Agilent N8300A
Wireless Networking Test Set
N630XA Measurement Applications
and N7300 Series Chipset Software

Configuration Guide

Introduction

The Agilent N8300A wireless networking test set is a one-box RF parametric test set specifically targeting manufacturing and design engineers who need a standard-compliant 802.16d or e physical layer (PHY) test tool for WiMAX™ Tx and Rx applications. To compliment the WiMAX measurements, wireless LAN 802.11a,b,g and n measurements are now supported.

Based on an architecture comprising an integrated vector signal analyzer (VSA) and vector signal generator (VSG), the N8300A provides a graphical user interface, SCPI interface, and consistency of software and measurements with industry standard WiMAX and WLAN R&D test tools that enable fast test development.

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The companion Agilent N630XA measurement applications, which run on the N8300A test set, ensure fast and accurate analysis of WiMAX and WLAN signals.

Designed for use with Agilent's N8300A test set, the N7300 series chipset software provides control, calibration, and test of WiMAX and WLAN devices and modules.

The standard N8300A product includes:
- Getting Started Guide (N8300-90001) in hardcopy
- Waveform 5-packs (two off) (This applies to instruments serial number MY48270101 or greater.)
- BNC to BNC coaxial cable (part number 8120-2682)
- USB Type A to Type Mini B (part number 8121-1707)
- Country-specific power cord

1. Choose the frequency range required

Options 505 and 506 are mutually exclusive and one of these options is required.

Ordering number	Description
N8300A-505	Frequency range to 4.8 GHz
N8300A-506	Frequency range to 6.0 GHz

2. Choose enhanced feature required

Ordering number	Description
N8300A-404	MIMO/Multi-port Connectivity (requires N8300A-506)

3. Choose the measurement applications required

Ordering number	Description
N6301A-1FP (for Mobile WiMAX™)	802.16 OFDMA measurement application – fixed perpetual license
N6301A-2FP (for Fixed WiMAX)	802.16 OFDM measurement application – fixed perpetual license
N6302A-1FP	802.11a,b,g and n WLAN measurement application – fixed perpetual license
N6302A-2FP	802.11b,g WLAN measurement application - fixed perpetual license

Note: At least one measurement application must be ordered at time of N8300A purchase.

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4. Choose the N7300 Series chipset software required

All the N7300 Series chipset software is optional and can be ordered at time of N8300A purchase or at a later date. The N7300 Series chipset software provides fixed, 3-month or transportable licenses for the following chipsets.

Fixed, perpetual license	Fixed, 3-month license	Transportable, perpetual license
N7300A Chipset software for Beceem BCS200/BCSM250/BCS5200		
N7300A-1FP	N7300A-1F3	N7300A-1TP
N7302A Chipset software for SQN1130 and MAX283x		
N7302A-1FP	N7302A-1F3	N7302A-1TP
N7302A Chipset software for SQN1130 and PM880x/885x		
N7302A-2FP	N7302A-2F3	N7302A-2TP
N7302A Chipset software for SQN1130 and SQN1140/5		
N7302A-3FP	N7302A-3F3	N7302A-3TP
N7302A Chipset software for SQN12x0		
N7302A-5FP	N7302A-5F3	N7302A-5TP
N7303A Chipset software for CSR9000 series, CSR6000 series, and BlueCore7		
N7303A-1FP	N7303A-1F3	N7303A-1TP
N7304A Chipset software for ALT2150 and MAX2839		
N7304A-1FP	N7304A-1F3	N7304A-1TP
N7306A Chipset software for Broadcom BCM4325		
N7306A-1FP	N7306A-1F3	N7306A-1TP
N7306A Chipset software for Broadcom BCM4329		
N7306A-3FP	N7306A-3F3	N7306A-3TP
N7307A Chipset software for TI WL1271/3		
N7307A-1FP	N7307A-1F3	N7307A-1TP
N7311A Chipset software for Atheros AR6003		
N7311A-1FP	N7311A-1F3	N7311A-1TP

5. Choose the accessories required

All the accessories are optional.

Ordering number	Description
N8300A-MSE	Mouse, USB
N8300A-KYB	Keyboard, USB
N8300A-1CR	Rack slide kit
N8300A-1CM	Rackmount kit
N8300A-1CN	Front handle kit
N8300A-1CP	Rackmount and handle kit

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6. Choose the Signal Studio software required

The Signal Studio software is optional and can be ordered at time of N8300A purchase or at a later date.

Ordering number	Description
N7615B-7FP	Connect to N8300A wireless networking test set, fixed, perpetual license
N7615B-EFP	Basic 802.16 OFDMA, fixed, perpetual license
N7615B-QFP	Advanced 802.16 OFDMA, fixed, perpetual license
N7615B-RFP	Advanced 802.16Rev2 OFDMA, fixed, perpetual license
N7615B-7F1	Connect to N8300A wireless networking test set, fixed, 1 month license
N7615B-EF1	Basic 802.16 OFDMA, fixed, 1 month license
N7615B-QF1	Advanced 802.16 OFDMA, fixed, 1 month license
N7615B-RF1	Advanced 802.16Rev2 OFDMA, fixed, 1 month license

Waveform 5-packs

Waveform 5-pack is a cost-effective solution that lets you configure Agilent Signal Studio waveforms for your applications.

Instruments serial number MY48270101 or greater are shipped with the N5182A-221 (Waveform 5-pack1) and N5182A-222 (Waveform 5-pack2) as standard. Options N5182A-223 to 229 are available to license up to 45 Signal Studio waveforms (9 Waveform 5-pack licenses) for playback on the N8300A wireless networking test set.

Ordering number	Description
N5182A-223	Waveform 5-pack3
N5182A-224	Waveform 5-pack4
N5182A-225	Waveform 5-pack5
N5182A-226	Waveform 5-pack6
N5182A-227	Waveform 5-pack7
N5182A-228	Waveform 5-pack8
N5182A-229	Waveform 5-pack9

7. Choose calibration certificate option

If option UK6 is required it must be ordered at time of N8300A purchase.

Ordering number	Description
N8300A-UK6	Commercial calibration certificate with test data

8. Choose a warranty plan

Ordering number	Description
Standard	1 year return-to-Agilent warranty
R-51B-001-3C	1 year return-to-Agilent warranty extended to 3 years

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9. Choose a calibration plan

Ordering number	Description
R-50C-011-3	Agilent calibration upfront support plan 3 year coverage
R-50C-021-3	Z540 calibration upfront support plan 3 year coverage

Upgrade options

The following upgrade kits are available for the N8300A wireless networking test set. Upgrade kits denoted with 'F' are factory-only installable.

Ordering number	Description
N8300AF-404 [1]	MIMO/Multi-port Connectivity upgrade
N8300AF-456 [1]	Frequency range to 6.0 GHz and MIMO/Multi-port Connectivity upgrade
N8300AF-506 [1]	Frequency range to 6.0 GHz upgrade
N8300AF-H56 [2]	Frequency range to 6.0 GHz upgrade rev 2

[1] Serial number prefix MY4832 determines the starting point for this retrofit kit.
[2] Retrofit kit option H56 is the frequency range upgrade kit to 6.0 GHz for instruments prior to a serial number prefix MY4832.

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Related Agilent Literature

Agilent N8300A Wireless Networking Test Set, N630XA Measurement Applications and N7300 Series Chipset Software,
brochure, literature number 5989-7063EN

Agilent N8300A Wireless Networking Test Set with N630XA Measurement Applications,
datasheet, literature number 5989-7064EN

WiMAX Manufacturing Test with the N8300A: The First Steps Towards Test Automation,
application note, literature number 5989-7610EN

N6301A 802.16e OFDMA Measurement Applications,
technical overview, literature number 5989-7609EN

Agilent N7300 Series Chipset Software,
brochure, literature number 5989-7920EN

IEEE 802.11a,b,g,n Manufacturing Test with the N8300A, application notes:
   a)Introduction to a WLAN manufacturing test plan and theory of implementation (Part 1);
literature number 5989-9958EN

   b)Implement a WLAN test plan using SCPI programming (Part 2);
literature number 5989-9959EN

   c) Techniques for optimizing WLAN device testing (Part 3);
literature number 5989-9960EN

   d)How to migrate from the N4010A to N8300A for WLAN testing (Part 4);
literature number 5989-9961EN

Move Forward to What´s Possible of WiMAX,
brochure, literature number 5989-5914EN

Understanding the Intricacies of WiMAX,
poster, literature number 5989-5936EN

IEEE 802.16e WiMAX OFDMA Signal Measurements and Troubleshooting,
application note 1578, literature number 5989-2382EN

Agilent 89600 Series Vector Signal Analysis Software 89601/89601AN/89601N12,
datasheet, literature number 5989-1786EN

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	*0.125€ fixed network rates
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Other European Countries:
www.agilent.com/find/contactus
Revised: October 1, 2009

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