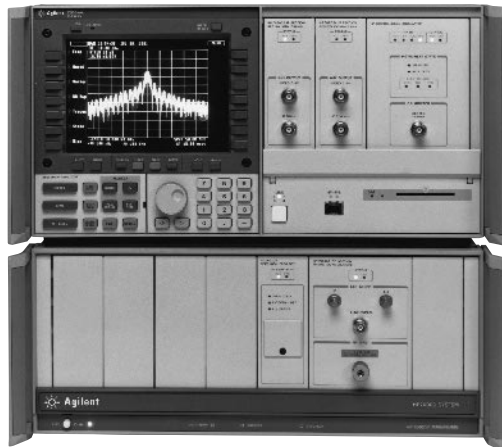


- Superb performance from 100 Hz to 40 GHz
- Automated, reconfigurable systems
- 8566B code compatibility



71209A

71209A Microwave Spectrum Analyzer

The 71209A is the MMS standard for microwave spectrum analysis, offering exceptional performance for a lower price. Special features include a built-in mixer interface for completely preselected coverage from 100 Hz to 75 GHz (using 11974 series mixers), programming code compatibility with the 8566B spectrum analyzer, similar performance to that of the 71210C, an IF output with AGC, a 5 dB step attenuator and a built-in baseband limiter. Option 001 includes a pre-selector bypass and increases the front-end bandwidth to aid upgrading to the bandwidth receiver system.

71100C
71200C
71209A
71210C

70875A Noise-Figure Measurement Personality

The 70875A noise-figure measurement personality customizes 70000 series spectrum analyzers for displayed swept noise-figure and gain measurements from 10 MHz to 26.5 GHz. Features include one-point measurement capability for quick results, noise-figure and spectrum analyzer mode switching for stray signal detection, selectable measurement bandwidths to directly measure narrow-band devices and marker functions with limit lines.

Key Literature

A complete list of all MMS products with full descriptions, specifications and services is available on our web site: www.agilent.com

70000 Series Spectrum Analyzers



The 70000 series spectrum analyzers are part of the growing modular measurement system (MMS) family at Agilent. Four factory-configured spectrum analyzers combine high performance, ease of use and the benefits of modularity for RF and microwave applications:

- 71100C RF spectrum analyzer, 100 Hz to 2.9 GHz
- 71200C microwave spectrum analyzer, 50 kHz to 22 GHz
- 71209A microwave spectrum analyzer, 100 Hz to 26.5 GHz, with an outstanding set of performance features
- 71210C microwave spectrum analyzer, 100 Hz to 22 GHz, with ultimate sensitivity and a dynamic tracking preselector

Ordering Information

- 71100C Spectrum Analyzer, 100 Hz to 2.9 GHz
- 71200C Spectrum Analyzer, 50 kHz to 22 GHz
- 71209A Spectrum Analyzer, 100 Hz to 26.5 GHz
 - Opt 001 Wide Bandwidth RF Section
 - Opt Z40 Spectrum Analyzer, 100 Hz to 40 GHz
- 71210C Spectrum Analyzer

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70000 Series Spectrum Analyzer Specification Summary

	71100C	71200C	71209A	71210C
Frequency range (tunable in 1 Hz increments)	100 Hz to 2.9 GHz (dc-coupled); 100 kHz to 2.9 GHz (ac-coupled)	50 kHz to 22 GHz	100 Hz to 26.5 GHz (100 Hz to 40 GHz Option Z40)	100 Hz to 22 GHz
With external mixers	75 GHz with 11974 preselected mixers; 110 GHz with 11970 harmonic mixers; 325 GHz with other mixers			
Resolution bandwidth range	10 Hz to 300 kHz; 3 MHz option		10 Hz to 3 MHz	
Phase noise	-108 dBc/Hz at 10 kHz offset	-108 dBc/Hz at 10 kHz offset, to 6.2 GHz		
Optimum dynamic range (2nd/3rd order)	82 dB/92 dB	70 dB/88 dB	99 dB/96 dB	96 dB/98 dB
Amplitude accuracy (relative frequency + lesser of scale fidelity or IF gain accuracy)	± 2 dB (± 0.9 dB) ¹	± 2 dB (± 0.9 dB) ¹	± 2 dB (± 0.9 dB) ¹	± 2.5 dB (± 0.9 dB) ¹
Displayed average noise level, 10 Hz RBW				
at 2.9 GHz	-131 dBm	<-129 dBm	-136 dBm	-139 dBm
at 22 GHz	—	<-116 dBm	-128 dBm	-133 dBm
at 26.5 GHz	—	<-115 dBm	-126 dBm	—
Displayed average noise level with 70620 Series preamplifiers				
at 2.9 GHz	-156 dBm	-140 dBm	-155 dBm	-155 dBm
at 22 GHz	—	-119 dBm	-148 dBm	-150 dBm
at 26.5 GHz	—	-155 dBm	-145 dBm	—

¹ ± 0.9 dB transfer accuracy using the 70100A-H01 modular power meter.