HANMATEK DOS1202

HANMATEK DOS1202 Digital Oscilloscope User Manual

Model: DOS1202

Introduction

The HANMATEK DOS1202 is a professional, portable 2-channel digital oscilloscope designed for various applications including industrial production, product development, electrical product repair, and educational research. It features a 200 MHz bandwidth and a 1 GS/s real-time sampling rate, providing accurate waveform analysis.



Image: The HANMATEK DOS1202 oscilloscope is versatile, suitable for industrial production, product development, repair of electrical products, and educational research.

Safety Information

Always operate the oscilloscope in a dry environment. Avoid exposure to moisture or extreme temperatures.
Ensure proper grounding to prevent electric shock. Do not open the device casing unless instructed by qualified personnel.
Use only the provided power adapter and probes. Inspect probes for damage before each use.
Disconnect power before cleaning the device.

Package Contents

Upon opening the package, verify that all items listed below are present and in good condition.

- HANMATEK DOS1202 Digital Oscilloscope Unit
- Two Oscilloscope Probes (x1/x10 switchable)
- Power Adapter
- USB Cable
- User Manual (Printed)
- Software CD
- Probe Adjustment Tool (non-metallic)
- Color Rings for Probe Identification

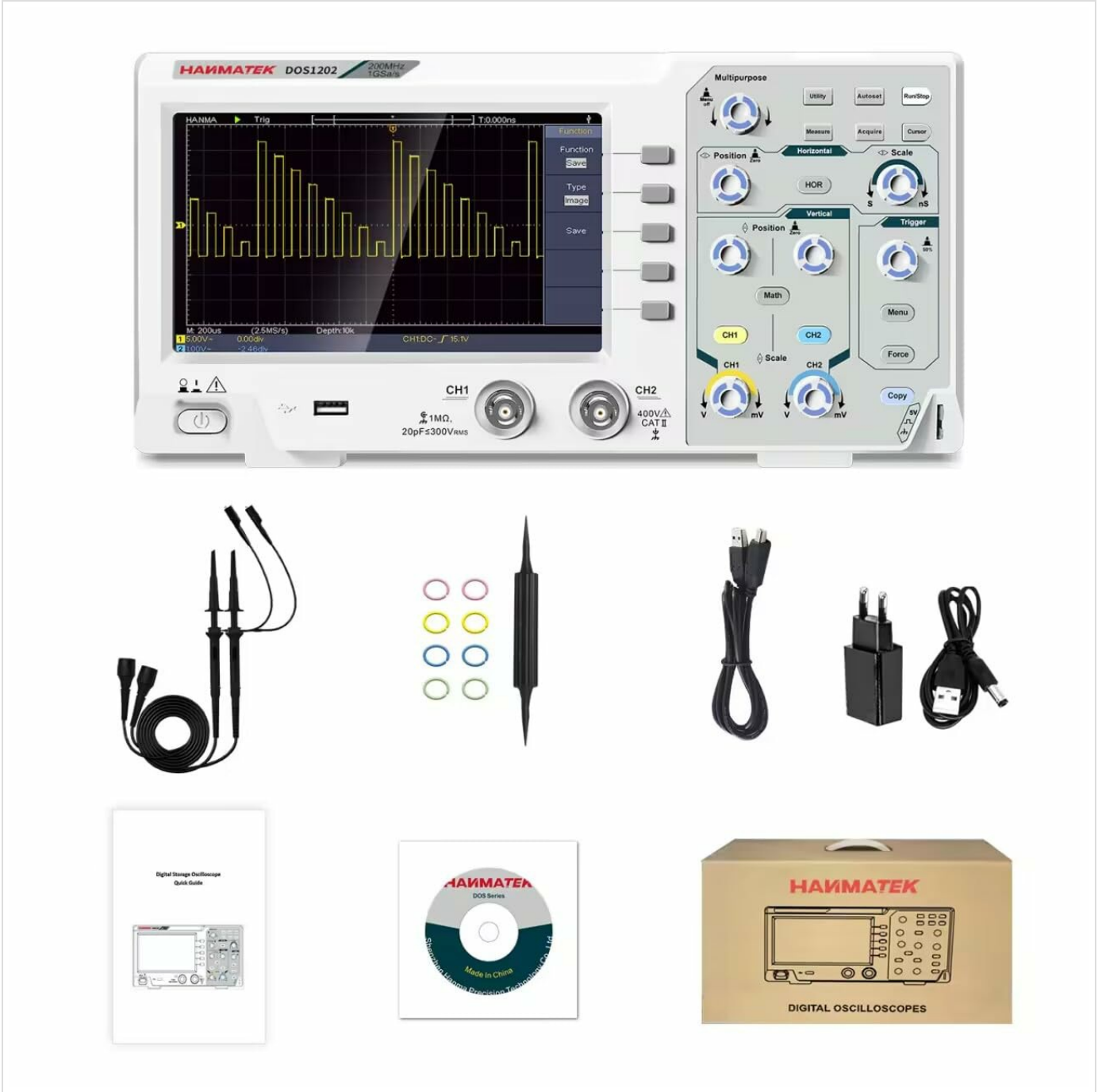


Image: A complete view of the HANMATEK DOS1202 package contents, including the oscilloscope, probes, power adapter, USB cable, user manual, and software CD.

Product Overview

Key Features

- 200 MHz Bandwidth, 1 GS/s Real-time Sampling Rate
- Two Input Channels
- 7-inch TFT LCD Display with 800x480 pixel resolution and 65535 colors
- Memory Depth: 10K sampling points
- Time Base Range: 2 ns/div ~ 1000 s/div
- Vertical Scale: 20 mV/div ~ 5 V/div
- Built-in 6-digit Hardware Frequency Counter (2 Hz - 20 MHz)
- USB Device and Host Interface for data storage and communication
- Supports 30 automatic measurement functions
- Waveform capture function and SCPI compliance for secondary development



Image: The HANMATEK DOS1202 oscilloscope connected to a circuit, highlighting its 200 MHz bandwidth and 1GSa/S real-time sampling rate across two channels.

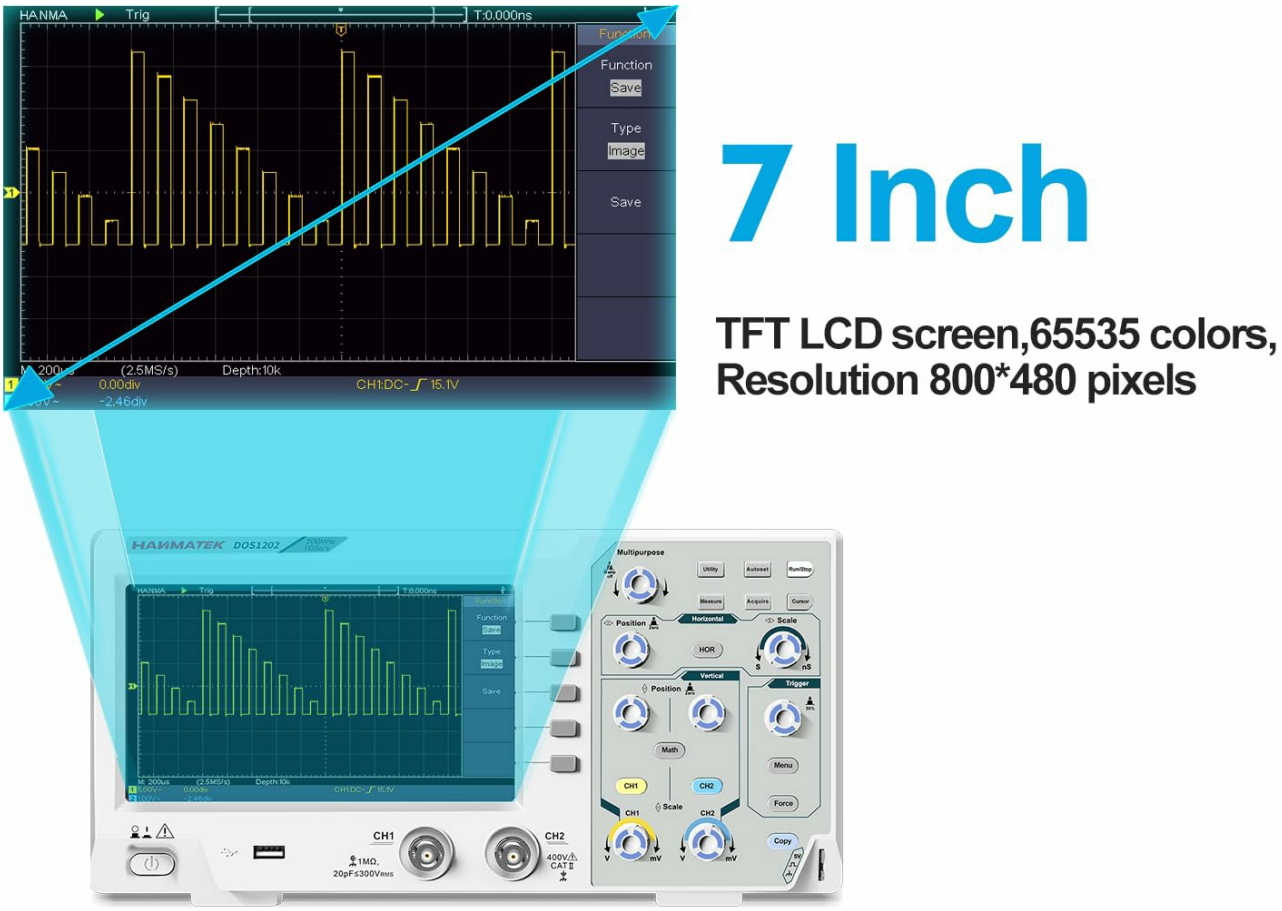


Image: Close-up view of the 7-inch TFT LCD screen of the HANMATEK DOS1202, displaying a waveform with 65535 colors and 800x480 pixel resolution.



Image: The USB device and host interface on the HANMATEK DOS1202 oscilloscope, enabling data storage and communication with external devices.

Physical Dimensions

The DOS1202 features an ultra-slim and ultra-quiet design, optimizing desktop space.



Image: Diagram showing the ultra-portable design and dimensions of the HANMATEK DOS1202 oscilloscope, with a depth of 70mm and width of 301mm.

Setup

1. **Power Connection:** Connect the provided power adapter to the oscilloscope's power input and then to a suitable AC power outlet.
2. **Probe Connection:** Connect the BNC end of the oscilloscope probes to the CH1 and CH2 input connectors on the front panel. Ensure the connection is secure.
3. **Probe Compensation:** Before taking measurements, it is recommended to compensate the probes. Connect the probe tip to the probe compensation signal output (usually a square wave test point on the front panel) and the ground clip to the ground terminal. Adjust the probe's compensation trimmer until a flat-top square wave is displayed on the screen. Use a non-metallic adjustment tool.

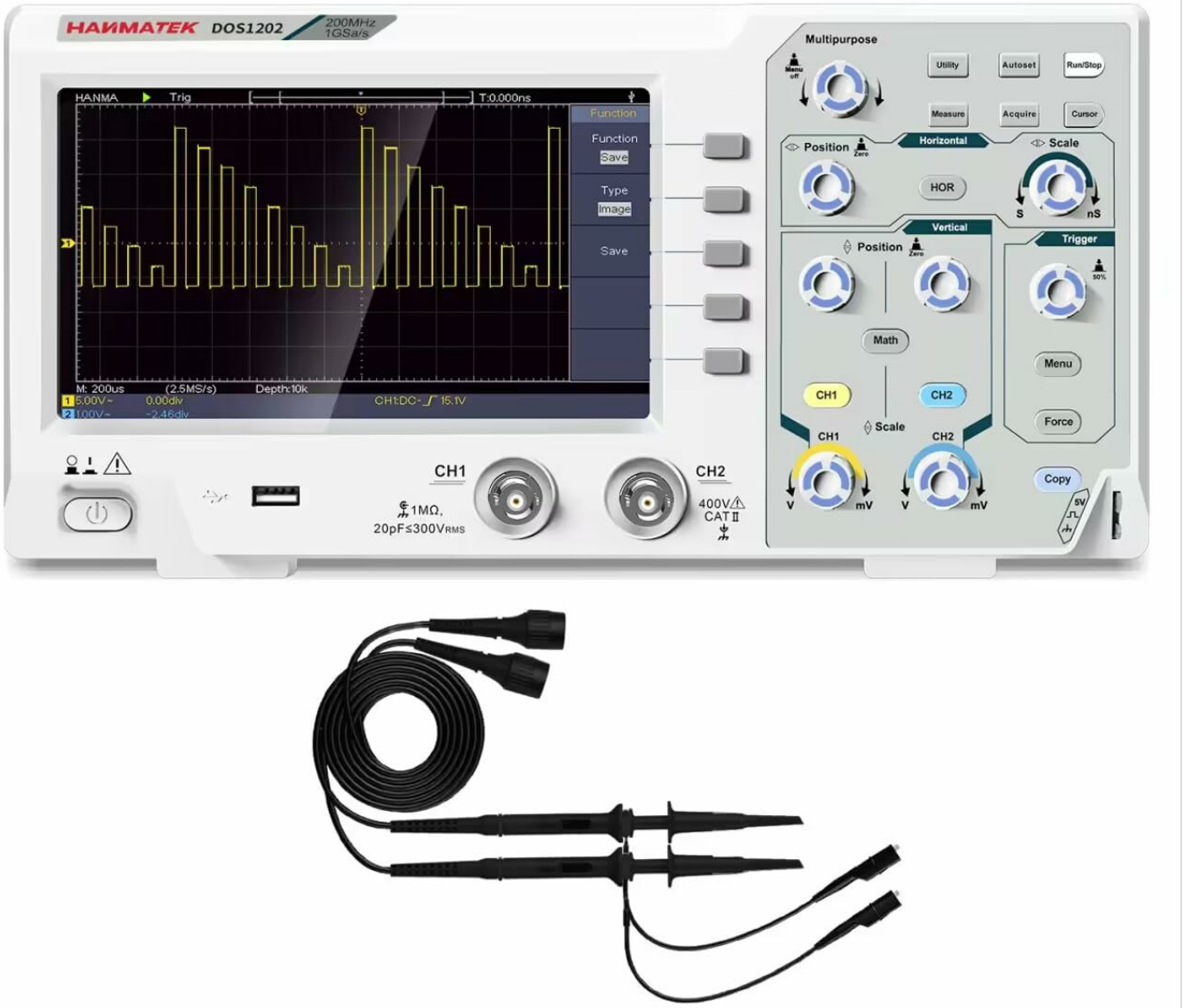


Image: The HANMATEK DOS1202 oscilloscope with its front panel controls and connected probes, illustrating the setup for measurement.

Operating Instructions

Powering On/Off

Press the power button located on the front panel to turn the oscilloscope on or off.

Basic Waveform Display

After powering on, connect a signal to one of the input channels (e.g., CH1).
Press the **AutoSet** button to automatically adjust the vertical and horizontal settings for a stable waveform display.

Channel Control

Use the **CH1** and **CH2** buttons to enable or disable respective channels.
Adjust the vertical scale (Volts/div) using the **Vertical Scale** knob for each channel.
Adjust the vertical position using the **Vertical Position** knob for each channel.

Horizontal Control

Adjust the horizontal scale (Time/div) using the **Horizontal Scale** knob.
Adjust the horizontal position using the **Horizontal Position** knob.

Trigger System

The trigger system stabilizes repetitive waveforms and captures single-shot events.
Use the **Trigger Level** knob to set the trigger voltage level.
Press the **Trigger Menu** button to access trigger settings such as edge type (rising/falling), source, and mode.

Measurements

The oscilloscope supports 30 automatic measurement functions.
Press the **Measure** button to display a menu of available measurements (e.g., Vpp, Vmax, Vmin, Frequency, Period).
Select desired measurements to display them on screen.
The built-in 6-digit hardware frequency counter can measure frequencies from 2 Hz to 20 MHz.

Data Storage and Connectivity

The device features a USB host interface for connecting a USB flash drive to save waveform data or screenshots.
It also has a USB device interface for connecting to a computer for remote control and data transfer.
The memory depth of 10,000 sampling points allows for detailed waveform recording.

Maintenance

Cleaning: Use a soft, dry cloth to clean the exterior of the oscilloscope. For stubborn dirt, a slightly damp cloth with mild detergent can be used, ensuring no liquid enters the device. Do not use abrasive cleaners or solvents.
Probe Care: Keep probes clean and free from dust. Store them properly to prevent damage to the tips and cables.
Storage: When not in use for extended periods, store the oscilloscope in a cool, dry place, away from direct sunlight and extreme temperatures.

Troubleshooting

No Display After Power On

- Ensure the power adapter is securely connected to both the oscilloscope and the power outlet.
- Verify the power outlet is functional.

Unstable Waveform

- Adjust the trigger level.
- Check the trigger source and mode settings.
- Ensure the probe is properly compensated.

- Verify the signal input is within the oscilloscope's measurement range.

No Signal Displayed

- Check if the input channel is enabled.
- Ensure the probe is correctly connected to the signal source and the oscilloscope.
- Verify the probe's attenuation setting (x1/x10) matches the oscilloscope's setting.
- Adjust the vertical scale (Volts/div) to an appropriate range.

USB Storage Not Recognized

- Ensure the USB flash drive is formatted correctly (FAT32 is usually recommended).
- Try a different USB port or a different USB flash drive.

Specifications

Parameter	Value
Model Number	DOS1202
Bandwidth	200 MHz
Channels	2
Real-time Sampling Rate	1 GS/s
Display	7-inch TFT LCD, 800x480 pixels, 65535 colors
Memory Depth	10K sampling points
Time Base Range	2 ns/div ~ 1000 s/div
Vertical Scale	20 mV/div ~ 5 V/div
Frequency Counter	6-digit, 2 Hz - 20 MHz
Interfaces	USB Device, USB Host
Product Dimensions	37.2 x 19.2 x 11.4 cm (approx. 14.6 x 7.6 x 4.5 inches)
Product Weight	1.42 kg (approx. 3.13 lbs)
Manufacturer	HANMATEK
Country of Origin	China

Support Information

For technical assistance, software updates, or further inquiries, please refer to the official HANMATEK website or contact their customer support.

Host software download address: tinyurl.com/2peldgne

Please retain your purchase receipt for any warranty claims, if applicable.

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Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question