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Data Sheet

August 13, 2026

ANRITSU

Anritsu 69145A Synthesized Sweep Generator, 0.01 GHz to 65.0 GHz

Anritsu 69145A Synthesized Sweep Generator 0.5–20 GHz The Anritsu/Wiltron 69145A is an ultra-low-noise synthesized sweep generator covering 0.5 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 69×45A family. The Anritsu/Wiltron 69145A is an ultra-low-noise synthesized sweep generator covering 0.5 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 69×45A family.



MODEL

Anritsu 69145A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

69145A

LISTING

<https://aumictechlabs.com/products/69145a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Anritsu 69145A is a synthesized sweep generator spanning 0.01 GHz to 65.0 GHz, engineered for RF and microwave component validation across commercial and defense applications. It delivers output power from -125 dBm to +17 dBm with phase noise of -100 dBc/Hz at 10 kHz offset from 10 GHz, enabling precise characterization of complex systems. Technical Specifications Frequency Range: 0.01 GHz to 65.0 GHz with single coaxial output Output Power: +17 dBm maximum; -125 dBm minimum Phase Noise (SSB): -100 dBc/Hz at 10 kHz offset from 10 GHz Sweep Modes: Analog sweep (1 MHz to full range, continuous); Step sweep (1 to 10,000

steps, 1 kHz to full range step size, 0.1 Hz optional resolution); Manual sweep (phase-locked stepped frequency adjustment); Alternate sweep (two independent ranges with selectable power per range). Step dwell time variable from 1 ms to 99 seconds. Sweep Performance: Maximum switching time <40 ms to within 1 kHz of final frequency; step sweep <15 ms + 1 ms/GHz or <40 ms (whichever is less). Up to 1000 non-sequential frequencies programmable under GPIB control. Trigger Modes: Auto, External (TTL low-to-high), and Single, available for analog frequency, step frequency, and CW power sweep. Modulation: Internal AM, FM, phase modulation, and pulse modulation; user-downloadable complex modulation capability. Reference Output: 10 MHz, 0.5 V p-p into 50 Ω , AC coupled, rear panel BNC connector. Power Requirements: 115 Vac $\pm$ 20% or 230 Vac $\pm$ 20%, 48–400 Hz, single-phase; maximum 400 VA consumption. Key Features Marker accuracy matches sweep frequency accuracy Marker resolution (analog sweep): 1 MHz or Sweep Width/4096, whichever exceeds the other GPIB remote control with local front-panel operation AUX I/O for external sweep triggering on rear panel Low spurious signal performance with controlled harmonic suppression Typical Applications Component S-parameter measurement, subsystem gain and phase characterization, system-level RF validation, and defense sector developmental testing requiring wide-band frequency agility and fast stepping. Compatibility & Integration IEEE-488 GPIB interface for full remote programmability. Reference output enables clock synchronization with external test systems.

Features & description

From manufacturer datasheet

Features

• Coverage 0.5 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 0.5 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 0.5 to 20 GHz: +17 dBm class

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

69145A Characteristics / Specifications

PARAMETER	VALUE
Anritsu 69145A Synthesized Sweep Generator 0.	20 GHz Overview The Anritsu/Wiltron 69145A is an ultra-low-noise synthesized sweep generator covering 0.5 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 69×45A family.
Model	69145A
Manufacturer	Anritsu (Wiltron 69A Series)
Instrument Type	Synthesized Sweep Generator
Alias	69145A; Anritsu 69145A
Frequency range	0.5 GHz to 20 GHz
Family	69A Series ultra low noise sweep
Leveled power 0.5 to 20 GHz	+13 dBm
Leveled power with step attenuator 0.5 to 20 GHz	+11 dBm
High power Option 15 0.5 to 20 GHz	+17 dBm class
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

PARAMETER	VALUE
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	69045A
Related signal generator	69245A
Related sweep signal	69345A Notes Specs from Anritsu/Wiltron 69A Series datasheet for 69×45A / 69145A (0.5–20 GHz Sweep). Confirm Option 15 and 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	69145A
Manufacturer	Anritsu (Wiltron 69A Series)
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Leveled power 0.5 to 20 GHz	+13 dBm

Leveled power with step attenuator 0.5 to 20 GHz: +11 dBm
High power Option 15 0.5 to 20 GHz: +17 dBm class

Specifications

PARAMETER	VALUE
Minimum leveled power without attenuator	to -15 dBm (-20 dBm typical)
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Source impedance	50 ohm nominal
Source SWR internal leveling below 2 GHz	less than 1.7 typical
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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

PARAMETER	VALUE
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
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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	69045A
Related signal generator	69245A
Related sweep signal	69345A

Notes

Specs from Anritsu/Wiltron 69A Series datasheet for 69x45A / 69145A (0.5–20 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.