

GPS-

# 1000D series

Next-generation **tablet oscilloscope**, combining powerful signal analysis with an intuitive **multi-touch interface** for ultimate portability and precision.

The 1000D Series is a cutting-edge portable oscilloscope, combining the power of a high-performance benchtop oscilloscope with the flexibility of a touchscreen tablet interface. Designed for engineers, technicians, and researchers, this oscilloscope provides exceptional signal analysis capabilities with an intuitive, modern user experience.

With a high-resolution capacitive touchscreen, the 1000D Series allows seamless pinch-to-zoom, swipe, and drag functionality, making waveform analysis easier and more efficient than traditional button-based controls. Featuring up to 200 MHz bandwidth, a 1 GSa/s sampling rate, and multiple advanced triggering options, this oscilloscope delivers accurate and reliable performance for demanding applications, including automotive diagnostics, embedded system testing, and industrial signal analysis.

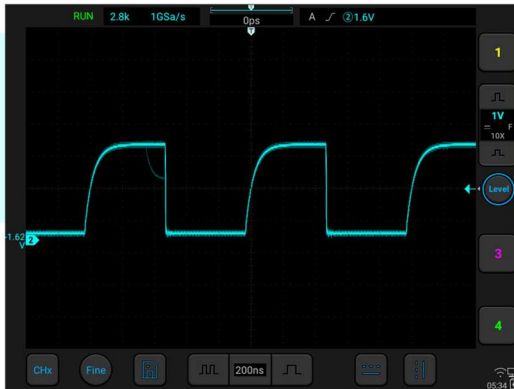


## Key Features:

- Robust hardware design, intuitive Android operation system
- 32G internal storage to save large data / videos / screenshots
- Excellent connectivity: Wi-Fi, HDMI, USB 3.0/2.0 Host, USB Type-C
- Support various protocol decoding: UART, CAN, LIN, SPI, I<sup>2</sup>C
- 8" capacitive integrated screen brings premium touch experience
- Innovative PC & Smartphone App remote control
- Up to 5H battery life & compact size, perfect for field work
- Intelligent bi-directional probe interface-UPI
- Special Power-off switch lock, safe to travel and store

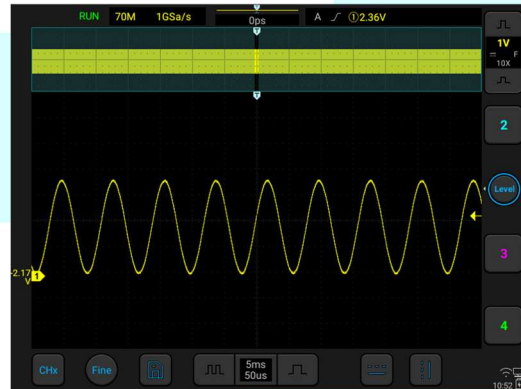
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## Product Features



### High Waveform Update Rate

With a waveform update rate of up to 130,000 wfms/s, the 1000D series can easily capture unusual or low probability events.



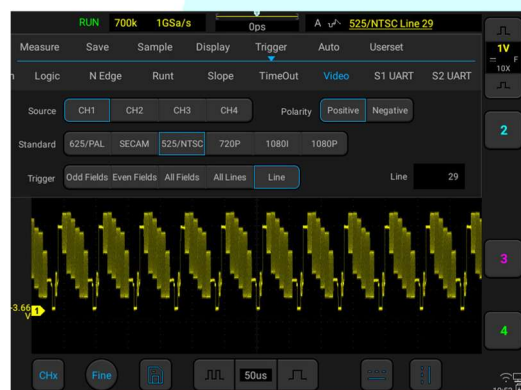
### Ultra-deep Memory

Using hardware-based Zoom technique and memory depth of up to 70Mpts, allow users to move and browse waveforms much easier and quickly zoom in to focus on the area of interest.



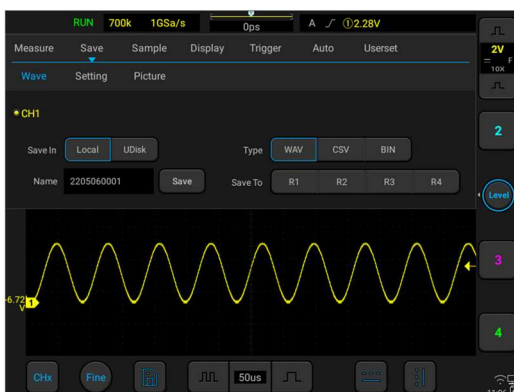
### Serial Bus Decoding and Analysis

Support UART, LIN, CAN, I<sup>2</sup>C, SPI and other hardwarebased serial bus decoding and triggering, display waveform and data at the same time.



### Powerful Trigger Functions

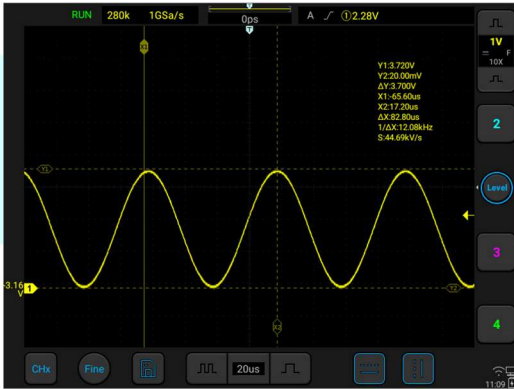
Support Edge, Pulse, Logic, N Edge, Runt, Slope, Timeout, Video and Serial trigger, most intuitive trigger settings, fast and easy trigger source switching.



### Fast Storage Function

GPS LTD's unique fast storage function allow users quickly save waveforms with one touch, a full screen of 70M waveform data can be completely saved in BIN format. More than 70% more efficient than traditional oscilloscopes.

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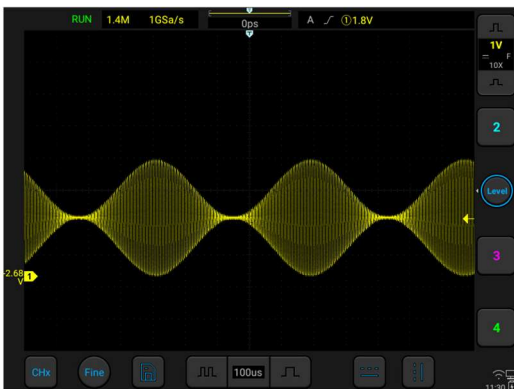
### Convenient Cursor Measurement

One touch to open horizontal and vertical cursors, each cursor can be moved separately or simultaneously, brings unmatched user experience.



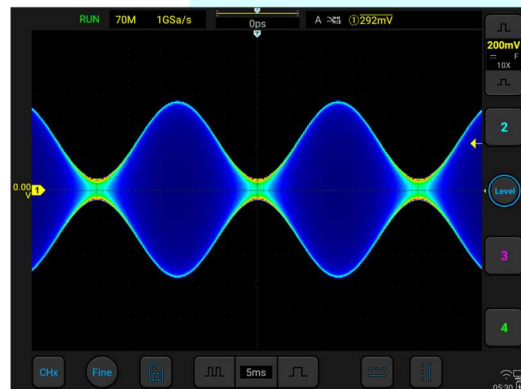
### 31 Auto Measurements

All 31 types of automatic measurements can be displayed on one screen, one touch to clear, the best auto measurement on the market.



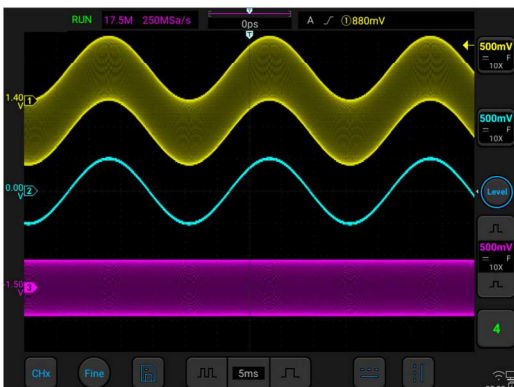
### 256-Level Intensity Grading

The 1000D has digital fluorescent display, the resulting intensity-graded trace is brighter for events that occur with more frequency and dims when the events occur with less frequency.



### Colour Temperature Display

The colour temperature display is similar to the intensity-graded trace function, but the trace occurrence is represented by different colours as opposed to changes in the intensity of one color. Red colors represent more frequently occurred events, while the blue represents less frequently ones.

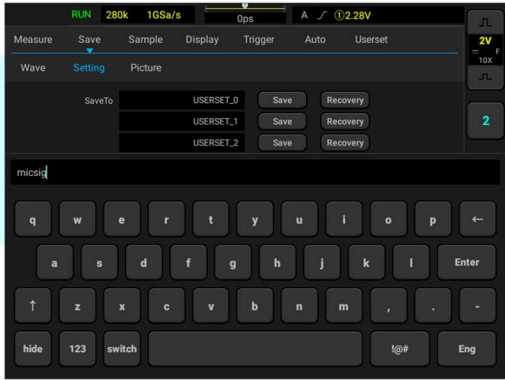


### Hardware Digital Filter

The 1000D high pass / low pass filter function helps engineers rule out insignificant frequency so to eliminate interference, and observe the true state of the signal.

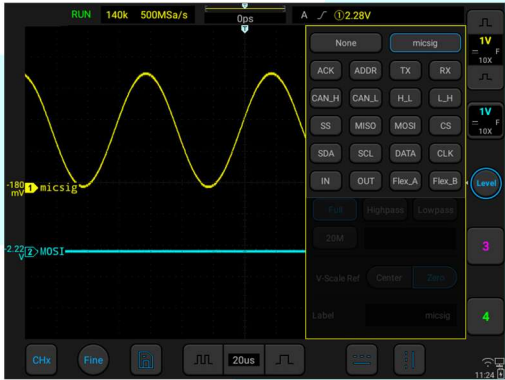
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# OSCILLOSCOPE



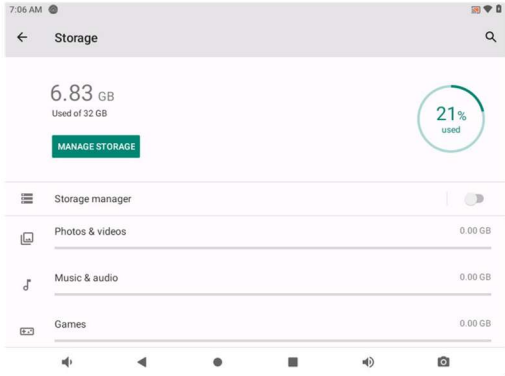
### Soft Keyboard Input

When entering names, IPs, and characters, the 1000D can easily click on the soft keyboard to input like a tablet PC, improving the efficiency by 90% than traditional benchtop oscilloscopes.



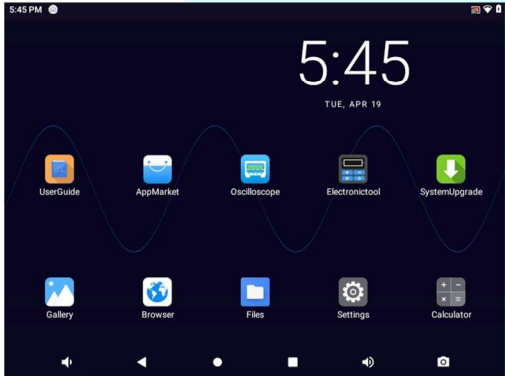
### Channel Label

When measuring on multiple channels, users can set different labels for different sources to facilitate observation and reading.



### Large 32GB Internal Storage

Built-in 32G large storage, user can wirelessly access/view massive files like pictures, videos of the oscilloscope via PC and mobile phone.



### Android Operation System

With industry-first Android based OS, the 1000D Series provides excellent user experience and promising applications.



### Remote Control and Demonstration

Supports PC software + Mobile phone App (Android / iOS) remote control via connections of Wi-Fi, USB, able to access internet for online upgrade, it also can be projected through HDMI port for demonstrations for training and education purpose.

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## Key Specifications

GPS-1000D Series Tablet Oscilloscope		
Model	GPS-1104D	GPS-1202D
Bandwidth	100MHz	200MHz
Analog channels	4	2
Rise time	≤3.5ns	≤1.75ns
Sampling rate	1 GSa/s	
Memory depth	70 Mpts	
Waveform capture rate	130'000 wfms/s	
Bandwidth filter	20MHz, High Pass, Low Pass (to 30KHz)	
Interfaces	20MHz, High Pass, Low Pass (to 30KHz)	
Display	Industrial 8" TFT-LCD (800*600), 14*10 divisions	
Dimension / Net weight	265*192*50mm / 1.9kg (with battery)	
Battery	7.4V, 7500mAh, Li-ion	

## Further Specifications

Vertical System	
Input coupling	DC, AC, GND
Rise time	≤ 3.5ns
Input impedance	1MΩ±1%  14.5pF±3pF
Vertical resolution	8 bits
Dc gain accuracy (amplitude accuracy)	<±2% (1MΩ Input)
Input sensitivity range	1mV/div~10V/div (1MΩ Input)
Ch-to-ch isolation DC to maximum bandwidth	≥40dB (100:1)
Offset range	±2.5V (Probe attenuation X1, <500mV/div), ±120V (Probe attenuation X1, ≥500mV/div)
Noise floor	≤ 90μVrms (1mV/div, 1MΩ)
Max. Input voltage	CAT I 300Vrms (1MΩ Input)

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## Further Specifications (cont.)

Horizontal System	
Time base	2ns/div~1ks/div
Time base delay time range	14 divisions ~ 14ks
Clock drift	≤±5ppm / year
Time base accuracy	±20ppm

Trigger System	
Trigger mode	Auto, Normal, Single
Trigger coupling	DC, AC, high frequency reject, low frequency reject, noise reject
Hold off range	200ns~10s
Trigger types	Edge, Pulse Width, Logic, N Edge, Runt Pulse (Runt), Slope, Time Out, Video

Sampling System	
Sampling method	Real-time
Peak detect	Capture narrow glitches at all sweep speeds: CH – 1ns, dual CH – 2ns, four CH – 4ns
Maximum duration at highest sampling rate	70ms
Average	Selectable from 2,4,8,16,32,64,128,256
Envelope times	Selectable from 2,4,8,16,32,64,128,256, ∞

Waveform Measurements	
Cursors	Horizontal, Vertical, Cross
Automated measurements	31 types, of which up to 10 types can be displayed on-screen at any time. Including: 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, Maximum, Minimum, RMS, Cycle RMS, Mean, Cycle Mean
Hardware frequency meter	6 digits
Waveform Math	
Dual waveform	Add, Subtract, Multiply, Divide
FFT	Spectral magnitude. Set FFT vertical scale to linear RMS or decibel dBV RMS, set FFT window to Rectangular, Hamming, Hanning or Blackman-Harris

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## Further Specifications (cont.)

Display System	
Display type	8-inch TFT LCD multi-point capacitive touch screen
Display resolution	800*600 pixels
Operation method	Touch, Button, Touch + Button
Persistence duration	Auto, 10ms~10s, ∞
Time base mode	YT, XY, Zoom, Roll (scroll waveforms right to left across the screen at sweep speeds slower than or equal to 200 ms/div)
Expand benchmark	Center, Trigger position
Waveform display	Vectors, Line, brightness adjustable
Graticules	14 x 10, brightness adjustable
Waveform update rate	130,000 wfms/s
Clock	Real time, user adjustable
Language	English, German, French, Czech, Korean, Chinese, Spanish, Italian, etc.

Storage	
Storage medium	Local, USB drive
Internal storage	32G
Waveform storage format	YT, XY, Roll, Zoom
Store waveform quantity	Unlimited
Stored waveform rename	Supported
Reference waveform display	4 internal waveforms
Quick screenshot	Supported
User setting storage	10 internal setups
User settings rename	Supported
USB flash drive	Supported

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## Further Specifications (cont.)

Power Source	
Power voltage range	100~240VAC, 50/60Hz
Power consumption	< 60W
Adapter output	12V DC, 4A
Battery	7.4V, 7500mAh Li-ion battery

Interfaces	
USB3.0 port	Support one USB mass storage device, read and edit
USB Type-C	1, read and edit
LAN	Supported
DC port	1
Probe calibration signal	1kHz, 2Vpk-pk
HDMI	HDMI 1.4
Supported interfaces	PC, Android/iOS remote control apps, SCPI

### Standard Accessories

Passive probes (Measuring voltage: 10X: < 600V AC pk, one per channel)  
 220V AC EU power cord (unit is 220V and 110V selectable)  
 Standard Certification

### Optional Accessories

Bus decoding (UART, LIN, CAN, SPI, I C)  
 Nylon carry bag  
 Hardshell suitcase

High/Low frequency current probes and differential voltage probes available. Please enquire for more details.

## General Specifications

Part Numbers / Optional Accessories		
Code	Item	Part Number
GPS-1104D	4-channel tablet oscilloscope with 100 MHz bandwidth, classic control buttons and touch screen.	182401
GPS-1202D	2-channel tablet oscilloscope with 200 MHz bandwidth, classic control buttons and touch screen.	182202

### Dimensions

400 x 280 x 36mm / 15.7 x 11 x 1.4" (w x d x h) approx.

### Mass

4.3kg/9.5lbs approx.

### Operating

0°C ~ 45°C  
 85%RH, 40°C, 24hours  
 ≤3000m

### Services

1-year warranty (subject to product registration with GPS Ltd)

Visit [www.gpslimited.com/register-product](http://www.gpslimited.com/register-product)  
 Service and calibration available.

Please contact for more information

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