# Keysight N5510 Phase noise test system software

Software A.1.00.06.08 released 15-March-2023

Software A.1.00.06.06 released 26-October-2022

Software A.1.0.5.12 released 8-November-2021

Software A.1.0.5.2 released 7-May-2021

Software A.1.0.3.8 released 3-February-2020

Software A.1.0.2.3 released 09-September-2019

#### Software Version A.1.00.06.08

Released Date:	15 March 2023
Requirements category (e.g., operating system)	Microsoft Windows Embedded Standard, 64 bit
Requirements category (e.g., instrument software version)	CoreTM i7-4700EQ quad-core, 2.4 GHz processor Windows 10 Enterprise (WES 10) 64-bit Operating System
Requirements category (other):	Keysight IO libraries 18.1 Keysight Physics: 26.91.14 Keysight license manager: 5.5.1.81
File Name:	N5510_Full_Installer_1.00.06.08.exe

#### Software A.1.0.06.08 Enhancements

Model	Description
N5511A	Updated License Manager Software





# Software Version A.1.00.06.06

Released Date:	26 October 2022
Requirements category (e.g., operating system)	Microsoft Windows Embedded Standard, 64 bit
Requirements category (e.g., instrument software version)	CoreTM i7-4700EQ quad-core, 2.4 GHz processor Windows 10 Enterprise (WES 10) 64-bit Operating System
Requirements category (other):	Keysight IO libraries 18.1 Keysight Physics: 26.91.7 Keysight license manager: 5.3.1.7120
File Name:	N5510_Full_Installer_1.00.06.06.exe

#### **Software A.1.0.06.06 Enhancements**

Model	Description
N5511A	<ul> <li>Rename "Estimated Noise Floor" to "Uncorrelated System Noise"</li> <li>Show "Estimate Noise Floor" checkbox as default for "Type and Range" tab. Changed to "Show" by default.</li> <li>Changed the default wait time of Phase Shifter for dual to 100ms</li> <li>Added N5511A request for Marker access via SCPI. The following commands were added.  CALCulate:MARKer:DISPlay OFF ON 0 1  CALCulate:MARKer:CLEar command only  CALCulate:MARKer:ADD command only  CALCulate:MARKer:COUNt? query only  CALCulate:MARKer[1] 2 3 4 5 6 7 8 9:DELete command only  CALCulate:MARKer[1] 2 3 4 5 6 7 8 9:X <frequency>  CALCulate:MARKer[1] 2 3 4 5 6 7 8 9:Y? <amplitude> query only</amplitude></frequency></li> <li>New Data Converter FPGA</li> <li>Add channel sync alignment</li> </ul>

## Software A.1.0.06.06 Issues Resolved

Model	Description
	Fixed an issue that prevented values from updating when the
N5511A	<ul> <li>Up/Down key was pressed</li> <li>Fixed phase detector constant was wrong in residual +/- DC peak CAL with phase shifter, reading the voltmeter values</li> <li>Fixed the cross-correlation counts for that segment</li> <li>Fixed a crash issue when multiple lines of comments are input in Asset Manager</li> </ul>

 Fixed Segment data cutout issue with E5500 to get the resolution for each segment from the asset

### Software Version A.1.0.5.12

Released Date:	8 November 2021
Requirements category (e.g., operating system)	Microsoft Windows Embedded Standard, 64 bit
Requirements category (e.g., instrument software version)	CoreTM i7-4700EQ quad-core, 2.4 GHz processor Windows 10 Enterprise (WES 10) 64-bit Operating System
Requirements category (other):	Keysight IO libraries 18.1 Keysight Physics: 26.91.7 Keysight license manager: 5.3.1.7120
File Name:	N5510_Full_Installer_1.0.5.12.exe

### **Software A.1.0.5.12 Enhancements**

Model	Description
N5511A	<ul> <li>New color default</li> <li>Added the calculated value of Jitter as Trace Integration</li> <li>Added the SCPI command for "Screenshot"</li> <li>Added LNA gain value in the Parameter Summary</li> </ul>

### **Software A.1.0.5.12 Issues Resolved**

Model	Description
N5511A	<ul> <li>Improved the protection against power termination</li> <li>Fixed Channel 2 PLL suppression data is blank Fixed</li> <li>DISP:MEAS:TIME SCPI command doesn't work</li> <li>Fixed close-in phase noise issue based on sequence of measurements and VCO tune constant</li> <li>Fixed PLL suppression compensation issue</li> <li>Fixed progress bar</li> </ul>





## **Software Version A.1.0.5.2**

Released Date:	7 May 2021
Requirements category (e.g., operating system)	Microsoft Windows Embedded Standard, 64 bit
Requirements category (e.g., instrument software version)	CoreTM i7-4700EQ quad-core, 2.4 GHz processor Windows 10 Enterprise (WES 10) 64-bit Operating System
Requirements category (other):	Keysight IO libraries 18.1 Keysight Physics: 26.91.7 Keysight license manager: 5.3.1.7120
File Name:	N5510_Full_Installer_1.0.5.2.exe

#### **Software A.1.0.5.2 Enhancements**

Model	Description
N5511A	Improved the Show Hardware Information by formatting table
N5511A	Added SCPI commands for Fast Mode Resolution Bandwidth SENSe:RANGe:FFT:RBWPercent SENSe:RANGe:FFT:OVERlap SENSe:RANGe:FFT:WINDow      Add Display option to show the number of cross correlations per segment on the displayed plot     Add option to blank out measurement parameters for increased Security Level – Only displaying Center Frequency     Add Save Menu for Screenshot of Plot
	Add Allow User-Defined Delay before measurement starts

## **Software A.1.0.5.2 Issues Resolved**

Model Description	
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N5511A	<ul> <li>Fixed the 2.x dB drop at 40 MHz offset frequency when number of cross correlations for segment 15 goes above 2147483647</li> <li>Fixed the Progress Bar not cleared properly at start of new measurement intermittently</li> <li>Fix the Double clicking of PNX file didn't load the data</li> <li>Fix Flexible Mode First Segment Alignment problem – The closest-in offset would show a discontinuity in Flexible Mode</li> <li>Fix the Custom Segment Tables Results problem – Select sets of segment start/stop table would causes the trace to display unexpected behavior of the noise floor</li> <li>Fix Detected Spur Value issue when trace smoothing is applied</li> </ul>
N5511A	Add the Missing SCPI commands for Channel#2  SOURce:REFerence1:POWer[:LEVel AMPLitude]  SOURce:REF1:POWer[:LEVel AMPLitude]  SOURce:REFerence2:POWer[:LEVel AMPLitude]  SOURce:REF2:POWer[:LEVel AMPLitude]  SYSTem:ASSet:COUNter[1] 2 <asset_name>  SYSTem:ASSet:SLAVe:SOURce[1] 2 <asset_name></asset_name></asset_name>

# Software Version A.1.0.3.8

Released Date:	3 February 2020
Requirements category (e.g., operating system)	Microsoft Windows Embedded Standard, 64 bit
Requirements category (e.g., instrument software version)	CoreTM i7-4700EQ quad-core, 2.4 GHz processor Windows 10 Enterprise (WES 10) 64-bit Operating System
Requirements category (other):	Keysight IO libraries 18.1
File Name:	N5510_Full_Installer_1.0.3.8.exe
Released Date:	3 February 2020





### **Software A.1.0.3.8 Enhancements**

Model	Description
N5511A	<ul> <li>Added Measurement time estimate indication</li> <li>Added Measurement Status indication</li> </ul>
N5511A	gray out UI feature parameters that are not applicable to current measurement
N5511A	Added Self-test functionality
N5511A	Add Support for 26.5 and 3 GHz version of the phase detector modules

### **Software A.1.0.3.8 Issues Resolved**

Model	Description	
N5511A	View spur function OFF/ON – did not redraw graph correctly. The redrawing of the graph with view spur function is updated in this release.	

# (Initial) Software Version A.1.0.2.3

Released Date:	09 September 2019
Requirements category (e.g., operating system)	Microsoft Windows Embedded Standard, 64 bit
Requirements category (e.g., instrument software version)	CoreTM i7-4700EQ quad-core, 2.4 GHz processor Windows 10 Enterprise (WES 10) 64-bit Operating System
Requirements category (other):	Keysight IO libraries 18.1
File Name:	N5510_Full_Installer_1.0.2.3.exe
Released Date:	09 September 2019

Initial Release for N5511A, Keysight Phase noise test system



