LeCroy

WaveJet™ 300A Oscilloscopes

100 MHz–500 MHz

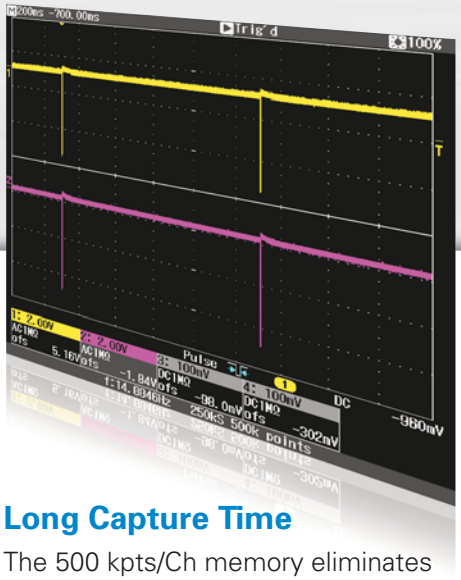
Portable Performance for Debug and Validation

A UNIQUE TOOLSET FOR PORTABLE OSCILLOSCOPES

Key Features

- 100 MHz, 200 MHz, 350 MHz and 500 MHz bandwidths
- Sample rates up to 2 GS/s
- Long waveform memory – 500 kpts/Ch
- 26 measurement parameters
- Replay history mode
- 7.5" color display
- Multi-language user-interface and help
- USB Host and Device connections for printers, memory sticks and PC remote control
- Available GPIB and LAN connectivity

The WaveJet 300A provides the banner specifications, feature set and user interface to simplify how you work and shorten debug time. With a big, bright 7.5" display, long 500 kpts/Ch memory and up to 2 GS/s you will easily capture and see every detail of your waveform. The USB ports provide a quick way to save waveforms, store or print screen captures or connect to a PC. Math and measurement tools help you understand the waveforms and Replay mode allows you to look at a history of what has been captured. Altogether these specs, features and capabilities make the WaveJet 300A the right oscilloscope for your debugging needs.



Long Capture Time

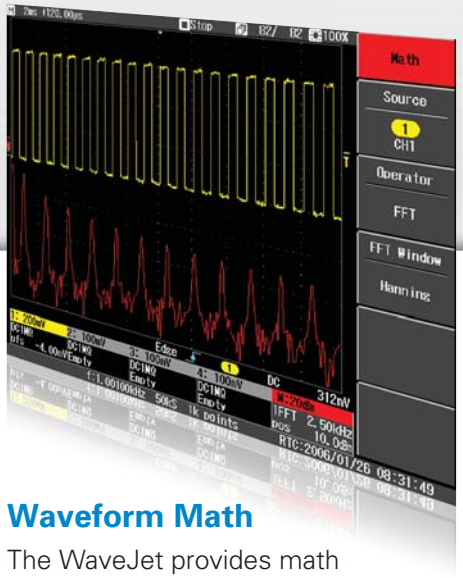
The 500 kpts/Ch memory eliminates the tradeoff between long capture and high sample rate providing long capture at full 2 GS/s sample rate. The long memory makes the WaveJet a great tool for viewing low frequency and high frequency signals or signals with fast edges

Advanced Triggering

Along with edge triggering, additional triggering capabilities include Pulse Width, Period, Pulse Count and TV to help you capture the signals you need to see.

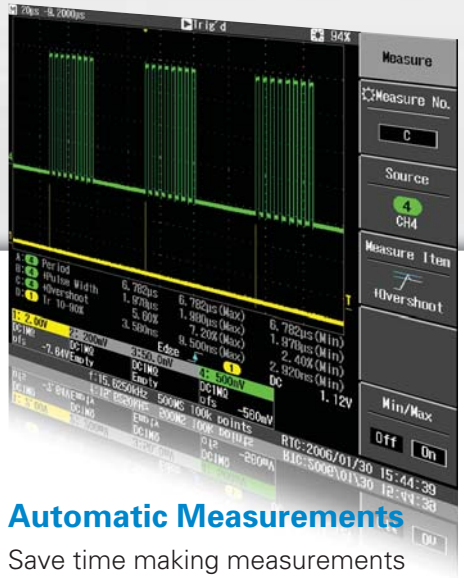
Frequency Counter

Use the built in 6-digit frequency counter to



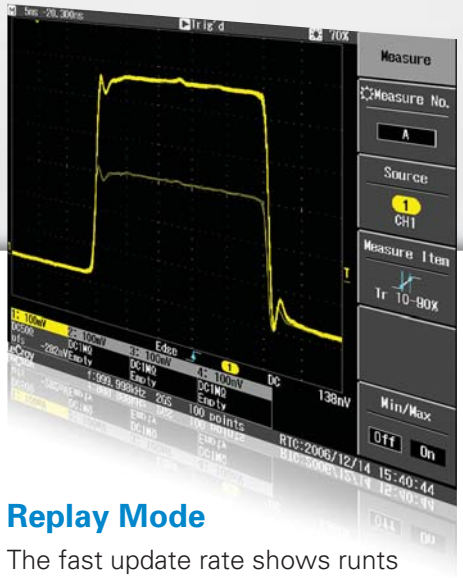
Waveform Math

The WaveJet provides math capabilities for additional analysis. Available math functions include sum, difference, product and FFT. Measurements can then be made on the calculated waveforms using the parameters or cursors to provide additional debug and analysis capabilities.



Automatic Measurements

Save time making measurements on your signals by using the 26 automatic measurement parameters. See your results color coded to the channels that are being measured. For a more in-depth look turn on the min/max statistics to observe trends in the measurements.



Replay Mode

The fast update rate shows runts and glitches when they occur but it is hard to tell exactly when they occurred. Replay mode lets you go back in time to isolate those anomalies, measure them with parameters or cursors, and quickly find the source of the problem.

simplify how you make measurements. The counter is always displayed and easy to read.

Acquisition Modes

Peak detect and equivalent time acquisition modes offer flexibility in how you capture and measure your signals. The WaveJet can capture glitches as small as 1 ns with peak detect and can achieve a sampling rate of up to100 GS/s with equivalent time sampling.

Connectivity and Communication

Saving waveforms and screen images is an important part of documenting results. The WaveJet has a front panel USB port to save data to memory stick and a rear panel USB for printing hardcopies.

The rear panel USB port, along with optional GPIB and Ethernet connections provide full remote control of the instrument. LeCroy's Scope Explorer and ActiveDSO software utilities provide a quick method to begin controlling the WaveJet.

INTUITIVE USER INTERFACE SIMPLIFIES HOW YOU WORK

The WaveJet 300A Series offers a set of features and capabilities not typically found in a portable oscilloscope. Its small form factor includes a big, bright 7.5" display as well as, USB, GPIB and Ethernet connectivity.

1. Display

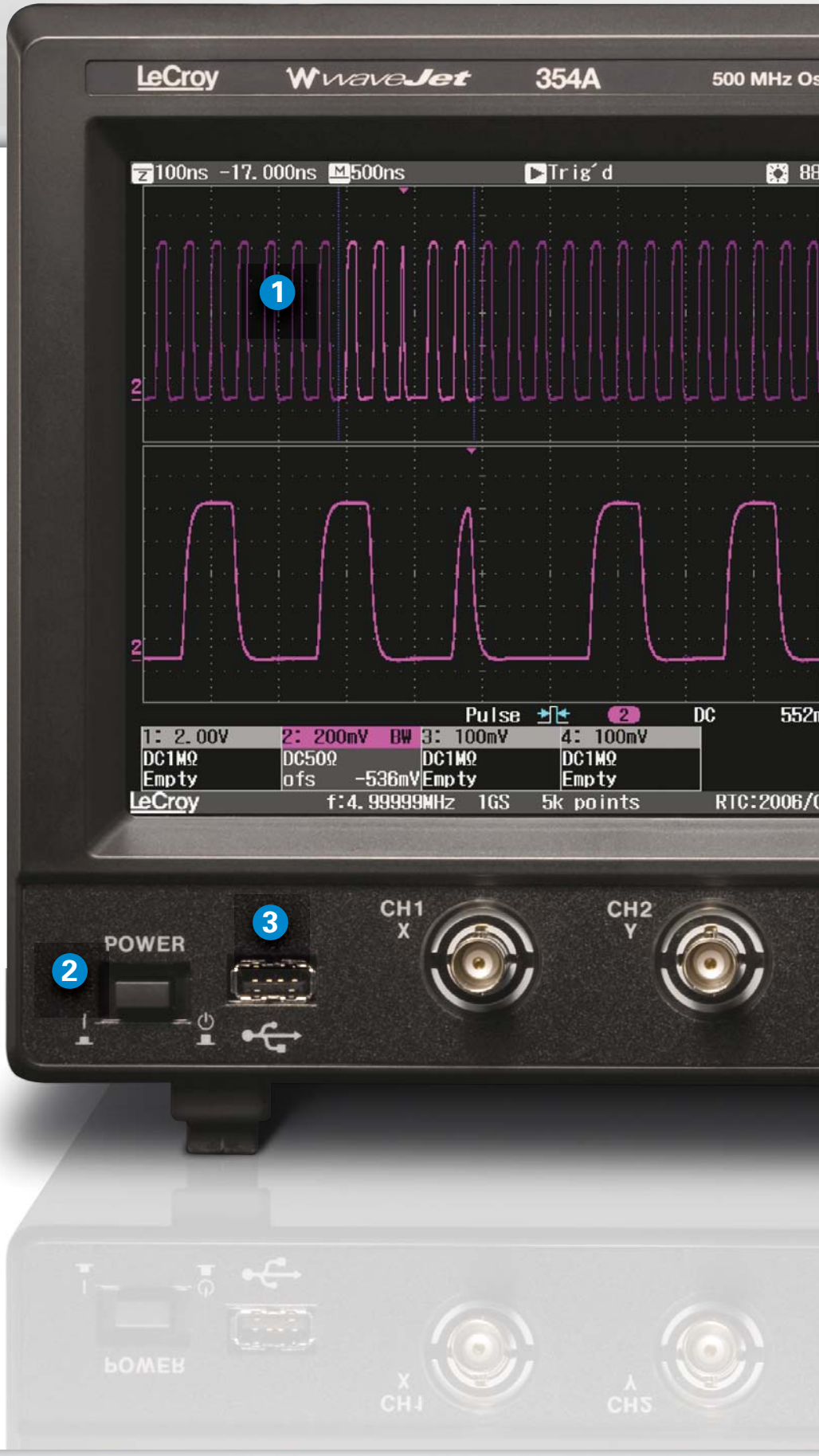
The 7.5" VGA display allows you to easily view signal details. It also provides room to display measurements and menus without cluttering the waveform grid.

2. Power Up Time

The WaveJet is on and ready to use in less than 3 seconds.

3. Connectivity

Documenting your work is easy using the front-mounted USB port on the WaveJet. Simply press the Print button on the front panel to quickly save screen images to your USB memory device.



4. Portability

The small 4" footprint and light weight of the WaveJet means it is easy to carry and use anywhere, even when bench space is limited.

5. Auto Setup

Quickly configure vertical, horizontal, and trigger settings with a single button press.

6. Intensity/Replay Control

Rotate to control waveform intensity, or push to toggle to Replay mode. In Replay mode, rotate this knob to see a history of waveforms captured by the WaveJet.

7. Active Channel Indicators

These channel LEDs are color matched to each waveform on the display. The active channel for the vertical controls is always lit to simplify operation.

8. Push Knobs

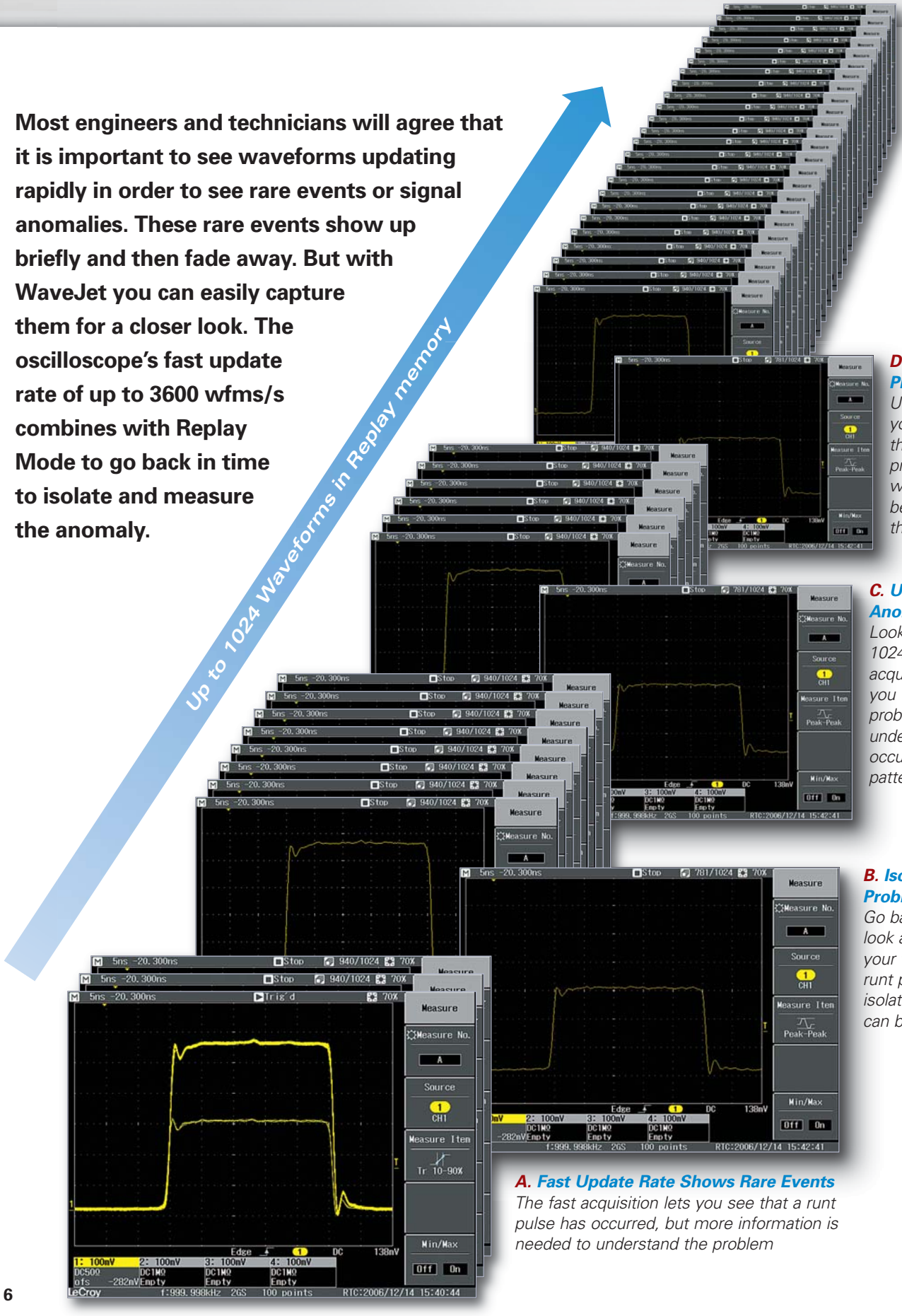
Push the Offset knob to automatically zero the channel offset, or the Delay knob to automatically center the trigger point on the screen.

9. Local Language User Interface

Select from 9 different language preferences.

REPLAY MODE ISOLATES RARE EVENTS

Most engineers and technicians will agree that it is important to see waveforms updating rapidly in order to see rare events or signal anomalies. These rare events show up briefly and then fade away. But with WaveJet you can easily capture them for a closer look. The oscilloscope's fast update rate of up to 3600 wfms/s combines with Replay Mode to go back in time to isolate and measure the anomaly.



D. Solve the Problem
Use Replay to help you understand the cause of the problem by seeing what comes before or after the runt pulse.

C. Understand the Anomaly
Looking back over 1024 consecutive acquisitions allows you to see recurring problems and to understand if they occur in a predictable pattern.

B. Isolate the Problem
Go back in time to look at the history of your waveform. The runt pulse has been isolated and now it can be measured.

A. Fast Update Rate Shows Rare Events
The fast acquisition lets you see that a runt pulse has occurred, but more information is needed to understand the problem

SPECIFICATIONS

	WaveJet 314A	WaveJet 312A	WaveJet 324A	WaveJet 322A	WaveJet 334A	WaveJet 332A	WaveJet 354A	WaveJet 352A
Bandwidth	100 MHz		200 MHz		350 MHz		500 MHz	
Rise Time	3.5 ns		1.75 ns		1 ns		750 ps	
Input Channels	4	2	4	2	4	2	4	2
Display	7.5" Color flat-panel TFT-LCD, 640 x 480 VGA							
Sampling Rate (single-shot)	1 GS/s		2 GS/s (Interleaved), 1 GS/s (all channels)					
Sampling Rate (RIS)	100 GS/s							
Peak Detect Period	1 ns							
Memory Length	500 kpts/Ch (all channels)							
Capture Time	500 µs at 1 GS/s, 250 µs at 2 GS/s							
Vertical Resolution	8 bit							
Vertical Sensitivity	2 mV/div–10 V/div				2 mV/div–10 V/div, 2 mV/div–2 V/div (50 Ω)			
Vertical (DC) Gain Accuracy	± (1.5% + 0.5% of full scale)							
BW Limiting Filters	20 MHz				20 MHz, 200 MHz			
Maximum Input Voltage	400 V CAT I				400 V CAT I, 5 V_{rms} (50 Ω)			
Input Coupling	GND, DC 1 MΩ, AC 1 MΩ				GND, DC 1 MΩ, AC 1 MΩ, DC 50 Ω			
Input Impedance	1 MΩ ±1.5%|| 20 pF				1 MΩ ±1.5%|| 16 pF, 50 Ω ±1.5%			
Probing System	BNC with Probe Sense Ring							
Probes	PP010 (One per Channel)				PP006A (One per Channel)			
Timebase Range	5 ns/div–50 s/div		2 ns/div–50 s/div		1 ns/div–50 s/div		500 ps/div–50 s/div	
Roll Mode	50 ms/div–50 s/div (100 kS/s maximum)							
Timebase Accuracy	10 ppm (typical)							

Triggering

Triggers	Edge, Glitch, Period, Pulse Count, TV

Measure, Zoom, Math and Replay

Measure	Base, Cycle Mean, Cycle RMS, Duty Cycle, Fall Time (90-10%), Fall Time (80-20%), Frequency, Integral, Maximum, Mean, Minimum, Number of +Pulses, Number of -Pulses, +Overshoot, -Overshoot, Peak-Peak, Period, +Pulse Width, -Pulse Width, Rise Time (20-80%), Rise Time (10-90%), RMS, Skew, Skew@level, Top, Top-Base
Zoom	Use the front panel QuickZoom button to zoom all waveforms in a separate zoom grid.
Math	Sum, Difference, Product, FFT (up to 8 kpts with Rectangular, Von Hann, or Flat Top)
Replay	Look back at the history of waveform acquisitions (maximum 1024 acquisitions)

Physical Dimensions

Dimensions (HWD)	190 mm x 285 mm x 102 mm (7.5" x 11.2" x 4")
Net Weight	3.2 kg; 7 lbs.

ORDERING INFORMATION

The WJ-CASE Accessory

The small form factor of the WaveJet makes it convenient to move from lab to lab or from the lab in to the field. The WJ-CASE accessory serves as both a carrying case with shoulder strap (not shown) and a protective front cover. Simply slide the WaveJet in to the case and snap on the front cover for transport, when it is time to use the WaveJet remove the front cover and operate the WaveJet while it is still in the case. To make sure you do not lose the front cover turn it around and snap it on to the case from behind.

Product Description	Product Code
WaveJet 4-Channel/2-Channel Oscilloscopes	
500 MHz, 1 GS/s, 4 Ch, 500 kpts/Ch with 7.5" Color Display. 2 GS/s Interleaved	WaveJet 354A
500 MHz, 1 GS/s, 2 Ch, 500 kpts/Ch with 7.5" Color Display. 2 GS/s Interleaved	WaveJet 352A
350 MHz, 1 GS/s, 4 Ch, 500 kpts/Ch with 7.5" Color Display. 2 GS/s Interleaved	WaveJet 334A
350 MHz, 1 GS/s, 2 Ch, 500 kpts/Ch with 7.5" Color Display. 2 GS/s Interleaved	WaveJet 332A
200 MHz, 1 GS/s, 4 Ch, 500 kpts/Ch with 7.5" Color Display. 2 GS/s Interleaved	WaveJet 324A
200 MHz, 1 GS/s, 2 Ch, 500 kpts/Ch with 7.5" Color Display. 2 GS/s Interleaved	WaveJet 322A
100 MHz, 1 GS/s, 4 Ch, 500 kpts/Ch with 7.5" Color Display	WaveJet 314A
100 MHz, 1 GS/s, 2 Ch, 500 kpts/Ch with 7.5" Color Display	WaveJet 312A

Product Description	Product Code
Included with Standard Configuration	
One Passive Probe per Channel	
Multi-language User Interface (English, Chinese, French, German, Italian, Japanese, Korean, Russian and Spanish)	
Getting Started Manual and Quick Reference Guide	
Rear Panel USB Port for Remote Control and Printing	
Calibration and Performance Certificate	
3-year Warranty	

Accessories

GPIB Interface for WaveJet 300A Series	WJ-A-GPIB
10/100Base-T Interface for WaveJet 300A Series	WJ-A-LAN
WaveJet Carrying Case and Protective Front Cover	WJ-A-CASE

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

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.