

# Analog Oscilloscope



**GOS-6051/GOS-6050 (50MHz)**  
**GOS-6031/GOS-6030 (30MHz)**

## FEATURES

- \* 2Channels, 4Traces: DC~50MHz Bandwidth (GOS-6051/6050)  
DC ~ 30MHz Bandwidth (GOS-6031/6030)
- \* 1mV/div ~ 20V/div
- \* CRT Readout
- \* Cursor Measurement, 6 Digit Frequency Counter, 10sets 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

<b>CRT</b>	Type Accelerating Potential Illumination Trace Rotation Z-axis Input	6-inch rectangular type with internal graticule; 0%, 10%, 90%, 100% markers. 8x10 div(1div=1cm) GOS-6051/6050:approx.10kV; GOS-6031/6030 : approx. 2kV Provided (GOS-6051/6031) Provided 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-6051/6050:approx.33k $\Omega$ ; GOS-6031/6030 : approx. 47k $\Omega$																								
<b>VERTICAL SYSTEM</b>	Sensitivity and Accuracy Vernier Vertical Sensitivity Bandwidth (-3dB) and Rise Time  Maximum Input Voltage Input Coupling Input Impedance Vertical Modes Chop Frequency Dynamic Range	1mV ~ 2mV/div $\pm$ 5%, 5mV ~ 20V/div $\pm$ 3%, 14 calibrated steps in 1-2-5 sequence Continuously variable to 1/2.5 or less of panel indicate value <table border="1"> <thead> <tr> <th></th> <th></th> <th>Bandwidth (-3dB)</th> <th>Rise Time</th> </tr> </thead> <tbody> <tr> <td rowspan="2">GOS-6051/6050</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-6031/6030</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> </tbody> </table> 400V (DC + AC peak) at 1kHz or less AC, DC, GND 1M $\Omega$ $\pm$ 2%/approx. 25pF CH1, CH2, DUAL (CHOP, ALT), ADD, CH2 INV Approx. 250kHz GOS-6051/6050:8 div at 40MHz, 6div at 50MHz; GOS-6031/6030:8 div at 20MHz, 6div at 30MHz			Bandwidth (-3dB)	Rise Time	GOS-6051/6050	5mV ~ 20V/div :	DC ~ 50MHz	Approx. 7nS	1mV ~ 2mV/div :	DC ~ 7MHz	Approx. 50nS	GOS-6031/6030	5mV ~ 20V/div :	DC ~ 30MHz	Approx. 11.7nS	1mV ~ 2mV/div :	DC ~ 7MHz	Approx. 50nS						
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<b>HORIZONTAL SYSTEM</b>	Sweep Time  Accuracy Sweep Magnification Maximum Sweep Time (at MAG) ALT-MAG Function	0.2 $\mu$ s/div ~ 0.5s/div, 20 steps selectable in 1-2-5 sequence, continuous variable control between steps at least 1 : 2.5 $\pm$ 3%, $\pm$ 5% at x5 / x10MAG, $\pm$ 8% at x 20MAG x5, x10, x20 MAG GOS-6051/6050 : 20ns/div (10ns/div are uncalibrated) GOS-6031/6030 : 50ns/div (10ns/div ~ 40ns/div are uncalibrated) Available																								
<b>TRIGGER</b>	Trigger Mode Trigger Source Trigger Coupling Trigger Slope Trigger Sensitivity  External Trigger Input Hold-off Time	AUTO, NORM, TV VERT-MODE, CH1, CH2, LINE, EXT AC, HFR, LFR, TV-V(-), TV-H(-) " + " or " - " polarity <table border="1"> <thead> <tr> <th></th> <th>20Hz ~ 5MHz</th> <th>5MHz ~ 40MHz</th> <th>40MHz ~ 50MHz</th> </tr> </thead> <tbody> <tr> <td>GOS-6051/6050</td> <td></td> <td></td> <td></td> </tr> <tr> <td>GOS-6031/6030</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> </tbody> </table> TV sync pulse more than 1 div (CH1, CH2, VERT-MODE) or 200mV (EXT) Input impedance:Approx.1M $\Omega$ //25pF(AC coupling);Max. input voltage:400V(DC+AC peak)at 1kHz Variable		20Hz ~ 5MHz	5MHz ~ 40MHz	40MHz ~ 50MHz	GOS-6051/6050				GOS-6031/6030	20Hz ~ 2MHz	2MHz ~ 20MHz	20MHz ~ 30MHz	CH1, CH2	0.5 div	1.5 div	2.0 div	VERT-MODE	2.0 div	3.0 div	3.5 div	EXT	200mV	800mV	1V
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<b>X-Y OPERATION</b>	Input Sensitivity Bandwidth Phase Difference	X-axis : CH1 ; Y-axis : CH2 1mV/div ~ 20V/div X-axis : DC ~ 500kHz (-3dB) 3 $^\circ$ or less from DC to 50kHz																								
<b>OUTPUT SIGNAL</b>	CH1 Signal Output Calibrator Output	Voltage : approx. 20mV/div (with 50 $\Omega$ terminated) Bandwidth : 50Hz to at least 5MHz Voltage : 0.5V $\pm$ 3% ; Frequency : approx. 1kHz, square wave																								
<b>CRT READOUT</b>	Panel Setting Display Panel Setting Save & Recall Cursor Measurement (GOS-6051/6031)  Frequency Counter (GOS-6051/6031)	CH1/CH2 sensitivity, sweep time, trigger condition 10 sets (for GOS-6051/6031) Cursor measurement function : $\Delta$ V, $\Delta$ T, 1/ $\Delta$ T Cursor resolution : 1/25 div ; Effective cursor range : vertical : $\pm$ 3 div ; Horizontal : $\pm$ 4 div Display digits : Max. 6-digits decimal Frequency range : GOS-6051 : 50Hz ~ 50MHz; GOS-6031 : 50Hz ~ 30MHz ; Accuracy : $\pm$ 0.01% Measuring sensitivity : more than 2 div (measuring source selected from CH1 or CH2 as synchronous signal sources)																								
<b>POWER SOURCE</b>		AC 100V/120V/230V $\pm$ 10%, 50/60Hz																								
<b>ACCESSORIES</b>		Instruction manual x 1, Power cord x 1, GLF-190C Probes (10:1/1:1) x 2																								
<b>DIMENSIONS &amp; WEIGHT</b>		275(W) x 130(H) x 370(D) mm; Approx. 7.2kg																								

## ORDERING INFORMATION

<b>GOS-6051</b>	50MHz, Analog Oscilloscope with Cursor Measurement and Frequency Counter
<b>GOS-6050</b>	50MHz, Analog Oscilloscope
<b>GOS-6031</b>	30MHz, Analog Oscilloscope with Cursor Measurement and Frequency Counter
<b>GOS-6030</b>	30MHz, Analog Oscilloscope

### Option

- Opt. 01** GTC-001 Instrument Cart, 450(W)x430(D)mm  
**Opt. 02** GTC-002 Instrument Cart, 330(W)x430(D)mm