

SIGNAL GENERATORS

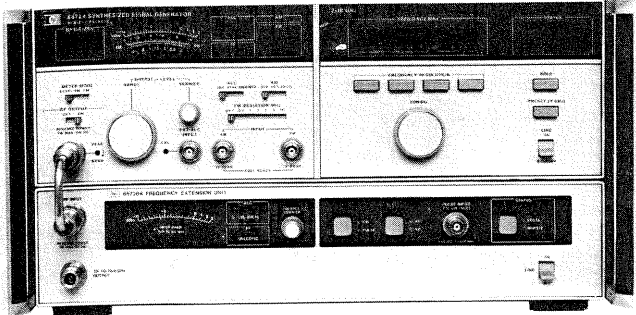
Synthesized Signal Generator, Synthesized Source
Models 8672S, 8671A

359



- 10 MHz-18 GHz frequency range
- Internal pulse modulator
- HP-IB programmability

- 2-6.2 GHz frequency range
- Low spurious and phase noise
- +8 dBm minimum output power



8672S

8672S Synthesized Signal Generator

The 8672S Synthesized Signal Generator consists of an 8672A Synthesized Signal Generator and an 86720A Frequency Extension Unit. The 86720A uses a heterodyne technique to extend the frequency coverage of a standard 8672A to a lower limit of 10 MHz. As a single 9-inch high package, the 8672S features 10 MHz to 18 GHz single-knob continuous frequency tuning, calibrated CW output power, and an internal pulse modulator allowing high-quality pulse modulation over the entire 10 MHz to 18 GHz frequency range. All front-panel functions, with the exception of the line switches, are HP-IB programmable.

Specifications for the 8672S are identical to those of a stand-alone 8672A for the 2 to 18 GHz frequency range with the exception of a 1 dB decrease in maximum output power and no AM modulation available below 2 GHz.

Existing 8672A signal generators can be retrofitted to the 8672S configuration by ordering the 86720A Frequency Extension Unit and an 11731A or 11732A Frequency Extension Retrofit Kit.

8672S Specifications

(Specifications for the 8672S are identical to those of the standard 8672A with the following exceptions.)

Frequency Characteristics

Frequency range: 10 MHz-18.0 GHz (18.99997 GHz overrange).
Frequency range: 1 kHz to 6.2 GHz, 2 kHz to 12.4 GHz, 3 kHz to 18.0 GHz.

Non-harmonic spurious: < -60 dBc, 10 MHz-1.999999 GHz.

Power line and fan rotation related spurious: 10 MHz-6.2 GHz, same as 8672A 2.0-6.2 GHz.

Single-sideband phase noise (1 Hz BW, CW mode): 10 MHz-6.2 GHz, same as 8672A 2.0-6.2 GHz.

Output Characteristics

Output level: +13 dBm to -120 dBm, 0.01-2.0 GHz; +2 dBm (+7 dBm, Opt. 008) to -120 dBm, 2.0-18.0 GHz.

Total indicated meter accuracy: 0.01-2.0 GHz, same as 8672A 2-6.2 GHz degraded by 0.5 dB; 2.0-18.0 GHz, 8672A degrades by 0.25 dB.

Level flatness: same as 8672A degraded by ± 0.25 dB

Modulation Characteristics

Frequency modulation: 0.01-2.0 GHz, same as 8672A 2-6.2 GHz.

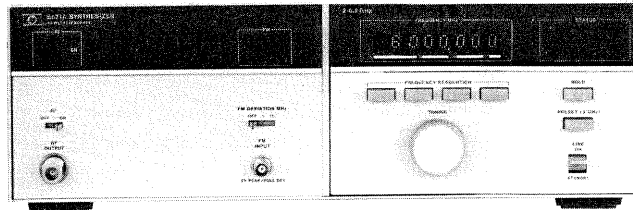
Pulse modulation: >80 dB ON/OFF ratio; <15 ns rise/fall times; peak pulsed power within 1.0 dB of level selected in CW mode for 0.01-2 GHz, uncalibrated for 2.0-18.0 GHz.

General

Programming: all functions HP-IB programmable except line switches and meter mode.

Operating temperature range: 0 to +55°C (+15 to +35°C for specified performance).

Size: 222 H x 425 W x 620 mm D (8.8" x 16.8" x 24.4").



8671A

8671A Synthesizer

The 8671A microwave frequency synthesizer covers the frequency range of 2.0 to 6.2 GHz in 1 kHz steps with excellent stability and spectral purity. It is well suited for most LO applications that require state-of-the-art performance as well as broadband capability.

8671A Specifications

(Specifications for the 8671A are identical to those of the standard 8672A 2.0-6.2 GHz with the following exceptions.)

Frequency Characteristics

Harmonics: < -15 dBc.

Output Characteristics

Power (unleveled): +8 dBm (min.), +15 to +35°C.

Flatness: <6 dB total variation across full frequency band.

Amplitude Modulation

Not available.

Frequency Modulation

Sensitivity: 50 kHz/V and 5 MHz/V ranges; max input 2 V peak.

General

Weight: net, 24 kg (53 lb). Shipping, 29.5 kg (65 lb).

Ordering Information

8672S Synthesized Signal Generator

Option 001: Delete RF output attenuator

Option 002: Delete reference oscillator

Option 003: Operation at 400 Hz line

Option 004: Rear panel RF output

Option 005: Rear panel RF output without RF attenuator.

Option 006: Chassis slide kit

Option 008: +7 dBm output level

Option 009: Delete internal pulse modulator

Option 010: Delete pulse modulator and step attenuator

Option 908: Rack flange kit

Option 913: Rack flanges for standard front panel handles.

Option 910: Extra operating and service manuals

86720A Frequency Extension Unit

11731A Frequency Extension Retrofit Kit

11732A Frequency Extension Retrofit Kit

8671A Microwave Frequency Synthesizer

Option 002: No internal reference

Option 003: Operation at 400 Hz line

Option 005: Rear panel RF output

Option 006: Chassis slide kit

Option 907: Front panel handle kit

Option 908: Rack mounting flange kit

Option 909: Front panel handle plus rack mounting flange kit

Option 910: Extra operating and service manual

11712A Support Kit