



Agilent N9320B RF Spectrum Analyzer

Configuration Guide

This configuration guide will help you determine the options, accessories, and services to include with your new N9320B RF spectrum analyzer or to add as upgrades to an existing N9320B.



Agilent Technologies

Configure Your Agilent N9320B RF Spectrum Analyzer

N9320B is a general purpose spectrum analyzer from 9 kHz to 3 GHz. Its standard features include:

- Frequency power measurements
- One-button power suite, auto tune, and frequency counter
- AM/FM tune and listen
- 12 markers, 4 traces, and 2 customer-definable limit lines
- U2000 Series USB power sensor support
- USB and LAN connectivity

This step-by-step process will help you to configure your N9320B RF spectrum analyzer by tailoring its options to meet your requirements.

For detailed specifications, refer to the N9320B spectrum analyzer data sheet (5990-8119EN). For a product overview, refer to the N9320B spectrum analyzer brochure (5990-8118EN).

Ordering information

Description	Model number	Additional information
RF spectrum analyzer, 9 kHz to 3.0 GHz	N9320B	Accessories supplied as standard with each analyzer: Quick Start Guide, USB cable, N-BNC adapter, BNC cable, power cord, and documentation CD-ROM

Step 1. Add a preamplifier

Description	Option number	Additional information
Preamplifier, 3.0 GHz	N9320B-PA3	Preamplifier improves the noise floor for low-level signal detection

Step 2. Add modulation analysis capability

AM and FM demodulation metrics	N9320B-AMA	Provides modulation metrics of an AM or FM signal: Carrier power, modulation rate, AM depth, frequency deviation, SINAD ¹ , and carrier frequency offset
ASK and FSK demodulation metrics	N9320B-DMA	Provides modulation metrics of an ASK or FSK signal: Carrier power, ASK error, depth, and index, FSK deviation, FSK error, magnitude error, and carrier frequency offset

1. *Signal-to-noise and distortion ratio*

Step 3. Add scalar stimulus-response measurement capability

Tracking generator, 100 kHz to 3.0 GHz	N9320B-TG3	A cost-effective method to measure transmission characters of RF devices. An external bridge or a directional coupler needs to be added to implement reflection measurements
--	------------	--

Step 4. Add optional features

Resolution bandwidth (-6 dB): 200 Hz, 9 kHz, 120 kHz, and 1 MHz	N9320B-EMF	Provides optional CISPR16-1-1 EMI filters for preliminary EMI pre-compliance measurements
GPIB interface	N9320B-G01	IEEE-488 bus connector, used in test automation systems
Customized save-last utility	N9320B-C20	N9320B automatically saves its settings and status once any changes are made. After the power cycle, the N9320B recovers the prior setups before powering off
Instrument power-on utility at AC power cycle	N9320B-C30	N9320B powers on directly at AC power cycle without the user pushing the power-on button on the unit's front panel. A solution designed for test automation systems

Configure Your Agilent N9320B RF Spectrum Analyzer (continued)

Description	Option number	Additional information
Step 5. Add optional accessories		
RF training kit	N9320B-TR1	Consists of RF transceiver and a full set of pre-written courseware. Prepared for RF teaching labs or training agencies
Hard transit case (d x w x h)	N9320B-1TC	<ul style="list-style-type: none"> 645 x 444 x 268 mm, 13 kg nominal 25.4 x 17.5 x 10.6 in, 29 lb nominal
Rack mount kit	N9320B-1CM	Includes a rackmount flange and front handle kit. Fits standard 19-inch rack and occupies three units of rack space
Handle and bumper	N9320B-1HB	Available for ordering only at time of initial instrument purchase

Need more RF and microwave accessories? Visit www.agilent.com/find/accessories

Step 6. Choose localized User's Guide		
English User's Guide	N9320B-ABA	
Simplified Chinese User's Guide	N9320B-AB2	
Japanese User's Guide	N9320B-ABJ	

Step 7. Choose warranty length		
1-year return-to-Agilent warranty and service	Standard (R-51B-001-C)	1-year warranty is included at no additional charge
3-year return-to-Agilent warranty and service	R-51B-001-3C	Recommended

Step 8. Add calibration, technical training, support, and upgrade		
Commercial calibration certificate with test data	N9320B-UK6	Calibration certificate only available at time of instrument purchase; only provides measurement results
Agilent calibration service, 3-year term	R-50C-011-3	Agilent tests your instrument against its original specifications and automatically makes adjustments if the product is outside of specified parameters; pre- and post-adjustment measurement data reports also provided
Agilent calibration service, 5-year term	R-50C-011-5	

Other calibration options may available, for more information on calibration, go to: www.agilent.com/find/calibration

For more information on training and application support services, go to: www.agilent.com/find/training

Instrument Upgrades

Most of the Agilent N9320B RF spectrum analyzer options are available for post-sales retrofit.

For license-key upgrades that do not require additional hardware:

1. Place an order for the upgrade with Agilent and request to receive the software entitlement certificate through email
2. Install the license key in the N9320B. Upgrade firmware to the latest revision if required
3. Restart the N9320B
4. Begin using the new capability

Description	Upgrade number	Additional information
Add preamplifier, 3.0 GHz	N9320BK-PA3	
Add AM/FM demodulation metrics	N9320BK-AMA	
Add ASK/FSK demodulation metrics	N9320BK-DMA	
Add tracking generator, 100 kHz to 3.0 GHz	N9320BK-TG3	The tracking generator is additional hardware that is installed inside the N9320B. Upgrade is performed at Agilent's local service center
Add GPIB interface	N9320BK-G01	Requires additional hardware be installed inside the N9320B.
Add EMC filter (-6 dB down)	N9320BK-EMF	
Add RF training kit	N9320BK-TR1	
Add hard transit case	N9320BK-1TC	
Add rack mount kit	N9320BK-1CM	
Add customized save-last utility	N9320BK-C20	
Add instrument power-on utility at AC power cycle	N9320BK-C30	Upgrade performed at Agilent's local service center
Revision to current	N9320BK-R2C	Enables the latest feature set for the instrument

A comprehensive summary about the N9320B upgrades is also available at: www.agilent.com/find/n9320b_upgrade

Related Literature

Publication number	Publication title
5990-8115EN	Agilent N9310A RF Signal Generator, Brochure
5990-8116EN	Agilent N9310A RF Signal Generator, Data Sheet

Other Information

Agilent product registration

Register your instruments for service notifications, firmware update alerts, application notes and more. You have the Agilent edge. Register today and keep it sharp: www.agilent.com/find/register

Agilent education corner

Your one-stop education resource for college and university engineering educators, researchers and students: www.agilent.com/find/edu



Agilent Email Updates

www.agilent.com/find/emailupdates

Get the latest information on the products and applications you select.

Agilent Channel Partners

www.agilent.com/find/channelpartners

Get the best of both worlds: Agilent's measurement expertise and product breadth, combined with channel partner convenience.



Agilent Advantage Services is committed to your success throughout your equipment's lifetime. To keep you competitive, we continually invest in tools and processes that speed up calibration and repair and reduce your cost of ownership. You can also use Infoline Web Services to manage equipment and services more effectively. By sharing our measurement and service expertise, we help you create the products that change our world.

www.agilent.com/find/advantageservices



www.agilent.com
www.agilent.com/find/n9320b

For more information on Agilent Technologies' products, applications or services, please contact your local Agilent office. The complete list is available at:

www.agilent.com/find/contactus

Americas

Canada	(877) 894 4414
Brazil	(11) 4197 3500
Mexico	01800 5064 800
United States	(800) 829 4444

Asia Pacific

Australia	1 800 629 485
China	800 810 0189
Hong Kong	800 938 693
India	1 800 112 929
Japan	0120 (421) 345
Korea	080 769 0800
Malaysia	1 800 888 848
Singapore	1 800 375 8100
Taiwan	0800 047 866
Other AP Countries	(65) 375 8100

Europe & Middle East

Belgium	32 (0) 2 404 93 40
Denmark	45 70 13 15 15
Finland	358 (0) 10 855 2100
France	0825 010 700*
	*0.125 €/minute
Germany	49 (0) 7031 464 6333
Ireland	1890 924 204
Israel	972-3-9288-504/544
Italy	39 02 92 60 8484
Netherlands	31 (0) 20 547 2111
Spain	34 (91) 631 3300
Sweden	0200-88 22 55
United Kingdom	44 (0) 131 452 0200

For other unlisted countries:

www.agilent.com/find/contactus

Revised: June 8, 2011

Product specifications and descriptions in this document subject to change without notice.

© Agilent Technologies, Inc. 2011
Printed in USA, July 27, 2011
5990-8120EN



Agilent Technologies