DS1000E · DS1000D Series Digital Oscilloscope

RIGOL
Beyond Measure

16 channel Logic Analyzer
1 GSa/s maximum Real-time Sample Rate
and 1 Mpts Memory Depth

64k Color TFT LCD

Backlight Keys

Backlight Keys

16-channel Logic Analyzer

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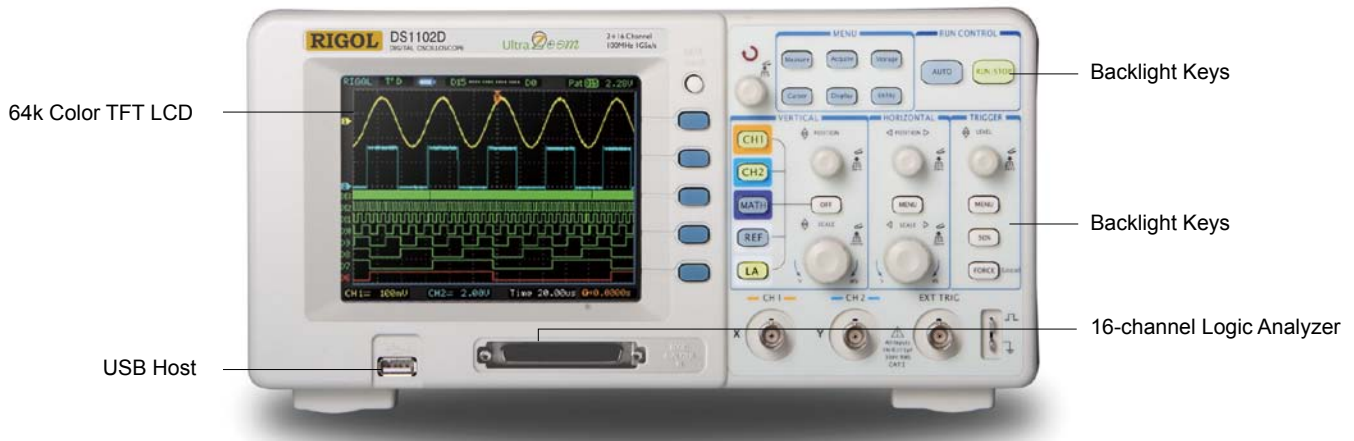
Product Dimensions: Width×Height×Depth = 303mm×154mm×133mm Weight: 2.4 kg

▶ Application Areas

• Design and Debug   • Manufacturing   • Education and Training   • Service and Repair

▶ Features and Benefits

1. A true mixed signal oscilloscope with a 16 channel Logic Analyzer (DS1000D)
2. 1 GSa/s maximum Real-time Sample Rate and 1 Mpts Memory Depth
3. Bandwidth options: 50MHz and 100MHz
4. Extensive set of trigger modes including: Edge, Video, Pulse Width, Slope, Alternate
5. 64 k TFT Color LCD, bright and vivid waveform display
6. Direct print to PictBridge compatible printers via USB Device interface
7. Compact design to save your desktop space

Model	DS1102E	DS1052E	DS1102D	DS1052D
Bandwidth	100MHz	50MHz	100MHz	50MHz
Logic Analyzer	✕		√	

▶ Specifications

| Model	DS1102E DS1102D	DS1052E DS1052D
Bandwidth	100MHz	50MHz
Channels	2 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	500 MSa/s or lower	16 kpts	1 Mpts
	Dual Channels	500 MSa/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	2 mV/div ~ 10 V/div			
Maximum Input Voltage	All inputs 1 MΩ II 15 pF 300 V RMS CAT I			
Input Coupling	DC, AC, GND			
Roll Range	500 ms/div ~ 50 s/div			
Cursor Measurements	Manual, Track and Auto Measure modes			
Math	+,-, ×,FFT			
Internal Stroge	10 Waveforms and 10 Setups			
USB Storage	BMP, CSV, Waveforms and Setups			
Connectivity	USB Device, USB Host, RS-232, P/F Out			
Display	5.6" TFT (64 k, Color LCD), 320×234 resolution			
Power Supply	AC: 100 ~ 240 VACRMS, 45 ~ 440 Hz, CAT II, 50 VA Max			
MSO Logic Analyzer	DS1102D		DS1052D	
Channels	16 logic Channels			
Sample Rate	200 MSa/s (each channel)			
Record Length	512 kpts (each channel)			
Trigger Modes	Pattern, Duration			
Threshold Selections	TTL=1.4 V, CMOS=2.5 V, ECL=-1.3 V, USER=-8 V to + 8 V			

▶ DS1000D Logic Analyzer Module

Mixed Signal Oscilloscope (MSO) with 16 channels Logic Analyzer (LA).LA is divided into two groups: D7-D0, D15-D8. Each works separately.
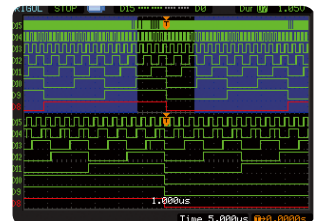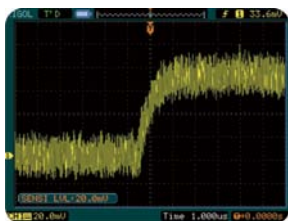

Logic Analyzer Module
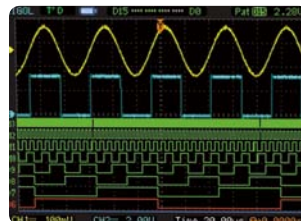
Pattern Trigger
The trigger condition is a combination of the level of the signal and the edge
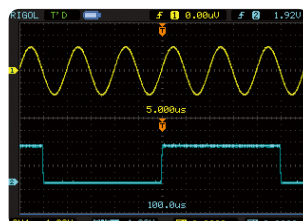

Duration Trigger
A combination of Pattern Trigger and Pulse Width Trigger capabilities make isolation of events easy
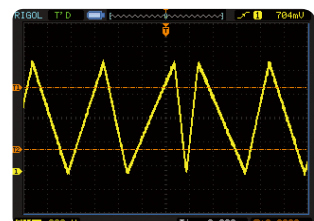
▶ Advanced trigger modes

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

Alternate Trigger
Provides a true dual timebase display

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