

KEYSIGHT TECHNOLOGIES (AGILENT HP)

8648C

The Agilent/Keysight 8648C is a synthesized RF signal generator designed for manufacturing, semi-automated receiver testing, and general-purpose applications. It offers a frequency range of 9 kHz to 3.2 GHz, superior level accuracy, and solid phase noise performance, making it ideal for testing cordless telephones, pagers, and two-way radios.

SPECIFICATIONS

Frequency

Minimum Frequency	9 kHz Hz
Maximum Frequency	3.2 GHz Hz
Frequency Resolution	0.001 Hz

Output

Reverse Power Protection	50 W ($\leq$ 2 GHz), 25 W ($>$ 2 GHz)
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Modulation

Modulation	AM, FM, Phase
Internal Modulation Frequencies	400 Hz and 1 kHz (Standard), 10 Hz to 20 kHz (Option 1E2)
AM Depth Range	0 to 100%
AM Resolution	0.1%

General

Reference Oscillator	Standard: ± 2 ppm/year; Option 1E5: ± 0.1 ppm/year
Interfaces	GPIO (IEEE-488)
Display	LCD

Physical

Power Supply	90 to 264 VAC (48 to 66 Hz) or 90 to 132 VAC (48 to 440 Hz)
Dimensions (W×H×D)	330 x 133 x 368 mm mm
Weight	8.5 kg kg
Attenuator Type	Solid-state electronic

Amplitude Specifications

Amplitude Resolution	0.1 dB
Output Impedance	50 Ω
High Power Option	Optional (increases maximum output power)

Spectral Purity

Harmonics	-30 dBc
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Connectivity and Interfaces

RF Output Connector	Type-N (Female)
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Environmental

Operating Temperature	0 to 50 °C
Storage Temperature	-40 to 71 °C

Power

Power Consumption	170 VA maximum
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Reference Oscillator

Standard Timebase Aging Rate	± 2 ppm / year
High-Stability Timebase Aging Rate (Option 1E5)	± 0.1 ppm / year

Inputs & Outputs

External Modulation Input Impedance	600 Ω
Maximum External Modulation Input Level	1 V _{peak} (for indicated deviation)

Compliance

EMC Compliance	CISPR 11 / EN 55011 Group 1 Class A
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TECHNOLOGY

Synthesized RF Signal Generation

APPLICATIONS

Receiver testing, high-volume manufacturing (cordless telephones, pagers, two-way radios)

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