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**Data Sheet**

August 14, 2026

AGILENT / KEYSIGHT

# Agilent / Keysight 8664A High-Performance Signal Generator, 3 GHz

HP Agilent 8664A High Performance RF Signal Generator The Agilent 8664A is a high-performance RF signal generator covering 0.1 MHz to 3000 MHz with 0.01 Hz frequency resolution. OEM 8644B/8664A/8665B data sheet lists low phase noise, optional low-noise Option 004, and fast switching. Low-noise RF LO and stimulus to 3 GHz, receiver testing, and high-purity CW and modulated signal generation. Frequency Accuracy Std Timebase: 0.375e-6 times carrier within 1 year of calibration The Agilent 8664A is a high-performance RF signal generator covering 0.1 MHz to 3000 MHz with 0.01 Hz frequency resolution. OEM 8644B/8664A/8665B data sheet lists low phase noise, optional low-noise Option 004, and fast switching. Low-noise RF LO and stimulus to 3 GHz, receiver testing, and high-purity CW and modulated signal generation. Frequency Accuracy Std Timebase: 0.375e-6 times carrier within 1 year of calibration Switching Speed Typical: less than 50 ms within 0.33 ppm



MODEL

**Agilent / Keysight  
8664A**

CALIBRATION

**Available on  
request**

CONDITION

**Used**

STATUS

**In stock**

RFQ / SKU

**8664A**

LISTING

<https://aumictechlabs.com/products/8664a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

## This unit

The Agilent/Keysight 8664A is a synthesized signal generator spanning 100 kHz to 3.0 GHz, engineered for RF and microwave applications demanding spectral purity and frequency stability. It delivers output levels from +13 dBm to -139.9 dBm with 0.01 Hz resolution, supporting AM, FM,

phase modulation, and pulse modulation. The instrument combines low phase noise ( $-134$  dBc/Hz at 1 GHz, 20 kHz offset), digitally stepped and phase-continuous frequency sweep, and dual independent modulation sources with selectable waveforms and rates to 400 kHz. Technical Specifications Frequency Range: 100 kHz to 3.0 GHz Frequency Resolution: 0.01 Hz Output Level: +13 dBm to  $-139.9$  dBm Output Connector: Type N (female) Output Power Accuracy:  $\pm 2$  dB typical SSB Phase Noise:  $-134$  dBc/Hz at 1 GHz carrier, 20 kHz offset (standard) Non-harmonic Suppression: Typically below  $-100$  dBc RF Leakage:  $< 16$   $\mu$ V typical;  $< 2$   $\mu$ V with Option 010 (resonant dipole);  $< 0.05$   $\mu$ V with Option 010 (two-turn loop) Power Requirements:  $\pm 10\%$  of 100 V, 120 V, 220 V, or 240 V; 48–440 Hz; 500 VA Key Features Modulation: AM, FM (rates to 2 MHz, deviations to 10–20 MHz), phase modulation, and pulse modulation (50–999 ns adjustable width/delay, rise/fall 80 dB with options) Frequency Sweep: Digitally stepped and phase-continuous modes; 40 MHz span at maximum carrier frequency Internal Modulation Sources: Two simultaneous, independently configurable sources with sine, triangle, sawtooth, square, and Gaussian noise waveforms; rates from 0.1 Hz to 400 kHz (sine/noise) or 50 kHz (other waveforms) Optional Enhancements: Low-noise option (Option 004), high-stability timebase (Option 001), internal 2 GHz frequency counter (Option 011), reduced leakage configuration (Option 010), pulse modulation capability (Option 008) Typical Applications Receiver testing, component characterization, RF subsystem evaluation, and development environments requiring precise signal generation with stable frequency and low spectral distortion. Compatibility & Integration Remote programming via GPIB enables integration into automated test systems.

## 8664A Characteristics / Specifications

| PARAMETER                                           | VALUE                                               |
|-----------------------------------------------------|-----------------------------------------------------|
| Frequency Range                                     | 0.1 MHz to 3000 MHz                                 |
| Frequency Resolution                                | 0.01 Hz                                             |
| Frequency Accuracy Std Timebase                     | 0.375e-6 times carrier within 1 year of calibration |
| Switching Speed Typical                             | less than 50 ms within 0.33 ppm                     |
| Switching Speed With Option 0                       | less than 100 ms                                    |
| SSB Phase Noise 20 kHz Offset 515 to 1030 MHz Std   | -117 dBc/Hz                                         |
| SSB Phase Noise 20 kHz Offset 515 to 1030 MHz Opt 0 | -134 dBc/Hz                                         |
| SSB Phase Noise 20 kHz Offset 1030 to 2060 MHz Std  | -111 dBc/Hz                                         |
| SSB Phase Noise 20 kHz Offset 2060 to 3000 MHz Std  | -111 dBc/Hz                                         |
| Subharmonics 0.1 to 1500 MHz                        | less than -75 dBc                                   |
| Subharmonics 1500 to 3000 MHz                       | less than -40 dBc                                   |
| Level Accuracy Mid Levels Class                     | +/-1 dB class                                       |
| Instrument Type                                     | High performance RF signal generator                |
| Remote Interface                                    | GPIB                                                |
| Sibling 8665B Range                                 | 0.1 MHz to 6000 MHz                                 |
| Minimum Frequency                                   | 0.1 MHz                                             |
| Maximum Frequency                                   | 3000 MHz                                            |
| Output Impedance                                    | 50 Ohm                                              |
| Nonharmonics Class Midband                          | less than -100 dBc class sheet                      |
| AM FM Modulation                                    | Supported class                                     |
| Series Family                                       | 866x high performance RF generators                 |

# 8664A Specifications

| PARAMETER                                             | VALUE                                                                                                        |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| HP Agilent 8664A High Performance RF Signal Generator | Overview                                                                                                     |
| Applications                                          | Low-noise RF LO and stimulus to 3 GHz, receiver testing, and high-purity CW and modulated signal generation. |
| Key Features                                          | 0.1 MHz to 3 GHz coverage                                                                                    |
| Low SSB phase noise                                   | Optional low noise Option 004                                                                                |
| Technical Specifications                              | Frequency Range: 0.1 MHz to 3000 MHz                                                                         |

# 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.

Performance RF Signal Generator

Overview

The Agilent 8664A is a high-performance RF signal generator covering 0.1 MHz to 3000 MHz with 0.01 Hz frequency resolution. OEM 8644B/8664A/8665B data sheet lists low phase noise, optional low-noise Option 004, and fast switching.

Applications

Low-noise RF LO and stimulus to 3 GHz, receiver testing, and high-purity CW and modulated signal generation.

Key Features

0.1 MHz to 3 GHz coverage  
0.01 Hz frequency resolution  
Low SSB phase noise  
Optional low noise Option 004  
GPIB programmability

Technical Specifications

Technical Specifications

| PARAMETER                       | VALUE                                               |
|---------------------------------|-----------------------------------------------------|
| Frequency Range                 | 0.1 MHz to 3000 MHz                                 |
| Frequency Resolution            | 0.01 Hz                                             |
| Frequency Accuracy Std Timebase | 0.375e-6 times carrier within 1 year of calibration |
| Switching Speed Typical         | less than 50 ms within 0.33 ppm                     |
| Switching Speed With Option 004 | less than 100 ms                                    |

SSB Phase Noise 20 kHz Offset 515 to 1030 MHz Std: -117 dBc/Hz  
SSB Phase Noise 20 kHz Offset 515 to 1030 MHz Opt 004: -134 dBc/Hz  
SSB Phase Noise 20 kHz Offset 1030 to 2060 MHz Std: -111 dBc/Hz  
SSB Phase Noise 20 kHz Offset 2060 to 3000 MHz Std: -111 dBc/Hz  
Harmonics Output at or below +10 dBm: less than -30 dBc

Specifications

| PARAMETER                       | VALUE                                |
|---------------------------------|--------------------------------------|
| Subharmonics 0.1 to 1500 MHz    | less than -75 dBc                    |
| Subharmonics 1500 to 3000 MHz   | less than -40 dBc                    |
| Level Accuracy Mid Levels Class | +/-1 dB class                        |
| Instrument Type                 | High performance RF signal generator |
| Remote Interface                | GPIB                                 |
| Sibling 8665B Range             | 0.1 MHz to 6000 MHz                  |
| Minimum Frequency               | 0.1 MHz                              |
| Maximum Frequency               | 3000 MHz                             |

| PARAMETER                  | VALUE                          |
|----------------------------|--------------------------------|
| Output Impedance           | 50 Ohm                         |
| Nonharmonics Class Midband | less than -100 dBc class sheet |
| AM FM Modulation           | Supported class                |

Option 004: Low noise option

Series Family: 866x high performance RF generators

#### Notes

From Agilent 8644B, 8664A, 8665B High Performance RF Signal Generators data sheet (8664A columns). Full level range and AM/FM deviation tables are on the OEM sheet.

## Ordering Information

| OPTION     | DESCRIPTION          |
|------------|----------------------|
| Option 004 | GPIB programmability |

### Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: [sales@aumictech.com](mailto:sales@aumictech.com) · +1 (484) 841-9341

#### Aumictech

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NIST-traceable calibration · SAM registered ·  
30-day returns  
NAICS 423690 · 811210 · 541380  
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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.