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Data Sheet
August 13, 2026

ANRITSU

Anritsu MG36221A RF Signal Generator

Anritsu MG36221A Rubidium RF/Microwave Signal Generator 9 kHz to 20 GHz The Anritsu Rubidium MG36221A isahigh-purity RF/microwave signal generator covering 9 kHz to 20.0 GHz with a 2.92 mm K(m) output. It offers 0.001 Hz frequency resolution, excellent harmonics and nonharmonics, and tiered phase-noise options (Low Phase Noise Option 3, Ultra Low Phase Noise Option 13, Premium Phase Noise Option 23). High-power Option 15, mechanical step attenuator Option 2, and full AM/FM/phase/pulse modulation suites support R&D and ATE from HF through K-band. The Anritsu Rubidium MG36221A isahigh-purity RF/microwave signal generator covering 9 kHz to 20.0 GHz with a 2.92 mm K(m) output. It offers 0.001 Hz frequency resolution, excellent harmonics and nonharmonics, and tiered phase-noise options (Low Phase Noise Option 3, Ultra Low Phase Noise Option 13, Premium Phase Noise Option 23). High-power Option 15, mechanical step attenuator Option 2, and full AM/FM/phase/pulse modulation suites support R&D and ATE from HF through K-band.

MODEL Anritsu MG36221A	CALIBRATION Available on request
CONDITION Used	STATUS In stock
RFQ / SKU MG36221A	LISTING https://aumictechlabs.com/products/mg36221a-2/

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

NAICS 423690 · 811210 · 541380

This unit

The Anritsu MG36221A is a RF signal generator spanning 9 kHz to 20 GHz, engineered for precision frequency generation across research, development, manufacturing, and test environments. It delivers output power from -130 dBm to +20 dBm with exceptional phase noise

performance of -136 dBc/Hz typical at 10 GHz (10 kHz offset), frequency resolution to 0.001 Hz, and multiple modulation modes including AM, FM, PM, and pulse generation. The instrument supports optional rubidium frequency references with aging stability to ±1 × 10^{-9} per year, external GNSS/GPS locking, and simultaneous modulation formats for complex signal simulation.Technical Specifications Frequency & Stability Frequency range: 9 kHz to 20 GHz Frequency resolution: 0.001 Hz Internal reference aging (standard): < ±5 × 10^{-7} per year Internal reference aging (Option 0003): < ±2 × 10^{-8} per year Internal reference aging (Option 0056 rubidium): < ±1 × 10^{-9} per year Temperature stability (0–55 °C, OCXO): < ±3 × 10^{-7} Temperature stability (0–55 °C, rubidium): < ±2 × 10^{-9} Temperature stability (0–55 °C, Option 0056): < ±3 × 10^{-10} External reference inputs: 10 MHz ± 2 ppm (0 to +10 dBm); 100 MHz ± 2 ppm with Option 0003 (+10 to +14 dBm) Reference frequency output: 10 MHz, 100 MHz, and 1.6 GHz Output & Power Output connector: 2.92 mm K(m) Output power range: -130 dBm to +20 dBm (with Option 0002 mechanical step attenuator, 110 dB) Level accuracy: ±1.4 dB Harmonics: < -58 dBc Sub-harmonics: < -83 dBc Non-harmonics (20 GHz): < -63 dBc Phase Noise SSB phase noise (standard): -136 dBc/Hz typical at 10 GHz, 10 kHz offset Measured phase noise: -140 dBc/Hz at 10 GHz, 10 kHz offset Option 0003 and 0013 provide improved close-in and higher-offset phase noise Option 0023 (CW, 2–20 GHz): Additional 3 dB improvement on separate RF port Modulation Modulation types: AM, FM, PM, pulse Simultaneous modulation: AM/FM, AM/PM, FM/Pulse Minimum pulse width: < 50 ns (unleveled) Pulse rise/fall times: 5 ns typical Pulse Train Option 0025: Generates arbitrary pulse patternsKey Features Frequency locking to external GNSS/GPS signal Optional low-phase-noise OCXO and rubidium atomic clock references Sub-50 ns pulse generation for radar and pulsed applications Simultaneous dual modulation modes for complex signal simulation Mechanical step attenuator option providing 110 dB dynamic rangeTypical Applications Pulsed radar system simulation and component testing Phase noise characterization and filter validation Receiver sensitivity and selectivity measurements Modulation fidelity and dynamic range assessmentCompatibility & Integration 2.92 mm K(m) output connector for industry-standard test fixtures External 10 MHz and 100 MHz reference inputs support phase-locked operation with external standards Selectable 10 MHz, 100 MHz, and 1.6 GHz reference outputs enable synchronization of auxiliary instrumentation

Features & description

From manufacturer datasheet

Features

• Frequency coverage 9 kHz to 20 GHz • Frequency resolution 0.001 Hz • Standard high leveled power to about +20/+21 dBm by band • High power Option 15 to +30 dBm class midband • Mechanical step attenuator Option 2 110 dB • Tiered phase noise Options 3/13/23 • Analog sweep Option 6 and list/step sweeps • Modulation hardware Options 12/26/27

Applications

• Ultra low phase noise LO and synthesizer substitution to 20 GHz • High power microwave component stimulus with Option 15 • Modulated signal simulation with Options 12/26/27 • ATE racks needing fine resolution and high stability • CW premium phase noise rear-port applications with Option 23 • GNSS disciplined atomic clock workflows with Option 66

High power Option 15 greater than 18 to 20 GHz: +28 dBm

Output power resolution: 0.01 dB or 0.000001 V Minimum settable power without attenuator: -20 dBm Minimum settable power with attenuator: -130 dBm Minimum leveled power without attenuator: -15 dBm Minimum leveled power with attenuator: -120 dBm (-70 dBm from 9 kHz to 70 kHz) Harmonics standard 2 to 20 GHz: -60 dBc Nonharmonic standard greater than 31.25 MHz to 20 GHz: less than -70 dBc Internal time base aging standard: less than plus or minus 3 × 10^-7 per year class Internal time base aging Option 3: less than plus or minus 2 × 10^-9 per year class Internal time base aging Option 56 Rubidium: less than plus or minus 3 × 10^-10 per year class List sweep tables: up to 10 tables with 4000 points Step sweep steps: 2 to 65535 Remote control: GPIB and Ethernet class Related higher band model: MG36241A 9 kHz to 43.5 GHz Attenuator option: Option 2 Mechanical Step Attenuator 110 dB Phase noise option Ultra: Option 13 requires Option 3 Premium phase noise option: Option 23 CW 2 to 20 GHz rear port Notes Specs from Anritsu Rubidium MG362×1A technical data sheet for MG36221A (9 kHz–20 GHz). Confirm installed options (2/3/13/15/23/56/66/modulation) and exact max leveled power on the calibration label.

MG36221A Characteristics / Specifications

PARAMETER	VALUE
Model	MG36221A
Manufacturer	Anritsu
Instrument Type	Rubidium RF/Microwave Signal Generator
Alias	MG36221A; Anritsu Rubidium MG36221A
Series	MG362×1A Rubidium
Frequency range	9 kHz to 20.0 GHz
RF output connector	2.92 mmKmale
Frequency resolution	0.001 Hz
Frequency accuracy	same as internal or external time base
Leveled output power STD 9 kHz to less than 2 GHz	+20 dBm
Leveled output power STD 2 to 10 GHz	+21 dBm
Leveled output power STD greater than 10 to 20 GHz	+20 dBm
Leveled output with step attenuator STD 9 kHz to less than 2 GHz	+19 dBm
Leveled output with step attenuator STD 2 to 10 GHz	+20 dBm
Leveled output with step attenuator STD greater than 10 to 20 GHz	+19 dBm
High power Option 15 2 to 10 GHz	+30 dBm
High power Option 15 greater than 10 to 18 GHz	+30 dBm
High power Option 15 greater than 18 to 20 GHz	+28 dBm
Output power resolution	0.01 dB or 0.000001 V
Minimum settable power without attenuator	-20 dBm
Minimum settable power with attenuator	-130 dBm

PARAMETER	VALUE
Minimum leveled power without attenuator	-15 dBm
Minimum leveled power with attenuator	-120 dBm (-70 dBm from 9 kHz to 70 kHz)
Harmonics standard 2 to 20 GHz	-60 dBc
Nonharmonic standard greater than 31.25 MHz to 20 GHz	less than -70 dBc
Internal time base aging standard	less than plus or minus 3 × 10^-7 per year class
Internal time base aging Option	less than plus or minus 2 × 10^-9 per year class
Internal time base aging Option 56 Rubidium	less than plus or minus 3 × 10^-10 per year class
List sweep tables	up to 10 tables with 4000 points
Step sweep steps	2 to 65535
Remote control	GPIB and Ethernet class
Related higher band model	MG36241A 9 kHz to 43.5 GHz
Attenuator option	Option 2 Mechanical Step Attenuator 110 dB
Phase noise option Ultra	Option 13 requires Option 3
Premium phase noise option	Option 23 CW 2 to 20 GHz rear port Notes Specs from Anritsu Rubidium MG362×1A technical data sheet for MG36221A (9 kHz–20 GHz). Confirm installed options (2/3/13/15/23/56/66/modulation) and exact max leveled power on the calibration label.

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	MG36221A
Manufacturer	Anritsu
Instrument Type	Rubidium RF/Microwave Signal Generator
Alias	MG36221A; Anritsu Rubidium MG36221A
Series	MG362x1A Rubidium
Frequency range	9 kHz to 20.0 GHz
RF output connector	2.92 mmKmale
Frequency resolution	0.001 Hz
Frequency accuracy	same as internal or external time base

Leveled output power STD 9 kHz to less than 2 GHz: +20 dBm
Leveled output power STD 2 to 10 GHz: +21 dBm
Leveled output power STD greater than 10 to 20 GHz: +20 dBm
Leveled output with step attenuator STD 9 kHz to less than 2 GHz: +19 dBm
Leveled output with step attenuator STD 2 to 10 GHz: +20 dBm
Leveled output with step attenuator STD greater than 10 to 20 GHz: +19 dBm
High power Option 15 2 to 10 GHz: +30 dBm
High power Option 15 greater than 10 to 18 GHz: +30 dBm
High power Option 15 greater than 18 to 20 GHz: +28 dBm

Specifications

PARAMETER	VALUE
Output power resolution	0.01 dB or 0.000001 V
Minimum settable power without attenuator	-20 dBm
Minimum settable power with attenuator	-130 dBm
Minimum leveled power without attenuator	-15 dBm
Minimum leveled power with attenuator	-120 dBm (-70 dBm from 9 kHz to 70 kHz)
Harmonics standard 2 to 20 GHz	-60 dBc

Nonharmonic standard greater than 31.25 MHz to 20 GHz: less than -70 dBc

Specifications

PARAMETER	VALUE
Internal time base aging standard	less than plus or minus 3 x 10^-7 per year class
Internal time base aging Option 3	less than plus or minus 2 x 10^-9 per year class
Internal time base aging Option 56 Rubidium	less than plus or minus 3 x 10^-10 per year class
List sweep tables	up to 10 tables with 4000 points
Step sweep steps	2 to 65535
Remote control	GPIB and Ethernet class
Related higher band model	MG36241A 9 kHz to 43.5 GHz
Attenuator option	Option 2 Mechanical Step Attenuator 110 dB
Phase noise option Ultra	Option 13 requires Option 3
Premium phase noise option	Option 23 CW 2 to 20 GHz rear port

Notes
Specs from Anritsu Rubidium MG362x1A technical data sheet for MG36221A (9 kHz–20 GHz). Confirm installed options (2/3/13/15/23/56/66/modulation) and exact max leveled power on the calibration label.

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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