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Data Sheet

August 13, 2026

ANRITSU

Anritsu 69047B Ultra Low Noise Synthesized CW Generator, 0.01 GHz to 40.0 GHz

Anritsu 69047B Ultra Low Noise Synthesized CW Generator 10 MHz to 20 GHz The Anritsu 69047B is an ultra-low-noise synthesized CW generator covering 10 MHz to 20 GHz in the 69000B/68000C synthesizer family. It provides discrete CW frequencies and broad/narrow band step sweeps with high resolution phase lock, internal leveling, and full GPIB automation. It is the CW counterpart to 69147B (signal) and 69347B (high performance signal) in the same band. The Anritsu 69047B is an ultra-low-noise synthesized CW generator covering 10 MHz to 20 GHz in the 69000B/68000C synthesizer family. It provides discrete CW frequencies and broad/narrow band step sweeps with high resolution phase lock, internal leveling, and full GPIB automation. It is the CW counterpart to 69147B (signal) and 69347B (high performance signal) in the same band.



MODEL

Anritsu 69047B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

69047B

LISTING

<https://aumictechlabs.com/products/69047b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Anritsu 69047B is a precision synthesized CW generator delivering exceptionally clean signals across 0.01 GHz to 40.0 GHz. Built for RF testing of sensitive components - mixers, low-noise amplifiers, and similar devices - it combines ultra-low phase noise with flexible sweep and

modulation capabilities. This instrument excels in aerospace, defense, and communications environments where signal purity and measurement accuracy are critical.

Technical Specifications

Frequency Characteristics

Frequency range: 0.01 GHz to 40.0 GHz
Frequency resolution: 1 kHz minimum step size (0.1 Hz with Option 11)
Frequency accuracy: Same as internal or external 10 MHz time base
Sweep accuracy: ± 30 MHz or ± 2 MHz widths (whichever is lesser) for sweep speeds ≤ 50 MHz/ms
Output Power
Maximum output power: +13.0 dBm (no attenuator)
With step attenuator: +11.0 dBm
With electronic step attenuator: +3.0 dBm
Power control: Front-panel and remote (GPIB) adjustment
Phase Noise
Ultra-low SSB phase noise: -107 dBc at 10 kHz offset from 10 GHz

Sweep & Modulation

Sweep types: Broad-band and narrow-band step sweeps (linear or logarithmic)
Step count: 1 to 10,000 steps
Step size: 1 kHz to full frequency range (0.1 Hz with Option 11)
Step dwell time: 1 ms to 99 seconds per step (phase lock not included)
Fixed-rate sweep: 20 ms to 99 seconds per step (includes phase lock time)
Manual sweep mode: Stepped, phase-locked frequency adjustment within defined limits
Alternate sweep mode: Bidirectional sweeping between two ranges

Key Features

- Discrete CW and continuous sweep operation
- Full local and remote control via GPIB (IEEE-488.2)
- 1 kHz baseline frequency resolution; 0.1 Hz available with Option 11
- Clean signal output suitable for amplifier and mixer evaluation

Typical Applications

- Component characterization (low-noise amplifiers, mixers)
- RF subsystem validation in defense and aerospace
- Communications system testing and calibration

Compatibility & Integration

Remote instrument control via GPIB (IEEE-488.2) interface; local front-panel operation supported.

Features & description

From manufacturer datasheet

Features

- Ultra low noise 69XXXB architecture

Applications

- Ultra low noise CW local oscillator substitution to 20 GHz

High power Option 15 greater than 8.4 to 20 GHz: +17.0 dBm

Minimum leveled power without attenuator: to -20 dBm Minimum leveled power with attenuator: to -120 dBm Minimum leveled power with electronic attenuator: to -140 dBm Output power resolution: 0.01 dB or 0.001 mV CW frequency resolution standard: 1 kHz CW frequency resolution Option 11: 0.1 Hz 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 16: less than 5×10^{-10} /day SSB phase noise 2 to 6 GHz at 10 kHz offset: -107 dBc/Hz SSB phase noise greater than 6 to 10 GHz at 10 kHz offset: -107 dBc/Hz SSB phase noise greater than 10 to 20 GHz at 10 kHz offset: -100 dBc/Hz Harmonics 2 to 20 GHz: -60 dBc Nonharmonic spurious 2 to 65 GHz: -60 dBc Switching time without attenuator change: less than 3 ms typical Switching time with step attenuator change: less than 20 ms typical CW switching time max freq at or above 20 GHz: less than 40 ms to within 1 kHz typical DimensionsHxWxD: 133 mm x 429 mm x 597 mm Mass: less than or equal to 23 kg Remote control: GPIB Related signal model: 69147B Related high performance model: 69347B Notes Specs from Anritsu 69000B/68000C Series datasheet for 69×47B / 69047B (10 MHz–20 GHz). Confirm installed options (attenuator, Option 11/15/16/22), exact max leveled power on the calibration label, and RF connector on the unit.

69047B Characteristics / Specifications

PARAMETER	VALUE
Model	69047B
Manufacturer	Anritsu
Instrument Type	Ultra Low Noise Synthesized CW Generator
Alias	69047B; Anritsu 69047B
Frequency range	10 MHz to 20 GHz
Family	69000B / 68000C synthesizers
Output mode	CW and step sweep
Leveled output power 0.01 to 8.4 GHz	+13.0 dBm
Leveled output power greater than 8.4 to 20 GHz	+13.0 dBm
Leveled output with step attenuator 0.01 to 8.4 GHz	+11.0 dBm
Leveled output with step attenuator greater than 8.4 to 20 GHz	+11.0 dBm
Leveled output with electronic attenuator 0.01 to 8.4 GHz	+9.0 dBm
Leveled output with electronic attenuator greater than 8.4 to 20 GHz	+3.0 dBm
High power Option 15 2 to 8.4 GHz	+17.0 dBm
High power Option 15 greater than 8.4 to 20 GHz	+17.0 dBm
Minimum leveled power without attenuator	to -20 dBm
Minimum leveled power with attenuator	to -120 dBm
Minimum leveled power with electronic attenuator	to -140 dBm
Output power resolution	0.01 dB or 0.001 mV
CW frequency resolution standard	1 kHz
CW frequency resolution Option	0.1 Hz

PARAMETER	VALUE
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
SSB phase noise 2 to 6 GHz at 10 kHz offset	-107 dBc/Hz
SSB phase noise greater than 6 to 10 GHz at 10 kHz offset	-107 dBc/Hz
SSB phase noise greater than 10 to 20 GHz at 10 kHz offset	-100 dBc/Hz
Harmonics 2 to 20 GHz	-60 dBc
Nonharmonic spurious 2 to 65 GHz	-60 dBc
Switching time without attenuator change	less than 3 ms typical
Switching time with step attenuator change	less than 20 ms typical
CW switching time max freq at or above 20 GHz	less than 40 ms to within 1 kHz typical
DimensionsHxWxD	133 mm x 429 mm x 597 mm
Mass	less than or equal to 23 kg
Remote control	GPIO
Related signal model	69147B
Related high performance model	69347B Notes Specs from Anritsu 69000B/68000C Series datasheet for 69×47B / 69047B (10 MHz–20 GHz). Confirm installed options (attenuator, Option 11/15/16/22), exact max leveled power on the calibration label, and RF connector on the unit.

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.

performance signal) in the same band.

Applications

- Ultra low noise CW local oscillator substitution to 20 GHz
- Microwave component and receiver characterization
- Phase noise sensitive synthesizer stimulus for ATE
- Frequency response and conversion loss setups
- Upgradeable Anritsu 68C/69B family CW source

Key Features

- Ultra low noise 69XXB architecture
- Frequency coverage 0.01 to 20 GHz
- CW and phase locked step sweep
- Optional 0.1 Hz resolution Option 11
- Optional high stability time base Option 16
- Optional high power Option 15 and step attenuator
- Optional Option 22 coverage 0.1 Hz to 10 MHz
- GPIB remote control; 13.3 cm rack height family

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Model	69047B
Manufacturer	Anritsu
Instrument Type	Ultra Low Noise Synthesized CW Generator

Specifications

PARAMETER	VALUE
Alias	69047B; Anritsu 69047B
Frequency range	10 MHz to 20 GHz
Family	69000B / 68000C synthesizers

Output mode: CW and step sweep

Leveled output power 0.01 to 8.4 GHz: +13.0 dBm

Leveled output power greater than 8.4 to 20 GHz: +13.0 dBm

Leveled output with step attenuator 0.01 to 8.4 GHz: +11.0 dBm

Leveled output with step attenuator greater than 8.4 to 20 GHz: +11.0 dBm

Leveled output with electronic attenuator 0.01 to 8.4 GHz: +9.0 dBm

Leveled output with electronic attenuator greater than 8.4 to 20 GHz: +3.0 dBm

High power Option 15 2 to 8.4 GHz: +17.0 dBm
High power Option 15 greater than 8.4 to 20 GHz: +17.0 dBm

Specifications

PARAMETER	VALUE
Minimum leveled power without attenuator	to -20 dBm
Minimum leveled power with attenuator	to -120 dBm
Minimum leveled power with electronic attenuator	to -140 dBm

Specifications

PARAMETER	VALUE
Output power resolution	0.01 dB or 0.001 mV
CW frequency resolution standard	1 kHz
CW frequency resolution Option 11	0.1 Hz

Specifications

PARAMETER	VALUE
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

SSB phase noise 2 to 6 GHz at 10 kHz offset: -107 dBc/Hz
SSB phase noise greater than 6 to 10 GHz at 10 kHz offset: -107 dBc/Hz
SSB phase noise greater than 10 to 20 GHz at 10 kHz offset: -100 dBc/Hz

Specifications

PARAMETER	VALUE
Harmonics 2 to 20 GHz	-60 dBc
Nonharmonic spurious 2 to 65 GHz	-60 dBc
Switching time without attenuator change	less than 3 ms typical

Switching time with step attenuator change: less than 20 ms typical
CW switching time max freq at or above 20 GHz: less than 40 ms to within 1 kHz typical

Specifications

PARAMETER	VALUE
DimensionsHxWxD	133 mm x 429 mm x 597 mm
Mass	less than or equal to 23 kg
Remote control	GPIO

Related signal model: 69147B

Related high performance model: 69347B

Notes

Specs from Anritsu 69000B/68000C Series datasheet for 69x47B / 69047B (10 MHz-20 GHz). Confirm installed options (attenuator, Option 11/15/16/22), exact max leveled power on the calibration label, and RF connector on the unit.

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.