

## 25MHz/40MHz/60MHz/100MHz DIGITAL STORAGE OSCILLOSCOPE



GDS-1000 Series is a general purpose 2-channel oscilloscope and originally designed to meet educational and industrial requirements without specializing in DSO features. This series provides four selective bandwidths of 25MHz, 40MHz, 60MHz, and 100MHz. Together with innovative human machine interface design plus an "A+" class 1\* TFT color LCD display without any defect pixel, users will enjoy better measurement experience!

GDS-1000 series offers dual sampling mode, giving users two options for 250MS/s Real-Time sampling or 25GS/s high-speed Equivalent sampling rate. What's more, with high-speed wave handling capability, more advanced triggering functions, and 2.5 kg light-weight design, it is a powerful functional oscilloscope with the best price than ever. Ultimately, GDS-1000 series is considered for the replacement of analog oscilloscope and further promoted as a personal DSO affordable to any situation such as each student in educational labs, service technicians, or industrial field needing big quantity.

Besides, the requirement of measuring data exchange and analysis is intergraded into the GDS-1000 series. The convenient PC standard interface is also available, such as USB interface and SD card socket. This two build-in standard interface capability enable the performance of remote control or data transferring to a desktop/laptop for documenting purpose and enhance your work efficiency.

### 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 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 series can provide sufficient information of testing.

### SD Card & USB Device supported

A total of 17 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. SD card mass storage and USB device port are supported, providing storage/transfer of measurement data and remote control for diversified solutions

\* Refer to the ISO 13406-2 classes I standard. Most manufacturers apply class II.

## GDS-1000 Series

### FEATURES

- 2 Channels, Full Bandwidth From 25MHz ~ 100MHz
- 250MSa/s Realtime Sampling Rate, 25GSa/s ET Sampling Rate
- 4k Memory Length Per Channel
- Peak Detect as Fast as 10ns
- Save/Recall of 15 Front Panel Settings & Waveforms
- "A+" Class 5.6" TFT Color Display Without any defect Pixel
- 6-Digit Realtime Frequency Counter
- SD Card & USB Device Supported

### 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

**GW INSTEK**

Made to Measure

SPECIFICATIONS					
		GDS-1022	GDS-1042	GDS-1062	GDS-1102
VERTICAL	Channels	2	2	2	2
	Bandwidth	DC~25MHz(-3dB)	DC~40MHz(-3dB)	DC~60MHz(-3dB)	DC~100MHz(-3dB)
VERTICAL	Rise Time	<14ns Approx.	<8.75ns Approx.	<5.8ns Approx.	<3.5ns Approx.
	Sensitivity	2mV/div ~ 5V/div (1-2.5 increments)			
	Accuracy	± (3% x  Readout  + 0.1 div + 1mV)			
	Input Coupling	AC, DC & Ground			
	Input Impedance	1MΩ ± 2%, ~16pF			
	Polarity	Normal & Invert			
	Maximum Input	300V (DC+AC peak), CATII			
	Waveform Signal Process	+, -, FFT			
	Offset Range	2mV/div ~ 50mV/div : ±0.4V ; 10mV/div ~ 500mV/div : ±4V ; 1V/div ~ 5V/div : ±40V			
	Bandwidth Limit	None		20MHz (-3dB)	
TRIGGER	Sources	CH1, CH2, Line, EXT			
TRIGGER	Modes	AUTO, NORMAL, SINGLE, TV, Edge, Pulse			
	Coupling	AC, DC, LF rej., HF rej., Noise rej.			
	Sensitivity	DC ~ 25MHz: Approx. 0.5div or 5mV; 25MHz ~ 40/60/100MHz: Approx. 1.5div or 15mV			
EXT TRIGGER	Range	±15V			
EXT TRIGGER	Sensitivity	DC ~ 25MHz : ~ 50mV ; 25M ~ 40/60/100MHz : ~100mV			
	Input Impedance	1MΩ ±2%, ~ 16pF			
	Maximum Input	300V (DC+AC peak), CATII			
HORIZONTAL	Range	1ns/div ~ 10s/div (1-2.5 increments); ROLL : 250ms/div ~ 10s/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	250MSa/s maximum		
SIGNAL ACQUISITION	Equivalent Sample Rate	25GSa/s maximum			
	Vertical Resolution	8 Bits			
	Record Length	4K Points maximum			
	Acquisition Mode	Normal, Peak Detect, Average			
	Peak Detection	10ns(500ns/div ~ 10s/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		
CURSORS AND MEASUREMENT	Time Measurement	Freq, Period, Rise Time, Fall Time, Positive Width, Negative Width, Duty Cycle			
	Cursors Measurement	Voltage difference between cursors (ΔV) Time difference between cursors (ΔT)			
	Auto Counter	Resolution : 6 digits ; Accuracy : ±2%			
		Signal Source: All available trigger source except the Video trigger mode			
CONTROL PANEL FUNCTION	Autoset	Adjust Vertical VOLT/DIV, Horizontal TIME/DIV, and Trigger level automatically			
CONTROL PANEL FUNCTION	Save Setup	Up to 15 sets of measurement conditions			
	Save Waveform	15 sets of waveform			
	DISPLAY	TFT LCD Type	5.6 inch		
DISPLAY	Display Resolution	234 (Vertically) x 320 (Horizontally) Dots			
	Display Graticule	8 x 10 divisions			
	Display Brightness	Adjustable			
INTERFACE	USB Device	USB1.1 & 2.0 full speed compatible (printers and flash disk not supported)			
INTERFACE	SD Card Slot	Image (BMP) waveform data (CSV) and setup (SET)			
	POWER SOURCE	Line Voltage Range	AC 100V ~ 240V, 48Hz ~ 63Hz, Auto selection		
MISCELLANEOUS	Multi-Language Menu	Available			
MISCELLANEOUS	Online Help	Available			
	DIMENSIONS & WEIGHT	310(W) x 142 (H) x 140(D)mm, Approx. 2.5kg			

Specifications subject to change without notice. DS-1000GD1DH

ORDERING INFORMATION	
GDS-1022 25MHz, 2-channel, Color LCD Display DSO	GDS-1062 60MHz, 2-channel, Color LCD Display DSO
GDS-1042 40MHz, 2-channel, Color LCD Display DSO	GDS-1102 100MHz, 2-channel, Color LCD Display DSO
ACCESSORIES :	
User manual x 1, Power cord x 1	
Probe-GTP-060A-4 : 60MHz ( 10 : 1/1 : 1 ) Switchable Passive Probe for GDS-1022/1042 (one per channel)	
Probe-GTP-060A-2 : 60MHz ( 10 : 1/1 : 1 ) Switchable Passive Probe for GDS-1062 (one per channel)	
Probe-GTP-100A : 100MHz ( 10 : 1/1 : 1 ) Switchable Passive Probe for GDS-1102 (one per channel)	
<b>Optional Accessories</b>	
GTL-242 USB Cable, USB 1.1 A-B TYPE CABLE, 4P	