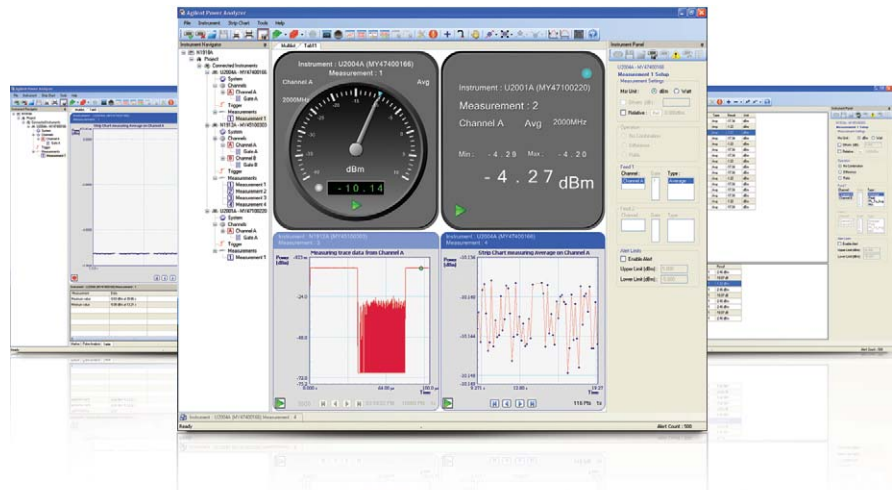


# Agilent N1918A Power Analysis Manager

## Data Sheet

### 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<sup>1</sup>
- Data recording up to 7 days<sup>1</sup>
- Save/Load time-stamped measurement data
- 15-point pulse characterization<sup>2</sup>
- Overlay and waveform math<sup>2</sup>
- CCDF graph display and analysis<sup>2</sup>
- Remote instrument screen capture<sup>2</sup>



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. Power Panel comes bundled with the instruments while a free, fully functional trial version of the Power Analyzer is accessible for 30 days upon installation from the bundled CD. Power Analyzer's license, N1918A-Option 100, is available for purchase separately.

### Easy navigation

The software's intuitive and user-friendly user interface helps you navigate to the functions you need quickly, easily.

### Easy monitoring

Viewing on a PC screen helps you monitor measurements better. Further enhancing features include multiple display formats and list view of multiple devices.

### Easy analysis

Study your signals better with functions such as Min/Max measurements, limit and alert notifications<sup>1</sup>, measurement math, graph markers and gates. Advanced analysis of pulse signals can also be done with CCDF<sup>2</sup> and pulse characterization<sup>2</sup> functions. What's more: your saved measurement data is time-stamped for easier troubleshooting.

### Easy remote control<sup>3</sup>

The N1918A gives you the flexibility to perform remote preset settings and instrument screen capture (N1911A/2A models) of the P-Series power meters.

1. Power Analyzer version

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

3. Applies to usage with P-Series power meters



# Power Panel and Power Analyzer comparison table

|   | Power Panel (basic)   | Power Analyzer (advanced)  |
|---|---|--|
| <b>Measurement display functions</b>  |   |  |
| Soft panel (digital) display  | ✓   | ✓ Enhanced with limit and alert notifications  |
| Gauge (analog) display  | ✓   | ✓ Enhanced with limit and alert notifications  |
| Strip chart display   | ✓   | ✓  |
| Trace graph display <sup>1</sup>  | ✗   | ✓  |
| Multiple tabs   | ✗   | ✓  |
| Multiple displays per tab   | ✓ Up to 2 displays  | ✓ Up to 3 displays with U2000 Series; Up to 4 displays with P-Series   |
| Multilist<br>(List view of multiple channels)   | ✓   | ✓  |
| <b>Graph functions</b>  |   |  |
| Single marker   | ✓ Up to 2 markers per graph                                 | ✓ Up to 10 markers per graph   |
| Dual marker   | ✗   | ✓ Up to 5 sets of markers per graph  |
| Graph autoscaling   | ✓   | ✓  |
| Graph zooming   | ✓   | ✓  |
| Measurement math  | ✓ Delta and ratio   | ✓ Delta and ratio  |
| <b>Pulse characterization functions<sup>1</sup></b>   |   |  |
| 15-point pulse characterization   | ✗   | ✓  |
| Gate measurement analysis   | ✗   | ✓ 4 per trace graph  |
| Overlay graph   | ✗   | ✓  |
| Waveform math   | ✗   | ✓ Delta, sum and ratio   |
| Trigger level indicator   | ✗   | ✓ Applies to trace graph display   |
| <b>Statistical analysis function<sup>1</sup></b>  |   |  |
| CCDF graph display  | ✗   | ✓  |
| <b>Save/Load file functions</b>   |   |  |
| Save measurement data<br>(with timestamp)   | ✓ Applies to strip chart displays; up to 10,000 data points | ✓ Applies to strip chart, trace graph <sup>1</sup> and CCDF graph <sup>1</sup> displays                      |
| Load measurement data   | ✓ Applies to strip chart displays                           | ✓ Applies to strip chart, trace graph <sup>1</sup> and CCDF graph <sup>1</sup> displays                      |
| Data recording<br>(with timestamp)  | ✗   | ✓ Applies to soft panel, gauge, strip chart and trace graph <sup>1</sup> displays; up to 7 days <sup>2</sup> |
| Save instrument screen image <sup>1</sup>   | ✓   | ✓  |
| <b>Limit and alert functions</b>  |   |  |
| Limit and alert notifications   | ✗   | ✓  |
| Alert summary   | ✗   | ✓  |
| <b>Instrument setting options</b>   |   |  |
| Save/Restore instrument settings  | ✓   | ✓  |
| Gate settings   | ✓   | ✓  |
| FDO table parameters  | ✓   | ✓  |
| Wireless preset settings <sup>1</sup> (eg. GSM, EDGE, cdma2000®, W-CDMA, Radar, Bluetooth®) | ✓   | ✓  |
| <b>Print option</b>   |   |  |
| 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

# Various display types and functions

## Soft panel display



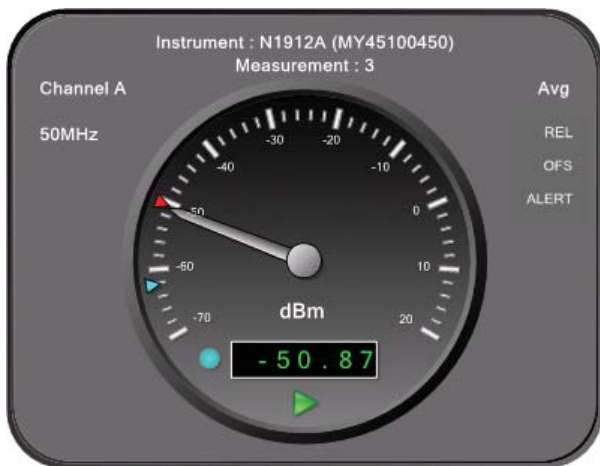
## Multilist and multiple tabs

| Model No. | Serial No. | MsrID | Channel | Type | Result | Unit |
|-----------|------------|-------|---------|------|--------|------|
| N1912A    | MY45101047 | 1     | A       | Avg  | -40.04 | dBm  |
| N1912A    | MY45101047 | 3     | A       | Avg  | -40.04 | dBm  |
| U2002A    | MY47200158 | 1     | A       | Avg  | -62.26 | dBm  |
| N1912A    | MY45101047 | 3     | A       | Avg  | -40.04 | dBm  |
| U2002A    | MY47200158 | 1     | A       | Avg  | -62.26 | dBm  |
| N1912A    | MY45101047 | 3     | A       | Avg  | -40.04 | dBm  |
| U2002A    | MY47200158 | 1     | A       | Avg  | -62.26 | dBm  |
| N1912A    | MY45101047 | 3     | A       | Avg  | -40.04 | dBm  |
| U2002A    | MY47200158 | 1     | A       | Avg  | -62.26 | dBm  |

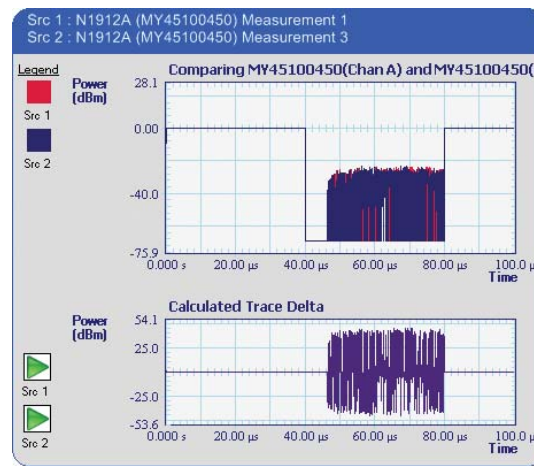
  

| Operand #1         | Operation  | Operand #2         | Result     |
|--------------------|------------|--------------------|------------|
| MY45101047 - Msr 1 | Difference | MY45101047 - Msr 3 | -70.86 dBm |
| MY45101047 - Msr 3 | Ratio      | MY45101047 - Msr 1 | 0.00 dB    |
| MY45101047 - Msr 1 | Difference | MY45101047 - Msr 3 | -70.86 dBm |

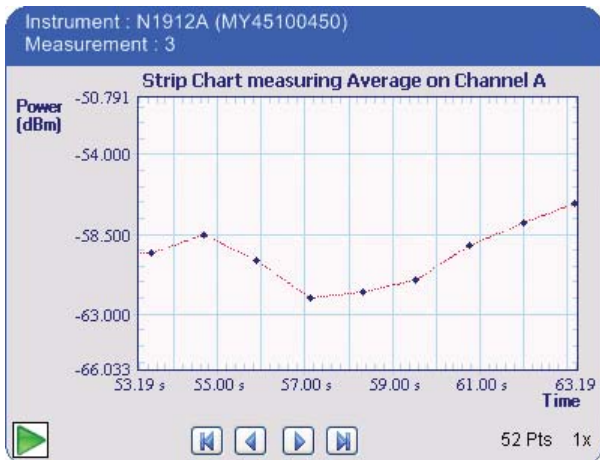
## Gauge display



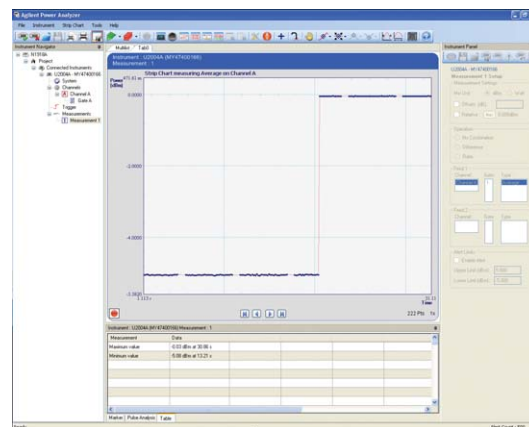
## Overlay graph and waveform math



## Strip chart display

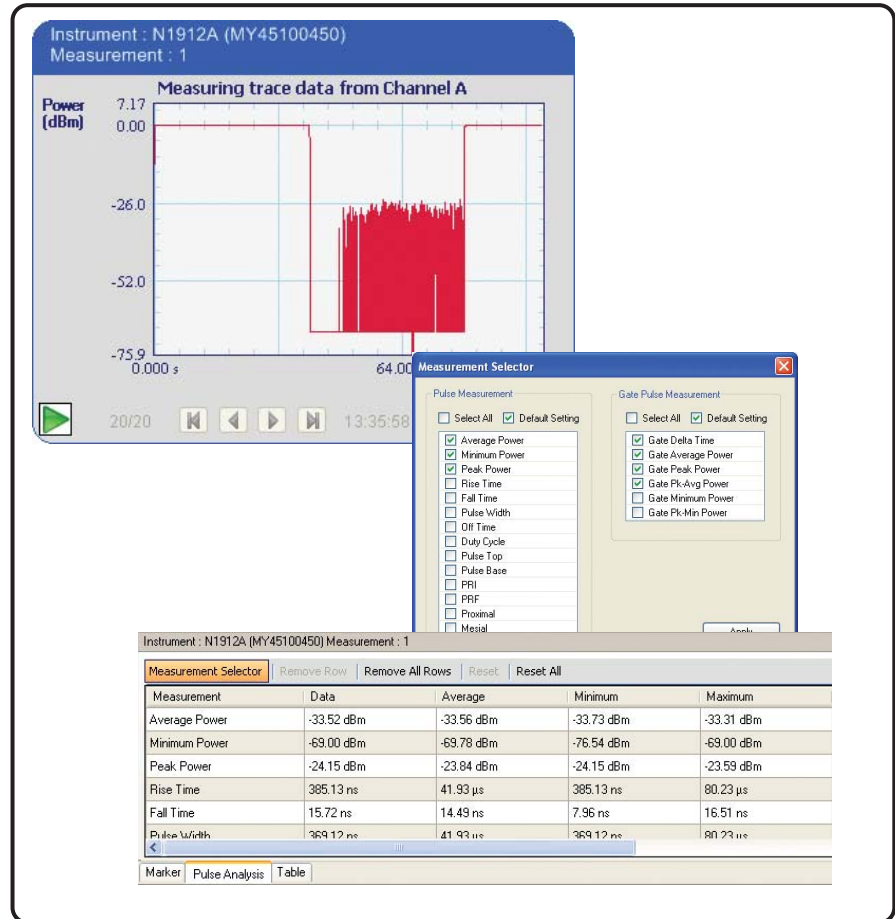


## Data recording, limit and alerts, and Min/Max readings

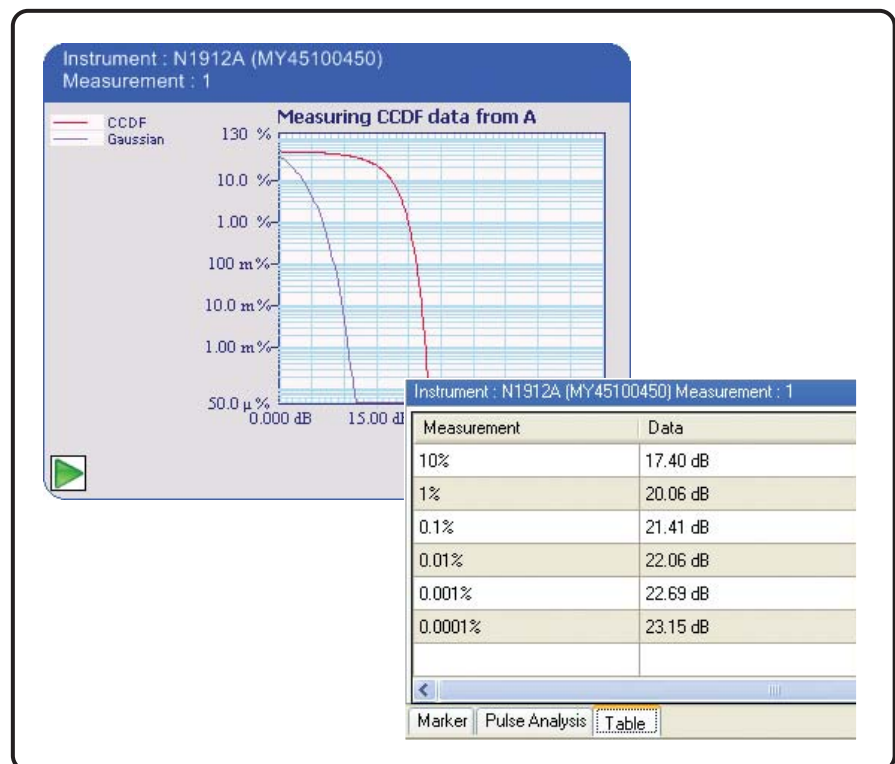


## Various display types and functions (continued)

### Trace graph display and 15-point pulse characterization functions



### CCDF graph and analysis



# Various display types and functions (continued)

## Sample of 4 displays per tab on Power Analyzer



## Sample of 2 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<sup>1</sup>:** For performing internal and external zeroing.

**Duty cycle<sup>1</sup>:** Duty cycle values between 0.001% to 99.999% can be entered in increments of 0.01% to display a pulse power representation of measured power. The following equation is used to calculate the displayed pulse power value:  $\text{Pulse Power} = \text{Measured Power} / \text{Duty Cycle}$

**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  | <b>Desktop PC:</b> 1.3 GHz Pentium® IV or higher recommended<br><b>Laptop PC:</b> 900 MHz Pentium M or higher recommended |
| RAM  | 512 MB (1.0 GB or higher recommended)   |
| Hard disk space  | 1.0 GB or more free disk space at runtime   |
| Resolution   | 800 x 600 or higher (1280 x 1024 recommended)   |
| Operating system and browser                             |   |
| Operating system   | Windows® XP Professional, service pack 2 or higher  |
| Browser  | Microsoft® Internet Explorer 5.1 (6.0 or higher recommended)  |
| Software   |   |
| Agilent IO Libraries Suite <sup>1</sup>                  | Version 14.2 <sup>2</sup> or higher   |
| Microsoft .NET Framework <sup>3</sup>                    | Runtime version 2.0   |
| Microsoft Visual C++ 2005 Runtime Libraries <sup>3</sup> | Version 1.0 or higher   |

1. Available in Agilent Automation-Ready CD

2. Agilent IO Libraries Suite 15.0 is required if PC is running on Microsoft Windows Vista 32-bit edition

3. Bundled with N1918A Power Analysis Manager CD

## Ordering information

| Code       | Description   |
|------------|---|
| N1918A-100 | Items shipped as standard with each N1918A Power Analysis Manager CD: <ul style="list-style-type: none"> <li>▪ N1918A Power Analysis Manager Installation Guide</li> <li>▪ Agilent Automation-Ready CD (contains Agilent IO Libraries Suite)</li> </ul> |

## Related literature

*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"*, Application Note, 5989-7268EN



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