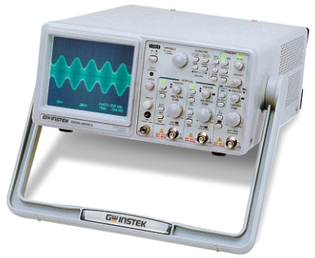
50MHz/30MHz Readout Analog Oscilloscope



GOS-6000 Series analog oscilloscopes have a remarkable combination of performance, compact design and resolution in bandwidths of 30MHz and 50 MHz. Coupled with various trigger modes, waveforms can be acquired and observed in a number of diverse applications. Elusive signal details can be revealed using the ALTMAG function to magnify signals (x5, x10x 30). The on-screen cursor readout function and 6 digit frequency counter allow signals to be tested conveniently, making the GOS-6000 Series oscilloscopes indispensible tools for any professional engineer. The series consists of the GOS-6051 (50MHz) and the GOS-6031(30MHz) models.

GOS-6051 (50MHz)
GOS-6031 (30MHz)

CE CURSOR Readout

FEATURES

* 2 Channels, 4 Traces:
  DC~50MHz Bandwidth (GOS-6051)
  DC ~ 30MHz Bandwidth (GOS-6031)
* Vertical Sensitivity : 1mV/div ~ 20V/div
* CRT Readout
* Cursor Measurement, 6 Digit Frequency Counter, 10 sets Memory for Front Panel Setting Save & Recall (GOS-6051/6031)
* ALT MAG Function (x 5, x 10, x 20)
* Vertical Mode Triggering
* TV Synchronization
* CH1 Signal Output, Z- axis Input
* Buzzer Alarm & LED Indicators
* Compact size(275Wx130Hx370Dmm)and Front Panel Layout Groups for Easy to Use

SPECIFICATIONS

CRT

Type	6-inch rectangular type with internal graticule 0%, 10%, 90%, 100% markers. 8x10 div(1div=1cm)
Accelerating Potential	GOS-6051 : approx.10kV; GOS-6031 : approx. 2kV
Illumination	Provided
Trace Rotation	Provided
Z-axis Input	Sensitivity : at least 5V ; Polarity : positive going input decrease intensity Usable frequency range : DC to 2MHz ; Max. input voltage : 30V (DC + AC peak) at 1kHz or less Input Impedance:GOS-6051 : approx.33kΩ;GOS-6031 : approx.47kΩ

VERTICAL SYSTEM

Sensitivity and Accuracy	1mV~2mV/div±5%,5mV~20V/div±3%,14 calibrated steps in 1-2-5 sequence
Vernier Vertical Sensitivity	Continuously variable to 1/2.5 or less of panel indicate value
Bandwidth(-3dB) and Rise Time	<table><tr><th></th><th></th><th>Bandwidth (-3dB)</th><th>Rise Time</th></tr><tr><td rowspan="2">GOS-6051</td><td>5mV ~ 20V/div :</td><td>DC ~ 50MHz</td><td>Approx. 7nS</td></tr><tr><td>1mV ~ 2mV/div :</td><td>DC ~ 7MHz</td><td>Approx. 50nS</td></tr><tr><td rowspan="2">GOS-6031</td><td>5mV ~ 20V/div :</td><td>DC ~ 30MHz</td><td>Approx. 11.7nS</td></tr><tr><td>1mV ~ 2mV/div :</td><td>DC ~ 7MHz</td><td>Approx. 50nS</td></tr></table>
Maximum Input Voltage	400V (DC + AC peak) at 1kHz or less
Input Coupling	AC, DC, GND
Input Impedance	1MΩ ±2%//approx. 25pF
Vertical Modes	CH1, CH2, DUAL (CHOP, ALT), ADD, CH2 INV
Chop Frequency	Approx. 250kHz
Dynamic Range	GOS-6051 : 8 div at 40MHz, 6div at 50MHz; GOS-6031 : 8 div at 20MHz, 6div at 30MHz

HORIZONTAL SYSTEM

Sweep Time	0.2μs/div ~ 0.5s/div, 20 steps selectable in 1-2-5 sequence, continuous variable control between steps at least 1 : 2.5
Accuracy	±3%, ±5% at x5 / x10MAG, ±8% at x 20MAG
Sweep Magnification	x5, x10, x20 MAG
Maximum Sweep Time (at MAG)	GOS-6051 : 20ns/div (10ns/div are uncalibrated) GOS-6031 : 50ns/div (10ns/div ~ 40nS/div are uncalibrated)
ALT-MAG Function	Available

TRIGGER

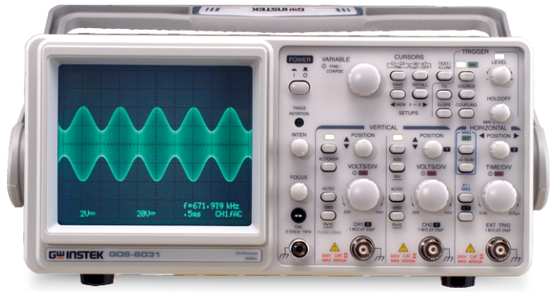
Trigger Mode	AUTO, NORM, TV
Trigger Source	VERT-MODE, CH1, CH2, LINE, EXT
Trigger Coupling	AC, HFR, LFR, TV-V(-), TV-H(-)
Trigger Slope	"+" or " - " polarity
Trigger Sensitivity	<table><tr><td>GOS-6051</td><td>20Hz ~ 5MHz</td><td>5MHz ~ 40MHz</td><td>40MHz ~ 50MHz</td></tr><tr><td>GOS-6031</td><td>20Hz ~ 2MHz</td><td>2MHz ~ 20MHz</td><td>20MHz ~ 30MHz</td></tr><tr><td>CH1, CH2</td><td>0.5 div</td><td>1.5 div</td><td>2.0 div</td></tr><tr><td>VERT-MODE</td><td>2.0 div</td><td>3.0 div</td><td>3.5 div</td></tr><tr><td>EXT</td><td>200mV</td><td>800mV</td><td>1V</td></tr></table>
	TV sync pulse more than 1 div (CH1, CH2, VERT-MODE) or 200mV (EXT)
External Trigger Input	Input impedance:Approx.1MΩ//25pF(AC coupling) Max. input voltage:400V(DC+AC peak)at 1kHz
Hold-off Time	Variable

X-Y OPERATION

Input	X-axis : CH1 ; Y-axis : CH2
Sensitivity	1mV/div ~ 20V/div
Bandwidth	X-axis : DC ~ 500kHz (-3dB)
Phase Difference	3° or less from DC to 50kHz

OUTPUT SIGNAL

CH1 Signal Output	Voltage:approx.20mV/div(with 50Ω terminated);Bandwidth:50Hz to at least 5MHz
Calibrator Output	Voltage:0.5V±3% ; Frequency : approx. 1kHz, square wave



GOS-6031 (30MHz)

Rear Panel

SPECIFICATIONS

CRT READOUT

Panel Setting Display	CH1/CH2 sensitivity, sweep time, trigger condition
Panel Setting Save & Recall	10 sets
Cursor Measurement	Cursor measurement function : ΔV, ΔT, 1/ΔT Cursor resolution : 1/25 div ; Effective cursor range : vertical : ±3 div Horizontal : ±4 div
Frequency Counter	Display digits : Max. 6-digits decimal Frequency range :GOS-6051 : 50Hz ~ 50MHz; GOS-6031 : 50Hz ~ 30MHz Accuracy : ±0.01% ; Measuring sensitivity : more than 2 div (measuring source selected from CH1 or CH2 as synchronous signal sources)

POWER SOURCE

AC 100V/120V/230V±10%, 50/60Hz

DIMENSIONS & WEIGHT

275(W) x 130(H) x 370(D) mm; Approx. 7.2kg

ORDERING INFORMATION

GOS-6051 50MHz, Readout Analog Oscilloscope with Cursor Measurement and Frequency Counter
GOS-6031 30MHz, Readout Analog Oscilloscope with Cursor Measurement and Frequency Counter

ACCESSORIES :
User manual x 1, Power cord x 1
Probe-GTP-060A-4 : 60MHz (10 : 1/1 :1) Switchable Passive Probe (one per channel)

OPTIONAL ACCESSORIES

GTC-001 Instrument Cart, 450(W)x430(D)mm (120V Input Socket)
GTC-002 Instrument Cart, 330(W)x430(D)mm (120V Input Socket)
GTL-110 Test Lead, BNC-BNC Heads

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