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Data Sheet
August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 8657B Synthesized Signal Generator, 100 kHz to 2060 MHz

HP Agilent 8657B Synthesized Signal Generator The Agilent 8657B isasynthesized signal generator covering 100 kHz to 2.6 GHz (underrange to 10 kHz uncalibrated). OEM archived datasheet specifications include 1 Hz frequency resolution, output +13 dBm to -143.5 dBm into 50 ohm, AM/FM/pulse test capability for receivers, and less than 35 ms switching speed. AM/FM/pulsed receiver testing, R&D component stimulus to 2.6 GHz, and automated RF source applications needing fine frequency resolution. 1 Hz frequency resolution (vs 10 Hz on 8657A) The Agilent 8657B isasynthesized signal generator covering 100 kHz to 2.6 GHz (underrange to 10 kHz uncalibrated). OEM archived datasheet specifications include 1 Hz frequency resolution, output +13 dBm to -143.5 dBm into 50 ohm, AM/FM/pulse test capability for receivers, and less than 35 ms switching speed. AM/FM/pulsed receiver testing, R&D component stimulus to 2.6 GHz, and automated RF source applications needing fine frequency resolution. 1 Hz frequency resolution (vs 10 Hz on 8657A) Phase offset adjustable in 1-degree nominal increments

MODEL **Agilent / Keysight 8657B**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **8657B**	LISTING **https://aumictechlabs.com/products/8657b-2/**

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 8657B is a synthesized signal generator delivering precise RF signal generation across 100 kHz to 2060 MHz. Built for RF design, manufacturing, and maintenance testing, it combines wide frequency coverage with exceptional spectral purity and fast switching. The instrument supports multiple modulation modes and operates into 50 Ω loads with tight level accuracy and low phase noise across its entire range.Technical Specifications Frequency Performance Range: 100 kHz to 2060 MHz (underrange capability to 10 kHz uncalibrated) Resolution: 1 Hz Switching Speed: ≤35 ms (typically 30 ms at 25 °C) Accuracy and Stability: Timebase-referenced Output Level Range: +13 dBm to –143.5 dBm into 50 Ω (100 kHz–1 MHz: +10 dBm to –143.5 dBm) Resolution: 0.1 dB Level Flatness: ±0.5 dB (100 kHz to 2.06 GHz at 0 dBm setting) Absolute Accuracy: ±1.5 dB (>+3.5 dBm); ±1.0 dB (+3.5 to –127 dBm); ±1.5 dB (←127 dBm) Output Impedance: 50 Ω nominal Reverse Power Protection: 50 watts; Maximum DC Voltage: 25 V SWR: <1.5 (≤–6.5 dBm); <2.0 (≤+13 dBm) Spectral Purity (CW Mode) SSB Phase Noise (20 kHz offset): –124 to –136 dBc/Hz across frequency bands, with best performance (–136 dBc/Hz) in the 130–260 MHz region Residual FM (300 Hz–3 kHz BW): <4 Hz across bands; (50 Hz–15 kHz BW): <8 Hz maximum Residual AM: <0.04% (50 Hz–15 kHz) Harmonics: ←30 dBc (0.1–1.03 GHz); ←25 dBc (1.03–2.06 GHz) at ≤+7 dBm Subharmonics: ←40 dBc (1.03–1.8 GHz); ←35 dBc (1.8–2.06 GHz) at ≤+7 dBmKey Features 1 Hz frequency resolution with <35 ms switching 160.5 dB dynamic range (from +13 dBm to –143.5 dBm) Level flatness within ±0.5 dB across entire range Low phase noise enabling sensitive receiver and component testing Pulse modulation capable (option-dependent) Timebase-grade frequency accuracyTypical Applications Receiver sensitivity and selectivity characterization Component and subsystem RF testing Automated manufacturing test systems Benchtop RF circuit development and validation Transceiver performance measurements

8657B Characteristics / Specifications

PARAMETER	VALUE
Frequency Range	100 kHz to 2.6 GHz
Underrange	to 10 kHz with uncalibrated output and modulation
Frequency Resolution	1 Hz
Switching Speed	less than 35 ms (30 ms typical at 25 C)
Output Range	+13 dBm to -143.5 dBm into 50 ohm
Output With Pulse Modulation Below 1.03 GHz	+10 dBm to -143.5 dBm
Level Resolution	0.1 dB
Absolute Level Accuracy Mid Range	less than ±1.0 dB from +3.5 to -127 dBm
Level Flatness	±0.5 dB at 0 dBm setting, 100 kHz to 2.06 GHz
Reverse Power Protection	50 W from 50 ohm source to max output frequency
Maximum DC Voltage	25 V
Phase Offset Increment	1 degree nominal
Accuracy and Stability	same as timebase
Warm Up Before Specs	30 minutes
Output Impedance	50 ohm
Remote Interface	HP-IB GPIB
Intended Modulation Tests	AM, FM, and pulsed receivers
Sibling 8657A Upper Frequency	1.04 GHz
Sibling 8657A Frequency Resolution	10 Hz
Maximum DC Voltage 8657A Comparison	50 V
SWR Note Low Frequency	see datasheet SWR tables by level
Operating Spec Basis	after 30 minute warm-up over full environment range
Phase Offset Control	output signal phase adjustable

8657B Specifications

PARAMETER	VALUE
HP Agilent 8657B Synthesized Signal Generator	Overview
Applications	AM/FM/pulsed receiver testing, R&D component stimulus to 2.6 GHz, and automated RF source applications needing fine frequency resolution.
Key Features	1 Hz frequency resolution (vs 10 Hz on 8657A)
Technical Specifications	Frequency Range: 100 kHz to 2.6 GHz

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 include 1 Hz frequency resolution, output +13 dBm to -143.5 dBm into 50 ohm, AM/FM/pulse test capability for receivers, and less than 35 ms switching speed.

Applications
AM/FM/pulsed receiver testing, R&D component stimulus to 2.6 GHz, and automated RF source applications needing fine frequency resolution.

Key Features
1 Hz frequency resolution (vs 10 Hz on 8657A)
2.6 GHz upper frequency
Phase offset adjustable in 1-degree nominal increments
Optional high-stability timebase and pulse-related options per ordering guide
IEEE-488 programmable source

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Frequency Range	100 kHz to 2.6 GHz
Underrange	to 10 kHz with uncalibrated output and modulation
Frequency Resolution	1 Hz
Switching Speed	less than 35 ms (30 ms typical at 25 C)
Output Range	+13 dBm to -143.5 dBm into 50 ohm
Output With Pulse Modulation Below 1.03 GHz	+10 dBm to -143.5 dBm
Level Resolution	0.1 dB

Absolute Level Accuracy Above +3.5 dBm: less than ±1.5 dB
Absolute Level Accuracy Mid Range: less than ±1.0 dB from +3.5 to -127 dBm
Absolute Level Accuracy Below -127 dBm: less than ±1.5 dB

Specifications

PARAMETER	VALUE
Level Flatness	±0.5 dB at 0 dBm setting, 100 kHz to 2.06 GHz
Reverse Power Protection	50 W from 50 ohm source to max output frequency
Maximum DC Voltage	25 V
Phase Offset Increment	1 degree nominal
Accuracy and Stability	same as timebase
Warm Up Before Specs	30 minutes
Output Impedance	50 ohm
Remote Interface	HP-IB GPIB

PARAMETER	VALUE
Intended Modulation Tests	AM, FM, and pulsed receivers
Sibling 8657A Upper Frequency	1.04 GHz
Sibling 8657A Frequency Resolution	10 Hz
Maximum DC Voltage 8657A Comparison	50 V
SWR Note Low Frequency	see datasheet SWR tables by level
Operating Spec Basis	after 30 minute warm-up over full environment range
Phase Offset Control	output signal phase adjustable

Notes
Specs from Keysight archived 8657A/8657B Synthesized Signal Generators data sheet (5968-2704). Option codes affect pulse and stability; verify configuration.

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

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