

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 14, 2026

ADVANTEST

Advantest R6581T Digital multimeter

Advantest R6581T 8.5 Digit DC Voltmeter Ohmmeter The Advantest R6581T is the DC only 8.5 digit sibling of the R6581 system DMM. OEM family tables keep 100 mV to 1000 V DCV with 5 ppm plus 0.2 ppm 1 year relative accuracy on 10 V and 10 ohm to 1 GOhm 4 wire ohms, without the AC voltage/current module. Precision DCV and resistance metrology where AC measurement is not required. Display Digits: 8.5 digit maximum 119999999 The Advantest R6581T is the DC only 8.5 digit sibling of the R6581 system DMM. OEM family tables keep 100 mV to 1000 V DCV with 5 ppm plus 0.2 ppm 1 year relative accuracy on 10 V and 10 ohm to 1 GOhm 4 wire ohms, without the AC voltage/current module. Precision DCV and resistance metrology where AC measurement is not required. Display Digits: 8.5 digit maximum 119999999 Maximum Sampling Rate: 50000 readings per second 16 bit class



MODEL	CALIBRATION
Advantest R6581T	Available on request
CONDITION	STATUS
Used	In stock
RFQ / SKU	LISTING
R6581T	https://aumictechlabs.com/products/r6581t-2/

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Advantest R6581T is an 8.5-digit digital multimeter engineered for high-precision DC measurements in laboratory, development, and quality control environments. This DC-only instrument delivers exceptional accuracy across DC voltage, DC current, and resistance measurements - both 2-wire and 4-wire configurations. The R6581T combines stability with resolution to support demanding metrology and component characterization workflows where measurement uncertainty must be tightly controlled. Technical Specifications Display & Resolution

8.5-digit display Auto-ranging capability Measurement Functions DC Voltage (DCV): 100 mV to 1000 V ranges DC Current (DCI): 100 nA to 1 A ranges 2-wire Resistance 4-wire Resistance: 10 Ω to 100 M Ω ranges DC Voltage Accuracy (1 Year) 100 mV: 7 ppm (reading) + 10 ppm (range) 1 V: 6 ppm (reading) + 1 ppm (range) 10 V: 5 ppm (reading) + 0.2 ppm (range) 100 V: 7 ppm (reading) + 1 ppm (range) 1000 V: 7 ppm (reading) + 0.2 ppm (range) 4-Wire Resistance Accuracy (1 Year) 10 Ω to 100 k Ω : 8–14 ppm (reading) + 0.5–20 ppm (range) 1 M Ω : 50 ppm (reading) + 5 ppm (range) 10 M Ω : 500 ppm (reading) + 50 ppm (range) 100 M Ω : 5000 ppm (reading) + 50 ppm (range) DC Current Accuracy (1 Year) 100 nA to 10 mA: 20–25 ppm (reading) + 20–400 ppm (range) 100 mA: 30 ppm (reading) + 20 ppm (range) 1 A: 110 ppm (reading) + 20 ppm (range) Environmental Stability Temperature coefficient: 1.2 ppm/ $^{\circ}\text{C}$ (DC Voltage), 3 ppm/ $^{\circ}\text{C}$ (DC Current) Input resistance: >10 G Ω (DC Voltage) Maximum input voltage: 300 V Key Features Internal 2-source calibration Data memory: up to 10,000 points Input protection via clipping diodes and resistors Typical Applications Component verification, standards calibration, precision current measurement, high-impedance resistance testing, and long-term stability monitoring in research and production environments. Compatibility & Integration The R6581T operates as a standalone DC measurement instrument. Its data logging capability supports external integration for automated test systems requiring measurement archival.

R6581T Characteristics / Specifications

PARAMETER	VALUE
Model	R6581T
Display Digits	8.5 digit maximum 119999999
Maximum Sampling Rate	50000 readings per second 16 bit class
DC Voltage Ranges	100 mV 1 V 10 V 100 V 1000 V
DC Voltage Minimum Resolution	10 nV
DC Voltage 10 V Range 24 Hour Relative Accuracy	0.5 ppm of reading plus 0.1 ppm of range
DC Voltage 10 V Range 1 Year Relative Accuracy	5 ppm of reading plus 0.2 ppm of range
DC Voltage 100 mV Range 1 Year Relative Accuracy	7 ppm of reading plus 10 ppm of range
DC Voltage 1 V Range 1 Year Relative Accuracy	6 ppm of reading plus 1 ppm of range
DC Voltage 100 V Range 1 Year Relative Accuracy	7 ppm of reading plus 1 ppm of range
DC Voltage 1000 V Range 1 Year Relative Accuracy	7 ppm of reading plus 0.2 ppm of range plus V_{in} squared term above 100 V
AC Voltage True RMS Ranges	10 mV to 750 V
AC Voltage Minimum Resolution	100 nV
AC Voltage Bandwidth	10 Hz to 2 MHz
DC Current Ranges	100 nA to 1000 mA eight ranges
DC Current Minimum Resolution	100 fA class 0.1 pA listed on catalog span 0.1 pA to 1.2 A
AC Current Ranges	100 uA to 1000 mA
Resistance Ranges	10 ohm to 1000 M ohm
Resistance Minimum Resolution	1 uohm
Resistance 10 kOhm 100 kOhm 1 Year Relative Accuracy	8 ppm of reading plus 0.5 ppm of range
Frequency Range	1 Hz to 10 MHz

PARAMETER	VALUE
Functions	DCV DCI DCV ratio ACV ACI resistance frequency period
Interface	GPIB SCPI plus legacy Advantest commands
Data Memory	10000 readings
Input Terminals	front and rear remote switchable
AC Functions	not fitted DC only field instrument
Sibling Models	R6581 full AC and R6581D DC only
Bandwidth	10 Hz to 2 MHz

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
Model	R6581T
Display Digits	8.5 digit maximum 119999999
Maximum Sampling Rate	50000 readings per second 16 bit class
DC Voltage Ranges	100 mV 1 V 10 V 100 V 1000 V
DC Voltage Minimum Resolution	10 nV
DC Voltage 10 V Range 24 Hour Relative Accuracy: 0.5 ppm of reading plus 0.1 ppm of range DC Voltage 10 V Range 1 Year Relative Accuracy: 5 ppm of reading plus 0.2 ppm of range DC Voltage 100 mV Range 1 Year Relative Accuracy: 7 ppm of reading plus 10 ppm of range DC Voltage 1 V Range 1 Year Relative Accuracy: 6 ppm of reading plus 1 ppm of range DC Voltage 100 V Range 1 Year Relative Accuracy: 7 ppm of reading plus 1 ppm of range DC Voltage 1000 V Range 1 Year Relative Accuracy: 7 ppm of reading plus 0.2 ppm of range plus Vin squared term above 100 V	
Specifications	
PARAMETER	VALUE
AC Voltage True RMS Ranges	10 mV to 750 V
AC Voltage Minimum Resolution	100 nV
AC Voltage Bandwidth	10 Hz to 2 MHz
DC Current Ranges	100 nA to 1000 mA eight ranges
DC Current Minimum Resolution	100 fA class 0.1 pA listed on catalog span 0.1 pA to 1.2 A
AC Current Ranges	100 uA to 1000 mA
Resistance Ranges	10 ohm to 1000 M ohm
Resistance Minimum Resolution	1 uohm
Resistance 10 kOhm 100 kOhm 1 Year Relative Accuracy: 8 ppm of reading plus 0.5 ppm of range	
Specifications	
PARAMETER	VALUE
Frequency Range	1 Hz to 10 MHz
Functions	DCV DCI DCV ratio ACV ACI resistance frequency period
Interface	GPIB SCPI plus legacy Advantest commands

PARAMETER	VALUE
Data Memory	10000 readings
Input Terminals	front and rear remote switchable
AC Functions	not fitted DC only field instrument
Sibling Models	R6581 full AC and R6581D DC only

Notes
From Advantest R6581 family tables as applied to R6581T DC only configuration. AC rows on the full R6581 do not apply.

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 14, 2026

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