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Data Sheet

August 13, 2026

ANRITSU

Anritsu 68147B Synthesized Sweep Generator, 0.01 to 20.0 GHz

Anritsu 68147B Synthesized Sweep Generator 10 MHz to 20 GHz The Anritsu 68147B is a synthesized sweep generator covering 10 MHz to 20 GHz in the 68100B family. It provides phase-locked CW plus analog and step sweeps with optional high power for scalar/vector source substitution and ATE stimulus across RF and microwave coax bands. The Anritsu 68147B is a synthesized sweep generator covering 10 MHz to 20 GHz in the 68100B family. It provides phase-locked CW plus analog and step sweeps with optional high power for scalar/vector source substitution and ATE stimulus across RF and microwave coax bands.



MODEL

Anritsu 68147B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

68147B

LISTING

<https://aumictechlabs.com/products/68147b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Anritsu 68147B is a microprocessor-controlled synthesized sweep generator delivering phase-locked signal generation across 0.01–20.0 GHz. It combines precise frequency synthesis with flexible sweep architecture, making it ideal for component characterization, filter testing, and automated measurement systems requiring broadband coverage and agile frequency control.

Technical Specifications

Frequency Performance

Frequency range: 0.01–20.0 GHz

Frequency resolution: 1 kHz (0.1 Hz with Option 11)

Frequency switching time: <15 ms + 1 ms/GHz

step size (typical maximum)

Output Power

Maximum output: +13 dBm

Minimum output: –15 dBm

Power resolution: 0.01 dB Output accuracy: 2 dB Output impedance: 50 Ω Level switching time: 20 ms Phase Noise Minimum SSB phase noise: -96 dBc/Hz Maximum SSB phase noise: -66 dBc/Hz SSB phase noise at 10 kHz offset from 10 GHz: -100 dBc (related models) Spectral Purity Harmonics: -40 dBc Non-harmonic spurious: -40 dBc

Key Features

Modulation & Sweep Modes

Internal modulation: AM, FM, $\varnothing$ M, Pulse User-downloaded complex modulation capability Sweep modes: Step, Analog, Power, Alternate, Master/Slave Manual sweep with phase-locked stepped frequency adjustment Step sweep: 1-10,000 steps; step size 1 kHz to full range Alternate mode sweeps between two ranges at different power levels Programmable frequency agility: up to 1,000 non-sequential frequencies via GPIB Control & Interface Front-panel operation and remote control via IEEE-488 GPIB Rack mounting available (Option 1) Optional 110 dB step attenuator (Option 2B, for ≤ 40 GHz models)

Typical Applications

Microwave component testing, automated ATE systems, receiver and filter characterization, and frequency-dependent device analysis requiring phase-coherent signal generation across extended frequency ranges.

Compatibility & Integration

IEEE-488 GPIB remote control enables integration into automated test platforms and systems requiring programmable frequency agility or complex stimulus sequences.

Features & description

From manufacturer datasheet

Features

- Frequency coverage 10 MHz to 20 GHz • Synthesized sweep with high resolution phase lock • Standard 1 kHz resolution; Option 11 for 0.1 Hz • Banded leveled power per 6XX47 tables • Optional Option 15 high power and Option 16 oven • IEEE-488 GPIB remote programming

Applications

- Analog and step sweep stimulus 10 MHz to 20 GHz • Scalar network analyzer and component sweep testing • ATE microwave source with GPIB automation • LO substitution with sweep capability in this band

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

Output power resolution: 0.01 dB 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 68XXXB at 10 GHz 10 kHz offset: -83 dBc/Hz SSB phase noise 68XXXB at 20 GHz 10 kHz offset: -78 dBc/Hz Harmonics 2 to 20 GHz family: -60 dBc class Nonharmonic spurious typical: -60 dBc Sweep modes: analog and step sweep Remote control: IEEE 488 GPIB Dimensions: about 5.25 inHx 16.875 inWx 23.5 inD Weight: about 50 lb AC power: 90 to 132 or 180 to 264 Vac Power consumption: about 400 VA Related CW model: 68047B Related signal generator: 68247B Related sweep signal model: 68347B Related ultra low noise sweep: 69147A Operating temperature: 0 C to 50 C RF connector class: TypeKfemale Notes Power rows from Anritsu 68000B/69000A datasheet 6XX47 tables for 68147B (0.01–20 GHz). Confirm Option 15/16 and RF connector on the unit.

68147B Characteristics / Specifications

PARAMETER	VALUE
Model	68147B
Manufacturer	Anritsu / Wiltron
Instrument Type	Synthesized Sweep Generator
Alias	68147B; Anritsu 68147B
Frequency range	10 MHz to 20 GHz
Family	68100B Synthesized Sweep Generators
CW frequency resolution standard	1 kHz
CW frequency resolution Option	0.1 Hz
Leveled output 0.01 to 20 GHz	plus 13 dBm
Leveled with step attenuator 0.01 to 20 GHz	plus 11 dBm
High power Option 15 0.01 to less than 2 GHz	plus 13 dBm
High power Option 15 2 to 20 GHz	plus 17 dBm
Output power resolution	0.01 dB
Internal time base aging	less than 2×10^{-8} /day
Internal time base aging Option	less than 5×10^{-10} /day
SSB phase noise 68XXXB at 10 GHz 10 kHz offset	-83 dBc/Hz
SSB phase noise 68XXXB at 20 GHz 10 kHz offset	-78 dBc/Hz
Harmonics 2 to 20 GHz family	-60 dBc class
Nonharmonic spurious typical	-60 dBc
Sweep modes	analog and step sweep
Remote control	IEEE 488 GPIB
Dimensions	about 5.25 inHx 16.875 inWx 23.5 inDWeight: about 50 lb
AC power	90 to 132 or 180 to 264 Vac

PARAMETER	VALUE
Power consumption	about 400 VA
Related CW model	68047B
Related signal generator	68247B
Related sweep signal model	68347B
Related ultra low noise sweep	69147A
Operating temperature	0 C to 50 C
RF connector class	TypeKfemale Notes Power rows from Anritsu 68000B/69000A datasheet 6XX47 tables for 68147B (0.01–20 GHz). Confirm Option 15/16 and RF connector on the unit.

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 C to 50 C
Operating Temperature	0 C to 50 C
RF connector class	TypeKfemale Notes Power rows from Anritsu 68000B/69000A datasheet 6XX47 tables for 68147B (0.01–20 GHz). Confirm Option 15/16 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.

Specifications	
Specifications	
PARAMETER	VALUE
Harmonics 2 to 20 GHz family	-60 dBc class
Nonharmonic spurious typical	-60 dBc
Sweep modes	analog and step sweep
Remote control	IEEE 488 GPIB
Dimensions	about 5.25 in H x 16.875 in W x 23.5 in D
Weight	about 50 lb
AC power	90 to 132 or 180 to 264 Vac
Power consumption	about 400 VA
Related CW model	68047B
Related signal generator	68247B
Related sweep signal model	68347B
Related ultra low noise sweep	69147A
Operating temperature	0 C to 50 C
RF connector class	Type K female
Specifications	
PARAMETER	VALUE
Model	68147B
Manufacturer	Anritsu / Wiltron
Instrument Type	Synthesized Sweep Generator
Alias	68147B; Anritsu 68147B
Frequency range	10 MHz to 20 GHz
Family	68100B Synthesized Sweep Generators
CW frequency resolution standard	1 kHz
CW frequency resolution Option 11	0.1 Hz
Leveled output 0.01 to 20 GHz	plus 13 dBm

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

Specifications

PARAMETER	VALUE
Output power resolution	0.01 dB
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 68XXXB at 10 GHz 10 kHz offset: -83 dBc/Hz
SSB phase noise 68XXXB at 20 GHz 10 kHz offset: -78 dBc/Hz

Specifications

PARAMETER	VALUE
Harmonics 2 to 20 GHz family	-60 dBc class
Nonharmonic spurious typical	-60 dBc
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Notes
Power rows from Anritsu 68000B/69000A datasheet 6XX47 tables for 68147B (0.01-20 GHz). Confirm Option 15/16 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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NIST-traceable calibration · SAM registered ·
30-day returns
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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.