

XDS3000 Series 4CH Oscilloscopes Technical Specifications

| Model | Vertical Resolution (A/D) | Bandwidth | Rise Time | Horizontal Scale |
|-----------|---------------------------|-----------|-----------|---|
| XDS3064E | 8 bits | 60 MHz | ≤ 5.8 ns | 2ns/div-1000s/div, step by 1 – 2 - 5 |
| XDS3064AE | 8 bits/12 bits/14 bits | | | |
| XDS3104E | 8 bits | 100 MHz | ≤ 3.5 ns | |
| XDS3104AE | 8 bits/12 bits/14 bits | | | |
| XDS3104 | 8 bits | 100 MHz | ≤ 3.5 ns | 1ns/div - 1000s/div, step by 1 – 2 - 5 |
| XDS3104A | 8 bits/12 bits/14 bits | | | |
| XDS3204E | 8 bits | 200 MHz | ≤ 1.75 ns | |
| XDS3204AE | 8 bits/12 bits/14 bits | | | |

| Performance Characteristics | Instruction | | | |
|------------------------------------|--|---------------|-----------|-----------|
| Sample rate (real time) | XDS3064E XDS3104E | Four CH | | 250 MSa/s |
| | | Dual CH* | | 500 MSa/s |
| | | Single CH | | 1 GSa/s |
| | XDS3064AE XDS3104AE | 8 bits mode | Four CH | 250 MSa/s |
| | | | Dual CH* | 500 MSa/s |
| | | | Single CH | 1 GSa/s |
| | | 12 bits mode | Four CH | 125 MSa/s |
| | | | Dual CH* | 250 MSa/s |
| | | | Single CH | 500 MSa/s |
| | | 14 bits mode | Four CH | 100 MSa/s |
| | | | Dual CH | 100 MSa/s |
| | | | Single CH | 100 MSa/s |
| | XDS3104 XDS3204E | Four CH | | 500 MSa/s |
| | | Dual CH* | | 1 GSa/s |
| | | Single CH | | 1 GSa/s |
| | XDS3104A XDS3204AE | 8 bits mode | Four CH | 500 MSa/s |
| | | | Dual CH* | 1 GSa/s |
| | | | Single CH | 1 GSa/s |
| 12 bits mode | | Four CH | 250 MSa/s | |
| | | Dual CH* | 500 MSa/s | |
| | | Single CH | 500 MSa/s | |
| 14 bits mode | | Four CH | 100 MSa/s | |
| | | Dual CH | 100 MSa/s | |
| | | Single CH | 100 MSa/s | |
| Waveform capture rate | XDS3064E XDS3064AE XDS3104E XDS3104AE | 45,000 wfms/s | | |
| | XDS3104 XDS3104A XDS3204E XDS3204AE | 70,000 wfms/s | | |

| | | | | |
|--|---|---|--------------|--------|
| Display | 8" color LCD, TFT display , 800×600 pixels | | | |
| Channel | 4 | | | |
| Max record length | When four channels are turned on, the max record length is 10M; and max 20M for two channels; max 40M for one channel. | | | |
| Sampling rate / relay time accuracy | ±2.5 ppm max (Ta = +25°C) | | | |
| Input coupling | DC, AC, Ground | | | |
| Input impedance | 1MΩ±2%, in parallel with 15pF±5pF | | | |
| Max input voltage | 400 V (DC + AC Peak) | | | |
| DC gain accuracy | XDS3064E | 1 mV | ±4% | |
| | XDS3104E | ≥ 2 mV | ±3% | |
| | XDS3064AE | 8 bits mode | 1 mV | ±4% |
| | | | ≥ 2 mV | ±3% |
| | XDS3104AE | 12 bits mode | 1 mV | ±3% |
| | | | 14 bits mode | ≥ 2 mV |
| | XDS3104 | 1 mV | | ±3% |
| | | | XDS3204E | ≥ 2 mV |
| | XDS3104A | 8 bits mode | | 1 mV |
| | | | ≥2 mV | ±2% |
| XDS3204AE | 12 bits mode | 1 mV | ±3% | |
| | | 14 bits mode | ≥2 mV | ±2% |
| Vertical sensitivity | 1 mV/div - 10 V/div | | | |
| Trigger type | Edge, Video, Pulse, Slope, Runt, Windows, Timeout, Nth Edge, Logic, I2C, SPI, RS232, CAN (optional) | | | |
| Decoding Type (optional) | RS232, I2C, SPI, CAN | | | |
| Trigger mode | Auto, Normal, Single | | | |
| Line/field frequency (Video) | Support standard NTSC, PAL and SECAM | | | |
| 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 $\overline{\text{H}}$, Delay A→B $\overline{\text{L}}$, Cycle RMS, Cursor RMS, Screen Duty, Phase A→B $\overline{\text{H}}$, Phase A→B $\overline{\text{L}}$, +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 | Standard | USB host, USB device, Trig Out (Pass/Fail), LAN | | |
| | Optional | VGA | | |
| Printer compatibility | PictBridge | | | |
| Power supply | 100V - 240 VACRMS, 50/60 Hz, CAT II | | | |
| Fuse | 2 A, T class, 250 V | | | |
| Battery (optional) | 3.7V, 13200mAh | | | |
| Touch screen (optional) | Multi-touch capacitive touch screen | | | |

* For XDS3064(A)E and XDS3104(A)E, Max Sample rate (real time) for Dual CH should meet either following condition:

- CH1&CH2 on, CH3&CH4 off;
- CH1&CH2 off, CH3&CH4 on.

* For XDS3104(A) and XDS3204(A)E, Max Sample rate (real time) for Dual CH should meet the following condition:

CH1 and CH2 can not be turned on simultaneously, CH3 and CH4 can not be turned on simultaneously.

- CH1&CH3 on, the others off;
- CH1&CH4 on, the others off;
- CH2&CH3 on, the others off;
- CH2&CH4 on, the others off.

Waveform Generator

(Dual channels AG is optional to XDS3064E / XDS3104E;
single channel AG is optional to XDS3104(A) / XDS3204(A)E.)

| | |
|-----------------------------|--|
| Max frequency output | 25 MHz |
| Sample rate | 125 MSa/s |
| Channel | 1 or 2 |
| Vertical resolution | 14 bits |
| Amplitude range | 2 mVpp - 6 Vpp |
| Waveform length | 8K |
| Standard waveforms | Sine, Square, Ramp, and Pulse |
| Arbitrary waveforms | Exponential Rise, Exponential Fall, Sin(x)/x, Step Wave, Noise, and others, total 46 built-in waveforms, and user-defined arbitrary waveform |

Multimeter (Optional)

| | |
|---------------------------|---|
| Full scale reading | 3¾ digits (Max 4000 count) |
| Diode | 0 V - 1 V |
| Input impedance | 10 MΩ |
| On/off measurement | <50(±30)Ω beeping |
| Capacitance | 51.2nF - 100uF: ±(3%±3 digits) |
| Voltage | DCV: 400mV, 4V, 40V, 400V, 1000V: ±(1%±1digit) Max. input: DC 1000V ACV: 400mV, 4V, 40V, 400V: ±(1%±3digit) 750V: ±(1.5%±3digit) Frequency: 40Hz - 400Hz, Max. input: AC 750V (virtual value) |
| Current | DCA: 40mA, 400mA: ±(1.5%±1 digit) 4A, 10A: ±(3%±3digit) ACA: 40mA: ±(1.5%±3digit) 400mA: ±(2%±1digit) 4A, 10A: ±(3%±3digit) |
| Impedance | 400Ω: ±(1%±3digit) 4KΩ~4MΩ: ±(1%±1digit) 40MΩ: ±(1.5%±3digit) |

Mechanical Specifications

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|------------------|--------------------------------------|
| Dimension | 340 mm × 177 mm × 90 mm (L*H*W) |
| Weight | Approx. 2.6 kg (without accessories) |

V1.4



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