

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

Analog Oscilloscope

STANDARD, 20MHz/40MHz/50MHz

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					