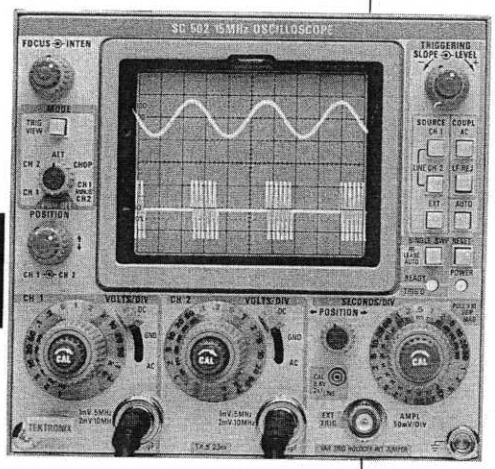
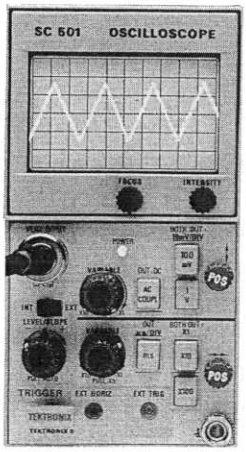
SC 502
Dual–Trace Oscilloscope

- *15 MHz Bandwidth, Dual Trace*
- *20 ns/Div Maximum Calibrated Sweep Rate*
- *1 mV/Div Maximum Sensitivity*
- *Delay Line*
- *Trigger View, Variable Trigger Holdoff*
- *Enhanced Automatic Triggering*



SC 501
Oscilloscope

- *5-MHz Bandwidth*
- *Single Compartment Size*
- *6.4-cm (2.5 in.) CRT*



ORDERING INFORMATION

SC 502 15-MHz Oscilloscope Includes: Instruction manual (070-1878-01).	**$3,295**
SC 501 5-MHz Oscilloscope Includes: Instruction manual (070-1700-01).	**$2,995**

SC 502

The SC 502 is a compact general-purpose, 15 MHz dual-trace oscilloscope with high writing speed, a wide range of sweep rates, a wide range of deflection factors, and versatile triggering, including trigger view and enhanced automatic triggering.

The SC 502 is intended to be a powerful tool in the field servicing of digital equipment. The CRT of the SC 502 offers a high writing speed as an advantage in the display of digital information, while stable, clean triggering is assured by incorporating well-proven circuits. Thus, the SC 502 offers a unique combination of performance, compactness, and systems capability.

The rear-interfacing capability of the SC 502 and all TM 500/TM 5000 instrumentation suggests exceptional applicability to systems of built-in test equipment or rackmounted installations.

CHARACTERISTICS

VERTICAL DEFLECTION

Bandwidth at –3 dB – 5 mV to 20 v/div, >15 MHz; 2 mV/div, >10 MHz; 1 mV/div, >5 MHz.

Rise Time – 23 ns.

Step Response Aberrations – ±2%, ≤ 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.

Input R&C – 1 MΩ ±1%, 47 pF.

Accuracy – 5 mV to 20 V/div, < 2%; 1 mV to 2 mV/div, < 5%.

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

CMRR (CH 1 minus CH 2) – > 30:1 at 1 MHz.

Channel Isolation – ≤ 2% to 15 MHz.

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

Calibrator – 0.6 V ±1%, ≈ twice power-line frequency.

HORIZONTAL DEFLECTION

Time Base – Calibrated range from 0.2 µs/div to 0.5 s/div, 20 steps in 1-2-5 sequence, X10 magnifier to 20 ns/div.

Sweep Accuracy**[1] – ±3%, 0.5 s/div to 0.1 s/div; ±2%, 50 ms/div to 1 µs/div; ±3%, 0.5 µs/div to 0.2 µs/div

X-Y Mode Bandwidth – DC to 2 MHz.

TRIGGERING

Coupling – DC, AC, AC LF REJ.

Trigger Sensitivity (min p-p signal) DC Coupling –

Source	≤ 5 MHz	5 MHz to 15 MHz
Ch 1 and Ch 2	0.4 div.	1 div
Ext. Rear Int.	60 mV	150 mV

Triggering Level Range – Ext ≥ 1.2 V, Int ≥ 8 div.

AVAILABLE REAR CONNECTIONS

Ext (Delayed) Gate In, Trig Gate Out, Gate Select In, Hold Off Out, Intensity In, Ramp Out, Ch 1 Trig Out.

CRT

Phosphor – GH (P31)

Accelerating Potential – 12 kV

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

[1] 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 501

The SC 501 is a single-channel, 5-MHz plug-in-unit oscilloscope with a 2.5-inch CRT display that occupies a single TM 500/TM 5000 series plug-in compartment.

Since the SC 501 fits any TM 500 or TM 5000 mainframe, it can be used on the bench, in a rack, or on the road.

Calibrated sweep rates are selected by pushbutton logic in decade steps from 1 s/div to 100 ms/div. A variable control extends the slowest sweep rate to at least 1 s/div and a fixed magnifier extends the fastest sweep rate to 200 ns/div.

A 0 to 10-V ramp for all sweep rates (excluding the X5 magnification) is provided at a rear-interface connector.

CHARACTERISTICS

VERTICAL DEFLECTION:

Bandwidth – DC to > 5 MHz.

AC Coupled Low-Frequency Response – ≤ 2 Hz.

Deflection Factors – 10 mV/div, 100 mV/div, and 1 V/div continuously variable.

Accuracy – < 3%.

Input R&C – 1 MΩ ±1%, 47 pF.

Maximum Input Voltage – 350 V (dc + peak ac).

HORIZONTAL DEFLECTION:

Time Base – 1 µs/div to 100 ms/div, X5 multiplier provides 200 ns/div.

Accuracy – ≤ 5% for all sweep rates.

AVAILABLE REAR CONNECTIONS

Ramp out , Vert in, Ext Trig, Ext Horiz.

CRT

Phosphor – GH (P31).

Accelerating Potential – 1 kV.

Graticule – 6X10 div (0.2 in/div).