 500MS/s each channel (half channel is when only one channel is turned on)
- Dual channel
- 2M points on each channel for the Record length
- · Reading-out with the cursor
- 20 automatic measurement functions
- Auto-scale function
- High resolution, high contrast, colour LCD with adjustable backlight
- Storage and call-out of waveforms
- · Automatic setting function provided capable of fast setting
- Multiple-waveform calculation function
- Built-in FFT function
- Implementation of detecting the average and peak values of the waveform
- Digital real-time oscilloscope
- Edge, video, alternate, pulse and slope triggering function
- RS232 or USB communication ports
- Different continuous displaying time
- Built in LOGIC ANALYSER with 16 input channels, 4M max storage for each channel, multiple trigger modes, convenient data measurement & data search, settings of all kinds of threshold levels
- Accessories: Passive probe: 2, 1.2 m, 1:1 (10:1), OL-16 LA measurement module, Software CD, USB Cable, Power Cable, User Manual

APPLICATIONS

- · Electronic circuits debugging
- Circuit testing
- Designing & Manufacturing
- · Education & Training
- Automobile maintenance & designing





*Technical Specifications & Appearance are subject to change without prior notice



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TECHNICAL SPECIFICATIONS

Bandwidth	100MHz	
Channel	2 + 1 (external)	
Acquisition	Mode	Normal, Peak detect, Averaging
	Sample Rate (real time)	1GS/s half channel*, 500MS/s each channel
Input	Input Coupling	DC, AC, Ground
	Input Impedance	1MΩ±2%, in parallel with 15pF±5pF
	Probe Attenuation Factor	1X, 10X, 100X, 1000X
	Max. Input Voltage	400V (PK-PK) (DC + AC PK-PK)
	Bandwidth Limit	20MHz, 100MHz
	Channel Isolation	50Hz:100:1 / 10MHz:40 :1
	Time Delay between Channel (typical)	150ps
Horizontal System	Sampling Rate Range	1S/s~1G S/s each channel
	Interpolation	(sin x)/x
	Record Length	2M points on each channel
	Scanning Speed (S/div)	2ns/div~100s/div, step by 1~2~5
	Sampling Rate / Relay Time Accuracy	±100ppm
	Interval (△T) Accuracy (DC∼100MHz)	Single: ±(1 interval time + 100ppm × reading + 0.6ns);Average >16:± (1 interval time +100ppm×reading+0.4ns)
Vertical System	A/D Converter	8 bits resolution (2 Channels simultaneously)
	Sensitivity	2mV/div~10V/div (at BNC)
	Displacement	±1V(2mV - 100mV); ±10V(200mV - 1V); ±100V(2V - 10V
	Analogue Bandwidth	100Mhz
	Single Bandwidth	Full bandwidth
	Low Frequency	≥10Hz (at input, AC coupling, -3dB)
	Rise Time	≤3.5 ns (at input, Typical)
	DC Accuracy	±3%
	DC Accuracy (average)	Average > 16: \pm (3% rdg + 0.05 div) for \triangle V
Measurement	Cursor	$\triangle V$ and $\triangle T$ between cursors
	Automatic	Vpp, Vmax, Vmin, Vtop, Vbase, Vamp, Vavg, Vrms, Overshoot, Preshoot, Freq, Period, Rise Time, Fall Time, Delay A→B, Delay A→B, +Width, -Width, +Duty, -Duty
	Waveform Math	+, -, *, /, FFT
	Waveform Storage	4 waveforms
	Lissajou's Figure	Bandwidth: Full Phase Difference: ±3 degrees
	Frequency (typical)	1kHz square wave
Communication Port	USB2.0, USB for file storage; RS-232 or VGA port (optional)	



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TRIGGER			
	Internal	±6 div from the screen center	
Trigger Level Range	EXT	±600mV	
	EXT/5	±3V	
	Internal	±0.3div	
Trigger Level Accuracy (typical)	EXT	±(40mV + 6% of Set Value)	
mggor zovor moduracy (typica	EXT/5	±(200mV +6% of Set Value)	
Trigger Displacement	Pre-trigger: 655 div, Post-trigger: 4 div		
Trigger Holdoff Range	100ns~10s		
50% Level Setting (typical)	Input signal frequency ≥50Hz		
Edge Trigger	Slope	Rising, Falling	
	Sensitivity	0.3div	
Pulse Trigger	Trigger Condition	Positive pulse: <, >, = Negative pulse: <, >, =	
	Pulse Width Range	24ns~10s	
Video Trigger	Modulation	Support standard NTSC \ PAL and SECAM broadcast systems	
	Line Number Range	1-525 (NTSC) and 1-625 (PAL/SECAM)	
Slope Trigger	Trigger Condition	Positive pulse: <, >, = Negative pulse: <, >, =	
	Time Setting	24ns~10s	
Alternate Trigger	Trigger on CH 1	Edge, Pulse, Video, Slope	
	Trigger on CH 2	Edge, Pulse, Video, Slope	
Display	8" Coloured LCD (Liquid Crystal Display), 640x480 px, full colour TFT		
Power	Mains Voltage 100~240 VAC RMS, 50/60Hz, CAT II		
Fuse	2A, T grade, 250V		
Operating Environment	0° to 40°C, less than 90%RH		
Storage Environment	-20° to 60°C, less than 90%RH		
Dimensions	370mm× 180mm×120mm		
Weight	2.2kgs		
Calibration	One year is recommended for the calibration interval period		
LOGIC ANALYSER			
Sample Rate	20 S/s ~ 1GS/s		
Input Channel	16		
Max. Storage	4M/Channel, 16K(when only sampling rate is 250MS/s, 500 MS/s, 1GS/s)		
Measurement Bandwidth	100MHz		
Input impedance	660KΩ ±5%// 15±5pF		
Threshold level	-6V~6V		
Input Signal Range	-30V~30V		
Trigger Position Setting	Pre-trigger, mid-trigger, re-trigger		
Trigger Mode	Edge trigger, Bus trigger, Pattern trigger, Sequential queue data ,Distributed queue trigger, Data width queue trigger		
Data Search	Support		
Data System	Binary system, Decimal system, Hex		
Digital Filter	0/1/2 optional		
Setting Storage	Support		
USB Storage	Support		