

Keysight Technologies

PNA and PNA-X Series Vector Network Analyzers Option 090 Spectrum Analyzer

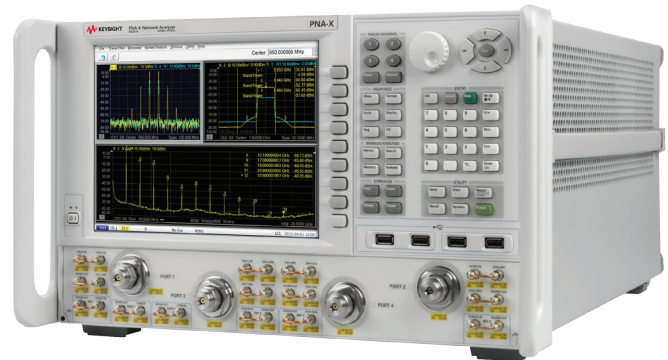
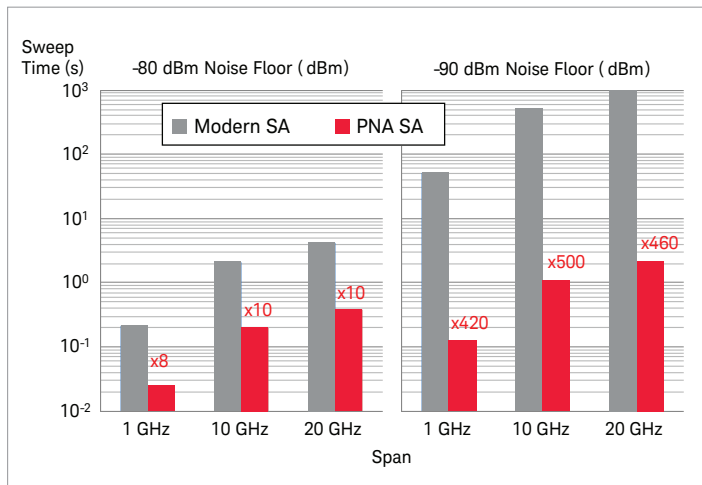
Product Fact Sheet

Component test spectrum analysis challenges

- Measuring spurious performance is time consuming, especially when searching for low-level spurs over a broad frequency range
- Long measurement times may force insufficient test coverage
- Characterizing spurs over an operating range of the DUT is tedious to accomplish or requires external control software

Fast spur search over wide frequency ranges, up to 67 GHz

The spectrum analyzer option adds a fast spur search capability to the PNA and PNA-X Series, replacing a standalone spectrum analyzer and switch matrix in component-characterization test systems.



Fast multi-channel spectrum analyzer for component characterization

Simultaneous multi-channel spectrum analyzer measurements

Having spectrum analyzers on all ports of a mixer or converter provides unparalleled insight into the performance of the device. With a single set of connections, the spurious content emanating from all ports is readily apparent during operation with fixed or swept stimuli. Simultaneous measurements may include:

- RF input
- RF reflection
- RF feed-through
- RF harmonics
- LO reflection
- LO feed-through
- LO harmonics
- IF output
- High-/sub-order mixing spurs



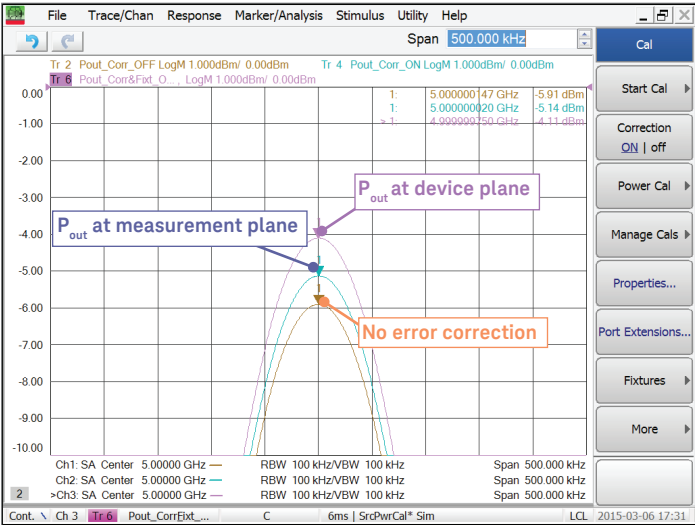
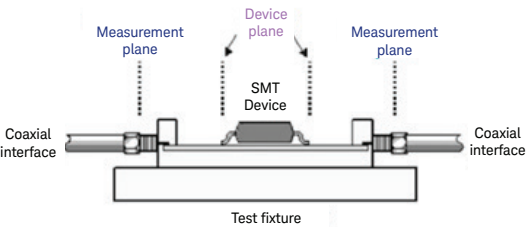
Unlocking Measurement Insights

PNA spectrum analyzer (SA) option provides

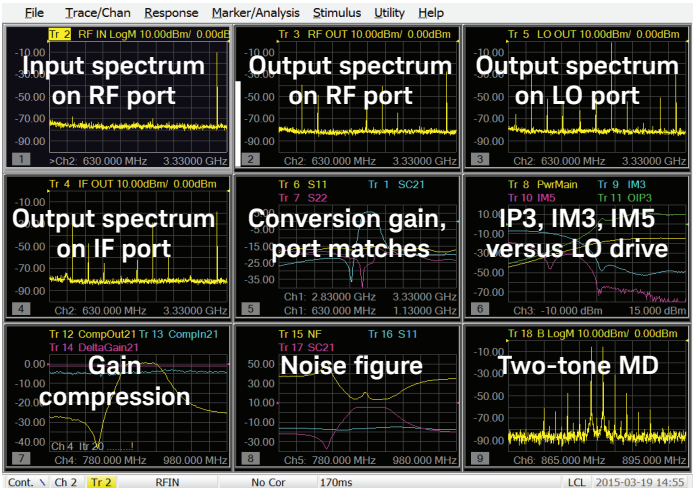
Option features	Your benefit
Fast spur search over wide frequency ranges, up to 67 GHz	Improve test time by a factor of 10 to 500 times
Measure spurious signals simultaneously from all ports	Get unparalleled insight with multi-channel SA capability
Marker-to-SA capability creates spectrum display with the same stimulus conditions	Identify interfering spurious signals quickly
Use VNA calibration and de-embedding techniques for improved SA measurements	Unlock true device performance by removing cable and fixture effects
Fast band/noise power measurements on multiple markers/traces/channels	Obtain convenient channel power and spurious emission measurements with complex stimulus on components
Enhanced single-connection, multiple-measurements (SCMM)	Eliminate the need for an independent spectrum analyzer

Unlock true performance with vector network analyzer (VNA) calibration

VNA calibration and fixture de-embedding removes cable and fixture effects and corrects receiver response errors; providing calibrated in-fixture/on-wafer spectrum analysis. Deliver a known stimulus power to the DUT by using the power-compensation feature to overcome the loss of the fixture or probes.



Simplify test stations with an expanded single-connection, multiple-measurement capability



PNA series Option 090 overview

Description	Performance information
Sweep time	< 1 sec (10 GHz span, S/N: -100 dBc) < 1.2 sec (67 GHz span, 300 kHz RBW)
DANL at test port	-138 dBm/Hz at 3.2 to 8 GHz (N5242A, spec.) -116 dBm/Hz at 50 to 67 GHz (N5247A, spec.)
TOI	>20 dBm at 500 MHz to 5 GHz (all models)
Required	Option 080 FOM, Win 7, DSP 5
Recommended	Test set option to include receiver attenuators PNA series: Option 217, 219, 417 or 419 PNA-X series: Option 219, 419, H85/285, or H85/485
Upgrade	N522xAU-090, N524xAU-090

myKeysight

myKeysight

Keysight Infoline

www.keysight.com/find/mykeysight
A personalized view into the information most relevant to you.

www.keysight.com/find/service
Keysight's insight to best in class information management. Free access to your Keysight equipment company reports and e-library.

www.keysight.com/find/pna-sa
USA: (800) 829-4444

This information is subject to change without notice.
© Keysight Technologies 2015
Published in USA, July 22, 2015
5992-0752EN
www.keysight.com