

XDS2102A High Resolution Digital Oscilloscope

your powerful on-site measurement station)



12 bits
high resolution ADC



Super Performance

- + 12-bit high resolution ADC, restoring the waveform detail fully
- + 20M record length, and 55,000 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
- + 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

+ Performance Specifications

Model	XDS2102A
Bandwidth	100MHz
Sample Rate	1GS/s (8 bits) 500MS/s (12 bits)
Vertical Resolution (A/D)	12 bits
Record length	20M
Waveform Refresh Rate	55,000 wfms/s
Horizontal Scale (s/div)	2ns/div - 1000s/div, step by 1~2~5
Rise Time (at input, typical)	≤3.5ns
Channel	2 + 1 (external)
Display	8" color LCD, 800 x 600 pixels
Input Impedance	1MΩ ± 2%, in parallel with 15pF ± 5pF
Channel Isolation	50Hz : 100 : 1, 10MHz : 40 : 1
Max Input Voltage	1MΩ ≤ 300Vrms
DC Accuracy	average ≥ 16 : ±(3% reading + 0.05 div) for ΔV
Probe Attenuation Factor	0.001X - 1000X, step by 1 - 2 - 5
LF Respond (AC, -3dB)	≥10Hz (at input, AC coupling, -3dB)

Sample Rate / Relay Time Accuracy	± 1 ppm (TYP, Ta=+25°C)	
Interpolation	$\sin(x) / x$	
Interval (ΔT) Accuracy (full bandwidth)	Single: $\pm(1 \text{ interval time} + 1 \text{ ppm} \times \text{reading} + 0.6\text{ns})$; Average > 16: $\pm(1 \text{ interval time} + 1 \text{ ppm} \times \text{reading} + 0.4\text{ns})$	
Input Coupling	DC, AC, and GND	
Vertical Sensitivity	1mV/div - 10V/div (at input)	
Trigger Type	Edge, Video, Pulse, Slope, Runt, Windows, Timeout, Nth Edge, Logic, I ² C, SPI, RS232, and CAN	
Bus Decoding	I ² C, SPI, RS232, and CAN	
Trigger Mode	Auto, Normal, and Single	
Vertical Range	$\pm 2\text{V}$ (1mv/div - 50mv/div), $\pm 20\text{V}$ (100mv/div - 1V/div), $\pm 200\text{V}$ (2V/div - 10V/div)	
Line / Field Frequency (video)	NTSC, PAL and SECAM standard	
Cursor Measurement	ΔV , and ΔT between cursors, ΔV and ΔT between cursors, and auto- cursors	
Automatic Measurement	Vpp, Vavg, Vrms, Freq, Period, Peak RMS, Cursor RMS, Vmax, Vmin, Vtop, Vbase, Vamp, Overshoot, Phase, Preshoot, Rise Time, Fall Time, +Width, -Width, +Duty, -Duty, Duty Cycle, Delay A→B ↑, Delay A→B↓, +Pulse Count, -Pulse Count, Rise Edge Count, Fall Edge Count	
Waveform Math	+, -, ×, ÷, FFT, FFTrms, Intg, Diff, Sqrt, User Defined Function, digital filter (low pass, high pass, band pass, band reject)	
Waveform Storage	50 waveforms	
Lissajou's Figure	Bandwidth	full bandwidth
	Phase Difference	± 3 degrees
Communication Interface	USB host, USB device, USB port for PictBridge, Trig Out (P/F), LAN, and VGA (optional)	
Frequency Counter	available	
Power Supply	100V - 240V AC, 50/60Hz, CAT II	
Power Consumption	< 15W	
Fuse	2A, T class, 250V	
Dimension (W x H x D)	340 x 177 x 90 mm	
Weight	2.40 kg	

Specifications subject to change without prior notice.

+ Application

electronic circuit debugging
education and training

circuit testing

design and manufacture

automobile maintenance and testing

+ Accessories

The accessories subject to final delivery.



Power Cord



CD Rom



Quick Guide



USB



Probe



Probe Adjust

optional accessories



Soft Bag