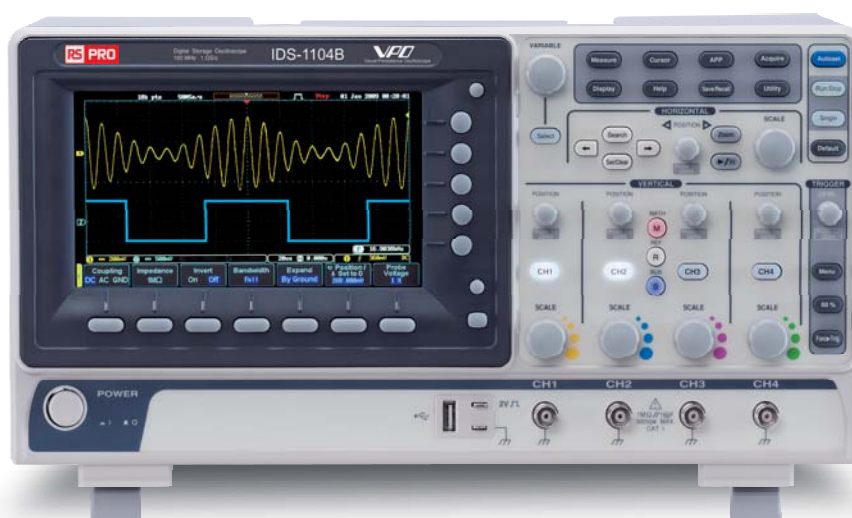# Datasheet
100MHz/70MHz/50MHz Digital Storage Oscilloscope

Stock No. : **Model :**

| 123-3543 | IDS-1104B | 123-3544 | IDS-1074B | 123-3540 | IDS-1054B |
| 123-3542 | IDS-1102B | 123-3541 | IDS-1072B | | |

CE USB PC Software Labview Driver Ethernet PictBridge Compatible

FEATURES

- 100/70/50MHz Bandwidth Selections, 4ch Input

- 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

- Zero Key Function For Horizontal Time, Vertical Voltage and Triggering

- Compact And Innovative Exterior Design

The brand new IDS-1000B Series digital storage oscilloscopes equip with 100MHz ,70MHz and 50MHz bandwidth, 2 or 4 analog input channels (50MHz, 4 channels input only)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, IDS-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 IDS-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 IDS-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**

RS PRO

SPECIFICATIONS

		IDS-1054B	IDS-1072B	IDS-1074B	IDS-1102B	IDS-1104B
VERTICAL	**Channels** **Bandwidth** **Rise Time** **Bandwidth Limit**	4 DC~50MHz(-3dB) 7ns 20MHz	2 + Ext DC~70MHz(-3dB) 5ns 20MHz	4 DC~70MHz(-3dB) 5ns 20MHz	2 + Ext DC~100MHz(-3dB) 3.5ns 20MHz	4 DC~100MHz(-3dB) 3.5ns 20MHz
	Vertical Sensitivity Resolution **Input Coupling** **Input Impedance** **DC Gain Accuracy*** **Polarity** **Maximum Input Voltage** **Offset Position Range** **Waveform Signal Process**	8 bit : 1mV~10V/div AC, DC, GND 1MΩ // 16pF approx. ±3% Normal & Invert 300Vrms, CAT I (300Vrms CAT II with GTP-101A-2 10:1 probe) 1mV/div : ±1.25V ; 2mV/div ~ 100mV/div : ±2.5V ; 200mV/div ~ 10V/div : ±125V +,-, ×, ÷, 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** **Trigger Mode** **Trigger Type** **Holdoff range** **Coupling** **Sensitivity**	CH1, CH2, CH3*, CH4*, Line, EXT** ; *four channel models only. ; **two channel models only Auto (supports Roll Mode for 100 ms/div and slower), Normal, Single Sequence Edge, Pulse Width, Video, Pulse Runt, Rise & Fall, Timeout, Alternate, Event-Delay(1~65535 events), Time-Delay (Duration, 4nS~10S), Bus 4ns to 10s AC, DC, LF rej., Hf rej., Noise rej. 1div				
EXTERNAL TRIGGER	**Range** **Sensitivity** **Input Impedance**	±15V DC ~ 100MHz Approx. 100mV ; 100MHz ~ 200MHz Approx. 150mV 1MΩ±3%~16pF				
HORIZONTAL	**Time base Range** **ROLL** **Pre-trigger** **Post-trigger** **Timebase Accuracy** **Real Time Sample Rate** **Record Length** **Acquisition Mode** **Peak Detection** **Average**	5ns/div ~ 100s/div (1-2-5 increments) 100ms/div ~ 100s/div 10 div maximum 2,000,000 div maximum ±50 ppm over any ≥1 ms time interval 1GSa/s max. Max. 10Mpts Normal, Average, Peak Detect, Single 2nS (typical) selectable from 2 to 256				
X-Y MODE	**X-Axis Input** **Y-Axis Input** **Phase Shift**	Channel 1; Channel 3*(*four channel models only) Channel 2; Channel 4*(*four channel models only) ±3° at 100kHz				
CURSORS AND MEASUREMENT	**Cursors** **Automatic Measurement** **Cursors Measurement** **Auto Counter**	Amplitude, Time, Gating available; Unit : Seconds(s), Hz(1/s), Phase(degree), Ration(%) 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 Voltage difference between cursors (△V) Time ; difference between cursors (△T) 6 digits, range from 2Hz minimum to the rated bandwidth				
CONTROL PANEL FUNCTION	**Autoset** **Save Setup** **Save Waveform**	Single-button, automatic setup of all channels for vertical, horizontal and trigger systems, with undo Autoset 20set 24set				
DISPLAY	**TFT LCD Type** **Display Resolution** **Interpolation** **Waveform Display** **Waveform Update Rate** **Display Graticule** **Display Mode**	7" TFT WVGA color display 800 horizontal × 480 vertical pixels (WVGA) Sin(x)/x Dots, vectors, variable persistence (16ms~4s), infinite persistence 50,000 waveforms per second, maximum 8 x 10 divisions YT, XY				
INTERFACE	**USB Port** **Ethernet Port(LAN)** **Go-NoGo BNC** **Kensington Style Lock**	USB 2.0 High-speed host port x1, USB High-speed 2.0 device port x1 RJ-45 connector, 10/100Mbps with HP Auto-MDIX (Only for the GDS-1074B, GDS-1104B.) 5V Max/10mA TTL open collector output 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** **Operation Environment** **Online Help**	Available Temperature : 0°C ~ 50°C. Relative Humidity ≤80% at 40°C or below; ≤ 45% at 41°C ~ 50°C 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.

ORDERING INFORMATION

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

ACCESSORIES

User manual x1, Power cord x1

GTP-101A-2 100MHz Passive Probe, 10:1, Suitable for IDS-1000B full series.

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

FREE DOWNLOAD

Software	OpenWave Software
Driver	USB Driver ; LabView Driver