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**Data Sheet**
August 14, 2026

ADVANTEST

# Advantest R5361B Frequency counter

The Advantest R5361B is the later 1 GHz expanding/reciprocal counter paired with the R5362B 3 GHz model. OEM R5361B/R5362B tables list 9-digit display in a 1 s gate, FREQ.A 60 MHz to 1000 MHz, FREQ.B 0.2 mHz to 100 MHz, PERIOD B, 200 ns to 9000 s time interval, and optional oven timebases 20 through 23. Mobile-radio and 1 GHz transmitter frequency maintenance with optional GPIB automation. ANS and burst measurement on family hardware FreqBLpf On: 0.2 mHz to 10 kHz direct input Operating Temperature: 0 to plus 40 C 85 percent RH or less Storage Temperature: minus 20 to plus 70 C Self Check: internal reference count check From Advantest R5361B/R5362B electronic-counter specification family (R5361B 1 GHz FREQ.A column). Timebase options 20 to 23 and mechanical package are common with R5362B.

| MODEL | CALIBRATION |
|---|---|
| Advantest R5361B | Available on request |
| CONDITION | STATUS |
| Used | In stock |
| RFQ / SKU | LISTING |
| R5361B | https://aumictechlabs.com/products/r5361b-2/ |

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

## This unit

The Advantest R5361B is a dual-channel frequency counter designed for precision frequency and period measurements in research, development, and production environments. Channel 1 covers 60 mHz to 1000 MHz with 10 mV sensitivity; Channel 2 extends down to 200 Hz and reaches 100 MHz. The instrument delivers 9-digit resolution and measurement times as short as 0.9 ms, making it suitable for characterizing RF sources, oscillators, and signal generators across multiple frequency bands.Measurement capability extends beyond simple frequency counting. Period

measurements range from 10 ns to 5000 s on Channel B, while positive pulse width measurements span 200 ns to 9000 s. Totalize function operates DC to 50 MHz.The 8-digit LED display updates with 0.08 s measurement throughput.Technical Specifications Frequency Range Channel 1: 60 mHz to 1000 MHz Channel 2: 200 Hz to 100 MHz Measurement Functions Frequency measurement Period measurement: 10 ns to 5000 s (Channel B) Positive pulse width measurement: 200 ns to 9000 s Totalize: DC to 50 MHz Input Specifications Channel 1: 10 mV sensitivity, 5 V maximum input, 50 Ω impedance, x1/x20 attenuation, AC coupling Channel 2: 10 mV sensitivity, 25 mV maximum input, 1 MΩ impedance, AC coupling Performance Resolution: 9 digits/s Time base stability: 0.0000002 /yr Measurement throughput: 0.08 s Measurement time: 1 ms to 1000 s External time base reference: 10 MHz Physical & Electrical Display: 8-digit LED Dimensions: 210 mm (W) × 90 mm (H) × 300 mm (D) Weight: 2.5 kg Power: 100–240 V AC, 50/60 HzKey Features Dual-channel architecture for simultaneous or independent measurements Wide frequency range from 200 Hz to 1 GHz High-stability timebase ensures accurate long-term measurements GPIB interface for remote control and data acquisition Compact benchtop form factorTypical Applications Oscillator and clock frequency verification RF source characterization Pulse and timing analysis Production test and verification Laboratory measurement and calibrationCompatibility & Integration The R5361B interfaces via GPIB for integration into automated test systems. Documentation including manuals is available for both R5361B and R5362B models. This is a discontinued product.

## R5361B Characteristics / Specifications

| PARAMETER | VALUE |
|---|---|
| **FreqARange** | 60 MHz to 1000 MHz |
| **FreqBLpf On** | 0.2 mHz to 10 kHz direct input |
| **FreqBLpf Off** | 0.8 mHz to 100 MHz 1/4 prescale |
| **PeriodBLpf On** | 100 us to 5000 s direct input |
| **PeriodBLpf Off** | 10 ns to 1250 s 1/4 prescale |
| **Time Interval Range** | 200 ns to 9000 s |
| **Time Interval Unit** | 100 ns |
| **TotalizeBRange** | DC to 50 MHz |
| **Totalize Capacity** | 0 to 999999999 |
| **Display Digits** | 9 decimal digits green LED class |
| **InputASensitivity Low** | 10 mVrms to 5 Vrms plus 27 dBm 60 MHz to 1500 MHz class |
| **InputAImpedance** | approx 50 ohm AC coupled |
| **InputBImpedance** | 1 MOhm or more parallel 25 pF or less |
| **Internal Reference** | 5 MHz |
| **Reference Output** | 10 MHz approx 1 Vp-p approx 50 ohm |
| **External Reference** | 1 2 5 or 10 MHz 1 to 5 Vp-p approx 500 ohm |
| **Standard Aging** | 5e-8 per day 1e-7 per month 2e-7 per year |
| **Sample Rate** | approx 80 ms 320 ms 2.5 s and HOLD |
| **Dimensions** | approx 240 W x 88 H x 360 D mm |
| **Mass** | 4.5 kg or less |
| **Operating Temperature** | 0 to plus 40 C 85 percent RH or less |
| **Storage Temperature** | minus 20 to plus 70 C |
| **Ac Power Consumption** | 50 VA or less |
| **Dc Power Consumption** | 30 W or less |
| **Self Check** | internal reference count check |

## R5361B Specifications

| PARAMETER | VALUE |
| --- | --- |
| **Advantest R5361B Frequency Counter** | Overview |
| **Applications** | Mobile-radio and 1 GHz transmitter frequency maintenance with optional GPIB automation. |
| **Key Features** | 9 digit display per 1 s gate |
| **INPUT A 60 MHz to 1 GHz** | INPUT B to 100 MHz or 0.2 mHz |
| **Technical Specifications** | Freq A Range: 60 MHz to 1000 MHz |

## General Specifications & Supplementary Characteristics

| PARAMETER | VALUE |
|---|---|
| **Storage temperature** | minus 20 to plus 70 C |
| **Operating temperature** | 0 to plus 40 C 85 percent RH or less |
| **Operating Temperature** | 0 to plus 40 C 85 percent RH or less |
| **Ac Power Consumption** | 50 VA or less |
| **Dc Power Consumption** | 30 W or less |
| **Self Check** | internal reference count check Notes From Advantest R5361B/R5362B electronic-counter specification family (R5361B 1 GHz FREQ.A column). Timebase options 20 to 23 and mechanical package are common with R5362B. |

# 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 |
|---|---|
| **FreqARange** | 60 MHz to 1000 MHz |
| **FreqBLpf On** | 0.2 mHz to 10 kHz direct input |
| **FreqBLpf Off** | 0.8 mHz to 100 MHz 1/4 prescale |
| **PeriodBLpf On** | 100 us to 5000 s direct input |
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| **Totalize Capacity** | 0 to 999999999 |
| **Display Digits** | 9 decimal digits green LED class |
| **InputASensitivity Low** | 10 mVrms to 5 Vrms plus 27 dBm 60 MHz to 1500 MHz class |
| **InputAImpedance** | approx 50 ohm AC coupled |
| **InputBImpedance** | 1 MOhm or more parallel 25 pF or less |
| **Internal Reference** | 5 MHz |
| **Reference Output** | 10 MHz approx 1 Vp-p approx 50 ohm |
| **External Reference** | 1 2 5 or 10 MHz 1 to 5 Vp-p approx 500 ohm |
| **Standard Aging** | 5e-8 per day 1e-7 per month 2e-7 per year |

Option 23 Aging: 5e-10 per day 1e-8 per month 2e-8 per year

### Specifications

| PARAMETER | VALUE |
|---|---|
| **Sample Rate** | approx 80 ms 320 ms 2.5 s and HOLD |
| **Dimensions** | approx 240 W x 88 H x 360 D mm |
| **Mass** | 4.5 kg or less |
| **Operating Temperature** | 0 to plus 40 C 85 percent RH or less |
| **Storage Temperature** | minus 20 to plus 70 C |

| PARAMETER | VALUE |
|---|---|
| **Ac Power Consumption** | 50 VA or less |
| **Dc Power Consumption** | 30 W or less |
| **Self Check** | internal reference count check |

Notes
From Advantest R5361B/R5362B electronic-counter specification family (R5361B 1 GHz FREQ.A column). Timebase options 20 to 23 and mechanical package are common with R5362B.

## 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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