

SIGNAL GENERATORS

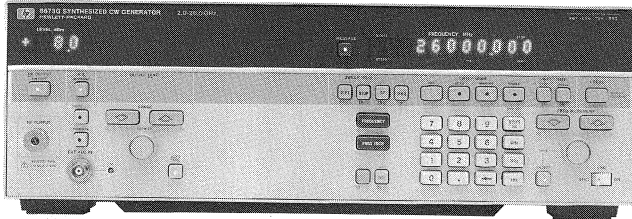
Synthesized Signal Generator

HP 8673G

387

- 2 - 26 GHz frequency range
- +8 dBm calibrated output power
- Digital sweep

- Frequency extension capability to 110 GHz
- Low phase noise
- Low spurious signals



8673G

HP 8673G Synthesized CW Generator

Exceptional Value in a CW Generator

The HP 8673G is the world's lowest priced 2.0 - 26.0 GHz synthesized CW generator. Satisfying all the requirements for a clean CW source, it features the same excellent spectral purity, output range, mm-drive capability, digital sweep, and HP-IB programmability featured in all of the HP 8673 family. The HP 8673G is the ideal CW generator for local oscillator, up/down conversion, and exciter applications to 26 GHz. Because the HP 8673G has full HP-IB compatibility, you can use your existing software proven for other HP 8673 series synthesizers.

Economy and Measurement Flexibility

Not only is the HP 8673G the most economical CW synthesizer to 26 GHz, it provides outstanding measurement flexibility. For up or down conversion applications, harmonics less than -40 dBc and low phase noise provide you with plenty of dynamic range. To ensure sufficient power in ATE systems, the HP 8673G with Option 008 gives you +8 dBm of leveled output power (for typical output power see graph on page 388) all the way to 26 GHz. When making component measurements, the synthesized sweep capability of the HP 8673G and the power of HP-IB programmability allows you to make quick swept measurements of your device under test with synthesizer accuracy.

HP 8673G Specifications

Frequency Extension to 110 GHz

The HP 8673G is one of the lowest-cost methods to achieve millimeter-wave frequencies. It can be used with the HP 83550-series millimeter wave source modules and the HP 8349B Microwave Amplifier to provide leveled output signals at the output of the source module up to 110 GHz. With System mode, the resultant output frequency can be displayed on the HP 8673G front panel by entering the multiplication factor of the source module.

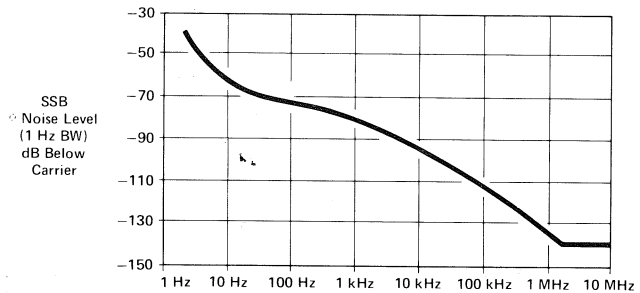
Frequency Characteristics

Range: 2.0 - 26.0 GHz
Resolution: 2.0 - 6.6 GHz: 1 kHz
 6.6 - 12.3 GHz: 2 kHz
 12.3 - 18.6 GHz: 3 kHz
 18.6 - 26.0 GHz: 4 kHz

Spectral Purity

Single-sideband phase noise (1 Hz BW, 1 kHz offset, CW mode):

F _c	Offset from F _c				
	10 Hz	100 Hz	1 kHz	10 kHz	100 kHz
Band 1	-58 dBc	-70 dBc	-78 dBc	-86 dBc	-110 dBc
Band 2	-52 dBc	-64 dBc	-72 dBc	-80 dBc	-104 dBc
Band 3	-48 dBc	-60 dBc	-68 dBc	-76 dBc	-100 dBc
Band 4	-46 dBc	-58 dBc	-66 dBc	-74 dBc	-98 dBc



Typical HP 8673G single-sideband phase noise performance using the internal standard, Band 1.

Harmonics (<0 dBm; +15 to +35° C): <-40 dBc

Subharmonics and multiples thereof: 2.0 - 18.6 GHz: <-25 dBc, 18.6 - 26 GHz: <-20 dBc

Spurious (non-harmonically related): 2.0 - 18.6 GHz: <-60 dBc, 18.6 - 26.0 GHz: <-58 dBc

Spurious (power line and fan rotation related): 2.0 - 18.6 GHz: <-40 dBc, 18.6 - 26.0 GHz: <-38 dBc

Output Characteristics

Output Level: 2.0 - 18.0 GHz: +8 dBm, 18.0 - 22.0 GHz: +4 dBm, 22.0 - 26.0 GHz: +1 dBm

With Opt 008: 2.0 - 26.0 GHz: +8 dBm

Resolution: 0.1 dB

General

Digital Sweep Characteristics: Identical to HP 8673B

Remote Programming: All functions HP-IB programmable except line switch

Operating temperature range: 0 to +55°C

Power: 100, 120, 220, 240V, +5%, -10%; 48-66 Hz; 400 VA max

Weight: net, 29kg (64lb); shipping, 34.5kg (76lb)

Size: 146H x 425W x 620mmD (5.7" x 16.8" x 24.4")

Ordering Information

	Price
HP 8673G Synthesized CW Generator	\$29,000
Opt 004 Rear panel RF output	+\$75
Opt 006 Chassis slide kit	+\$75
Opt 008 +8 dBm output power	+\$5,000
Opt 907 Front panel handle kit	+\$55
Opt 908 Rack mounting flange kit	+\$33
Opt 909 Front panel & rack mounting kits	+\$80
Opt 910 Service manual and extra operating manual	+\$80
Opt 915 Service manual	+\$65
Opt W30 Extended Repair Service. See page 725.	+\$725