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Data Sheet

August 13, 2026

ANRITSU

Anritsu 68175B Synthesized Sweep Generator, 0.5 GHz to 50.0 GHz

Anritsu 68175B Synthesized Sweep Generator 0.5 GHz to 50 GHz The Anritsu 68175B is a microprocessor-based synthesized sweep generator covering 0.5 GHz to 50 GHz in the 681XXB family. It provides phase-locked CW plus analog and step sweeps with front-panel LCD and IEEE-488 GPIB control. The Anritsu 68175B is a microprocessor-based synthesized sweep generator covering 0.5 GHz to 50 GHz in the 681XXB family. It provides phase-locked CW plus analog and step sweeps with front-panel LCD and IEEE-488 GPIB control.



MODEL

Anritsu 68175B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

68175B

LISTING

<https://aumictechlabs.com/products/68175b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Anritsu 68175B is a synthesized sweep generator delivering high-quality RF signals across 0.5 GHz to 50.0 GHz. Purpose-built for advanced system testing and validation, it serves demanding applications in telecommunications, aerospace, and defense where signal integrity and measurement accuracy are critical. The instrument combines low phase noise performance with flexible sweep architecture and precise output control, enabling complex characterization tasks from component-level to system-level validation.

Technical Specifications

Frequency Range: 0.5 GHz to 50.0 GHz

Frequency resolution: 1 kHz standard; 0.1 Hz optional (Option 11)

Output Performance: Output impedance: 50 Ohm

Output level resolution: 0.01 dB

Output level accuracy:

Approximately 2.5 dB Phase Noise: SSB phase noise: -100 dBc/Hz typical at 10 kHz offset from 10 GHz Spurious Signals: Harmonics: -40 dBc Non-harmonics: -40 dBc Sweep Capabilities: Step sweep: 1 to 10,000 steps with 1 kHz minimum step size Dwell time per step: 1 ms to 99 seconds Step switching time: Less than 15 ms + 1 ms/GHz step size, or less than 40 ms Analog sweep and manual sweep modes supported Alternate sweep mode for bidirectional sweeping between two ranges Key Features Modulation support: Internal AM, FM, phase, and pulse modulation Complex modulation via user-downloaded waveforms GPIB programmability with storage for up to 1000 non-sequential frequencies Phase-locked step sweep control and SCPI programming capability Typical Applications Component and subsystem characterization in RF/microwave design; receiver and transmitter validation; antenna testing; filter and amplifier evaluation; system-level performance verification in aerospace, defense, and telecommunications. Compatibility & Integration GPIB interface with SCPI command set enables remote instrument control and integration into automated test systems.

Features & description

From manufacturer datasheet

Features

- Frequency coverage 0.5 GHz to 50 GHz
- Synthesized phase-lock with high resolution
- Standard 1 kHz resolution; Option 11 for 0.1 Hz
- Banded leveled output per family power tables
- Optional Option 15 high power and Option 16 oven
- IEEE-488 GPIB remote programming

Applications

- Microwave stimulus across 0.5 GHz to 50 GHz
- ATE automated GPIB source applications
- Component and receiver testing in band
- LO substitution and swept measurements

68175B Characteristics / Specifications

PARAMETER	VALUE
Model	68175B
Manufacturer	Anritsu / Wiltron
Instrument Type	Synthesized Sweep Generator
Alias	68175B; Anritsu 68175B
Frequency range	0.5 GHz to 50 GHz
Family	681XXB Synthesized Sweep Generators
CW frequency resolution standard	1 kHz
CW frequency resolution Option	0.1 Hz
Leveled output 0.5 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	+2.5 dBm
Leveled with step attenuator 0.5 to less than 2 GHz	+10 dBm
Leveled with step attenuator 2 to 20 GHz	+8.5 dBm
Leveled with step attenuator greater than 20 to 40 GHz	0 dBm
Leveled with step attenuator greater than 40 to 50 GHz	-1 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
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
Power consumption	about 400 VA

PARAMETER	VALUE
Harmonics family typical	-50 to -60 dBc
Nonharmonic spurious typical	-60 dBc
SSB phase noise 68XXXB at 6 GHz 10 kHz class	about -86 to -88 dBc/Hz
Related CW model	68075B
Related signal generator	68275B
Related sweep signal	68375B Notes Power rows from Anritsu 68000B/69000A El Toro datasheet tables for 68175B (0.5 GHz to 50 GHz). Confirm Option 11/15/16, attenuator, 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
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
Remote control	IEEE 488 GPIB
Display	Dot matrix LCD
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
Harmonics family typical	-50 to -60 dBc
Nonharmonic spurious typical	-60 dBc

Specifications

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Model	68175B
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Alias	68175B; Anritsu 68175B
Frequency range	0.5 GHz to 50 GHz
Family	681XXB Synthesized Sweep Generators
CW frequency resolution standard	1 kHz
CW frequency resolution Option 11	0.1 Hz

Leveled output 0.5 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: +2.5 dBm
Leveled with step attenuator 0.5 to less than 2 GHz: +10 dBm
Leveled with step attenuator 2 to 20 GHz: +8.5 dBm
Leveled with step attenuator greater than 20 to 40 GHz: 0 dBm
Leveled with step attenuator greater than 40 to 50 GHz: -1 dBm

Specifications

PARAMETER	VALUE
Output power resolution	0.01 dB
Internal time base aging	less than 2×10^{-8} /day
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SSB phase noise 68XXXB at 6 GHz 10 kHz class: about -86 to -88 dBc/Hz

Specifications

PARAMETER	VALUE
Related CW model	68075B
Related signal generator	68275B
Related sweep signal	68375B

Notes

Power rows from Anritsu 68000B/69000A El Toro datasheet tables for 68175B (0.5 GHz to 50 GHz). Confirm Option 11/15/16, attenuator, 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.