

# Digital Oscilloscopes

**GW INSTEK**



## GDS-2000 Series

- 200/100/60MHz Bandwidth.
- 2 or 4 Input Channels.
- 1GSa/s Real Time and 25GSa/s Equivalent Time Sampling.
- Maximum 25k Points Record Length.
- High Brightness 5.6" TFT Colour Display.
- USB Memory Stick Data Storage.

		GDS-2062	GDS-2064	GDS-2102	GDS-2104	GDS-2202	GDS-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		3.5ns		1.75ns	
	Sensitivity	2mV/div ~ 5V/div (1-2-5 increments)					
	Accuracy	$\pm(3\% \times  \text{Readout}  + 0.05 \text{ div} \times \text{Volts/div} + 0.8\text{mV})$					
	Input Coupling	AC, DC & Ground					
	Input Impedance	1M $\Omega$ $\pm$ 2%, 16pF					
	Polarity	Normal & Invert					
	Maximum Input	300V (DC + AC Peak), CATII					
	Waveform Operators	+, -, FFT					
Offset Range	2mV/div ~ 20mV/div: $\pm 0.5\text{V}$ ; 50mV/div ~ 200mV/div: $\pm 5\text{V}$ ; 500mV/div ~ 2V/div: $\pm 50\text{V}$ ; 5V/div: $\pm 300\text{V}$						
Bandwidth Limit	20MHz (-3dB)						
<b>Trigger</b>	Sources	CH1, CH2, Line, EXT (2CH Models), CH3, CH4 (4CH Models)					
	Modes	AUTO, NORMAL, SINGLE, TV, Auto-Level, Edge, Pulse Width Time-Delay (2CH Models), Event-Delay (2CH Models)					
	Coupling Types	AC, DC, LF Rej, HF Rej, Noise Rej					
	Coupling Sensitivity	$\leq 25\text{MHz}$ : $\leq 0.5\text{div}$ or 5mV $> 25\text{MHz}$ : $\leq 1\text{div}$ or 10mV					
<b>EXT Trigger</b>	Range	$\pm 15\text{V}$					
	Sensitivity	$\leq 30\text{MHz}$ : $< 50\text{mV}$ ; $> 30\text{MHz}$ : $< 100\text{mV}$					
	Input Impedance	1M $\Omega$ $\pm 2\%$ , $\sim 16\text{pF}$					
	MAX 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	$\pm 0.01\%$					
	Pre-Trigger	20 div Maximum					
	Post-Trigger	1000 div					
<b>X-Y Mode</b>	X-Axis Input	CH 1					
	Y-Axis Input	CH 2					
	Phase Shift	$\pm 3^\circ$ at 100kHz					

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<b>Signal Acquisition</b>	Real Time Sample Rate	1GSa/s max					
	Equivalent Sample Rate	25GSa/s E.T. max					
	Vertical Resolution	8 Bits					
	Record Length	25kPts max					
	Acquisition Mode	Sample, Peak Detect, Average, Accumulate					
	Peak Detection	10ns					
	Average	2, 4, 8, 16, 32, 64, 128, 256 Averages					
<b>Cursors &amp; Measurement</b>	Voltage Functions	Vpp, Vamp, Vavg, Vrms, Vhi, Vlo, Vmax, Vmin, Rise Preshoot/Overshoot, Fall Preshoot/Overshoot					
	Time Functions	Freq, Period, Rise Time, Fall Time, Positive Width, Negative Width, Duty Cycle					
	Delay Functions	Eight Delay Measurements					
	Cursor Functions	Voltage Difference ( $\Delta V$ ), Time Difference ( $\Delta T$ )					
	Auto Counter	Resolution : 6 Digits Accuracy : $\pm 2\%$ Signal Source: Trigger (Except Video Trigger Mode)					
<b>Control Panel</b>	Autoset	Vertical Scale, Horizontal Scale & Trigger Level Set Automatically					
	Save Setup Memories	Up to 20 Setups					
	Save Waveform Memories	Up to 24 Waveforms					
<b>Display</b>	Type	5.6" High Brightness TFT LCD					
	Display Resolution	234 x 320					
	Display Graticule	8 x 10 Divisions ; 8 x 12 Divisions (Menu Off)					
	Display Brightness	Adjustable					
<b>Interface</b>	USB	Both Host & Device Modes Supported, USB 2.0 Full Speed					
	RS-232 Interface	DB 9-pin Male DTE RS-232 Interface					
	GPIB Interface (Option)	Fully Programmable, IEEE 488.2					
	Go/NoGo Output	5V MAX / 10mA TTL Open Collector Output					
<b>Power Source</b>	Line Voltage Range	AC 100V ~ 240V, 48Hz ~ 63Hz					
	Battery Power (Option)	Battery : 11.1V Li-Ion Battery Pack Charge Time: 8 Hours (with Power On) Operating Time: 4 Hours, Subject to Operating Conditions					
<b>Miscellaneous</b>	Online Help	Available					
	Real Time Clock	Time, Date/Time for Saved Data					
<b>General</b>	Dimensions	254mm (D) x 142mm (H) x 310mm (W)					
	Weight	4.3kg					

#### ORDERING INFORMATION

<b>Accessories Included</b>	User Manual, Power Cable, 2/4 60/100/250MHz Probes.
<b>Opt-01</b>	GPIB Interface.
<b>Opt-02</b>	Battery Power Option.
<b>GSC-005</b>	Soft Carry Case.
<b>GRA-405</b>	Rack Adapter Panel.