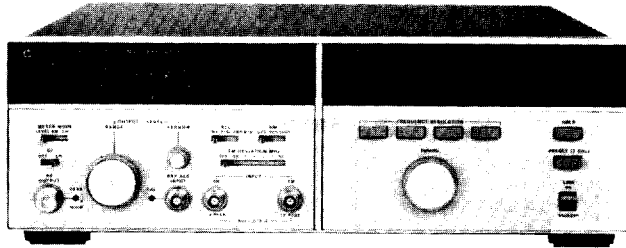


SIGNAL GENERATORS

Synthesized Signal Generators

Models 8672A and 8672S

- 2 to 18 GHz frequency range
- Low spurious and phase noise
- Metered AM/FM



HP 8672A



HP8672A and 8672S Synthesized Signal Generators

The HP 8672A Synthesized Signal Generator delivers precise microwave signals over the 2.0 to 18.0 GHz frequency range. It features calibrated and leveled output power, AM/FM modulation capability, and full HP-IB programmability.

The HP 8672A delivers exceptionally flat power across the full frequency range. For receiver sensitivity measurements, power is internally (or externally) leveled and calibrated to -120 dBm.

The HP 8672S consists of an HP 8672A and an HP 86720A frequency extension unit. This unit uses a heterodyne technique to extend the frequency coverage down to 10 MHz. It also adds pulse modulation capability over the entire 10 MHz to 18.0 GHz frequency range. Calibrated output level in this mode is available up to 2 GHz, while >80 dB ON/OFF ratio is available across the entire 18 GHz frequency range.

Specifications for the HP 8672S are identical to those of a standard HP 8672A for the 2 to 18 GHz frequency range with the exception of 1 dB less maximum output power and no AM modulation below 2 GHz.

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

HP 8672A and 8672S Specifications

Frequency Characteristics

Frequency range: HP 8672A: 2.0–18.0 GHz (18.6 GHz overrange)
HP 8672S: 0.01–18.0 GHz (18.6 GHz overrange)

Frequency bands and resolution:

| | | |
|---------|-----------------|-------|
| Band 0: | 0.01 - 2.0 GHz | 1 kHz |
| Band 1: | 2.0 - 6.2 GHz | 1 kHz |
| Band 2: | 6.2 - 12.4 GHz | 2 kHz |
| Band 3: | 12.4 - 18.0 GHz | 3 kHz |

Time base: internal 10 MHz ($<5 \times 10^{-10}$ /day aging rate) or external 5 or 10 MHz.

Frequency switching time: <20 ms to be within specified resolution, all bands.

Spectral Purity

Single-sideband phase noise: same as HP 8673B/C/D
Harmonics (up to maximum frequency, output level meter readings <0 dB on 0 dBm range and below): <-25 dBc.
Sub-harmonics and multiples thereof: <-25 dBc, Bands 1-3.
Spurious (CW and AM modes): Same as HP 8673B/C/D

Output Characteristics

Output level ($+15^\circ\text{C}$ to $+35^\circ\text{C}$): HP 8672A: $+8$ to -120 dBm
HP 8672S: $+13$ dBm to -120 dBm, 0.01–2.0 GHz; $+2$ dBm to -120 dBm, 2.0–18.0 GHz

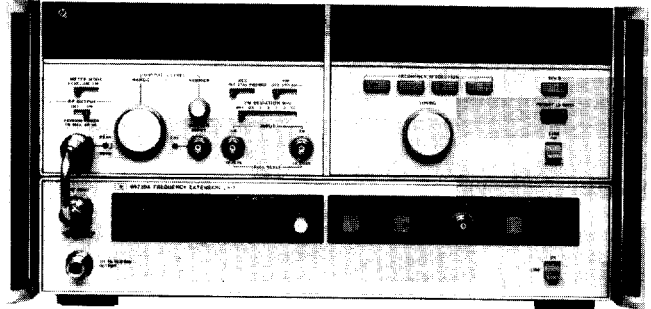
Flatness (0 dBm range, $+15^\circ\text{C}$ to $+35^\circ\text{C}$):

HP 8672A: same as HP 8673B/C/D
HP 8672S: same as HP 8672A degraded by ± 0.25 dB

Remote programming output level resolution: 1.0 dB.

Source impedance: 50 ohms nominal.

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



HP 8672S



Modulation Characteristics

Amplitude Modulation: same as HP 8673B/C/D (2-18 GHz)

Frequency Modulation: same as HP 8673B/C/D

Pulse Modulation: HP 8672S only
 >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.

Interface functions: SH1, AH1, T6, TE0, L4, LE0, SR1, RL0, PP2, DC1, DT0, C0, E1.

Operating temperature range: 0 to $+55^\circ\text{C}$.

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

Weight: HP 8672A: net 27 kg (60 lb); shipping 32.5 kg (72 lb).

HP 8672S: net 39.5 kg (87 lb); shipping 43.6 kg (96 lb).

Size: HP 8672A: 133 mm \times 425 mm \times 603 mm (5.25" \times 16.75" \times 23.75") H \times W \times D

HP 8672S: 222 mm \times 425 mm \times 620 mm (8.8" \times 16.8" \times 24.4") H \times W \times D

Ordering Information

| | Price |
|---|-----------|
| HP 8672A Synthesized Signal Generator | \$39,000 |
| Option 001: Delete RF output attenuator | –\$600 |
| Option 002: Delete reference oscillator | –\$550 |
| Option 003: Operation at 50/60/400 Hz line | +\$250 |
| Option 004: Rear panel RF output | +\$75 |
| Option 005: Rear panel RF output without RF attenuator | –\$25 |
| Option 006: Chassis slide kit | +\$45 |
| Option 907: Front panel handle kit | +\$55 |
| Option 908: Rack mounting flange kit | +\$33 |
| Option 909: Combination of Opt. 907 plus 908 | +\$80 |
| Option W30: Two additional years of return to HP warranty | +\$760 |
| Option 910: Extra operating and service manual | +\$60 |
| HP 8672S Synthesized Signal Generator | \$55,000 |
| Options 001 and 002: same as HP 8672A | |
| Option 004: Rear panel RF output | +\$150 |
| Option 005: Rear panel RF output w/o RF attenuator | –\$450 |
| Option 006: Chassis slide kit | +\$80 |
| Option 009: Delete internal pulse modulator | –\$1,100 |
| Option 010: Delete pulse modulator and step attenuator | –\$1,700 |
| Option 908: Rack flange kit | +\$55 |
| Option 913: Rack flanges for standard front panel handles | +\$45 |
| Option 910: Extra operating and service manuals | +\$80 |
| HP 86720A Frequency Extension Unit | \$17,000 |
| HP 11731A Frequency Extension Retrofit Kit | \$1,000 |
| HP 11732A Frequency Extension Retrofit Kit | No Charge |
| HP 11712A Support Kit | \$800 |