

# MSO Series

## Mixed LA-Oscilloscope



### Main Features:

1. 2 in 1 ( DSO+ LA )
2. 8 inch LCD color display
3. Support USB for data transmission to PC
4. USB flash disk storage
5. 20 automatic measurements

### Digital Storage Oscilloscope:

1. 25MHz--200MHz bandwidth
2. Max up to 2GS/s sample rate
3. Autoscale
4. FFT

### Logic Analyer:

1. 40MHz--200MHz bandwidth
2. Max up to 1GS/s sample rate
3. 16 input channels

Dimension: 370mm(L)×180mm(H)×120mm(W)  
Weight: 2.2kg



### Performance characteristics

| Model                         | MSO5022S                                | MSO7102TD                         | MSO8102T   | MSO8202T |
|-------------------------------|---|-----------------------------------|--|----------|
| Bandwidth                     | 25MHz                                   | 100MHz                            | 100MHz   | 200MHz   |
| Sample rate(Real time)        | 100MS/s                                 | 1GS/s (500MS/s for dual channels) | 2GS/s(1GS/s for dual channels)                           |          |
| Horizontal Scale(S/div)       | 5ns/div~100s/div,step by 1~2.5~5        |                                   | 2ns/div~100s/div,step by 1~2~5                           |          |
| Rise time (at input, typical) | ≤14ns                                   |                                   | ≤3.5ns   |          |
| Display                       | 7.8" color LCD, STN display             |                                   | 8.0" color LCD, TFT screen, 640×480 pixels, 65535 colors |          |
| Channels                      | Dual channels + external trigger        |                                   |  |          |
| Input impedance               | 1MΩ±2%, in parallel with 20pF±5pF       |                                   | 1MΩ±2%, in parallel with 15pF±5pF                        |          |
| Max. input voltage            | 300V (DC + AC PK-PK)                    |                                   | 400V (DC + AC PK-PK)                                     |          |
| Record length                 | Max.6000 points on each channel         |                                   | Max.2M points  |          |
| Probe attenuation factor      | 1X, 10X, 100X, 1000X                    |                                   |  |          |
| Interpolation                 | (sin x)/x                               |                                   |  |          |
| Vertical resolution (A/D)     | 8 bit (2 channels simultaneously )      |                                   |  |          |
| Vertical sensitivity          | 5mV/div~5V/div(at input)                |                                   | 2mV/div~10V/div(at input)                                |          |
| DC gain accuracy              | ±3%                                     |                                   |  |          |
| DC accuracy(Average)          | Average>16:±(3% reading+0.05div) for ΔV |                                   |  |          |
| Acquisition modes             | Sample, Peak Detect and Average         |                                   |  |          |

### Performance characteristics

| Model                   | MSO5022S  | MSO7102TD  | MSO8102T                             | MSO8202T |
|-------------------------|---|------------|--------------------------------------|----------|
| Trigger type            | Edge, Video, Alternate  |            | Edge, Video, Alternate, Pulse, Slope |          |
| Cursor measurement      | ΔV and ΔT between cursors   |            |                                      |          |
| Automatic measurement   | Vpp,Vavg,RMS,Frequency,Period,Vmax,Vmin,Vtop,Vbase,Width,Overshoot,Pre-shoot,Rise time, Fall time,+Width,-Width,+Duty,-Duty,Delay A→B,Delay A→B |            |                                      |          |
| Waveform Math           | +, -, ×, ÷, FFT   |            |                                      |          |
| Waveform storage        | 4 waveforms   |            |                                      |          |
| Trigger mode            | Auto, Normal, Single  |            |                                      |          |
| Lissajou's figure       | Bandwidth   | 25MHz      | 100MHz                               | 100MHz   |
|                         | Phase difference  | ±3 degrees |                                      |          |
| Communication interface | USB, Support USB Flash Disk Storage   |            |                                      |          |
| Cymometer               | Unavailable   | Available  |                                      |          |
| Power supply            | 100V-240V ACRMS, 50/60Hz, CAT II  |            |                                      |          |
| Battery                 | 7.4V 800mA  |            |                                      |          |
| Fuse                    | 1A, T grade , 250V  |            |                                      |          |

### Logic analyzer characteristics

| Model                    | MSO5022S  | MSO7102TD   | MSO8102T | MSO8202T | Data search            | Available      |
|--------------------------|---|-------------|----------|----------|------------------------|----------------|
| Sample rate (real time)  | 20S/s-200MS/s   | 20S/s-1GS/s |          |          | Digital filter         | 0,1,2 optional |
| Bandwidth                | 40MHz   | 200MHz      |          |          | Storage setting        | 10 settings    |
| Threshold voltage        | ±6V(4 settings)   |             |          |          | USB flash disk storage | Available      |
| Input signal range       | ±30V  |             |          |          |                        |                |
| Channels                 | 16  |             |          |          |                        |                |
| Record length            | 4M/channel  |             |          |          |                        |                |
| Input impedance          | 660k Ω ±5%/15±5pF   |             |          |          |                        |                |
| Trigger position setting | Pre-trigger, mid-trigger, re-trigger  |             |          |          |                        |                |
| Trigger mode             | Edge trigger, Bus trigger, Pattern trigger,Sequential queue trigger, Data width trigger,Distributed queue trigger |             |          |          |                        |                |
| Data System              | Binary system, Decimal system, Hex  |             |          |          |                        |                |

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### Application

Design and Debug      Circuit function test  
Identified signals logic information      Education & Training      Mixed signal circuit test

### Accessories

The receipt of accessories should be taken as final.

