## **Digital Storage Oscilloscope**

# CE



### **New Bench-Mark of Mainstream DSO**

**GDS-820/GDS-840** series DSO, at 150MHz/ 250MHz bandwidth with color or Mono LCD display, are designed and built to meet the demands of a modern DSO in the main stream market today. The unmatched performance, user-friendly design and versatile interface make GDS-820/840 a very useful equipment for most of the applications in various fields.

#### **Superior DSO Performance**

With Equivalent TimeSampling Technique, GDS-820/840 series perform up to 25G S/s sampling capability and provide high resolution of 40ps for repetitive waveforms. Comparing with 1GS/s and 2GS/s sampling DSOs, GDS-820/840 gives higher or equal sampling rate and longer record length of a transient signal at the same time-base because of its 125K long memory. Furthermore, this series offer an alternative to view the signal with 12 horizontal divisions, which matches long memory applications! GDS-820/840 advanced trigger functions, such as Pulse Width, TV Line, Event-Delay, and Time-Delay, offer a very strong trigger capability that could only be found in a high-end DSO!

#### **Valued Plus Features**

The FFT function converts a captured waveform from time domain into frequency domain. The Go-No Go function gives an instant view of the performance of a DUT or provides an easy way to baby-sit the abnormal event of a signal. The Learn Mode and Auto Setup Sequence function let the user complete his ATE test procedures without software programming. With almost everything you could expect from a DSO, GDS-820/840 provides you with the best solution for waveform measurements at a surprisingly affordable price.

#### **User-friendly Design**

The straightforward operation of GDS-820/840 lets the user get started with DSO measurements right after the power-on! The Auto-Set function enables the DSO to automatically adjust the set-up and display the waveform in a proper way! The on-screen Help Manu tells you the operation information you need. Besides, 15 auto measurement functions of GDS-820/840 give you direct readouts of most of the frequently measured parameters!

#### **Versatile Interface**

GDS-820/840 series (except GDS-820) provide various kinds of interface including USB,RS-232C and Printer Port as standard, and GPIB as optional. With USB and software, you can quickly send the signal from DSO to PC within a very short time. This enables the nearly synchronous waveform displays on both the DSO and the PC screen.

## GDS-820,GDS-820S,GDS-820C GDS-840S,GDS-840C

#### **Features**

- 150MHz/250MHz Bandwidth With Either Color or Monochrome LCD Display
- 125K Long Memory and 12 Division Horizontal Display
- 25GS/s Sampling Rate for Repetitive Waveforms
- Advanced Trigger : Pulse Width , TV Line, Event Delay and Time Delay
- Go-No Go, Learn Mode and Auto Setup Sequence
- 15 Automatic Measurements
- FFT Function
- Built-In Help Menu, Multi-Language and PC Software
- Standard Interface: USB, RS-232C, Printer Port, Option: GPIB

#### Applications

- \* Education Lab and Training Institution
- \* Production Test and Quality Inspection
- \* Repair and After-Service
- \* Circuit Design and Debug

## 150MHz



GDS-820 Mono Display W/O Interface



**GDS-820S** Mono Display



**GDS-820C** Color Display

250MHz





GDS-840S Mono Display

**GDS-840C** Color Display



GDS-800Series

Specifications						
		GDS-820	GDS-820S	GDS-820C	GDS-840S	GDS-840C
	Display Device	Mono (320*240) 5.7 inch LCD	Mono (320*240) 5.7 inch LCD	Color (320*240) 5.7 inch LCD	Mono (320*240) 5.7 inch LCD	Color (320*240) 5.7 inch LCD
DISPLAY SYSTEM	Display Contrast Waveform Display Graticule Display Mode	Adjustable 8× 10 divisions (8 x 12 div, when menu off) Dot, Vector, Accumulate				
	Bandwidth	150MHz(-3dB) 250MHz(-3dB)				
VERTICAL	Channels Vertical Resolution Vertical Sensitivity Vertical Accuracy	2 8-Bit 2mV/div ~ 5V/div ± 3%				
	Rise Time	<2.3ns <1.4ns				
SYSTEM	Input Coupling Input Impedance Polarity Maximum Voltage Between Signal & Common at Input BNC Waveform Signal Process Offset Range BW Limit	$\begin{array}{l} \text{MO} \pm 2\%, ~22\text{pF} \\ \text{Positive \& Negative} \\ 300V (DC+AC peak) \\ \times CATII \\ \hline CH1+CH2 \\ \times CH1-CH2 \\ \times FFT \\ 2mV/div \\ \times 50mV/div \\ \div 10.5V; 100mV/div \\ \sim 500mV/div \\ \div 5V; 1V/div \\ \sim 5V/div \\ \div 50V \\ 20MHz (-3dB) \end{array}$				
HORIZONTAL SYSTEM	Time Base Range Time Base Mode Time Base Accuracy Delay Range	1ns/div to 10s/div         Main 、 Window 、 Window Zoom 、 Roll 、 X-Y         ± 0.01%         Pre-trigger : 20 div maximum; Post-trigger : 1000 div				
SIGNAL ACQUISITION SYSTEM	Real-Time Sample Rate Equivalent Sample Rate Record Length Peak Detection Acquisition Mode Average	100MS/s maximum on each channel 25GS/s E.T. maximum on each channel 125k/CH 10ns (500ns/div ~ 10s/div) Sample × Peak Detect × Average 2 × 4 × 8 × 16 ×256				
TRIGGER	Trigger Source Mode Coupling	CH1, CH2, Line, Ext         Auto Level \ Auto \ Normal \ Single \ TV \ Time Delay \ Event Delay \ Edge \ Pulse Width         AC, DC, HF, LF, Noise Reject         DC~25MHz : Approx 0.35div or 3.5mV         25MHz~150MHz : Approx 1.5div or 10mV    DC~25MHz : Approx 1.5div or 10mV				
	Sensitivity					
X-Y MODE	X-Axis Input / Y-Axis Input Phase Shift	Channel 1 / Channel 2 <sup>±</sup> 3° at 100kHz				
CURSOR & MEASUREMENT	Auto Voltage Measurement Auto Time Measurement Cursor Measurement	$ \begin{array}{ c c c c c c } V_{pp} & V_{am} & p' & V_{am} & v_{hi} & V_{hi} & V_{hi} & V_{mai} \\ Freq, Period, Rise Time, Fall Time, Positive Width, Negative Width, Duty Cycle \\ Voltage difference between cursors (\Delta V) Time difference between cursors (\Delta T) \\ Frequency different between cursors (1/\Delta T) \\ \end{array} $				
FREQUENCY COUNTER	Readout Resolution Accuracy Frequency Range Signal Source	6 digits <sup>+</sup> 50 ppm (all frequency reference errors are included) & 1 count errors AC Coupled, 10Hz minimum to rated bandwidth All available trigger source except the Pulse Width & Video Trigger mode				
EXTERNAL TRIGGER	Range Sensitivity	<u>+</u> 15V DC~30MHz : ~50mV <sup>,</sup> 30~150MHz : ~100mV DC~30MHz : ~50mV <sup>,</sup> 30~150MHz : ~100mV				
	Input Impedance Maximum Input	150MHz~250MHz:~150mV 1MΩ ±2%, ~22pF 300V (DC+AC peak) , CATII				
CONTROL PANEL FUNCTION	AutoSet Save/Recall Waveform Trace Save/Recall	"Autoset" can adjust vertical (Volt/div) · Horizontal (Sec/div) and Trigger level automatically Up to 15 sets of measurement conditions can be saved and recalled 2 sets of waveform can be saved and recalled				
INTERFACE	USB RS-232C Printer Port GPIB	NA NA NA NA	Standard Standard Standard Option			
POWER SOURCE		100V ~ 240V AC 48Hz ~63Hz, Auto selection				
ACCESSORIES		Instruction manual x 1 , power cord x 1 , probe x 1				
DIMENSIONS & WEIGHT		254D x 142H x 310W (mm), Approx. 4.1kg				

Ordering Information

Standard Accessories Probes-

GTP-150A-2 : 150MHz x10/x1 Switchable Passive Probes for GDS-820Series GTP-250A-2 : 250MHz x10/x1 Switchable Passive Probes for GDS-840Series Manual Power cord Option-Opt. 01- GPIB Interface Module Opt. 02- RS-232C Cable, 9-pin Female to 9-Pin Female, Null Modem, for Computers

ISO-9001 & ISO-14001 CERTIFIED MANUFACTURER



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Specifications subject to change without notice.

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