owon®

Meeting your needs

Product Catalogue

- Spectrum Analyzers
- Digital Storage Oscilloscopes
- Arbitrary Waveform Generators
- Programmable DC Power Supplies
- PC Oscilloscopes
- Digital Multimeters

WWW.OWON.COM

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About OWON®

Since 1990, Lilliput steps into the electronics product industry, its 1st product series is a mini color LCD.

Owned by Lilliput, OWON's product line was created to "Meet your best need" in the test and measurement equipment field.

Through 2 decades' of efforts, Lilliput gradually grew to be a group corporation, covering 3 product lines - mini color LCD, test and measurement equipment, and home energy management system.

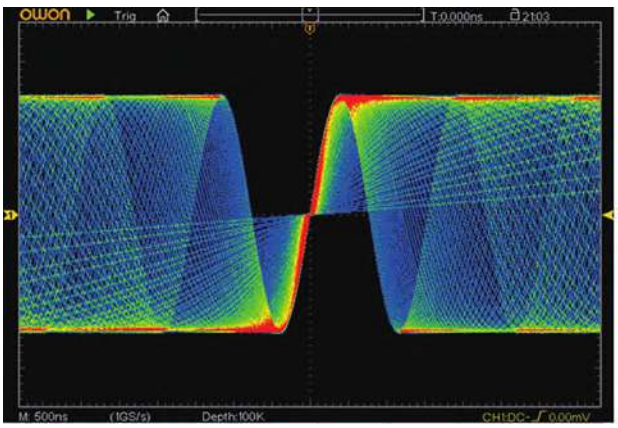
OWON's products can be found in Asia, North America, Europe, South America, Oceania, and Africa, with global partners established in more than 80 countries/ regions.

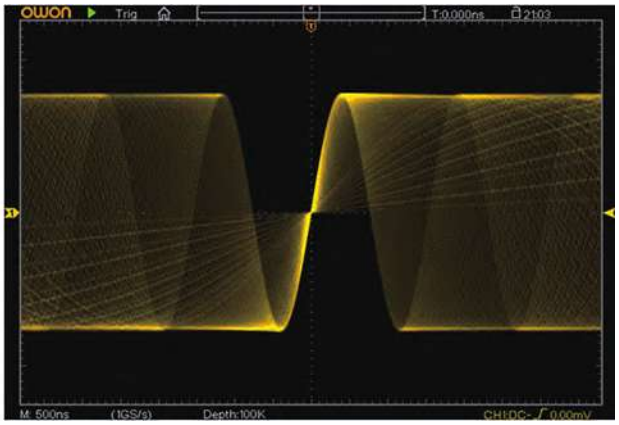
Lilliput (OWON) spares no efforts to be one of top test and measurement equipment original equipment manufacturers in the world.

XDS4000 series multi-function test oscilloscope

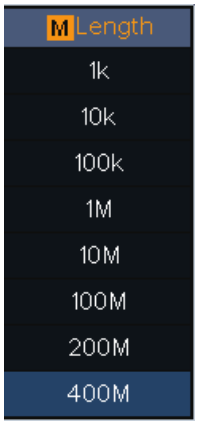
+ Including 7 measurement functions in one: oscilloscope, waveform generator, multimeter, FFT spectrum analyzer, frequency counter, protocol analysis, amplitude-frequency curve analysis
+ 350 MHz / 500 MHz oscilloscope bandwidth, 5 GSa/s sample rate
+ Standard 400 Mpts memory depth
+ 600,000 wfms/s refresh rate, easy to capture exceptional and low probability events
+ Advanced function calculation function
+ Standard 50MHz single-channel arbitrary waveform generator
+ The oscilloscope captures the waveform, the waveform generator generates the waveform, help engineers to further analyze the circuit
+ Waveform cloning function, quickly generate captured waveforms
+ A variety of triggers and bus decodes
+ Optional multimeter and multimeter data logger function
+ Standard Bode plot for loop test analysis
+ Multi-interface design: USB Host & Device, LAN, VGA; supports standard SCPI communication, USB Device supports USB TMC
+ 10.4-inch multi-touch screen

1. multi-level grayscale, and color temperature display





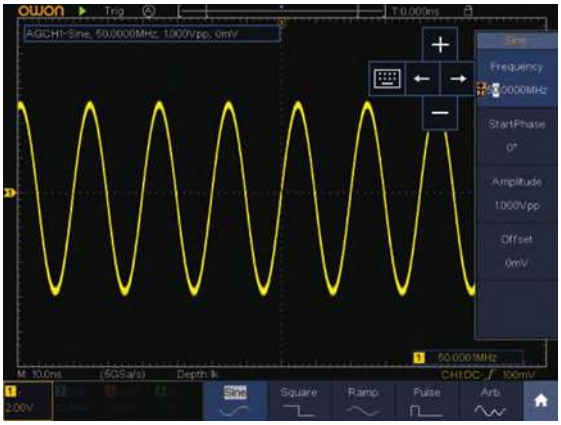
2. Standard 400 Mpts memory depth, observe more waveform details



3. Built-in 6-digit high-precision frequency counter, support the statistics on the max. and min. values

ScreenMeasure	Max	Min
1 F : 10.01MHz	10.20MHz	9.986MHz

4.Standard 50MHz single-channel waveform generator, 250 MSa/s sample rate, 16k arbitrary waveform length, built-in 64 pre-defined waveforms



5.Standard FFT, real-time operation of waveform data

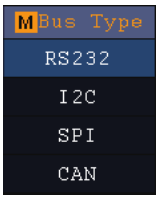
Support 4 FFT windows: Rectangular, Hamming, Hanning and Black-harris

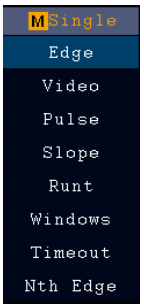
6. 4 ½ Digits Multimeter with Data Logging Function (option)

Support voltage, current, capacitance, resistance, frequency, duty cycle, continuity, diode test, and built-in data logging function, can analyze the change trend of the measured object for a long time.

7. A variety of triggers and decodes (optional)

A variety of triggers supported - Logic, Runt, Windows, Time-out, I2C, SPI, RS232/UART, Nth Edge, and CAN.
Support I2C, SPI, RS232/UART, CAN serial bus decoding function.





8.Frequency Characteristic Curve

XDS4000 series can generate the sweep signal of the specified range by controlling the built-in signal generator module and output the signal to the switch power supply to carry out loop analysis test. The bode plot generated from the test can display the gain and phase variations of the system under different frequencies, enabling engineers to get a clear view about data from the bode plot.
By analyzing the phase margin (PM) and gain margin (GM), they can judge whether the system is stable.

XDS4000 series multi-function test oscilloscope

9.10.4-inch LCD, clear waveform display, the multi-touch screen allows engineers to work more efficiently.

10.The data logger can record the data measured by the multimeter in the internal memory or external U disk, and can generate charts or CSV format for further analysis.

Model	XDS4352	XDS4502	XDS4354	XDS4504
Bandwidth	350MHz	500MHz	350MHz	500MHz
Sample Rate	5GS/s			
Horizontal Scale (s/div)	500ps/div - 1000s/div, step by 1 - 2 - 5			
Channel	2		4	
Display	10.4 inch LCD touch screen			
Record length	400M			
Waveform Refresh Rate	600,000 wfms/s			
Vertical Sensitivit	1MΩ:1mV/div~ 10V/div;50Ω: 1mV/div ~ 1V/div			
Vertical Resolution (A/D)	8bits			
Input impedance	1MΩ±2%, in parallel with 15pF±5pF;50Ω±2%			
Input coupling	DC, AC, Ground			
Trigger type	Edge, Video, Pulse, Slope, Runt, Windows, Timeout, Nth Edge, Logic, I2C, SPI, RS232, CAN			
Decoding Type (optional)	RS232, I^2C, SPI, CAN			
Automatic measurement	Period, Frequency, Mean, PK-PK, RMS, Max, Min, Top, Base, Amplitude, Overshoot, Preshoot, Rise Time, Fall Time, +Pulse Width, -Pulse Width, +Duty Cycle, -Duty Cycle, Delay A→B, Delay A→B, Cycle RMS, Cursor RMS, Screen Duty, FRR, FRF, FFR, FFF, LRR, LRF, LFR, LFF, Phase A→B, Phase A→B, +Pulse Count, -Pulse Count, Rise Edge Count, Fall Edge Count, Area, and Cycle Area.			
Waveform math	+, −, *, / ,FFT, FFTrms, Intg, Diff, Sqrt, User Defined Function, digital filter (low pass, high pass, band pass, band reject)			
Waveform storage	100 waveforms			
Communication interface	USB Host, USB Device; Trig Out(Pass/Fail); LAN port; VGA port; EXT Trig In			
Printer compatibility	PictBridge			
Dimension (WxHxD)	422x226x135(mm)			
Weight	Approx. 5 kg (without accessories)			

Arb Waveform Generator Specifications

Max Frequency Output	50MHz
Sample Rate	250MS/s
Channel	1 channel
Vertical Resolution	14bits
Amplitude Range	2mVpp - 5Vpp (≦50MHz) ; 2mVpp - 20Vpp (≦50MHz)
Waveform Length	16K
Output Waveformsa	Sine, Square, Pulse, Ramp, Exponential Rise, Exponential Fall, Sin(x)/x, Step Wave, Noise, and others, total 46 built-in waveforms, and user-defined arbitrary waveform

Multimeter Specifications (optional)

Full Scale	4½ digits	**Auto Range**	√
Measure	Voltage, Current, Capacitance, Resistance, Frequency, Duty cycle, Diode test		
Capacitance	2nF – 20mF: ±(4%±10digit)		
Voltage	DCV: 20mV,200mV: ±(0.5%±10digit), 2V, 20V, 200V: ±(0.3%±5digit),1000V:±(0.5%±5digit) ACV: 200mV, 2V, 20V, 200V: ±(0.8%±10digit) 750V: ±(1%±10digit) frequency: 40Hz-1000Hz		
Current	DCA: 20A: ±(2%±10digit) ; ACA: 20A: ±(2.5%±10digit)		
Impedance	200Ω~2MΩ: ±(0.8%±10digit),20MΩ: ±(1%±10digit) 100MΩ: ±(5%±10digit)		

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Power Cord

CD Rom

Quick Guide

USB Cable

Probe

Probe Adjust

Q9 Cable

optional accessories:

Multimeter Lead

Current Ext Module

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

14 / 12 bits

high resolution ADC

Super Performance

+ 8-bit, 12-bit or 14-bit high resolution ADC, restoring the waveform detail fully
+ max 40M record length, and max 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, and LabVIEW supported

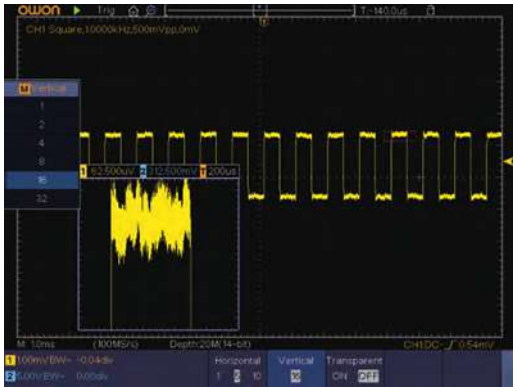
n-in-1

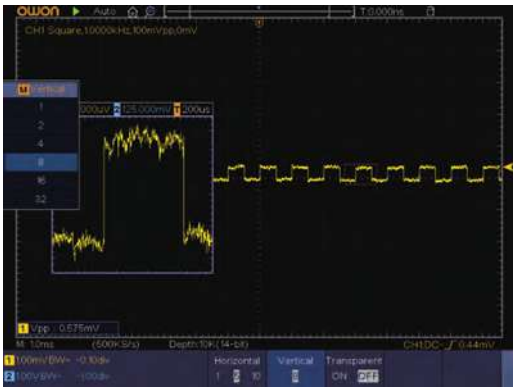
functions as data logger, and multimeter with data logging function,and dual-channel 25MHz / 50MHz arbitrary waveform generator, furthermore, battery pack, and WiFi module supported

Creative New Look

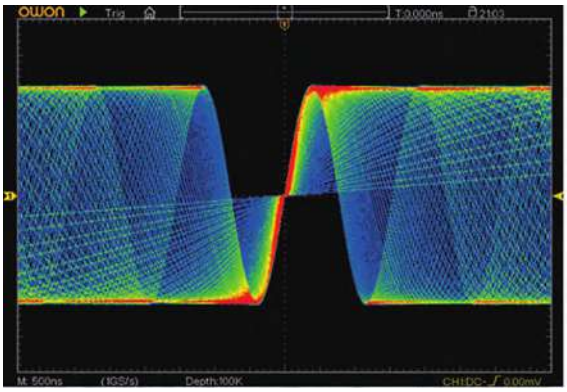
+ ultra-thin body-design, less space accommodation
+ multi-interface integration - USB host, USB device, USB port for PictBridge, LAN, AUX, and more
+ VGA port - better solution for video expansion, and teaching demonstration
+ 8 inch 800 x 600 high resolution LCD
+ optional multi-point touch screen,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

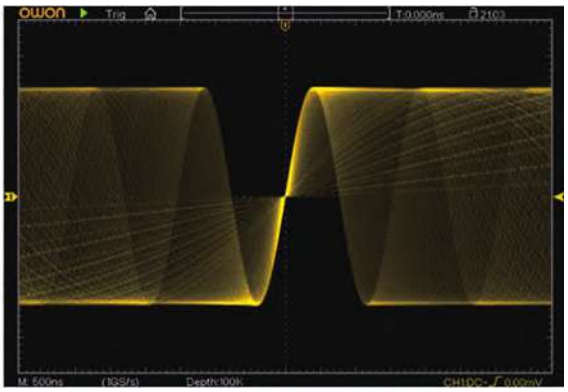
1.XDS series introduce 12 / 14 bits hardware ADC, the precision is 16/64 times against other oscilloscope on market. Equipping with OWON's original magnifier function, it can observe the signal low down to 31.25μV/div (XDS3202A, XDS3102AP).





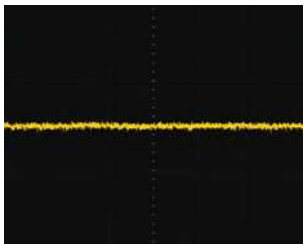
2. multi-level grayscale, and color temperature display



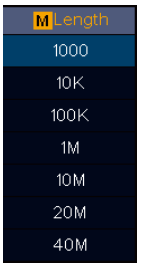


your powerful n-in-1 on-site measurement station

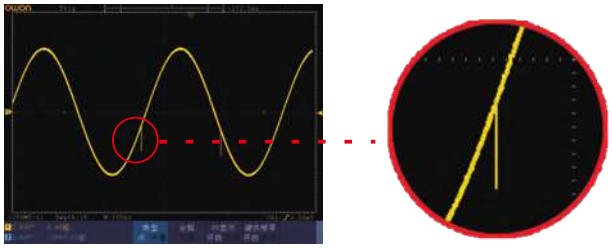
3. Xvisual platform - restore the waveform detail fully



low background noise



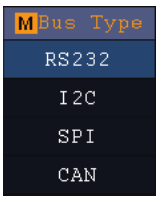
40M record length



and 75,000 wfms/s refresh rate, easily capturing exceptional, and low probability events

4. multi-trigger supported - Logic, Time-out, I²C, SPI, RS232/UART, Runt, Windows, Nth Edge, and CAN

5. serial bus coding available in I2C, SPI, RS232/UART, CAN



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

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

8. 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

9. its multi-point touchscreen improves operation efficiency considerably

10. Bode plot function

The oscilloscope with built-in signal generator is equipped with FRA (Frequency Response Analysis) function, which can test the frequency response curve or loop stability of the DUT (device under test).

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

Model	XDS3062A	XDS3102A	XDS3102AP*	XDS3202A*	XDS3102	XDS3202E	XDS3202*	XDS3302*
Bandwidth	60MHz	100MHz	100MHz	200MHz	100MHz	200MHz		300MHz
Channel	2+1 (external)							
Sample Rate	1GS/s				1GS/s		2GS/s	2.5GS/s
Vertical Resolution (A/D)	12 bits		14 bits		8 bits			
Record Length	40M							
Waveform Refresh Rate	75,000 wfms/s							
Horizontal Scale	2ns/div - 1000s/div		1ns/div - 1000s/div		2ns/div - 1000s/div	1ns/div - 1000s/div		
	step by 1 - 2 - 5							
Input Impedance	1MΩ ± 2 %, in parallel with 15pF ± 5pF; (*50Ω ± 2%)							
Vertical Sensitivity	1mV/div - 10V/div (at input)							
DC Gain Accuracy	±1.5%				±3%			
Sample Rate/Relay Time	±1ppm(type,Ta=+25℃)							
Trigger Type	Edge, Video, Pulse, Slope, Runt, Windows, Timeout, Nth Edge, Logic, I²C, SPI, and RS232/UART							
Trigger Type (optional)	CAN							
Bus Decoding (optional)	I²C, SPI, RS232/UART, and CAN							
Waveform Math	+, -, x, ÷, FFT, FFT rms, Intg, Diff, Sqrt, User Defined Function, digital filter (low pass, high pass, band pass,bandreject)							
Automatic Measurement	Vpp, Vavg, Vrms, Freq, Period, Week 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							
Communication Interface	USB host, USB device, USB port for PictBridge, Trig Out (P/F), LAN, and VGA (optional)							
Frequency Counter	√							
Power Supply	100V-240VAC, 50/60Hz, CATⅡ							
Power Consumption	<15W		<24W		<15W	<24W		
Fuse	2A, Tclass, 250V							
Dimension (WxHxD)	340x177x90(mm)							
Device Weight	2.6kg							

+ Optional Module / Function

VGA	VGA + AV port
WIF	Wi-fi
AWG	arbitrary waveform generator
DMM	digital multimeter
TOU	touch screen (capacitor-type)
BAT	Battery(3.7V 13200mAh)

RS232/UART	RS232/UART
SPI	SPI
I2C	I²C
CAN	CAN decoding

Arb Waveform Generator (optional) Specifications

Max Frequency Output	25MHz	
Sample Rate	125MS/s	
Channel	1 channel (apply to XDS3104(A), XDS3204E(AE)	2 channels (only for XDS3000 series 2 channels model)
Vertical Resolution	14 bits	
Amplitude Range	2mVpp - 6Vpp	
Waveform Length	8K	
Standard Waveform	Sine, Square, Pulse, Ramp	
Arbitrary Waveform	Exponential Rise, Exponential Fall, Sin(x)/x, Step Wave, Noise, and others, total 46 built-in waveforms, and user-defined arbitrary waveform	

Model	XDS3064E	XDS3104E	XDS3064AE	XDS3104AE	XDS3104A	XDS3104	XDS3204AE	XDS3204E
Bandwidth	60MHz	100MHz	60MHz	100MHz			200MHz	
Channel	4							
Sample Rate	1GS/s							
Vertical Resolution (A/D)	8 bits		14 bits			8bits	14 bits	8bits
Record length	40M							
Waveform Refresh Rate	45,000 wfms/s				70,000wfms/s			
Horizontal Scale (s/div))	2ns/div - 1000s/div, step by 1 - 2 - 5				1ns/div - 1000s/div, step by 1 - 2 - 5			
Input Impedance	1MΩ ± 2%, in parallel with 15pF ± 5pF							
Vertical Sensitivity	1mV/div - 10V/div (at input)							
DC Gain Accuracy	±3%							
Sample Rate / Relay Time	±2.5ppm (type, Ta=+25℃)							
Trigger Type	Edge, Video, Pulse, Slope, Runt, Windows, Timeout, Nth Edge, Logic, I2C, SPI, and RS232/UART							
Trigger Type (optional)	CAN							
Bus Decoding(optional)	I2C, SPI, RS232/UART, CAN							
Waveform Math	+, -, *, / ,FFT, FFTrms, Intg, Diff, Sqrt, User Defined Function, digital filter (low pass, high pass, band pass, band reject)							
Automatic Measurement	Vpp, Vavg, Vrms, Freq, Period, Week 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, Phase A→B, Phase A→B, +Pulse Count, -Pulse Count, Rise Edge Count, Fall Edges Count, Area, Cycle Area							
Communication Interface	USB host, USB device, Trig Out (P/F), LAN, and VGA (optional)							
Frequency Counter	√							
Power Supply	100V - 240V AC, 50/60Hz, CAT II							
Fuse	2A, T class, 250V							
Battery (optional)	3.7V, 13200mA							
Dimension (W x H x D)	340mmx177mmx90mm							
Device Weight	2.6kg							

Multimeter (optional) Specifications

Full Scale Reading	3¾ digits (max 4000 count)	**Diode**	√
Input Impedance	10MΩ	**Continuity Test**	<50 (±30) beeping
Capacitance	51.2nF - 100uF: ±(3% ± 3 digits)		
Voltage	DCV: 400mV, 4V, 400V, 1000V: ±(1 ± 1 digit); max input: DC 1000V ACV: 400mV, 4V, 40V, 400V: ±(1% ± 3 digits) 750V:±(1.5% ± 3 digits); Frequency: 40Hz - 400Hz; Max input: AC 750V (virtual value)		
Current	DCA: 40mA, 400mA: ±(1.5% ± 1 digit); 10A: ±(3% ± 3 digits) ACA: 40mA: ±(1.5% ± 3 digits), 400mA: ±(2% ± 1 digit), 10A: ±(3% ± 3 digits)		
Impedance	400Ω: ±(1% ± 3 digits),4KΩ - 40MΩ: ±(1% ± 1 digit)		

+ Accessories

The accessories subject to final delivery.

Power Cord

CD Rom

Quick Guide

USB Cable

Probe

Probe Adjust

optional accessories:

Multimeter Lead

Q9

Capacitance Ext Module

Battery

Soft Bag

mobile app accessible via scanning QR code

SDS Series Deep Memory Digital Storage Oscilloscope

10M
Record Length

- Bandwidth : 100MHz - 300MHz with dual-channel
- Sample rate : 1GS/s - 3.2GS/s
- 10M record length for each channel
- Smart design with easy portability
- Large 8 inch 800 x 600 pixels LCD
- LAN remote control
- Multi-function : auto-scale, Pass / Fail, current measurement, and **digital filtering**
- SCPI, and LabVIEW supported

- Optional ***BATTERY*** available

VGA LAN USB WAVE RECORD FFT

Model	SDS7102	SDS7202	SDS8102	SDS8202	SDS8302	SDS9302
Bandwidth	100MHz	200MHz	100MHz	200MHz	300MHz	
Channel	2 + 1 (external)					
Sample Rate	1GS/s		2GS/s		2.5GS/s	3.2GS/s
Horizontal Scale (s/div)	2ns/div - 100s/div, step by 1 - 2 - 5		1ns/div - 100s/div, step by 1 - 2 - 5			
Rise Time	≤3.5ns	≤1.7ns	≤3.5ns	≤1.7ns	≤1.17ns	
Record Length	10M					
Display	8"color LCD, 800 x 600 pixels					
Input Impedance	1MΩ ± 2%, in parallel with 15pF ± 5pF					
Vertical Sensitivity	2mV/div - 10V/div					
Vertical Resolution (A/D)	8 bits (2 channels simultaneously)					
Trigger Type	Edge, Pulse, Video, Slope, and Alternate					
Digital Filtering	low-pass, high-pass, band-pass, and band-reject					
Automatic Measurement	Vpp, Vavg, Vrms, Freq, Period, Week 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					
Measuring Current Range	100mA/V - 1KA/V					
Communication Interface	USB host, USB device, Pass / Fail, LAN, VGA (optional), and RS232 (optional)					
Battery (optional)	7.4V, 8000mA					
Dimension (W x H x D)	340 x 155 x 70 (mm)					
Device Weight	1.80 kg					

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Power Cord

CD Rom

Quick Guide

USB Cable

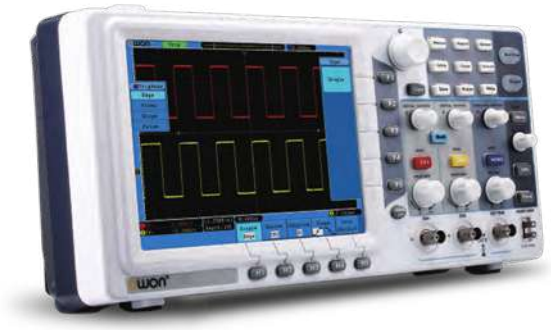
Probe

Probe Adjust

Battery (optional)

Soft Bag (optional)

SDS-E Series economical type digital storage oscilloscope



- Bandwidth : 30MHz - 125MHz
- Sample rate : 500MS/s - 1GS/s
- Ultra-thin body
- 8 inch high resolution LCD
- Pass / Fail function
- SCPI, and LabVIEW supported
- newly added function - digital filtering, and current measurement (excl. SDS5032E and SDS5052E)

CE VGA LAN USB WAVE RECORD FFT

Model	SDS5032E	SDS5052E	SDS6062E	SDS7072E	SDS7102E	SDS7122E
Bandwidth	30MHz	50MHz	60MHz	70MHz	100MHz	125MHz
Channel	2 + 1 (external)					
Sample Rate	500MS/s			1GS/s		
Record Length	10K					
Display	8" color LCD, 800 x 600 pixels					
Input Impedance	1MΩ ± 2%, in parallel with 15pF ± 5pF					
Horizontal Scale (s/div)	5ns/div - 100s/div, step by 1 - 2 - 5			2ns/div - 100s/div, step by 1 - 2 - 5		
Vertical Sensitivity	5mV/div - 5V/div (at input)		2mV/div - 10V/div (at input)			
Vertical Resolution (A/D)	8 bits (2 channels simultaneously)					
Trigger Type	Edge, Pulse, Video, Slope, and Alternate					
Digital Filtering	/		low-pass, high-pass, band-pass, and band-reject			
Automatic Measurement	Vpp, Vavg, Vrms, Freq, Period, Week 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					
Communication Interface	USB host, USB device, Pass / Fail, LAN, and VGA (optional)					
Dimension (W x H x D)	348 x 170 x 78 (mm)					
Device Weight	1.50 kg					

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Power Cord

CD Rom

Quick Guide

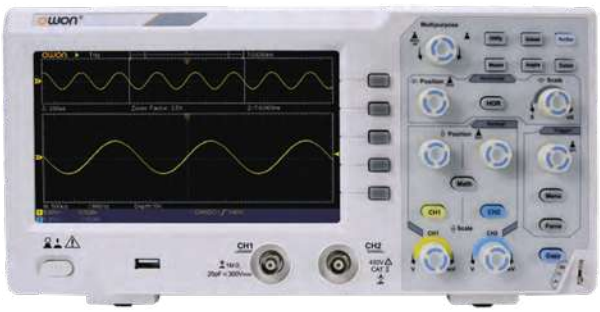
USB Cable

Probe

Probe Adjust

Soft Bag (optional)

SDS1000 Series super-economical type digital storage oscilloscope



+ Bandwidth : 20MHz-200MHz
+ 2-Channel
+ Sample rate : 100MS/s - 1GS/s
+ Ultra-thin body
+ 7 inch high resolution LCD
+ SCPI, and LabVIEW supported

CE

Model	SDS1022	SDS1052	SDS1102	SDS1202
Bandwidth	20MHz	50MHz	100MHz	200MHz
Channel	2			
Sample Rate	100MS/s	500MS/s	1GS/s	
Horizontal Scale (s/div)	5ns/div - 1000s/div, step by 1 - 2 - 5	2ns/div - 1000s/div, step by 1 - 2 - 5		
Display	7" color LCD, 800 x 480 pixels			
Input Impedance	1MΩ ± 2%, in parallel with 20pF±5pF			
Record Length	10K			
Sample Rate / Relay Time	±100ppm			
Vertical Resolution (A/D)	8 bits (2 channels simultaneously)			
Vertical Sensitivity	5mV/div - 5V/div (at input)			
Trigger Type	Edge, Video			
Automatic Measurement	Vpp, Vavg, RMS, Frequency, Period, Vmax, Vmin, Vtop, Vbase, Width, Overshoot, Pre-shoot, Rise time, Fall time, +Width, -Width, +Duty, -Duty, Delay A→B, Delay A→B			
Waveform Math	+, -, x, ÷, invert, FFT			
Waveform Storage	16 waveforms			
Communication Interface	USB host, USB device			
Frequency Counter	available			
Power Supply	100V - 240V AC, 50/60Hz, CAT II			
Dimension (W x H x D)	301 x 152 x 70 mm			
Device Weight	1.10 kg			

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Power Cord

CD Rom

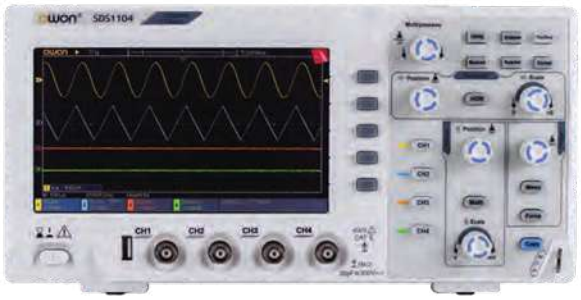
Quick Guide

USB Cable

Probe

Probe Adjust

Soft Bag (optional)



+ Bandwidth : 100MHz
+4-Channels
+ Sample rate : 1GS/s
+ Ultra-thin body
+ 7 inch high resolution LCD
+ SCPI, and LabVIEW supported

CE

Model	SDS1104
Bandwidth	100MHz
Channel	4
Sample Rate	1GS/s
Horizontal Scale (s/div)	2ns/div - 1000s/div, step by 1 - 2 - 5
Display	7" color LCD, 800 x 480 pixels
Input Impedance	1MΩ ± 2%, in parallel with 20pF±15pF
Record Length	20K
Sample Rate / Relay Time	±100ppm
Vertical Resolution (A/D)	8 bits (2 channels simultaneously)
Vertical Sensitivity	5mV/div - 5V/div (at input)
Trigger Type	Edge, Video
Automatic Measurement	Vpp, Vavg, RMS, Frequency, Period, Vmax, Vmin, Vtop, Vbase, Width, Overshoot, Pre-shoot, Rise time, Fall time, +Width, -Width, +Duty, -Duty, Delay A→B, Delay A→B, area, cycle area, FRR, FRF, FFR, FFF, LRR, LRF, LFR, LFF
Waveform Math	+, -, x, ÷, invert, FFT
Waveform Storage	16 waveforms
Communication Interface	USB host, USB device
Frequency Counter	available
Power Supply	100V - 240V AC, 50/60Hz, CAT II
Dimension (W x H x D)	301 x 152 x 70 mm
Device Weight	1.10 kg

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Power Cord

CD Rom

Quick Guide

USB Cable

Probe

Probe Adjust

Soft Bag
(optional)

AS101 & AS201 Oscilloscope

The best choice to replace an analogue oscilloscope
+ The simple control panel is similar to an analogue oscilloscope
+ Bandwidth : 10MHz(AS101)，20MHz(AS201)
+ Sample rate : 100MS/s
+ 130,000 wfms/s waveform capture rate, easily capturing exceptional and low probability events
+ 3.7" Colored LCD
+ Compact case

Model		AS101	AS201
Bandwidth		DC:0-10MHz, AC: 10 Hz-10MHz	DC:0-20MHz, AC: 10 Hz-20MHz
Channel		1	
Horizontal system	Sample Rate	100MS/s	
	Scanning speed (S/DIV)	0.05us/DIV - 0.1s/DIV,step by 1 - 2 - 5	
	Trimming Ratio	≥2.5:1	
Vertical system	Sensitivity	5 mV/DIV ~ 10 V/DIV	
	Displacement	±10DIV	
	Low Frequency	≥10 Hz (at input, AC coupling, -3 dB)	
	Rise time (at input, Typical)	≤30 ns	
	Trimming Ratio	≥2.5:1	
Input coupling		DC, AC , Ground	
Input impedance		1 MΩ±2%, in parallel with 20 pF±5 pF	
Max. input voltage		400V (DC+AC, PK - PK)	
X-Y Model			
Sensitivity		X:0.5V/DIV Y:0.1V/DIV - 1V/DIV	
Bandwidth(-3dB)		DC: 0 - 1MHz AC: 10Hz - 1MHz	
Trigger			
Trigger level range		±4 DIV from the screen center	
Trigger level Accuracy (typical)		±0.3 DIV	
Trigger Sources		Int, Line, Ext	
Trigger Mode		Norm, AUTO, TV	
Edge trigger		Rising, Falling	
Video Trigger		Support standard NTSC, PAL and SECAM broadcast systems	
Sample Rate / Relay Time		±100ppm	
Trigger lock		support	
Ext. Trigger Input Impedance		1 MΩ2%, in parallel with 20 pF±5 pF	
Ext. Trigger Max. Input Voltage		400Vpp	
Trigger Output of the probe compensator			
Output Voltage (Typical)		Square, 0.5Vpp±2%	
Frequency (Typical)		Square wave of 1 kHz(±1%)	
Display		3.7" Colored LCD (Liquid Crystal Display)	
Power Supply		100V - 240V AC, 50/60Hz, CAT II	
Power Consumption		< 15W	
Fuse		1A, T class, 250V	
Dimension (W x H x D)		117 x 195 x 288 mm	
Device Weight		About 1.8 kg	

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Power Cord

Quick Guide

Probe

Probe Adjust

VDS Series PC Oscilloscope

- 20MHz bandwidth,100MS/s sample rate
- Friendly UI : FFT, or X-Y, and waveform 2 views displayed on the same screen
- Multi-trigger option : edge, video, slope, and pulse
- USB isolation - less signal interference, more PC protection
- USB bus powering
- Ultra-thin body design, easy portability

Model	VDS1022I	VDS1022
Bandwidth	25MHz	
Channel	2Channel+Multi	
Sample Rate	100MS/s	
Horizontal Scale (s/div)	5ns/div - 100s/div, step by 1 - 2 - 5	
Record Length	5K	
Input Impedance	1MΩ ± 2%, in parallel with 10pF ± 5pF	
Max Input Voltage	400V(DC + AC peak)	40V (DC + AC peak)
Vertical Sensitivity	5mV/div - 5V/div	
Vertical Resolution	8 bits	
Trigger Type	Edge, Pulse, Video, Slope, and Alternate	
Automatic Measurement	Vpp, Vavg, Vrms, Frequency, Period, Vmax, Vmin, Vtop, Vbase, Vamp, Overshoot, Preshoot, Rise Time, Fall Time, +Width, -Width, +Duty, -Duty, DelayA→B, DelayA→B	
Waveform Math	+, -, *, /, FFT	
Communication Interface	USB2.0 (isolation)	USB2.0
Power Supply	≤2.5W	
Dimension (W x H x D)	170 × 18 × 120 (mm)	
Device Weight	0.26 kg	

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Probe

Probe Adjust

USB Cable

Silicon Gel Case

CD Rom

Quick Guide

VDS6000 Series PC Oscilloscope

+ Dual/four channel, ultra-thin body design
+ 100MHz bandwidth, and max. 1GSa/s real-time sampling rate
+ Standard built-in 5MHz signal generator (for dual-CH)
+ 8-bit, 12-bit, 14-bit vertical resolution, more accurate measurement
+ Max. 10M record length
+ Standard SCPI protocol supported, LabVIEW supported
+ Secondary development supported on Windows, Linux, Android, and iOS platform
+ Support Wi-Fi Communication

CE

Model	VDS6102	VDS6102A
Bandwidth	100MHz	
Channel	2 Channel+Signal generator	
Sample Rate	Max. 1GSa/s	
Horizontal Scale (s/div)	5ns/div - 100s/div, step by 1 - 2 - 5	
Record Length	10M	
Input Impedance	1MΩ ± 2%, in parallel with 15pF ± 5pF	
Sample rate/Relay time accuracy	±25ppm	
Max Input Voltage	40V(DC + AC peak)	
Vertical Sensitivity	2mV/div - 5V/div	
Vertical Resolution	8 bits	8 bits/12 bits/14 bits
Trigger Type	Edge, Pulse, Video, Slope	
Automatic Measurement	Vpp, Vavg, Vrms, Frequency, Period, Vmax, Vmin, Vtop, Vbase, Vamp, Overshoot, Preshoot, Rise Time, Fall Time, +Width, -Width, +Duty, -Duty, DelayA→B, DelayA→B	
Secondary Development	Supported on Windows, Linux, Android, and iOS platform	
Built-in Signal Generator	Support	
Communication Interface	USB(Type-C), LAN, Wi-Fi(optional)	
Power Supply	≤8W	
Dimension (W x H x D)	190 × 18 × 120 (mm)	
Device Weight	Approx. 0.38 kg	

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Probe

Probe Adjust

USB Cable

Silicon Gel Case

CD Rom

Wi-Fi (optional)

Adapter

Power Cord

Q9 (for dual-CH)

Quick Guide

VDS6000 Series PC Oscilloscope

+ 4 channels ultra thin design
+ 70MHz-100MHz bandwidth, and 1GS/s real-time sample rate
+ Max 10M record length, max 14 bits high resolution ADC
+ SCPI、LABVIEW supported
+ Support the secondary development of windows / Linux / Android / Ios platform
+ USB type-C power supply, faster data transmission, support 5-15v wide voltage power supply
+ Wi-Fi unlimited transmission, more convenient to use. (Wi-Fi accessories are required)
+ Support software for Windows and Mac OS

Model	VDS6074	VDS6104	VDS6074A	VDS6104A
Bandwidth	70MHz	100MHz	70MHz	100MHz
Channel	4 Channel			
Sample Rate	Max. 1GSa/s			
Horizontal Scale (s/div)	1ns/div - 100s/div, step by 1 - 2 - 5			
Record Length	10M			
Input Impedance	1MΩ ± 2%, in parallel with 15pF ± 5pF			
Sample rate/Relay time accuracy	±25ppm			
Max Input Voltage	40V(DC + AC peak)			
Vertical Sensitivity	2mV/div - 5V/div			
Vertical Resolution	8 bits		8 bits/12 bits/14 bits	
Trigger Type	Edge, Pulse, Video, Slope			
Automatic Measurement	Vpp, Vavg, Vrms, Frequency, Period, Vmax, Vmin, Vtop, Vbase, Vamp, Overshoot, Preshoot, Rise Time, Fall Time, +Width, -Width, +Duty, -Duty, DelayA→B, DelayA→B			
Secondary Development	Supported on Windows, Linux, Android, and iOS platform			
Frequency Counter	Support			
Communication Interface	USB Device (Type-C), USB Host, LAN, Wi-Fi(optional)			
Power Supply	≤8W			
Dimension (W x H x D)	190 × 18 × 120 (mm)			
Device Weight	Approx. 0.4 kg			

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Probe

Probe Adjust

USB Cable

Silicon Gel Case

CD Rom

Wi-Fi (optional)

Adapter

Power Cord

Q9 (for dual-CH)

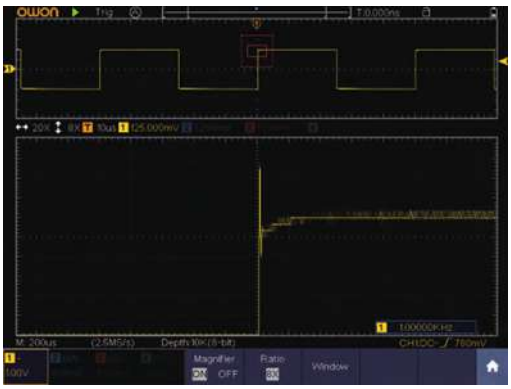
Quick Guide

TAO3000 Series 2CH/4CH Tablet Digital Storage Oscilloscope

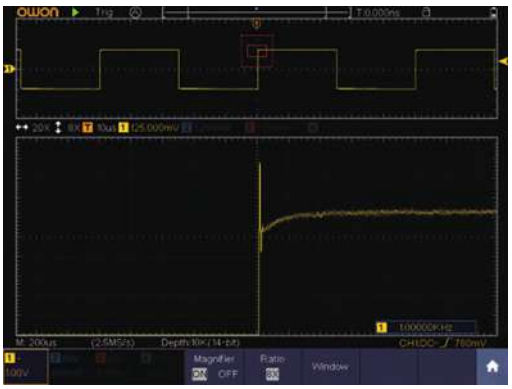
+ Oscilloscope + Multimeter(2CH type)
+ Max 120MHz Bandwidth, 1GS/s sample rate
+ 14-bit high resolution ADC
+ 40M record length; 45,000 wfms/s waveform refresh rate
+ low back ground noise
+ 8-inch 800 x 600 high resolution LCD, multi-touch screen, more user-friendly operation experience
+ SCPI and LabVIEW supported
+ multi- trigger, and bus decoding function
+ multi-interface integration - USB host, USB device, LAN, Wi-Fi (optional)

14-bit hardware ADC, high measurement accuracy

Equipped with 14-bit high-resolution hardware ADC, the precision is 64 times against other oscilloscope on market.
You can observe the waveform details more clearly, and measure the changes of small voltage signals more accurately.



Magnifier view of 8 bits sampling



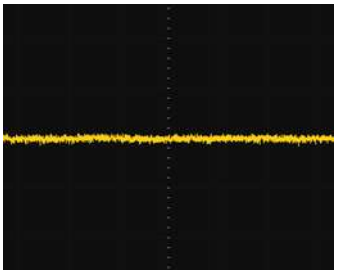
Magnifier view of 14 bits sampling

Original view

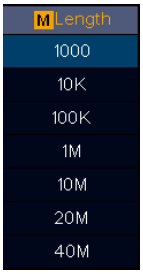
Magnifier view

Excellent oscilloscope performance, low background noise, high storage, high refresh

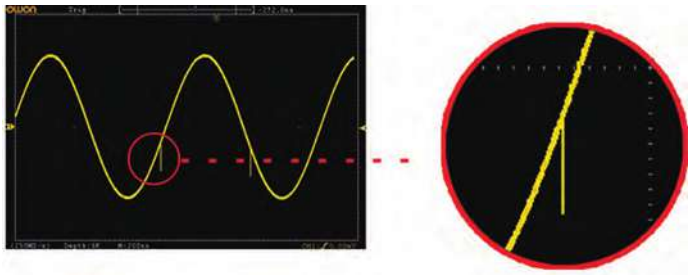
Low background noise allows the oscilloscope to have better small signal measurement capabilities.
High storage allows the oscilloscope to acquire longer signals. High refresh rate allows the oscilloscope to capture waveform details and exceptional events.



Low background noise

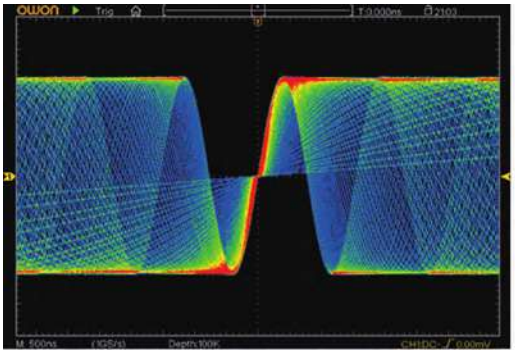


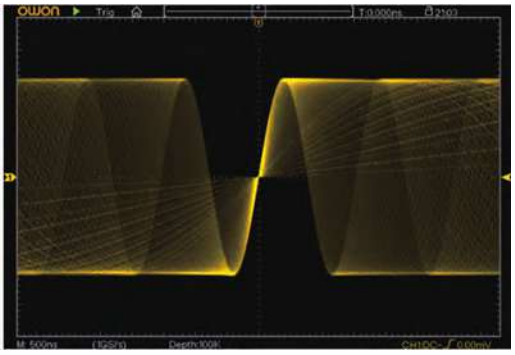
40M record length



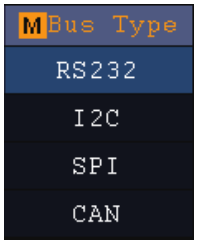
45000 wfms/s refresh rate, easily capturing exceptional, and low probability events

Multi-level grayscale, and color temperature display

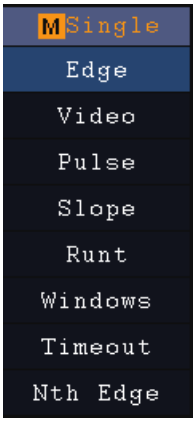




Multiple trigger and bus decoding function

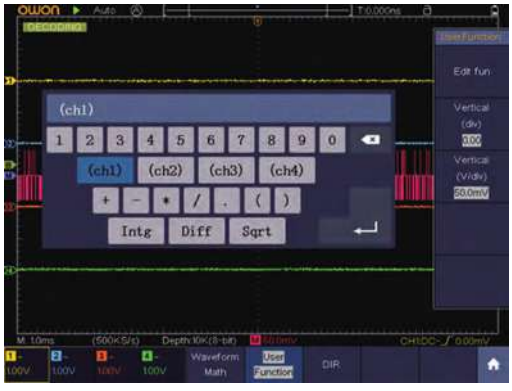


Serial bus coding available in I2C, SPI, RS232/UART, and CAN.



Support multiple trigger modes, including Edge, Video, Pulse, Slope, Runt, Windows, Timeout, I2C, SPI, RS232/UART, CAN, and Nth Edge.

Multiple waveform math operations



Support +, -, *, /, FFT, FFTrms, Intg, Diff, Sqrt, User Defined Function, digital filter (low pass, high pass, band pass, band reject)

Built-in Wi-Fi module

Built in Wi-Fi module, the user can connect with TAO3000 through mobile device, realize the same screen display and control, store and view waveform data through app, share with friends, realize collaborative analysis and successfully complete the work.

Multiple operation methods, make field testing more convenient

Handheld Type
The back is equipped with anti falling elastic belt.

Bracket Type
With bracket, it can be placed on the table

Knapsack Type
Optional outdoor Backpack

TAO3000 Series 2CH Tablet Digital Storage Oscilloscope

Model	TAO3072	TAO3102	TAO3122	TAO3072A	TAO3102A	TAO3122A
Bandwidth	70MHz	100MHz	120MHz	70MHz	100MHz	120MHz
Sample Rate	1GS/s					
Vertical Resolution (A/D))	8 bits			8 bits/12 bits/14 bits		
Record length	40M					
Waveform Refresh Rate	45,000 wfms/s					
Horizontal Scale (s/div))	2ns/div - 1000s/div, step by 1 - 2 - 5					
Channel	2					
Display	8" color LCD, 800 x 600 pixels display, multi-touch screen					
Input Impedance	1MΩ ± 2%, in parallel with 15pF ± 5pF					
Max Input Voltage	1MΩ ≤ 300Vrms;					
Probe Attenuation Factor	0.001X - 1000X, step by 1 - 2 - 5					
Sample Rate / Relay Time Accuracy	±10 ppm max (Ta = +25°C)					
Input Coupling	DC, AC, GND					
Vertical Sensitivity	1mV/div - 10V/div (at input)					
Trigger Type	Edge, Video, Pulse, Slope, Runt, Windows, Timeout, Nth Edge, Logic, I^2C, SPI, RS232/UART, and CAN (optional)					
Bus Decoding(optional)	I^2C, SPI, RS232/UART, CAN					
Trigger Mode	Auto, Normal, and Single					
Automatic Measurement	Vpp, Vavg, Vrms, Freq, Period, Week RMS, Cursor RMS, Vmax, Vmin, Vtop, Vbase, Vamp, Overshoot, Phase A→B ↑, Phase A→B ↓, 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 Edges Count, Area, Cycle Area, FRR, FRF, FFR, FFF, LRR, LRF, LFR, LFF					
Waveform Math	+, −, ×, ÷, FFT, FFTrms, Intg, Diff, Sqrt, User Defined Function, Digital Filter					
Waveform Storage	100 waveforms					
Communication Interface	USB host, USB device, Trig Out(Pass/Fail), LAN, and Wi-Fi (optional)					
Frequency Counter	available					
Battery	7.4V, 8000mAh, 5 hours operation					
Dimension(WxHxD)	270 x 191 x 48 (mm)					
Device Weight	1.7kg					

Multiemeter Specifications (only apply for 2 channels model)

Display	Voltage	Current	Impedance	Diode	Auto Ranging
4 1/2 digitals	mV:20.000mV-200.00mV DCV: 2.0000V – 1000.0V ACV: 2.0000V – 750.0V	ACD: 10.00A ACA: 10.00A	200.00Ω - 100.00MΩ	√	√

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Power Cord

Adapter

Probe

CD Rom

Quick Guide

Micro USB Cable

Probe Adjust

Stand Holder

BNC-SAM

Multimeter Lead

Current Ext Module

Bag (optional)

TAO3000 Series 4CH Tablet Digital Storage Oscilloscope

Model	TAO3074	TAO3104	TAO3074A	TAO3104A
Bandwidth	70MHz	100MHz	70MHz	100MHz
Sample Rate	1GS/s			
Vertical Resolution (A/D))	8 bits		8 bits/12 bits/14 bits	
Record length	40M			
Waveform Refresh Rate	45,000 wfms/s			
Horizontal Scale (s/div))	2ns/div - 1000s/div, step by 1 - 2 - 5			
Channel	4			
Display	8" color LCD, 800 x 600 pixels display, multi-touch screen			
Input Impedance	1MΩ ± 2%, in parallel with 15pF ± 5pF			
Max Input Voltage	1MΩ ≤ 300Vrms;			
Probe Attenuation Factor	0.001X - 1000X, step by 1 - 2 - 5			
Sample Rate / Relay Time Accuracy	±10 ppm max (Ta = +25°C)			
Input Coupling	DC, AC, GND			
Vertical Sensitivity	1mV/div - 10V/div (at input)			
Trigger Type	Edge, Video, Pulse, Slope, Runt, Windows, Timeout, Nth Edge, Logic, I^2C, SPI, RS232/UART, and CAN (optional)			
Bus Decoding(optional)	I^2C, SPI, RS232/UART, CAN			
Trigger Mode	Auto, Normal, and Single			
Automatic Measurement	Vpp, Vavg, Vrms, Freq, Period, Week RMS, Cursor RMS, Vmax, Vmin, Vtop, Vbase, Vamp, Overshoot, Phase A→B ↑, Phase A→B ↓, 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 Edges Count, Area, Cycle Area, FRR, FRF, FFR, FFF, LRR, LRF, LFR, LFF			
Waveform Math	+, −, ×, ÷, FFT, FFTrms, Intg, Diff, Sqrt, User Defined Function, Digital Filter			
Waveform Storage	100 waveforms			
Communication Interface	USB host, USB device, Trig Out(Pass/Fail), LAN, and Wi-Fi (optional)			
Frequency Counter	available			
Battery	7.4V, 8000mAh, 5 hours operation			
Dimension(WxHxD)	270 x 191 x 48 (mm)			
Device Weight	1.7kg			

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Power Cord

Adapter

Probe

CD Rom

Quick Guide

Micro USB Cable

Probe Adjust

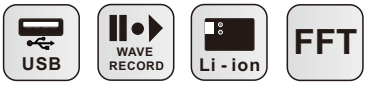
Stand Holder

BNC-SAM

Bag (optional)

HDS-N Series Dual Channel Handheld Oscilloscope

+ 2 in 1 (DSO + Multimeter)
+ Bandwidth : 20MHz - 200MHz
+ Sample Rate : 100MS/s - 1GS/s
+ With good ISOLATIONG between channels (HDS1022M-I)
+ Auto-scale function
+ Waveform record and replay
+ Multimeter newly supported SCPI



Model	HDS1022M-I	HDS1022M-N	HDS2062M-N	HDS3102M-N	HDS4202M-N
Bandwidth	20MHz		60MHz	100MHz	200MHz
Channel	2 Channel, isolation1000:1	2 Channel			
Sample Rate	100MS/s	500MS/s	1GS/s		
Horizontal Scale (s/div)	5ns/div - 100s/div				2ns/div - 100s/div
Display	3.7'' color TFT LCD, 640 x 480 pixels				
Record Length	6K points				
Input Impedance	1MΩ ± 2%, , in parallel with 20pF ± 5pF				
Vertical Sensitivity	5mV/div - 5V/div(at input)				
Trigger Type	Edge, Video, and Alternate				
Automatic Measurement	Vpp, Vavg, Vrms, Frequency, Period, Vmax, Vmin, Vtop, Vbase, Vamp, Overshoot, Preshoot, Rise Time, Fall Time, +Width, -Width, +Duty, -Duty, DelayA→B, DelayA→B				
Waveform Math	+,-,*,/, FFT				
Communication Interface	USB				
Battery	7.4V, 6 hours' operation				
Dimension (W x H x D)	180 ×115 ×40 (mm)				
Device Weight	685g				

+ Multimeter Specifications

Display	Voltage	Current	Impedance	Diode	On / Off Test
$3\frac{3}{4}$ digits (max 4000 count)	DCV: 400mV - 1000V ACV: 4V - 750V	DCA: 40mA - 10A ACA: 40mV - 10A	400Ω 4KΩ - 40MΩ	√	√

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Power Cord

CD Rom

Quick Guide

USB Cable

Probe

Probe Adjust

Multimeter Lead

Adapter

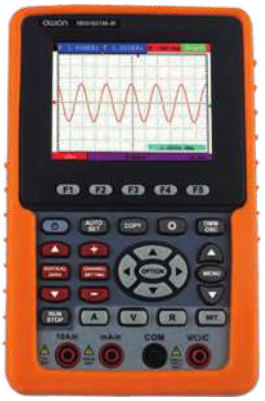
5V, 1KHz Output

Capacitance Ext Module

Soft Bag (optional)

Metal Case

HDS Series Single Channel Handheld Oscilloscope



+ 2 in 1 (DSO + Multimeter)
+ Bandwidth : 20MHz - 100MHz
+ Sample Rate : 500MS/s - 1GS/s
+ Auto-scale function
+ 20 group automatic measurement options
+ Waveform record and replay
+ Multimeter newly supported SCPI

USB | WAVE RECORD | Li - ion | FFT

Model	HDS1021M-N	HDS2061M-N	HDS3101M-N
Bandwidth	20MHz	60MHz	100MHz
Channel	1 Channel		
Sample Rate	500MS/s	500MS/s	1GS/s
Horizontal Scale (s/div)	5ns/div - 100s/div		
Display	3.7'' color TFT LCD, 640 x 480 pixels		
Record Length	24K		
Input Impedance	1MΩ ± 2%, in parallel with 20pF ± 5pF	1MΩ ± 2%, in parallel with 15pF ± 5pF	
Vertical Sensitivity	5mV/div - 5V/div(at input)		
Trigger Type	Edge, Video		
Automatic Measurement	Vpp, Vavg, Vrms, Frequency, Period, Vmax, Vmin, Vtop, Vbase, Vamp, Overshoot, Preshoot, Rise Time, Fall Time, +Width, -Width, +Duty, -Duty, DelayA→B, DelayA→B		
Communication Interface	USB		
Li-ion Battery	7.4V, 6 hours' operation		
Dimension (W x H x D)	180 × 113 × 40 (mm)		
Device Weight	645g		

+ Multimeter Specifications

Display	Voltage	Current	Impedance	Diode	On / Off Test
$3\frac{3}{4}$ digits (max 4000 count)	DCV: 400mV - 1000V ACV: 4V - 750V	DCA: 40mA - 10A ACA: 40mV - 10A	400Ω 4KΩ - 40MΩ	√	√

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Power Cord

CD Rom

Quick Guide

USB Cable

Probe

Probe Adjust

Multimeter Lead

Adapter

5V, 1KHz Output

Capacitance Ext Module

Soft Bag

Metal Case (optional)

HDS200 Series Dual Channel Handheld Oscilloscope

+ Oscilloscope + multimeter + waveform generator, multifunction in one
+ 3.5-inch high-resolution, high-contrast color LCD display, suitable for outdoor use
+ 18650 lithium battery power, providing up to 6 hours working time
+ USB Type-C interface, support power bank, support PC software connection
+ Self-calibration function
+ SCPI supported, facilitate secondary development

「Oscilloscope」 Specifications

Model	HDS242	HDS272	HDS2102	HDS242S	HDS272S	HDS2102S
Bandwidth	40MHz	70MHz	100MHz	40MHz	70MHz	100MHz
Channels	2-CH Oscilloscope			2-CH Oscilloscope+1-CH Generator		
Sample Rate	250MSa/s		500MSa/s	250MSa/s		500MSa/s
Acquisition Model	Normal, Peak detect					
Record Length	8K					
Display	3.5-inch LCD					
Waveform Refresh Rate	10,000 wfrms/s					
Input Coupling	DC, AC, and Ground					
Input Impedance	1 MΩ±2%, in parallel with 16pF±10pF					
Probe Attenuation Factors	1X,10X,100X,1000X,10000X					
Max. input Voltage	400V (DC+AC, PK-PK, 1MΩ input impedance) (10:1 probe attenuation)					
Bandwidth Limit (typical)	20MHz					
Horizontal Scale	5ns/div - 500s/div, step by 1 - 2 - 5	2ns/div - 1000s/div, step by 1 - 2 - 5		5ns/div - 500s/div, step by 1 - 2 - 5	2ns/div - 1000s/div, step by 1 - 2 - 5	
Vertical Sensitivity	10mV/div - 10V/div					
Vertical Resolution	8 bits					
Trigger Type	Edge					
Trigger Modes	Auto, Normal, single					
Automatic Measurement	Frequency, Period, Amplitude, Max, Min, Mean, PK-PK					
Cursor Measurement	ΔV, ΔT, ΔT&ΔV between cursors					
Communication Interface	USB Type-C					
Dimension (W x H x D)	198 × 96 × 38 (mm)					
Device Weight	0.6kg					

「Multimeter」 Specifications

Max. Resolution	20,000 counts
Testing Mode	Voltage, Current, Resistance, Capacitance, Diode ,and Continuity test
Input Impedance	10MΩ
Max Input Voltage	AC 750V, DC 1000V
Max Input Current	DC : 10A AC : 10A
Diode	0 - 2V

「Waveform Generator」 Specifications (Only for HDS242S & HDS272S)

Frequency Output	Sine	0.1Hz - 25MHz
	Square	0.1Hz - 5MHz
	Ramp	0.1Hz - 1MHz
	Pulse	0.1Hz - 5MHz
	Arbitrary	0.1Hz - 5MHz
Sampling Rate	125MSa/s	
Channel	1-CH	
Amplitude Range	20 mVpp - 5 Vpp	
Waveform Length	8K	
Vertical Resolution	14bits	
Output Impedance	50Ω	

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Quick Guide

USB Cable

Probe

Probe Adjust

Multimeter Lead

BNC plug to alligator clips cable

Soft Bag

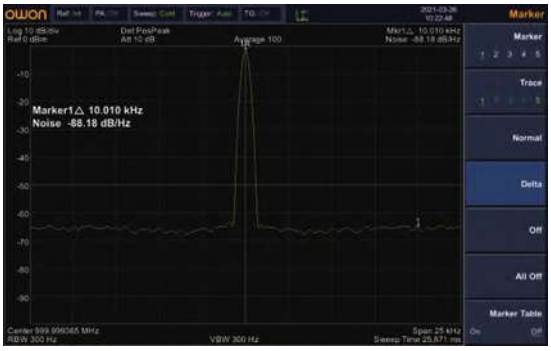
XSA800 Series Spectrum Analyzer

+ Frequency range 9kHz - 1.5GHz
+ -160 dBm Displayed Average Noise Level (DANL)
+ Phase noise -80 dBc/Hz @1GHz and offset at 10 kHz
+ Total amplitude accuracy <0.7 dB
+ 1 Hz minimum resolution bandwidth (RBW)
+ EMI pre-compliance test kit, optional EMC test software
+ Optional tracking generator
  (standard tracking generator hardware, can be remotely upgraded according to needs)
+ Waterfall plot graphic, modulation signal quality analysis, audio demodulation, ect. multiple general and extended test functions.
+ Standard Pass/Fail on-site test and alert function
+ Multiple interfaces: USB Host, USB Device, LAN, earphone interface, HDMI
+ 9-inch LCD, high resolution 1280×800 pixels

1. Excellent small signal measurement capability

-160 dBm DANL (Displayed Average Noise Level), can observe weaker small signals.

2. More accurate low-noise measurements



Phase Noise < –80 dBc/Hz @1GHz at 10 kHz offset

3.Pass/Fail function

Quickly determine if the test results pass

4.Provides EMI pre-compliance test function

Equipped with EMI filter (6dB) and quasi-peak detector as standard, it is more accurate for EMI pre-test and diagnosis, and complete testing and production report can be completed by using supporting software.

5.Provide EMC test function (requires optional software)

Built-in more than 200 mainstream EMC test standards and regulations templates. The user selects the corresponding template, and the software automatically sets the spectrum analyzer and records the test data. The data and regulations can be compared on the same screen. Users can also customize regulations for comparative analysis.

Model		XSA805(TG)	XSA810(TG)	XSA815(TG)
Frequency Range		9 kHz to 500 MHz	9 kHz to 1 GHz	9 kHz to 1.5 GHz
Frequency Resolution		1 Hz		
Reference frequency aging rate		< 1 ppm/year		
SSB Phase Noise(20℃ to 30℃, fc = 1GHz)				
Carrier Offset	10 kHz	<-80 dBc/Hz		
	100 kHz	<-100 dBc/Hz		
	1 MHZ to 500 MHz	<-115 dBc/Hz		
Resolution Bandwidth (3 dB)		1 Hz to 1 MHz, in 1-3-5-10 sequence		
Video Bandwidth (-3 dB)		10 Hz to 1 MHz, in 1-3-5-10 sequence		
Display Average Noise Level (DANL)		Preamp on, Input attenuation = 0 dB, RBW = VBW = 100 Hz, sample detector, trace average ⩾ 50, 20℃ to 30℃, input impedance = 50 Ω		
100 kHz to 1 MHz		-135 dBm (Typical), <-128 dBm		
1 MHz to 500 MHz		-160 dBm (Typical), <-150 dBm		
500 MHz to the upper frequency limit			-158 dBm (Typical), <-148 dBm	
Trace detectors		positive-peak, negative-peak, normal, sample, RMS, voltage average, quasi-peak		
Units of level axis		dBm, dBμW, dBpW, dBmV, dBμV, W, V		
Tracking generator frequency range (-TG Model)		100 kHz to the upper frequency limit		
Output power level range(-TG Model)		-40 dBm to 0 dBm		
Output level resolution(-TG Model)		1 dB		
Interface		USB Host, USB Device, LAN, earphone interface, HDMI		
Display		9-inch TFT LCD, 1280 x 800 pixels		

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Power Cord

Quick Guide

USB Cable

Optional Accessories

Near Field Probe includes:
Four near-field probes,
N-SMA adapter,
SMA-SMAcable,
(Frequency range: 30MHz - 3GHz)

N-N Cable

N-SMA Cable

SMA-SMA Cable

SMA Adaptor

N-SMA Adaptor

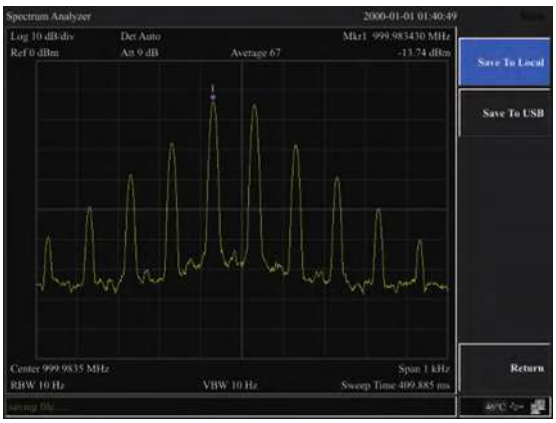
XSA1000 Series Spectrum Analyzer

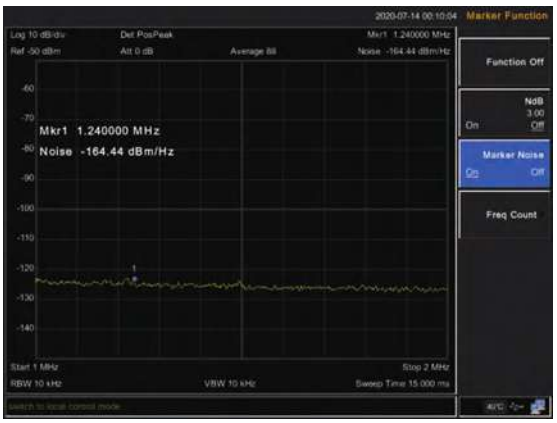
- Max. Frequency Range 9kHz - 7.5GHz
- -160dBm Displayed Average Noise Level
- Phase Noise -98dBc/Hz @1GHz and offset at 10kHz
- Total Amplitude Accuracy <1.5dB
- 10Hz Minimum Resolution Bandwidth (RBW)
- EMI Pre-compliance Test Kit
- 10.4 inches display

CE

1. 10 Hz Minimum Resolution Bandwidth (RBW)

Digital IF technology offers a minimum bandwidth of 10Hz, allowing excellent signal resolution when separation of closely spaced signals is required.



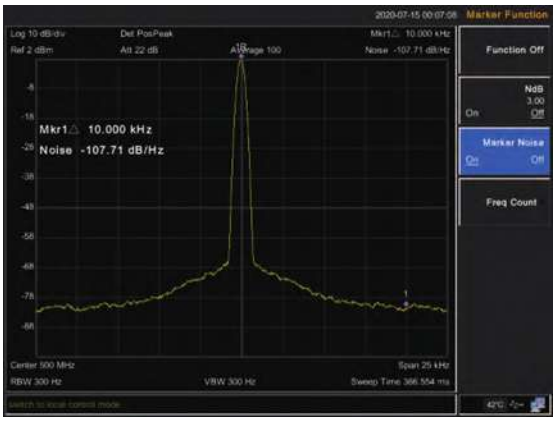


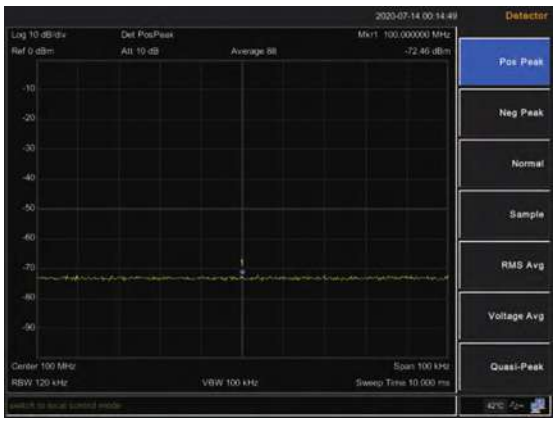
2. Extremely low DANL reduces the impact on small signal measurements

Offers a DANL (Displayed Average Noise Level) down to -160 dBm, effectively guarantee the ability to test small signals

3. Phase noise: <-98 dBc/Hz @1 GHz @ 10 kHz offset

Excellent phase noise performance - <-98dBc/Hz @10kHz enables users to evaluate most synthesizers and signal generators.





4. EMI filter and peak detector kit

Offers an EMI filter and peak detector kit to help evaluating EMI levels for pre-compliance testing.

Model	XSA1015(TG)	XSA1036(TG)	XSA1075(TG)
Frequency Range	9 kHz - 1.5 GHz	9 kHz - 3.6 GHz	9 kHz - 7.5 GHz
Frequency Resolution	1 Hz		
Aging rate	<1 ppm/Year		
Phase Noise (fc=1GHz)	<-82 dBc/Hz @10 kHz offset		<-98 dBc/Hz @10 kHz offset
Resolution Bandwidth (-3dB) (RBW)	10 Hz to 500 kHz (1-10 steps by sequence), 1 MHz, 3 MHz		
Video Bandwidth(-3dB)(VBW)	10 Hz to 3 MHz		
Display Average Noise Level (DANL)	(Preamp on, Input Attenuation= 0 dB, Sample Detector, Trace Average ≥20, 20℃ to 30℃, Input Impedance=50 Ω, RBW normalizes to 1Hz)		
1 MHz - 10 MHz	-160 dBm (Typical)		
10 MHz - 1 GHz	-160 dBm (Typical)		
1 GHz - 1.5 GHz	-158 dBm (Typical)	\	\
1 GHz - 3.6 GHz	\	-158 dBm (Typical)	-158 dBm (Typical)
3.6 GHz - 5 GHz	\	\	-153 dBm (Typical)
5 GHz - 6 GHz	\	\	-148 dBm (Typical)
6 GHz - 7 GHz	\	\	-143 dBm (Typical)
7 GHz - 7.5 GHz	\	\	-138 dBm (Typical)
Detectors	Positive-peak, negative-peak, normal, sample, RMS avg, voltage avg, quasi-peak		
Trace functions	Clear write, Max Hold, Min Hold, View, Blank, Average		
level unit	dBm, dBuW, dBpW, dBmV, dBuV, W, V		
Tracking generator (-TG Model)	100 kHz - 1.5 GHz (Tracking generator)	100 kHz - 3.6 GHz (Tracking generator) 35 MHz - 3.6 GHz (Signal generator)	100 kHz - 7.5 GHz (Tracking generator)
Output power level range (-TG Model)	-30 dBm - 0 dBm	-40 dBm - 0 dBm	
Output power level resolution (-TG Model)	1 dB		
Communication Port	USB HOST, USB DEVICE, LAN, earphone port, VGA, REF		
Display	10.4 inches TFT LCD		

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

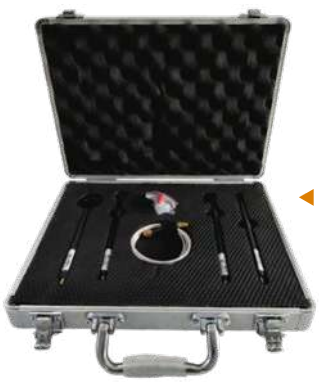
Power Cord

USB Cable

CD-Rom

Quick Guide

Optional Accessories



◀ Near Field Probe includes:
Four near-field probes,
N-SMA adapter,
SMA-SMAcable,
(Frequency range: 30MHz - 3GHz)

N-N Cable

N-SMA Cable

SMA-SMA Cable

SMA Adaptor

N-SMA Adaptor

HSA1000 Series Handheld Spectrum Analyzer

+ Frequency Range from 9 kHz up to 3.6 GHz
+ -160dBm Displayed Average Noise Level
+ Phase Noise -80dBc/Hz @1Gz and offset at 10kHz
+ Total Amplitude Accuracy <1.5dB
+ 10Hz Minimum Resolution Bandwidth (RBW)
+ Standard GPS receiver, optional antenna, the latitude/longitude information and test information can be recorded
+ Li-ion battery, operating life up to 4 hours, easy replacement, you can purchase extra batteries for longer test time.
+ 8-inch (1024*768) IPS LCD touchscreen, built-in light sensor to adjust the screen backlight according to the environmental light.

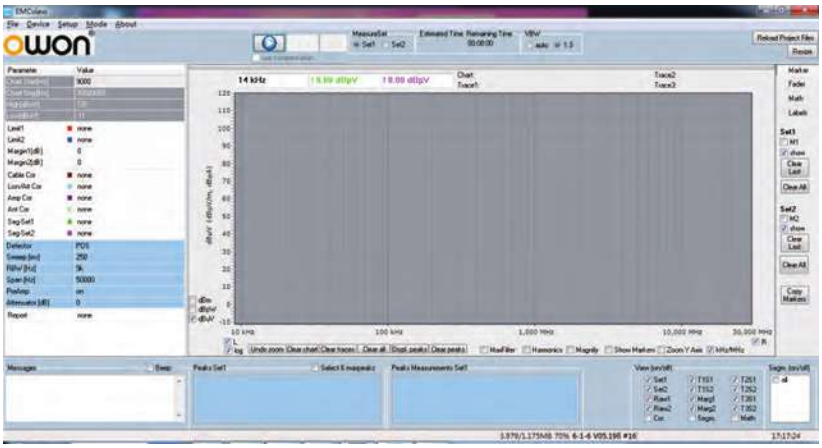
With a Carrying case (optional), you can free your hands and make on-site work more convenient.

Pass/Fail function

Quickly determine if the test results pass

Provides EMI pre-compliance test function

Equipped with EMI filter (6dB) and peak detector as standard, it is more accurate for EMI pre-test and diagnosis, and complete testing and production report can be completed by using supporting software.



Provide EMC test function (requires optional software)

Built-in more than 200 mainstream EMC test standards and regulations templates. The user selects the corresponding template, and the software automatically sets the spectrum analyzer and records the test data. The data and regulations can be compared on the same screen. Users can also customize regulations for comparative analysis.

Model	HSA1016(TG)	HSA1036(TG)
Frequency Range	9kHz-1.6 GHz	9kHz-3.6 GHz
Frequency Resolution	1Hz	
Aging rate	<1ppm/Year	
Phase Noise (fc=1GHz)	<-80 dBc/Hz @10 kHz offset	
Resolution Bandwidth (-3dB) (RBW)	10 Hz to 500 kHz (1-10 steps by sequence), 1 MHz, 3 MHz	
Video Bandwidth(-3dB)(VBW)	10Hz tp 3MHz	
Display Average Noise Level (DANL)	(Input Attenuation= 0 dB, Sample Detector, Trace Average ≥20, 20℃ to 30℃, Input Impedance=50 Ω, RBW normalizes to 1Hz)	
1MHz-10MHz	-160dBm (Typical)	
10MHz-1GHz	-160dBm (Typical)	
1GHz-1.5GHz	-158dBm (Typical)	
1GHz-3.6GHz		-158dBm (Typical)
Detectors	Positive-peak, negative-peak, sample, normal, RMS	
Trace functions	Clear write, Max Hold, Min Hold, View, Blank, Average	
level unit	dBm,dBuW,dBpW,dBmV,dBuV, W,V	
Tracking generator (-TG Model)	100 kHz-1.6 GHz	100 kHz-3.6 GHz (Tracking generator) 35 MHz-3.6 Ghz (signal generator)
Output power level range (-TG Model)	-30 dBm-0 dBm	
Output power level resolution (-TG Model)	1dB	
Communication Port	USB HOST, USB DEVICE, LAN, earphone port	
Display	8 inch touch LCD	

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Power Cord

USB Cable

Adapter

Quick Guide

CD Rom

Metal Case

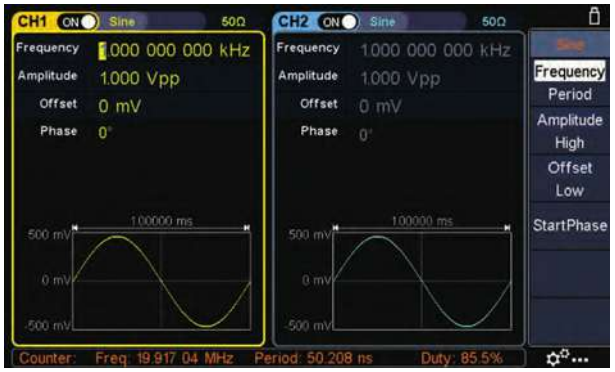
GPS antenna

Soft Bag (optional)

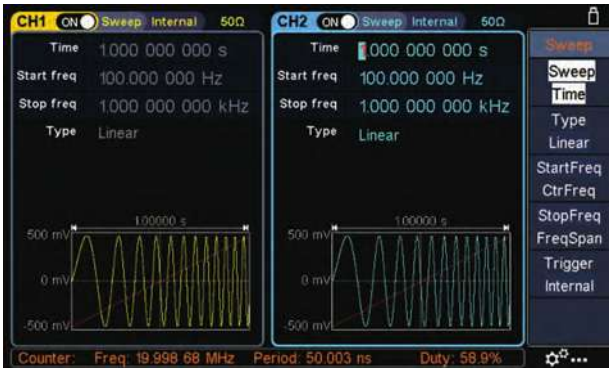
XDG2000 Series Dual-channel Arbitrary Waveform Generator

+ Max 100MHz frequency output
+ 500MSa/s Sample rate, Vertical resolution 1μHz
+ 14 bits Vertical Resolution, 10Marb waveform length
+ Comprehensive waveform output : 6 basic waveforms, and 170 built-in arbitrary waveforms
+ Comprehensive modulation functions : AM, DSB-AM, FM, PM, ASK, FSK, PSK, BPSK, QPSK, 3FSK, 4FSK, OSK, PWM and SUM
+ High-accuracy frequency counter integrated, supported range 100mHz - 200MHz
+ SCPI, and LabVIEW supported
+ 7 inch (800 × 480 pixels) LCD

Equal performance dual channel output



Rich sweep function



Rich analog and digital modulation

Build-in 152 arbitrary waveforms

Model	XDG2100	XDG2080	XDG2060	XDG2035
Channel	2			
Frequency Output	100MHz	80MHz	60MHz	35MHz
Sample Rate	500MSa/s			
Vertical Resolution	14 bits			
Waveform				
Standard Waveform	sine, square, pulse, ramp, noise, and harmonic			
Arbitrary Waveform	exponential rise, exponential fall, sin(x)/x, step wave, and others, total 170 built-in waveforms, and user-defined arbitrary waveform			
Frequency (resolution 1μHz)				
Sine	1μHz - 100MHz	1μHz - 80MHz	1μHz - 60MHz	1μHz - 35MHz
Square	1μHz - 30MHz	1μHz - 30MHz	1μHz - 30MHz	1μHz - 15MHz
Pulse	1μHz - 25MHz	1μHz - 25MHz	1μHz - 25MHz	1μHz - 15MHz
Ramp	1μHz - 3MHz	1μHz - 3MHz	1μHz - 3MHz	1μHz - 3MHz
Noise (-3dB, typical)	100MHz	80MHz	60MHz	35MHz
Arbitrary Waveform	1μHz -15MHz	1μHz -15MHz	1μHz -15MHz	1μHz -15MHz
Harmonic	1μHz -50MHz	1μHz -40MHz	1μHz -30MHz	1μHz -17.5MHz
Accuracy	±2ppm, 25°C±5°C			
Waveform Length	2 points - 10M points			
Amplitude				
into 50Ω load	1mVpp - 10Vpp (≤ 25MHz), 1mVpp - 5Vpp (≤60MHz), 1mVpp - 2.5Vpp (≤100MHz)			
Modulation				
Type	AM, DSB-AM, FM, PM, ASK, FSK, PSK, BPSK, QPSK, 3FSK, 4FSK, OSK, PWM, SUM			
Frequency Counter				
Function	Frequency, period, +width, -width, +duty, and -duty			
Frequency Range	100mHz - 200MHz			
Frequency Resolution	7 digits			
Input / Output				
Input mode	frequency counter, external modulation input, external trigger input, Internal clock output, external reference clock input / output			
Communication Interface	USB Host, USB Device,LAN, RS232 (optional)			
Mechanical specifications				
Size	340mm x 177mm x 90mm			
Weight	2.3kg			

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Power Cord

CD Rom

Quick Guide

USB Cable

Q9 Cable

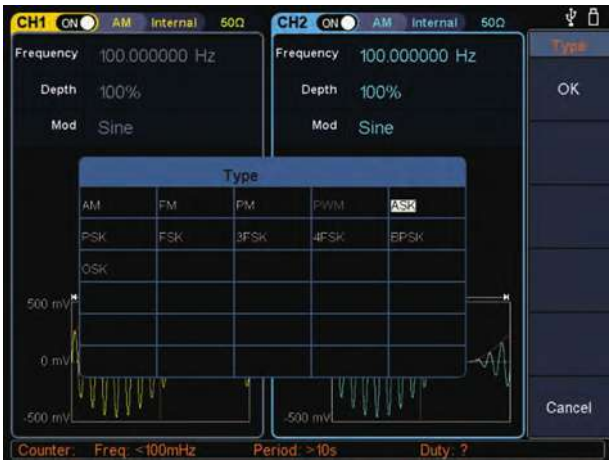
XDG3000 Series Dual-channel Arbitrary Waveform Generator

+ Advanced DDS technology, Max 250MHz frequency output
+ Max 1.25GS/s sample rate, and 1μHz frequency resolution
+ Vertical Resolution :14 bits, max 1M arb waveform length
+ Comprehensive waveform output : 6 basic waveforms, and 152 built-in arbitrary waveforms
+ Comprehensive modulation functions : AM, FM, PM, FSK, 3FSK, 4FSK, PSK, OSK, ASK, BPSK, PWM, Sweep, and Burst
+ High-accuracy frequency counter integrated, supported range 100mHz - 200MHz
+ SCPI, and LabVIEW supported
+8 inch (800 x 600) high resolution LCD, multi-point touch screen, more user-friendly operation experience

Equal performance dual channel output

Rich sweep function

Rich analog and digital modulation



Build-in 152 arbitrary waveforms

Model	XDG3252	XDG3202	XDG3162	XDG3102	XDG3082
Channel	dual				
Frequency Output	250MHz	200MHz	160MHz	100MHz	80MHz
Sample Rate	1.25GSa/s				
Vertical Resolution	14 bits				
Waveform					
Standard Waveform	Sine, Square, Pulse, Ramp, Noise, and Harmonic				
Arbitrary Waveform	Exponential Rise, Exponential Fall, Sin(x)/x, Step Wave, and others, total 152 built-in waveforms, and user-defined arbitrary waveform				
Frequency (resolution 1μHz)					
Sine	1μHz - 250MHz	1μHz - 200MHz	1μHz - 160MHz	1μHz - 100MHz	1μHz - 80MHz
Square	1μHz - 50MHz			1μHz - 40MHz	1μHz - 30MHz
Pulse	1μHz - 25MHz				
Ramp	1μHz - 5MHz				
Harmonic	1μHz - 250MHz	1μHz - 200MHz	1μHz - 160MHz	1μHz - 50MHz	1μHz - 80MHz
Noise	120MHz (-3dB, type)				
Wave Length	2 - 1M pts				
Amplitude					
Amplitude (high resistance)	2mVpp - 20Vpp (≤ 40MHz), 2mVpp - 10Vpp (≤80MHz) 2mVpp - 5Vpp (≤120MHz), 2mVpp - 2Vpp (≤200MHz)				
Modulation					
Type	AM, FM, PM, PWM, FSK, 3FSK, 4FSK, PSK, OSK, ASK, BPSK, Sweep, and Burst				
Frequency Counter					
Function	Frequency, Period, +Width, -Width, +Duty, and -Duty				
Frequency Range	100mHz - 200MHz				
Frequency Resolution	7 digit				
Input / Output					
Type	counter, external modulation input, external trigger input, external reference clock input / output				
Communication Interface	USB Host, USB Device, LAN				
Mechanical					
Dimension (W x H x D)	340 x 177 x 90 (mm)				
Device Weight	2.50 kg				

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Power Cord

CD Rom

Quick Guide

USB Cable

Q9 Cable

AG-S Series Single-channel Arbitrary Waveform Generator

+ Advanced DDS technology, upto 10MHz frequency output
+ 125MS/s sample rate, and 1μHz frequency resolution
+ Vertical Resolution : 14 bits, and 8K arb waveform length
+ Comprehensive waveform output : 5 basic waveforms, and 45 built-in arbitrary waveforms
+ Comprehensive modulation functions : AM, FM, PM, FSK, Sweep, and Burst
+ SCPI, and LabVIEW supported
+ 4'' high resolution (480 x 320 pixels) LCD
+ could work with OWON SDS Series DSO smoothly

Model	AG051	AG051F	AG1011	AG1011F
Channel	single + trigger			
Frequency Output	5MHz		10MHz	
Sample Rate	125MS/s			
Vertical Resolution	14 bits			
Waveform				
Standard Waveform	Sine, Square, Pulse, Ramp, Noise			
Arbitrary Waveform	Exponential Rise, Exponential Fall, Sin(x)/x, Step Wave, and others, total 45 built-in waveforms, and user-defined arbitrary waveform			
Frequency (resolution 1μHz)				
Sine	1μHz - 5MHz		1μHz - 10MHz	
Square	1μHz - 5MHz			
Pulse	1μHz - 5MHz			
Ramp	1μHz - 1MHz			
Noise	5MHz(-3dB,type)			
Wave Length	2 - 8K pts			
Amplitude				
Amplitude	1mVpp-12.5 Vpp (50Ω), 1mVpp-25 Vpp (high impedance)			
Modulation (optional)				
Modulation Waveform	/	AM, FM, PM, FSK, Sweep, Burst	/	AM, FM, PM, FSK, Sweep, Burst
Modulation Frequency	/	2mHz to 20.00KHz (FSK 2mHz - 100KHz)	/	2mHz to 20.00KHz (FSK 2mHz - 100KHz)
Counter Specification (optional)				
Function	Frequency, period, positive Pulse width, Duty cycle			
Frequency Range	Single channel: 100 mHz - 200 MHZ			
Input / Output				
Type	external reference clock input	external modulation input, external trigger input, external reference clock input	external reference clock input	external modulation input, external trigger input, external reference clock input
Communication Interface	USB device			

AG Series Dual-Channel Arbitrary Waveform Generator

- + Advanced DDS technology, max 60MHz frequency output
- + Up to 300MS/s sample rate, and 1μHz frequency resolution
- + Vertical Resolution : 14 bits, up to 1M arb waveform length
- + Comprehensive waveform output : 5 basic waveforms, and 45 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, and LabVIEW supported
- + 4 inch high resolution (480 x 320 pixels) LCD
- + could work with OWON SDS Series DSO smoothly

Model	AG1012	AG1012F	AG1022	AG1022F	AG2052F	AG2062F
Channel	dual					
Frequency Output	10MHz		25MHz		50MHz	60MHz
Sample Rate	125MS/s				300MS/s	
Vertical Resolution	14 bits					
Waveform						
Standard Waveform	Sine, Square, Pulse, Ramp, Noise					
Arbitrary Waveform	Exponential Rise, Exponential Fall, Sin(x)/x, Step Wave, and others, total 45 built-in waveforms, and user-defined arbitrary waveform					
Frequency (resolution 1μHz)						
Sine	1μHz - 10MHz		1μHz - 25MHz		1μHz - 50MHz	1μHz - 60MHz
Square	1μHz - 5MHz		1μHz - 5MHz		1μHz - 25MHz	1μHz - 30MHz
Pulse	1μHz - 5MHz		1μHz - 5MHz		1μHz - 10MHz	1μHz - 15MHz
Ramp	1μHz - 1MHz					
Noise	25MHz (-3dB, type)					
Wave Length	2 - 8K pts				2 - 1M pts	
Amplitude						
Amplitude	1 mVpp - 10 Vpp (50Ω), 1 mVpp - 20 Vpp (high impedance)					
Modulation						
Modulation Waveform	/		AM, FM, PM, FSK, Sweep, Burst		AM, FM, PM, FSK, PWM, Sweep, Burst	
Modulation Frequency	/		2mHz to 20.00KHz (FSK 2mHz - 100KHz)			
Mechanical						
Dimension (W x H x D)	235 × 110 × 295 (mm)					
Device Weight	3kg					

Power Amplifier Module (optional)					
Bandwidth (at full power)	DC-100kHz	Max Output Power	10W	Max Input Voltage	22Vpp

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Power Cord

CD Rom

Quick Guide

USB Cable

Q9 Cable

XDM1041 Bench-type Digital Multimeter

+ 3.5-inch high-resolution LCD, providing a clear display
+ 55,000 counts
+ Multiple measurement functions: DC/AC Voltage, DC/AC Current, resistance, capacitance measurement, continuity test, diode test, temperature, AC and frequency, MAX/MIN/average, relative measurement (REL_%)
+ Reading rates up to 65 readings per second
+ AC True RMS measurement, measurement bandwidth: 20 Hz - 1kHz
+ Manual or auto record the measured data into internal memory, and displayed in table
+ SCPI supported

	Measurement Range	Resolution	Accuracy: ± (% of reading + LSB)
DC Voltage	50.000 mV	0.001 mV	0.1% + 10
	500.00 mV	0.01 mV	0.05% + 5
	5.0000 V	0.0001 V	0.05% + 5
	50.000 V	0.001 V	0.05% + 5
	500.00 V	0.01 V	0.1% + 5
	1000.0 V	0.1 V	0.1% + 10
True RMS AC Voltage	500 mV – 750 V	20 Hz – 45 Hz	1% + 30
		45 Hz – 65 Hz	0.5% + 30
		65 Hz – 1 kHz	0.7% + 30
DC Current	500 uA	0.01 uA	0.15% + 20
	5000 uA	0.1 uA	0.15% + 10
	50 mA	0.001 mA	0.15% + 20
	500 mA	0.01 mA	0.15% + 10
	5 A	0.0001 A	0.5% + 10
	10 A	0.001 A	0.5% + 10
True RMS AC Current	500 uA – 500 mA	/	0.5% + 20
	5 A – 10 A	/	1.5% + 20
Resistance	500 Ω	0.01 Ω	0.15% + 10
	5 kΩ	0.0001 kΩ	0.15% + 5
	50 kΩ	0.001 kΩ	0.15% + 5
	500 kΩ	0.01 kΩ	0.15% + 5
	5 MΩ	0.0001 MΩ	0.3% + 5
	50 MΩ	0.001 MΩ	1% + 10
Diode	3.0000 V	0.0001 V	1% + 10
Continuity	1000 Ω	0.1 Ω	Adjustable threshold
Frequency	10.000 Hz – 60 MHz	/	± (0.2% + 10)
Capacitance	50 nF – 500 uF	/	2.5% + 10
	5 mF – 50 mF	/	5% + 10
Temperature	K type, PT100		
Max Display	55,000 counts		
Logging Interval	15 mS – 9999.999 S		
Logging Length	1,000 points		
General			
Port	USB port or RS232 port, choose one of the two		
Dimensions (W×H×D)	200 x 86.5 x 64 (mm)		
Device Weight	Approx. 0.45 kg		

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Power Cord

Quick Guide

USB Cable

Fuse

Multimeter Lead

Alligator Clip

XDM2041 Bench-type Digital Multimeter

+ 4 inch (480x320) high resolution LCD
+ 55,000 counts
+ Up to 65 readings per second
+ True RMS AC voltage / current measurement
+ Dual line display supported
+ Trend analysis accessible in chart mode
+ SCPI supported

CE

Basic Function	Measurement Range	Optimal Accuracy
DC Voltage	50.000mV-1000.0V	0.025%+5
True RMS AC Voltage	500mv-750v	0.5%+30
AC Voltage	500uA/5000uA/50mA/500mA	0.15%+20
	5A/10A	0.5%+10
True RMS AC Current	500uA-500mA	0.5%+20
	5A-10A	1.5%+20
Resistance	500Ω	0.1%+10
	5KΩ/50KΩ/500KΩ	0.1%+5
	5MΩ	0.25%+5
	50MΩ	1%+10
Four-wire resistance	500Ω	0.1%+10
	5KΩ/50KΩ	0.1%+5
Diode	3.0000 V	
Continuity	1000 Ω	
Frequency	10.000Hz–60MHz	±(0.2%+8)
Capacitance	50nF-500uF	2.5%+5
	5mF-50mF	5%+8
Temperature	K-type, PT100	
Display	55,000	
Logging Duration	15ms-9999.999s	
Logging Length	1,000pts	
General		
Communication Interface	RS232	
Dimensions (W×H×D)	235 x 110 x 295 (mm)	
Device Weight	Approximately 3kg	

Specifications subject to change without prior notice

+ Accessories

The accessories subject to final delivery.

Power Cord

Quick Guide

Fuse

Multimeter Lead

Alligator Clip

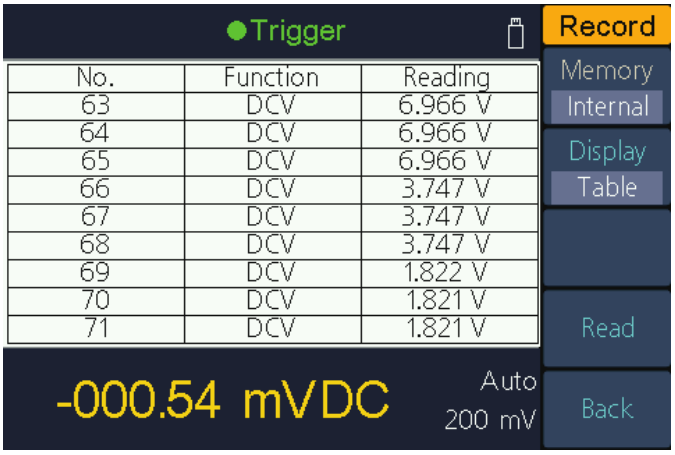
XDM3000 Series Bench-type Digital Multimeter

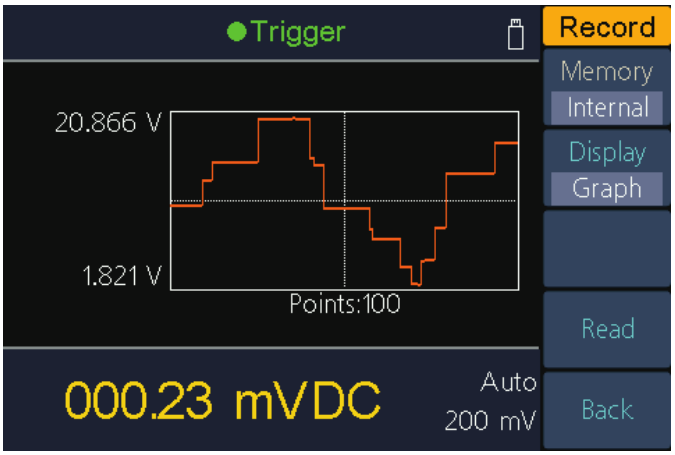
+ 4 inch 480 x 320 pixels high resolution LCD
+ 5 1/2 digits and 4 1/2 digits resolutions
+ reading rates up to 150 readings/s
+ true RMS AC voltage / current measurement
+ dual line display supported
+ the change trend analysis accessible via special chart mode
+ SCPI supported - remote control, and data-sharing possible via LAN, USB, RS232 port, and WiFi*

  * WiFi module is optional
+ multi- IO interface: USB Device / Host, RS232, LAN, and ext. trigger input

Data-logger Mode

during recording the measurement value, possible to set the logging duration (min. 5ms), and length, then get access to chart or table result





Model	XDM3051		XDM3041	
Function	Measurement Range	Optimal Accuracy	Measurement Range	Optimal Accuracy
DC Voltage	200mV-1000V	0.015 ± 0.004	600mV-1000V	0.02 ± 0.01
True RMS AC Voltage	200mV-750V	0.2 + 0.05	600mV-750V	0.2 + 0.06
DC Current	200.000 μA-10.0000 A	0.055 + 0.005	600.000 μA-10.0000 A	0.06 + 0.02
True RMS AC Current	20.0000 mA-10.0000 A	0.50 + 0.10	60.000 mA-10.000 A	0.50 + 0.10
Resistance	200.000 Ω	0.030 + 0.005	600.000 Ω	0.040 + 0.01
	2.00000 kΩ	0.020 + 0.003	6.00000 kΩ	0.030 + 0.01
	20.0000 kΩ	0.020 + 0.003	60.0000 kΩ	0.030 + 0.01
	200.000 kΩ	0.020 + 0.003	600.000 kΩ	0.040 + 0.01
	2.00000 MΩ	0.040 + 0.004	6.00000 MΩ	0.120 + 0.03
	10.0000 MΩ	0.250 + 0.003	60.0000 MΩ	0.90 + 0.03
	100.000 MΩ	1.75 + 0.004	600.000 MΩ	1.75 + 0.03

Model	XDM3051		XDM3041	
Function	Measurement Range	Optimal Accuracy	Measurement Range	Optimal Accuracy
Diode Test	2.0000V	0.05 ± 0.01	3.0000V	0.5 ± 0.01
Continuity	2000Ω	0.05 ± 0.01	1000Ω	0.5 ± 0.01
Frequency Period	20Hz - 1MHz (200mV - 750V)	0.01 + 0.003	20Hz - 1MHz (600mV - 750V)	0.01 + 0.003
	20Hz - 10KHz (200mA - 10A)	0.01 + 0.003	20Hz - 10KHz (60mA - 10A)	0.01 + 0.003
Display	240000		66000	

Test Current			
	Measurement Range	Test Current	Accuracy: 1 Year ± (% of reading +% of range)
Capacitance	2.000 nF	200 nA	3 + 1.0
	20.00 nF	200 nA	1 + 0.5
	200.0 nF	2 μA	1 + 0.5
	2.000 μF	10 μA	1 + 0.5
	200.0 μF	100 μA	1 + 0.5
	10000 μF	1 mA	2 + 0.5
Temperature	temperature sensors under 2 categories supported - thermocouple (ITS-90 conversion between B / E / J / K / N / R / S /T type), and thermal resistance (RTD sensor conversion between Pt100 and Pt385 type)		
Miscellaneous	barmeter | bar charts, trend chart | Vavg, Vmax, Vmin | standard deviation | DB / DBm | Pass / Fail		
Data-logger Function			
Logging Duration	5ms -1000s		
Logging Length	1M points		
General			
Communication Interface	USB Device / Host, RS232, LAN, and ext. trigger input		
Dimension (W x H x D)	235 x 110 x 295 (mm)		
Device Weight	3.00 kg		

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Power Cord

Quick Guide

USB Cable

Fuse

Multimeter Lead

Alligator Clip

OW Series Multi in one smart multimeter

+ 3 5/6 bit resolution
+ BLE 4.0 wireless transmission, more stable, less power consumption
+ Data Logger + Multimeter + Thermometer
+ Chart and Diagram mode helps to analyze the data tendency
+ Support NCV non-contact voltage sense
+ True RMS test supported
+ Build-in offline record function
+ Widely supported on Android, iOS and Windows

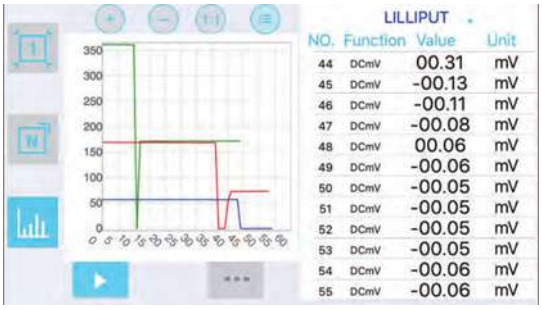
NCV (Non-Contact Voltage) Sensor

When the non-contact voltage sensor is placed near to a live conductor, the instrument will beep and flash the row of LEDs at the top of the display depending on the AC voltage strength.

on-site temperature test

functioning as multimeter + datalogger

the measured data always updated, and auto- recorded to mobile device, saving labor to do on-site records;
the recoding duration, and sampling duration could be customized, accessible in chart mode, facilitating comparison analysis between several multimeters



offline recording function - your process analyzer

possible to record data into memory, but no need to leave mobile device on-site when data-processing, use mobile device to recall the saved data and offline recording

OW16 / OW18 Multi in one smart multimeter

		OW16A/B Measurement	OW18A/B Measurement	Accuracy
DC Voltage	mV	600.0mV/6.000V/60.00V/600.0V		±(0.5%+2 dig)
	V	1000V		±(0.8%+2 dig)
AC Voltage	mV	600.0mV		±(2%+5dig)
	mV	6.000V/60.00V/600.0V		±(0.8%+3dig)
	V	750V		±(1%+3dig)
DC Current	μA	/	600.0μA/6000μA	±(0.8%+2dig)
	mA	60.00mA/600.0mA		±(0.8%+2dig)
	A	10.00A/20.00A		±(1.2%+3dig)
AC Current	μA	/	600.0μA/6000μA	±(1%+3dig)
	mA	60.00mA/600.0mA		±(1%+3dig)
	A	20.00A		±(1.5%+3dig)
Resistance		600.0Ω /6.000kΩ /60.00kΩ /600.0kΩ /6.000MΩ		±(0.8%+2dig)
		60.00MΩ		±(2%+3dig)
Capacitance		60.00nF/600.0nF/6.000μF/60.00μF		±(3%+3dig)
		600.0μF/6.000mF/60.00mF		±(3%+5dig)
Frequency		9.999Hz/99.99Hz/999.9Hz/9.999kHz/99.99kHz/999.9kHz/9.999MHz		±(0.8%+2dig)
Duty Ratio		0.1%-99.9%(typical value: Vrms=1V,f=1kHz)		±(1.2%+3dig)
		0.1%-99.9%(≥1kHz)		±(2.5%+3dig)
Temperature		- 50 ℃ - 400℃		±(2.5%+3dig)
		-58 ℉ - 752 ℉		±(4.5%+5dig)
Display		5999		
Frequency Response		(40 - 1000) Hz		
Shift Rate		3 times/second		

Special Function

Bluetooth Module	OW16B, OW18B	Auto Ranging	√
True RMS	√	Auto- / Manual Range Selection	√
Diode Test	√	Input Protection	√
LCD Backlight	√	Input Impedance	≥10MΩ
On-off Warning	√	Safety Compliance	600V CATⅢ (OW16A,OW16B) 1000V CATⅢ (OW18A,OW18B)
Flashlight	OW18A, OW18B		
Low-battery Indicator	√	NCV	√
Data Hold	√	Dimension (W / H / D)	154mm x 74mm x 49mm (OW16A, OW16B) 190mm x 90mm x56mm (OW18A, OW18B)
Relative Measurement	√	Weight (without package)	0.29 kg(OW16A, OW16B), 0.32kg(OW18A, OW18B)

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Multimeter Leads

K-type Thermocouple

Quick Guide

Screwdriver

Alligator Clip (optional)

OW18D/E Multi in one multimeter

	OW18D/E Measurement Range	Accruacy
DC Voltage	20.000mV/200.00mV	±(0.05%+10 dig)
	2.0000V/20.000V/200.00V	±(0.1%+2 dig)
	1000.0V	±(0.15%+5 dig)
AC Voltage	20.000mV/200.00mV	±(0.5%+10dig)
	2.0000V/20.000V/200.00V	
	750.00V	±(0.8%+10dig)
DC Current	200.00uA	±(0.5%+10dig)
	2.0000mA/20.000mA/200.00mA	
	20.000A	±(2.0%+10dig)
AC Current	200.00uA	±(0.8%+10dig)
	2.0000mA/20.000mA/200.00mA	
	20.000A	±(2.5%+10dig)
Resistance	200.00Ω	±(0.5%+10dig)
	2.0000kΩ	±(0.3%+3dig)
	20.000kΩ200.00kΩ2.0000MΩ	±(0.3%+1dig)
	20.000MΩ	±(0.5%+1dig)
	200.00MΩ	±(5.0%+10dig)
Capacitance	2.0000nF/20.000nF/200.00nF/2.0000μ/20.000μ 200.00μ/2.0000mF/20.000mF	±(3.0%+10dig)
Frequency	200.00Hz/2.0000kHz 20.000kHz/200.00kHz/2.0000MHz/20.000MHz	±(0.1%+4dig)
Duty Ratio	0.1%~99.9%(typical value: Vrms=1V,f=1kHz)	±(1.2%+3dig)
	0.1%~99.9%(≥kHz)	±(2.5%+3dig)
Temperature	- 50 ℃ ~ 400℃(0.1℃)	±(1.0%+3℃)
	-58 ℉ ~ 752 ℉(0.1℉)	±(1.2%+6℉)
Display	19999	
Frequency Response	(40 - 1000) Hz	
Sample rate	3 times/second	

Special Function

True RMS	√	Auto Ranging	√
Diode Test	√	LCD Backlight	√
Auto Power-off	√	Automatic-manual Range Selection	√
On-off Warning	√	Input Protection	√
Low-battery Indicator	√	Input Impedance	≥10MΩ
Data Hold	√	Safety Compliance	600V CATⅣ 1000V CATⅢ
Relative Measurement	√	NCV	√
Flashlight	√	Dimension (W×H×D)	190 x 90 x56 (mm)
		Weight (without package)	0.32 kg

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Multimeter Leads

K-typeThermocouple

Quick Guide

9V battery (optional)

Alligator Clip (optional)

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
+ 4000 / 6000 / 22000 - count full scale reading
+ larger display, easier data-reading; simulated bar chart
+ offline recording function (only in B33+, B35+, B35T+, and B41T+)
+ true RMS value available (only in D35T, B35T, B35T+, and B41T+)
+ Bluetooth 4.0 version - supports mobile device with Android 4.3 or above / iOS 7.0 or above OS, and equipped with ble 4.0 module

CAT III 1000V CE

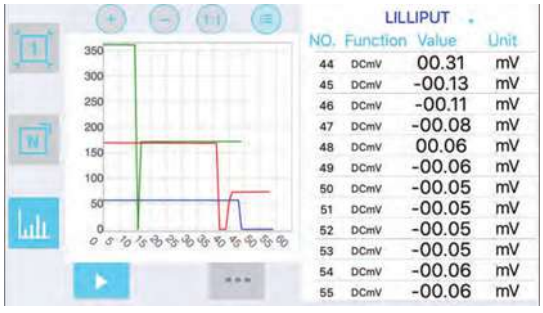
functioning as multimeter + datalogger

the measured data always updated, and auto- recorded to mobile device, saving labor to do on-site records;
the recoding duration, and sampling duration could be customized, accessible in chart mode, facilitating comparison analysis between several multimeters

remote control supported

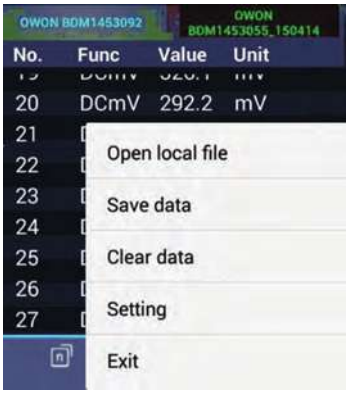
the function activated after TTS voice pack installed, which frees the eye-watch, making on-site measurement more comfortable

voice on
voice off



data- saving, recalling, and comparatively analyzing

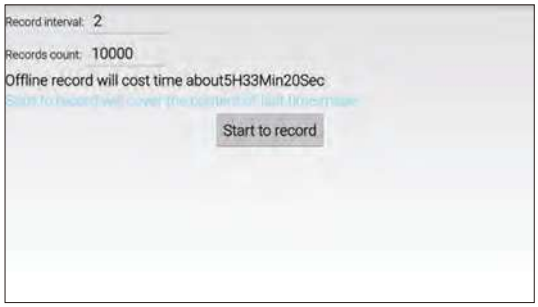
CSV format data export supported, the history data could be recalled for comparison analysis;
with the assistance of chart mode, the measured result more visualized, easier for decision- making



Bluetooth Digital Multimeter

offline recording function - your process analyzer

B33+ / B35+ / B35T+ / B41T+ possible to record data into memory,
but no need to leave mobile device on-site
when data-processing, use mobile device to recall the saved data
offline data-recording could continue for max 7 days (168 hours)



Model: D35, D35T, B35T+, D33, B33+

Basic Function	35 Series Measurement Range	33 Series Measurement Range	Optimal Accuracy
DC Voltage	60.00mV/600.0mV/6.000V/60.00V 600.0V/1000V	400.0mV/4.000V/40.00V/400.0V 1000V	±(0.5%+2dig)
AC Voltage	60.00mV/600.0mV/6.000V/60.00V 600.0V/750V	4.000V/40.00V/ 400.0V/750V	±(0.8%+2dig)
DC Current	600.0A/6.000mA/60.00mA/600.0mA 6.000A/ 20.00A	400.0μA/4000μA/40.00mA/400.0mA 4.000A/10.00A	±(0.8%+2dig)
AC Current	600.0μA/6.000mA/60.00mA/600.0mA 6.000A/20.00A	400.0μA/4000μA/40.00mA/400.0mA 4.000A/10.00A	±(0.8%+2dig)
Resistance	600.0Ω/6.000kΩ/60.00kΩ/600.0kΩ 6.000MΩ/10.00MΩ	400.0Ω/4.000kΩ/40.00kΩ/400.0kΩ 4.000MΩ	±(0.8%+2dig)
	60.00MΩ	40.00MΩ	±(2%+3dig)
Capacitance	40.00nF/400.0nF/4.000μF/40.00μF	40.00nF/400.0nF/4.000μF/40.00μF	±(2.5%+3dig)
	400.0μF/4000μF	100.0μF	±(3%+5dig)
Frequency	9.999Hz/99.99Hz/999.9Hz/9.999kHz 99.99kHz/999.9kHz/ 9.999MHz	4.999Hz/49,99Hz/499.9Hz/4.999kHz49.99kHz/49.9kHz/4.999MHz	±(0.8%+2dig)
Duty Ratio	0.1%-99.9%(typical value: Vrms=1V, f=1kHz)		±(1.2%+3dig)
	0.1% -99.9%(≥1kHz)		±(2.5%+2dig)
Temperature	-50℃-+400℃		±(2.5%+3dig)
	-58°F-+752°F		±(4.5%+5dig)
Display	6000	3999	
Frequency Response	(40-400)Hz (D35), (40-1000)Hz (D35T, B35T+)	(40-400)Hz	
Shift Rate	3 times / s		

Capacitance	B41T+ MeasurementRange	Optimal Accuracy
DC Voltage	220mV,2.2V, 22V, 220V,1000V	±(0.1%+5dig)
AC Voltage	220mV,2.2V,22V,220V,750V	±(0.8%+10dig)
DC Current	220μA,2200μA,22mA,220mA,20.00A	±(0.5%+10dig)
AC Current	220μA,2200μA,22mA,220mA,20.00A	±(0.8%+10dig)
Resistance	220Ω,2.2kΩ,22kΩ,220kΩ,2.2MΩ,22MΩ,220MΩ	±(0.5%+10dig)
Capacitance	22nF,220nF,2,2μF,22μF,220μF,2.2mF	±(3%+5dig)
	>220mF	

Capacitance	B41T+ Measurement Range	Optimal Accuracy
Frequency	22.00Hz, 220.0Hz, 22.000kHz, 220.00kHz, 22.00Hz, 2.2000MHz, 22.000MHz	±(0.1%+4dig)
	>220MHz	
Duty Ratio	5.0%-94.9%(typical value: Vrms=1V,f=1kHz) (resolution 0.1%)	±(1.2%+3dig)
	0.1%-99.9%(≥1kHz) (resolution 0.1%)	±(2.5%+3dig)
Temperature	-50℃-400℃ (resolution 0.1℃)	±(1.0%+5dig)
	-58 ℉-752 ℉ (resolution 0.1℉)	±(1.2%+6dig)
Display	21999	
Frequency Response	(40-10000)Hz	
Shift Rate	3 times/s	

Special Function			
Auto Ranging	√	Max / Min Value	√
Offline Recording Function	B33+, B35T+, B41T+	Bluetooth Module	B33+, B35T+ ,B41T+
Record L ength	10,000 points	LCD Backlight	√
True RMS	B35T+, B41T+	Data Hold	√
Diode Test	√	Relative Measurement	√
Audion Test	35 Series, 41 Series	Input Protection	√
Auto Power-off	√	Input Impedance	10MΩ
On-off Warning	√	Dimension (W x H x D)	85mm x185mmx30mm
Low-battery Indicator	√	Device Weight	0.32kg

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Multimeter Lead

K-type Thermocouple

Quick Guide

optional accessories:

Alligator Clip

Multi-function Test Bench (excl. D33 / B33 / B33+)

Soft Bag

BT2.0

mobile app accessible via scanning QR code

BLE4.0

mobile app accessible via scanning QR code

iOS

mobile app accessible via scanning QR code

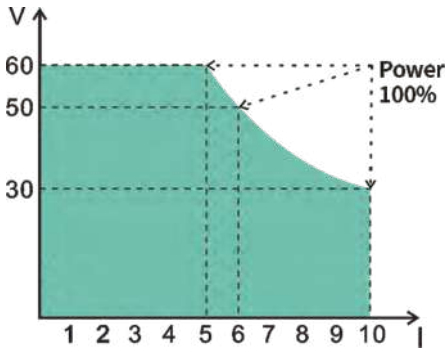
SP Series Single Channel Digital DC Power Supply

+ Small body for easy carry
+ 150W/300W maximum output power
+ Constant power design, providing a combination of multiple ranges of voltage and current settings
+ Low ripple/noise
+ Over voltage/over current protection
+ Intelligent temperature control fan cooling
+ Support RS232 digital communication

1. Large LCD Display

Conventional display example

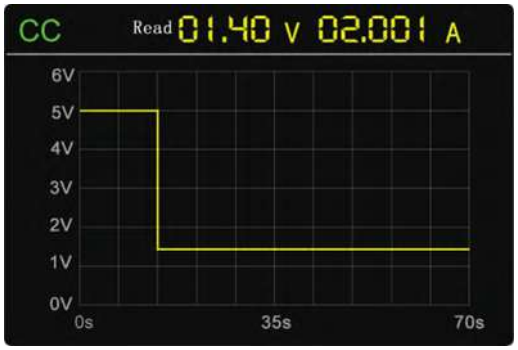
2. Constant power design provides a combination of multiple ranges of voltage and current settings, allowing flexible configurations of higher voltage and larger current for users within the rated power range.



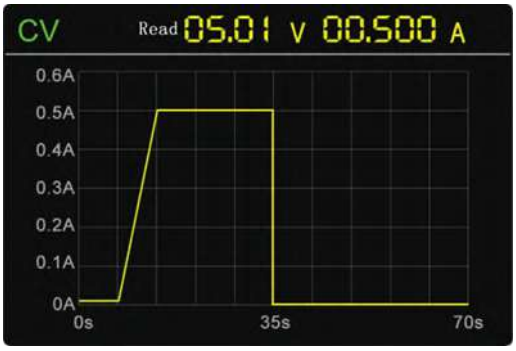
Schematic diagram of power supply constant power (take SP6103 for instance)

3. Original voltage/current curve monitoring function

Suitable for cell phone and notebook repair, PCB aging test, battery charging



Voltage curve



Current curve

4. Constant voltage/constant current mode to protect circuit devices

CV:Constant Voltage output
CC:Constant Current output

5. Support programming output by PC software via RS232, SCPI digital communication function

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

Model		SP3051	SP3101	SP6101	SP6053	SP3103	SP6103
Output Ratings (0°C - 40°C)	Voltage	0 - 30V	0 - 30V	0 -60V	0 -60V	0 - 30V	0 -60V
	Current	5A	10A	10A	5A	10A	10A
	Output Power	150W			300W		
Load Regulation	Voltage	≤30mV					
	Current	≤30mA					
Line Regulation	Voltage	≤20mV					
	Current	≤20mA					
Settings Resolution	Voltage	10mV					
	Current	1mA					
Read Back Resolution	Voltage	10mV					
	Current	1mA					
Settings Accuracy (within 12 months) (25°C±5°C)	Voltage	≤0.1% ± 20mV		≤0.1% ± 30mV	≤0.1% ± 20mV		≤0.1% ± 30mV
	Current	≤0.1% ± 10mA					
Read Back Accuracy (25°C±5°C)	Voltage	≤0.1% ±20mV		≤0.1% ± 30mV	≤0.1% ± 20mV		≤0.1% ± 30mV
	Current	≤0.1% ± 10mA					
Noise and Ripple (20Hz-20MHz)	Voltage (Vp-p)	≤30mVp-p		≤50mVp-p	≤30mVp-p		≤50mVp-p
	Voltage (rms)	≤3mVrms		≤5mVrms	≤3mVrms		≤5mVrms
	Current	≤30mAp-p					
Output Temperature Coefficient (0°C-40°C)	Voltage	≤0.3% ± 10mV		≤0.3% ± 20mV	≤0.3% ± 10mV		≤0.3% ± 20mV
	Current	≤0.3% ± 10mA	≤0.3% ± 20mA				
Read Back Temperature Coefficient	Voltage	≤0.3% ± 10mV		≤0.3% ± 20mV	≤0.3% ± 10mV		≤0.3% ± 20mV
	Current	≤0.3% ± 10mA	≤0.3% ± 20mA				
Response Time	≤1.0ms						
Storage	5 groups						
Working Temperature	0-40°C						
Display Type	4 inch TFT LCD display						
Dimension (W x H x D)	117x 194 x 295 (mm)						
Device Weight	3 kg						
Communication Interface	RS232						

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Power Cord

Quick Guide

Fuse

Test Leads (optional)

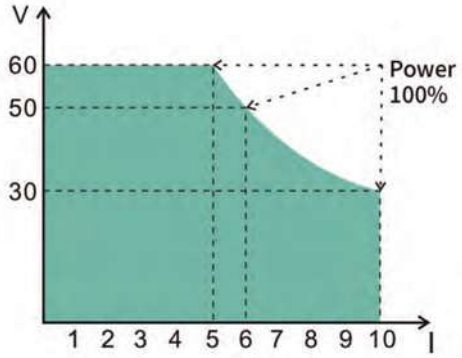
RS232 to USB Module (optional)

SPE Series Single Channel DC Power Supply

+ Ultra-thin body, portable and easy to use
+ 150W / 200W / 300W constant power design, wide application range
+ Over voltage/over current protection
+ Power-on automatic output setting function, suitable for nattended occasions
+ Intelligent temperature control fan cooling, reduce noise
+ 4 groups of Memory shortcut parameters for quick output
+ USB Device communication port, support SCPI
+ Constant voltage CV/constant current CC mode, effectively protect the circuit

1. 2.8-inch LCD, display more information

2. Constant power design, wide application range, provides flexible configuration of higher voltage and current within the rated power range. One device is equal to multiple.



Schematic diagram of power supply constant power (take SPE6103 for instance)

3. List waveform editing output, editable 10 groups of timing output.

4. 4 groups of Memory shortcut parameters for quick output

5. Independent output On/Off button control, protect the circuit. Long press to set the automatic output voltage/current 5 seconds after booting.

6. Support programming output by PC software via USB host, SCPI digital communication function.

The instrument must be operated continuously for more than 30 minutes at the specified temperature to ensure the following parameters.

Model		SPE3051	SPE3102	SPE6102	SPE6053	SPE3103	SPE6103
Rated Output (0℃-40℃)	Voltage	0 - 30V	0 - 30V	0 -60V	0 -60V	0 - 30V	0 -60V
	Current	5A	10A	10A	5A	10A	10A
	Output Power	150W	200W	200W	300W	300W	300W
Load Regulation	Voltage	≤30mV					
	Current	≤20mA					
Power Regulation	Voltage	≤30mV					
	Current	≤20mA					
Setting Accuracy	Voltage	10mV					
	Current	1mA					
Readback Resolution	Voltage	10mV					
	Current	1mA					
Setting Accuracy	Voltage	≤0.1% ± 20mV		≤0.1% ± 30mV	≤0.1% ± 20mV		≤0.1% ± 30mV
	Current	≤0.1% ± 10mA					
Readback Accuracy	Voltage	≤0.1% ± 20mV		≤0.1% ± 30mV	≤0.1% ± 20mV		≤0.1% ± 30mV
	Current	≤0.1% ± 10mA					
Ripple/Noise(*)	Voltage(Vp-p)	≤30mVp-p		≤50mVp-p	≤30mVp-p		≤50mVp-p
	Voltage (Vrms)	≤3mVrms		≤5mVrms	≤3mVrms		≤5mVrms
	Current	≤30mAp-p					
Output temperature coefficient (0℃-40℃)	Voltage	100ppm/℃					
	Current	200ppm/℃					
Readback temperature coefficient	Voltage	100ppm/℃					
	Current	200ppm/℃					
Response Time (50%-100% rated load)		≤1.0ms					
Storage		4 groups of data					
Working Temperature		0-40℃					
Display		2.8 inch color LCD display					
Dimension		82 x 142 x 226 (mm)					
Weight		Approx. 2.0kg					
Interface		USB					

* **Noise bandwidth 20MHz, ripple bandwidth 1MHz, connect 10uF electrolytic capacitor in parallel with 0.1uF ceramic capacitor to eht output terminal for testiong.**

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Power Cord

Quick Guide

USB Cable

Fuse

Test Leads (optional)

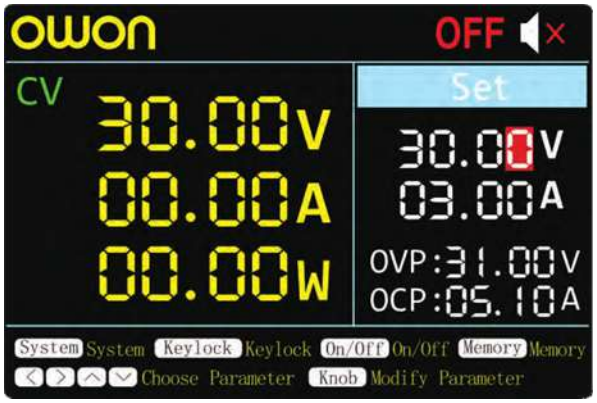
P4000 Series Single Linear DC Power Supply

+ Small body for easy carry
+ 180W maximum output power
+ High resolution: 1mV / 1mA
+ Low ripple/noise
+ Over voltage/over current protection
+ Multi-directional cooling system with smart fan
+ 3.7 inch TFT LCD display
+ Support RS232 digital communication

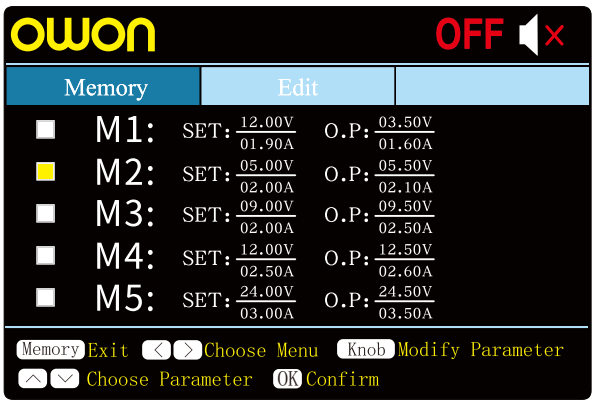
Large LCD Display

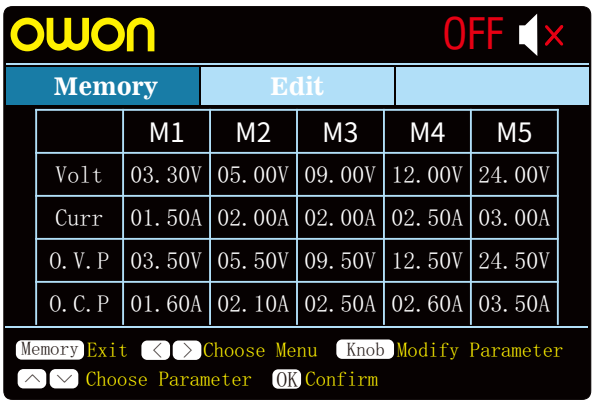
Conventional display example*

Supports 10mV/10mA Resolution up to Full Load.



Save up to 5 sets of parameters in memory for easy recall.





	M1	M2	M3	M4	M5
Volt	03. 30V	05. 00V	09. 00V	12. 00V	24. 00V
Curr	01. 50A	02. 00A	02. 00A	02. 50A	03. 00A
O. V. P	03. 50V	05. 50V	09. 50V	12. 50V	24. 50V
O. C. P	01. 60A	02. 10A	02. 50A	02. 60A	03. 50A

ODP3031 Single Channel Programmable DC Power Supply

+ One controllable channel + fixed
+ Max output resolution : 1mV / 1mA
+ Low ripples / low noise : <300 μVrms / 2 mVpp
+ Over-voltage / Over-current protection
+ Up to 100 group timers
+ Up to 10 group preset system configurations
+ Auto-cooling system
+ 4 inch high resolution (480 x 320 pixels) LCD
+ USB2.0, and RS232 seril port digital communication supported

Model	P4305	P4603	ODP3031
Channel	Single Channel		
DC Output Rating	150W	180W	105W
Channel Output	0 - 30V / 0 - 5A * 1-CH	0 - 60V / 0 - 3A * 1-CH	0 - 30V / 0 - 3A * 1-CH 5V/3A fixed output
Display Type	3.7 inch colored LCD		4 inch colored LCD
Dimension (W x H x D)	117x 194 x 295 (mm)		250 x 158 x 358 (mm)
Device Weight	5.6 kg	5.8 kg	7 kg
Communication Interface	USB Device (optional), RS232		USB Device, RS232

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

Model		P4305	P4603	ODP3031
Load Regulation	Voltage	≤0.04%+3mV		≤0.01%+3mV
	Current	≤0.04% + 3mA		≤0.1%+3mA
Line Regulation	Voltage	≤0.01% + 3mV		≤0.01%+3mV
	Current	≤0.01% + 3mA		≤0.2%+3mA
Settings Resolution	Voltage	1mV		1mV
	Current	1mA		1mA
Read Back Resolution	Voltage	1mV		1mV(<10V), 10mV(≥10V)
	Current	1mA		1mA
Settings Accuracy (within 12 months)(25℃±5℃)	Voltage	≤0.03% + 10mV		≤0.05%+3mV
	Current	≤0.1% + 5mA		≤0.1%+3mA
Read Back Accuracy (25℃±5℃)	Voltage	≤0.03% + 10mV		≤0.05%+3dig
	Current	≤0.1% + 5mA		≤0.1%+3dig
Noise and Ripple (0Hz-20MHz)	Voltage	≤4mVp-p		≤2mVp-p
	Voltage	≤1mVrms		≤300μVrms
	Current	≤4mArms		≤3mArms
Storage		5 groups		100 groups

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Power Cord

Quick Guide

USB Cable (ODP3031)

Fuse

Test Leads (optional)

RS232 to USB Module (optional)

ODP Series Dual Channel Programmable DC Power Supply

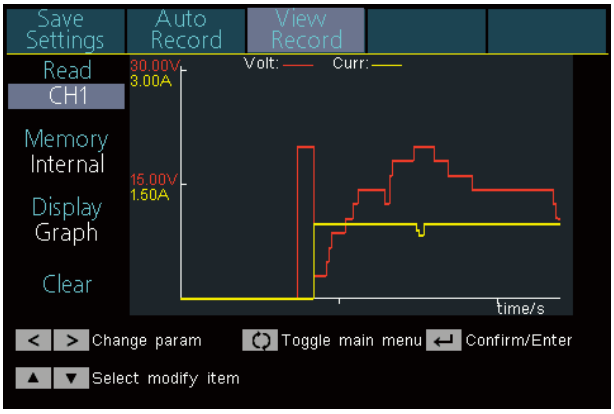
+ Two independent controllable channels + sense (ODP3122, ODP6062)
+ Two independent controllable channels + fixed(ODP3032)
+ Max output resolution : 1mV / 1mA
+ Low ripples / low noise
+ Up to 100 group timers

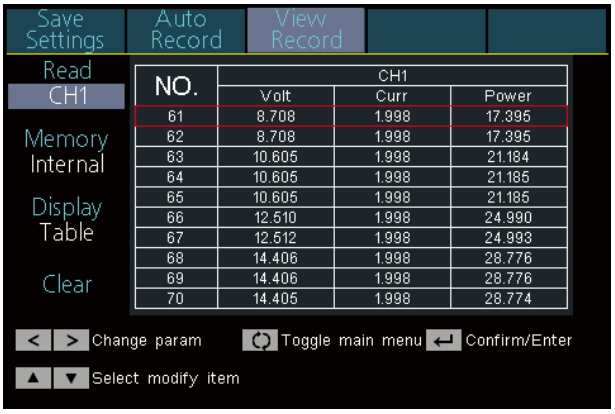
+ Over-voltage / Over-current protection
+ Data-logging function: could record the read back voltage and current, display recorded data in chart

+ 4 inch high resolution (480 x 320 pixels) LCD
+ Multi- CI: USB, RS232, and LAN
+ Auto-cooling system
+ SCPI, and LabVIEW supported

Creative Data Recording Function

to monitor the changing status of powering system, displaying recorded data in chart.





NO.	CH1		
	Volt	Curr	Power
61	8.708	1.998	17.395
62	8.708	1.998	17.395
63	10.605	1.998	21.184
64	10.605	1.998	21.185
65	10.605	1.998	21.185
66	12.510	1.998	24.990
67	12.512	1.998	24.993
68	14.406	1.998	28.776
69	14.406	1.998	28.776
70	14.405	1.998	28.774

Model	ODP3032	ODP3122	ODP6062
Channel	2 (independent controllable channel) + fixed	2 (independent controllable channel) +sense	
Max Output Power	195W	378W	
Output Range	0 - 30V / 0- 3A , 5V / 3A	0 - 30V / 0-12A , 0 - 6V /0- 3A	0 - 60V /0- 6A, 0 - 6V /0- 3A

Model	ODP3032	ODP3122	ODP6062
Display	4 inch color LCD 480 x 320 pixels, 65536 colors		
Dimension (W x H x D)	250 x 158 x 358 (mm)		
Device Weight	10.5 kg	12.00 Kg	

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

Model		ODP3032	ODP3122	ODP6062
Line Regulation	Voltage	≤0.01% + 3mV	≤0.01% + 3mV	
	Current	≤0.1% + 3mA	≤0.01% + 3mA	
Load Regulation	Voltage	≤0.01% + 3mV	≤0.01% + 3mV	
	Current	≤0.2% + 3mA	≤0.01% + 3mA	
Settings Resolution	Voltage	1mV	1mV	
	Current	1mA	1mA	
Read Back Resolution	Voltage	1mV(<10V),10mV(≥10V)	1mV	
	Current	1mA	1mA	
Settings Accuracy (25℃±5℃)	Voltage	≤0.05% + 3mV	≤0.03% + 10mV	
	Current	≤0.1% + 3mA	≤0.1% + 8mA	
Read Back Accuracy (25℃±5℃)	Voltage	≤0.05% + 3mV	≤0.03% + 10mV	
	Current	≤0.1% + 3mA	≤0.1% + 8mA	
Noise and Ripple	Voltage	≤2mVp-p		
	Voltage	≤300μVrms		
	Current	≤3mArms		
Programmable Output	Storage	100 groups		
	Time Setting	second		
Data Recording		/	10 K groups (of voltage, current and power data) recording capacity	
Working Temperature		0 - 40℃		
Communication Interface		USB Device, RS232	USB Host&Device, RS232, and LAN	

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Power Cord

CD Rom

Quick Guide

USB Cable

Fuse

Test Leads (optional)

ODP Series Thriple Channel Programmable DC Power Supply

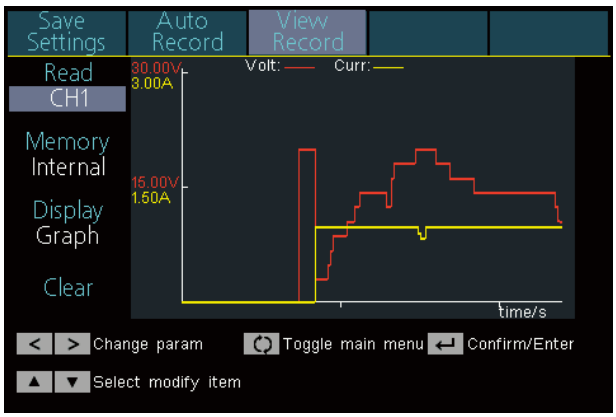
+ Three independent controllable channels
+ Max output resolution : 1mV / 1mA
+ Low ripples / low noise
+ Up to 100 group timers

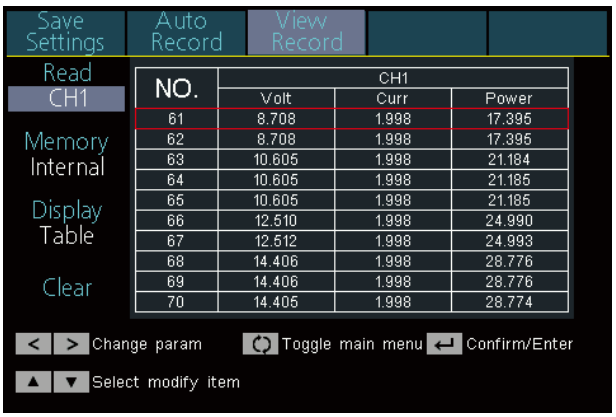
+ Multi- working mode : individual, parallel, and series
+ Over-voltage / Over-current protection
+ Data-logging function: could record the read back voltage and current, display recorded data in chart

+ 4 inch high resolution (480 x 320 pixels) LCD
+ Multi- CI: USB, RS232, and LAN
+ Auto-cooling system
+ SCPI, LabVIEW and USB TMC protocol supported

Creative Data Recording Function

to monitor the changing status of powering system, displaying recorded data in chart.





NO.	CH1		
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61	8.708	1.998	17.395
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65	10.605	1.998	21.185
66	12.510	1.998	24.990
67	12.512	1.998	24.993
68	14.406	1.998	28.776
69	14.406	1.998	28.776
70	14.405	1.998	28.774

Model	Channel	Max Output Power	Output Range
ODP3033	3 (independent controllable channel)	198W	30V / 3A || 30V / 3A, 6V / 3A
ODP3053		318W	30V / 5A || 30V / 5A, 6V / 3A
ODP3063		378W	30V / 6A || 30V / 6A, 6V / 3A
ODP6033		378W	60V / 3A || 60V / 3A, 6V / 3A

Model	ODP3033	ODP3053	ODP3063	ODP6033
Display	4 inch color LCD 480 x 320 pixels, 65536 colors			
Dimension (W x H x D)	250 x 158 x 358 (mm)			
Device Weight	9.80 kg	12.00 kg		

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

Model		ODP3033		ODP3053		ODP3063		ODP6033		
Channel		CH1	CH2	CH1	CH2	CH1	CH2	CH1	CH2	CH3
Output Ratings (0℃ - 40℃)	Voltage	0-30V		0-30V		0-30V		0-60V		0-6V
	Over Voltage Protection	31V		31V		31V		61V		7V
	Current	0-3A		0-5A		0-6A		0-3A		0-3A
	Over Current Protection	3.1A		5.1A		6.1A		3.1A		3.1A
Load Regulation	Voltage	≤0.01%+3mV								
	Current	≤0.01%+3mA								
Line Regulation	Voltage	≤0.01%+3mV								
	Current	≤0.01%+3mA								
Settings Resolution	Voltage	1mV								
	Current	1mA								
Read Back Resolution	Voltage	1mV								
	Current	1mA								
Settings Accuracy (25℃ ± 5℃) (within 12 months)	Voltage	≤0.03%+10mV								
	Current	≤0.1%+8mA								≤0.1%+5mA
Read Back Accuracy (25℃ ± 5℃)	Voltage	≤0.03%+10mV								
	Current	≤0.1%+8mA								≤0.1%+5mA
NoiseandRipple (20Hz - 20MHz)	Voltage(Vp-p)	≤2mVp-p								≤3mVp-p
	Voltage(rms)	≤300μVrms								
	Current(rms)	≤3mArms								≤4mArms
Output Temperature Coefficient (0℃-40℃)	Voltage	≤0.03%+10mV								
	Current	≤0.1%+5mA								
Read Back Temperature Coefficient	Voltage	≤0.03%+10mV								
	Current	≤0.1%+5mA								
Parallel Settings Accuracy	Voltage	≤0.02%+5mV								
	Current	≤0.1%+30mA								
ProgrammableOutput	Storage	1Mpts								
		100 groups								
	Time Setting	second								
Data Recording		10K groups (of voltage, current and power data) recording capacity								
Working Temperature		0-40℃								
Communication Interface		USBHost, USBDevice, RS232, LAN, Support USB TMC protocol								

Specifications subject to change without prior notice.

+ Accessories

The accessories subject to final delivery.

Power Cord

CD Rom

Quick Guide

USB Cable

Fuse

Test Leads (optional)

Differential Probe

Model	OD5140	OD5070	OD5015
Bandwidth(-3dB)	100MHz	50MHz	DC-100MHz(-3dB)
Attenuation Ratio	1:1000;1:100		
Accuracy	±1%		
Impedance	10MΩ//2PF		4MΩ//2PF
Output Voltage (into 50KΩ load)	7V		
Offset	< ±5mV		
Impedance	50Ω		
CMRR	-80dB@60Hz,-50dB@100KHz		
Input Differential Vp-p	14KV@1/1000 1.4KV@1/100	7000V@1/1000 700V@1/100	1500V@1/1000 150V@1/100
Power Requirements (Options)	6VDC/300mAmainsadaptor		
Length of BNC Cable	90cm		
Length of Input Leads	60cm		
Device Weight	500g		
Dimension	186x84x38mm		165x69x26mm

Current Probe

Model	CP-05+						
Test Range	1mA - 400A	AC Current	Range	AC 4A	AC 40A	AC 200A	AC 200A - 400A
Resolution	1mA		Accuracy	±2.0%rdg±5d			±3.0%rdg±5d
Bandwidth	DC～200KHz(±3dB)		Sensitivity	1mV/10mA	1mV/0.1A		1mV/1A
Jaw Size	23mm (max)	DC Current	Range	DC 4A	DC 40A	DC 200A	DC 200-400A
Auto Zero at Power-on	√		Accuracy	±1.5%rdg±5d			±3.0%rdg±5d
Power Supply	9V 6F22 Battery		Sensitivity	1mV/10mA	1mV/0.1A		1mV/1A
Operating Temperature	0℃ to 40℃ ≤70% RH	Operating Humidity		-10℃ to 60℃ 70% RH			
Dimension (W x H x D)	180 x 30 x 44 (mm)						
Device Weight	about 200g						

High Voltage Probe

Model	OH5040	OH5018
Max.Working Voltage	DC+AC(peak)40KVCATII AC(rms): 27KVCATII	DC+AC(peak)18KVCATII AC(rms): 12KVCATII
Thepulse	<27KVp-p	<12KVp-p
Max.Loading Current	43μA	90μA
Bandwidth(-3dB)	50MHz	100MHz
noise	>60dBat1KHz; >50dBat1MHz	
Attenuation Ratio	1000: 1	
Accuracy	DC:≤3%;AC:≤3%(1KHz)	
Impedance	900MΩ	200MΩ
Input Capacitor	2PF	1.5PF
Cable Length	2m±0.2m	
Temperature Coefficien	≤200PPM/℃	
Operation Temp	-10～55℃	
Dimension	80(W)x80(H)x320(L)mm	
Device Weight	460g	

Model	OH5007
Max.Working Voltage	DC: 0-10KV AC(rms): 0～7KV; Vpp: 0-20KV(Pulse)
Bandwidth(-3dB)	50MHz
noise	>60dB(1KHz),>50dB(1MHz)
Attenuation Ratio	1: 1000
Accuracy	DC:±3%(DCto10KV) AC:±3%(1KHz/1KV/1KHzRMS) -3dB:0～40MHz
Impedance	100MΩ±5%
Input Capacitor	3.0PF±0.5PF
Cable Length	2m±0.2m
Temperature Coefficien	≤200PPM/℃
Operation Temp	0～+50℃
Dimension	340 x80Φ (cylindrical)
Device Weight	250g

Current Probe

Model	CP-07+				
Test Range	400mA - 4A	DC Current	Range	DCA 400mA	DCA 4A
Resolution	0.1mA		Accuracy	±1.5%rdg±5d	
Bandwidth	DC～1MHz(±3dB)		Sensitivity	1mV/1mA	1mV/10mA
Jaw Size	5mm (max)	AC Current	Range	ACA 400mA	ACA 4A
Auto Zero at Power-on	√		Accuracy	±2.0%rdg±5d	
Power Supply	9V 6F22 Battery		Sensitivity	1mV/1mA	1mV/10mA
Operating Temperature	0℃ to 40℃ ≤70% RH	Operating Humidity		-10℃ to 60℃ 70% RH	
Dimension (W x H x D)	215 x 36 x 58 (mm)				
Device Weight	about 200g				

Current Probe

Model	C5010
Measuring Range	0.05A-10A || 1A-100A
Voltage	1V Peak
Conversion Ratio	100mA/V || 10mA/V
Bandwidth	100KHz
Diameter mouth diameter	11.8mm
Operating temperature	0℃- 50℃
Battery	9V Alkaline battery
Accuracy	2%
Dimension	231×67×36 (mm), 2m Cable length
Device Weight	about 330g (Containing batteries)

Oscilloscope Probe

Model	T5100	T5200
Attenuation Ratio	1X or 10X	1X or 10X
Bandwidth	100MHz	200MHz
Input R	1MΩ or 10MΩ	1MΩ or 10MΩ
Input C	1X: 85pF -115pF 10X: 14.5pF -17.5pF	1X: 85pF -115pF 10X: 14.5pF -17.5pF
Max Input Voltage	1X: <200V 10X: <600V	1X: <200V 10X: <600V

Model	T3060	T3100
Attenuation Ratio	100X	100X
Bandwidth	60MHz	100MHz
Input R	100MΩ	100MΩ
Input C	18.5pF - 22.5pF	18.5pF - 22.5pF
Max Input Voltage	<2KV	<2KV

Oscilloscope Probe

Model	P4060	P4100	P4250
Attenuation Ratio	100X	100X	100X
Bandwidth	60MHz	100MHz	250MHz
Input R	100MΩ	250MHz	250MHz
Input C	5pF	5pF	5pF
Max Input Voltage	<2KV	<2KV	<2KV

Model	OW3060	OW3100	OW3200	OW3300
Attenuation Ratio	1X or 10X	1X or 10X	1X or 10X	1X or 10X
Bandwidth	6MHz/60MHz	6MHz/100MHz	6MHz/200MHz	6MHz/300MHz
Input R	1MΩ or 10MΩ	1MΩ or 10MΩ	1MΩ or 10MΩ	1MΩ or 10MΩ
Input C	1X: 85pF -115pF 10X: 14.5pF -17.5pF	1X: 85pF -115pF 10X: 14.5pF -17.5pF	1X: 85pF -115pF 10X: 14.5pF -17.5pF	1X: 85pF -115pF 10X: 14.5pF -17.5pF
Max Input Voltage	1X: <200V 10X: <600V	1X: <200V 10X: <600V	1X: <200V 10X: <600V	1X: <200V 10X: <600V

Model	P7300
Attenuation Ratio	1X or 10X
Bandwidth	6MHz / 300MHz
Input R	1MΩ or 10MΩ
Input C	1X: 85pF -120pF 10X: 18.5pF -22.5pF
Max Input Voltage	1X: <300V 10X: <600V

Model	P2060
Attenuation Ratio	1X or 10X
Bandwidth	60MHz
Input R	1MΩ or 10MΩ
Input C	1X: 70pF -120pF 10X: 14pF -18pF
Max Input Voltage	1X: <200V 10X: <600V

Model	TH3100A
Attenuation Ratio	100X
Bandwidth	100MHz
Input R	100MΩ
Input C	3.5pF - 10.5pF
Max Input Voltage	<5KV

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Fujian Lilliput Optoelectronics Technology Co., Ltd.

No. 19, Heming Road, Lantian Industrial Zone
Zhangzhou 363005 P.R. China
Tel : +86.596.2130430
E-mail : info@owon.com.cn

Find us on:
fb.me/owontech

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Please contact your local distributor for further information.