

## GOS-320T DUAL CHANNEL OSCILLOSCOPE

## COMPONENT TEST FUNCTION

### Features:

- 20MHz dual channel
- High luminance, internal graticule CRT
- X10 sweep magnification
- ALT triggering function
- Electronic rotary encoder for sweep switch
- Fully sealed long life vertical mode switch
- TV synchronizing, X-Y mode operation
- 1mV/DIV high sensitivity (Y-Axis X5MAG)
- Triggering level lock function, automatic synchronizing function
- Z-Axis input
- CH1 signal output
- Component test function
- Low cost and economical



### Specifications

GOS-320T

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CRT	Type	6" rectangle, internal graticule, 0%, 10% 90% and 100% marks
	Display Area	8 x 10DIV (1DIV=10mm)
	Accelerating Voltage	2kV
	Intensity and Focusing	Continuously adjustable at front panel
	Trace Rotation	Adjustable at front panel
VERTICAL SYSTEM	Sensitivity and Accuracy	5mV/DIV ~ 5V/DIV +/-3% (X5MAG: +/-5%), 10 calibrated steps in 1-2-5 sequence
	Vernier Vertical Sensitivity	Continuously variable to 1/2.5 or less than panel indicate value
	Band Width(-3dB)	X1MAG: DC ~ 20MHz X5MAG: DC ~ 7MHz
	AC Coupling	Low limit frequency 10Hz (with reference to 100kHz, 8DIV, frequency response with -3dB)
	Rise Time	Approx. 17.5ns (X5MAG: approx. 50ns)
	Input Impedance	Approx. 1MOhm /25pF
	DC Balance Shift	5mV ~ 5V/DIV: +/-0.5DIV; 1mV ~ 2mV/DIV: +/-2.0DIV
	Linearity	< 0.1 DIV of amplitude change when waveform of 2DIV at graticule center is moved vertically
	Vertical Operation Mode	CH1/ CH2 / DUAL (ALT/CHOP)/ ADD/ CH2 Inverse
	Chopping Frequency	Approx. 250kHz
Input Coupling	AC/GND/DC	
Max. Input Voltage	300Vpeak at 1kHz or less	
Isolation Between Channels	At 5mV/DIV Range: > 1000:1 at 50kHz; > 30:1 at 15MHz	
HORIZONTAL SYSTEM	Sweep Time	0.2µs - 0.5s/DIV 20 steps in 1-2-5 sequence
	Sweep Accuracy	+/-3%, +/-5% at X10 MAG(20ns/50ns not calibrated)
	Trimming Ratio	≤ 1/2.5 of panel indicated value
	Sweep Magnification	X 10 MAG
	Linearity	+/-5%; X10MAG: +/-10% (0.2s ~ 1µs)
Position Shift Caused by X10MAG	Within 2DIV, at CRT screen center	
TRIGGER SYSTEM	Mode	AUTO/NORM/TV-V/TV-H
	Trigger Level Lock	Yes
	Source	CH1/CH2/EXT/LINE
	Coupling	AC: 20Hz to full bandwidth
	Trigger Slope	"+" or "-"
	Trigger Sensitivity	20Hz ~ 2MHz: 0.5DIV, TRIG-ALT: 2DIV; EXT: 200mV 2MHz ~ 25MHz: 1.5DIV, TRIG-ALT: 3DIV; EXT: 800mV TV SYNC pulse > 1DIV (EXT: 1V)
External Trigger Input	Input impedance: Approx. 1MOhm / 25pF Max. input voltage: 300V (DC + ACpeak); AC frequency < 1kHz	
X-Y MODE OPERATION	Input	X-axis: CH1, Y-axis: CH2
	Sensitivity	Same as vertical axis
	Band Width(-3dB)	Axis X: DC ~ 500kHz
	Phase Difference	≤ 3° from DC to 50kHz
Z-AXIS INPUT	Sensitivity	5Vpp (Positive-going signal decreases intensity)
	Frequency Bandwidth	DC ~ 2MHz
	Input Resistance	Approx. 47kOhm
	Max. Input Voltage	30V (DC+ACpeak, AC frequency ≤1kHz)
OUTPUT SIGNAL	CH1 Output	At least 20mV/DIV into a 50 Ohm termination, 50Hz ~ 5MHz
CALIBRATION	Signal	Positive going square wave at 1kHz (2Vpp +/-2.0%)
	Duty Cycle	48:52
	Output Impedance	Approx. 1kOhm
COMPONENT TEST		Resistor, capacitor, coil, diode, zener, or simple combination of components can be tested
	Test Voltage	Approx. 9VACp-p
	Test Frequency	50/60Hz
	Test Current	Approx. 0.6mA
POWER SOURCE		AC110V/220 +/-10%, 50/60Hz