

# DHO900 Series Digital Oscilloscope

## Compact Size, Various Functions

7" Capacitive Multi-touch Screen

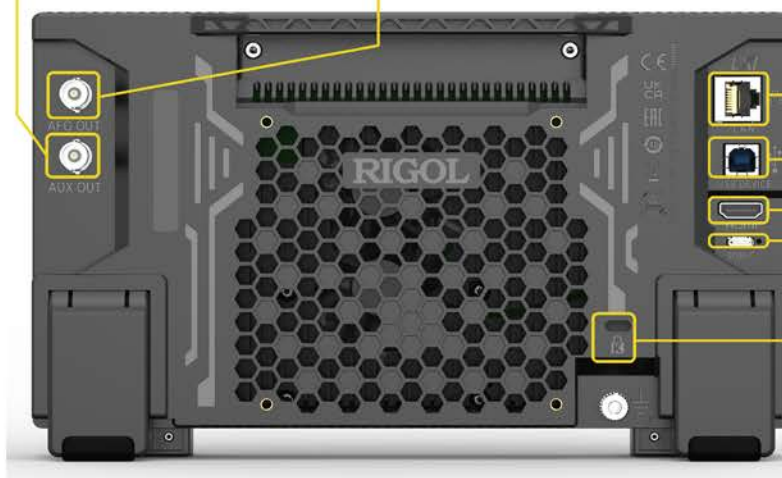


16 Digital Channels

4 Analog Channels

AUX Output  
Interface

AFG Output  
Interface



LAN Interface

USB DEVICE Interface

HDMI Interface

USB Type-C Interface

Security Lock Hole

265.35 mm (W) × 161.75 mm (H) × 77.38 mm (D)



## Application Scenarios

It is compact and portable, easy to be used on the workbench, in the classroom, on the test site, and in other application scenarios.

You can put it on the workbench, with supporting legs folded or unfolded; put it flat on the workbench; or fix its rear panel to the desktop clamp-on stand to save room.

## Design Features

### ● Digital Oscilloscope

Capture rate up to 1,000,000 wfms/s (in UltraAcquire Mode), 50 Mpts memory depth, and 12-bit high resolution

### ● Logic Analyzer

16 digital channels (std.), 25 Mpts memory depth for the waveforms of all the digital channels, max. sample rate 1 GSa/s

Support analog/digital channel triggers and decodes, convenient digital channel grouping and ungrouping operation

### ● Arbitrary Function Generator (AFG)

Single-channel AFG output (std.), support 6 standard waveforms and user-defined waveforms, with the max. frequency 25 MHz

Sample rate up to 156 MSa/s, support modulation

### ● Protocol Analyzer

Support RS232/UART, I2C, SPI, CAN, and LIN serial bus decodings that can help engineers make an in-depth waveform analysis; widely used in the auto electronics and other fields.

### ● Bode Plot (Standard for DHO914S and DHO924S)

The DHO900 series can generate the sweep signal of the specified range by controlling the built-in signal generator module and output the signal to the switching power supply to carry out loop analysis test. The bode plot can display the gain and phase variations of the system under different frequencies, helping engineers analyze the phase margin (PM) and gain margin (GM) to quickly judge whether the system is stable.

### ● Type-C Interface

Provides power with the mobile power supply via this interface, making the on-site test more flexible.



## Application



Embedded Design

With a standard configuration of embedded decodes, the DHO900 series supports digital signal analysis, efficiently analyzing the analog and digital signals in the embedded system.



Power Design

The 12-bit resolution delivers 4096 vertical digitizing levels, capable of capturing the signal details of the high-precision power supply. The S model is equipped with a standard configuration of built-in signal generator and Bode plot loop analysis function, making it easy to do the switching power supply test.



Automobile Electronics

The DHO900 series offers standard CAN and LIN auto bus decodes, capable of addressing the decoding demands of the automobile communication system.



# Product Features

## Product Features

- Ultra-low noise floor, purer signal, never miss the small signals
- Up to 12 bits resolution for all the models of this series
- Max. analog bandwidth of 250 MHz, 4 analog channels
- 16 digital channels (std.), logic probe required to be purchased if needed
- Max. real-time sample rate of 1.25 GSa/s
- Max. memory depth of 50 Mpts
- Vertical sensitivity range: 200  $\mu$ V/div to 10 V/div
- Max. capture rate of 1,000,000 wfms/s (in UltraAcquire mode)
- Digital phosphor display with real-time 256-level intensity grading
- Integrates the AFG function, bode plot analysis, histogram, digital signal analysis, and etc
- Waveform search and navigation function allows you to debug the signal anomalies faster
- 7" (1024x600) capacitive multi-touch screen
- Brand new Flex Knob brings user-friendly experience
- USB Device & Host, LAN, and HDMI interfaces (std.) for all the models of this series
- Novel and delicate industrial design, easy to operate
- Unique online upgrade

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The DHO900 series is RIGOL's new launched high-performance economical digital oscilloscope. Though compact in design, it has superior performance. It features a capture rate up to 1,000,000 wfms/s (in UltraAcquire Mode), 50 Mpts memory depth, 12 bits resolution, and low noise.

The DHO900 series supports 16 digital channels. One instrument can make an analysis on both the analog and digital signals to meet the embedded design and test scenarios. With an affordable price equivalent to purchasing an entry-level instrument, you can access the auto serial and parallel bus analysis, bode plot analysis, and other functions to meet the test demands in the R&D, education, and scientific research fields.

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# Order Information and Warranty Period

## Order Information

Order Information	Order No.
<b>Model</b>	
250 MHz, 1.25 GSa/s, 50 Mpts, 4CH	DHO924S
250 MHz, 1.25 GSa/s, 50 Mpts, 4CH	DHO924
125 MHz, 1.25 GSa/s, 50 Mpts, 4CH	DHO914S
125 MHz, 1.25 GSa/s, 50 Mpts, 4CH	DHO914
<b>Standard Accessories</b>	
Power Cord Conforming to the Standard of the Destination Country	— —
Banana-Plug Ground Connecting Cable	— —
DHO924/DHO924S: Passive Probe x4 (350 MHz)	PVP2350
DHO914/DHO914S: Passive Probe x4 (150 MHz)	PVP3150
<b>Recommended Accessories</b>	
16-channel Logic Analyzer Probe	PLA2216

### NOTE:

For all the mainframes, accessories and options, please contact the local office of RIGOL.

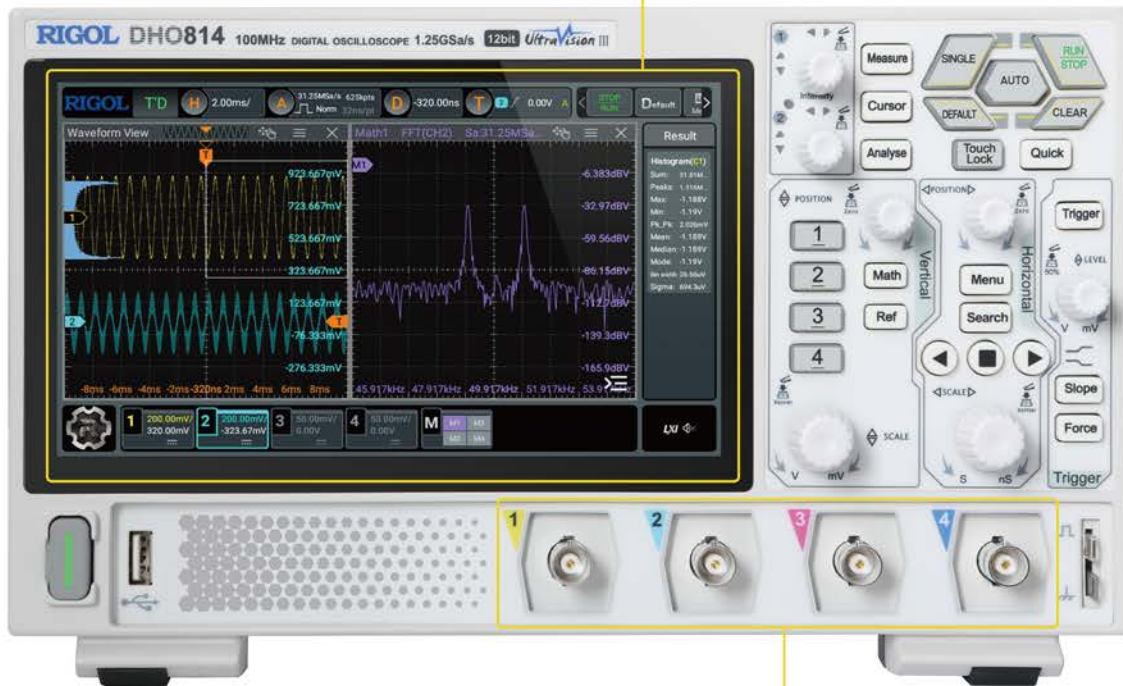
## Warranty Period

Three years for the mainframe, excluding the probes and accessories.

# DHO800 Series Digital Oscilloscope

Compact Size, Various Interfaces

7" Capacitive Multi-touch Screen



4 Analog Channels

AUX Output Interface



265.35 mm (W) × 161.75 mm (H) × 77.38 mm (D)





## Application Scenarios

It is compact and portable, easy to be used on the workbench, in the classroom, on the test site, and in other application scenarios.

Its compact and delicate design makes it easy to carry and operate. You can put it on the workbench, with supporting legs folded or unfolded; put it flat on the workbench; or fix its rear panel to the desktop clamp-on stand to save room.

## Technical Advantage

### ● 12-bit High Resolution



**12-bit** vertical resolution provides 4096 vertical digitizing levels

16 times the vertical digitizing level of the 8-bit resolution

Easy for users to test and see the small signals

### ● Type-C Interface



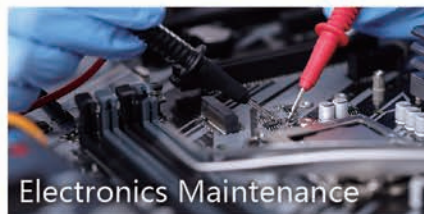
Provides power with the mobile power supply via this interface, making the on-site test more flexible.

## Application



Embedded Design

The bus error and too much locking may lead to problems in the embedded design. The DHO800 series is equipped with a standard configuration of protocol triggers and decodes, capable of capturing the bus event accurately to check whether the serial communication link between devices runs properly.



Electronics Maintenance

When troubleshooting a failed component, we need to quickly locate the problem and make some modifications. With the auto measurement, math operation, protocol trigger and decode, the DHO800 series enables you to debug the problems with a high speed and locate the problem accurately.



Basics R&D

The DHO800 series offers professional user experience at an affordable entry-level price. The brand new DHO800 series supports touch screen operation and the traditional convenient panel operation. It is an ideal high-precision oscilloscope with 12-bit measurement accuracy at an affordable price for your lab.

# Product Features

## Product Features

- Ultra-low noise floor, purer signal, never miss the small signals
- Up to 12 bits resolution for all the models of this series
- Max. analog bandwidth of 100 MHz, 4 analog channels, external trigger output (std.) available for the dual-channel model
- Max. real-time sample rate of 1.25 GSa/s
- Max. memory depth of 25 Mpts
- Vertical sensitivity range: 500  $\mu$ V/div to 10 V/div
- Max. capture rate of 1,000,000 wfms/s (in UltraAcquire mode)
- Digital phosphor display with real-time 256-level intensity grading
- Waveform search and navigation function allows you to debug the signal anomalies faster
- 7" (1024x600) capacitive multi-touch screen
- Brand new Flex Knob brings user-friendly experience
- USB Device & Host, LAN, and HDMI interfaces (std.) for all the models of this series
- Novel and delicate industrial design, easy to operate
- Unique online upgrade

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The DHO800 series is RIGOL's new launched high-performance economical digital oscilloscope. Though compact in design, it has superior performance. It features a capture rate up to 1,000,000 wfms/s (in UltraAcquire Mode), 25 Mpts memory depth, 12 bits resolution, and low noise.

The DHO800 series is a brand new economical digital oscilloscope designed for the vast mainstream digital oscilloscope market to meet their design, debugging, and test demands.

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# Order Information and Warranty Period

## Order Information

Order Information	Order No.
<b>Model</b>	
100 MHz, 1.25 GSa/s, 25 Mpts, 4CH	DHO814
100 MHz, 1.25 GSa/s, 25 Mpts, 2CH	DHO812
70 MHz, 1.25 GSa/s, 25 Mpts, 4CH	DHO804
70 MHz, 1.25 GSa/s, 25 Mpts, 2CH	DHO802
<b>Standard Accessories</b>	
Power Cord Conforming to the Standard of the Destination Country	— —
Banana-Plug Ground Connecting Cable	— —
DHO814/DHO804: Passive Probe x4 (150 MHz)	PVP3150
DHO812/DHO802: Passive Probe x2 (150 MHz)	

### NOTE:

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## Warranty Period

Three years for the mainframe, excluding the probes and accessories.