

**Aumictech**

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Data Sheet

August 14, 2026

ADVANTEST

Advantest R6441B 4½-Digit Multi-functional Digital Multimeter

Advantest R6441B 4.5 Digit True RMS Digital Multimeter with Frequency The Advantest R6441B adds true RMS AC, AC plus DC, and frequency measurement to the R6441 4.5 digit platform. OEM catalog lists true RMS ACV 20 Hz to 100 kHz, crest factor 3:1 at full scale, frequency ranges 20 Hz to 200 kHz at plus or minus 0.02 percent plus 2 digits, and the same 0.04 percent class DCV and 15 VA mechanical package. True RMS AC power and frequency troubleshooting plus DCV/ohms inRandDand production. AC Voltage Accuracy 45 Hz to 20 kHz: plus or minus 0.2 percent plus 30 digits 5 percent of FS or more The Advantest R6441B adds true RMS AC, AC plus DC, and frequency measurement to the R6441 4.5 digit platform. OEM catalog lists true RMS ACV 20 Hz to 100 kHz, crest factor 3:1 at full scale, frequency ranges 20 Hz to 200 kHz at plus or minus 0.02 percent plus 2 digits, and the same 0.04 percent class DCV and 15 VA mechanical package. True RMS AC power and frequency troubleshooting plus DCV/ohms inRandDand production. AC Voltage Accuracy 45 Hz to 20 kHz: plus or minus 0.2 percent plus 30 digits 5 percent of FS or more



MODEL

Advantest R6441B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

R6441B

LISTING

<https://aumictechlabs.com/products/r6441b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Advantest R6441B is a 4½-digit digital multimeter engineered for precision measurement across DC, AC, and specialized test functions. Dual-channel input with dual display capability enables simultaneous measurements, making it ideal for R&D laboratories and production test environments. True RMS AC measurement, AC + DC combined measurements, and frequency analysis deliver versatility for complex signal characterization. Battery operation extends field deployment capability.

Technical Specifications

Display & Sampling 4.5-digit resolution Maximum display: 199,999 (2.5 samples/second); 1,999 (80 samples/second) Selectable sampling rates: 2.5 times/second or 80 times/second

Voltage Measurement DC ranges: 20 mV to 1,000 V AC ranges: 200 mV to 700 V DC accuracy: $\pm 0.04\% \pm 5d$ (20 mV–200 V); $\pm 0.04\% \pm 2d$ (2,000 mV) AC accuracy: $\pm 0.6\% \pm 35d$ (20–45 Hz); $\pm 0.2\% \pm 30d$ (45 Hz–20 kHz); $\pm 0.5\% \pm 30d$ (20–30 kHz); $\pm 4\% \pm 50d$ (30–100 kHz) Input impedance: $\geq 1\text{ G}\Omega$ (20–200 mV); $10\text{--}11.1\text{ M}\Omega \pm 1\%$ ($\geq 20\text{ V}$); $1.1\text{ M}\Omega \pm 10\%$ AC input DC maximum allowable: $\pm 500\text{ V}$; AC maximum: $800\text{ V}_{\text{rms}} / 1,100\text{ V}_{\text{peak}} / 10^7\text{ VHz}$ Noise rejection: 60–120 dB normal mode (FAST/MID/SLOW) AC crest factor: 3:1 at full scale

Current Measurement DC ranges: 20 mA to 10 A AC ranges: True RMS capable DC accuracy: $\pm 0.2\% \pm 5d$ (20 mA); $\pm 0.6\% \pm 5d$ (200 mA) Terminal resistance: $\leq 1.5\text{ }\Omega$ (20 mA–2,000 mA); $\leq 0.04\text{ }\Omega$ (10 A) Overcurrent protection: 0.5 A/250 V (low ranges); 15 A/250 V (10 A range)

Additional Functions Resistance, diode test, conductance, dBm measurement, frequency analysis AC voltage filter: 300 Hz to 100 kHz AC response time: ~ 4 seconds (typical) Resolution: 1 μV to 100 mV (voltage); 1 μA to 1 mA (current)

Key Features Dual-channel, dual-display architecture for parallel measurement workflows True RMS AC + DC combined measurement capability Frequency measurement and dBm analysis Field-portable with battery operation option Selectable sampling rates for dynamic range optimization High input impedance ($\geq 1\text{ G}\Omega$ DC) minimizes circuit loading Temperature-compensated accuracy ($23 \pm 5^\circ\text{C}$, $\leq 85\%$ RH specification)

Typical Applications Component and circuit characterization in R&D In-circuit diagnostics and troubleshooting Production line acceptance testing AC/DC power supply validation Frequency and conductance analysis

Compatibility & Integration Dual-channel design supports simultaneous measurement of related parameters, streamlining test sequences in both bench and automated environments.

R6441B Characteristics / Specifications

PARAMETER	VALUE
Model	R6441B
AC Converter	true RMS AC and AC plus DC
AC Voltage Accuracy 45 Hz to 20 kHz	plus or minus 0.2 percent plus 30 digits 5 percent of FS or more
Crest Factor	3 to 1 at full scale
Frequency Ranges	20 Hz 200 Hz 2 kHz 20 kHz 200 kHz
Frequency Accuracy	plus or minus 0.02 percent plus 2 digits
Frequency Resolution 20 Hz Range	1 mHz
Display Maximum Slow	199999 at 2.5 readings per second
Sampling Fast	80 readings per second 3.5 digit 1999 display
DC Voltage Ranges	20 mV 200 mV 2000 mV 20 V 200 V 1000 V
DC Voltage Resolution 20 mV	1 uV
DC Voltage Accuracy Best	plus or minus 0.04 percent plus 2 digits 23 plus or minus 5 C
DC Voltage Input Impedance 20 mV 200 mV	1 GOhm or more
DC Voltage Input Impedance Higher Ranges	11.1 MOhm plus or minus 1 percent to 10.0 MOhm plus or minus 1 percent
DC Voltage Max Applied	1100 V all ranges continuous
AC Voltage Ranges	200 mV 2000 mV 20 V 200 V 700 V
AC Voltage Resolution 200 mV	10 uV
AC Voltage Max Applied	800 Vrms 1100 Vpeak 1e7 V Hz
Resistance Ranges	200 ohm to 20 MOhm 200 MOhm on ohms table
Resistance Resolution 200 ohm	10 mOhm
Resistance Accuracy 200 ohm Null	plus or minus 0.07 percent plus 10 digits
Resistance Open Circuit	7.5 V or less
DC Current RangesAB	20 mA 200 mA 2000 mA 10 A
DC Current Accuracy 20 mA	plus or minus 0.2 percent plus 5 digits

PARAMETER	VALUE
Overcurrent Protection 10 A	15 A / 250 V 10000 A interrupting capacity
CMRR Unbalanced 1 kOhm	approx 120 dB MID/SLOW 50/60 Hz plus or minus 0.1 percent DC
NMRR MID SLOW	approx 60 dB 50/60 Hz plus or minus 0.1 percent
Interface Standard	RS-232C 300 to 9600 baud
Power Consumption	15 VA or less
Dimensions	approx 212 W x 88 H x 310 D mm
Mass Main Unit	2.2 kg maximum
Mass With Options	3.5 kg maximum
Operating Temperature	0 to 50 C 0 to 40 C with battery
AC Line	90 to 250 V wide range specified at order 50 to 400 Hz class options 32 42 44
Battery Option R158	6 hour continuous operation
Dielectric COM to Chassis	450 V continuous

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 to 50 C 0 to 40 C with battery
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AC Line	90 to 250 V wide range specified at order 50 to 400 Hz class options 32 42 44
Battery Option R158	6 hour continuous operation
Dielectric COM to Chassis	450 V continuous Notes From Advantest R6441 Series catalog R6441B true RMS and frequency tables. Frequency function is R6441B only.

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	
Model: R6441B	
AC Converter: true RMS AC and AC plus DC	
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AC Voltage Max Applied	800 Vrms 1100 Vpeak 1e7 V Hz
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Power Consumption	15 VA or less
Dimensions	approx 212 W x 88 H x 310 D mm
Mass Main Unit	2.2 kg maximum
Mass With Options	3.5 kg maximum
Operating Temperature	0 to 50 C 0 to 40 C with battery
AC Line	90 to 250 V wide range specified at order 50 to 400 Hz class options 32 42 44
Battery Option R15807	6 hour continuous operation
Dielectric COM to Chassis	450 V continuous

Notes

From Advantest R6441 Series catalog R6441B true RMS and frequency tables. Frequency function is R6441B only.

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

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30-day returns
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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.