1659 Digibridge RLC Testers

The GenRad 1659 Digibridge RLC Tester is an easily programmable, microprocessor-based high performance passive component tester. It automatically identifies the type of component under test and measures in the proper range. The result is simple, precise, unambiguous RLC component testing.

The 1659 RLC Digibridge is an instrument for measuring primary parameters of inductance (L), capacitance (C) and resistance (R) and secondary parameters of dissipation factor (D) and quality factor (Q). QuadTech designed this single compact unit with maximum flexibility and operator convenience in mind.

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

Programmable test limits and automatic binning give the 1659 its remarkable capability. Programming test limits is as simple as pushing a few buttons in an easily understood sequence. Once set, the operator works in an automatic binning mode designed to replace guesswork with consistent throughput. The GenRad1659 is ideal for incoming inspection because it satisfies a wide range of testing requirements.

FEATURES:

- Easy to Use
- Accuracy of 0.1% for RLC measurements
- Four test frequencies of 100Hz, 120Hz, lkHz and 10kHz
- A choice of three test speeds: 2,4, or 8 measurements per second to complement automatic handling equipment and maximize throughput.
- A choice of two measurement modes: Continuous or Triggered (single measurement or average of 10) ensures measurement flexibility.
- A full, five-digit LED display for RLC measurements and a four-digit readout for D and Q testing, simultaneously display both test results for each measurement, automatically.
- A built-in test fixture for fast setup and ease-of-use when testing axial and radial lead components.
- Guarded Kelvin measurement techniques protect measurement integrity.
- Automatic self-test and diagnostic check maintains reliable, error-free operation.
- Automatic limit comparison and binning ensure fast, mistake-proof sorting of components.
- Optional IEEE-488 Bus and Handler Interface enable remote programming and allow the addition of a component handler to optimize throughput.

1659 Digibridge RLC Testers

1659 Digibridge RLC Features

Measurement Parameters: R/Q, L/Q, C/R, C/D (series or parallel)

Test Frequencies: 100Hz, 120Hz, lkHz,and 10kHz.
Accuracy ±0.01%.

Applied Voltage: 0.3V rmsV maximum

Measurement Speed: 2, 4 or 8 measurements/second for Slow, Medium or Fast.

Measurement Mode: Continuous, Triggered (single, or 1 to 10 measurements averaged).

Display Format: Dual Display featuring 5 full digit LED for RLC and 4 full digit LED for DQ
Bin Number,Value
Automatically positioned decimal points and minus signs where appropriate.
Individual LED indicators for parameters, units, and measurement conditions.
GO/NO GO lights

Bias: Internal 2.0VDC External up to 60VDC

Automatic Functions: Auto ranging with manual hold
Auto parameter (RLC) with manual selection

Binning: Eight pass bins for RLC Two fail bins, RLC and DQ

Interfaces: IEEE-488/Handler Interface option

Ranges:

Parameter	RLC	DQ
R/Q	0.00001Ω to 99999MΩ	0.0001 to 9999
L/Q	0.00001mH to 99999H	0.0001 to 9999
C/D	0.00001pF to 99999mF	0.0001 to 9999

Accuracy: Basic RLC ±0.1%.
Basic DQ ±0.0005

Zeroing: Open and short circuit compensation.

General Features:
- Charged Capacitor Protection (1 Joule)
- Keyboard Lock
- Store Test Conditions

Dimensions: (w x h x d): 14.8 x 4.4 x 13.5in (375 x 112 x 343mm)

Weight: 10 lbs. (4.5kg) net, 15 lbs. (6.8kg) shipping.

Accessories Supplied:
- Power Cable
- Axial Lead Adapters
- Test Fixture (Built-in)
- Instruction Manual

Enviromental: Operating: 0°C to +50°C
Storage: -40°C to +75°C
Humidity: <85%

Power:
- 90 - 250V AC
- 50 or 60 Hz
- 60W max

Ordering Information

Digibridge 1659 RLC Tester

Includes:

QuadTech P/N	Item
4200-0300	AC Power Cord
1657-5995	Axial Lead Adaptors
1659-0120	Instruction Manual
No P/N	Calibration Certificate Traceable to NIST

Optional Accessories:

No P/N	Calibration Data
1658-9620	IEEE/Handler Interface
1689-9601	BNC Adapter Box
1689-9602	BNC to BNC Extender Cable
1657-9600	Banana/Alligator Clip Extender Cable
1689-9604	Calibration Kit
7000-03	Kelvin Clip Extender Cable
7000-05	Chip Component Tweezers
1689-9600	Remote Test Fixture
1689-9605	GO/NO GO Remote Test Fixture
1688-9600	874 Connector Extender Cable