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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight 8684D Microwave Signal Generator

Architecture: portable microwave generator Option 002 Note: reverse power protection listed as exceptDmodels Calibration Note: exact leveled dBm range belongs on the 8684D catalog specification table/certificate Remote Interface Class: front panel (HP-IB not listed on the portable 8683/84 family blurb) Option 002 Note: reverse power protection listed as exceptDmodels Calibration Note: exact leveled dBm range belongs on the 8684D catalog specification table/certificate Remote Interface Class: front panel (HP-IB not listed on the portable 8683/84 family blurb) Times 2 Band: high-band doubler path to 18 GHz class



MODEL

**Agilent / Keysight
8684D**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

8684D

LISTING

<https://aumictechlabs.com/products/8684d-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight 8684D is a microwave signal generator delivering precise RF stimulus across the 5.4 GHz to 18.0 GHz band. Built for radar testing, component characterization, and wireless communications, it combines wideband coverage with advanced modulation AM, FM, and pulse - plus internal and external pulse control for demanding test environments. Technical Specifications Frequency Performance Frequency range: 5.4 GHz to 18.0 GHz Resolution: 10 MHz (3½ digit LED display) Calibration accuracy: $\pm 1.25\%$ (5.4–9.0 GHz and 12.5–18.0 GHz); $\pm 0.75\%$ (9.0–12.5 GHz) Frequency stability (20 min warm-up): < 30 kHz/min Frequency stability (60 min warm-up): < 100

kHz/hr Temperature stability (0–55°C): <30 MHz Line voltage stability ($\pm 5\%$ to -10% transients): <20 ppm Output & Spectral Purity Maximum output power (Option 001): +10 dBm in x2 band Harmonics: <-25 dBc (below 18 GHz at specified max output) Fundamental feedthrough (12.5–18.0 GHz): <-25 dBc Pulse Modulation Internal pulse rate: 10 Hz to 1 MHz (5 ranges, continuously adjustable) Pulse width: 50 ns to 100 ms (7 ranges, continuously adjustable) Sync delay: <50 ns to 100 ms (7 ranges, continuously adjustable); 20% accuracy RF rise/fall time: 80 dB Minimum pulse width: 1 MHz Peak power flatness: ± 0.5 dB from CW level External pulse input: 0–1 MHz rate, >100 ns width; ON >+1.0 V peak, OFF <+0.4 V peak FM Modulation Internal FM: 1 kHz sawtooth sweep with deviation to ± 10 MHz (x2 band) External FM: DC-coupled to 10 MHz rate Phase lock input sensitivity: -5 MHz/V typical

Key Features TTL-compatible pulse I/O and sync outputs Dual-band operation with extended coverage to 18.0 GHz Phase lock input for synchronization Compact 5.7" $\times$ 18" $\times$ 18.6" form factor (16.5 kg)

Electrical & Environmental Power: 100/120/220/240 VAC ($\pm 5\%$, -10%); 48–66 Hz; <200 VA max Operating range: 0–55°C

Compatibility & Integration Legacy instrument compatible with external pulse sources (0–1 MHz) and phase lock references. TTL I/O enables integration with automated test systems.

Features & description

From manufacturer datasheet

Built-in pulse generator 10 Hz to 1 MHz in 5 ranges

AM 0 to 70 percent at 1 kHz FM 5 MHz main / 10 MHz times-2 band Technical Specifications Instrument Type: Portable microwave signal generator Series Family: HP Agilent 8683B/8683D/8684B/8684D Frequency Range: 5.4 to 18 GHz Frequency Resolution: 10 MHz Frequency Display: 3.5-digit LED Harmonics: less than minus 25 dBc below 18 GHz at 10 dBm (unspecified in times-2 band) AM Depth: 0 to 70 percent at 1 kHz rate FM Deviation Main Band: 5 MHz FM Deviation Times 2 Band: 10 MHz Pulse Modulation Rate: 10 Hz to 1 MHz in 5 ranges Output Impedance: 50 ohm Form Factor: rugged portable benchtop Option 001: plus 10 dBm in times-2 band Option 003: 400 Hz line operation Option 913: rack mounting flange kit Modulation Types: AM, FM, and pulse Built In Pulse Generator: yes Operating Context: communications, radar, and EW field maintenance Display Class: LED frequency Architecture: portable microwave generator Brand Lineage: HP / Agilent Related 8684B: 5.4 to 12.5 GHz Related 8683B: 2.3 to 6.5 GHz Related 8683D: 2.3 to 13 GHz Option 002 Note: reverse power protection listed as exceptDmodels Calibration Note: exact leveled dBm range belongs on the 8684D catalog specification table/certificate Remote Interface Class: front panel (HP-IB not listed on the portable 8683/84 family blurb)

8684D Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Portable microwave signal generator
Series Family	HP Agilent 8683B/8683D/8684B/8684D
Frequency Range	5.4 to 18 GHz
Frequency Resolution	10 MHz
Frequency Display	3.5-digit LED
Harmonics	less than minus 25 dBc below 18 GHz at 10 dBm (unspecified in times-2 band)
AM Depth	0 to 70 percent at 1 kHz rate
FM Deviation Main Band	5 MHz
FM Deviation Times 2 Band	10 MHz
Pulse Modulation Rate	10 Hz to 1 MHz in 5 ranges
Output Impedance	50 ohm
Form Factor	rugged portable benchtop
Modulation Types	AM, FM, and pulse
Built In Pulse Generator	yes
Operating Context	communications, radar, and EW field maintenance
Display Class	LED frequency
Architecture	portable microwave generator
Brand Lineage	HP / Agilent
Related 8684B	5.4 to 12.5 GHz
Related 8683B	2.3 to 6.5 GHz
Related 8683D	2.3 to 13 GHz
Calibration Note	exact leveled dBm range belongs on the 8684D catalog specification table/certificate
Remote Interface Class	front panel (HP-IB not listed on the portable 8683/84 family blurb)
Line Options	400 Hz with Option 003

PARAMETER	VALUE
Pulse Ranges	5
Times 2 Band	high-band doubler path to 18 GHz class

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	
Specifications	
PARAMETER	VALUE
Instrument Type	Portable microwave signal generator
Series Family	HP Agilent 8683B/8683D/8684B/8684D
Frequency Range	5.4 to 18 GHz
Frequency Resolution	10 MHz
Frequency Display	3.5-digit LED
Harmonics	less than minus 25 dBc below 18 GHz at 10 dBm (unspecified in times-2 band)
AM Depth	0 to 70 percent at 1 kHz rate
FM Deviation Main Band	5 MHz
FM Deviation Times 2 Band	10 MHz
Pulse Modulation Rate	10 Hz to 1 MHz in 5 ranges
Output Impedance	50 ohm
Form Factor	rugged portable benchtop
Option 001: plus 10 dBm in times-2 band	
Option 003: 400 Hz line operation	
Option 913: rack mounting flange kit	
Specifications	
PARAMETER	VALUE
Modulation Types	AM, FM, and pulse
Built In Pulse Generator	yes
Operating Context	communications, radar, and EW field maintenance
Display Class	LED frequency
Architecture	portable microwave generator
Brand Lineage	HP / Agilent
Related 8684B	5.4 to 12.5 GHz
Related 8683B	2.3 to 6.5 GHz
Related 8683D	2.3 to 13 GHz

Option 002 Note: reverse power protection listed as exceptDmodels

Specifications

PARAMETER	VALUE
Calibration Note	exact leveled dBm range belongs on the 8684D catalog specification table/certificate
Remote Interface Class	front panel (HP-IB not listed on the portable 8683/84 family blurb)
Line Options	400 Hz with Option 003
Pulse Ranges	5
Times 2 Band	high-band doubler path to 18 GHz class

Notes

Numeric rows from HP/Agilent 8683 and 8684 portable microwave signal generator family descriptions (8684D 5.4 to 18 GHz, 10 MHz resolution, AM 0 to 70 percent, FM 5/10 MHz, pulse 10 Hz to 1 MHz). Option 002 reverse-power protection is stated as exceptDmodels.

Ordering Information

OPTION	DESCRIPTION
Option 002	Note: reverse power protection listed as exceptDmodels
Option 003	Pulse Ranges: 5

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 ·
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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.