

Keysight Technologies

PNA and PNA-X Series Vector Network Analyzers

Option 093 Spectrum Analyzer Up to 110 GHz

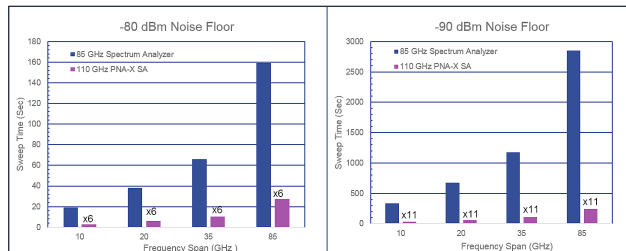
Option 094 Spectrum Analyzer Beyond 110 GHz

Gain deeper insights into your device's behavior

- Fast spur search and spectrum monitoring in wide frequency range
- Combined vector network analyzer (VNA) and multi-channel spectrum analyzer (SA) for characterizing devices with a single connection
- Fully calibrated millimeter-wave spectrum analysis

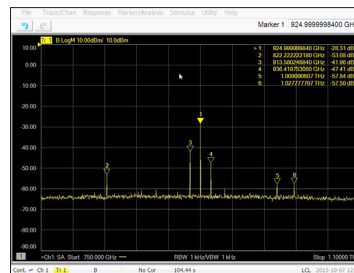
Fast spur search Up to terahertz frequencies

The spectrum analyzer option adds a fast spur search capability to the PNA and PNA-X Series, replacing a standalone spectrum analyzer.



PNA series Option 093/094 overview

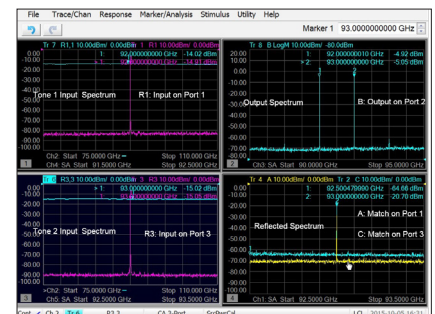
Description	Performance Information
Sweep speed	Typically < 6 sec for a span: 75 to 110 GHz with S/N: -80 dBc
DANL at test port	-123 dBm/Hz at 75 to 110 GHz -106 dBm/Hz at 500 to 750 GHz
Required	Option 090 SA, 080 FOM, Win 7, DSP 5
Recommended	External receiver attenuators for high power applications above +6 to 10 dBm
Availability	PNA and PNA-X Series
Upgrade	N522xAU-093/094, N524xAU-093/094



Simultaneous multi-channel spectrum analyzer measurements

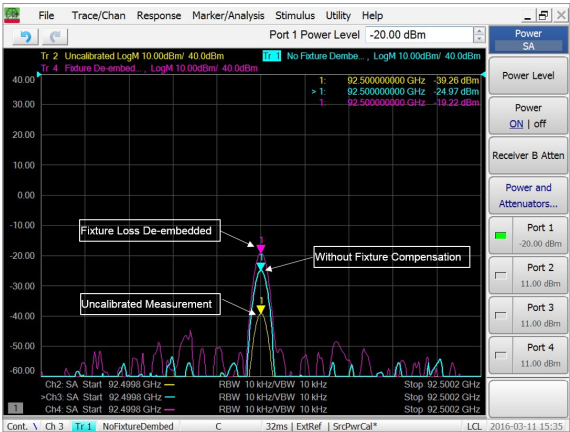
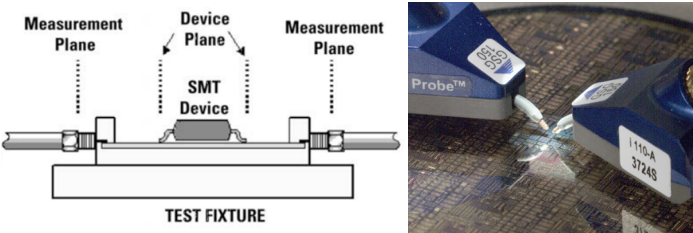
Having spectrum analyzers on multiple ports of a device provides unparalleled insight into the performance of the device. With a single set of connections, the spurious content emanating from all ports is readily apparent during operation with fixed or swept stimuli. Simultaneous measurements may include:

- Input spectra
- Output spectra
- Transmissions and reflections
- Signal leakage/isolation
- Harmonic distortion
- Intermodulation and mixing products
- Channel power



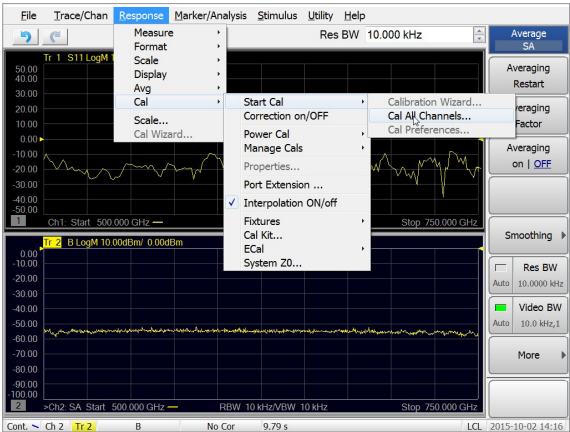
Unlock true performance with VNA calibration

VNA calibration and fixture de-embedding removes cable and fixture effects and corrects receiver response errors; providing calibrated in-fixture 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.



Easily calibrate all capabilities at once

The new “Cal All Channels” feature with the millimeter wave SA option provides a source power calibration, VNA calibration and SA calibration that enable an integrated system for measurement of device performance across the frequency range.



PNA spectrum analyzer option provides:

Open Features	Your Benefit
Easily add spectrum analysis capability to existing VNA up to terahertz frequencies	Single connection capability that eliminates need for standalone SA
Marker-to-SA capability creates spectrum display with the same stimulus conditions	Identify interfering signals quickly
Simultaneous SA measurements at all ports	Get unparalleled insight with multi-channel SA capability
Fast spur searching up to terahertz frequencies	Quickly search broad frequency ranges
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