



GOS-6112/6103/6103C (100 MHz)



GOS-6103C Without CE Approved

FEATURES

- * 100MHz Bandwidth, Dual Channel, Delayed Sweep
- * Built-In 6 Digit Universal Counter (GOS-6103C)
- * 10 Sets Memory for Front Panel Setting Save & Recall (GOS-6103/GOS-6103C)
- * Time Base Auto-range (GOS-6103/GOS-6103C)
- * Cursor Readout with 7 Measurements
- * Panel Setup Lock of Digital-Control Functions
- * Buzzer Alarm
- * LED Indicators
- * TV Synchronization
- * Trigger Signal Output
- * Z-Axis Modulation Input
- * SMD Technology, High Stability and Reliability

CURSOR MEASUREMENT FUNCTIONS



The unique easy-to-use cursor and numerical readouts make waveform observation and measurement easier, faster and more accurate.

The on-screen cursors provide seven measurement functions (ΔV , $\Delta V\%$, ΔVdB , ΔT , $1/\Delta T$, $T\%$, $\Delta \theta$)

The GOS-6100 Series Analog Oscilloscope satisfies the massive needs in diverse professional applications up to 100MHz bandwidth. The advanced Time Base Auto-range function acquires the waveform at the pushbutton convenience (GOS-6103/6103C only). Embedded with Delay Sweep and Hold Off features, the GOS-6100 Series is capable of measuring sophisticated signals. The Cursor Readout with 7 measurements, Panel Setup Save/Recall (GOS-6103/6103C only), and the built-in 6 Digit Universal Counter (GOS-6103C only) all make waveform observation and measurement easier, faster and more accurate.

SPECIFICATIONS

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 Illumination	16 kV approx. (GOS-6103/GOS-6103C), 12kV approx. (GOS-6112)
Z-axis input	Continuously adjustable (GOS-6103/GOS-6103C)
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	$\leq 3\%$ (5div at the center of display)
Vernier Vertical Sensitivity	Continuously variable to 1/2.5 or less of panel-indicate value
Bandwidth(-3dB)	DC~100MHz (2mV/div:DC~20MHz)
Rise Time	3.5ns (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	1M Ω $\pm 2\%$ // 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 60MHz; 5div at 100MHz (GOS-6112) 8 div at 100MHz (GOS-6103/GOS-6103C)

HORIZONTAL SYSTEM

Horizontal Modes	MAIN(A), ALT, DELAY(B)
A(main) Sweep Time	50ns~0.5s/div, continuously variable (UNCAL)
B(delay) Sweep Time	50ns~50ms/div
Accuracy	$\pm 3\%$ ($\pm 5\%$ at $\times 10$ MAG)
Sweep Magnification	$\times 10$ (maximum sweep time 5nS/div)
Hold Off Time	Variable
Delay Time	1 μ s~5s
Delay Jitter	Better than 1:20000
Alternate Separation	Variable

TRIGGER

Trigger Modes	AUTO, NORM, TV
Trigger Source	CH1,CH2,LINE,EXT
Trigger Coupling	AC,DC,HFR,LFR
Trigger Slope	"+" or "-" polarity or TVsync polarity

Trigger Sensitivity

Mode	Frequency	INT	EXT
AUTO	10 Hz ~ 20 MHz 20 MHz ~ 100 MHz	0.35 div 1.5 div	50 mV 150 mV
NORM	DC ~ 20 MHz 20 MHz ~ 100 MHz	0.35 div 1.5 div	50 mV 150 mV
TV	sync signal	1 div	200 mVpp

TV sync	TV-V, TV-H
Max. External Input Voltage	400V(DC+AC peak) at 1kHz
External Input Impedance	1M Ω $\pm 5\%$ // approx.25pF

X-Y OPERATION

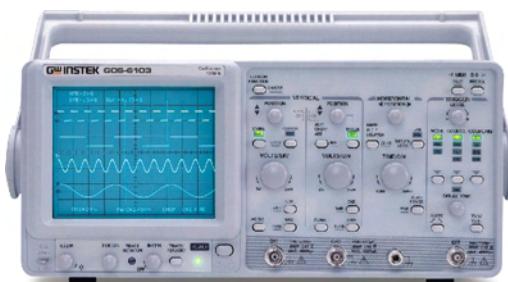
Mode	X-axis: selectable CH1, CH2, EXT ; Y-axis: selectable CH1, CH2, CH1 and CH2
Sensitivity Accuracy	2mV~5V/div $\pm 3\%$; EXT : 0.1V/div $\pm 5\%$
X-axis Bandwidth	DC~500kHz (-3dB)
Phase Error	3° or less from DC~50kHz

OUTPUT SIGNAL

Trigger Signal Output	Voltage: approx. 25mV/div into 50 Ω ; Frequency response : DC ~ 10MHz
Calibrator Output	1kHz Square wave, 2Vpp $\pm 2\%$



GOS-6112



GOS-6103/6103C

SPECIFICATIONS**CURSOR READOUT FUNCTION**

Cursor Measurement Function	$\Delta V, \Delta V\%, \Delta VdB, \Delta T, 1/\Delta T, \Delta T\%, \Delta \theta$
Cursor Resolution	1/100 div
Effective Cursor Range	Vertical: ± 3 div ; 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, x 10MAG, delay time, Hold-off Trigger: source, coupling, slope, level, TV-V, TV-H Others: X-Y, lock, save/recall MEM 0-9 (GOS-6103/GOS-6103C)

AUTO MEASUREMENT FUNCTION (GOS-6103C)

Parameter Function	FREQ, PERIOD, \pm WIDTH, \pm DUTY (+ or - polarity selected by trigger slope)
Display Digits	Max. 6-digits, decimal
Frequency Range	50Hz ~ 100MHz
Accuracy	1kHz ~ 100MHz : $\pm 0.01\%$; 50Hz ~ 1kHz : $\pm 0.05\%$
Measuring Sensitivity	> 2 div (Measuring source selected from CH1 and CH2 as synchronous signal sources)

SPECIAL FUNCTION

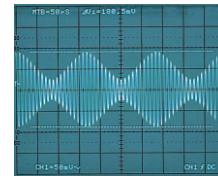
TIME/DIV Auto Range	Provided (GOS-6103/GOS-6103C)
Panel Setting Save & Recall	10 sets (GOS-6103/GOS-6103C)
Panel Setups Lock	Provided

POWER SOURCEAC 100V/120V/230V $\pm 10\%$, 50/60Hz**DIMENSIONS & WEIGHT**

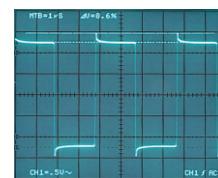
310(W) x 150(H) x 455(D) mm ; Approx. 9kg

ORDERING INFORMATION**GOS-6112** 100MHz, 2-channel, Analog Oscilloscope**GOS-6103** 100MHz, 2-channel, Analog Oscilloscope**GOS-6103C** 100MHz, 2-channel, Analog Oscilloscope with 100MHz Frequency Counter**ACCESSORIES :**

User manual x 1; Power cord x 1; GTP-100A Probe x 2

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)

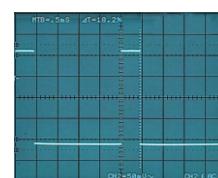
Voltage Measurement



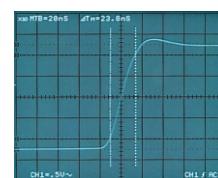
Voltage percentage Measurement



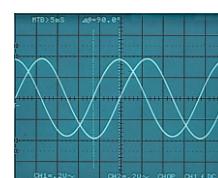
Frequency Measurement



Time percentage Measurement



Time Measurement



Phase Measurement