

Dynamic Signal Analyzers

Frequency range	Channel match	Frequency resolution in lines	Real-time bandwidth*	Dynamic range	Amplitude** accuracy (+)	HP model number	Page
0.0625 Hz to 40 kHz	±0.2 dB, ±5°	100 to 1600	> 2.0 kHz	60 dB	0.5 dB	3560A	214
0.000125 Hz to 100 kHz	NA	400	7.5 kHz	85 dB	0.15 dB	3561A	216
0.000064 Hz to 100 kHz	±0.1 dB, ±0.5°	800	10.0 kHz	85 dB	0.15 dB	3562A, 3563A	222
0.000244 Hz to 102.4 kHz	±0.04 dB, ±0.5°	400	12.8 kHz	75 dB	0.5 dB	35665A	217
0.000122 Hz to 102.4 kHz	±0.04 dB, ±0.5°	100 to 800	25.6 kHz	80 dB, 90 dB typ.	0.15 dB	35670A	219
0.000122 Hz to 102.4 kHz	±0.1 dB, ±0.5°	25 to 3200	25.6 kHz	80 dB	0.15 dB	3567A	226
0.000122 Hz to 128 kHz	±0.1 dB, ±0.5°	25 to 3200	12.8 kHz (2 ch)	72 dB	0.15 dB	3566A	226
dc to 4 MHz	NA	51 to 12,800	1 MHz	80 to 110 dBFS	0.03 dB	3587S	230
0.0002 Hz to 10 MHz	±0.25 dB, ±2.0°	51 to 3201	78.125 kHz (1 ch)	75 dB, 85 dB typ.	0.5 dB	89410A	231

*One-year aging; settlability and temperature drift included.

**Relative accuracy = relative frequency response + lesser of either scale fidelity or IF gain accuracy.

Distortion/Audio Analyzers

Fundamental frequency range	Minimum distortion	Auto set level	Auto nulling	True RMS	AM detector	Filters	Internal source	HP-IB	HP model number	Page
20 Hz to 100 kHz	0.01% (-80 dB)	•	•	•	Note 1	•	•	•	8903B*	268
20 Hz to 100 kHz	0.01% (-80 dB)	•	•	•	Note 1	•	•	•	8903E**	268

*The HP 8903B also performs frequency count, signal/noise, SINAD, watts, and ac/dc voltage measurements.

**The HP 8903E also performs frequency count, SINAD, and ac/dc voltage measurements.

Note: The HP 8901A modulation analyzer provides complete demodulation of AM, FM, and θ M signals.

Modulation Analyzers/Measuring Receivers

Frequency range	Modulation measurements	Amplitude measurement range	Audio frequency count + distortion measurement	HP model number	Page
dc to 350 MHz 50 to 1400 MHz*	Baseband, IF, I, Q, AM, mag/phase	5 mV to 5 V -5 to -20 dBm	No	8981B	272
150 kHz to 1300 MHz	AM, FM, θ M	+30 to 0 dBm	No	8901A	270
150 kHz to 1300 MHz	AM, FM, θ M	+30 to -20 dBm	Yes	8901B	270
150 kHz to 1300 MHz	AM, FM, θ M	+30 to -127 dBm	Yes	8902A	273
150 kHz to 18 GHz or 26.5 GHz	AM, FM, θ M	+30 to -100 dBm	Yes	8902S	267
dc to 1800 MHz	Baseband, IF, RF, I, Q, mag/phase, AM, FM, θ M	+25 dBm to -130 dBm	No	89440A	232

*50 to 200 MHz standard. Operation above 200 MHz available as specials.

Modulation Domain Analyzers

Frequency range	Resolution freq./time	Sample rate	Memory size	Analysis and displays	HP model number	Page
125 mHz to 500 MHz (2 GHz option)	10 digits/150 ps	13 M	8 K	Frequency, phase, time interval vs. time, histograms, statistics, time deviation, and phase deviation (jitter spectrum analysis option)	5372A	183
125 mHz to 500 MHz (2 GHz option)	10 digits/150 ps	13 M	8 K	Same as HP 5372A plus radar analysis: pulse carrier frequency, chirp deviation, pulse width, PRI, PRF, peak power, % AM	5373A	183
10 Hz to 200 MHz (2.5 GHz option)	10 digits/200 ps	2.5 M (8 M rep.)	8 K (32 K option)	Frequency and time interval vs. time, histograms, statistics (digital RF communications option)	53310A	183
50 MHz to 150 MHz	10 digits/150 ps	80 M	512 K	Frequency, time interval, time stamp, histograms, statistics (HP E1741A software available)	E1740A (VXI)	188

Carrier Phase Noise Analysis

Frequency range	Maximum sensitivity (depends on offset and method)	Functions available	HP model number	Page
5 MHz to 18 GHz	-170 dBc/Hz (Requires external reference source of equivalent performance)	Fully documented with specified phase detector, frequency discriminator, AM and two port measurements	3048A Phase Noise Measurement System	266

Peak Power Analysis

Frequency range	Time parameters	Amplitude parameters	Functions available	HP model number	Page
50 MHz to 40 GHz	Rise time, fall time, pulse width, off time, PRI, PRF, delay	Pulse-top amplitude, pulse-base amplitude, peak power, overshoot, average power	2 RF power, 2 video channels, ratios, differences, statistical averages, means, glitch-finding triggering	8990A	173