GDS-1000B Series

CE | USB | PC Software | Labview Driver | Ethernet | PictBridge Compatible

FEATURES

- 200/100/70 MHz : 2 Channel models ; 100/70/50 MHz : 4 Channel models
- 1GSa/s Maximum Sampling Rate
- 10M Maximum Memory Depth For Each Channel
- 7" 800 x 480 WVGA LCD Display
- 256 Color Gradient Display Function to Strengthen Waveform Performance
- 1Mpts FFT Frequency Domain Signal Display
- I^2C/SPI/UART/CAN/LIN Serial Bus Trigger and Decoding Functions
- Zero Key Function For Horizontal Time, Vertical Voltage and Triggering

Front

Rear Panel

The GDS-1000B Series digital storage oscilloscopes equip with 200/100/70 MHz : 2 Channel models; 100/70/50 MHz : 4 Channel models, that provide entry level users with diversified selections. The maximum real time sampling rate can be up to 1GSa/s. The robust functional performance makes the economical oscilloscope more colorful and allows entry level users to sumptuously enjoy the fun and value brought by test and measurement which is precisely the emerging mission of the test and measurement industry that GW Instek works relentlessly to achieve.

10M memory depth for each channel yields exquisite measurement results and allows each retrieved waveform to successfully reveal the details of signal. Engineers are often baffled by failing to retrieve signal details when measuring basic electric circuit signals. Now, GDS-1000B series oscilloscopes, with 10M memory depth for each channel, are capable to uncover all signal details.

7" 800 x 480 WVGA LCD display and the 256 color gradient display function together allow the GDS-1000B Series to distinctly display waveform details in gradients while measuring fast changing analog signals. Additionally, 50,000wfms/s waveform update rate helps engineers clearly understand the gradients of signal variations and easily identify the problem of transient signal variations.

1Mpts FFT signal display makes the frequency domain display function more delicate. Engineers can clearly observe the distributed details of frequency domain signals. Smooth and rapid response can even better locate where the problems are originated. Powerful FFT function realizes high efficient spectrum analysis measurement which is indispensable for technology and education arenas.

The GDS-1000B series provides serial bus analysis function with 10M long memory depth. Users can trigger, decode, and analyze frequently used I^2C, SPI and UART serial bus and CAN/LIN bus, which is often used by automotive communications.

The GDS-1000B Series oscilloscopes provide the zero key function for vertical voltage scale adjustment, horizontal time scale adjustment and trigger level adjustment. When processing complicate waveform adjustment and observation, engineers often require the zero key function to start a new measurement, adjust waveform or reset trigger level. The zero key function can reduce time in turning control knobs that is a great benefit for engineers.

APPLICATIONS

- Educational Market - General Purpose Instruction

- Industrial Sector - Fundamental R&D Measurement Applications

GWINSTEK

Simply Reliable

SPECIFICATIONS

		GDS-1054B	GDS-1072B	GDS-1074B	GDS-1102B	GDS-1104B	GDS-1202B
VERTICAL	**Channels**	4	2 + Ext	4	2 + Ext	4	2 + Ext
	Bandwidth	DC~50MHz (-3dB)	DC~70MHz (-3dB)	DC~70MHz (-3dB)	DC~100MHz (-3dB)	DC~100MHz (-3dB)	DC~200MHz (-3dB)
	Rise Time	7ns	5ns	5ns	3.5ns	3.5ns	1.75ns
	Bandwidth Limit	20MHz	20MHz	20MHz	20MHz	20MHz	20MHz
	Vertical Sensitivity Resolution	8 bit : 1mV~10V/div					
	Input Coupling	AC, DC, GND					
	Input Impedance	1MΩ // 16pF approx.					
	DC Gain Accuracy*	±3%					
	Polarity	Normal & Invert					
	Maximum Input Voltage	300Vrms, CAT I (300Vrms CAT II with GTP-070B- 4/100B-4 10:1 probe)					
	Offset Position Range	1mV/div : ±1.25V ; 2mV/div ~ 100mV/div : ±2.5V ; 200mV/div ~ 10V/div : ±125V					
	Waveform Signal Process	+,-, ×, ÷, FFT, FFTrms, User Defined Expression ; FFT: 1Mpts; FFT: Spectral magnitude. Set FFT Vertical Scale to Linear RMS or dBV RMS ; FFT Window Display : Rectangular, Hamming, Handing, or Blackman-Harris					
TRIGGER	**Source**	CH1, CH2, CH3*, CH4*, Line, EXT** ; *four channel models only. ; **two channel models only					
	Trigger Mode	Auto (supports Roll Mode for 100 ms/div and slower), Normal, Single Sequence					
	Trigger Type	Edge, Pulse Width, Video, Pulse Runt, Rise & Fall, Timeout, Alternate, Event-Delay(1~65535 events), Time-Delay(Duration, 4nS~10S)					
	Holdoff range	4ns to 10s					
	Coupling	AC, DC, LF rej., Hf rej., Noise rej.					
	Sensitivity	1div					
EXTERNAL TRIGGER	**Range**	±15V					
	Sensitivity	DC ~ 100MHz Approx. 100mV ; 100MHz ~ 200MHz Approx. 150mV					
	Input Impedance	1MΩ±3%~16pF					
HORIZONTAL	**Time base Range**	5ns/div ~ 100s/div (1-2-5 increments)					
	ROLL	100ms/div ~ 100s/div					
	Pre-trigger	10 div maximum					
	Post-trigger	2,000,000 div maximum					
	Timebase Accuracy	±50 ppm over any ≥1 ms time interval					
	Real Time Sample Rate	1GSa/s max.					
	Record Length	Max. 10Mpts					
	Acquisition Mode	Normal, Average, Peak Detect, Single					
	Peak Detection	2nS (typical)					
	Average	selectable from 2 to 256					
X-Y MODE	**X-Axis Input**	Channel 1; Channel 3*(*four channel models only)					
	Y-Axis Input	Channel 2; Channel 4*(*four channel models only)					
	Phase Shift	±3° at 100kHz					
CURSORS AND MEASUREMENT	**Cursors**	Amplitude, Time, Gating available; Unit : Seconds(s), Hz(1/s), Phase(degree), Ration(%)					
	Automatic Measurement	36 sets: Pk-Pk, Max, Min, Amplitude, High, Low, Mean, Cycle Mean, RMS, Cycle RMS, Area, Cycle Area, ROVShoot, FOVShoot, RPREShoot, FPREShoot, Frequency, Period, RiseTime, FallTime, +Width, -Width, Duty Cycle, +Pulses, -Pulses, +Edges, -Edges, FRR, FRF, FFR, FFF, LRR, LRF, LFR, LFF, Phase					
	Cursors Measurement	Voltage difference between cursors (△V) Time ; difference between cursors (△T)					
	Auto Counter	6 digits, range from 2Hz minimum to the rated bandwidth					
CONTROL PANEL FUNCTION	**Autoset**	Single-button, automatic setup of all channels for vertical, horizontal and trigger systems, with undo Autoset					
	Save Setup	20set					
	Save Waveform	24set					
DISPLAY	**TFT LCD Type**	7" TFT WVGA color display					
	Display Resolution	800 horizontal × 480 vertical pixels (WVGA)					
	Interpolation	Sin(x)/x					
	Waveform Display	Dots, vectors, variable persistence (16ms~4s), infinite persistence					
	Waveform Update Rate	50,000 waveforms per second, maximum					
	Display Graticule	8 x 10 divisions					
	Display Mode	YT, XY					
INTERFACE	**USB Port**	USB 2.0 High-speed host port x1, USB High-speed 2.0 device port x1					
	Ethernet Port(LAN)	RJ-45 connector, 10/100Mbps with HP Auto-MDIX (Only for 4 channel models.)					
	Go-NoGo BNC	5V Max/10mA TTL open collector output					
	Kensington Style Lock	Rear-panel security slot connects to standard kensington-style lock					
POWER SOURCE		AC 100V ~ 240V , 50Hz ~ 60Hz , Auto selection , Power consumption: 30 Watts					
MISCELLANEOUS	**Multi-Language Menu**	Available					
	Operation Environment	Temperature : 0°C ~ 50°C. Relative Humidity ≤80% at 40°C or below; ≤ 45% at 41°C ~ 50°C					
	Online Help	Available					
DIMENSIONS & WEIGHT		380(W) × 208 (H) × 127.3(D)mm, Approx. 2.8kg					

The specifications apply when the GDS-1000B is powered on for at least 30 minutes under +20°C~+30°C .　　　Specifications subject to change without notice.　DS-1000BGD2DH

ORDERING INFORMATION

GDS-1202B	200MHz, 2 channels, Digital Storage Oscilloscope
GDS-1104B	100MHz, 4 channels, Digital Storage Oscilloscope
GDS-1102B	100MHz, 2 channels, Digital Storage Oscilloscope
GDS-1074B	70MHz, 4 channels, Digital Storage Oscilloscope
GDS-1072B	70MHz, 2 channels, Digital Storage Oscilloscope
GDS-1054B	50MHz, 4 channels, Digital Storage Oscilloscope

ACCESSORIES

User manual x1, Power cord x1
GTP-200B-4　200MHz Passive Probe. Suitable for GDS-1202B
GTP-100B-4　100MHz Passive Probe. Suitable for GDS-1104B, GDS-1102B
GTP-070B-4　70MHz Passive Probe.Suitable for GDS-1074B,GDS-1072B,GDS-1054B

OPTIONAL ASSESSORIES

GDB-03	Demo Board
GTL-110	Test lead, BNC to BNC heads
GTL-246	USB cable, USB 2.0 A-B type cable 4P, 1200mm
GRA-426	Rack Mount Kit
GSC-008	Soft carrying case
GDP-025	25MHz High voltage differential probe
GDP-050	50MHz High voltage differential probe
GDP-100	100MHz High voltage differential probe

FREE DOWNLOAD

Software	OpenWave Software
Driver	USB Driver ; LabView Driver

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