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Data Sheet

August 14, 2026

ADVANTEST

Advantest R9211C FFT Servo Analyzer

Function Synthesis: Frequency response function synthesis Accelerometer Power: Built in power supply for accelerometers Measurement Domains: Waveform spectrum time frequency and frequency response Series Family: Advantest R9211E R9211A R9211B R9211C Accelerometer Power: Built in power supply for accelerometers Measurement Domains: Waveform spectrum time frequency and frequency response Series Family: Advantest R9211E R9211A R9211B R9211C Processor Class: High speed arithmetic processor versus R9211B



MODEL

Advantest R9211C

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

R9211C

LISTING

<https://aumictechlabs.com/products/r9211c-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Advantest R9211C FFT Servo Analyzer is a precision instrument for high-resolution frequency domain analysis and servo system characterization. It combines advanced FFT technology with specialized servo measurement capabilities, delivering accurate closed-loop and open-loop transfer function analysis across demanding mechanical, acoustic, and control system applications. The R9211C executes complex measurements with 130 dB dynamic range, inter-channel amplitude accuracy of ± 0.1 dB, and phase coherence within $\pm 1.0^\circ$. Technical Specifications Frequency Response Frequency range: 10 mHz to 100 kHz Frequency resolution: 25 to 3200 lines with linear and logarithmic sweep options Resolution: 16-bit Dynamic range: 130 dB (servo analysis); 90 dB typical (spectrum analysis) Maximum input sensitivity: -140 dBV (typical, 2 kHz range) Input Channels & Signal Conditioning Input channels: 2 Input format:

Differential and single-ended Input impedance: Approximately 1 M Ω / 100 pF (single-ended)
Common-Mode Rejection Ratio (CMR): 50 dB or more (DC coupling, 50/60 Hz) Maximum differential input voltage: ± 200 V Maximum common-mode signal voltage: ± 200 V Input range: +30 dBV to -60 dBV (1 dB steps) Auto range optimization available Accelerometer power source: 4 mA current source, max. +18 V operating voltage Servo Analysis Inter-channel amplitude difference: ± 0.1 dB or less Inter-channel phase difference: $\pm 1.0^\circ$ or less Output impedance: 1 Ω or less for high actuator drive performance Independent DC offset and signal voltage control Sweep techniques: Swept Sine Sweep (SSS) and Band Multi-Sign (BMS) for high-speed measurement Measurement modes: Five-domain analysis with closed-loop to open-loop conversion Single-touch gain and phase margin measurement Curve fit and frequency response synthesis functions Internal summing amplifier for open-loop characteristic measurements Frequency table point servo measurement and up to five decades of log sweep Analysis Capabilities Spectrum analysis modes: Waveform, spectrum, time-frequency analysis, frequency response function measurement

Key Features High-speed servo measurement with SSS and BMS sweep techniques 16-bit resolution across 10 mHz to 100 kHz frequency span 130 dB dynamic range for low-level signal detection Automatic input range optimization Closed-loop to open-loop transfer function conversion Time-frequency analysis for acoustic and reverberant signal evaluation

Typical Applications Servo system design and characterization Control loop stability and frequency response testing Acoustic and mechanical system analysis Actuator performance evaluation

R9211C Characteristics / Specifications

PARAMETER	VALUE
Frequency Range	10 mHz to 100 kHz in 1 2 5 steps
Input Channels	2
Adc Resolution	16 bit
Dynamic Range Typical	90 dB
Maximum Input Voltage	plus or minus 200 V
Input Voltage Range	minus 60 dBV to plus 30 dBV
Input Sensitivity Typical	minus 140 dBV on 2 kHz range typical
Frequency Lines	25 to 3200 lines
Display	8 inch CRT
Mass	12 kg
Servo Analysis	Servo measurement functions
Curve Fitting	Curve fit of measured frequency response
Function Synthesis	Frequency response function synthesis
Accelerometer Power	Built in power supply for accelerometers
Measurement Domains	Waveform spectrum time frequency and frequency response
Form Factor	Portable benchtop
Remote Interface	GPIB class
Series Family	Advantest R9211E R9211A R9211B R9211C
Processor Class	High speed arithmetic processor versus R9211B
Operating Temperature Class	Standard lab
Line Power	AC powered portable FFT
Internal Memory	Trace save recall class
Operating temperature	Class: Standard lab

R9211C Specifications

PARAMETER	VALUE
Advantest R9211C FFT Servo Analyzer	Overview
Servo analysis plus curve fit and FRF synthesis	2 channel 16 bit 90 dB typical range
Technical Specifications	Frequency Range: 10 mHz to 100 kHz in 1 2 5 steps

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Class: Standard lab
Operating Temperature	Class: Standard lab
Operating Temperature Class	Standard lab
Line Power	AC powered portable FFT
Internal Memory	Trace save recall class

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	
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PARAMETER	VALUE
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Servo Analysis	Servo measurement functions
Curve Fitting	Curve fit of measured frequency response
Function Synthesis	Frequency response function synthesis
Accelerometer Power	Built in power supply for accelerometers
Measurement Domains	Waveform spectrum time frequency and frequency response
Form Factor	Portable benchtop
Remote Interface	GPiB class
Series Family	Advantest R9211E R9211A R9211B R9211C
Processor Class	High speed arithmetic processor versus R9211B
Operating Temperature Class	Standard lab
Line Power	AC powered portable FFT
Internal Memory	Trace save recall class
Option Printer: Op07 thermal printer function	
Notes	
From Advantest R9211C servo analyzer catalog rows (R9211 series 10 mHz to 100 kHz FFT). R9211C adds curve fitting and FRF synthesis on top of R9211B servo analysis.	

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.