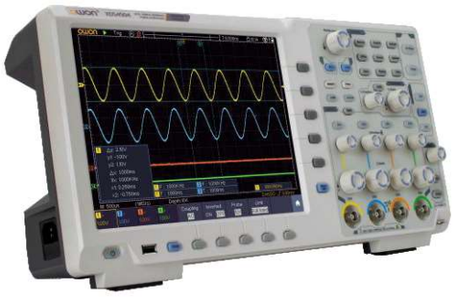
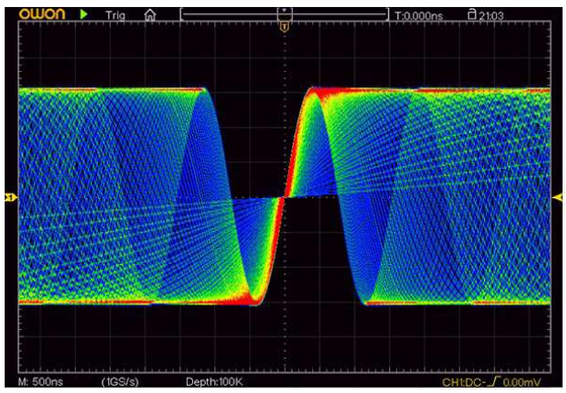
Multi-function test oscilloscope

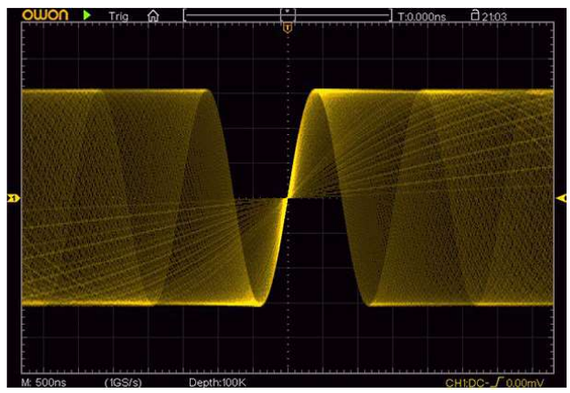
- XDS4000 Series



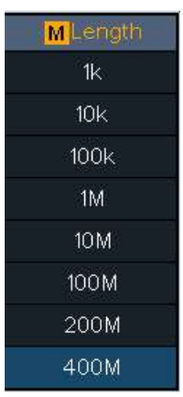
+ Including 7 measurement functions in one: oscilloscope, waveform generator, multimeter, FFT spectrum analyzer, frequency counter, protocol analysis, amplitude-frequency curve analysis
+ 350 MHz / 500 MHz oscilloscope bandwidth, 5 GSa/s sample rate
+ Standard 400 Mpts memory depth
+ 600,000 wfms/s refresh 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

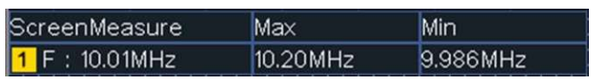




2. Standard 400 Mpts memory depth, observe more waveform details



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



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

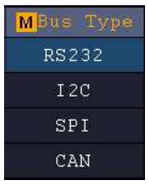
Support 4 FFT windows: Rectangular,Hamming, Hanning and Black-harris

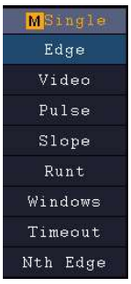
6. 4 ½ Digits Multimeter with Data Logging Function (option)

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.

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	max 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