Lab Code: 200167-0

FCC PART 15.249

INDUSTRY CANADA RSS-210, ISSUE 7 JUNE 2007

TEST AND MEASUREMENT REPORT

For

SynapSense Corporation

2365 Iron Point Rd., Suite 100, Folsom, CA 95630, USA

FCC ID: U62-PNODE
IC: 7265A-PNODE

Report Type:	**Product Type:**
Original Report	Low Power RF Transceiver

Test Engineer:	Greeman Chen
Report Number:	R0812154
Report Date:	2009-02-02
Reviewed By:	Boni Baniqued Sr. RF Engineer
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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	R0812154	Original Report	2009-02-02

1 GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

The *SynapSense Corporation's* product, model: *99-0331-001* or the "EUT" as referred to in this report is a Proprietary SynapSense Wireless Mesh Network application running on 802.15.4 radio network. The EUT is a wireless, ISM band (2.4 GHz) short range device used to collect differential pressure sensor information and relay it, via the wireless network, to a gateway device for collection and analysis. It consists of a Lithium Iron AA battery case to provide power, a radio transceiver module, an internal antenna, a microprocessor and an onboard differential pressure sensor.

1.2 Mechanical Description of EUT

The *SynapSense Corporation's* product, model number: *99-0331-001* measures approximately 11.4 cm (L) x 6.6 cm (W) x 3.6 cm (H).

** All measurement and test data in this report was gathered from production sample serial number: B2063-1 (Assigned by BACL).*

1.3 EUT Photograph

Model: 99-0330-001

1.4 Objective

This type of approval report is prepared on behalf of *SynapSense Corporation.* in accordance with Part 2, Subpart J, and Part 15, Subparts A, B and C of the Federal Communication Commissions rules and IC Canada RSS-210 Issue 7 June 2007.

The tests were performed in order to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.249 rules and IC RSS-210 Issue 7, RSS-Gen rules.

1.5 Related Submittal(s)/Grant(s)

N/A

1.6 Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, 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.

All radiated and conducted emissions measurement was performed at Bay Area Compliance Laboratories Corp. The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

1.7 Test Facility

The test site used by BACL Corp. to collect radiated and conducted test measurement data is located at its facility in Sunnyvale, California, USA.

The test site at BACL Corp. has been fully described in reports submitted to the Federal Communication Commission (FCC) and Voluntary Control Council for Interference (VCCI). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on February 11, 1997 and December 10, 1997 and Article 8 of the VCCI regulations on December 25, 1997. The facility also complies with the test methods and procedures set forth in ANSI C63.4-2003 & TIA/EIA-603.

The Federal Communications Commission and Voluntary Control Council for Interference have the reports on file and they are listed under FCC registration number: 90464 and VCCI Registration No.: C-2698 and R-2463. The test site has been approved by the FCC and VCCI for public use and is listed in the FCC Public Access Link (PAL) database.

Additionally, BACL Corp. is a National Institute of Standards and Technology (NIST) accredited laboratory under the National Voluntary Laboratory Accredited Program (Lab Code 200167-0). The current scope of accreditations can be found at http://ts.nist.gov/ts/htdocs/210/214/scopes/2001670.htm.

2 SYSTEM TEST CONFIGURATION

2.1 Justification

The system was configured for testing in a typical fashion (as normally used by a typical user).

2.2 Special Accessories

N/A

2.3 Equipment Modifications

No modifications were made to the unit tested.

2.4 Configuration of Test Setup

Each node has special firmware which transmits packets via RF back and forth. Packets are sent once per second. Flashing LED indicates correct packet reception
The nodes will transmit RF in 4 frequency modes. Each mode is selected by simply toggling the node on/off switch from on to off and then of course on again. The 4 modes are: High/Mid/Low/NoTx (NoTx means no RF transmitting at all).

2.5 Local Support Equipment List

Manufacturers	Descriptions	Models	Serial Numbers
-	-	-	-

2.6 EUT Internal Configuration Details

Manufacturers	Descriptions	Models	Serial Numbers
Synapsense Corporation	Main PCB	11-0331-001 Rev. 5	-

2.7 External I/O Cabling List and Details

Cable Descriptions	Length (m)	From	To
-	-	-	-

3 SUMMARY OF TEST RESULTS

FCC Rules RSS-210, RSS-Gen Rules	Description of Tests	Results
FCC §15.203 IC RSS-Gen §7.1.4	Antenna Requirements	Compliant
FCC §15.207(a) IC RSS-Gen §7.2.2	Conduction Emissions	N/A*
FCC §15.205, §15.209, §15.249 IC RSS-210 §2.2, §A2.9	Radiated Emissions & Out of Band Emissions	Compliant
FCC §15.215 IC RSS-Gen §4.6	Occupied Bandwidth	Compliant
FCC §15.109 IC RSS-Gen §4.10, §7.2.3	Receiver Spurious Emission	Compliant

Note: * N/A – Not applicable, the EUT is battery powered device.

4 FCC §15.203 & IC RSS-GEN §7.1.4 - ANTENNA REQUIREMENT

4.1 Applicable Standard

For intentional device, according to FCC Part §15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used.

Per IC RSS-Gen §7.1.4, A transmitter can only be sold or operated with antennas with which it was certified. A transmitter maybe certified with multiple antenna types. An antenna type comprises antennas having similar in-band and out-of-band radiation patterns. Testing shall be performed using the highest-gain antenna of each combination of transmitter and antenna type for which certification is being sought, with the transmitter output power set at the maximum level. Any antenna of the same type and having equal or lesser gain as an antenna that had been successfully tested for certification with the transmitter, will also be considered certified with the transmitter, and may be used and marketed with the transmitter. The manufacturer shall include with the application for certification a list of acceptable antenna types to be used with the transmitter.

When a measurement at the antenna connector is used to determine RF output power, the effective gain of the device's antenna shall be stated, based on measurement or on data from the antenna manufacturer. Any antenna gain in excess of 6 dBi (6 dB above isotropic gain) shall be added to the measured RF output power before using the power limits specified in IC RSS-210 or RSS-310 for devices of RF output powers of 10 milliwatts or less. For devices of output powers greater than 10 milliwatts, except devices subject to IC RSS-210 Annex 8 or RSS-210 Annex 9, the total antenna gain shall be added to the measured RF output power before using the specified power limits. For devices subject to IC RSS-210 Annex 8 or Annex 9, the antenna gain shall not be added.

4.2 Antenna Description

The EUT has internal omni-directional antenna printed with the antenna gain of 0 dBi, which in accordance to sections FCC Part 15.203 and IC RSS-Gen §7.1.4, is considered sufficient to comply with the provisions of these sections.

In addition, the antenna is printed on the same PCB as the radio transceiver, and cannot be altered. No external antenna option is available for this unit.

Result: Compliant.

Please refer to the EUT Internal photos.

5 FCC §15.205, §15.209, §15.249 & IC RSS-210 §2.2, §A2.9 - RADIATED EMISSIONS & OUT OF BAND EMISSIONS

5.1 Applicable Standard

As per FCC §15.249 (a) and IC RSS-210 §A2.9 the field strength of emissions from intentional radiators measured at 3 meter within these frequency bands shall comply with the following:

Fundamental Frequency (MHz)	Field Strength of Fundamental (millivolts/meter)	Field Strength of Harmonics (microvolts/meter)
902–928	50	500
2400–2483.5	50	500
5725–5875	50	500

As Per FCC §15.249 (d) and IC RSS-210 §A2.9 (b) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in the following table, whichever is the lesser attenuation.

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

5.2 Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement at Bay Area Compliance Laboratories Corp. is $\pm$4.0 dB.

5.3 Test Equipment Setup

The spectrum analyzer or receiver is set as:

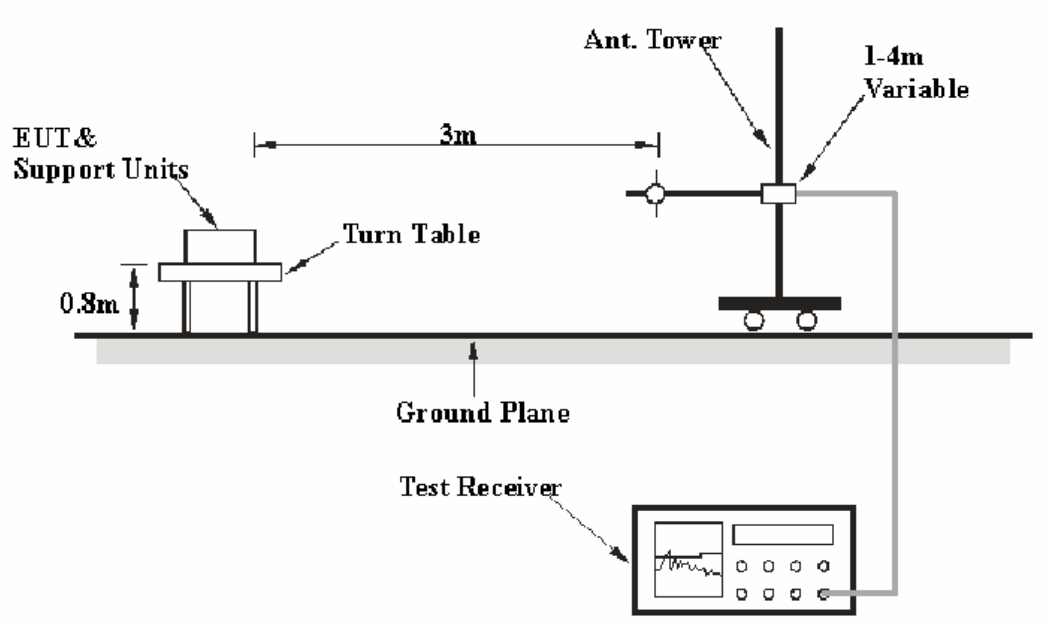
Below 1000MHz:

RBW = 100 kHz / VBW = 300 kHz / Sweep = Auto

Above 1000MHz:

(1) Peak: RBW = 1MHz / VBW = 1MHz / Sweep = Auto
(2) Average: RBW = 1MHz / VBW = 10Hz / Sweep = Auto

5.4 EUT Setup



The radiated emission and out of band emission tests were performed in the 3 meters chamber B, using the setup accordance with the ANSI C63.4-2003. The specification used was the FCC §15.209, §15.249 and IC RSS-210 §A2.9 limits.

5.5 Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date
HP	Pre-Amplifier (1 ~ 26.5 GHz)	8449B	3008A1978	2008-10-21
Sunol Science Corp	Combination Antenna	JB3 Antenna	A020106-3	2008-03-24
Rohde & Schwarz	EMI Test Receiver	ESCI 1166.5950K03	100044	2008-03-24
Sunol Science Corp	System Controller	SC99V	113005-1	NA
Antenna Research Associates, Inc.	Horn Antenna	DRG-118/A	1132	2008-08-07
Agilent	Analyzer, Spectrum	E4446A	US44300386	2008-05-19
Sonoma Instrument	Pre-Amplifier (10 kHz~ 2.5 GHz)	317	260407	2008-04-29

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

5.6 Test Procedure

For the radiated emissions test, all support equipment power cords was connected to the 120V AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

The EUT is set 3 meter away from the testing antenna, which is varied from 1-4 meter, and the EUT is placed on a turntable, which is 0.8 meter above ground plane, the table shall be rotated for 360 degrees to find out the highest emission. Both horizontal and vertical polarization of the receiving antenna should be changed for the measurement.

5.7 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a number of -7dB in margin means that the emission power is 7dB below the limit. The equation for margin calculation is as follows:

Margin = Corrected Amplitude - Limit

5.8 Test Results Summary

According to the data in the following table, the EUT complied with the FCC Part 15.209 & 15.249 & IC RSS-210 §A2.9, the worst margin reading of:

Below 1GHz:

-16.53 dB at **31.004 MHz** in the **Vertical** polarization.

Above 1GHz:

-21.79 dB at **4810 MHz** in the **Vertical** polarization for Low Channel.
-18.66 dB at **4890 MHz** in the **Horizontal** polarization for Middle Channel.
-16.61 dB at **4960 MHz** in the **Horizontal** polarization for High Channel.

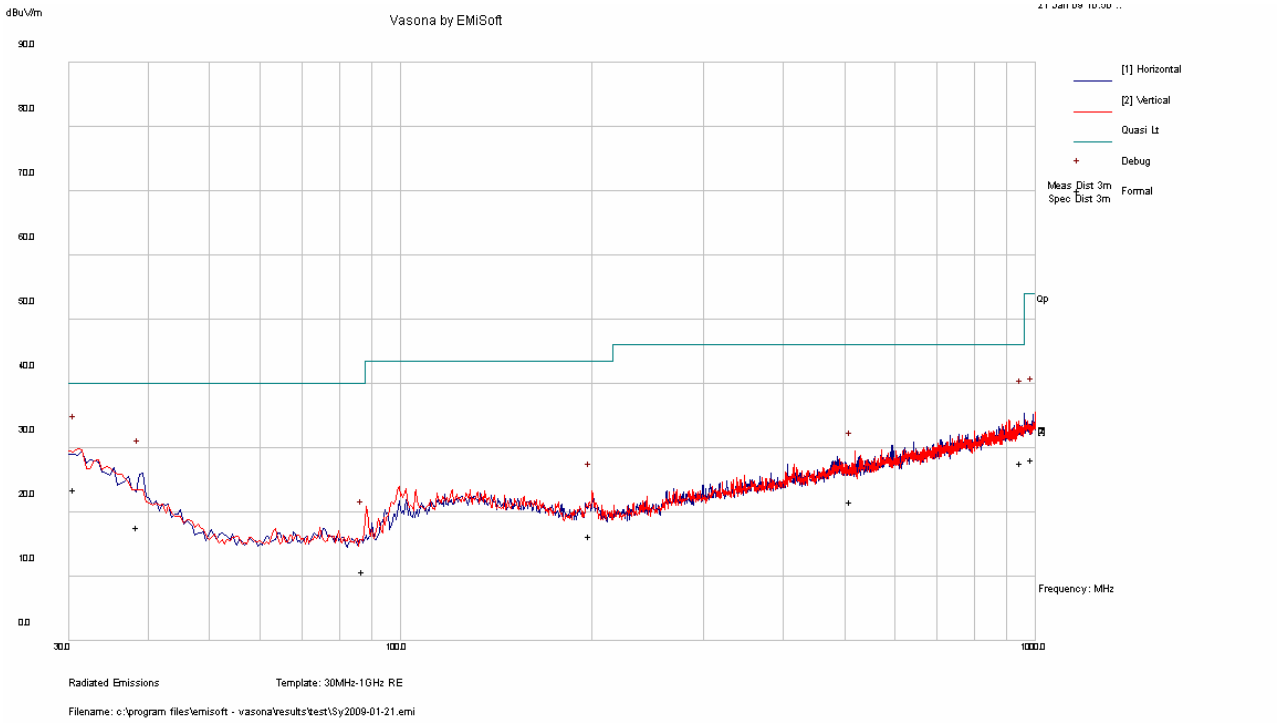
5.9 Environmental Conditions

Temperature:	20 °C
Relative Humidity:	47 %
ATM Pressure:	102.1kPa

The testing was performed by Greeman Chen on 2009-01-21.

Test Mode: Transmitting

Below 1 GHz (Worst Case):



Frequency (MHz)	Corrected Reading (dBuV/m)	Measurement Type (QP/AV)	Antenna Polarization (V/H)	Antenna Height (cm)	Table Azimuth (Degree)	Limit (dBuV/m)	Margin (dB)
31.044	23.47	QP	V	201	279	40	-16.53
39.018	17.71	QP	H	262	196	40	-22.29
518.734	21.57	QP	H	343	217	46	-24.43
999.234	28.11	QP	V	226	28	54	-25.89
960.287	27.67	QP	V	191	0	54	-26.33
200.828	16.35	QP	V	367	6	43.5	-27.15

Above 1 GHz:

Low Channel

Fundamental measured at 3 meters:

Frequency (MHz)	Meter Reading (dBuV)	Detector (PK/AV)	Table Azimuth (Degree)	Test Antenna			Cable Loss (dB)	Pre-Amp. Gain (dB)	Duty Cycle Factor (dB)	Cord. Amp. (dBuV/m)	FCC & IC	
				Height (m)	Polarity (H/V)	Factor (dB/m)					Limit (dBuV/m)	Margin (dB)
2405	95.02	PK	259	1.1	H	28.2	6.05	36.68	0	92.59	114.0	-21.38
2405	94.52	PK	244	1.0	V	28.2	6.05	36.68	0	92.09	114.0	-21.88
2405	95.02	PK	259	1.1	H	28.2	6.05	36.68	-30	62.59*	94.0	-31.38
2405	94.52	PK	244	1.0	V	28.2	6.05	36.68	-30	62.09*	94.0	-31.88

Spurious/Harmonics Emissions measured at 3 meters

Frequency (MHz)	Meter Reading (dBuV)	Detector (PK/AV)	Table Azimuth (Degree)	Test Antenna			Cable Loss (dB)	Pre-Amp. Gain (dB)	Duty Cycle Factor (dB)	Cord. Amp. (dBuV/m)	FCC & IC	
				Height (m)	Polarity (H/V)	Factor (dB/m)					Limit (dBuV/m)	Margin (dB)
4810	46.59	PK	259	1.0	V	33.1	8.86	36.34	0	52.21	74.0	-21.79
4810	44.31	PK	260	1.0	H	33.1	8.86	36.34	0	49.93	74.0	-24.07
4810	46.59	PK	259	1.0	V	33.1	8.86	36.34	-30	22.21*	54.0	-31.79
4810	44.31	PK	260	1.0	H	33.1	8.86	36.34	-30	19.93*	54.0	-34.07

Middle Channel

Fundamental measured at 3 meters:

Frequency (MHz)	Meter Reading (dBuV)	Detector (PK/AV)	Table Azimuth (Degree)	Test Antenna			Cable Loss (dB)	Pre-Amp. Gain (dB)	Duty Cycle Factor (dB)	Cord. Amp. (dBuV/m)	FCC & IC	
				Height (m)	Polarity (H/V)	Factor (dB/m)					Limit (dBuV/m)	Margin (dB)
2445	99.76	PK	243	1.1	H	28.50	6.10	36.65	0	97.71	114.0	-16.26
2445	96.36	PK	245	1.0	V	28.50	6.10	36.65	0	94.31	114.0	-19.66
2445	99.76	PK	243	1.1	H	28.50	6.10	36.65	-30	67.71*	94.0	-26.26
2445	96.36	PK	245	1.0	V	28.50	6.10	36.65	-30	64.31*	94.0	-29.66

Spurious/Harmonics Emissions measured at 3 meters

Frequency (MHz)	Meter Reading (dBuV)	Detector (PK/AV)	Table Azimuth (Degree)	Test Antenna			Cable Loss (dB)	Pre-Amp. Gain (dB)	Duty Cycle Factor (dB)	Cord. Amp. (dBuV/m)	FCC & IC	
				Height (m)	Polarity (H/V)	Factor (dB/m)					Limit (dBuV/m)	Margin (dB)
4890	49.53	PK	243	1.1	H	33.10	8.96	36.25	0	55.34	74.0	-18.66
4890	47.96	PK	248	1.0	V	33.10	8.96	36.25	0	53.77	74.0	-20.23
4890	49.53	PK	243	1.1	H	33.10	8.96	36.25	-30	25.34*	54.0	-28.66
4890	47.96	PK	248	1.0	V	33.10	8.96	36.25	-30	23.77*	54.0	-30.23

High Channel

Fundamental measured at 3 meters:

Frequency (MHz)	Meter Reading (dBuV)	Detector (PK/AV)	Table Azimuth (Degree)	Test Antenna			Cable Loss (dB)	Pre-Amp. Gain (dB)	Duty Cycle Factor (dB)	Cord. Amp. (dBuV/m)	FCC & IC	
				Height (m)	Polarity (H/V)	Factor (dB/m)					Limit (dBuV/m)	Margin (dB)
2480	96.68	PK	251	1.0	H	28.8	6.19	36.63	0	95.04	114.0	-18.93
2480	96.05	PK	248	1.0	V	28.8	6.19	36.63	0	94.41	114.0	-19.56
2480	96.68	PK	251	1.0	H	28.8	6.19	36.63	-30	65.04*	94.0	-28.93
2480	96.05	PK	248	1.0	V	28.8	6.19	36.63	-30	64.41*	94.0	-29.56

Spurious/Harmonics Emissions measured at 3 meters

Frequency (MHz)	Meter Reading (dBuV)	Detector (PK/AV)	Table Azimuth (Degree)	Test Antenna			Cable Loss (dB)	Pre-Amp. Gain (dB)	Duty Cycle Factor (dB)	Cord. Amp. (dBuV/m)	FCC & IC	
				Height (m)	Polarity (H/V)	Factor (dB/m)					Limit (dBuV/m)	Margin (dB)
4960	51.27	PK	253	1.0	H	33.1	9.27	36.25	0	57.39	74.0	-16.61
4960	49.94	PK	254	1.0	V	33.1	9.27	36.25	0	56.06	74.0	-17.94
4960	51.27	PK	253	1.0	H	33.1	9.27	36.25	-30	27.39*	54.0	-26.61
4960	49.94	PK	254	1.0	V	33.1	9.27	36.25	-30	26.06*	54.0	-27.94

Note: • Average Value (*) is calculated based on Peak Reading + Duty Cycle Factor
• Duty Cycle Factor (DCF) = 20 $\log_{10}$ (Ton/Tp) = 20 $\log_{10}$ (3.17ms/100 ms) = -30 dB

Out of Band Emissions:

Frequency (MHz)	Meter Reading (dBuV)	Detector (PK/AV)	Table Azimuth (Degree)	Test Antenna			Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBuV/m)	FCC & IC	
				Height (m)	Polarity (H/V)	Factor (dB/m)				Limit (dBuV/m)	Margin (dB)
3140	29.75	AV	237	1.4	V	30.6	6.5	36.78	30.07	54	-23.93
3140	29.62	AV	168	1.6	H	30.6	6.5	36.78	29.94	54	-24.06
2890	30.04	AV	163	1.1	H	29.7	6.27	36.78	29.23	54	-24.77
2890	29.84	AV	275	1.2	V	29.7	6.27	36.78	29.03	54	-24.97
2890	41.99	PK	163	1.1	H	29.7	6.27	36.78	41.18	74	-32.82
2890	41.85	PK	275	1.2	V	29.7	6.27	36.78	41.04	74	-32.96
3140	40.24	PK	168	1.6	H	30.6	6.5	36.78	40.56	74	-33.44
3140	40.15	PK	237	1.4	V	30.6	6.5	36.78	40.47	74	-33.53

6 FCC §15.109 & IC RSS-GEN §4.10, §6, §7.2.3 – RECEIVER SPURIOUS EMISSIONS

6.1 Applicable Standard

As per FCC §15.109 and IC RSS-Gen §4.10, §6, §7.2.3, the receiver spurious limits measured at 3 meters shall be complied with the following table.

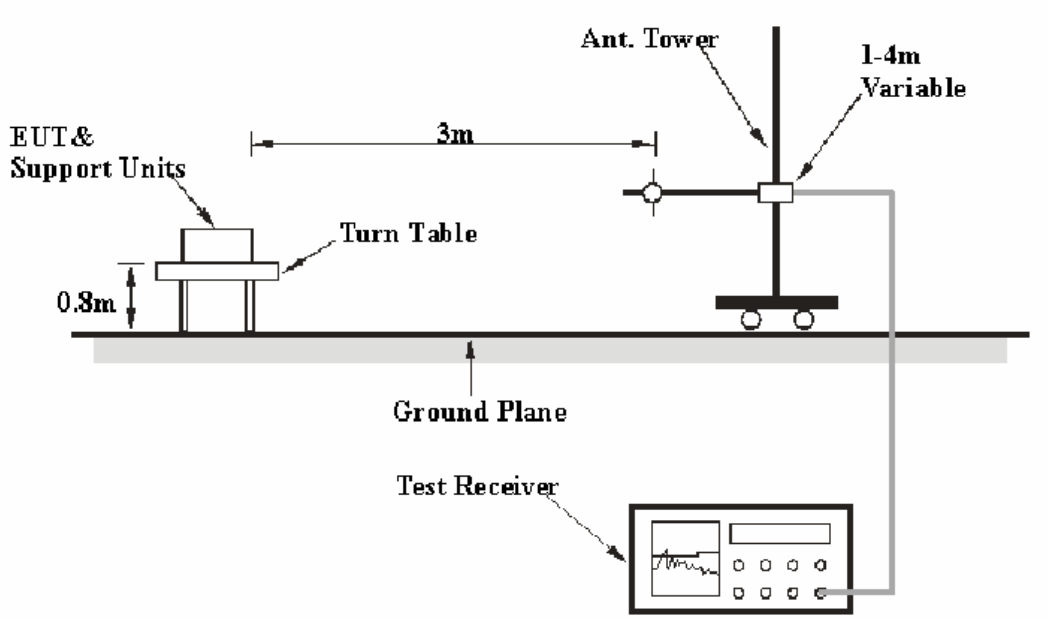
Frequency (MHz)	Field Strength (microvolts/m at 3 metres)
30 - 88	100
88 - 216	150
216 - 960	200
Above 960	500

6.2 Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement at Bay Area Compliance Laboratories Corp. is ±4.0 dB.

6.3 EUT Setup



6.4 Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date
HP	Pre-Amplifier (1 ~ 26.5 GHz)	8449B	3008A1978	2008-10-21
Sunol Science Corp	Combination Antenna	JB3 Antenna	A020106-3	2008-03-24
Rohde & Schwarz	EMI Test Receiver	ESCI 1166.5950K03	100044	2008-03-24
Sunol Science Corp	System Controller	SC99V	113005-1	NA
Antenna Research Associates, Inc.	Horn Antenna	DRG-118/A	1132	2008-08-07
Agilent	Analyzer, Spectrum	E4446A	US44300386	2008-05-19
Sonoma Instrument	Pre-Amplifier (10 kHz~ 2.5 GHz)	317	260407	2008-04-29

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

6.5 Test Procedure

For the radiated emissions test, all support equipment power cords was connected to the 120V AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

The EUT is set 3 meter away from the testing antenna, which is varied from 1-4 meter, and the EUT is placed on a turntable, which is 0.8 meter above ground plane, the table shall be rotated for 360 degrees to find out the highest emission. The receiving antenna should be changed the polarization both of horizontal and vertical.

6.6 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a number of -7dB in margin means that the emission power is 7dB below the limit. The equation for margin calculation is as follows:

Margin = Corrected Amplitude - Limit

6.7 Test Results Summary

According to the data in the following table, the EUT complied with the FCC Part 15.109 & IC RSS-Gen §6, §7.2.3, the worst margin reading of:

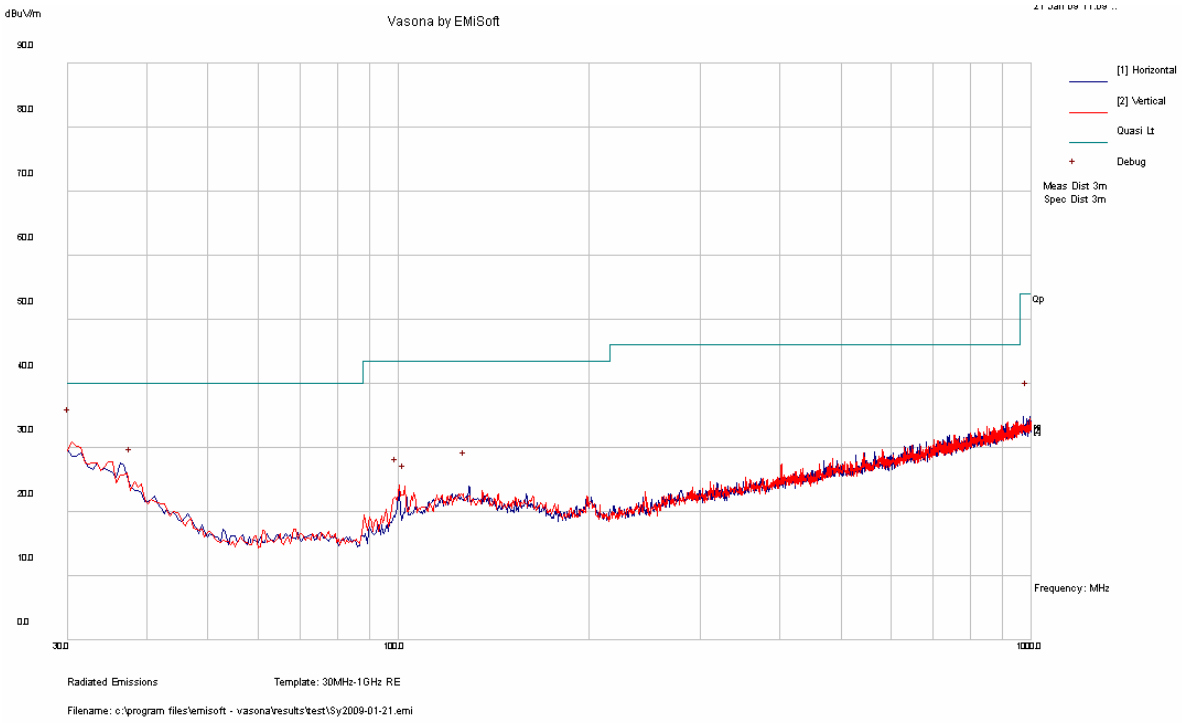
-16.12 dB at **30.581 MHz** in the **Vertical** polarization.

6.8 Environmental Conditions

Temperature:	21 °C
Relative Humidity:	40 %
ATM Pressure:	102.0kPa

** The testing was performed by Greeman Chen on 2009-01-21 in 5m chamber 2.*

Test Mode: Receiving



Frequency (MHz)	Corrected Reading (dBuV/m)	Measurement Type (QP/AV)	Antenna Polarization (V/H)	Antenna Height (cm)	Table Azimuth (Degree)	Limit (dBuV/m)	Margin (dB)
30.581	23.88	QP	V	226	109	40	-16.12
38.277	18.35	QP	V	332	215	40	-21.65
994.07	28.18	QP	H	270	223	54	-25.82
128.897	17.2	QP	V	215	343	43.5	-26.3
100.534	17.21	QP	V	375	19	43.5	-26.29
103.443	14.82	QP	V	135	0	43.5	-28.68

7 FCC §15.215 & IC RSS-GEN §4.6 – OCCUPIED BANDWIDTH

7.1 Standard Applicable

Per FCC §15.215, 20 dB occupied bandwidth should be provided.

Per IC RSS-Gen §4.6, When an occupied bandwidth value is not specified in the applicable RSS, the transmitted signal bandwidth to be reported is to be its 99% emission bandwidth, as calculated or measured.

7.2 Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date
Agilent	Analyzer, Spectrum	E4440A	US45303156	2008-05-31

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed per the NVLAP requirements, traceable to NIST.

7.3 Test Procedure

With the EUT's antenna attached, the EUT's 20dB Bandwidth power was received by the test antenna which was connected to the spectrum analyzer with the START and STOP frequencies set to the EUT's operation band.

7.4 Environmental Conditions

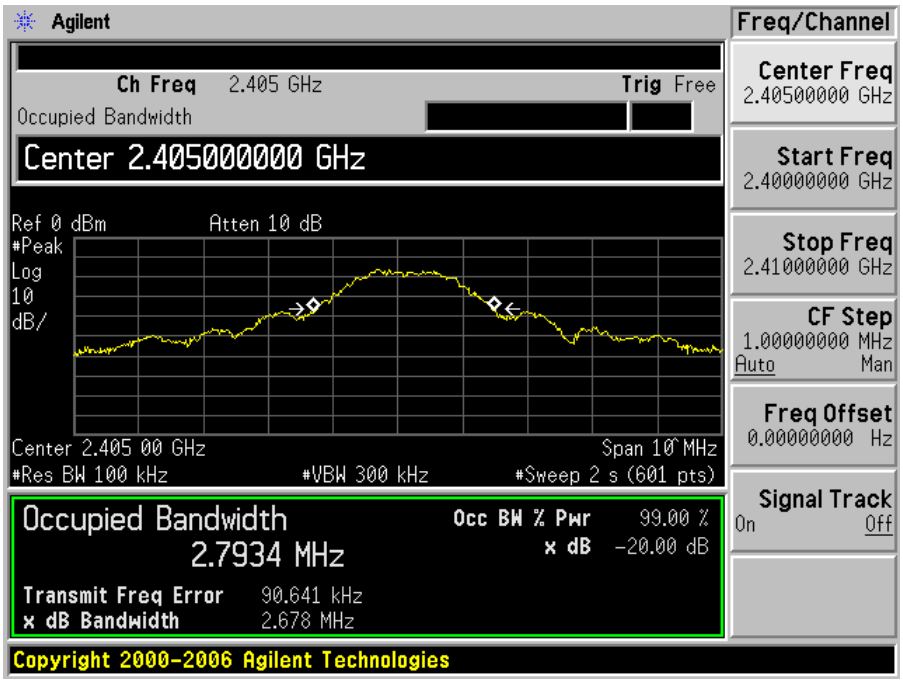
Temperature:	20 ° C
Relative Humidity:	47%
ATM Pressure:	102.1kPa

The testing was performed by Greeman Chen on 2009-01-21 in 5m chamber 2.

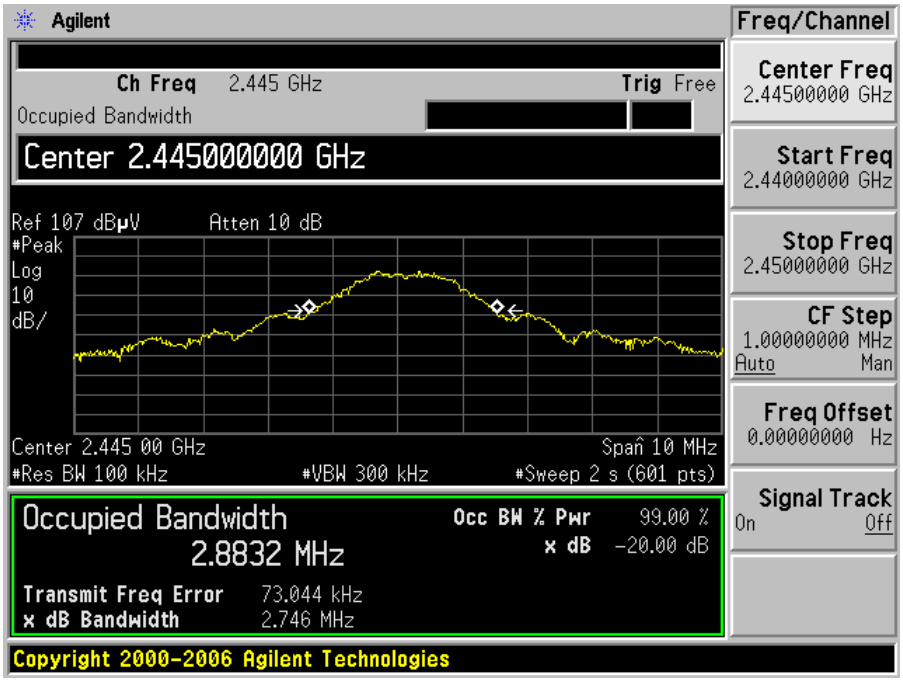
Test Result: Please refer to the following table and plots.

Channel	Frequency (MHz)	20 dB Occupied Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
Low	2405	2.678	2.7934
Middle	2445	2.746	2.8832
High	2480	2.949	2.9634

Low Channel



Middle Channel



High Channel