OWON®

XDS3102

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

CE

Super Performance

+ 40M record length, and 75,000 wfms/s waveform refresh rate
+ low background noise, vertical sensitivity in 1 mV/div - 10 V/div
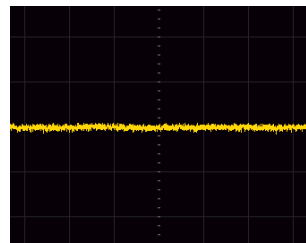+ multi- trigger, and bus decoding function
+ SCPI, and LabVIEW supported

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
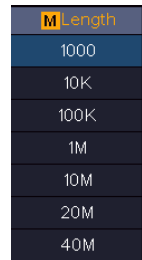+ optional multi-point touch screen, more user-friendly operation experience

n-in-1

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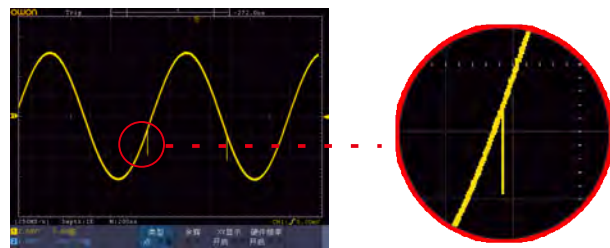furthermore, battery pack, and WiFi module supported

1. Xvisual platform - restore the waveform detail fully

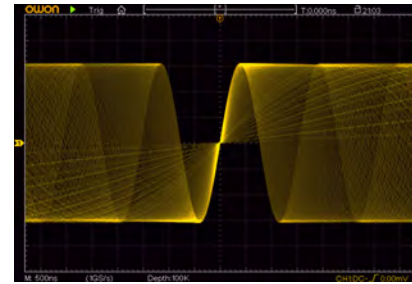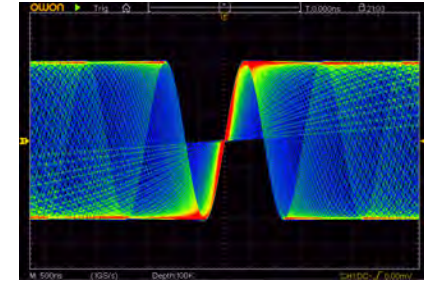| M Length |
|----------|
| 1000 |
| 10K |
| 100K |
| 1M |
| 10M |
| 20M |
| 40M |

low background noise

40M record length

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

2. multi-level grayscale, and color temperature display

within certain unit time,
more frequent one waveform pixel appears, more vivid it is

the frequency of waveform reflecting in color temperature value,
larger the value is, more frequent the waveform appears

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

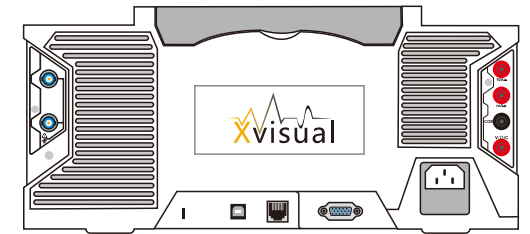5. serial bus coding available in I2C, SPI, RS232, and CAN

M Bus Type
RS232
I2C
SPI
CAN

M Single
Edge
Video
Pulse
Slope
Runt
Windows
Timeout
Nth Edge

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

Xvisual

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

WiFi

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. optional battery makes floating measurements possible,
advancing the operation convenience

owon®

XDS3102   your powerful n-in-1 on-site measurement station

+ Performance Specifications

Model	XDS3102
Bandwidth	100MHz
Sample Rate	1GS/s
Vertical Resolution (A/D)	8 bits
Record Length	40M
Waveform Refresh Rate	75,000 wfms/s
Horizontal Scale	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; 50Ω ≤ 5Vrms
DC Gain Accuracy	±3%
DC Accuracy	average ≥ 16: ±(3% reading + 0.05 div) for △V
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	±1ppm
Interpolation	sin(x)/x, x
Interval (△T) Accuracy (fullbandwidth)	Single: ±(1 interval time + 1ppm x reading + 0.6ns); Average > 16: ±(1 interval time + 1ppm x reading + 0.4ns)
Input Coupling	DC, AC, and GND
Vertical Sensitivity	1mV/div - 10V/div (at input)
Trigger Type	Edge, Video, Pulse, Slope, Runt, Windows, Timeout, Nth Edge, Logic, I²C, SPI, RS232, and CAN (optional)
Bus Decoding (optional)	I²C, SPI, RS232, and CAN
Trigger Mode	Auto, Normal, and Single
Vertical Range	±2V (1mv/div - 50mv/div), ±20V (100mv/div - 1V/div), ±200V (2V/div - 10V/div)
Line / Field Frequency (video)	NTSC, PAL and SECAM standard
Cursor Measurement	△V, and △T between cursors, △V and △T between cursors, and auto- cursors
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
Waveform Math	+, -, x, ÷, FFT, FFT rms, Intg, Diff, Sqrt, User Defined Function, digital filter (low pass, high pass, band pass, bandreject)
Waveform Storage	100 waveforms
Lissajou's Figure — Bandwidth	full bandwidth
Lissajou's Figure — 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	100 - 240 V AC, 50/60Hz, CAT II
Power Consumption	< 15W
Fuse	2A, T class, 250V
Battery (optional)	3.7V, 13200mAh
Dimension (W x H x D)	340 x 177 x 90 (mm)
Device Weight	2.60 kg

+ Multimeter (optional) Specifications

Full Scale Reading	3¾ digits (max 4000 count)	Diode	0V - 1.5V
Input Impedance	10MΩ	Continuity Test	<50 (±30) beeping
Capacitance	51.2nF - 100uF: ±(3% ± 3 digits)		
Voltage	VDC: 400mV, 4V, 400V: ±(1 ± 1 digit); max input: DC 1000V VAC: 4V, 40V, 400V: ±(1 ± 3 digits); frequency: 40Hz - 400Hz; max input: AC 400V (virtual value)		
Current	DC: 40mA, 400mA: ±(1.5% ± 1 digit); 10A: ±(3% ± 3 digits) AC: 40mA: ±(1.5% ± 3 digits), 400mA: ±(2% ± 1 digit), 10A: ±(3% ± 3 digits)		
Impedance	400Ω: ±(1% ± 3 digits), 4KΩ - 40MΩ: ±(1% ± 1 digit)		

+ Arb Waveform Generator (optional) Specifications

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

+ Optional Module / Function

VGA	VGA + AV port
WIF	WiFi
AWG	arbitrary waveform generator
DMM	digital multimeter
TOU*	touch screen (capacitor-type)

+ Optional Decoding Kit

RS232	RS232
SPI	SPI
I2C	I²C
CAN	CAN decoding

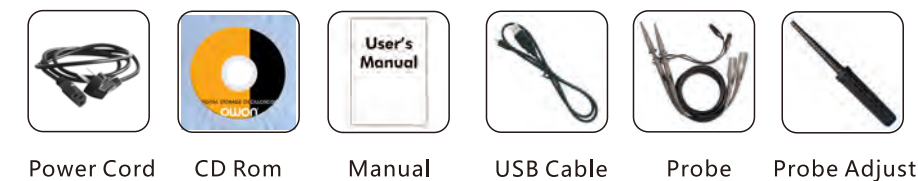* TOU option could be equipped as standard option as per request.

Specifications subject to change without prior notice.
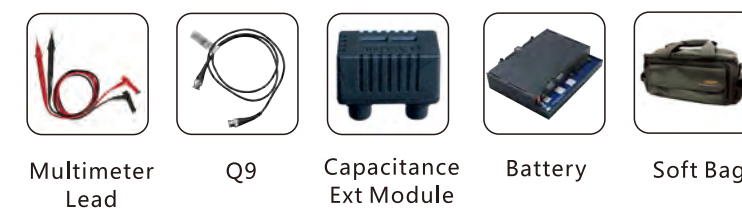
+ Application

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

+ Accessories

The accessories subject to final delivery.

Power Cord   CD Rom   Manual   USB Cable   Probe   Probe Adjust

optional accessories:

Multimeter Lead   Q9   Capacitance Ext Module   Battery   Soft Bag