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Data Sheet

August 13, 2026

ANRITSU

Anritsu 69147A Synthesized Sweep Generator, 0.01 to 65.0 GHz

Anritsu 69147A Synthesized Sweep Generator 10 MHz to 20 GHz The Anritsu/Wiltron 69147A is an ultra-low-noise synthesized sweep generator covering 0.01 GHz to 20 GHz in the 69A Series. It provides analog, step, alternate, and manual sweeps for network analysis and swept ATE as the sweep member of the 69×47A family. The Anritsu/Wiltron 69147A is an ultra-low-noise synthesized sweep generator covering 0.01 GHz to 20 GHz in the 69A Series. It provides analog, step, alternate, and manual sweeps for network analysis and swept ATE as the sweep member of the 69×47A family.



MODEL

Anritsu 69147A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

69147A

LISTING

<https://aumictechlabs.com/products/69147a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Anritsu 69147A is a synthesized sweep generator delivering precise signal generation across 0.01 to 65.0 GHz for microwave component characterization, system integration, and RF/microwave test automation. It combines broad frequency coverage with sophisticated sweep architecture, low phase noise, and programmable modulation to support demanding R&D and manufacturing environments. Technical Specifications Frequency Performance Frequency range: 0.01 to 65.0 GHz Minimum frequency: 10 MHz Frequency resolution: 1 kHz (0.1 Hz with Option 11) Step size: 1 kHz to full range (0.1 Hz with Option 11) Output Power & Impedance Maximum output

power: +13 dBm Minimum output power: -15 dBm Output accuracy: ± 2 dB Output impedance: 50 Ohms Level switching time: 20 ms typical Phase Noise Performance SSB phase noise: -105 dBc/Hz minimum; -66 dBc/Hz maximum Ultra-low SSB noise: -100 dBc at 10 kHz offset from 10 GHz Harmonic & Spurious Content Harmonics: -40 dBc Non-harmonics: -40 dBc

Key Features

Modulation Capabilities Internal AM, FM, phase modulation, and pulse modulation Seven internal waveforms including Gaussian noise User-defined arbitrary waveform upload Pulse modes: doublet, triplet, quadruplet for RADAR blind-spot testing Simultaneous synchronized modulations supported Sweep Modes Analog, step, manual, power, and alternate sweep Step sweep: 1 to 10,000 steps with 1 ms to 99 second dwell per step Alternate sweep between two ranges with independent power levels Manual sweep with user-selectable step count or step size

Programmable frequency agility: up to 1,000 non-sequential stored frequencies

Typical Applications Component and subsystem validation, automated test system integration, RADAR system characterization, microwave filter and amplifier measurement, phase noise and spectral purity assessment.

Compatibility & Integration 50 Ohm output impedance enables direct interface with standard microwave test ports and instrumentation. External level control and internal pulse generator support automated test sequences.

Features & description

From manufacturer datasheet

Features

• Coverage 0.01 to 20 GHz • Analog, step, alternate, and manual sweep • Ultra-low-noise 69100A architecture • Power sweep and alternate sweep levels • Optional high power Option 15 • Optional 0.1 Hz resolution and oven time base • GPIB remote control • K female RF output

Applications

• Swept network analysis 0.01 to 20 GHz • Analog and phase-locked step sweep component test • Master/slave dual-source measurements • ATE swept microwave stimulus • CW LO substitution when not sweeping

High power Option 15 2 to 20 GHz: +17 dBm

Minimum leveled power without attenuator: to -15 dBm (-20 dBm typical) Minimum leveled power with attenuator: to -115 dBm (-120 dBm typical) Output power resolution: 0.01 dB Source impedance: 50 ohm nominal Source SWR internal leveling below 2 GHz: less than 1.7 typical Source SWR 2 to 20 GHz: less than 1.6 typical Source SWR above 20 GHz: less than 2.0 typical Power level stability vs temperature: 0.04 dB/degC typical Internal leveling: yes at output connector RF on off: yes Level offset: yes CW frequency resolution standard: 1 kHz class 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 class Internal time base aging Option 16: less than 5×10^{-10} /day class Residual FM 0.5 to 1.0 GHz class: less than 10 Hz RMS Residual FM 1.0 to 2.2 GHz class: less than 20 Hz RMS Residual FM 2.2 to 20 GHz class: less than 40 Hz RMS Step attenuator option to 26.5 GHz: Option 2A 110 dB Step attenuator option to 40 GHz: Option 2B 110 dB Step attenuator option to 50 GHz: Option 2C 90 dB Step attenuator option to 60 GHz: Option 2D 90 dB Rack mount option: Option 1 Remote control: GPIB Dimensions: 429 mmWx 133 mmHx 597 mmDMass: less than or equal to 23 kg

69147A Characteristics / Specifications

PARAMETER	VALUE
Model	69147A
Manufacturer	Anritsu (Wilton 69A Series)
Instrument Type	Synthesized Sweep Generator
Alias	69147A; Anritsu 69147A
Frequency range	0.01 GHz to 20 GHz
Family	69A Series ultra low noise sweep
Leveled power 0.01 to less than 2 GHz	+13 dBm
Leveled power 2 to 20 GHz	+13 dBm
Leveled power with step attenuator 0.01 to less than 2 GHz	+11 dBm
Leveled power with step attenuator 2 to 20 GHz	+11 dBm
High power Option 15 0.01 to less than 2 GHz	+13 dBm
High power Option 15 2 to 20 GHz	+17 dBm
Minimum leveled power without attenuator	to -15 dBm (-20 dBm typical)
Minimum leveled power with attenuator	to -115 dBm (-120 dBm typical)
Output power resolution	0.01 dB
Source impedance	50 ohm nominal
Source SWR internal leveling below 2 GHz	less than 1.7 typical
Source SWR 2 to 20 GHz	less than 1.6 typical
Source SWR above 20 GHz	less than 2.0 typical
Power level stability vs temperature	0.04 dB/degC typical
Internal leveling	yes at output connector
RF on off	yes

PARAMETER	VALUE
Level offset	yes
CW frequency resolution standard	1 kHz class
CW frequency resolution Option	0.1 Hz
CW accuracy	same as internal or external 10 MHz time base
Internal time base aging	less than 2×10^{-8} /day class
Internal time base aging Option	less than 5×10^{-10} /day class
Residual FM 0.5 to 1.0 GHz class	less than 10 Hz RMS
Residual FM 1.0 to 2.2 GHz class	less than 20 Hz RMS
Residual FM 2.2 to 20 GHz class	less than 40 Hz RMS
Step attenuator option to 26.5 GHz	Option 2A 110 dB
Step attenuator option to 40 GHz	Option 2B 110 dB
Step attenuator option to 50 GHz	Option 2C 90 dB
Step attenuator option to 60 GHz	Option 2D 90 dB
Rack mount option	Option 1
Remote control	GPIB
Dimensions	429 mmWx 133 mmHx 597 mmDMass: less than or equal to 23 kg
Analog sweep width	1 MHz to full range
Analog sweep time	30 ms to 99 s
Step sweep steps	1 to 10000
Step dwell time	1 ms to 99 s
SSB phase noise at 10 GHz 10 kHz offset	-100 dBc/Hz class
SSB phase noise at 20 GHz 10 kHz offset	-100 dBc/Hz class
Markers	up to 20
RF output connector	TypeKfemale
Related CW model	69047A
Related signal generator	69247A
Related sweep signal	69347A Notes Specs from Anritsu/Wiltron 69A Series datasheet for 69×47A / 69147A (0.01–20 GHz Sweep). Confirm Option 15 and

PARAMETER	VALUE
	attenuator before quoting high-power levels.

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
Minimum leveled power without attenuator	to -15 dBm (-20 dBm typical)
Minimum leveled power with attenuator	to -115 dBm (-120 dBm typical)
Output power resolution	0.01 dB
Source impedance	50 ohm nominal
Source SWR internal leveling below 2 GHz	less than 1.7 typical
Source SWR 2 to 20 GHz	less than 1.6 typical
Source SWR above 20 GHz	less than 2.0 typical
Power level stability vs temperature	0.04 dB/deg C typical
Internal leveling	yes at output connector
RF on off	yes
Level offset	yes
CW frequency resolution standard	1 kHz class
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 x 10^-8/day class
Internal time base aging Option 16	less than 5 x 10^-10/day class
Residual FM 0.5 to 1.0 GHz class	less than 10 Hz RMS
Residual FM 1.0 to 2.2 GHz class	less than 20 Hz RMS
Residual FM 2.2 to 20 GHz class	less than 40 Hz RMS
Step attenuator option to 26.5 GHz	Option 2A 110 dB
Step attenuator option to 40 GHz	Option 2B 110 dB
Step attenuator option to 50 GHz	Option 2C 90 dB
Step attenuator option to 60 GHz	Option 2D 90 dB
Rack mount option	Option 1
Remote control	GPIO
Dimensions	429 mm W x 133 mm H x 597 mm D

PARAMETER	VALUE
Mass	less than or equal to 23 kg
Analog sweep width	1 MHz to full range
Analog sweep time	30 ms to 99 s
Step sweep steps	1 to 10000
Step dwell time	1 ms to 99 s

Specifications

PARAMETER	VALUE
Model	69147A
Manufacturer	Anritsu (Wiltron 69A Series)
Instrument Type	Synthesized Sweep Generator
Alias	69147A; Anritsu 69147A
Frequency range	0.01 GHz to 20 GHz
Family	69A Series ultra low noise sweep

Leveled power 0.01 to less than 2 GHz: +13 dBm
Leveled power 2 to 20 GHz: +13 dBm
Leveled power with step attenuator 0.01 to less than 2 GHz: +11 dBm
Leveled power with step attenuator 2 to 20 GHz: +11 dBm
High power Option 15 0.01 to less than 2 GHz: +13 dBm
High power Option 15 2 to 20 GHz: +17 dBm

Specifications

PARAMETER	VALUE
Minimum leveled power without attenuator	to -15 dBm (-20 dBm typical)
Minimum leveled power with attenuator	to -115 dBm (-120 dBm typical)
Output power resolution	0.01 dB
Source impedance	50 ohm nominal
Source SWR internal leveling below 2 GHz	less than 1.7 typical
Source SWR 2 to 20 GHz	less than 1.6 typical
Source SWR above 20 GHz	less than 2.0 typical
Power level stability vs temperature	0.04 dB/degCtypical
Internal leveling	yes at output connector
RF on off	yes
Level offset	yes
CW frequency resolution standard	1 kHz class
CW frequency resolution Option 11	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 class
Internal time base aging Option 16	less than 5×10^{-10} /day class
Residual FM 0.5 to 1.0 GHz class	less than 10 Hz RMS
Residual FM 1.0 to 2.2 GHz class	less than 20 Hz RMS
Residual FM 2.2 to 20 GHz class	less than 40 Hz RMS
Step attenuator option to 26.5 GHz	Option 2A 110 dB
Step attenuator option to 40 GHz	Option 2B 110 dB
Step attenuator option to 50 GHz	Option 2C 90 dB
Step attenuator option to 60 GHz	Option 2D 90 dB
Rack mount option	Option 1
Remote control	GPIB
Dimensions	429 mmWx 133 mmHx 597 mmDMass: less than or equal to 23 kg
Analog sweep width	1 MHz to full range
Analog sweep time	30 ms to 99 s
Step sweep steps	1 to 10000
Step dwell time	1 ms to 99 s

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

SSB phase noise at 20 GHz 10 kHz offset: -100 dBc/Hz class

Specifications

PARAMETER	VALUE
Markers	up to 20
RF output connector	TypeKfemale
Related CW model	69047A
Related signal generator	69247A
Related sweep signal	69347A

Notes

Specs from Anritsu/Wiltron 69A Series datasheet for 69x47A / 69147A (0.01–20 GHz Sweep). Confirm Option 15 and attenuator before quoting high-power levels.

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.