

Section 6

Test Report

Part 2

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Transmitter Spurious Emissions

FCC Rules: 2.1051, 2.1049, 2.1057
IC Rules: RSS-193 clause 4.4, 6.4

Frequency Range = 9 kHz to 26.50 GHz
Attenuation (dB) below the power (W) supplied to the antenna transmission line
Attenuation = $43 + 10 \log P$, or 70 dBc, whichever is less stringent
Attenuation = $43 + 10 \log(2) = 46$ dBc 2 watt transmit level
Attenuation = $43 + 10 \log(5) = 50$ dBc 5 watt transmit level
(both equate to absolute level of -13 dBm)

Standard: TIA-603-C
TIA Standard, Land Mobile FM or PM Communications Equipment, Measurement and Performance Standards

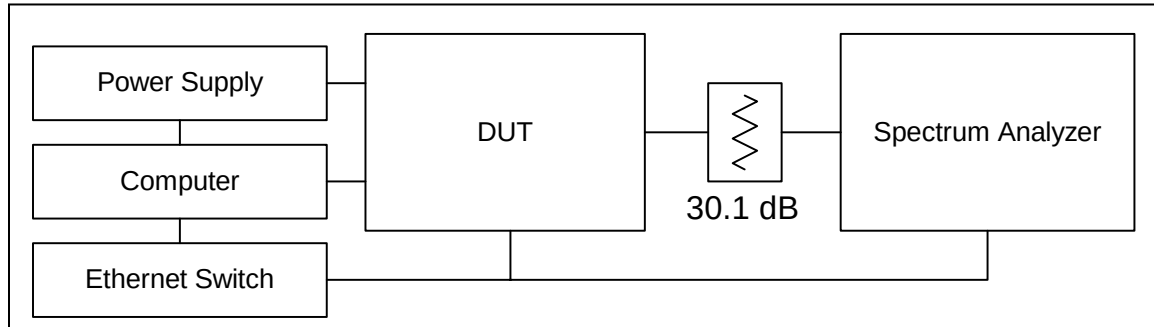
Test Procedure: The Orthogonal Frequency Division Multiplexing (OFDM) modulated Time Division Duplex (TDD) RF signal from the test unit is applied to a spectrum analyzer thru an attenuator and coax, or, for harmonic measurements, through an attenuator, notch filter and coax that was calibrated for RF loss at each harmonic frequency being tested. The transmission is recorded from 9 kHz to 26.5 GHz. The transmitter is enabled in test mode with the attached computer. The RF loss of the attenuator and coax is included in the spectrum analyzer offset level. Measurements are performed at frequencies across the band and both channel bandwidths (5.5 MHz and 6 MHz). All measurements utilized 4-QAM modulation.

One data plot from each channel bandwidth is included for measurements below the BRS/EBS frequency band. All other channels measured had similar-looking spectral plots. For tests above the BRS/EBS frequency (2.7-26.5 GHz), plots for all channels are included.

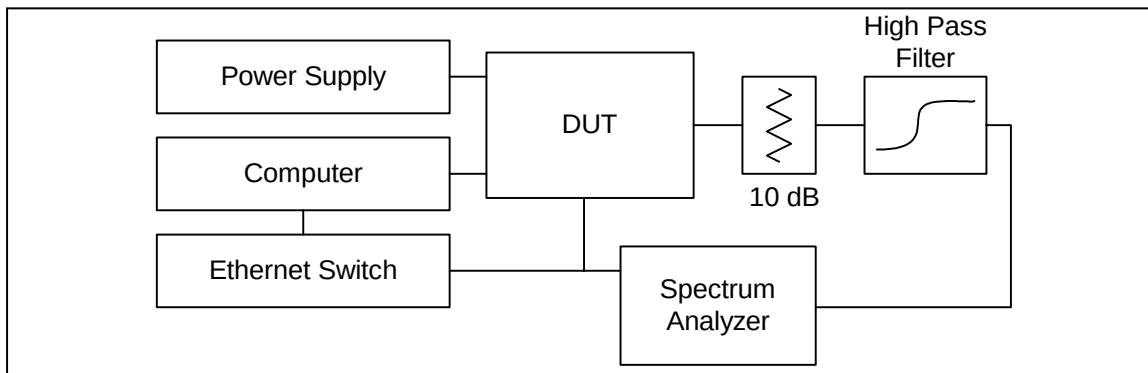
For harmonic tests, plots are shown for the second harmonic of all test channels. Then the 2593 MHz channel was chosen to show compliance for harmonics three to ten. The other channels tested have similar or lower harmonic levels.

Test Conditions: Channels = 2499, 2593, and 2687 MHz (5.5 and 6.0 MHz bandwidth)
Temperature = 25°C
Supply Voltage = 120 VAC / 60 Hz Nominal
to the DUT Power Supply

Test Results: Passes conducted emissions from 9 kHz to 26.86 MHz.



Spurious Emissions Test Setup

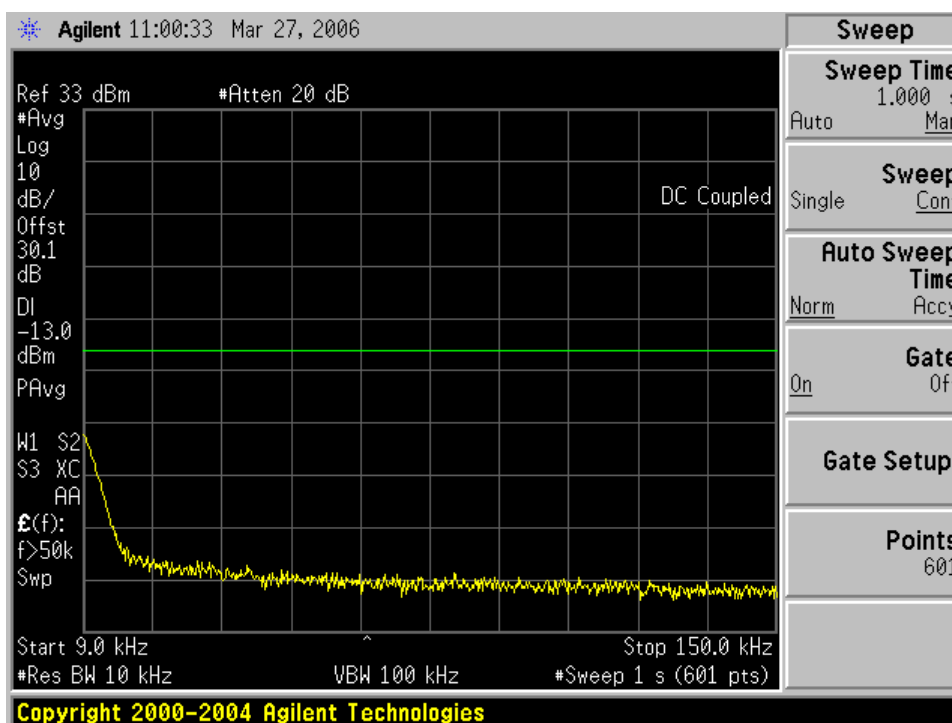


Harmonic Emissions Test Setup

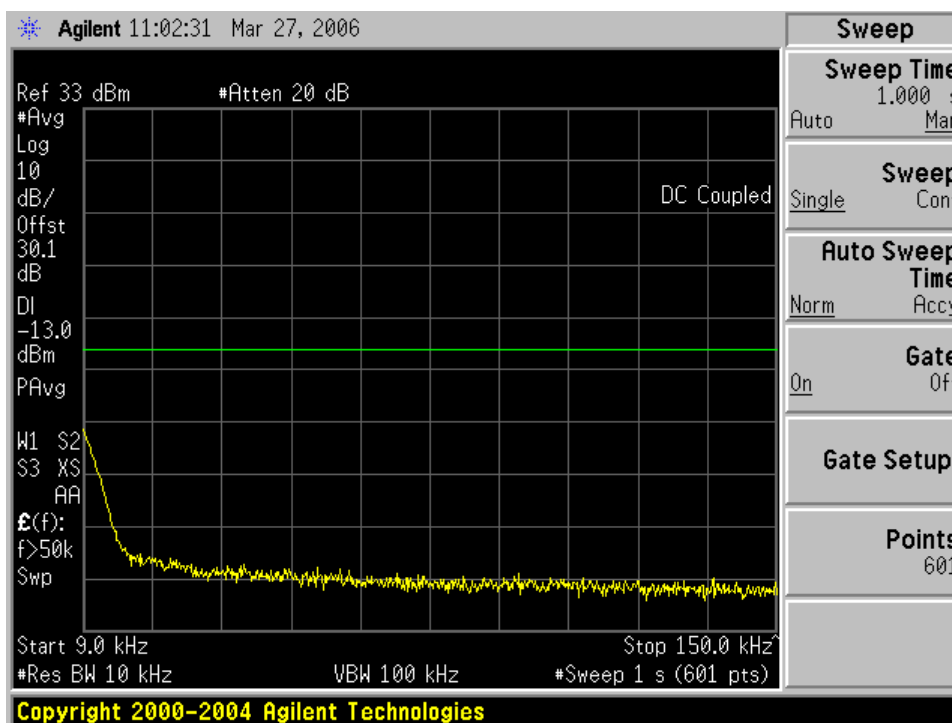
Transmitter Spurious Emissions Test Results

NOTE: For frequencies under 2.48 GHz, only plots for the 2499 MHz channel are shown on the pages which follow. The plots for the 2593 and 2687 MHz channels are similar and are located in the Appendix.

Transmitter Spurious Emissions Test Results

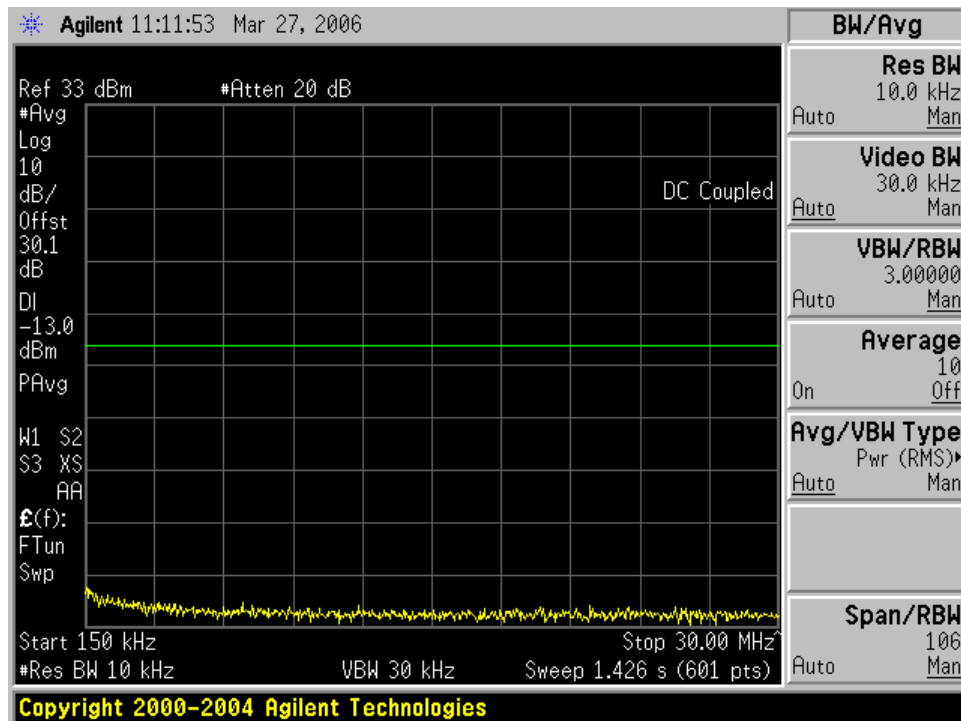


9 kHz – 150 kHz (2499 MHz, 6 MHz Channel)

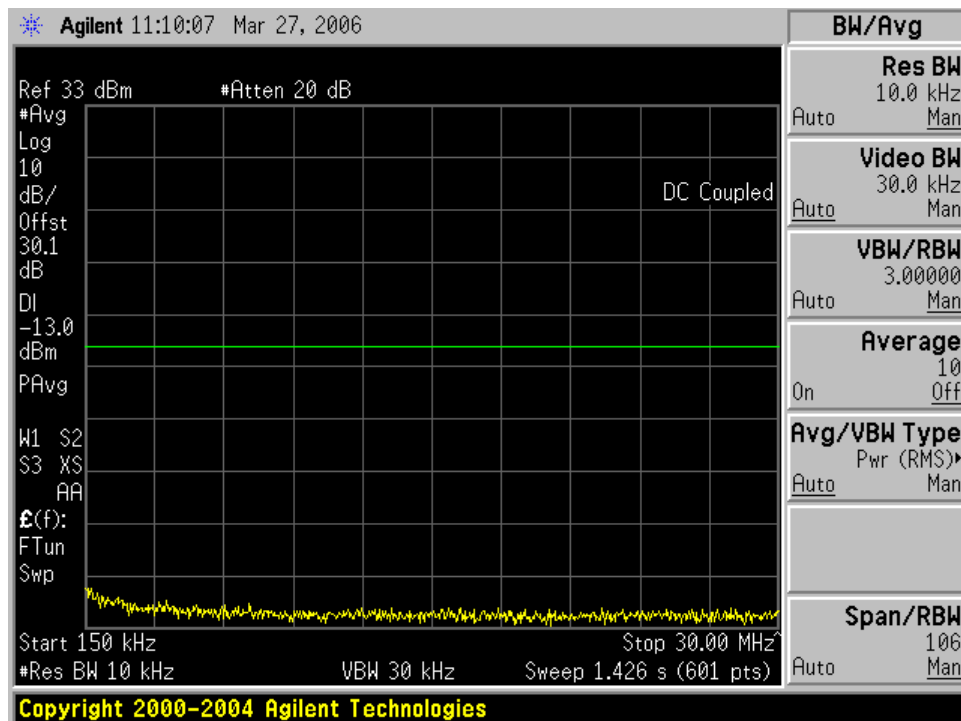


9 kHz – 150 kHz (2499 MHz, 5.5 MHz Channel)

Spurious Emissions At Antenna Terminals

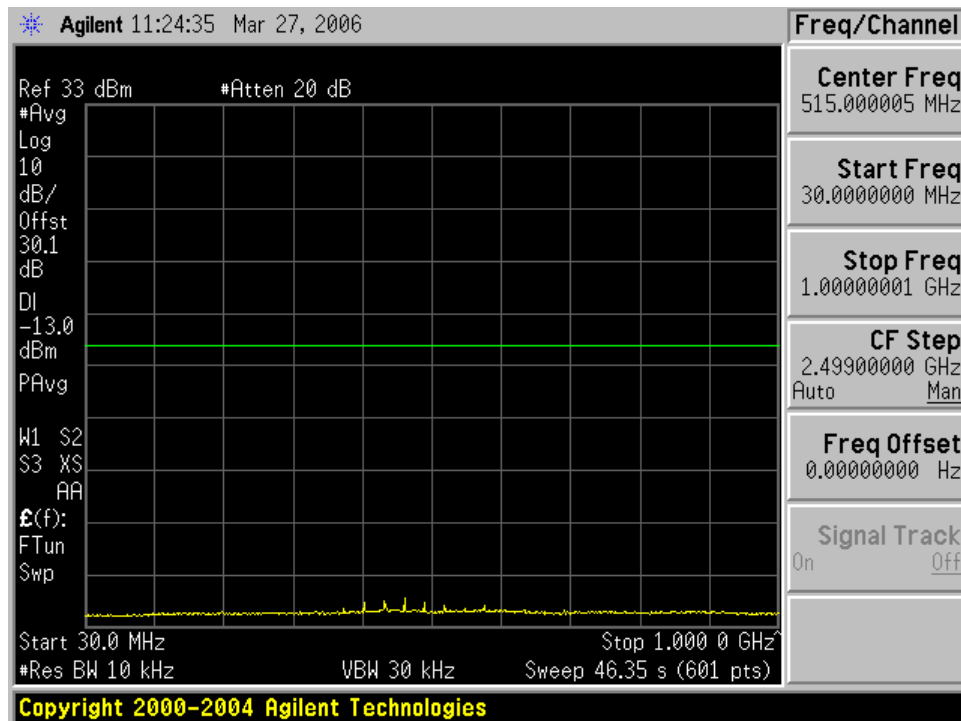


150 kHz – 30 MHz (2499 MHz, 6 MHz Channel)

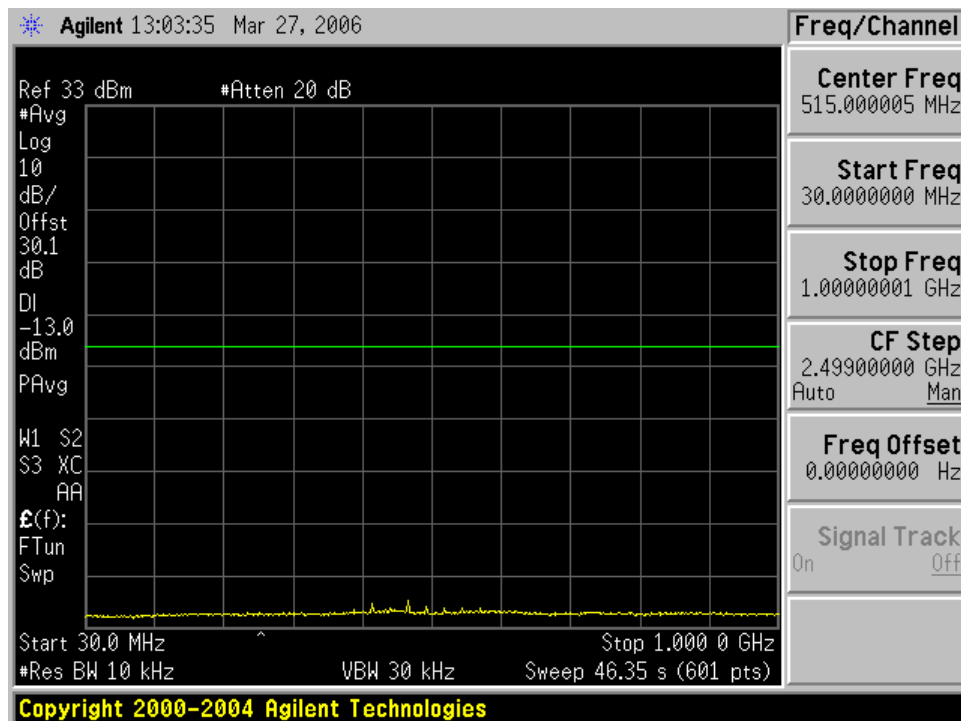


150 kHz – 30 MHz (2499 MHz, 5.5 MHz Channel)

Spurious Emissions At Antenna Terminals

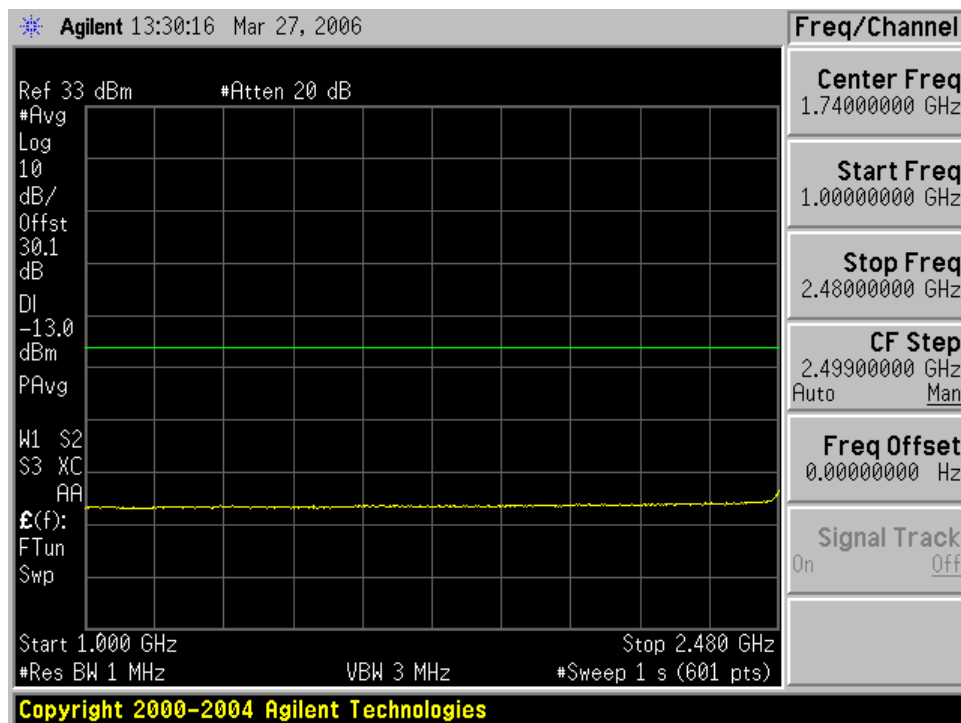


30 MHz – 1 GHz (2499 MHz, 6 MHz Channel)

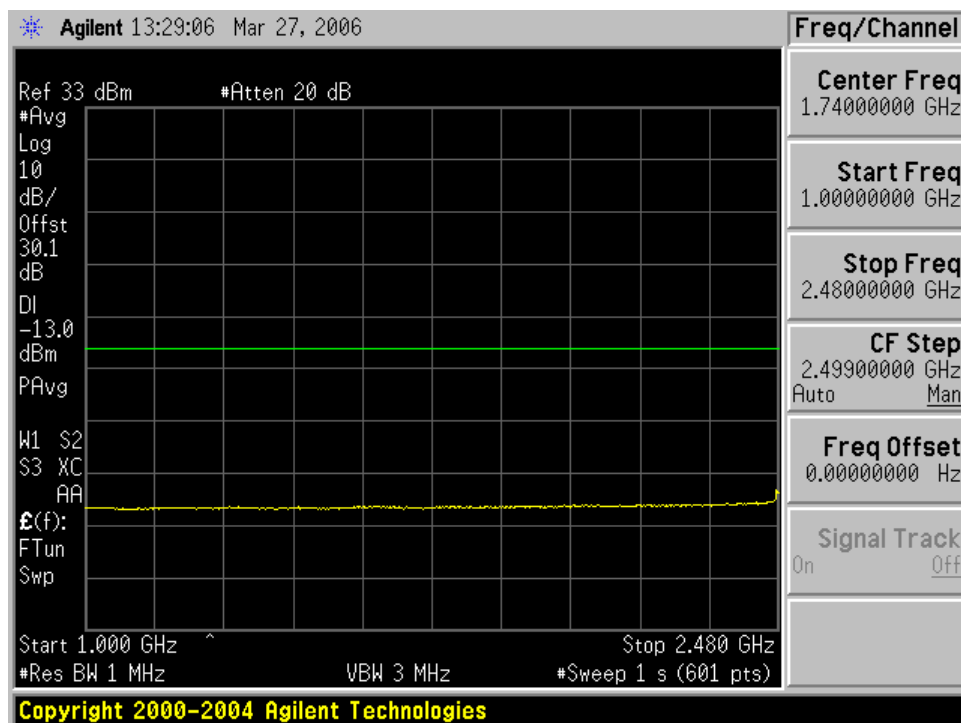


30 MHz – 1 GHz (2626.75 MHz, 5.5 MHz Channel)

Spurious Emissions At Antenna Terminals

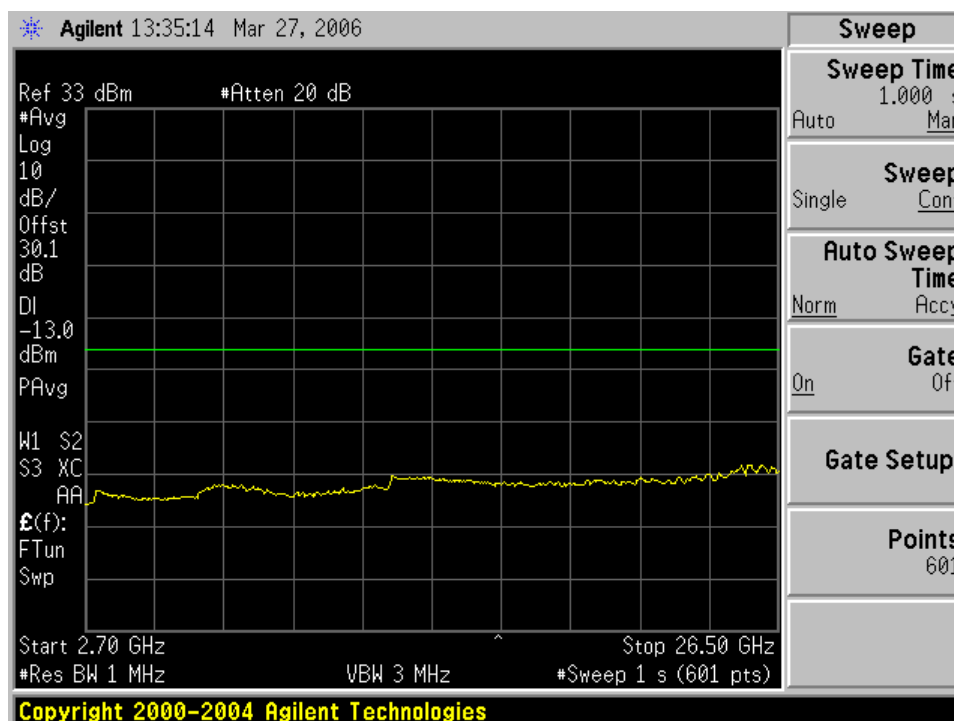


1 GHz – 2.48 GHz (2499 MHz, 6 MHz Channel)

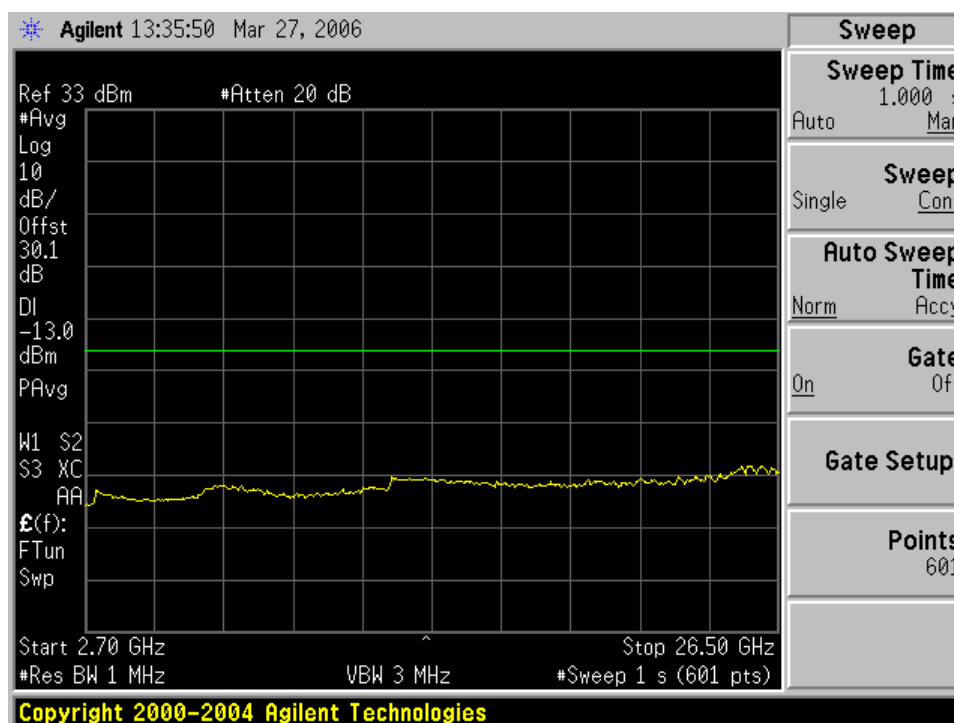


1 GHz – 2.48 GHz (2626.75 MHz, 5.5 MHz Channel)

Spurious Emissions At Antenna Terminals

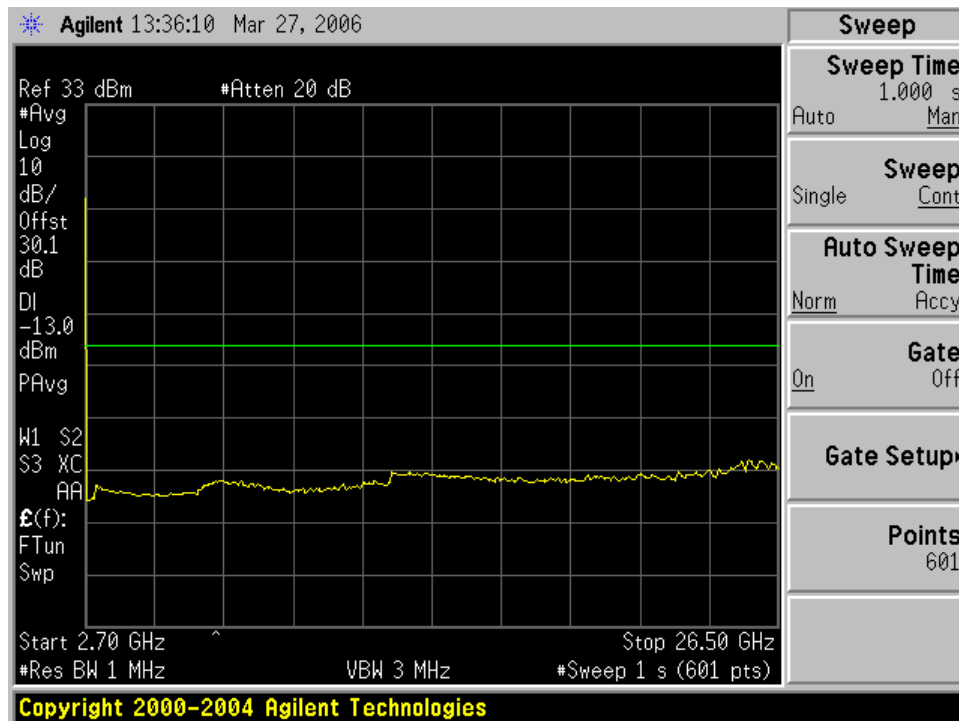


2.7 GHz – 26.5 GHz (2499 MHz, 6 MHz Channel)

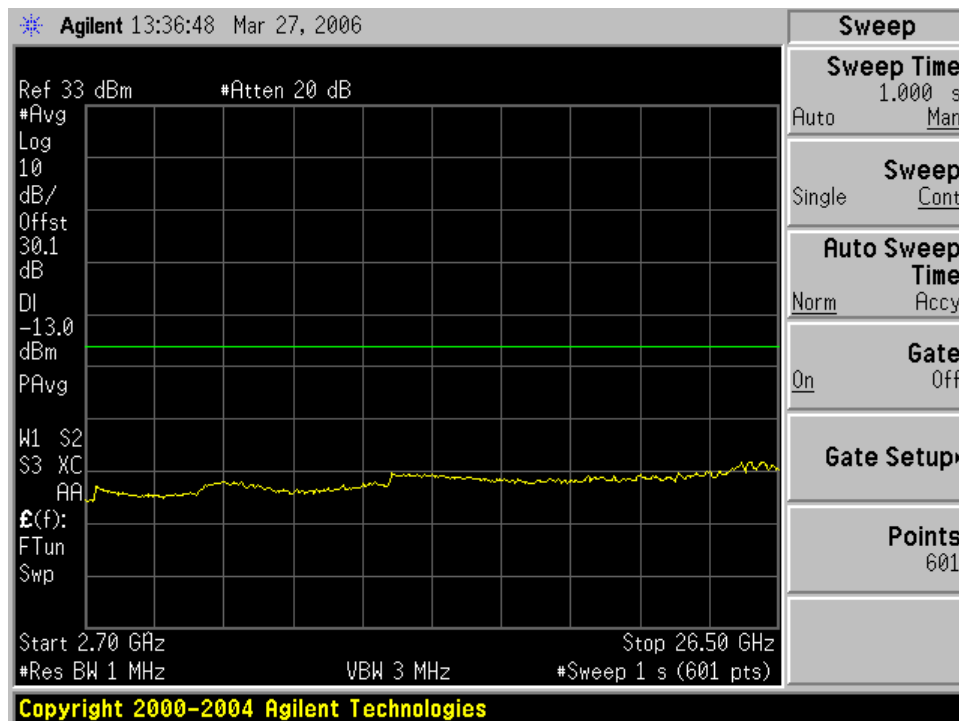


2.7 GHz – 26.5 GHz (2593 MHz, 6 MHz Channel)

Spurious Emissions At Antenna Terminals

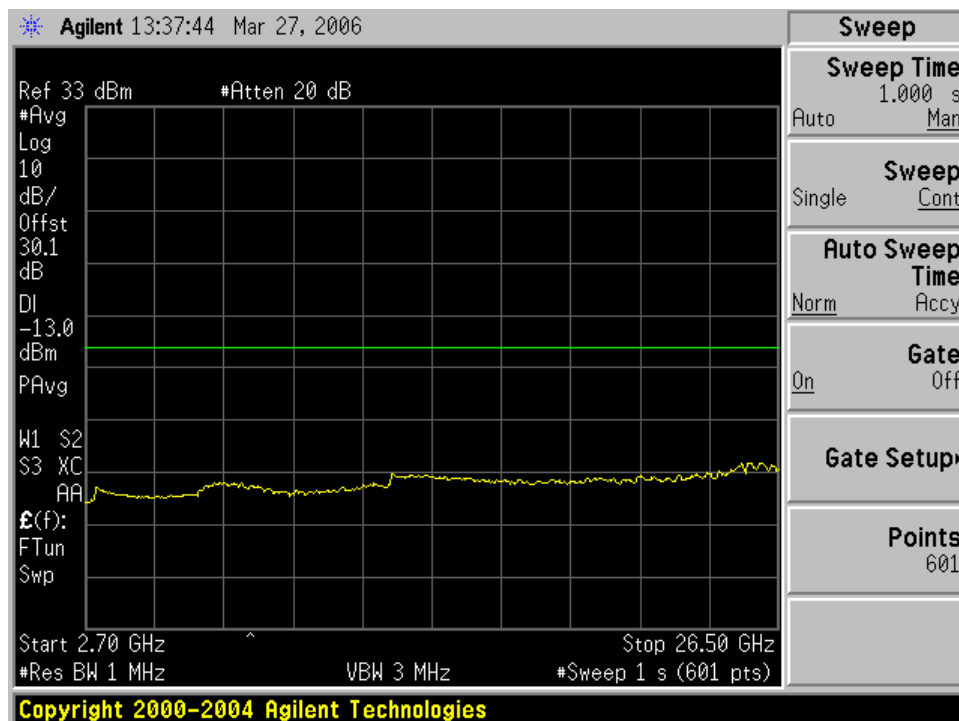


2.7 GHz – 26.5 GHz (2687 MHz, 6 MHz Channel)

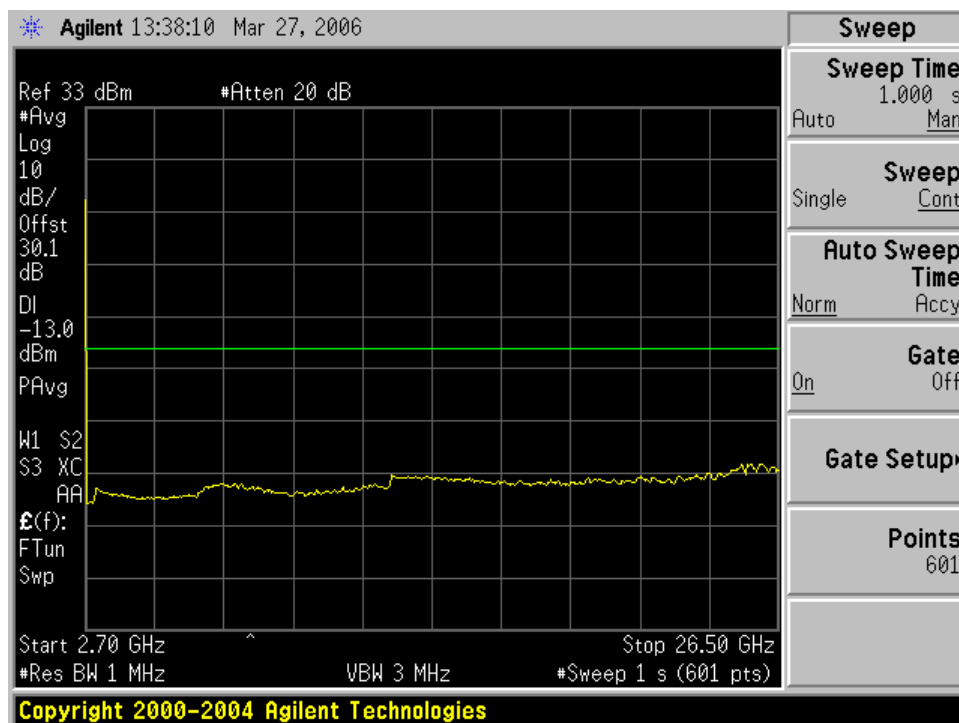


2.7 GHz – 26.5 GHz (2499 MHz, 5.5 MHz Channel)

Spurious Emissions At Antenna Terminals

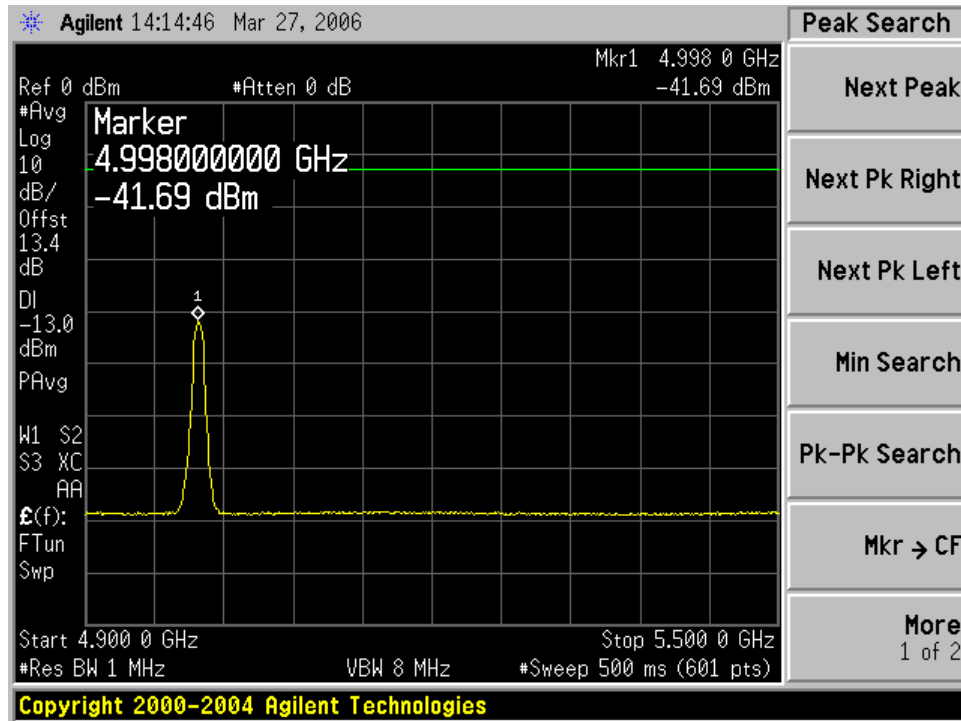


2.7 GHz – 26.5 GHz (2593 MHz, 5.5 MHz Channel)

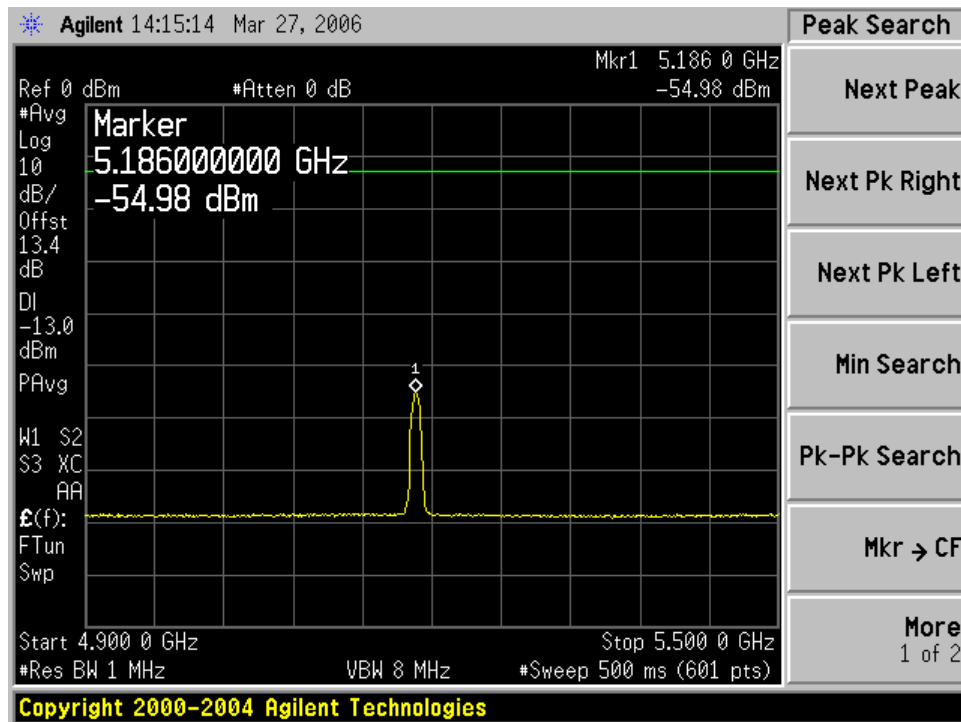


2.7 GHz – 26.5 GHz (2687 MHz, 5.5 MHz Channel)

Second Harmonic Emissions At Antenna Terminals

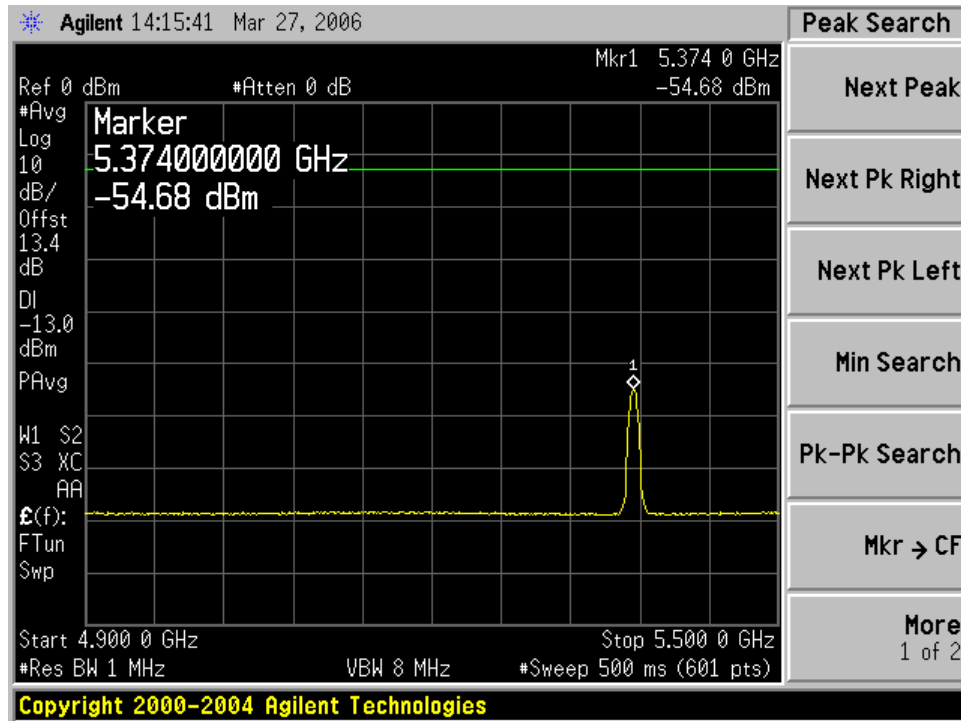


4.992 GHz – 5.38 GHz (2499 MHz, 6 MHz Channel)



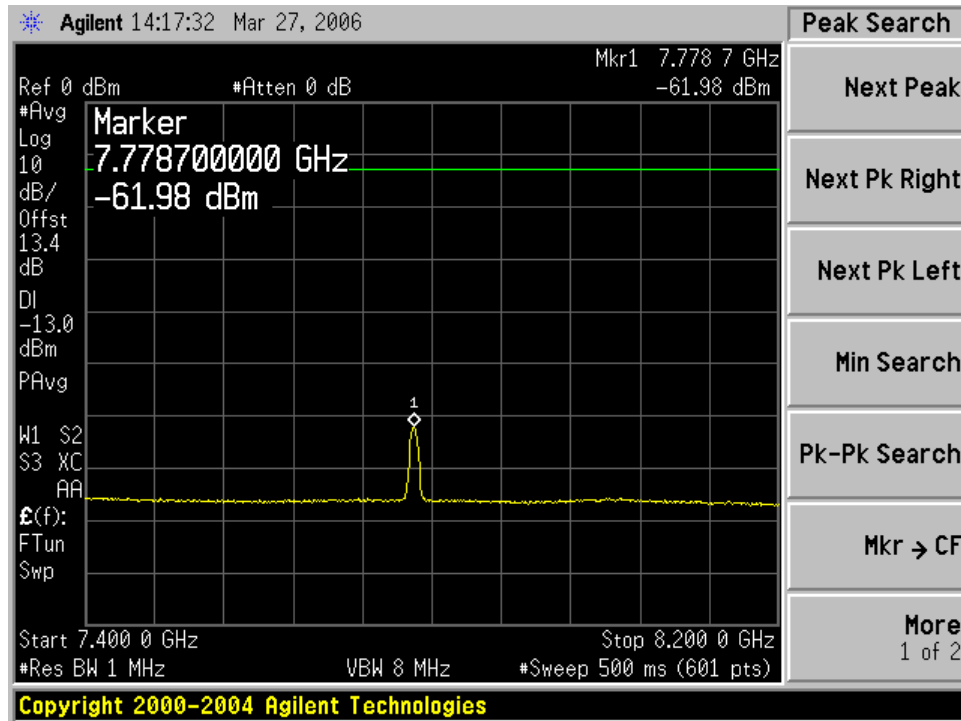
4.992 GHz – 5.38 GHz (2593 MHz, 6 MHz Channel)

Second Harmonic Emissions At Antenna Terminals

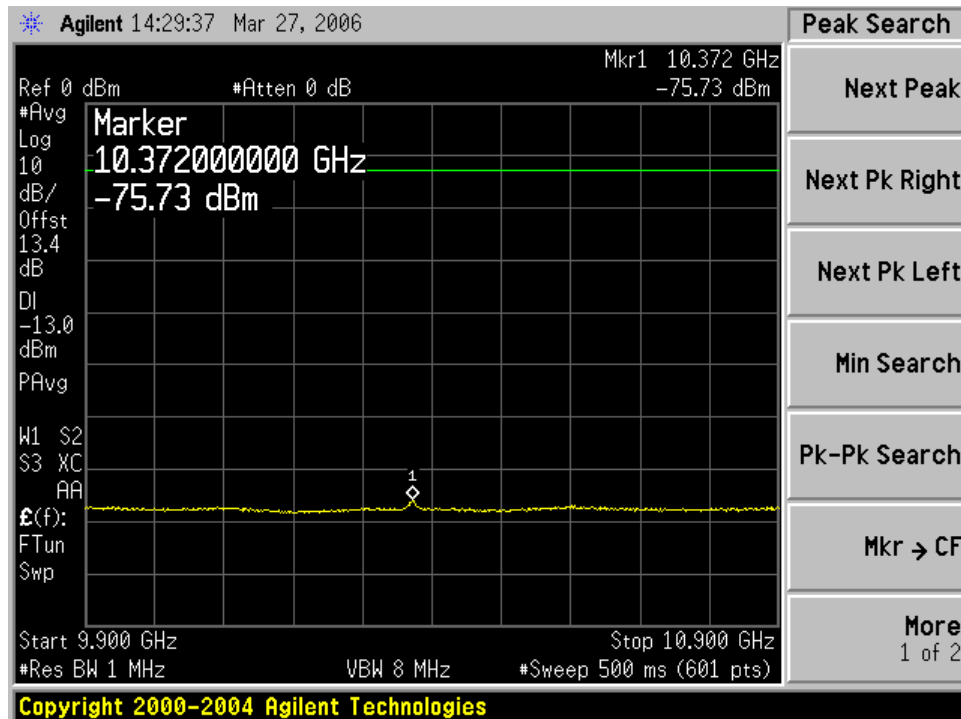


4.992 GHz – 5.38 GHz (2687 MHz, 6 MHz Channel)

Harmonic 3-4 Emissions At Antenna Terminals

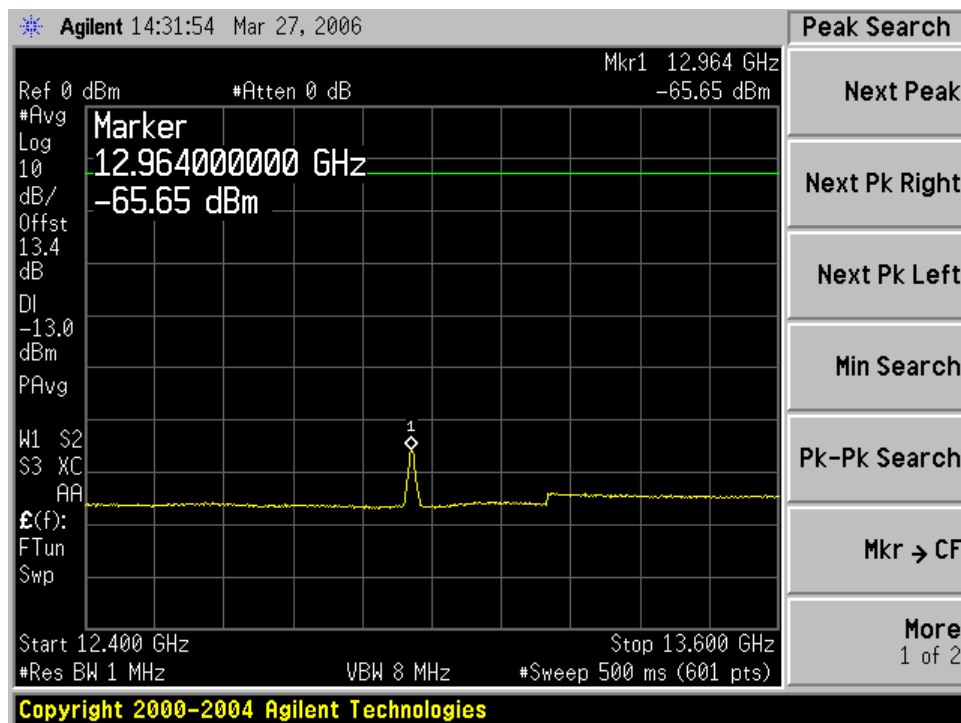


3rd Harmonic of 2593 MHz (6 MHz Channel)

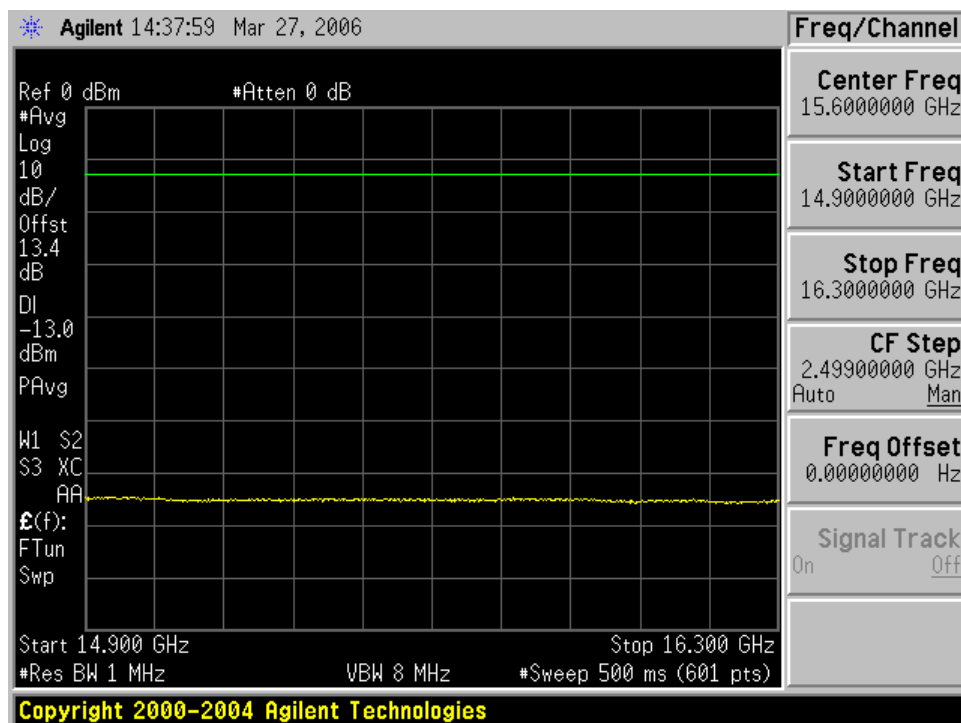


4th Harmonic of 2593 MHz (6 MHz Channel)

Harmonic 5-6 Emissions At Antenna Terminals

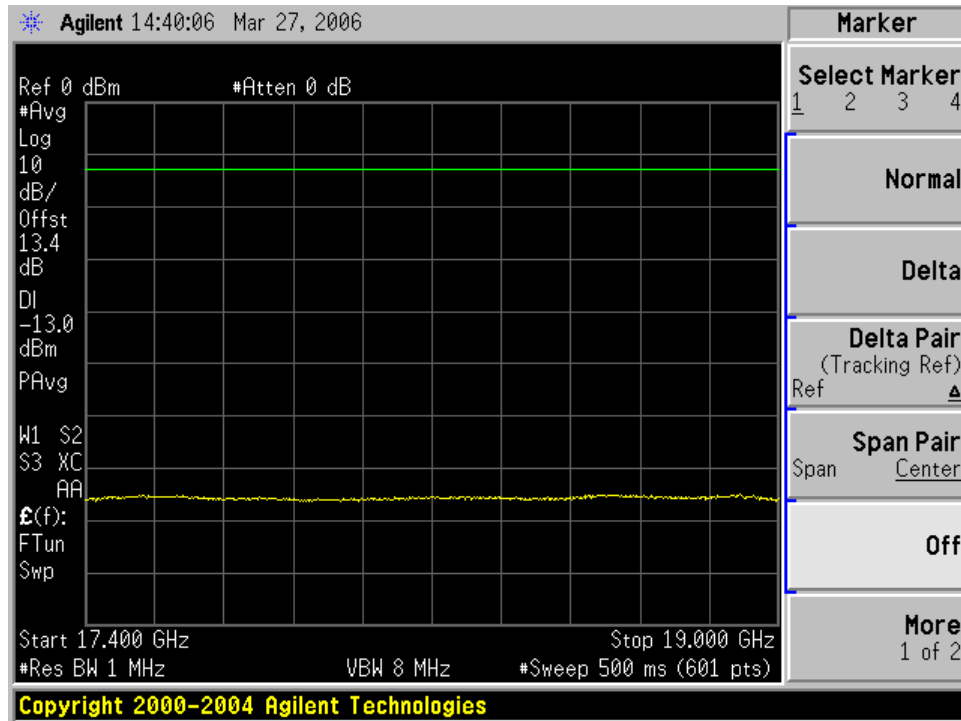


5th Harmonic of 2593 MHz (6 MHz Channel)

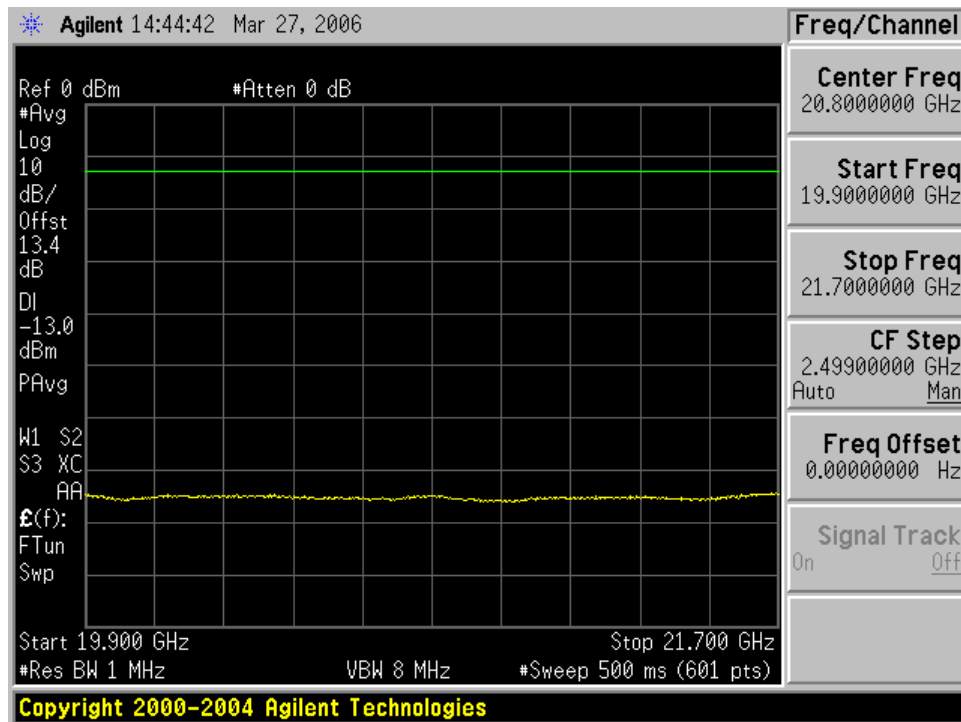


6th harmonic of 2593 MHz (6 MHz Channel)

Harmonic 7-8 Emissions At Antenna Terminals

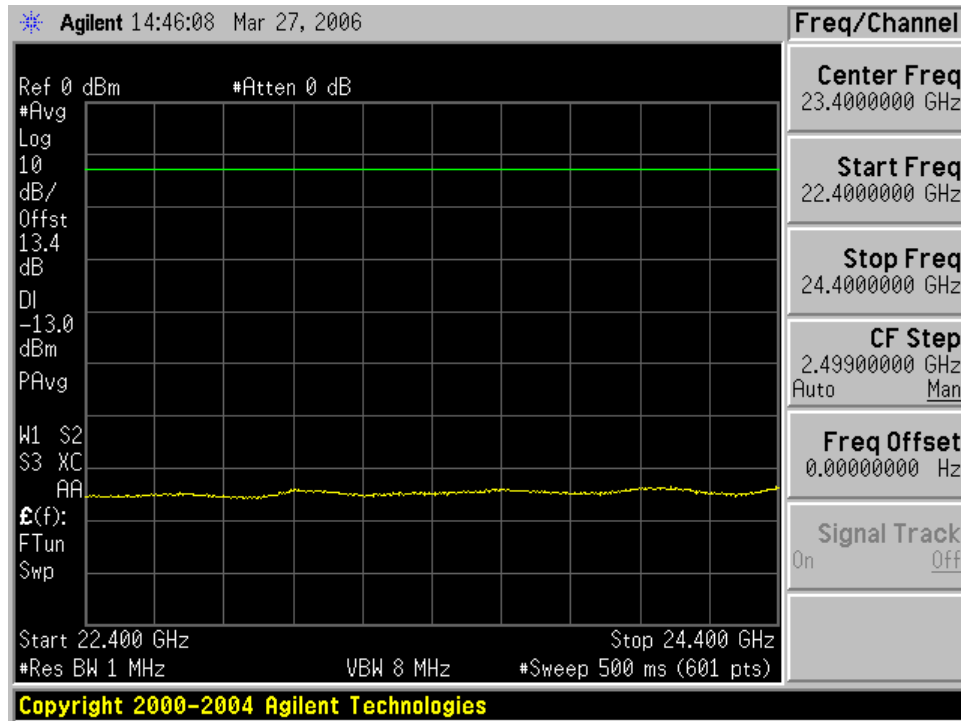


7th harmonic of 2593 MHz (6 MHz Channel)

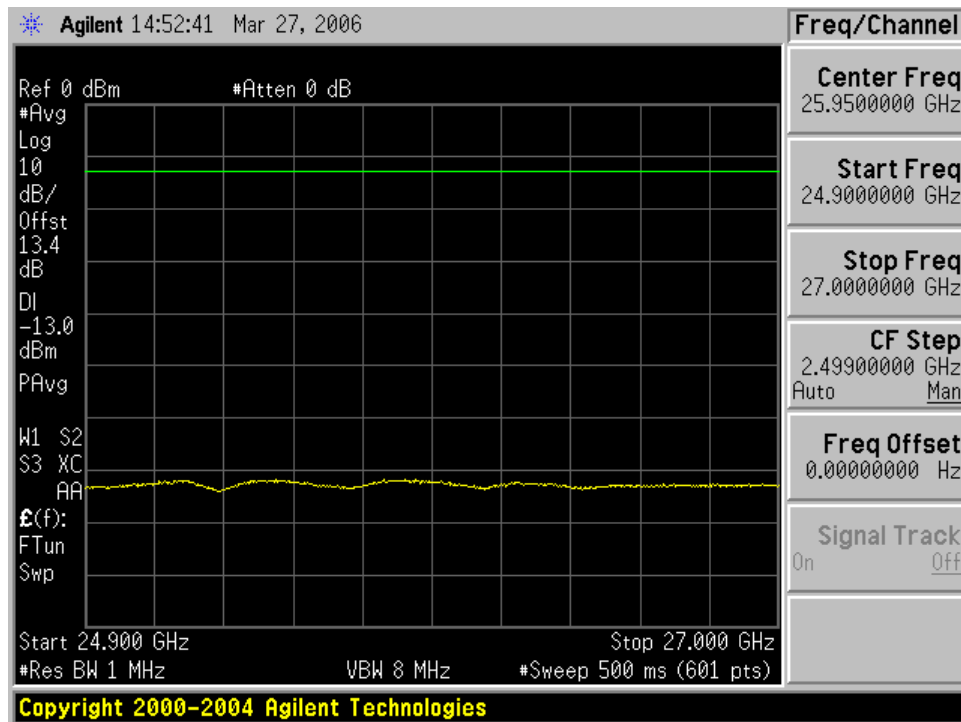


8th harmonic of 2593 MHz (6 MHz Channel)

Harmonic 9-10 Emissions At Antenna Terminals



9th harmonic of 2593 MHz (6 MHz Channel)

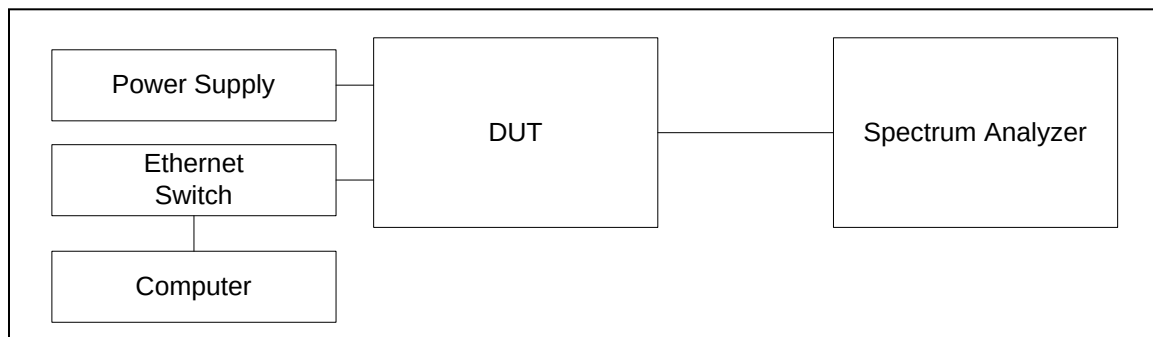


10th harmonic of 2593 MHz (6 MHz Channel)

Receiver Spurious Emissions (Industry Canada)

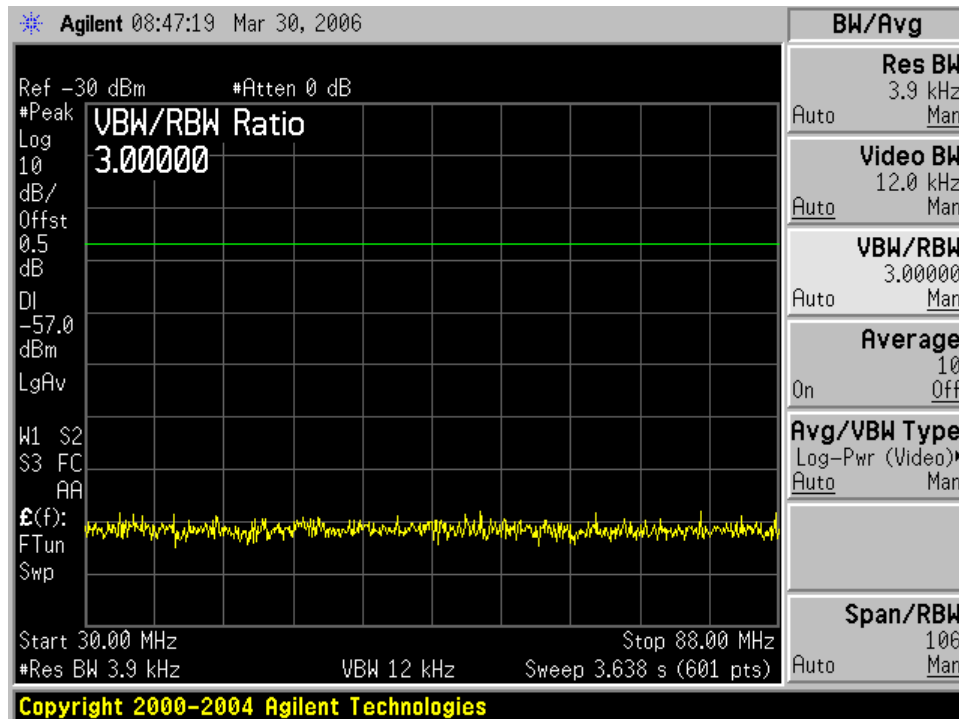
IC Rules:	RSS-193 clause 6.5(b)
IC Requirement:	< 2 nwatts/4 kHz 30-1000 MHz < 5nwatts/4 kHz above 1 GHz
Test Procedure:	The antenna port from the test unit is applied to a spectrum analyzer. The spurious response from the receiver is recorded from 30 MHz to 26.5 GHz for 2.509 and 2.593 GHz channel frequencies. The spectrum analyzer plots are shown for 2.503 GHz, and the test results for 2.593 GHz are similar.
Test Conditions:	Frequencies = 2503 and 2587 MHz Temperature = 25°C Supply Voltage = 120 VAC / 60 Hz Nominal to DUT Power Supply
Calculations:	Convert power level into dBm level into 50 ohms $\text{dBm level} = 10 \cdot \log(P/0.001)$ $2 \text{ nwatts in } 50 \text{ ohms} = 10 \cdot \log(2 \times 10^{-9}/0.001)$ $= -57 \text{ dBm}$ $5 \text{ nwatts in } 50 \text{ ohms} = 10 \cdot \log(5 \times 10^{-9}/0.001)$ $= -53 \text{ dBm}$

Test Setup

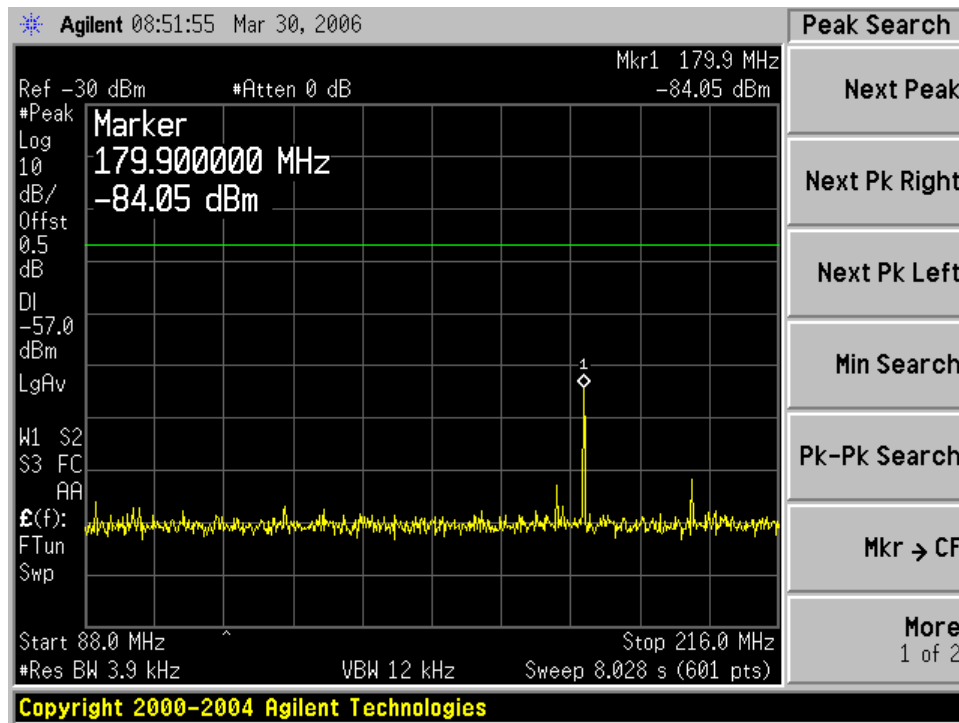


Test Results:	The spectral measurement from 30 MHz to 12 GHz resulted in no observed spurious signals above the limit. The highest spurious signal level observed was -80 dBm which is well below the above limits.
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Receiver Spurious Emissions Test Results (6 MHz Bandwidth)



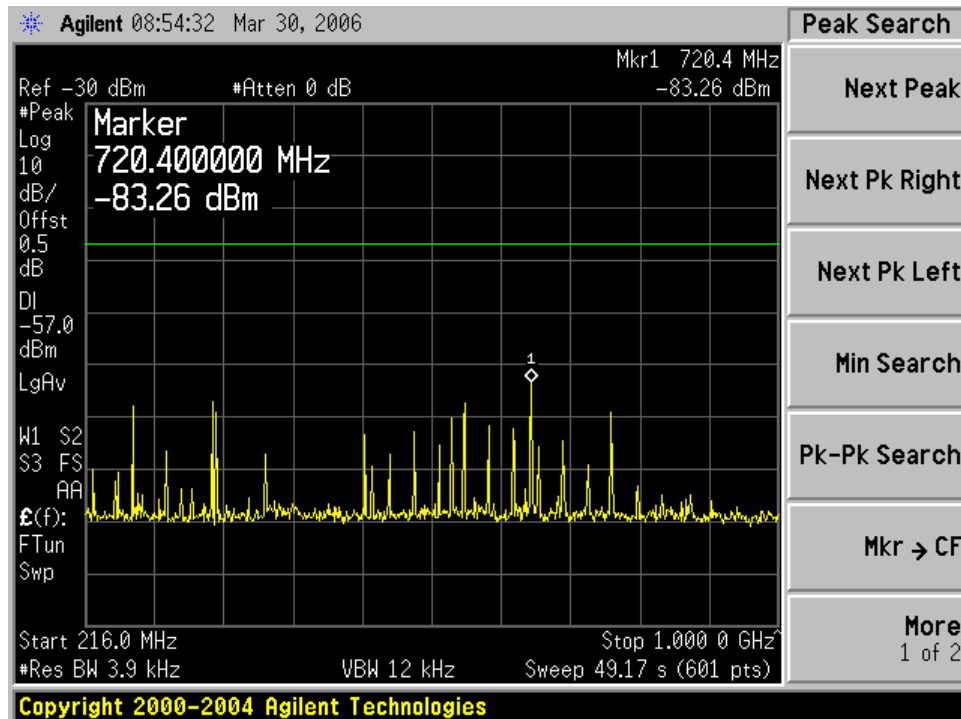
30 MHz – 88 MHz (2509 MHz)



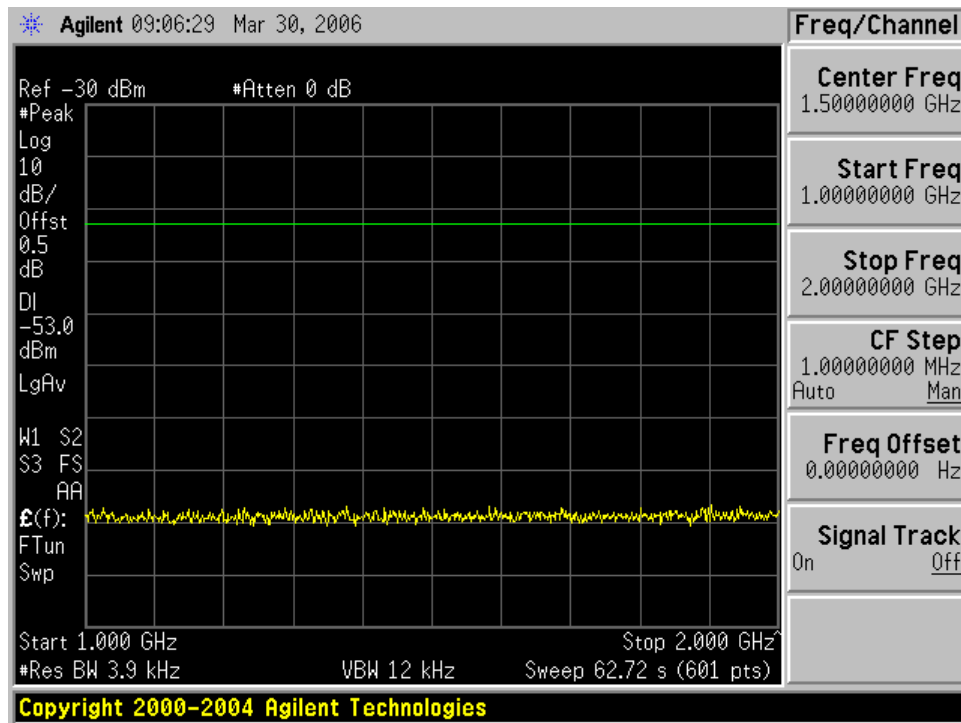
88 MHz – 216 MHz (2509 MHz)

Receiver Spurious Emissions (Cont'd)

6 MHz Bandwidth



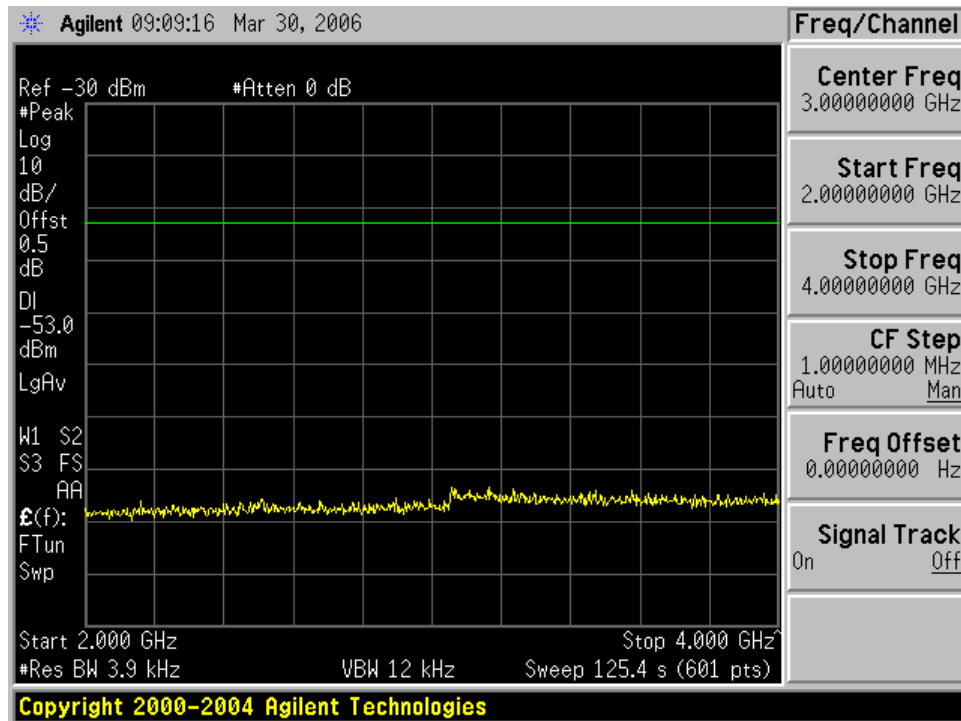
216 MHz –1 GHz (2509 MHz)



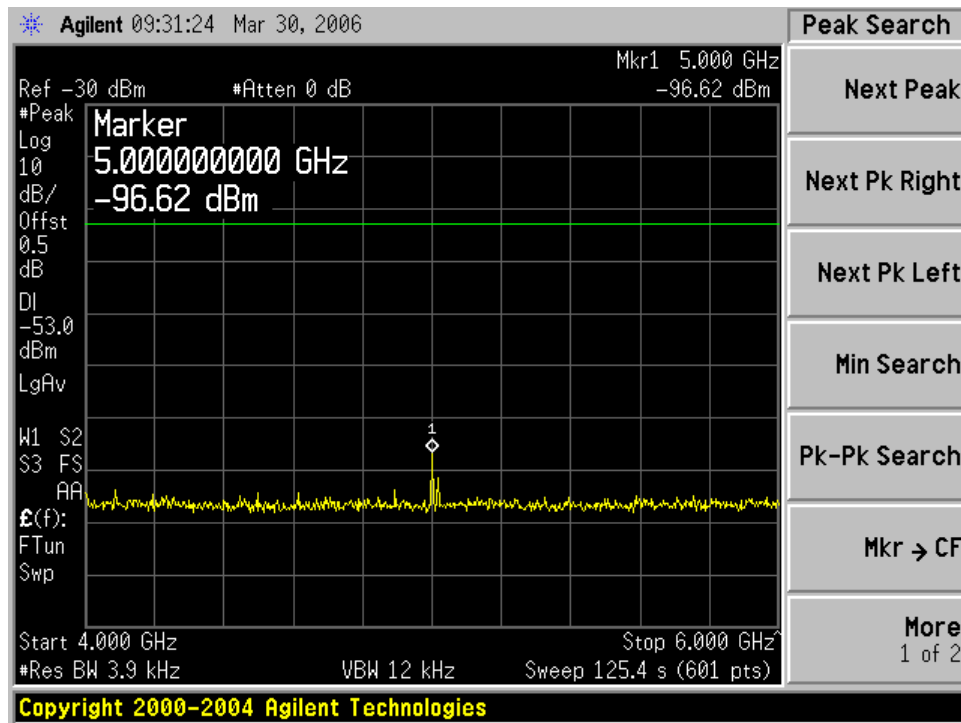
1 GHz – 2 GHz (2509 MHz)

Receiver Spurious Emissions (Cont'd)

6 MHz Bandwidth



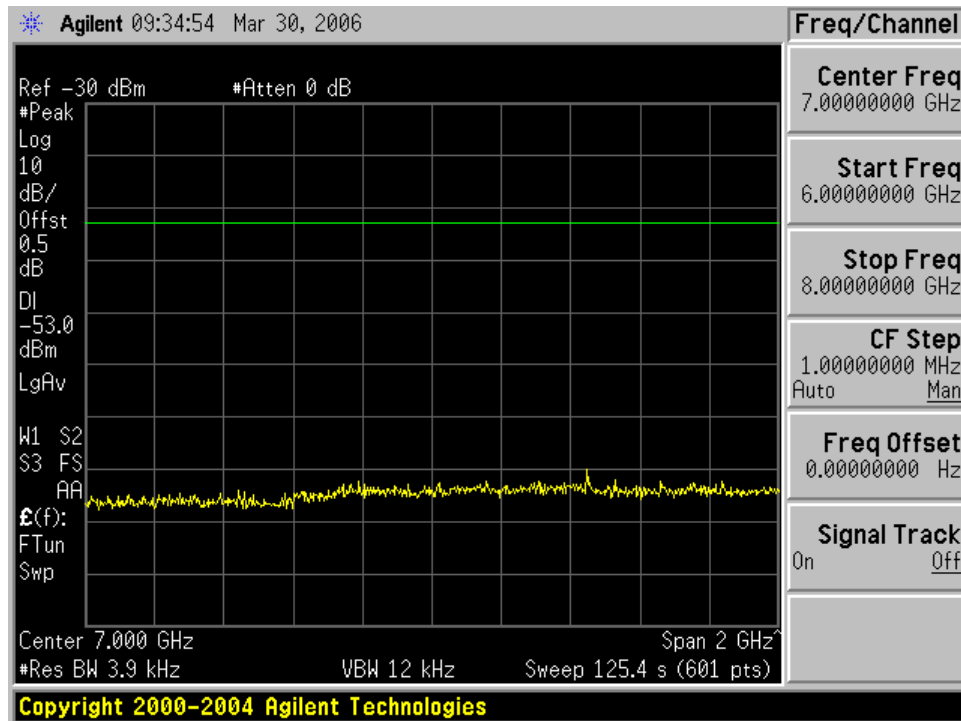
2 GHz – 4 GHz (2509 MHz)



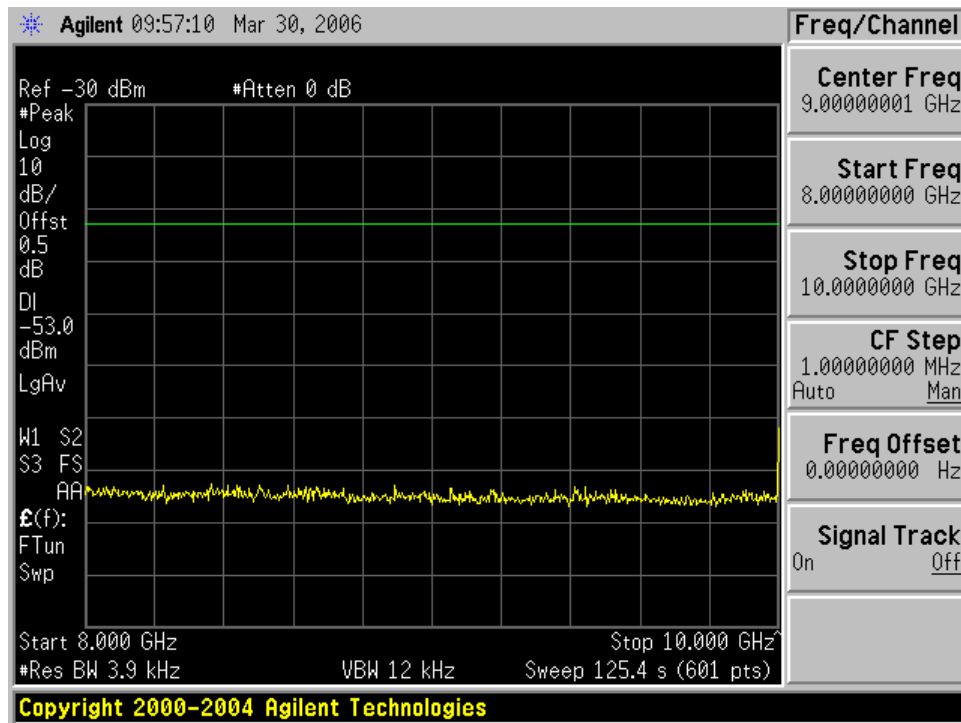
4 GHz – 6 GHz (2509 MHz)

Receiver Spurious Emissions (Cont'd)

6 MHz Bandwidth



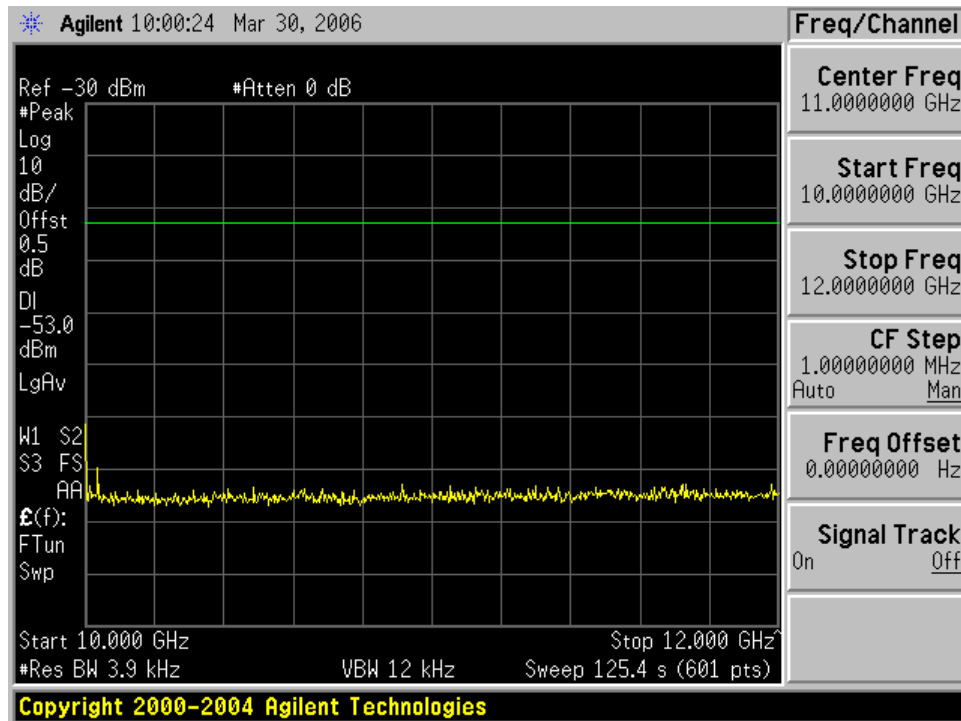
6 GHz – 8 GHz (2509 MHz)



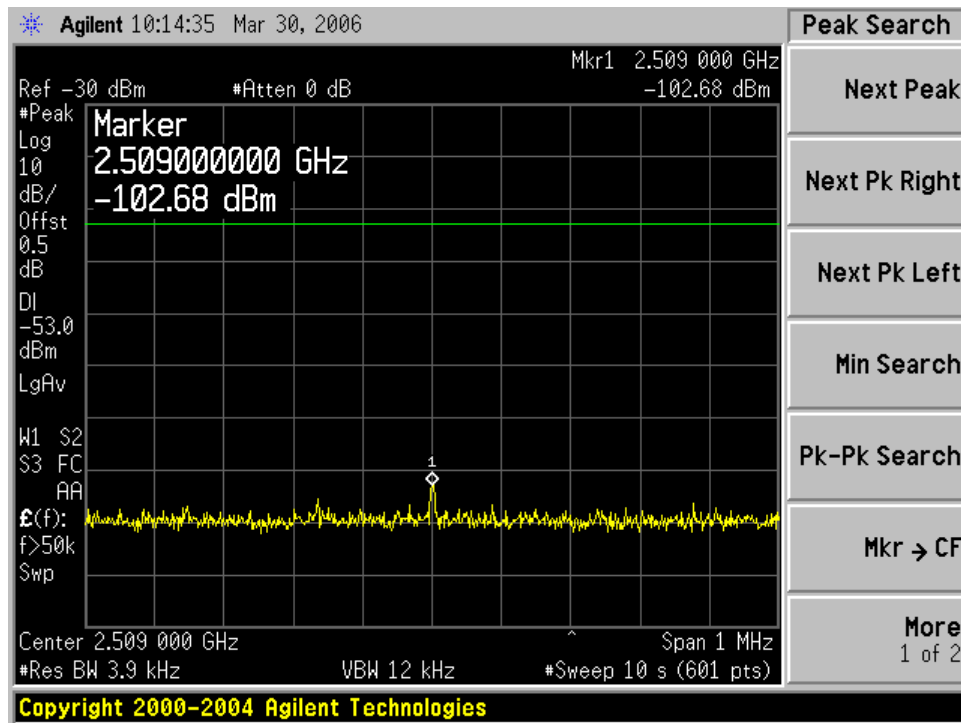
8 GHz – 10 GHz (2509 MHz)

Receiver Spurious Emissions (Cont'd)

6 MHz Bandwidth

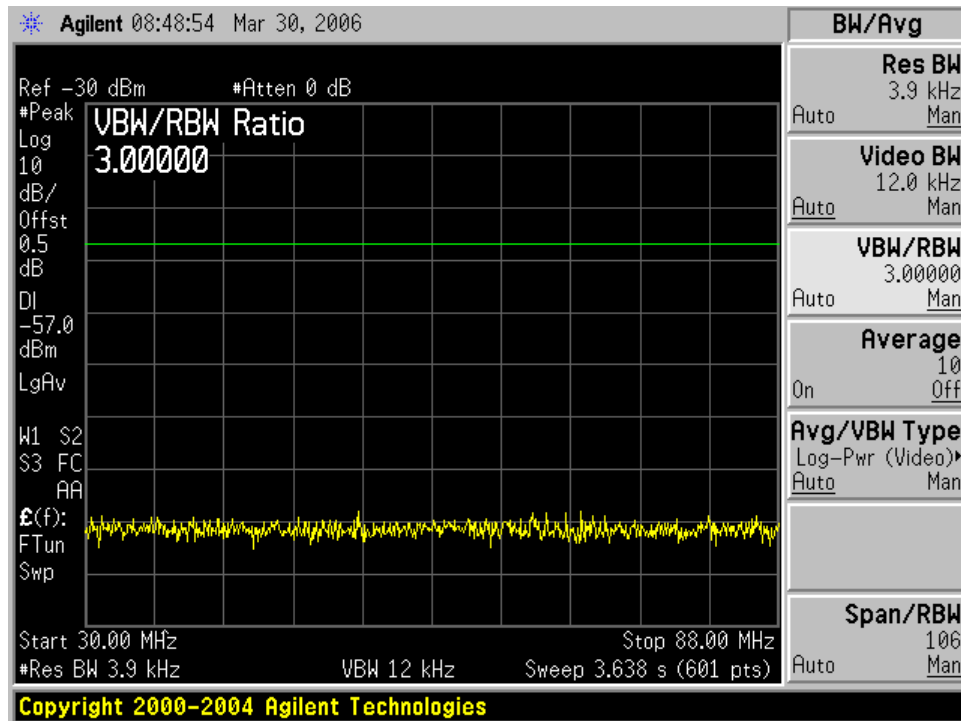


10 – 12 GHz (2509 MHz)

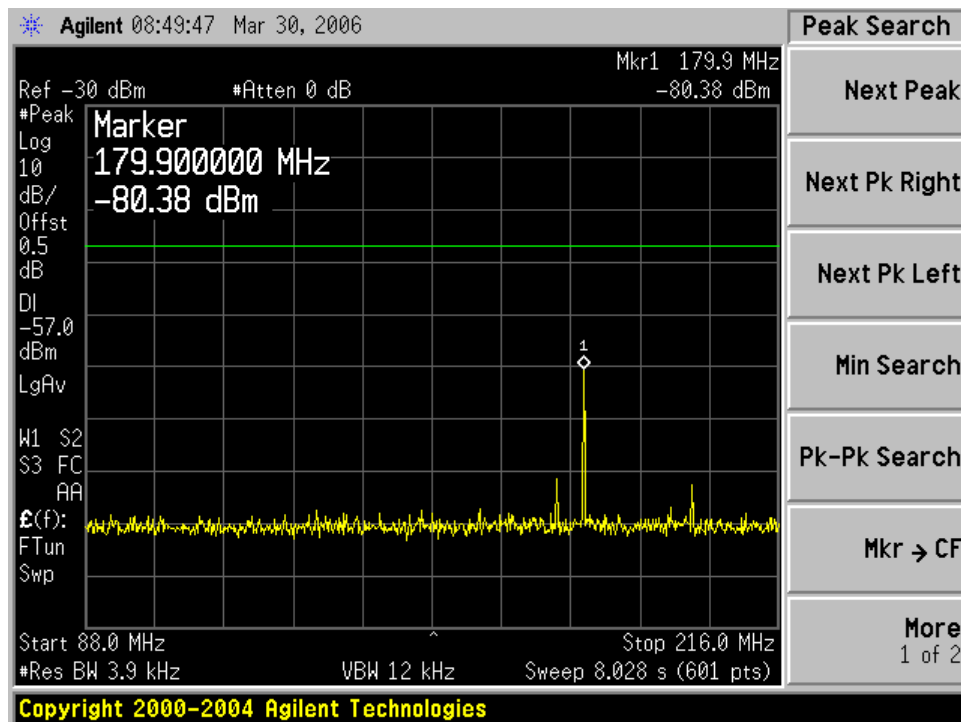


2.509 GHz Expanded Plot

Receiver Spurious Emissions Test Results (5.5 MHz Bandwidth)



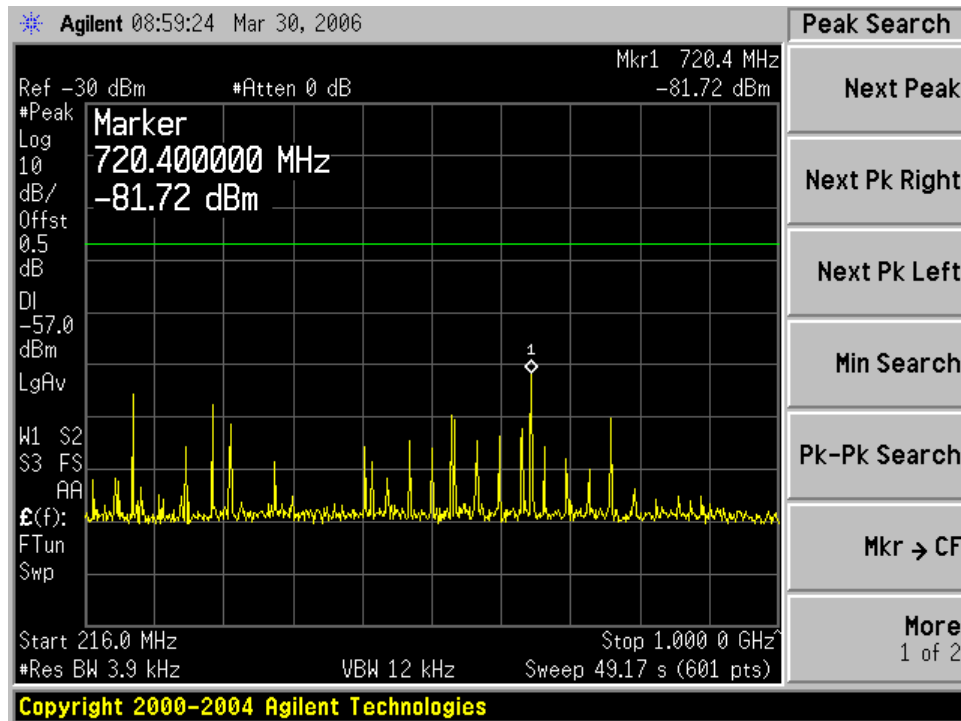
30 MHz – 88 MHz (2509 MHz)



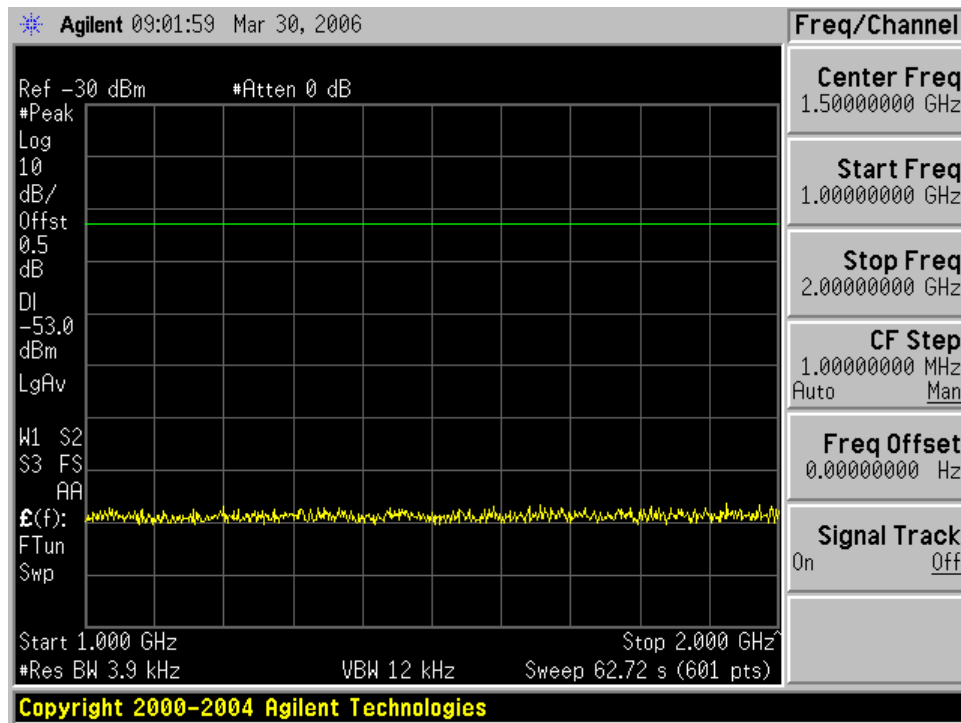
88 MHz – 216 MHz (2509 MHz)

Receiver Spurious Emissions (Cont'd)

5.5 MHz Bandwidth



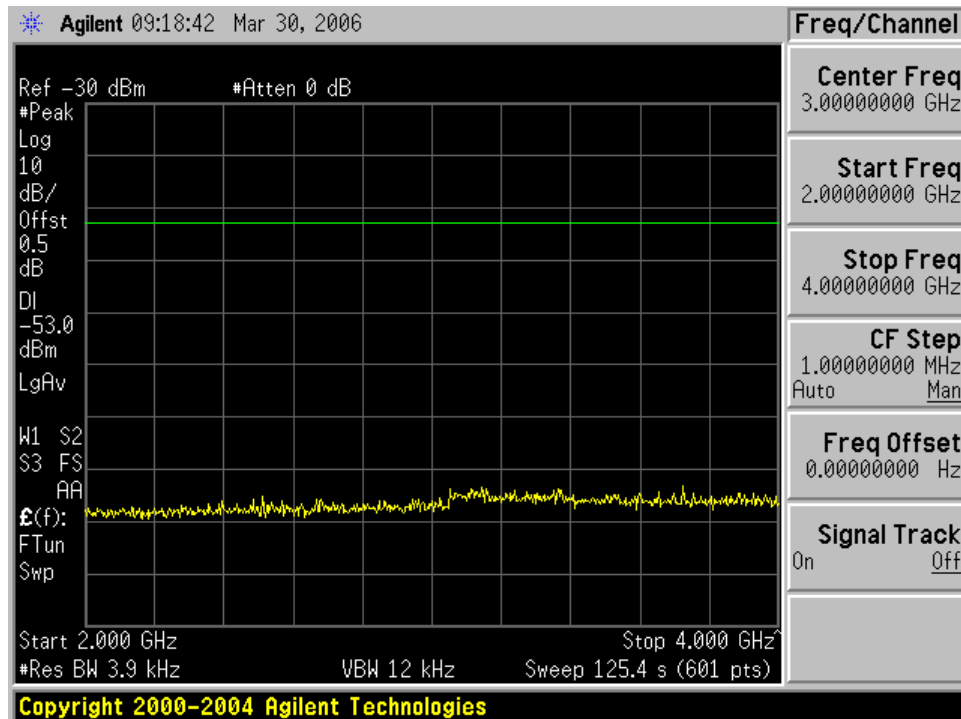
216 MHz –1 GHz (2509 MHz)



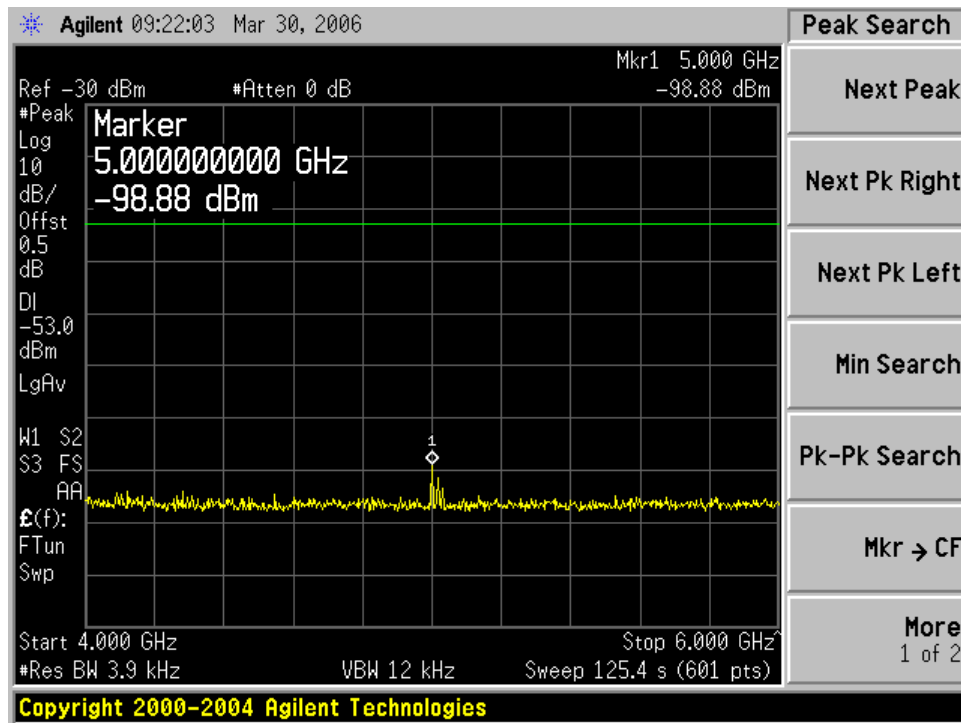
1 GHz – 2 GHz (2509 MHz)

Receiver Spurious Emissions (Cont'd)

5.5 MHz Bandwidth



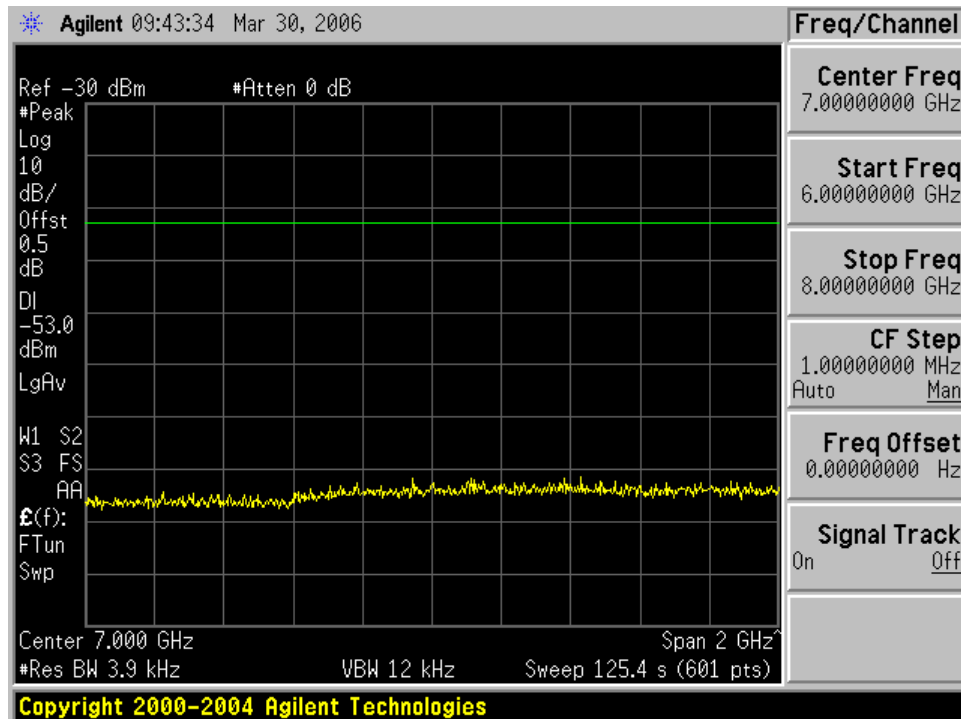
2 GHz – 4 GHz (2509 MHz)



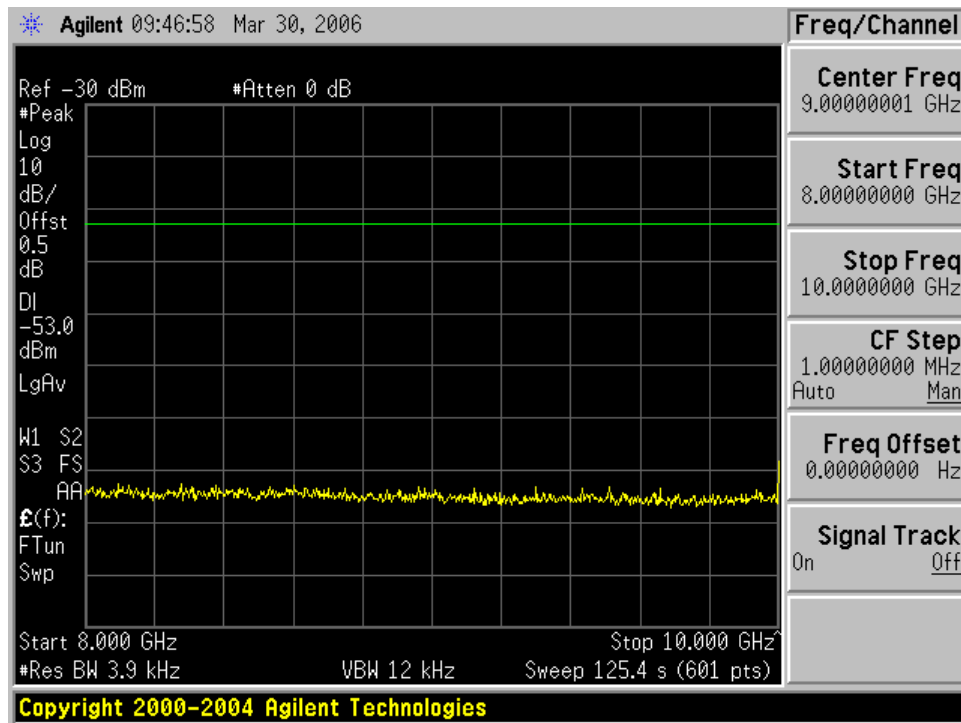
4 GHz – 6 GHz (2509 MHz)

Receiver Spurious Emissions (Cont'd)

5.5 MHz Bandwidth



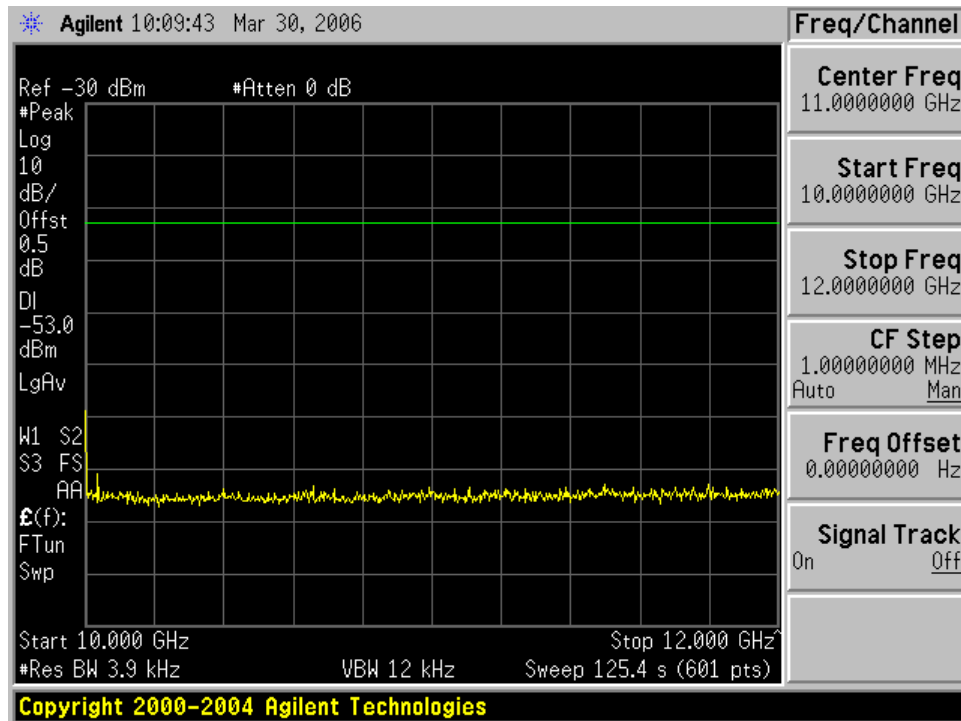
6 GHz – 8 GHz (2509 MHz)



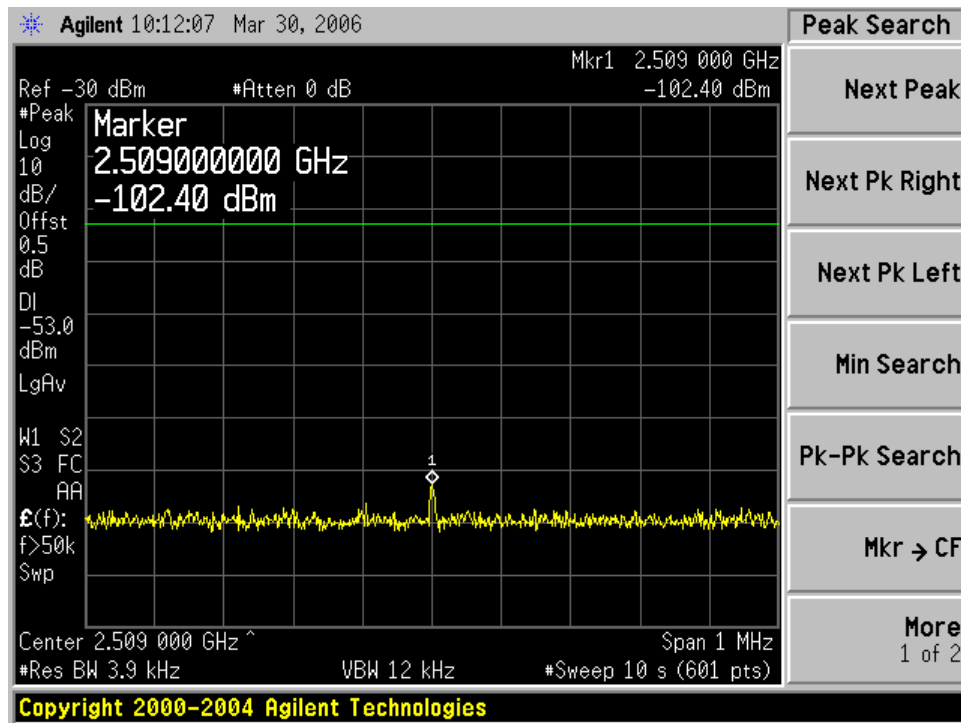
8 GHz – 10 GHz (2509 MHz)

Receiver Spurious Emissions (Cont'd)

5.5 MHz Bandwidth



10 – 12 GHz (2509 MHz)



2.509 GHz Expanded Plot

Field Strength Of Spurious Radiation

FCC Rules:	2.1053, 2.1049, 2.1057
IC Rules:	RSS-193 clauses 4.4, 4.5, 6.4, and 6.5
FCC Requirement:	Emissions to be $43+10\log(P)$ below the channel power or an absolute level of -13 dBm
IC Requirement:	Emissions to be $43+10\log(P)$ below the channel power or an absolute level of -13 dBm
	Frequency Range = 30 MHz to 26.86 GHz Case Radiation Attenuation = $43+10\log P = -13$ dBm maximum
Standards:	TIA-603-C TIA Standard, Land Mobile FM or PM Communications Equipment, Measurement and Performance Standards ANSI C63.4-2001 clause 5.4 Radiated Emissions Tests. American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.
Test Procedure:	The field strength of spurious radiation was measured at an open area test site with the applicable measurement antennas, low noise amplifiers, and spectrum analyzers. This test was performed with the transmitter/receiver port terminated with its integral antenna. Measurements were performed by TUV America located in Taylors Falls, Minnesota on April 20 th and 21 st , 2006. Spurious signals were maximized for peak level by rotation of the test unit and elevation of the measurement antenna. Verification of compliance to the emissions limit was accomplished by antenna substitution.
Test Conditions:	Frequency = 2499, 2593, 2687 MHz Temperature = 25 °C Supply Voltage = 120 VAC / 60 Hz Nominal To DUT Power Supply
Test Results:	Passes Field Strength of Spurious Radiation



TEST RESULT SUMMARY

**FCC Parts 2, 15, 27
IC RSS-Gen, RSS-193**

MANUFACTURER NextNet Wireless, Inc.

NAME OF EQUIPMENT Expedience 2.5-2.7 GHz RSU
BRS/EBS Residential Subscribe Unit (RSU)

MODEL NUMBERS **RSU-2510-S**

MANUFACTURER'S ADDRESS 299 Johnson Ave.
Suite 120
Waseca, MN 56093

TEST REPORT NUMBER WC602033

TEST DATES 20 - 21 April, 2006

According to testing performed at TÜV America Inc, the above-mentioned unit is in compliance with the applicable electromagnetic compatibility (EMC) portions of the requirements defined in FCC Parts 2, 15, & 27 and Industry Canada RSS-Gen , RSS-193, ICES-003

It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical characteristics. Any modifications necessary for compliance made during testing on the above mentioned date(s) must be implemented in all production units for compliance to be maintained.

TÜV America Inc, as an independent testing laboratory, declares that the equipment tested as specified above conforms to the applicable EMC requirements of FCC Parts 2, 15, & 27 and Industry Canada RSS-Gen , RSS-193, ICES-003.

Date: 10 May 2006

Location: Taylors Falls MN
USA

Ross Johnson
EMC Technician

JT Schneider
Senior EMC Engineer

Not Transferable



EMC Emission - TEST REPORT

Test Report File No. : **WC602033** Date of issue: 10 May 2006

Model / Serial No. : **RSU-2510-S / 2003426**

Product Name : Expedience 2.5-2.7 GHz Base Station

Product Type : BRS/EBS Residential Subscribe Unit (RSU)

Applicant : NextNet Wireless, Inc.

Manufacturer : NextNet Wireless, Inc.

License Holder : NextNet Wireless, Inc.

Address : 299 Johnson Ave.
Suite 120
Waseca, MN 56093

Test Result : ☒ **Positive** ☐ **Negative**

Test Project Number :
Reference(s) **WC602033**

Total pages including Appendices **66**

TÜV America Inc reports apply only to the specific samples tested under stated test conditions. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. TÜV America Inc shall have no liability for any deductions, inferences or generalizations drawn by the client or others from TÜV America Inc issued reports.

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D I R E C T O R Y

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Test Results	FCC	IC	
Radiated emissions - Transmitter	27.53	RSS-193 6.3	<u>4</u>
Radiated emissions - Receiver	15.205, 15.209	RSS-Gen 6(a)	<u>5</u>
Conducted emissions	15.107	RSS-Gen 7.2.2	<u>6</u>

Appendix A	
Test data	<u>A1 - A42</u>

Appendix B	
Constructional data form & Block diagram	<u>B1 - B10</u>

Appendix C	
Measurement Protocol	<u>C1 - C2</u>

Sign Explanations:

- ☐ - not applicable
- ☒ - applicable

EMISSIONS TEST REGULATIONS :

The emissions tests were performed according to following regulations:

☐ - EN 50081-1 / 1991

☐ - EN 55011 / 1991

☐ - EN 55013 / 1990

☐ - Group 1

☐ - Class A

☐ - Group 2

☐ - Class B

☐ - EN 55014 / 1987

☐ - Household appliances and similar

☐ - Portable tools

☐ - Semiconductor devices

☐ - EN 55014 / A2:1990

☐ - EN 55014 / 1993

☐ - Household appliances and similar

☐ - Portable tools

☐ - Semiconductor devices

☐ - EN 55015 / 1987

☐ - EN 55015 / A1:1990

☐ - EN 55015 / 1993

☐ - EN 55022 / 1987

☐ - EN 55022 / 1991

☐ - Class A

☐ - Class A

☐ - Class B

☐ - Class B

☐ - BS

☐ - VCCI

☐ - Class A

☐ - Class B

■ - FCC Part 15 Subpart B

☐ - FCC Part 15 Subpart C

■ - FCC Part 27 Subpart C

☐ - Class A

■ - Class B

☐ - CISPR 11 (1990)

☐ - Group 1

☐ - Class A

☐ - Group 2

☐ - Class B

☐ - CISPR 22 (1993)

☐ - Class A

☐ - Class B

■ - IC RSS-Gen Issue 1

■ - IC RSS-193 Issue 1

Radiated emission limits - Transmitter, FCC 27.53, IC RSS-193 6.3

Test summary

The requirements are: ☒ - MET ☐ - NOT MET

Minimum margin of compliance is 35.7 dB at 5.186 GHz, run 2

Test location

☒ - Wild River Lab Large Test Site (Open Area Test Site)

☐ - Wild River Lab Small Test Site (Open Area Test Site)

Test Distance

☒ - 3 meters

☐ - 10 meters

Test equipment

TUV ID	Model Number	Manufacturer	Description	Serial Number	Cal Due
2075	3115	Electro-Mechanics (EMCO)	Ridge Guide Ant. 1-18 GHz	9001-3275	07-Dec-06
3204	EM-6917B	Electro-Metrics	Biconicalog Periodic	102	19-Oct-06
3958	SL18B4020	Phase One Microwave	Preamplifier 1 – 18 GHz	0002	Code B
3961	ZHL-1042J	Mini-Circuits	Preamplifier	D120403-1	Code B
2680	85650A	Hewlett-Packard	Quasi-Peak Adapter	2043A00343	01-Jun-06
3196	8566B	Hewlett Packard	Spectrum Analyzer	2240A01856	07 Oct-06
3195	85662A	Hewlett Packard	Analyzer Display	2648A13518	07 Oct-06
2670	8447D	Electro-Mechanics (EMCO)	Preamplifier	2443A03954	Code B

Cal Code B = Calibration verification performed internally.

Test limit

-13.0 dBm

Test Data

Pages A16 - A36

Radiated emission limits - Receiver, FCC 15.205, FCC 15.209, IC RSS-Gen 6(a)

Test summary

The requirements are: ☒ - MET ☐ - NOT MET

Minimum margin of compliance is 1.5 dB at 5.186 GHz, run 1

Test location

☒ - Wild River Lab Large Test Site (Open Area Test Site)

☐ - Wild River Lab Small Test Site (Open Area Test Site)

Test Distance

☒ - 3 meters

☐ - 10 meters

Test equipment

TUV ID	Model Number	Manufacturer	Description	Serial Number	Cal Due
2075	3115	Electro-Mechanics (EMCO)	Ridge Guide Ant. 1-18 GHz	9001-3275	07-Dec-06
3204	EM-6917B	Electro-Metrics	Biconicalog Periodic	102	19-Oct-06
3958	SL18B4020	Phase One Microwave	Preamplifier 1 – 18 GHz	0002	Code B
3961	ZHL-1042J	Mini-Circuits	Preamplifier	D120403-1	Code B
2680	85650A	Hewlett-Packard	Quasi-Peak Adapter	2043A00343	01-Jun-06
3196	8566B	Hewlett Packard	Spectrum Analyzer	2240A01856	07 Oct-06
3195	85662A	Hewlett Packard	Analyzer Display	2648A13518	07 Oct-06
2670	8447D	Electro-Mechanics (EMCO)	Preamplifier	2443A03954	Code B

Cal Code B = Calibration verification performed internally.

Test limit

Spurious Frequency (MHz)	Field Strength (microvolt/m at 3 metres)
30-88	100
88-216	150
216-960	200
Above 960	500

Test Data

Pages A2 - A15

Conducted emissions - AC power lines - Class B limits, FCC 15.107, IC RSS-Gen 7.2.2

Test summary

The requirements are: ☒ - MET ☐ - NOT MET
Minimum margin of compliance is 13 dB at 165 kHz, run 6

Test location

☒ - Wild River Lab Large Test Site (Open Area Test Site)
☐ - Wild River Lab Small Test Site (Open Area Test Site)

Test equipment

TUV ID	Model Number	Manufacturer	Description	Serial Number	Cal Due
2417	3825/2	Electro-Mechanics (EMCO)	50 Ω LISN	8812-1439	Code B
2534	ESHS-20	Rhode & Schwarz	EMI Receiver	837055/003	27-Feb-07

Cal Code B = Calibration verification performed internally.

Test limit

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15–0.5	66 to 56*	56 to 46*
0.5–5	56	46
5–30	60	50

*Decreases with the logarithm of the frequency.

Test Data

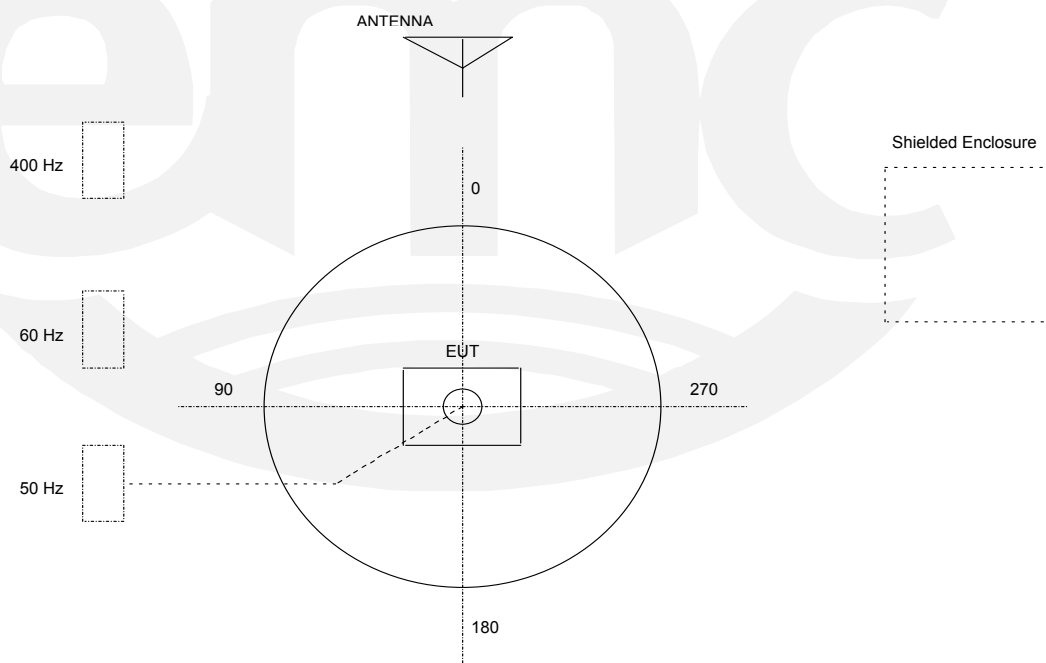
Pages A37 - A42

TEST SETUP FOR EMISSIONS TESTING

WILD RIVER LAB Large Test Site

Notes:

1. Items shown in dotted lines are located on the floor below the test area. It is 5 meters vertically from the ground floor to the test area.
2. 50 Hz, 60 Hz, and 400 Hz are power panels for alternating current.
3. The antenna may be positioned horizontally 3, 10 or 30 meters from the center of the turntable.
4. The circle is a 6.7 meter diameter turntable.
5. A ground plane is in the plane of this sheet.
6. The test sample is shown in the azimuthal position representing zero degrees.



Test setup photo, radiated emissions

Testing done under test report number WC602032



Test setup photo, radiated emissions
Testing done under test report number WC602032



Test setup photo, conducted emissions on AC mains
Testing done under test report number WC602032



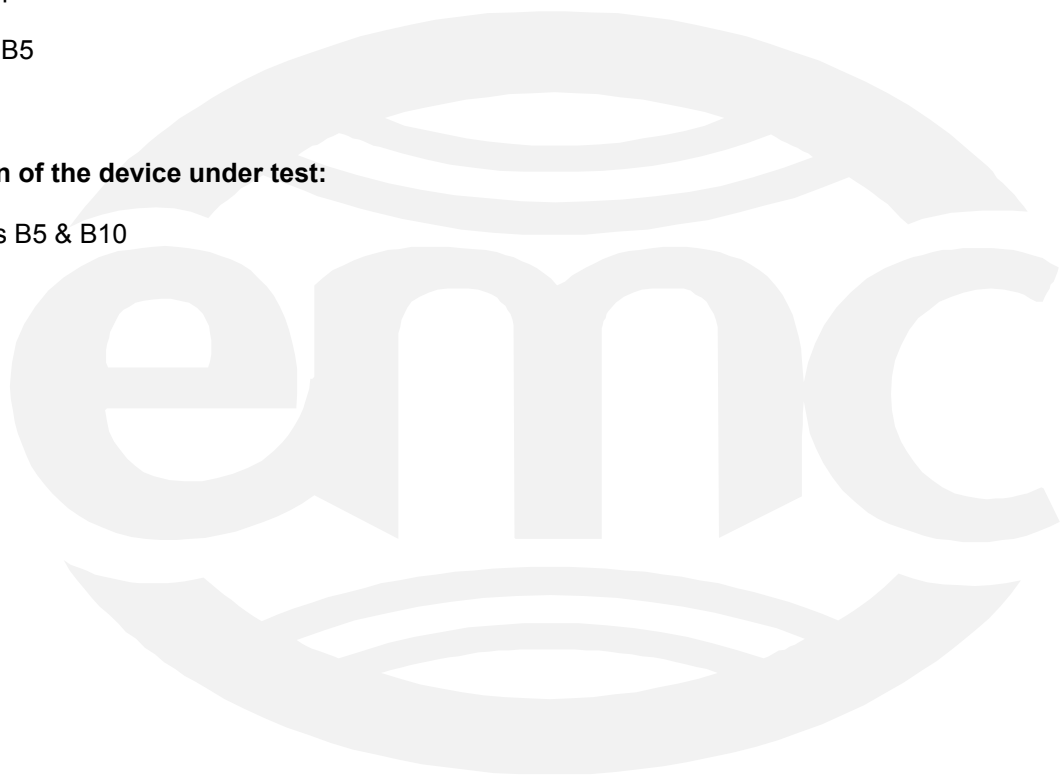
Test Operation Mode:

The device under test was operated under the following conditions during emissions testing:

- ☐ - Standby
- ☐ - Test program (H - Pattern)
- ☐ - Test program (color bar)
- ☐ - Test program (customer specific)
- ☐ - Practice operation
- ☒ - See page B5

Configuration of the device under test:

- ☒ - See pages B5 & B10



DEVIATIONS FROM STANDARD:

None.

GENERAL REMARKS:

Testing performed under test report number WC602032

Modifications required to pass:

- ☒ None
- ☐ As indicated on the data sheet(s)

Test Specification Deviations: Additions to or Exclusions from:

- ☒ None
- ☐ As indicated in the Test Plan

SUMMARY:

The requirements according to the technical regulations are

- ☒ - met
- ☐ - **not** met.

The device under test does

- ☒ - fulfill the general approval requirements mentioned on page 3.
- ☐ - **not** fulfill the general approval requirements mentioned on page 3.

EUT Received Date: 18 April 2006

Condition of EUT: Normal

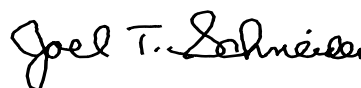
Testing Start Date: 20 April 2006

Testing End Date: 21 April 2006

- TÜV AMERICA INC -



Ross Johnson
EMC Technician



JT Schneider
Senior EMC Engineer

Appendix A

Test Data



RADIATED EMISSIONS



Test Report #: WC602032 Run 1 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/18/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 99.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 32.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: RECEIVER SCAN (CONFIG - 4, 5 & 6)

Data File Name: 2032.dat

Page: 1 of 14

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2 FCC B >1GHz 3m
CONFIG - 4.						
48.0 MHz	40.2 Qp	0.57 / 14.36 / 28.02 / 0.0	27.11	V / 1.00 / 0	-12.89	n/a
66.282 MHz	45.7 Qp	0.66 / 10.05 / 28.0 / 0.0	28.41	V / 1.00 / 0	-11.59	n/a
65.142 MHz	46.9 Qp	0.66 / 10.22 / 28.0 / 0.0	29.77	V / 1.00 / 0	-10.23	n/a
80.082 MHz	45.7 Qp	0.73 / 7.95 / 28.0 / 0.0	26.38	V / 1.00 / 0	-13.62	n/a
86.034 MHz	46.4 Qp	0.77 / 7.27 / 28.02 / 0.0	26.41	V / 1.00 / 0	-13.59	n/a
108.805 MHz	47.7 Qp	0.86 / 8.71 / 28.04 / 0.0	29.22	V / 1.00 / 0	-14.28	n/a
110.791 MHz	46.35 Qp	0.86 / 8.83 / 28.02 / 0.0	28.03	V / 1.00 / 0	-15.47	n/a
124.436 MHz	50.5 Qp	0.91 / 8.77 / 27.95 / 0.0	32.23	V / 1.00 / 0	-11.27	n/a
136.736 MHz	44.25 Qp	0.96 / 8.68 / 27.9 / 0.0	25.98	V / 1.00 / 0	-17.52	n/a
149.996 MHz	46.15 Qp	1.0 / 9.7 / 27.9 / 0.0	28.95	V / 1.00 / 0	-14.55	n/a
165.823 MHz	46.65 Qp	1.07 / 8.83 / 27.97 / 0.0	28.58	V / 1.00 / 0	-14.92	n/a
170.149 MHz	44.65 Qp	1.09 / 8.96 / 28.0 / 0.0	26.7	V / 1.00 / 0	-16.8	n/a
172.009 MHz	41.65 Qp	1.1 / 9.01 / 28.0 / 0.0	23.77	V / 1.00 / 0	-19.73	n/a
184.381 MHz	39.1 Qp	1.13 / 9.39 / 27.98 / 0.0	21.64	V / 1.00 / 0	-21.86	n/a
190.141 MHz	40.2 Qp	1.15 / 9.57 / 27.94 / 0.0	22.98	V / 1.00 / 0	-20.52	n/a
199.999 MHz	47.0 Qp	1.17 / 9.87 / 27.9 / 0.0	30.14	V / 1.00 / 0	-13.36	n/a
210.181 MHz	39.5 Qp	1.2 / 10.18 / 27.89 / 0.0	22.99	V / 1.00 / 0	-20.51	n/a
248.89 MHz	39.65 Qp	1.32 / 11.37 / 27.8 / 0.0	24.53	V / 1.00 / 0	-21.47	n/a
249.988 MHz	38.1 Qp	1.32 / 11.4 / 27.8 / 0.0	23.02	V / 1.00 / 0	-22.98	n/a
260.584 MHz	41.95 Qp	1.35 / 11.72 / 27.8 / 0.0	27.22	V / 1.00 / 0	-18.78	n/a
298.876 MHz	38.2 Qp	1.43 / 12.9 / 27.88 / 0.0	24.64	V / 1.00 / 0	-21.36	n/a
319.48 MHz	38.1 Qp	1.46 / 13.53 / 27.8 / 0.0	25.29	V / 1.00 / 0	-20.71	n/a
325.702 MHz	43.0 Qp	1.47 / 13.72 / 27.8 / 0.0	30.39	V / 1.00 / 0	-15.61	n/a
332.118 MHz	41.5 Qp	1.48 / 13.91 / 27.8 / 0.0	29.09	V / 1.00 / 0	-16.91	n/a
344.054 MHz	37.9 Qp	1.5 / 14.28 / 27.78 / 0.0	25.9	V / 1.00 / 0	-20.1	n/a

Tested by: RMJ

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Reviewed by: Greg Jakubowski

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Signature

RADIATED EMISSIONS



Test Report #: WC602032 Run 1 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/18/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 99.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 32.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: RECEIVER SCAN (CONFIG - 4, 5 & 6)

Data File Name: 2032.dat

Page: 2 of 14

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2 FCC B >1GHz 3m
365.549 MHz	36.2 Qp	1.59 / 14.93 / 27.71 / 0.0	25.02	V / 1.00 / 0	-20.98	n/a
368.627 MHz	45.95 Qp	1.6 / 15.03 / 27.72 / 0.0	34.86	V / 1.00 / 0	-11.14	n/a
373.331 MHz	45.9 Qp	1.61 / 15.17 / 27.74 / 0.0	34.95	V / 1.00 / 0	-11.05	n/a
393.209 MHz	45.45 Qp	1.65 / 15.78 / 27.81 / 0.0	35.07	V / 1.00 / 0	-10.93	n/a
398.609 MHz	39.75 Qp	1.66 / 15.95 / 27.83 / 0.0	29.52	V / 1.00 / 0	-16.48	n/a
405.491 MHz	38.65 Qp	1.67 / 16.16 / 27.86 / 0.0	28.62	V / 1.00 / 0	-17.38	n/a
417.791 MHz	40.3 Qp	1.69 / 16.53 / 27.9 / 0.0	30.62	V / 1.00 / 0	-15.38	n/a
425.004 MHz	38.4 Qp	1.71 / 16.52 / 27.9 / 0.0	28.73	V / 1.00 / 0	-17.27	n/a
430.074 MHz	39.0 Qp	1.73 / 16.45 / 27.9 / 0.0	29.27	V / 1.00 / 0	-16.73	n/a
432.486 MHz	36.05 Qp	1.73 / 16.41 / 27.9 / 0.0	26.3	V / 1.00 / 0	-19.7	n/a
442.374 MHz	37.45 Qp	1.77 / 16.37 / 27.9 / 0.0	27.68	V / 1.00 / 0	-18.32	n/a
464.961 MHz	38.05 Qp	1.82 / 17.01 / 27.9 / 0.0	28.98	V / 1.00 / 0	-17.02	n/a
497.796 MHz	45.4 Qp	1.87 / 17.94 / 27.85 / 0.0	37.36	V / 1.00 / 0	-8.64	n/a
552.946 MHz	38.1 Qp	1.99 / 18.1 / 27.8 / 0.0	30.4	V / 1.00 / 0	-15.6	n/a
622.24 MHz	35.35 Qp	2.08 / 19.29 / 27.48 / 0.0	29.23	V / 1.00 / 0	-16.77	n/a
625.014 MHz	36.8 Qp	2.08 / 19.27 / 27.46 / 0.0	30.69	V / 1.00 / 0	-15.31	n/a
746.702 MHz	33.15 Qp	2.31 / 20.72 / 27.13 / 0.0	29.05	V / 1.00 / 0	-16.95	n/a
796.982 MHz	30.1 Qp	2.36 / 21.13 / 27.09 / 0.0	26.49	V / 1.00 / 0	-19.51	n/a
66.282 MHz	48.2 Qp	0.66 / 10.05 / 28.0 / 0.0	30.91	V / 1.00 / 90	-9.09	n/a
108.805 MHz	51.2 Qp	0.86 / 8.71 / 28.04 / 0.0	32.72	V / 1.00 / 90	-10.78	n/a
110.791 MHz	46.5 Qp	0.86 / 8.83 / 28.02 / 0.0	28.18	V / 1.00 / 90	-15.32	n/a
136.736 MHz	47.1 Qp	0.96 / 8.68 / 27.9 / 0.0	28.83	V / 1.00 / 90	-14.67	n/a
149.996 MHz	50.6 Qp	1.0 / 9.7 / 27.9 / 0.0	33.4	V / 1.00 / 90	-10.1	n/a
170.149 MHz	47.35 Qp	1.09 / 8.96 / 28.0 / 0.0	29.4	V / 1.00 / 90	-14.1	n/a
172.009 MHz	43.45 Qp	1.1 / 9.01 / 28.0 / 0.0	25.57	V / 1.00 / 90	-17.93	n/a

Tested by: RMJ

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Reviewed by: Greg Jakubowski

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RADIATED EMISSIONS



Test Report #: WC602032 Run 1 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/18/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 99.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 32.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: RECEIVER SCAN (CONFIG - 4, 5 & 6)

Data File Name: 2032.dat

Page: 3 of 14

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2 FCC B >1GHz 3m
260.584 MHz	42.75 Qp	1.35 / 11.72 / 27.8 / 0.0	28.02	V / 1.00 / 90	-17.98	n/a
298.876 MHz	41.85 Qp	1.43 / 12.9 / 27.88 / 0.0	28.29	V / 1.00 / 90	-17.71	n/a
325.702 MHz	45.8 Qp	1.47 / 13.72 / 27.8 / 0.0	33.19	V / 1.00 / 90	-12.81	n/a
332.118 MHz	43.95 Qp	1.48 / 13.91 / 27.8 / 0.0	31.54	V / 1.00 / 90	-14.46	n/a
368.627 MHz	46.45 Qp	1.6 / 15.03 / 27.72 / 0.0	35.36	V / 1.00 / 90	-10.64	n/a
622.24 MHz	38.5 Qp	2.08 / 19.29 / 27.48 / 0.0	32.38	V / 1.00 / 90	-13.62	n/a
65.142 MHz	49.0 Qp	0.66 / 10.22 / 28.0 / 0.0	31.87	V / 1.00 / 180	-8.13	n/a
149.996 MHz	51.7 Qp	1.0 / 9.7 / 27.9 / 0.0	34.5	V / 1.00 / 180	-9.0	n/a
165.823 MHz	46.75 Qp	1.07 / 8.83 / 27.97 / 0.0	28.68	V / 1.00 / 180	-14.82	n/a
249.988 MHz	43.25 Qp	1.32 / 11.4 / 27.8 / 0.0	28.17	V / 1.00 / 180	-17.83	n/a
325.702 MHz	50.25 Qp	1.47 / 13.72 / 27.8 / 0.0	37.64	V / 1.00 / 180	-8.36	n/a
332.118 MHz	46.4 Qp	1.48 / 13.91 / 27.8 / 0.0	33.99	V / 1.00 / 180	-12.01	n/a
365.549 MHz	37.6 Qp	1.59 / 14.93 / 27.71 / 0.0	26.42	V / 1.00 / 180	-19.58	n/a
398.609 MHz	41.4 Qp	1.66 / 15.95 / 27.83 / 0.0	31.17	V / 1.00 / 180	-14.83	n/a
442.374 MHz	39.9 Qp	1.77 / 16.37 / 27.9 / 0.0	30.13	V / 1.00 / 180	-15.87	n/a
464.961 MHz	49.15 Qp	1.82 / 17.01 / 27.9 / 0.0	40.08	V / 1.00 / 180	-5.92	n/a
552.946 MHz	40.55 Qp	1.99 / 18.1 / 27.8 / 0.0	32.85	V / 1.00 / 180	-13.15	n/a
124.436 MHz	51.0 Qp	0.91 / 8.77 / 27.95 / 0.0	32.73	V / 1.00 / 180	-10.77	n/a
796.982 MHz	38.0 Qp	2.36 / 21.13 / 27.09 / 0.0	34.39	V / 1.00 / 180	-11.61	n/a
248.89 MHz	42.65 Qp	1.32 / 11.37 / 27.8 / 0.0	27.53	V / 1.00 / 270	-18.47	n/a
344.054 MHz	44.05 Qp	1.5 / 14.28 / 27.78 / 0.0	32.05	V / 1.00 / 270	-13.95	n/a
393.209 MHz	46.45 Qp	1.65 / 15.78 / 27.81 / 0.0	36.07	V / 1.00 / 270	-9.93	n/a
405.491 MHz	40.0 Qp	1.67 / 16.16 / 27.86 / 0.0	29.97	V / 1.00 / 270	-16.03	n/a
417.791 MHz	41.75 Qp	1.69 / 16.53 / 27.9 / 0.0	32.07	V / 1.00 / 270	-13.93	n/a

Tested by: RMJ

Printed

Signature

Reviewed by: Greg Jakubowski

Printed

Signature

RADIATED EMISSIONS



Test Report #: WC602032 Run 1 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/18/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 99.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 32.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: RECEIVER SCAN (CONFIG - 4, 5 & 6)

Data File Name: 2032.dat

Page: 4 of 14

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2 FCC B >1GHz 3m
425.004 MHz	42.6 Qp	1.71 / 16.52 / 27.9 / 0.0	32.93	V / 1.00 / 270	-13.07	n/a
430.074 MHz	41.65 Qp	1.73 / 16.45 / 27.9 / 0.0	31.92	V / 1.00 / 270	-14.08	n/a
432.486 MHz	40.15 Qp	1.73 / 16.41 / 27.9 / 0.0	30.4	V / 1.00 / 270	-15.6	n/a
442.374 MHz	33.3 Qp	1.77 / 16.37 / 27.9 / 0.0	23.53	V / 1.00 / 270	-22.47	n/a
746.702 MHz	34.5 Qp	2.31 / 20.72 / 27.13 / 0.0	30.4	V / 1.00 / 270	-15.6	n/a
MAXIMIZED.						
48.0 MHz	40.95 Qp	0.57 / 14.36 / 28.02 / 0.0	27.86	V / 1.20 / 0	-12.14	n/a
END OF VERTICAL SCAN CONFIG - 4.						
170.149 MHz	49.3 Qp	1.09 / 8.96 / 28.0 / 0.0	31.35	H / 1.00 / 0	-12.15	n/a
249.988 MHz	50.5 Qp	1.32 / 11.4 / 27.8 / 0.0	35.42	H / 1.00 / 0	-10.58	n/a
319.48 MHz	46.85 Qp	1.46 / 13.53 / 27.8 / 0.0	34.04	H / 1.00 / 0	-11.96	n/a
344.054 MHz	46.95 Qp	1.5 / 14.28 / 27.78 / 0.0	34.95	H / 1.00 / 0	-11.05	n/a
373.331 MHz	48.95 Qp	1.61 / 15.17 / 27.74 / 0.0	38.0	H / 1.00 / 0	-8.0	n/a
398.609 MHz	43.35 Qp	1.66 / 15.95 / 27.83 / 0.0	33.12	H / 1.00 / 0	-12.88	n/a
165.823 MHz	48.65 Qp	1.07 / 8.83 / 27.97 / 0.0	30.58	H / 1.00 / 90	-12.92	n/a
170.065 MHz	52.9 Qp	1.09 / 8.95 / 28.0 / 0.0	34.95	H / 1.00 / 90	-8.55	n/a
172.009 MHz	45.55 Qp	1.1 / 9.01 / 28.0 / 0.0	27.67	H / 1.00 / 90	-15.83	n/a
260.584 MHz	44.65 Qp	1.35 / 11.72 / 27.8 / 0.0	29.92	H / 1.00 / 90	-16.08	n/a
298.876 MHz	44.0 Qp	1.43 / 12.9 / 27.88 / 0.0	30.44	H / 1.00 / 90	-15.56	n/a
210.181 MHz	42.6 Qp	1.2 / 10.18 / 27.89 / 0.0	26.09	H / 1.00 / 180	-17.41	n/a
260.584 MHz	46.5 Qp	1.35 / 11.72 / 27.8 / 0.0	31.77	H / 1.00 / 180	-14.23	n/a

Tested by: RMJ

Printed

Signature

Reviewed by: Greg Jakubowski

Printed

Signature

RADIATED EMISSIONS



Test Report #: WC602032 Run 1 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/18/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 99.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 32.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: RECEIVER SCAN (CONFIG - 4, 5 & 6)

Data File Name: 2032.dat

Page: 5 of 14

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2 FCC B >1GHz 3m
365.549 MHz	39.0 Qp	1.59 / 14.93 / 27.71 / 0.0	27.82	H / 1.00 / 180	-18.18	n/a
625.014 MHz	38.3 Qp	2.08 / 19.27 / 27.46 / 0.0	32.19	H / 1.00 / 180	-13.81	n/a
210.181 MHz	47.0 Qp	1.2 / 10.18 / 27.89 / 0.0	30.49	H / 1.00 / 270	-13.01	n/a
248.89 MHz	44.85 Qp	1.32 / 11.37 / 27.8 / 0.0	29.73	H / 1.00 / 270	-16.27	n/a
249.988 MHz	51.45 Qp	1.32 / 11.4 / 27.8 / 0.0	36.37	H / 1.00 / 270	-9.63	n/a
260.584 MHz	52.4 Qp	1.35 / 11.72 / 27.8 / 0.0	37.67	H / 1.00 / 270	-8.33	n/a
298.876 MHz	44.55 Qp	1.43 / 12.9 / 27.88 / 0.0	30.99	H / 1.00 / 270	-15.01	n/a
622.24 MHz	39.4 Qp	2.08 / 19.29 / 27.48 / 0.0	33.28	H / 1.00 / 270	-12.72	n/a
746.702 MHz	35.55 Qp	2.31 / 20.72 / 27.13 / 0.0	31.45	H / 1.00 / 270	-14.55	n/a
MAXIMIZED.						
373.331 MHz	49.0 Qp	1.61 / 15.17 / 27.74 / 0.0	38.05	H / 1.00 / 270	-7.95	n/a
END OF CONFIG - 4 < 1GHz.						
CONFIG - 5.						
80.082 MHz	47.86 Qp	0.73 / 7.95 / 28.0 / 0.0	28.54	V / 1.00 / 0	-11.46	n/a
199.999 MHz	47.35 Qp	1.17 / 9.87 / 27.9 / 0.0	30.49	V / 1.00 / 0	-13.01	n/a
48.0 MHz	41.4 Qp	0.57 / 14.36 / 28.02 / 0.0	28.31	V / 1.00 / 180	-11.69	n/a
622.24 MHz	40.3 Qp	2.08 / 19.29 / 27.48 / 0.0	34.18	V / 1.00 / 180	-11.82	n/a
430.074 MHz	43.2 Qp	1.73 / 16.45 / 27.9 / 0.0	33.47	V / 1.00 / 270	-12.53	n/a
MAXIMIZED.						

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Test Report #: WC602032 Run 1 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/18/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 99.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 32.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: RECEIVER SCAN (CONFIG - 4, 5 & 6)

Data File Name: 2032.dat

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List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2 FCC B >1GHz 3m
80.082 MHz	46.25 Qp	0.73 / 7.95 / 28.0 / 0.0	26.93	V / 1.00 / 0	-13.07	n/a
END OF VERTICAL SCAN CONFIG - 5.						
344.054 MHz	50.8 Qp	1.5 / 14.28 / 27.78 / 0.0	38.8	H / 1.00 / 0	-7.2	n/a
368.627 MHz	49.85 Qp	1.6 / 15.03 / 27.72 / 0.0	38.76	H / 1.00 / 0	-7.24	n/a
165.823 MHz	49.5 Qp	1.07 / 8.83 / 27.97 / 0.0	31.43	H / 1.00 / 90	-12.07	n/a
149.996 MHz	52.0 Qp	1.0 / 9.7 / 27.9 / 0.0	34.8	H / 1.00 / 180	-8.7	n/a
248.89 MHz	46.75 Qp	1.32 / 11.37 / 27.8 / 0.0	31.63	H / 1.00 / 270	-14.37	n/a
298.876 MHz	49.0 Qp	1.43 / 12.9 / 27.88 / 0.0	35.44	H / 1.00 / 270	-10.56	n/a
MAXIMIZED.						
344.054 MHz	51.2 Qp	1.5 / 14.28 / 27.78 / 0.0	39.2	H / 1.00 / 0	-6.8	n/a
END OF CONFIG - 5 < 1GHz						
CONFIG - 6.						
110.791 MHz	46.3 Qp	0.86 / 8.83 / 28.02 / 0.0	27.98	V / 1.00 / 0	-15.52	n/a
432.486 MHz	41.45 Qp	1.73 / 16.41 / 27.9 / 0.0	31.7	V / 1.00 / 90	-14.3	n/a
MAXIMIZED.						
432.486 MHz	41.45 Qp	1.73 / 16.41 / 27.9 / 0.0	31.7	V / 1.00 / 95	-14.3	n/a

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Test Report #: WC602032 Run 1 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/18/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 99.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 32.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: RECEIVER SCAN (CONFIG - 4, 5 & 6)

Data File Name: 2032.dat

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List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2 FCC B >1GHz 3m
END OF VERTICAL SCAN CONFIG - 6.						
319.48 MHz	47.4 Qp	1.46 / 13.53 / 27.8 / 0.0	34.59	H / 1.00 / 0	-11.41	n/a
149.996 MHz	52.05 Qp	1.0 / 9.7 / 27.9 / 0.0	34.85	H / 1.00 / 180	-8.65	n/a
190.141 MHz	42.15 Qp	1.15 / 9.57 / 27.94 / 0.0	24.93	H / 1.00 / 180	-18.57	n/a
622.24 MHz	41.1 Qp	2.08 / 19.29 / 27.48 / 0.0	34.98	H / 1.00 / 180	-11.02	n/a
MAXIMIZED.						
149.996 MHz	52.5 Qp	1.0 / 9.7 / 27.9 / 0.0	35.3	H / 1.60 / 173	-8.2	n/a
END OF CONFIG - 6 < 1GHz.						
1.001 GHz	51.78 Av	2.64 / 25.2 / 48.74 / 0.0	30.89	V / 1.00 / 0	n/a	-23.11
1.001 GHz	58.85 Pk	2.64 / 25.2 / 48.74 / 0.0	37.96	V / 1.00 / 0	n/a	-16.04*
1.261 GHz	49.29 Av	3.11 / 25.1 / 49.34 / 0.0	28.16	V / 1.00 / 0	n/a	-25.84
1.261 GHz	62.25 Pk	3.11 / 25.1 / 49.34 / 0.0	41.12	V / 1.00 / 0	n/a	-12.88*
1.393 GHz	47.44 Av	3.37 / 25.04 / 49.58 / 0.0	26.28	V / 1.00 / 0	n/a	-27.72
1.393 GHz	59.45 Pk	3.37 / 25.04 / 49.58 / 0.0	38.29	V / 1.00 / 0	n/a	-15.71*
1.494 GHz	51.39 Av	3.72 / 25.0 / 49.81 / 0.0	30.3	V / 1.00 / 0	n/a	-23.7
1.494 GHz	64.15 Pk	3.72 / 25.0 / 49.81 / 0.0	43.06	V / 1.00 / 0	n/a	-10.94*
1.593 GHz	48.2 Av	4.0 / 25.56 / 49.51 / 0.0	28.25	V / 1.00 / 0	n/a	-25.75
1.593 GHz	60.45 Pk	4.0 / 25.56 / 49.51 / 0.0	40.5	V / 1.00 / 0	n/a	-13.5*
1.726 GHz	48.55 Av	4.02 / 26.35 / 49.74 / 0.0	29.19	V / 1.00 / 0	n/a	-24.81
1.726 GHz	60.15 Pk	4.02 / 26.35 / 49.74 / 0.0	40.79	V / 1.00 / 0	n/a	-13.21*

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Test Report #: WC602032 Run 1 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/18/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 99.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 32.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: RECEIVER SCAN (CONFIG - 4, 5 & 6)

Data File Name: 2032.dat

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List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2 FCC B >1GHz 3m
MAXIMIZED.						
1.393 GHz	51.9 Av	3.37 / 25.04 / 49.58 / 0.0	30.74	V / 1.00 / 182	n/a	-23.26
1.393 GHz	64.05 Pk	3.37 / 25.04 / 49.58 / 0.0	42.89	V / 1.00 / 182	n/a	-11.11*
END OF VERTICAL SCAN CONFIG - 6 (1-14GHz)						
1.0 GHz	55.6 Av	2.64 / 25.2 / 48.73 / 0.0	34.71	H / 1.00 / 0	n/a	-19.29
1.0 GHz	61.45 Pk	2.64 / 25.2 / 48.73 / 0.0	40.56	H / 1.00 / 0	n/a	-13.44*
1.726 GHz	51.09 Av	4.02 / 26.35 / 49.74 / 0.0	31.73	H / 1.00 / 270	n/a	-22.27
1.726 GHz	63.4 Pk	4.02 / 26.35 / 49.74 / 0.0	44.04	H / 1.00 / 270	n/a	-9.96*
MAXIMIZED.						
1.726 GHz	53.0 Av	4.02 / 26.35 / 49.74 / 0.0	33.64	H / 1.00 / 280	n/a	-20.36
1.726 GHz	66.6 Pk	4.02 / 26.35 / 49.74 / 0.0	47.24	H / 1.00 / 280	n/a	-6.76*
END OF CONFIG - 6 (1-14GHz)						
CONFIG - 5 (1-14GHz)						
5.186 GHz	45.16 Av	6.48 / 33.0 / 44.63 / 0.0	40.01	V / 1.00 / 0	n/a	-13.99
5.186 GHz	50.2 Pk	6.48 / 33.0 / 44.63 / 0.0	45.05	V / 1.00 / 0	n/a	-8.95*
1.261 GHz	51.14 Av	3.11 / 25.1 / 49.34 / 0.0	30.01	V / 1.00 / 90	n/a	-23.99
1.261 GHz	63.85 Pk	3.11 / 25.1 / 49.34 / 0.0	42.72	V / 1.00 / 90	n/a	-11.28*
1.593 GHz	50.29 Av	4.0 / 25.56 / 49.51 / 0.0	30.34	V / 1.00 / 90	n/a	-23.66

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Test Report #: WC602032 Run 1 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/18/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 99.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 32.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: RECEIVER SCAN (CONFIG - 4, 5 & 6)

Data File Name: 2032.dat

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List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2 FCC B >1GHz 3m
1.593 GHz	62.65 Pk	4.0 / 25.56 / 49.51 / 0.0	42.7	V / 1.00 / 90	n/a	-11.3*
1.593 GHz	52.24 Av	4.0 / 25.56 / 49.51 / 0.0	32.29	V / 1.00 / 270	n/a	-21.71
1.593 GHz	66.35 Pk	4.0 / 25.56 / 49.51 / 0.0	46.4	V / 1.00 / 270	n/a	-7.6*
MAXIMIZED.						
1.593 GHz	52.43 Av	4.0 / 25.56 / 49.51 / 0.0	32.48	V / 1.00 / 213	n/a	-21.52
1.593 GHz	67.0 Pk	4.0 / 25.56 / 49.51 / 0.0	47.05	V / 1.00 / 213	n/a	-6.95*
END OF VERTICAL SCAN CONFIG - 5 (1-14GHz)						
5.186 GHz	49.42 Av	6.48 / 33.0 / 44.63 / 0.0	44.27	H / 1.00 / 0	n/a	-9.73
5.186 GHz	52.1 Pk	6.48 / 33.0 / 44.63 / 0.0	46.95	H / 1.00 / 0	n/a	-7.05*
1.0 GHz	58.08 Av	2.64 / 25.2 / 48.73 / 0.0	37.19	H / 1.00 / 270	n/a	-16.81
1.0 GHz	63.95 Pk	2.64 / 25.2 / 48.73 / 0.0	43.06	H / 1.00 / 270	n/a	-10.94*
MAXIMIZED.						
5.186 GHz	57.58 Av	6.48 / 33.0 / 44.63 / 0.0	52.43	H / 1.13 / 290	n/a	-1.57
5.186 GHz	58.75 Pk	6.48 / 33.0 / 44.63 / 0.0	53.6	H / 1.13 / 290	n/a	-0.4*
1.0 GHz	59.67 Av	2.64 / 25.2 / 48.73 / 0.0	38.78	H / 1.13 / 280	n/a	-15.22
1.0 GHz	64.8 Pk	2.64 / 25.2 / 48.73 / 0.0	43.91	H / 1.13 / 280	n/a	-10.09*
END OF SCAN CONFIG - 5 (1-14GHz)						

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Test Report #: WC602032 Run 1 Test Area: LTS
EUT Model #: RSU-2510-S Date: 4/18/2006
EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C
Test Method: IC RSS-193 Air Pressure: 99.0 kPa
Customer: NEXTNET WIRELESS Rel. Humidity: 32.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: RECEIVER SCAN (CONFIG - 4, 5 & 6)

Data File Name: 2032.dat

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List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2 FCC B >1GHz 3m
CONFIG - 4 (1-14GHz)						
1.0 GHz	54.02 Av	2.64 / 25.2 / 48.73 / 0.0	33.13	V / 1.00 / 0	n/a	-20.87
1.0 GHz	60.3 Pk	2.64 / 25.2 / 48.73 / 0.0	39.41	V / 1.00 / 0	n/a	-14.59*
MAXIMIZED.						
1.0 GHz	57.35 Av	2.64 / 25.2 / 48.73 / 0.0	36.46	V / 1.00 / 350	n/a	-17.54
1.0 GHz	62.0 Pk	2.64 / 25.2 / 48.73 / 0.0	41.11	V / 1.00 / 350	n/a	-12.89*
END OF VERTICAL SCAN CONFIG-4 (1-14GHz)						
NO NEW OR HIGHER EMISSIONS FOUND WITH HORIZONTAL POLARIZATION AT ALL AZIMUTHS.						
END OF SCAN CONFIG - 4 (1-14GHz)						

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Test Report #: WC602032 Run 1 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/18/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 99.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 32.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: RECEIVER SCAN (CONFIG - 4, 5 & 6)

Data File Name: 2032.dat

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Measurement summary for limit1: FCC-B <1GHz 3m (Qp)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m
464.961 MHz	49.15 Qp	1.82 / 17.01 / 27.9 / 0.0	40.08	V / 1.00 / 180	-5.92
344.054 MHz	51.2 Qp	1.5 / 14.28 / 27.78 / 0.0	39.2	H / 1.00 / 0	-6.8
368.627 MHz	49.85 Qp	1.6 / 15.03 / 27.72 / 0.0	38.76	H / 1.00 / 0	-7.24
373.331 MHz	49.0 Qp	1.61 / 15.17 / 27.74 / 0.0	38.05	H / 1.00 / 270	-7.95
65.142 MHz	49.0 Qp	0.66 / 10.22 / 28.0 / 0.0	31.87	V / 1.00 / 180	-8.13
149.996 MHz	52.5 Qp	1.0 / 9.7 / 27.9 / 0.0	35.3	H / 1.60 / 173	-8.2
260.584 MHz	52.4 Qp	1.35 / 11.72 / 27.8 / 0.0	37.67	H / 1.00 / 270	-8.33
325.702 MHz	50.25 Qp	1.47 / 13.72 / 27.8 / 0.0	37.64	V / 1.00 / 180	-8.36
170.065 MHz	52.9 Qp	1.09 / 8.95 / 28.0 / 0.0	34.95	H / 1.00 / 90	-8.55
497.796 MHz	45.4 Qp	1.87 / 17.94 / 27.85 / 0.0	37.36	V / 1.00 / 0	-8.64
66.282 MHz	48.2 Qp	0.66 / 10.05 / 28.0 / 0.0	30.91	V / 1.00 / 90	-9.09
249.988 MHz	51.45 Qp	1.32 / 11.4 / 27.8 / 0.0	36.37	H / 1.00 / 270	-9.63
393.209 MHz	46.45 Qp	1.65 / 15.78 / 27.81 / 0.0	36.07	V / 1.00 / 270	-9.93
298.876 MHz	49.0 Qp	1.43 / 12.9 / 27.88 / 0.0	35.44	H / 1.00 / 270	-10.56
124.436 MHz	51.0 Qp	0.91 / 8.77 / 27.95 / 0.0	32.73	V / 1.00 / 180	-10.77
108.805 MHz	51.2 Qp	0.86 / 8.71 / 28.04 / 0.0	32.72	V / 1.00 / 90	-10.78
622.24 MHz	41.1 Qp	2.08 / 19.29 / 27.48 / 0.0	34.98	H / 1.00 / 180	-11.02
319.48 MHz	47.4 Qp	1.46 / 13.53 / 27.8 / 0.0	34.59	H / 1.00 / 0	-11.41
80.082 MHz	47.86 Qp	0.73 / 7.95 / 28.0 / 0.0	28.54	V / 1.00 / 0	-11.46
796.982 MHz	38.0 Qp	2.36 / 21.13 / 27.09 / 0.0	34.39	V / 1.00 / 180	-11.61
48.0 MHz	41.4 Qp	0.57 / 14.36 / 28.02 / 0.0	28.31	V / 1.00 / 180	-11.69
332.118 MHz	46.4 Qp	1.48 / 13.91 / 27.8 / 0.0	33.99	V / 1.00 / 180	-12.01
165.823 MHz	49.5 Qp	1.07 / 8.83 / 27.97 / 0.0	31.43	H / 1.00 / 90	-12.07
430.074 MHz	43.2 Qp	1.73 / 16.45 / 27.9 / 0.0	33.47	V / 1.00 / 270	-12.53
398.609 MHz	43.35 Qp	1.66 / 15.95 / 27.83 / 0.0	33.12	H / 1.00 / 0	-12.88

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Test Report #: WC602032 Run 1 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/18/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 99.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 32.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: RECEIVER SCAN (CONFIG - 4, 5 & 6)

Data File Name: 2032.dat

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Measurement summary for limit1: FCC-B <1GHz 3m (Qp)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m
199.999 MHz	47.35 Qp	1.17 / 9.87 / 27.9 / 0.0	30.49	V / 1.00 / 0	-13.01
210.181 MHz	47.0 Qp	1.2 / 10.18 / 27.89 / 0.0	30.49	H / 1.00 / 270	-13.01
425.004 MHz	42.6 Qp	1.71 / 16.52 / 27.9 / 0.0	32.93	V / 1.00 / 270	-13.07
552.946 MHz	40.55 Qp	1.99 / 18.1 / 27.8 / 0.0	32.85	V / 1.00 / 180	-13.15
86.034 MHz	46.4 Qp	0.77 / 7.27 / 28.02 / 0.0	26.41	V / 1.00 / 0	-13.59
625.014 MHz	38.3 Qp	2.08 / 19.27 / 27.46 / 0.0	32.19	H / 1.00 / 180	-13.81
417.791 MHz	41.75 Qp	1.69 / 16.53 / 27.9 / 0.0	32.07	V / 1.00 / 270	-13.93
432.486 MHz	41.45 Qp	1.73 / 16.41 / 27.9 / 0.0	31.7	V / 1.00 / 90	-14.3
248.89 MHz	46.75 Qp	1.32 / 11.37 / 27.8 / 0.0	31.63	H / 1.00 / 270	-14.37
746.702 MHz	35.55 Qp	2.31 / 20.72 / 27.13 / 0.0	31.45	H / 1.00 / 270	-14.55
136.736 MHz	47.1 Qp	0.96 / 8.68 / 27.9 / 0.0	28.83	V / 1.00 / 90	-14.67
110.791 MHz	46.5 Qp	0.86 / 8.83 / 28.02 / 0.0	28.18	V / 1.00 / 90	-15.32
172.009 MHz	45.55 Qp	1.1 / 9.01 / 28.0 / 0.0	27.67	H / 1.00 / 90	-15.83
442.374 MHz	39.9 Qp	1.77 / 16.37 / 27.9 / 0.0	30.13	V / 1.00 / 180	-15.87
405.491 MHz	40.0 Qp	1.67 / 16.16 / 27.86 / 0.0	29.97	V / 1.00 / 270	-16.03
365.549 MHz	39.0 Qp	1.59 / 14.93 / 27.71 / 0.0	27.82	H / 1.00 / 180	-18.18
190.141 MHz	42.15 Qp	1.15 / 9.57 / 27.94 / 0.0	24.93	H / 1.00 / 180	-18.57
184.381 MHz	39.1 Qp	1.13 / 9.39 / 27.98 / 0.0	21.64	V / 1.00 / 0	-21.86

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Test Report #: WC602032 Run 1 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/18/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 99.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 32.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: RECEIVER SCAN (CONFIG - 4, 5 & 6)

Data File Name: 2032.dat

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Measurement summary for limit2: FCC B >1GHz 3m (Av)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA2 FCC B >1GHz 3m
5.186 GHz	57.58 Av	6.48 / 33.0 / 44.63 / 0.0	52.43	H / 1.13 / 290	-1.57
1.0 GHz	59.67 Av	2.64 / 25.2 / 48.73 / 0.0	38.78	H / 1.13 / 280	-15.22
1.726 GHz	53.0 Av	4.02 / 26.35 / 49.74 / 0.0	33.64	H / 1.00 / 280	-20.36
1.593 GHz	52.43 Av	4.0 / 25.56 / 49.51 / 0.0	32.48	V / 1.00 / 213	-21.52
1.593 GHz	52.24 Av	4.0 / 25.56 / 49.51 / 0.0	32.29	V / 1.00 / 270	-21.71
1.001 GHz	51.78 Av	2.64 / 25.2 / 48.74 / 0.0	30.89	V / 1.00 / 0	-23.11
1.393 GHz	51.9 Av	3.37 / 25.04 / 49.58 / 0.0	30.74	V / 1.00 / 182	-23.26
1.494 GHz	51.39 Av	3.72 / 25.0 / 49.81 / 0.0	30.3	V / 1.00 / 0	-23.7
1.261 GHz	51.14 Av	3.11 / 25.1 / 49.34 / 0.0	30.01	V / 1.00 / 90	-23.99
1.001 GHz	58.85 Pk	2.64 / 25.2 / 48.74 / 0.0	37.96	V / 1.00 / 0	-16.04*
1.261 GHz	63.85 Pk	3.11 / 25.1 / 49.34 / 0.0	42.72	V / 1.00 / 90	-11.28*
1.393 GHz	64.05 Pk	3.37 / 25.04 / 49.58 / 0.0	42.89	V / 1.00 / 182	-11.11*
1.494 GHz	64.15 Pk	3.72 / 25.0 / 49.81 / 0.0	43.06	V / 1.00 / 0	-10.94*
1.593 GHz	66.35 Pk	4.0 / 25.56 / 49.51 / 0.0	46.4	V / 1.00 / 270	-7.6*
1.726 GHz	66.6 Pk	4.02 / 26.35 / 49.74 / 0.0	47.24	H / 1.00 / 280	-6.76*
1.0 GHz	64.8 Pk	2.64 / 25.2 / 48.73 / 0.0	43.91	H / 1.13 / 280	-10.09*
5.186 GHz	58.75 Pk	6.48 / 33.0 / 44.63 / 0.0	53.6	H / 1.13 / 290	-0.4*
1.593 GHz	67.0 Pk	4.0 / 25.56 / 49.51 / 0.0	47.05	V / 1.00 / 213	-6.95*

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RADIATED EMISSIONS



Test Report #: WC602032 Run 1 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/18/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 99.0 kPa

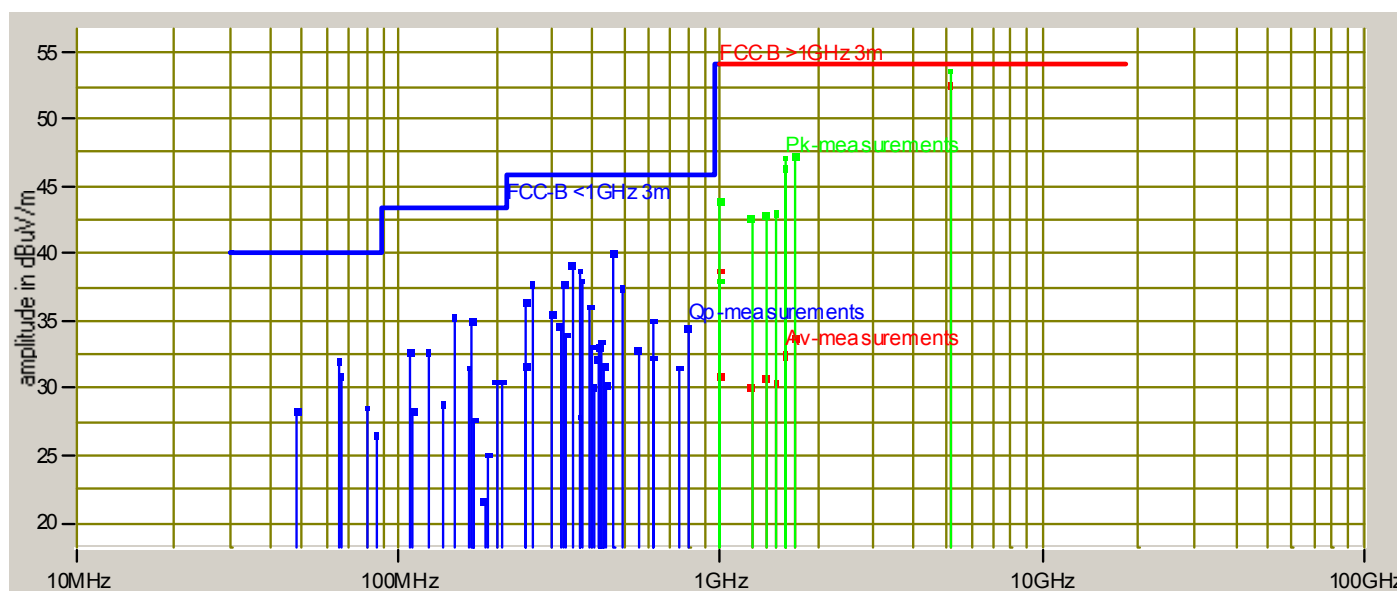
Customer: NEXTNET WIRELESS Rel. Humidity: 32.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: RECEIVER SCAN (CONFIG - 4, 5 & 6)

Data File Name: 2032.dat Page: 14 of 14

Graph:



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RADIATED EMISSIONS



Test Report #: WC602032 Run 2 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/20/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 96.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 43.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: TRANSMITTER SCAN (CONFIG - 1,2 & 3)

Data File Name: 2032.dat

Page: 1 of 17

List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 -13dBm GUIDELINE < 1GHz	DELTA2 -13dBm GUIDELINE > 1GHz
48.0 MHz	40.85 Qp	0.57 / 14.36 / 26.9 / 0.0	28.88	V / 1.00 / 0	-55.5	n/a
65.142 MHz	46.2 Qp	0.66 / 10.22 / 26.81 / 0.0	30.26	V / 1.00 / 0	-54.12	n/a
66.282 MHz	46.0 Qp	0.66 / 10.05 / 28.0 / 0.0	28.71	V / 1.00 / 0	-55.67	n/a
80.082 MHz	48.55 Qp	0.73 / 7.95 / 28.0 / 0.0	29.23	V / 1.00 / 0	-55.15	n/a
86.034 MHz	45.35 Qp	0.77 / 7.27 / 28.02 / 0.0	25.36	V / 1.00 / 0	-59.02	n/a
108.805 MHz	50.25 Qp	0.86 / 8.71 / 28.04 / 0.0	31.77	V / 1.00 / 0	-52.61	n/a
110.791 MHz	48.0 Qp	0.86 / 8.83 / 28.02 / 0.0	29.68	V / 1.00 / 0	-54.7	n/a
124.436 MHz	50.0 Qp	0.91 / 8.77 / 27.95 / 0.0	31.73	V / 1.00 / 0	-52.65	n/a
136.736 MHz	43.1 Qp	0.96 / 8.68 / 27.9 / 0.0	24.83	V / 1.00 / 0	-59.55	n/a
149.996 MHz	44.05 Qp	1.0 / 9.7 / 27.9 / 0.0	26.85	V / 1.00 / 0	-57.53	n/a
165.823 MHz	48.05 Qp	1.07 / 8.83 / 27.97 / 0.0	29.98	V / 1.00 / 0	-54.4	n/a
170.065 MHz	43.95 Qp	1.09 / 8.95 / 28.0 / 0.0	26.0	V / 1.00 / 0	-58.38	n/a
172.009 MHz	40.4 Qp	1.1 / 9.01 / 28.0 / 0.0	22.52	V / 1.00 / 0	-61.86	n/a
184.381 MHz	33.45 Qp	1.13 / 9.39 / 27.98 / 0.0	15.99	V / 1.00 / 0	-68.39	n/a
190.141 MHz	37.05 Qp	1.15 / 9.57 / 27.94 / 0.0	19.83	V / 1.00 / 0	-64.55	n/a
199.999 MHz	48.25 Qp	1.17 / 9.87 / 27.9 / 0.0	31.39	V / 1.00 / 0	-52.99	n/a
210.181 MHz	35.55 Qp	1.2 / 10.18 / 27.89 / 0.0	19.04	V / 1.00 / 0	-65.34	n/a
248.89 MHz	40.95 Qp	1.32 / 11.37 / 27.8 / 0.0	25.83	V / 1.00 / 0	-58.55	n/a
249.988 MHz	44.5 Qp	1.32 / 11.4 / 27.8 / 0.0	29.42	V / 1.00 / 0	-54.96	n/a
260.584 MHz	44.65 Qp	1.35 / 11.72 / 27.8 / 0.0	29.92	V / 1.00 / 0	-54.46	n/a
298.876 MHz	43.75 Qp	1.43 / 12.9 / 27.88 / 0.0	30.19	V / 1.00 / 0	-54.19	n/a
319.48 MHz	36.15 Qp	1.46 / 13.53 / 27.8 / 0.0	23.34	V / 1.00 / 0	-61.04	n/a
325.702 MHz	45.35 Qp	1.47 / 13.72 / 27.8 / 0.0	32.74	V / 1.00 / 0	-51.64	n/a
332.118 MHz	42.35 Qp	1.48 / 13.91 / 27.8 / 0.0	29.94	V / 1.00 / 0	-54.44	n/a
344.054 MHz	34.85 Qp	1.5 / 14.28 / 27.78 / 0.0	22.85	V / 1.00 / 0	-61.53	n/a

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RADIATED EMISSIONS



Test Report #: WC602032 Run 2 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/20/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 96.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 43.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: TRANSMITTER SCAN (CONFIG - 1,2 & 3)

Data File Name: 2032.dat

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List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 -13dBm GUIDELINE < 1GHz	DELTA2 -13dBm GUIDELINE > 1GHz
365.549 MHz	35.2 Qp	1.59 / 14.93 / 27.71 / 0.0	24.02	V / 1.00 / 0	-60.36	n/a
368.627 MHz	38.7 Qp	1.6 / 15.03 / 27.72 / 0.0	27.61	V / 1.00 / 0	-56.77	n/a
373.331 MHz	39.4 Qp	1.61 / 15.17 / 27.74 / 0.0	28.45	V / 1.00 / 0	-55.93	n/a
393.209 MHz	37.7 Qp	1.65 / 15.78 / 27.81 / 0.0	27.32	V / 1.00 / 0	-57.06	n/a
398.609 MHz	40.6 Qp	1.66 / 15.95 / 27.83 / 0.0	30.37	V / 1.00 / 0	-54.01	n/a
405.491 MHz	32.4 Qp	1.67 / 16.16 / 27.86 / 0.0	22.37	V / 1.00 / 0	-62.01	n/a
417.791 MHz	34.6 Qp	1.69 / 16.53 / 27.9 / 0.0	24.92	V / 1.00 / 0	-59.46	n/a
425.004 MHz	38.1 Qp	1.71 / 16.52 / 27.9 / 0.0	28.43	V / 1.00 / 0	-55.95	n/a
430.074 MHz	37.9 Qp	1.73 / 16.45 / 27.9 / 0.0	28.17	V / 1.00 / 0	-56.21	n/a
432.486 MHz	36.35 Qp	1.73 / 16.41 / 27.9 / 0.0	26.6	V / 1.00 / 0	-57.78	n/a
442.374 MHz	33.35 Qp	1.77 / 16.37 / 27.9 / 0.0	23.58	V / 1.00 / 0	-60.8	n/a
464.961 MHz	42.0 Qp	1.82 / 17.01 / 27.9 / 0.0	32.93	V / 1.00 / 0	-51.45	n/a
552.946 MHz	38.55 Qp	1.99 / 18.1 / 27.8 / 0.0	30.85	V / 1.00 / 0	-53.53	n/a
622.24 MHz	35.2 Qp	2.08 / 19.29 / 27.48 / 0.0	29.08	V / 1.00 / 0	-55.3	n/a
625.014 MHz	38.15 Qp	2.08 / 19.27 / 27.46 / 0.0	32.04	V / 1.00 / 0	-52.34	n/a
746.702 MHz	32.9 Qp	2.31 / 20.72 / 27.13 / 0.0	28.8	V / 1.00 / 0	-55.58	n/a
796.982 MHz	28.1 Qp	2.36 / 21.13 / 27.09 / 0.0	24.49	V / 1.00 / 0	-59.89	n/a
108.805 MHz	50.8 Qp	0.86 / 8.71 / 28.04 / 0.0	32.32	V / 1.00 / 90	-52.06	n/a
136.736 MHz	44.3 Qp	0.96 / 8.68 / 27.9 / 0.0	26.03	V / 1.00 / 90	-58.35	n/a
149.996 MHz	48.3 Qp	1.0 / 9.7 / 27.9 / 0.0	31.1	V / 1.00 / 90	-53.28	n/a
172.009 MHz	41.95 Qp	1.1 / 9.01 / 28.0 / 0.0	24.07	V / 1.00 / 90	-60.31	n/a
210.181 MHz	38.1 Qp	1.2 / 10.18 / 27.89 / 0.0	21.59	V / 1.00 / 90	-62.79	n/a
298.876 MHz	46.65 Qp	1.43 / 12.9 / 27.88 / 0.0	33.09	V / 1.00 / 90	-51.29	n/a
319.48 MHz	38.05 Qp	1.46 / 13.53 / 27.8 / 0.0	25.24	V / 1.00 / 90	-59.14	n/a

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RADIATED EMISSIONS



Test Report #: WC602032 Run 2 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/20/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 96.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 43.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: TRANSMITTER SCAN (CONFIG - 1,2 & 3)

Data File Name: 2032.dat

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List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 -13dBm GUIDELINE < 1GHz	DELTA2 -13dBm GUIDELINE > 1GHz
344.054 MHz	39.55 Qp	1.5 / 14.28 / 27.78 / 0.0	27.55	V / 1.00 / 90	-56.83	n/a
622.24 MHz	38.4 Qp	2.08 / 19.29 / 27.48 / 0.0	32.28	V / 1.00 / 90	-52.1	n/a
170.065 MHz	44.65 Qp	1.09 / 8.95 / 28.0 / 0.0	26.7	V / 1.00 / 180	-57.68	n/a
190.141 MHz	38.2 Qp	1.15 / 9.57 / 27.94 / 0.0	20.98	V / 1.00 / 180	-63.4	n/a
325.702 MHz	48.95 Qp	1.47 / 13.72 / 27.8 / 0.0	36.34	V / 1.00 / 180	-48.04	n/a
332.118 MHz	44.3 Qp	1.48 / 13.91 / 27.8 / 0.0	31.89	V / 1.00 / 180	-52.49	n/a
365.549 MHz	36.4 Qp	1.59 / 14.93 / 27.71 / 0.0	25.22	V / 1.00 / 180	-59.16	n/a
373.331 MHz	42.25 Qp	1.61 / 15.17 / 27.74 / 0.0	31.3	V / 1.00 / 180	-53.08	n/a
464.961 MHz	47.05 Qp	1.82 / 17.01 / 27.9 / 0.0	37.98	V / 1.00 / 180	-46.4	n/a
552.946 MHz	39.65 Qp	1.99 / 18.1 / 27.8 / 0.0	31.95	V / 1.00 / 180	-52.43	n/a
796.982 MHz	37.1 Qp	2.36 / 21.13 / 27.09 / 0.0	33.49	V / 1.00 / 180	-50.89	n/a
796.982 MHz	37.05 Qp	2.36 / 21.13 / 27.09 / 0.0	33.44	V / 1.00 / 180	-50.94	n/a
136.736 MHz	45.8 Qp	0.96 / 8.68 / 27.9 / 0.0	27.53	V / 1.00 / 270	-56.85	n/a
319.48 MHz	39.15 Qp	1.46 / 13.53 / 27.8 / 0.0	26.34	V / 1.00 / 270	-58.04	n/a
344.054 MHz	44.2 Qp	1.5 / 14.28 / 27.78 / 0.0	32.2	V / 1.00 / 270	-52.18	n/a
368.627 MHz	43.4 Qp	1.6 / 15.03 / 27.72 / 0.0	32.31	V / 1.00 / 270	-52.07	n/a
393.209 MHz	43.2 Qp	1.65 / 15.78 / 27.81 / 0.0	32.82	V / 1.00 / 270	-51.56	n/a
405.491 MHz	37.2 Qp	1.67 / 16.16 / 27.86 / 0.0	27.17	V / 1.00 / 270	-57.21	n/a
417.791 MHz	39.15 Qp	1.69 / 16.53 / 27.9 / 0.0	29.47	V / 1.00 / 270	-54.91	n/a
425.004 MHz	42.25 Qp	1.71 / 16.52 / 27.9 / 0.0	32.58	V / 1.00 / 270	-51.8	n/a
430.074 MHz	43.3 Qp	1.73 / 16.45 / 27.9 / 0.0	33.57	V / 1.00 / 270	-50.81	n/a
432.486 MHz	41.15 Qp	1.73 / 16.41 / 27.9 / 0.0	31.4	V / 1.00 / 270	-52.98	n/a
442.374 MHz	34.4 Qp	1.77 / 16.37 / 27.9 / 0.0	24.63	V / 1.00 / 270	-59.75	n/a

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RADIATED EMISSIONS



Test Report #: WC602032 Run 2 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/20/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 96.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 43.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: TRANSMITTER SCAN (CONFIG - 1,2 & 3)

Data File Name: 2032.dat

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List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 -13dBm GUIDELINE < 1GHz	DELTA2 -13dBm GUIDELINE > 1GHz
MAXIMIZED.						
464.961 MHz	47.5 Qp	1.82 / 17.01 / 27.9 / 0.0	38.43	V / 1.00 / 180	-45.95	n/a
END OF VERTICAL SCAN CONFIG - 1.						
170.065 MHz	47.15 Qp	1.09 / 8.95 / 28.0 / 0.0	29.2	H / 1.00 / 0	-55.18	n/a
172.009 MHz	42.8 Qp	1.1 / 9.01 / 28.0 / 0.0	24.92	H / 1.00 / 0	-59.46	n/a
249.988 MHz	50.5 Qp	1.32 / 11.4 / 27.8 / 0.0	35.42	H / 1.00 / 0	-48.96	n/a
319.48 MHz	45.6 Qp	1.46 / 13.53 / 27.8 / 0.0	32.79	H / 1.00 / 0	-51.59	n/a
344.054 MHz	47.3 Qp	1.5 / 14.28 / 27.78 / 0.0	35.3	H / 1.00 / 0	-49.08	n/a
368.627 MHz	48.1 Qp	1.6 / 15.03 / 27.72 / 0.0	37.01	H / 1.00 / 0	-47.37	n/a
373.331 MHz	48.05 Qp	1.61 / 15.17 / 27.74 / 0.0	37.1	H / 1.00 / 0	-47.28	n/a
393.209 MHz	45.7 Qp	1.65 / 15.78 / 27.81 / 0.0	35.32	H / 1.00 / 0	-49.06	n/a
398.609 MHz	44.0 Qp	1.66 / 15.95 / 27.83 / 0.0	33.77	H / 1.00 / 0	-50.61	n/a
405.491 MHz	38.2 Qp	1.67 / 16.16 / 27.86 / 0.0	28.17	H / 1.00 / 0	-56.21	n/a
165.823 MHz	49.1 Qp	1.07 / 8.83 / 27.97 / 0.0	31.03	H / 1.00 / 90	-53.35	n/a
170.113 MHz	52.55 Qp	1.09 / 8.96 / 28.0 / 0.0	34.6	H / 1.00 / 90	-49.78	n/a
172.009 MHz	44.8 Qp	1.1 / 9.01 / 28.0 / 0.0	26.92	H / 1.00 / 90	-57.46	n/a
184.381 MHz	34.1 Qp	1.13 / 9.39 / 27.98 / 0.0	16.64	H / 1.00 / 90	-67.74	n/a
149.996 MHz	51.5 Qp	1.0 / 9.7 / 27.9 / 0.0	34.3	H / 1.00 / 180	-50.08	n/a
190.141 MHz	41.55 Qp	1.15 / 9.57 / 27.94 / 0.0	24.33	H / 1.00 / 180	-60.05	n/a

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RADIATED EMISSIONS



Test Report #: WC602032 Run 2 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/20/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 96.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 43.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: TRANSMITTER SCAN (CONFIG - 1,2 & 3)

Data File Name: 2032.dat

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List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 -13dBm GUIDELINE < 1GHz	DELTA2 -13dBm GUIDELINE > 1GHz
210.181 MHz	40.95 Qp	1.2 / 10.18 / 27.89 / 0.0	24.44	H / 1.00 / 180	-59.94	n/a
365.549 MHz	39.85 Qp	1.59 / 14.93 / 27.71 / 0.0	28.67	H / 1.00 / 180	-55.71	n/a
622.24 MHz	41.95 Qp	2.08 / 19.29 / 27.48 / 0.0	35.83	H / 1.00 / 180	-48.55	n/a
210.181 MHz	42.9 Qp	1.2 / 10.18 / 27.89 / 0.0	26.39	H / 1.00 / 270	-57.99	n/a
260.584 MHz	47.75 Qp	1.35 / 11.72 / 27.8 / 0.0	33.02	H / 1.00 / 270	-51.36	n/a
298.876 MHz	49.2 Qp	1.43 / 12.9 / 27.88 / 0.0	35.64	H / 1.00 / 270	-48.74	n/a
332.118 MHz	45.55 Qp	1.48 / 13.91 / 27.8 / 0.0	33.14	H / 1.00 / 270	-51.24	n/a
746.702 MHz	38.1 Qp	2.31 / 20.72 / 27.13 / 0.0	34.0	H / 1.00 / 270	-50.38	n/a
MAXIMIZED.						
149.996 MHz	51.8 Qp	1.0 / 9.7 / 27.9 / 0.0	34.6	H / 1.00 / 270	-49.78	n/a
END OF CONFIG - 1 < 1GHz.						
CONFIG - 2.						
248.89 MHz	41.75 Qp	1.32 / 11.37 / 27.8 / 0.0	26.63	V / 1.00 / 0	-57.75	n/a
124.436 MHz	51.35 Qp	0.91 / 8.77 / 27.95 / 0.0	33.08	V / 1.00 / 180	-51.3	n/a
184.381 MHz	36.0 Qp	1.13 / 9.39 / 27.98 / 0.0	18.54	V / 1.00 / 180	-65.84	n/a
325.702 MHz	50.7 Qp	1.47 / 13.72 / 27.8 / 0.0	38.09	V / 1.00 / 180	-46.29	n/a
442.374 MHz	35.3 Qp	1.77 / 16.37 / 27.9 / 0.0	25.53	V / 1.00 / 180	-58.85	n/a
393.209 MHz	46.85 Qp	1.65 / 15.78 / 27.81 / 0.0	36.47	V / 1.00 / 270	-47.91	n/a
405.491 MHz	40.25 Qp	1.67 / 16.16 / 27.86 / 0.0	30.22	V / 1.00 / 270	-54.16	n/a

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RADIATED EMISSIONS



Test Report #: WC602032 Run 2 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/20/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 96.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 43.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: TRANSMITTER SCAN (CONFIG - 1,2 & 3)

Data File Name: 2032.dat

Page: 6 of 17

List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 -13dBm GUIDELINE < 1GHz	DELTA2 -13dBm GUIDELINE > 1GHz
417.791 MHz	41.15 Qp	1.69 / 16.53 / 27.9 / 0.0	31.47	V / 1.00 / 270	-52.91	n/a
430.074 MHz	44.15 Qp	1.73 / 16.45 / 27.9 / 0.0	34.42	V / 1.00 / 270	-49.96	n/a
MAXIMIZED.						
393.209 MHz	46.95 Qp	1.65 / 15.78 / 27.81 / 0.0	36.57	V / 1.00 / 270	-47.81	n/a
END OF VERTICAL SCAN CONFIG - 2.						
249.988 MHz	50.55 Qp	1.32 / 11.4 / 27.8 / 0.0	35.47	H / 1.00 / 0	-48.91	n/a
319.48 MHz	45.9 Qp	1.46 / 13.53 / 27.8 / 0.0	33.09	H / 1.00 / 0	-51.29	n/a
344.054 MHz	47.45 Qp	1.5 / 14.28 / 27.78 / 0.0	35.45	H / 1.00 / 0	-48.93	n/a
184.381 MHz	37.95 Qp	1.13 / 9.39 / 27.98 / 0.0	20.49	H / 1.00 / 270	-63.89	n/a
248.89 MHz	45.0 Qp	1.32 / 11.37 / 27.8 / 0.0	29.88	H / 1.00 / 270	-54.5	n/a
249.988 MHz	51.6 Qp	1.32 / 11.4 / 27.8 / 0.0	36.52	H / 1.00 / 270	-47.86	n/a
260.584 MHz	51.05 Qp	1.35 / 11.72 / 27.8 / 0.0	36.32	H / 1.00 / 270	-48.06	n/a
MAXIMIZED.						
249.988 MHz	52.0 Qp	1.32 / 11.4 / 27.8 / 0.0	36.92	H / 1.00 / 270	-47.46	n/a
END OF SCAN CONFIG - 2 < 1GHz.						
CONFIG - 3.						
210.181 MHz	44.85 Qp	1.2 / 10.18 / 27.89 / 0.0	28.34	H / 1.00 / 270	-56.04	n/a

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Test Report #: WC602032 Run 2 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/20/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 96.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 43.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: TRANSMITTER SCAN (CONFIG - 1,2 & 3)

Data File Name: 2032.dat

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List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 -13dBm GUIDELINE < 1GHz	DELTA2 -13dBm GUIDELINE > 1GHz
MAXIMIZED.						
210.181 MHz	48.2 Qp	1.2 / 10.18 / 27.89 / 0.0	31.69	H / 1.00 / 140	-52.69	n/a
END OF CONFIG - 3 < 1GHz.						
CONFIG - 3 > 1GHz.						
1.0 GHz	53.94 Av	2.64 / 25.2 / 48.73 / 0.0	33.05	V / 1.00 / 0	n/a	-51.33
1.0 GHz	60.9 Pk	2.64 / 25.2 / 48.73 / 0.0	40.01	V / 1.00 / 0	n/a	-44.37*
1.125 GHz	49.05 Av	2.83 / 25.15 / 49.53 / 0.0	27.49	V / 1.00 / 0	n/a	-56.89
1.125 GHz	62.45 Pk	2.83 / 25.15 / 49.53 / 0.0	40.89	V / 1.00 / 0	n/a	-43.49*
1.26 GHz	48.93 Av	3.11 / 25.1 / 49.35 / 0.0	27.79	V / 1.00 / 0	n/a	-56.59
1.26 GHz	62.25 Pk	3.11 / 25.1 / 49.35 / 0.0	41.11	V / 1.00 / 0	n/a	-43.27*
1.394 GHz	48.89 Av	3.38 / 25.04 / 49.58 / 0.0	27.73	V / 1.00 / 0	n/a	-56.65
1.394 GHz	60.85 Pk	3.38 / 25.04 / 49.58 / 0.0	39.69	V / 1.00 / 0	n/a	-44.69*
1.494 GHz	51.33 Av	3.72 / 25.0 / 49.81 / 0.0	30.24	V / 1.00 / 0	n/a	-54.14
1.494 GHz	62.3 Pk	3.72 / 25.0 / 49.81 / 0.0	41.21	V / 1.00 / 0	n/a	-43.17*
1.593 GHz	47.14 Av	4.0 / 25.56 / 49.51 / 0.0	27.19	V / 1.00 / 0	n/a	-57.19
1.593 GHz	57.7 Pk	4.0 / 25.56 / 49.51 / 0.0	37.75	V / 1.00 / 0	n/a	-46.63*
1.726 GHz	48.88 Av	4.02 / 26.35 / 49.74 / 0.0	29.52	V / 1.00 / 0	n/a	-54.86
1.726 GHz	61.55 Pk	4.02 / 26.35 / 49.74 / 0.0	42.19	V / 1.00 / 0	n/a	-42.19*
1.86 GHz	47.06 Av	4.04 / 27.16 / 49.84 / 0.0	28.42	V / 1.00 / 0	n/a	-55.96
1.86 GHz	58.4 Pk	4.04 / 27.16 / 49.84 / 0.0	39.76	V / 1.00 / 0	n/a	-44.62*
MAXIMIZED.						
1.0 GHz	58.66 Av	2.64 / 25.2 / 48.73 / 0.0	37.77	V / 1.00 / 285	n/a	-46.61

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RADIATED EMISSIONS



Test Report #: WC602032 Run 2 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/20/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 96.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 43.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: TRANSMITTER SCAN (CONFIG - 1,2 & 3)

Data File Name: 2032.dat

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List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 -13dBm GUIDELINE < 1GHz	DELTA2 -13dBm GUIDELINE > 1GHz
1.0 GHz	63.95 Pk	2.64 / 25.2 / 48.73 / 0.0	43.06	V / 1.00 / 285	n/a	-41.32*
END OF CONFIG - 3 VERTICAL SCAN (1-2GHz)						
1.125 GHz	49.89 Av	2.83 / 25.15 / 49.53 / 0.0	28.33	H / 1.00 / 90	n/a	-56.05
1.125 GHz	65.05 Pk	2.83 / 25.15 / 49.53 / 0.0	43.49	H / 1.00 / 90	n/a	-40.89*
1.394 GHz	51.09 Av	3.38 / 25.04 / 49.58 / 0.0	29.93	H / 1.00 / 180	n/a	-54.45
1.394 GHz	63.8 Pk	3.38 / 25.04 / 49.58 / 0.0	42.64	H / 1.00 / 180	n/a	-41.74*
1.593 GHz	49.41 Av	4.0 / 25.56 / 49.51 / 0.0	29.46	H / 1.00 / 270	n/a	-54.92
1.593 GHz	62.75 Pk	4.0 / 25.56 / 49.51 / 0.0	42.8	H / 1.00 / 270	n/a	-41.58*
MAXIMIZED.						
1.394 GHz	52.45 Av	3.38 / 25.04 / 49.58 / 0.0	31.29	H / 1.00 / 180	n/a	-53.09
1.394 GHz	63.85 Pk	3.38 / 25.04 / 49.58 / 0.0	42.69	H / 1.00 / 180	n/a	-41.69*
END OF CONFIG - 1 (1-2GHz)						
CONFIG - 2 (1-2GHz)						
1.125 GHz	48.51 Av	2.83 / 25.15 / 49.53 / 0.0	26.95	V / 1.00 / 0	n/a	-57.43
1.125 GHz	61.3 Pk	2.83 / 25.15 / 49.53 / 0.0	39.74	V / 1.00 / 0	n/a	-44.64*
1.125 GHz	48.95 Av	2.83 / 25.15 / 49.53 / 0.0	27.39	V / 1.00 / 270	n/a	-56.99
1.125 GHz	68.35 Pk	2.83 / 25.15 / 49.53 / 0.0	46.79	V / 1.00 / 270	n/a	-37.59*

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Test Report #: WC602032 Run 2 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/20/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 96.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 43.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: TRANSMITTER SCAN (CONFIG - 1,2 & 3)

Data File Name: 2032.dat

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List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 -13dBm GUIDELINE < 1GHz	DELTA2 -13dBm GUIDELINE > 1GHz
1.593 GHz	51.77 Av	4.0 / 25.56 / 49.51 / 0.0	31.82	V / 1.00 / 270	n/a	-52.56
1.593 GHz	66.6 Pk	4.0 / 25.56 / 49.51 / 0.0	46.65	V / 1.00 / 270	n/a	-37.73*
1.726 GHz	50.84 Av	4.02 / 26.35 / 49.74 / 0.0	31.48	V / 1.00 / 270	n/a	-52.9
1.726 GHz	65.0 Pk	4.02 / 26.35 / 49.74 / 0.0	45.64	V / 1.00 / 270	n/a	-38.74*
1.86 GHz	48.69 Av	4.04 / 27.16 / 49.84 / 0.0	30.05	V / 1.00 / 270	n/a	-54.33
1.86 GHz	62.1 Pk	4.04 / 27.16 / 49.84 / 0.0	43.46	V / 1.00 / 270	n/a	-40.92*
MAXIMIZED.						
1.593 GHz	53.52 Av	4.0 / 25.56 / 49.51 / 0.0	33.57	V / 1.00 / 270	n/a	-50.81
1.593 GHz	59.25 Pk	4.0 / 25.56 / 49.51 / 0.0	39.3	V / 1.00 / 270	n/a	-45.08*
END OF CONFIG - 2 VERTICAL (1-2GHz)						
1.593 GHz	48.78 Av	4.0 / 25.56 / 49.51 / 0.0	28.83	H / 1.00 / 270	n/a	-55.55
1.593 GHz	62.25 Pk	4.0 / 25.56 / 49.51 / 0.0	42.3	H / 1.00 / 270	n/a	-42.08*
MAXIMIZED.						
1.593 GHz	50.23 Av	4.0 / 25.56 / 49.51 / 0.0	30.28	H / 1.00 / 264	n/a	-54.1
1.593 GHz	64.35 Pk	4.0 / 25.56 / 49.51 / 0.0	44.4	H / 1.00 / 264	n/a	-39.98*
END OF SCAN CONFIG - 2 (1-2GHz)						
CONFIG - 1 (1-2GHz)						
1.593 GHz	51.54 Av	4.0 / 25.56 / 49.51 / 0.0	31.59	V / 1.00 / 270	n/a	-52.79
1.593 GHz	66.3 Pk	4.0 / 25.56 / 49.51 / 0.0	46.35	V / 1.00 / 270	n/a	-38.03*

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Test Report #: WC602032 Run 2 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/20/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 96.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 43.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: TRANSMITTER SCAN (CONFIG - 1,2 & 3)

Data File Name: 2032.dat

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List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 -13dBm GUIDELINE < 1GHz	DELTA2 -13dBm GUIDELINE > 1GHz
MAXIMIZED.						
1.593 GHz	52.06 Av	4.0 / 25.56 / 49.51 / 0.0	32.11	V / 1.00 / 213	n/a	-52.27
1.593 GHz	66.2 Pk	4.0 / 25.56 / 49.51 / 0.0	46.25	V / 1.00 / 213	n/a	-38.13*
END OF VERTICAL SCAN CONFIG - 1 (1-2GHz)						
NO NEW OR HIGHER EMISSIONS FOUND WITH HORIZONTAL POLARIZATION AT ALL AZIMUTHS.						
END OF SCAN CONFIG - 1 (1-2GHz)						
CONFIG - 1 (2-14GHz)						
4.998 GHz	39.69 Av	6.31 / 32.75 / 44.64 / 0.0	34.11	V / 1.00 / 0	n/a	-50.27
4.998 GHz	58.25 Pk	6.31 / 32.75 / 44.64 / 0.0	52.67	V / 1.00 / 0	n/a	-31.71*
MAXIMIZED.						
4.998 GHz	44.21 Av	6.31 / 32.75 / 44.64 / 0.0	38.63	V / 1.00 / 0	n/a	-45.75
4.998 GHz	66.95 Pk	6.31 / 32.75 / 44.64 / 0.0	61.37	V / 1.00 / 0	n/a	-23.01*
END OF SCAN CONFIG - 1 VERTICAL.						
7.498 GHz	37.87 Av	8.16 / 36.04 / 45.66 / 0.0	36.41	H / 1.00 / 0	n/a	-47.97
7.498 GHz	50.2 Pk	8.16 / 36.04 / 45.66 / 0.0	48.74	H / 1.00 / 0	n/a	-35.64*
MAXIMIZED.						

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Test Report #: WC602032 Run 2 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/20/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 96.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 43.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: TRANSMITTER SCAN (CONFIG - 1,2 & 3)

Data File Name: 2032.dat

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List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 -13dBm GUIDELINE < 1GHz	DELTA2 -13dBm GUIDELINE > 1GHz
7.498 GHz	38.09 Av	8.16 / 36.04 / 45.66 / 0.0	36.63	H / 1.00 / 153	n/a	-47.75
7.498 GHz	52.45 Pk	8.16 / 36.04 / 45.66 / 0.0	50.99	H / 1.00 / 153	n/a	-33.39*
END OF SCAN CONFIG - 1 (2-14GHz)						
CONFIG - 2 (2-14GHz)						
5.186 GHz	39.88 Av	6.48 / 33.0 / 44.63 / 0.0	34.73	V / 1.00 / 0	n/a	-49.65
MAXIMIZED.						
5.186 GHz	45.16 Av	6.48 / 33.0 / 44.63 / 0.0	40.01	V / 1.30 / 277	n/a	-44.37
5.186 GHz	54.95 Pk	6.48 / 33.0 / 44.63 / 0.0	49.8	V / 1.30 / 277	n/a	-34.58*
END OF VERTICAL SCAN CONFIG - 2 (2-14GHz)						
5.186 GHz	53.82 Av	6.48 / 33.0 / 44.63 / 0.0	48.67	H / 1.10 / 238	n/a	-35.71
5.186 GHz	59.3 Pk	6.48 / 33.0 / 44.63 / 0.0	54.15	H / 1.10 / 238	n/a	-30.23*
END OF CONFIG - 2 (2-14GHz)						
CONFIG - 3 (2-14GHz)						
MAXIMIZED.						
5.374 GHz	44.58 Av	6.7 / 33.25 / 44.78 / 0.0	39.75	V / 1.20 / 268	n/a	-44.63
5.374 GHz	57.9 Pk	6.7 / 33.25 / 44.78 / 0.0	53.07	V / 1.20 / 268	n/a	-31.31*
8.061 GHz	46.01 Av	8.64 / 36.74 / 45.78 / 0.0	45.61	V / 1.10 / 256	n/a	-38.77
8.061 GHz	58.6 Pk	8.64 / 36.74 / 45.78 / 0.0	58.2	V / 1.10 / 256	n/a	-26.18*

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Test Report #: WC602032 Run 2 Test Area: LTS
EUT Model #: RSU-2510-S Date: 4/20/2006
EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C
Test Method: IC RSS-193 Air Pressure: 96.0 kPa
Customer: NEXTNET WIRELESS Rel. Humidity: 43.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: TRANSMITTER SCAN (CONFIG - 1,2 & 3)

Data File Name: 2032.dat

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List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 -13dBm GUIDELINE < 1GHz	DELTA2 -13dBm GUIDELINE > 1GHz
END OF SCAN CONFIG - 3 (2-14GHz)						
END OF SCAN 30 - 14000MHZ.						

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RADIATED EMISSIONS



Test Report #: WC602032 Run 2 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/20/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 96.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 43.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: TRANSMITTER SCAN (CONFIG - 1,2 & 3)

Data File Name: 2032.dat

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Measurement summary for limit1: -13dBm GUIDELINE < 1GHz (Qp)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 -13dBm GUIDELINE < 1GHz
464.961 MHz	47.5 Qp	1.82 / 17.01 / 27.9 / 0.0	38.43	V / 1.00 / 180	-45.95
325.702 MHz	50.7 Qp	1.47 / 13.72 / 27.8 / 0.0	38.09	V / 1.00 / 180	-46.29
373.331 MHz	48.05 Qp	1.61 / 15.17 / 27.74 / 0.0	37.1	H / 1.00 / 0	-47.28
368.627 MHz	48.1 Qp	1.6 / 15.03 / 27.72 / 0.0	37.01	H / 1.00 / 0	-47.37
249.988 MHz	52.0 Qp	1.32 / 11.4 / 27.8 / 0.0	36.92	H / 1.00 / 270	-47.46
393.209 MHz	46.95 Qp	1.65 / 15.78 / 27.81 / 0.0	36.57	V / 1.00 / 270	-47.81
260.584 MHz	51.05 Qp	1.35 / 11.72 / 27.8 / 0.0	36.32	H / 1.00 / 270	-48.06
622.24 MHz	41.95 Qp	2.08 / 19.29 / 27.48 / 0.0	35.83	H / 1.00 / 180	-48.55
298.876 MHz	49.2 Qp	1.43 / 12.9 / 27.88 / 0.0	35.64	H / 1.00 / 270	-48.74
344.054 MHz	47.45 Qp	1.5 / 14.28 / 27.78 / 0.0	35.45	H / 1.00 / 0	-48.93
149.996 MHz	51.8 Qp	1.0 / 9.7 / 27.9 / 0.0	34.6	H / 1.00 / 270	-49.78
170.113 MHz	52.55 Qp	1.09 / 8.96 / 28.0 / 0.0	34.6	H / 1.00 / 90	-49.78
430.074 MHz	44.15 Qp	1.73 / 16.45 / 27.9 / 0.0	34.42	V / 1.00 / 270	-49.96
746.702 MHz	38.1 Qp	2.31 / 20.72 / 27.13 / 0.0	34.0	H / 1.00 / 270	-50.38
398.609 MHz	44.0 Qp	1.66 / 15.95 / 27.83 / 0.0	33.77	H / 1.00 / 0	-50.61
796.982 MHz	37.1 Qp	2.36 / 21.13 / 27.09 / 0.0	33.49	V / 1.00 / 180	-50.89
332.118 MHz	45.55 Qp	1.48 / 13.91 / 27.8 / 0.0	33.14	H / 1.00 / 270	-51.24
319.48 MHz	45.9 Qp	1.46 / 13.53 / 27.8 / 0.0	33.09	H / 1.00 / 0	-51.29
124.436 MHz	51.35 Qp	0.91 / 8.77 / 27.95 / 0.0	33.08	V / 1.00 / 180	-51.3
425.004 MHz	42.25 Qp	1.71 / 16.52 / 27.9 / 0.0	32.58	V / 1.00 / 270	-51.8
108.805 MHz	50.8 Qp	0.86 / 8.71 / 28.04 / 0.0	32.32	V / 1.00 / 90	-52.06
625.014 MHz	38.15 Qp	2.08 / 19.27 / 27.46 / 0.0	32.04	V / 1.00 / 0	-52.34
552.946 MHz	39.65 Qp	1.99 / 18.1 / 27.8 / 0.0	31.95	V / 1.00 / 180	-52.43
210.181 MHz	48.2 Qp	1.2 / 10.18 / 27.89 / 0.0	31.69	H / 1.00 / 140	-52.69

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Test Report #: WC602032 Run 2 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/20/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 96.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 43.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: TRANSMITTER SCAN (CONFIG - 1,2 & 3)

Data File Name: 2032.dat

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Measurement summary for limit1: -13dBm GUIDELINE < 1GHz (Qp)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 -13dBm GUIDELINE < 1GHz
417.791 MHz	41.15 Qp	1.69 / 16.53 / 27.9 / 0.0	31.47	V / 1.00 / 270	-52.91
432.486 MHz	41.15 Qp	1.73 / 16.41 / 27.9 / 0.0	31.4	V / 1.00 / 270	-52.98
199.999 MHz	48.25 Qp	1.17 / 9.87 / 27.9 / 0.0	31.39	V / 1.00 / 0	-52.99
165.823 MHz	49.1 Qp	1.07 / 8.83 / 27.97 / 0.0	31.03	H / 1.00 / 90	-53.35
65.142 MHz	46.2 Qp	0.66 / 10.22 / 26.81 / 0.0	30.26	V / 1.00 / 0	-54.12
405.491 MHz	40.25 Qp	1.67 / 16.16 / 27.86 / 0.0	30.22	V / 1.00 / 270	-54.16
248.89 MHz	45.0 Qp	1.32 / 11.37 / 27.8 / 0.0	29.88	H / 1.00 / 270	-54.5
110.791 MHz	48.0 Qp	0.86 / 8.83 / 28.02 / 0.0	29.68	V / 1.00 / 0	-54.7
80.082 MHz	48.55 Qp	0.73 / 7.95 / 28.0 / 0.0	29.23	V / 1.00 / 0	-55.15
48.0 MHz	40.85 Qp	0.57 / 14.36 / 26.9 / 0.0	28.88	V / 1.00 / 0	-55.5
66.282 MHz	46.0 Qp	0.66 / 10.05 / 28.0 / 0.0	28.71	V / 1.00 / 0	-55.67
365.549 MHz	39.85 Qp	1.59 / 14.93 / 27.71 / 0.0	28.67	H / 1.00 / 180	-55.71
136.736 MHz	45.8 Qp	0.96 / 8.68 / 27.9 / 0.0	27.53	V / 1.00 / 270	-56.85
172.009 MHz	44.8 Qp	1.1 / 9.01 / 28.0 / 0.0	26.92	H / 1.00 / 90	-57.46
442.374 MHz	35.3 Qp	1.77 / 16.37 / 27.9 / 0.0	25.53	V / 1.00 / 180	-58.85
86.034 MHz	45.35 Qp	0.77 / 7.27 / 28.02 / 0.0	25.36	V / 1.00 / 0	-59.02
190.141 MHz	41.55 Qp	1.15 / 9.57 / 27.94 / 0.0	24.33	H / 1.00 / 180	-60.05
184.381 MHz	37.95 Qp	1.13 / 9.39 / 27.98 / 0.0	20.49	H / 1.00 / 270	-63.89

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RADIATED EMISSIONS



Test Report #: WC602032 Run 2 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/20/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 96.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 43.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: TRANSMITTER SCAN (CONFIG - 1,2 & 3)

Data File Name: 2032.dat

Page: 15 of 17

Measurement summary for limit2: -13dBm GUIDELINE > 1GHz (Av)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA2 -13dBm GUIDELINE > 1GHz
5.186 GHz	53.82 Av	6.48 / 33.0 / 44.63 / 0.0	48.67	H / 1.10 / 238	-35.71
8.061 GHz	46.01 Av	8.64 / 36.74 / 45.78 / 0.0	45.61	V / 1.10 / 256	-38.77
5.374 GHz	44.58 Av	6.7 / 33.25 / 44.78 / 0.0	39.75	V / 1.20 / 268	-44.63
4.998 GHz	44.21 Av	6.31 / 32.75 / 44.64 / 0.0	38.63	V / 1.00 / 0	-45.75
1.0 GHz	58.66 Av	2.64 / 25.2 / 48.73 / 0.0	37.77	V / 1.00 / 285	-46.61
7.498 GHz	38.09 Av	8.16 / 36.04 / 45.66 / 0.0	36.63	H / 1.00 / 153	-47.75
1.593 GHz	53.52 Av	4.0 / 25.56 / 49.51 / 0.0	33.57	V / 1.00 / 270	-50.81
1.593 GHz	52.06 Av	4.0 / 25.56 / 49.51 / 0.0	32.11	V / 1.00 / 213	-52.27
1.726 GHz	50.84 Av	4.02 / 26.35 / 49.74 / 0.0	31.48	V / 1.00 / 270	-52.9
1.394 GHz	52.45 Av	3.38 / 25.04 / 49.58 / 0.0	31.29	H / 1.00 / 180	-53.09
1.494 GHz	51.33 Av	3.72 / 25.0 / 49.81 / 0.0	30.24	V / 1.00 / 0	-54.14
1.86 GHz	48.69 Av	4.04 / 27.16 / 49.84 / 0.0	30.05	V / 1.00 / 270	-54.33
1.125 GHz	49.89 Av	2.83 / 25.15 / 49.53 / 0.0	28.33	H / 1.00 / 90	-56.05
1.26 GHz	48.93 Av	3.11 / 25.1 / 49.35 / 0.0	27.79	V / 1.00 / 0	-56.59
1.0 GHz	63.95 Pk	2.64 / 25.2 / 48.73 / 0.0	43.06	V / 1.00 / 285	-41.32*
1.125 GHz	68.35 Pk	2.83 / 25.15 / 49.53 / 0.0	46.79	V / 1.00 / 270	-37.59*
1.26 GHz	62.25 Pk	3.11 / 25.1 / 49.35 / 0.0	41.11	V / 1.00 / 0	-43.27*
1.394 GHz	63.85 Pk	3.38 / 25.04 / 49.58 / 0.0	42.69	H / 1.00 / 180	-41.69*
1.494 GHz	62.3 Pk	3.72 / 25.0 / 49.81 / 0.0	41.21	V / 1.00 / 0	-43.17*
1.593 GHz	66.6 Pk	4.0 / 25.56 / 49.51 / 0.0	46.65	V / 1.00 / 270	-37.73*
1.726 GHz	65.0 Pk	4.02 / 26.35 / 49.74 / 0.0	45.64	V / 1.00 / 270	-38.74*

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RADIATED EMISSIONS



Test Report #: WC602032 Run 2 Test Area: LTS
EUT Model #: RSU-2510-S Date: 4/20/2006
EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C
Test Method: IC RSS-193 Air Pressure: 96.0 kPa
Customer: NEXTNET WIRELESS Rel. Humidity: 43.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: TRANSMITTER SCAN (CONFIG - 1,2 & 3)

Data File Name: 2032.dat

Page: 16 of 17

Measurement summary for limit2: -13dBm GUIDELINE > 1GHz (Av)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA2 -13dBm GUIDELINE > 1GHz
1.86 GHz	62.1 Pk	4.04 / 27.16 / 49.84 / 0.0	43.46	V / 1.00 / 270	-40.92*
1.593 GHz	66.3 Pk	4.0 / 25.56 / 49.51 / 0.0	46.35	V / 1.00 / 270	-38.03*
4.998 GHz	66.95 Pk	6.31 / 32.75 / 44.64 / 0.0	61.37	V / 1.00 / 0	-23.01*
7.498 GHz	52.45 Pk	8.16 / 36.04 / 45.66 / 0.0	50.99	H / 1.00 / 153	-33.39*
5.186 GHz	59.3 Pk	6.48 / 33.0 / 44.63 / 0.0	54.15	H / 1.10 / 238	-30.23*
5.374 GHz	57.9 Pk	6.7 / 33.25 / 44.78 / 0.0	53.07	V / 1.20 / 268	-31.31*
8.061 GHz	58.6 Pk	8.64 / 36.74 / 45.78 / 0.0	58.2	V / 1.10 / 256	-26.18*

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RADIATED EMISSIONS



Test Report #: WC602032 Run 2 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/20/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 21.0 °C

Test Method: IC RSS-193 Air Pressure: 96.0 kPa

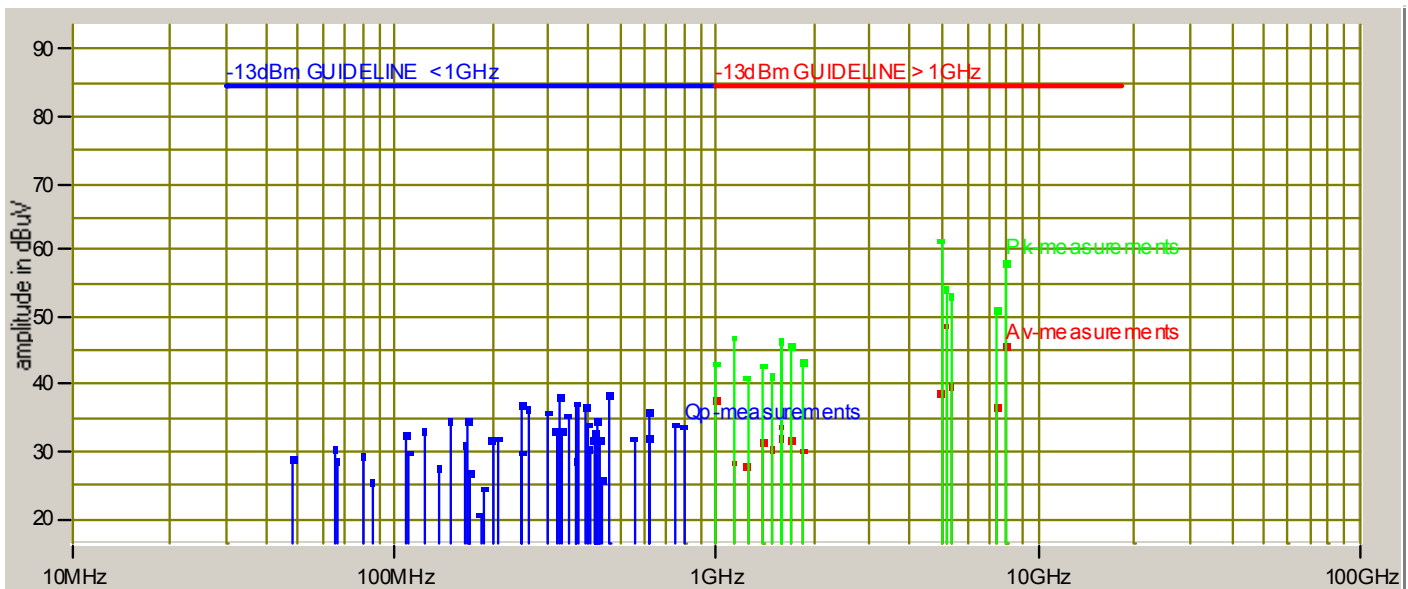
Customer: NEXTNET WIRELESS Rel. Humidity: 43.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: TRANSMITTER SCAN (CONFIG - 1,2 & 3)

Data File Name: 2032.dat Page: 17 of 17

Graph:



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RADIATED EMISSIONS



Test Report #: WC602032 Run 7 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/21/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 22.0 °C

Test Method: IC RSS-193 Air Pressure: 96.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 39.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: TRANSMITTER SCAN

Data File Name: 2032.dat

Page: 1 of 3

List of measurements for run #: 7

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 -13dBm GUIDELINE < 1GHz	DELTA2 -13dBm GUIDELINE > 1GHz
CONFIG - 1						
MAXIMIZED.						
4.999 GHz	41.11 Av	6.31 / 32.76 / 44.64 / 0.0	35.54	V / 1.40 / 233	n/a	-48.84
4.999 GHz	62.15 Pk	6.31 / 32.76 / 44.64 / 0.0	56.58	V / 1.40 / 233	n/a	-27.8*
7.497 GHz	48.37 Av	8.16 / 36.04 / 45.65 / 0.0	46.91	V / 1.40 / 233	n/a	-37.47
7.497 GHz	52.35 Pk	8.16 / 36.04 / 45.65 / 0.0	50.89	V / 1.40 / 233	n/a	-33.49*
CONFIG - 2						
MAXIMIZED.						
5.186 GHz	44.13 Av	6.48 / 33.0 / 44.63 / 0.0	38.98	V / 1.00 / 0	n/a	-45.4
5.186 GHz	49.6 Pk	6.48 / 33.0 / 44.63 / 0.0	44.45	V / 1.00 / 0	n/a	-39.93*
7.779 GHz	46.15 Av	8.32 / 36.41 / 45.52 / 0.0	45.36	V / 1.00 / 0	n/a	-39.02
7.779 GHz	51.35 Pk	8.32 / 36.41 / 45.52 / 0.0	50.56	V / 1.00 / 0	n/a	-33.82*
5.186 GHz	53.7 Av	6.48 / 33.0 / 44.63 / 0.0	48.55	H / 1.05 / 238	n/a	-35.83
5.186 GHz	61.15 Pk	6.48 / 33.0 / 44.63 / 0.0	56.0	H / 1.05 / 238	n/a	-28.38*
CONFIG - 3						
5.374 GHz	51.0 Av	6.7 / 33.25 / 44.78 / 0.0	46.17	H / 1.93 / 309	n/a	-38.21
5.374 GHz	57.6 Pk	6.7 / 33.25 / 44.78 / 0.0	52.77	H / 1.93 / 309	n/a	-31.61*
8.061 GHz	41.82 Av	8.64 / 36.74 / 45.78 / 0.0	41.42	V / 1.00 / 251	n/a	-42.96
8.061 GHz	53.1 Pk	8.64 / 36.74 / 45.78 / 0.0	52.7	V / 1.00 / 251	n/a	-31.68*

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RADIATED EMISSIONS



Test Report #: WC602032 Run 7 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/21/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 22.0 °C

Test Method: IC RSS-193 Air Pressure: 96.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 39.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: TRANSMITTER SCAN

Data File Name: 2032.dat

Page: 2 of 3

Measurement summary for limit2: -13dBm GUIDELINE > 1GHz (Av)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA2 -13dBm GUIDELINE > 1GHz
5.186 GHz	53.7 Av	6.48 / 33.0 / 44.63 / 0.0	48.55	H / 1.05 / 238	-35.83
7.497 GHz	48.37 Av	8.16 / 36.04 / 45.65 / 0.0	46.91	V / 1.40 / 233	-37.47
5.374 GHz	51.0 Av	6.7 / 33.25 / 44.78 / 0.0	46.17	H / 1.93 / 309	-38.21
7.779 GHz	46.15 Av	8.32 / 36.41 / 45.52 / 0.0	45.36	V / 1.00 / 0	-39.02
8.061 GHz	41.82 Av	8.64 / 36.74 / 45.78 / 0.0	41.42	V / 1.00 / 251	-42.96
4.999 GHz	41.11 Av	6.31 / 32.76 / 44.64 / 0.0	35.54	V / 1.40 / 233	-48.84
4.999 GHz	62.15 Pk	6.31 / 32.76 / 44.64 / 0.0	56.58	V / 1.40 / 233	-27.8*
7.497 GHz	52.35 Pk	8.16 / 36.04 / 45.65 / 0.0	50.89	V / 1.40 / 233	-33.49*
5.186 GHz	61.15 Pk	6.48 / 33.0 / 44.63 / 0.0	56.0	H / 1.05 / 238	-28.38*
7.779 GHz	51.35 Pk	8.32 / 36.41 / 45.52 / 0.0	50.56	V / 1.00 / 0	-33.82*
5.374 GHz	57.6 Pk	6.7 / 33.25 / 44.78 / 0.0	52.77	H / 1.93 / 309	-31.61*
8.061 GHz	53.1 Pk	8.64 / 36.74 / 45.78 / 0.0	52.7	V / 1.00 / 251	-31.68*

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RADIATED EMISSIONS



Test Report #: WC602032 Run 7 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/21/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 22.0 °C

Test Method: IC RSS-193 Air Pressure: 96.0 kPa

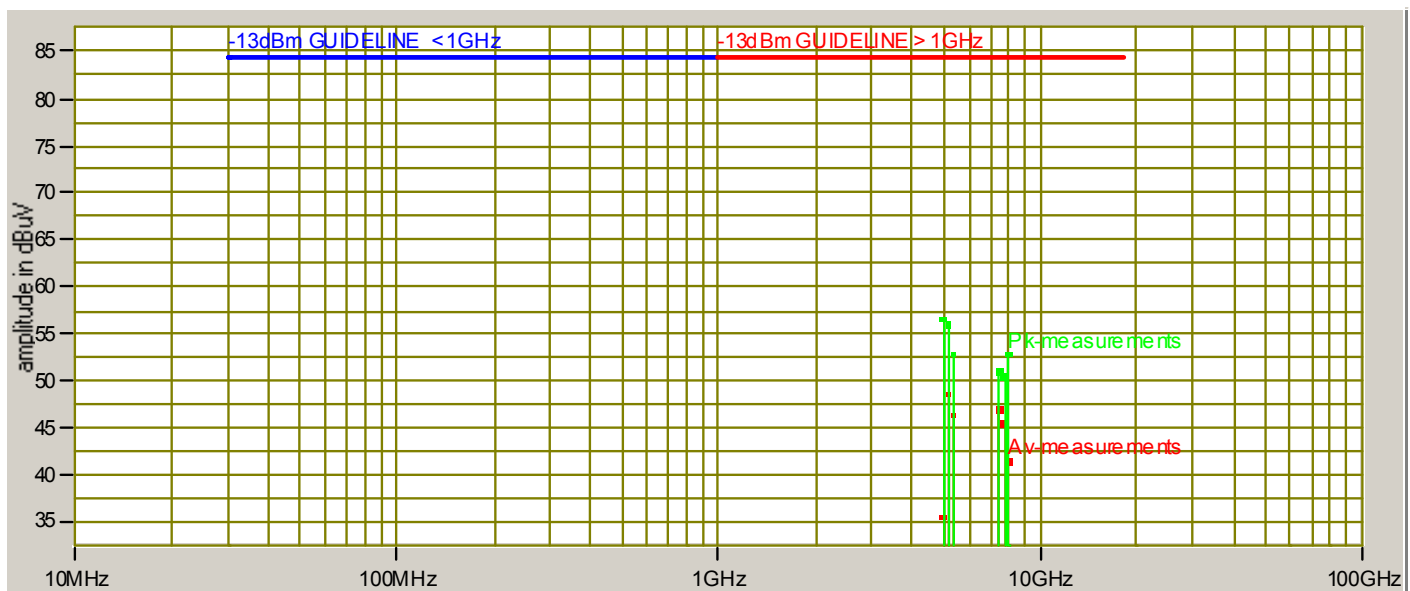
Customer: NEXTNET WIRELESS Rel. Humidity: 39.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: TRANSMITTER SCAN

Data File Name: 2032.dat Page: 3 of 3

Graph:



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Equivalent Isotropically Radiated Power (EIRP) Substitution

Company: NextNet Wireless
EUT: RSU
Tested By: JTS

SUBSTITUTION PERFORMED

Plug in freq, final dBuV/m, Matching Sig gen level, and cable loss

(if using antenna other than dipole also enter ant. Gain) - final matching dBm will automatically be calculated in column F. (Final dBm = Sig gen level (dBm) - Cable loss + Ant. Gain)

Schwarzbeck dipole antenna gain : 2.15dBi -10dB + 1.64dB = -6.21

2.15dBi theoretical gain of a dipole, 10dB internal attenuator, 1.64dB correction for 73 / 50 ohm balun

		Matches		Dipole	Matches
Freq. (MHz)	Final (dBuV/m)	Sig Gen Level (dBm)	Cable Loss (dB)	Ant. Gain (dB)	Final (dBm)
4998	61.37	-48.2	1.2	11	-38.40

SUBSTITUTION EXTRAPOLATED TO OTHER SPURIOUS EMISSIONS

Enter any more spurious frequencies and final dBuV/m. Corresponding final power levels will automatically be calculated.

Freq. MHz	Final dBuV/m	Correction Factor	Final dBm	Final uW
4998	61.37	99.77	-38.40	0.144544
5186	54.15	99.77	-45.62	0.027416
8061	58.2	99.77	-41.57	0.069663

The theoretical limit used on the data sheets is more stringent

CONDUCTED EMISSIONS



Test Report #: WC602032 Run 6 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/21/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 22.0 °C

Test Method: IC RSS-193 Air Pressure: 96.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 39.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes:

Data File Name: 2032.dat

Page: 1 of 6

List of measurements for run #: 6

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA1 EN55022 B Qp	DELTA2 EN55022 B Avg
TRANSMIT MODE (CONFIG - 7)						
150.0 kHz	50.85 Qp	0.12 / 0.1 / 0.0 / 0.0	51.07	L1	-14.93	n/a
165.0 kHz	51.68 Qp	0.12 / 0.1 / 0.0 / 0.0	51.9	L1	-13.31	n/a
195.0 kHz	44.41 Qp	0.12 / 0.1 / 0.0 / 0.0	44.63	L1	-19.19	n/a
215.0 kHz	45.7 Qp	0.13 / 0.1 / 0.0 / 0.0	45.93	L1	-17.08	n/a
230.0 kHz	43.25 Qp	0.13 / 0.09 / 0.0 / 0.0	43.47	L1	-18.98	n/a
1.02 MHz	35.63 Qp	0.24 / 0.06 / 0.0 / 0.0	35.93	L1	-20.07	n/a
150.0 kHz	26.23 Av	0.12 / 0.1 / 0.0 / 0.0	26.45	L1	n/a	-29.55
165.0 kHz	33.72 Av	0.12 / 0.1 / 0.0 / 0.0	33.94	L1	n/a	-21.27
195.0 kHz	23.29 Av	0.12 / 0.1 / 0.0 / 0.0	23.51	L1	n/a	-30.31
215.0 kHz	24.21 Av	0.13 / 0.1 / 0.0 / 0.0	24.44	L1	n/a	-28.57
230.0 kHz	25.77 Av	0.13 / 0.09 / 0.0 / 0.0	25.99	L1	n/a	-26.46
1.02 MHz	24.06 Av	0.24 / 0.06 / 0.0 / 0.0	24.36	L1	n/a	-21.64
150.0 kHz	50.52 Qp	0.12 / 0.1 / 0.0 / 0.0	50.74	N	-15.26	n/a
165.0 kHz	50.93 Qp	0.12 / 0.1 / 0.0 / 0.0	51.15	N	-14.06	n/a
195.0 kHz	43.94 Qp	0.12 / 0.1 / 0.0 / 0.0	44.16	N	-19.66	n/a
215.0 kHz	45.32 Qp	0.13 / 0.1 / 0.0 / 0.0	45.55	N	-17.46	n/a
230.0 kHz	42.79 Qp	0.13 / 0.09 / 0.0 / 0.0	43.01	N	-19.44	n/a
1.02 MHz	35.26 Qp	0.24 / 0.06 / 0.0 / 0.0	35.56	N	-20.44	n/a
150.0 kHz	26.01 Av	0.12 / 0.1 / 0.0 / 0.0	26.23	N	n/a	-29.77
165.0 kHz	32.12 Av	0.12 / 0.1 / 0.0 / 0.0	32.34	N	n/a	-22.87
195.0 kHz	21.94 Av	0.12 / 0.1 / 0.0 / 0.0	22.16	N	n/a	-31.66
215.0 kHz	24.12 Av	0.13 / 0.1 / 0.0 / 0.0	24.35	N	n/a	-28.66

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CONDUCTED EMISSIONS



Test Report #: WC602032 Run 6 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/21/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 22.0 °C

Test Method: IC RSS-193 Air Pressure: 96.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 39.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes:

Data File Name: 2032.dat

Page: 2 of 6

List of measurements for run #: 6

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA1 EN55022 B Qp	DELTA2 EN55022 B Avg
230.0 kHz	25.39 Av	0.13 / 0.09 / 0.0 / 0.0	25.61	N	n/a	-26.84
1.02 MHz	24.06 Av	0.24 / 0.06 / 0.0 / 0.0	24.36	N	n/a	-21.64
RECEIVE MODE (CONFIG - 8)						
150.0 kHz	40.54 Qp	0.12 / 0.1 / 0.0 / 0.0	40.76	N	-25.24	n/a
165.0 kHz	37.95 Qp	0.12 / 0.1 / 0.0 / 0.0	38.17	N	-27.04	n/a
250.0 kHz	42.81 Qp	0.13 / 0.07 / 0.0 / 0.0	43.01	N	-18.75	n/a
370.0 kHz	35.46 Qp	0.16 / 0.09 / 0.0 / 0.0	35.71	N	-22.79	n/a
870.0 kHz	31.09 Qp	0.23 / 0.09 / 0.0 / 0.0	31.41	N	-24.59	n/a
2.465 MHz	28.48 Qp	0.39 / 0.01 / 0.0 / 0.0	28.88	N	-27.12	n/a
150.0 kHz	10.16 Av	0.12 / 0.1 / 0.0 / 0.0	10.38	N	n/a	-45.62
165.0 kHz	8.67 Av	0.12 / 0.1 / 0.0 / 0.0	8.89	N	n/a	-46.32
250.0 kHz	29.64 Av	0.13 / 0.07 / 0.0 / 0.0	29.84	N	n/a	-21.92
370.0 kHz	27.68 Av	0.16 / 0.09 / 0.0 / 0.0	27.93	N	n/a	-20.57
870.0 kHz	22.25 Av	0.23 / 0.09 / 0.0 / 0.0	22.57	N	n/a	-23.43
2.465 MHz	9.02 Av	0.39 / 0.01 / 0.0 / 0.0	9.42	N	n/a	-36.58
150.0 kHz	10.56 Av	0.12 / 0.1 / 0.0 / 0.0	10.78	N	n/a	-45.22
165.0 kHz	8.6 Av	0.12 / 0.1 / 0.0 / 0.0	8.82	N	n/a	-46.39
250.0 kHz	29.64 Av	0.13 / 0.07 / 0.0 / 0.0	29.84	N	n/a	-21.92
370.0 kHz	27.43 Av	0.16 / 0.09 / 0.0 / 0.0	27.68	N	n/a	-20.82
870.0 kHz	22.08 Av	0.23 / 0.09 / 0.0 / 0.0	22.4	N	n/a	-23.6
2.465 MHz	11.36 Av	0.39 / 0.01 / 0.0 / 0.0	11.76	N	n/a	-34.24
150.0 kHz	41.55 Qp	0.12 / 0.1 / 0.0 / 0.0	41.77	L1	-24.23	n/a

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CONDUCTED EMISSIONS



Test Report #: WC602032 Run 6 Test Area: LTS

EUT Model #: RSU-2510-S Date: 4/21/2006

EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 22.0 °C

Test Method: IC RSS-193 Air Pressure: 96.0 kPa

Customer: NEXTNET WIRELESS Rel. Humidity: 39.0 %

EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: _____

Data File Name: 2032.dat

Page: 3 of 6

List of measurements for run #: 6

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA1 EN55022 B Qp	DELTA2 EN55022 B Avg
165.0 kHz	38.77 Qp	0.12 / 0.1 / 0.0 / 0.0	38.99	L1	-26.22	n/a
250.0 kHz	43.69 Qp	0.13 / 0.07 / 0.0 / 0.0	43.89	L1	-17.87	n/a
370.0 kHz	35.88 Qp	0.16 / 0.09 / 0.0 / 0.0	36.13	L1	-22.37	n/a
870.0 kHz	35.51 Qp	0.23 / 0.09 / 0.0 / 0.0	35.83	L1	-20.17	n/a
2.465 MHz	0.0 Qp	0.39 / 0.01 / 0.0 / 0.0	0.4	L1	-55.6	n/a
150.0 kHz	11.28 Av	0.12 / 0.1 / 0.0 / 0.0	11.5	L1	n/a	-44.5
165.0 kHz	8.67 Av	0.12 / 0.1 / 0.0 / 0.0	8.89	L1	n/a	-46.32
250.0 kHz	31.12 Av	0.13 / 0.07 / 0.0 / 0.0	31.32	L1	n/a	-20.44
370.0 kHz	27.24 Av	0.16 / 0.09 / 0.0 / 0.0	27.49	L1	n/a	-21.01
870.0 kHz	25.34 Av	0.23 / 0.09 / 0.0 / 0.0	25.66	L1	n/a	-20.34
2.465 MHz	3.38 Av	0.39 / 0.01 / 0.0 / 0.0	3.78	L1	n/a	-42.22

END OF SCAN.

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CONDUCTED EMISSIONS



Test Report #: WC602032 Run 6 Test Area: LTS
EUT Model #: RSU-2510-S Date: 4/21/2006
EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 22.0 °C
Test Method: IC RSS-193 Air Pressure: 96.0 kPa
Customer: NEXTNET WIRELESS Rel. Humidity: 39.0 %
EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes:

Data File Name: 2032.dat

Page: 4 of 6

Measurement summary for limit1: EN55022 B Qp (Qp)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA1 EN55022 B Qp
165.0 kHz	51.68 Qp	0.12 / 0.1 / 0.0 / 0.0	51.9	L1	-13.31
150.0 kHz	50.85 Qp	0.12 / 0.1 / 0.0 / 0.0	51.07	L1	-14.93
215.0 kHz	45.7 Qp	0.13 / 0.1 / 0.0 / 0.0	45.93	L1	-17.08
250.0 kHz	43.69 Qp	0.13 / 0.07 / 0.0 / 0.0	43.89	L1	-17.87
230.0 kHz	43.25 Qp	0.13 / 0.09 / 0.0 / 0.0	43.47	L1	-18.98
195.0 kHz	44.41 Qp	0.12 / 0.1 / 0.0 / 0.0	44.63	L1	-19.19
1.02 MHz	35.63 Qp	0.24 / 0.06 / 0.0 / 0.0	35.93	L1	-20.07
870.0 kHz	35.51 Qp	0.23 / 0.09 / 0.0 / 0.0	35.83	L1	-20.17
370.0 kHz	35.88 Qp	0.16 / 0.09 / 0.0 / 0.0	36.13	L1	-22.37
2.465 MHz	28.48 Qp	0.39 / 0.01 / 0.0 / 0.0	28.88	N	-27.12

Tested by: RMJ

Printed

Signature

Reviewed by: Greg Jakubowski

Printed

Signature

CONDUCTED EMISSIONS



Test Report #: WC602032 Run 6 Test Area: LTS
EUT Model #: RSU-2510-S Date: 4/21/2006
EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 22.0 °C
Test Method: IC RSS-193 Air Pressure: 96.0 kPa
Customer: NEXTNET WIRELESS Rel. Humidity: 39.0 %
EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes: _____

Data File Name: 2032.dat

Page: 5 of 6

Measurement summary for limit2: EN55022 B Avg (Av)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA2 EN55022 B Avg
870.0 kHz	25.34 Av	0.23 / 0.09 / 0.0 / 0.0	25.66	L1	-20.34
250.0 kHz	31.12 Av	0.13 / 0.07 / 0.0 / 0.0	31.32	L1	-20.44
370.0 kHz	27.68 Av	0.16 / 0.09 / 0.0 / 0.0	27.93	N	-20.57
165.0 kHz	33.72 Av	0.12 / 0.1 / 0.0 / 0.0	33.94	L1	-21.27
1.02 MHz	24.06 Av	0.24 / 0.06 / 0.0 / 0.0	24.36	L1	-21.64
230.0 kHz	25.77 Av	0.13 / 0.09 / 0.0 / 0.0	25.99	L1	-26.46
215.0 kHz	24.21 Av	0.13 / 0.1 / 0.0 / 0.0	24.44	L1	-28.57
150.0 kHz	26.23 Av	0.12 / 0.1 / 0.0 / 0.0	26.45	L1	-29.55
195.0 kHz	23.29 Av	0.12 / 0.1 / 0.0 / 0.0	23.51	L1	-30.31
2.465 MHz	11.36 Av	0.39 / 0.01 / 0.0 / 0.0	11.76	N	-34.24

Tested by: RMJ

Printed

Signature

Reviewed by: Greg Jakubowski

Printed

Signature

CONDUCTED EMISSIONS



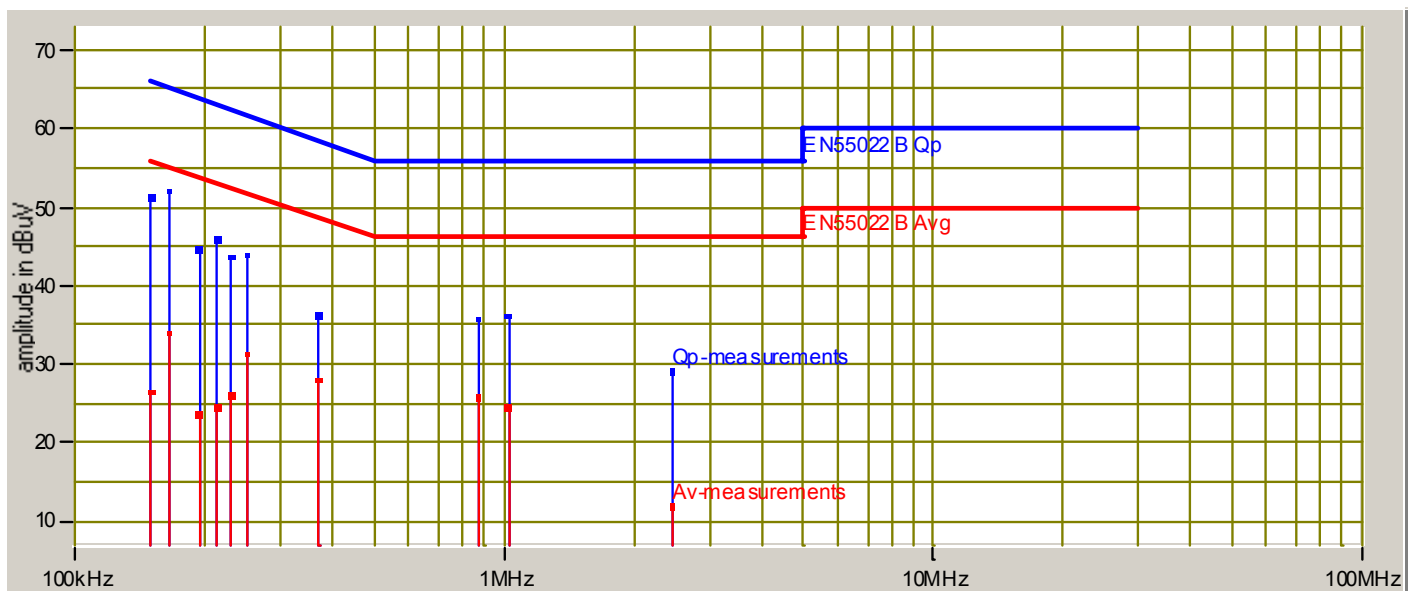
Test Report #: WC602032 Run 6 Test Area: LTS
EUT Model #: RSU-2510-S Date: 4/21/2006
EUT Serial #: 2003426 EUT Power: 60Hz / 120VAC Temperature: 22.0 °C
Test Method: IC RSS-193 Air Pressure: 96.0 kPa
Customer: NEXTNET WIRELESS Rel. Humidity: 39.0 %
EUT Description: BRS/EBS RESIDENTIAL SUBSCRIBE UNIT (RSU)

Notes:

Data File Name: 2032.dat

Page: 6 of 6

Graph:



Tested by: RMJ

Printed

Signature

Reviewed by: Greg Jakubowski

Printed

Signature

Appendix B

Constructional Data Form

and

Block Diagram





EMC Test Plan and Constructional Data Form

PLEASE COMPLETE THIS DOCUMENT IN FULL, ENTERING N/A IF THE FIELD IS NOT APPLICABLE. IF TESTING RESULTS IN MODIFICATIONS TO THE EQUIPMENT, PLEASE SUBMIT A REVISED TP/CDF INDICATING THOSE MODIFICATIONS.
NOTE: This information will be input into your test report as shown below. Press the F1 key at any time to get HELP for the current field selected.

Company: NextNet Wireless, Inc.
 Address: 299 Johnson Ave.
Suite 120
Waseca, MN 56093
 Contact: Tim Blom Position: Principal Engineer
 Phone: 507-837-1057 x212 Fax: 507-837-1059
 E-mail Address: blomt@nextnetwireless.com

General Equipment Description -- NOTE: This information will be input into your test report as shown below.

EUT Description BRS/EBS Residential Subscribe Unit (RSU)
 EUT Name Expedience 2.5-2.7 GHz RSU
 Model No.: RSU-2510-S Serial No.: S/N: 2003426
 Product Options: none
 Configurations to be tested: standard

Equipment Modification (If applicable, indicate modifications since EUT was last tested. If modifications are made during this testing, submit revised TP/CDF after testing is complete.)

Modifications since last test: N/A
 Modifications made during test: _____

Test Objective(s): Please indicate the tests to be performed, entering the applicable standard(s) where noted.

- | | |
|---|--|
| ☐ EMC Directive 89/336/EEC (EMC)
Std: _____ | ☒ FCC: Class ☐ A ☒ B Part <u>27</u> |
| ☐ Machinery Directive 89/392/EEC (EMC)
Std: _____ | ☐ VCCI: Class ☐ A ☐ B |
| ☐ Medical Device Directive 93/42/EEC (EMC)
Std: _____ | ☐ BSMI: Class ☐ A ☐ B |
| ☐ Vehicle Directive 72/245/EEC (EMC)
Std: _____ | ☒ Canada: Class ☐ A ☒ B |
| ☐ FDA Reviewers Guidance for Premarket
Notification Submissions (EMC) | ☐ Australia: Class ☐ A ☐ B |
| | ☒ Other: <u>FCC 2, 15, 27, IC RSS-193</u> |

Third Party Certification, if applicable (*Signature on Page 6 Required)

- | | |
|---|---|
| ☐ Attestation of Conformity (AoC)* | ☐ EMC Certification (used with Octagon Mark)* |
| ☐ Certificate of Conformity (CoC)* | ☐ Compliance Document* |
| Protection Class (N/A for vehicles) | ☐ Class I ☐ Class II ☐ Class III |
| (Press F1 when field is selected to show additional information on Protection Class.) | |
| ☐ FCC / TCB Certification | ☐ Industry Canada / FCB Certification |
| ☐ E-Mark Certification | ☐ Taiwan Certification |

**EMC Test Plan and Constructional Data Form****Attendance**Test will be: ☒ Attended by the customer ☐ Unattended by the customer**Failure - Complete this section if testing will not be attended by the customer.**

If a failure occurs, TÜV America should:

- ☐ Call contact listed above, if not available then stop testing. (After hrs phone): _____
- ☐ Continue testing to complete test series.
- ☐ Continue testing to define corrective action.
- ☐ Stop testing.

EUT Specifications and RequirementsLength: 12.75 " Width: 7.75" Height: 1.5 " Weight: 1.8 Lb**Power Requirements**

Regulations require testing to be performed at typical power ratings in the countries of intended use. (i.e., European power is typically 230 VAC 50 Hz or 400 VAC 50 Hz, single and three phase, respectively)

Voltage: 13 VDC (If battery powered, make sure battery life is sufficient to complete testing.)# of Phases: 1Current (Amps/phase(max)): 1.3 Current (Amps/phase(nominal)): .36Other ---**Other Special Requirements**

Transmitter radiated emissions to be measured per EIA/TIA 603-C procedure for licensed transmitters. Receiver radiated emissions testing to be performed on ANSI C63.4-2003 clause 5.4 compliant site. Receiver radiated emissions measured with a quasi peak detector compliant to CISPR Publication 16.

Typical Installation and/or Operating Environment

(ie. Hospital, Small Business, Industrial/Factory, etc.)
Residential indoor

EUT Power Cable

☐ Permanent OR ☒ Removable Length (in meters): 2

☐ Shielded OR ☒ Unshielded

☐ Not Applicable



EMC Test Plan and Constructional Data Form

EUT Interface Ports and Cables													
Type	Analog	Digital	During Test		Qty	Shielding		Termination	Connector Type	Port Termination	Length tested (in meters)	Removable	Permanent
			Active	Passive		Yes	No						
EXAMPLE:													
RS232	☐	☒	☒	☐	2	☒	☐	Foil over braid	Coaxial	Metallized 9-pin D-Sub	Characteristic Impedance	6	☒ ☐
13 VDC cable	☒	☐	☒	☐	1	☐	☒	twin pair	---	Circular	DC	2	☒ ☐
Ethernet cable	☐	☒	☒	☐	1	☐	☒	CAT-5	differential 100 ohm	RJ-45	100 ohm	2	☒ ☐
	☐	☐	☐	☐		☐	☐						☐ ☐
	☐	☐	☐	☐		☐	☐						☐ ☐
	☐	☐	☐	☐		☐	☐						☐ ☐
	☐	☐	☐	☐		☐	☐						☐ ☐
	☐	☐	☐	☐		☐	☐						☐ ☐
	☐	☐	☐	☐		☐	☐						☐ ☐
	☐	☐	☐	☐		☐	☐						☐ ☐
	☐	☐	☐	☐		☐	☐						☐ ☐
	☐	☐	☐	☐		☐	☐						☐ ☐
	☐	☐	☐	☐		☐	☐						☐ ☐
	☐	☐	☐	☐		☐	☐						☐ ☐

**EMC Test Plan and Constructional Data Form****EUT Software.**

Revision Level: NextNet Diagnostics Test N Tune s/w: 1.11
Subscriber operating s/w: 4.3.22
Loader s/w: 2.12
NextNet Tool/Diagnostics s/w: 8.00d

Description: Operating and test software for RSU product that enables test modes for compliance testing.

Equipment Under Test (EUT) Operating Modes to be Tested -- list the operating modes to be used during test. It is recommended the equipment be tested while operating in a typical operation mode. FCC testing of personal computers and/or peripherals requires that a simple program generate a complete line of upper case H's. Provide a general description of all software, firmware, and PLD algorithms used in the equipment. List all code modules as described above, with the revision level used during testing. Consult with your TÜV Product Service Representative if additional assistance is required.

1. Radiated emissions - transmitter - 14.29% duty cycle, 3 RF channels, 3 channel bandwidths

Requirements per TIA/EIA 603-C-2004 and Industry Canada RSS-193 procedures [absolute power level of -13 dBm and verified using antenna-generator substitution method]

Configuration 1 :: 6.0 MHz channel bandwidth: RF freq = 2499 MHz
Configuration 2 :: 5.5 MHz channel bandwidth: RF freq = 2593 MHz
Configuration 3 :: 5.0 MHz channel bandwidth: RF freq = 2687 MHz

Radiated emissions to be measured from 30 MHz to 27 GHz for each configuration.

2. Radiated emissions - receiver - 3 RF channels, 3 channel bandwidths

Requirements per FCC part 15B and Industry Canada RSS-Gen Issue 1, September, 2005 section 6 Table 1

Configuration 4 :: 6.0 MHz channel bandwidth: RF freq = 2499 MHz
Configuration 5 :: 5.5 MHz channel bandwidth: RF freq = 2593 MHz
Configuration 6 :: 5.0 MHz channel bandwidth: RF freq = 2687 MHz

Radiated emissions to be measured from 30 MHz to 14 GHz for each configuration.

3. Transmitter and Receiver AC Power Lines Conducted Emissions Limits.

Requirements per FCC part 15B and Industry Canada RSS-Gen Issue 1, September, 2005 section 7.2.2

Configuration 7 :: 6.0 MHz channel bandwidth: RF freq = 2499 MHz, transmit 14.29% duty cycle

Configuration 8 :: 5.5 MHz channel bandwidth: RF freq = 2593 MHz, receive mode

**EMC Test Plan and Constructional Data Form**

America

Equipment Under Test (EUT) System Components -- List and describe all components which are part of the EUT.
For FCC & Taiwan testing a minimum configuration is required. (ie. Mouse, Printer, Monitor, External Disk Drive, Motherboard, etc)

Description	Model #	Serial #	FCC ID #
Residential Subscribe Unit (RSU)	RSU-2510-SV RSU-2510-SH	2003426	FCC: PHX-RSU2510S IC: 4022A-RSU2510S
RSU Power Supply NN# 420-0060-0010	OTE-17-13	5305	N/A
Ethernet Cable NN# 597-6010-0001	N/A	N/A	N/A



EMC Test Plan and Constructional Data Form

Support Equipment -- List and describe all support equipment which is not part of the EUT. (i.e. peripherals, simulators, etc)
This information is required for FCC & Taiwan testing.

Description	Model #	Serial #	FCC ID #
Dell laptop computer	Inspiron 5000	000832RM12961 0794467	N/A
D-link Switch	DSS-5+	B205335003173	N/A
Microsoft Mouse	58264	0494113	N/A
Lexar Media USB memory stick reader	Part # : RW012 Rev. B	N/A	N/A
Xircom Realport Cardbus Ethernet 10/100	RBE-100	9001OC9797A3	N/A

Oscillator Frequencies

Frequency	Derived Frequency	Component # / Location	Description of Use
20 MHz	N	Y903	TCXO for main stability
610 kHz	N	U5 / Power Supply	power supply switchers
2.5 MHz	Y	U221 / Logic	ethernet clock
25 MHz	Y	U210 / Logic	ethernet clock
86.25 MHz	Y	U210 / Logic	data clocks
172.5 MHz	Y	U210 / Logic	uP core clock
2.499 - 2.690 GHz	N	Y901 / Synthesizer	Main RF frequency source (VCO)
5.8333333 / 23.3333333 / 35 / 140 MHz	Y	U210 / Logic	NN Custom ASIC processing clocks (5.0 MHz channel)
6.333333 / 25.3333333 / 38 / 152 MHz	Y	U210 / Logic	NN Custom ASIC processing clocks (5.5 MHz channel)
7 / 28 / 42 / 168 MHz	Y	U210 / Logic	NN Custom ASIC processing clocks (6 MHz channel)

Power Supply

Manufacturer	Model #	Serial #	Type
Operating Tech	OTE-17-13	5305	☒ Switched-mode: (Frequency) <u>252 kHz</u> ☐ Linear ☐ Other: _____
			☐ Switched-mode: (Frequency) _____ ☐ Linear ☐ Other: _____

Form



EMC Test Plan and Constructional Data Form

America

Power Line Filters		
<i>Manufacturer</i>	<i>Model #</i>	<i>Location in EUT</i>
N/A		

**EMC Test Plan and Constructional Data Form****Critical EMI Components (Capacitors, ferrites, etc.)**

<i>Description</i>	<i>Manufacturer</i>	<i>Part # or Value</i>	<i>Qty</i>	<i>Component # / Location</i>
N/A				

EMC Critical Detail -- Describe other EMC Design details used to reduce high frequency noise.

N/A

(PLEASE INSERT "ELECTRONIC SIGNATURE" BELOW IF POSSIBLE)

Authorization Signatures (Signature Required for Certifications checked on pg 1)

/s/ Tim Blom

04/12/2006

Customer authorization to perform tests
according to this test plan._____
Date_____
Test Plan/CDF Prepared By (please print)_____
Date



EMC Block Diagram Form

System Configuration Block Diagram -- Provide a line drawing identifying the EUT, simulators, support equipment, I/O cables, power cables, and any other pertinent components to be used during testing. Use a dashed line to separate the equipment in the testing field versus equipment outside testing field.

** Part 15 test setup for radiated emissions compliance (DoC). **
Test setup per ANSI C63.4-2003

** Parts 2 and 27 test setup for BRS and EBS service rules **
Test setup per TIA-603-C (2004)

Authorization Signatures

/s/ Tim Blom

04/11/2006

Customer authorization to perform tests
according to this test plan.

Date

Test Plan/CDF Prepared By (please print)

Date

Appendix C

Measurement Protocol



MEASUREMENT PROTOCOL

Environmental conditions in the lab, (TUV)

Temperature: 21° C

Relative Humidity: 32 %

Atmospheric pressure: 99.0 kPa

Test Methodology

Emissions testing is performed according to the procedures in ANSI C63.4-2003.

Measurement Uncertainty

The test system for conducted emissions is defined as the LISN, tuned receiver or spectrum analyzer, and coaxial cable. The test system has a measurement uncertainty of ± 1.8 dB. The test system for radiated emissions is defined as the antenna, the pre-amplifier, the spectrum analyzer and the coaxial cable. The test system has a measurement uncertainty of ± 4.8 dB. The equipment comprising the test systems is calibrated on an annual basis.

Justification

The Equipment Under Test (EUT) is configured in a typical user arrangement in accordance with the manufacturer's instructions. A cable is connected to each available port and either terminated with a peripheral into its characteristic impedance or left unterminated. When appropriate, the cables are manually manipulated with respect to each other to obtain maximum emissions from the unit.

Radiated Emissions

The final level, in dB μ V/m, equals the reading from the spectrum analyzer (Level dB μ V), adding the antenna correction factor and cable loss factor (Factor dB) to it, and subtracting the preamp gain (and duty cycle correction factor, if applicable). This result then has the limit subtracted from it to provide the Delta, which gives the tabular data as shown in the data sheets in Attachment A.

Example:

FREQ (MHz)	LEVEL (dB μ V)	CABLE/ANT/PREAMP (dB) (dB/m) (dB)	FINAL (dB μ V/m)	POL/HGT/AZ (m) (deg)	DELTA1
60.80	42.5Qp +	1.2 + 10.9 - 25.5 =	29.1	V 1.0 0.0	-10.9

Substitution Method

Per TIA/EIA 603-C-2004, a radiated emission scan was also made, at TUV America's Wild River Lab Large Test Site, with the EUT's antenna replaced with a termination to demonstrate case radiation compliance to the -13 dBm requirement. Radiated emissions from the EUT are measured in the frequency range of 30 to 10000 MHz using a spectrum analyzer and appropriate broadband linearly polarized antennas. Table top equipment is placed on a 1.0 X 1.5 meter non-conducting table 80 centimeters above the ground plane. Floor standing equipment is placed directly on the turntable/ground plane. Interface cables that are closer than 40 centimeters to the ground plane are bundled in the center in a serpentine fashion so they are at least 40 centimeters from the ground plane. Cables to simulators/testers (if used in this test) are routed through the center of the table and to a screen room located outside the test area. The antenna is positioned 3 meters horizontally from the EUT. To locate maximum emissions from the test sample the antenna is varied in height from 1 to 4 meters, measurement scans are made with both horizontal and vertical antenna polarizations and the EUT are rotated 360 degrees. The field strength levels were measured per ANSI C63.4. The EUT is then replaced with a tuned dipole antenna (below 1 GHz) or horn antenna (above 1 GHz). The substitute antenna was placed in the same polarization as the test antenna. A signal generator was used to generate a signal level that matched the highest level measured from the EUT. The signal generator level minus the cable loss from the signal generator to the substitute antenna plus the substitute antenna gain equals the spurious power level.

Test Equipment

All measurement instrumentation is traceable to the National Institute of Standards and Technology and is calibrated according to internal procedure.

Frequency Stability Test (FCC)

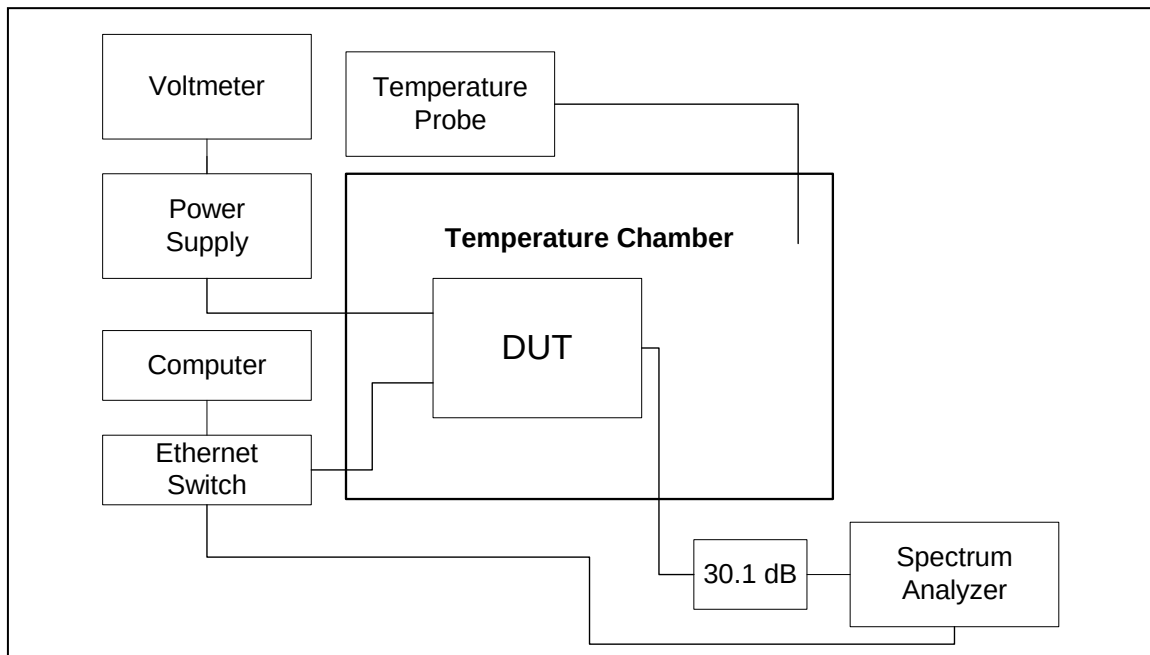
FCC Rules: 2.1055, 27.54

FCC Requirement: The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

Standard: TIA-603-C

Test Procedure: The frequency stability of the NextNet Wireless Temporary Fixed Subscriber Unit fundamental oscillator is derived from the on board 20 MHz TCXO. Since each radio channel operating frequency is synthesized and referenced to the 20 MHz TCXO, only one channel will be reported for frequency stability as all channels will have the same frequency characteristics. The emissions 1 MHz above and below the channel band were recorded to show compliance to the emission limit of 47CFR27.53(l)(2). The emission power 1 MHz above and below the channel edge was measured by utilizing the adjacent channel power function in the spectrum analyzer.

Test Set-Up:



Frequency Stability Test Setup

FCC Temperature Variation Test Results

Test Conditions: Frequency = 2593 MHz
Supply Voltage: 120 VAC / 60 Hz Nominal
to DUT Power Supply
Temperature: -30° C to +50° C in 10° C increments

Test Results: Passed Temperature Variation

Adjacent Channel Power Method 2.593 GHz 6.0 MHz Bandwidth							
Temp ° C	Lower Adjacent 1 MHz Bin Power (dBm)	Upper Adjacent 1 MHz Bin Power (dBm)	Spec (dBm/MHz)	Lower Margin (dB)	Upper Margin (dB)	Result: Lower Adjacent 1 MHz Bin	Result: Upper Adjacent 1 MHz Bin
-30	-15.00	-15.13	-13	-2.00	-2.13	Complies	Complies
-20	-13.38	-13.41	-13	-.38	-.41	Complies	Complies
-10	-14.18	-14.25	-13	-1.18	-1.25	Complies	Complies
0	-15.60	-15.75	-13	-2.60	-2.75	Complies	Complies
10	-14.35	-14.91	-13	-1.35	-1.91	Complies	Complies
20	-13.57	-13.93	-13	-.57	-.93	Complies	Complies
30	-15.66	-16.00	-13	-2.66	-3.00	Complies	Complies
40	-14.52	-14.80	-13	-1.52	-1.80	Complies	Complies
50	-16.80	-17.31	-13	-3.80	-4.31	Complies	Complies

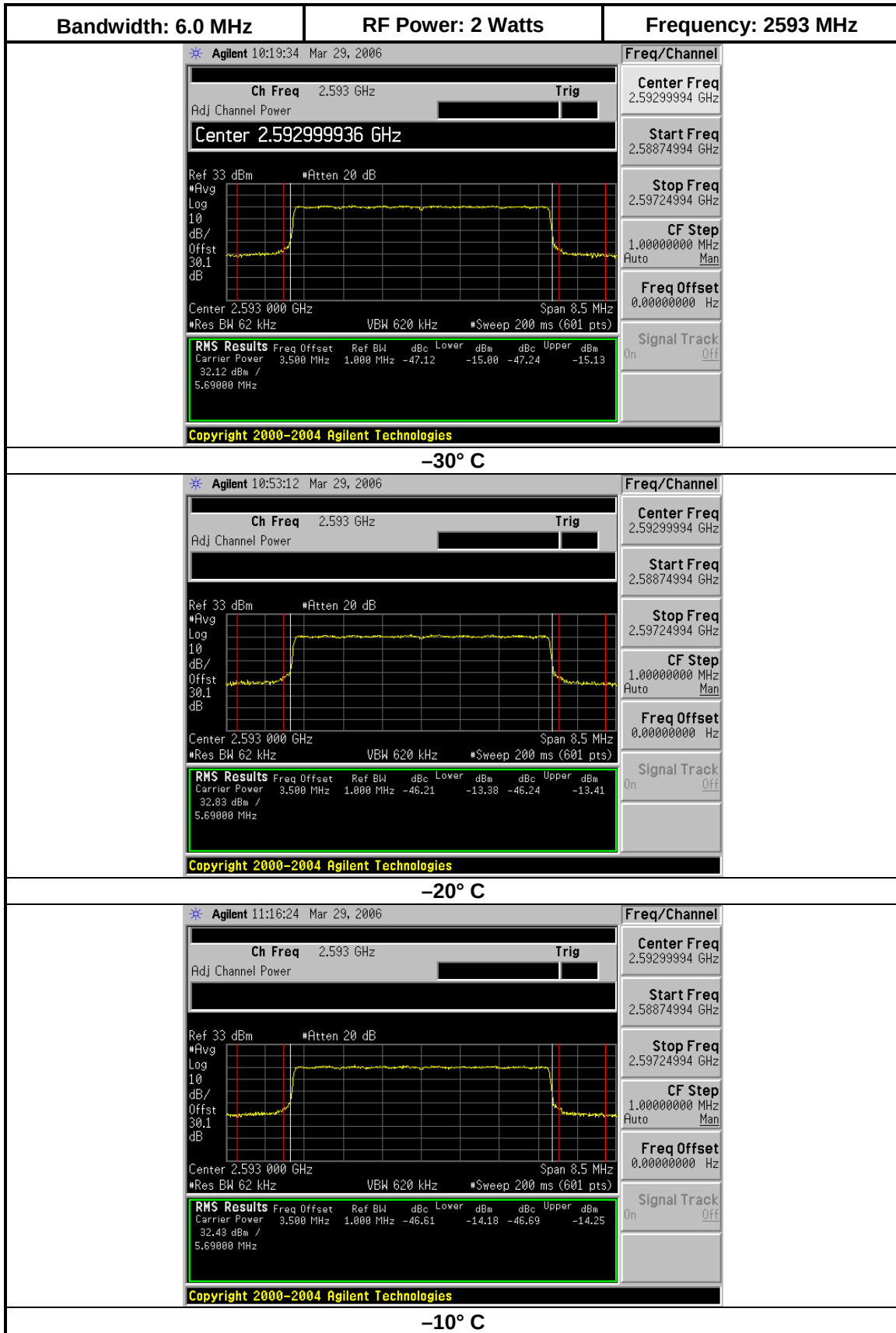
Adjacent Channel Power Method 2.593 GHz 5.5 MHz Bandwidth							
Temp ° C	Lower Adjacent 1 MHz Bin Power (dBm)	Upper Adjacent 1 MHz Bin Power (dBm)	Spec (dBm/MHz)	Lower Margin (dB)	Upper Margin (dB)	Result: Lower Adjacent 1 MHz Bin	Result: Upper Adjacent 1 MHz Bin
-30	-14.83	-15.23	-13	-1.83	-2.23	Complies	Complies
-20	-13.36	-13.40	-13	-.36	-.40	Complies	Complies
-10	-14.33	-14.67	-13	-1.33	-1.67	Complies	Complies
0	-15.32	-15.54	-13	-2.32	-2.54	Complies	Complies
10	-14.70	-15.04	-13	-1.70	-2.04	Complies	Complies
20	-13.08	-13.67	-13	-.08	-.67	Complies	Complies
30	-15.89	-16.20	-13	-2.89	-3.20	Complies	Complies
40	-14.20	-14.77	-13	-1.20	-1.77	Complies	Complies
50	-16.92	-17.17	-13	-3.92	-4.17	Complies	Complies

FCC Temperature Variation Spectrum Analyzer Plots

NOTE: Spectrum analyzer plots of the 6.0 MHz bandwidth measurements follow. The plots for the 5.5 MHz bandwidth channels are similar and are located in the Appendix.

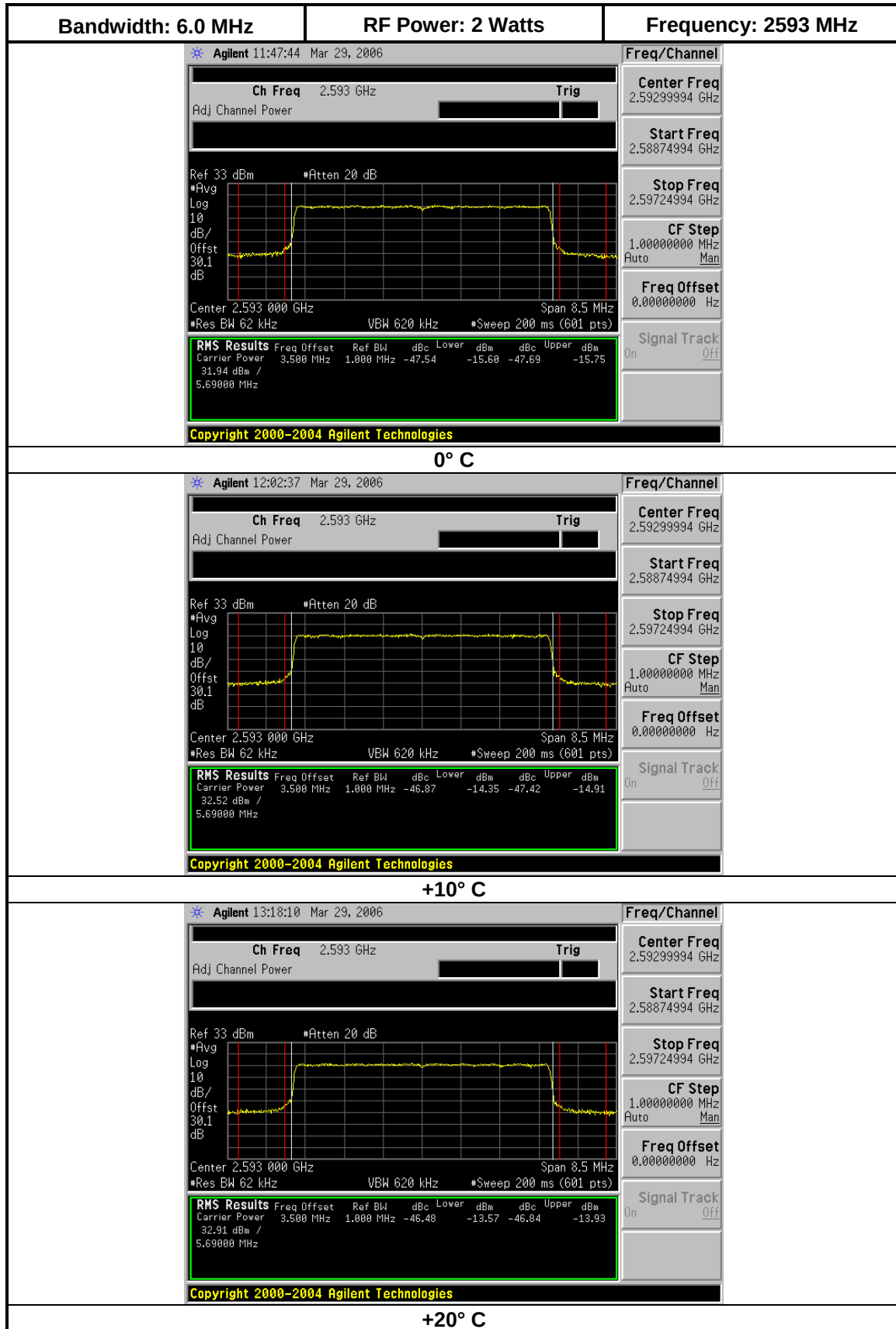
Section 6
Test Report, Part 2

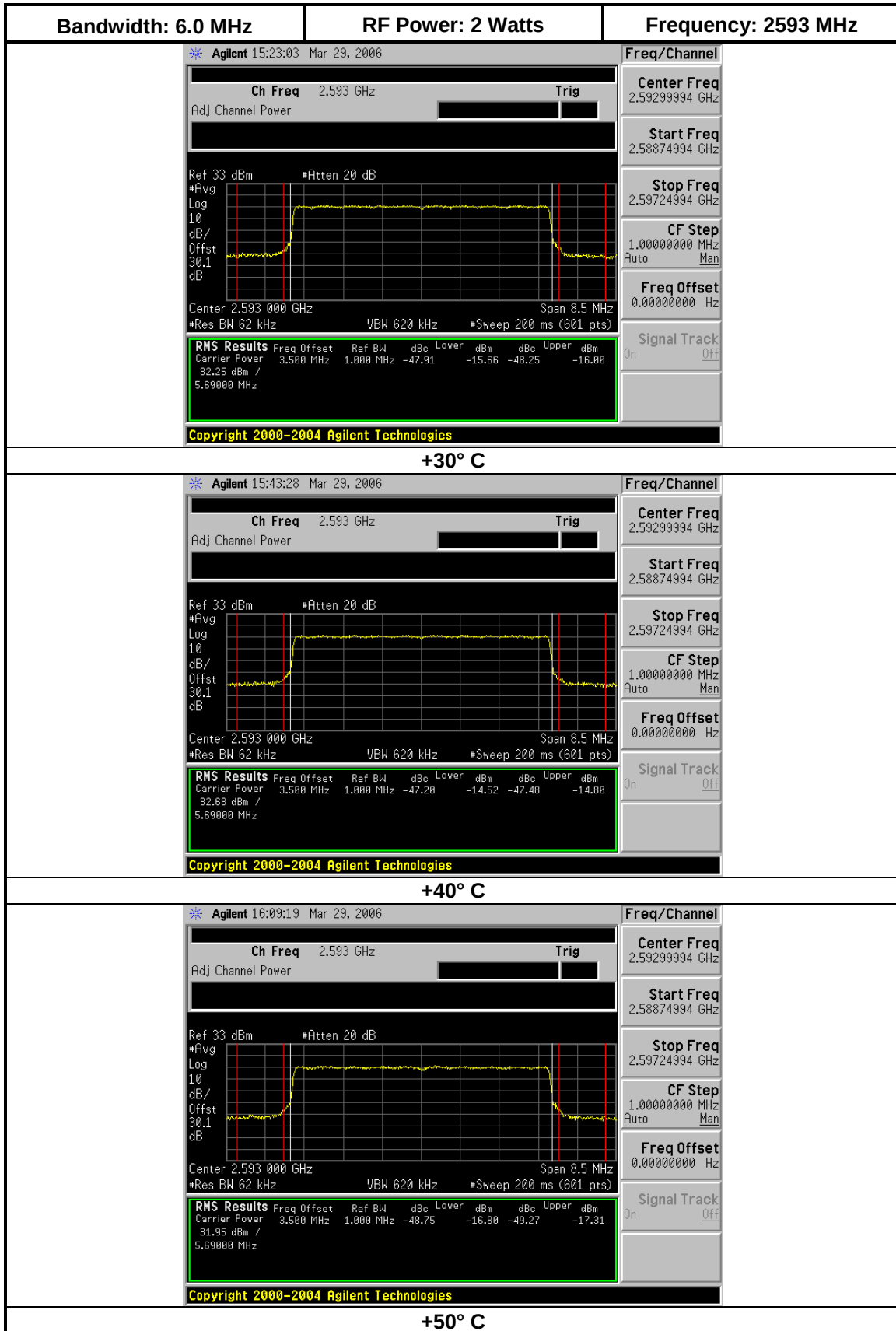
FCC ID: PHX-RSU2510S
IC: 4022A-RSU2510S



Section 6
Test Report, Part 2

FCC ID: PHX-RSU2510S
IC: 4022A-RSU2510S





FCC Supply Voltage Variation Test Results

Test Conditions: Frequency = 2593 MHz
Temperature = 20 °C

Supply Voltage Variation

Source Input Voltage Specification: 120.0 VAC / 60 Hz Nominal
Test Voltage Range = 0.85 x 120 = 102 VAC / 60 Hz lower limit
1.15 x 120 = 138 VAC / 60 Hz upper limit

Test Results: Pass Temperature Stability, Supply Voltage Variation

Adjacent Channel Power Method 20° C 2.593 GHz 6.0 MHz Bandwidth							
Source Voltage (Vdc)	Lower Adjacent 1 MHz Bin Power (dBm)	Upper Adjacent 1 MHz Bin Power (dBm)	Spec (dBm/MHz)	Lower Margin (dB)	Upper Margin (dB)	Result: Lower Adjacent 1 MHz Bin	Result: Upper Adjacent 1 MHz Bin
102	-13.78	-14.05	-13	-.78	-1.05	Complies	Complies
120	-13.69	-14.09	-13	-.69	-1.09	Complies	Complies
138	-13.42	-13.63	-13	-.42	-.63	Complies	Complies

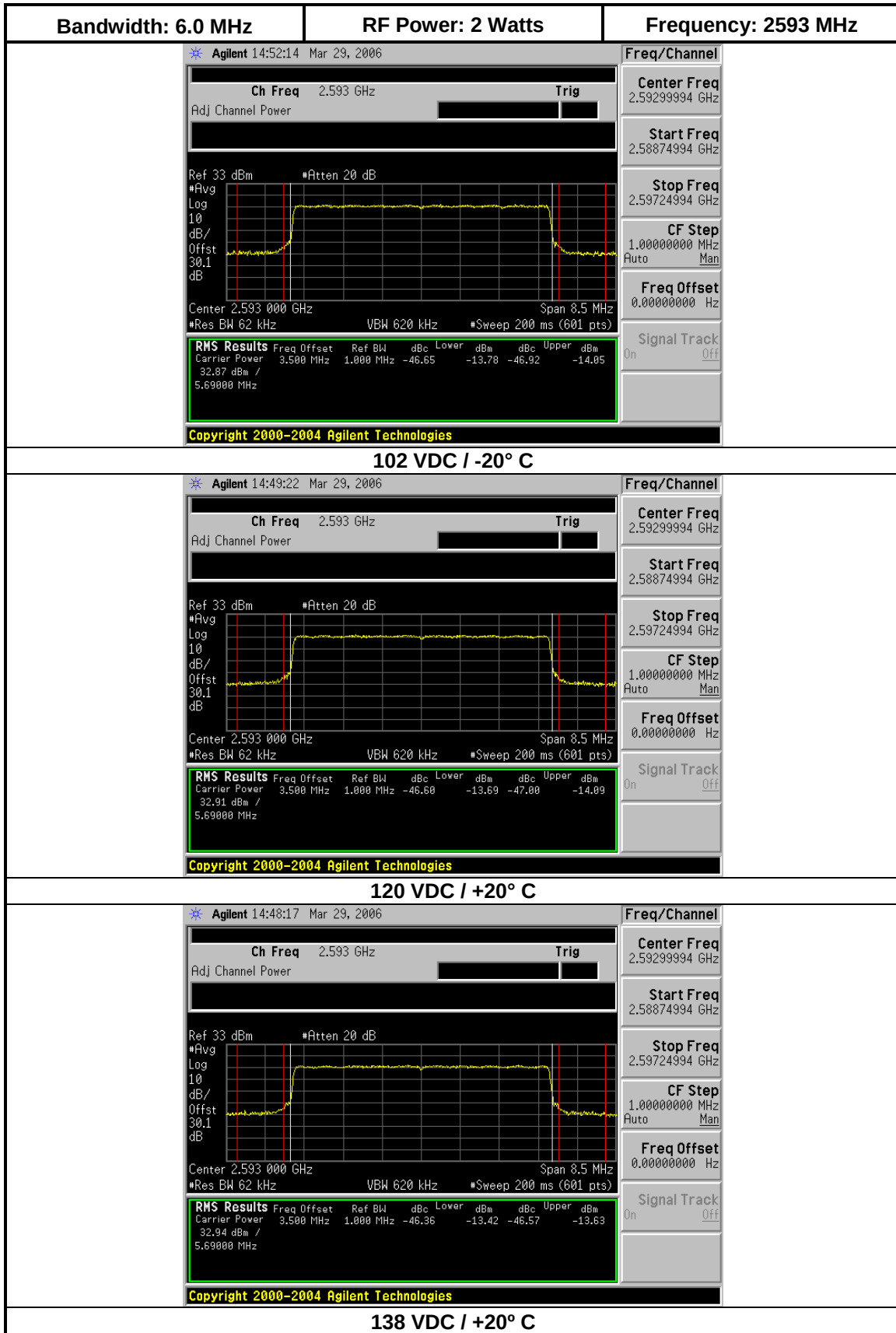
Adjacent Channel Power Method 20° C 2.593 GHz 5.5 MHz Bandwidth							
Source Voltage (Vdc)	Lower Adjacent 1 MHz Bin Power (dBm)	Upper Adjacent 1 MHz Bin Power (dBm)	Spec (dBm/MHz)	Lower Margin (dB)	Upper Margin (dB)	Result: Lower Adjacent 1 MHz Bin	Result: Upper Adjacent 1 MHz Bin
102	-13.49	-13.85	-13	-.49	-.85	Complies	Complies
120	-13.50	-13.71	-13	-.50	-.71	Complies	Complies
138	-13.66	-13.88	-13	-.66	-.88	Complies	Complies

FCC Supply Voltage Variation Spectrum Analyzer Plots

NOTE: Spectrum analyzer plots of the 6.0 MHz bandwidth measurements follow. The plots for the 5.5 MHz bandwidth channels are similar and are located in the Appendix.

Section 6
Test Report, Part 2

FCC ID: PHX-RSU2510S
IC: 4022A-RSU2510S



Frequency Stability Test (Industry Canada)

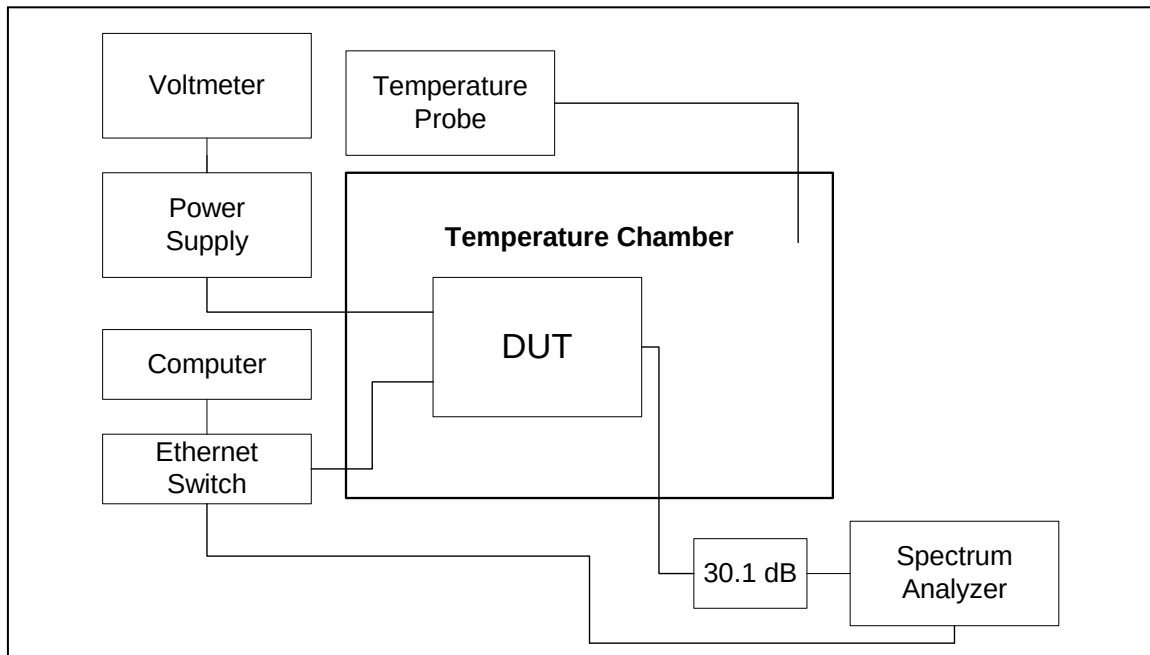
IC Rules: RSS-193, clauses 4.2, 6.1

IC Requirement: < 0.001 % or 10 PPM

Standard: TIA-603-C

Test Procedure: The frequency stability of the NextNet Wireless Temporary Fixed Subscriber Unit fundamental oscillator is derived from the on board 20 MHz TCXO. Since each radio channel operating frequency is synthesized and referenced to the 20 MHz TCXO, only one channel will be reported for frequency stability as all channels will have the same frequency characteristics. The transmitter carrier signal was recorded on a spectrum analyzer for frequency changes due to temperature variation and input voltage.

Test Set-Up:



Frequency Stability Test Results (Industry Canada)

Test Conditions: Frequency = 2593 MHz
Supply Voltage = 120 VAC / 60 Hz Nominal
to DUT Power Supply

Test Results: Temperature Variation

Main VCO Frequency Error				
Temp (°C)	Frequency (Hz)	Frequency Error (Hz)	Frequency Error (%)	Frequency Error (ppm)
-30	2593002960	2960	0.000114	1.142
-20	2593002330	2330	0.000090	0.899
-10	2593002290	2290	0.000088	0.883
0	2593002420	2420	0.000093	0.933
10	2593002000	2000	0.000077	0.771
20	2593001210	1210	0.000047	0.467
30	2593000460	460	0.000018	0.177
40	2593000080	80	0.000003	0.031
50	2592999750	-250	-0.000010	-0.096

Test Conditions: Frequency = 2593 MHz
Temperature = 20°C

Test Results: Supply Voltage Variation

Main VCO Frequency Error				
Source Voltage (VDC)	Frequency (Hz)	Frequency Error (Hz)	Frequency Error (%)	Frequency Error (ppm)
102.00	2593001040	1040	0.000040	0.401
120.00	2593001140	1140	0.000044	0.440
138.00	2593001140	1140	0.000044	0.440

Canada Frequency Stability Spectrum Analyzer Plots

The spectrum analyzer plots for the temperature variation measurements follow.

