EXG X-Series Signal Generator N5173B Microwave Analog

This configuration guide will help you determine which performance options, software applications, accessories, and services to include with your new EXG or to add as upgrades to an existing EXG.





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GURATION

GUIDE

Configure Your N5173B EXG Microwave Analog Signal Generator

This step-by-step process will help you configure your EXG microwave signal generator. Tailor the performance to meet your requirements. For detailed specifications, refer to the EXG signal generator data sheet (5991-3132EN).

| Step 1. Select maximum frequency range (required option; frequency range not upgradeable) | | | |
|---|---------------|--|-------------------------|
| Description | Option number | Additional information | Matching N5183A options |
| Frequency range from 9 kHz to 13 GHz | N5173B-513 | Not compatible with 520, 532, 540 | |
| | | Includes standard adapter 3.5 mm female to 3.5 mm female | |
| Frequency range from 9 kHz to 20 GHz | N5173B-520 | Not compatible with 513, 532, 540 | N5183A-520 |
| | | Includes standard adapter 3.5 mm female to 3.5 mm female | |
| Frequency range from 9 kHz to 31.8 GHz | N5173B-532 | Not compatible with 513, 520, 540 | N5183A-532 |
| | | Includes standard adapter set, 2.4 mm female-female and | |
| | | 2.4 mm female to 2.9 mm female | |
| Frequency range from 9 kHz to 40 GHz | N5173B-540 | Not compatible with 513, 520, 532 | N5183A-540 |
| | | Includes standard adapter set, 2.4 mm female-female and | |
| | | 2.4 mm female to 2.9 mm female | |

| Step 2. Choose connector configuration | | | |
|--|---------------|--|-------------------------|
| Description | Option number | Additional information | Matching N5183A options |
| Move all connectors to rear panel | N5173B-1EM | Not upgradable | N5183A-1EM |
| Type-N (f) RF output connector | N5173B-1ED | Not upgradable | N5183A-1ED |
| | | Not compatible with 532 or 540 | |
| | | Includes standard adapter type-N male to 3.5 mm female | |
| Standard connector 3.5mm | N5173B-UNC | Not upgradable | |
| | | Not compatible with 532 or 540 | |
| | | Includes standard adapter 3.5mm female to 3.5mm female | |

| Step 3. Choose performance enhancement options | | | | |
|--|--------------------------------------|---------------------------------------|-------------------------|--|
| Description | Option number Additional information | | Matching N5183A options | |
| AM, FM, phase modulation | N5173B-UNT | | N5183A-UNT | |
| Narrow pulse modulation | N5173B-UNW | Not compatible with UW2 | N5183A-UNW | |
| Narrow pulse modulation up to 31.8 GHz | N5173B-UW2 | Not compatible with UNW: Requires 540 | N5183A-HNS | |
| Multifunction generator | N5173B-303 | Not upgradable | | |
| Instrument security and removable | N5173B-006 | | N5183A-006 | |
| memory card | | | | |
| Fast frequency switching | N5173B-UNZ | Not compatible with UZ2 | N5183A-UNZ | |
| Fast frequency switching > 1.15 ms and | N5173B-UZ2 | Not compatible with UNZ | N5183A-HNZ | |
| ± 0.05% of final frequency | | | | |
| High output power | N5173B-1EA | | N5183A-1EA | |
| Step attenuator | N5173B-1E1 | | N5183A-1E1 | |
| Flexible reference input (1 to 50 MHz) | N5173B-1ER | | N5183A-1ER | |

Step / Choose VDI mmW frequ ovtonaion modulo (ontional)

| Step 4. Choose VDI mmW frequency extension module (optional) | | | |
|--|---------------|--|--|
| Description | Option number | | |
| Frequency range from 50 to 75 GHz | E8257D-V15 | | |
| Frequency range from 60 to 90 GHz | E8257D-V12 | | |
| Frequency range from 75 to 110 GHz | E8257D-V10 | | |
| Frequency range from 90 to 140 GHz | E8257D-V08 | | |
| Frequency range from 110 to 170 GHz | E8257D-V06 | | |
| Frequency range from 140 to 220 GHz | E8257D-V05 | | |
| Frequency range from 220 to 330 GHz | E8257D-V03 | | |
| Frequency range from 260 to 400 GHz | E8257D-V2B | | |
| Frequency range from 325 to 500 GHz | E8257D-V02 | | |
| Frequency range from 500 to 750 GHz | E8257D-V1B | | |
| Frequency range from 750 to 1100 GHz | E8257D-V01 | | |

Step 5. Choose embedded software

| Note: The following software can be added at purchase or as a | n upgrade. For more information on lice | nses, go to www.keysight.com/find/SS-licensing |
|---|---|--|
| Description | Option number | Hardware requirements |
| Pulse train generator | N5180320B | UNW |

Step 6. Choose accessory and documentation options

| Description | Option number | | |
|---|---------------|--|--|
| Rack slide kit | 1CR112A | | |
| Front handle kit | 1CN006A | | |
| Rack mount flange kit | 1CM110A | | |
| Rack mount flange kit with front handles | 1CP004A | | |
| Front panel cover | N5173B-CVR | | |
| Hard transit case | N5173B-AXT | | |
| CD-ROM containing English documentation set | N5173B-CD1 | | |
| Service documentation, assembly and component | N5173B-0BW | | |
| | | | |

Step 7. Choose calibration options

| Option number |
|---------------|
| N5173B-UK6 |
| N5173B-AMG |
| N5173B-A6J |
| R-50C-011-5 |
| R-50C-011-7 |
| R-50C-011-10 |
| |

Step 8. Choose startup assistance service options

| Description | Option number | Matching N5183A options |
|--|---------------|-------------------------|
| Remote scheduled assistance 1 to 999 hours | PS-S10 | PS-S10 |
| Daily productivity assistance | PS-S20 | PS-S20 |
| Signal generator and source basics; half-day, maximum of eight | PS-T10-ASG | PS-T10-ASG |
| students on site | | |
| Custom services to be qualified by Keysight | PS-X10 | PS-X10 |

Upgrade Your Existing EXG Analog Signal Generator

Fast license-key upgrades for options that do not require additional hardware:

- 1. Place an order for the upgrade with Keysight Technologies, Inc. and request to receive the software entitlement certificate through email
- 2. Redeem the certificate through the Web by following the instructions on the certificate
- 3. Install the license file using Keysight License Manager
- 4. Begin using the new capability

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

You can upgrade!

Options can be added after your initial purchase.



All of our X-Series application options are license-key upgradeable.

| Description | Upgrade number | Requirements | Additional information |
|---|----------------|---|--|
| Service documentation, assembly and component | N5173BU-0BW | None | Printed copy of service guide |
| Instrument security and removable memory card | N5173BU-006 | None | Hardware and license key upgrade |
| High output power | N5173BU-1EA | None | Customer installable – software, license key |
| Flexible reference input (1 to 50 MHz) | N5173BU-1ER | None | Customer installable – software, license key |
| Step attenuator | N5173BU-1E1 | None | Customer installable - software, license key |
| Multifunction generator | N5173BU-303 | None | Customer installable – software, license key |
| Pulse train generator | N5180320B | Requires UNW | Customer installable – software, license key |
| Hard transit case | N5173BU-AXT | None | |
| CD-ROM containing English documentation set | N5173BU-CD1 | None | |
| Commercial calibration certificate with test data | N5173BU-UK6 | None | |
| AM, FM, phase modulation | N5173BU-UNT | None | Customer installable – software, license key |
| Narrow pulse modulation | N5173BU-UNW | None | Customer installable – software, license key |
| Fast switching | N5173BU-UNZ | Not compatible with UZ2 | Customer installable – software, license key |
| Narrow pulse modulation up to 31.8 GHz | N5173BU-UW2 | Not compatible with UNW: Requires 540 | Customer installable - software, license key |
| Fast frequency switching > 1.15 ms and \pm 0.05% of final frequency | N5173BU-UZ2 | Not compatible with UNZ | Customer installable - software, licence key |
| Rack slide kit | 1CR012A | None | Hardware |
| Front handle kit | 1CN006A | None | Hardware |
| Rack mount flange kit | 1CM010A | None | Hardware |
| Rack mount flange kit with front handles | 1CP004A | None | Hardware |
| Front panel cover | N5173B-CVR | None | Hardware |

Related Literature

Keysight X-Series signal generators

| Publication title | Publication number |
|---|--------------------|
| EXG X-Series Signal Generator N5173B Microwave Analog - Data Sheet | 5991-3132EN |
| MXG X-Series Signal Generator N5183B Microwave Analog - Data Sheet | 5991-3131EN |
| PSG, MXG, and EXG Microwave Signal Generators - Flyer | 5991-3594EN |
| X-Series Signal Generators N5181B/N5171B Analog N5182B/N5172B Vector – Technical Overview | 5990-9957EN |



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