**7934 CRT-STORAGE OSCILLOSCOPE**

The 7934 CRT-Storage Oscilloscope is used for single-shot and low-repetition rate pulse analysis. Capabilities include storing unexpected transient pulses, high-frequency bursts occurring at low-repetition rates, and fast pulses in applications using high-speed ECL.

A 4000 cm/µs storage writing rate, 700 ps rise time, and 500 MHz bandwidth ensure undistorted capture and clear display of the fastest waveform details. The 7934 can be used as a non-storage oscilloscope as well.

The mainframe bandwidth is 500 MHz. System bandwidth may vary from 80 MHz to 500 MHz, depending on the plug-in used.1

The instrument has four storage modes. Bistable mode provides stored displays with long (30 minute) view time. When viewing changing wave-shapes, Variable Persistence mode provides continuous bright displays of new information as old information fades from the CRT. Fast Bistable mode increases writing speed to 350 cm/µs (reduced scan). Fast Variable Persistence mode provides the maximum stored writing speed of 4000 cm/µs (reduced scan). View time is at least 30 seconds.

**High-gain differential amplifiers offer very high gain at lower bandwidth.**

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**CHARACTERISTICS**

**VERTICAL SYSTEM**

- **Channels** – Two left-most plug-in compartments. Compatible with 7000 Series amplifier plug-ins.

- **Bandwidth, Rise Time, and Deflection Factor** – Determined by the plug-in unit used. See page 69.

- **Display Modes** – Left, Alt, Add, Chop, Right. Chopped-mode repetition rate is 1 MHz.

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**HORIZONTAL SYSTEM**

- **Channels** – Two right-most plug-in compartments. Compatible with most 7000 Series plug-ins.

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**Graph showing the stored writing speed needed to display a given sine wave or step rise time at a given amplitude.**

**Bandwidth** – Dc to at least 1 MHz.

**Display Modes** – A, Alt, Chop, B. Chopped-mode repetition rate is = 200 kHz.

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**CRT AND DISPLAY FEATURES**

- **CRT** – Internal variable illuminated graticule. 8 x 10 divisions (0.9 cm/div) graticule in full scan and 8 x 10 divisions (0.45 cm/div) in reduced scan.

- **Beam Finder** – Aids in locating an off-screen signal.

- **Multitrace Delay** – Adjusts the transfer cycle time in the fast transfer modes. Variable from <1 s to >4 s.

- **Persistence** (Variable-Persistence Mode only) Controls rate of continuous erasure of the variable-persistence and fast variable-persistence stored displays.

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**In laser research – the 7934 captures a laser primary and reflected pulse using Fast Variable-Persistence storage (reduced scan) and two 7A29 plug-ins in ADD mode.**