

# Digitizing Oscilloscope

Patent No: 074418

**NEW**

**CE**



GDS-830 (100MHz)

## FEATURES :

- \* **100MHz Bandwidth and 100MSa/s Sampling Rate.(each channel)**
- \* **125k words per channel long record length.**
- \* **15 Auto Measurement Functions to get quick and accurate results.**
- \* **A Wide Range of Triggers, include TV Trigger, Event Delay Trigger and Time Delay Trigger...etc.**
- \* **Auto-Setting for Quick Setup and Waveform Acquisition.**
- \* **Four Acquisition Mode: Sample, Peak Detect, Average, Accumulate.**
- \* **15 sets Memory for Front Panel Setting Save & Recall.**
- \* **2 sets Memory for Waveform Trace Save & Recall.**
- \* **RS-232, Parallel Printer Port and VGA Output are included as standard.**
- \* **GPIB Interface optional.**

## SPECIFICATIONS

| DISPLAY SYSTEM            |  | CRT Type<br>Video Display Resolution<br>Waveform Display Graticule<br>Intensity Levels  | 7-inch diagonal, magnetic deflection; horizontal raster scan; green phosphor<br>480 (Vertically) x640 (Horizontally) dots<br>8 x10 divisions<br>Adjustable overall intensity and contrast   |
|---------------------------|--|---|---|
| VERTICAL SYSTEM           |  | Channel 1(CH1) and Channel 2(CH2)<br>Accuracy<br>Bandwidth<br>Rise time<br>Input Coupling<br>Input Impedance<br>Maximum Input<br>Polarity<br>Waveform Processing<br>Offset Range<br>Bandwidth Limit | 2mV/DIV to 5V/DIV<br>$\pm(3\% \times \text{Readout} \pm 0.05\text{DIV} \times \text{volt/DIV})$<br>DC ~ 100MHz (-3dB)<br>3.5ns approx.<br>AC; DC & ground<br>$1M\Omega \pm 1\%$ , approx. 22pF<br>300V CATII ;(DC + AC peak)<br>Normal & invert<br>CH1 - CH2, CH1 + CH2<br>2mV/DIV~50mV/DIV $\pm 0.5V$ ; 100mV/DIV~500mV/DIV $\pm 5V$ ; 1V/DIV~5V/DIV $\pm 50V$<br>20MHz (-3dB) |
| HORIZONTAL                |  | Range<br>Modes<br>Accuracy<br>Delay Range   | 2ns/DIV ~ 5s/DIV (1-2-5 increments)<br>MAIN, WINDOW, WINDOW ZOOM, ROLL, X-Y<br>$\pm 0.01\%$<br>Pre-trigger : 10 DIV maximum; Post-trigger : 500 DIV   |
| SIGNAL ACQUISITION SYSTEM |  | Sampling Rate<br>Equivalent Sample Rate<br>Vertical Resolution<br>Record Length / Channel<br>Single Shot Record Length<br>Peak Detection<br>Average   | 100MSa/s<br>25GSa/s maximum<br>8 bits<br>125k dots<br>125k dots<br>20ns ( $10\mu s/\text{DIV}$ ~ 5s/DIV)<br>2, 4, 8, 16, ..., 256   |
| TRIGGER                   |  | Sources<br>Modes<br>Coupling<br>Sensitivity<br>TV   | CH1, CH2, LINE, EXT.<br>AUTO-LEVEL, AUTO, NORMAL, SINGLE, TV, TIME-DELAY, EVENT-DELAY<br>AC, DC, LF rej, HF rej, Noise rej<br>DC~25MHz:approx.0.35DIV or 3.5mV 25MHz~100MHz:approx.1DIV or 10mV<br>TV trigger sensitivity : 0.5 division of sync signal   |
| X-Y MODE                  |  | X-Axis Input/ Y-Axis Input<br>Bandwidth<br>Phase shift  | Channel 1 (CH1)/Channel 2 (CH2)<br>As vertical system<br>$\pm 3^\circ$ at 100kHz  |
| CURSORS AND MEASUREMENT   |  | Automated Voltage Measurement<br>Automated Time Measurement<br>Cursors Measurement  | Vhi, Vlo, Vmax, Vmin, Vp-p, Vavg, Vrms, Vamp<br>Rise Time, Fall Time, Duty Cycle, Freq., Period, Positive Width, Negative Width<br>Voltage difference between cursors ( $\Delta V$ )/time difference between cursors ( $\Delta T$ )   |
| CONTROL PANEL FUNCTIONS   |  | Autoset<br>Save/Recall<br>Waveform Trace Save/Recall  | "Autoset" adjust vertical volt/DIV, horizontal sec/DIV, and trigger level automatically<br>Up to 15 sets of measurement conditions can be saved and recalled<br>2 sets of waveform can be saved and recalled  |
| EXTERNAL TRIGGER          |  | Range<br>Sensitivity<br>Input Impedance<br>Maximum Input  | $\pm 12V$<br>DC ~ 30MHz : ~ 50mV; 30MHz ~ 100MHz : ~ 100mV<br>$1M\Omega \pm 2\%$ , approx. 22pF<br>300V CAT II (DC + AC peak)   |
| MISCELLANEOUS             |  | Parallel port<br>RS-232 Interface<br>GPIB Interface<br>Video Signal Output  | A 25-pin IBM PC type, parallel printer interface, printer compatibility: EPSON dot matrix,<br>EPSON inkjet with ESC/P2, HP DeskJet, HP LaserJet with HP PCL5<br>A 9-pin male DTE RS-232 interface that complies with EIA/TIA 574-90<br>Option : fully programmable with IEEE488.2 compliance<br>DB-15 rear panel video connector , VGA compatible                               |
| POWER SOURCE              |  | Line Voltage Range<br>Line Frequency<br>Power Consumption   | 100V ~ 240V AC, automatic selection<br>48 Hz ~ 63 Hz<br>85Watts, 95VA maximum, with fan   |
| ACCESSORIES               |  | Power cord x 1, Instruction manual x 1, HP-9100 Probes(10:1/1:1) x 2  |   |
| DIMENSIONS & WEIGHT       |  | 330(W)x155(H)x385(D) mm; Approx. 7kg  |   |

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ISO-9001 & ISO-14001