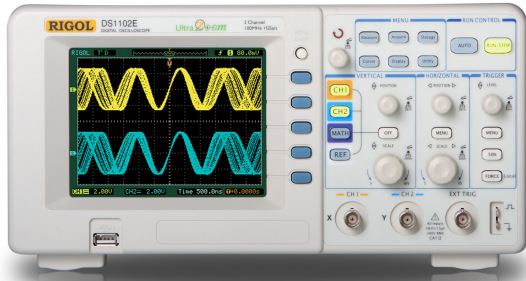


DS1000E Series Digital Oscilloscope



Application:

- Design and Debug
- Education & Training
- Manufacturing
- Service & Maintenance

Product Dimensions: Width×Height×Depth=303mm × 154mm × 133mm Weight : 2.4 kg

1. 1 GSa/s maximum real-time sample rate
2. 1 Mpts of memory depth
3. Extensive set of trigger modes including: Edge, Video, Pulse Width, Slope, Alternate
4. 5.6" 64 k TFT Color LCD, bright and vivid waveform display
5. Built-in USB Host to support USB flash drive and direct system upgrade
6. Direct print to PictBridge compatible printers via USB Device interface

| Model | Bandwidth | Interface |
|---------|-----------|--|
| DS1102E | 100MHz | USB Device, USB Host, RS-232, P/F Out (Isolated) |
| DS1052E | 50MHz | |

Versatile Trigger Functions

Adjustable Trigger Sensitivity
The ability to filter noise from the signal avoids false triggers.

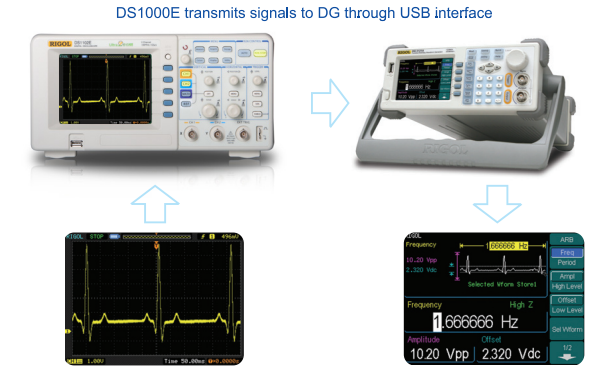
Alternate Trigger
Provide a true dual timebase display.

Slope Trigger
Trigger on the signals rise time or fall time is user defined.

Rising and Falling Edge Trigger
Mainly used to view eye-diagrams normally only available in more advanced DSO's.

Signal regeneration

DS1000E series can be directly connected to the RIGOL DG series function/arbitrary waveform generators with built-in USB interfaces, then the RIGOL DG series can regenerate the waveforms saved in DS1000E's.



The waveforms DS1000E captures

The waveforms DG regenerates

Easy to Use Features

Waveform Intensity
Adjustable waveform intensity provides a personalized waveform display.

File System
Easy-to-use file system allows for both USB flash drive and local file storage.

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

Advanced Features

- 1 GSa/s maximum real-time sample rate, 25 GSa/s maximum equivalent-time sample rate
- 1Mpts long Memory Depth
- 100 MHz, 50 MHz Bandwidths
- Ultra compact design: 303mm×154mm×133mm(W×H×D)
- 64 k TFT color LCD, bright and vivid waveform display
- Advanced trigger modes: Edge, Video, Pulse Width, Slope, Alternate
- 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: +, -, ×, FFT, Invert
- Special digital filter and waveform recorder
- Built-in hardware frequency counter
- Standard interface: USB Device, USB Host , RS-232
- Standard configuration: Pass/Fail test, effectively avoid electromagnetic interference by using photoelectricity-isolation
- Multi-language user interface, built-in help system
- Direct print to PictBridge compatible printers via USB Device interface.

DS1000E Series Digital Oscilloscope

Specification

| Model | DS1102E | DS1052E | | |
|-----------------------------|--|-------------------|---------------------|-------------|
| Bandwidth | 100 MHz | 50 MHz | | |
| Channels | Dual Channels + External Trigger | | | |
| Real-time Sample Rate | 1 GSa/s (Single Channel), 500 MSA/s (Dual Channels) | | | |
| Equivalent-time Sample Rate | 25 GSa/s | 10 GSa/s | | |
| Rise Time | 3.5 ns | 7 ns | | |
| Memory Depth | Channel Mode | Sample Rate | Normal Memory | Long Memory |
| | Single Channel | 1 GSa/s | 16 kpts | N.A. |
| | Single Channel | 500MSa/s Or lower | 16 kpts | 1 Mpts |
| | Dual Channels | 500MSa/s Or lower | 8 kpts | 512 kpts |
| Timebase Range | 2 ns/div ~ 50 s/div | | 5 ns/div ~ 50 s/div | |
| Trigger Modes | Edge, Video, Pulse Width, Slope, Alternate | | | |
| Vertical Resolution | 8 bits | | | |
| Vertical Sensitivity Range | 2 mV/div ~ 10 V/div | | | |
| Maximum Input Voltage | 400V (DC+AC Peak, 1MΩ input impedance) | | | |
| Input Coupling | DC, AC, GND | | | |
| Input Impedance | 1 MΩ ± 2 %, in parallel with 15 pF ± 3 pF | | | |
| Probe Attenuation Factors | 1X, 5X, 10X, 50X, 100X, 500X, 1000X | | | |
| Roll Range | 500 ms/div ~ 50 s/div | | | |
| Cursor Measurements | Manual, Track and Auto Measure modes | | | |
| Math | +, -, ×, FFT | | | |
| Internal Storage | 10 Waveforms and 10 Setups | | | |
| USB Storage | BMP, CSV, Waveforms and Setups | | | |
| Interface | USB Device, USB Host, RS-232, P/F Out | | | |
| Display | 5.6" TFT (64 k, Color LCD), 320×234 | | | |
| Power | 100 ~ 240 VAC _{RMS} , 45 ~ 440 Hz, CAT II, 50 W Max | | | |
| Weight | 2.4 kg | | | |

RIGOL
Beyond Measure

DS1000E Series

DIGITAL OSCILLOSCOPES



Standard Accessories



Power Cord



Two Probes



CD-ROM



USB Data Cable

Optional Accessories



USB-GPIB converter



RS-232 Cable



Instrument Bag

- 1 GSa/s maximum real-time sample rate and 1 Mpts of memory depth.
- Bandwidth options: 50MHz and 100MHz.
- Extensive set of trigger modes including: Edge, Video, Pulse Width, Slope, Alternate.
- 64 k TFT Color LCD, bright and vivid waveform display.
- Direct print to PictBridge compatible printers via USB Device interface.
- Compact design to save your desktop space.

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In order to get latest technical materials, please contact RIGOL's local distributors.

DS1000E Series
DIGITAL OSCILLOSCOPES