LeCroy

WaveAce™ 1000 and 2000 Oscilloscopes

40 MHz–300 MHz

Key Features

- **Sample rates up to 2 GS/s**
- **1 Mpts/ch memory, 2 Mpts interleaved**
- **7" color display on all models**
- **32 automatic measurements**
- **Multi-language user interface and context sensitive help**
- **Large internal waveform and setup storage**
- **USB connections for printers, memory sticks and PC remote control**

A good oscilloscope should simplify how you work and shorten the time it takes to find and debug problems. The WaveAce™ combines long memory, a color display, extensive measurement capabilities, advanced triggering and excellent connectivity to improve troubleshooting and shorten debug time. With bandwidths from 40 MHz to 300 MHz, sample rates up to 2 GS/s and waveform memory up to 1 Mpts/Ch (2 Mpts interleaved) the WaveAce exceeds all expectations of a small affordable oscilloscope.

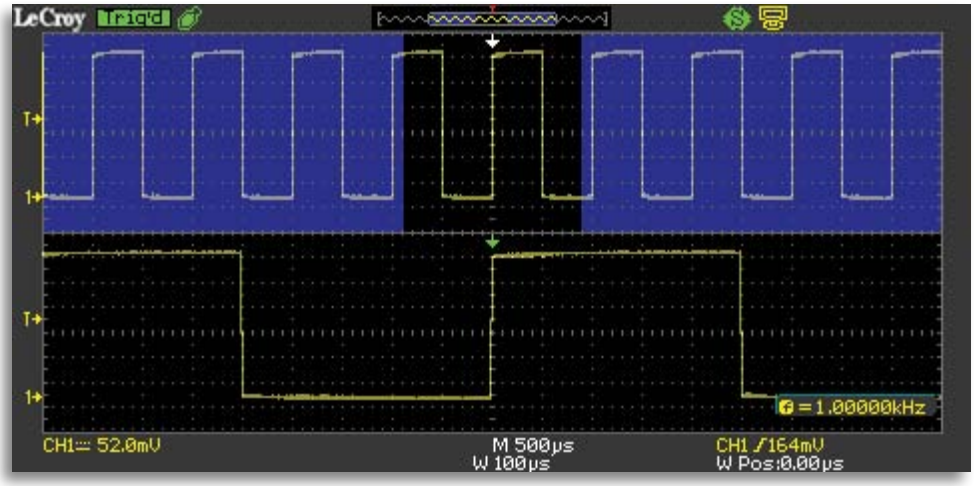
Measure and Debug Tools

With 32 automatic measurements standard, the WaveAce simplifies how measurements are made. The large 7" widescreen display can show up to five measurements without crowding the waveform display or show all 32 at once with the measurement dashboard. A wide range of advanced timing parameters provide insight to the relationship between signals on two different channels. WaveAce oscilloscopes provide five math functions for additional analysis including Add, Subtract, Multiply, Divide and FFT. The FFT can be viewed using four different windows and two different vertical scales for an insightful view of the frequency domain. Built-in Pass/Fail Mask testing allows for quick identification of problems and highlights when they have occurred.

Easy to Use for Faster Debug

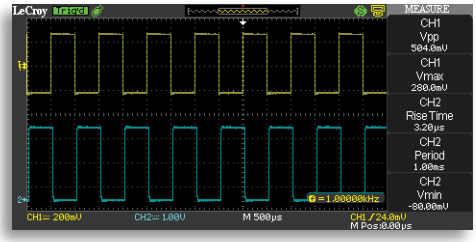
The high performance and large feature set of the WaveAce is controlled by an intuitive user interface with 11 different languages and a streamlined front panel. All important controls and menus are accessed from the front panel with a single button press. All position and offsets can be reset by simply pressing the knob, pressing the V/Div knob will switch between fixed and variable gain and pressing the T/div knob will toggle between zoom modes. Buttons on the front panel that open and close menus or switch modes, are backlit so that the mode of operation is easily visible to the user.

THE TOOLS AND FEATURES FOR ALL YOUR DEBUG NEEDS



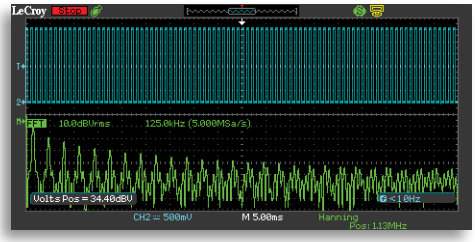
Long Capture and Zoom

Small, portable oscilloscopes often suffer from short capture time due to the small waveform memory. The WaveAce has up to 1 Mpts/ch of memory which is two to three times larger than competitive products. More memory results in longer capture times showing more waveform detail with each trigger. Activate the built-in zoom function to take a closer look at the details.



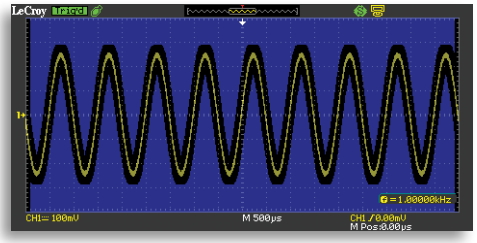
Automatic Measurements

The WaveAce provides two display modes for viewing any of the 32 automatic mesurements. Five measurements can be displayed at the same time without crowding the waveform, or all 32 measurements can be displayed using the dashboard.



Waveform Math

The WaveAce provides five math functions including Add, Subtract, Multiply, Divide and FFT. The FFT capability includes the choices of four windows and two different vertical scales.



Pass/Fail Test

With built-in Pass/Fail Mask testing the WaveAce can quickly identify problems and let you know when they occur. A history of the P/F results can be displayed on the screen.

Digital Filter

Digital filtering is available on each channel of the WaveAce. The Low-Pass, High-Pass, Band-Pass and Band-Stop filters allow you to isolate only the frequencies you want to see.

Waveform Sequence Recorder

Capture and replay a sequence of up to 2,500 waveforms to isolate that runt or glitch which is causing problems in your system.

Advanced Triggering

Edge triggering is not always the best choice for every signal. Beyond the basic edge trigger is a set of trigger capabilities which include Pulse Width, Video and Slope (Rise Time) triggers.

Connectivity

The WaveAce provides a USB host port on the front panel for saving screen images, waveforms and setups to a memory stick. A rear panel USB device port allows for connection to a PC or printer. Connecting and communicating with a PC is simplified with WaveStudio software providing full access to the oscilloscope's display, measurements, and waveform data.

Large Internal Storage

Saving and recalling waveforms and setups from internal memory can save a lot of time during test and debug. The WaveAce can save up to 20 waveforms, 20 setups and two reference waveforms to the internal memory.

Acquisition Modes

Different applications call for different acquisition modes. The WaveAce offers Real Time, Equivalent Time, Peak Detect and Averaging modes to ensure that any waveform can be captured and displayed.

WaveStation Integration

With 5 basic signal types, and over 40 built-in arbitrary waveforms LeCroy's WaveStation is a versatile waveform generator. A variety of modulation schemes, intuitive waveform editing software and remote control capabilities, enable versatile waveform generation of waveforms up to 50 MHz. The 3.5" display and simple user interface make it easy to generate a wide range of waveforms. Additionally, connecting a WaveAce oscilloscope to the same PC enables transferring real world signals from the WaveAce to the WaveStation.

LogicStudio 16 Integration

The WaveAce can be paired with LeCroy's LogicStudio 16 to turn your PC into a mixed signal oscilloscope with tools for capturing, viewing and measuring analog, digital and serial signals in one place. LogicStudio offers 16 channels, 100 MHz and up to 1 GS/s logic analysis with I^2C, SPI and UART triggering and decoding which can all be displayed alongside the analog waveforms captured on WaveAce. When only digital debug is needed disconnect the WaveAce and use LogicStudio as a standalone logic analyzer.

SMART, SIMPLE, EFFICIENT

1. Fast Power Up

The WaveAce turns on and is ready for use in under 10 seconds.

2. Display

All WaveAce models have a 7" widescreen color display.

3. Connectivity

Saving waveforms, screenshots and setups is easy with the front panel USB port for use with a memory stick.

4. Portability

The small compact form factor is lightweight and only 5" deep.

5. Communication

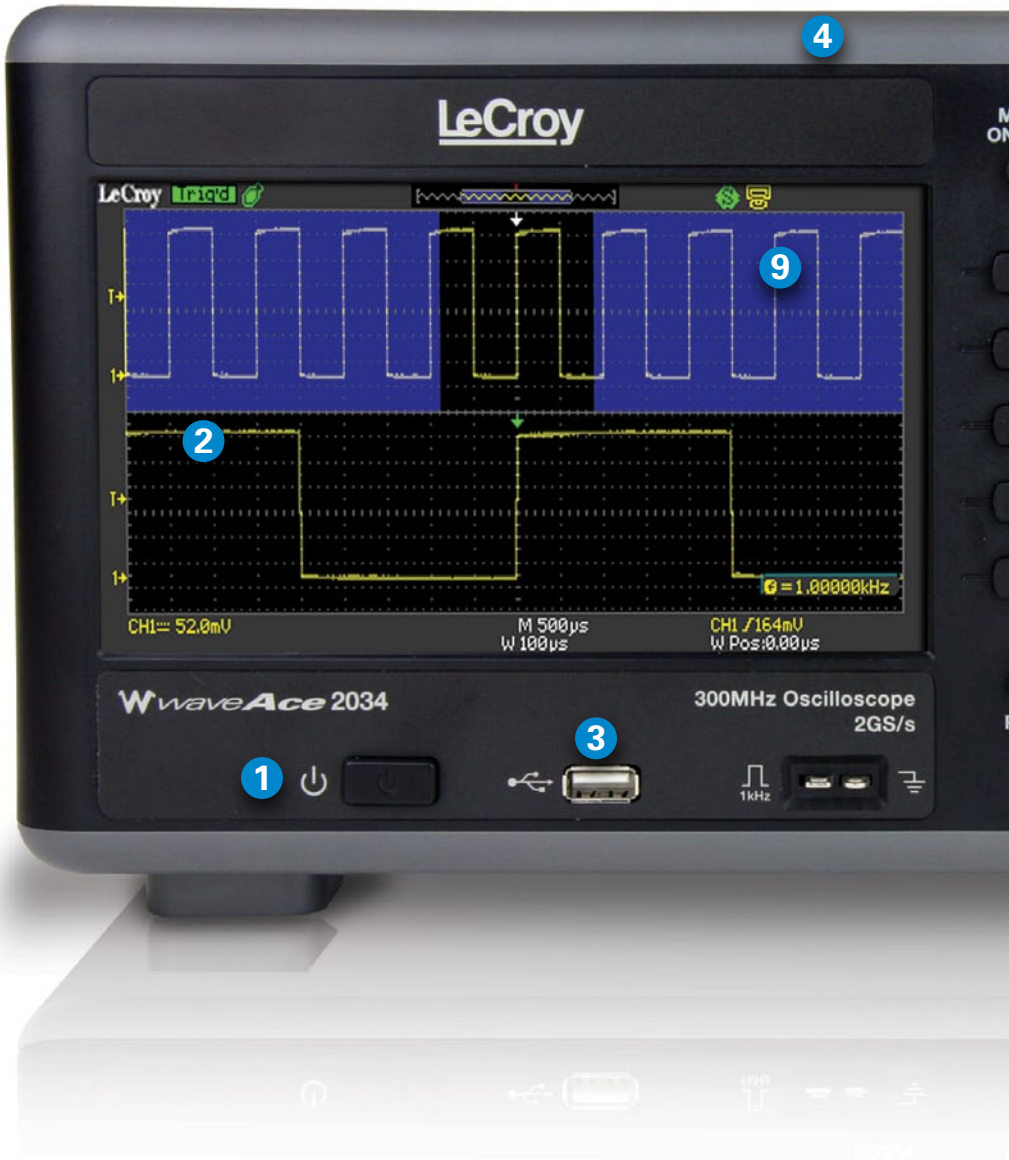
Rear panel USB port enables direct remote control from a PC. The USB port also allows for connecting to a printer.

6. Intensity

Waveform intensity can be quickly adjusted by rotating this knob, a meter on the display will appear and show the current setting.

7. Individual Vertical Controls

Quickly change the vertical scale of any channel.



8. Push Knobs

All WaveAce knobs can be pushed for additional capabilities. Push the V/div knobs to toggle between fixed and variable gain. Push the T/div knob to enter zoom mode and push the position knobs to center the waveform on screen.

9. Local Language User Interface

The intuitive user interface is available in several different languages.

10. Front Panel Print Button

Saving or Printing screenshots requires only a single button press.

11. Backlit Menu Buttons

When using certain features like Cursors or Measurements the button remains lit for easy menu navigation.

12. Context Sensitive Help

Press any button or turn any knob while in help mode and a pop-up window displays the functionality of that control.

13. Auto Setup

Quickly configures the vertical, horizontal and trigger settings for the WaveAce. Choose to view the waveform as multi-cycle, single-cycle, rising or falling edge.

WAVEACE 1000 SPECIFICATIONS

	WaveAce 1001	WaveAce 1002	WaveAce 1012
Vertical			
Bandwidth	40 MHz	60 MHz	100 MHz
Rise Time	8.8 ns	5.8 ns	3.5 ns
Input Channels	2		
Vertical Resolution	8-bits		
Vertical Sensitivity	2 mV/div – 10 V/div		
Bandwidth Limiting Filter	20 MHz		
Maximum Input Voltage	400 Vpk, CAT I		
Input Coupling	GND, DC 1 MΩ, AC 1 MΩ		
Input Impedance	1 MΩ || 18 pF		
Acquisition			
Sampling Rate (Single Shot)	1 GS/s (interleaved), 500 MS/s (all channels)		
Sampling Rate (Equivalent Time)	25 GS/s	50 GS/s	
Peak Detect Period	10 ns		
Memory Length	1 Mpts/Ch		
Maximum Memory	2 Mpts		
Timebase Range	2.5 ns/div – 50 s/div		
Probes			
Standard Probes	10:1, 1:1 Switchable Passive Probe (one per channel)		
Triggering			
Triggers	Edge, Pulse Width, Video, Slope (Rise Time), Alternate		
Measure, Math and Wave Recorder			
Measure	Amplitude, Average, Base, Burst Width, Cyclic RMS, + Duty Cycle, - Duty Cycle, Fall Time, Frequency, Max, Mean, Min, Overshoot, Peak-Peak, Period, Phase, Preshoot, Rise Time, RMS, Top, + Width, - Width. Plus 9 advanced parameters for edge to edge timing measurements		
Math	Add, Subtract, Multiply, Divide, FFT (up to 1 kpts with Rectangular, Von Hann, Hamming or Blackman windows)		
Waveform Sequence Recorder	Record and playback a sequence of up to 2,500 waveforms		
Input/Output Interfaces			
USB	USB host port for flash drives, USB device port for connecting to PC and printers		
Physical			
Dimensions (HWD)	163 mm x 313 mm x 115.8 mm; 6.42" x 12.32" x 4.6"		
Weight	2.78 kg; 6.10 lbs.		
Power Requirements			
	100 - 240 V (± 10%) at 50 / 60 / 400 Hz (± 5%). Automatic AC voltage selection. Max power consumption: 50 W		
Compliance			
	CE Compliant, UL and cUL listed. Conforms to EN 61326-1, EN 61010-1, UL 61010-1 2nd edition, and CSA C22.2 No. 61010-1-04.		

WAVEACE 2000 SPECIFICATIONS

	WaveAce 2002	WaveAce 2004	WaveAce 2012	WaveAce 2014	WaveAce 2022	WaveAce 2024	WaveAce 2032	WaveAce 2034
Vertical								
Bandwidth	70 MHz	70 MHz	100 MHz	100 MHz	200 MHz	200 MHz	300 MHz	300 MHz
Rise Time	5.0 ns	5.0 ns	3.5 ns	3.5 ns	1.75 ns	1.75 ns	1.2 ns	1.2 ns
Input Channels	2	4	2	4	2	4	2	4
Vertical Resolution	8-bits							
Vertical Sensitivity	2 mV/div–5 V/div							
Bandwidth Limiting Filter	20 MHz							
Maximum Input Voltage	400 Vpk, CAT I				400 Vpk, CAT I (1 MΩ), 5 V_{rms} (50 Ω)			
Input Coupling	GND, DC 1 MΩ, AC 1 MΩ				GND, DC 1 MΩ, AC 1 MΩ, 50 Ω			
Input Impedance	1 MΩ || 18 pF				1 MΩ || 18 pF, 50 Ω			
Acquisition								
Sampling Rate (Single Shot)	2 GS/s (interleaved) 1 GS/s (all channels)							
Sampling Rate (Equivalent Time)	50 GS/s							
Peak Detect Period	2.5 ns							
Memory Length	12 kpts/Ch							
Maximum Memory	24 kpts							
Timebase Range	5 ns/div – 50 s/div		2.5 ns/div – 50 s/div				1 ns – 50 s/div	
Probes								
Standard Probes	10:1, 1:1 Switchable Passive Probe (one per channel)							
Triggering								
Triggers	Edge, Pulse Width, Video, Slope (Rise Time), Alternate							
Measure, Math and Wave Recorder								
Measure	Amplitude, Average, Base, Burst Width, Cyclic RMS, + Duty Cycle, - Duty Cycle, Fall Time, Frequency, Max, Mean, Min, Overshoot, Peak-Peak, Period, Phase, Preshoot, Rise Time, RMS, Top, + Width, - Width. Plus 9 advanced parameters for edge to edge timing measurements							
Math	Add, Subtract, Multiply, Divide, FFT (up to 1 kpts with Rectangular, Von Hann, Hamming or Blackman windows							
Waveform Sequence Recorder	Record and playback a sequence of up to 2,500 waveforms							
Input/Output Interfaces								
USB	USB host port for flash drives, USB device port for connecting to PC and printers							
LAN	LAN port for connection to PC using WaveStudio software							
Physical								
Dimensions (HWD)	163 mm x 360 mm x 124.1 mm; 6.42" x 14.17" x 4.89"							
Weight	3.33 kg; 7.40 lbs.							
Power Requirements								
	100 - 240 V (± 10%) at 50 / 60 / 400 Hz (± 5%). Automatic AC voltage selection. Max power consumption: 50 W							
Compliance								
	CE Compliant, UL and cUL listed. Conforms to EN 61326-1, EN 61010-1, UL 61010-1 2nd edition, and CSA C22.2 No. 61010-1-04.							

ORDERING INFORMATION

Ordering Information

Product Description	Product Code
40 MHz, 500 MS/s, 2 Ch, 1 Mpts/Ch with 7" Color Display. 1 GS/s Interleaved, 1 MΩ Input	WaveAce 1001
60 MHz, 500 MS/s, 2 Ch, 1 Mpts/Ch with 7" Color Display. 1 GS/s Interleaved, 1 MΩ Input	WaveAce 1002
100 MHz, 500 MS/s, 2 Ch, 1 Mpts/Ch with 7" Color Display. 1 GS/s Interleaved, 1 MΩ Input	WaveAce 1012
70 MHz, 1 GS/s, 2 Ch, 12 kpts/Ch with 7" Color Display. 24 kpts, 2 GS/s Interleaved, 1 MΩ Input	WaveAce 2002
70 MHz, 1 GS/s, 4 Ch, 12 kpts/Ch with 7" Color Display. 24 kpts, 2 GS/s Interleaved, 1 MΩ Input	WaveAce 2004
100 MHz, 1 GS/s, 2 Ch, 12 kpts/Ch with 7" Color Display. 24 kpts, 2 GS/s Interleaved, 1 MΩ Input	WaveAce 2012
100 MHz, 1 GS/s, 4 Ch, 12 kpts/Ch with 7" Color Display. 24 kpts, 2 GS/s Interleaved, 1 MΩ Input	WaveAce 2014
200 MHz, 1 GS/s, 2 Ch, 12 kpts/Ch with 7" Color Display. 24 kpts, 2 GS/s Interleaved, 50/1 MΩ Input	WaveAce 2022
200 MHz, 1 GS/s, 4 Ch, 12 kpts/Ch with 7" Color Display. 24 kpts, 2 GS/s Interleaved, 50/1 MΩ Input	WaveAce 2024
300 MHz, 1 GS/s, 2 Ch, 12 kpts/Ch with 7" Color Display. 24 kpts, 2 GS/s Interleaved, 50/1 MΩ Input	WaveAce 2032
300 MHz, 1 GS/s, 4 Ch, 12 kpts/Ch with 7" Color Display. 24 kpts, 2 GS/s Interleaved, 50/1 MΩ Input	WaveAce 2034

Product Description	Product Code
Included with Standard Configuration	
One Passive Probe per Channel	
Multi-language User-interface and Help (English, French, German, Italian, Japanese, Korean, Russian, Simplified Chinese, Spanish, Traditional Chinese)	
USB Cable for use with WaveStudio	
Getting Started Manual	
Calibration and Performance Certificate	
3-year Warranty	
Accessories	
Soft Carrying Case for WaveAce Oscilloscopes	WA-SOFTCASE

Customer Service

LeCroy oscilloscopes and probes are designed, built, and tested to ensure high reliability. In the unlikely event you experience difficulties, our digital oscilloscopes are fully warranted for three years and our probes are warranted for one year.

This warranty includes:

- No charge for return shipping
- Long-term 7-year support
- Upgrade to latest software at no charge

For more information, please contact:

LeCroy
1-800-5-LeCroy
www.lecroy.com

Local sales offices are located throughout the world.
Visit our website to find the most convenient location.

WaveAce1000-2000DS-21may12
PDF

AMEYA360
Components Supply Platform

Authorized Distribution Brand :

Website :

Welcome to visit www.ameya360.com

Contact Us :

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  Email amall@ameya360.com

  QQ 800077892

  Skype ameyasales1 ameyasales2

- ### Customer Service :

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  Tel +86 (21) 64016692-8333

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