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Data Sheet

August 14, 2026

GENRAD

GenRad 1650B Impedance Bridge

GenRad 1650B Impedance Bridge Overview The General Radio Type 1650-B is a portable impedance bridge for capacitance, resistance, conductance, and inductance with internal 1 kHz generator and detector. OEM manual specification tables list seven ranges for each primary quantity with 1% class accuracy on principal ranges. Applications Field and bench RLC checks, capacitor and inductor measurements, and portable service bridge work with optional external oscillator or detector for extreme ranges.



MODEL

GenRad 1650B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

1650B

LISTING

<https://aumictechlabs.com/products/1650b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The GenRad 1650B is a manually operated impedance bridge designed for accurate measurement of capacitance, inductance, resistance, and dissipation factor. Featuring a wide measurement range and high accuracy, it is suitable for component evaluation, quality control, and research applications. Its solid design and clear analog display make it a reliable tool for both laboratory and industrial environments.

1650B Characteristics / Specifications

PARAMETER	VALUE
Capacitance Range	1 pF to 1100 uF series or parallel 7 ranges
Capacitance Accuracy	plus or minus 1% plus or minus 1 pF
Capacitance Residual	approximately 0.5 pF
Inductance Range	1 uH to 1100 H series or parallel 7 ranges
Inductance Accuracy	plus or minus 1% plus or minus 1 uH
Inductance Residual	approximately 0.2 uH
Resistance Range	1 milliohm to 1.1 megohm AC or DC 7 ranges
Resistance Accuracy	plus or minus 1% plus or minus 1 milliohm
Conductance Range	1 nanomho to 1.1 mho AC or DC 7 ranges
Conductance Accuracy	plus or minus 1% plus or minus 1 nanomho
Dissipation Factor SeriesCA _t 1 kHz	0.001 to 1
Dissipation Factor ParallelCA _t 1 kHz	0.1 to 50
D Accuracy At 1 kHz Or Lower	plus or minus 5% plus or minus 0.001
Storage Factor SeriesLA _t 1 kHz	0.02 to 10
Storage Factor ParallelLA _t 1 kHz	1 to 1000
Q Accuracy At 1 kHz Or Lower	plus or minus 5% plus or minus 0.001
Internal Generator Frequency	1 kHz plus or minus 2%
Internal DC Supply	6 V 60 mA maximum
DC Polarization Capacitance	up to 600 V from external supply for seriesC Power Required: 4 sizeD cells supplied
Portable Dimensions	330 × 175 × 315 mm
Portable Net Weight	17 lb (8 kg)
Rack Net Weight	18 lb (8.5 kg)
Upper Frequency With Reduced Accuracy	up to 100 kHz

1650B Specifications

PARAMETER	VALUE
GenRad 1650B Impedance Bridge	Overview
Internal 1 kHz oscillator plus or minus 2%	Internal DC supply 6 V 60 mA max
Technical Specifications	Capacitance Range: 1 pF to 1100 uF series or parallel 7 ranges
Notes	Ranges and accuracy from General Radio Type 1650-B Impedance Bridge instruction manual Specifications section (IET Labs archive).

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications

Specifications

PARAMETER	VALUE
Capacitance Range	1 pF to 1100 uF series or parallel 7 ranges
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Resistance Range	1 milliohm to 1.1 megohm AC or DC 7 ranges
Resistance Accuracy	plus or minus 1% plus or minus 1 milliohm
Conductance Range	1 nanomho to 1.1 mho AC or DC 7 ranges
Conductance Accuracy	plus or minus 1% plus or minus 1 nanomho
Dissipation Factor SeriesCAT 1 kHz	0.001 to 1
Dissipation Factor ParallelCAT 1 kHz	0.1 to 50
D Accuracy At 1 kHz Or Lower	plus or minus 5% plus or minus 0.001
Storage Factor SeriesLAT 1 kHz	0.02 to 10
Storage Factor ParallelLAT 1 kHz	1 to 1000
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Notes

Ranges and accuracy from General Radio Type 1650-B Impedance Bridge instruction manual Specifications section (IET Labs archive).

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.