



**MemoryPrime** 2MEGA MEMORY BUILT-IN

GDS-1000A-U is a general purpose 2-channel oscilloscope designed to meet diversified educational demands and basic industrial requirements. This series provides bandwidths ranging from 70MHz to 150MHz. Together with intuitive human machine interface design and 5.7 inch color TFT LCD, GDS-1000A-U allows users to enjoy better measurement experiences.

GDS-1000A-U series offers dual sampling modes, 1GSa/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-1000A-U is a very capable oscilloscope to enhance users' returns on their investments in terms of price versus performance. GDS-1000A-U is also viewed as a replacement of analog oscilloscope. With its good functionality and capability, GDS-1000A-U can satisfy diversified educational demands as well as fulfill industrial basic requirements in servicing, maintenance, or production.

GDS-1000A-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 27 auto measurement functions help user to measure the accurate property of waveforms. The advanced auto-set function makes GDS-1000A-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-1000A-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-1000A-U DSO. By purchasing a GDS-1000A-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-1000A-U Series

### FEATURES

- 150/100/70 MHz Bandwidth, 2 Input Channels
- 1GSa/s Real-Time and 25GSa/s Equivalent-Time Sampling Rate
- 2Mega Point Record Length
- 2mV~10V Vertical Scale
- 1ns~50s Horizontal Range
- Up to 27 Auto Measurements
- Versatile Math Function: +, -, ×, /, FFT, FFTrms, Zoom FFT
- 5.7" Color TFT LCD Display
- 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-1072A-U	GDS-1102A-U	GDS-1152A-U
VERTICAL	Channels	2	2	2
	Bandwidth	DC~70MHz(-3dB)	DC~100MHz(-3dB)	DC~150MHz(-3dB)
VERTICAL	Rise Time	<5ns Approx.	<3.5ns Approx.	<2.3ns Approx.
	Sensitivity	2mV/div ~ 10V/div (1-2.5 increments)		
	Accuracy	± (3% x  Readout  + 0.1 div + 1mV)		
	Input Coupling	AC, DC & Ground		
	Input Impedance	1MΩ ± 2%, ~15pF		
	Polarity	Normal & Invert		
	Maximum Input	300V (DC+AC peak), CATII		
	Waveform Signal Process	+, -, x, FFT, FFTrms, Zoom FFT		
	Offset Range	2mV/div ~ 50mV/div : ±0.4V ; 100mV/div ~ 500mV/div : ±4V ; 1V/div ~ 5V/div : ±40V ; 10V/div : ±300V		
	Bandwidth Limit	20MHz (-3dB)		
TRIGGER	Source	CH1, CH2, Line, EXT		
TRIGGER	Mode	AUTO, NORMAL, SINGLE, TV, Edge, Pulse width		
	Coupling	AC, DC, LF rej., HF rej., Noise rej.		
EXT TRIGGER	Sensitivity	DC ~ 25MHz: Approx. 0.5div or 5mV; 25MHz ~ 70/100/150MHz: Approx. 1.5div or 15mV		
	Range	±15V		
HORIZONTAL	Sensitivity	DC ~ 25MHz : ~ 50mV ; 25MHz ~ 70/100/150MHz : ~15mV		
	Input Impedance	1MΩ ±2% , ~ 15pF		
	Maximum Input	300V (DC+AC peak) , CATII		
	Range	1ns/div ~ 50s/div (1-2.5-5 increments); ROLL : 50ms/div ~ 50s/div		
HORIZONTAL	Modes	MAIN, WINDOW, WINDOW ZOOM, ROLL, X-Y		
	Accuracy	±0.01%		
	Pre-Trigger	10 div maximum		
	Post-Trigger	1000 div		
X-Y MODE	X-Axis Input	Channel 1		
X-Y MODE	Y-Axis Input	Channel 2		
	Phase Shift	±3° at 100kHz		
SIGNAL ACQUISITION	Real-Time Sample Rate	1GSa/s maximum		
	Equivalent Sample Rate	25GSa/s maximum		
	Vertical Resolution	8 Bits		
	Record Length	2Mega Points maximum		
	Acquisition Mode	Normal, Peak Detect, Average		
	Peak Detection	10ns(500ns/div ~ 50s/div)		
	Average	2, 4, 8, 16, 32, 64, 128, 256		
CURSORS AND MEASUREMENT	Voltage Measurement	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		
	Time Measurement	Freq, Period, Rise Time, Fall Time, Positive Width, Negative Width, Duty Cycle		
	Delay Measurement	Eight different delay measurement		
	Cursors Measurement	Voltage difference between cursors(ΔV), Time difference between cursors(ΔT), frequency measurement(1/ΔT)		
	Auto Counter	Resolution : 6 digits Accuracy : ±2% Signal Source: All available trigger source except the Video trigger mode		
ADJUSTABLE PROBE COMPENSATION SIGNAL	Frequency Range	1kHz ~ 100kHz, 1kHz/STEP		
CONTROL PANEL FUNCTION	Duty Cycle Range	5% ~ 95%, 5%/STEP		
	Autoset	Adjust Vertical VOLT/DIV, Horizontal TIME/DIV, and Trigger level automatically		
DISPLAY	Save Setup	Up to 15 sets of measurement conditions		
	Save Waveform	15 sets of waveform		
	TFT LCD Type	5.7 inch		
INTERFACE	Display Resolution	234(Vertically)x 320 (Horizontally) Dots		
	Display Graticule	8 x 10 divisions		
	Display Brightness	Adjustable		
POWER SOURCE	USB Device	USB1.1 & 2.0 full speed compatible (PictBridge Compatibility Printers Supported)		
	USB Host	Image (BMP) waveform data (CSV) and setup (SET)		
MISCELLANEOUS	Line Voltage Range	AC 100V ~ 240V, 48Hz ~ 63Hz, Auto selection		
	Go/NoGo Function	Available		
DIMENSIONS & WEIGHT	Data Logger	Available		
	Multi-Language Menu	Available		
	Online Help	Available		
DIMENSIONS & WEIGHT		310(W) x 142 (H) x 140(D)mm, Approx. 2.5kg		

The specifications apply when the oscilloscope is powered on for at least 30 minutes under +20°C~+30°C.

Specifications subject to change without notice. DS-1000A-UGD1DH

### ORDERING INFORMATION

<b>GDS-1072A-U</b>	70MHz, 2 channel, 1GSa/s & 2Mega Memory DSO
<b>GDS-1102A-U</b>	100MHz, 2 channel, 1GSa/s & 2Mega Memory DSO
<b>GDS-1152A-U</b>	150MHz, 2 channel, 1GSa/s & 2Mega Memory DSO

### ACCESSORIES

User manual x1, Power cord x1  
 Probe GTP-070A-4 or equivalent:70MHz(10:1/1:1)Switchable passive probe for GDS-1072A-U(one per channel)  
 Probe GTP-100A-4 or equivalent:100MHz(10:1/1:1)Switchable passive probe for GDS-1102A-U(one per channel)  
 Probe GTP-150A-2 or equivalent:150MHz(10:1/1:1)Switchable passive probe for GDS-1152A-U(one per channel)

### OPTIONAL ASSESSORIES

**GTL-242** USB Cable, USB 2.0 Type A - Type B, 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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