

DOMTM

Digital Oscilloscope Meter WENS 800 Series

20MHz / 40MHz / 60MHz / 100MHz

Max 200 MS/s Real Sample Rate
5 GS/s Repetitive Sample Rate
125 Kbyte Record Length



WENS

*Alternative Graphing Power*TM

High Performance Digital Oscilloscope Meter from Top-end Bench Oscilloscope

Digital Oscilloscope Meter WENS 820/840/860/800x

Oscilloscope

- ◆ 20/40/60/100MHz Bandwidth
- ◆ Max 200MS/s Real Sample Rate with 5Gs/s repetitive Sampling
- ◆ 125K byte 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 / One cycle Mean Pk-Pk / RMS / MIN / MAX / Rise-Fall Time / Positive/Negative Overshoot, Preshoot, \pm Duty Cycle / Pos-Neg Pulse Width / Pos-Neg Overshoot / High / Low / Delay, Phase Shift
- ◆ Zoom - LCD Display
- ◆ Cursor
- ◆ FFT Analysis
- ◆ Interface : USB
- ◆ Help Menu
- ◆ Math

Digital Multi Meter

- ◆ High Precision, Rugged Autoranging True RMS DMM
- ◆ 6000 Count with Analog Bargraph Display
- ◆ True RMS AC Volts / 30 KHz wide band
- ◆ Complete measurement ranges DC Volts, AC Volts(RMS), AC+DC Volts (RMS), Ohm, Capacitance, Diode, Continuity, (through external adapter) Currents, Temperature, %Relative Humidity, Pressure

Application

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

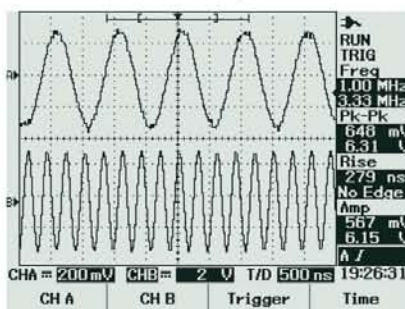
Smart Waveform Analysis

With 20MHz to 100MHz bandwidth, long 125k memory and Max 200MS/s real sampling rate with 5GS/s repetitive sampling rate, WENS800 series are designed to meet today's most demanding engineering requirements.

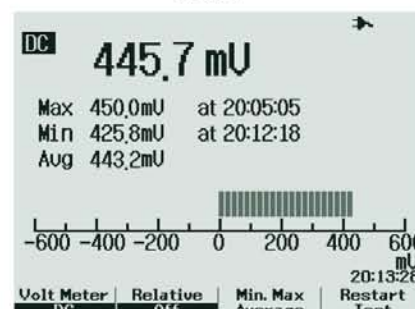
Besides WENS800's high performance features, unmatched ease-of-use and a variety of external interfaces make you have the utility you need for any application.



Oscilloscope



Meter



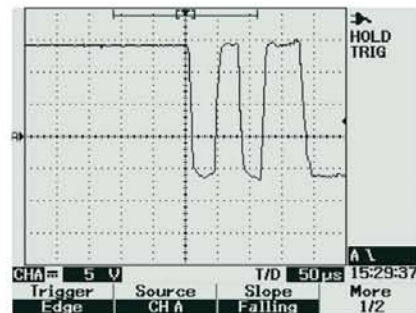
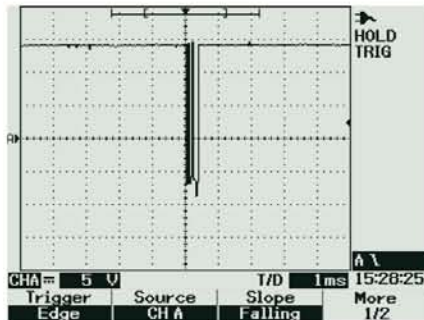
Main Display waveforms and indicators

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

Analogue Bargraph, MIN, MAX, AVG VOLT, DC 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.



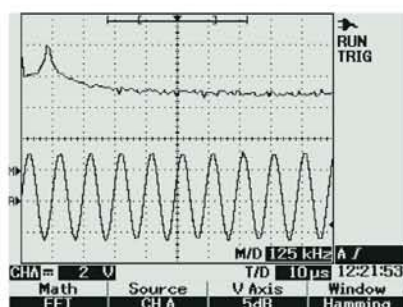
Unique Versatile Supplements available from WENS800

Easy to use

Various acquisition mode and 23 auto measurement functions help user to grasp the accurate property of waveform.
The advanced auto-set function makes WENS800 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 WENS800 provides sufficient informations of testing.

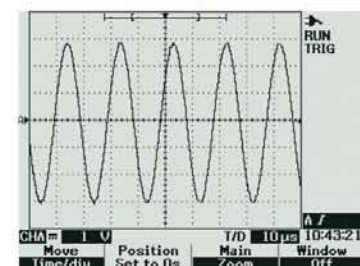
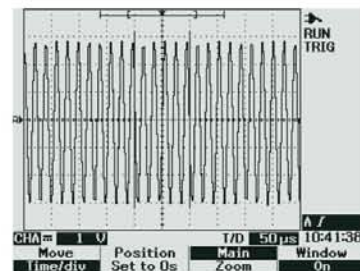
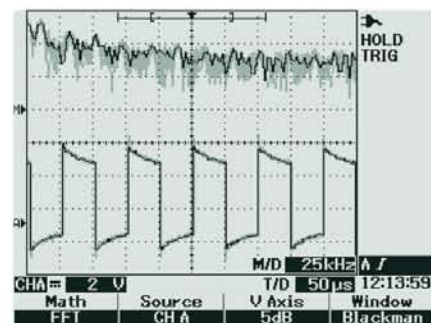
Math

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.



Persistence Intensity

In persistence mode, Channel and Math function are displayed Dimmer for previous acquisition



Zoom

The zoom function rapidly displays the target phenomenon contained in large amounts of waveform data.

Supportability

Firmware update of Instrument through USB and Self Calibration, Self test on systems and function

Self Test and Self Calibration

Basic Self Tests shall execute upon power on. These tests must not be any signal connected to the inputs of the unit. The purpose of these tests is to flag a major system problem.

Advanced Diagnostic self tests are available in Menu. These tests verify proper operation of the instruments. These tests require disconnection of any signals from the scope inputs.

Self Calibration performs within Operating temperature, calibration abort, calibration factors, non-volatile factors

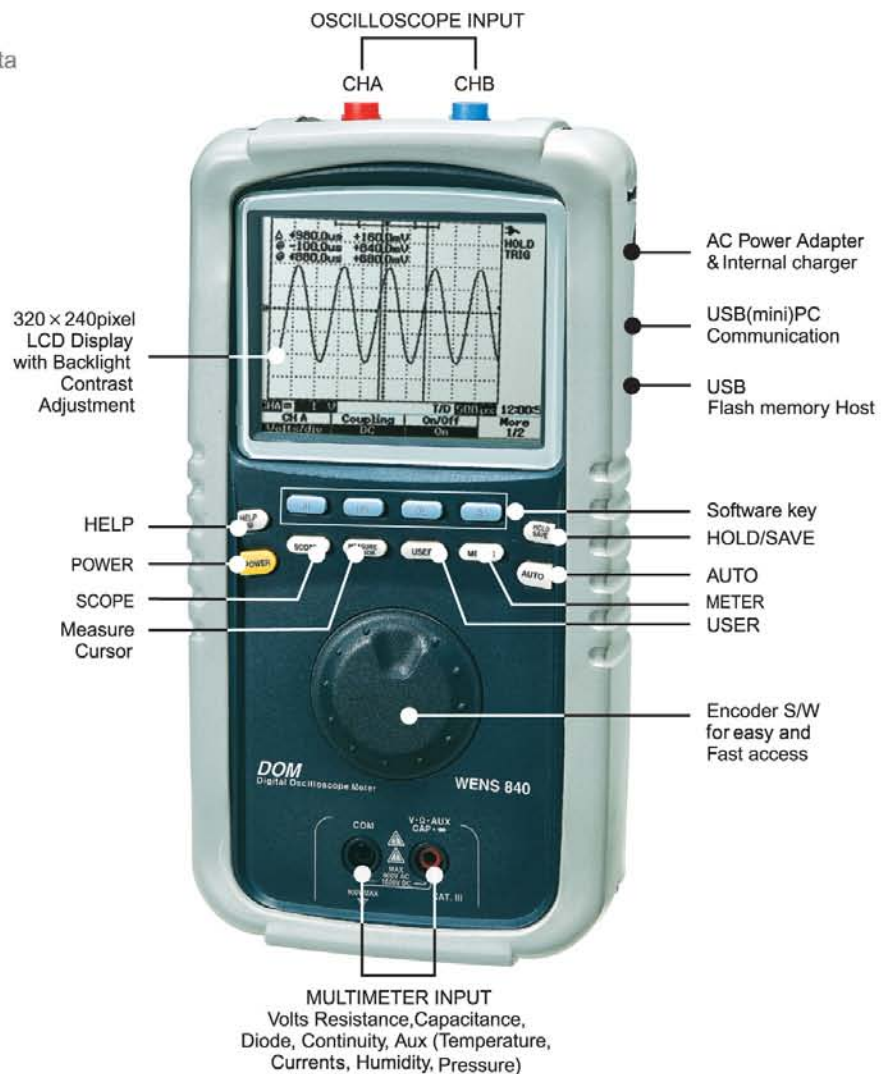
Usability

Help Menu system, *USB PC Interface*,



USB Flash Memory

optional **USB Flash Memory** port to store data at present. This makes a large data transfer between DOM and PC conveniently without communication cable so DOM is said to truly stand alone DOM.



SPECIFICATIONS				
MODEL	820	840	860	800X
OSCILLOSCOPE				
BANDWIDTH / SAMPLE RATE	20 MHz	40 MHz	60 MHz	100 MHz
	Real Sampling 100 MS/s Per Channel	Real Sampling 100MS/s per Channel, 200 MS/s Single Channel		
		with 2.5 GS/s Repetitive Sampling		with 5 GS/s Repetitive Sampling
INPUT				
Input Channels Input Coupling Input Impedance Probe Attenuation Max Input	2 Channels DC, AC, GND 1M Ω \pm 1%, 20pF \pm 3pF x10 300V (direct input) 600V (through 10:1 Probe)			
VERTICAL				
Vertical Resolution VOLTS/DIV Range Offset (Position) Vertical Accuracy	8-Bit 5 mV/div ~ 200 V/div (1, 2, 5 Step) \pm 5 div from center \pm 3%			
HORIZONTAL				
SEC/DIV Range Time Base Accuracy Position Range Delay Resolution Delay Accuracy Delta Time Measurement Accuracy Modes XY Horizontal Pan and Zoom	50 ns/div ~ 50 s/div	10 ns/div - 50 s/div		5 ns/div - 50 s/div
TRIGGER				
Sources Modes Advanced Selections Edge Pulsewidth TV TV Sensitivity Auto Scale Range Level Accuracy Level Resolutions Sensitivity Noise Reject Mode Coupling Modes	Channel A and B Normal, Single, Roll, Auto Trigger Auto, Edge, Pulsewidth, Pattern Video Trigger on a rising or Falling edge of any source Trigger on a positive or negative pulsewidth of any source larger than, less than, equal to or not equal to duration width 200 nS 10S NTSC, PAL, SECAM, Normal & Inverted Video, Even field, Odd field, Line # select 0.7 div trigger level Yes \pm 10 div from center of screen \pm 0.4 divisions 500 pixels DC 5 MHz - 0.5 div 1.5 divisions Yes DC : DC Coupled trigger AC : AC Coupled trigger cutoff frequency < 1HZ HF-Reject : > 50 KHz LF-Reject : > 30 KHz Noise Reject : 3 times the DC coupled limits			
ACQUISITION				
Real-Time Sample Rate	100 MS/s per Channel	200MS/s single channel, 100MS/s per channel		
Waveform Interpolation Record Length Acquisition Mode Peak Detection Average Vertical Resolution Same Rate Accuracy Minimum Sample Rate	Dot, Linear, Sine, Pulse 125 Kbytes/channel Sample, Peak Detect, Envelope, Average 10 ns 2 - 256 8 bit 100 ppm 100 MS/s (250 ns to 50S/div)			
MEASUREMENT				
Automatic Measurement Waveform Math Cursors Delta V Delta T FFT Windows Amplitude Display Maximum Frequency	Peak-to-peak, Maximum, Amplitude, Top, Base, Positive/Negative Overshoot, Preshoot, RMS Mean, One Cycle Mean, Frequency Period ,+ Width , - Width, + - Duty Cycle, Rise time, Fall Time, Delay, Phase shift. CHA + CHB, CHA - CHB, CHB -CHA Delta V Voltage Voltage diff between cursors Time difference between cursors Model 840/860/800X only Rectangular, Hamming, Hanning, Blackman-Harris Variable dB (1/2/5/10 dB) 1.25 GHz			
FUNCTIONS				
Save / Recall Zoom XY Mode	5 Waveforms, 10 Settings Direct Time / Volt conversion X Axis Channel Input - Y Axis Channel Input			

SPECIFICATIONS

MODEL	All Models
MULTIMETER	
COUNTS	Autorangeing 6000 Count, 3 5/6 digit with analog Bargraph display
DC VOLTAGE	
Range	600mV - 1000V
Accuracy	±(0.3% + 10 digit)
Input Impedance	10 Mohm
Overload Protection	1,000v DC or AC Peak within 10 Seconds
AC VOLTAGE (True RMS), AC+DC VOLTAGE (True RMS)	
Range	6V - 600V / 30KHZ, True RMS
Accuracy	±(0.75% + 10 digit) at 50 - 1KHz ±(2.0% + 10 digit) at 1KHz - 30 KHz
Overload Protection	1,000v DC or AC Peak within 10 Seconds
RESISTANCE	
Range	600 ohm - 60M ohm
Accuracy	600 ohm - 6M ohm ±(0.5% + 10 digit) 60 Mohm ±(1.0% + 10 digit)
Overload Protection	250V DC or AC Peak within 10 Seconds.
CAPACITANCE	
Range	60 nF - 300 uF
Accuracy	±(2.0% + 10 digits)
OTHER MEASUREMENTS	
Diode Check	Accuracy : 2%
Continuity	less than 60 ohm, Buzzer Sound
dBm (Adjustable)	Reference Value 2,4,8,16,50,75,93,110,125,135,150,300,600,900,1000,1200
MIN / MAX / AVG	Records Minimum, Average and Maximum readings with Time Stamping
Temperature, % Relative Humidity, High-Current, Pressure	Through external adapter
DISPLAY	
Display Device	3.9", 320x240 MONO LCD with Backlight
Display Contrast	Adjustable
Persistence Mode	Channel and Math function are displayed dimmer for previous Acquisition.
OPERATION	
Rotary Encoder, 12Keys	
USABILITY & SUPPORTABILITY	
USB Flash memory host	Option
USB for PC Interface	USB 2.0 Client
Self Test	Power on Test, Diagnostic Test
Self Calibration	Failure message, Calibration Abort, Calibration Factor, Non-Volatile Factors
Help system User Interface	
Firmware Update	Updating Instrument Firmware via USB Port
Dimensions & Weight	
107mm(W) x 220mm(H) x 55mm(D) / 4.2" x 8.3" x 2.2", 1.2kg / 2.6 lbs Net meter	
POWER	
Power Adapter (DC 9V/1A) with Internal charger NIMH Rechargeable Battery Pack 7.2V	



Meter CAT II 1000V DC
CAT III 600V
Oscilloscope CAT III 600V (via 10:1 probe)
CAT III 300V (Direct Input)

CH - CH Protection
Scope - Meter Isolation

STANDARD ACCESSORIES		OPTIONAL ACCESSORIES		
Description	QUANTITY	PRODUCT	NUMBER	DESCRIPTION
Power adapter and charger	1	Battery Pack	8B	NIMH Rechargeable Battery Pack
User's Manual	1	Temp Adapter	9050	Temp Adapter (°C / °F)
Scope Probe (x10) 600VRMS CAT III	2	Current Adapter	8CA	AC 1000A
Test Lead (Red, Black) 1000V DC CAT III	1	Carrying Bag	8CB	Deluxe Carrying Bag with shoulder
Holster case	1	USB Flash Memory (Host)	8F	USB Flash Memory Internal System & Port (USB Host)
USB Interface Package	1			

specifications subject to change without notice.

WENS

A ISO 9001 Certified Manufacturer.

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