



Internal Memory

Waveform Memory: This features up to four 16-bit memories (M1, M2, M3, M4), whose length corresponds to the length of the channel acquisition memory.

Zoom and Math Memory: Up to four 16-bit Waveform Processing Memories (A, B, C, D), whose length corresponds to the length of the channel acquisition memory

Setup Memory: Four non-volatile memories (optional memory cards, flash disks, or removable hard disks may also be used for high-capacity waveform and setup storage.)

Cursor Measurements

Relative Time: A pair of arrow cursors measures time differences and voltage differences relative to each other.

Relative Voltage: A pair of line cursors measures voltage differences.

Absolute Time: A cross-hairs marker measures time relative to the trigger and voltage (with respect to ground).

Absolute Voltage: A reference bar measures voltage with respect to ground.

Automatic Measurements

A wide range of pulse parameter measurements is available, categorized for ease of use. The categories include Pulse, Horizontal, and Vertical parameters. Basic statistical measurements such as average, highest, lowest, and standard deviation (included as standard) can be made on these parameter measurements in order to understand their distribution.

Pass/Fail Testing and Waveform Limit testing (using masks) can be performed. Test conditions can be expressed as either waveform parameter limits, waveform shape limits (mask), or a combination of both. Any failure can cause preprogrammed actions such as Hardcopy, Save, GPIB service request, logic pulse out, audible beep, or a combination of these.

LC SERIES Specifications

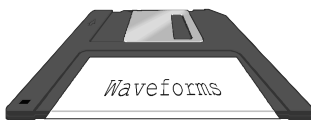
Interfacing

Remote Control: GPIB and RS-232-C for all front panel controls; internal functions

RS-232-C Port: Asynchronous; up to 115.2 kBaud for computer or terminal control, printer or plotter connection

GPIB Port: (IEEE-488.1) configurable as talker/listener for computer control and fast data transfer; command language compliant with IEEE-488.2

Centronics Port: hardcopy interface



Shielded cables less than 3 m in length are required to conform to EMC Directive 89/336/EEC.

PC Card (PCMCIA I/II/III Ports): optional for memory cards, flash cards, or removable hard disks

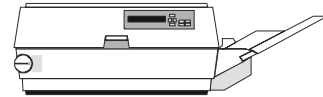
Floppy Disk: high density 3.5-inch floppy disk drive (DOS format)

VGA Compatible Display: 15-pin, D-type, VGA-compatible connector for external color display. You may experience flickering if you connect an LCD projector to the VGA output.

Hardcopy: TIFF and BMP formats available for export to Desktop Publishing programs; HPGL protocol for vector graphics

Printers and Plotters:

- **B/W Printers:** HP LaserJet™, HP DeskJet™ 500, Epson™ FX
- **Color Printers:** HP DeskJet™ 550C; Epson™ Stylus; Canon 200, 600, 800 Series
- **Plotters:** HP 7470, HP 7550
- **Internal:** high-resolution graphics printer — standard or optional depending on model; stripchart output format with 2 m per division also available



Output Formats: Binary, or ASCII waveform output compatible with spreadsheets, MATLAB™, and MathCad™

General

Auto-calibration: Ensures specified DC and timing accuracy

Temperature (operating): 5 to 40 °C (41 to 104 °F)

Humidity (operating): ≤80% RH (non-condensing)

Altitude (operating): ≤2000 m (6560 ft) at 40 °C ambient

Shock and Vibration: Conforms to selected sections of MIL-PRF-28800F, Class 3



Power: 90 to 132 VAC, or 180 to 250 VAC, 45 to 66 Hz, automatic voltage selection, 400 W max. (**LC684 Series:** 350 W max.)

Battery Backup: front panel settings maintained for two years

Dimensions: (HWD) 10.4 x 15.65 x 17.85 inches (264 x 397 x 453 mm)

Weight: 44 lb. (20 kg) net; 61.6 lb (28 kg) shipping

➤ **LC684 Series:** 35 lb (16 kg) net, 53 lb (24 kg) shipping

Warranty: 3 years

Conformity

CE Declaration of Conformity: The oscilloscope meets requirements of EMC Directive 89/336/EEC for Electromagnetic Compatibility, and Low Voltage Directive 73/23/EEC for Product Safety.

➤ **EMC:** EN 50081-1:1992 (Emissions); EN 50082-1:1997 (Immunity)

➤ **Low Voltage Directive:** Conforms to EN 61010-1:1993 + Amd. 2:1995, Safety requirements for electrical equipment for measurement, control, and laboratory use.

The oscilloscope has been qualified to the following EN 61010-1 category:

Installation (Overvoltage) Category II

Pollution Degree 2

See Declaration of Conformity for further details.

➤ **UL and cUL Certifications:** UL Standard UL 3111-1; Canadian Standard CSA-C22.2 No. 1010.1-92

UL and cUL Listing File: E 170588

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