

Digital Storage Oscilloscope

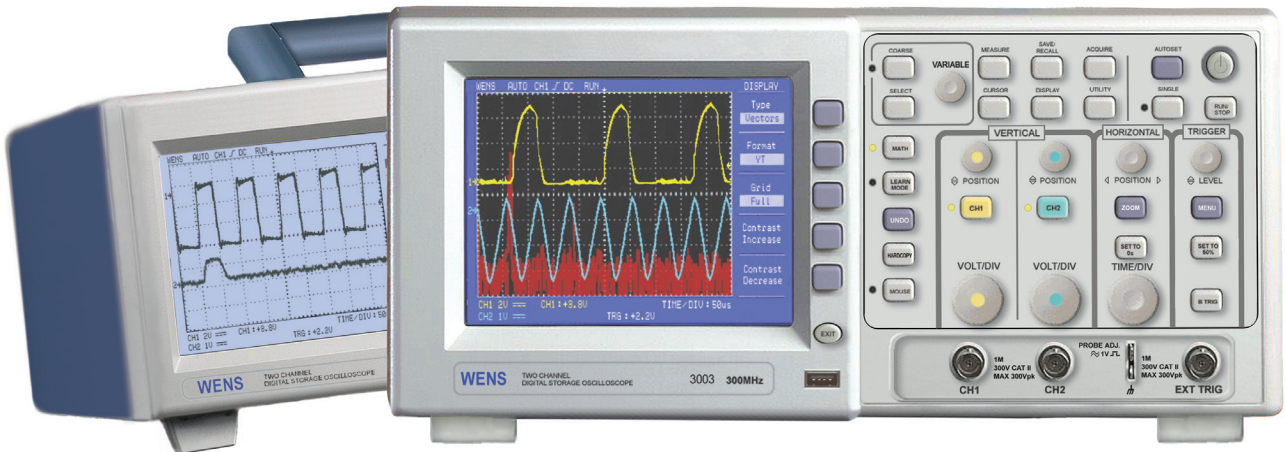
WENS 3000 Series

3001	150MHz	MONO LCD
3002	150MHz	COLOR LCD
3003	300MHz	

200 MS/s Real Sample Rate
50 GS/s Repetitive Sample Rate

125 Kbyte Record Length

Portable / Battery Backup



WENS

The Graphing Power®

Higher Bandwidth, Higher Sample Rate DSO

Digital Portable Oscilloscope
WENS 3001/3002/3003 **S·F·B·G**

Features

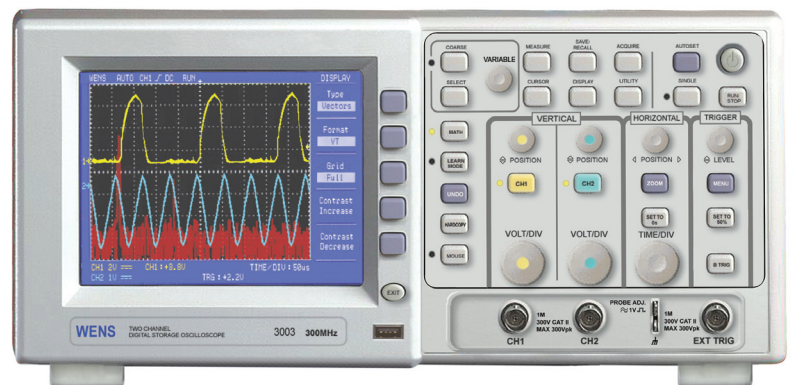
- ◆ 150MHz, 300MHz Bandwidth
200MS/s Real Sample Rate
50GS/s Repetitive Sample Rate
- ◆ 125Kbyte Record Length
- ◆ Various Acquisition Mode :
Sample / Average /
Peak Detect / Envelope
- ◆ Advanced Trigger Mode :
Edge / Pulse Width / TV /
Pattern / Delay
- ◆ Various Auto Measurements:
Frequency / Period / Mean /
Pk-Pk / Cycle RMS / MIN /
MAX / Rise-Fall Time /
Pos-Neg Pulse Width /
Pos-Neg Overshoot /
High / Low / Delay
- ◆ Multi-Language Support
- ◆ Help Menu, Learn Mode
- ◆ Zoom - LCD Display
- ◆ FFT, Zoom Function
- ◆ One-Touch Undo Function
- ◆ Control with External Mouse
- ◆ PC-based Portable
USB Flash Memory Port
- ◆ Various Interface :
RS232 / Printer Port / USB /
GPIB

Application

- ◆ Circuit Design and Debug
- ◆ Training and Education
- ◆ Manufacturing Test
- ◆ Quality Inspection

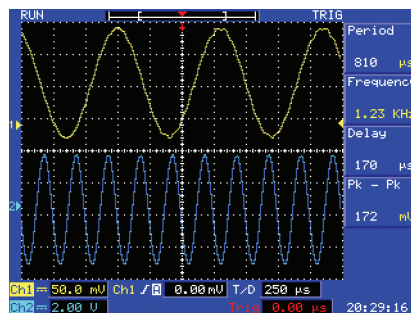
Smart Waveform Analysis

With 150/300MHz bandwidth, long 125k memory and 50GS/s repetitive sampling rate, WENS3000 series are designed to meet today's most demanding engineering requirements. Besides WENS3000's high performance features, unmatched ease-of-use and a variety of external interfaces make you have the utility you need for any application.



High Performance DSO

WENS3000 series operate up to 300MHz bandwidth. With this high bandwidth, 50GS/s equivalent sampling rate enable user to observe repetitive waveforms at 20ps resolution. This performance is superior to any DSO in same class. And WENS3000 is possible to store a large amount of waveform and setting in its 125k long internal memory. Furthermore you can catch any part of waveform using WENS3000's versatile trigger capability.

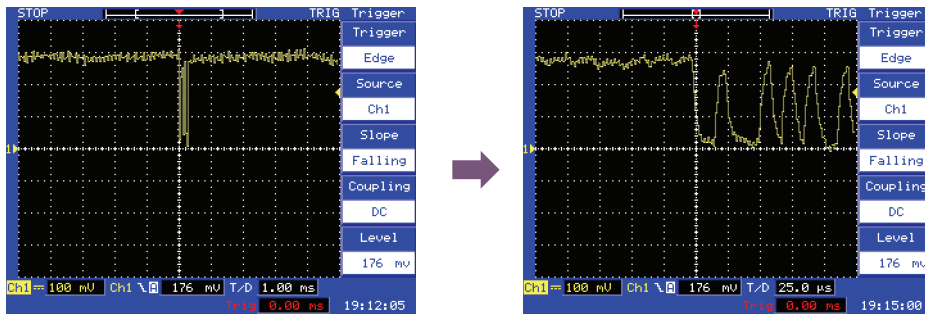


Main Display waveforms and indicators

contain ch1, ch2, math waveform and triggerA, B level, horizontal position, ch1, ch2 offset, volt/division, time/division and so on.

Record Length

Long memory for finding the target signal in long period phenomena
 Long memory enables you to capture high-speed phenomena for the desired period of time, while providing fast sampling speeds required for reliable measurements. Up to 125kbytes of data can be acquired. Long memory lets you maintain high-speed sampling, so individual pulses can be accurately displayed on the screen.

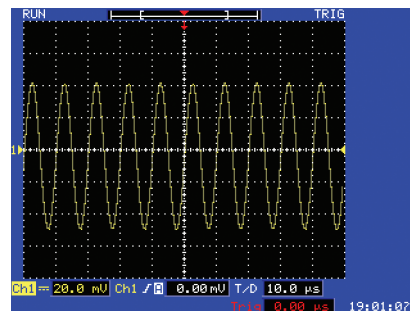
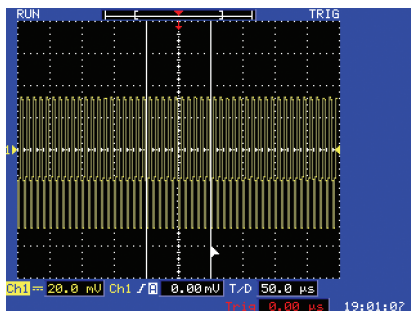


Unique Versatile Supplements available only from WENS3000

Multi-Language Support, Built-In Help Menu and **Learn Mode** are optimum for DSO beginners. Additionally **Undo Key**, turning back to the previous setting, shorten your working time and increase your convenience.
 WENS3000 Series have **External Mouse Port** then you will experience a quite new test & measurement work. Plus WENS3000 has optional USB Flash Memory port to store data at **USB Flash Memory** that is widely used at present. This makes a large data transfer between WENS3000 and PC conveniently without communication cable so WENS3000 is said to truly stand alone DSO.

USB Flash Memory

DSO Contains 10 setting and 5 waveform internal saving capacity. If you want to save more waveforms or settings. Convenient, Easy to use USB Flash memory can be used. DSO supports USB Flash memory (USB1.1) Saving capacity is expandable depend on USB Flash memory size.

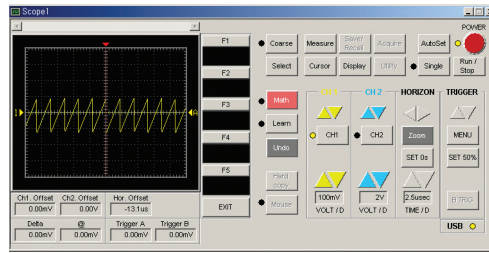


Mouse & Zoom

PS2 Mouse for comfortable UI & Zoom for enlarging the waveform.
 Using PS2 mouse, you do not need to control front panel with button or encoder. You can operate DSO just moving or click mouse like PC.
 The zoom function rapidly displays the target phenomenon contained in large amounts of waveform data.

Various External Interface

With a variety of interfaces, you will have flexibility for using WENS3000 series. Versatile interface, such as RS232 and USB and parallel printer port, is provided as standard. GPIB is provided as optional. Using PC software, user can control DSO and process data in PC.



PC Software

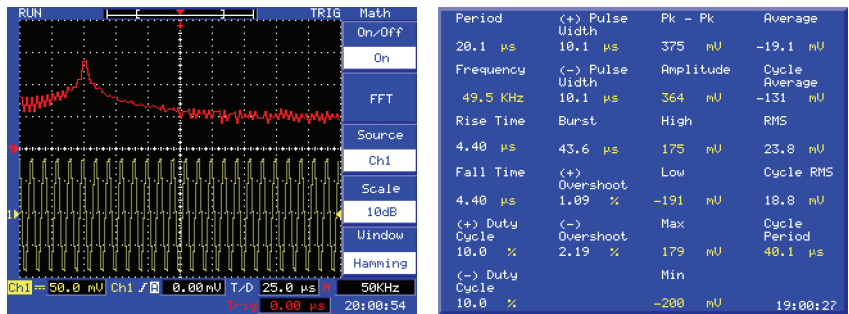
Software for remotely controlling the DSO. The PC Software program displays a screen image of the DSO's front panel on your PC so that you can monitor waveform signals. In addition, you can use the PC's mouse and keyboard to control the DSO. The DSO can be controlled via an USB or RS-232C.

Easy to use

Various acquisition mode and 17 auto measurement functions help user to grasp the accurate property of waveform. The advanced auto-set function makes WENS3000 catch waveform automatically and display waveform more quickly. With arithmetic functions, FFT function keeps user being aware of the results by updating value immediately. Without almost extra-calculation WENS3000 provides sufficient informations of testing.

Math

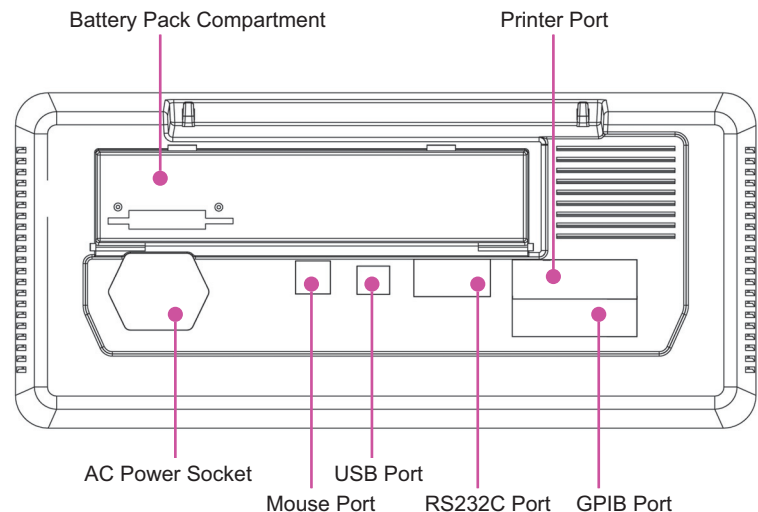
Dual waveform math (+, -) and FFT support. Math function supports Dual wave form math such as (+), (-) and 4 windows in FFT such as Rectangular, Hamming, Hanning and Blackman-Harris.



Portability

DSO with backup battery system (Internal Battery System & Battery Pack) supports the application conveniences and indoor & outdoor field serviceability.

Rear Panel View



SPECIFICATIONS

	WENS3001	WENS3002	WENS3003
BANDWIDTH / SAMPLE RATE	150MHz BANDWIDTH 200MS/s REAL SAMPLING 50GS/s REPETITIVE SAMPLING	150MHz BANDWIDTH 200MS/s REAL SAMPLING 50GS/s REPETITIVE SAMPLING	300MHz BANDWIDTH 200MS/s REAL SAMPLING 50GS/s REPETITIVE SAMPLING
INPUT			
Input Channels Input Coupling Input Impedance Probe Attenuation Factors Maximum Voltage Between Signal and Common at Input BNC	2 Channels DC, AC, GND 1MΩ±1%, 20pF±3pF 1X, 10X, 100X, 1000X 300Vpk-pk, CAT II		
VERTICAL			
Analog Bandwidth Analog Bandwidth Limiter Vertical Resolution VOLTS/DIV Range Offset Range Vertical Accuracy Rise Time at BNC	150 MHz 20 MHz 8-Bit 2 mV/div ~ 5 V/div (1, 2, 5 Step) ±50 div ±2% 2.3 ns		300 MHz 1.4 ns
HORIZONTAL			
SEC/DIV Range Time Base Accuracy Position Range	1 ns/div ~ 10 s/div ±0.01% Pre-Trigger : 20 div maximum Post-Trigger : 1000 div		
TRIGGER			
Trigger Source Trigger Coupling Trigger Mode External Trigger Range Trigger Sensitivity	CH1, CH2, AC Line, EXT DC, AC, HF REJ, LF REJ, Noise REJ Edge, Pulse Width, Delay, Pattern, TV ±15V Approx 0.2div		
ACQUISITION			
Real-Time Sample Rate Repetitive Sample Rate Record Length Acquisition Mode Peak Detection	200 MS/s Single Channel 100MS/s per Channel 50GS/s 125 kbytes/channel Sample, Peak Detect, Envelope, Average 10 ns		
MEASUREMENT			
Cursor Automatic Measurement	Voltage Difference (ΔV) / Time Difference (ΔT) Between Two Cursors, Reciprocal of ΔT Frequency, Period, Mean, Pk-Pk, Cycle RMS, Min, Max, High, Low, Duty, Delay, Rise Time, Fall Time, Positive Overshoot, Negative Overshoot		
FUNCTIONS			
Save / Recall Zoom XY Mode Language Selection	5 Waveforms, 10 Settings (expandable with flash memory systems) Direct time / Volt Conversion X Axis Channel Input - Y Axis Channel Input Multi-Language Support		
DISPLAY			
Display Device Display Contrast	5.7" 320x240 MONO LCD Adjustable	5.7" 320x240 COLOR LCD	5.7" 320x240 COLOR LCD
INTERFACE			
External Control Device Internal USB Flash Memory System Power Battery RS232 / Parallel (Printer) / USB GPIB	External Mouse Port Option Option Standard Option		
MECHANICAL			
Dimensions & Weight	338mm(W) x 155mm(H) x 200mm(D) & 3.9 kg wo/battery / 13.3"(W) x 6.1"(H) x 7.9"(D) & 8.7 lbs wo/battery		

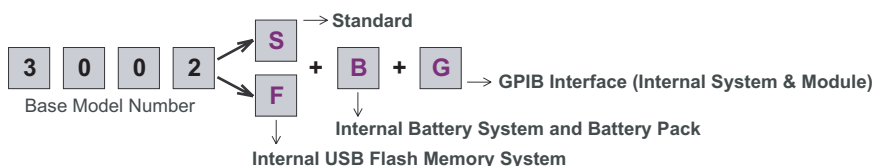
STANDARD ACCESSORIES

ACCESSORY	QUANTITY
Power Cable	1
User's Manual	1
Passive Probe	2
USB PC Software / Cable	1
RS232 PC Software / Cable	1

OPTIONAL ACCESSORIES

PRODUCT	MODEL NUMBER	DESCRIPTION
Internal USB Flash Memory Sys	WENS 3IF	Flash Memory Sys
Internal Battery System and Battery(NIMH) Pack	WENS 3BSP	Back-up Battery Pack
GPIB Internal System and module	WENS 3GSM	GPIB Interface Module
Active Probe	WENS 3AP	500MHz Active Probe

ORDERING MODEL NUMBER SELECTION



Specifications subject to change without notice.

WENS

Test & Measurement

The Graphing Power[®]

Digital Storage Oscilloscope

*Scope DMM
(All-In-One Hand Held)*

Graphical Multimeter

Digital Multimeter

Loop Calibrator

Temp Calibrator

Clamp Meter

Frequency Counter

Function Generator

Graphical Power Meter



WENS

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