CONFIGURATION GUIDE

N5511A Phase Noise Test System (PNTS)



KEYSIGHT TECHNOLOGIES

Overview

The Keysight Technologies, Inc. N5511A Phase Noise Test System (PNTS) is the foundation of test setups that can measure down to kT (-177 dBm/Hz). Its flexible architecture lets you integrate exceptional reference sources—yours or ours—and confidently solve specific challenges faster. This configuration guide contains information to help you configure your N5511A Phase Noise Test System and create solutions that meet your requirements.



Configuring a specific phase noise test system

Using your Keysight sales representative and applications/support engineer, we configure specific solutions to meet your bench or ATE application. The following hardware and software components are selected depending on your measurement requirements.

Keysight N5511A bench or ATE phase noise test system

This step-by-step process will help you configure your N5511A Phase Noise Test System. Tailor the performance to meet your requirements.

Included in the base product

Standard options and accessories come with the N5511A base model at no additional charge and do not need to be ordered. They include:

- N5510A application software with all software features included
- Microwave power splitter 10 GHz – 40 GHz (for CH2)
- 2.9 mm, 50 Ohm cable assembly, 6 inches (for CH2)
- One day of on-site startup assistance
- USB keyboard
- USB mouse

Step 1. Choose frequency range		
Description	**Option Number**	**Additional Information**
Frequency range from 50 kHz to 40 GHz	N5511A-540	Measurement offset from carrier from 0.01 Hz to 160 MHz Includes 10 GHz – 40 GHz power splitter

Step 2. Choose number of channels		
Description	**Option Number**	**Additional Information**
Single channel	N5511A-CH1	
Dual channel	N5511A-CH2	Enables dual channel cross-correlation for sensitivity approaching kT (-177 dBm/Hz)

Step 3. Choose a low noise reference signal generator		
Description	**Option Number**	**Additional Information**
PSG analog/vector signal generator	E8257D/E8267D	Option UNY or HY2 recommended for best phase noise performance
PSG RF analog signal generator	E8663D	Option UNY or HY2 recommended for best phase noise performance
MXG X-Series RF analog/vector signal generator	N5181B/N5182B	Option UNY recommended for best phase noise performance
MXG X-Series microwave analog signal generator	N5183B	Option UNY recommended for best phase noise performance
EXG X-Series RF analog/vector signal generator	N5171B/N5172B	
EXG X-Series microwave analog signal generator	N5173B	

Step 4. Choose accessories		
Description	**Option Number**	**Additional Information**
Rack mount kit	Y1215C	

Step 5. Choose calibration options		
Description	**Option Number**	**Additional Information**
3-year calibration plan	R50C-011-3	Return to Keysight calibration plan
5-year calibration plan	R50C-011-5	Return to Keysight calibration plan
7-year calibration plan	R50C-011-7	Return to Keysight calibration plan
10-year calibration plan	R50C-011-10	Return to Keysight calibration plan

Step 6. Choose startup assistance service options		
Description	**Option Number**	**Additional Information**
Remote scheduled productivity assistance. Select 1 to 999 hours.	PS-S10	
Startup assistance, daily	PS-S20	
Custom services	PS-SX10	

Step 7. Choose warranty options		
Description	**Option Number**	**Additional Information**
Standard 1-year warranty	R-51B-001-C	Included in base model
Extend to 3-year warranty	R-51B-001-3C	
Extend to 5-year warranty	R-51B-001-5C	
Extend to 7-year warranty	R-51B-001-7C	
Extend to 10-year warranty	R-51B-001-10C	

Step 8. Choose KeysightCare options		
Description	**Option Number**	**Additional Information**
KeysightCare Assured First Year Support	R55A-001-1	Included in base model
Extend KeysightCare Assured to 2 years	R55A-001-2	Includes repair coverage
Extend KeysightCare Assured to 3 years	R55A-001-3	Includes repair coverage
Extend KeysightCare Assured to 5 years	R55A-001-5	Includes repair coverage

Instrument software control

The base N5511A system automatically includes all instrument control software including the firmware and N5510A application software with all software features included by default.

Learn more at: www.keysight.com

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

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