Keysight Technologies
N9340B Handheld Spectrum Analyzer (HSA)

Configuration Guide

KEYSIGHT
TECHNOLOGIES

Unlocking Measurement Insights
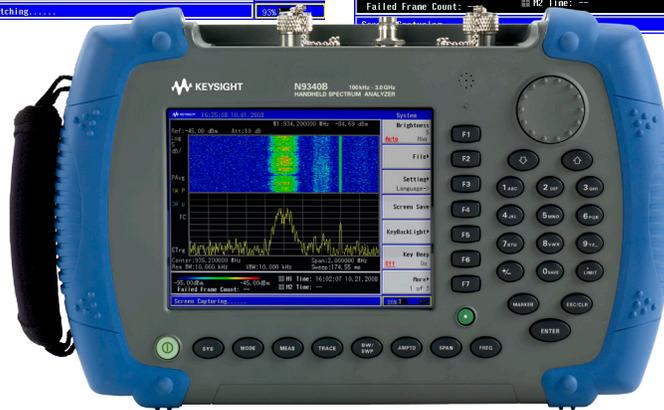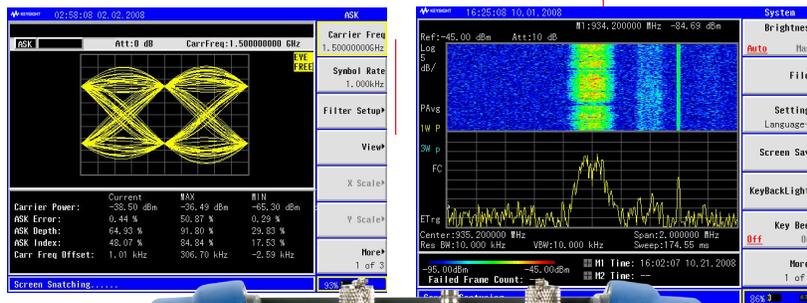
This configuration guide will help you determine which performance options, measurement application software, accessories, and services to include with the Keysight Technologies, Inc. N9340B HSA, or to add as upgrades to an existing N9340B HSA.

Configure your Keysight N9340B Handheld Spectrum Analyzer (HSA)

This step-by-step process will help you configure your N9340B HSA. Capabilities that are listed as standard come with the instrument at no additional charge. Tailor the performance, and service packages to meet your requirements. Ordering optional capabilities at the time of purchase provides the lowest overall cost.

For performance information, refer to the N9340B Handheld Spectrum Analyzer Data Sheet.

Description	Option number	Additional information
Step 1. Add a preamplifier		
Preamplifier, 1 MHz to 3 GHz	N9340B-PA3	
Step 2. Add a tracking generator		
Tracking generator, 5 MHz to 7 GHz	N9340B-TG3	Output level -25 dBm to 0 dBm, 1 dB step
Step 3. Add optional measurement features		
Low frequency performance enhancement and AM/FM In-Band On-Channel IBOC measurement	N9340B-IBC	Adds in-band on-channel (IBOC) measurement capability through a dedicated measurement application and selected hardware improvements
Spectrogram monitoring	N9340B-INM	Adds dual-display (spectrogram and trace), continuous spectrogram monitoring and unlimited data logging
AM/FM modulation analysis	N9340B-AMA	Provides modulation metrics, including carrier power, modulation rate, and AM depth/FM deviation.
ASK/FSK modulation analysis	N9340B-DMA	Provides modulation metrics, including carrier power, ASK depth/index, and FSK deviation.
Step 4. Add an accessory		
Spare battery	N9340B-BAT	Lithium ion, 10.8 V, 4.56 A-hr
Spare external battery charger	N9340B-BCG	
Spare AC/DC adapter	N9340B-ADP	1 output: 15 V, 5.33 A
Automotive 12 V DC adapter	N9340B-1DC	Provides DC power supply, no charging
Automotive 12 V DC adapter and charger	N9340B-1DN	Provides DC power supply and power charging
Hard transit case	N9340B-1TC	
Adaptor, 50 Ω to 75 Ω	N9340B-TAD	Type N(m) 50 Ω to type N(f) 75 Ω
Calibrator	N9311x-201	Precision mechanical calibrator, 3-in-1 OSL, DC to 7 GHz, N(m)
Antenna	N9311x-500	70 MHz to 1000 MHz, 65 g, 180 degree tilt angle adjustable, N(m) telescopic whip antenna
Antenna	N9311x-501	700 MHz to 2500 MHz, 70 g, 210 mm x 20 mm, omni-directional, N(m)
Antenna	N9311x-504	700 MHz to 4 GHz, 4 dBi gain, 270 g, 340 mm x 200 mm x 25 mm, logarithmic-periodic, N(m)
Antenna	N9311x-508	680 MHz to 8 GHz, 5 dBi gain, 250 g, 340 mm x 200 mm x 25 mm, logarithmic-periodic, N(m)
Antenna	N9311x-518	680 MHz to 18 GHz, 5 dBi gain, 250 g, 340 mm x 200 mm x 25 mm, logarithmic-periodic, N(m)
Bandpass filter	N9311x-550	– 3 dB passband 814 to 850 MHz – rejection ≥ 36 dBc at 740 MHz/≥ 36 dBc at 915 MHz – insertion loss ≤ 0.5 dB – VSWR ≤ 1.5

Configure your Keysight N9340B Handheld Spectrum Analyzer (HSA) *(continued)*

Description	Option number	Additional information
Step 4. Add an accessory (continued)		
Bandpass filter	N9311x-551	– 3 dB passband 880 to 915 MHz – rejection ≥ 35 dBc at 826 MHz/≥ 36 dBc at 932 MHz – insertion loss ≤ 1 dB – VSWR ≤ 1.5
Bandpass filter	N9311x-552	– 3 dB passband 1707.5 to 1787.5 MHz, – rejection ≥ 35 dBc at 1550 MHz/≥ 35 dBc at 1925 MHz – insertion loss ≤ 0.4 dB – VSWR ≤ 1.5
Bandpass filter	N9311x-553	– 3 dB passband 1845 to 1915 MHz – rejection ≥ 35 dBc at 1770 MHz/≥ 35 dBc at 1986 MHz – insertion loss ≤ 0.6 dB – VSWR ≤ 1.5
Bandpass filter	N9311x-554	– 3 dB passband 1910 to 1990 MHz, – rejection ≥ 35 dBc at 1825 MHz/≥ 35 dBc at 2070 MHz, – insertion loss ≤ 0.6 dB – VSWR ≤ 1.5
Adapter	N9311x-540	Type-N(m) to BNC(f), DC to 2 GHz
Adapter	N9311x-541	Type-N(m) to SMA(f), DC to 12.4 GHz
Adapter	N9311x-542	Type-N(f) to 7/16 DIN(f), DC to 7.5 GHz
Adapter	N9311x-543	Type-N(f) to BNC(m), DC to 4 GHz
Adapter	N9311x-544	Type-N(f) to 7/16 DIN(m), DC to 7.5 GHz
Adapter	N9311x-545	Type-N(f) to SMA(m), DC to 12.4 GHz
Adapter	N9311x-546	Type-N(f) to Type-N(f), DC to 18 GHz
Adapter	N9311x-547	Type-N(m) to DIN(f), DC to 7.5 GHz
Cable	N9311x-580	Phase stable, 1.5 m, N(m) to N(m)
Cable	N9311x-581	Phase stable, 3 m, N(m) to N(m)
Cable	N9311x-582	1.5 m, SMA(m) to SMA(m)
Cable	N9311x-583	1.5 m, BNC(m) to BNC(m)
Cable	N9311x-585	Phase stable, 1.5 m, N(m) to DIN(f)
Cable	N9311x-586	Phase stable, 1.5 m, N(m) to N(f)
Attenuator	N9311x-560	40 dB, N(m) to N(f), 10 watts average
Attenuator	N9311x-561	40 dB, N(m) to N(f), 50 watts average
Attenuator	N9311x-562	40 dB, N(m) to N(f), 100 watts average
Step 5. Choose a warranty		
Select coverage		
3-year warranty (return to Keysight), standard	Included	
5-year warranty assurance plan (return to Keysight)	R-51B-001-5Z	Priority warranty service includes one-time coverage for an EOS/ESD failure
Step 6. Add calibration service		
Select Keysight calibration plan		
Commercial calibration certificate with test data	N9340B-UK6	Keysight provides a commercial calibration certification; only available at time of purchase; provides measurement results
3-year calibration assurance plan (return to Keysight)	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 Keysight)	R-50C-011-5	Priority calibration service covering all calibration costs for 5 years; 20% cheaper than buying stand-alone calibrations

Instrument Upgrades

Upgrade your existing Keysight N9340B (HSA)

Keysight provides a fast upgrade process for performance options that do not require additional hardware.

1. Place an order for the upgrade with Keysight and ask to receive the option upgrade entitlement certificate through email.
2. Redeem the certificate through the Web by following the instructions on the certificate.
3. Install the license file and latest software on the N9340B.
4. Begin using the new capability.

Installation, calibration, and verification information is available at: **www.keysight.com/find/N9340B_upgrades**

Description	Option number	Additional information
Instrument upgrades		
Preamplifier, 1 MHz to 3 GHz	N9340BK-PA3	
Tracking generator, 5 MHz to 7 GHz	N9340BK-TG3	Output level -25 dBm to 0 dBm, 1 dB step
Spectrogram monitoring	N9340BK-INM	Adds dual-display (spectrogram and trace), continuous spectrogram monitoring and unlimited data logging
AM/FM modulation analysis	N9340BK-AMA	Provides modulation metrics, including carrier power, modulation rate, and AM depth/FM deviation
ASK/FSK modulation analysis	N9340BK-DMA	Provides modulation metrics, including carrier power, ASK depth/index, and FSK deviation

Hardware Upgrades

Add additional accessories to your existing Keysight N934xC (HSA)

Description	Option number	Additional information
Hardware upgrades		
Spare battery	N9910X-870	Lithium ion, 11.1 V, 4.6 A-hr
Spare external battery charger	N9340BK-BCG	
Spare AC/DC adapter	N9340BK-ADP	1 output: 15 V, 5.33 A
Automotive 12 V DC adapter	N9340BK-1DC	Provides DC power supply, no charging
Automotive 12 V DC adapter and charger	N9340BK-1DN	Provides DC power supply and power charging
Hard transit case	N9340BK-1TC	
Adaptor, 50 to 75 Ω	N9340BK-TAD	Type N(m) 50 Ω to type N(f) 75 Ω

Other Information

Description	
Connectivity (standard)	
1 USB 2.0 type A port, female	N9340B behaves like a host controller, USB 2.0 compatible port
1 USB 2.0 type-mini AB port, female	N9340B behaves like a host controller, USB 2.0 compatible port
10 Base-T LAN interface	
HSA PC software	An easy-to-use, PC-based remote control tool for your N9340B handheld spectrum analyzer (HSA)
Instrument weight and dimensions	
Dimensions (W x H x D)	318 mm x 207 mm x 69 mm (12.5 in x 8.15 in x 2.7 in)
Weight (with battery)	3.5 kg (7.7 lbs)
Hard transit case weight and dimensions	
Dimensions (W x H x D)	580 mm x 300 mm x 230 mm
Weight (empty)	10.5 kg (23.1 lbs)
Standard shipped items	
N9340B HSA	
RoHS addendum	
USB cable	
Battery Li-Ion	
Screwdriver	
Help kit CD	
Ear phone	
AC/DC power supply	
Quick start tutorial	
Soft carrying case	

Additional Resources

Related Keysight literature

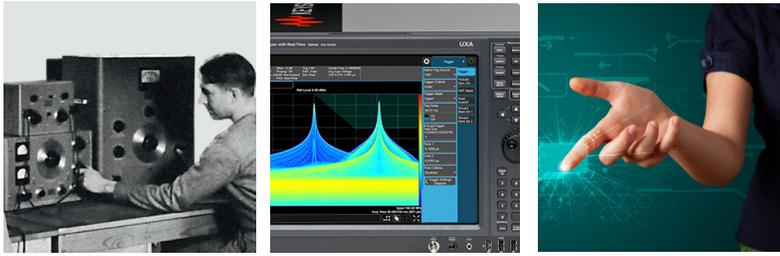| Publication	
Publication number	**Publication title**
5989-7847EN	Keysight N9340B Handheld Spectrum Analyzer Technical Overview

Evolving

Our unique combination of hardware, software, support, and people can help you reach your next breakthrough. We are unlocking the future of technology.

From Hewlett-Packard to Agilent to Keysight

myKeysight

myKeysight
www.keysight.com/find/mykeysight
A personalized view into the information most relevant to you.

Keysight Infoline

Keysight Infoline
www.keysight.com/find/Infoline
Keysight's insight to best in class information management. Free access to your Keysight equipment company reports and e-library.

KEYSIGHT SERVICES

Keysight Services
www.keysight.com/find/services
Our deep offering in design, test, and measurement services deploys an industry-leading array of people, processes, and tools. The result? We help you implement new technologies and engineer improved processes that lower costs.

3YR WARRANTY

Three-Year Warranty
www.keysight.com/find/ThreeYearWarranty
Keysight's committed to superior product quality and lower total cost of ownership. Keysight is the only test and measurement company with three-year warranty standard on all instruments, worldwide. And, we provide a one-year warranty on many accessories, calibration devices, systems and custom products.

CALIBRATION 10 YEARS WARRANTY ASSURANCE PLANS

Keysight Assurance Plans
www.keysight.com/find/AssurancePlans
Up to ten years of protection and no budgetary surprises to ensure your instruments are operating to specification, so you can rely on accurate measurements.

Keysight Channel Partners
www.keysight.com/find/channelpartners
Get the best of both worlds: Keysight's measurement expertise and product breadth, combined with channel partner convenience.

www.keysight.com/find/HSA
www.keysight.com/find/hsa-videos

For more information on Keysight Technologies' products, applications or services, please contact your local Keysight office. The complete list is available at:
www.keysight.com/find/contactus

Americas
Canada	(877) 894 4414
Brazil	55 11 3351 7010
Mexico	001 800 254 2440
United States	(800) 829 4444

Asia Pacific
Australia	1 800 629 485
China	800 810 0189
Hong Kong	800 938 693
India	1 800 11 2626
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) 6375 8100

Europe & Middle East
Austria	0800 001122
Belgium	0800 58580
Finland	0800 523252
France	0805 980333
Germany	0800 6270999
Ireland	1800 832700
Israel	1 809 343051
Italy	800 599100
Luxembourg	+32 800 58580
Netherlands	0800 0233200
Russia	8800 5009286
Spain	800 000154
Sweden	0200 882255
Switzerland	0800 805353
	Opt. 1 (DE)
	Opt. 2 (FR)
	Opt. 3 (IT)
United Kingdom	0800 0260637

For other unlisted countries:
www.keysight.com/find/contactus
(BP-06-08-16)

DEKRA Certified
ISO9001 Quality Management System

www.keysight.com/go/quality
Keysight Technologies, Inc.
DEKRA Certified ISO 9001:2015
Quality Management System

KEYSIGHT TECHNOLOGIES
Unlocking Measurement Insights