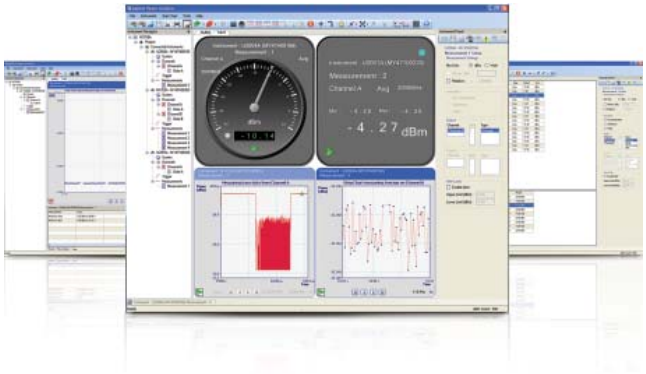
Agilent N1918A Power Analysis Manager

Data Sheet



The N1918A Power Analysis Manager software is a powerful application software that complements the U2000 Series USB power sensors, and enhances capabilities of the N1911A/2A and N8262A P-Series power meters. There are two versions of the software: the basic Power Panel and advanced Power Analyzer.

Features

- Enhanced viewing on large PC display
- Intuitive GUI for easy navigation to functions
- Multiple flexible display formats
- List view of more than 20 channels, plus measurement math results
- Min/Max measurements
- Limit and alert settings[1]
- Save/Load time-stamped measurement data
- 15-point pulse characterization[2]
- Overlay and waveform math[2]
- CCDF graph display and analysis[2]
- Remote instrument screen capture[2]
- Convenient sharing of software license with USB dongle option (N1918A-200)

1. *Power Analyzer version*
2. *Applies to usage with P-Series power meters, Power Analyzer version*

Easy monitoring and analysis

Viewing on a PC screen helps you monitor measurements better. Enhancing features include multiple display formats and list view of multiple devices. The software's intuitive and user-friendly user interface helps you navigate to the functions you need quickly, easily.

Analyze power signals better with the software's wide range of functions, from the basic Min/Max and measurement math to the advanced CCDF[2] and pulse characterization[2].

What's more, your saved measurement results are time-stamped for easier troubleshooting.

Easy license sharing amongst the team

The USB dongle license (N1918A-200) enables the transfer of software license from one PC platform to another. This makes it easier for the sharing of license amongst multiple users in the team as they can conveniently run the Power Analyzer software on their respective PCs or laptops.

USB dongle eases the sharing of software license between multiple PC platforms

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Power Panel and Power Analyzer Comparison Table

Power Panel comes bundled with the instruments while a free, fully functional trial version of the Power Analyzer automatically runs for 30 days upon installation from the bundled CD. Power Analyzer's licenses, N1918A-100 and N1918A-200, are available for purchase separately.

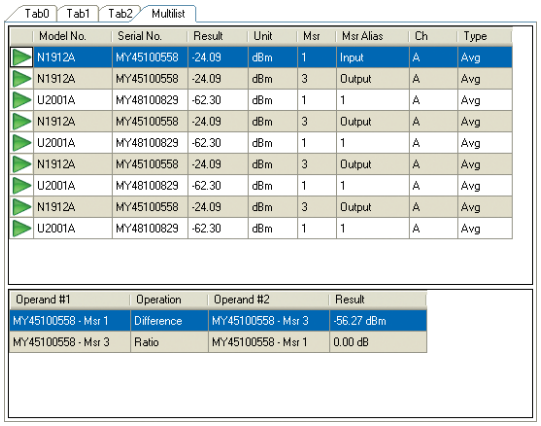
	Power Panel (basic)	Power Analyzer (advanced)
Measurement displays		
Soft panel (digital) display	✓	✓ Enhanced with limits and alerts
Gauge (analog) display	✓	✓ Enhanced with limits and alerts
Strip chart display	✓	✓
Trace graph display	✓[3]	✓
Multiple tabs	✗	✓
Multiple displays per tab	✓	✓
Multilist (List view of multiple channels)	✓	✓
Compact mode display	✓	✓ Applies to soft panel, gauge and strip chart
Graph functions		
Single marker	✓ Up to 2 markers per graph	✓ Up to 10 markers per graph
Dual marker	✓[3]	✓ Up to 5 sets of markers per graph
Graph autoscaling	✓	✓
Graph zooming	✓	✓
Measurement math	✓ Delta, Ratio	✓ Delta, Ratio
Pulse characterization functions[1]		
15-point pulse characterization	✗	✓
Gate measurement analysis	✗	✓ 4 per trace graph
Overlay graph	✗	✓
Waveform math	✗	✓ Delta, Sum, Ratio
Statistical analysis function[1]		
CCDF graph display	✗	✓
Save/Load file functions		
Save/Load project configuration	✓	✓
Save measurement data (with timestamp)	✓ Applies to strip chart displays; up to 10,000 data points	✓ Applies to strip chart, trace graph and CCDF graph displays
Load measurement data	✓ Applies to strip chart displays	✓ Applies to strip chart, trace graph and CCDF graph displays
Data recording[2] (with timestamp)	✗	✓ Applies to soft panel, gauge, strip chart and trace graph[1] displays
Save instrument screen image[1]	✓	✓
Limit and alert functions		
Limit and alert notifications	✗	✓
Alert summary	✗	✓
Instrument setting options		
Save/Restore instrument settings	✓	✓
Timed-gated measurements	✓	✓
Instrument preset settings	✓	✓
FDO table parameters	✓	✓
Supporting function		
Print application screen	✓	✓

1. *Applies to usage with P-Series power meters*
2. *Recording time for trace graphs may vary based on trace graph settings*
3. *Applies to usage with U2000 Series sensors*

Various Display Types and Functions

Soft panel display

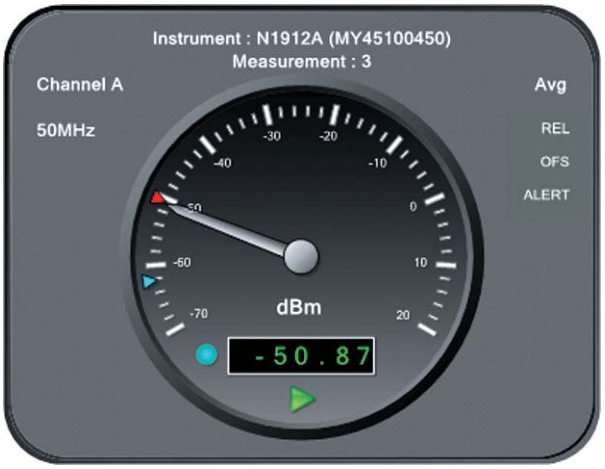
Multilist and multiple tabs



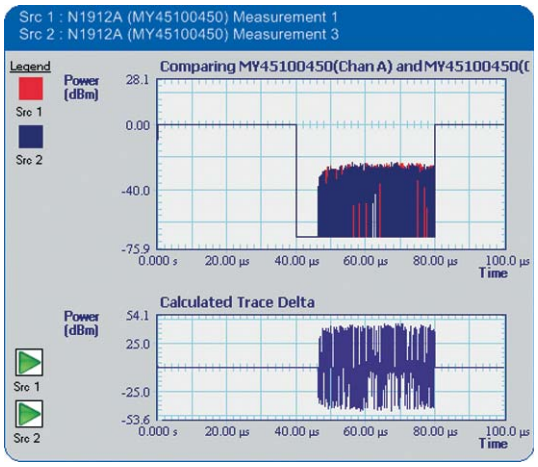
Model No.	Serial No.	Result	Unit	Msr	Msr Alias	Ch	Type
N1912A	MY45100558	-24.09	dBm	1	Input	A	Avg
N1912A	MY45100558	-24.09	dBm	3	Output	A	Avg
U2001A	MY48100829	-62.30	dBm	1	1	A	Avg
N1912A	MY45100558	-24.09	dBm	3	Output	A	Avg
U2001A	MY48100829	-62.30	dBm	1	1	A	Avg
N1912A	MY45100558	-24.09	dBm	3	Output	A	Avg
U2001A	MY48100829	-62.30	dBm	1	1	A	Avg
N1912A	MY45100558	-24.09	dBm	3	Output	A	Avg
U2001A	MY48100829	-62.30	dBm	1	1	A	Avg

Operand #1	Operation	Operand #2	Result
MY45100558 - Msr 1	Difference	MY45100558 - Msr 3	-56.27 dBm
MY45100558 - Msr 3	Ratio	MY45100558 - Msr 1	0.00 dB

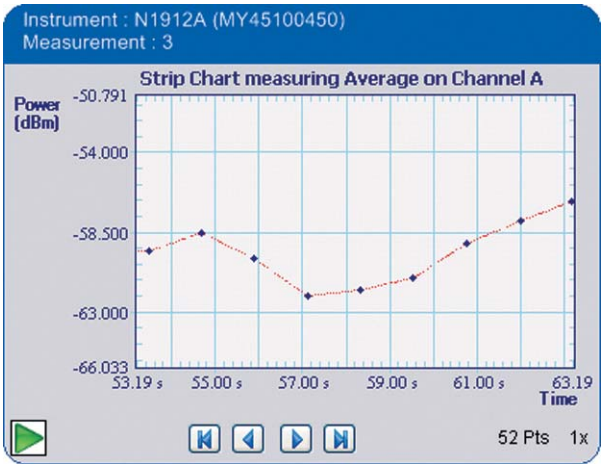
Gauge display



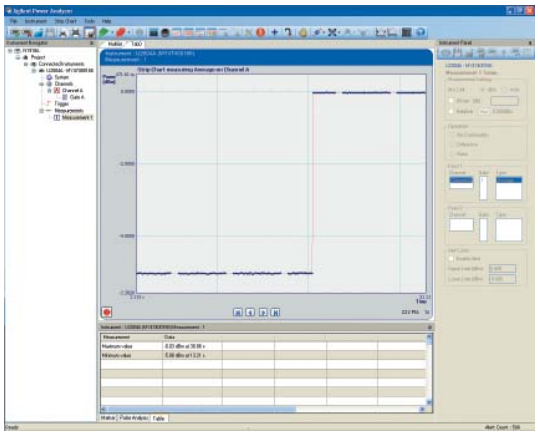
Overlay graph and waveform math



Strip chart display

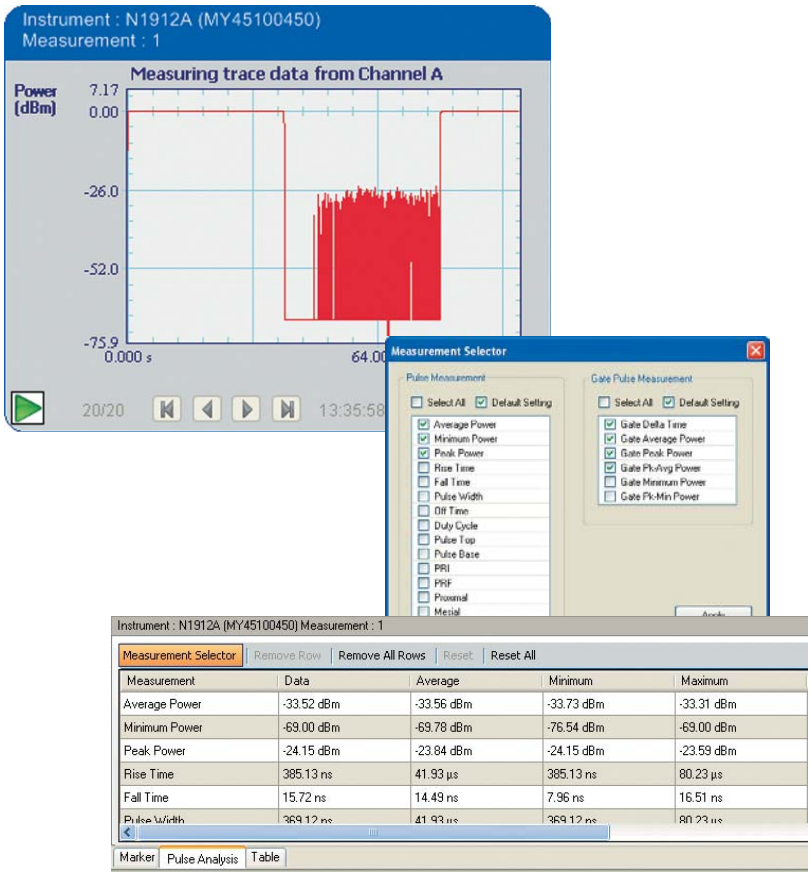


Data recording, limit and alerts, and Min/Max readings

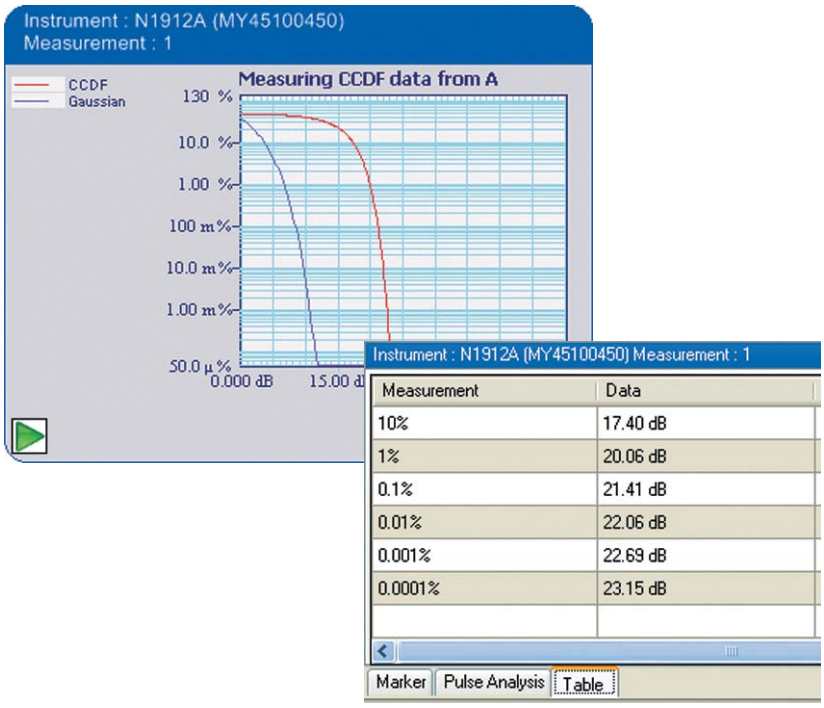


Various Display Types and Functions (continued)

Trace graph display and 15-point pulse characterization functions



CCDF graph and analysis



Various Display Types and Functions (continued)

Sample of four displays per tab on Power Analyzer

Sample of two displays per tab on Power Panel

Other Software Attributes

Range: Sensor-dependent, configurable in 1-kHz steps.

Relative: Displays all successive measurements relative to the last referenced value.

Offset: Allows power measurements to be offset by –100 dB to +100 dB, configurable in 0.001 dB increments, to compensate for external loss or gain.

Limits: High and low limits can be set in the range between –150.00 dBm to +230.000 dBm, in 0.001 dBm increments.

Preset default values: Channel Offset (dB) = 0, Duty Cycle Off, Frequency 50 MHz, AUTO Average, AUTO Range, Free Run Mode, dBm mode.

Zero[1]: For performing internal and external zeroing.

Duty cycle[1]: Duty cycle values between 0.001% to 99.999% can be entered in increments of 0.001% to display a pulse power representation of measured power. The following equation is used to calculate the displayed pulse power value:

Pulse Power =
Measured Power/Duty Cycle

Display units:
Absolute: Watts or dBm
Relative: Percent or dB

Display resolution: Resolution of 1.0, 0.1, 0.01 and 0.001 dB in log mode; one to four digits in linear mode.

Default resolution: 0.01 dB in log mode; three digits in linear mode.

1. *Applies to usage with U2000 Series sensors*

System Requirements

Hardware	
Processor	**Desktop PC:** 1.3 GHz Pentium® IV or higher recommended **Laptop PC:** 900 MHz Pentium M or higher recommended
RAM	512 MB (1.0 GB or higher recommended)
Hard disk space	1.0 GB free disk space at runtime
Video	800 x 600 screen resolution (1280 x 1024 recommended)
Operating system and browser	
Operating system	Windows® XP Professional 32-bit Service Pack 2 or later[1], Windows Vista 32-bit, Window 7 32-bit[1], Window 7 64-bit
Browser	Microsoft® Internet Explorer 5.1 (6.0 or later recommended)
Software	
Agilent IO Libraries Suite[4]	Version 15.5[2] or later
Microsoft .NET Framework	Runtime version 2.0[3]
Microsoft Visual C++ 2005 Runtime Libraries	Version 1.0[3] or later

1. *Supports USB License Key only*
2. *Available on the Agilent Automation-Ready CD*
3. *Bundled with N1918A Power Analysis Manager installer CD*
4. *Agilent IO Libraries Suite 15.5 is required if PC is running on Microsoft Windows Vista 32-bit operating system*

Ordering Information

Code	Description
N1918A-100, N1918A-200	Items shipped as standard with each N1918A Power Analysis Manager CD: • N1918A Power Analysis Manager Installation Guide • Agilent Automation-Ready CD (contains Agilent IO Libraries Suite)

Related Agilent Literature

Publication title	Pub number
Agilent N1918A Power Analysis Manager Technical Overview	5989-6613EN
Agilent U2000 Series USB Power Sensors Demo Guide	5989-6280EN
Agilent U2000 Series USB Power Sensors Data Sheet	5989-6278EN
Agilent N8262A P-Series Modular Power Meter Data Sheet	5989-6605EN
Agilent N1911A/N1912A P-Series Power Meters Data Sheet	5989-2471EN
Agilent P-Series Power Meter and Sensor Technical Overview	5989-1049EN
Agilent P-Series Power Meter and Power Sensor Configuration Guide	5989-1252EN
Compatibility of the U2000 Series USB Power Sensors with Agilent Instruments Application Note	5989-8743EN
Innovative Applications for an RF/microwave USB Power Meter or Sensor and Power Analysis Manager Software Application Note	5989-7268EN

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