

## VDS Series PC Oscilloscope



- + Up to 100MHz bandwidth, and max 1GS/s real-time sample rate
- + 2/ 4 channels
- + Max 10M record length
- + Friendly UI : FFT, or X-Y, and waveform 2 views displayed on the same screen
- + Multi-trigger option : edge, video, slope, pulse, and alternate
- + USB isolation - less signal interference, more PC protection
- + USB bus powering, and LAN remote control (optional)
- + Ultra-thin body design, easy portability
- + SCPI supported
- + LabVIEW supported (only in VDS3102, and VDS3104)

### + Performance Specifications

| Model                                      | VDS1022I                                                                                                              | VDS1022                        | VDS2062 | VDS2064     | VDS3102                                  | VDS3104     |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------|---------|-------------|------------------------------------------|-------------|
| Bandwidth                                  | 25MHZ                                                                                                                 |                                | 60MHZ   |             | 100MHZ                                   |             |
| Channel                                    | 2+1 (multi)                                                                                                           |                                |         | 4+1 (multi) | 2+1 (multi)                              | 4+1 (multi) |
| Sample Rate                                | 100MSa/s                                                                                                              |                                | 1GSa/s  |             |                                          |             |
| Horizontal Scale (s/div)                   | 5ns/div ~ 100s/div, step by 1 ~ 2 ~ 5                                                                                 |                                |         |             | 2ns/div ~ 100s/div,<br>step by 1 ~ 2 ~ 5 |             |
| Rise Time                                  | ≤14 ns                                                                                                                |                                | ≤5.8 ns |             | ≤3.5 ns                                  |             |
| Record Length                              | 5K                                                                                                                    |                                | 10M     | 5M          | 10M                                      | 5M          |
| Input Coupling                             | DC, AC, GND                                                                                                           |                                |         |             |                                          |             |
| Input Impedance                            | 1MΩ±2% , in parallel with10pF±5pF                                                                                     |                                |         |             |                                          |             |
| Channels Isolation                         | 50Hz : 100 : 1, 10MHz : 40 : 1                                                                                        |                                |         |             |                                          |             |
| Max Input Voltage                          | 400V (PK - PK)<br>(DC+AC, PK - PK)                                                                                    | 40V (PK - PK) (DC+AC, PK - PK) |         |             |                                          |             |
| DC Gain Accuracy                           | ±3%                                                                                                                   |                                |         |             |                                          |             |
| DC Accuracy                                | Average≥16: ±(3% reading + 0.05div) for △T                                                                            |                                |         |             |                                          |             |
| Probe Attenuation Factor                   | 1X, 10X, 100X, 1000X                                                                                                  |                                |         |             |                                          |             |
| LF Respond (AC, -3dB)                      | ≥5Hz (at input, AC coupling, -3dB)                                                                                    |                                |         |             |                                          |             |
| Sampling Rate / Relay Time Accuracy        | 150ps                                                                                                                 |                                |         |             |                                          |             |
| Interpolation                              | sin(x) / x                                                                                                            |                                |         |             |                                          |             |
| Interval (△T) Accuracy<br>(full bandwidth) | Single: ± (1 interval time + 100ppm × reading + 0.6ns),<br>Average >16: ±(1 interval time + 100ppm × reading + 0.4ns) |                                |         |             |                                          |             |
| Vertical Resolution (A/D)                  | 8 bits (2 channels simultaneously)                                                                                    |                                |         |             |                                          |             |
| Vertical Sensitivity                       | 5mV/div ~ 5V/div                                                                                                      |                                |         |             |                                          |             |
| Trigger Type                               | Edge, Pulse, Video, Slope, and Alternate                                                                              |                                |         |             |                                          |             |
| Trigger Mode                               | Auto, Normal, and Single                                                                                              |                                |         |             |                                          |             |
| Trigger Level                              | ±5 divisions from screen center                                                                                       |                                |         |             |                                          |             |

|                                |                  |                                                                                                                                                                                                                                                                                                                                     |         |                         |
|--------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------------------|
| Acquisition Mode               |                  | Sample, Peak Detect, and Average                                                                                                                                                                                                                                                                                                    |         |                         |
| Line / Field Frequency (video) |                  | NTSC, PAL, and SECAM standard                                                                                                                                                                                                                                                                                                       |         |                         |
| Cursor Measurement             |                  | $\Delta V$ , and $\Delta T$ between cursors                                                                                                                                                                                                                                                                                         |         |                         |
| Automatic Measurement          |                  | Vpp, Vmax, Vmin, Vtop, Vbase, Vamp, Vavg, Vrms, Overshoot, Preshoot, Freq, Period, Rise Time, Fall Time, Delay A→B  , Delay A→B  , +Width, -Width, +Duty, -Duty |         |                         |
| Waveform Math                  |                  | + , - , × , ÷ , invert, FFT                                                                                                                                                                                                                                                                                                         |         |                         |
| Lissajous Figure               | Bandwidth        | full bandwidth                                                                                                                                                                                                                                                                                                                      |         |                         |
|                                | Phase Difference | ±3 degrees                                                                                                                                                                                                                                                                                                                          |         |                         |
| Communication Interface        |                  | USB 2.0<br>(isolation)                                                                                                                                                                                                                                                                                                              | USB 2.0 | USB 2.0, LAN (optional) |
| Multi-function Interface       | Signal Type      | synchronized input / output, Pass / Fail , external trigger input                                                                                                                                                                                                                                                                   |         |                         |
|                                | Level Standard   | TTL                                                                                                                                                                                                                                                                                                                                 |         |                         |
| Power Supply                   |                  | 5.0V/500mA                                                                                                                                                                                                                                                                                                                          |         | ≤5V/1.5A                |
| Power Consumption              |                  | ≤2.5W                                                                                                                                                                                                                                                                                                                               |         | ≤6.5W                   |
| Dimensions (W × H × D)         |                  | 170 × 120 × 18 (mm)                                                                                                                                                                                                                                                                                                                 |         | 190 × 120 × 18 (mm)     |
| Device Weight                  |                  | 0.26 kg                                                                                                                                                                                                                                                                                                                             |         | 0.3 kg                  |

Specifications subject to change without prior notice.

+ Application

design and debug      circuit function test      education and training

+ Accessories      The accessories subject to final delivery.



Probe



Probe Adjust



USB Cable



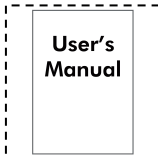
Adapter \*



Power Cord \*



Silicon Gel Case



Manual



CD Rom



Soft Bag  
(optional)

\* Adapter and power cord only available for models with LAN port.