

Keysight Technologies N9342CN/N9342CNTG Handheld Spectrum Analyzer (HSA)

Configuration Guide



This configuration guide will help you determine which performance options, measurement application software, accessories, and services to include with your new Keysight Technologies, Inc. N9342CN/N9342CNTG HSA, or to add as upgrades to an existing Keysight N9342CN/N9342CNTG HSA.

Configure Your Keysight N9342CN/N9342CNTG HSA

This step-by-step process will help you configure your N9342CN/N9342CNTG HSA. Capabilities that are listed as standard come with the instrument at no additional charge. Order optional capabilities to tailor the performance and service packages to meet your requirements. Ordering desired options at the time of purchase provides the lowest overall cost.

For performance information, refer to the N9342CN/N9342CNTG HSA data sheet available upon request from your Keysight representative.

Ordering Information

| Description | Option number | Additional information |
|---|--|--|
| Step 1. Select the product | | |
| Handheld spectrum analyzer with built-in tracking generator | N9342CNTG | The frequency of the built-in tracking generator is specified in Step 2 |
| Handheld spectrum analyzer without tracking generator | N9342CN | |
| Step 2. Select the frequency | | |
| 1 MHz to 20 GHz | N9342CNTG-520 N9342CN-520 | The built-in tracking generator's frequency range is 5 MHz to 7 GHz |
| 100 kHz to 7 GHz | N9342CNTG-506 and N9342CNTG-F7G N9342CN-506 and N9342CN-F7G | The built-in tracking generator's frequency range is 5 MHz to 7 GHz |
| 100 kHz to 6 GHz | N9342CNTG-506 N9342CN-506 | The built-in tracking generator's frequency range is 5 MHz to 6 GHz |
| Step 3. Add a cable and antenna tester | | |
| Cable and antenna test, 5 MHz to 6 GHz | N9342CN-CA6 | <ul style="list-style-type: none"> – Available only when N9342CNTG-506 is selected – Maximum frequency is extended to 7 GHz with Option N9342CNTG-F7G – Offers return loss, VSWR, cable loss, and distance-to-fault (DTF) – Requires N9311X-201 precision mechanical calibrator (3-in-1 OSL) – Recommended accessories include N9311X-585 phase stable cable type N(m) to DIN(f), N9311X-586 phase stable cable type N(m) to N(f), and N9311X-547 adapter type N(m) to DIN(f) |
| Step 4. Add performance enhancement features | | Available only when N9342CNTG-506 or N9342CN-506 is selected. These features are standard when N9342CNTG-520 or N9342CN-520 is selected. |
| Resolution bandwidth (RBW) | N9342CNTG-RBW N9342CN-RBW | 10 Hz to 3 MHz, 1-3-10 sequence |
| Fine resolution step attenuator | N9342CNTG-FSA N9342CN-FSA | 0 to 50 dB, in 1 dB step |
| LAN port support | N9342CNTG-LAN N9342CN-LAN | Adds LAN port support |
| Power suite | N9342CNTG-PWS N9342CN-PWS | Adds channel power, occupied bandwidth (OBW) and adjacent channel power ratio (ACPR) measurements |
| Step 5. Add a GPS receiver | | |
| GPS receiver, with built-in antenna | N9342CNTG-GPS N9342CN-GPS | Provides information on longitude, latitude, and altitude An optional external antenna N9342CNTG-GPA/N9342CN-GPA can be ordered |

Configure your Keysight N9342CN/N9342CNTG HSA (continued)

| Description | Option number | Additional information |
|---|------------------------------|--|
| Step 6. Add optional measurement features | | |
| Spectrum monitor | N9342CNTG-SIM N9342CN-SIM | Adds spectrogram view, record, playback, and audio alert. Useful tool for spectrum monitoring and interference analyzing |
| Task planner | N9342CNTG-TPN N9342CN-TPN | Reduces test setup time by 95%, delivers test automation and consistency, and makes it easy to capture test results, generate reports and share task plans with others |
| U2000 Series USB power sensor support | N9342CNTG-PWM N9342CN-PWM | Requires the Keysight U2000 Series USB power sensor |
| Security features | N9342CNTG-SEC N9342CN-SEC | Low-level and non-recoverable formatting of user memory and USB/LAN port control |
| AM/FM modulation analysis | N9342CNTG-AMA N9342CN-AMA | Provides modulation metrics, including carrier power, modulation rate, and AM depth/FM deviation |
| Channel scanner | N9342CNTG-SCN N9342CN-SCN | Allows the user to easily measure channel power of multiple channels and export data to mapping applications like Google Earth and MapInfo. |
| ASK/FSK modulation analysis | N9342CNTG-DMA N9342CN-DMA | Provides modulation metrics, including carrier power, ASK depth/index, and FSK deviation. |
| U2020 X-series USB peak and average power sensor support | N9342CNTG-PWP N9342CN-PWP | Requires the Keysight U2020 X-series USB peak and average power sensor. |
| Step 7. Add an accessory | | |
| Spare battery | N9342CNTG-BAT N9342CN-BAT | Lithium ion, 10.8 V, 4.56 A-hr |
| External battery charger | N9342CNTG-BCG N9342CN-BCG | |
| Spare AC/DC adapter | N9342CNTG-ADP N9342CN-ADP | 1 output: 15 V, 5.33 A |
| Automotive 12 V DC charger | N9342CNTG-1DN N9342CN-1DN | Provides DC power supply and power charging |
| Ergonomic soft carrying case with backpack and shoulder strap | N9342CNTG-SCC N9342CN-SCC | |
| Adaptor, 50 to 75 Ω | N9342CNTG-TAD N9342CN-TAD | Type N(m) 50 Ω to type N(f) 75 Ω |
| Hard transit case | N9342CNTG-1TC N9342CN-1TC | |
| External GPS antenna | N9342CNTG-GPA N9342CN-GPA | SMA-F connector |
| Calibrator | N9311x-201 | Precision mechanical calibrator, 3-in-1 OSL, DC to 7 GHz, N(m) |
| Antenna | N9311x-500 | 70 to 1,000 MHz, 65 g, 180 degree tilt angle adjustable, telescopic whip antenna, type N(m) |
| Antenna | N9311x-501 | 700 to 2,500 MHz, 70 g, 210 mm x 20 mm (L x D), omni-directional, type N(m) |
| Antenna | N9311x-504 | 700 MHz to 4 GHz, 4 dBi gain, 270 g, 340 mm x 200 mm x 25 mm (L x W x D), logarithmic-periodic, type N(m) |
| Antenna | N9311x-508 | 680 MHz to 8 GHz, 5 dBi gain, 250 g, 340 mm x 200 mm x 25 mm (L x W x D), logarithmic-periodic, type N(m) |
| Antenna | N9311x-518 | 680 MHz to 18 GHz, 5 dBi gain, 250 g, 340 mm x 200 mm x 25 mm (L x W x D), logarithmic-periodic, type N(m) |

Configure your Keysight N9342CN/N9342CNTG HSA (continued)

| Description | Option number | Additional information |
|---|------------------------|---|
| Step 7. Add an accessory (continued) | | |
| 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 |
| 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 1,707.5 to 1,787.5 MHz Rejection ≥ 35 dBc at 1,550 MHz/ ≥ 35 dBc at 1,925 MHz Insertion loss ≤ 0.4 dB VSWR ≤ 1.5 |
| Bandpass filter | N9311x-553 | 3 dB passband 1,845 to 1,915 MHz Rejection ≥ 35 dBc at 1,770 MHz/ ≥ 35 dBc at 1,986 MHz Insertion loss ≤ 0.6 dB VSWR ≤ 1.5 |
| Bandpass filter | N9311x-554 | 3 dB passband 1,910 to 1,990 MHz Rejection ≥ 35 dBc at 1,825 MHz/ ≥ 35 dBc at 2,070 MHz Insertion loss ≤ 0.6 dB VSWR ≤ 1.5 |
| 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 |
| Cable | N9311x-580 | 1.5 m, N(m) to N(m) |
| Cable | N9311x-581 | 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 W average |
| Attenuator | N9311x-561 | 40 dB, N(m) to N(f), 50 W average |
| Attenuator | N9311x-562 | 40 dB, N(m) to N(f), 100 W average |
| Step 8. Choose a warranty | | |
| 1-year return-to-Keysight warranty and service | Standard (R-51B-001-C) | 1-year warranty is included at no additional charge |
| 3-year return-to-Keysight warranty and service | R-51B-001-3C | Recommended upgrade |
| Step 9. Add calibration service | | |
| Commercial calibration certificate with test data | N934xC-UK6 | Keysight provides a commercial calibration certification; only available at time of purchase; provides measurement results |
| Keysight calibration support plan, 3 year | R-51B-011-3 | Keysight tests your instrument against its original specifications and automatically makes adjustments if the instrument is outside of its specified parameters; pre- and post-adjustment measurement data reports are also provided; must be ordered at time of purchase |

Instrument Upgrades

Upgrade your existing Keysight N9342CN/ N9342CNTG 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 N9342CN/N9342CNTG HSA.
4. Begin using the new capability.

| Description | Option number | Additional information |
|--|----------------------------------|---|
| Channel scanner | N9342CNTGK-SCN N9342CNK-SCN | Allows the user to easily measure channel power of multiple channels and export data to mapping applications like Google Earth and MapInfo |
| ASK/FSK modulation analysis | N9342CNTGK-DMA N9342CNK-DMA | Provides modulation metrics, including carrier power, ASK depth/index, and FSK deviation |
| U2020 X-series USB peak and average power sensor support | N9342CNTGK-PWP N9342CNK-PWP | Requires the Keysight U2020 X-series USB peak and average power sensor |
| Spectrum monitor | N9342CNTGK-SIM N9342CNK-SIM | Adds spectrogram view, record, playback, and audio alert. Useful tool for spectrum monitoring and interference analyzing |
| Task planner | N9342CNTGK-TPN N9342CNK-TPN | Slashes test setup time by 95%, delivers test automation and consistency, and makes it easy to capture test results, generate reports and share task plans with others |
| U2000 Series USB power sensor support | N9342CNTGK-PWM N9342CNK-PWM | Requires the Keysight U2000 Series USB power sensor |
| Security erase of user data | N9342CNTGK-SEC N9342CNK-SEC | Low-level and non-recoverable formatting of user memory and USB/LAN port control |
| AM/FM modulation analysis | N9342CNTGK-AMA N9342CNK-AMA | Provides modulation metrics, including carrier power, modulation rate, and AM depth/FM deviation |
| Resolution bandwidth (RBW) | N9342CNTGK-RBW N9342CNK-RBW | 10 Hz to 3 MHz, 1-3-10 sequence. Available only on N9342CN-506 and N9342CNTG-506 |
| Fine resolution step attenuator | N9342CNTGK-FSA N9342CNK-FSA | 0 to 50 dB, in 1 dB step. Available only on N9342CN-506 and N9342CNTG-506 |
| LAN port support | N9342CNTGK-LAN N9342CNK-LAN | Adds LAN port support. Available only on N9342CN-506 and N9342CNTG-506 |
| Power suite | N9342CNTGK-PWS N9342CNK-PWS | Adds channel power, occupied bandwidth (OBW) and adjacent channel power ratio (ACPR) measurements. Available only on N9342CN-506 and N9342CNTG-506 |
| Frequency extension | N9342CNTGK-F7G N9342CNK-F7G | Extends the maximum frequency to 7 GHz. Available only on N9342CN-506 and N9342CNTG-506 |
| Cable and antenna test, 5 MHz to 6 GHz | N9342CNTGK-CA6 N9342CNTGK-CAU | <ul style="list-style-type: none"> – Available only when N9342CNTG-506 is selected – Maximum frequency is extended to 7 GHz if option F7G is installed – Offers return loss, VSWR, cable loss, and distance-to-fault (DTF) – Check the TG module S/N before ordering: <ul style="list-style-type: none"> – If the TG module S/N starts with “N934263004”, please order N9342CNTGK-CA6. – If the TG module S/N starts with “N934263003”, please order N9342CNTGK-CAU. – TG module S/N can be viewed at the System menu, [Shift], [System], {System Info}, {Show System}. – Requires N9311X-201 precision mechanical calibrator (3-in-1 OSL) – Recommended accessories include N9311X-585 phase stable cable type N(m) to DIN(f), N9311X-586 phase stable cable type N(m) to N(f), and N9311X-547 adapter type N(m) to DIN(f) |

Hardware Upgrades

Add additional accessories to your existing Keysight N9342CN/N9342CNTG HSAs

| Description | Option number | Additional information |
|---|--------------------------------|--|
| Spare battery | N9342CNTGK-BAT N9342CNK-BAT | Lithium ion, 10.8 V, 4.56 A-hr |
| External battery charger | N9342CNTGK-BCG N9342CNK-BCG | |
| Spare AC/DC adapter | N9342CNTGK-ADP N9342CNK-ADP | 1 output: 15 V, 5.33 A |
| Automotive 12 V DC charger | N9342CNTGK-1DN N9342CNK-1DN | Provides DC power supply and power charging |
| Ergonomic soft carrying case with backpack and shoulder strap | N9342CNTGK-SCC N9342CNK-SCC | |
| Hard transit case | N9342CNTGK-1TC N9342CNK-1TC | |
| Adapter, 50 to 75 Ω | N9342CNTGK-TAD N9342CNK-TAD | Type N(m) 50 Ω to type N(f) 75 Ω |
| External GPS antenna | N9342CNTGK-GPA N9342CNK-GPA | SMA-F connector |

Other Information

| Description | |
|--|---|
| Connectivity (standard) | |
| 1 USB 2.0 type A port, female | N934xC behaves like a host controller, USB 2.0 compatible port |
| 1 USB 2.0 type-mini AB port, female | N934xC 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 N9342CN/N9342CNTG HSA |
| Instrument weight and dimensions | |
| Dimensions (W x H x D) | 318 mm x 207 mm x 69 mm (12.5 in x 8.2 in x 2.7 in) |
| Weight (with battery) | 3.6 kg (7.9 lbs) |
| Hard transit case weight and dimensions | |
| Dimensions (W x H x D) | 560 mm x 460 mm x 270 mm (22 in x 18.1 in x 10.6 in) |
| Weight (empty) | 7.7 kg (16.9 lbs) |

Keysight Website

www.keysight.com/find/HSA
www.keysight.com/find/taskplanner
www.keysight.com/find/hsapc

myKeysight

myKeysight

www.keysight.com/find/mykeysight

A personalized view into the information most relevant to you.

Three-Year Warranty

www.keysight.com/find/ThreeYearWarranty

Keysight's commitment to superior product quality and lower total cost of ownership. The only test and measurement company with three-year warranty standard on all instruments, worldwide.



Keysight Assurance Plans

www.keysight.com/find/AssurancePlans

Up to five years of protection and no budgetary surprises to ensure your instruments are operating to specification so you can rely on accurate measurements.



www.keysight.com/go/quality

Keysight Technologies, Inc.
DEKRA Certified ISO 9001:2008
Quality Management System



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

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 | 0124 229 2010 |
| 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-02-06-15)