

# 200MHz/100MHz/60MHz DIGITAL STORAGE OSCILLOSCOPE



## GDS-2000 Series (200/100/60 MHz)

**NEW**



## FEATURES

- \* 200/100/60 MHz Bandwidth
- \* 2 or 4 Input Channels
- \* 1GSa/s Real-Time and 25GSa/s Equivalent-Time Sampling
- \* 25k Points Record Length Maximum
- \* Large 5.6-in TFT Color Display
- \* USB Host/Device: Support USB Printer and USB Flash Drive
- \* Battery Operation (optional)
- \* Color Printout

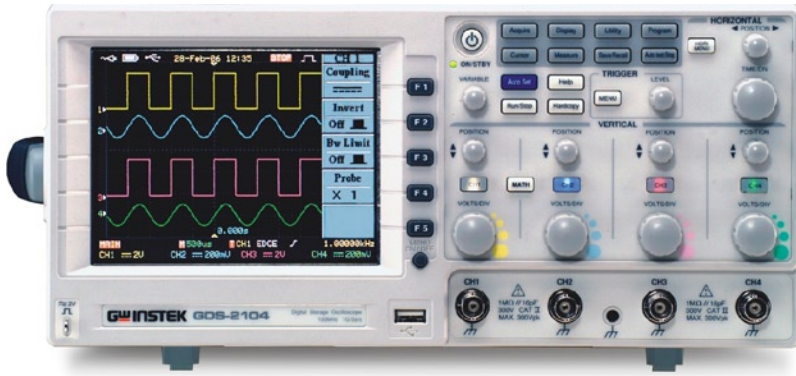
The GDS-2000 Series Digital Storage Oscilloscope comes along with All-In-One design, including 1GSa/s real-time sampling rate, 25k record length, 2 and 4 channel selection, TFT color LCD display, USB support on flash drive storage, color printout, and remote control, Battery power operation and all the powerful Auto-Measurement functions.

The GDS-2000 Series, carrying bandwidths of 200MHz, 100MHz and 60MHz and inputs of 2 and 4 channels, makes up a family of 6 members in total. The combination of 1GSa/s real-time sampling rate (25GSa/s for ET sampling) and 25k points record length of GDS-2000 Series provides the highest value platform among all equivalent products available in the market today. The 27 Auto Measurement functions, FFT measurement, Advanced Triggering, 12 Division Horizontal Display, Time Clock, Frequency Counter, Go/NoGo, Multi-Language Screen Menu, On-Line Help, and Setup Sequence are all standard features of GDS-2000 Series.

The USB mass storage and programmability, the RS-232C and USB interface included as standard features, and the battery power operation (optional) available for field applications all together make GDS-2000 Series a new standard for the main stream DSO market.

## SPECIFICATIONS

	GDS-2062/2064	GDS-2102/2104	GDS-2202/2204
<b>VERTICAL</b>			
Channels	2/4	2/4	2/4
Bandwidth	DC ~ 60MHz (−3dB)	DC ~ 100MHz (−3dB)	DC ~ 200MHz (−3dB)
Rise Time	5.8ns Approx.	3.5ns Approx.	1.75ns Approx.
Sensitivity	2mV/div ~ 5V/div (1-2.5 increments)		
Accuracy	± (3% x  Readout  + 0.05 div x Volts/div + 0.8mV)		
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 ~ 20mV/div : ±0.5V ; 50mV/div ~ 200mV/div : ±5V 500mV/div ~ 2V/div : ±50V ; 5V/div : ±300V		
Bandwidth Limit	20MHz (−3dB)		
<b>TRIGGER</b>			
Sources	CH1, CH2, Line, EXT for GDS-2062, GDS-2102, GDS-2202 CH1, CH2, CH3, CH4, Line for GDS-2064, GDS-2104, GDS-2204		
Modes	Auto-Level, AUTO, NORMAL, SINGLE, TV, Edge, Pulse Width Time-delay (for 2CH model only), Event-delay (for 2CH model only)		
Coupling	AC, DC, LF rej., HF rej., Noise rej.		
Sensitivity	DC ~ 25MHz : Approx. 0.5div or 5mV 25MHz ~ 60/100/200MHz : Approx. 1div or 10mV		
<b>EXT TRIGGER (2CH Only)</b>			
Range	±15V		
Sensitivity	DC ~ 30MHz : ~ 50mV ; 30M ~ 60/100/200MHz : ~100mV		
Input Impedance	1MΩ ±2%, ~ 16pF		
Maximum Input	300V (DC+AC peak), CATII		
<b>HORIZONTAL</b>			
Range	1ns/div ~ 10s/div (1-2.5 increments); ROLL : 250ms/div ~ 10s/div		
Modes	MAIN, WINDOW, WINDOW ZOOM, ROLL, SCAN, X-Y		
Accuracy	±0.01%		
Pre-Trigger	20 div maximum		
Post-Trigger	1000 div		
<b>X-Y MODE</b>			
X-Axis Input	Channel 1		
Y-Axis Input	Channel 2		
Phase Shift	±3° at 100kHz		
<b>SIGNAL ACQUISITION</b>			
Real-Time Sample Rate	1GSa/s maximum		
Equivalent Sample Rate	25GSa/s maximum		
Vertical Resolution	8 Bits		
Record Length	25K Points maximum		
Acquisition Mode	Normal, Peak Detect, Average		
Peak Detection	10ns		
Average	2, 4, 8, 16, 32, 64, 128, 256		
<b>CURSORS AND MEASUREMENT</b>			
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)		
Auto Counter	Resolution : 6 digits Accuracy : ±2% Signal Source: All available trigger source except the Video trigger mode		
<b>CONTROL PANEL FUNCTION</b>			
Autoset	Adjust Vertical VOLT/DIV, Horizontal TIME/DIV, and Trigger level automatically		
Save Setup	Up to 20 sets of measurement conditions		
Save Waveform	24 sets of waveform		



**GDS-2000 Series**

**Rear Panel**



SPECIFICATIONS	
<b>DISPLAY</b>	
TFT LCD Type	5.6 inch
Display Resolution	234 (Vertically) x 320 (Horizontally) Dots
Display Graticule	8 x 10 divisions ; 8 x 12 divisions (menu off)
Display Brightness	Adjustable
<b>INTERFACE</b>	
Go/NoGo Output	5V Maximum/10mA TTL Open Collector Output
RS-232 Interface	DB 9-pin male DTE RS-232 interface
GPIB Interface (Option)	Fully programmable with IEEE 488.2 compliance
USB	USB Host/Device 2.0 full speed supported
<b>POWER SOURCE</b>	
Line Voltage Range	AC 100V ~ 240V , 48Hz ~ 63Hz , Auto selection
Battery Power(Option)	Battery : 11.1V Li-Ion battery pack Charge Time : 8 hours (Power ON) Operating Time : 3 hours , depending on operating condition
<b>MISCELLANEOUS</b>	
Multi-Language Menu	Available
Online Help	Available
Time Clock	Time and Date, Provide the Date/Time for saved data
<b>ACCESSORIES</b>	
Probe-GTP-060A:60MHz x10/x1 Switchable Passive Probe for GDS-2062/2064	
Probe-GTP-100A:100MHz x10/x1 Switchable Passive Probe for GDS-2102/2104	
Probe-GTP-250A:250MHz x10/x1 Switchable Passive Probe for GDS-2202/2204	
User manual	
Power cord	
<b>DIMENSIONS &amp; WEIGHT</b>	
310(W) x 142 (H) x 254(D)mm, Approx. 4.3kg	

ORDERING INFORMATION	
<b>GDS-2062</b> 60MHz, 2-channel, Color LCD Display DSO	
<b>GDS-2064</b> 60MHz, 4-channel, Color LCD Display DSO	
<b>GDS-2102</b> 100MHz, 2-channel, Color LCD Display DSO	
<b>GDS-2104</b> 100MHz, 4-channel, Color LCD Display DSO	
<b>GDS-2202</b> 200MHz, 2-channel, Color LCD Display DSO	
<b>GDS-2204</b> 200MHz, 4-channel, Color LCD Display DSO	
<b>Option</b>	
Opt. 01: GPIB Interface	
Opt. 02: Battery power operation	
( Factory installed, include additional DC Power & Battery charger circuits and Li-Ion Battery pack x 2 )	
<b>Optional Accessories</b>	
<b>GRA-405</b> Rack Mounting, 19" 4U Type	
<b>GSC-005</b> Soft Carrying Case	
<b>GTC-001</b> Instrument Cart, 450(W) x 430(D) mm (120V Input Socket)	
<b>GTC-002</b> Instrument Cart, 330(W) x 430(D) mm (120V Input Socket)	
<b>GTL-232</b> RS-232C Cable, 9-pin Female to 9-pin Female, Null Modem for Computer, 2000mm	
<b>GTL-242</b> USB Cable, USB 1.1 A-B TYPE CABLE, 4P, 1800mm	

**GRA-405 Rack Adapter Panel**

Rack Mounting (19", 4U)



**GSC-005 Soft Carrying Case**



**Li-Ion Battery Pack**

