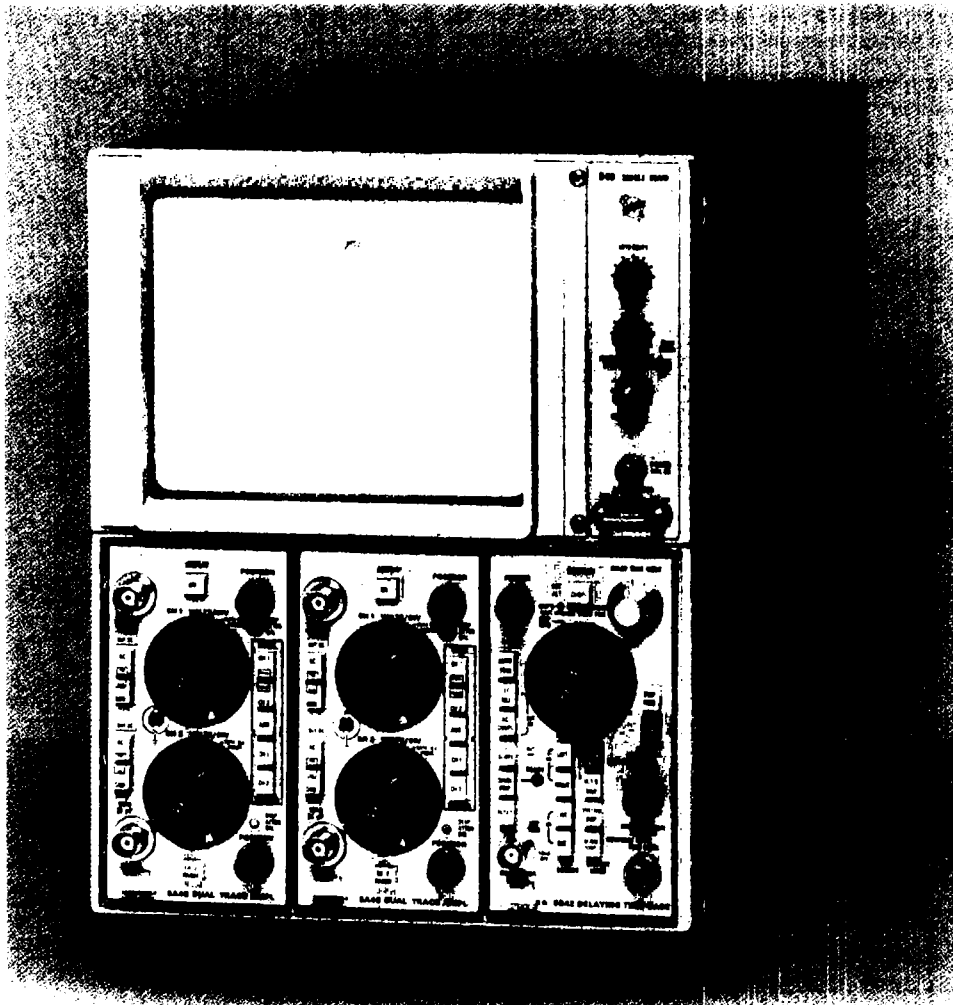




- **LOW COST**
- **DC to 60 MHz**
SAMPLING to 1 GHz
- **CRT READOUT**
- **THREE-PLUG-IN FLEXIBILITY**
- **CHOOSE from 17 PLUG-INS**
- **BENCH-to-RACK CONVERTIBILITY**



The new 5400-Series combines outstanding versatility and low cost in a 60-MHz, general-purpose, plug-in oscilloscope system. It features CRT READOUT of plug-in scale factors, a three plug-in mainframe, a choice of *17 plug-ins, and easy bench-to-rackmount convertibility.

CRT READOUT is a feature previously found only on more expensive oscilloscopes. With the plug-in scale factors displayed on the CRT, measurement time is reduced, because the operator can concentrate on the CRT display rather than having to look down at the plug-in knobs. The CRT READOUT reduces operator errors by taking into account magnifiers and probe attenuators. The CRT READOUT can also be accessed externally, a feature found on no other oscilloscope. This unique ability can be used to readout dates, picture numbers, digital clock times, etc.

*Plug-ins with an N suffix, such as 5A13N, 5B12N, etc., do not provide CRT READOUT.

All the plug-ins in the 5000-Series are compatible** with the 5400-Series mainframe. Thus, although the 5400-Series is new, it already has a wide range of measurement capability. The available plug-ins provide multi-trace (up to four) amplifiers, differential amplifiers, a differential comparator amplifier, transistor curve tracer, a 1-GHz sampler and delayed sweep time-bases. More plug-ins utilizing the additional mainframe bandwidth will be available soon.

The 5403/5A48/5B42 provides 5 mV sensitivity at 60 MHz and 1 mV/division sensitivity at 25 MHz. This 1 mV/division sensitivity for example, allows you to look at the heads of tape drive and disc drive units. Problems in these units are often the causes of computer system malfunctions.

If you're looking for a 60-MHz general purpose oscilloscope, the 5400-Series provides you with the most versatility and performance at the lowest price.

**Only the 5B42 permits viewing the leading edge of a triggered waveform when used in the 5403.



New

5400-SERIES OSCILLOSCOPES 5403

5403 MAINFRAME VERTICAL SYSTEM

Channels—Two plug-in compartments (left and center) compatible with all 5400-Series plug-ins and all 5000-Series plug-ins. CRT READOUT is not available with plug-ins having a suffix N (5A13N, 5B10N, etc.).

Deflection Factor—Determined by plug-in unit.

Bandwidth—60 MHz maximum, determined by plug-in.

Chopped Mode—The 5403 will chop between channels at an approx 25-kHz to 100-kHz rate, depending on plug-ins used and operating modes.

Alternate Mode—In this mode each plug-in is swept twice before switching to the next. A single-trace amplifier is swept twice and each channel of a dual-trace amplifier is swept once before the 5403 switches to the second amplifier.

HORIZONTAL SYSTEM

Channels—One plug-in compartment (right) compatible with all 5400 and 5000 Series plug-ins. CRT READOUT is not available with plug-ins having a suffix N (5A13N, 5B10N, etc.).

Internal Trigger Mode—LEFT VERT, RIGHT VERT.

Fastest Calibrated Sweep Rate—10 ns/div, determined by plug-in.

X-Y Mode—The phase shift is within 1° from DC to 20-kHz, checked with two amplifiers of the same type.

OTHER CHARACTERISTICS

Ambient Temperature—Performance characteristics are valid from 0°C to -150°C, unless otherwise specified.

Power Requirements—100, 110, 120, 200, 220 and 240 VAC ±10%; internally selected with quick change jumpers. Line frequency range; 48 to 440 Hz.

D40 SINGLE-BEAM DISPLAY UNIT

The D40 provides a single-beam conventional display for the 5403 Mainframe. The CRT has an 8 x 10 division (1.22 cm/div) display area with internal parallax-free edge-lit graticule. A bright display is provided by a 15-kV accelerating potential. P31 phosphor standard; P7 or P11 optional without extra charge.

CRT READOUT labels the CRT with: deflection factors; sweep speeds; invert and uncalibrated symbols; and identifies the trace and its data. The readout is automatically corrected when magnified sweeps and recommended 10X or 100X probes are used.

Beam Finder—Brings trace within viewing area and intensifies trace.

External Intensity Input—5 V will turn the beam on to full brightness from an off level. Frequency range is DC to 2 MHz. Input R and C is approx 10 kΩ, paralleled by approx 40 pF. Maximum input is ±50 V (DC ± peak AC).

Calibrator—Voltage amplitude is 400 mV within 1%. Current Maximum input is ±50 V (DC + peak AC).

Minimum Photographic Writing Speed—Using Polaroid film without film fogging. Can be increased by using the TEKTRONIX Writing Speed Enhancer (see Camera Section for more information).

MAINFRAME	WRITING SPEED cm/μs				CAMERA	LENS
	P31		P11			
5403/D40	10,000 ASA	3,000 ASA	10,000 ASA	3,000 ASA	C-59R	f/2.8 0.67 mag
	180	90	245	125		
	330	160	450	230	* ** C-50R	f/1.9 0.7 mag

*Slight cropping of the graticule corners.

**Requires optional battery pack (016-0270-00) for operation with the 5403.

Option 1—The 5403 may be ordered without CRT READOUT. This feature may easily be added by installing a conversion kit.

Option 3—User Addressable CRT READOUT. An additional CRT READOUT access is available for the operator to program two 10-digit words such as: time; operator name or test number. The additional display is useful for photographic records and is accomplished by external resistor and switches.

Option 4—Protective Panel Cover (cabinet model only). The 5403 may be ordered with a protective front panel cover. The cover protects the front panel and knobs for transportation and storage.

ORDERING INFORMATION

The 5403 mainframe unit and display unit may be ordered as a cabinet model oscilloscope equipped with a tilt bail or it may be ordered as a 5¼-inch rackmount oscilloscope equipped with a slide-out assembly.

Cabinet (without plug-ins)—
5403/D40 OSCILLOSCOPE, Order 5440 \$1175

Rackmount (without plug-ins)—
R5403/D40 OSCILLOSCOPE, Order R5440 \$1175

OPTIONS

Option 1	WITHOUT CRT READOUT	Sub \$350
Option 3	USER ADDRESSABLE CRT READOUT	Add \$60
Option 4	PROTECTIVE PANEL COVER (cabinet model only)	Add \$15
Option 76	P7 PHOSPHOR	No Charge
Option 78	P11 PHOSPHOR	No Charge

CONVERSION KITS

Cabinet-to-rackmount, Order 040-0583-01	\$33
Rackmount-to-cabinet, Order 040-0584-01	\$33
CRT READOUT, Order 040-0691-00	\$350