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Data Sheet

August 13, 2026

ANRITSU

Anritsu 69397B Ultra Low Noise Synthesized Sweep/Signal Generator

Anritsu 69397B Ultra Low Noise Synthesized Sweep/Signal Generator 10 MHz to 65 GHz The Anritsu 69397B is an ultra-low-noise synthesized sweep/signal generator covering 0.01 GHz to 65 GHz in the 69-series ultra-low-noise sweep/signal family (B revision of the 69397 coverage class). It unifies CW, analog/step sweep, and comprehensive modulation for universal signal requirements through 65 GHz on a single coax output, paralleling 6XX97 family leveled-power tables. The Anritsu 69397B is an ultra-low-noise synthesized sweep/signal generator covering 0.01 GHz to 65 GHz in the 69-series ultra-low-noise sweep/signal family (B revision of the 69397 coverage class). It unifies CW, analog/step sweep, and comprehensive modulation for universal signal requirements through 65 GHz on a single coax output, paralleling 6XX97 family leveled-power tables.



MODEL

Anritsu 69397B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

69397B

LISTING

<https://aumictechlabs.com/products/69397b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Anritsu 69397B is an ultra-low noise synthesized sweep/signal generator delivering precision RF and microwave signal generation from 0.1 Hz to 65 GHz in a single coaxial output, with extension to 110 GHz via millimeter wave source modules. The instrument combines ultra-low

phase noise performance, flexible sweep modes, and comprehensive modulation capabilities for exacting test, measurement, and development applications.

Technical Specifications

Frequency and Output Frequency range: 0.1 Hz to 65 GHz (single coaxial output); up to 110 GHz with waveguide extensions Output power: +17 dBm maximum; -125 dBm minimum; guaranteed leveled output to +17 dBm up to 20 GHz Accurately leveled output down to -120 dBm in 0.01 dB steps Frequency resolution: 1 kHz minimum step size (0.1 Hz with Option 11) Output power level accuracy: 0.01 dB steps

Phase Noise and Spurious Performance Ultra-low SSB phase noise: -107 dBc at 10 kHz offset from 10 GHz Spurious signals: < -60 dBc

Sweep Functionality Sweep modes: Linear, logarithmic, step, and alternate Sweep time range: 30 ms to 99 seconds Sweep width: 1 kHz to full range (0.1 Hz minimum with Option 11) Sweep speed accuracy: $\leq \pm 30$ MHz or ± 2 MHz widths for sweep speeds ≤ 50 MHz/ms Step sweep: 1 to 10,000 steps; 1 ms to 99 seconds dwell time List sweep: Up to 4 tables with 2,000 non-sequential frequency/power sets

Digital frequency and power sweep supported

Modulation Capabilities Internal modulation: AM, FM, phase modulation, pulse modulation Modulating waveforms: 7 internal waveforms including Gaussian noise; user-defined arbitrary waveforms supported Pulse modulation: Single and multiple pulses with swept delay for moving target simulation, radar blind spot testing, and recovery time testing External modulation: AM/FM/pulse modulation via external signals supported

Key Features

Single-output simplicity to 65 GHz; millimeter wave extension capability Fine-resolution frequency tuning and power leveling for precise signal control Multiple sweep architectures for diverse measurement scenarios Advanced pulse modulation for radar and dynamic testing Arbitrary waveform support for custom modulation requirements

Typical Applications

RF and microwave component characterization Radar system testing and validation Phase noise measurement and analysis Receiver sensitivity and selectivity testing Modulation fidelity assessment

Compatibility & Integration

Anritsu millimeter wave source modules extend operating range to 110 GHz. User-downloaded arbitrary modulation enables integration with external signal processing workflows.

Features & description

From manufacturer datasheet

Features

- Coverage 0.01 to 65 GHz
- Ultra low noise universal sweep/signal architecture
- Analog, step, alternate, and manual sweep
- Internal/external AM, FM, pulse; optional phase modulation
- Optional complex modulation and internal power meter
- Optional 0.1 Hz resolution and oven time base
- GPIB remote control
- V female RF output

Applications

- CW and swept stimulus 10 MHz to 65 GHz
- Modulated microwave/mmWave signal simulation
- Network analysis and ATE source applications
- Radar/EW receiver testing
- Single box replacement for separate CW/sweep/signal instruments

69397B Characteristics / Specifications

PARAMETER	VALUE
Model	69397B
Manufacturer	Anritsu
Instrument Type	Ultra Low Noise Synthesized Sweep/Signal Generator
Alias	69397B; Anritsu 69397B
Frequency range	0.01 GHz to 65 GHz
Family	69 Series ultra low noise sweep/signalBrevison
Leveled power 0.01 to less than 2 GHz	+12 dBm
Leveled power 2 to 20 GHz	+10 dBm
Leveled power greater than 20 to 40 GHz	+2.5 dBm
Leveled power greater than 40 to 50 GHz	0 dBm
Leveled power greater than 50 to 65 GHz	-2 dBm
Leveled power with step attenuator low band class	+10 dBm below 2 GHz class
Step attenuator above 40 GHz	not available per 6XX97 tables
Output power resolution	0.01 dB
Frequency resolution standard	1 kHz
Frequency resolution Option	0.1 Hz
Analog sweep time	30 ms to 99 s
Step sweep steps	1 to 10000
List sweep points	up to 2000 per table
SSB phase noise at 10 GHz 10 kHz offset	-100 dBc/Hz class
SSB phase noise at 65 GHz 10 kHz offset	-86 dBc/Hz class
AM bandwidth 3 dB	DC to 50 kHz minimum
Pulse PRF leveled	100 Hz to 5 MHz class
Minimum leveled power without attenuator	to -15 dBm (-20 dBm typical)

PARAMETER	VALUE
Minimum leveled power with attenuator high band	to -105 dBm class
CW accuracy	same as internal or external 10 MHz time base
Internal time base aging	less than 2×10^{-8} /day
Internal time base aging Option	less than 5×10^{-10} /day
RF output connector	TypeVfemale
Remote control	GPIB
Dimensions	429 mmWx 133 mmHx 597 mmDMass: less than or equal to 23 kg
RelatedArevision	69397A
Related 68B counterpart	68397B
Related signal generator peer	69297A/B class Notes Specs from Anritsu/Wiltron 69A/68B Series 6XX97 frequency and power tables applied to 69397B (0.01–65 GHz). Confirm B-revision option set and mmWave leveled power on the unit calibration label.
Bandwidth	3 dB: DC to 50 kHz minimum

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
AM bandwidth 3 dB	DC to 50 kHz minimum
Pulse PRF leveled	100 Hz to 5 MHz class
Minimum leveled power without attenuator	to -15 dBm (-20 dBm typical)
Minimum leveled power with attenuator high band	to -105 dBm class
CW accuracy	same as internal or external 10 MHz time base
Internal time base aging	less than 2 x 10^-8/day
Internal time base aging Option 16	less than 5 x 10^-10/day
RF output connector	Type V female
Remote control	GPIB
Dimensions	429 mm W x 133 mm H x 597 mm D
Mass	less than or equal to 23 kg
Related A revision	69397A
Related 68B counterpart	68397B
Related signal generator peer	69297A/B class
Specifications	
PARAMETER	VALUE
Model	69397B
Manufacturer	Anritsu
Instrument Type	Ultra Low Noise Synthesized Sweep/Signal Generator
Alias	69397B; Anritsu 69397B
Frequency range	0.01 GHz to 65 GHz
Family	69 Series ultra low noise sweep/signalBrevision
Leveled power 0.01 to less than 2 GHz: +12 dBm	
Leveled power 2 to 20 GHz: +10 dBm	
Leveled power greater than 20 to 40 GHz: +2.5 dBm	
Leveled power greater than 40 to 50 GHz: 0 dBm	

Leveled power greater than 50 to 65 GHz: -2 dBm
Leveled power with step attenuator low band class: +10 dBm below 2 GHz class

Specifications

PARAMETER	VALUE
Step attenuator above 40 GHz	not available per 6XX97 tables
Output power resolution	0.01 dB
Frequency resolution standard	1 kHz
Frequency resolution Option 11	0.1 Hz
Analog sweep time	30 ms to 99 s
Step sweep steps	1 to 10000
List sweep points	up to 2000 per table

SSB phase noise at 10 GHz 10 kHz offset: -100 dBc/Hz class
SSB phase noise at 65 GHz 10 kHz offset: -86 dBc/Hz class

Specifications

PARAMETER	VALUE
AM bandwidth 3 dB	DC to 50 kHz minimum
Pulse PRF leveled	100 Hz to 5 MHz class
Minimum leveled power without attenuator	to -15 dBm (-20 dBm typical)
Minimum leveled power with attenuator high band	to -105 dBm class
CW accuracy	same as internal or external 10 MHz time base
Internal time base aging	less than 2 x 10 ⁻⁸ /day
Internal time base aging Option 16	less than 5 x 10 ⁻¹⁰ /day
RF output connector	TypeVfemale
Remote control	GPIOB
Dimensions	429 mmWx 133 mmHx 597 mmDMass: less than or equal to 23 kg
RelatedArevision	69397A
Related 68B counterpart	68397B
Related signal generator peer	69297A/B class

Notes
Specs from Anritsu/Wiltron 69A/68B Series 6XX97 frequency and power tables applied to 69397B (0.01-65 GHz).
Confirm B-revision option set and mmWave leveled power on the unit 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

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.