Micsig®

Tablet Oscilloscope

tBook mini TO1000series

70MHz, 100MHz and 150MHz bandwidth, 2 or 4 analog channels

1 GSa/s real-time sample rate

14Mpts or 28Mpts memory depth

Up to 80,000wfm/s waveform capture rate

Up to 5 hours optional Li-ion battery (Options)

8''TFT LCD & 800*600 pixels high resolution Multi-touch capacity screen

Support serial bus trigger and decoding UART, I2C, SPI, CAN and LIN(Options)

Gradient waveform display with 256 intensity levels

7 types of trigger function: Edge, Pulse, Logic, Time Out, Runt, Slope, N Edge, and Video

Built-in 8G storage capacity, waveforms and screenshots can be viewed and edited in scope

Various I/O port, LAN, Wi-Fi, USB2.0, USB Device, HDMI, Trigger out

Support Android and iOS Application and PC software ware remote control

www.micsig.com

Innovation, makes test simpler.

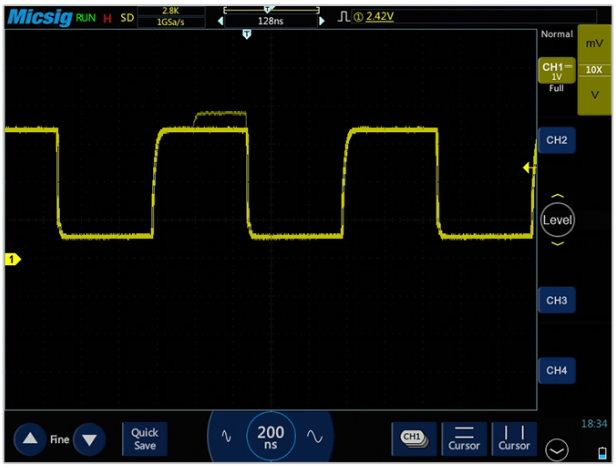
Compared with traditional oscilloscope, Micsig tablet oscilloscope will bring you new operation experience and it will make your test and measurement work simpler & easier.

Micsig tBook mini TO1000 series is an entry level digital oscilloscope that will meet your requirements for excellent performance at an ultra-low price point. A portable and sleek design saves previous space on your workbench. Using high resolution multi-touch capacitive screen with intuitive menus, the TO1000 series is engineered to deliver a truly state-of-the-art experience.

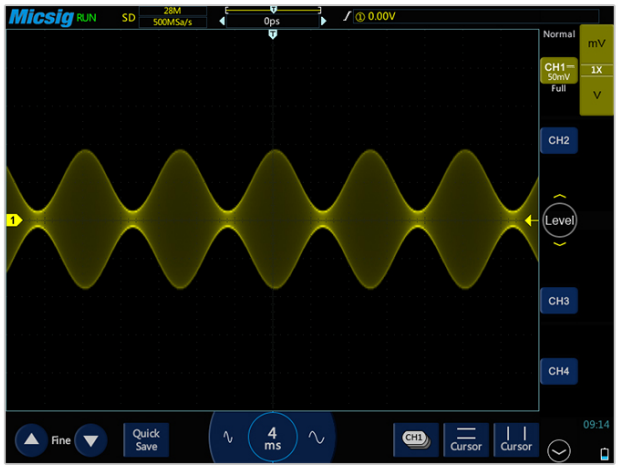
Specification

Model	TO1072	TO1074	TO1102	TO1104	TO1152
Bandwidth	70MHz	70MHz	100MHz	100MHz	150MHz
Rise time	≤5ns	≤5ns	≤3.5ns	≤3.5ns	≤2.3ns
Input channel	2	4	2	4	2
Sample rate	1G Sa/S	1G Sa/S	1G Sa/S	1G Sa/S	1G Sa/S
Memory depth	14Mpts	14Mpts	28Mpts	28Mpts	28Mpts
Max capture rate	80,000 wfm/s	80,000 wfm/s	80,000 wfm/s	80,000 wfm/s	80,000 wfm/s
Bandwidth limitation	20MHz	20MHz	20MHz,high pass, low pass	20MHz,high pass, low pass	20MHz,high pass, low pass
Interface	Wi-Fi,LAN,HDMI,USB Host,USB Device,GND,DCPower,Trigger out				
Screen	8 inches TFT LCD 800*600 pixels display resolution,14*10 grids				
Dimension	250*200*55mm				
Battery(optional)	Built-in lithium battery, working time is up to 5 hours continuously .				
	TO1000 plus version include battery,screen mask,carry strap.				

Features and benefits

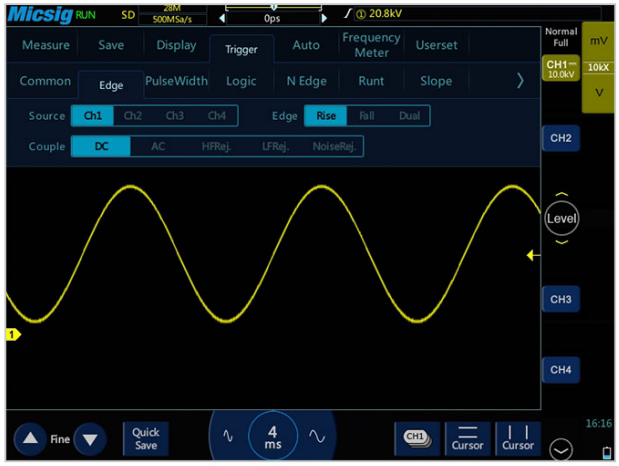


Up to 80,000wfm/s capture rate

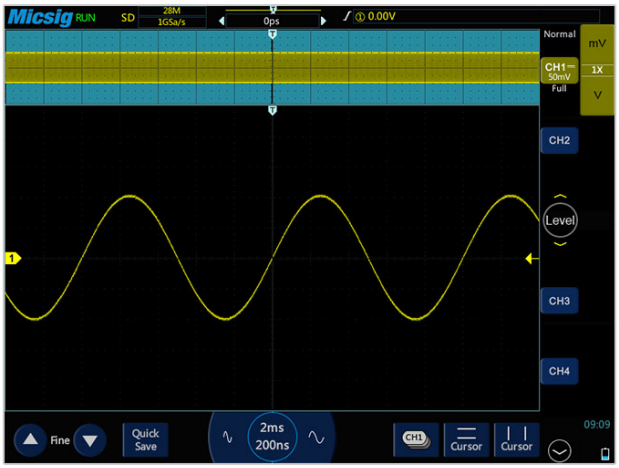


Gradient waveform display with 256 intensity levels

31 types of auto measurements



Various trigger functions

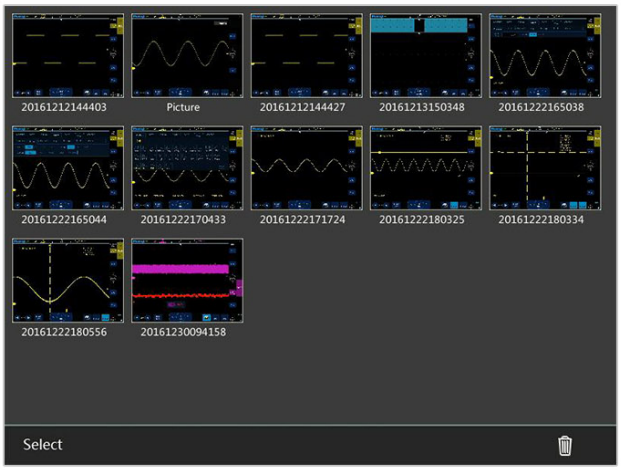


Up to 28Mpts memory depth

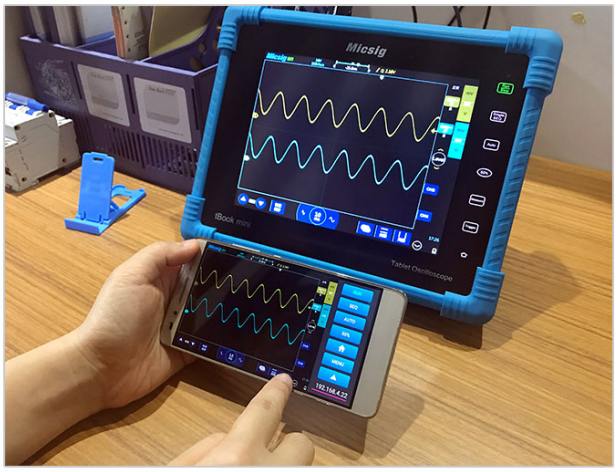
Quicksave

Free PC software

Mouse operation



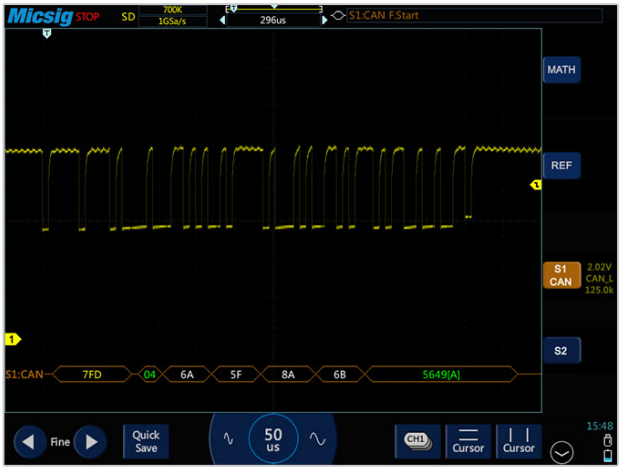
8G built-in storage memory



App(Android)

Optional software accessories

HDMI



UART/RS232/RS422/RS485,LIN,CAN, SPI,I2C

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	≤±2ppm/Year
Time based accuracy	±20ppm

Vertical system		
Bandwidth limitation	20MHz(TO1072/TO1074)	20MHz high pass, low pass(TO1102/TO1104/TO1152)
Input coupling	DC, AC, GND	
Input impedances	1MΩ±1%||14.5pF±3pF	
Vertical resolution	8bits	
DC gain accuracy	< ±2% (1MΩ)	
Vertical scale	1mV/div to 10V/div (1MΩ)	
Channel to channel	≥40dB (100:1)	
Offset range	±6div	
Maximum input voltage	CAT I 300V (1MΩ)	

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, ∞

Trigger system	
Trigger mode	Normal, Auto, Single
Trigger coupling	DC, AC, HF reject(>50KHz), LF reject(<50KHz), 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 > , < , = , ≠, 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 Don't Care
Video trigger	Trigger on all lines or individual lines, odd/ even or all fields on PAL/625 SECAM、NTSC/525、720P、1080I、1080P video signals.
Time out	Trigger on an event which remains high, low, oreither, for a specified time period. Selectable from
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.
Nth edge	Edge type: Risingm Falling Idle time: 16ns to 4s Number of edges 1 to 65535

Waveform measurement	
Cursor	Horizontal Cursor, Vertical Cursor, Cross Cursor
Auto measurements	23, of which up to five 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	Auto, 10ms 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

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 setting number storage	Unlimited
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 8000mAH Lithium battery

Interface	
USB Host	Support USB mass storage devices, support read and write
USB Device	Support read and write
DC interface	For charging
Probe calibration Port	1KHz, 2Vpp
LAN	Support
HDMI	Optional
Wi-Fi	Support

Environment	
Temperature	
Operating	0℃ to 45℃
Non-operating	-40℃ to 60℃
Humidity	
Operating	5% to 85%, 25℃
Non-operating	5% to 90%, 25℃
Altitude	
Operating	< 3000m
Non-operating	< 12000m

Physical characteristics	
Dimensions	
Height	200mm
Width	250mm
Depth	55mm
Weight	
Net	
2CH Bare	1040g
4CH Bare	1125g
Shipping	
4CH Bare	2445g
2CH Bare	2630g
Battery	263g

Ordering Information		
	Description	Order Number
Model	TO1152 (150 MHz, 2 CH)	TO1152
	TO1104 (100 MHz, 4 CH)	TO1104
	TO1102 (100 MHz, 2 CH)	TO1102
	TO1074 (70 MHz, 4 CH)	TO1074
	TO1072 (70 MHz, 2 CH)	TO1072
Standard Accessories	Tablet Oscilloscope tBook Mini	See model
	Localized power cord	MS-Cable
	Power adapter	MS-PA-1205
	Probes(quantity depends on the oscilloscope channel)	MS-PR-P130A
	BNC cap	MS-Cap
Hardware Optional Accessories	tBook mini 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	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.	

Contact us

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