

# Test Equipment Solutions Datasheet

Test Equipment Solutions Ltd specialise in the second user sale, rental and distribution of quality test & measurement (T&M) equipment. We stock all major equipment types such as spectrum analyzers, signal generators, oscilloscopes, power meters, logic analysers etc from all the major suppliers such as Agilent, Tektronix, Anritsu and Rohde & Schwarz.

We are focused at the professional end of the marketplace, primarily working with customers for whom high performance, quality and service are key, whilst realising the cost savings that second user equipment offers. As such, we fully test & refurbish equipment in our in-house, traceable Lab. Items are supplied with manuals, accessories and typically a full no-quibble 2 year warranty. Our staff have extensive backgrounds in T&M, totalling over 150 years of combined experience, which enables us to deliver industry-leading service and support. We endeavour to be customer focused in every way right down to the detail, such as offering free delivery on sales, covering the cost of warranty returns BOTH ways (plus supplying a loan unit, if available) and supplying a free business tool with every order.

As well as the headline benefit of cost saving, second user offers shorter lead times, higher reliability and multivendor solutions. Rental, of course, is ideal for shorter term needs and offers fast delivery, flexibility, try-before-you-buy, zero capital expenditure, lower risk and off balance sheet accounting. Both second user and rental improve the key business measure of Return On Capital Employed.

We are based near Heathrow Airport in the UK from where we supply test equipment worldwide. Our facility incorporates Sales, Support, Admin, Logistics and our own in-house Lab.

All products supplied by Test Equipment Solutions include:

- No-quibble parts & labour warranty (we provide transport for UK mainland addresses).
- Free loan equipment during warranty repair, if available.
- Full electrical, mechanical and safety refurbishment in our in-house Lab.
- Certificate of Conformance (calibration available on request).
- Manuals and accessories required for normal operation.
- Free insured delivery to your UK mainland address (sales).
- Support from our team of seasoned Test & Measurement engineers.
- ISO9001 quality assurance.

Test equipment Solutions Ltd  
Unit 8 Elder Way  
Waterside Drive  
Langley  
Berkshire  
SL3 6EP

T: +44 (0)1753 596000  
F: +44 (0)1753 596001

Email: [info@TestEquipmentHQ.com](mailto:info@TestEquipmentHQ.com)  
Web: [www.TestEquipmentHQ.com](http://www.TestEquipmentHQ.com)

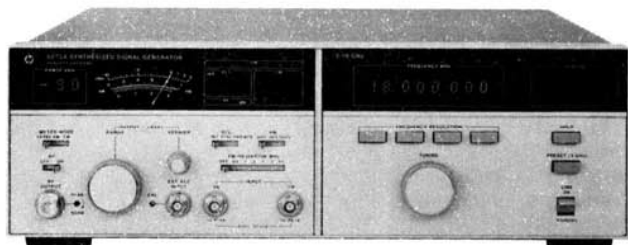


# SIGNAL GENERATORS

## 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°C to +35°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°C to +35°C):**

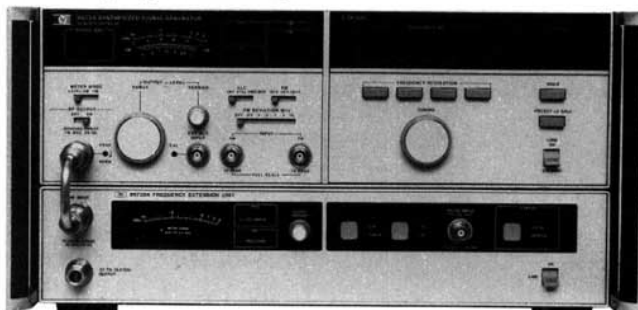
HP 8672A: same as HP 8673B/C/D

HP 8672S: same as HP 8672A degraded by  $\pm 0.25$  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°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 × 425 mm × 603 mm (5.25" × 16.75" × 23.75") H × W × D

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

#### Ordering Information

**HP 8672A Synthesized Signal Generator**

**Option 001:** Delete RF output attenuator

**Option 002:** Delete reference oscillator

**Option 003:** Operation at 50/60/400 Hz line

**Option 004:** Rear panel RF output

**Option 005:** Rear panel RF output without RF attenuator

**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

**HP 8672S Synthesized Signal Generator**

**Options 001 and 002:** same as HP 8672A

**Option 004:** Rear panel RF output

**Option 005:** Rear panel RF output w/o RF attenuator

**Option 006:** Chassis slide kit

**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

**HP 86720A Frequency Extension Unit**

**HP 11731A Frequency Extension Retrofit Kit**

**HP 11732A Frequency Extension Retrofit Kit**

**HP 11712A Support Kit**

#### Price

**\$39,000**

less \$600

less \$550

add \$250

add \$75

less \$525

add \$45

add \$55

add \$33

add \$80

add \$60

**\$55,000**

add \$150

less \$450

add \$80

less \$1,100

less \$1,700

add \$55

add \$45

add \$80

**\$17,000**

**\$1,000**

No Charge

**\$800**