

KEYSIGHT TECHNOLOGIES (AGILENT HP)

8648D

The Keysight (formerly Agilent/HP) 8648D is an economical 4 GHz synthesized RF signal generator tailored for semi-automated receiver testing and general-purpose RF applications. Offering a wide frequency range of 9 kHz to 4 GHz, it provides superior level accuracy, an output power range of -136 dBm to +13 dBm, and standard AM, FM, and Phase modulation. Designed to optimize manufacturing throughput for products like cordless phones, pagers, and two-way radios, the 8648D features 300 storage registers, 10 user-definable sequences, and optional high-power and pulse modulation capabilities in a dependable, easy-to-use platform.

SPECIFICATIONS

Frequency

Minimum Frequency	9 kHz Hz
Maximum Frequency	4 GHz Hz
Frequency Resolution	0.001 Hz

Output

Maximum Output Power	+13 dBm dBm
Output Power Range	-136 dBm to +13 dBm

Modulation

Modulation	AM, FM, Phase
Internal Modulation Source	400 Hz and 1 kHz (standard); 10 Hz to 20 kHz (Option 1E2)

General

Reference Oscillator	10 MHz
Interfaces	GPIO
Display	LCD
Calibration Interval	2 years

Physical

Power Supply	90 to 264 Vac, 48 to 440 Hz
Dimensions (W×H×D)	330 × 165 × 368 mm
Weight	8.5 kg

Frequency Specifications

Frequency Range	9 kHz to 4 GHz
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Amplitude and Output Specifications

Output Power Resolution	0.1 dB
Output Impedance	50 Ω

Spectral Purity	
Harmonics	<-30 dBc
Modulation Specifications	
Modulation Formats	AM, FM, Phase
Connectivity and Interfaces	
RF Output Connector Type	Type-N (Female)
Remote Control Interface	GPIO (IEEE-488)
Features	
Storage Registers	300
User-definable Sequences	10
Reference Oscillator	
Timebase Aging Rate	±2 ppm/year (standard); < ±0.1 ppm/year (Option 1E5)
Protection	
Reverse Power Protection	50 W (≤ 2000 MHz), 25 W (> 2000 MHz)
Environmental	
Operating Temperature	0 °C to 50 °C
Storage Temperature	-40 °C to +71 °C
Power	
Power Consumption	170 VA maximum
TECHNOLOGY	
RF Synthesized	
APPLICATIONS	
Receiver Test, Manufacturing, General Purpose RF	

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