

Analog Oscilloscope

STANDARD, 20MHz/40MHz/50MHz



TOS2000 SERIES



MODEL LIST

- TOS-2020/2040/2050: standard models
- TOS-2020FG/2040FG/2050FG: with built-in 6 digits frequency counter

FEATURES

- Dual channel 20MHz/40MHz/50MHz
- High sensitivity 1mV/DIV
- 10 times sweep magnification
- TV synchronization; X-Y mode
- Z-axis modulation input; CH1 signal output
- High illumination internal graticule CRT
- Fully sealed durable attenuation switch
- ALT triggering function, enabling simultaneous observation of two independent signals
- Trigger level lock and auto synchronize function

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SPECIFICATIONS

Model		20MHz		40MHz		50MHz			
Vertical system									
Sensitivity		5mV~5V/DIV±3%, X5MAG: ±5%, 10 steps in 1-2-5 sequence							
Vernier sensitivity		≤1/2.5 of panel indicated value							
Bandwidth		DC~20MHz		DC~40MHz		DC~50MHz			
		(X5MAG: DC~7MHz)		(X5MAG: DC~15MHz)		(X5MAG: DC~15MHz)			
Rise time		Approx. 17.5ns		Approx. 8.75ns		Approx. 7ns			
		(X5MAG: Approx. 50ns)		(X5MAG: Approx. 25ns)		(X5MAG: Approx. 23.3ns)			
Input impedance		Approx. 1MΩ//Approx. 25pF							
Vertical mode		CH1, CH2, DUAL (ALT/CHOP), ADD, CH2 INV							
Chopping repetition frequency		Approx. 250kHz							
Input coupling		AC, GND, DC							
Max. Input voltage		400V peak-peak, AC frequency≤1kHz							
Common mode rejection ratio		>50:1 at 50kHz sine wave (set CH1 and CH2 at same sensitivity)							
Horizontal system									
Sweep time		0.2us~0.5s/DIV±3%, X10MAG: ±5% (20ns~50ns/DIV uncalibrated), 20 steps in 1-2-5 sequence							
Vernier sweep time control		≤1/2.5 of panel indicated value							
Sweep magnification		X10 (fastest sweep time 20ns/DIV)							
Linearity		±5%, X10MAG: ±10% (0.2s~1us)							
Trigger system									
Trigger mode		AUTO, NORM, TV-V, TV-H							
Trigger level lock		Provided							
Trigger source		CH1, CH2, ALT, LINE, EXT							
Trigger coupling		AC: 20Hz to full bandwidth							
Trigger slope		"+" or "-"							
Sensitivity	Frequency	20Hz~2MHz		2MHz~20MHz		20MHz~40MHz		40MHz~50MHz	
	CH1, CH2	1DIV		1.5DIV		2.5DIV		3DIV	
	ALT	2DIV		3DIV					
	EXT	200mV		800mV					
	TV	Sync pulse>1DIV (EXT: 1V)							
External trigger input									
Input impedance		Approx. 1MΩ//Approx. 25pF							
Max. input voltage		400V (DC+AC peak), AC frequency≤1kHz							
X-Y mode									
Sensitivity		5mV~5V/DIV±3%							
X-axis bandwidth		DC~500kHz (-3dB)							
Phase error		≤3° at DC~50kHz							
CH1 signal output		At least 20 mV/div at 50Ω terminal; Frequency at least 50Hz to 50MHz							
Calibration signal output		1kHz square wave; 2Vpp±2%; Output impedance: approx. 1kΩ							
Z-axis input		DC~2MHz, 5Vpp; Max. input voltage: 30V (DC+AC peak), AC frequency≤1kHz							
Frequency counter (only for TOS-2020FG, TOS-2040FG, TOS-2050FG)									
Display		6 digits LED							
Accuracy		±0.01%							
CRT									
Type		6-inch rectangular with internal graticule, 8x10DIV (1DIV=1cm)							
Phosphor		P31							
Accelerating voltage		Approx. 2kV (20MHz); Approx. 12kV (40MHz)							
Trace rotation		Adjustable at front panel							
General									
Power source		AC110V/220V±10%, 50/60Hz, Max. 35VA							
Accessories		Power cord x1, Operation manual x1, Probe x2							
Dimension (WxHxD)		310x150x455mm							
Weight		Approx. 8kg							