

Electronic Design Consultants, Inc.

WLNБ-AN-DP101 radio in PAD 3500

June 09, 2006

Report No. ELET0004

Report Prepared By



www.nwemc.com
1-888-EMI-CERT

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EMC Test Report



22975 NW Evergreen Parkway
Suite 400
Hillsboro, Oregon 97124

Certificate of Test

Issue Date: June 09, 2006

Electronic Design Consultants, Inc.

Model: WLNb-AN-DP101 radio in PAD 3500

Emissions				
Test Description	Specification	Test Method	Pass	Fail
Conducted Emissions	FCC 15.107 Class B:2005-10	ANSI C63.4:2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>
AC Powerline Conducted Emissions	FCC 15.207 AC Powerline Conducted Emissions:2005-10	ANSI C63.4:2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Occupied Bandwidth	FCC 15.247(a) Occupied Bandwidth:2006-2	ANSI C63.4:2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Output Power	FCC 15.247(b) Output Power:2006-2	ANSI C63.4:2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Band Edge Compliance	FCC 15.247(d) Band Edge Compliance:2006-2	ANSI C63.4:2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Spurious Conducted Emissions	FCC 15.247(d) Spurious Conducted Emissions:2006-2	ANSI C63.4:2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Spurious Radiated Emissions	FCC 15.247(d) Spurious Radiated Emissions:2006-2	ANSI C63.4:2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Power Spectral Density	FCC 15.247(e) Power Spectral Density:2006-2	ANSI C63.4:2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Modifications made to the product

See the Modifications section of this report

Test Facility

The measurement facility used to collect the data is located at:

Northwest EMC, Inc.
22975 NW Evergreen Parkway, Suite 400; Hillsboro, OR 97124
Phone: (503) 844-4066
Fax: 844-3826

This site has been fully described in a report filed with and accepted by the FCC (Federal Communications Commission) and Industry Canada.

Approved By:

Greg Kiemel, Director of Engineering

This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government of the United States of America.

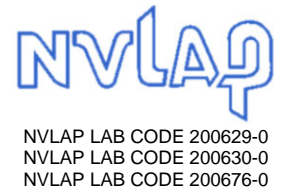
Product compliance is the responsibility of the client, therefore the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. This Report may only be duplicated in its entirety. The results of this test pertain only to the sample(s) tested, the specific description is noted in each of the individual sections of the test report supporting this certificate of test.

Revision Number	Description	Date	Page Number
00	None		

FCC: Accredited by NVLAP for performance of FCC radio, digital, and ISM device testing. Our Open Area Test Sites, certification chambers, and conducted measurement facilities have been fully described in reports filed with the FCC and accepted by the FCC in letters maintained in our files. Northwest EMC has been accredited by ANSI to ISO / IEC Guide 65 as a product certifier. We have been designated by the FCC as a Telecommunications Certification Body (TCB). This allows Northwest EMC to certify transmitters to FCC specifications in accordance with 47 CFR 2.960 and 2.962.



NVLAP: Northwest EMC, Inc. is accredited under the United States Department of Commerce, National Institute of Standards and Technology, and National Voluntary Laboratory Accreditation Program for satisfactory compliance with the requirements of ISO/IEC 17025 for Testing Laboratories. The NVLAP accreditation encompasses Electromagnetic Compatibility Testing in accordance with the European Union EMC Directive 89/336/EEC, ANSI C63.4, MIL-STD 461E, DO-160D and SAE J1113. Additionally, Northwest EMC is accredited by NVLAP to perform radio testing in accordance with the European Union R&TTE Directive 1999/5/EEC, the requirements of FCC, and the RSS radio standards for Industry Canada.



Industry Canada: Accredited by NVLAP for performance of Industry Canada RSS and ICES testing. Our Open Area Test Sites and certification chambers comply with RSS 212, Issue 1 (Provisional) and have been filed with Industry Canada and accepted. Northwest EMC has been accredited by ANSI to ISO / IEC Guide 65 as a product certifier. We have been designated by NIST and recognized by Industry Canada as a Certification Body (CB) per the APEC Mutual Recognition Arrangement (MRA). This allows Northwest EMC to certify transmitters to Industry Canada technical requirements.



CAB: Designated by NIST and validated by the European Commission as a Conformity Assessment Body (CAB) to conduct tests and approve products to the EMC directive and transmitters to the R&TTE directive, as described in the U.S. - EU Mutual Recognition Agreement.



TÜV Product Service: Included in TÜV Product Service Group's Listing of Recognized Laboratories. It qualifies in connection with the TÜV Certification after Recognition of Agent's Testing Program for the product categories and/or standards shown in TÜV's current Listing of CARAT Laboratories, available from TÜV. A certificate was issued to represent that this laboratory continues to meet TÜV's CARAT Program requirements. Certificate No. USA0401C.



TÜV Rheinland: Authorized to carryout EMC tests by order and under supervision of TÜV Rheinland. This authorization is based on "Conditions for EMC-Subcontractors" of November 1992.



NEMKO: Assessed and accredited by NEMKO (Norwegian testing and certification body) for European emissions and immunity testing. As a result of NEMKO's laboratory assessment, they will accept test results from Northwest EMC, Inc. for product certification (Authorization No. ELA 119).



Australia/New Zealand: The National Association of Testing Authorities (NATA), Australia has been appointed by the ACA as an accreditation body to accredit test laboratories and competent bodies for EMC standards. Accredited test reports or assessments by competent bodies must carry the NATA logo. Test reports made by an overseas laboratory that has been accredited for the relevant standards by an overseas accreditation body that has a Mutual Recognition Agreement (MRA) with NATA are also accepted as technical grounds for product conformity. The report should be endorsed with the respective logo of the accreditation body (NVLAP).



VCCI: Accepted as an Associate Member to the VCCI, Acceptance No. 564. Conducted and radiated measurement facilities have been registered in accordance with Regulations for Voluntary Control Measures, Article 8. (*Registration Numbers. - Hillsboro: C-1071, R-1025, and R-2318, Irvine: C-2094 and R-1943, Sultan: R-871, C-1784 and R-1761*).



BSMI: Northwest EMC has been designated by NIST and validated by C-Taipei (BSMI) as a CAB to conduct tests as described in the APEC Mutual Recognition Agreement. License No.SL2-IN-E-1017.



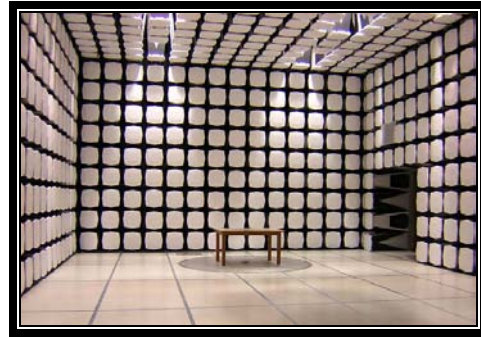
GOST: Northwest EMC, Inc. has been assessed and accredited by the Russian Certification bodies Certinform VNIINMASH, CERTINFO, SAMTES, and Federal CHEC, to perform EMC and Hygienic testing for Information Technology Products. As a result of their laboratory assessment, they will accept test results from Northwest EMC, Inc. for product certification



SCOPE

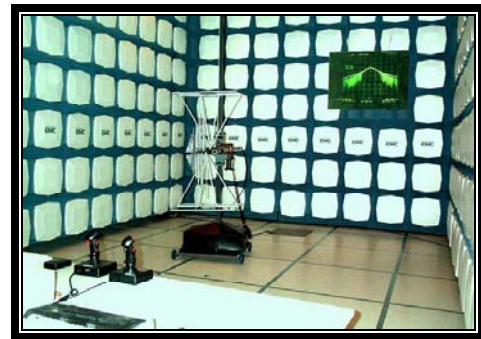
For details on the Scopes of our Accreditations, please visit:

<http://www.nwemc.com/scope.asp>



**California – Orange County Facility
Labs OC01 – OC13**

41 Tesla Ave. Irvine, CA 92618
(888) 364-2378 Fax: (503) 844-3826



**Oregon – Evergreen Facility
Labs EV01 – EV11**

22975 NW Evergreen Pkwy. Suite 400 Hillsboro, OR 97124
(503) 844-4066 Fax: (503) 844-3826



**Washington – Sultan Facility
Labs SU01 – SU07**

14128 339th Ave. SE Sultan, WA 98294
(888) 364-2378

Party Requesting the Test

Company Name:	Electronic Design Consultants, Inc.
Address:	PO Box 379
City, State, Zip:	Aumsville, OR 97325
Test Requested By:	Tim Mintzer
Model:	WLNb-AN-DP101 radio in PAD 3500
First Date of Test:	May 31, 2006
Last Date of Test:	June 04, 2006
Receipt Date of Samples:	May 22, 2006
Equipment Design Stage:	Production
Equipment Condition:	No visual damage.

Information Provided by the Party Requesting the Test

Clocks/Oscillators:	80MHz
I/O Ports:	None.

Functional Description of the EUT (Equipment Under Test):

802.11(b) WLAN radio in RFID Tag Reader / Programmer

Client Justification for EUT Selection:

These tests are to satisfy the requirements for FCC Certification.

Client Justification for Test Selection:

Latest versions of prototypes.

EUT Photo

CONFIGURATION 1 ELET0004

Software/Firmware Running during test	
Description	Version
Hyperterminal	5.1

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
EUT	Adasa	WLNb-AN-DP101 radio in PAD 3500	Beta 8 (Host)

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
AC Adapter	CUI, Inc	KSAFD1500100W1US	None

Remote Equipment Outside of Test Setup Boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Notebook PC	Dell	5150	9LNK741

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
DC Leads	No	1.88m	PA	AC Adapter	EUT
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 2 ELET0004

Software/Firmware Running during test	
Description	Version
Hyperterminal	5.1

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
EUT	Adasa	WLNb-AN-DP101 radio in PAD 3500	Beta 6 (Host)

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
AC Adapter	CUI, Inc	KSAFD1500100W1US	None

Remote Equipment Outside of Test Setup Boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Notebook PC	Dell	5150	9LNK741

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
DC Leads	No	1.88m	PA	AC Adapter	EUT
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

Equipment modifications					
Item	Date	Test	Modification	Note	Disposition of EUT
1	5/31/2006	Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
2	5/31/2006	Band Edge Compliance	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
3	5/31/2006	Occupied Bandwidth	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
4	5/31/2006	Power Spectral Density	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
5	5/31/2006	Output Power	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
6	5/31/2006	AC Power Line Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
7	6/4/2006	Spurious Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
8	6/4/2006	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

MODES OF OPERATION

802.11(b) high channel

802.11(b) mid channel

802.11(b) low channel

POWER SETTINGS INVESTIGATED

120VAC/60Hz

SAMPLE CALCULATIONS

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
LISN	Solar	9252-50-R-24-BNC	LIQ	12/13/2005	13
High Pass Filter	T.T.E.	7766	HFG	12/19/2005	13
Attenuator	Coaxicom	66702 2910-20	RBS	12/19/2005	13
Quasi-Peak Adapter	Hewlett-Packard	85650A	AQD	12/21/2005	13
Spectrum Analyzer Display	Hewlett Packard	85662A	AAID	12/21/2005	13
Spectrum Analyzer	Hewlett-Packard	8568B	AAI	12/21/2005	13

MEASUREMENT BANDWIDTHS

	Frequency Range	Peak Data	Quasi-Peak Data	Average Data
	(MHz)	(kHz)	(kHz)	(kHz)
	0.01 - 0.15	1.0	0.2	0.2
	0.15 - 30.0	10.0	9.0	9.0
	30.0 - 1000	100.0	120.0	120.0
	Above 1000	1000.0	N/A	1000.0

Measurements were made using the bandwidths and detectors specified. No video filter was used.

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

Using the mode of operation and configuration noted within this report, conducted emissions tests were performed. The frequency range investigated (scanned), is also noted in this report. Conducted power line measurements are made, unless otherwise specified, over the frequency range from 150 kHz to 30 MHz to determine the line-to-ground radio-noise voltage that is conducted from the EUT power-input terminals that are directly (or indirectly via separate transformer or power supplies) connected to a public power network. Equipment is tested with power cords that are normally used or that have electrical or shielding characteristics that are the same as those cords normally used. Typically those measurements are made using a LISN (Line Impedance Stabilization Network), the 50 Ω measuring port is terminated by a 50 Ω EMI meter or a 50 Ω resistive load. All 50 Ω measuring ports of the LISN are terminated by 50 Ω .

NORTHWEST		ACQ-2006.05.30						
EMI		EMI 2005.9.18						
EUT: WLN-B-AN-DP101 radio in PAD 3500		Work Order: ELET0004						
Serial Number: Beta 8 (Host)		Date: 05/31/06						
Customer: ADASA Inc.		Temperature: 23°C						
Attendees: Clarke McAllister		Humidity: 37%						
Project: None		Barometric Pres.: 29.99						
Tested by: David Divergigelis		Power: 120VAC/60Hz						
Job Site: EV07								
TEST SPECIFICATIONS		Test Method						
FCC 15.107 Class B:2005-10		ANSI C63.4:2003						
TEST PARAMETERS								
Cable or Line Tested		L1						
COMMENTS								
RFID standby								
EUT OPERATING MODES								
802.11(b) low channel								
DEVIATIONS FROM TEST STANDARD								
No deviations.								
Run #		1						
Configuration #		1						
Results		Pass						
NVLAP Lab Code 200630-0		Signature David Divergigelis						
Freq (MHz)	Amplitude (dBuV)	Transducer (dB)	Cable (dB)	External Attenuation (dB)	Detector (blank equal peaks [PK] from scan)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.431	20.4	2.1	0.0	20.0		42.5	47.2	-4.8
0.675	18.4	1.4	0.0	20.0		39.8	46.0	-6.2
1.335	19.3	0.5	0.0	20.0		39.8	46.0	-6.2
1.395	19.1	0.5	0.0	20.0		39.6	46.0	-6.4
1.865	19.0	0.5	0.0	20.0		39.5	46.0	-6.5
1.635	18.9	0.5	0.0	20.0		39.4	46.0	-6.6
1.805	18.9	0.5	0.0	20.0		39.4	46.0	-6.6
1.155	18.8	0.5	0.0	20.0		39.3	46.0	-6.7
4.997	18.8	0.5	0.0	20.0		39.3	46.0	-6.7
2.046	18.7	0.5	0.0	20.0		39.2	46.0	-6.8
3.646	18.7	0.5	0.0	20.0		39.2	46.0	-6.8
0.923	18.4	0.7	0.0	20.0		39.1	46.0	-6.9
3.706	18.6	0.5	0.0	20.0		39.1	46.0	-6.9
3.886	18.6	0.5	0.0	20.0		39.1	46.0	-6.9
3.456	18.5	0.5	0.0	20.0		39.0	46.0	-7.0
1.575	18.3	0.5	0.0	20.0		38.8	46.0	-7.2
3.586	18.3	0.5	0.0	20.0		38.8	46.0	-7.2
4.937	18.3	0.5	0.0	20.0		38.8	46.0	-7.2
3.956	18.2	0.5	0.0	20.0		38.7	46.0	-7.3

NORTHWEST		CONDUCTED EMISSIONS DATA SHEET		ACQ-2006.05.30					
EMC				EMI 2005.9.18					
EUT: WLN-B-AN-DP101 radio in PAD 3500			Work Order: ELET0004						
Serial Number: Beta 8 (Host)			Date: 05/31/06						
Customer: ADASA Inc.			Temperature: 23°C						
Attendees: Clarke McAllister			Humidity: 37%						
Project: None			Barometric Pres.: 29.99						
Tested by: David Divergigelis		Power: 120VAC/60Hz		Job Site: EV07					
TEST SPECIFICATIONS			Test Method						
FCC 15.107 Class B:2005-10			ANSI C63.4:2003						
TEST PARAMETERS									
Cable or Line Tested		N							
COMMENTS									
RFID standby									
EUT OPERATING MODES									
802.11(b) low channel									
DEVIATIONS FROM TEST STANDARD									
No deviations.									
Run #	2	Signature <i>David Divergigelis</i> NVLAP Lab Code 200630-0							
Configuration #	1								
Results	Pass								
Freq (MHz)	Amplitude (dBuV)		Transducer (dB)	Cable (dB)	External Attenuation (dB)	Detector (blank equal peaks [PK] from scan)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.432	21.3		2.1	0.0	20.0		43.4	47.2	-3.8
0.677	19.9		1.4	0.0	20.0		41.3	46.0	-4.7
0.923	19.9		0.7	0.0	20.0		40.6	46.0	-5.4
1.155	19.8		0.5	0.0	20.0		40.3	46.0	-5.7
3.466	19.8		0.5	0.0	20.0		40.3	46.0	-5.7
0.862	19.3		0.9	0.0	20.0		40.2	46.0	-5.8
1.335	19.4		0.5	0.0	20.0		39.9	46.0	-6.1
1.395	19.4		0.5	0.0	20.0		39.9	46.0	-6.1
1.575	19.4		0.5	0.0	20.0		39.9	46.0	-6.1
3.706	19.4		0.5	0.0	20.0		39.9	46.0	-6.1
1.095	19.2		0.5	0.0	20.0		39.7	46.0	-6.3
3.526	19.2		0.5	0.0	20.0		39.7	46.0	-6.3
3.586	19.2		0.5	0.0	20.0		39.7	46.0	-6.3
1.635	19.1		0.5	0.0	20.0		39.6	46.0	-6.4
3.646	19.1		0.5	0.0	20.0		39.6	46.0	-6.4
3.776	19.1		0.5	0.0	20.0		39.6	46.0	-6.4
0.614	18.0		1.6	0.0	20.0		39.6	46.0	-6.4
3.216	19.0		0.5	0.0	20.0		39.5	46.0	-6.5
1.805	18.9		0.5	0.0	20.0		39.4	46.0	-6.6

NORTHWEST EMC		CONDUCTED EMISSIONS DATA SHEET		ACQ-2006.05.30 EMI 2005.9.18					
EUT: WLNB-AN-DP101 radio in PAD 3500			Work Order: ELET0004						
Serial Number: Beta 8 (Host)			Date: 05/31/06						
Customer: ADASA Inc.			Temperature: 23°C						
Attendees: Clarke McAllister			Humidity: 37%						
Project: None			Barometric Pres.: 29.99						
Tested by: David Divergigelis		Power: 120VAC/60Hz		Job Site: EV07					
TEST SPECIFICATIONS			Test Method						
FCC 15.107 Class B:2005-10			ANSI C63.4:2003						
TEST PARAMETERS									
Cable or Line Tested		N							
COMMENTS									
RFID standby									
EUT OPERATING MODES									
802.11(b) mid channel									
DEVIATIONS FROM TEST STANDARD									
No deviations.									
Run #	3	NVLAP Lab Code 200630-0 Signature <i>David Divergigelis</i>							
Configuration #	1								
Results	Pass								
Freq (MHz)	Amplitude (dBuV)		Transducer (dB)	Cable (dB)	External Attenuation (dB)	Detector (blank equal peaks [PK] from scan)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.431	22.1		2.1	0.0	20.0		44.2	47.2	-3.1
0.677	20.1		1.4	0.0	20.0		41.5	46.0	-4.5
0.864	19.7		0.9	0.0	20.0		40.6	46.0	-5.4
0.925	19.8		0.7	0.0	20.0		40.5	46.0	-5.5
0.616	18.8		1.6	0.0	20.0		40.4	46.0	-5.6
1.395	19.8		0.5	0.0	20.0		40.3	46.0	-5.7
1.165	19.7		0.5	0.0	20.0		40.2	46.0	-5.8
3.716	19.7		0.5	0.0	20.0		40.2	46.0	-5.8
3.406	19.6		0.5	0.0	20.0		40.1	46.0	-5.9
3.466	19.5		0.5	0.0	20.0		40.0	46.0	-6.0
3.586	19.5		0.5	0.0	20.0		40.0	46.0	-6.0
1.095	19.4		0.5	0.0	20.0		39.9	46.0	-6.1
1.865	19.2		0.5	0.0	20.0		39.7	46.0	-6.3
3.526	19.2		0.5	0.0	20.0		39.7	46.0	-6.3
4.827	19.2		0.5	0.0	20.0		39.7	46.0	-6.3
1.335	19.0		0.5	0.0	20.0		39.5	46.0	-6.5
1.575	19.0		0.5	0.0	20.0		39.5	46.0	-6.5
1.635	19.0		0.5	0.0	20.0		39.5	46.0	-6.5
3.216	19.0		0.5	0.0	20.0		39.5	46.0	-6.5

NORTHWEST		CONDUCTED EMISSIONS DATA SHEET				ACQ-2006.05.30				
EMC						EMI 2005.9.18				
EUT: WLNБ-AN-DP101 radio in PAD 3500						Work Order: ELET0004				
Serial Number: Beta 8 (Host)						Date: 05/31/06				
Customer: ADASA Inc.						Temperature: 23°C				
Attendees: Clarke McAllister						Humidity: 37%				
Project: None						Barometric Pres.: 29.99				
Tested by: David Divergigelis				Power: 120VAC/60Hz		Job Site: EV07				
TEST SPECIFICATIONS						Test Method				
FCC 15.107 Class B:2005-10						ANSI C63.4:2003				
TEST PARAMETERS										
Cable or Line Tested						L1				
COMMENTS										
RFID standby										
EUT OPERATING MODES										
802.11(b) mid channel										
DEVIATIONS FROM TEST STANDARD										
No deviations.										
Run #		4		Signature <i>David Divergigelis</i>						
Configuration #		1								
Results		Pass								
NVLAP Lab Code 200630-0										
Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)	Detector (blank equal peaks [PK] from scan)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.430	21.9			2.1	0.0	20.0		44.0	47.3	-3.3
1.635	19.6			0.5	0.0	20.0		40.1	46.0	-5.9
0.676	18.5			1.4	0.0	20.0		39.9	46.0	-6.1
0.863	19.0			0.9	0.0	20.0		39.9	46.0	-6.1
1.095	19.1			0.5	0.0	20.0		39.6	46.0	-6.4
4.827	19.1			0.5	0.0	20.0		39.6	46.0	-6.4
2.116	19.0			0.5	0.0	20.0		39.5	46.0	-6.5
3.716	19.0			0.5	0.0	20.0		39.5	46.0	-6.5
4.947	19.0			0.5	0.0	20.0		39.5	46.0	-6.5
1.165	18.9			0.5	0.0	20.0		39.4	46.0	-6.6
1.395	18.9			0.5	0.0	20.0		39.4	46.0	-6.6
1.875	18.9			0.5	0.0	20.0		39.4	46.0	-6.6
0.616	17.8			1.6	0.0	20.0		39.4	46.0	-6.6
3.656	18.8			0.5	0.0	20.0		39.3	46.0	-6.7
0.370	19.5			2.3	0.0	20.0		41.8	48.5	-6.8
1.925	18.7			0.5	0.0	20.0		39.2	46.0	-6.8
4.027	18.7			0.5	0.0	20.0		39.2	46.0	-6.8
4.887	18.7			0.5	0.0	20.0		39.2	46.0	-6.8
1.685	18.6			0.5	0.0	20.0		39.1	46.0	-6.9

NORTHWEST		EMI 2005.9.18						
<div>EMC</div>		<div>CONDUCTED EMISSIONS DATA SHEET</div>						
<div>EUT: WLNБ-AN-DP101 radio in PAD 3500</div>		<div>Work Order: ELET0004</div>						
<div>Serial Number: Beta 8 (Host)</div>		<div>Date: 05/31/06</div>						
<div>Customer: ADASA Inc.</div>		<div>Temperature: 23°C</div>						
<div>Attendees: Clarke McAllister</div>		<div>Humidity: 37%</div>						
<div>Project: None</div>		<div>Barometric Pres.: 29.99</div>						
<div>Tested by: David Divergigelis</div>		<div>Power: 120VAC/60Hz</div>						
<div>Job Site: EV07</div>								
<div>TEST SPECIFICATIONS</div>		<div>Test Method</div>						
<div>FCC 15.107 Class B:2005-10</div>		<div>ANSI C63.4:2003</div>						
<div>TEST PARAMETERS</div>								
<div>Cable or Line Tested</div>		<div>L1</div>						
<div>COMMENTS</div>								
<div>RFID standby</div>								
<div>EUT OPERATING MODES</div>								
<div>802.11(b) high channel</div>								
<div>DEVIATIONS FROM TEST STANDARD</div>								
<div>No deviations.</div>								
<div>Run #</div>		<div>5</div>						
<div>Configuration #</div>		<div>1</div>						
<div>Results</div>		<div>Pass</div>						
<div>NVLAP Lab Code 200630-0</div>		<div>Signature <i>David Divergigelis</i></div>						
<div> </div>								
Freq (MHz)	Amplitude (dBuV)	Transducer (dB)	Cable (dB)	External Attenuation (dB)	Detector (blank equal peaks [PK] from scan)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.432	21.9	2.1	0.0	20.0		44.0	47.2	-3.2
0.369	20.7	2.3	0.0	20.0		43.0	48.5	-5.6
0.616	18.5	1.6	0.0	20.0		40.1	46.0	-5.9
1.395	19.4	0.5	0.0	20.0		39.9	46.0	-6.1
1.635	19.4	0.5	0.0	20.0		39.9	46.0	-6.1
0.676	18.5	1.4	0.0	20.0		39.9	46.0	-6.1
1.695	19.3	0.5	0.0	20.0		39.8	46.0	-6.2
0.924	18.9	0.7	0.0	20.0		39.6	46.0	-6.4
0.864	18.7	0.9	0.0	20.0		39.6	46.0	-6.4
1.875	19.0	0.5	0.0	20.0		39.5	46.0	-6.5
4.947	19.0	0.5	0.0	20.0		39.5	46.0	-6.5
2.116	18.9	0.5	0.0	20.0		39.4	46.0	-6.6
4.887	18.9	0.5	0.0	20.0		39.4	46.0	-6.6
1.455	18.8	0.5	0.0	20.0		39.3	46.0	-6.7
3.656	18.8	0.5	0.0	20.0		39.3	46.0	-6.7
1.165	18.7	0.5	0.0	20.0		39.2	46.0	-6.8
3.776	18.6	0.5	0.0	20.0		39.1	46.0	-6.9
1.935	18.5	0.5	0.0	20.0		39.0	46.0	-7.0
3.536	18.5	0.5	0.0	20.0		39.0	46.0	-7.0

NORTHWEST		CONDUCTED EMISSIONS DATA SHEET				ACQ-2006.05.30				
EMI 2005.9.18										
EUT: WLNБ-AN-DP101 radio in PAD 3500		Work Order: ELET0004								
Serial Number: Beta 8 (Host)		Date: 05/31/06								
Customer: ADASA Inc.		Temperature: 23°C								
Attendees: Clarke McAllister		Humidity: 37%								
Project: None		Barometric Pres.: 29.99								
Tested by: David Divergigelis		Power: 120VAC/60Hz		Job Site: EV07						
TEST SPECIFICATIONS				Test Method						
FCC 15.107 Class B:2005-10				ANSI C63.4:2003						
TEST PARAMETERS										
Cable or Line Tested		N								
COMMENTS										
RFID standby										
EUT OPERATING MODES										
802.11(b) high channel										
DEVIATIONS FROM TEST STANDARD										
No deviations.										
Run #		6								
Configuration #		1								
Results		Pass		NVLAP Lab Code 200630-0		Signature David Divergigelis				
Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)	Detector (blank equal peaks [PK] from scan)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.431	22.2			2.1	0.0	20.0		44.3	47.2	-3.0
0.864	19.7			0.9	0.0	20.0		40.6	46.0	-5.4
0.616	18.8			1.6	0.0	20.0		40.4	46.0	-5.6
0.677	18.8			1.4	0.0	20.0		40.2	46.0	-5.8
0.925	19.4			0.7	0.0	20.0		40.1	46.0	-5.9
1.165	19.5			0.5	0.0	20.0		40.0	46.0	-6.0
0.371	20.2			2.2	0.0	20.0		42.4	48.5	-6.0
1.395	19.3			0.5	0.0	20.0		39.8	46.0	-6.2
1.875	19.3			0.5	0.0	20.0		39.8	46.0	-6.2
1.635	19.2			0.5	0.0	20.0		39.7	46.0	-6.3
3.536	19.2			0.5	0.0	20.0		39.7	46.0	-6.3
3.656	19.2			0.5	0.0	20.0		39.7	46.0	-6.3
3.786	19.1			0.5	0.0	20.0		39.6	46.0	-6.4
3.476	19.0			0.5	0.0	20.0		39.5	46.0	-6.5
3.286	18.9			0.5	0.0	20.0		39.4	46.0	-6.6
1.335	18.8			0.5	0.0	20.0		39.3	46.0	-6.7
1.095	18.7			0.5	0.0	20.0		39.2	46.0	-6.8
1.575	18.7			0.5	0.0	20.0		39.2	46.0	-6.8
1.695	18.7			0.5	0.0	20.0		39.2	46.0	-6.8



Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Hewlett-Packard	8593E	AAN	1/25/2006	13

MEASUREMENT UNCERTAINTY

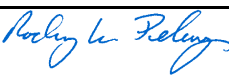
Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

The occupied bandwidth was measured with the EUT set to low, medium, and high transmit frequencies. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at its maximum data rate.

EMC

OCCUPIED BANDWIDTH

EUT: WLNB-AN-DP101 radio in PAD 3500		Work Order: ELET0004
Serial Number: Beta 8 (Host)		Date: 05/31/06
Customer: ADASA Inc.		Temperature: 23°C
Attendees: Clarke McAllister		Humidity: 37%
Project: None		Barometric Pres.: 29.99
Tested by: Rod Peloquin	Power: 120VAC/60Hz	Job Site: EV06
TEST SPECIFICATIONS		
FCC 15.247 2006-2		Test Method: ANSI C63.4 2003
COMMENTS		
DEVIATIONS FROM TEST STANDARD		
Configuration #	1	Signature 

Modes of Operation and Test Conditions

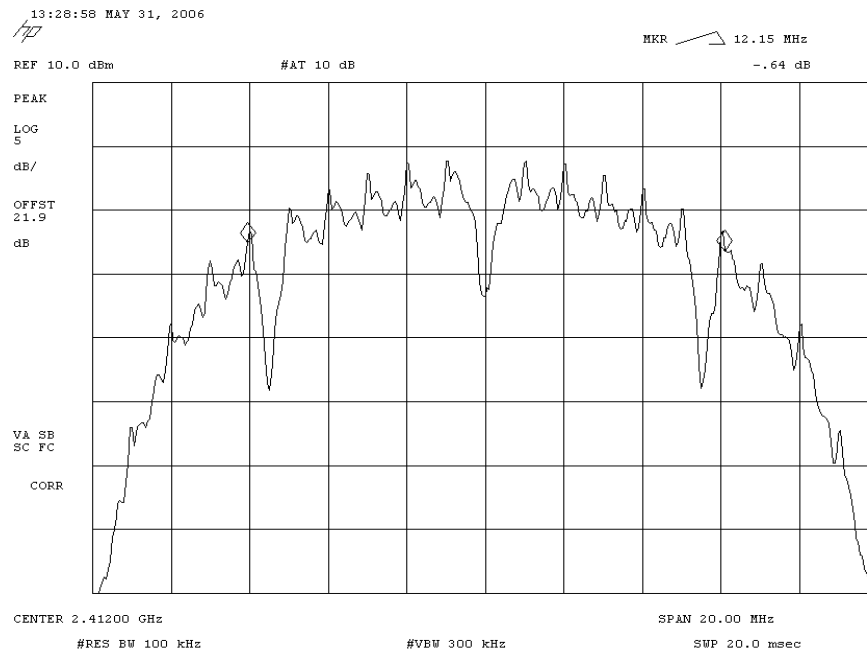
	Value	Limit	Result
Low Channel	12.15 MHz	> 500 kHz	Pass
Mid Channel	12.15 MHz	> 500 kHz	Pass
High Channel	12.10 MHz	> 500 kHz	Pass

Low Channel

Result: Pass

Value: 12.15 MHz

Limit: > 500 kHz

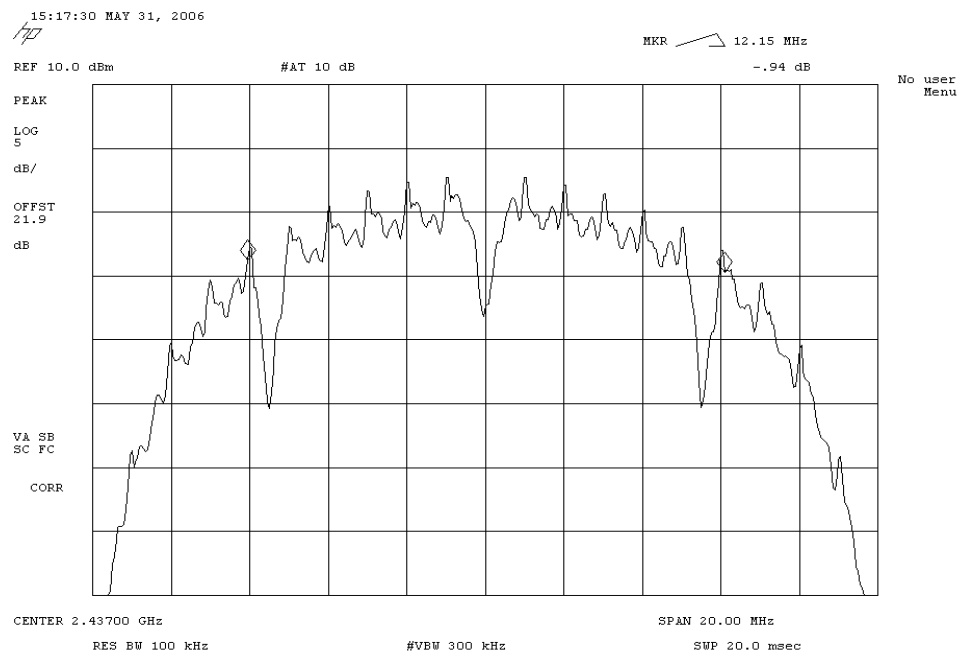


Mid Channel

Result: Pass

Value: 12.15 MHz

Limit: > 500 kHz



High Channel

Result: Pass

Value: 12.10 MHz

Limit: > 500 kHz

14:07:42 MAY 31, 2006

hp

MKR 12.10 MHz

REF 10.0 dBm

#AT 10 dB

-.58 dB

PEAK

LOG

dB/

OFFST

dB

VA SB

SC FC

CORR

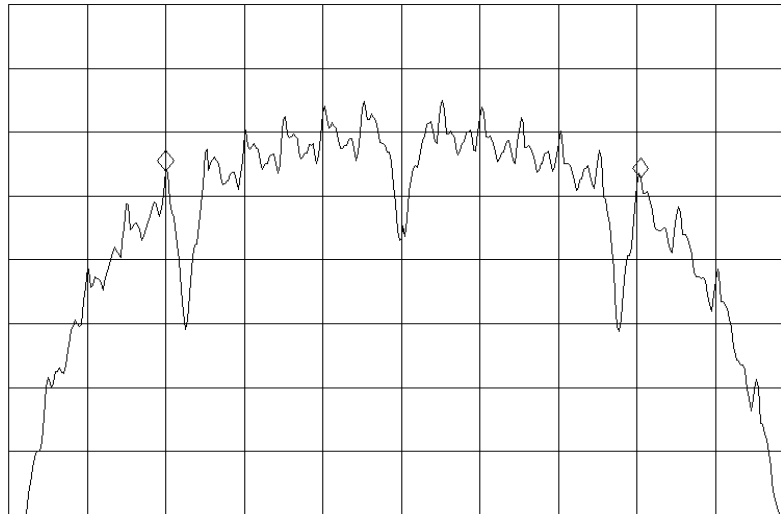
CENTER 2.46200 GHz

SPAN 20.00 MHz

#RES BW 100 kHz

#VBW 300 kHz

SWP 20.0 msec





Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT					
Description	Manufacturer	Model	ID	Last Cal.	Interval
RF Detector	RLC Electronics	CR-133-R	ZZA	NCR	0
Oscilloscope	Tektronix	TDS 3052	TOF	12/8/2005	13
Power Meter	Hewlett Packard	E4418A	SPA	7/23/2004	24
Power Sensor	Hewlett-Packard	8481H	SPB	7/23/2004	24
Signal Generator	Hewlett-Packard	8648D	TGC	1/27/2006	13

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION


The peak output power was measured with the EUT set to low, medium, and high transmit frequencies. The EUT was transmitting at its maximum output power and data rate.

The measurement was made using a direct connection between the RF output of the EUT and a RF detector diode. The DC output of the diode was measured with the oscilloscope. The signal generator, tuned to the transmit frequency, was then substituted for the EUT. The CW output of the signal generator was adjusted until the DC output of the RF detector diode match the peak level produced when connected to the EUT. To further reduce measurement error, the power meter and sensor were then used to measure the output power level of the signal generator.

De Facto EIRP Limit: Per 47 CFR 15.247 (b)(1-3), the EUT meets the de facto EIRP limit of +36dBm.

EMC

OUTPUT POWER

EUT: WLNB-AN-DP101 radio in PAD 3500		Work Order: ELET0004
Serial Number: Beta 8 (Host)		Date: 05/31/06
Customer: ADASA Inc.		Temperature: 23°C
Attendees: Clarke McAllister		Humidity: 37%
Project: None		Barometric Pres.: 29.99
Tested by: Rod Peloquin	Power: 120VAC/60Hz	Job Site: EV06
TEST SPECIFICATIONS		
FCC 15.247 2006-2		Test Method: ANSI C63.4 2003
COMMENTS		
DEVIATIONS FROM TEST STANDARD		
Configuration #	1	Signature 

Modes of Operation and Test Conditions

	Value	Limit	Result
Low Channel	18.8 mW	1 Watt	Pass
Mid Channel	19.7 mW	1 Watt	Pass
High Channel	18.8 mW	1 Watt	Pass

Low Channel

Result: Pass**Value:** 18.8 mW**Limit:** 1 Watt

Frequency (MHz)	Output Power (mW)
2412	18.75

Mid Channel

Result: Pass**Value:** 19.7 mW**Limit:** 1 Watt

Frequency (MHz)	Output Power (mW)
2437	19.68

High Channel

Result: Pass**Value:** 18.8 mW**Limit:** 1 Watt

Frequency (MHz)	Output Power (mW)
2462	18.84

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Hewlett-Packard	8593E	AAN	1/25/2006	13


MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

The spurious RF conducted emissions at the edges of the authorized band were measured with the EUT set to low and high transmit frequencies. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at its maximum data rate in a no hop mode. The channels closest to the band edges were selected. The spectrum was scanned across each band edge from 5 MHz below the band edge to 5 MHz above the band edge.

EMC**BAND EDGE COMPLIANCE**

EUT: WLNB-AN-DP101 radio in PAD 3500		Work Order: ELET0004
Serial Number: Beta 8 (Host)		Date: 05/31/06
Customer: ADASA Inc.		Temperature: 23°C
Attendees: Clarke McAllister		Humidity: 37%
Project: None		Barometric Pres.: 29.99
Tested by: Rod Peloquin	Power: 120VAC/60Hz	Job Site: EV06
TEST SPECIFICATIONS		
FCC 15.247 2006-2		Test Method
		ANSI C63.4 2003
COMMENTS		
DEVIATIONS FROM TEST STANDARD		
Configuration #	1	Signature 

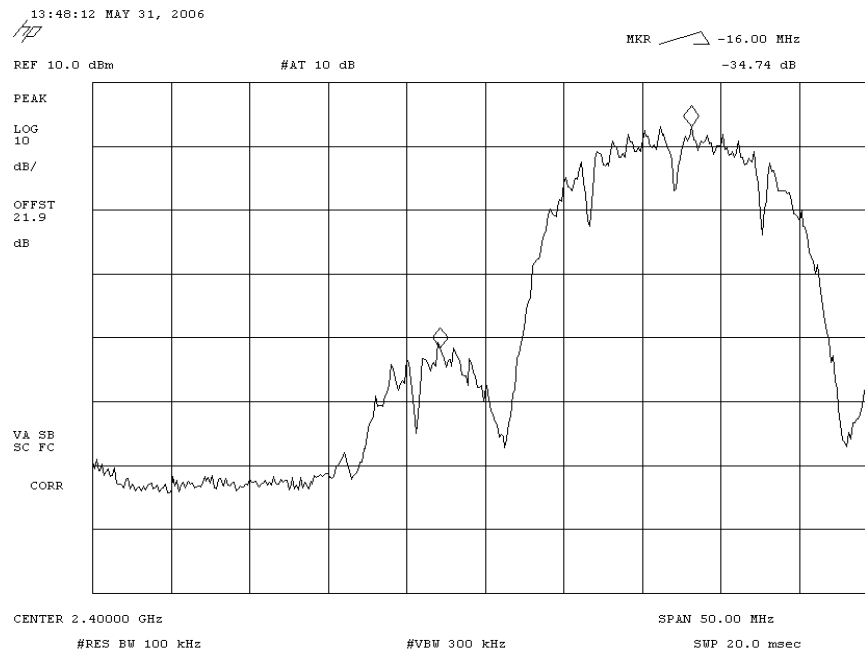
Modes of Operation and Test Conditions

	Value	Limit	Result
Low Channel	-34.7 dBc	≤ -20 dBc	Pass
High Channel	-52.2 dBc	≤ -20 dBc	Pass

Low Channel

Result: Pass

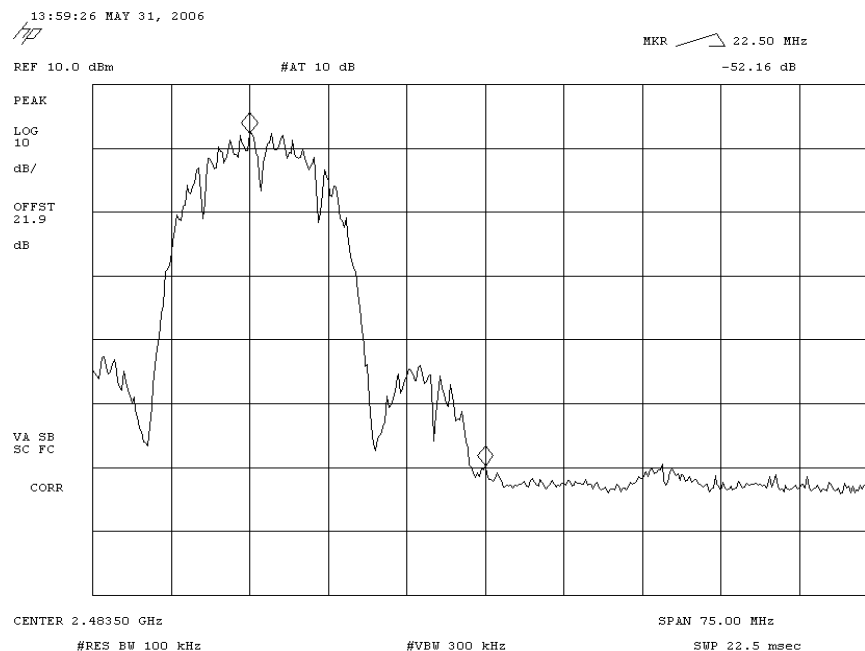
Value: -34.7 dBc

Limit: ≤ -20 dBc

High Channel

Result: Pass

Value: -52.2 dBc

Limit: ≤ -20 dBc



Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT					
Description	Manufacturer	Model	ID	Last Cal.	Interval
Signal Generator	Hewlett-Packard	8648D	TGC	1/27/2006	13
Power Sensor	Hewlett-Packard	8481H	SPB	7/23/2004	24
Power Meter	Hewlett Packard	E4418A	SPA	7/23/2004	24
Spectrum Analyzer	Agilent	E4446A	AAT	4/4/2006	12


MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

The spurious RF conducted emissions were measured with the EUT set to low, medium, and high transmit frequencies. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at its maximum data rate using direct sequence modulation. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.

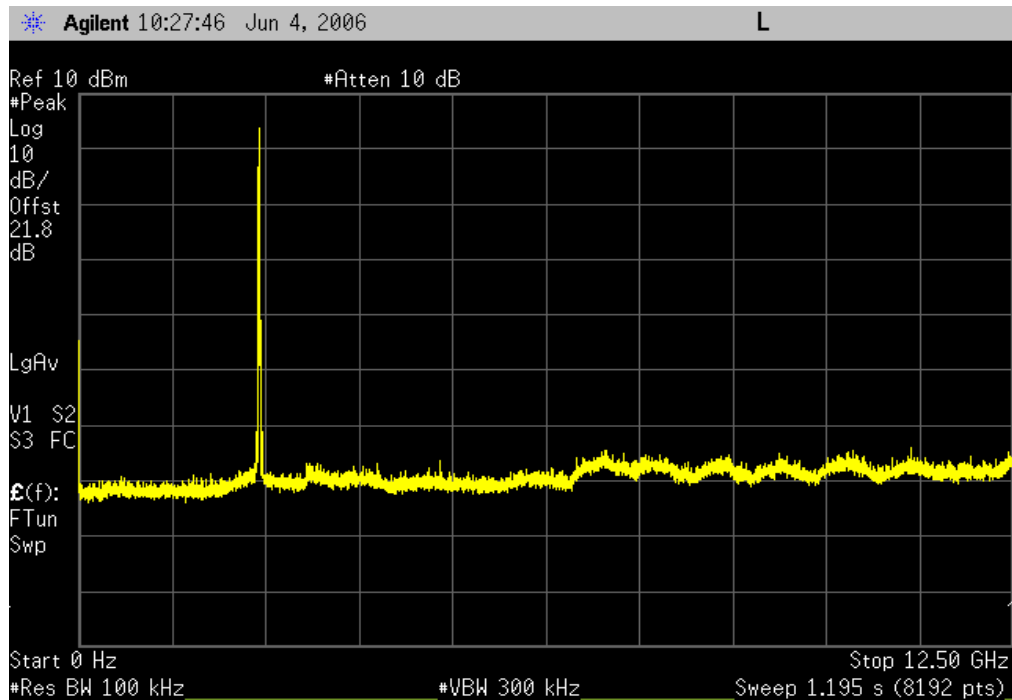
EMC**Spurious Conducted Emissions**

EUT: WLNB-AN-DP101 radio in PAD 3500		Work Order: ELET0004
Serial Number: Beta 6 (Host)		Date: 06/04/06
Customer: ADASA Inc.		Temperature: 23°C
Attendees: None		Humidity: 42%
Project: None		Barometric Pres.: 29.89
Tested by: Greg Kiemel	Power: 120VAC/60Hz	Job Site: EV01
TEST SPECIFICATIONS		
FCC 15.247:2006		Test Method
		ANSI C63.4 2003
COMMENTS		
802.11(b), 2 Mbps		
DEVIATIONS FROM TEST STANDARD		
Configuration #	2	Signature 

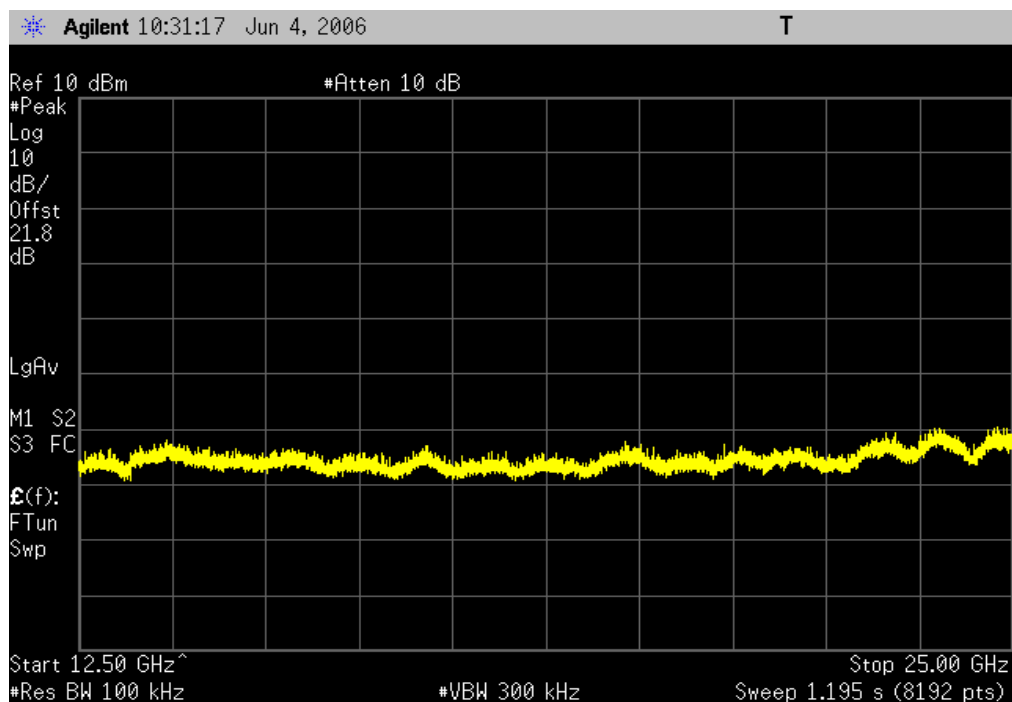
Modes of Operation and Test Conditions

	Value	Limit	Result
Low Channel, 0 - 12.5 GHz	≤ -50 dBc	≤ - 20 dBc	Pass
Low Channel, 12.5 - 25 GHz	≤ -50 dBc	≤ - 20 dBc	Pass
Mid Channel, 0 - 12.5 GHz	≤ -50 dBc	≤ - 20 dBc	Pass
Mid Channel, 12.5 - 25 GHz	≤ -50 dBc	≤ - 20 dBc	Pass
High Channel, 0 - 12.5 GHz	≤ -50 dBc	≤ - 20 dBc	Pass
High Channel, 12.5 - 25 GHz	≤ -50 dBc	≤ - 20 dBc	Pass

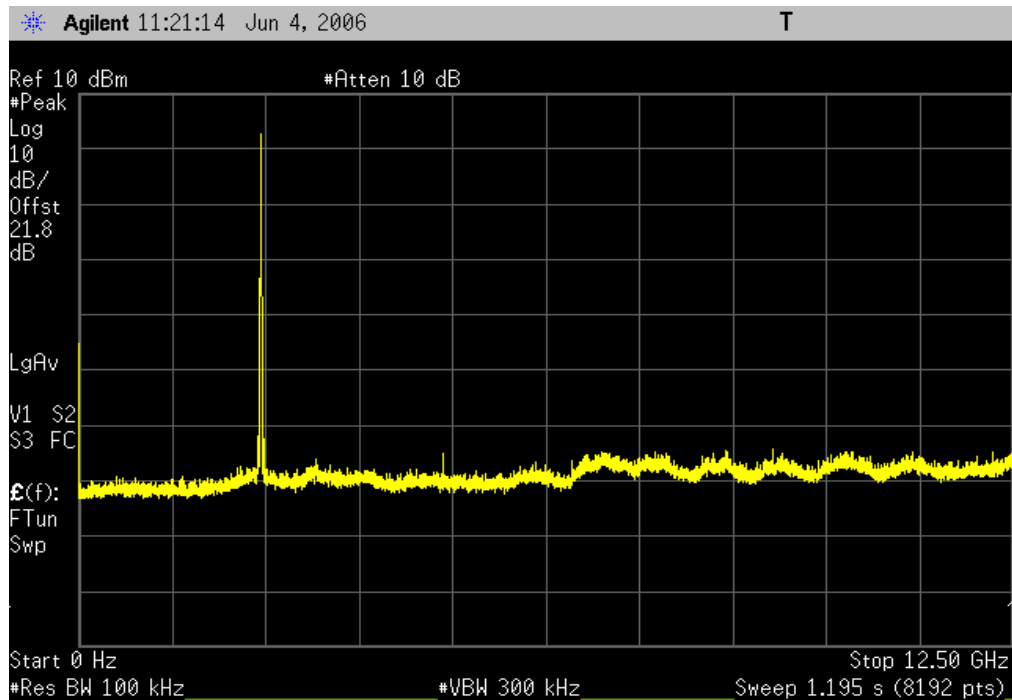
Low Channel, 0 - 12.5 GHz		
Result: Pass	Value: ≤ -50 dBc	Limit: ≤ -20 dBc



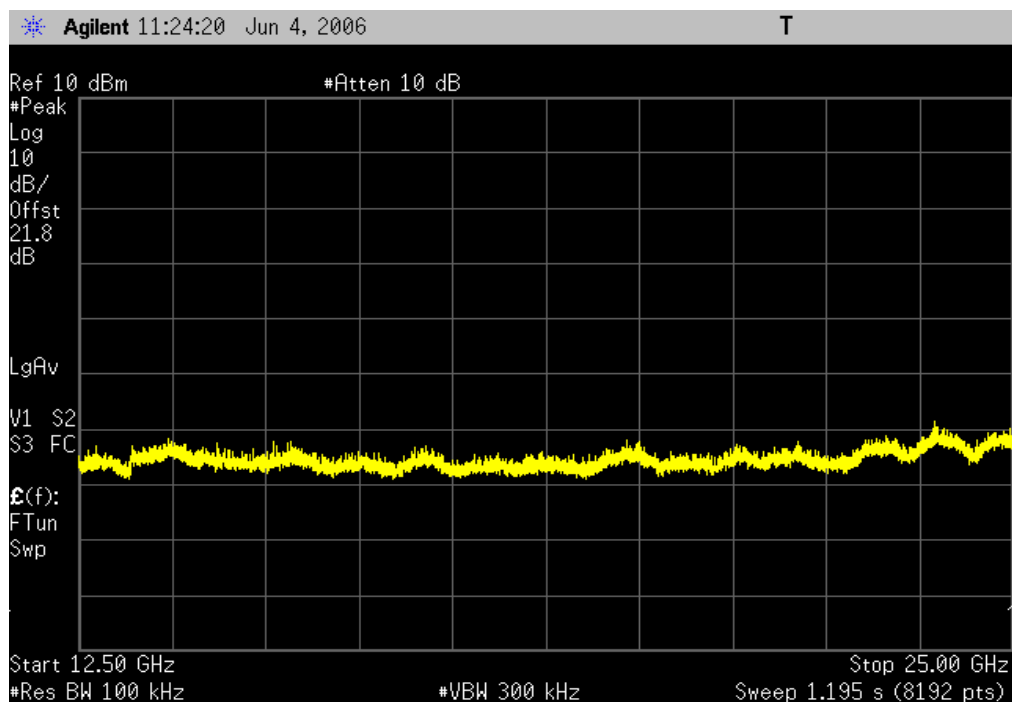
Low Channel, 12.5 - 25 GHz		
Result: Pass	Value: ≤ -50 dBc	Limit: ≤ -20 dBc



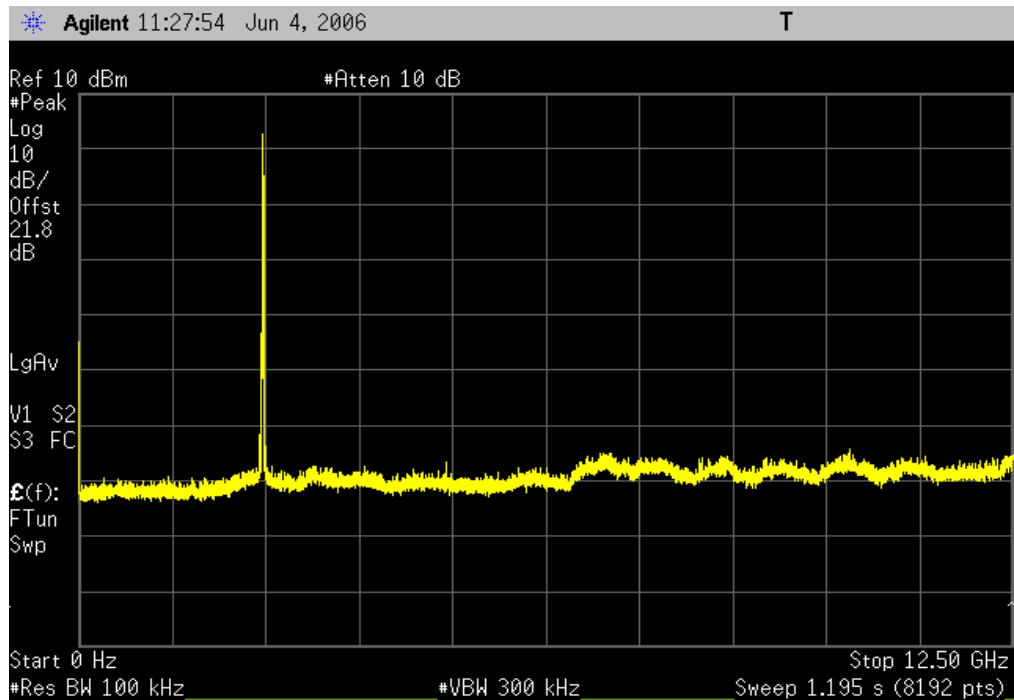
Mid Channel, 0 - 12.5 GHz		
Result: Pass	Value: ≤ -50 dBc	Limit: ≤ -20 dBc



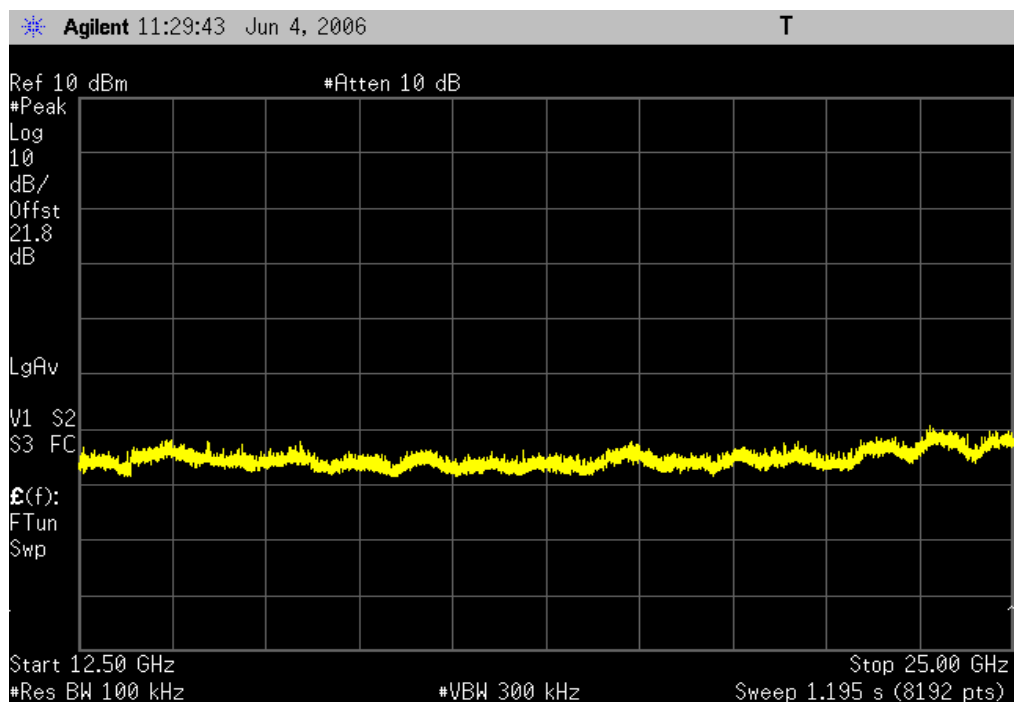
Mid Channel, 12.5 - 25 GHz		
Result: Pass	Value: ≤ -50 dBc	Limit: ≤ -20 dBc



High Channel, 0 - 12.5 GHz		
Result: Pass	Value: ≤ -50 dBc	Limit: ≤ -20 dBc



High Channel, 12.5 - 25 GHz		
Result: Pass	Value: ≤ -50 dBc	Limit: ≤ -20 dBc





Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Hewlett-Packard	8593E	AAN	1/25/2006	13
Power Meter	Hewlett Packard	E4418A	SPA	7/23/2004	24
Power Sensor	Hewlett-Packard	8481H	SPB	7/23/2004	24
Signal Generator	Hewlett-Packard	8648D	TGC	1/27/2006	13

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

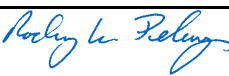
The peak power spectral density measurements were measured with the EUT set to low, mid, and high transmit frequencies. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at its maximum data rate using direct sequence modulation. Per the procedure outlined in FCC 97-114, the spectrum analyzer was used as follows:

The emission peak(s) were located and zoom in on within the passband. The resolution bandwidth was set to 3 kHz, the video bandwidth was set to greater than or equal to the resolution bandwidth. The sweep speed was set equal to the span divided by 3 kHz (sweep = (SPAN/3 kHz)). For example, given a span of 1.5 MHz, the sweep should be $1.5 \times 10^6 \div 3 \times 10^3 = 500$ seconds. External attenuation was used and added to the reading. The following FCC procedure was used for modifying the power spectral density measurements:

"If the spectrum line spacing cannot be resolved on the available spectrum analyzer, the noise density function on most modern conventional spectrum analyzers will directly measure the noise power density normalized to a 1 Hz noise power bandwidth. Add 34.8 dB for correction to 3 kHz."

EMC

POWER SPECTRAL DENSITY

EUT: WLNb-AN-DP101 radio in PAD 3500		Work Order: ELET0004
Serial Number: Beta 8 (Host)		Date: 05/31/06
Customer: ADASA Inc.		Temperature: 23°C
Attendees: Clarke McAllister		Humidity: 37%
Project: None		Barometric Pres.: 29.99
Tested by: Rod Peloquin	Power: 120VAC/60Hz	Job Site: EV06
TEST SPECIFICATIONS		
FCC 15.247 2006-2		Test Method
		ANSI C63.4 2003
COMMENTS		
DEVIATIONS FROM TEST STANDARD		
Configuration #	1	Signature 

Modes of Operation and Test Conditions

	Value	Limit	Result
Low Channel	-12.8 dBm / 3 kHz	8 dBm / 3 kHz	Pass
Mid Channel	-13.4 dBm / 3 kHz	8 dBm / 3 kHz	Pass
High Channel	-14.1 dBm / 3 kHz	8 dBm / 3 kHz	Pass

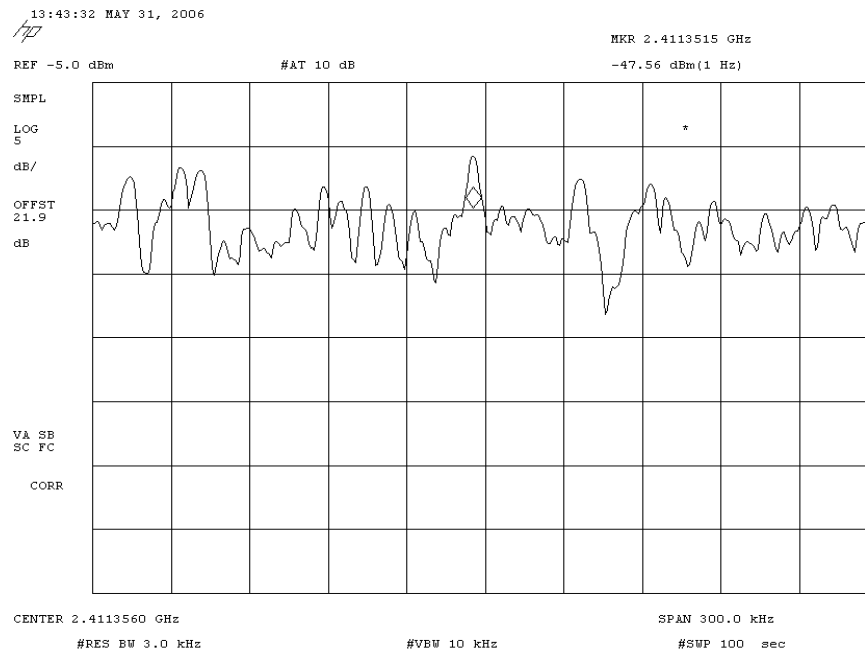
POWER SPECTRAL DENSITY

Low Channel

Result: Pass

Value: -12.8 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

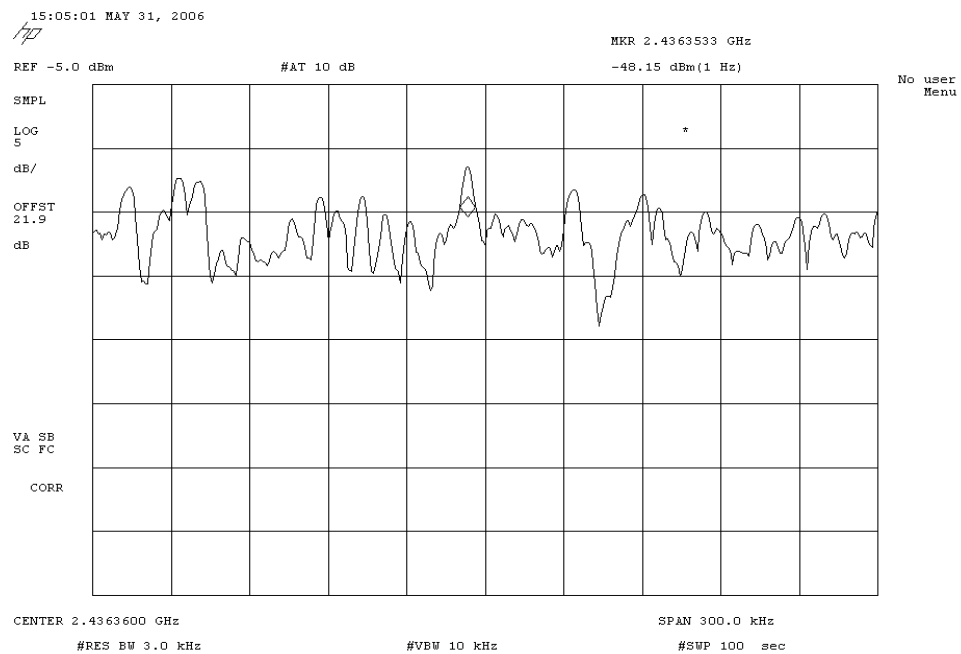


Mid Channel

Result: Pass

Value: -13.4 dBm / 3 kHz

Limit: 8 dBm / 3 kHz



High Channel

Result: Pass

Value: -14.1 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

14:39:55 MAY 31, 2006

hp

MKR 2.4613528 GHz

REF -5.0 dBm

#AT 10 dB

-48.29 dBm(1 Hz)

No user
Menu

SMPL

LOG

dB/

OFFST

21.9

dB

VA SB

SC FC

CORR

CENTER 2.4613550 GHz

SPAN 300.0 kHz

#RES BW 3.0 kHz

#VBW 10 kHz

#SVP 100 sec



Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

MODES OF OPERATION

802.11(b) Low channel

802.11(b) mid channel

802.11(b) high channel

POWER SETTINGS

120VAC/60Hz

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	25 GHz
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SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Pre-Amplifier	Miteq	JSD4-18002600-26-8P	APU	3/23/2006	13
Antenna, Horn	EMCO	3160-09	AHG	NCR	0
Pre-Amplifier	Miteq	AMF-4D-005180-24-10P	APC	5/12/2006	13
Antenna, Horn	EMCO	3160-08	AHK	NCR	0
High Pass Filter	Micro-Tronics	HPM50111	HFO	4/4/2006	13
Pre-Amplifier	Miteq	AMF-4D-010100-24-10P	APW	8/2/2005	13
Antenna, Horn	EMCO	3115	AHC	8/30/2005	12
Pre-Amplifier	Miteq	AM-1616-1000	AOL	1/4/2006	13
Antenna, Biconilog	EMCO	3141	AXE	12/28/2005	24
Spectrum Analyzer	Agilent	E4446A	AAT	4/4/2006	12

MEASUREMENT BANDWIDTHS

	Frequency Range	Peak Data	Quasi-Peak Data	Average Data
	(MHz)	(kHz)	(kHz)	(kHz)
	0.01 - 0.15	1.0	0.2	0.2
	0.15 - 30.0	10.0	9.0	9.0
	30.0 - 1000	100.0	120.0	120.0
	Above 1000	1000.0	N/A	1000.0

Measurements were made using the bandwidths and detectors specified. No video filter was used.

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

The highest gain of each type of antenna to be used with the EUT was tested. The EUT was configured for low, mid, and high band transmit frequencies. For each configuration, the spectrum was scanned throughout the specified range. In addition, measurements were made in the restricted bands to verify compliance. While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and the EUT antenna in three orthogonal axis, and adjusting measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes (per ANSI C63.4:2003). A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

EMC

Spurious Radiated Emissions

EUT: WLNB-AN-DP101 radio in PAD 3500						Work Order: ELET0004	
Serial Number: Beta 6 (Host)						Date: 06/03/06	
Customer: ADASA Inc.						Temperature: 23	
Attendees: None						Humidity: 42%	
Project: None						Barometric Pres.: 29.89	
Tested by: Greg Kiemel			Power: 120VAC/60Hz			Job Site: EV01	

TEST SPECIFICATIONS

Test Method

FCC 15.247:2006

ANSI C63.4:2003

TEST PARAMETERS

Antenna Height(s) (m)	1 - 4	Test Distance (m)	3
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COMMENTS

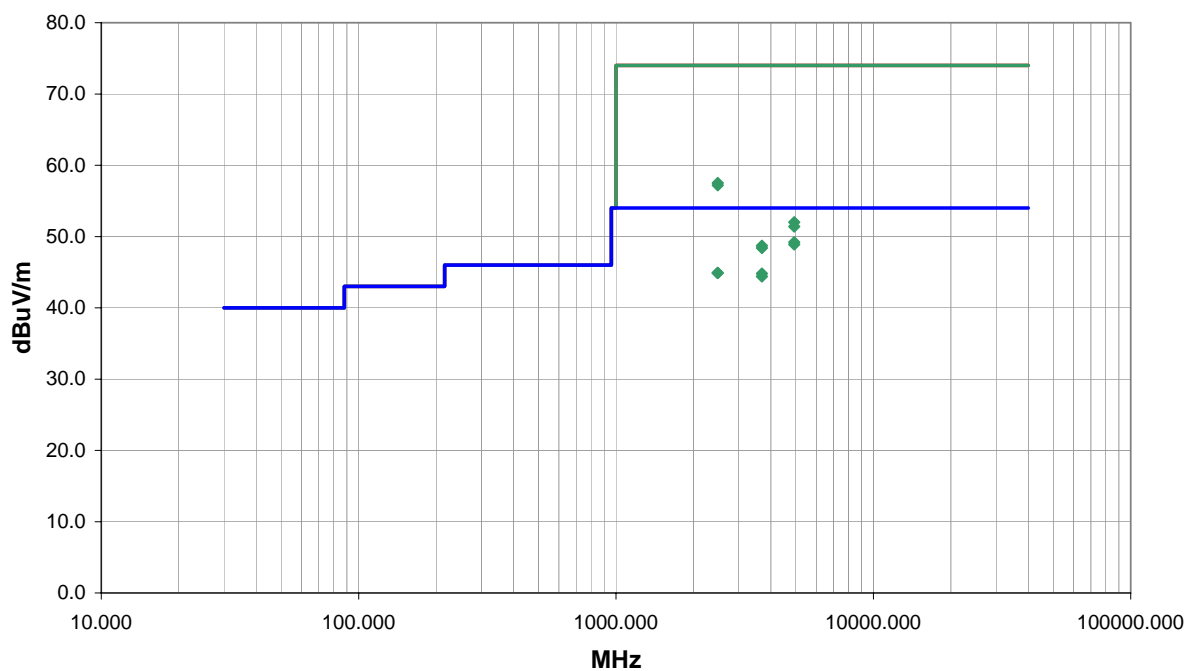
EUT OPERATING MODES

802.11(b) high channel

DEVIATIONS FROM TEST STANDARD

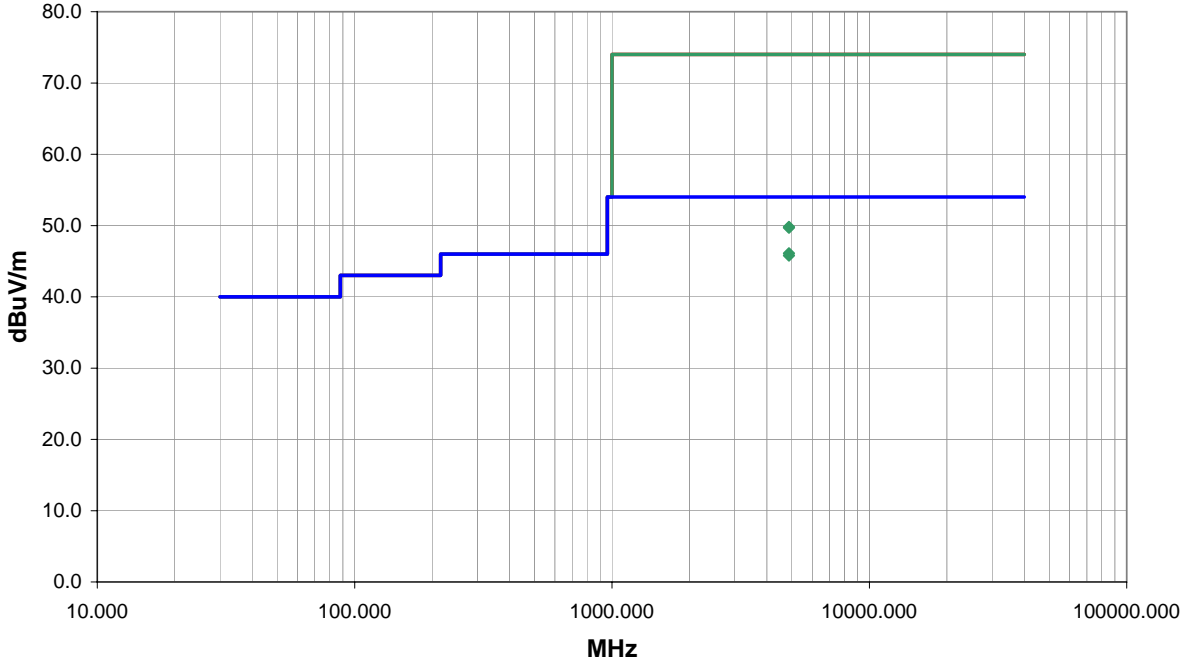
No deviations.

Run #	2	NVLAP Lab Code 200630-0	Signature 
Configuration #	2		
Results	Pass		



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)
4924.030	42.5	6.7	52.0	1.0	0.0	0.0	V-Horn	AV	0.0	49.2	54.0	-4.8
4924.000	42.2	6.7	75.0	1.0	0.0	0.0	H-Horn	AV	0.0	48.9	54.0	-5.1
2483.140	24.4	0.5	302.0	3.7	0.0	20.0	V-Horn	AV	0.0	44.9	54.0	-9.1
2484.593	24.4	0.5	31.0	1.0	0.0	20.0	H-Horn	AV	0.0	44.9	54.0	-9.1
3691.330	40.2	4.6	91.0	1.0	0.0	0.0	V-Horn	AV	0.0	44.8	54.0	-9.2
3691.330	39.8	4.6	75.0	1.0	0.0	0.0	H-Horn	AV	0.0	44.4	54.0	-9.6
2484.257	37.0	0.5	31.0	1.0	0.0	20.0	H-Horn	PK	0.0	57.5	74.0	-16.5
2484.077	36.7	0.5	302.0	3.7	0.0	20.0	V-Horn	PK	0.0	57.2	74.0	-16.8
4924.000	45.3	6.7	52.0	1.0	0.0	0.0	V-Horn	PK	0.0	52.0	74.0	-22.0
4924.330	44.7	6.7	75.0	1.0	0.0	0.0	H-Horn	PK	0.0	51.4	74.0	-22.6
3691.320	44.1	4.6	91.0	1.0	0.0	0.0	V-Horn	PK	0.0	48.7	74.0	-25.3
3691.400	43.8	4.6	75.0	1.0	0.0	0.0	H-Horn	PK	0.0	48.4	74.0	-25.6

NORTHWEST		PSA 2006.05.30	
EMC		Spurious Radiated Emissions	
EUT: WLNB-AN-DP101 radio in PAD 3500		Work Order: ELET0004	
Serial Number: Beta 6 (Host)		Date: 06/04/06	
Customer: ADASA Inc.		Temperature: 23°C	
Attendees: None		Humidity: 42%	
Project: None		Barometric Pres.: 29.89	
Tested by: Greg Kiemel		Power: 120VAC/60Hz	Job Site: EV01
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2006		ANSI C63.4:2003	
TEST PARAMETERS			
Antenna Height(s) (m)	1 - 4		Test Distance (m) 0
COMMENTS			
EUT OPERATING MODES			
802.11(b) mid channel			
DEVIATIONS FROM TEST STANDARD			
No deviations.			
Run #	3		
Configuration #	2		
Results	Pass		
NVLAP Lab Code 200630-0		Signature <i>Greg Kiemel</i>	



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)
4874.030	39.6	6.5	32.0	1.3	0.0	0.0	V-Horn	AV	0.0	46.1	54.0	-7.9
4874.020	39.3	6.5	76.0	1.0	0.0	0.0	H-Horn	AV	0.0	45.8	54.0	-8.2
4874.100	43.3	6.5	32.0	1.3	0.0	0.0	V-Horn	PK	0.0	49.8	74.0	-24.2
4874.100	43.2	6.5	76.0	1.0	0.0	0.0	H-Horn	PK	0.0	49.7	74.0	-24.3

NORTHWEST		PSA 2006.05.30 EMI 2006.6.2	
EMC		Spurious Radiated Emissions	
EUT: WLN-B-AN-DP101 radio in PAD 3500		Work Order: ELET0004	
Serial Number: Beta 6 (Host)		Date: 06/04/06	
Customer: ADASA Inc.		Temperature: 23°C	
Attendees: None		Humidity: 42%	
Project: None		Barometric Pres.: 29.89	
Tested by: Greg Kiemel	Power: 120VAC/60Hz	Job Site: EV01	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2006		ANSI C63.4:2003	
TEST PARAMETERS			
Antenna Height(s) (m)	1 - 4	Test Distance (m)	0
COMMENTS			
EUT OPERATING MODES			
802.11(b) Low channel			
DEVIATIONS FROM TEST STANDARD			
No deviations.			
Run #	4	<div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 10px;">Signature</div> </div>	
Configuration #	2		
Results	Pass		
		NVLAP Lab Code 200630-0	

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)
4824.030	40.9	6.4	57.0	1.0	0.0	0.0	V-Horn	AV	0.0	47.3	54.0	-6.7
4824.030	39.2	6.4	83.0	1.0	0.0	0.0	H-Horn	AV	0.0	45.6	54.0	-8.4
4823.970	44.3	6.4	57.0	1.0	0.0	0.0	V-Horn	PK	0.0	50.7	74.0	-23.3
4823.880	43.2	6.4	83.0	1.0	0.0	0.0	H-Horn	PK	0.0	49.6	74.0	-24.4

Spurious Radiated Emissions



Spurious Radiated Emissions



Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

MODES OF OPERATION

802.11(b) high channel

802.11(b) mid channel

802.11(b) low channel

POWER SETTINGS INVESTIGATED

120VAC/60Hz

SAMPLE CALCULATIONS

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
LISN	Solar	9252-50-R-24-BNC	LIQ	12/13/2005	13
High Pass Filter	T.T.E.	7766	HFG	12/19/2005	13
Attenuator	Coaxicom	66702 2910-20	RBS	12/19/2005	13
Quasi-Peak Adapter	Hewlett-Packard	85650A	AQD	12/21/2005	13
Spectrum Analyzer Display	Hewlett Packard	85662A	AAID	12/21/2005	13
Spectrum Analyzer	Hewlett-Packard	8568B	AAI	12/21/2005	13

MEASUREMENT BANDWIDTHS

	Frequency Range	Peak Data	Quasi-Peak Data	Average Data
	(MHz)	(kHz)	(kHz)	(kHz)
	0.01 - 0.15	1.0	0.2	0.2
	0.15 - 30.0	10.0	9.0	9.0
	30.0 - 1000	100.0	120.0	120.0
	Above 1000	1000.0	N/A	1000.0

Measurements were made using the bandwidths and detectors specified. No video filter was used.

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

Using the mode of operation and configuration noted within this report, conducted emissions tests were performed. The frequency range investigated (scanned), is also noted in this report. Conducted power line measurements are made, unless otherwise specified, over the frequency range from 150 kHz to 30 MHz to determine the line-to-ground radio-noise voltage that is conducted from the EUT power-input terminals that are directly (or indirectly via separate transformer or power supplies) connected to a public power network. Equipment is tested with power cords that are normally used or that have electrical or shielding characteristics that are the same as those cords normally used. Typically those measurements are made using a LISN (Line Impedance Stabilization Network), the 50 Ω measuring port is terminated by a 50 Ω EMI meter or a 50 Ω resistive load. All 50 Ω measuring ports of the LISN are terminated by 50 Ω .

NORTHWEST EMC		CONDUCTED EMISSIONS DATA SHEET		ACQ-2006.05.30 EMI 2005.9.18					
EUT: WLNB-AN-DP101 radio in PAD 3500			Work Order: ELET0004						
Serial Number: Beta 8 (Host)			Date: 05/31/06						
Customer: ADASA Inc.			Temperature: 23°C						
Attendees: Clarke McAllister			Humidity: 37%						
Project: None			Barometric Pres.: 29.99						
Tested by: David Divergigelis		Power: 120VAC/60Hz		Job Site: EV07					
TEST SPECIFICATIONS			Test Method						
FCC 15.207 Class B:2005-10			ANSI C63.4:2003						
TEST PARAMETERS									
Cable or Line Tested		L1							
COMMENTS									
RFID standby									
EUT OPERATING MODES									
802.11(b) low channel									
DEVIATIONS FROM TEST STANDARD									
No deviations.									
Run #	1	NVLAP Lab Code 200630-0 Signature <i>David Divergigelis</i>							
Configuration #	1								
Results	Pass								
Freq (MHz)	Amplitude (dBuV)		Transducer (dB)	Cable (dB)	External Attenuation (dB)	Detector (blank equal peaks [PK] from scan)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.431	20.4		2.1	0.0	20.0		42.5	47.2	-4.8
0.675	18.4		1.4	0.0	20.0		39.8	46.0	-6.2
1.335	19.3		0.5	0.0	20.0		39.8	46.0	-6.2
1.395	19.1		0.5	0.0	20.0		39.6	46.0	-6.4
1.865	19.0		0.5	0.0	20.0		39.5	46.0	-6.5
1.635	18.9		0.5	0.0	20.0		39.4	46.0	-6.6
1.805	18.9		0.5	0.0	20.0		39.4	46.0	-6.6
1.155	18.8		0.5	0.0	20.0		39.3	46.0	-6.7
4.997	18.8		0.5	0.0	20.0		39.3	46.0	-6.7
2.046	18.7		0.5	0.0	20.0		39.2	46.0	-6.8
3.646	18.7		0.5	0.0	20.0		39.2	46.0	-6.8
0.923	18.4		0.7	0.0	20.0		39.1	46.0	-6.9
3.706	18.6		0.5	0.0	20.0		39.1	46.0	-6.9
3.886	18.6		0.5	0.0	20.0		39.1	46.0	-6.9
3.456	18.5		0.5	0.0	20.0		39.0	46.0	-7.0
1.575	18.3		0.5	0.0	20.0		38.8	46.0	-7.2
3.586	18.3		0.5	0.0	20.0		38.8	46.0	-7.2
4.937	18.3		0.5	0.0	20.0		38.8	46.0	-7.2
3.956	18.2		0.5	0.0	20.0		38.7	46.0	-7.3

NORTHWEST		CONDUCTED EMISSIONS DATA SHEET				ACQ-2006.05.30				
EMC						EMI 2005.9.18				
EUT: WLNБ-AN-DP101 radio in PAD 3500						Work Order: ELET0004				
Serial Number: Beta 8 (Host)						Date: 05/31/06				
Customer: ADASA Inc.						Temperature: 23°C				
Attendees: Clarke McAllister						Humidity: 37%				
Project: None						Barometric Pres.: 29.99				
Tested by: David Divergigelis				Power: 120VAC/60Hz		Job Site: EV07				
TEST SPECIFICATIONS						Test Method				
FCC 15.207 Class B:2005-10						ANSI C63.4:2003				
TEST PARAMETERS										
Cable or Line Tested		N								
COMMENTS										
RFID standby										
EUT OPERATING MODES										
802.11(b) low channel										
DEVIATIONS FROM TEST STANDARD										
No deviations.										
Run #		2		Signature <i>David Divergigelis</i>						
Configuration #		1								
Results		Pass								
NVLAP Lab Code 200630-0										
Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)	Detector (blank equal peaks [PK] from scan)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.432	21.3			2.1	0.0	20.0		43.4	47.2	-3.8
0.677	19.9			1.4	0.0	20.0		41.3	46.0	-4.7
0.923	19.9			0.7	0.0	20.0		40.6	46.0	-5.4
1.155	19.8			0.5	0.0	20.0		40.3	46.0	-5.7
3.466	19.8			0.5	0.0	20.0		40.3	46.0	-5.7
0.862	19.3			0.9	0.0	20.0		40.2	46.0	-5.8
1.335	19.4			0.5	0.0	20.0		39.9	46.0	-6.1
1.395	19.4			0.5	0.0	20.0		39.9	46.0	-6.1
1.575	19.4			0.5	0.0	20.0		39.9	46.0	-6.1
3.706	19.4			0.5	0.0	20.0		39.9	46.0	-6.1
1.095	19.2			0.5	0.0	20.0		39.7	46.0	-6.3
3.526	19.2			0.5	0.0	20.0		39.7	46.0	-6.3
3.586	19.2			0.5	0.0	20.0		39.7	46.0	-6.3
1.635	19.1			0.5	0.0	20.0		39.6	46.0	-6.4
3.646	19.1			0.5	0.0	20.0		39.6	46.0	-6.4
3.776	19.1			0.5	0.0	20.0		39.6	46.0	-6.4
0.614	18.0			1.6	0.0	20.0		39.6	46.0	-6.4
3.216	19.0			0.5	0.0	20.0		39.5	46.0	-6.5
1.805	18.9			0.5	0.0	20.0		39.4	46.0	-6.6

NORTHWEST		CONDUCTED EMISSIONS DATA SHEET		ACQ-2006.05.30					
EMC				EMI 2005.9.18					
EUT: WLN-B-AN-DP101 radio in PAD 3500			Work Order: ELET0004						
Serial Number: Beta 8 (Host)			Date: 05/31/06						
Customer: ADASA Inc.			Temperature: 23°C						
Attendees: Clarke McAllister			Humidity: 37%						
Project: None			Barometric Pres.: 29.99						
Tested by: David Divergigelis		Power: 120VAC/60Hz		Job Site: EV07					
TEST SPECIFICATIONS			Test Method						
FCC 15.207 Class B:2005-10			ANSI C63.4:2003						
TEST PARAMETERS									
Cable or Line Tested		N							
COMMENTS									
RFID standby									
EUT OPERATING MODES									
802.11(b) mid channel									
DEVIATIONS FROM TEST STANDARD									
No deviations.									
Run #	3	NVLAP Lab Code 200630-0 Signature <i>David Divergigelis</i>							
Configuration #	1								
Results	Pass								
Freq (MHz)	Amplitude (dBuV)		Transducer (dB)	Cable (dB)	External Attenuation (dB)	Detector (blank equal peaks [PK] from scan)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.431	22.1		2.1	0.0	20.0		44.2	47.2	-3.1
0.677	20.1		1.4	0.0	20.0		41.5	46.0	-4.5
0.864	19.7		0.9	0.0	20.0		40.6	46.0	-5.4
0.925	19.8		0.7	0.0	20.0		40.5	46.0	-5.5
0.616	18.8		1.6	0.0	20.0		40.4	46.0	-5.6
1.395	19.8		0.5	0.0	20.0		40.3	46.0	-5.7
1.165	19.7		0.5	0.0	20.0		40.2	46.0	-5.8
3.716	19.7		0.5	0.0	20.0		40.2	46.0	-5.8
3.406	19.6		0.5	0.0	20.0		40.1	46.0	-5.9
3.466	19.5		0.5	0.0	20.0		40.0	46.0	-6.0
3.586	19.5		0.5	0.0	20.0		40.0	46.0	-6.0
1.095	19.4		0.5	0.0	20.0		39.9	46.0	-6.1
1.865	19.2		0.5	0.0	20.0		39.7	46.0	-6.3
3.526	19.2		0.5	0.0	20.0		39.7	46.0	-6.3
4.827	19.2		0.5	0.0	20.0		39.7	46.0	-6.3
1.335	19.0		0.5	0.0	20.0		39.5	46.0	-6.5
1.575	19.0		0.5	0.0	20.0		39.5	46.0	-6.5
1.635	19.0		0.5	0.0	20.0		39.5	46.0	-6.5
3.216	19.0		0.5	0.0	20.0		39.5	46.0	-6.5

NORTHWEST		CONDUCTED EMISSIONS DATA SHEET				ACQ-2006.05.30				
EMC						EMI 2005.9.18				
EUT: WLNБ-AN-DP101 radio in PAD 3500						Work Order: ELET0004				
Serial Number: Beta 8 (Host)						Date: 05/31/06				
Customer: ADASA Inc.						Temperature: 23°C				
Attendees: Clarke McAllister						Humidity: 37%				
Project: None						Barometric Pres.: 29.99				
Tested by: David Divergigelis				Power: 120VAC/60Hz		Job Site: EV07				
TEST SPECIFICATIONS						Test Method				
FCC 15.207 Class B:2005-10						ANSI C63.4:2003				
TEST PARAMETERS										
Cable or Line Tested						L1				
COMMENTS										
RFID standby										
EUT OPERATING MODES										
802.11(b) mid channel										
DEVIATIONS FROM TEST STANDARD										
No deviations.										
Run #		4		Signature <i>David Divergigelis</i>						
Configuration #		1								
Results		Pass								
NVLAP Lab Code 200630-0										
Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)	Detector (blank equal peaks [PK] from scan)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.430	21.9			2.1	0.0	20.0		44.0	47.3	-3.3
1.635	19.6			0.5	0.0	20.0		40.1	46.0	-5.9
0.676	18.5			1.4	0.0	20.0		39.9	46.0	-6.1
0.863	19.0			0.9	0.0	20.0		39.9	46.0	-6.1
1.095	19.1			0.5	0.0	20.0		39.6	46.0	-6.4
4.827	19.1			0.5	0.0	20.0		39.6	46.0	-6.4
2.116	19.0			0.5	0.0	20.0		39.5	46.0	-6.5
3.716	19.0			0.5	0.0	20.0		39.5	46.0	-6.5
4.947	19.0			0.5	0.0	20.0		39.5	46.0	-6.5
1.165	18.9			0.5	0.0	20.0		39.4	46.0	-6.6
1.395	18.9			0.5	0.0	20.0		39.4	46.0	-6.6
1.875	18.9			0.5	0.0	20.0		39.4	46.0	-6.6
0.616	17.8			1.6	0.0	20.0		39.4	46.0	-6.6
3.656	18.8			0.5	0.0	20.0		39.3	46.0	-6.7
0.370	19.5			2.3	0.0	20.0		41.8	48.5	-6.8
1.925	18.7			0.5	0.0	20.0		39.2	46.0	-6.8
4.027	18.7			0.5	0.0	20.0		39.2	46.0	-6.8
4.887	18.7			0.5	0.0	20.0		39.2	46.0	-6.8
1.685	18.6			0.5	0.0	20.0		39.1	46.0	-6.9

NORTHWEST		CONDUCTED EMISSIONS DATA SHEET		ACQ-2006.05.30					
EMC				EMI 2005.9.18					
EUT: WLNb-AN-DP101 radio in PAD 3500			Work Order: ELET0004						
Serial Number: Beta 8 (Host)			Date: 05/31/06						
Customer: ADASA Inc.			Temperature: 23°C						
Attendees: Clarke McAllister			Humidity: 37%						
Project: None			Barometric Pres.: 29.99						
Tested by: David Divergigelis		Power: 120VAC/60Hz		Job Site: EV07					
TEST SPECIFICATIONS			Test Method						
FCC 15.207 Class B:2005-10			ANSI C63.4:2003						
TEST PARAMETERS									
Cable or Line Tested		L1							
COMMENTS									
RFID standby									
EUT OPERATING MODES									
802.11(b) high channel									
DEVIATIONS FROM TEST STANDARD									
No deviations.									
Run #	5	Signature <i>David Divergigelis</i> NVLAP Lab Code 200630-0							
Configuration #	1								
Results	Pass								
Freq (MHz)	Amplitude (dBuV)		Transducer (dB)	Cable (dB)	External Attenuation (dB)	Detector (blank equal peaks [PK] from scan)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.432	21.9		2.1	0.0	20.0		44.0	47.2	-3.2
0.369	20.7		2.3	0.0	20.0		43.0	48.5	-5.6
0.616	18.5		1.6	0.0	20.0		40.1	46.0	-5.9
1.395	19.4		0.5	0.0	20.0		39.9	46.0	-6.1
1.635	19.4		0.5	0.0	20.0		39.9	46.0	-6.1
0.676	18.5		1.4	0.0	20.0		39.9	46.0	-6.1
1.695	19.3		0.5	0.0	20.0		39.8	46.0	-6.2
0.924	18.9		0.7	0.0	20.0		39.6	46.0	-6.4
0.864	18.7		0.9	0.0	20.0		39.6	46.0	-6.4
1.875	19.0		0.5	0.0	20.0		39.5	46.0	-6.5
4.947	19.0		0.5	0.0	20.0		39.5	46.0	-6.5
2.116	18.9		0.5	0.0	20.0		39.4	46.0	-6.6
4.887	18.9		0.5	0.0	20.0		39.4	46.0	-6.6
1.455	18.8		0.5	0.0	20.0		39.3	46.0	-6.7
3.656	18.8		0.5	0.0	20.0		39.3	46.0	-6.7
1.165	18.7		0.5	0.0	20.0		39.2	46.0	-6.8
3.776	18.6		0.5	0.0	20.0		39.1	46.0	-6.9
1.935	18.5		0.5	0.0	20.0		39.0	46.0	-7.0
3.536	18.5		0.5	0.0	20.0		39.0	46.0	-7.0

NORTHWEST		CONDUCTED EMISSIONS DATA SHEET				ACQ-2006.05.30				
EMI 2005.9.18										
EUT: WLN-B-AN-DP101 radio in PAD 3500		Work Order: ELET0004								
Serial Number: Beta 8 (Host)		Date: 05/31/06								
Customer: ADASA Inc.		Temperature: 23°C								
Attendees: Clarke McAllister		Humidity: 37%								
Project: None		Barometric Pres.: 29.99								
Tested by: David Divergigelis		Power: 120VAC/60Hz		Job Site: EV07						
TEST SPECIFICATIONS				Test Method						
FCC 15.207 Class B:2005-10				ANSI C63.4:2003						
TEST PARAMETERS										
Cable or Line Tested		N								
COMMENTS										
RFID standby										
EUT OPERATING MODES										
802.11(b) high channel										
DEVIATIONS FROM TEST STANDARD										
No deviations.										
Run #		6								
Configuration #		1								
Results		Pass		NVLAP Lab Code 200630-0		Signature David Divergigelis				
Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)	Detector (blank equal peaks [PK] from scan)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.431	22.2			2.1	0.0	20.0		44.3	47.2	-3.0
0.864	19.7			0.9	0.0	20.0		40.6	46.0	-5.4
0.616	18.8			1.6	0.0	20.0		40.4	46.0	-5.6
0.677	18.8			1.4	0.0	20.0		40.2	46.0	-5.8
0.925	19.4			0.7	0.0	20.0		40.1	46.0	-5.9
1.165	19.5			0.5	0.0	20.0		40.0	46.0	-6.0
0.371	20.2			2.2	0.0	20.0		42.4	48.5	-6.0
1.395	19.3			0.5	0.0	20.0		39.8	46.0	-6.2
1.875	19.3			0.5	0.0	20.0		39.8	46.0	-6.2
1.635	19.2			0.5	0.0	20.0		39.7	46.0	-6.3
3.536	19.2			0.5	0.0	20.0		39.7	46.0	-6.3
3.656	19.2			0.5	0.0	20.0		39.7	46.0	-6.3
3.786	19.1			0.5	0.0	20.0		39.6	46.0	-6.4
3.476	19.0			0.5	0.0	20.0		39.5	46.0	-6.5
3.286	18.9			0.5	0.0	20.0		39.4	46.0	-6.6
1.335	18.8			0.5	0.0	20.0		39.3	46.0	-6.7
1.095	18.7			0.5	0.0	20.0		39.2	46.0	-6.8
1.575	18.7			0.5	0.0	20.0		39.2	46.0	-6.8
1.695	18.7			0.5	0.0	20.0		39.2	46.0	-6.8

