

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

ADVANTEST

Advantest R8340A Ultra High Resistance Meter

Advantest R8340A Digital Ultra High Resistance and Micro Current Meter The Advantest R8340A is the higher-isolation member of the R8340 / R8340A ultra-high-resistance and micro-current meter family. Gain-switching I-V conversion, high-speed sampling A/D, and a low-noise 0 to 1000 V DC source measure current from 10 fA to 19.999 mA and resistance from 10 ohms to 3×10^{16} ohms. The Asuffix raises floating measurement to 1100 Vpeak and adds BCD and D/A outputs versus the R8340 (550 Vpeak float). Insulation resistance and volume/surface resistivity of polymers and rubber; capacitor leakage and ion current; production-line handler-linked GPIB testing; JIS C5102 sequence-based material qualification; high-voltage floating insulation measurements to 1100 Vpeak. The Advantest R8340A is the higher-isolation member of the R8340 / R8340A ultra-high-resistance and micro-current meter family. Gain-switching I-V conversion, high-speed sampling A/D, and a low-noise 0 to 1000 V DC source measure current from 10 fA to 19.999 mA and resistance from 10 ohms to 3×10^{16} ohms. The Asuffix raises floating measurement to 1100 Vpeak and adds BCD and D/A outputs versus the R8340 (550 Vpeak float). Insulation resistance and volume/surface resistivity of polymers and rubber; capacitor leakage and ion current; production-line handler-linked GPIB testing; JIS C5102 sequence-based material qualification; high-



MODEL

Advantest R8340A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

R8340A

LISTING

<https://aumictechlabs.com/products/r8340a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Advantest R8340A Ultra-High Resistance Meter is a precision instrument for measuring extremely high resistance values and micro currents across 16 decades. It combines an input amplifier gain-switching I-V converter, high-speed sampling A/D converter, and low-noise voltage generation to enable sensitive detection of ion currents, leakage currents, and insulation material characterization. The meter measures resistance from $10\ \Omega$ to $3 \times 10^{16}\ \Omega$ and current from 10 fA to 19.999 mA, with sampling rates up to 100 samples per second.

Technical Specifications

Measurement Range Resistance: $10\ \Omega$ to $3 \times 10^{16}\ \Omega$ Current: 10 fA to 19.999 mA Voltage Source DC supply: 0.000 V to 1000.0 V continuously variable Floating measurement capability: Up to 1100 VDC Voltage generator: 5 mVp-p noise @ 1000 V, 3 ms rise time (0 to 1000 V), 10 W class Source/sink capability with selectable current limits

Measurement Performance Sampling rate: Up to 100 samples per second Input amplifier gain switching for adjustable measurement speed and accuracy Automatic range level selection: 20000, 2000, or 200 (UP mode); 1799, 179, or 17 (DOWN mode)

Data Storage & Output Memory capacity: 1000 data items Sequence program function with stored measurement conditions GPIB interface (IEEE 488-1978) with packed format output support BCD output format D/A output: $\pm 1\text{ V}$ with $\pm 50\%$ offset adjustment

Key Features

Programmable measurement sequences including JIS C5102 procedures Contact check function via capacitance measurement Rapid sample charging and discharging with source/sink capability Low-noise, high-response voltage generation Configurable input resistance and integration time

Typical Applications Insulation material characterization Switch and connector testing Capacitor evaluation Ion current and leakage current detection Quality control and production testing Research and development

Compatibility & Integration Handler interface for external devices and automated fixtures GPIB connectivity for test system integration and production line automation Incoming inspection and high-volume testing support via packed data format output

Features & description

From manufacturer datasheet

Built-in JIS C5102 sequence programs

Contact check and Hi/Go/Lo compare sorting High-speed charge/discharge with 10 W class source/sink 1000-point data memory and 24-pin handler interface Standard GPIB with binary packed output R8340A extras: BCD output and D/A output plus/minus 0.999 V scale Floating input 1100 Vpeak between LO/GND and GUARD (A version) Technical Specifications Model: R8340A Manufacturer: Advantest Instrument Type: Ultra high resistance and micro current meter Alias: R8340A; Advantest R8340A; R8340 / R8340A family 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 R8340A: 1100 Vpeak between LO/GND and GUARD

R8340A Characteristics / Specifications

PARAMETER	VALUE
R8340A extras	BCD output and D/A output plus/minus 0.999 V scale Floating input 1100 Vpeak between LO/GND and GUARD (A version) Technical Specifications
Model	R8340A
Manufacturer	Advantest
Instrument Type	Ultra high resistance and micro current meter
Alias	R8340A; Advantest R8340A; R8340 / R8340A family
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 R8340A	1100 Vpeak between LO/GND and GUARD
Floating Measurement R8340 Sibling	550 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	about 30 minutes to specified accuracy

PARAMETER	VALUE
Operating Temperature	0 C to 40 C, 85 percent RH maximum
Storage Temperature	-25 C to 70 C
Power Consumption	90 VA or less
Dimensions	about 424 mmWx 88 mmHx 350 mmDMass: 8 kg maximum
Interfaces	GPIB IEEE 488; handler 24 pin; BCD and D/A on R8340A
R8340A D/A Output	plus/minus 0.999 V scale
Source Sink Class	10 W class charge/discharge
Data Memory	1000 points Notes Specs from the Advantest R8340/R8340A datasheet. This file is the R8340A (1100 Vpeak float, BCD/D/A). Confirm 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 maximum
Operating Temperature	0 C to 40 C, 85 percent RH maximum
Power Consumption	90 VA or less
Dimensions	about 424 mmWx 88 mmHx 350 mmDMass: 8 kg maximum
Interfaces	GPIB IEEE 488; handler 24 pin; BCD and D/A on R8340A
R8340A D/A Output	plus/minus 0.999 V scale
Source Sink Class	10 W class charge/discharge
Data Memory	1000 points Notes Specs from the Advantest R8340/R8340A datasheet. This file is the R8340A (1100 Vpeak float, BCD/D/A). Confirm 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	R8340A
Manufacturer	Advantest
Instrument Type	Ultra high resistance and micro current meter
Alias	R8340A; Advantest R8340A; R8340 / R8340A family
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 R8340A	1100 Vpeak between LO/GND and GUARD
Floating Measurement R8340 Sibling	550 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	about 30 minutes to specified accuracy
Operating Temperature	0 C to 40 C, 85 percent RH maximum
Storage Temperature	-25 C to 70 C
Power Consumption	90 VA or less

PARAMETER	VALUE
Dimensions	about 424 mm W x 88 mm H x 350 mm D
Mass	8 kg maximum
Interfaces	GPIO IEEE 488; handler 24 pin; BCD and D/A on R8340A
R8340A D/A Output	plus/minus 0.999 V scale
Source Sink Class	10 W class charge/discharge
Data Memory	1000 points

Specifications

PARAMETER	VALUE
Model	R8340A
Manufacturer	Advantest
Instrument Type	Ultra high resistance and micro current meter
Alias	R8340A; Advantest R8340A; R8340 / R8340A family
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 R8340A	1100 Vpeak between LO/GND and GUARD
Floating Measurement R8340 Sibling	550 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	about 30 minutes to specified accuracy
Operating Temperature	0 C to 40 C, 85 percent RH maximum

PARAMETER	VALUE
Storage Temperature	-25 C to 70 C
Power Consumption	90 VA or less
Dimensions	about 424 mmWx 88 mmHx 350 mmDMass: 8 kg maximum
Interfaces	GPIB IEEE 488; handler 24 pin; BCD and D/A on R8340A
R8340A D/A Output	plus/minus 0.999 V scale
Source Sink Class	10 W class charge/discharge
Data Memory	1000 points

Notes
Specs from the Advantest R8340/R8340A datasheet. This file is the R8340A (1100 Vpeak float, BCD/D/A). Confirm mains option (31/32/42/44) and installed handler/BCD options on the unit.

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 13, 2026

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