

Micsig[®] powered by ...



Handheld-Oszilloskope

MS200/MS300/MS500-Serien

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Wir beraten Sie gerne!



Handheld Multifunctional Oscilloscope

MS200/MS300/MS500 Series

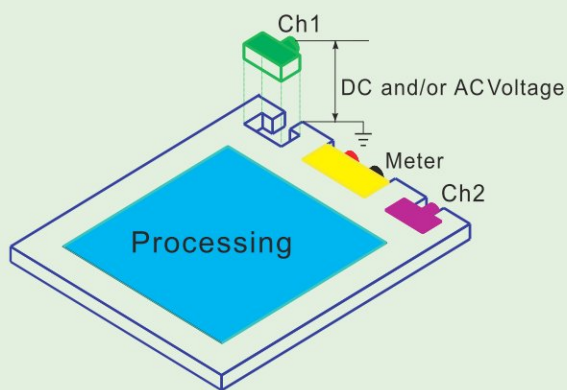


- 5.7 inches TFT LCD touch screen, 640*480 high resolution
- 70MHz~200MHz selectable bandwidth, up to 190,000wfms/s capture rate
- 1GS/s real time sampling rate, 240Kpts memory depth
- 3 Operation modes: Touch, Button, Scroll wheel
- Optional electronically isolated-inputs
- Integrate the functions of oscilloscope, multi-meter and recorder in one unit
- Up to 4~5H Li-ion battery persistence working time
- Support serial trigger and decode for UART/RS232/RS422/RS485, LIN, CAN, SPI, I²C
- Support I/O interface of USB, HDTV trigger for PAL,NTSC,SECAM,720P,1080I,1080P

Overview



◇ This series of handheld oscilloscope fit comfortably in one hand, It's an ideal choice in the field on electrical measurement , test and maintenance tasks.

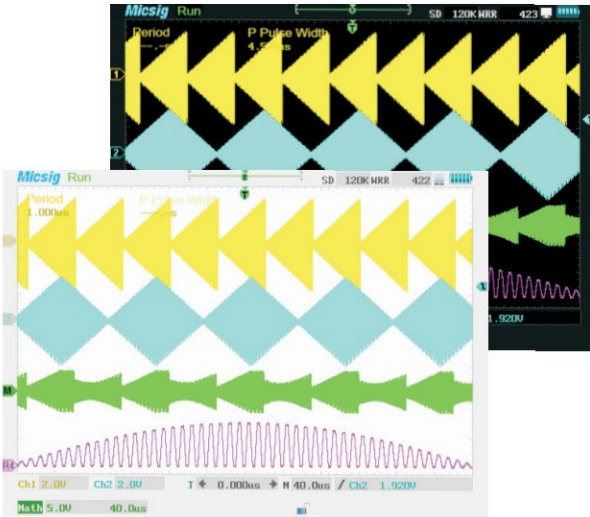


All isolated inputs allows independent floating measurements with each input.

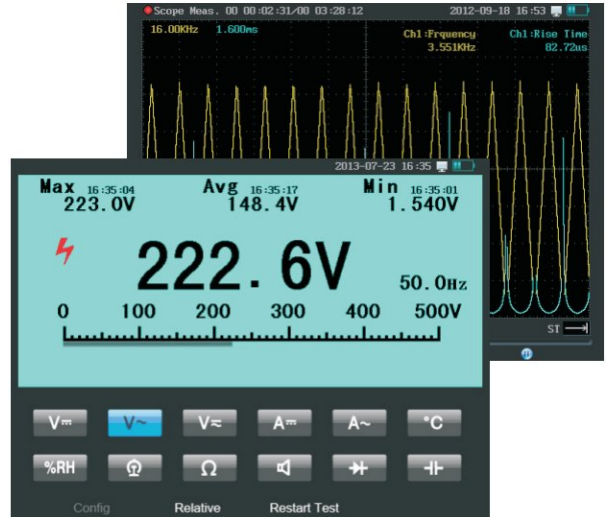


The functions of scopesuite include updating, real time control, measurement, storage, dynamic display, record, data analysis

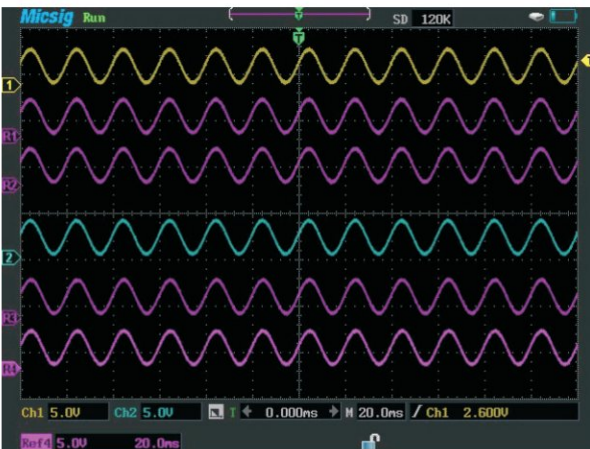
Feature



Indoor /Outdoor display mode



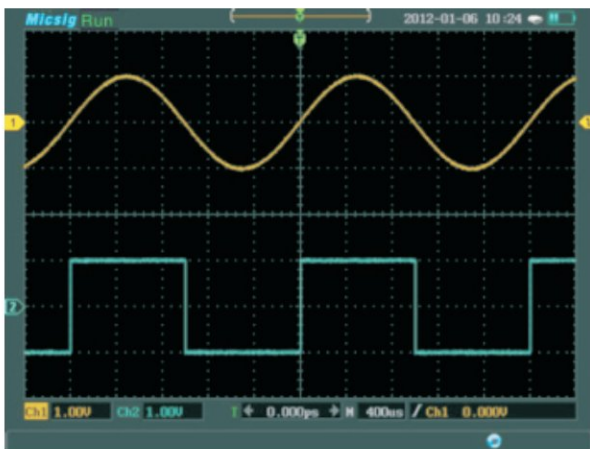
Multi-meter and recorder



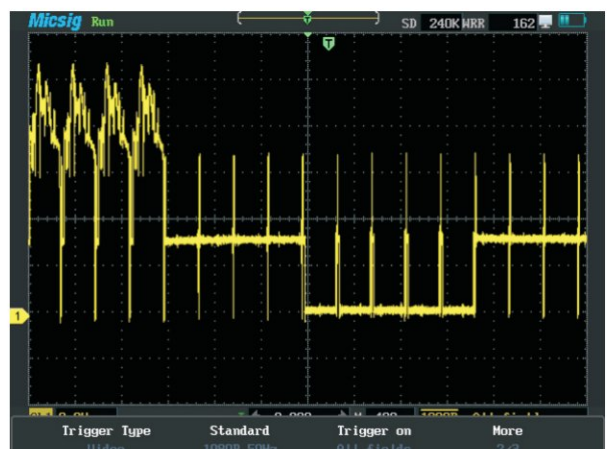
Users can choose 4 reference waveforms for comparison and analyze



31 types auto measurement, you can choose any four ones at one time just touch the marquee



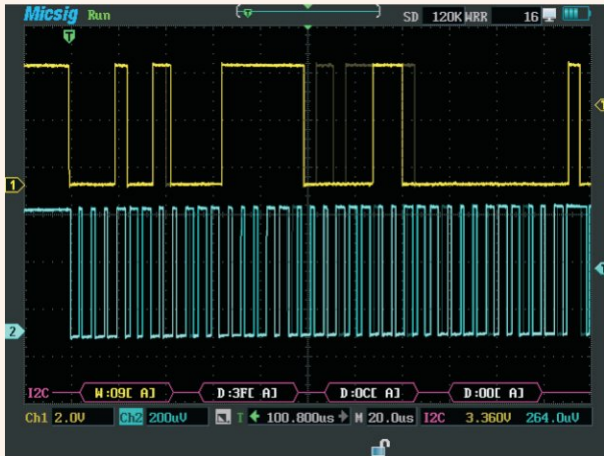
Connect to USB port to dynamically record waveforms



Support various video triggers, PAL,NTSC,SECAM,720P,1080I,1080P

Feature

Series bus trigger and decode (support UART/232/485/LIN/CAN/SPI/I²C)
 (MS510S/MS520S Standard. MS300 series, MS510IT/MS520IT Optional)



I2C serial bus decoding graphic mode

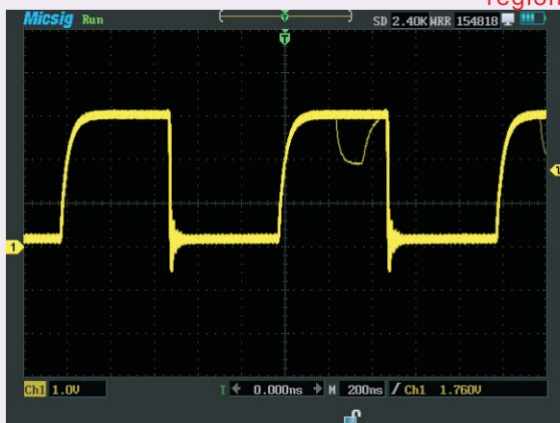
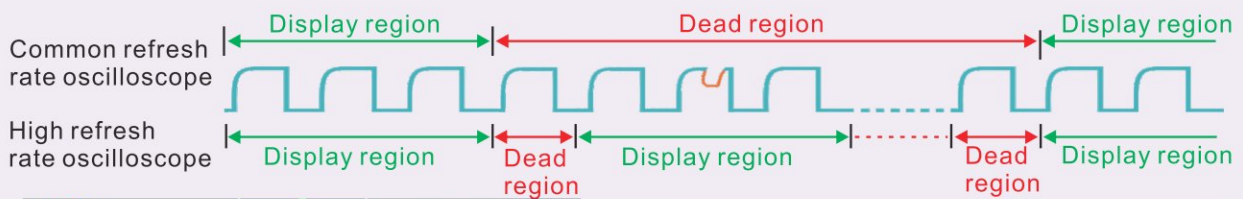
The screenshot shows the I2C serial bus decoding in text mode. It displays a table with columns: Time (ns), Addr, Data, Ack, Trig, and ReSet. The table contains 24 rows of data, including addresses like 50R, 09H, 50H and data bytes like 2B 2C 2D 2E 2F 30 31 32 33 34 35.

Time (ns)	Addr	Data	Ack	Trig	ReSet
0.64	50R	2B 2C 2D 2E 2F 30 31 32 33 34 35	X	Yes	Yes
14.21	09H	3F 36 00		Yes	
0.13	09H	3F		Yes	
0.13	09R	36 37	X	Yes	
0.13	50H	00 00		Yes	
0.64	50R	3B 39 3A 3B 3C 3D 3E 3F 40 41 42	X	Yes	Yes
14.21	09H	3F 43 00		Yes	
0.13	09H	3F		Yes	
0.13	09R	43 44	X	Yes	
0.13	50H	00 00		Yes	
0.64	50R	5F 60 61 62 63 64 65 66 67 68 69	X	Yes	Yes
14.21	09H	3F 6A 00		Yes	
0.13	09H	3F		Yes	
0.13	09R	6A 6B	X	Yes	
0.26	50H	00 00		Yes	
0.64	50R	6C 6D 6E 6F 70 71 72 73 74 75 76	X	Yes	Yes
14.21	09H	3F 77 00		Yes	
0.13	09H	3F		Yes	
0.13	09R	77 78	X	Yes	
0.13	50H	00 00		Yes	
0.64	50R	79 7A 7B 7C 7D 7E 7F 80 81 82 83	X	Yes	Yes

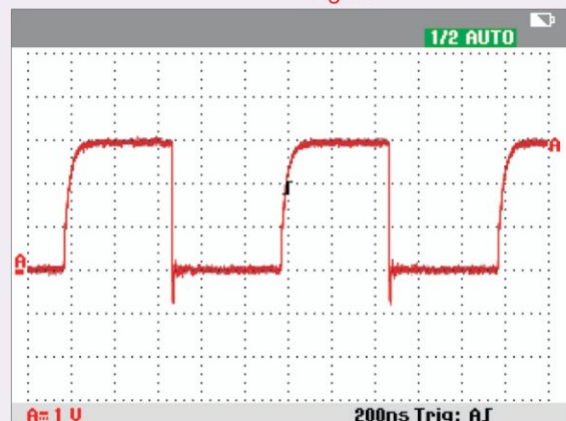
I2C serial bus decoding text mode

Waveform and data can be got in graphic mode; Address, ID, data, Calibration which makes up the frame are classified in text modem, and frame type and mistake can be satisfied, which can help users to debug and analyze the serial bus easier. What's more, the waveform and data can be transferred to a PC for your further analyze by a flash device

Up to 190,000 wfms/s capture rate, capture any random and infrequent events.



High refresh rate oscilloscope








Common refresh rate oscilloscope

Capture rate means how many waveforms acquisition per seconds your scope can acquire, process and display. Oscilloscope 'dead time' is the time it takes for scope to process and then display an acquired waveform before re-arming it's triggering for the next acquisition. The dead time of traditional oscilloscope is far more than 'display time', which results the signal occurred during dead time can't be captured. High capture rate product reduces dead time so that the abnormal signal could be caught fast and accurately.









Specification

Series	MS200 Series				MS300 Series		MS500 Series				
Model	MS207T	MS210T	MS215T	MS220T	MS310IT	MS320IT	MS510IT	MS520IT	MS510S	MS520S	
Bandwidth	70MHz	100MHz	150MHz	200MHz	100MHz	200MHz	100MHz	200MHz	100MHz	200MHz	
Rise-time	≤5ns	≤3.5ns	≤2.3ns	≤1.5ns	≤3.5ns	≤1.5ns	≤3.5ns	≤1.5ns	≤3.5ns	≤1.5ns	
Serial data decode	Not optional				Optional		Optional		Standard		
Isolated channel	Not support				Support		Support				
Max capture rate	50,000 wfms/s						190,000 wfms/s				
Real-time sampling rate	1GS/s single channel, 500MS/s two channels										
Memory depth	240Kpts										
Display											
Screen	5.7 inches touch screen, 640* 480 pixels display resolution, 12* 8 display range										
Format	YT, can be updated to XY						YT, XY				
Persistence	Auto, 100ms- 10s, or ∞										
Vertical system											
Input Channel	2 Oscilloscope channels, 1 multi-meter channel										
Bandwidth limitation	20MHz										
Coupling	DC, AC, GND										
Input impedance	1MΩ ± 1% ≈ 15pF ± 3pF										
Vertical scale	5mv/div to 50V/div										
Vertical resolution	8 bit										
Max input voltage	500V				600V CAT II 300V CAT III						
Isolated channel voltage	-				1000V CAT II 600V CAT III						
Max channel floating voltage	-				1000V CAT II 600V CAT III						
DC vertical offset accuracy	5mV/div to 50V/div, ±2%										
Horizontal system											
Horizontal range	4ns/div to 10s/div										
Time base accuracy	20ppm										
Sampling modes	Normal, Average, Peak, Envelop										
Reference waveform	4 waveforms can be set										
Trigger system											
Trigger types	Edge, Pulse, Logic, Serial data(UART/LIN/CAN/SPI/I2C)										
Coupling modes	DC, AC, HF Rej., LF Rej., Noise Rej.										
Trigger modes	Auto, Normal, Single										
Hold-off time	200ns to 10s										
Math	+, -, *, /, FFT(Rectangular/Hamming/BlackmanHarris/Hanning)										
Trigger source	CH1, CH2				CH1, CH2 (Ext trigger is optional)		CH1, CH2, Ext trigger				
Multi-meter											
Meter type	10 physical measurements						13 physical measurements				
Precision	5,000 counts										
Time base range	Meter: 10s/div to 20min/div, Scope: 10s/div to 20min/div, Waveform: 100us/div to 2min/div										
Other information											
Interface	USB Host, USB Slave(Connect to PC)										
Power adapter	Input: 100~240V AC, 50~60Hz, Output: 12V DC, 5A										
Battery	7.4V/6,000mAh capacity, continuous working time 4~5h										
Temperature/Humidity	-20°C~ + 50°C, <85% RH										
Dimension	254mm* 160mm* 60mm										
Weight	Main unit: 1380g, accessories: 691g, battery: 276g										

Standard Accessories

Items	Description	Items	Description
	Multimeter table pen line		Power adapter: Input: 100-240V AC, 50-60Hz, Output: 12V DC, 5A
	Banana jack		USB cable : Mini USB2.0
	7.4V/6000mAh lithium battery		Basic ScopeSuite Software

Optional Accessories

Items	Model No.	Description
 ScopeSuite Software	MS-UM-A002	Full Function Scopesuite Software
 Handbag	MS-HB-S001	Dimension: 300mmX410mmX130mm
 Suitcase	MS-SC-S001	WR-16 ABS anti-pressure seal suitcase
 Li-ion battery	MS-BA-S900	7.4V/9000mAh Li-ion battery
 Probe	MS-PR-1050	100MHz,150MHz,200MHz,300MHz, 10X:1
 HF current probe	MS-G105	DC: ~50MHz
	MS-G110	DC: ~100MHz
 AC/DC Current clamp	MS-V502	AC/DC 200A/20A
	MS-V601	AC/DC 600A
	MS-V701	AC/DC 400mA-4A-30A
 Serial bus decode module	MS-UART	Support UART/RS232/RS422/RS485, Graphic and Text display
	MS-LIN	Support LIN, Graphic and Text display
	MS-CAN	Support CAN, Graphic and Text display
	MS-SPI	Support SPI, Graphic and Text display
	MS-I2C	Support I2C, Graphic and Text display

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