

Digibridge Series 1710 LCR Tester

USES:

- Meters Used for Impedance Measurements (Inductance, Capacitance, and Resistance) to Characterize the Performance of a Variety of Electrical Components and Materials.
- Test Resistors, Capacitors, Inductors or Any Type of Passive Component
- Testing Electronic Components

FEATURES:

- Easy to Use
- Basic LCR Accuracy of 0.2%
- Large LED Display
- Measurement Autoranging or Manual Hold
- Guarded Four-Terminal Kelvin Connections to Maintain Measurement Integrity
- Cost Effective Solution LCR Testing
- Range from 0.0001Ω to $99.999M\Omega$ at 120 Hz
- Range from 0.0001Ω to $9.9999M\Omega$ at 1 kHz

CE Marked LCR Meter

Introduction

The 1710 LCR Digibridge is an instrument for measuring primary parameters of inductance (L), capacitance (C), resistance (R) and secondary parameters of dissipation factor (D) and quality factor (Q). This compact unit is designed with maximum flexibility and operator convenience in mind.

The simple front panel of the Digibridge requires less effort to operate. Digital display and user friendly control allows test parameters and limits to be set easily.

Description

The 1710 LCR Digibridge is an economical, user friendly, general purpose meter for production testing of inductors, capacitors and other LCR components. The 1710 Digibridge makes primary measurements of L, C, and R and secondary measurements of D and Q. L, C, & R measurements are made at a frequency of 120Hz or 1kHz with a basic accuracy of $\pm 0.2\%$. The accuracy of the secondary parameters for D or $Q < 1$, is ± 0.001 for Q (with R), ± 0.01 for Q (with L), and ± 0.0005 for D (with C). Refer to the Specifications list for the accuracy of D and Q when D or $Q > 1$. Bias Voltage can be applied to capacitors by connection of an external voltage source on the rear panel. Bias levels from 0V to 60VDC are attainable. The test voltage level is programmable at 0.25V or 1.0V RMS. An internal zeroing function is provided and selectable from the front panel. Auto/Manual ranging is selectable for the five measurement ranges. Connection to the device under test (DUT) is through 4 BNC terminals on the front panel of the 1710 Digibridge unit.



For more detailed specifications, visit
www.quadtech.com

For more information about special purchase,
rent & lease options, call

1-800-253-1230

Fax 1-978-461-4295

Intl. 1-978-461-2100



1710 Digibridge

LCR Features

Primary Display:	120Hz R: 0.0001Ω - 99.999MΩ L: 0.0001mH - 9999.9H C: 0.001nF - 99999μF
	1KHz R: 0.0001Ω - 9.9999MΩ L: 0.1μH - 999.99H C: 0.1pF - 999.99μF
Secondary Display:	D (with C) .0001 - 9.999 Q (with R) .0001 - 9.999 Q (with L) 00.01 - 999.9 R (with C,L) .0001Ω - 99.999MΩ
Frequency:	120Hz or 1KHz
Measurement Rate:	3 Measurements/Second
Accuracy:	For D or Q < 1: R,L,C +/- 0.2% Q (with R) +/- 0.001 Q (with L) +/- 0.01 D (with C) +/- 0.0005
	For D or Q > 1: LCR Accuracy ZL <= Zx <= ZH: 0.2% Zx < ZL: (ZL/Zx) x 0.2% Zx > ZH: (Zx/ZH) x 0.2%
	For D or Q > 1: D, Q Accuracy ZL <= Zx <= ZH: 0.25% Zx < ZL: (ZL/Zx) x 0.25% Zx > ZH: (Zx/ZH) x 0.25%
	Zx:DUT ZL: Lower edge of ranges in best accuracy ZH: Upper edge of ranges in best accuracy
	ZL,ZH 120Hz R: 2Ω,2MΩ L: 2mH, 2000H C: 2nF, 2000μF
	1KHz R: 2Ω,2MΩ L: 0.2mH, 200H C: 0.2nF, 2000μF

General Features

External DC Bias:	0-60VDC, Applied Current: < 200mA Ripple <1mV peak to peak
Test Signal:	Current Limits at 1.0V: 40mA, 10mA, 1mA, 100μA & 10μA Current Limits at 0.25V: 25mA, 2.5mA, .25mA, 25μA & 2.5μA
Circuit:	Equivalent Series or Parallel
Mechanical:	Bench Mount
Dimensions:	(w x h x d): 10.5x4.0x13.0 in (262x100x325mm)
Weight:	7.5 lbs (3.45kg), 11 lbs (5.06kg) shipping
Environmental:	Operating: 0°C to +50°C Storage: -45°C to +75°C Humidity: <85% Warm-Up Time: 15 minutes
Power:	• 90 - 125V AC • 50 or 60Hz • 180 - 250V AC • 50W max, 40W typical

Ordering Information

Digibridge 1710 LCR Tester

Includes:

4200-0300	AC Power Cord 0.6A Slow Blow Screw Cap Fuse (115V)
1700-03	4 BNC Connectors to 2 Kelvin Clips Lead Set
150390	Instruction Manual
	Calibration Certificate

Optional Accessories:

1700-01	Axial/Radial Component Test Fixture
1700-02	Axial/Radial Remote Test Fixture
1700-03	4 BNC Connectors to 2 Kelvin Clips Lead Set
1700-04	4 BNC Connectors to 4 Banana Plugs
1700-05	4 BNC Connectors to Chip Component Tweezers

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