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 0.0001 Ω to 99.999M Ω at 120 Hz
- Range from 0.0001 Ω to 9.9999M Ω at 1 kHz

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 ±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

CE Marked LCR Meter
## 1710 Digibridge LCR Tester

### Primary Display:
- **120Hz**
  - R: 0.0001Ω - 99.999MΩ
  - L: 0.01mH - 9999.9H
  - C: 0.001nF - 99999µF

### Secondary Display:
- D (with C) 0.0001 - 99999
- Q (with R) 0.0001 - 99.999
- Q (with L) 0.001 - 9999.9
- R (with C, L) 0.0001Ω - 99.999MΩ

### Frequency:
- 120Hz or 1KHz

### Measurement Rate:
- 3 Measurements/Second

### Accuracy:
- For D or Q < 1:
  - R < 0.001 +/− 0.001
  - Q (with R) +/− 0.001
  - Q (with L) +/− 0.01
  - D (with C) +/− 0.0005

- For D or Q > 1:
  - LCR Accuracy
    - \( Z_L \leq Z_X \leq Z_H: 0.2\% \)
    - \( Z_X < Z_L: (Z_L/Z_X) \times 0.2\% \)
    - \( Z_X > Z_H: (Z_X/Z_H) \times 0.2\% \)

### 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

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<th>Digibridge 1710 LCR Tester</th>
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<td>Includes:</td>
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<tr>
<td>4200-0300 AC Power Cord</td>
<td>Axial/Radial Component Test Fixture</td>
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<td>0.6A Slow Blow Screw Cap Fuse (115V)</td>
<td>1700-02 Axial/Radial Remote Test Fixture</td>
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<td>150390 Instruction Manual</td>
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