

Keysight Technologies

5 Reasons to Buy the X-Series NFA



Performing accurate noise figure measurements start with a solid understanding of the uncertainty contributors - your components, subsystems and test equipment. The NFA X-Series noise figure analyzers are the simple way to make fast, accurate and repeatable noise figure measurements up to 40 GHz. With built-in expertise, ease of use features and best-in-class USB preamplifier, our NFAs help you set up complex measurements simply and easily providing you with repeatable and reliable results you can trust while minimizing the overall uncertainty for your noise figure measurement challenges.

Automation Saves You Valuable Time and Improves Accuracy

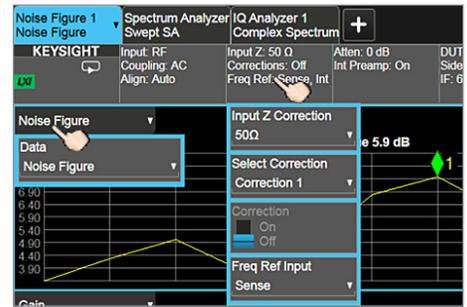
When paired with a SNS Series noise source and U7227 Series USB preamplifier, the X-Series NFA automatically loads ENR data and compensates for gain and temperature fluctuations. Additionally, the various fields of the noise figure uncertainty calculator are pre-populated with this data and all other known uncertainties. The net result is a decreased opportunity for user error and dependable measurement accuracy, regardless of your specific measurement challenge.



Unlocking Measurement Insights

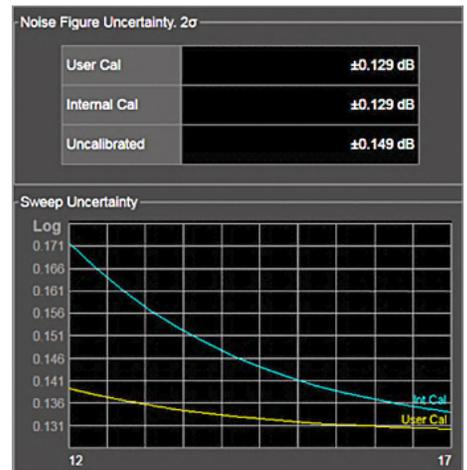
A modern multi-touch interface to streamline your measurement setup

The X-Series NFA comes complete with an improved multi-touch interface, including tabs, a customizable user menu, and gestures. Rather than awkwardly navigating menus to find the option you are looking for, most of the options can be accessed with the tap of a finger, and without changing screens. Many of the frequently used settings can be modified in the Measurement Bar near the top, in the Annotation Hotspot near the bottom, or by interacting with the selected trace using intuitive gestures (stretch, pinch, drag, etc.).



Easy calibration for advanced measurements

For each additional device you need to test, traditionally two more connections are required for Y-factor noise figure measurements: another calibration, and another measurement. The NFA speeds up this process by allowing you to combine several calibrations into a single step. The NFA also gives you the option to bypass the normal calibration and utilize the internal calibration instead, without significantly affecting measurement accuracy. If calibration times are impeding you from making rapid measurements, the X-Series NFA is your solution.



Accurate estimations of measurement uncertainty

The NFA comes with a built-in noise figure uncertainty calculator, which gives the user a dependable uncertainty reading for a specified setup. As mentioned before, the uncertainty calculator is pre-populated with data from the external USB pre-amp, the smart noise source, and the instrument itself. The calculator also gives some flexibility over the choice of distribution and spec style for the DUT's characteristics. These combined characteristics give you the advantage of knowing your measurement uncertainty and how to reduce it.

Move beyond noise figure

Though the X-Series NFA is first and foremost a dedicated noise figure platform, it is also preconfigured with multiple performance spectrum analysis options to give you an extra edge in measurement flexibility. In addition to the noise figure measurement app, the NFA comes standard with enhanced phase noise, precision frequency reference, and fine resolution step attenuator for use in applications beyond standard noise figure measurements.

Download application notes, watch webcasts and videos

Learn more about the X-Series NFA and Keysight's noise figure solutions:

www.keysight.com/find/nfa
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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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