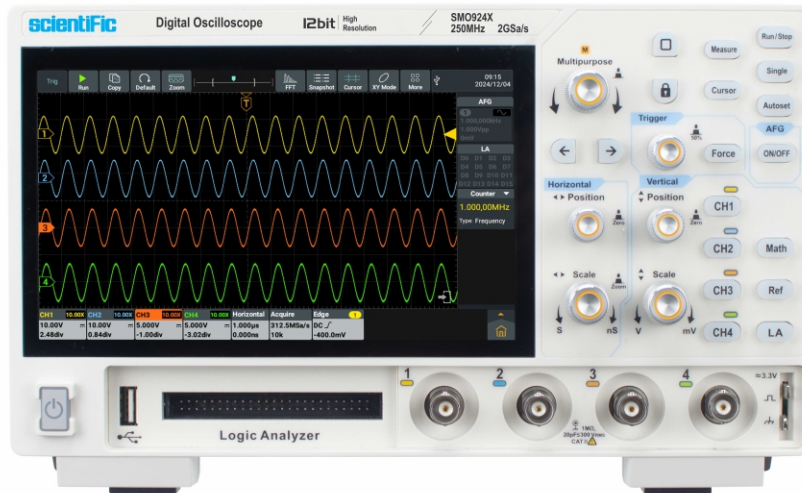


Digital Storage Oscilloscope SMO900X Series



Advance Features

- 125MHz~250MHz bandwidth, 2GSa/s real time sampling rate.
- 100M storage depth, up to 700,000 wfms/s waveform refresh rate.
- Vertical Accuracy is 200 μ V/div ~ 10V/div.
- 7inch touch screen with multi-touch support for an enhanced interactive experience
- 1M-point FFT analysis ensure accurate frequency component display.
- 256 level grayscale and color persistence enhance waveform visualization.
- Equipped with HDMI, USB Device, USB Host, Trig Out (P/F), LAN supporting Web Control and SCPI command tools.
- Integrated with oscilloscope, 30MHz AFG (Optional), logic analyzer (optional), frequency counter, voltmeter and FFT spectrum analyzer.
- Rich triggering : edge, video, pulse width, slope, under-amplitude, over-amplitude, timeout, Nth edge, logic, and RS232/UART, I2C, SPI, CAN, LIN : 2 channel hardware decoding : UART, I2C, SPI, CAN, LIN.
- Bode plot functions (AFG models)
- Full memory hardware measurement function, math operations, built in enhanced FFT and peak search.
- Screen video recording for easy documentation and sharing.
- Enhanced FFT and ZOOM features provide clearer waveform display and cursor information.
- Convenient measurement statistics with measurement indicators, cursor gating and more measurement prompts .

Technical Specifications	SMO912X	SMO914X	SMO922X	SMO924X
Vertical System				
Bandwidth (-3 dB)	125MHz		250MHz	
Rise Time	2.8ns		1.4ns	
Input Channel	2	4	2	4
Input Coupling	DC, AC, Ground			
Input Impedance	1M Ω \pm 2%, Parallel with 20pF + 5 pF			
Max. Input Voltage	\leq 300Vrms			
Vertical Sensitivity Range	200 μ V/div ~ 10 V/div			
Vertical Resolution	12bits			
Vertical Gain Accuracy	\leq 1mV: \pm 3% , 2 mV : \pm 2%, \geq 5mV : \pm 1.5%			
Probe Attenuation Coefficient	1.00 μ X ~ 1.00MX, step by 1-2-5 support custom			
Channel-Channel (Average)	50Hz : 100:1, 10MHz : 40:1			
Time delay between channel (typical)	150ps			
Bandwidth Limit	20MHz			

Technical Specifications		SMO912X	SMO914X	SMO922X	SMO924X
Horizontal System					
Scanning Speed (s/div)	1 ns/div - 1000s/div, step by 1-2-5				
Time Base Accuracy	± 25 ppm				
Max Memory depth	100M				
Acquire System					
Max. Sample Rate	2GSa/s (Single Channel), 1GSa/s (Dual Channel) 500MSa/s (Full Channel)				
Acquire Mode	Sample, Peak, High Res. Average, Segmentation				
Max. Waveform Capture Rate	Real time acquire Max. 500,000wfms/s, Segment acquire : 700,000wfms/s				
Record Length	1k, 10k, 100k, 1M, 10M, 25M, 50M, 100M				
Interpolation	Auto, Sinx/x, x				
Trigger System					
Trigger Source	CH1, CH2, CH3, CH4				
Trigger Modes	Auto, Normal, Single				
Trigger Type	Edge, Video, Pulse, Slope, Runt, Windows, Timeout, Nth, Logic, RS232/UART, I2C, SPI, CAN, LIN				
Holdoff Range	100ns ~ 10s				
Trigger Sensitivity	0.3 div ~ 10 div				
Trigger Level Range	Internal : ± 4 divs from the center of the screen				
Trigger Type					
Edge Trigger	Coupling	DC, AC, HF			
	Slope	Rising, Falling			
Video Trigger	Modulation	Support Standard NTSC, Pal and SECAM broadcast system			
	Line Number Range	1-525 (NTSC) and 1-625 (PAL/SECAM)			
Pulse Trigger	Trigger Condition	Positive pulse : >, <, = Negative pulse : >, <, =			
	Pulse with range	30ns ~ 10s			
Slope Trigger	Trigger Condition	Positive pulse : >, <, = Negative pulse : >, <, =			
	Time Setting	30ns ~ 10s			
Runt Trigger	Trigger Condition	Positive pulse : >, <, = Negative pulse : >, <, =			
	Time Setting	30ns to 10s			
Window Trigger	Trigger Condition	Positive pulse : High amplitude entry, High amplitude exit and High amplitude time Negative pulse : High amplitude entry, High amplitude exit and High amplitude time			
	Time Setting	30ns ~ 10s			
Timeout Trigger	Slope	Rising, Falling			
	Idle Time	30ns ~ 10s			
The Nth Edge Trigger	Slope	Rising, Falling			
	Idle Time	30ns ~ 10s			
	Edge Number	1 ~ 128			
Logic Trigger	Logic Mode	AND, OR, XOR, XNOR			
	Input Mode	H, L, X, Rising, Falling			
	Output Mode	Goes True, Goes False, Is True >, Is True <, Is True			
RS232/ UART Trigger	Polarity	Normal, Inverted			
	Trigger Condition	Start, Error, Chk Error, Data			
	Baud Rate	Common, Custom			
	Data Bits	5 bits, 6 bits, 7 bits, 8 bits			

Technical Specifications		SMO912X	SMO914X	SMO922X	SMO924X
I2C Trigger	Trigger Condition	Start, Restart, Stop, Ack Lost, Addr, Data, Addr/Data			
	Address Range/Byte Length	7 bits : 0~127 8 bits : 0~255 10 bits : 0~1023			
	Byte Length	1 ~ 5			
SPI Trigger	Trigger Condition	Timeout, CS			
	Timeout Value	30ns ~ 10s			
	Data Bits	4 bits ~ 32 bits			
	Edge	Rising, Falling			
CAN Trigger	Signal Type	CAN_H, CAN_L, TX, RX : DIFF			
	Trigger Condition	Start, Type, Data, ID, ID/Data, End, Lost, Error			
	Baud Rate	Common, Custom			
	Sample Point	0.5% ~ 95%			
	Frame Type	Data, Remote, Error, Overload			
LIN Trigger	Condition	Break, ID, ID/Data, Data Error			
	Baud Rate	Common, Custom			
Waveform Measurement					
Auto Measurement		Period, Frequency, +Width, -Width, Rise Time, Fall Time, ScrDuty, +Duty, -Duty, Vavg, Vpp, VRMS, Overshoot, Vmax, Vmin, Vtop, CycRms, Vbase, Vamp, Preshoot, StdDev, +PulseCnt, -PulseCnt, RiseCnt, FallCnt, Area, Cyc Area, Delay(A↑~B↑), Delay(A↑~B↓), Delay(A↓~B↑), Delay(A↓~B↓), Phase(A↑~B↑), Phase (A↑~B↓), Phase (A↓~B↑), Phase(A↓~B↓), FRR(A↑~B↑), FRF(A↑~B↓), FFR(A↓~B↑), FFF(A↓~B↓), LRR(A↑~B↑), LRF(A↑~B↓), LFR(A↓~B↑), LFF(A↓~B↓)			
Waveform Math		+, -, *, /, &&, , ^, !, Tan, Intg, Diff, Sqrt, Lg, Ln, Exp, Abs, Sine, CoSine, Userdefined functions, digitalFilter (lowpass, highpass, bandpass, bandreject), FFW(Vrms, dBVrms, Redians, Degrees)			
Pass Fail	Source	CH1 ~ CH4			
	Type	Horizontal, Vertical and other measurement items			
	Measurement	Data statistics : Pass, Fail and the total number			
	Acquire Mode	All modes are supported except Zoom, XY, FFT and scroll			
Bus decoding		RS232/UART, I2C, SPI, CAN, LIN			
Frequency Counter		6-digit frequency counter. Maximum frequency : Maximum analog bandwidth of oscilloscope			
DVM	Source	CH1, CH2, CH3, CH4			
	Functions	AC, RMS, DC, AC+DC+RMS			
	Resolution	4 bits			
	Limit warnings	Support under and lower limit setting, over limit condition setting, over limit prompt			
	Voltmeter	Support DC, AC + DCrms, ACrms, Resolution : 4 digits (ACV/DCV)			
LA					
Vertical					
Input Channel		16 [D0:D15], One group is D0 to D7, and one group is D8 to D15			
Threshold Range		± 20.0V, step by 10mV			
Threshold Accuracy		± (100mV + 3% threshold setting)			
Threshold Selection		TTL, CMOS, ECL, PECL, Custom			
Maximum Input Voltage		± 40V peak CAT I; The measurement over voltage is 800Vpk			
Maximum Input Dynamic Range		± 10V + threshold			
Minimum input signal swing		500 mVpp			

Technical Specifications	SMO912X	SMO914X	SMO922X	SMO924X
Input Impedance	100kΩ 8pF			
Vertical Resolution	1 bit			
Horizontal				
Minimum detectable pulse width	5 ns			
Maximum input frequency	200 MHz			
Time delay between channels	± 5 ns			
General Specifications				
Communication Interface	HDMI, USB device, USB Host, Trig Out (P/F), LAN			
Operating System	Android			
System Memory	2GB RAM			
Internal Non-volatile Memory	8 GB			
Display Type	7inch (1024 x 600), capacitive multi touch screen			
Display Colors	24 colors, TFT			
Safety Standard	IEC61010-1			
EMC Standards	EN IEC 61326-1; EN IEC 61000-3-2; EN61000-3-3			
Input Supply	Type-C Power Supply interface adapter, DC :12V 4A			
Power Consumption	≤ 48W			
Operating Condition	0°C ~ 50°C, ≤90%RH			
Storage Temperature	-20°C ~ +60°C			
Dimensions (W X H X D)	260 X 160 X 78mm			
Weight	1.5kg			
Standard Accessories	Power Cord, USB Cable, 1:1 / 1:10 Switchable Probes			
Available Options	Arbitrary Wave form Generator : SMO900X-AG			
	Logic Analyser : SMO900X-LA			

Subject to change

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