

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

ADVANTEST

Advantest R8340 Ultra High Resistance Meter

The Advantest R8340 and R8340A are digital ultra high resistance and micro current meters using gain switching I-V conversion, high speed sampling A/D conversion, and a low noise high response voltage generator. They measure current from 10 fA to 19.999 mA and resistance from 10 ohms to 3×10^{16} ohms with a built-in 0 to 1000 V DC source for insulation and leakage testing of materials, switches, connectors, and capacitors. Insulation resistance and volume/surface resistivity of polymers and rubber; capacitor leakage and ion current measurement; production line handler linked high throughput GPIB testing; JIS C5102 sequence based material qualification. Contact check and compare Hi/Go/Lo sorting. High speed charge/discharge with 10 W class source/sink. Floating input to 550 Vpeak (R8340) or 1100 Vpeak (R8340A). 1000 point data memory and handler interface.



MODEL

Advantest R8340

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

R8340

LISTING

<https://aumictechlabs.com/products/r8340-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Advantest R8340 Ultra High Resistance Meter is a precision instrument engineered for measuring extremely high resistance values and micro currents across insulation testing and material characterization applications. The meter combines an input amplifier gain switching type I-V converter, high-speed sampling A/D converter, and low-noise, high-response voltage generator to deliver both speed and measurement accuracy across an exceptionally wide dynamic range. Technical Specifications Current measurement: 10 fA to 19.999 mA Resistance

measurement: $10\ \Omega$ to $3 \times 10^{16}\ \Omega$ DC voltage source: 0.000 V to 1000.0 V, continuously variable
Floating measurement capability: Up to 550 V_{peak} (R8340 model) Measurement speed: Up to 100 samples per second with high-speed charge/discharge capability Data storage: Up to 1000 measurement records Power supply options: 110 VAC or 230 VAC configurations with internal jumper selection

Key Features Floating measurements up to 550 V_{peak} enable testing when one end of a coaxial cable is grounded Sequence Program Function stores and recalls measurement conditions; includes standard JIS C5102 measurement procedures Contact Check Function simplifies stable, precise measurements for routine testing Automatic Range Level Function delivers fast response measurements optimized for required digit resolution in current measurements Auditory alerts via buzzer signal COMPARE results (Hi/Lo), program completion, and system abnormalities

Typical Applications Testing and inspection of electric insulation materials including synthetic resin and rubber Measurement of switches, connectors, and capacitors Micro current measurement: ion current and leak current characterization Surface and volume resistivity measurements with optional accessories (R12704, R172708)

Compatibility & Integration GPIB interface conforming to IEEE 488-1978 standard Handler interface for integration with automatic test fixtures and handlers D/A output, BCD output, and trigger signal control via GPIB

R8340 Characteristics / Specifications

PARAMETER	VALUE
Model	R8340 / R8340A
Manufacturer	Advantest
Instrument Type	Ultra High Resistance and Micro Current Meter
Alias	R8340; R8340A; Advantest R8340
Current range minimum	10 fA
Current range maximum	19.999 mA
Resistance range minimum	10 ohms
Resistance range maximum	3×10^{16} ohms
Voltage source range	0.000 V to 1000.0 V
Voltage resolution low range	2.5 mV (0 to 10.000 V)
Voltage resolution mid range	25 mV (10.003 to 100.00 V)
Voltage resolution high range	250 mV (100.03 to 1000.0 V)
Voltage generation accuracy class	0.1 percent of setting plus digits at 23 plus/minus 5 C
Output noise high range	5 mVp-p (100.03 to 1000.0 V, 10 to 500 Hz)
Settling time resistive load	3 ms maximum to plus/minus 1 percent
Measurement speed maximum	100 samples per second (display off)
Integration time options	2 ms to 16×10 PLC
Floating measurement R83	550 Vpeak between LO/GND and GUARD
Floating measurement R8340A	1100 Vpeak between LO/GND and GUARD
Input bias current	30 fA or less at 23 plus/minus 1 C
Input capacitance	30 pF or less excluding cables
Maximum terminal voltage INPUT	1100 Vpeak (1 minute)
Warm up time	approx 30 minutes to specified accuracy
Operating temperature	0 C to 40 C, 85 percent RH max
Storage temperature	-25 C to 70 C

PARAMETER	VALUE
Power consumption	90 VA or less
Dimensions	approx 424 mmWx 88 mmHx 350 mmDMass: 8 kg maximum
Interfaces	GPIB IEEE 488; handler 24 pin; BCD and D/A on R8340A
R8340A extras	BCD output; D/A output plus/minus 0.999 V scale Notes Specs from Advantest R8340/R8340A datasheet. Confirm R8340 vs R8340A floating rating, mains option (31/32/42/44), and installed handler/BCD options on the unit.

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	25 C to 70 C
Operating temperature	0 C to 40 C, 85 percent RH max
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Power consumption	90 VA or less
Dimensions	approx 424 mmWx 88 mmHx 350 mmDMass: 8 kg maximum
Interfaces	GPIO IEEE 488; handler 24 pin; BCD and D/A on R8340A
R8340A extras	BCD output; D/A output plus/minus 0.999 V scale Notes Specs from Advantest R8340/R8340A datasheet. Confirm R8340 vs R8340A floating rating, mains option (31/32/42/44), and installed handler/BCD options on the unit.

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	
Technical Specifications	
PARAMETER	VALUE
Model	R8340 / R8340A
Manufacturer	Advantest
Instrument Type	Ultra High Resistance and Micro Current Meter
Alias	R8340; R8340A; Advantest R8340
Current range minimum	10 fA
Current range maximum	19.999 mA
Resistance range minimum	10 ohms
Resistance range maximum	3 x 10 ¹⁶ ohms
Voltage source range	0.000 V to 1000.0 V
Voltage resolution low range	2.5 mV (0 to 10.000 V)
Voltage resolution mid range	25 mV (10.003 to 100.00 V)
Voltage resolution high range	250 mV (100.03 to 1000.0 V)
Voltage generation accuracy class	0.1 percent of setting plus digits at 23 plus/minus 5 C
Output noise high range	5 mVp-p (100.03 to 1000.0 V, 10 to 500 Hz)
Settling time resistive load	3 ms maximum to plus/minus 1 percent
Measurement speed maximum	100 samples per second (display off)
Integration time options	2 ms to 16 x 10 PLC
Floating measurement R8340	550 Vpeak between LO/GND and GUARD
Floating measurement R8340A	1100 Vpeak between LO/GND and GUARD
Input bias current	30 fA or less at 23 plus/minus 1 C
Input capacitance	30 pF or less excluding cables
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Notes
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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.