

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

ADVANTEST

Advantest R6246 DC Voltage Current Source

Advantest R6246 DC Voltage and Current Source / Monitor (SMU) The Advantest R6246 is a two channel DC voltage/current source and monitor with source measurement unit (SMU) architecture for semiconductor and power device characterization. It provides synchronized dual channel generation and measurement, pulse measurements down to 100 us width, search and sweep sequencing, and wide source ranges to plus/minus 220 V or plus/minus 62 V at up to 20 A depending on installed SMU module. Bipolar MOSFET GaAsFET and IC DC parametric test; high speed I/O characteristic timing measurements; automated evaluation sequences with trigger link; power device high current sourcing with non discontinuous range switching. The Advantest R6246 is a two channel DC voltage/current source and monitor with source measurement unit (SMU) architecture for semiconductor and power device characterization. It provides synchronized dual channel generation and measurement, pulse measurements down to 100 us width, search and sweep sequencing, and wide source ranges to plus/minus 220 V or plus/minus 62 V at up to 20 A depending on installed SMU module. Bipolar MOSFET GaAsFET and IC DC parametric test; high speed I/O characteristic timing measurements; automated evaluation sequences with trigger link; power device high current sourcing with non discontinuous range switching.



MODEL

Advantest R6246

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

R6246

LISTING

<https://aumictechlabs.com/products/r6246-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Advantest R6246 DC Voltage Current Source is a dual-channel Source Measurement Unit (SMU) instrument for precision voltage and current sourcing and measurement. It delivers synchronized generation and measurement across two isolated channels, making it ideal for DC characterization of semiconductors, integrated circuits, and power devices in R&D, component testing, and automated test system environments.

Technical Specifications

Channel A (SMU62-20): Source voltage: ± 62 V Source current: ± 20 A Source resolution (voltage): 10 μ V Source resolution (current): 1 nA at 62 μ A range Measurement resolution (voltage): 1 mV, 1 μ V Measurement resolution (current): 10 fA, 100 pA at 6 nA range Maximum output power: 140 W Connectors: Banana

Channel B (SMU220-2): Source voltage: ± 220 V Source current: ± 2 A Source resolution (voltage): 10 mV Source resolution (current): 100 μ A at 2 A range Measurement resolution (voltage): 1 mV, 1 μ V Measurement resolution (current): 10 fA, 100 pA Maximum output power: 24.2 W Connectors: Triax

Measurement Accuracy: Voltage accuracy: $\pm 0.01\%$ of setting Current accuracy: $\pm 0.01\%$ of setting Source accuracy: $\pm 0.03\%$ Measurement accuracy: $\pm 0.02\%$ Load regulation: $\pm 0.0017\%$ of range or less (4-wire)

Key Features

- Synchronized dual-channel generation and measurement across isolated channels
- High throughput: 0.8 V/ μ s at current measurement ranges ≥ 6 mA
- Range switching without discontinuous output
- Trigger Link Function for automated test sequencing
- Sequence Programming Function for multi-step test execution
- Search Measurement Function for specialized characterization
- Minimum pulse width: 100 μ s; minimum step: 700 μ s

Typical Applications

- DC characterization of discrete semiconductors and integrated circuits
- Power device evaluation and testing
- Automated test systems requiring synchronized dual-channel sourcing
- Complex device characterization requiring simultaneous generation and monitoring

Compatibility & Integration Channel A uses banana connectors; Channel B uses triax connectors for flexible integration into test fixtures and automated platforms.

R6246 Characteristics / Specifications

PARAMETER	VALUE
Model	R6246
Manufacturer	Advantest
Instrument Type	DC Source Measurement Unit (SMU)
Alias	R6246; Advantest R6246
Channel count	2 isolated SMU channels
Module SMU220 2 source range	plus/minus 220 V at plus/minus 2 A (2.4 W)
Module SMU62 20 source range	plus/minus 62 V at plus/minus 20 A (140 W)
Voltage measurement resolution	1 uV class
Current measurement resolution SMU220	10 fA
Current measurement resolution SMU62	100 pA
Voltage measurement accuracy	plus/minus 0.02 percent of reading plus 120 uV
Voltage source accuracy	plus/minus 0.16 percent of setting plus 3.8 mV
Current source accuracy	plus/minus 0.5 percent of setting plus 10 uA
Minimum pulse width	100 us
Minimum sweep step	700 us
Maximum slew class	0.8 V/us at 6 mA or higher current ranges
Remote sense	up to 5 V drop supported
Maximum applied voltage	plus/minus 250 V peak (module class)
Synchronized measurement	2 channel simultaneous acquisition
Sequence programming	automated multi step evaluation tests
Trigger link function	external trigger coordination
Search measurement	parametric search routines supported
Range switching	continuous output during range change
Display accuracy class	620000 columns 0.02 percent measurement headline
Related model	R6245 same family architecture

PARAMETER	VALUE
Interface	GPIB and front panel control (confirm on unit)
Form	benchtop SMU mainframe for device parametric test Notes Specs from Advantest R6245/R6246 family datasheet summary. Confirm installed SMU module (SMU220-2 vs SMU62-20), cabling, and sense configuration 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	
Specifications	
PARAMETER	VALUE
Model	R6246
Manufacturer	Advantest
Instrument Type	DC Source Measurement Unit (SMU)
Alias	R6246; Advantest R6246
Channel count	2 isolated SMU channels
Module SMU220 2 source range	plus/minus 220 V at plus/minus 2 A (2.4 W)
Module SMU62 20 source range	plus/minus 62 V at plus/minus 20 A (140 W)
Voltage measurement resolution	1 uV class
Current measurement resolution SMU220 2	10 fA
Current measurement resolution SMU62 20	100 pA
Voltage measurement accuracy	plus/minus 0.02 percent of reading plus 120 uV
Voltage source accuracy	plus/minus 0.16 percent of setting plus 3.8 mV
Current source accuracy	plus/minus 0.5 percent of setting plus 10 uA
Minimum pulse width	100 us
Minimum sweep step	700 us
Maximum slew class	0.8 V/us at 6 mA or higher current ranges
Remote sense	up to 5 V drop supported
Maximum applied voltage	plus/minus 250 V peak (module class)
Synchronized measurement	2 channel simultaneous acquisition
Sequence programming	automated multi step evaluation tests
Trigger link function	external trigger coordination
Search measurement	parametric search routines supported
Range switching	continuous output during range change
Display accuracy class	620000 columns 0.02 percent measurement headline
Related model	R6245 same family architecture
Interface	GPIO and front panel control (confirm on unit)

PARAMETER

VALUE

Form

benchtop SMU mainframe for device parametric test

Notes

Specs from Advantest R6245/R6246 family datasheet summary. Confirm installed SMU module (SMU220-2 vs SMU62-20), cabling, and sense configuration 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.