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Data Sheet

August 13, 2026

ANRITSU

Anritsu 68297B Synthesized Signal Generator, 0.01 GHz to 65.0 GHz

Anritsu 68297B Synthesized Signal Generator 10 MHz to 65 GHz The Anritsu 68297B is a microprocessor-based synthesized signal generator covering 10 MHz to 65 GHz in the 682XXB family. It provides discrete CW frequencies plus broad and narrow sweeps with internal/external AM, FM, and pulse modulation for signal simulation, LO duty, and ATE. All functions are controllable from the front-panel LCD or via IEEE-488 GPIB. The Anritsu 68297B is a microprocessor-based synthesized signal generator covering 10 MHz to 65 GHz in the 682XXB family. It provides discrete CW frequencies plus broad and narrow sweeps with internal/external AM, FM, and pulse modulation for signal simulation, LO duty, and ATE. All functions are controllable from the front-panel LCD or via IEEE-488 GPIB.



MODEL

Anritsu 68297B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

68297B

LISTING

<https://aumictechlabs.com/products/68297b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Anritsu 68297B is a synthesized signal generator spanning 0.01 GHz to 65.0 GHz, engineered for RF and microwave testing in aerospace, satellite communications, and advanced telecommunications. It delivers maximum output power to +17 dBm with ultra-low phase noise and precise frequency control. The instrument supports analog, step, and manual sweep modes with

multiple modulation types, programmable frequency agility up to 1000 non-sequential frequencies, and fast switching times under 15 ms. Dual GPIB ports enable automated testing and remote instrument control.

Technical Specifications

Frequency Range: 0.01 GHz to 65.0 GHz

Output Power: Maximum: +17 dBm Minimum: -125 dBm Leveled power guaranteed to +17 dBm up to 20 GHz

Phase Noise (SSB): -107 dBc/Hz at 10 kHz offset from 10 GHz -66 dBc/Hz at 10 kHz offset from 20 GHz -54 dBc/Hz at 10 kHz offset from 40 GHz

Frequency Resolution: 1 kHz standard; 0.1 Hz with Option 11

Switching Time: <15 ms +1 ms/GHz step size or <40 ms (whichever is less, typical max) <5 ms for steps <100 MHz

Key Features

Modulation: Internal AM, FM, and pulse modulation with 7 waveforms including Gaussian noise and user-defined arbitrary waveforms. Pulse modulation supports doublet, triplet, and quadruplet configurations for RADAR blind spot testing. External FM (locked/unlocked) and AM (log/linear) supported. Simultaneous synchronized modulations available.

Sweep Modes: CW or step sweep, analog sweep, manual sweep, and alternate sweep mode (sweeps between two ranges with independent power levels per range). Step sweep configurable from 1 to 10,000 steps with dwell times from 1 ms to 99 seconds. Analog sweep width 1 kHz to full range; sweep time 30 ms to 99 seconds with ± 30 MHz accuracy (or ± 2 MHz widths for sweep speeds ≤ 50 MHz/ms). Frequency Agility: Up to 1,000 non-sequential frequencies storable and addressable as phase-locked step sweep via GPIB control.

Compatibility & Integration Dual GPIB ports standard. Remote interface options enable automated test system integration and programmable control of all instrument functions.

Features & description

From manufacturer datasheet

Features

- Frequency coverage 10 MHz to 65 GHz
- Synthesized signal generator with comprehensive modulation
- Standard 1 kHz resolution; Option 11 for 0.1 Hz
- Banded leveled output power per 6XX97 tables
- Optional high-stability oven time base Option 16
- IEEE-488 GPIB remote control

Applications

- Broadband microwave stimulus 10 MHz to 65 GHz
- Modulated signal simulation for receivers and components
- ATE LO substitution with GPIB automation
- Millimeter-wave leveled source applications to 65 GHz

68297B Characteristics / Specifications

PARAMETER	VALUE
Model	68297B
Manufacturer	Anritsu / Wiltron
Instrument Type	Synthesized Signal Generator
Alias	68297B; Anritsu 68297B
Frequency range	10 MHz to 65 GHz
Family	682XXB Synthesized Signal Generators
CW frequency resolution standard	1 kHz
CW frequency resolution Option	0.1 Hz
Leveled output 0.01 to less than 2 GHz	+12 dBm
Leveled output 2 to 20 GHz	+10 dBm
Leveled output greater than 20 to 40 GHz	+2.5 dBm
Leveled output greater than 40 to 50 GHz	0.0 dBm
Leveled output greater than 50 to 65 GHz	-2.0 dBm
Step attenuator availability above 40 GHz	not available per datasheet
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 68XXB 2 to 6 GHz at 10 kHz	about -86 dBc/Hz
SSB phase noise 68XXB greater than 10 to 20 GHz at 10 kHz	about -78 dBc/Hz
Harmonics family typical	-50 to -60 dBc by band
Nonharmonic spurious typical	-60 dBc
Modulation AM	internal and external
Modulation FM	internal and external
Modulation pulse	internal and external

PARAMETER	VALUE
Remote control	IEEE 488 GPIB
Display	Dot matrix LCD
Dimensions	about 5.25 inHx 16.875 inWx 23.5 inDWeight: about 50 lb
AC power	90 to 132 or 180 to 264 Vac 48 to 400 Hz
Power consumption	about 400 VA
Related CW model	68097B
Related sweep model	68197B
Related sweep signal model	68395B / 68397B family peers Notes Power and band limits from Anritsu 682XXB/683XXB and 68000B/69000A family datasheets for 68297B (0.01–65 GHz). Confirm RF connector, Option 11/16, and measured max leveled power 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	
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Harmonics family typical	-50 to -60 dBc by band
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Remote control	IEEE 488 GPIB
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Weight	about 50 lb
AC power	90 to 132 or 180 to 264 Vac 48 to 400 Hz
Power consumption	about 400 VA
Related CW model	68097B
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Frequency range	10 MHz to 65 GHz
Family	682XXB Synthesized Signal Generators
CW frequency resolution standard	1 kHz
CW frequency resolution Option 11	0.1 Hz
Leveled output 0.01 to less than 2 GHz: +12 dBm	
Leveled output 2 to 20 GHz: +10 dBm	

Leveled output greater than 20 to 40 GHz: +2.5 dBm
Leveled output greater than 40 to 50 GHz: 0.0 dBm
Leveled output greater than 50 to 65 GHz: -2.0 dBm

Specifications

PARAMETER	VALUE
Step attenuator availability above 40 GHz	not available per datasheet
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 2 to 6 GHz at 10 kHz: about -86 dBc/Hz
SSB phase noise 68XXXB greater than 10 to 20 GHz at 10 kHz: about -78 dBc/Hz

Specifications

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Notes
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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 ·
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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.