

Smart Oscilloscope

STO1000C series

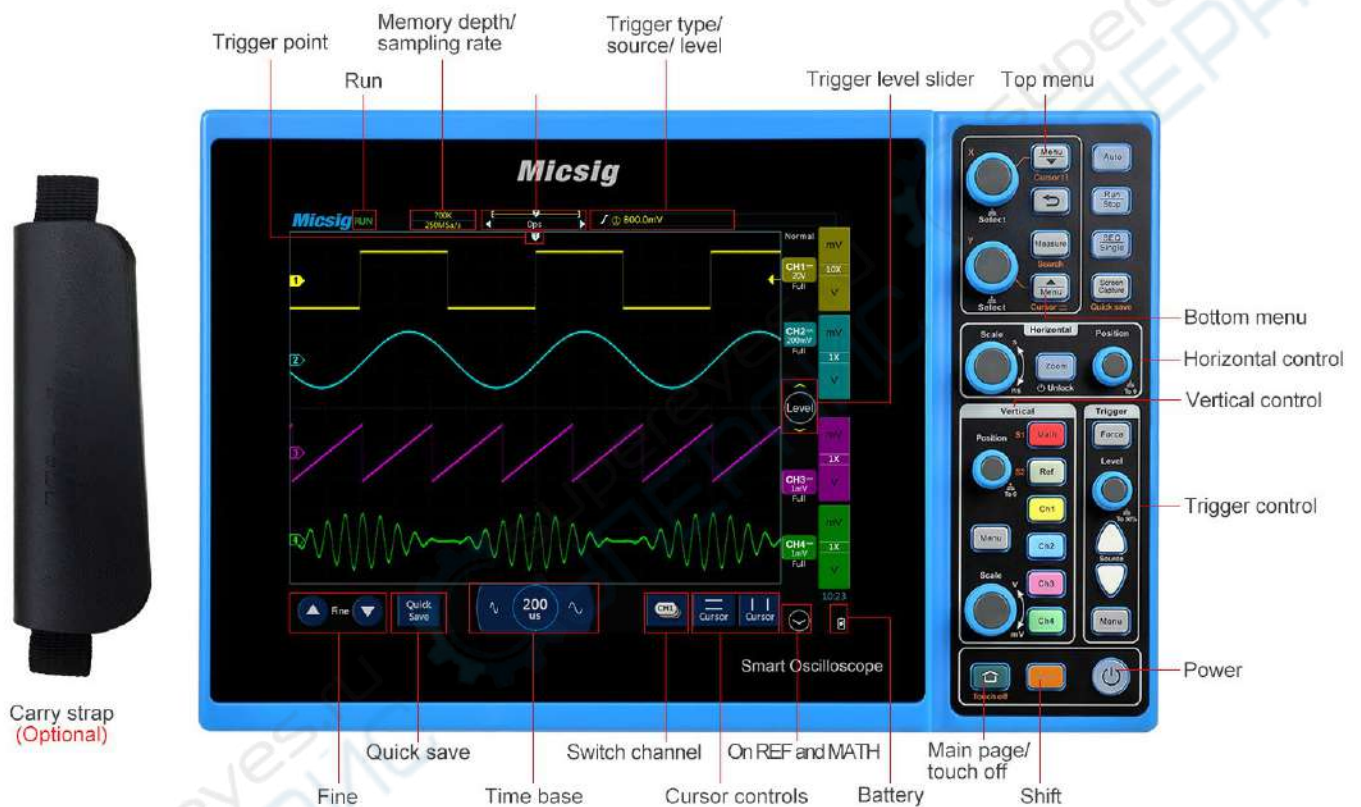


- Bandwidth up to 150MHz, 1 GSa/s Sample Rate
- Up to 28Mpts Sample Memory Depth, 2/4 Channel Selectable
- 80,000 Waveforms per Second
- 8 inch Full Capacitive Touch Display
- 256-level Intensity Grading and Color Temperature Display
- High Quality Buttons and Knobs for Simple and Smart Operation
- 8GB Flash Memory with Unique File Management System for Easy Waveform Data Storage and Transfer
- Video Recording Function
- Ethernet and WiFi Network Access
- HDMI Port for External Display
- Remote Control using iOS and Android APP

Innovation, makes test simpler.

Micsig STO1000C Series Smart Oscilloscope offers a modern user experience by combining a full touch capacitive display with traditional buttons and knobs.

Deep Sample Memory (Up to 28Mpts) and 80,000 Waveforms per second capture rate help you diagnose problems more easily. STO1000C Series offers advanced features with entry level pricing.



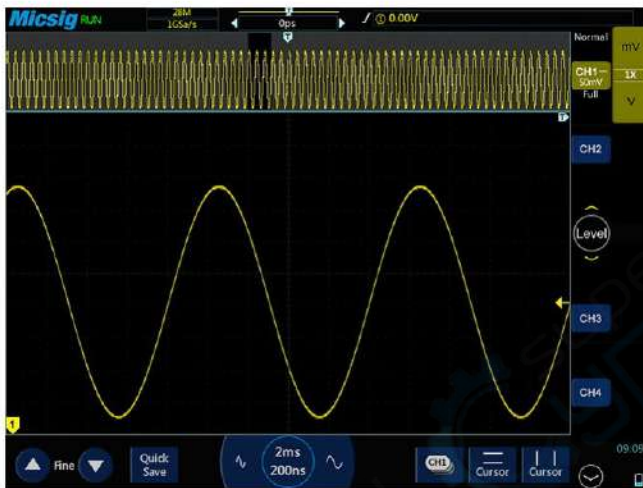
Dimension: 280*180*50mm

Weight: 4CH Oscilloscope 1425g Battery 320g

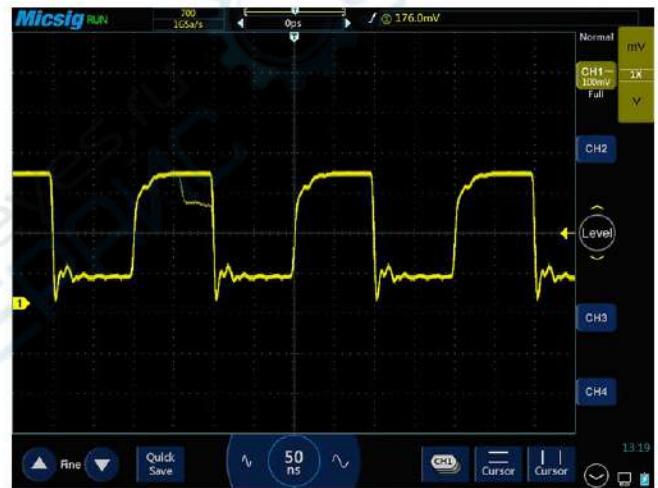
Specification

Model	STO1102C	STO1104C	STO1152C
Bandwidth	100MHz	100MHz	150MHz
Input channel	2	4	2
Sample rate	1G Sa/S	1G Sa/S	1G Sa/S
Memory depth	28Mpts	28Mpts	28Mpts
Max capture rate	80,000 wfm/s	80,000 wfm/s	80,000 wfm/s
Bandwidth limitation	20MHz,high pass, low pass		
Interface	Wi-Fi,LAN,HDMI,USB Host,USB Device,DCPower,Trigger out		
Screen	8 inches TFT LCD, 800*600 pixels display resolution,14*10 grids		
Battery(optional)	Built-in lithium battery, working time is up to 5 hours continuously		

Features and benefits



Up to 28Mpts memory depth, Zoom into a selected part of the captured waveforms to get more details.



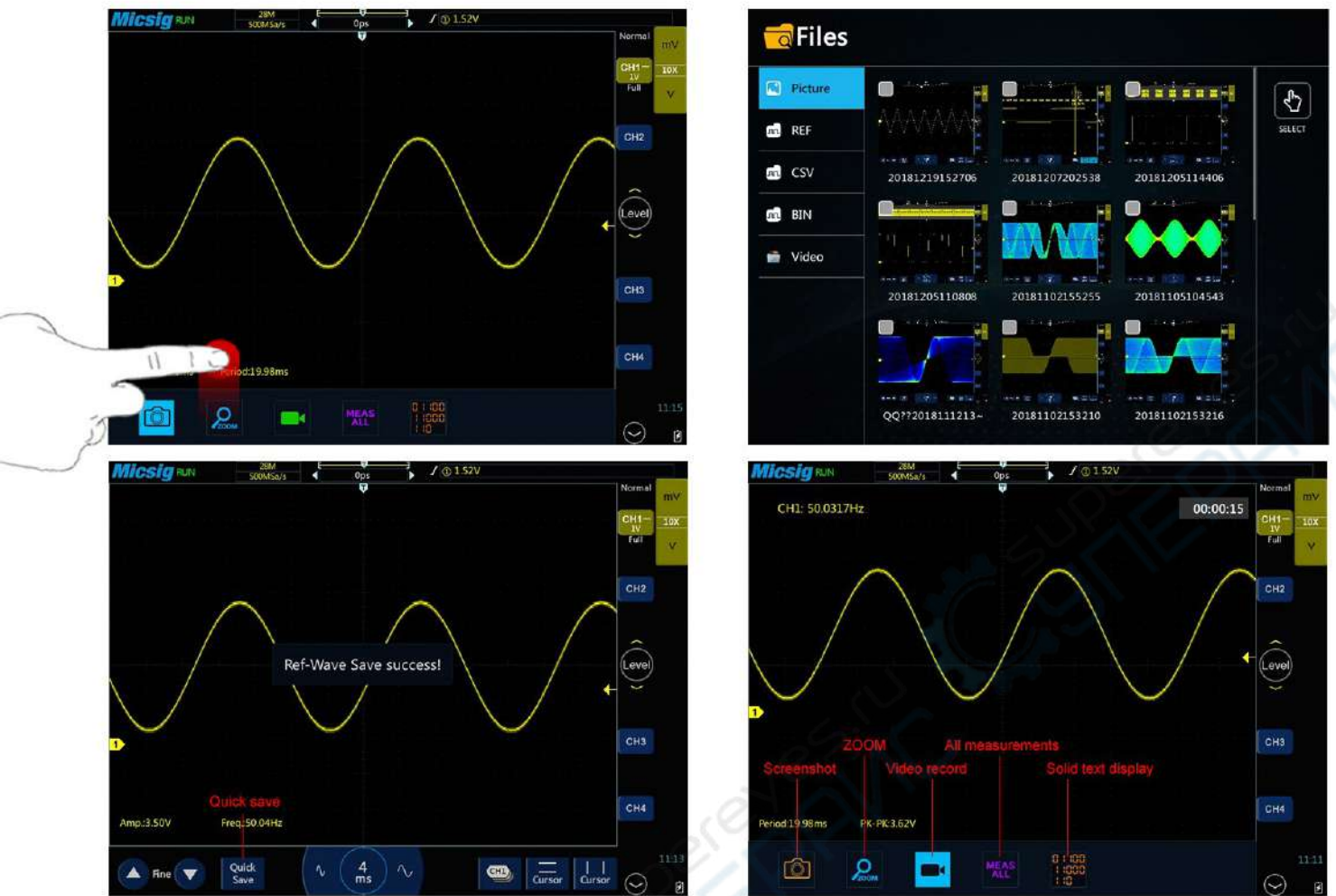
Maximum 80,000wfm/s capture rate. By increasing the waveform capture rate, you see a more complete picture of what is going on with the signal.




Support serial triggering and decode (I2C, SPI, RS232/UART, CAN, LIN) and Aerospace and defence (MIL-STD 1553, ARINC 429). Two formats to display decoding, text and graphic.



31 automatic measurements. Various automatic measurements can meet different measurement demand. It can be display all in one page.



 Built in 8G storage and unique file management system. Support video record, quick save, screen shot, one button fast operation



 Unique oscilloscope mobile APP and PC software via Wi-Fi, USB, Wi-Fi LAN and LAN connection. Support transfer data from scope to PC via Wi-Fi and USB. Support Micro HDMI to connect scope and display directly.

Specifications

All specifications apply to all models unless noted otherwise.

Horizontal system

Time base range	2ns/div to 1ks/div
Time base delay range	-14 divisions to 14ks
Clock skew	$\leq \pm 2\text{ppm/Year}$
Time based accuracy	$\pm 20\text{ppm}$

Vertical system

Bandwidth limitation	20MHz high pass, low pass
Input coupling	DC, AC, GND
Input impedances	$1\text{M}\Omega \pm 1\% 14.5\text{pF} \pm 3\text{pF}$
Vertical resolution	8bits
DC gain accuracy	$< \pm 2\%$ ($1\text{M}\Omega$)
Vertical scale	1mV/div to 10V/div ($1\text{M}\Omega$)
Channel to channel	$\geq 40\text{dB}$ (100:1)
Offset range	$\pm 6\text{div}$
Maximum input voltage	CAT I 300V ($1\text{M}\Omega$)

Trigger system

Trigger mode	Normal, Auto, Single
Trigger coupling	DC, AC, HF reject($> 50\text{KHz}$), LF reject($< 50\text{KHz}$), noise reject
Hold off range	200ns to 10s
Trigger type	
Edge	Positive, negative, or either slope on any channel input. Coupling includes DC, AC, HF reject, LF reject, and noise reject.
Pulse Width	Trigger on width of positive or negative pulses that are $>$, $<$, $=$, \neq , or inside/outside a specified period of time (8ns~10s).
Logic	Trigger when any logical pattern of channels goes false or stays true for specified period of time (8ns~10s). Any input can be used as a clock to look for the pattern on a clock edge. Pattern (AND, OR, NAND, NOR) specified for all input channels defined as High, Low, or None.
Video trigger	Trigger on all lines or individual lines, odd/ even or all fields on 625/PAL, SECAM, 525/NTSC, 720P, 1080I, 1080P video signals.
Time out	Trigger on an event which remains high, low, oreither, for a specified time period.
Slope	Positive slope (Great than, lower than, within specific interval) Negative slope (Great than, lower than, within specific interval)
Runt	Trigger on a pulse that crosses one threshold but fails to cross a second threshold before crossing the first again. Event can be time- or logic qualified.
N Edge	Edge type: Rising, falling, idle time: 8ns to 10s, number of edges 1 to 65535.
UART	Trigger on UART(RS232/RS422/RS485) signals on Start Bit, Stop Bit, Data, [0:Data], [1:Data], [x:Data], and Parity Error.
LIN	Trigger on LIN signals on Sync-Rising, Frame ID, and ID+Data.
SPI	Trigger on SPI signals on CS, Data, and X:Data.
CAN	Trigger on CAN signals on F.Start, Remote ID, Data ID, R/D ID, ID+Data, Wrong F., All Error, ACK Error, and Over Load.
I2C	Trigger on I2C signals on Start, Stop, LostACK, Restart, NoACKInAdr, Frame1, Frame2, RomData, and 10 WriteFrame.
1553B	Trigger on 1553B signals on C/S Sync, Data Sync, C/S Word, RT Addr, M-Code Err, Data Word, Parity Err, and All Err.
ARINC 429	Trigger on ARINC 429 signals on WordBegin, WordEnd, Label, SDI, Data, SSM, Label+SDI, Label+ Data, Label+ SSM, Word Err, Gap Err, Parity Err, All Err, All 0, and All 1.

Sampling system	
Sampling mode	Real time sample rate
Peak sampling	
Sample rate 1G Sa/s	All the sampling glitches in scanning rate are narrow to single channel 1 ns, dual channel 2 ns .four channel 4ns
Max duration in the max sampling rate	
Sample rate 1G Sa/s	28/14ms
Sample rate 500MSa/s	56/28ms
Sample rate 250MSa/s	56/28ms
Average	Average of sampling for N times N is chosen from 2, 4, 8, 16, 32, 64, 128, 256
Envelope	Envelope of sampling for N times N is chosen from 2, 4, 8, 16, 32, 64, 128, 256, ∞
Waveform measurement	
Cursor	Horizontal Cursor, Vertical Cursor, Cross Cursor
Auto measurements	23, of which up to ten can be displayed on-screen at any one time. Measurements include: Period, Frequency, Rise Time, Fall Time, Delay, Positive duty Cycle, Negative Duty Cycle, Positive Pulse Width, Negative Pulse Width, Burst Width, Positive Overshoot, Negative Overshoot, Phase, Peak to Peak, Amplitude, High, Low, Max, Min, Mean, Cycle Mean, RMS, Cycle RMS.
Waveform math	
Dual Waveform FFT	Add, subtract, multiply, and divide waveforms
FFT	Spectral magnitude. Set FFT Vertical Scale to Linear RMS or dBV RMS, and FFT Window to Rectangular, Hamming, Hanning, or Blackman-Harris.
Display system	
Display type	8" TFT LCD Multi point capacitive screen
Display resolution	800*600
Max touch point on touch screen	5 points
Operation way	Full touch, Mouse
Afterglow time	None, Auto, 100ms to 10s, ∞
Time Base format	YT, XY, Roll, Zoom
Expansion bench mark	Center, Trigger Position
Waveform display	Brightness is adjustable, point ,Line
Grid	14*10 div, Brightness of the grid is adjustable
Grey level	256 level
Language	English, Simplified Chinese. For more languages please contact Micsig
Color temperature display	Support
Storage	
Storage media	Native, U Disk
Built-in memory	8G
Storage format	Csv, wav, bin
Waveform quantity	Unlimited
Waveform storage name	Support
Display the reference waveform quantity	4 piece
Screenshot	Support
User name setting	Support
Flash format	Comply with industry standards
Power source	
Power source voltage	100 to 240V AC, 50/60Hz
Power consumption	< 60W
Fuse	12V DC, 5A
Battery(Optional)	7.4V 7500mAh, rechargeable lithium battery

Interface			
USB Host	Connect USB mass storage device (R/W)		
USB Device	Connect to PC for remote access		
DC interface	For charging		
Probe calibration Port	1KHz, 2Vpp		
LAN	Included		
HDMI	Optional		
Wi-Fi	Optional		
Environment			
Temperature			
Operating	0°C to 45°C		
Non-operating	-40°C to 60°C		
Humidity			
Operating	5% to 85%, 25°C		
Non-operating	5% to 90%, 25°C		
Altitude			
Operating	< 3000m		
Non-operating	< 12000m		
Physical characteristics			
Dimensions			
Length	280mm		
Width	180mm		
height	50mm		
Weight			
Net	2CH Bare	1340g	
	4CH Bare	1425g	
Shipping	2CH Bare	2745g	
	4CH Bare	2930g	
Battery	320g		
Ordering Information			
	Description	Order Number	
Model	STO1102C (100 MHz, 2 CH)	STO1102C	
	STO1104C (100 MHz, 4 CH)	STO1104C	
	STO1152C(150 MHz, 2 CH)	STO1152C	
Standard Accessories	Smart tablet oscilloscope	See model	
	Localized power cord	MS-Cable	
	Power adapter	MS-PA-1205	
	Probes(quantity depends on the oscilloscope channel)	MS-PR-P130A	
	BNC	MS-Cap	
	Auto Range	MS-Auto Range	
	Frequency Meter	MS-Frequency Meter	
	WLAN	MS-WLAN	
	High/Low pass	MS-High/Low pass	
Hardware Optional Accessories	Smart tablet oscilloscope battery	MS-BA	
	Carry strap	MS-Belt	
	Screen Protector Film	MS-Mask	
	Oscilloscope Handbag	MS-Handbag	
Software Optional Accessories	HDMI+HDMI cable	MS-HDMI	
	Serial bus decode: UART, CAN, LIN, SPI, I2C, 1553B, 429	MS-decode	
Warranty	Repair Service 3 Years (including warranty). Probes and accessories are not covered by the oscilloscope warranty and service offerings. Refer to the datasheet of each probe and accessory model for its unique warranty and calibration terms.		

Micsig products catalogue index

Tablet Oscilloscope
TO1000 series



70/100/150MHz, 2/4CH

Handheld Oscilloscope
MS200/MS300/MS500 series



70/100/150/200MHz, 2CH

Automotive Tablet Oscilloscope
ATO1000 Series



100MHz, 2/4CH

High Voltage Differential Probes
DP10013



100MHz, 1300V

High Voltage Differential Probes
DP20003



100MHz, 5600V

AC Current Probe
ACP1000



10Hz-100kHz, 0.1A-1000A



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