454 150-MHz Dual-Trace Portable Oscilloscopes R454

- **2.4-ns RISETIME WITH OR WITHOUT PROBE**
- **HIGH-WRITING-SPEED CRT**
- **DUAL-TRACE, 5-mV/DIV DEFLECTION FACTOR**
- **FULL-BANDWIDTH TRIGGERING**
- **CALIBRATED SWEEP DELAY**
- **FULL-SENSITIVITY X-Y DISPLAYS**
- **COMPACT, RUGGED CONSTRUCTION**
- **SOLID-STATE DESIGN**

The Type 454 offers convenient measurement of fast-rise pulses and high-frequency signals previously beyond the capability of most conventional real-time oscilloscopes. Risetime is 2.4 ns, bandwidth is 150 MHz, with or without probe.

The two channels of the Type 454 provide cascaded single-trace displays at 1 mV/div, and also provide X-Y displays to 5 mV/div. The dual-trace vertical system displays either channel separately, adds channels algebraically, alternates between channels, or chops between channels at a 1-MHz rate.

A time-base system with calibrated sweep delay permits highly-magnified displays of small portions of undelayed sweeps, accurate measurement of waveform time jitter, precise time measurements, and many other measurement uses.

The Type 454 is mechanically designed to withstand environmental extremes and rough handling in transit. Plug-in transistors provide ease of maintenance.

Type R454 (the rackmount model) is electrically identical to Type 454, but is mechanically designed to mount on tilting slide-out tracks in a standard 19-in rack.

Panel cover provides storage for standard accessories.

CHARACTERISTIC SUMMARY

VERTICAL

(2 identical channels)

BANDWIDTH & RISETIME
10 V/div to 20 mV/div: DC to 150 MHz, 2.4 ns
10 mV/div: DC to 100 MHz, 3.5 ns
5 mV/div: DC to 60 MHz, 5.9 ns

CALIBRATED DEFLECTION FACTORS—5 mV/div to 10 V/div, 11 steps; 50 mV/div to 100 V/div with P6047 Probe.

INPUT RC—1 megohm paralleled by 20 pF.

HORIZONTAL

CALIBRATED TIME BASE—0.05 μs/div to 5 s/div, 25 steps.

TRIGGERING—DC to 150 MHz.

X10 MAGNIFIER—Operates over full time base, increases fastest rate to 5 ns/div.

CALIBRATED SWEEP DELAY—1 μs to 50 s.

X-Y OPERATION—5 mV/div to 10 V/div, DC to 2 MHz.

CRT

DISPLAY AREA—6 x 10 div (0.8 cm/div), internal graticule.

ACCELERATING VOLTAGE—14 kV.

PHOSPHOR—P31.

OTHER

AMPLITUDE AND TIME CALIBRATOR—1 V, 5 mA; 1 kHz.

PROBE POWER—2 connectors for P6045 FET Probe power.

POWER REQUIREMENTS—90 to 136 V and 180 to 272 V in six ranges; range selection via quick-change switching device. 48 to 440 Hz, approx 125 watts.