

## XDS4000 Series Oscilloscopes Technical Specifications

| Model              | Vertical Resolution (A/D) | Bandwidth | Rise Time | Horizontal Scale                            |
|--------------------|---------------------------|-----------|-----------|---|
| XDS4354<br>XDS4352 | 8 bits                    | 350 MHz   | ≤ 1 ns    | 500ps/div - 1000s/div,<br>step by 1 – 2 - 5 |
| XDS4504<br>XDS4502 |                           | 500 MHz   | ≤ 0.7 ns  |   |

| Performance Characteristics                | Instruction   |           |
|--|---|-----------|
| <b>Sample rate (real time)</b>             | Four CH   | 1 GSa/s   |
|  | Dual CH*  | 2.5 GSa/s |
|  | Single CH   | 5 GSa/s   |
| <b>Waveform capture rate</b>               | 600,000 wfms/s  |           |
| <b>Display</b>                             | 10.4" color LCD, TFT display , 800×600 pixels   |           |
| <b>Channel</b>                             | XDS4354<br>XDS4504  | 4         |
|  | XDS4352<br>XDS4502  | 2         |
| <b>Max record length</b>                   | 400M  |           |
| <b>Sampling rate / relay time accuracy</b> | ±2.5 ppm max (Ta = +25°C ±5°C)  |           |
| <b>Input coupling</b>                      | DC, AC, Ground  |           |
| <b>Input impedance</b>                     | 1MΩ±2%, in parallel with 15pF±5pF, 50Ω±2%   |           |
| <b>Max input voltage</b>                   | 1 MΩ:300Vrms ,400 V (DC + AC Peak)  |           |
|  | 50Ω:5Vrms   |           |
| <b>DC gain accuracy</b>                    | 1 mV  | ±3%       |
|  | ≥2 mV   | ±2%       |
| <b>Vertical sensitivity</b>                | 1 MΩ: 1 mV/div~10 V/div   |           |
|  | 50Ω: 1 mV/div~1 V/div   |           |
| <b>Trigger type</b>                        | Edge, Video, Pulse, Slope, Runt, Windows, Timeout, Nth Edge, Logic, I2C, SPI, UART/RS232, CAN (optional)  |           |
| <b>Decoding Type (optional)</b>            | UART/RS232, I2C, SPI, CAN   |           |
| <b>Trigger mode</b>                        | Auto, Normal, Single  |           |
| <b>Line/field frequency (Video)</b>        | Support standard NTSC, PAL and SECAM  |           |
| <b>Automatic measurement</b>               | 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 $\overline{\text{A}}^{\text{B}}$ , Delay A→B $\overline{\text{B}}^{\text{A}}$ , Cycle RMS, Cursor RMS, Screen Duty, FRR、FRF、FFR、FFF、LRR、LRF、LFR、LFF、Phase A→B $\overline{\text{A}}^{\text{B}}$ , Phase A→B $\overline{\text{B}}^{\text{A}}$ , +Pulse Count, -Pulse Count, Rise Edge Count, Fall Edge Count, Area, and Cycle Area. |           |
| <b>Waveform math</b>                       | +, -, *, / ,FFT, FFTrms, Intg, Diff, Sqrt, User Defined Function, digital filter (low pass, high pass, band pass, band reject)  |           |
| <b>Waveform storage</b>                    | 100 waveforms   |           |
| <b>Communication interface</b>             | USB Host, USB Device; Trig Out(Pass/Fail); LAN port; VGA port; EXT Trig In  |           |
| <b>Printer compatibility</b>               | PictBridge  |           |

|                     |                                     |
|---------------------|-------------------------------------|
| <b>Fuse</b>         | 2 A, T class, 250 V                 |
| <b>Touch screen</b> | Multi-touch capacitive touch screen |

\* (Only applicable to 4-channel models)

Max Sample rate (real time) for Dual CH should meet either following condition:

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

## Waveform Generator

|                             |  |
|-----------------------------|--|
| <b>Max frequency output</b> | 50 MHz   |
| <b>Sample rate</b>          | 250 MSa/s  |
| <b>Channel</b>              | 1  |
| <b>Vertical resolution</b>  | 14 bits  |
| <b>Amplitude range</b>      | 2mVpp - 5Vpp (≦50MHz)<br>2mVpp - 20Vpp (≦25MHz)  |
| <b>Waveform length</b>      | 16K  |
| <b>Output DC and offset</b> | Vpp≤5V/±2.5V (max) ; Vpp>5V/±10V (max)   |
| <b>Standard waveforms</b>   | Sine, Square, Ramp, and Pulse  |
| <b>Arbitrary waveforms</b>  | Exponential Rise, Exponential Fall, Sin(x)/x, Step Wave, Noise, and others, total 46 built-in waveforms, and user-defined arbitrary waveform |

## Multimeter (Optional)

|                           |  |
|---------------------------|--|
| <b>Full scale reading</b> | 4½ digits (Max 20000 – count)  |
| <b>Diode</b>              | 0 V - 2 V  |
| <b>Input impedance</b>    | ≥10 MΩ   |
| <b>On/off measurement</b> | <50 beeping  |
| <b>Capacitance</b>        | 2nF – 20mF: ±(4%±10 digit)   |
| <b>Voltage</b>            | DCV: 20mV, 200mV: ±(0.5%±10digit), 2V, 20V,<br>200V: ±(0.3%±5digit), 1000V: ±(0.5%±5digit)<br>ACV: 200mV, 2V, 20V, 200V: ±(0.8%±10digit)<br>750V: ±(1%±10digit)<br>Frequency: 40Hz - 400Hz |
| <b>Current</b>            | DCA: 20A: ±(2%±10digit)<br>ACA: 20A: ±(2.5%±10digit)   |
| <b>Impedance</b>          | 200Ω~2MΩ: ±(0.8%±10digit), 20MΩ: ±(1%±10digit)<br>100MΩ: ±(5%±10digit)   |

## Mechanical Specifications

|                  |                                    |
|------------------|------------------------------------|
| <b>Dimension</b> | 422 mm × 226 mm × 135 mm (L*H*W)   |
| <b>Weight</b>    | Approx. 5 kg (without accessories) |

V1.0.0



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