

# 40 MHz Analog Oscilloscopes



**1541D**

## Model 1541D

### 40 MHz, Dual-Channel Oscilloscope

- 5mV/div sensitivity
- 19 calibrated sweeps
- Video sync separators
- X10 sweep magnification

## Specifications

model

1541D

### VERTICAL AMPLIFIERS (CH 1 and CH 2)

|                    |   |
|--------------------|---|
| Sensitivity        | 5 mV/div to 5 V/div, 1 mV/div, with X5 gain         |
| Accuracy           | 5 mV/div to 5 V/div, $\pm 3\%$ (X5 gain), $\pm 5\%$ |
| Input Impedance    | 1M $\Omega$ $\pm 2\%$ , 25pF $\pm 10\%$             |
| Frequency Response | DC to 40 MHz (-3dB), DC to 7 MHz (-3dB) at X5 gain  |
| Rise Time          | 8.8 ns (Overshoot $\leq 5\%$ )                      |
| Operating Modes    | CH 1; CH 2; DUAL; Alternate/Chop; ADD               |
| Chop Frequency     | Approximately 250kHz                                |
| Max Input          | 400 V (DC + AC peak)                                |

### SWEEP SYSTEM

|                     |  |
|---------------------|--|
| Sweep Speed         | 0.2 $\mu$ s/div to 0.2 s/div in 1-2-5 sequence; 20 steps, vernier control provided |
| Accuracy            | $\pm 3\%$  |
| Sweep Magnification | 10x  |
| Hold Off Time       | 5:1 Continuously variable  |

### TRIGGERING

|                  |                            |
|------------------|----------------------------|
| Trigger Modes    | Auto, Norm                 |
| Trigger Source   | Ch 1, CH 2, LINE, EXT, ALT |
| Trigger Coupling | AC, TV-V, TV-H, NORM       |

### HORIZONTAL AMPLIFIER (Input through EXT TRIG)

|                    |                                     |
|--------------------|-------------------------------------|
| X-Y Mode           | CH1: Y axis, CH2: X axis            |
| Sensitivity        | Same as vertical CH1                |
| Accuracy           | Y axis $\pm 3\%$ , X axis $\pm 6\%$ |
| Input Impedance    | same as vertical CH1                |
| Frequency Response | DC to 1MHz (-3dB)                   |

### CRT

|                      |   |
|----------------------|---|
| Display Area         | 6 inches diagonal, rectangular screen with internal graticule 8 x 10 div (1 div = 1 cm) |
| Accelerating Voltage | 12 kV   |
| Trace Rotation       | Front panel adjustable  |
| Phosphor             | B31   |

## Other Specifications

|                     |   |
|---------------------|---|
| Calibrating Voltage | 1kHz positive square wave, 2Vp-p, $\pm 3\%$ |
|---------------------|---|

### ENVIRONMENT

|                           |  |
|---------------------------|--|
| Within Specified Accuracy | 50° to 95°F (10° to 35°C), $\leq 85\%$ RH                  |
| Full Operation            | 32° to 104°F (0° to 40°C), $\leq 85\%$ RH                  |
| Storage                   | -4° to 158°F (-20° to +70°C)                               |
| Power Requirements        | 100/120/220/240 V $\pm 10\%$ , 50/60 Hz, approximately 38W |
| Dimensions (HxWxD)        | 12.8 x 15.7 x 5.2" (324 x 398 x 132 mm)                    |
| Weight                    | 16.8 lbs. (7.6 kg)   |

## Accessories

**Three Year Warranty**

|           |   |
|-----------|---|
| SUPPLIED: | Instruction Manual, Two PR-33A x1x10 Probes or equivalent, AC Power Cord, Spare Fuse  |
| OPTIONAL: | PR-32A Demodulator Probe, PR-37A x1x10/REF Probe, PR-100A x100 Probe, PR-55 High Voltage x1000 Probe, LC-210A Carrying Case |