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Data Sheet

August 14, 2026

ADVANTEST

Advantest R5372 Microwave frequency counter

Advantest R5372 Microwave Frequency Counter 10 mHz to 18 GHz The Advantest R5372 is a microwave frequency counter covering 10 mHz to 18 GHz using reciprocal counting on Input A and digital TRAHET heterodyning on Input B. OEM R5372/5373 catalog lists 1 Hz resolution in 1 s on microwave, 25 mVrms sensitivity, and 90 VA 255 × 132 × 420 mm 10 kg package. Satellite and radio LO frequency, pulse modulated carriers, magnetron checks, and FM deviation with built-in math and comparator. Frequency Range Overall: 10 mHz to 18 GHz The Advantest R5372 is a microwave frequency counter covering 10 mHz to 18 GHz using reciprocal counting on Input A and digital TRAHET heterodyning on Input B. OEM R5372/5373 catalog lists 1 Hz resolution in 1 s on microwave, 25 mVrms sensitivity, and 90 VA 255 × 132 × 420 mm 10 kg package. Satellite and radio LO frequency, pulse modulated carriers, magnetron checks, and FM deviation with built-in math and comparator. Frequency Range Overall: 10 mHz to 18 GHz Input A Reciprocal Range: 10 mHz to 10 MHz DC coupled 10 Hz to 10 MHz AC coupled



MODEL

Advantest R5372

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

R5372

LISTING

<https://aumictechlabs.com/products/r5372-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Advantest R5372 is a microwave frequency counter engineered for precise frequency measurements across the microwave spectrum. It employs Advantest's proprietary digital TRAHET system - combining transfer oscillator and heterodyne techniques - to deliver 1 Hz resolution at microwave frequencies while supporting pulse-modulated signal analysis. The

instrument combines reciprocal counting for low-frequency precision with advanced heterodyne architecture for high-frequency accuracy, making it suitable for satellite communications, radar systems, and broadcast applications.

Technical Specifications

Frequency Measurement Range:
Input A: 10 mHz to 10 MHz (DC coupling); 10 Hz to 10 MHz (AC coupling)
Input B: 500 MHz to 18 GHz

Frequency resolution: 1 Hz in 1 second; user-selectable in decades from 0.1 Hz to 10 MHz

Pulse-Modulated Carrier Measurement:
Frequency range: 500 MHz to 18 GHz (Input B)
Pulse width range: 100 ns to 0.1 s (internal sync); 50 ns to 0.1 s (external sync); minimum 0.5 μ s
Pulse width resolution: 10 ns
Pulse repetition frequency: 10 Hz to 5 MHz
FM tolerance: ± 25 MHz (500 MHz–1.4 GHz manual); ± 125 MHz or more (≥ 1.4 GHz manual); 10 MHz p-p (automatic, worst case)

Input Specifications:
Channel 1: 10 Hz to 550 MHz, 25 mV sensitivity, 5 V maximum input, 50 Ω impedance, AC coupling, x1/x20 attenuation
Channel 2: 500 MHz to 18 GHz, 2.24 V sensitivity
Maximum input: -20 dBm (500 MHz–18 GHz); +10 dBm (ATT AUTO); +20 dBm (ATT 20 dB)

Time Base Stability:
Standard: 1×10^{-7} /yr (long-term); $\pm 5 \times 10^{-8}$ (temperature)
Option 21: 5×10^{-9} /day; $\pm 5 \times 10^{-8}$ (temperature)
Option 22: 2×10^{-9} /day; $\pm 1 \times 10^{-8}$ (temperature)
Option 23: 5×10^{-10} /day; $\pm 5 \times 10^{-9}$ (temperature)

Time base output: 10 MHz, 1 Vp-p minimum, ~ 50 Ω impedance

External standard input: 1, 2, 2.5, 5, or 10 MHz; 1–10 Vp-p; ~ 500 Ω impedance

Key Features

- Dual-channel architecture supports simultaneous low and microwave frequency measurements
- Digital TRAHET system enables high-resolution microwave analysis without external converters
- Pulse-width measurement with 10 ns resolution for radar and communications testing
- Selectable external frequency standards for traceability
- Attenuation options optimize signal conditioning across wide dynamic range

Typical Applications

- Satellite communication frequency verification
- Radar system carrier and modulation analysis
- Broadcast transmitter frequency stability monitoring
- Pulsed microwave signal characterization

Compatibility & Integration

External frequency standard input accepts standard 10 MHz references via BNC connector, enabling integration with atomic clocks and frequency standards. Time base output provides 10 MHz reference for downstream instrumentation.

R5372 Characteristics / Specifications

PARAMETER	VALUE
Model	R5372
Frequency Range Overall	10 mHz to 18 GHz
InputAReciprocal Range	10 mHz to 10 MHz DC coupled 10 Hz to 10 MHz AC coupled
InputADirect Count Range	10 MHz to 550 MHz
InputBTRAHET Range	500 MHz to 18 GHz
Microwave Resolution	1 Hz in 1 s gate after digital TRAHET
InputAImpedance Low Band	approx 1 MOhm / 60 pF max
InputAImpedance 10 to 550 MHz	approx 50 ohm
InputBImpedance	approx 50 ohm
InputASensitivity	25 mVrms
InputBConnector	N type
Measurement Accuracy	plus or minus 1 count plus or minus time base accuracy
Manual FM Tolerance Above 1.4 GHz	plus or minus 125 MHz or more
Manual FM Tolerance 500 MHz to 1.4 GHz	up to plus or minus 25 MHz
Auto FM Tolerance Worst Case	10 MHz p-p
Pulse Width Minimum Manual	0.5 us
Pulse Repetition	10 Hz to 5 MHz
Totalize Range Input A	DC to 10 MHz capacity 0 to 9999999999
Standard Aging	2e-8 per day 1e-7 per year
Time Base Output	10 MHz 1 Vp-p min approx 50 ohm BNC
External Standard Input	1 2 2.5 5 10 MHz 1 to 10 Vp-p approx 500 ohm BNC
Display	12 digit 7 segment green LED
Power Consumption	90 VA max
Dimensions	approx 255 W x 132 H x 420 D mm
Mass	10 kg max

PARAMETER	VALUE
Operating Temperature	0 to plus 40 C 85 percent RH max
GPIB	IEEE 488 1978 standard
Line Frequency	48 Hz to 66 Hz

General Specifications & Supplementary Characteristics

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GPIB	IEEE 488 1978 standard
Line Frequency	48 Hz to 66 Hz Notes From Advantest R5372/5373 Electronic Counters catalog specification pages. R5373 extends InputBto 27 GHz with SMA.

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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Measurement Accuracy	plus or minus 1 count plus or minus time base accuracy
Manual FM Tolerance Above 1.4 GHz	plus or minus 125 MHz or more
Manual FM Tolerance 500 MHz to 1.4 GHz: up to plus or minus 25 MHz	
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PARAMETER	VALUE
Auto FM Tolerance Worst Case	10 MHz p-p
Pulse Width Minimum Manual	0.5 us
Pulse Repetition	10 Hz to 5 MHz
Totalize Range Input A	DC to 10 MHz capacity 0 to 9999999999
Standard Aging	2e-8 per day 1e-7 per year
Option 21 Aging: 5e-9 per day Option 22 Aging: 2e-9 per day Option 23 Aging: 5e-10 per day	
Specifications	

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External Standard Input	1 2 2.5 5 10 MHz 1 to 10 Vp-p approx 500 ohm BNC
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Notes

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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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NIST-traceable calibration · SAM registered ·
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.