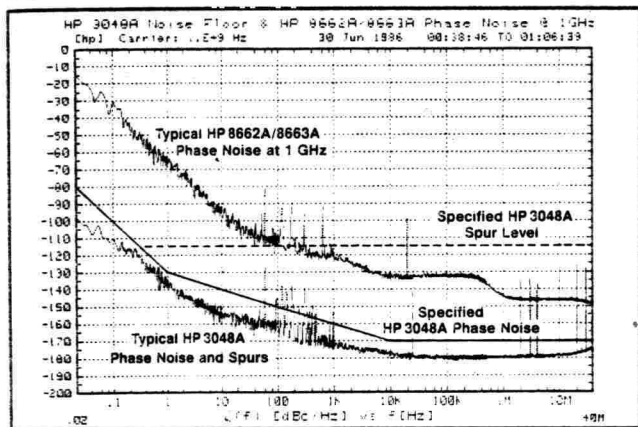


- Down-converts 1.28 to 18 GHz signals
- Low noise floor

Specifications Summary

Sensitivity

The following graph indicates the sensitivity of the HP 3048A system as limited by its own internally-generated noise for a signal under test at +15 dBm. Also plotted is the phase noise that would limit the measurement sensitivity for a 1 GHz signal using the phase detector measurement method and the HP 8662A or HP 8663A as a reference source.



Carrier frequency range

Internal mixer: 5 MHz to 1.6 GHz, optional to 18 GHz
External (user-supplied) mixer: The frequency range of the carrier is limited only by the frequency range of the external mixer.
Offset frequency range: 0.01 Hz to 100 kHz, extended to 40 MHz with an optional spectrum analyzer such as the HP 3585B.
Amplitude accuracy: ±2 dB to 1 MHz offsets; ±4 dB for offsets greater than 1 MHz. This accuracy is verified by the system at the time of the measurement. If there are any accuracy degradations, the system will advise the user during the measurement.

Ordering Information

HP 3048A phase noise measurement system **Price** \$36,100
 Includes the HP 11348A Phase Noise Interface, HP 3561A Dynamic Signal Analyzer, RMB workstation based measurement software and operator training.

Reference oscillator options

- Opt 001 Adds HP 8662A Opt 003 synthesized signal generator (0.01 to 1280 MHz) +\$39,085
- Opt 002 Adds HP 8663A Opt 003 synthesized signal generator (0.1 to 2560 MHz) +\$53,775
- Opt 003 Adds HP 11729C carrier noise test set (1.28 to 18 GHz) -\$25,450
- Opt 004 Adds HP 11729C Opt 130 carrier noise test set. -\$27,255
- Opt 006 Adds HP 8642B Opt 001 synthesized signal generator (0.1 to 2114 MHz) -\$40,550

Software option

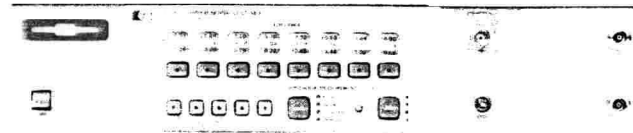
- Opt 301 Replaces standard RMB workstation phase noise software with MS-DOS PC-compatible phase noise software. A graphics dump utility is included with this option. **Price** \$0

System computers

HP 3048A Standard: HP 98580C Opt 104 and HP-HIL Knob (HP 46083A).
HP 3048A Opt 301: IBM PC/AT/XT and true compatibles with 640 Kbytes RAM; MS-DOS 2.0 or later; EGA or compatible video card with 128 Kbytes video RAM; EGA or compatible color display; HP-IB card (recommend HP 82335A HP-IB card¹).

For full details on available system options and ordering information, see the HP 3048A phase noise measurement system technical data (5953-8462).

¹ Also operates with National Instruments PC-1 and PC-11A GP-IB cards.



HP 11729C



HP 11729C Carrier Noise Test Set

The HP 11729C is a fully programmable microwave downconverter used primarily as an accessory to the HP 3048A phase noise measurement system. The input frequency range of the HP 11729C is 1.28 to 18 GHz and IF bandwidth is 5 to 1280 MHz. With option 130, the HP 11729C can be used as an AM noise demodulator for carriers from 10 MHz to 18 GHz. The baseband demodulated signal is input to the HP 3048A for calibrated AM noise measurements.

Specifications Summary

Downconverter

Frequency range: 1.28 to 18 GHz in 8 bands
Amplitude: +7 dBm minimum
 +18 dBm maximum

IF output

Bandwidth: 5 to 1280 MHz
Level: +7 dBm minimum

AM noise detection (Option 130)

Frequency range: 10 MHz to 18 GHz
Input level: 0 dBm minimum
 +18 dBm maximum

AM noise floor (at +10 dBm input level, dBc/Hz):

Offset from carrier	Typical	Specified

General

Operating temperature range: 0° to +55°C
Power: 100, 120, 220, 240 V, +5%, -10%; 48 to 66 Hz; <75 VA max.
Weight: net, 10.4 kg (23 lb); shipping, 13.6 (30 lb)
Size: 99 H x 425 W x 551 mm D (16.8" x 21.7" x 3.9").
 1MW x 3' H x 20 D System II module

Ordering Information

HP 11729C carrier noise test set (10 MHz to 18 GHz)¹ **Price** \$25,450

Note: Each of options 003 through 027 (only one may be ordered) also includes 0.005 to 1.28 GHz coverage which is not used for downconversion.

- Opt 003 (1.28 to 3.2 GHz) -\$8,500
- Opt 007 (3.2 to 5.76 GHz) -\$8,500
- Opt 011 (5.76 to 8.32 GHz) -\$8,500
- Opt 015 (8.32 to 10.88 GHz) -\$8,500
- Opt 019 (10.88 to 13.44 GHz) -\$8,500
- Opt 023 (13.44 to 16.0 GHz) -\$8,500
- Opt 027 (16.0 to 18.0 GHz) -\$8,500
- Opt 130 AM noise detection +\$1,805
- Opt 140 Rear panel connectors +\$515
- Opt 907 Front handle kit (5061-9688) +\$57
- Opt 908 Rack flange kit (5061-9674) +\$36
- Opt 909 Rack flange kit with front handles (5061-9675) +\$82
- Opt 910 A total of two sets of operation and service manuals (11729-90017) +\$36
- Opt W30 Extended repair service, see page 723 +\$140

¹ Extends to 10 MHz for AM detection only.

For same day shipment, call HP DIRECT at 800-538-8787