

KEYSIGHT TECHNOLOGIES (AGILENT HP)

83624A

The Keysight Agilent HP 83624A is a synthesized swept signal generator designed for applications requiring high-performance, high power, and precise coaxial measurements from 2 GHz to 20 GHz. Combining the high resolution and accuracy of a synthesizer with the speed and versatility of a sweep oscillator, it is an industry-standard solution for broadband component test, receiver evaluation, and radar systems development.

SPECIFICATIONS

General

Interfaces	GPIB (HP-IB)
Display	Amber Electroluminescent (EL) Display

Physical

Power Supply	90 to 132 VAC (48 to 66 Hz) or 198 to 264 VAC (48 to 66 Hz) automatic selection
Operating Temperature	0 °C to 55 °C °C
Dimensions (W×H×D)	178 mm × 425 mm × 648 mm mm
Weight	27 kg kg

Frequency Specifications

Frequency Range	2.0 GHz to 20.0 GHz
Frequency Resolution	1 kHz
Internal Reference Frequency	10 MHz
External Reference Input	1, 2, 5, or 10 MHz (± 5 ppm)

RF Output Specifications

Output Impedance	50 Ω nominal
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Inputs & Outputs (Connectivity)

RF Output Connector Type	3.5 mm (female)
External ALC Input Connector	BNC (female), front panel
External AM Input Connector	BNC (female), front panel
External FM Input Connector	BNC (female), front panel
External Pulse Input Connector	BNC (female), front panel
Sweep Output / Ramp Out Connector	BNC (female), rear panel
Z-Axis Intensity Output Connector	BNC (female), rear panel
Blanking Output Connector	BNC (female), rear panel
10 MHz Reference Input Connector	BNC (female), rear panel
10 MHz Reference Output Connector	BNC (female), rear panel

Sweep Modes & Triggering

Sweep Modes	Step sweep, List sweep, Ramp sweep (Analog)
Number of Frequency Markers	5

Modulation Capabilities

Modulation Capabilities	AM, FM, Pulse modulation
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Remote Programming & Interface

Programming Languages	SCPI
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Physical & Environmental

Rackmount Width	19-inch standard rack compatible
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RF Output

Maximum Leveled Power	+20 dBm
Minimum Leveled Power (Standard)	-20 dBm
Minimum Leveled Power (with Option 001)	-110 dBm
Power Resolution	0.1 dB

Spectral Purity

Harmonics	<-25 dBc
SSB Phase Noise (10 GHz, 10 kHz offset)	<-80 dBc/Hz

Options

Option 001	110 dB Step Attenuator
Option 002	Internal Modulation Generator
Option 004	Rear Panel RF Output
Option 008	1 Hz Frequency Resolution

Environmental

Storage Temperature Range	-40 °C to +75 °C
Maximum Operating Altitude	4,570 m (15,000 ft)

Performance

Non-harmonic Spurious	< -50 dBc (2.0 to 20 GHz)
Leveled Power Flatness	±1.0 dB
Frequency Switching Time	< 50 ms (to within 100 Hz of final frequency)

Modulation

External AM Bandwidth (DC-coupled)	DC to 250 kHz (3 dB bandwidth)
External AM Bandwidth (AC-coupled)	50 Hz to 250 kHz (3 dB bandwidth)
External AM Depth	0 to 90%
External FM Rate (Locked)	100 kHz to 8 MHz (3 dB bandwidth)
External FM Rate (Unlocked)	DC to 8 MHz (3 dB bandwidth)
Maximum External FM Deviation (Locked)	±8 MHz
Maximum External FM Deviation (Unlocked)	±8 MHz
Pulse Modulation On/Off Ratio	> 80 dB
Pulse Rise/Fall Time	< 25 ns
Minimum Pulse Width	< 1 μs

Inputs & Outputs

External ALC Voltage Range	-0.5 V to -5.0 V
External ALC Input Impedance	10 kΩ nominal

Power

Power Supply Voltage Range	90 to 132 VAC / 198 to 264 VAC
Power Supply Frequency Range	48 to 66 Hz
Maximum Power Consumption	400 VA

TECHNOLOGY

Synthesized RF/Microwave Sweep Generator

APPLICATIONS

Broadband coaxial measurements, RF/microwave component testing, and local oscillator emulation

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.