

Product Catalogue

- + Digital Storage Oscilloscope
- + Arbitrary Waveform Generator
- + Programmable DC Power Supply
- + PC Oscilloscope
- + Digital Multimeter



12-bit ADC
XDS series DSO



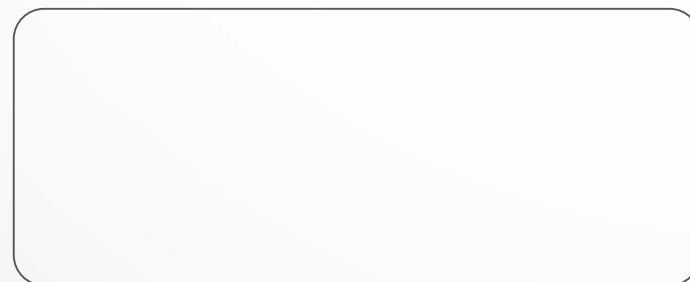
OWON[®] product line - Created by LILLIPUT[®]

Fujian Lilliput Optoelectronics Technology Co., Ltd.

The Mansion of Optoelectronics, Hengsan Road
Lantian Industrial Zone, Zhangzhou 363005 P.R. China
Tel : +86.592.257.5666
E-mail : info@owon.com.cn

Released in Jul 2015

Please contact local distributor for further information.



About **OWON**

Lilliput steps into electronics industry since 1990. Owned by Lilliput, OWON was born in 2006 to "Meet your best need" in test and measurement equipment field.

From then on, OWON has successfully launched 8 product series - handheld digital storage oscilloscope (DSO, covering HDS Series, and HDS-N Series), general bench type DSO (SDS-E series), LA-mixed DSO (MSO Series), deep memory DSO (Smart DS Series), linear programmable DC power supply (ODP series), DDS arbitrary waveform signal generator (AG series), and PC oscilloscope (VDS series). Among which, handheld DSO (HDS & HDS-N Series) keeps us outstanding among test and measurement equipment field, deep memory DSO (Smart DS Series) brings brand-new user experience with its creative design.

Timely effective communication acts as the engine to power the enterprise growth, and innovation is the soul of engineering design, upon with mutual communication, and continual product innovation, we are ready to, and are investing more to make our common test and measurement equipment world more richful, and colorful .



Development Milestone

2006

- Mar HDS1022M - first fine quality 2 in 1 handheld DSO created by China with high def color LCD
- Sep PDS5022 - large 7.8" color LCD bench type DSO
- Nov HDS2062M - 60MHz handheld DSO introduced

2007

- Jun HDS-N series DSO - the upgraded version of HDS series
- Nov MSO5022S - mixed LA-supported DSO launched

2008

- Apr PDS7102T - 100MHz bandwidth bench type DSO entering into product line
- Dec OWON receives the honor - "the highest cost performance product" from Wireless magazine

2009

- Jan MSO7102T - mixed LA-supported DSO with 100MHz bandwidth, and 1GS/s real time sample rate, becomes new member of OWON product family
- Apr innovative application of auto-measurement, and max 20 group measurement options equipped with full OWON product
- Oct HDS3102M-N - first 100MHz bandwidth handheld DSO made by China born

2010

- Jan MSO8102T - 100MHz bandwidth mixed LA-supported DSO
- Feb MSO8202T - 200MHz bandwidth mixed LA-supported DSO
- Oct Smart DS series DSO with ultra-thin body, and 10M record length

2011

- Oct ISO9001 quality system certified
- ODP3032 - programmable DC power supply unveiled in Hong Kong Electronics Exhibition
- Nov AG4151 - DDS arbitrary waveform generator first debut in Shanghai Electronics Exhibition

2012

- Aug SDS5032E - 2nd generation of PDS5022

2013

- Apr new product VDS series PC oscilloscope
- Jul new product TDS series touch screen digital storage oscilloscope
- Oct SDS-E Series - 2nd generation economical digital storage oscilloscope

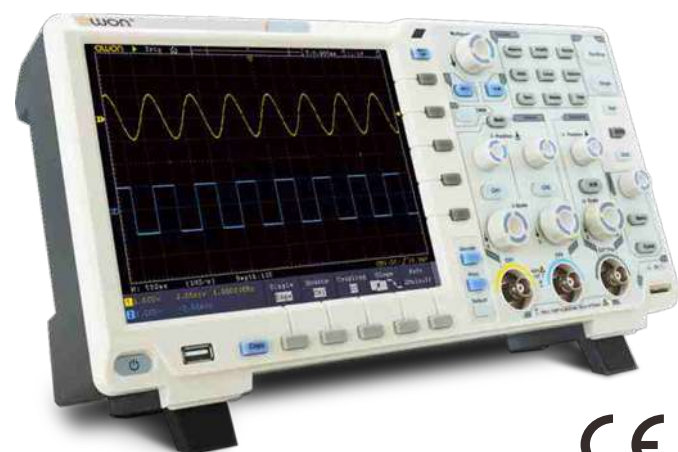
2014

- Mar 4-channel PC oscilloscope VDS3104 added into VDS series
- Apr single-channel waveform generator AG-S series comes into being
- Jun creative pen-type PC oscilloscope "Wave Rambler" released

2015

- Mar smart bluetooth digital multimeter launched
- Jun 12-bit high resolution n-in-1 smart DSO - XDS series product created

XDS Series your powerful n-in-1 on-site measurement station



12 bits
high resolution ADC

Super Performance

- + 8-bit, or 12-bit high resolution ADC, restoring the waveform detail fully
- + 40M record length, and 75,000 wfms/s waveform refresh rate
- + low background noise, vertical sensitivity in 1 mV/div - 10 V/div
- + multi-trigger, and bus decoding function
- + SCPI supported

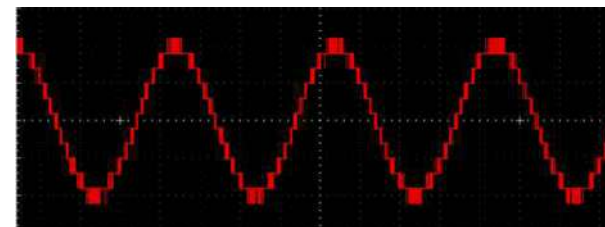
Creative New Look

- + ultra-thin body-design, less space accommodation
- + multi-interface integration - USB host, USB device, LAN, AUX, and infrared controller
- + VGA port - better solution for video expansion, and teaching demonstration
- + 8 inch 800 x 600 high resolution LCD
- + optional multi-touch screen, more user-friendly operation experience

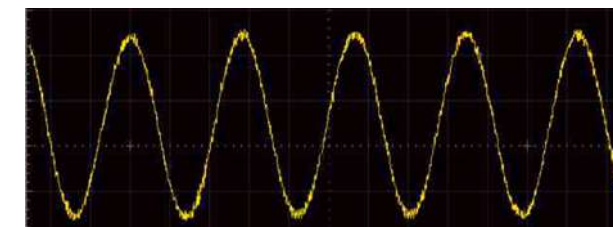
n-in-1

functions as data logger, and multimeter with data logging function, and dual-channel 25MHz / 50MHz arbitrary waveform generator, furthermore, battery pack, and WiFi module supported

1. 12-bit high vertical resolution model - XDS-A series product achieves 16 times resolution, and definition more than its general 8-bit counterpart, which makes it the better solution provider for small signal measurement, and signal detail restoration from large signal

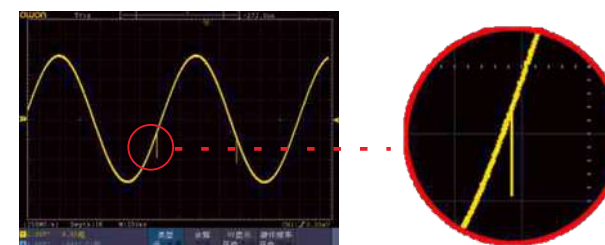


20mVpp signal measured by common 8-bit DSO, 10 times zoomed



20mVpp signal measured by 12-bit XDS series DSO, 10 times zoomed

2. industry leading waveform refresh rate level of 75,000 wfms/s, easily covering exceptional, and low probability event



3. multi-trigger supported - Logic, Timeout, I2C, SPI, RS232, Runt, Windows, Nth Edge, CAN

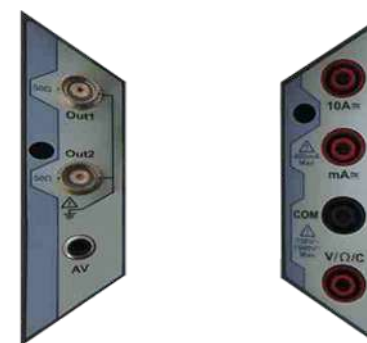
4. serial bus coding available in I2C, SPI, RS232, CAN

MBus Type
RS232
I2C
SPI
CAN

MTrigMode
Edge
Video
Pulse
Slope
Runt
Nth Edge
Windows
Logic

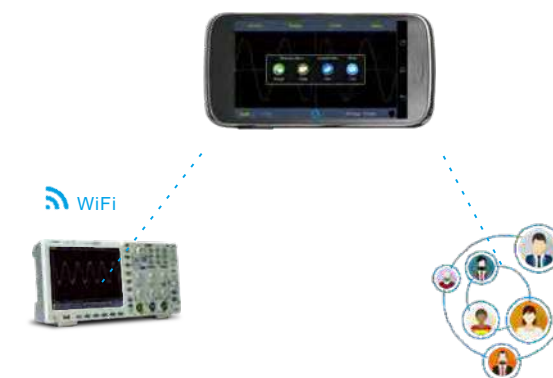
5. built-in multimeter module, with auto-scale, data logging function

6. built-in dual-channel 25MHz / 50MHz arbitrary waveform generator module, with sample rate of 125MS/s / 250MS/s



7. its built-in WiFi module facilitates mobile device connecting with XDS series product, to get access to remote control, together with simultaneous measurement result display.

Via app s/w, waveform data-saving, checking, co-sharing is possible, co-analyzing hence realizes



8. IPS screen exports lively waveform detail, and its multipoint touch function improves operation efficiency considerably



9. optional battery makes floating measurement possible, advancing the operation convenience



XDS Series

your powerful n-in-1 on-site measurement station

+ Performance Specifications

Model	XDS3102A	XDS3102	XDS3202A	XDS3202	XDS3302A	XDS3302
Bandwidth	100MHz		200MHz		300MHz	
Sample Rate	1GS/s		2GS/s		3.2GS/s	
Vertical Resolution (A/D)	12 bits	8 bits	12 bits	8 bits	12 bits	8 bits
Record Length	40M					
Waveform Refresh Rate	75,000 wfms/s					
Horizontal Scale (s/div)	2ns/div - 1000s/div, step by 1 - 2 - 5			1ns/div - 1000s/div, step by 1 - 2 - 5		
Rise Time (at input, typical)	≤3.5ns		≤1.7ns		≤1.17ns	
Channel	2+1 (external)					
Display	8" color LCD, 800 x 600 pixels (optional 1024 x 768 pixels IPS display available)					
Input Impedance	1MΩ ± 2 %, in parallel with 15pF ± 5pF		1MΩ ± 2 %, in parallel with 15pF ± 5pF; 50Ω ± 2%			
Channel Isolation	50Hz : 100 : 1, 10MHz : 40 : 1					
Max Input Voltage	1MΩ ≤ 300Vrms; 50Ω ≤ 5Vrms					
DC Gain Accuracy	±1%	±3%	±1%	±3%	±1%	±3%
DC Accuracy	average ≥ 16: ±(3% reading + 0.05 div) for ΔV					
Probe Attenuation Factor	0.001X - 1000X, step by 1 - 2 - 5					
LF Respond (AC, -3dB)	≥5Hz (at input, AC coupling, -3dB)					
Sample Rate / Relay Time Accuracy	±1ppm					
Interpolation	sin(x)/x					
Interval (ΔT) Accuracy (fullbandwidth)	Single: ±(1 interval time + 1ppm x reading + 0.6ns); Average > 16: ±(1 interval time + 1ppm x reading + 0.4ns)					
Input Coupling	DC, AC, and GND					
Vertical Sensitivity	1mV/div - 10V/div (at input)					
Trigger Type	Edge, Video, Pulse, Slope, Runt, Windows, Timeout, NthEdge, Logic, I ² C, SPI, RS232, and CAN (optional)					
Bus Decoding	I ² C, SPI, RS232, and CAN (optional)					
Trigger Mode	Auto, Normal, and Single					
Vertical Range	±2V (1mv/div - 50mv/div), ±20V (100mv/div - 1V/div), ±200V (2V/div - 10V/div)					
Line / Field Frequency (video)	NTSC, PAL and SECAM standard					
Cursor Measurement	ΔV, and ΔT between cursors					
Automatic Measurement	Vpp, Vavg, Vrms, Freq, Period, Peak RMS, Cursor RMS, Vmax, Vmin, Vtop, Vbase, Vamp, Overshoot, Phase, Preshoot, Rise Time, Fall Time, +Width, -Width, +Duty, -Duty, Duty Cycle, Delay A→B, Delay A→B, +Pulse Count, -Pulse Count, Rise Edge Count, Fall Edge Count					
Waveform Math	+, -, ×, ÷, FFT					
Waveform Storage	100 waveforms					
Lissajou's Figure	Bandwidth	full bandwidth				
	Phase Difference	±3 degrees				
Communication Interface	USB host, USB device, Pass / Fail, LAN, and VGA (optional)					
Frequency Counter	available					
Power Supply	100 - 240 V AC, 50/60Hz, CAT II					
Power Consumption	< 15W					
Fuse	2A, T class, 250V					
Battery (optional)	3.7V, 13200mA					
Dimension (W x H x D)	340 x 177 x 90 (mm)					
Weight	2.6 kg					

+ Multimeter (optional) Specifications

Full Scale Reading	3½ digits (max 4000 count)	Diode	0V - 1.5V
Input Impedance	10MΩ	Continuity Test	<50 (±30) beeping
Capacitance	51.2nF - 100uF: ±(3% ± 3digits)		
Voltage	VDC: 400mV, 4V, 400V: ±(1 ± 1 digit); max input: DC 1000V VAC: 4V, 40V, 400V: ±(1 ± 3 digits); frequency: 40Hz - 400Hz; max input: AC 400V (virtual value)		
Current	DC: 40mA, 400mA: ±(1.5% ± 1 digit); 10A: ±(3% ± 3 digits) AC: 40mA: ±(1.5% ± 3 digits), 400mA: ±(2% ± 1 digit), 10A: ±(3% ± 3 digits)		
Impedance	400Ω: ±(1% ± 3 digits), 4KΩ - 40MΩ: ±(1% ± 1 digit)		

+ Arb Waveform Generator (optional) Specifications

Max Frequency Output	25MHz	50MHz*
Sample Rate	125MS/s	250MS/s
Channel	available in 1-ch, or 2-ch	
Vertical Resolution	14 bits	
Amplitude Range	10mVpp - 6Vpp	
Waveform Length	8K	
Standard Waveform	Sine, Square, Pulse, and Ramp	

+ Optional Module / Function

VGA	VGA
WIFI	WiFi
AWG	arb waveform generator
DMM	digital multimeter
MTS	multi-point touch screen (capacitor-type)

+ Optional Decoding Kit

RS232	RS232
SPI	SPI
I ² C	I ² C
CAN	CAN trigger / decoding

* only available for XDS3102, XDS3202, and XDS3302

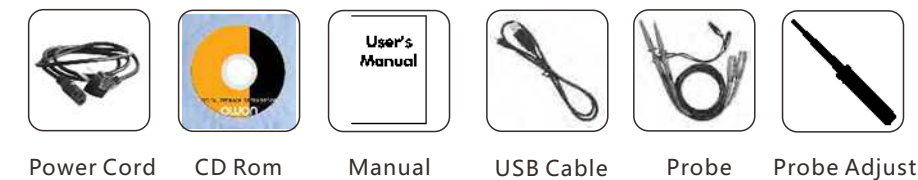
Specifications subject to change without prior notice.

+ Application

electronic circuit debugging circuit testing design and manufacture
education and training automobile maintenance and testing

+ Accessories

The accessories subject to final delivery.



optional accessories:



TOUCH TDS Series Touch Screen Digital Storage Oscilloscope



- + Max 200MHz bandwidth, up to 2GS/s realtime sample rate
- + 7.6M record length
- + 50,000 wfms/s waveform capture rate
- + waveform zooming (horizontal / vertical), and saving
- + FFT points (length, and resolution variable)
- + multi-window extension
- + 8 inch 800 x 600 pixels high resolution LCD
- + multi- communication interface : USB, VGA, and LAN

+ Performance Specifications

Model	TDS7074	TDS7104	TDS8104	TDS8204
Bandwidth	70MHz		100MHz	200MHz
Channel	4			
Sample Rate	1GS/s		2GS/s	
Waveform Capture Rate	50,000 wfms/s			
Display	8" color LCD			
Input Coupling	DC, AC, and GND			
Input Impedance	1MΩ ± 2%, in parallel with 10pF ± 5pF ; 50Ω ± 1%			
Probe Attenuation Factor	1X, 10X, 100X, 1000X			
Max Input Voltage	1MΩ input impedance : 400V (PK - PK) (DC + AC, PK - PK) ; 50Ω input impedance : 5V (PK - PK) (DC + AC, PK - PK)			
Channel Isolation	50Hz : 100 : 1 ; 10MHz : 40 : 1			
Interpolation	sin(x)/x			
Record Length	7.6M			
Horizontal Scale (s/div)	2ns/div - 100s/div, step by 1 - 2 - 5			
Interval (ΔT) Accuracy (full bandwidth)	Single : ±(1 interval time + 100ppm × reading + 0.6ns), Average>16 : ±(1 interval time + 100ppm × reading + 0.4ns)			
Vertical Resolution (A/D)	8 bits (4 channels simultaneously)			
Vertical Sensitivity	2mV/div - 10V/div (at input)			
Analog Bandwidth	70MHz		100MHz	200MHz
LF Respond (AC, -3dB)	≥10Hz (at input, AC coupling, -3dB)			
Rise Time	≤5ns		≤3.5ns	≤1.7ns

Model	TDS7074	TDS7104	TDS8104	TDS8204
DC Accuracy	±3%			
Trigger Type	Edge, Pulse, Video, and Slope			
Trigger Mode	Auto, Normal, and Single			
Trigger Level Range	±6 division from the screen center			
Trigger Level Accuracy (typical)	±0.3 division			
Line / Field Frequency (video)	NTSC, PAL, and SECAM standard			
Automatic Measurement	Vpp, Vavg, Vrms, Freq, Period, Vmax, Vmin, Vtop, Vbase, Vamp, Overshoot, Preshoot, Rise Time, Fall Time, Delay A→B, Delay A→B, +Width, -Width, +Duty, -Duty			
Waveform Math	+, -, ×, ÷, FFT			
Waveform Storage	4 reference waveforms			
Lissajous Figure	Bandwidth		full Bandwidth	
	Phase Difference		±3 degrees	
Cursor Measurement	ΔV, and ΔT between cursors			
Communication Port	USB host, USB device, VGA, and LAN			
Power Supply	100 - 240 V AC, 50/60Hz, CAT II			
Dimension (W x H x D)	380 x 180 x 115 (mm)			
Weight (without package)	1.50 kg			

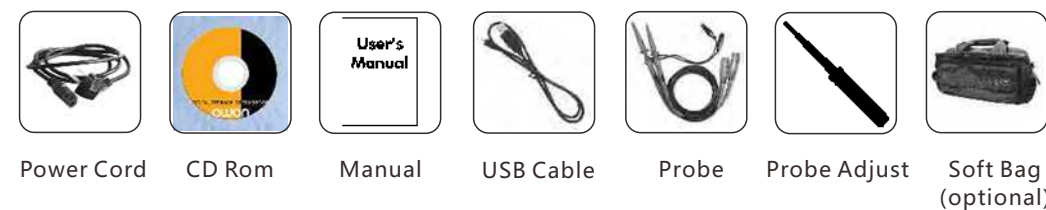
Specifications subject to change without prior notice.

+ Application

- electronic circuit debugging
- education and training
- circuit testing
- automobile maintenance and testing
- design and manufacture

+ Accessories

The accessories subject to final delivery.



Smart DS Series Deep Memory Digital Storage Oscilloscope



- + Bandwidth : 60MHz - 300MHz with dual-channel
- + Sample rate : 500MS/s - 3.2GS/s
- + 10M record length for each channel
- + Multi-function : auto-scale, Pass / Fail, and current-measuring
- + SCPI Supported
- + LAN remote control
- + Smart design with easy portability
- + Large 8 inch 800 x 600 pixels LCD
- + Optional battery available



+ Performance Specifications

Model	SDS6062	SDS7072	SDS7102	SDS8102	SDS8202	SDS8302	SDS9302
Bandwidth	60MHz	70MHz	100MHz	200MHz	300MHz		
Sample Rate	500MS/s	1GS/s	2GS/s	2.5GS/s	3.2GS/s		
Horizontal Scale (s/div)	5ns/div - 100s/div, step by 1 - 2 - 5	2ns/div - 100s/div, step by 1 - 2 - 5	1ns/div - 100s/div, step by 1 - 2 - 5				
Rise Time	≤5.8ns	≤5ns	≤3.5ns	≤1.7ns	≤1.17ns		
Display	8" color LCD, 800 x 600 pixels						
Channel	2 + 1 (external)						
Record Length	10M						
Input Coupling	DC, AC, and GND						
Input Impedance	1MΩ ± 2%, in parallel with 10pF ± 5pF						
Channel Isolation	50MHz : 100 : 1, 10MHz : 40 : 1						
Max Input Voltage	400V (DC + AC Peak)						
DC Gain Accuracy	±3%						
DC Accuracy	average≥16 : ±(3% reading + 0.05 div) for ΔV						
Probe Attenuation Factor	1X, 10X, 100X, 1000X						
LF Respond (AC, -3dB)	≥10Hz (at input, AC coupling, -3dB)						
Sample Rate / Relay Time Accuracy	±100ppm						
Interpolation	sin(x)/x						
Interval (ΔT) Accuracy (full bandwidth)	Single : ±(1 interval time + 100ppm × reading + 0.6ns); Average>16 : ±(1 interval time + 100ppm × reading + 0.4ns)						
Vertical Resolution (A/D)	8 bits (2 channels simultaneously)						
Vertical Sensitivity	2mV/div - 10V/div						

Model	SDS6062	SDS7072	SDS7102	SDS8102	SDS8202	SDS8302	SDS9302
Trigger Type	Edge, Pulse, Video, Slope, and Alternate						
Trigger Mode	Auto, Normal, and Single						
Trigger Level	±6 divisions from screen center						
Acquisition Mode	Sample, Peak Detect, and Average						
Line / Field Frequency (video)	NTSC, PAL and SECAM standard						
Cursor Measurement	ΔV, and ΔT between cursors						
Automatic Measurement	Vpp, Vavg, Vrms, Freq, Period, Peak RMS, Cursor RMS, Vmax, Vmin, Vtop, Vbase, Vamp, Overshoot, Phase, Preshoot, Rise Time, Fall Time, Delay A→B, Delay A→B, +Width, -Width, +Duty, -Duty, Duty cycle						
Waveform Math	+, -, ×, ÷, invert, FFT						
Waveform Storage	15 waveforms						
Lissajous Figure	Bandwidth	full bandwidth					
	Phase Difference	±3 degrees					
Communication Interface	USB host, USB device, Pass / Fail, LAN, VGA (optional), and RS232 (optional)						
Frequency Counter	available						
Power Supply	100V - 240V AC, 50/60Hz, CAT II						
Power Consumption	< 24W						
Fuse	2A, T class, 250V						
Battery (optional)	7.4V, 8000mA						
Dimension (W x H x D)	340 x 155 x 70 (mm)						
Weight (without package)	1.80 kg						

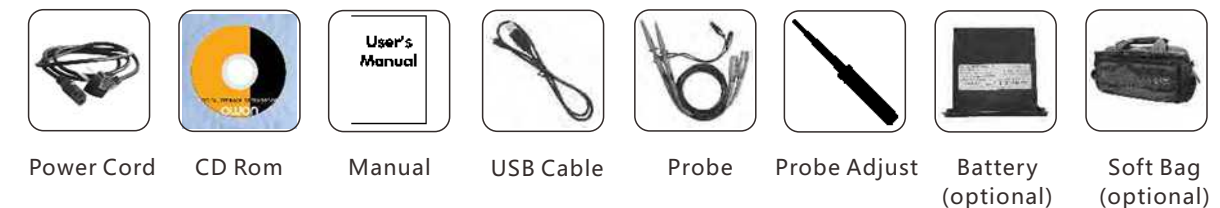
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+ Application

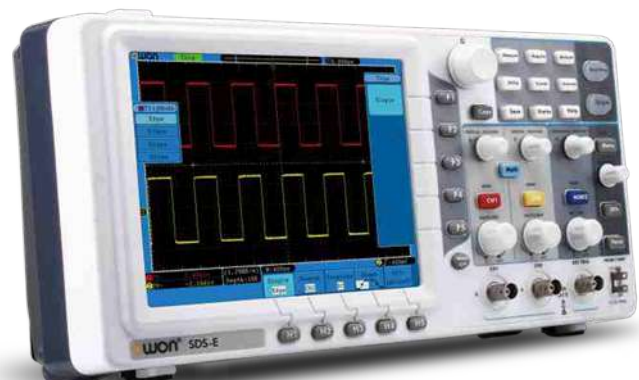
electronic circuit debugging circuit testing design and manufacture
education and training automobile maintenance and testing

+ Accessories

The accessories subject to final delivery.



SDS-E Series 2nd generation economical type digital storage oscilloscope



- + Bandwidth : 30MHz - 125MHz
- + Sample rate : 250MS/s - 1GS/s
- + 100K record length
(10M optional, excluding SDS5032E)
- + Ultra-thin body
- + 8 inch high resolution LCD
- + Pass / Fail function
- + SCPI Supported (excluding SDS5032E)



+ Performance Specifications

Model	SDS5032E	SDS6062E	SDS7072E	SDS7102E	SDS7122E
Bandwidth	30MHz	60MHz	70MHz	100MHz	125MHz
Sample Rate	250MS/s	500MS/s	1GS/s		
Horizontal Scale (s/div)	5ns/div - 100s/div, step by 1 - 2 - 5		2ns/div - 100s/div, step by 1 - 2 - 5		
Rise Time (at input, typical)	≤11ns	≤5.8ns	≤5ns	≤3.5ns	≤2.8ns
Channel	2 + 1 (external)				
Display	8" color LCD, 800 x 600 pixels				
Input Impedance	1MΩ ± 2%, in parallel with 10pF ± 5pF		1MΩ ± 2%, in parallel with 15pF ± 3pF		
Channel Isolation	50Hz : 100 : 1, 10MHz : 40 : 1				
Max Input Voltage	400V (PK - PK) (DC+AC, PK - PK)				
DC Gain Accuracy	±3%				
Record Length	10K	100K (optional 10M)			
DC Accuracy (average)	average ≥ 16 : ±(3% reading + 0.05 div) for ΔV				
Probe Attenuation Factor	1X, 10X, 100X, 1000X				
LF Respond (AC, -3dB)	≥10Hz (at input, AC coupling, -3dB)				
Sample Rate / Relay Time Accuracy	±100ppm				
Interpolation	sin(x)/x				
Interval (ΔT) Accuracy (full bandwidth)	Single : ±(1 interval time + 100ppm × reading + 0.6ns), Average > 16 : ±(1 interval time + 100ppm × reading + 0.4ns)				
Input Coupling	DC, AC, and GND				
Vertical Resolution (A/D)	8 bits (2 channels simultaneously)				
Vertical Sensitivity	5mV/div - 10V/div (at input)	2mV/div - 10V/div (at input)			

Model	SDS5032E	SDS6062E	SDS7072E	SDS7102E	SDS7122E
Trigger Type	Edge, Pulse, Video, Slope, and Alternate				
Trigger Mode	Auto, Normal, and Single				
Trigger Level	±6 divisions from screen center				
Line / Field Frequency (video)	NTSC, PAL, and SECAM standard				
Cursor Measurement	ΔV, and ΔT between cursors				
Automatic Measurement	Vpp, Vavg, Vrms, Freq, Period, Vmax, Vmin, Vtop, Vbase, Vamp, Overshoot, Preshoot, Rise Time, Fall Time, Delay A→B, Delay A→B, +Width, -Width, +Duty, -Duty				
Waveform Math	+, -, ×, ÷, invert, FFT				
Waveform Storage	15 waveforms				
Lissajous Figure	Bandwidth	full bandwidth			
	Phase Difference	±3 degrees			
Communication Interface	USB host, USB device, Pass / Fail, LAN, and VGA (optional)				
Frequency Counter	available				
Power Supply	100V - 240V AC, 50/60Hz, CAT II				
Power Consumption	<18W				
Fuse	2A, T class, 250V				
Battery	not supported				
Dimension (W x H x D)	348 x 170 x 78 (mm)				
Weight (without package)	1.50 kg				

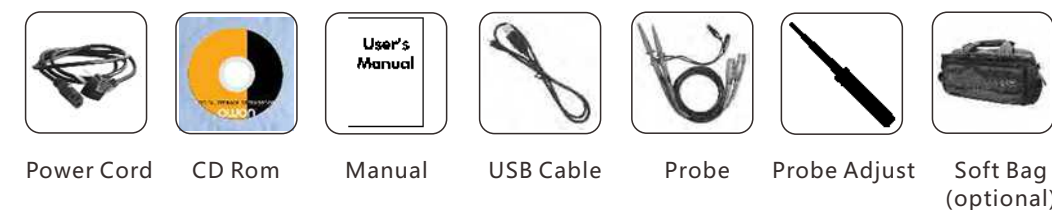
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+ Application

electronic circuit debugging circuit testing design and manufacture
education and training automobile maintenance and testing

+ Accessories

The accessories subject to final delivery.



MSO Series Mixed LA - Oscilloscope



- + 2 in 1 (DSO + LA)
- + 8 inch color LCD
- + USB data transmission supported
- + 20 group automatic measurement options

Digital Storage Oscilloscope

- + Bandwidth : 60MHz - 200MHz
- + Sample rate : up to 2GS/s
- + Auto-scale function
- + FFT

Logic Analyzer

- + Bandwidth : 100MHz - 200MHz
- + Sample rate : max 1GS/s
- + 16 input channels

[Digital Storage Oscilloscope] Performance Specifications

Model	MSO7062TD	MSO7102TD	MSO8102T	MSO8202T
Bandwidth	60MHz	100MHz		200MHz
Sample Rate	1GS/s		2GS/s	
Rise Time	≤5.8ns	≤3.5ns		≤1.7ns
Display	8" color LCD , 640 x 480 pixels			
Channel	dual + external trigger			
Horizontal Scale (s/div)	2ns/div - 100s/div, step by 1 - 2 - 5		1ns/div - 100s/div, step by 1 - 2 - 5	
DC Accuracy (average)	average > 16 : ±(3% reading + 0.05div) for ΔV			
Vertical Sensitivity	2mV/div - 10V/div			
DC Gain Accuracy	±3%			
Vertical Resolution (A/D)	8 bits (2 channels simultaneously)			
Interpolation	sin(x)/x			
Max Input Voltage	400V (DC + AC, PK - PK)			
Probe Attenuation Factor	1X , 10X , 100X , 1000X			
Trigger Mode	Edge, Video, Alternate, Pulse, and Slope			
Acquisition Mode	Normal, Peak Detect, and Average			
Record Length	2M points			
Waveform Storage	4 waveforms			
Automatic Measurement	Vpp, Vavg, Vrms, Freq, Period, Vmax, Vmin, Vtop, Vbase, Vamp, Overshoot, Preshoot, Rise Time, Fall Time, Delay A→B, Delay A→B, +Width, -Width, +Duty, -Duty			
Waveform Math	+, -, ×, ÷, invert, FFT			
Power Supply	100 - 240V AC, 50Hz / 60Hz, CAT II			

Model	MSO7062TD	MSO7102TD	MSO8102T	MSO8202T
Lissajous Figure	Bandwidth	60MHz	100MHz	200MHz
	Phase Difference	±3 degrees		
Communication Interface	USB host, and USB device			
Fuse	1A, T class, 250V			
Dimensions (W x H x D)	370 x 180 x 120 (mm)			
Weight (without package)	2.20 kg			

[Logic Analyzer] Performance Specifications

Model	MSO7062TD	MSO7102TD	MSO8102T	MSO8202T
Sample Rate	20S/s - 2GS/s			
Bandwidth	100MHz			200MHz
Channel	16			
Record Length	4M points			
Input Impedance	660KΩ ± 5%, in parallel with 15 ± 5pF			
Trigger Mode	Edge, Bus, State, Data Alignment, Data Width, and Distributed Queue			
Trigger Position Setting	Pre-trigger, Mid-trigger, and Re-trigger			
Threshold Voltage	±6V (4 settings)			
Input Signal Range	±30V			
Data Search	available			
Data System	binary, decimal, and hex			
Digital Filter	0, 1, 2 optional			
Setting Storage	10 settings			
USB Flash Disk Storage	available			

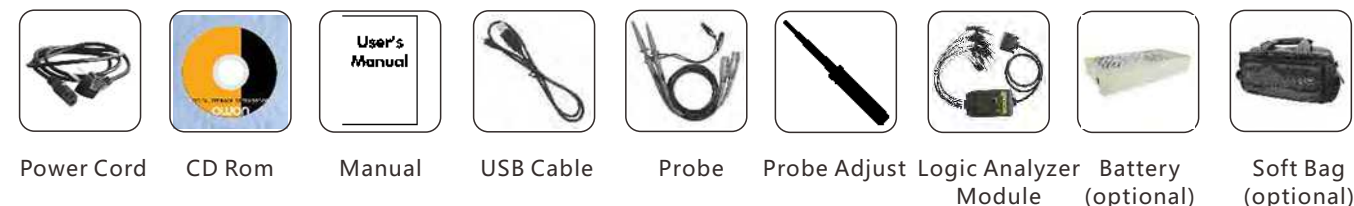
Specifications subject to change without prior notice.

+ Application

- design and debug
- circuit function test
- education and training
- mixed signal circuit test

+ Accessories

The accessories subject to final delivery.



HDS-N Series Handheld Digital Storage Oscilloscope



- + 2 in 1 (DSO + Multimeter)
- + Auto-scale function
- + FFT function
- + 20 group automatic measurement options
- + Bandwidth : 20MHz - 200MHz
- + USB data transmission supported
- + Rechargeable Li-ion battery (6 hours' backup)
- + Waveform record and replay
- + Multimeter newly supported SCPI



+ Performance Specifications

Model	HDS1022M-N	HDS2062M-N	HDS3102M-N	HDS4202M-N <small>NEW!</small>
Bandwidth	20MHz	60MHz	100MHz	200MHz
Sample Rate	100MS/s	500MS/s	1GS/s	
Horizontal Scale (s/div)	5ns/div - 100s/div, step by 1 - 2.5 - 5		2ns/div - 100s/div, step by 1 - 2 - 5	
Rise Time (at input, typical)	≤ 17.5ns	≤ 5.8ns	≤ 3.5ns	≤ 1.7ns
Display	3.7" color TFT display (640 x 480 pixels)			
Channel	dual			
Input Impedance	1MΩ ± 2%, in parallel with 20pF ± 5pF		1MΩ ± 2%, in parallel with 15pF ± 5pF	
Record Length	6K points			
Interpolation	sin(x)/x			
Probe Attenuation Factor	1X, 10X, 100X, 1000X			
Input Coupling	DC, AC, and GND			
DC Accuracy (average)	average >16 : ±(5% reading + 0.05 div) for ΔV			
Vertical Sensitivity	5mV/div - 5V/div (at input)			
Vertical Resolution (A/D)	8 bits			
Max Input Voltage	400V (PK - PK) (DC + AC, PK - PK, 1MΩ input impedance, probe attenuation 10 : 1), CAT II			
Trigger Type	Edge, Video, and Alternate			
Trigger Mode	Auto, Normal, and Single			
Trigger Level	±6 divisions from screen center			
Acquisition Mode	Sample, Peak Detect, and Average			
DC Gain Accuracy	±3%			
Automatic Measurement	Vpp, Vavg, Vrms, Freq, Period, Vmax, Vmin, Vtop, Vbase, Vamp, Overshoot, Preshoot, Rise Time, Fall Time, Delay A→B, Delay A→B, +Width, -Width, +Duty, -Duty			

Model	HDS1022M-N	HDS2062M-N	HDS3102M-N	HDS4202M-N <small>NEW!</small>
Waveform Math	+, -, ×, ÷, invert, FFT			
Waveform Storage	4 waveforms			
Lissajous Figure	Bandwidth	full bandwidth		
	Phase Difference	± degrees		
Communication Interface	USB			
Power Supply	100V-240V AC, 50/60Hz			
Li-ion Battery	7.4V, 6 hours' operation			
Dimensions (W x H x D)	115 x 180 x 40 (mm)			
Weight (without package)	645.00 g			

+ Multimeter Specifications

Full Scale Reading	3 ³ / ₄ digits (max 4000 count)	Diode	0V - 1.5V
Input Impedance	10 MΩ	On / Off Test	<50 (± 30) beeping
Voltage	VDC : 400mV, 4V, 40V, 400V, 1000V : ±(1% ± 1 digit); max input : DC 1000V VAC : 4V, 40V, 400V : ±(1% ± 3 digits), 750V : ±(2% ± 3 digits); Frequency : 40Hz - 400Hz; max input : AC 750V (virtual value)		
Current	DC : 40mA, 400mA : ±(1.5% ± 1 digit), 10A : ±(3% ± 3 digits) AC : 40mA : ±(1.5% ± 3 digits), 400mA : ±(2% ± 1 digit), 20A : ±(5% ± 3 digits)		
Impedance	400Ω : ±(1% ± 3 digits), 40KΩ - 4MΩ : ±(1% ± 1 digit), 40MΩ : ±(1.5% ± 3 digits)		
Capacitance	51.2nF - 100uF : ±(3% ± 3 digits)		

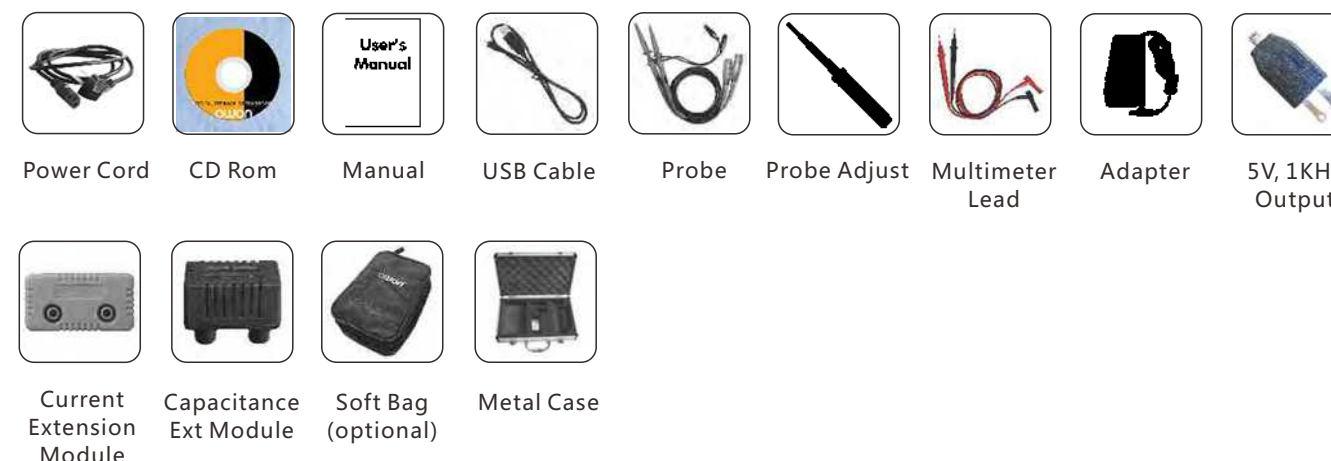
Specifications subject to change without prior notice.

+ Application

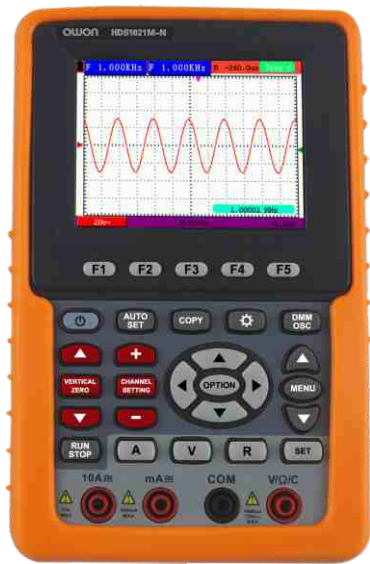
electronic circuit debugging circuit testing design and manufacture
education and training automobile maintenance and testing

+ Accessories

The accessories subject to final delivery.



HDS Series 1-Channel Handheld Digital Storage Oscilloscope



- + 2 in 1 (DSO + Multimeter)
- + Auto-scale function
- + FFT function
- + 20 group automatic measurement options
- + Bandwidth : 20MHz - 100MHz
- + USB data transmission supported
- + Rechargeable Li-ion battery (6 hours' backup)
- + Waveform record and replay
- + Multimeter newly supported SCPI



+ Performance Specifications

Model	HDS1021M-N	HDS2061M-N	HDS3101M-N
Bandwidth	20MHz	60MHz	100MHz
Sample Rate	100MS/s	500MS/s	1GS/s
Horizontal Scale (s/div)	5ns/div - 100s/div, step by 1 - 2.5 - 5		
Rise Time (at input, typical)	≤ 17.5ns	≤ 5.8ns	≤ 3.5ns
Display	3.7" color TFT display (640 x 480 pixels)		
Channel	single		
Input Impedance	1MΩ ± 2%, in parallel with 18pF ± 5pF	1MΩ ± 2%, in parallel with 15pF ± 5pF	
Record Length	6K points		
Interpolation	sin(x)/x		
Probe Attenuation Factor	1X, 10X, 100X, 1000X		
Input Coupling	DC, AC, and GND		
DC Accuracy (average)	average > 16 : ±(5% reading + 0.05 div) for ΔV		
Vertical Sensitivity	5mV/div - 5V/div (at input)		
Vertical Resolution (A/D)	8 bits		
Max Input Voltage	400V (PK - PK) (DC + AC, PK - PK, 1MΩ input impedance, probe attenuation 10 : 1), CAT II		
Trigger Type	Edge, and Video	Edge, Video, and Alternate	
Trigger Mode	Auto, Normal, and Single		
Trigger Level	±6 divisions from screen center		
Acquisition Mode	Sample, Peak Detect, and Average		
DC Gain Accuracy	±3%		
Automatic Measurement	Vpp, Vavg, Vrms, Freq, Period, Vmax, Vmin, Vtop, Vbase, Vamp, Overshoot, Preshoot, Rise Time, Fall Time, Delay A→B, Delay A→B, +Width, -Width, +Duty, -Duty		
Waveform Storage	4 waveforms		
Communication Interface	USB		
Power Supply	100V-240V AC, 50/60Hz		
Li-ion Battery	7.4V, 6 hours' operation		
Dimensions (W x H x D)	115 x 180 x 40 (mm)		
Weight (without package)	645.00 g		

+ Multimeter Specifications

Full Scale Reading	3 ³ / ₄ digits (max 4000 count)	Diode	0V - 1.5V
Input Impedance	10 MΩ	On / Off Test	<50 (± 30) beeping
Voltage	VDC : 400mV, 4V, 40V, 400V, 1000V : ±(1% ± 1 digit); max input : DC 1000V VAC : 4V, 40V, 400V : ±(1% ± 3 digits), 750V : ±(2% ± 3 digits); Frequency : 40Hz - 400Hz; max input : AC 750V (virtual value)		
Current	DC : 40mA, 400mA : ±(1.5% ± 1 digit), 10A : ±(3% ± 3 digits) AC : 40mA : ±(1.5% ± 3 digits), 400mA : ±(2% ± 1 digit), 20A : ±(5% ± 3 digits)		
Impedance	400Ω : ±(1% ± 3 digits), 40KΩ - 4MΩ : ±(1% ± 1 digit), 40MΩ : ±(1.5% ± 3 digits)		
Capacitance	51.2nF - 100uF : ±(3% ± 3 digits)		

Specifications subject to change without prior notice.

+ Application

- electronic circuit debugging education and training
- circuit testing automobile maintenance and testing
- design and manufacture

+ Accessories

The accessories subject to final delivery.



Bluetooth Digital Multimeter



- + function as 3 in 1 :
datalogger + multimeter + temperature meter
- + multi-connection (more than one device)
supported via mobile app
- + the change trend analysis accessible via special
chart mode
- + voice warning supported, which assures
measurement safety
- + smart voice-reading accessible
- + 6000 - count full scale reading
- + larger display, easier data-reading; simulated bar chart
comes as an added option
- + true RMS value available (only in B35T, and D35T)

	Measurement Range	Resolution	Accuracy
Frequency	9.999Hz / 99.99Hz / 999.9Hz / 9.999kHz / 99.99kHz / 999.9kHz / 9.999MHz	1mHz	±(0.8%+2digit)
Duty Ratio	0.1% - 99.9% (typical value: Vrms = 1V, f = 1kHz) 0.1% - 99.9% (≥1kHz)	0.1%	±(1.2%+3digit) ±(2.5%+2digit)
Temperature	(-50°C) - (+400°C) (-58°F) - (+752°F)	1°C 1°F	±(2.5%+3digit) ±(4.5%+5digit)
Display	6000 count		
Frequency	40Hz - 400Hz		
Shift Rate	3 times / s		
Simulated Chart Shift Rate	30 times / s		

Model: D35, D35T, B35, B35T

Bluetooth Module	√ (only in B35, and B35T)	Max / Min Value	√
Auto-scale	√	LCD Backlight	√
True RMS	√ (only in B35T, and D35T)	Simulated Chart	√
Diode Test	√	Input Protection	√
Audion Test	√	Input Impedance	10MΩ
Auto Power-off	√	LCD Size	69mm x 52mm
On-off Warning	√	Display Area	67 x 46 mm (effective area 66 x 45 mm)
Low-battery Indicator	√	Battery	3V (2.5V x 2)
Data Hold	√	Dimension (W x H x D)	85 x 185 x 30 (mm)
Relative Measurement	√	Weight (without package)	0.32 kg

Specifications subject to change without prior notice.

+ Performance Specifications

		Measurement Range	Resolution	Accuracy
Model: D35, D35T, B35, B35T				
DC Voltage	mV	60.00mV / 600.0mV	0.01mV	±(0.5%+2digit)
	V	60.00mV / 600.0mV / 6.000V / 60.00V	0.1mV	
		600.0V / 1000V	0.1V	
AC Voltage	mV	60.00mV / 600.0mV	0.01mV	±(0.8%+2digit)
	V	60.00mV / 600.0mV / 6.000V / 60.00V	1mV	±(0.8%+2digit)
		600.0V / 750V	0.1V	±(1%+3digit)
DC Current	μA	600.0μA	0.1μA	±(0.8%+2digit)
	mA	600.0μA / 6.000mA / 60.00mA / 600.0mA / 6.000A	0.01mA	±(0.8%+2digit)
	A	20.00A	1mA	±(1.2%+3digit)
AC Current	μA	600.0μA	0.1μA	±(1%+3digit)
	mA	600.0μA / 6.000mA / 60.00mA / 600.0mA / 6.000A	0.01mA	±(0.8%+2digit)
	A	20.00A	1mA	±(2%+3digit)
Resistance		600.0Ω / 6.000kΩ / 60.00kΩ / 600.0kΩ / 6.000MΩ / 10.00MΩ	0.1Ω	±(0.8%+2digit)
		60.00MΩ	0.01MΩ	±(2%+3digit)
Capacitance		40.00nF	0.01nF	±(2.5%+3digit)
		400.0nF / 4.000μF / 40.00μF	0.1nF	±(2.5%+3digit)
		400.0μF / 4000μF	0.1μF	±(3%+5digit)

+ Application

- electronic circuit debugging
- education and training
- circuit testing
- automobile maintenance and testing
- design and manufacture

+ Accessories

The accessories subject to final delivery.



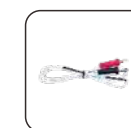
Multimeter Lead



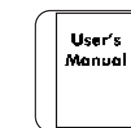
Alligator Clip



Multi-function Test Bench



K-type Thermocouple



Manual

Wave Rambler Pen-type PC Oscilloscope



- + 25MHz bandwidth
- + 100MS/s sample rate
- + 5K record length
- + FFT function
- + human engineering design
- + multi- action mode via creative trackball
- + multi- trigger option : edge, slope, and pulse
- + 5mV micro signal supported
- + USB bus powering, and optional USB isolated function
- + easy portability, pocket accommodated

+ Performance Specifications

Model	RDS1021	RDS1021I
Bandwidth	25MHz	
Sample Rate	100MS/s	
Horizontal Scale (s/div)	5ns/div - 100s/div, step by 1 - 2 - 5	
Rise Time	≤14ns	
Record Length	5K	
Input Coupling	DC, AC, and GND	
Input Impedance	10MΩ±2% (X10), 1MΩ±2% (X1)	
Input Capacitance	20pF±5pF	
Max Input Voltage	50V (PK - PK) (DC + AC, PK - PK)	400V (PK - PK) (DC + AC, PK - PK)
DC Gain Accuracy	±3%	
DC Accuracy (average)	average≥16 : ±(3% reading + 0.05 div) for ΔV	
Analog Bandwidth	25MHz	
Probe Attenuation Factor	1X, 10X	
LF Respond (AC, -3dB)	≥10Hz	
Interpolation	sin(x)/x	
Displacement	±10 divisions	
Interval (ΔT) Accuracy (full bandwidth)	Single : ±(1 interval time + 100ppm × reading + 0.6ns), Average> 16 : ±(1 interval time + 100ppm × reading + 0.4ns)	
Vertical Resolution (A/D)	8 bits	

Model	RDS1021	RDS1021I
Vertical Sensitivity	5mV/div - 5V/div	
Trigger Type	Edge, Pulse, and Slope	
Trigger Mode	Auto, Normal, and Single	
Trigger Level	±5 divisions from screen center	
Acquisition Mode	Sample, Peak Detect, and Average	
Cursor Measurement	ΔV and ΔT between cursors	
Automatic Measurement	Vpp, Vavg, Vrms, Freq, Period, Vmax, Vmin, Vtop, Vbase, Vamp, Overshoot, Preshoot, Rise Time, Fall Time, +Width, -Width, +Duty, -Duty	
Waveform Math	FFT	
Communication Interface	USB2.0	
Dimension (W x H x D)	150 x 20 x 18 (mm)	
Weight (without package)	0.27 kg	

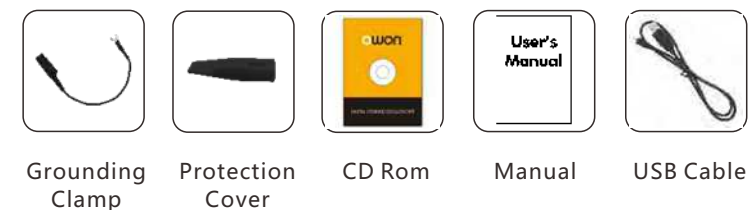
Specifications subject to change without prior notice.

+ Application

design and debug circuit function test education and training

+ Accessories

The accessories subject to final delivery.



VDS Series PC Oscilloscope



- + Up to 100MHz bandwidth, and max 1GS/s real-time sample rate
- + 2 / 4 channels
- + Max 10M record length
- + Friendly UI : FFT, or X-Y, and waveform 2 views displayed on the same screen
- + Multi-trigger option : edge, video, slope, pulse, and alternate
- + USB isolation - less signal inference, more PC protection
- + USB bus powering, and LAN remote control (optional)
- + Ultra-thin body design, easy portability
- + SCPI Supported



+ Performance Specifications

Model	VDS1022I	VDS1022	VDS2052	VDS2062	VDS2064	VDS3102	VDS3104
Bandwidth	25MHz	50MHz	60MHz	100MHz			
Channel	2+1 (multi)			4+1 (multi)	2+1 (multi)	4+1 (multi)	
Sample Rate	100MS/s	250MS/s	500MS/s		1GS/s		
Horizontal Scale (s/div)	5ns/div - 100s/div, step by 1 - 2 - 5				2ns/div - 100s/div, step by 1 - 2 - 5		
Rise Time	≤14ns		≤5.8ns		≤3.5ns		
Record Length	5K		10M	5M	10M	5M	
Input Coupling	DC, AC, and GND						
Input Impedance	1MΩ ± 2%, in parallel with 10pF ± 5pF						
Channel Isolation	50Hz : 100 : 1 ; 10MHz : 40 : 1						
Max Input Voltage	400V (PK - PK) (DC + AC, PK - PK)	40V (PK - PK) (DC + AC, PK - PK)					
DC Gain Accuracy	±3%						
DC Accuracy	Average ≥ 16 : ±(3% reading + 0.05 div) for ΔT						
Probe Attenuation Factor	1X, 10X, 100X, 1000X						
LF Respond (AC, -3dB)	≥10Hz (at input, AC coupling, -3dB)						
Sample Rate / Relay Time Accuracy	150ps						
Interpolation	sin(x)/x						
Interval (ΔT) Accuracy (full bandwidth)	Single : ± (1 interval time + 100ppm × reading + 0.6ns), Average > 16 : ±(1 interval time + 100ppm × reading + 0.4ns)						
Vertical Resolution (A/D)	8 bits (2 channels simultaneously)						

Model	VDS1022I	VDS1022	VDS2052	VDS2062	VDS3102	VDS2064	VDS3104
Vertical Sensitivity	5mV/div - 5V/div						
Trigger Type	Edge, Pulse, Video, Slope, and Alternate						
Trigger Mode	Auto, Normal, and Single						
Trigger Level	±5 divisions from screen center						
Acquisition Mode	Sample, Peak Detect, and Average						
Line / Field Frequency (video)	NTSC, PAL, and SECAM standard						
Cursor Measurement	ΔV, and ΔT between cursors						
Automatic Measurement	Vpp, Vavg, Vrms, Freq, Period, Vmax, Vmin, Vtop, Vbase, Vamp, Overshoot, Preshoot, Rise Time, Fall Time, Delay A→B, Delay A→B, +Width, -Width, +Duty, -Duty						
Waveform Math	+, -, ×, ÷, invert, FFT						
Lissajous Figure	Bandwidth	full bandwidth					
	Phase Difference	±3 degrees					
Communication Interface	USB2.0 (isolation)	USB2.0	USB2.0, LAN (optional)				
Multi-function Interface	Signal Type	synchronized input / output, Pass / Fail, external trigger input					
	Level Standard	TTL					
Power Supply	5.0V/1A						
Power Consumption	≤1.5W			≤5W			
Dimensions (W x H x D)	170 x 120 x 18 (mm)			190 x 120 x 18 (mm)			
Weight (without package)	0.26 kg				0.30 kg		

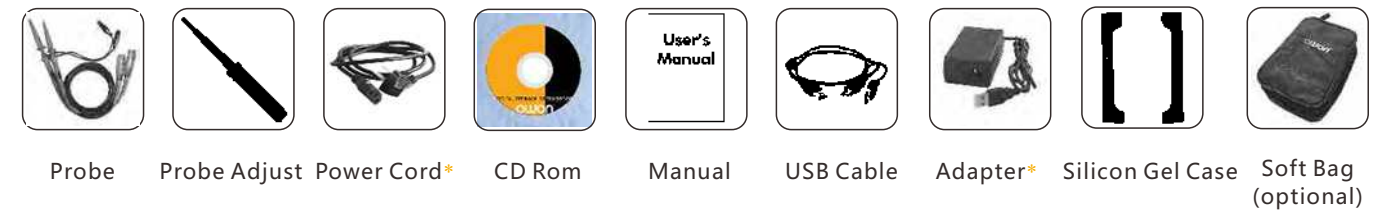
Specifications subject to change without prior notice.

+ Application

design and debug circuit function test education and training

+ Accessories

The accessories subject to final delivery.



* Power cord and adapter only available for models with LAN port.

AG Series Dual-channel Arbitrary Waveform Generator



- + Advanced DDS technology, max 60MHz frequency output
- + Up to 250MS/s sample rate, and 1μHz frequency resolution
- + Vertical Resolution : 14 bits, up to 1M arb waveform length
- + Comprehensive waveform output : 5 basic waveforms, and 48 built-in arbitrary waveforms
- + Comprehensive modulation functions : AM, FM, PM, FSK, PWM, Sweep, and Burst
- + High-accuracy frequency counter integrated, supported range 100mHz - 200MHz
- + SCPI Supported
- + 4 inch high resolution (480 x 320 pixels) LCD

+ Performance Specifications

Model	AG1012	AG1012F	AG1022	AG1022F	AG2052F <small>NEW!</small>	AG2062F <small>NEW!</small>
Channel	dual					
Frequency Output	10MHz		25MHz		50MHz	60MHz
Sample Rate	125MS/s			250MS/s		
Vertical Resolution	14 bits					

Waveform

Standard Waveform	Sine, Square, Pulse, Ramp, and Noise
Arbitrary Waveform	Exponential Rise, Exponential Fall, Sin(x)/x, Step Wave, and others, total 48 built-in waveforms, and user-defined arbitrary waveform

Frequency (resolution 1μHz)

Sine	1μHz - 10MHz	1μHz - 25MHz	1μHz - 50MHz	1μHz - 60MHz
Square	1μHz - 5MHz		1μHz - 25MHz	1μHz - 30MHz
Pulse	1μHz - 5MHz		1μHz - 10MHz	
Ramp	1μHz - 1MHz			
Noise	25MHz (-3dB) (typical)			
Arbitrary Waveform	1μHz - 10MHz			

Amplitude

Amplitude	1m Vpp - 10 Vpp (50Ω), 1m Vpp - 20 Vpp (high impedance)
Resolution	1m Vpp or 14 bits
DC Offset Range (AD+DC)	±5V (50Ω), ±10V (high impedance)
DC Offset Range Resolution	1mV
Load Impedance	50Ω (typical)

Model	AG1012	AG1022	AG1012F	AG1022F	AG2052F <small>NEW!</small>	AG2062F <small>NEW!</small>
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Arbitrary Waveform						
Wave Length	2 pts to 8K pts			2 pts to 1M pts		
Non-volatile Memory	26 waveforms					

Modulation						
Modulation Waveform	/	AM, FM, PM, FSK, Sweep, and Burst		AM, FM, PM, FSK, PWM, Sweep, and Burst		
Modulation Frequency	/	2mHz to 20.00KHz (FSK 1μHz - 100KHz)				

Counter						
Function	/	Frequency Period, +Width, -Width, +Duty, and -Duty				
Frequency Range	/	100mHz - 200MHz				
Frequency Resolution	/	6 digits				

Power Amplifier Module (optional)

Input Impedance	50 kΩ	Output Impedance	<2 Ω
Max Input Voltage	2.2Vpp	Gain	X10
Max Output Voltage	22Vpp	Offset	<7%
Output Slew Rate	10V/us	Bandwidth (at full power)	DC 100kHz
Max Output Power	10W		

Input / Output

Display	4 inch (480 x 320 pixels) LCD	
Type	external reference clock input / output	counter external modulation input / output, external trigger input / output, external reference clock input / output
Communication Interface	USB host, and USB device, LAN (surport remote control), RS232 (option)	

Mechanical

Dimension (W x H x D)	235 x 110 x 295 (mm)
Weight (without package)	3.00 kg

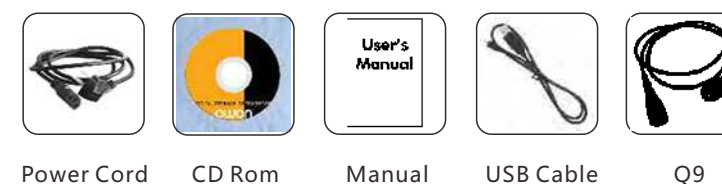
Specifications subject to change without prior notice.

+ Application

design and debug circuit function test education and training

+ Accessories

The accessories subject to final delivery.



AG-S Series Single-channel Arbitrary Waveform Generator



- + Advanced DDS technology, max 150MHz frequency output
- + Up to 400MS/s sample rate, and 1μHz frequency resolution
- + Vertical Resolution : 14 bits, up to 1M arb waveform length
- + Comprehensive waveform output : 5 basic waveforms, and 48 built-in arbitrary waveforms
- + Comprehensive modulation functions : AM, FM, PM, FSK, PWM, Sweep, and Burst
- + SCPI Supported
- + 4 inch high resolution (480 x 320 pixels) LCD

+ Performance Specifications

Model	AG4081	AG4101	AG4121	AG4151
Channel	single + trigger			
Frequency Output	80MHz	100MHz	120MHz	150MHz
Sample Rate	400MS/s			
Vertical Resolution	14 bits			

Waveform

Standard Waveform	Sine, Square, Pulse, Ramp, and Noise
Arbitrary Waveform	Exponential Rise, Exponential Fall, Sin(x)/x, Step Wave, and others, total 48 built-in waveforms, and user-defined arbitrary waveform

Frequency (resolution 1μHz)

Sine	1μHz - 80MHz	1μHz - 100MHz	1μHz - 120MHz	1μHz - 150MHz
Square	1μHz - 40MHz	1μHz - 50MHz		
Pulse	1μHz - 20MHz	1μHz - 25MHz		
Ramp	1μHz - 1MHz			
Noise	50MHz (-3dB) (typical)			
Arbitrary Waveform	1μHz - 10MHz			

Amplitude

Amplitude	10m Vpp - 10 Vpp (50Ω), 20m Vpp - 20 Vpp (high impedance)
Resolution	1m Vpp or 14 bits
DC Offset Range (AD+DC)	±5V (50Ω), ±10V (high impedance)
DC Offset Range Resolution	1mV
Load Impedance	50Ω (typical)

Model	AG4081	AG4101	AG4121	AG4151
Arbitrary Waveform				
Wave Length	2 pts to 1M pts			
Sample Rate	200MS/s			
Vertical Resolution	14 bits			
Non-volatile Memory	26 waveforms			
Modulation				
Modulation Waveform	AM, FM, PM, FSK, PWM, Sweep, and Burst			
Modulation Frequency	2mHz to 20.00KHz (FSK 1μHz - 100KHz)			
Input / Output				
Display	4 inch (480 x 320 pixels) LCD			
Type	external modulation input / output, external trigger input / output, external reference clock input / output			
Communication Interface	USB host, USB device, RS232, and LAN			
Mechanical				
Dimension (W x H x D)	235 x 110 x 295 (mm)			
Weight (without package)	3.00 kg			

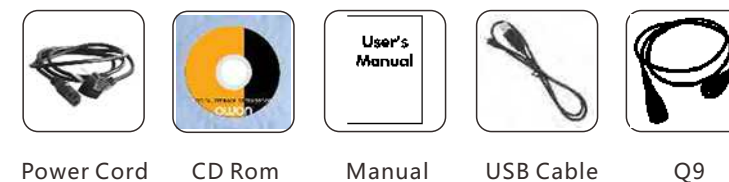
Specifications subject to change without prior notice.

+ Application

design and debug circuit function test education and training

+ Accessories

The accessories subject to final delivery.



Power Cord CD Rom Manual USB Cable Q9

DP Series Programmable DC Power Supply



[ODP3031]



[ODP3032]



- + ODP3032 : two independent controllable channels; ODP3031 : one controllable channel
- + Max output resolution : 1mV / 1mA
- + Low ripples / low noise : <300 μ Vrms / 2 mVpp
- + Up to 100 group timers
- + Up to 10 group preset system configurations
- + Over-voltage / Over-current protection
- + Auto-cooling system
- + 3.9 inch high resolution (480 x 320 pixels) LCD
- + Multiple communication interface : USB, and RS232
- + SCPI Supported

+ Display

Model	ODP3031	ODP3032
Display Type	3.9 inch colored LCD	
Display Resolution	480 x 320 pixels	
Display Color	65536 colors	

+ Mechanical Specifications

Model	ODP3031	ODP3032
Dimension (W x H x D)	298 x 202 x 450 (mm)	
Weight (without package)	7.00 kg	9.80 kg

+ Performance Specifications

The specifications based upon the instrument having run for at least 30 minutes continuously, under the specified operating environment.

Model	Channel	ODP3031		ODP3032	
		1	Fixed 3.3V / 5V	2 (independent)	Fixed 5V
DC Output Rating	Voltage	0 - 30V	3.3V / 5V	0- 30V (Independent / Parallel) 0 - 60V (Series) -30V - 30V (Plus-minus)	5V
	Current	0 - 3A	3A	0 - 3A (Independent / Series / Plus-minus), 0 - 6A (Parallel)	3A
Line Regulation	CV	$\leq 0.01\% + 3mV$	$\leq 3mV$	$\leq 0.01\% + 3mV$	$\leq 3mV$
	CC	$\leq 0.1\% + 3mA$	/	$\leq 0.1\% + 3mA$	/
Load Regulation	CV	$\leq 0.01\% + 3mV$	$\leq 0.1\% + 3mV$	$\leq 0.01\% + 3mV$	$\leq 0.1\% + 3mV$
	CC	$\leq 0.2\% + 3mA$	/	$\leq 0.2\% + 3mA$	/
Noise and Ripple (20Hz - 7MHz)	CV	$\leq 300 \mu Vrms / 2 mVpp$		$\leq 300 \mu Vrms / 2 mVpp$	
	CC	$\leq 3mArms$	/	$\leq 3mArms$	/
Settings Resolution	Voltage	1mV	/	1mV	/
	Current	1mA	/	1mA	/
Settings Accuracy (25°C \pm 5°C)	Voltage	$\leq 0.05\% + 3mV$	/	$\leq 0.05\% + 3mV$	/
	Current	$\leq 0.1\% + 3mA$	/	$\leq 0.1\% + 3mA$	/
Read Back Resolution	Voltage	1mV (<10V), 10mV ($\geq 10V$)	/	1mV (<10V), 10mV ($\geq 10V$)	/
	Current	1mA	/	1mA	/
Read Back Accuracy (25°C \pm 5°C)	Voltage	$\leq 0.05\% + 3$ digits	/	$\leq 0.05\% + 3$ digits	/
	Current	$\leq 0.1\% + 3$ digits	/	$\leq 0.1\% + 3$ digits	/

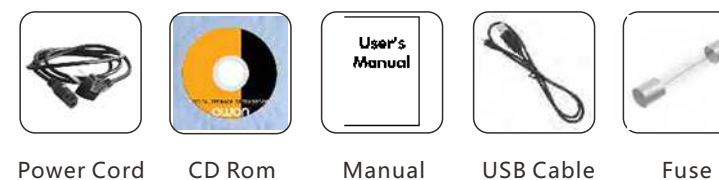
Specifications subject to change without prior notice.

+ Application


general detection in R&D laboratory QC test industrial production automation test
 automobile and electronic circuit test power-supplying education / teaching experimentation
 electronic components test, aging test to monitor the real-time status of power system via remote control
 to monitor battery charging curve


+ Accessories


The accessories subject to final delivery.




Oscilloscope Probe Specification

	Model No	P6060	P6100	P6200
	Attenuation Ratio	1X or 10X	1X or 10X	1X or 10X
	Bandwidth	1X : DC-6MHz 10X : DC-60MHz	1X : DC-6MHz 10X : DC-100MHz	1X : DC-6MHz 10X : DC-200MHz
	Input R	1MΩ/10MΩ	1MΩ/10MΩ	1MΩ/10MΩ
	Input C	1X : 85pF - 120pF 10X : 18.5pF - 22.5pF	1X : 85pF - 120pF 10X : 18.5pF - 22.5pF	1X : 85pF - 120pF 10X : 18.5pF - 22.5pF
	Max Input Voltage	1X : <300VDC + AC Vpp 10X : <600VDC + AC Vpp	1X : <300VDC + AC Vpp 10X : <600VDC + AC Vpp	1X : <300VDC + AC Vpp 10X : <600VDC + AC Vpp

	Model No	P4060	P4100	P4200	P4250
	Attenuation Ratio	100X	100X	100X	100X
	Bandwidth	10X : DC-60MHz	10X : DC-100MHz	10X : DC-200MHz	10X : DC-250MHz
	Input R	100MΩ	100MΩ	100MΩ	100MΩ
	Input C	100X : 18.5pF - 22.5pF	100X : 18.5pF - 22.5pF	100X : 18.5pF - 22.5pF	100X : 18.5pF - 22.5pF
	Max Input Voltage	2KV DC + AC Vpp	2KV DC + AC Vpp	2KV DC + AC Vpp	2KV DC + AC Vpp

	Model No	P5101	P5102	P5104
	Attenuation Ratio	1000X	1000X	1000X
	Bandwidth	1000X : DC-20MHz	1000X : DC-20MHz	1000X : DC-20MHz
	Input R	100MΩ	100MΩ	100MΩ
	Input C	10X : 0.5pF - 1.5pF	10X : 0.5pF - 1.5pF	10X : 0.5pF - 1.5pF
	Max Input Voltage	10KV DC + AC Vpp	20KV DC + AC Vpp	40KV DC + AC Vpp

	Model No	P2300	P2500
	Attenuation Ratio	100X	100X
	Bandwidth	100X : DC-300MHz	100X : DC-500MHz
	Input R	100MΩ	100MΩ
	Input C	100X : 10pF - 20pF	100X : 10pF - 20pF
	Max Input Voltage	5KV DC + AC Vpp	5KV DC + AC Vpp

Certificates



MSO CE



HDS-N CE



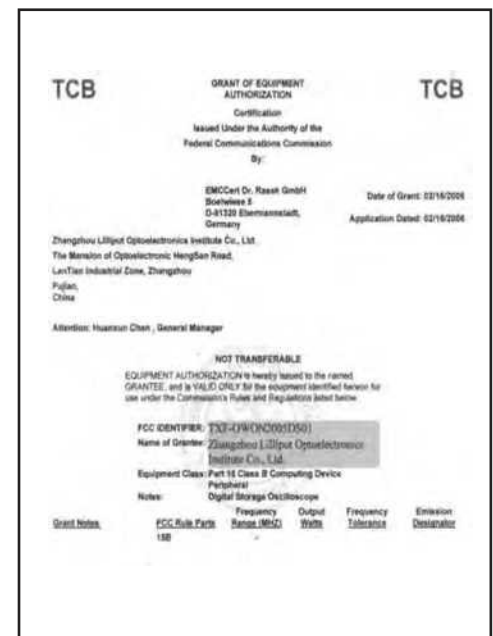
SDS CE



ISO9001



HDS CE



FCC