

Digibridge

1715 LCR Meter

Passive Component Tester with RS-232

USES:

- Production Testing of LCR Components
- Component Design and Evaluation
- Component Inspection and Screening
- Quality Assurance Testing
- Material Testing

FEATURES:

- 11 Measurement Parameters
- 0.2% Basic Measurement Accuracy
- Selectable Test Frequency: 100Hz, 120Hz, 1kHz, 10kHz
- Selectable Test Voltage: 0.25V, 1.0V
- Measurement Speed to 25/second
- LCD Display
- RS-232 Interface Standard
- IEEE and Handler Interfaces, Optional
- Automatic Open/Short Zeroing
- Automatic Hi/Lo Comparator Limits
- Pass/Fail Sorting (8 Bins)
- Storage of 1 Setup
- Automatic Source Impedance Selection
- Keypad Lockout
- Easy Operation
- Programmable Delay Time

Introduction

The QuadTech 1715 LCR Digibridge is an economically priced, easily programmable, micro-processor based passive component tester for fast, precise impedance measurements. It measures eleven different parameters with a basic accuracy of 0.2%. The 1715 provides four different test frequencies and two test voltages for testing flexibility. For remote operation and automated system applications, the unit comes standard with an RS-232 interface, plus IEEE-488 and Handler interfaces are available as options.

Description

11 Measurement Parameters: Measure and display two of 11 impedance parameters simultaneously with a basic accuracy of 0.2%. Test results can also be shown as Deviation or %Deviation from nominal value.

Test Signal: Four user selectable test frequencies: 100Hz, 120Hz, 1kHz, and 10kHz (9.6kHz), plus two test voltages: 0.25V and 1.0V.

Display: 40 x 4 character LCD display for user friendly menu programming and measured results. Simultaneously displays primary/secondary values and binning or comparator results.

Setup Storage: Storage of 1 setup with parameter, binning and compare information saved. Auto recall of this setup upon power-up of instrument.

Auto Ranging: For maximum measurement integrity the 1715 automatically selects the appropriate measurement range and instrument source impedance (25 Ω , 100 Ω , 1k Ω , 10k Ω or 100k Ω), dependent upon the impedance of the device under test.

Pass/Fail Testing: The 1715 provides a programmable Hi/Lo comparator function as well as eight sorting bins for categorization of components.

Open/Short Zeroing: Reduce the effects of error sources (stray admittance/residual impedance) between the device under test and the calibrated connection to the measuring instrument.

Interfaces: For remote control, or adaption to a production environment, the 1715 instrument includes an RS-232 interface as standard equipment. Both an IEEE-488 and a Handler interface are available as optional interfaces.



1715 Digibridge LCR Features

Parameter	Measurement Range
Ls, Lp	0.01uH - 9.999kH
Cs, Cp	0.01pF - 99.999mF
Rs, Rp	0.1mΩ - 99.99MΩ
D	0.0001 - 9999
Q	0.0001 - 9999
IZI	0.1mΩ - 99.99MΩ
Xs	0.1mΩ - 99.99MΩ
Phase	-180.00° - +180.00°
Accuracy:	Basic LCR ±0.2% Basic DQ ±0.002
Test Frequency:	100Hz, 120Hz, 1kHz and 10kHz (9.6kHz) Accuracy ±0.2%
Test Signal:	0.25V or 1.0V RMS, ±(10% + 3mV)
Measurement Speed:	Fast: 25 measurements/second Medium: 8 measurements/second Slow: 2 measurements/second
Measurement Mode:	Continuous or Trigger
Trigger:	Internal External (IEEE or Handler) Manual
Trigger Delay:	0 - 9999ms
Ranging:	Automatic or Hold Range
Equivalent Circuit:	Series or Parallel
Zeroing:	Open and short circuit compensation
Source Impedance:	25Ω, 100Ω, 1kΩ, 10kΩ or 100kΩ (based on DUT impedance)
Comparator:	Primary Nominal Primary Hi/Lo Limits (Value or %) Secondary Hi/Lo Limits (Value or %)
Indication:	Audible Alarm programmable: HI LO or OFF for Pass or Fail Result
Binning:	Primary Nominal Primary Hi/Lo Limits (8 Bins in %) Secondary Hi/Lo Limits (Value)
Display:	40 by 4 Character LCD display
Results Format:	Value Deviation % Deviation Bin Number
Setup Storage:	Store 1 setup, Auto recall upon power-up
Lock:	Keypad Lockout

Interfaces (Standard):	RS-232
Interfaces (Optional):	IEEE-488 and Handler
Test Terminals:	Front: 4 BNC & 1 GND
Dimensions:	(w x h x d): 12.5 x 4.0 x 8.0in (312.5 x 100.0 x 200.0mm)
Weight:	10.85 lbs. (5kg) net, 15.2 lbs. (7kg) ship
Environmental:	Specifications: +15°C to +35°C, 75% RH Operating: 10°C to +40°C Storage: 0°C to +50°C Humidity: 10 -90% RH Pollution Degree 2 Installation Category II
Power:	<ul style="list-style-type: none"> • 90 - 125V AC • 190 - 250V AC • 48 - 62 Hz • 50VA max

Ordering Information

1715 LCR Digibridge

Includes:

QuadTech P/N	Item
150710	1715 Instruction Manual
1700-03	Lead Set: 4 BNC Connectors to 2 Kelvin Clips
4200-0300	AC Power Cord
520023/520025	Power Line Fuses (0.630A 250V/0.315A 250V) Calibration Certificate Traceable to NIST

Optional Accessories:

	B/A Calibration Data
1700-01	Axial/Radial Component Test Fixture
1700-02	Axial/Radial Remote Test Fixture
1700-03	Lead Set: 4 BNC Connectors to 2 Kelvin Clips
1700-04	Lead Set: 4 BNC Connectors to 4 Banana Plugs
1700-05	Lead Set: 4 BNC Connectors to Chip Component Tweezers
7000-07	Low Voltage Chip Component Test Fixture
700171	IEEE-488 & Handler Interface

Distributed by TestEquity Inc.
800-732-3457

