



GOS-6200 (200MHz)



FEATURES

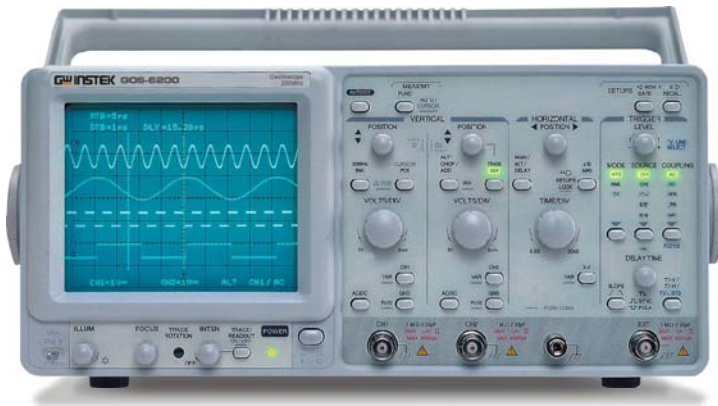
- * 200MHz Bandwidth, Dual Channel, Delayed Sweep
- * Auto Set
- * Built-in 6 digits Universal Counter
- * Cursor Readout with 7 Measurements
- * 10 Sets Memory for Front Panel Setting Save & Recall
- * TV-Line Selection (NTSC, PAL, SECAM)
- * Panel Setup Lock of Digital-Control Functions
- * Buzzer Alarm
- * LED Indicators
- * Trigger Signal Output
- * Z-axis Modulation Input
- * SMD Technology, High Stability and Reliability

The GOS-6200 is a 200MHz two-channel, dual-trace, portable oscilloscope designed for general purpose use. A microprocessor-based operating system controls most of the functions of the instrument, including cursor readout and convenient digitized panel settings. On-screen alphanumeric readout and cursor functions are provided for voltage, time, frequency and phase measurement to extraordinary operational convenience. It also has the function of TV Line select for trigger settings for NTSC, PAL and SECAM. Auto-measurements include frequency, period, pulse width and duty cycle with auto-setting function. Ten different user defined instrument settings can be saved and recalled without restriction.

The vertical deflection system has two input channels, each with 11 different basic deflection factors from 2mV to 5V per division. The horizontal deflection system provides single, dual or delayed sweeps from 20ns to 0.5s per division (delayed sweep, 50ms to 20ns per division). The trigger system provides stable triggering over the full bandwidth of the vertical deflection.

SPECIFICATIONS

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CRT																													
Type	6-inch rectangular type with internal graticule; 0%, 10%, 90% and 100% markers 8 x 10 div (1 div = 1 cm)																												
Accelerating Potential	14 kV approx.																												
Illumination	Continuously adjustable																												
Z-axis input	Coupling : DC Sensitivity: 5V or more Maximum input voltage : 30V (DC + AC peak) at 1kHz or less Bandwidth : DC ~ 5 MHz																												
VERTICAL SYSTEM																													
Sensitivity	2mV~5V/div, 11 step in 1-2-5 sequence																												
Sensitivity Accuracy	≤ 3% (5div at the center of display)																												
Vernier Vertical Sensitivity	Continuously variable to 1/2.5 or less of panel-indicated value																												
Bandwidth(-3dB)	DC~200MHz (5mV/div:DC~150MHz) ; (2mV/div:DC~20MHz)																												
Rise Time	1.75ns (5mV/div:2.33ns, 2mV/div:17.5ns)																												
Signal Delay	Leading edge can be monitored																												
Max. Input Voltage	400V(DC+AC peak) at 1kHz or less																												
Input Coupling	AC, DC, GND																												
Input Impedance	1MΩ ± 2% // approx. 25pF																												
Vertical Mode	CH1, CH2, DUAL(CHOP/ALT), ADD, CH2 INV.																												
Bandwidth Limited	20MHz																												
Common-Mode Rejection Ratio	50:1 or better at 50kHz																												
Dynamic Range	8 div at 100MHz; 5 div at 200MHz																												
HORIZONTAL SYSTEM																													
Horizontal Modes	MAIN (A), ALT, DELAY(B)																												
A(main) Sweep Time	20ns~0.5s/div, continuously variable (UNCAL)																												
B(delay) Sweep Time	20ns~50ms/div																												
Accuracy	± 3% (±5% at x 10 MAG)																												
Sweep Magnification	x 10 (maximum sweep time 2ns/div)																												
Hold Off Time	Variable																												
Delay Time	1 μs~5s																												
Delay Jitter	Better than 1:20000																												
Alternate Separation	Variable																												
TRIGGER																													
Trigger Modes	AUTO, NORM, TV																												
Trigger Source	CH1, CH2, LINE, EXT, EXT/10																												
Trigger Coupling	AC, DC, HFR, LFR, NR																												
Trigger Slope	"+" or "-" polarity or TVsync polarity																												
Trigger Sensitivity	<table border="1"> <thead> <tr> <th>Mode</th> <th>Frequency</th> <th>INT</th> <th>EXT</th> <th>EXT/10</th> </tr> </thead> <tbody> <tr> <td rowspan="2">AUTO</td> <td>10 Hz ~ 20 MHz</td> <td>0.35 div</td> <td>50 mV</td> <td>500 mV</td> </tr> <tr> <td>20 MHz ~ 200 MHz</td> <td>1.5 div</td> <td>150 mV</td> <td>1.5 V</td> </tr> <tr> <td rowspan="2">NORM</td> <td>DC ~ 20 MHz</td> <td>0.35 div</td> <td>50 mV</td> <td>500 mV</td> </tr> <tr> <td>20 MHz ~ 200 MHz</td> <td>1.5 div</td> <td>150 mV</td> <td>1.5 V</td> </tr> <tr> <td>TV</td> <td>sync signal</td> <td>1 div</td> <td>200 mV pp</td> <td>2 V pp</td> </tr> </tbody> </table>	Mode	Frequency	INT	EXT	EXT/10	AUTO	10 Hz ~ 20 MHz	0.35 div	50 mV	500 mV	20 MHz ~ 200 MHz	1.5 div	150 mV	1.5 V	NORM	DC ~ 20 MHz	0.35 div	50 mV	500 mV	20 MHz ~ 200 MHz	1.5 div	150 mV	1.5 V	TV	sync signal	1 div	200 mV pp	2 V pp
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Trigger Level Range	INT : ±4div or more; EXT : ±0.4V or more; EXT/10 : ± 4V or more																												
TV Triggering	Mode : TV-V, TV-H, TV-LINE																												
TV-Line Selection	<table border="1"> <thead> <tr> <th>Standard</th> <th>Field 1</th> <th>Field 2</th> </tr> </thead> <tbody> <tr> <td>NTSC (525H)</td> <td>1H ~ 263H</td> <td>1H ~ 262H</td> </tr> <tr> <td>PAL (625H)</td> <td rowspan="2">1H ~ 313H</td> <td rowspan="2">1H ~ 312H</td> </tr> <tr> <td>SECAM (625H)</td> </tr> </tbody> </table>	Standard	Field 1	Field 2	NTSC (525H)	1H ~ 263H	1H ~ 262H	PAL (625H)	1H ~ 313H	1H ~ 312H	SECAM (625H)																		
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NTSC (525H)	1H ~ 263H	1H ~ 262H																											
PAL (625H)	1H ~ 313H	1H ~ 312H																											
SECAM (625H)																													
Max. External Input Voltage	400V(DC+AC peak) at 1kHz																												
External Input Impedance	1M ±5% // approx.25pF																												
X-Y OPERATION																													
Mode	X-axis: selectable CH1, EXT, EXT/10; Y-axis: selectable CH1, CH2, CH1 and CH2																												
Sensitivity Accuracy	2mV~5V/div ± 3%; EXT : 0.1V/div ± 5%; EXT/10 : 1V/div ± 5%																												
X-axis Bandwidth	DC~500kHz(-3dB)																												
Phase Error	3° or less from DC~50kHz																												



GOS-6200

SPECIFICATIONS

OUTPUT SIGNAL	
Trigger Signal Output	Voltage : approx. 25mV/div into 50Ω; Frequency response : DC ~ 10MHz
Calibrator Output	1kHz square wave, 2Vpp ± 2%
CURSOR READOUT FUNCTION	
Cursor Measurement Function	ΔV, ΔV%, ΔVdB, ΔT, 1/ΔT, ΔT%, Δθ
Cursor Resolution	1/100 div
Effective Cursor Range	Vertical: ±3div; Horizontal: ±4 div
Panel Setting Display	Vertical: V/div(CH1,CH2),UNCAL,ALT/CHOP/ADD,INV, probe factor,AC/DC/GND Horizontal: s/div(MTB, DTB), UNCAL, x10MAG, delay time , Hold-off Trigger: source, coupling, slope, level, TV-V, TV-H Others: X-Y, lock, save/recall MEM 0-9
AUTO MEASUREMENT FUNCTION	
Parameter Function	FREQ, PERIOD, ±WIDTH, ±DUTY (+ or - polarity selected by trigger slope)
Display Digits	Max. 6-digits, decimal
Frequency Range	50Hz ~ 200MHz
Accuracy	1kHz ~ 200MHz : ±0.01%; 50Hz ~ 1kHz : ±0.05%
Measuring Sensitivity	> 2 DIV (Measuring source selected from CH1 and CH2 as synchronous signal sources)
SPECIAL FUNCTION	
Auto Set	Input Channel: CH1, CH2; Frequency Response 50Hz ~50MHz
Panel Setting Save & Recall	10 sets
Panel Setups Lock	Provided
POWER SOURCE	
AC 100V/120V/230V±10% , 50/60Hz	
DIMENSIONS & WEIGHT	
310(W) x 150(H) x 470(D) mm ; Approx. 9kg	

ORDERING INFORMATION

GOS-6200 200MHz Cursor Readout Analog Oscilloscope

ACCESSORIES :

User manual x 1, Power cord x 1

Probe-GTP-250A : 250MHz (10 : 1/1 : 1) Switchable Passive Probe (one per channel)

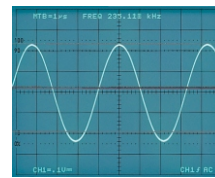
OPTIONAL ACCESSORIES

GTC-001 Instrument Cart, 450(W) x 430(D) mm (120V Input Socket)

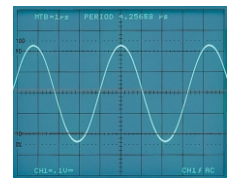
GTC-002 Instrument Cart, 330(W) x 430(D) mm (120V Input Socket)

GTL-110 Test Lead, BNC-BNC Heads

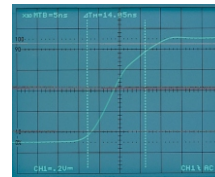
AUTO AND CURSOR MEASUREMENT FUNCTIONS



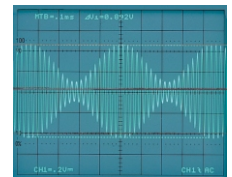
AUTO Mode : Frequency



AUTO Mode : Period

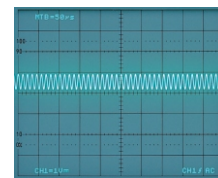


RISE Time (ΔT)

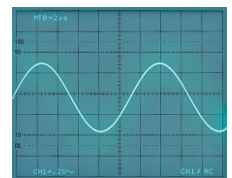


Voltage (ΔV)

AUTOSET FUNCTION

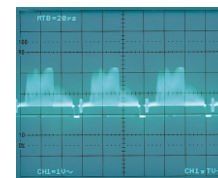


Before AUTOSSET
Screen after unknown signal input.

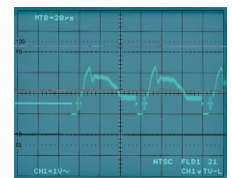


After AUTOSSET
Optimum screen display after pressing a button.

TV-H, TV-V, FIELD/LINE SELECTOR



TV - H



TV - L