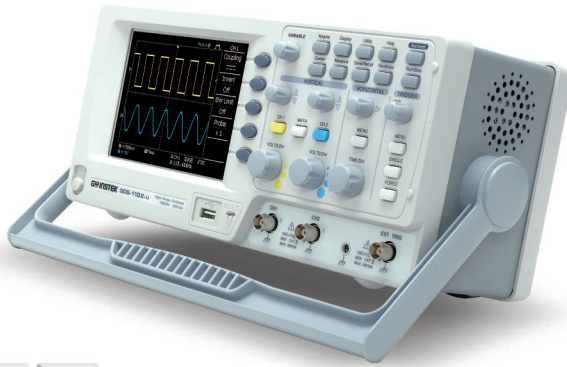




GDS-1000-U is a general purpose 2-channel oscilloscope designed to meet diversified educational demands and basic industrial requirements. This series provides bandwidths ranging from 50MHz to 100MHz. Together with intuitive human machine interface design and 5.7 inch color TFT LCD, GDS-1000-U allows users to enjoy better measurement experiences.

GDS-1000-U series offers dual sampling modes, 250MSa/s Real-Time and 25GSa/s Equivalent sampling rates, giving users a more flexible option to process incoming signals. With fast waveform process capability, more advanced triggering functions, and 2.5Kg light-weight design, GDS-1000-U is a very capable oscilloscope to enhance users' returns on their investments in terms of price versus performance. GDS-1000-U is also viewed as a replacement of analog oscilloscope. With its good functionality and capability, GDS-1000-U can satisfy diversified educational demands as well as fulfill industrial basic requirements in servicing, maintenance, or production.

GDS-1000-U also provides great accessibility through its USB Host and Device ports. Via USB Device port, user can easily build a remote control program to manipulate the machine. Via USB Host port, user is capable of not only storing data directly into flash disk for further analysis but also activating data logging function to monitor waveform data in designated time sequence.

## Easy to use

Several acquisition mode and 19 auto measurement functions help user to measure the accurate property of waveforms. The advanced auto-set function makes GDS-1000-U Series catch waveform automatically and display waveform quickly. With arithmetic functions, FFT function keeps user being aware of the results by updating value immediately. Without almost extra-calculation GDS-1000-U Series can provide sufficient information of testing.

## USB Host & USB Device supported

A total of 15 waveforms could be saved into the internal memory for later recall and display, and 2 saved reference waveforms plus 2 live waveforms could be shown on the screen at the same time for comparison. USB Host mass storage and USB device port are supported, providing storage/transfer of measurement data and remote control for diversified solutions.

## Guaranteed Protection

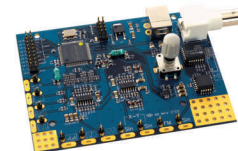
By providing the Global Lifetime Warranty Program for the GDS-1000A-U digital storage oscilloscope series, we believe you can have the same confidence we do in the quality of each GDS-1000-U DSO. By purchasing a GDS-1000-U you can be assured of a highly economical, low maintenance, quality DSO backed with the protection of the LifeTime Warranty program. For more details and applicable conditions regarding the LifeTime Service program, please visit the GW Instek or consult your nearest distributor.

## GDS-1000-U Series

### FEATURES

- 100/70/50 MHz Bandwidth, 2 Input Channels
- 250MSa/s Real-Time & 25GSa/s Equivalent-Time Sampling Rate
- 4k Record Length per Channel
- Save/Recall of 15 Front Panel Settings & Waveforms
- 5.7" Color TFT LCD Display
- 19 Auto Measurements
- Math Function: Add, Subtract, FFT
- USB Host & Device Ports
- Go/NoGo Function
- Data Logger
- Limited Lifetime Warranty

### GDB-02 Oscilloscope Education and Training Kit



### APPLICATIONS

- Laboratories and Educational Facilities
- Product Testing and Quality Assurance
- Service Operation and Post-Sales Support
- Product Development and Debugging

## SPECIFICATIONS

|                                         |                                                                                                                                                                                               | GDS-1052-U                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | GDS-1072-U                          | GDS-1102-U                             |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|----------------------------------------|
| VERTICAL                                | Channels<br>Bandwidth<br>Rise Time<br>Sensitivity<br>Accuracy<br>Input Coupling<br>Input Impedance<br>Polarity<br>Maximum Input<br>Waveform Signal Process<br>Offset Range<br>Bandwidth Limit | 2<br>DC~50MHz(−3dB)<br><7ns Approx.<br><br>2mV/div ~ 10V/div (1-2.5 increments)<br>± (3% x  Readout  + 0.1 div + 1mV)<br>AC, DC & Ground<br>1MΩ± 2%, ~15pF<br>Normal & Invert<br>300V (DC+AC peak), CATII<br>+ , − , FFT<br>2mV/div ~ 50mV/div : ±0.4V ; 10mV/div ~ 500mV/div : ±4V ; 1V/div ~ 5V/div : ±40V ; 10V/div: ±300V<br>20MHz (- 3dB )                                                                                                                                                        | 2<br>DC~70MHz(−3dB)<br><5ns Approx. | 2<br>DC~100MHz(−3dB)<br><3.5ns Approx. |
| TRIGGER                                 | Sources<br>Modes<br>Coupling<br>Sensitivity                                                                                                                                                   | CH1 , CH2 , Line , EXT<br>AUTO, NORMAL, SINGLE, TV, Edge, Pulse width<br>AC , DC , LF rej. , HF rej. , Noise rej.<br>DC ~ 25MHz: Approx. 0.5div or 5mV; 25MHz ~ 50/70/100MHz: Approx. 1.5div or 15mV                                                                                                                                                                                                                                                                                                   |                                     |                                        |
| EXT TRIGGER                             | Range<br>Sensitivity<br>Input Impedance<br>Maximum Input                                                                                                                                      | ±15V<br>DC ~ 25MHz : ~ 50mV ; 25M ~ 50/70/100MHz : ~15mV<br>1MΩ ±2% , ~ 16pF<br>300V (DC+AC peak) , CATII                                                                                                                                                                                                                                                                                                                                                                                              |                                     |                                        |
| HORIZONTAL                              | Range<br>Modes<br>Accuracy<br>Pre-Trigger<br>Post-Trigger                                                                                                                                     | 1ns/div ~ 50s/div (1-2.5-5 increments); ROLL : 50ms/div ~ 50s/div<br>MAIN, WINDOW, WINDOW ZOOM, ROLL, X-Y<br>±0.01%<br>10 div maximum<br>1000 div                                                                                                                                                                                                                                                                                                                                                      |                                     |                                        |
| X-Y MODE                                | X-Axis Input<br>Y-Axis Input<br>Phase Shift                                                                                                                                                   | Channel 1<br>Channel 2<br>±3° at 100kHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                     |                                        |
| SIGNAL ACQUISITION                      | Real-Time Sample Rate<br>Equivalent Sample Rate<br>Vertical Resolution<br>Record Length<br>Acquisition Mode<br>Peak Detection<br>Average                                                      | 250MSa/s maximum<br>25GSa/s maximum<br>8 Bits<br>4K Points maximum<br>Normal, Peak Detect, Average<br>10ns(500ns/div ~ 50s/div)<br>2 , 4 , 8 , 16 , 32 , 64 , 128 , 256                                                                                                                                                                                                                                                                                                                                |                                     |                                        |
| CURSORS AND MEASUREMENT                 | Voltage Measurement<br>Time Measurement<br>Cursors Measurement<br>Auto Counter                                                                                                                | V <sub>pp</sub> , V <sub>amp</sub> , V <sub>avg</sub> , V <sub>rms</sub> , V <sub>hi</sub> , V <sub>lo</sub> , V <sub>max</sub> , V <sub>min</sub> , Rise Preshoot/ Overshoot , Fall Preshoot/Overshoot<br>Freq , Period , Rise Time , Fall Time , Positive Width , Negative Width , Duty Cycle<br>Voltage difference between cursors (ΔV) Time difference between cursors (ΔT)<br>Resolution : 6 digits ; Accuracy : ±2%<br>Signal Source: All available trigger source except the Video trigger mode |                                     |                                        |
| ADJUSTABLE PROBE<br>COMPENSATION SIGNAL | Frequency Range<br>Duty Cycle Range                                                                                                                                                           | 1kHz ~ 100kHz, 1kHz/STEP<br>5% ~ 95%, 5%/STEP                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                     |                                        |
| CONTROL PANEL FUNCTION                  | Autoset<br>Save Setup<br>Save Waveform                                                                                                                                                        | Adjust Vertical VOLT/DIV, Horizontal TIME/DIV, and Trigger level automatically<br>Up to 15 sets of measurement conditions<br>15 sets of waveform                                                                                                                                                                                                                                                                                                                                                       |                                     |                                        |
| DISPLAY                                 | TFT LCD Type<br>Display Resolution<br>Display Graticule<br>Display Brightness                                                                                                                 | 5.7 inch<br>234 (Vertically) x 320 (Horizontally) Dots<br>8 x 10 divisions<br>Adjustable                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                        |
| INTERFACE                               | USB Device<br>USB Host                                                                                                                                                                        | USB1.1 & 2.0 full speed compatible<br>Image (BMP) waveform data (CSV) and setup (SET)                                                                                                                                                                                                                                                                                                                                                                                                                  |                                     |                                        |
| POWER SOURCE                            | Line Voltage Range                                                                                                                                                                            | AC 100V ~ 240V , 48Hz ~ 63Hz , Auto selection                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                     |                                        |
| MISCELLANEOUS                           | Go/NoGo Function<br>Data Logger<br>Multi-Language Menu<br>Online Help                                                                                                                         | Available<br>Available<br>Available<br>Available                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     |                                        |
| DIMENSIONS & WEIGHT                     | 310(W) × 142 (H) × 140(D)mm, Approx. 2.5kg                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                     |                                        |

Specifications subject to change without notice. GD-1000-UGD1DH

## ORDERING INFORMATION

GDS-1052-U 50MHz, 2-channel, Color LCD Display DSO  
GDS-1072-U 70MHz, 2-channel, Color LCD Display DSO  
GDS-1102-U 100MHz, 2-channel, Color LCD Display DSO

## ACCESSORIES

User Manual x 1, Power Cord x 1  
Probe-GTP-070A-4 : 70MHz(10:1/1:1)Switchable Passive Probe for GDS-1052-U(one per channel)  
Probe-GTP-070A-4 : 70MHz(10:1/1:1)Switchable Passive Probe for GDS-1072-U(one per channel)  
Probe-GTP-100A-4 : 100MHz(10:1/1:1)Switchable Passive Probe for GDS-1102-U(one per channel)

## OPTIONAL ACCESSORIES

GTL-242 USB Cable, USB 1.1 A-B TYPE CABLE, 4P  
GTL-110 Test Lead, BNC-BNC Heads  
GSC-006 Soft Carrying Case

## FREE DOWNLOAD

PC Software FreeWave software  
Driver USB driver  
LabView Driver

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