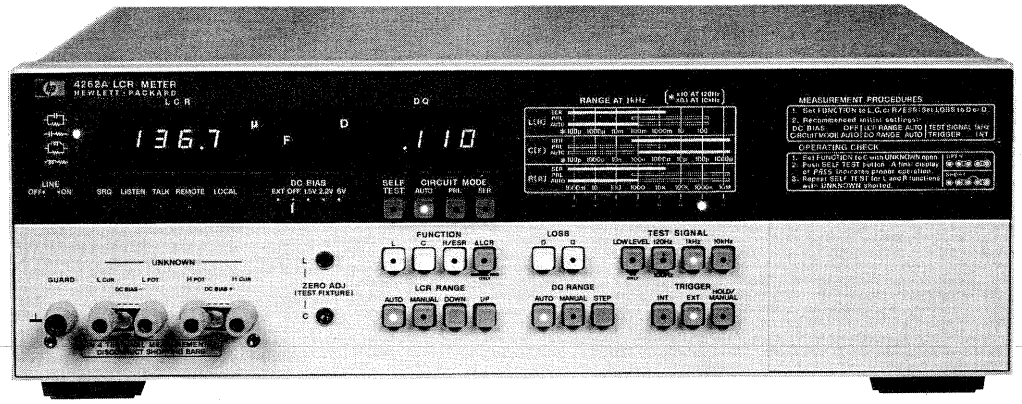
COMPONENT MEASUREMENT

Digital LCR Meters

Models 4261A and 4262A

- Automatic balancing, ranging & circuit mode selection
- Test frequencies: HP 4261A, 120 (100) Hz and 1 kHz
  HP 4262A, 120 (100) Hz, 1 kHz and 10 kHz
- Versatile accessories and options
- High reliability



HP 4262A

DESIGNED FOR HP-IB SYSTEMS

HP 4261A

Description

The HP 4261A and HP 4262A are 3½ digit LCR meters that meet today's requirements for component measurements. Both instruments feature fully automatic operation over wide measuring ranges. Simply select the measuring functions and one of the test frequencies, then insert the device to be measured. The instrument does the rest—automatically selecting the proper measuring range and equivalent circuit mode. The HP 4261A and HP 4262A basic features are summarized in the table below.

	HP 4261A	HP 4262A
Test Frequency	120 (100) Hz, 1 kHz	120 (100) Hz, 1 kHz, 10 kHz
Signal Level	1 V, 50 mV (Cp)	1 V, 50 mV (Cp)
Parameters Measured	C–D L–D R	C–D • Q L–D • Q R (ESR) Δ (Deviation)
HP-IB	No	Yes (opt.)
Digital Comparison	No	Yes (opt.)
BCD Output	Yes (opt.)	Yes (opt.)

In addition to automatic measurements, the HP 4261A and HP 4262A provide high accuracy (0.2% reading), internal dc bias, and series and parallel equivalent circuit modes.

These relatively low cost and easy-to-use LCR meters are capable of a wide range of applications—measuring electrolytic/ceramic capacitors, filter coils, pulse transformers, internal resistance of dry cells and semiconductor junction capacitance, as well as ordinary LCR components. Extended features of these reliable instruments include optionally available HP-IB (HP 4262A) and BCD (HP 4261A) data output capabilities and a comparator option which is convenient for production line applications.

Specifications

(refer to data sheet for complete specifications) Measurement ranges and accuracies: see table on next page. Accuracy applies over a temperature range of 23°C ±5°C (at 0° to 55°C, error doubles). 10 kHz and Q specifications are given only for the HP 4262A.

		HP 4261A	HP 4262A
Parameters measured		L-D, C-D R	L-D • Q, C-D • Q R (ESR), Δ LCR
Display		3½ digits max. display 1900	3½ digits max. display 1999
Test frequency		120 (100) Hz, 1 kHz ±3%	120 (100) Hz, 1 kHz 10 kHz ±3%
Test signal level (typical)		1 V, 50 mV (Cp mode only)	
DC bias	**Int**	1.5 V, 2.2 V, 6 V ±5%, selectable	
	Ext	0 to +30 V	0 to +40 V
Equivalent circuit modes		auto, parallel, series	
Ranging modes	**LCR**	auto, manual	
	DQ	D only — fixed	auto, manual
Trigger		internal, external, manual	
Measuring terminal		5-terminal configuration	

Deviation measurement (HP 4262A): displays the difference between a stored value (that is, measured value when Δ LCR switch is depressed) and subsequent measured data.

Offset adjustments (HP 4262A): front panel adjustments to compensate for stray capacitance and residual inductance of the test fixture.

C: 0 to 10 pF **L:** 0 to 1 μH

Self-test (HP 4262A): automatically checks the HP 4262A's basic functions.

General

Measuring time (typical): for a 1000 count measurement on a low loss component on a fixed range:

1 kHz, 10 kHz: C/L 220-260 ms, R 120-160 ms

120 (100) Hz: C/L 900 ms, R 700 ms

Ranging Time

1 kHz, 10 kHz: 180 ms/range step

120 (100) Hz: 670 ms/range step

Reading rate: INT (internal trigger) approximately 30 ms between end of measurement cycle and start of the next cycle. EXT (external trigger) measuring cycle is initiated by a remote trigger input.