



SC 503

The SC 503 is a nondelayed-sweep, general-purpose analog storage oscilloscope that can be used to store and display waveforms after the input signal is removed.

Important storage applications of the SC 503 include measurement of signals in computer peripherals, communication terminals, and industrial control systems.

The SC 503 also features an autoerase mode that erases the stored signal and automatically retriggers the oscilloscope, and X-Y capability. The X-Y capability allows creation of Lissajous patterns in many cause-and-effect testing relationships including: acoustic-speech testing, nerve-potential testing, and optical-stimulus-response testing.

CHARACTERISTICS

VERTICAL DEFLECTION

Bandwidth at -3 dB - 5 mV to 20 V/div, >10 MHz; 2 mV/div, >7 MHz; 1 mV/div, >5 MHz.

Rise Time - 35 ns, 5 mV to 20 V/div.

Step Response Aberrations - $\pm 2\%$, $\leq 3\%$ p-p.

AC Coupled Low-Frequency Response - ≤ 10 Hz, 1 Hz with X10 probe.

Deflection Factors - 1 mV/div to 20 V/div in a 1-2-5 sequence of 14 steps plus variable.

Accuracy - 5 mV to 20 V/div, $\pm 3\%$; 1 mV/div and 2 mV/div, $\pm 5\%$.

Input R&C - 1 M Ω $\pm 1\%$, 47 pF.

Maximum Input Voltage - 350 V (dc + peak ac), 700 V p-p at 1 kHz.

CMRR (CH 1 minus CH 2) - $\rightarrow 30:1$ at 1 MHz.

Channel Isolation - $\leq 2\%$ to 10 MHz.

Displayed Noise - ≤ 0.2 mV p-p at 1 mV/div.

Calibrator - 0.6 V $\pm 1\%$, = 1 kHz.

Delay Line - Permits viewing leading edge of displayed waveform.

HORIZONTAL DEFLECTION

Time Base - Calibrated range from 500 ns/div to 2 s/div, 21 steps in 1-2-5 sequence, X10 magnifier to 50 ns/div.

Sweep Accuracy[†] - $\pm 4\%$, 2 s/div to 0.5 s/div;
 $\pm 3\%$, 0.2 s/div to 5 μ s/div;
 $\pm 4\%$, 2 μ s/div to 500 ns/div

X-Y Mode Bandwidth - DC to 500 kHz

TRIGGERING

Coupling - DC, AC, AC LF REJ

Trigger Sensitivity (min p-p signal) DC Coupling

Source	< 5 MHz	5 MHz to 10 MHz
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Ch 1 and Ch 2	0.4 div.	1 div
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Ext. Rear Int.	35 mV to 60 mV	80 mV to 150 mV
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Triggering Level Range - V Ext ≥ 1.2 V, Int ≥ 6 div.

AVAILABLE REAR CONNECTIONS

Z Axis In	Ch 1 Trig Out
Ch 1 & Ch 2 In	Triged Gate Out
Trig In	Ramp Out
Ext Gate In	Sweep Gate Out
Gate Select In	Light Out
Intensity In	Hold Off Out
Reset In	Erase Function

CRT

Phosphor - GX (P14)

Accelerating Potential - 2 kV

Graticule - 8X10 div (0.25 in / div) internal graticule lines

STORAGE SYSTEM

Stored Writing Speed (Center 68 Divisions) - At least 80 div/ms (50 cm/ms).

Erase Time - 400 to 600 ms.

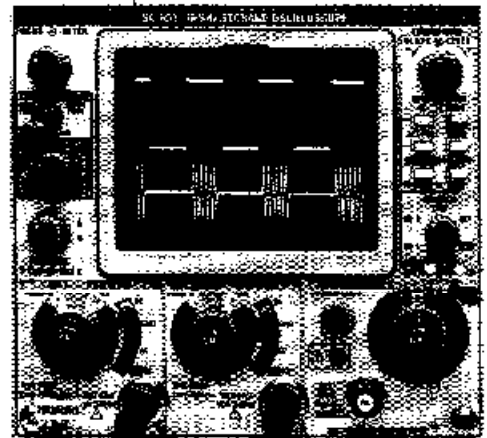
Autoerase Viewing Time - Continuously variable from 0.5 to 5 s.

Maximum Recommended Storage Time - 4 hrs.

[†] Accuracy at 15° to 35°C, X1 magnifier. Derate additional 1% for X10 magnifier on, and an additional 1% for operation at 0° to 15°C and 35° to 50°C.

SC 503 Storage Oscilloscope

- 10-MHz Bandwidth, Dual Trace
- 50-ns/Div Maximum Calibrated Sweep Rate
- 1-mV/Div Maximum Sensitivity
- Bistable Storage Autoerase
- Trigger View, Variable Trigger Holdoff
- Switchable Front/Rear X and Y Inputs
- Rear Z-Axis Input
- True X-Y Capability



ORDERING INFORMATION

SC 503 10-MHz Storage Oscilloscope	\$4,995
Includes: Instruction manual (070-3438-00).	