



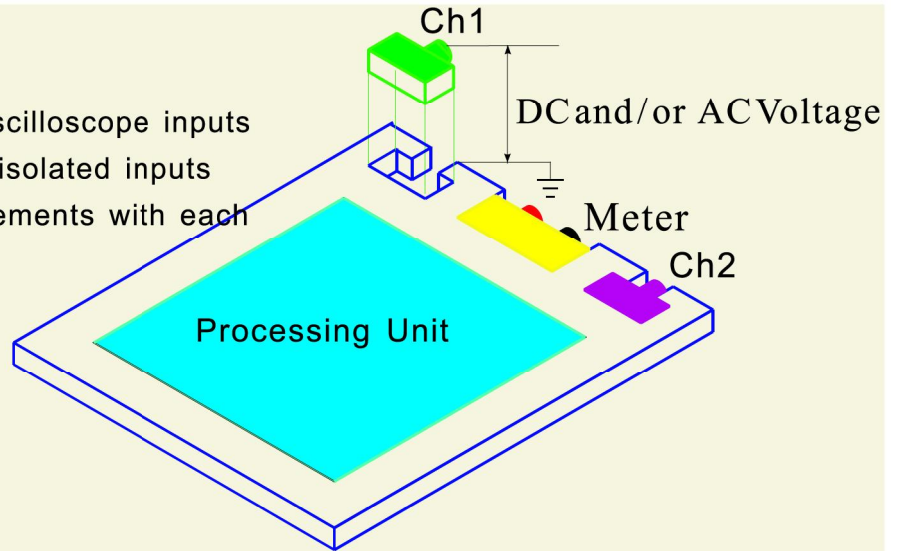
## Handheld Multifunctional Oscilloscope



- 5.7 inches TFT LCD touch screen, 640\*480 high resolution
- 70MHz~200MHz selectable bandwidth
- 1GSa/s real time sampling rate, 240Kpts memory depth
- Optional electronically isolated-inputs, up to 190,000wfms/s refreshing rate
- Integration the functions of oscilloscope, multi-meter and recorder
- Up to 4~5H Li-ion battery persistence working
- Support serial protocol trigger and decode for UART/RS232/RS422/RS485, LIN, CAN, SPI, I2C, 1553B, 429
- Support I/O interface of USB Slave and USB Host, HDTV trigger for PAL, NTSC, SECAM, 720P, 1080I, 1080P

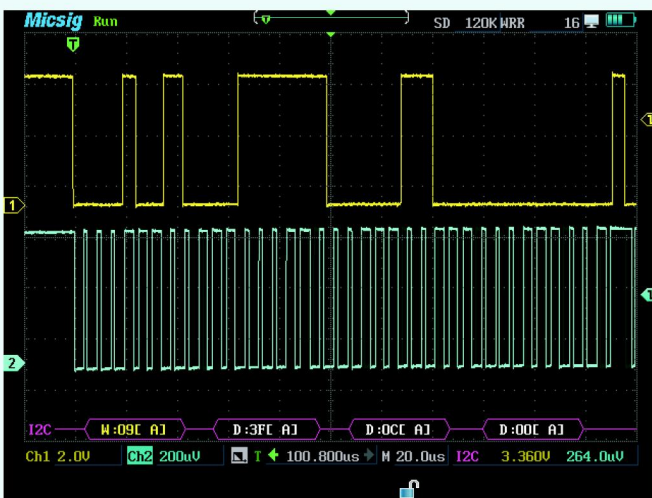
# ◆ Features

Three isolated inputs include two oscilloscope inputs and one multi-meter input, and all isolated inputs allows independent floating measurements with each input.



Three operation modes for moving waveform, zooming in and out, and using menu by touch, button and scroll wheel.

## Series bus trigger and decode (support 1553B/429/UART/232/485/LIN/CAN/SPI/12C)



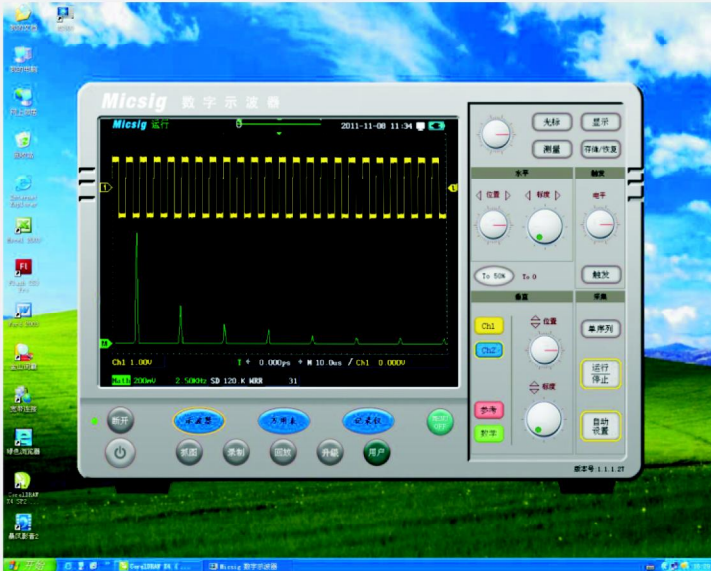
I2C serial bus decoding graphic mode

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	09W	3F 36 00		Yes	
0.13	09W	3F		Yes	
0.13	09R	36 37	X	Yes	
0.13	50W	00 00		Yes	
0.64	50R	38 39 3A 3B 3C 3D 3E 3F 40 41 42	X	Yes	Yes
14.21	09W	3F 43 00		Yes	
0.13	09W	3F		Yes	
0.13	09R	43 44	X	Yes	
0.13	50W	00 00		Yes	
0.64	50R	5F 60 61 62 63 64 65 66 67 68 69	X	Yes	Yes
14.21	09W	3F 6A 00		Yes	
0.13	09W	3F		Yes	
0.13	09R	6A 6B	X	Yes	
0.26	50W	00 00		Yes	
0.64	50R	6C 6D 6E 6F 70 71 72 73 74 75 76	X	Yes	Yes
14.21	09W	3F 77 00		Yes	
0.13	09W	3F		Yes	
0.13	09R	77 78	X	Yes	
0.13	50W	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

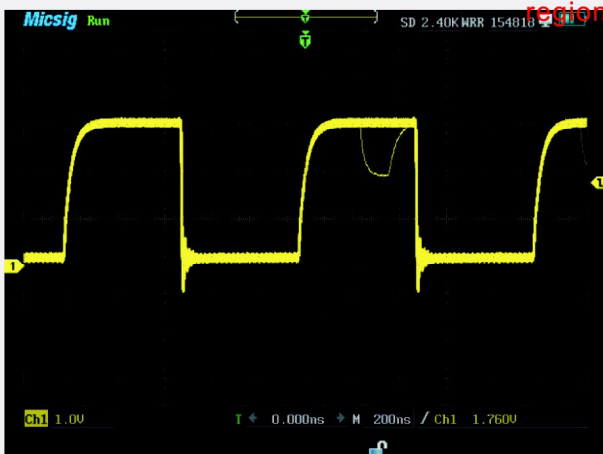
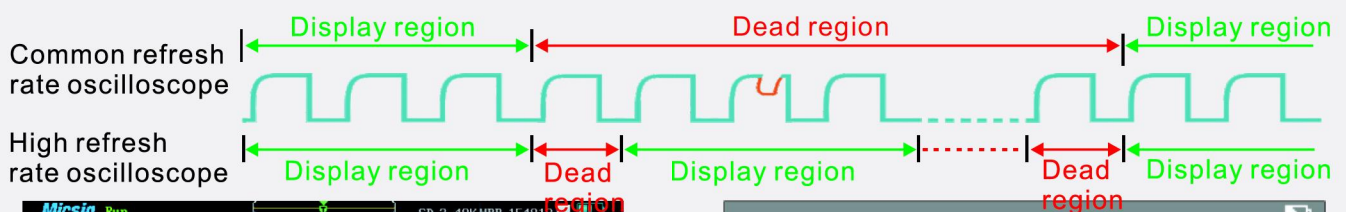
Waveform and data can be got in graphic mode : while in text mode , address , ID, data , examination which makes up the frame are classified , Also frame type and mistake can be satisfied , which helps users to debug and analyze the serial bus easier , and waveform data can be transferred to a PC by a flash device.

# ◆ Features

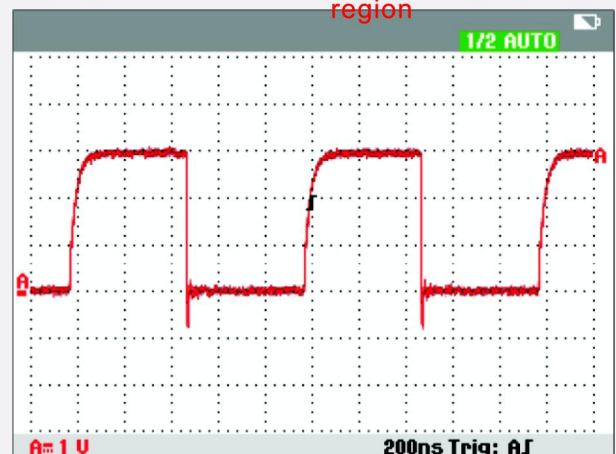


The ScopeSuite of Micsig's software functions include updating, real time control, measurement, storage, dynamic display, record, and data analysis.

Up to 300,000wfms/s refreshing rate, capture the invisible abnormal signal



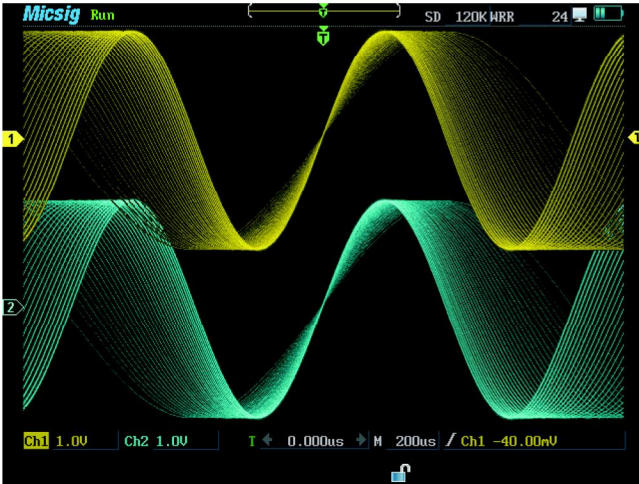
High refresh rate oscilloscope



Common refresh rate oscilloscope

Waveform refresh rate offers how many waveforms display in a minute, "Dead zone" of oscilloscope is the time of processing and displaying the waveform which have been captured, during the time oscilloscope sacrifices any waveforms. The time of "dead zone" is far more than "display zone" for common oscilloscope, which results to signals can not be displayed in most time, so abnormal signals escaped. High refresh rate oscilloscope reduces the "dead zone" time, and abnormal signals can be caught fast and accurately.

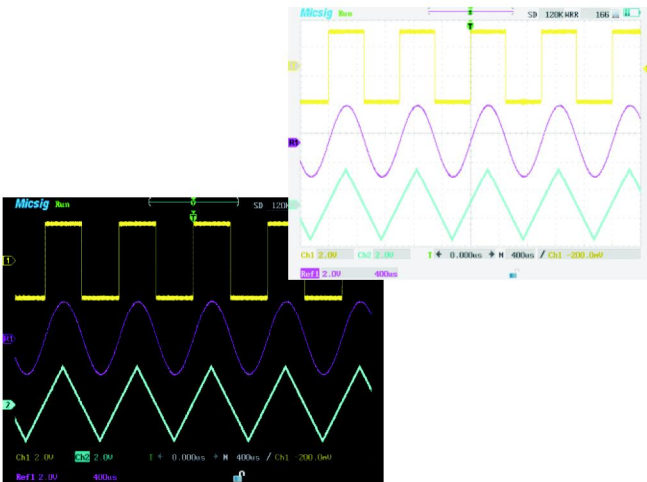
# ◆ Features



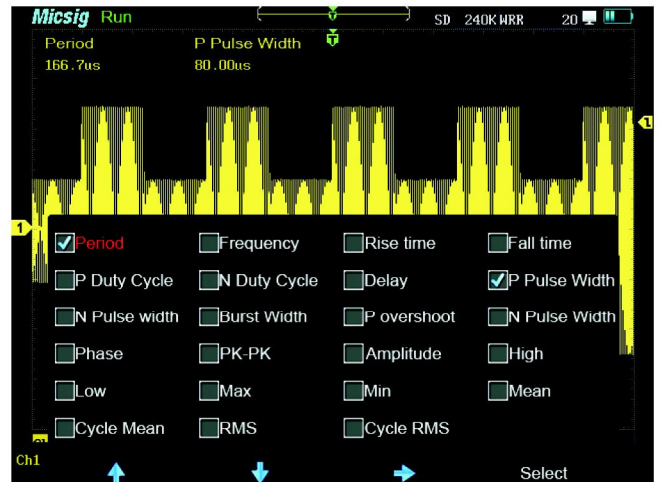
640\*480 high resolution



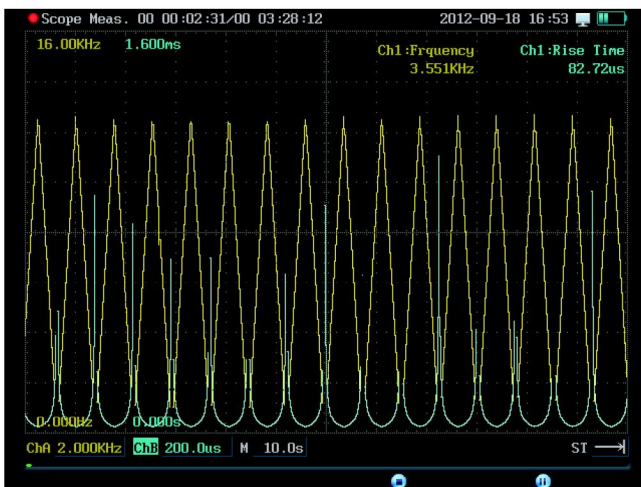
Support various video triggers, PAL,NTSC,SECAM,720P,1080I,1080P



Indoor display mode  
Outdoor display mode



31 types auto measurements



Integrate the oscilloscope, multi-meter and recorder in one, support multi-meter recording, DSO measurement recording and DSO waveform recording, and include 13 measurement types.

# Micsig Handheld Multifunctional Oscilloscope

Series	MS200 Series	MS300 Series	MS500 Series
<b>General information</b>			
Bandwidth	70MHz/100MHz/150MHz/200MHz	100MHz/200MHz	100MHz/200MHz
Model <small>T*means touch operation</small>	MS207/MS210/MS215/MS220 MS207T/MS210T/MS215T/MS220T	MS310IT/MS320IT	MS510IT/MS520IT MS510S/MS520S
Isolated channel	Not support	Support	Support
Rise-time	≤3.5ns/1.75ns		
Real-time sampling rate	1GS/s single channel, 500MS/s two channel		
Max refresh rate	/	Up to 50,000 wfms/s	190,000 wfms/s
Serial data decode	Not support	Not support	Support
Memory depth	240Kpts		
<b>Display</b>			
Screen	5.6 inches/Touch screen	5.7 inches, Touch screen	5.7 inches, Touch screen
Display resolution	640*480		
Display range	12*8		
Format	YT, Can be updated to XY	YT, Can be updated to XY	YT/XY
Persistence	Auto, 100ms-10s, or ∞		
<b>Vertical system</b>			
Input Channel	2 Oscilloscope channels and 1 multi-meter channel		
Bandwidth limitation	20MHz		
Coupling	DC, AC, GND		
Input impedance	1MΩ±1%≈15pF±3 pF		
Vertical scale	5mV/div to 50V/div		
Vertical resolution	8bit		
Max input voltage	500V	600V CATII 300V CATIII	600V CATII 300V CATIII
Isolated channel voltage	/	1000V CATII 600V CATIII	600V CATII 300V CATIII
Max channel floating voltage	/	1000V CATII 600V CATIII	600V CATII 300V CATIII
DC vertical offset accuracy	5mV/div~50V/div, ±2%		
<b>Horizontal system</b>			
Horizontal range	4ns/div~10s/div		
Time base accuracy	20ppm		
Sampling cfg	Normal, average, peak, envelop		
Reference waveform	4 sets optional, upgrade to USB		
<b>Trigger system</b>			
Trigger types	Edge, Pulse, Logic, Serial data (UART LIN CAN SPI I2C 1553B 429)		
Coupling modes	DC, AC, HF Rej, LF Rej, Noise Rej		
Trigger modes	Auto, normal, single		
Hold-off time	200ns-10s		
Math	+, -, *, /, FFT		
<b>Multi-meter</b>			
Meter Type	10 physical measurements (200, 300) / 13 physical measurements (500)		
Precision	4 bits		
Time base range	Meter: 10s/div-20min/div scope: 10s/div-20min/div waveform: 100us/div-2min/div		
<b>Other information</b>			
interface	USB HOST, USB SLAVE (Connect to PC)		
Power adapte	Input: 100-240VAC, 50-60Hz 2A, Output: 12VDC, 5A		
Battery	Capacity 7.4V/6000mAh, continuous working time 4-6 H		
Temperature/Humidity	-20°C~+50°C, <85%RH		
Dimension	254mmx160mmx60mm		
Weight	Main unit: 1380g accessories: 691g battery: 276g		

## ◆ Accessories



Power Adapter



10X Probe



Multimeter Pen



USB Cable



Li-ion battery



ScopeSuite Software



CD



Handbag



Suitcase

Optional accessories	Oscilloscope active probe	MS-PR-2010	1GHz Active probe	
	AC/DC Current clamp	MS-C502 MS-C601 MS-C701	AC/DC 200A/20A AC/DC 600A AC/DC 400mA-4A-30A	
	Suitcase	MS-SC-S001	WR-16 ABS anti-pressure seal suitcase	
	Handbag	MS-HB-S001	dimension:300mmX410mmX130mm	
	Li-ion battery	MS-BA-S900	7.4V/9000mAh Li-ion battery	
	Temperature & humidity sensor	MS-A130 MS-A230 MS-A430	Temperature & humidity transmitter probe Anti-condensation temperature & humidity sensor probe Standard and handheld temperature probe	
	Temperature sensor	MS-T200 MS-T300	Integrated Temperature Transmitter Compact integrated temperature transmitter	
	Pressure-transmitter	MS-P100 MS-P200S	Universal pressure-transmitter High accuracy pressure-transmitter	
	HF current probe	MS-G105	DC: ~50MHz	MS-G110 DC: ~100MHz
	Micsig ScopeSuite software	MS-UM-A002	Full version of PC based demo software	
	UART Serial data decoding module	Support serial data trigger and decode for UART/RS232/RS422/RS485,Graphic and Text display		
	LIN Serial data decoding module	Support serial data trigger and decode for LIN,Graphic and Text display		
	CAN Serial data decoding module	Support serial data trigger and decode for CAN,Graphic and Text display		
	SPI Serial data decoding module	Support serial data trigger and decode for SPI,Graphic and Text display		
	I2C Serial data decoding module	Support serial data trigger and decode for I2C,Graphic and Text display		
	1553B Serial data decoding module	Support serial data trigger and decode for 1553B,Graphic and Text display		
	429 Serial data decoding module	Support serial data trigger and decode for 429,Graphic and Text display		

**Micsig**™

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