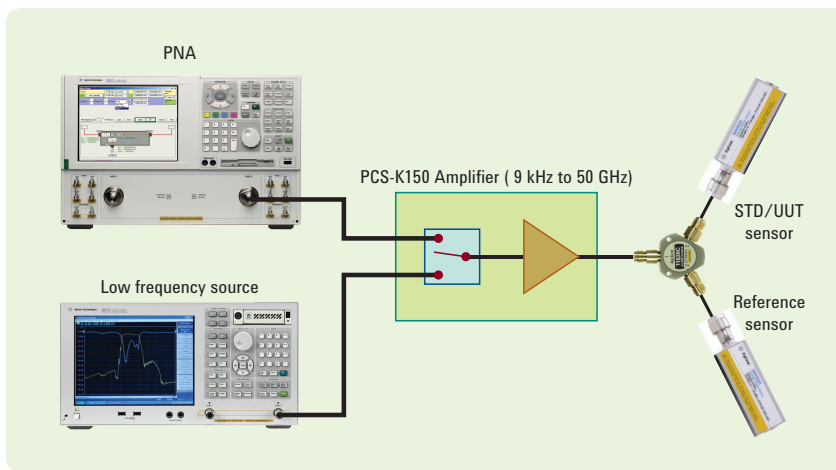


Power Sensor Calibration

Agilent Technologies and Cal Lab Solutions

Software simplifies the comprehensive calibration of your power sensors



RF power sensors require periodic calibration to maintain their accuracy and reliability. A complete calibration of a power sensor is a complex process, requiring frequency response, reflection and linearity all to be verified and/or adjusted.

The measurement of reflection is important because if the power that is reflected from the power sensor back to the source is too large it could potentially damage the signal source or amplifier. The measurement of linearity is important in order to compensate for the non-linear response of a sensor at higher RF power levels.

PS-Cal, from Cal Lab Solutions, is designed to simplify the calibration



process while incorporating all of the tests required for complete power sensor calibration. PS-Cal is Windows® based, easy to use and customizable. It uses templates to standardize your calibration routines. You can specify test points, test methods and standards and save these as a template for future use. High volume labs can use the batch mode feature, allowing them to calibrate several sensors at one time, saving time and money.

PCS-50 Calibration Solution

The PS-Cal software is an integral part of the PCS-50 turnkey calibration solution. The PCS-50 can be used to calibrate power sensors, attenuators, power splitters and directional couplers. The system is designed around instrumentation from Agilent Technologies and includes Agilent E5071C ENA and N5230C PNA network analyzers and E4418/9 power meters. It is delivered complete with all the standards, cables, connectors and software to perform NIST traceable Z540/17025 accredited calibrations.

The system is designed to calibrate more devices with less hardware, which decreases dramatically the overall cost of ownership. With a frequency range of 9 kHz to 50 GHz and the ability to measure all parameters of interest, including reflection, linearity, S-parameters and frequency response, the PCS-50 provides a comprehensive turnkey solution to all of your calibration needs.



Power Sensor Calibration

PS-Cal is the only power sensor calibration package supporting power sensors from 9 kHz to 50 GHz complete with 17025 measurement uncertainties. PS-Cal can be used to calibrate all power sensors from Agilent Technologies including the 848x, 117xxA, EPC & E441xA, E930xx, E932xA, N192xA and N848xA series. The software can be used with a variety of Agilent

Technologies instrumentation including the ENA and PNA network analyzers.

Cal Lab's PS-Cal software and Agilent's instrumentation simplify your calibration process while allowing you to make all of the measurements necessary to ensure the accuracy and reliability of your power sensors.

www.agilent.com

For more information on Agilent Technologies' products, applications or services, please contact your local Agilent office. The complete list is available at:

www.agilent.com/find/contactus.

Cal Lab Solutions

Fusing Software with Metrology

Cal Lab Solutions is a metrology based software engineering company that develops both customized and off-the-shelf metrology solutions for companies around the world.

www.callabsolutions.com

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5990-7743EN

Configure the station – loading cal files and zero/calibrate the standard sensor

Test the DUT sensor

Scale the calfactor

Current test

Program status

Test points

UUT being tested

Halt the test

Parameters

Test details

Frequency	CalFactor	Uncertainty	OnLabel	DUT_Power	STD_Power
10,000,000	--	--	Yes	--	--
30,000,000	--	--	Yes	--	--
50,000,000	--	--	Yes	--	--
100,000,000	--	--	Yes	--	--
300,000,000	--	--	Yes	--	--
500,000,000	--	--	Yes	--	--
800,000,000	--	--	Yes	--	--
1,000,000,000	--	--	Yes	--	--
1,200,000,000	--	--	Yes	--	--
1,500,000,000	--	--	Yes	--	--
2,000,000,000	--	--	Yes	--	--

Major test group/steps

Work order

UUT – 1

UUT – 2

UUT details

Test details

Calibration template loaded

UUT Header

Manufacturer: HP/Agilent
Model Number: E4413A
Description: E-Series Power Sensor
Serial Number: T234A12345
Asset Number: DUT-2
Options:

Calibration Header

Job #: T234-001
Cal Date: 09/02/2008
Cal Tech: Tech1
Status: PASS
Cal Type: FoundLab

Ordering Information

Agilent Technologies

ENA
PNA

RF network analyzers
Microwave network analyzer

Cal Lab Solutions

PS-Cal
PCS-K150

Power sensor calibration software
Amplifier



Agilent Technologies