

Owon 01SDS6062

OWON SDS6062 60MHz Deep Memory Digital Storage Oscilloscope User Manual

Model: 01SDS6062 | Brand: Owon

1. INTRODUCTION

This manual provides comprehensive instructions for the safe and effective operation, maintenance, and troubleshooting of your OWON SDS6062 Digital Storage Oscilloscope. Please read this manual thoroughly before using the device to ensure proper functionality and to prevent damage.

The OWON SDS6062 is a 60 MHz Deep Memory Digital Storage Oscilloscope featuring 10 M points of memory and 2 channels. It is equipped with LAN and VGA interfaces for enhanced connectivity and display options. This package includes the oscilloscope, two probes, a power cable, a USB cable, this manual, and a CD with software.

2. PRODUCT OVERVIEW

2.1 Key Features

- 10M record length with 500MS/s sample rate.
- Auto Scale function for simplified operation.
- Smart design body for easy workplace integration.
- SVGA port for enlarged waveform display on external monitors.
- 8-inch high definition TFT display (800 x 600 pixels).
- Pass/Fail function for automated testing.
- LAN and USB connectivity for data transfer and remote control.

2.2 What's in the Box

Upon unpacking, verify that all items listed below are present and in good condition:

- OWON SDS6062 Digital Storage Oscilloscope
- Power Cord
- USB Connector Cable
- Instruction Manual (this document)
- Software CD
- Probe Set (2 probes)

2.3 Product Views



Figure 2.1: Front view of the OWON SDS6062 Digital Storage Oscilloscope, showing the large 8-inch display and control panel with various knobs and buttons for measurement, acquisition, horizontal, vertical, and trigger settings.



Figure 2.2: Rear view of the OWON SDS6062 Oscilloscope, highlighting the power input socket and the main power switch. The included power cable is also shown connected.



Figure 2.3: Side view of the OWON SDS6062 Oscilloscope, illustrating the USB (Device and Host), VGA, LAN, and Probe Compensation ports. Two oscilloscope probes and a USB cable are also displayed, indicating the included accessories.

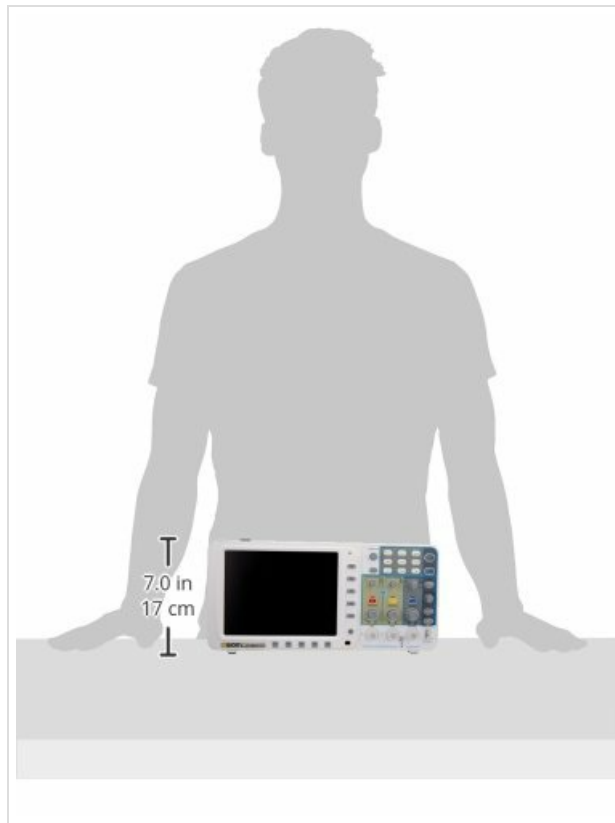


Figure 2.4: A silhouette showing the approximate dimensions of the OWON SDS6062 Oscilloscope, indicating a height of approximately 7.0 inches (17 cm) for scale.

3. SAFETY INFORMATION

Always observe the following safety precautions to prevent injury and damage to the instrument:

- **Power Source:** Connect the instrument only to a power source that provides the specified voltage and frequency. Ensure the power cord is properly grounded.
- **Grounding:** The oscilloscope chassis is connected to the ground terminal of the power cord. To prevent electric shock, ensure the instrument is properly grounded before making any connections.
- **Probes:** Use only probes supplied or recommended by Owon. Ensure probes are rated for the voltage and current being measured. Do not touch the probe tip or exposed components when connected to a live circuit.
- **Environment:** Operate the oscilloscope in a well-ventilated area, away from direct sunlight, high temperatures, humidity, and excessive dust. Avoid operating in explosive atmospheres.
- **Cleaning:** Disconnect power before cleaning. Use a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Servicing:** Refer all servicing to qualified service personnel. Do not attempt to open or repair the instrument yourself.

4. SETUP

4.1 Unpacking and Inspection

Carefully remove the oscilloscope and all accessories from the packaging. Inspect for any signs of damage during transit. If any damage is found, contact your dealer immediately.

4.2 Power Connection

1. Ensure the oscilloscope's power switch (located on the rear panel, refer to Figure 2.2) is in the OFF position.
2. Connect the provided power cord to the AC power input socket on the rear panel of the oscilloscope.

3. Plug the other end of the power cord into a grounded AC power outlet.

4.3 Probe Connection and Compensation

1. Connect the BNC connector of a probe to one of the input channels (CH1 or CH2) on the front panel.
2. Attach the probe ground clip to the ground terminal on the oscilloscope's front panel (typically near the probe compensation output).
3. Connect the probe tip to the probe compensation output terminal (PROBE COMP) on the front panel (refer to Figure 2.3).
4. Power on the oscilloscope.
5. Adjust the probe compensation screw on the probe until a flat-top square wave is displayed on the screen. This ensures accurate measurements.

4.4 Connecting to External Devices (LAN/VGA/USB)

The SDS6062 offers multiple connectivity options:

- **LAN Port:** Connect an Ethernet cable from the oscilloscope's LAN port to your network router or PC for remote control and data transfer. Refer to the software CD for PC application installation and network configuration.
- **VGA Port:** Connect a VGA cable from the oscilloscope's VGA port to an external monitor or projector to display the waveform on a larger screen.
- **USB Ports:**
 - *USB Device Port:* Use the provided USB cable to connect the oscilloscope to a PC for data transfer and remote control. Install the necessary drivers and software from the included CD.
 - *USB Host Port:* Connect a USB flash drive to save waveform data or screenshots directly from the oscilloscope.

5. OPERATING INSTRUCTIONS

5.1 Power On/Off

To power on the oscilloscope, press the power switch on the rear panel to the ON position. To power off, press the switch to the OFF position.

5.2 Understanding the Display

The 8-inch TFT display provides a clear view of waveforms and measurement parameters. The screen is divided into a grid for easy amplitude and time measurement. Key information such as channel status, trigger settings, and measurement values are displayed around the waveform area.

5.3 Basic Waveform Acquisition

1. **Connect Probe:** Ensure your probe is correctly connected to a channel (CH1 or CH2) and compensated.
2. **Connect to Circuit:** Connect the probe tip to the test point in your circuit and the ground clip to the circuit's ground.
3. **Auto Scale:** Press the **Auto** button on the front panel. The oscilloscope will automatically adjust the vertical and horizontal settings to display a stable waveform. This is useful for quickly viewing an unknown signal.
4. **Manual Adjustments:**
 - *Vertical Position (VOLTS/DIV):* Use the vertical position knob for the selected channel to move the waveform up or down. Use the VOLTS/DIV knob to adjust the vertical scale (voltage per division).
 - *Horizontal Position (SEC/DIV):* Use the horizontal position knob to move the waveform left or right. Use

the SEC/DIV knob to adjust the horizontal scale (time per division).

5.4 Triggering

Triggering stabilizes repetitive waveforms and captures single-shot events. The trigger controls are located on the right side of the front panel.

- **Trigger Level:** Adjust the **TRIG LEVEL** knob to set the voltage level at which the trigger occurs.
- **Trigger Mode:** Select trigger modes (e.g., Edge, Pulse, Video) using the dedicated buttons or menu options. Edge triggering is the most common for general-purpose use.
- **Trigger Source:** Select the channel (CH1, CH2, EXT, AC Line) that will serve as the trigger source.

5.5 Measurements

The SDS6062 offers various automatic measurement functions:

- Press the **Measure** button to access the automatic measurement menu.
- Select desired parameters such as Vpp (peak-to-peak voltage), Vmax, Vmin, Frequency, Period, Rise Time, Fall Time, etc.
- The selected measurements will be displayed on the screen, typically at the bottom or side.

5.6 Pass/Fail Function

The Pass/Fail function allows for automated testing against predefined waveform masks. If a waveform falls outside the specified mask, it is flagged as a "Fail".

- Access the Pass/Fail settings through the menu system.
- Define the upper and lower limits of the waveform mask.
- Enable the function to begin continuous testing.

5.7 Saving and Recalling Data

Waveforms, setups, and screenshots can be saved to internal memory or a USB flash drive.

- Press the **Save** button to access saving options.
- Choose to save waveform data, oscilloscope setup, or a screen image.
- Select the destination (internal memory or USB drive).
- To recall, press the **Recall** button and select the desired file.

6. MAINTENANCE

6.1 General Care and Cleaning

To maintain the performance and longevity of your oscilloscope:

- Keep the instrument clean and free from dust. Use a soft, dry cloth for cleaning the exterior. For stubborn dirt, a cloth lightly dampened with water and mild detergent may be used, ensuring no liquid enters the device.
- Do not use abrasive cleaners, solvents, or strong chemicals, as these can damage the plastic components and screen.
- Regularly inspect probes and cables for damage. Replace any damaged accessories immediately.

6.2 Storage

When not in use for extended periods, store the oscilloscope in a cool, dry environment, away from direct sunlight and extreme temperatures. Use the original packaging or a suitable carrying case to protect it from physical shock and dust.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with your OWON SDS6062 oscilloscope. If the problem persists after following these steps, contact customer support.

Problem	Possible Cause	Solution
No display after power on.	Power cord not connected; power switch off; power outlet fault.	Ensure power cord is securely connected. Verify power switch is ON. Test power outlet with another device.
No waveform displayed.	Probe not connected; signal too small/large; incorrect vertical/horizontal settings; trigger issues.	Verify probe connection to channel and circuit. Press Auto . Adjust VOLTS/DIV and SEC/DIV. Check trigger level and mode.
Unstable or rolling waveform.	Incorrect trigger settings; signal noise.	Adjust trigger level. Change trigger mode (e.g., to Edge). Select appropriate trigger source. Ensure stable signal input.
VGA/LAN/USB connectivity issues.	Cable not connected; driver issues; software incompatibility; port malfunction.	Ensure cables are securely connected. Install/reinstall drivers from the included CD. Verify software compatibility with your operating system. Test with different cables/ports if possible.
Inaccurate measurements.	Probe not compensated; incorrect probe attenuation setting; signal distortion.	Perform probe compensation (Section 4.3). Ensure probe attenuation setting on oscilloscope matches the probe (e.g., 1X, 10X). Check signal integrity.

8. SPECIFICATIONS

Parameter	Value
Bandwidth	60 MHz
Channels	2
Sample Rate	500 MS/s (Real-time)
Record Length	10 M points
Display	8-inch Color TFT LCD (800 x 600 pixels)
Connectivity	LAN, VGA, USB (Host & Device)
Functions	Auto Scale, Pass/Fail, Multiple Measurement Types
Dimensions (L x W x H)	14 x 3 x 7 inches (approx.)
Weight	5.5 Pounds (approx.)
Manufacturer	OWON





9. WARRANTY AND SUPPORT

For information regarding warranty coverage, technical support, or service, please refer to the documentation included with your product or visit the official OWON website. Keep your purchase receipt as proof of purchase for warranty claims.

Manufacturer: OWON

© 2023 OWON. All rights reserved.

Related Documents

 <p>SDS200S Series Digital Storage Oscilloscope User Manual</p> <p>For product support, visit www.owon.com.cn/EN/Support</p> <p>1. The book contains technical data and is available in the form of printed copy for users. All rights reserved. No part of this publication may be reproduced without permission.</p>	<p>Owon SDS200S Series Digital Storage Oscilloscope User Manual</p> <p>User manual for the Owon SDS200S Series Digital Storage Oscilloscope, covering setup, operation, features, and troubleshooting.</p>
 <p>SDS1000 Series</p> <p>High-Speed Digital Storage Oscilloscope</p> <p>Technical Specifications</p>	<p>OWON SDS1000 Series Digital Storage Oscilloscope Specifications</p> <p>Detailed technical specifications for the OWON SDS1000 Series digital storage oscilloscopes, including models SDS1022, SDS1052, SDS1102, and SDS1202. Features bandwidth, sample rate, channels, display, and more.</p>
 <p>PDS Series</p> <p>Portable Colour Digital Storage Oscilloscope</p> <p>User Manual</p> <p>■ PDS1022S ■ PDS1042S ■ PDS1062S ■ PDS1082S ■ PDS1102S ■ PDS1122S</p> <p>WWW.OWON.COM.CN</p>	<p>OWON PDS Series Digital Storage Oscilloscope User Manual</p> <p>Comprehensive user manual for the OWON PDS Series Portable Colour Digital Storage Oscilloscopes, detailing operation, features, safety, and technical specifications for models PDS5022S, PDS6042S, PDS6062S, PDS6062T, PDS7062T, and PDS7102T.</p>
 <p>HDS-N Series</p> <p>Handheld Digital Storage Oscilloscope</p> <p>Technical Specifications</p>	<p>OWON HDS-N Series Handheld Digital Storage Oscilloscope - Technical Specifications</p> <p>Detailed technical specifications and features for the OWON HDS-N Series Handheld Digital Storage Oscilloscope, including models HDS1022M-N, HDS2062M-N, HDS3102M-N, and HDS4202M-N, covering performance and multimeter capabilities.</p>

Technical Specifications

Unless otherwise specified, the technical specifications applied are for SDS-E only, and Probes attenuation set at 10X. Only if the oscilloscope fulfills the following two conditions at first, these specification standards can be reached.

- This instrument should run for at least 30 minutes continuously under the specified operating temperature.

- If change of the operating temperature is up to or exceeds 5 °K, a "Self-calibration" procedure (see "How to Implement Self-calibration" on P15). All specification standards can be fulfilled, except one(s) marked with the word "Typical".

Performance Characteristics		Instruction	
Bandwidth		SDS3032E(V) 30MHz	
		SDS6062E(V) 60MHz	
		SDS7072E(V) 70MHz	
		SDS7102E(V) 100MHz	
		SDS7122E(V) 125MHz	
Channel	2 + 1 (External)		
Acquisition	Mode	Normal, Peak detect, Averaging, Dual CH 125MS/s	
	Sample rate (max time)	SDS3032E(V)	Single CH 250MS/s
		Dual CH 250MS/s	
		SDS6062E(V)	Single CH 500MS/s
		Dual CH 500MS/s	
		SDS7072E(V)	Single CH 1GS/s
	SDS7102E(V)	Dual CH 500MS/s	
		SDS7122E(V)	Single CH 1GS/s
		Dual CH 500MS/s	
		Input coupling	DC, AC, Ground
SDS3032E(V)		1M Ω ±2% in parallel with 10pF±5%	
Input	Input impedance	SDS6062E(V) 1M Ω ±2% in parallel with 10pF±5%	
	SDS7072E(V)	1M Ω ±2% in parallel with 10pF±5%	
	SDS7102E(V)	1M Ω ±2% in parallel with 10pF±5%	
	SDS7122E(V)		
	Probe attenuation factor	1X, 10X, 100X, 1000X	
Max. input voltage		400V (PK-PK) (DC + AC PK-PK)	

[pdf] Specifications Datasheet Safety Datasheet

OWON DatasheetOwon Digital Storage Oscilloscope 60 MHz Electronix Express01SDS6062cdn

shopify s files 1 0268 7746 0673 01SDS6062 v 1625849917 DatasheetDatasheetOwon ExpressOwon

100 Express01SDS7102cdn 1625849917cdn 01SDS7102 |||

9.Technical Specifications Technical Specifications Unless otherwise specified, the technical specifications applied are for SDS-E only, and Probes attenuation set as 10X. Only if the oscilloscope fulfills the following two conditions at first, these specification standards can be reached. This ...

lang:en score:12 filesize: 1.67 M page_count: 6 document date: 2014-06-30