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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 8662A High-Performance Signal Generator, 1.2 GHz

The HP 8662A is a high-spectral-purity synthesized signal generator covering 10 kHz to 1280 MHz. OEM catalog specifications emphasize absolute SSB phase noise as low as about -135 dBc/Hz typical at 1 kHz offset depending on band, with AM/FM, simultaneous modulation, and HP-IB programming. Radar and satellite communications LO/stimulus, phase-noise measurement reference sources, and receiver testing where close-in spectral purity dominates. Extremely low phase noise synthesized architecture AM and FM with simultaneous modulation capability FM External AC Bandwidth: 20 Hz to 100 kHz Power Requirements: 115 (90 to 126) V or 230 (198 to 252) V; 48 to 66 Hz; 450 VA max Size: 425 mmWx 178 mmHx 572 mmD Net Weight: 30 kg (65.5 lb) Specs from HP 8662A/8663A High-Performance RF Signal Generators catalog/data pages. Phase-noise values cited are OEM specified (Spec) figures for the 120 to 160 MHz band; other bands have different Spec/Typ tables in the same sheet.



MODEL

**Agilent / Keysight
8662A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

8662A

LISTING

<https://aumictechlabs.com/products/8662a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 8662A is a synthesized signal generator delivering exceptional spectral purity and ultra-low phase noise across 10 kHz to 1280 MHz. Built for precision RF and microwave testing, it excels in radar system characterization, satellite communication validation, and phase

noise measurement applications where signal integrity is non-negotiable.

Technical Specifications

Frequency Performance

Frequency range: 10 kHz to 1280 MHz
Frequency resolution: 0.1 Hz (100.0 μ Hz)
Internal 10 MHz quartz oscillator reference
Aging rate $<5 \times 10^{-7}$ per day (post 10-day warmup)
Output Power
Output range: +13 dBm to -139.9 dBm (1V to 0.023 μ Vrms into 50 Ω)
Output impedance: 50 Ω
Phase Noise
SSB phase noise: typically -135 dBc/Hz at 1 kHz offset
SSB phase noise: <-147 dBc/Hz at 10 kHz offset
Minimum SSB noise floor: -148 dBc/Hz
Harmonics: -30 dBc
Non-harmonics: -84 dBc

Modulation Capabilities

Supports AM, FM, phase, and pulse modulation via internal or external sources. Internal modulation oscillator provides rates from 10 Hz to 99.9 kHz. Pulse mode delivers ≥ 30 dB on/off ratio with rise/fall times <250 ns (50–120 MHz), <800 ns (120–640 MHz), and <100 ns (≥ 640 MHz). Pulse repetition frequency spans 10 Hz to 99.9 kHz internally or 10 Hz to 2 MHz externally.

Key Features

0.1 Hz frequency resolution for fine-grain tuning
Configurable front and rear panel RF outputs with optional modulation inputs (Option 001)
HP-IB standard interface for remote programming
Dual line voltage operation: 115 V or 230 V (48–66 Hz)
Power consumption: maximum 450 VA

Physical Specifications

Dimensions: 425 mm W $\times$ 178 mm H $\times$ 572 mm D (16.75 in $\times$ 7 in $\times$ 22.5 in)

Compatibility & Integration

HP-IB interface enables integration into automated test systems. Optional MATE capability via Option 7001 provides CIL control for legacy test environments.

8662A Characteristics / Specifications

PARAMETER	VALUE
Frequency Range	10 kHz to 1280 MHz (1279.9999998 MHz)
Frequency Resolution Below 640 MHz	0.1 Hz
Frequency Resolution Above 640 MHz	0.2 Hz
Frequency Accuracy	Same as reference oscillator
Internal Reference Frequency	10 MHz quartz oscillator
Reference Aging Rate	<5e-10 per day after 10-day warm-up
Output Level Range	+13 to -139.9 dBm
Output Level Resolution	0.1 dB
Harmonics	< -30 dBc
Nonharmonic Spurious 0.01 to 120 MHz	-90 dBc
Nonharmonic Spurious 120 to 160 MHz	-100 dBc
Nonharmonic Spurious 160 to 320 MHz	-96 dBc
Nonharmonic Spurious 320 to 640 MHz	-90 dBc
Nonharmonic Spurious 640 to 1280 MHz	-84 dBc
SSB Phase Noise Spec 120 to 160 MHz at 1 kHz Offset	-129 dBc/Hz
SSB Phase Noise Spec 120 to 160 MHz at 10 kHz Offset	-142 dBc/Hz
SSB Broadband Noise Floor 3 MHz Offset 120 to 640 MHz	< -146 dBc in 1 Hz BW above +10 dBm
AM Depth Range	0 to 95% at +8 dBm and below
AM Resolution 10 to 95%	1%
AM Resolution 0 to 9.9%	0.1%
AM Indicated Accuracy	±5% of reading ±1% AM for depths ≤90%
FM External AC Bandwidth	20 Hz to 100 kHz
FM External DC Bandwidth	dc to 100 kHz
Operating Temperature	0 C to +55 C

PARAMETER	VALUE
Power Requirements	115 (90 to 126) V or 230 (198 to 252) V; 48 to 66 Hz; 450 VA max
Size	425 mmWx 178 mmHx 572 mmDNet Weight: 30 kg (65.5 lb)
Shipping Weight	36 kg (80 lb)
Bandwidth	20 Hz to 100 kHz

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 C to +55 C
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Power Requirements	115 (90 to 126) V or 230 (198 to 252) V; 48 to 66 Hz; 450 VA max
Size	425 mmWx 178 mmHx 572 mmDNet Weight: 30 kg (65.5 lb)
Shipping Weight	36 kg (80 lb) Notes Specs from HP 8662A/8663A High-Performance RF Signal Generators catalog/data pages. Phase-noise values cited are OEM specified (Spec) figures for the 120 to 160 MHz band; other bands have different Spec/Typ tables in the same sheet.

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 emphasize absolute SSB phase noise as low as about -135 dBc/Hz typical at 1 kHz offset depending on band, with AM/FM, simultaneous modulation, and HP-IB programming.

Applications
Radar and satellite communications LO/stimulus, phase-noise measurement reference sources, and receiver testing where close-in spectral purity dominates.

Key Features
Extremely low phase noise synthesized architecture
AM and FM with simultaneous modulation capability
Internal 400 Hz and 1 kHz modulation rates plus external ac/dc coupling
0.1 Hz frequency resolution (0.2 Hz above 640 MHz)
Optional specified SSB phase noise on 640 MHz rear output (Option 003)
Optional MATE/CIIL translator (Option 700)

Technical Specifications

Technical Specifications

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Frequency Resolution Below 640 MHz	0.1 Hz
Frequency Resolution Above 640 MHz	0.2 Hz
Frequency Accuracy	Same as reference oscillator
Internal Reference Frequency	10 MHz quartz oscillator
Reference Aging Rate	<5e-10 per day after 10-day warm-up
Output Level Range	+13 to -139.9 dBm
Output Level Resolution	0.1 dB

Absolute Level Accuracy +13 to -120 dBm: ±1 dB at +15 to +45 C
Absolute Level Accuracy -120 to -130 dBm: ±3 dB at +15 to +45 C

Specifications

PARAMETER	VALUE
Harmonics	< -30 dBc
Nonharmonic Spurious 0.01 to 120 MHz	-90 dBc
Nonharmonic Spurious 120 to 160 MHz	-100 dBc
Nonharmonic Spurious 160 to 320 MHz	-96 dBc
Nonharmonic Spurious 320 to 640 MHz	-90 dBc
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SSB Phase Noise Spec 120 to 160 MHz at 1 kHz Offset: -129 dBc/Hz
SSB Phase Noise Spec 120 to 160 MHz at 10 kHz Offset: -142 dBc/Hz
SSB Broadband Noise Floor 3 MHz Offset 120 to 640 MHz: < -146 dBc in 1 Hz BW above +10 dBm

Specifications

PARAMETER	VALUE
AM Depth Range	0 to 95% at +8 dBm and below
AM Resolution 10 to 95%	1%
AM Resolution 0 to 9.9%	0.1%
AM Indicated Accuracy	±5% of reading ±1% AM for depths ≤90%
FM External AC Bandwidth	20 Hz to 100 kHz
FM External DC Bandwidth	dc to 100 kHz

FM Distortion Rates <20 kHz: <1.7%
FM Distortion Rates <1 kHz: <1%

Specifications

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Operating Temperature	0 C to +55 C
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Notes
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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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NIST-traceable calibration · SAM registered ·
30-day returns
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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.