

## DS1000A Series Digital Oscilloscopes

### Advanced Performance

Model	DS1302CA	DS1202CA	DS1102CA	DS1062CA
Bandwidth	300 MHz	200 MHz	100 MHz	60 MHz
Memory Depth	10 kpts (Single Channel), 5 kpts (Dual Channels)			
Channels	Dual Channels + External Trigger			
Real-time Sample Rate	2 GSa/s(Single Channel), 1 GSa/s (Dual Channels)			
Equivalent Sample Rate	50 GSa/s			
Rise Time	1.2 ns	1.7 ns	3.5 ns	5.8 ns
Time Base Range	1 ns/div to 50 s/div	2 ns/div to 50 s/div	5 ns/div to 50 s/div	5 ns/div to 50 s/div
Input Impedance	1 MΩ    15 pF, 50 Ω		1 MΩ    15 pF	
Trigger Modes	Edge, Video, Pulse Width, Slope, Alternative			
Trigger Sources	CH1, CH2, Ext, Ext/5, AC Line			

Common Parameters	
Vertical Sensitivity	2 mV/div to 10 V/div
Vertical Resolution	8 bits
Input Coupling	DC, AC, Ground
Maximum Input Voltage	300 V (DC + AC peak)
Roll Range	500 ms/div to 50 s/div
Automatic Measurements	Vpp, Vamp, Vmax, Vmin, Vtop, Vbase, Vavg, Vrms, Preshoot, Overshoot, Frequency, Period, Rise Time, Fall time, Positive Width, Negative Width, Positive Duty Cycle, Negative Duty Cycle, Delay 1→2f, Delay 1→2t
Cursor Measurements	Manual, Track and Auto Measure modes
Math	Add, Subtract, Multiply, FFT, Invert
Storage	Internal: 10 Waveforms and 10 Setups USB: BMP, CSV, Waveforms and Setups
I/O	USB Device, USB Host, RS-232, P/F Out (Isolated)
Display	TFT (64K, Color LCD), 320 x 234
Power	Worldwide Use, 100 - 240 V / 50 VA Max
Weight	2.3 kg

### Standard Accessories



전원 코드



Passive Probe X 2



USER 메뉴얼



SLC 고속 메모리



제어&분석소프트웨어



USB Data Cable



RS-232C Cable



소프트 방수케이스

## DS1000A Series Digital Oscilloscopes



- 보급형 가격대 최고의 성능구현 모델. 에질런트사의 DSO3000시리즈와 동급모델.
- 최대 샘플링: 2 GS/s, 60MHz, 100MHz, 200MHz, 300MHz 제품 군.
- 동급모델 대비 고속 화면갱신속도(refresh rate): 최대 2000 wfms/s.
- 다양한 트리거 조건 : Video, Edge, Pulsetwidth, Alternative, Slope, Alternative.
- 64K TFT Color LCD Display.
- DG Series 평션/임의파형발생기와 연동하여 Oscilloscope Waveform을 재연.
- Digital 필터채용으로 측정시 유입되는 NOISE 제거 순수신호만을 관찰가능.
- Dual Time-base는 각 채널 신호를 사용자가 최적의 Time/Div로 설정.
- Hardware 방식 Frequency Counter 장착 정확한 주파수를 측정가능.
- Math Function : Add (+) / Subtract (-) / Multiply (\*) / FFT / Inverter
- 20가지의 측정 파라메타를 한 화면에 Display 하는 Auto Measurement mode.
- Auto Cursor mode는 자동으로 신호의 변화를 따라가며 유동적으로 신호를 측정.
- Pass/Fail mode 조건에 부합하는 신호포착시 펄스신호를 Record로 출력하여 측정및기록.
- 전력을 측정하면서 Recording이 가능. (Pass/Fail 기능연동 및 PQ모듈사용.)
- 1 uA or 1 uV 이하의 신호 측정용 Voltage/Current Probe (Option).

## DS1000A Series Digital Oscilloscopes



### Application:

- Electronics lines debug
- Circuit function test
- Design and manufacture test
- Education and technical training
- Routine test

Product Dimensions: Width x Height x Depth = 303mm x 154mm x 133mm

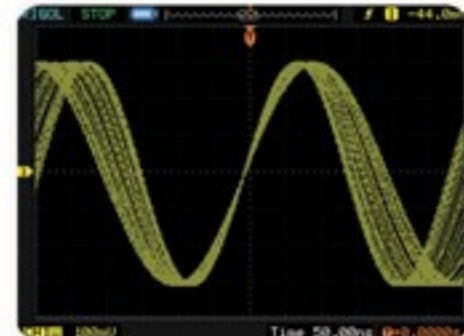
1. 2 GSa/S maximum real-time sample rate and 50 GSa/S maximum equivalent sample rate. Bandwidth is up to 300 MHz.
2. Up to 2000 wfms/s refresh rate.
3. Ultra compact design to save your desktop space.
4. 64K TFT color LCD, bright and vivid waveform display.
5. Versatile trigger modes: Edge, Video, Pulse Width, Slope, Alternative.
6. Built-in USB Host to support USB flash memory, USB printer and direct system upgrade.

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Bandwidth	300 MHz	200 MHz	100 MHz	60 MHz

### Advanced Performance

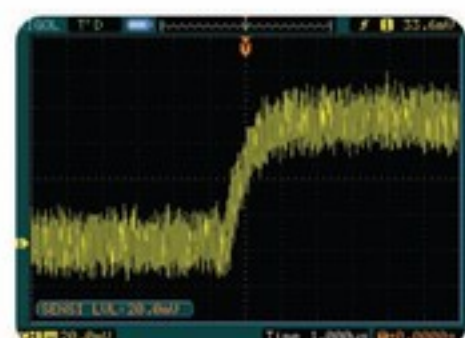


**Fast sample rate**  
DS1000A can capture faster signals with 2 GSa/S maximum real-time sample rate and 50 GSa/S maximum equivalent sample rate.

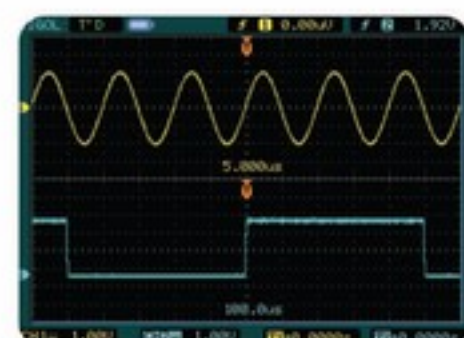


**Fast refresh rate**  
Up to 2000 wfms/s refresh rate can capture non-repeat signals, and also can accelerate the debugging process by improving capture rate.

### Versatile Trigger Functions



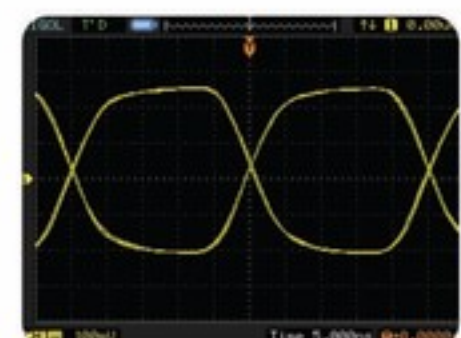
**Adjustable Trigger Sensitivity**  
Effectively filter noise from trigger signal and avoid false trigger by changing the trigger sensitivity.



**Alternative Trigger**  
A dual time-base display which was ever used in analog oscilloscopes.



**Slope Trigger**  
Trigger by signal slope of rise or fall.



**Rise Edge and Fall Edge Trigger**  
Mainly used to observe periodic signals with eye-diagram, which is generally used in advanced oscilloscopes.

### Signal regeneration

DS1000CA series can be directly connected with Rigol DG series function/arbitrary waveform generators. When connected with built-in USB port of DS1000CA, Rigol DG series can regenerate waveforms by reading waveform memories of the latter's, which will be convenient for the research of non-repeat signals.

DS1000A transmits signals to DG through USB port

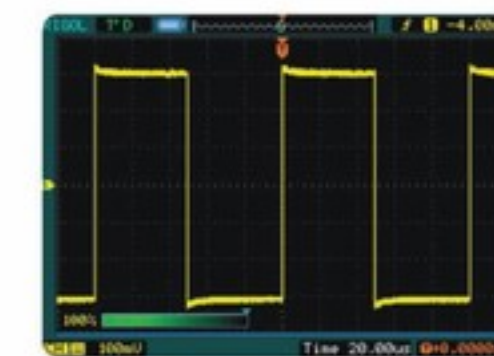


The waveforms DS1000A captures



The waveforms DG regenerates

### Human-oriented Design



**Waveform Intensity**  
Adjustable waveform intensity, more effective waveform display



**File System**  
Easy-to-use, support USB disk and local files storage



**Built-in Help System**  
Press current key for 3 seconds to enter help system

### Advanced Features

- 2 GSa/S maximum real-time sample rate, 50 GSa/S maximum equivalent sample rate, and 300 MHz bandwidth, which is ensure to capture real-time signal and observe subtle details of periodic signals
- Up to 2000wfms/s refresh rate
- Ultra compact design to save your desktop space
- 64K TFT color LCD, bright and vivid waveform display
- Memory depth: 10 kpts (Single Channel), 5 kpts (Dual Channels)
- Versatile trigger modes: Edge, Video, Pulse Width, Slope, Alternative
- Adjustable trigger sensitivity: Effectively filter noise from trigger signal and avoid false trigger
- 20 automatic measurements
- Cursor measurements: Manual, Track and Auto Measure modes
- 10 waveforms, 10 setups, BMP and CSV storage
- Math functions: Add, Subtract, Multiply, FFT, Invert
- Special digital filter and waveform recorder
- Built-in hardware frequency counters
- Dual channels plus external trigger. Bandwidth including 300 MHz, 200 MHz, 100 MHz, 60 MHz
- Standard interface: USB Device, RS-232; USB Host, to support USB disk and USB printer
- Standard configuration: Pass/Fail test, effectively avoid electro-magnetic interference by using photoelectricity-isolation
- Multi-language user interface, built-in help system