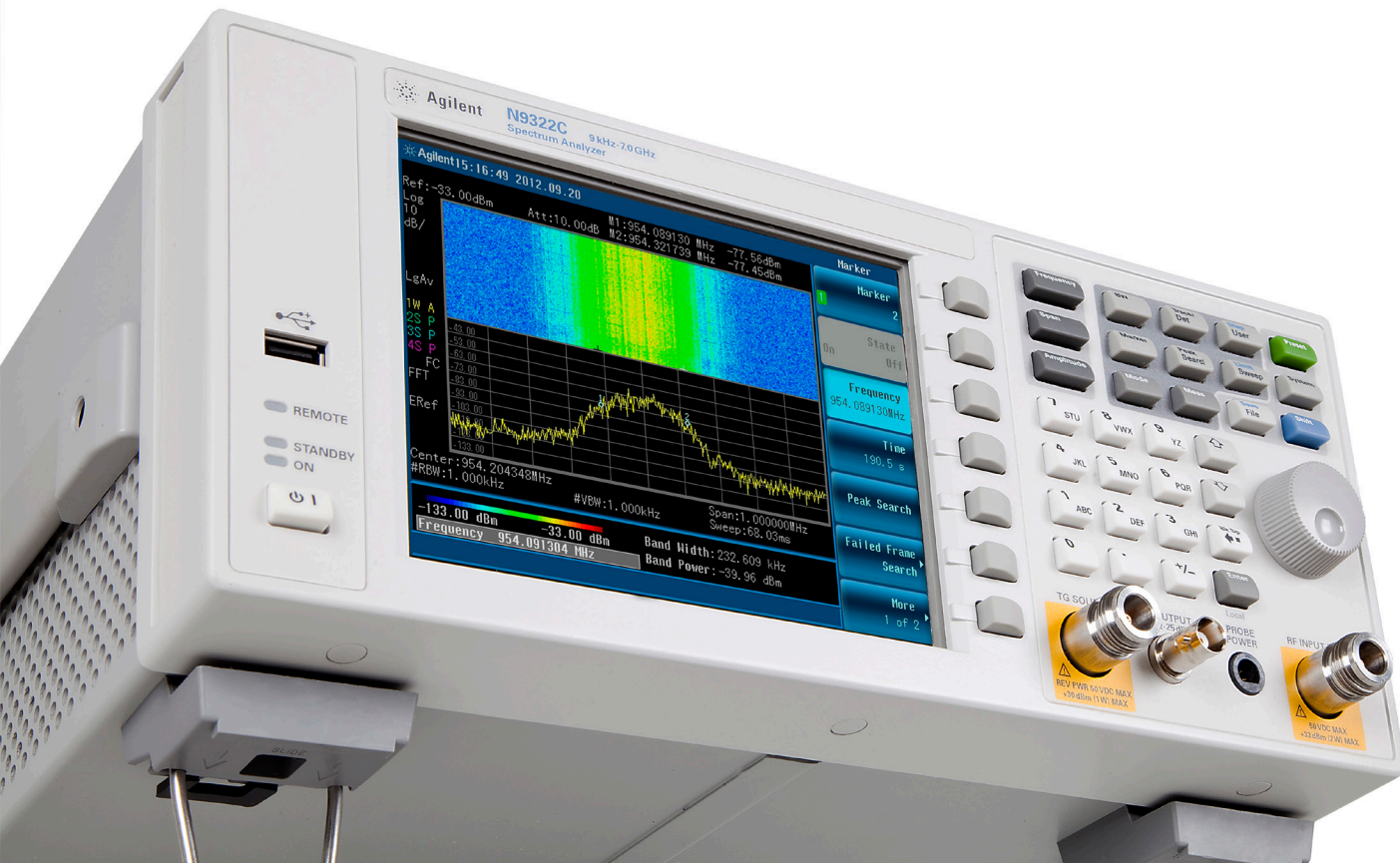# Agilent
N9322C Basic Spectrum Analyzer

Configuration Guide

Configure Your Agilent N9322C Basic Spectrum Analyzer (BSA)

This step-by-step process will help you determine which option numbers to specify when ordering your Agilent N9322C BSA to ensure the meets your testing needs.
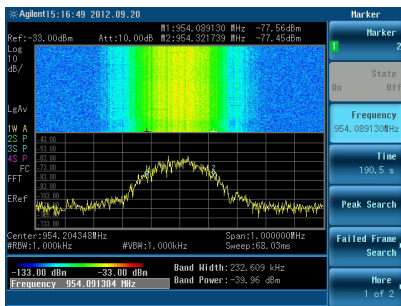
Ordering Information

Description	Model number	Additional Information
Basic spectrum analyzer 9 kHz to 7 GHz	N9322C	Accessories supplied as standard with each analyzer: USB cable, N-BNC adapter, BNC cable, power cord, and documentation CD-ROM

**Step 1.
Add performance options**

Description	Option number	Additional Information
Preamplifier, 7 GHz	N9322C-P07	Improves the noise floor for low-level signal detection
Precision frequency reference	N9322C-PFR	Reduces frequency drift for more accurate measurements; aging rate: $\pm 1 \times 10^{-7}$/year. Orderable only with initial purchase of the N9322C base model
Baseband input	N9322C-BB1	Optimizes DANL [1] and phase noise performance in the low frequency band for xDSL and AM/FM IBOC [2] measurements

1. DANL: Displayed average noise level
2. IBOC: In-band On-channel

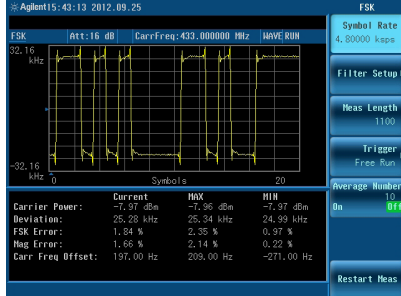**Step 2.
Add spectrum analysis features**

Using spectrogram for signal monitoring

Description	Option number	Additional Information
Time-gated spectrum analysis	N9322C-TMG	Measures any one of several signals separated in time, or excludes periodic interfering signals
Signal monitor with spectrogram record and playback	N9322C-MNT	Adds spectrogram view, record, and playback for spectrum monitoring
Channel scanner	N9322C-SCN	Provides channel power measurement of multiple channels, max. 20 channels
Task planner	N9322C-TPN	Implements customized test task that includes 20 consecutive instrument setups. Improves test efficiency for repetitive tasks. Find more information at ***www.agilent.com/find/taskplanner***

Ordering Information (continued)

Step 3.
Add demodulation analysis capability

Viewing FSK demodulation metrics with option DMA

Description	Option number	Additional Information
AM and FM demodulation analysis	N9322C-AMA	Provides modulation metrics of an AM or FM signal: carrier power, modulation rate, AM depth, frequency deviation, SINAD [3], and carrier frequency offset
ASK and FSK demodulation analysis	N9322C-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

3.   SINAD: Signal-to-noise and distortion ratio

Step 4.
Add stimulus-response measurement capability

Using the option RM7 for reflection measurements

Description	Option number	Additional Information
Tracking generator, 7 GHz	N9322C-TG7	Provides transmission measurement of RF devices, from 5 MHz to 7 GHz. Output level from –20 dBm to 0 dBm, in 1 dB steps
Reflection measurement (requires Option TG7)	N9322C-RM7	• Provides reflection measurements including return loss, VSWR, insertion loss, and distance-to-fault • Requires the tracking generator module (Option TG7) • Recommended accessories include N9311X-201 precision mechanical calibrator (3-in-1 OSL) and N9311X-586 phase stable cable N(m) to N(f)

Step 5.
Add additional features and connectivity

Description	Option number	Additional Information
USB average power sensor support (U2000 Series)	N9322C-PWM	
USB peak and average power sensor support (U2020 X-Series)	N9322C-PWP	
Security features	N9322C-SEC	Includes user data sanitation and port control
GPIB interface	N9322C-G01	IEEE-488 bus connector, used in test automation systems

Ordering Information (continued)

Step 6.
Select physical instrument configuration

N9322C portable configuration

Description	Option number	Additional Information
Benchtop configuration	Standard	Provides two side carrying straps, four rear feet, and four button feet with a tilt stand
Portable configuration	N9322C-PRC	Provides a convenient, pivoting carrying handle as well as rubber protective bumpers

Step 7.
Add optional accessories

Description	Option number	Additional Information
Hard transit case	N9322C-1TC	645 x 444 x 268 mm, 13 kg nominal
Rack mount kit	N9322C-1CM	Includes a rack mount flange. Fits standard 9-inch rack and occupies three units (3U) of rack space
Rack mount and handle kit	N9322C-1CP	Includes a rack mount flange and front handle kit. Fits standard 9-inch rack and occupies 3U rack space
Precision mechanical calibrator, 3-in-1 OSL	N9311X-201	DC to 7 GHz, N (m) connector
Minimum loss pad	N9311X-548	50 to 75 Ω adapter, DC to 1 GHz

*Looking for more N9311X series RF accessories? Visit **www.agilent.com/find/n9311x***

Step 8.
Choose localized User's Guide

Description	Option number	Additional Information
English User's Guide	N9322C-ABA	
Simplified Chinese User's Guide	N9322C-AB2	
Japanese User's Guide	N9322C-ABJ	

Ordering Information (continued)

**Step 9.
Choose warranty length**

Description	Option number	Additional Information
Select coverage		
3-year warranty (return to Agilent), standard	Included	
5-year warranty assurance plan (return to Agilent)	R-51B-001-5Z	Priority warranty service includes one-time coverage for an EOS/ESD failure

**Step 10.
Add calibration, technical training, support, and upgrade services**

Description	Option number	Additional Information
Commercial calibration certificate with test data	N9322C-UK6	Calibration certificate only available at time of instrument purchase; only provides measurement results
Select Agilent calibration plan		
3-year calibration assurance plan (return to Agilent)	R-50C-011-3	Priority calibration service covering all calibration costs for 3 years; 15% cheaper than buying stand-alone calibrations
5-year calibration assurance plan (return to Agilent)	R-50C-011-5	Priority calibration service covering all calibration costs for 5 years; 20% cheaper than buying stand-alone calibrations

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

Upgrade your existing N9322C

Fast 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 N9322C. Upgrade firmware to the latest revision if required.
3. Restart the N9322C.
4. Begin using the new capability.

Installation, calibration, and verification information is available at ***http://www.agilent.com/find/n9322c***

H2/Select additional upgrades

Description	Upgrade number	Additional Information
Preamplifier, 7 GHz	N9322CK-P07	
Baseband input	N9322CK-BB1	
Time-gated spectrum analysis	N9322CK-TMG	
Signal monitor with spectrogram record and playback	N9322CK-MNT	
Channel scanner	N9322CK-SCN	
Task planner	N9322CK-TPN	
AM/FM demodulation analysis	N9322CK-AMA	
ASK/FSK demodulation analysis	N9322CK-DMA	
Tracking generator, 7 GHz	N9322CK-TG7	The tracking generator requires additional hardware that is installed inside the N9322C. Upgrade at Agilent's local service center
Reflection measurement	N9322CK-RM7	
USB average power sensor support (U2000 Series)	N9322CK-PWM	
USB peak and average power sensor support (U2020 X-Series)	N9322CK-PWP	
Security features	N9322CK-SEC	
GPIB interface	N9322CK-G01	Requires additional hardware installed inside the N9322C
Hard transit case	N9322CK-1TC	
Rack mount kit	N9322CK-1CM	
Rack mount and handle kit	N9322CK-1CP	
English User's Guide	N9322CK-ABA	
Simplified Chinese User's Guide	N9322CK-AB2	
Japanese User's Guide	N9322CK-ABJ	
Portable configuration	N9322CK-PRC	

For More Information

Please refer to these resources:
- *Agilent N9322C Basic Spectrum Analyzer*, brochure, literature number 5991-1166EN.

- *Agilent N9322C Basic Spectrum Analyzer*, data sheet, literature number 5991-1167EN.

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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 45 80 12 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) 118 927 6201

For other unlisted countries:
www.agilent.com/find/contactus
(BP-09-27-13)

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

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