EMISSIONS TEST REPORT FOR A LOW POWER TRANSMITTER

I. GENERAL INFORMATION

Requirement: FCC
Test Requirements: FCC Part 15

Applicant: Silver Spring Networks
575 Broadway Street
Redwood City, CA 94063

FCC ID: **OWS-NIC507**
Model No.: 174-000085

II. DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)

The Silver Spring Networks (SSN) "Mono" is a radio module for electric power meter communications use. The board incorporates a 900 MHz frequency hopping i210 Mesh radio and a 2.4GHz 802.15.4 Zigbee Home Area Network (HAN radio.

III. TEST DATES AND TEST LOCATION

Testing was performed on various dates between 8 December-31 December 2008 and 9 and 24 February 2009. Radiated emissions tests were performed at:

Compliance Certification Services
47173 Benicia Street
Fremont, CA 94538

Antenna port conducted output power tests were performed at Silver Spring Networks on 2 March 2009.

T.N. Cokenias 6 March 2009
EMC Consultant/Agent for Silver Spring Networks

15.203 Antenna connector requirement

The EUT uses a custom permanently attached integral antenna, a special sheet metal antenna manufactured by Silver Spring Networks for electric meters

Antenna description	Mfr.	Model No.	Gain
Built-in sheet metal electric meter	SSN	n/a	2.4 dBi at 915 MHz 1.5 dBi at 2.4 GHz

TEST PROCEDURES

All tests were performed in accordance with the applicable procedures called out in the following documents, unless otherwise noted:

FCC 47CFR15

RSS-210 Issue 7: Low power license exempt radio frequency devices (July 2007)
RSS-212: Test Facilities and Test Methods for Radio Equipment

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.

For each radio, tests were performed at the following frequencies:

2.4 GHz HAN Radio

Channel 11 (LOW) – 2405.8 MHz
Channel 18 (MID) – 2440.8 MHz
Channel 25 (HIGH-1) – 2475.4 MHz
Channel 26 (HIGH) – 2480.9 MHz

NOTE: New power measurements taken with new register settings to bring channel 26 into compliance with band edge emission limit for new board/antenna configuration. Maximum achievable power levels with new register settings for other channels are less than original configuration power levels.

900 MHz FHSS

Channel 0 (LOW) – 902.3 MHz
Channel 42 (MID) -914.9 MHz
Channel 82 (HI) – 926.9 MHz

Test Equipment

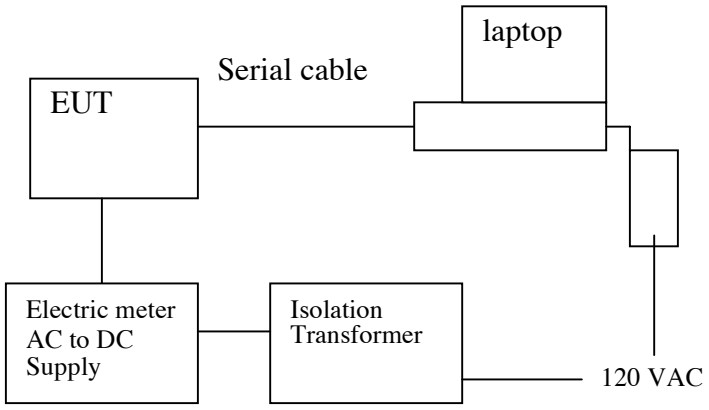
Compliance Certification Services:

Equipment	Mfr	Model	Asset No.	Cal Due
Spectrum analyzer (radiated emissions 2.4GHz Pout, spurs)	Agilent	E4446A	C1063	11/6/09
EMI Receiver	HP	8542E	C00967	09/10/09
Bilog antenna	Sunol Sciences	JBI	C01016	02/11/09
Pre-amplifier	Agilent	HP8447D	C00885	03/31/09
Horn antenna	EMCO	3115	C00872	03/31/09
Pre-amplifier	Agilent	HP 8449B	C00749	04/02/09

Silver Spring Networks:

Equipment	Mfr	Model	Asset No.	Cal Due
Spectrum analyzer	Agilent	EXA	1084442	5/28/09

Test Set-up Diagram



Support Equipment

Equipment	Mfr	Model	Asset No.
Laptop PC	Dell	PP01L	TW-0791UH1280-OC9-6558
AC/DC adapter	CUI Inc.	DSA-60W-20	2607HB

2.4 GHz HAN Radio Emissions Test Results

TEST RESULTS
Radiated Test Set-up, 30-26 GHz

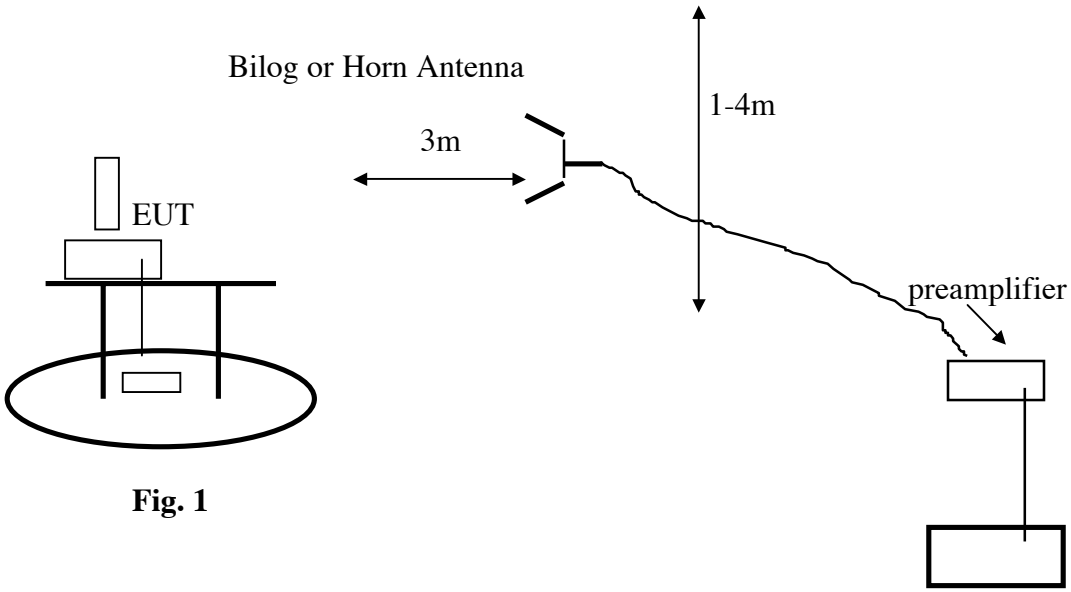


Fig. 1

Test Procedures

Radiated emissions generated by the transmitter portion of the EUT were measured.
1. The EUT was placed on a non-conductive fiberglass table resting on a turntable on the test site. The search antenna was placed 3m from the EUT. The EUT antenna was mounted in the with the EUT TX antenna pointed directly to the search antenna.
2. The turntable was slowly rotated to locate the direction of maximum emission at each emission falling in the restricted bands of 15.205.
3. Emissions were investigated to the 10^{th} harmonic of the fundamental.
4. Once maximum direction was determined, the search antenna was raised and lowered in both vertical and horizontal polarizations. The maximum readings so obtained are recorded in the data listed below.

EUT Channel and Power Settings

Channel	**Frequency, MHz**	**Output Power, dBm**
Low	2405.8	19.9 dBm
Mid	2440.8	20.05
High – 1 ch	2475.4	13.3
High	2480.0	0.77

Power measurements taken with spectrum analyzer.

Detector: PEAK
RBW=3MHz, VBW=5MHz
Span: 20 MHz
Sweep: AUTO

Test Results: Worst-case results are presented. Refer to data sheets below. Restricted band emissions meet 54 dBuV/m. Other undesired emissions from the transmitter meet the -20 dBc requirement in 15.247(d).

15.205 Restricted Frequency Bands

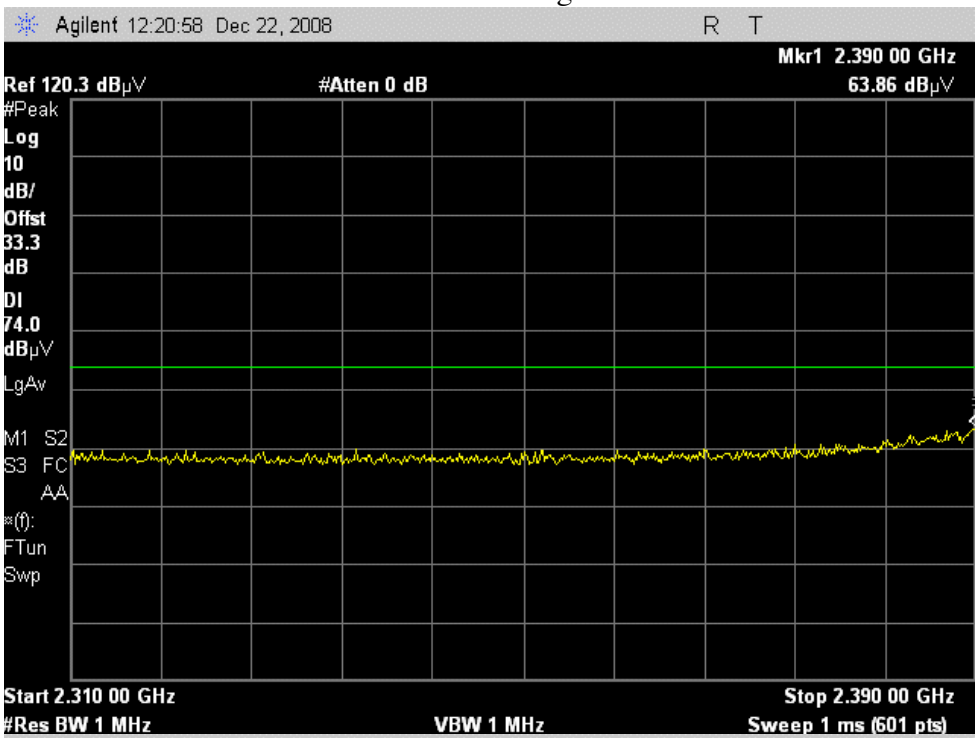
MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
0.495 - 0.505 (1)	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 -	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.52525	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	156.7 - 156.9	3260 - 3267	23.6 - 24.0
12.29 - 12.293	162.0125 - 167.17	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	167.72 - 173.2	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	240 - 285	3600 - 4400	
13.36 - 13.41	322 - 335.4		

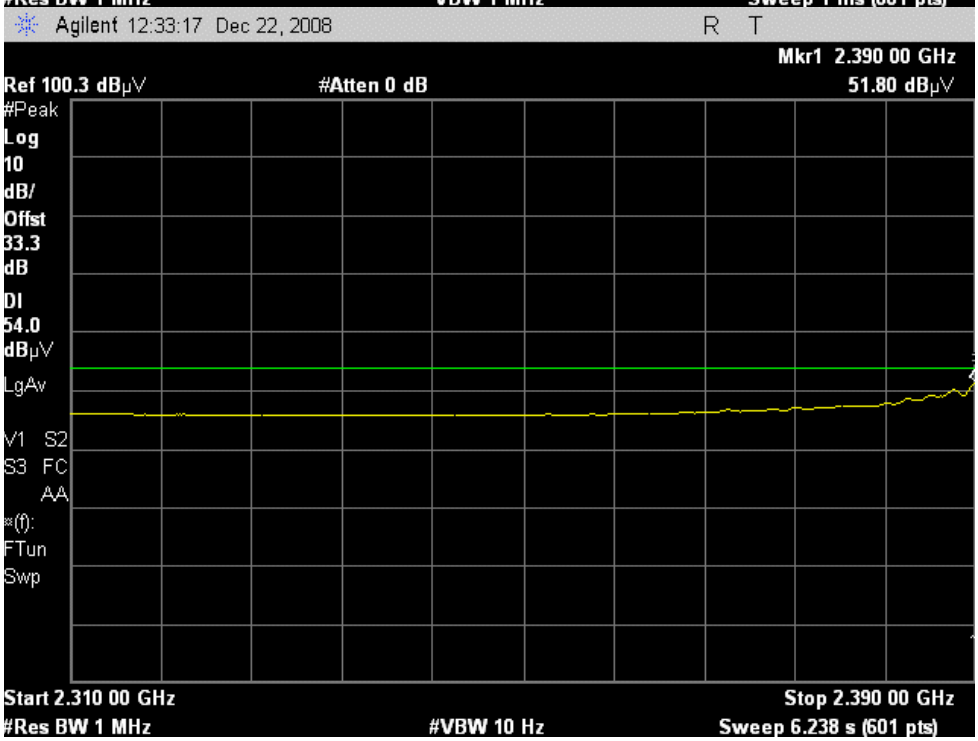
15.209 General Field Strength Limits

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100 **	3
88 - 216	150 **	3
216 - 960	200 **	3
Above 960	500	3

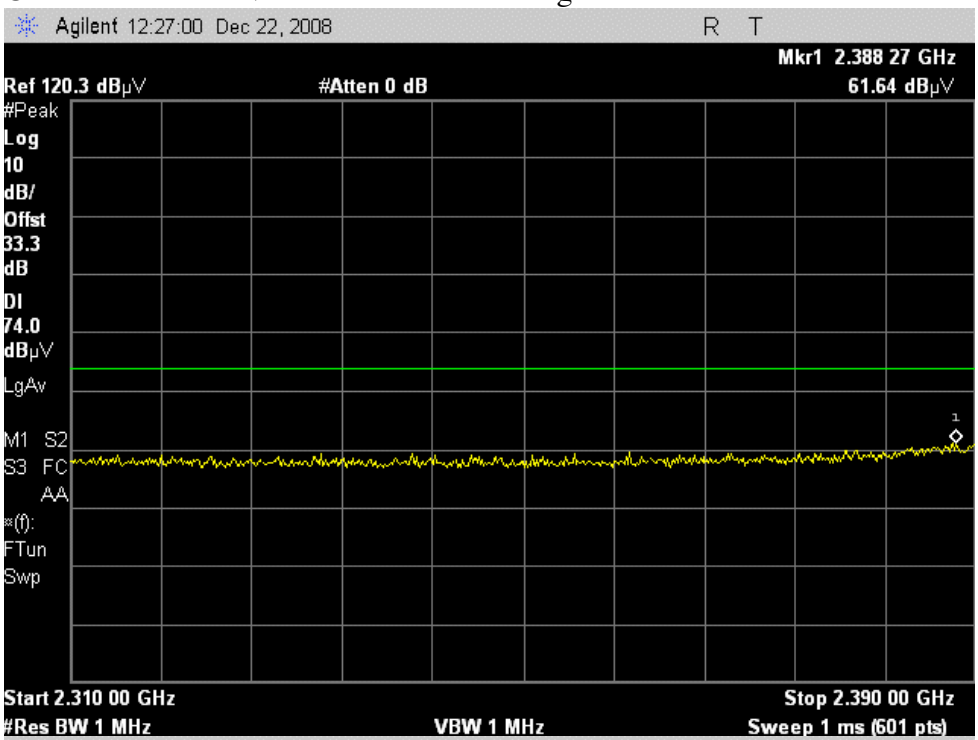
Restricted Bands At Band Edges

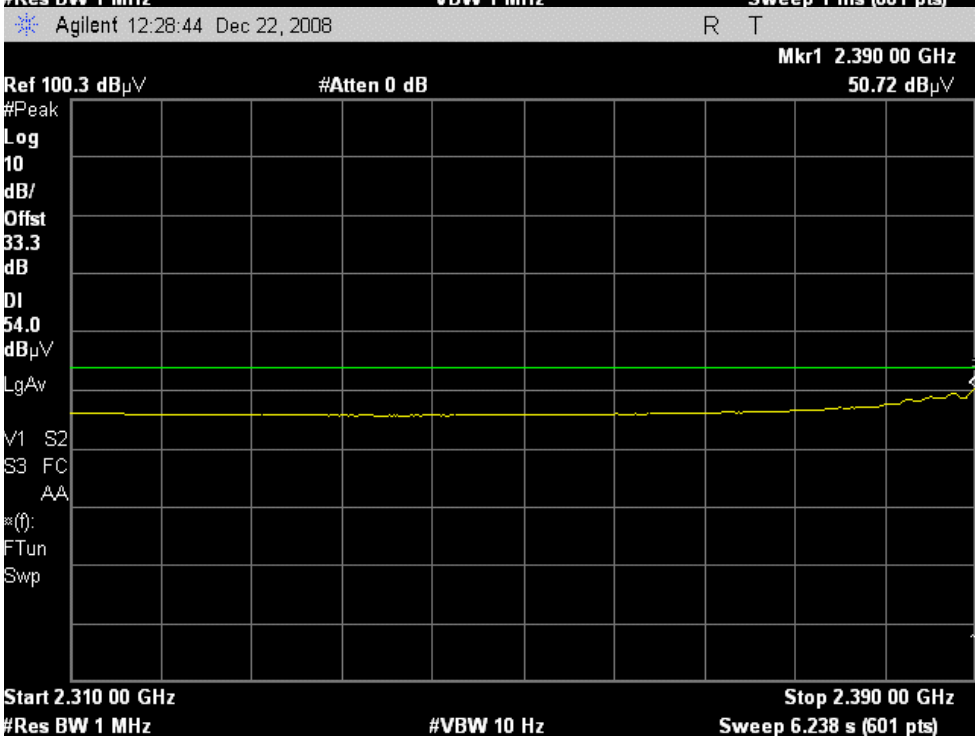
Ch 11 2405 MHz Vertical Peak and Average



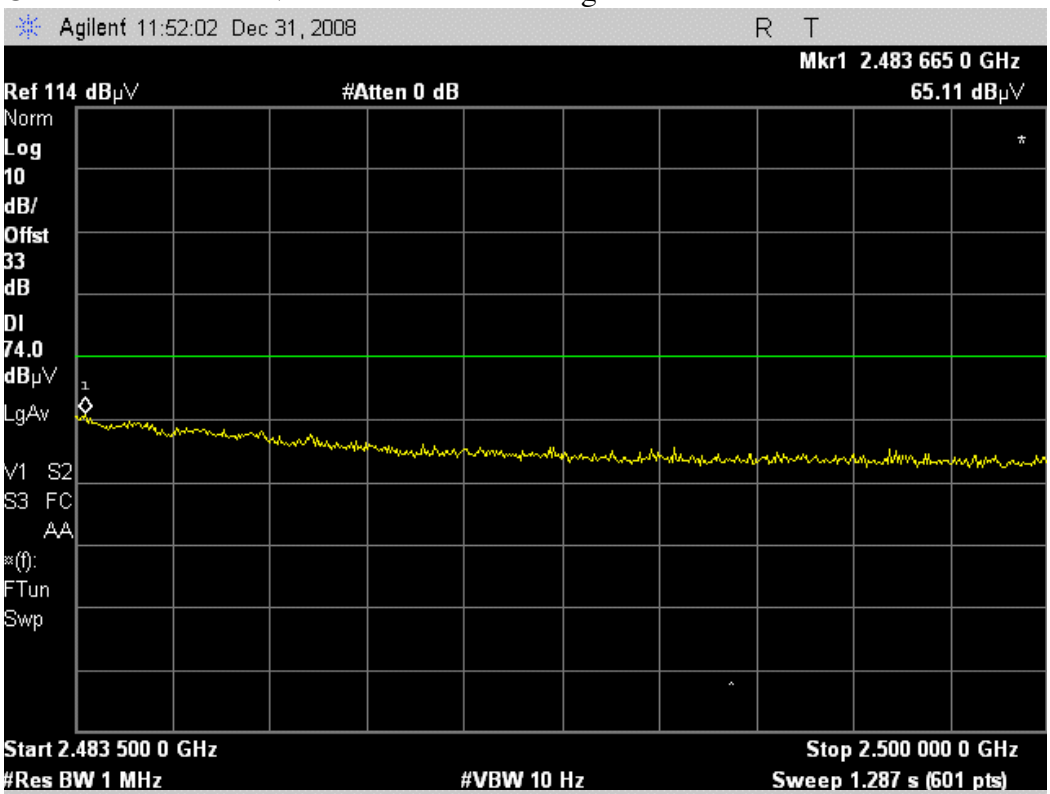


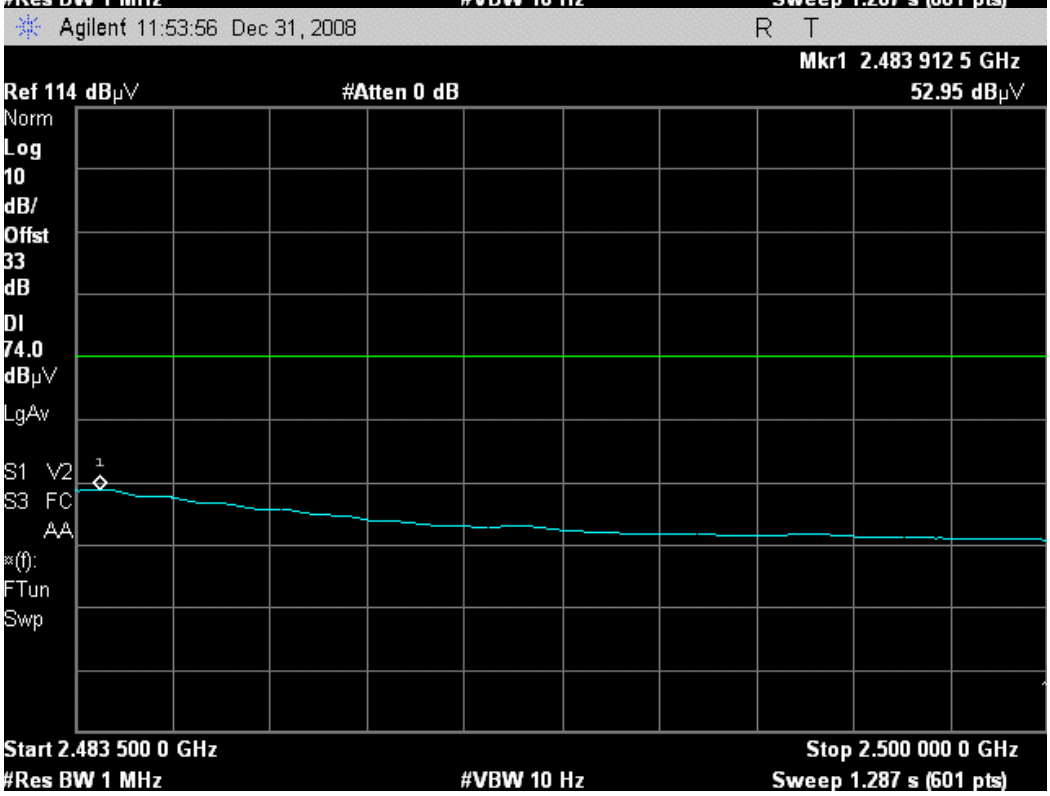
Ch 11 2405 MHz Vertical Peak and Average



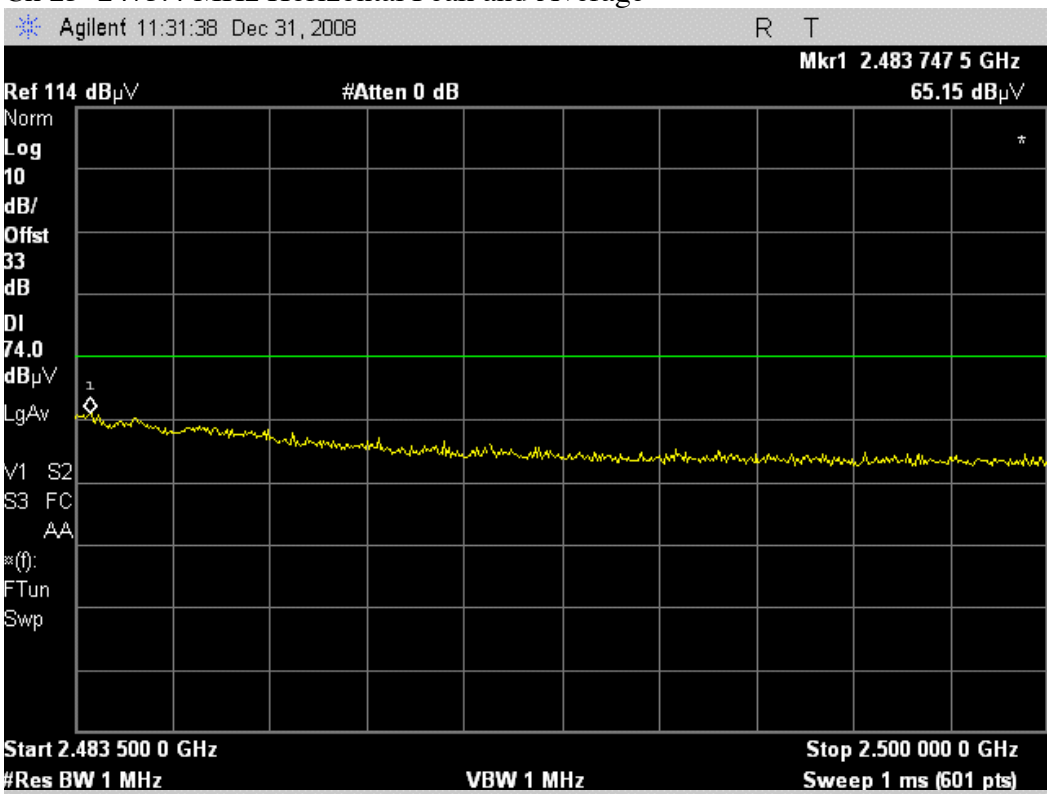


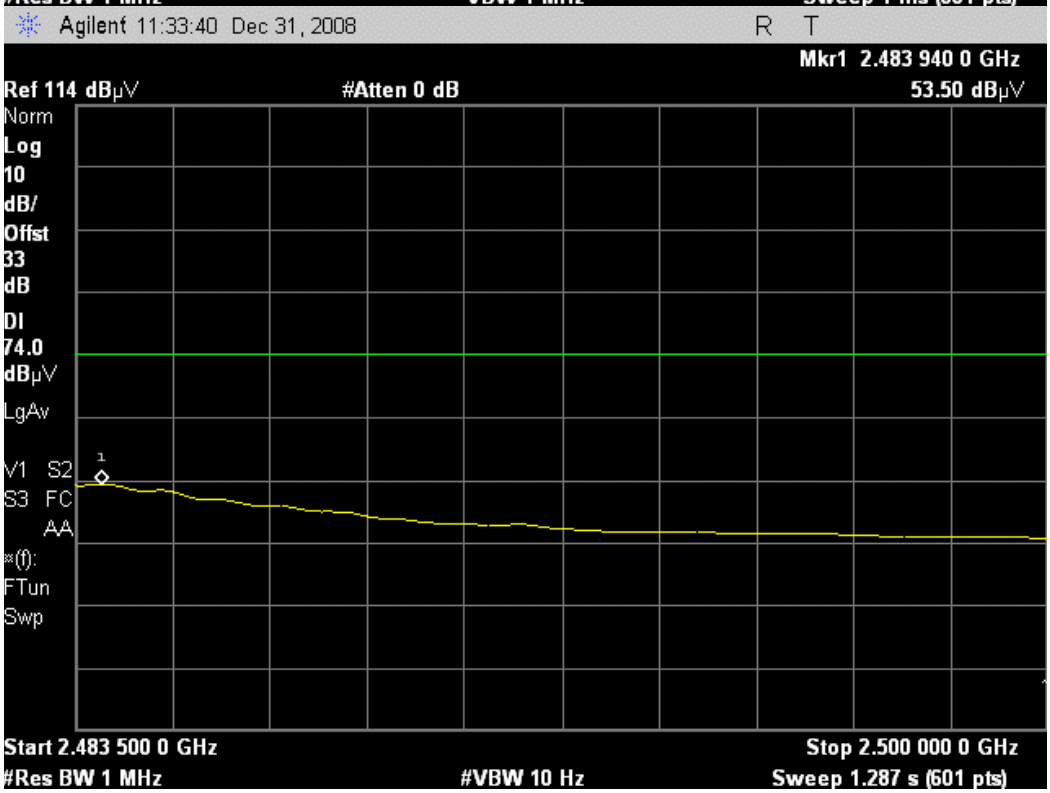
Ch 25 2475.4 MHz Vertical Peak and Average



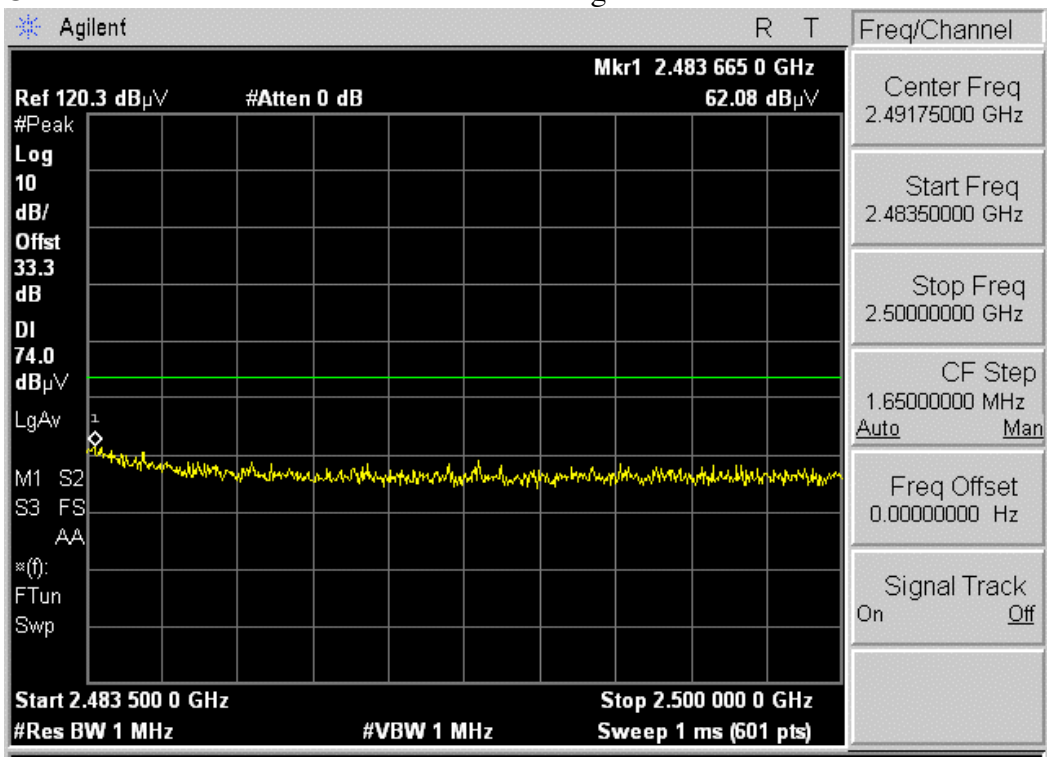


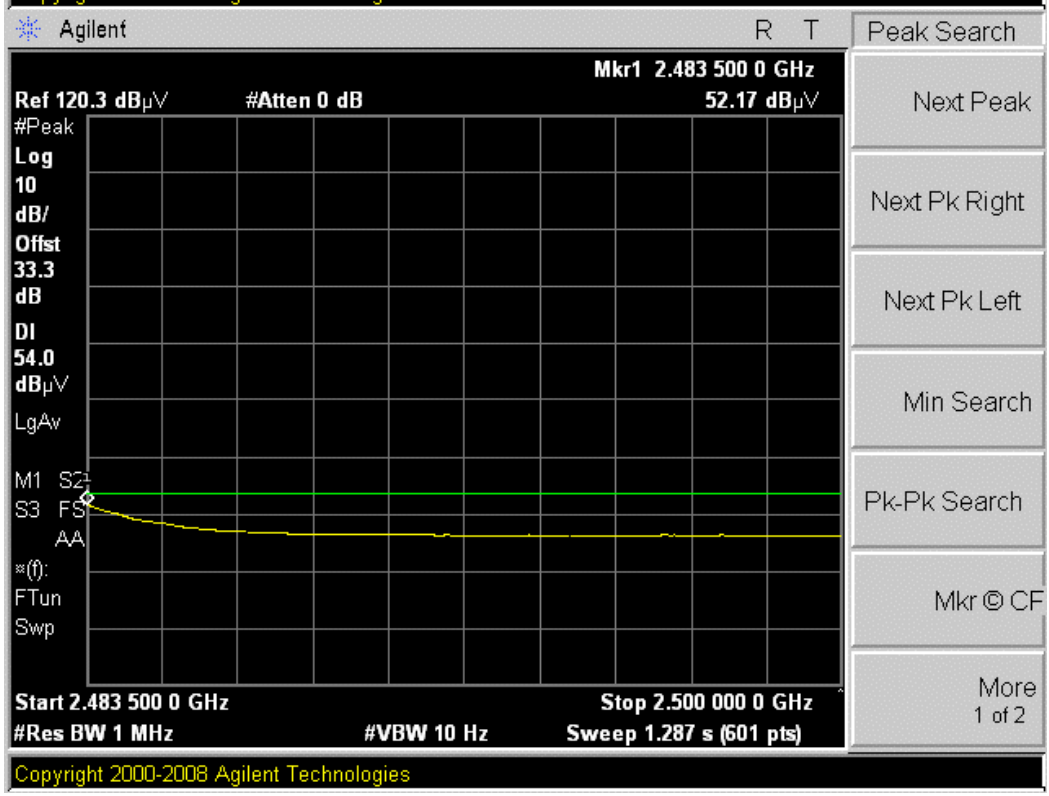
Ch 25 2475.4 MHz Horizontal Peak and Average



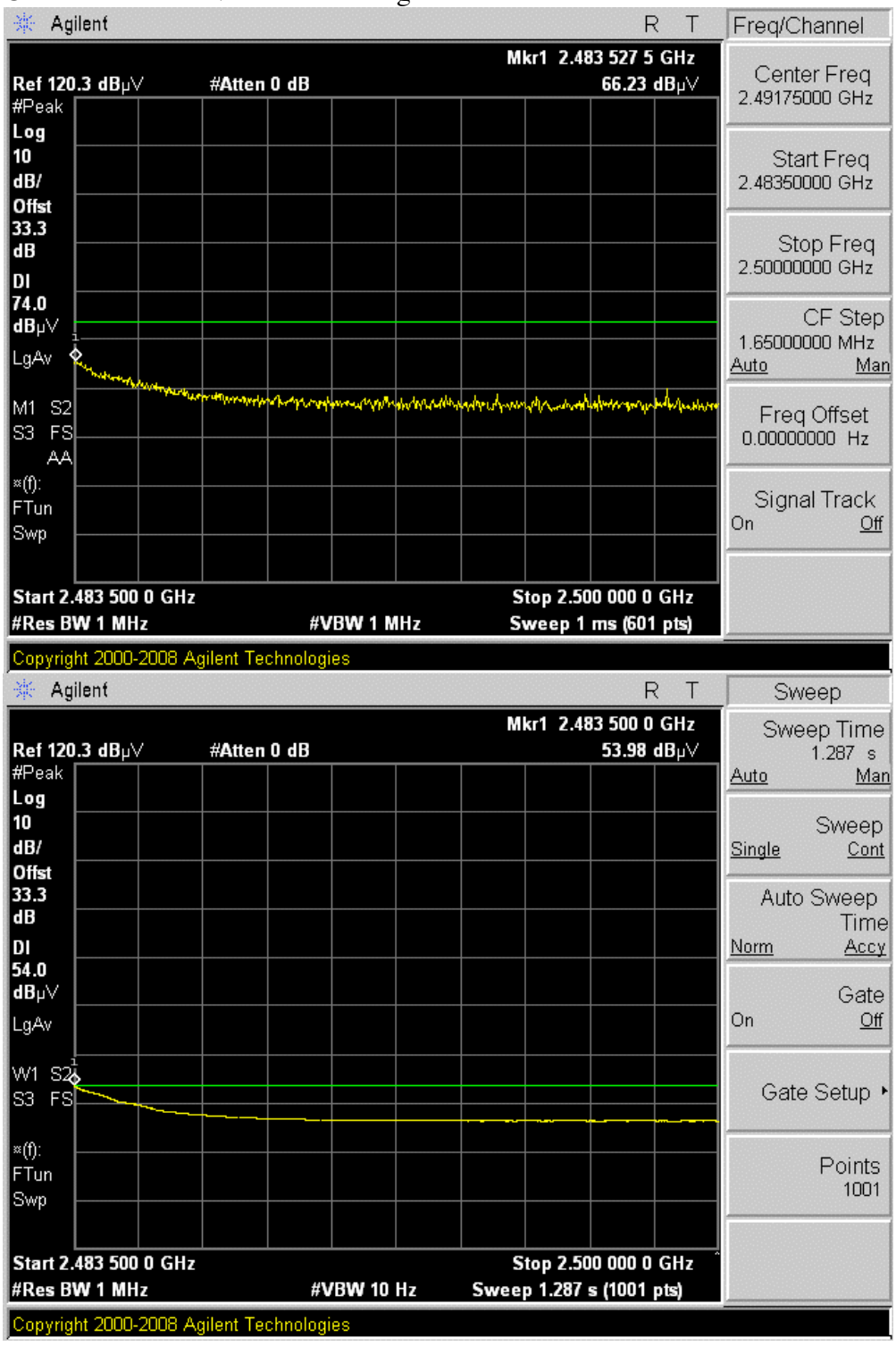


Ch 26 2480 MHz Horizontal Peak and Average





Ch 26 2480 MHz Vertical Bandedge



2.4 GHz HAN Radiated Spurious

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Company: Silver Spring Networks
Project #:
Date: 12/22/2008
Test Engineer: Doug Anderson
Configuration:EUT (Mono 2.4GHx) / Host PC / 4.5VDC Power Supply
Mode: TX, DSSS

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz
T60; S/N: 2238 @3m	T144 Miteq 3008A00931		

Hi Frequency Cables

3' cable 22807700	12' cable 22807600	20' cable 22807500	HPF	Reject Filter
3' cable 22807700	12' cable 22807600	20' cable 22807500	HPF_1.5GHz	

Peak Measurements
RBW=VBW=1MHz
Average Measurements
RBW=1MHz ; VBW=10Hz

f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
Low-Channel: 11 (2.405GHz / ATS 112 = 9)															
4.810	3.0	49.2	37.4	33.7	5.8	-36.5	0.0	0.6	52.8	40.9	74	54	-21.2	-13.1	V
4.810	3.0	47.1	35.4	33.7	5.8	-36.5	0.0	0.6	50.7	39.0	74	54	-23.3	-15.0	H
12.025	3.0	43.7	31.1	38.9	9.7	-35.4	0.0	0.8	57.8	45.1	74	54	-16.2	-8.9	H
Mid-Channel: 18 (2440.8MHz / ATS 112 = 9)															
4.882	3.0	55.5	49.4	33.7	5.8	-36.5	0.0	0.6	59.2	53.1	74	54	-14.8	-0.9	V
7.320	3.0	50.0	39.4	36.7	7.3	-36.2	0.0	0.6	58.4	47.8	74	54	-15.6	-6.2	V
12.204	3.0	49.8	39.4	38.9	9.8	-35.4	0.0	0.8	63.9	53.5	74	54	-10.1	-0.5	V
4.882	3.0	49.9	39.2	33.7	5.8	-36.5	0.0	0.6	53.6	42.9	74	54	-20.4	-11.1	H
7.320	3.0	53.0	43.2	36.7	7.3	-36.2	0.0	0.6	61.4	51.6	74	54	-12.6	-2.4	H
12.204	3.0	41.0	28.1	38.9	9.8	-35.4	0.0	0.8	55.2	42.2	74	54	-18.8	-11.8	H

Rev. 10.15.08

f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Company: Silver Spring Networks
Project #:
Date: 9 Feb 2009
Test Engineer: T. Cokenias
Configuration: Stand Alone Mono Board
Mode: ch 25 ATS112=9

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz
T73; S/N: 6717 @3m	T144 Miteq 3008A00931		

Hi Frequency Cables

3' cable 22807700	12' cable 22807600	20' cable 22807500	HPF	Reject Filter
3' cable 22807700	12' cable 22807600	20' cable 22807500		

Peak Measurements
RBW=VBW=1MHz
Average Measurements
RBW=1MHz ; VBW=10Hz

f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
4.950	3.0	45.7	35.7	33.9	5.9	-36.5	0.0	0.0	49.1	39.1	74	54	-24.9	-14.9	V
4.950	3.0	45.8	35.4	33.9	5.9	-36.5	0.0	0.0	49.1	38.7	74	54	-24.9	-15.3	H
															V
7.425	3.0	37.8	28.2	36.3	7.3	-36.2	0.0	0.0	45.2	35.6	74	54	-28.8	-18.4	V NF
7.425	3.0	42.5	28.0	36.3	7.3	-36.2	0.0	0.0	49.9	35.4	74	54	-24.1	-18.6	H NF
															V
9.901	3.0	44.4	33.3	38.0	8.7	-37.1	0.0	0.0	54.0	42.9	74	54	-20.0	-11.1	V
9.901	3.0	51.2	40.0	38.0	8.7	-37.1	0.0	0.0	60.8	49.6	74	54	-13.2	-4.4	H
															V
12.375	3.0	39.1	28.0	39.3	9.9	-35.4	0.0	0.0	52.8	41.8	74	54	-21.2	-12.2	V NF
12.375	3.0	41.8	30.6	39.3	9.9	-35.4	0.0	0.0	55.6	44.4	74	54	-18.4	-9.6	H
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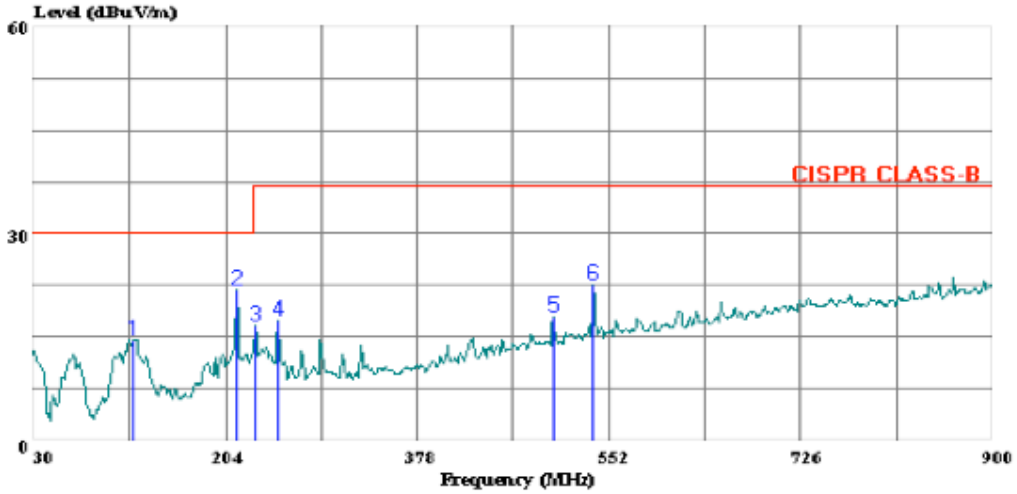
Rev. 10.15.08

f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

Radiated Emissions 30-1000 MHz

Compliance Certification Services
47173 Benicia Street
Fremont, CA 94538
Tel: (510) 771-1000
Fax: (510) 661-0888

Data#: 13 File#: 08U12292Chamber_Mono.EMI Date: 12-22-2008 Time: 12:38:50



Trace: 12 Ref Trace:

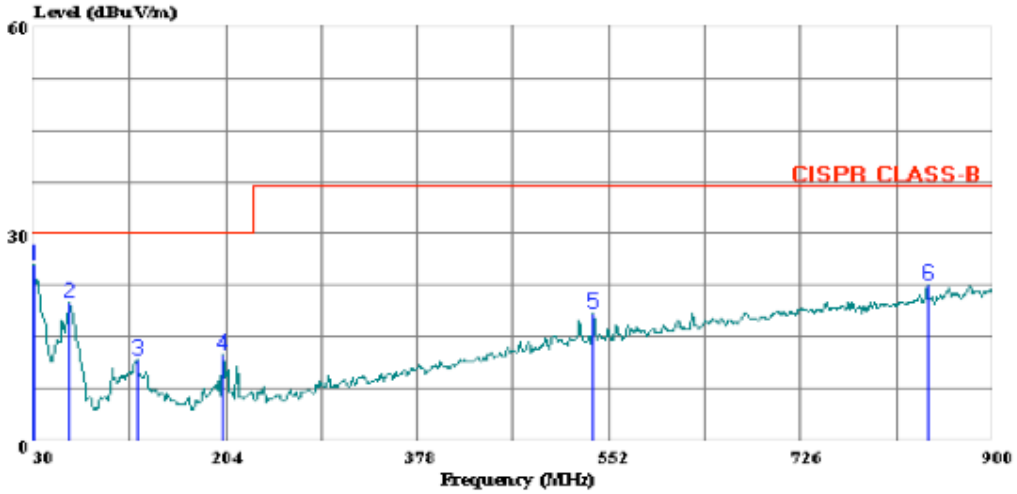
Condition: CISPR CLASS-B HORIZONTAL
Test Operator:: Doug Anderson
Project #: : 08U12292
Company: : Silver Spring Network
Model: : Mono
Configuration:: EUT and DC Power Supply
Mode : : 2.4GHz Tx
Target: : EN55022 Class B

Page: 1

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
1	120.480	27.36	-12.70	14.66	30.00	-15.34	Peak
2	214.440	34.99	-13.07	21.92	30.00	-8.08	Peak
3	231.840	29.69	-13.16	16.53	37.00	-20.47	Peak
4	250.980	30.60	-13.22	17.38	37.00	-19.62	Peak
5	501.540	22.62	-4.74	17.88	37.00	-19.12	Peak
6	538.080	26.72	-4.07	22.65	37.00	-14.35	Peak

Compliance Certification Services
47173 Benicia Street
Fremont, CA 94538
Tel: (510) 771-1000
Fax: (510) 661-0888

Data#: 15 File#: 08U12292Chamber_Mono.EMI Date: 12-22-2008 Time: 13:30:47



Trace: 14 Ref Trace:

Condition: CISPR CLASS-B VERTICAL
Test Operator:: Doug Anderson
Project #: : 08U12292
Company: : Silver Spring Network
Model: : Mono
Configuration:: EUT and DC Power Supply
Mode : : 2.4GHz Tx
Target: : EN55022 Class B

Page: 1

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
1	30.000	32.67	-7.11	25.56	30.00	-4.44	Peak
2	62.190	39.60	-19.71	19.89	30.00	-10.11	Peak
3	123.090	24.63	-13.05	11.58	30.00	-18.42	Peak
4	201.390	25.34	-12.98	12.36	30.00	-17.64	Peak
5	538.080	22.51	-4.07	18.44	37.00	-18.56	Peak
6	840.840	20.88	1.62	22.50	37.00	-14.50	Peak

FREQUENCY HOPPING SPREAD SPECTRUM RADIO EMISSIONS

TEST RESULTS

Radiated Test Set-up, 30 MHz-26 GHz

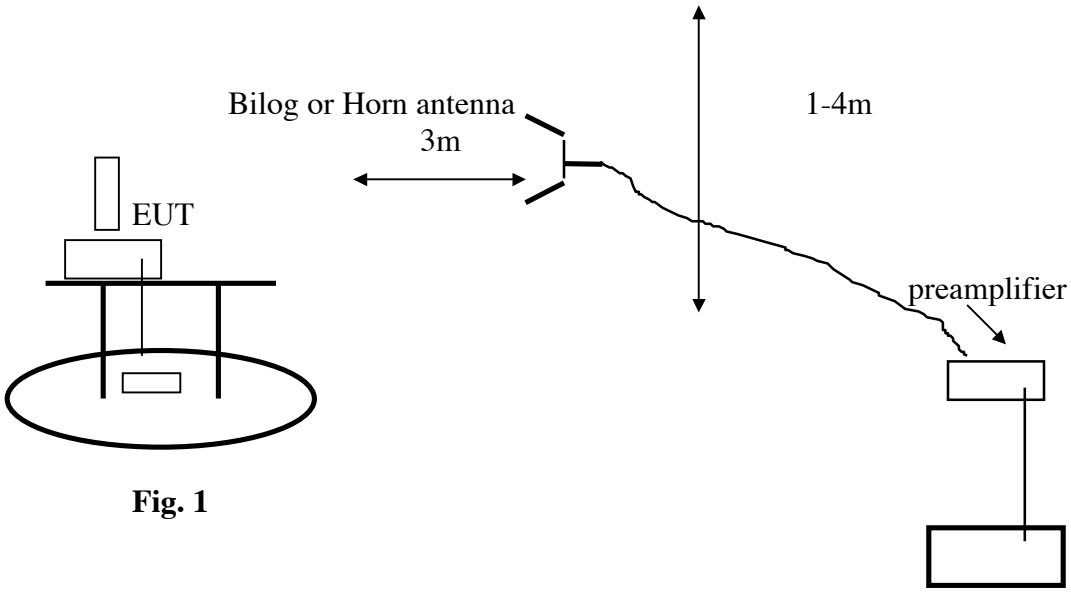


Fig. 1

Test Procedures

Radiated emissions generated by the transmitter portion of the EUT were measured.

1. The EUT was placed on a wooden table resting on a turntable on the test site.
The search antenna was placed 3m from the EUT. The EUT antenna was mounted in the with the EUT TX antenna pointed directly to the search antenna.
2. The turntable was slowly rotated to locate the direction of maximum emission at each emission falling in the restricted bands of 15.205.
3. Emissions were investigated to the 10^{th} harmonic of the fundamental.
4. Once maximum direction was determined, the search antenna was raised and lowered in both vertical and horizontal polarizations. The maximum readings so obtained are recorded in the data listed below.

EUT Channel and Power Settings

Channel	Frequency, MHz	Output Power, dBm	Test Software Setting
0 (LOW)	902.3 MHz	29.5	ATS112=20
42 (MID)	914.9 MHz	29.22	ATS112=20
82 (HI)	926.9 MHz	28.84	AST112=20

Power measurements taken with spectrum analyzer.

Detector: PEAK
RBW=1MHz, VBW=3MHz
Span: 10 MHz
Sweep: AUTO

Test Results: Worst-case results are presented. Refer to data sheets below. Restricted band emissions meet 54 dBuV/m. Other undesired emissions from the transmitter meet the -20 dBc requirement in 15.247(d).

15.205 Restricted Frequency Bands

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
0.495 - 0.505 (1)	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 -	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.52525	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	156.7 - 156.9	3260 - 3267	23.6 - 24.0
12.29 - 12.293	162.0125 - 167.17	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	167.72 - 173.2	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	240 - 285	3600 - 4400	
13.36 - 13.41	322 - 335.4		

15.209 General Field Strength Limits

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100 **	3
88 - 216	150 **	3
216 - 960	200 **	3
Above 960	500	3

Radiated Emissions Above 1 GHz

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Company: Silver Spring Networks
Project #:
Date: 12/22/2008
Test Engineer: Doug Anderson
Configuration:EUT (Mono 900MHz) / Host PC / 4.5VDC Power Supply
Mode: TX, Frequency Hopping

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz
T60; S/N: 2238 @3m	T144 Miteq 3008A00931		

Hi Frequency Cables

3' cable 22807700	12' cable 22807600	20' cable 22807500	HPF	Reject Filter
3' cable 22807700	12' cable 22807600	20' cable 22807500	HPF_1.5GHz	

Peak Measurements
RBW=VBW=1MHz
Average Measurements
RBW=1MHz ; VBW=10Hz

f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
Low-Channel: 0 (902.3MHz)															
1.805	3.0	53.1	48.6	28.5	3.3	-38.3	0.0	0.3	46.8	42.3	106.0	106.0	-59.2	-63.7	V
2.707	3.0	47.4	39.3	30.2	4.1	-37.4	0.0	0.6	44.8	36.8	74	54	-29.2	-17.2	V
1.805	3.0	51.3	45.2	28.5	3.3	-38.3	0.0	0.3	45.1	39.0	106.0	106.0	-60.9	-67.0	H
2.707	3.0	48.8	40.3	30.2	4.1	-37.4	0.0	0.6	46.3	37.7	74	54	-27.7	-16.3	H
Mid-Channel: 42 (914.95MHz)															
1.830	3.0	50.4	44.5	28.6	3.3	-38.3	0.0	0.3	44.4	38.4	106.0	106.0	-61.6	-67.6	V
2.745	3.0	46.2	35.4	30.3	4.1	-37.4	0.0	0.6	43.8	32.9	74	54	-30.2	-21.1	V
1.830	3.0	48.5	41.3	28.6	3.3	-38.3	0.0	0.3	42.4	35.2	106.0	106.0	-63.6	-70.8	H
2.745	3.0	45.1	32.2	30.3	4.1	-37.4	0.0	0.6	42.6	29.8	74	54	-31.4	-24.2	H
High-Channel: 82 (926.925MHz)															
1.854	3.0	57.4	46.1	28.7	3.3	-38.3	0.0	0.3	51.5	40.1	106.0	106.0	-54.5	-65.9	V
2.781	3.0	48.4	32.1	30.4	4.2	-37.4	0.0	0.6	46.1	29.8	74	54	-27.9	-24.2	V
1.854	3.0	53.4	40.1	28.7	3.3	-38.3	0.0	0.3	47.4	34.2	106.0	106.0	-58.6	-71.8	H
2.781	3.0	48.6	35.6	30.4	4.2	-37.4	0.0	0.6	46.2	33.2	74	54	-27.8	-20.8	H
8.342	3.0	46.1	37.3	37.7	7.8	-36.3	0.0	0.7	56.0	47.2	74	54	-18.0	-6.8	

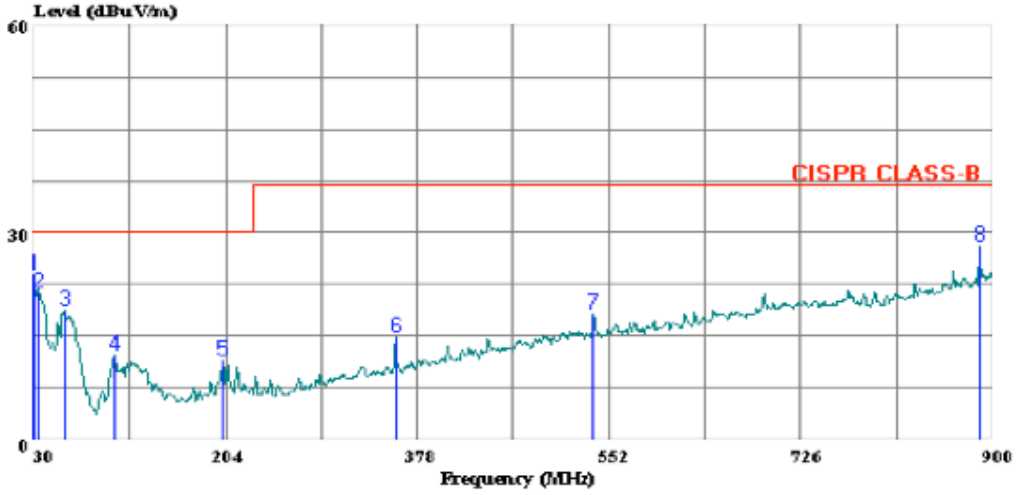
Rev. 10.15.08

f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

Radiated Emissions Below 1 GHZ

Compliance Certification Services
47173 Benicia Street
Fremont, CA 94538
Tel: (510) 771-1000
Fax: (510) 661-0888

Data#: 4 File#: 08U12292Chamber_Mono.EMI Date: 12-22-2008 Time: 11:24:17



Trace: 3 Ref Trace:

Condition: CISPR CLASS-B VERTICAL
Test Operator:: Doug Anderson
Project #: : 08U12292
Company: : Silver Spring Network
Model: : Mono
Configuration:: EUT and DC Power Supply
Mode : : Frequency Hopping Spread Spectrum
Target: : EN55022 Class B

Page: 1

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
1	30.000	30.98	-7.11	23.87	30.00	-6.13	Peak
2	34.350	30.77	-9.49	21.28	30.00	-8.72	Peak
3	57.840	38.44	-19.74	18.70	30.00	-11.30	Peak
4	103.080	28.46	-16.21	12.25	30.00	-17.75	Peak
5	201.390	24.36	-12.98	11.38	30.00	-18.62	Peak
6	357.990	24.32	-9.41	14.91	37.00	-22.09	Peak
7	538.080	22.30	-4.07	18.23	37.00	-18.77	Peak
8	888.690	25.50	2.64	28.14	37.00	-8.86	Peak

Compliance Certification Services
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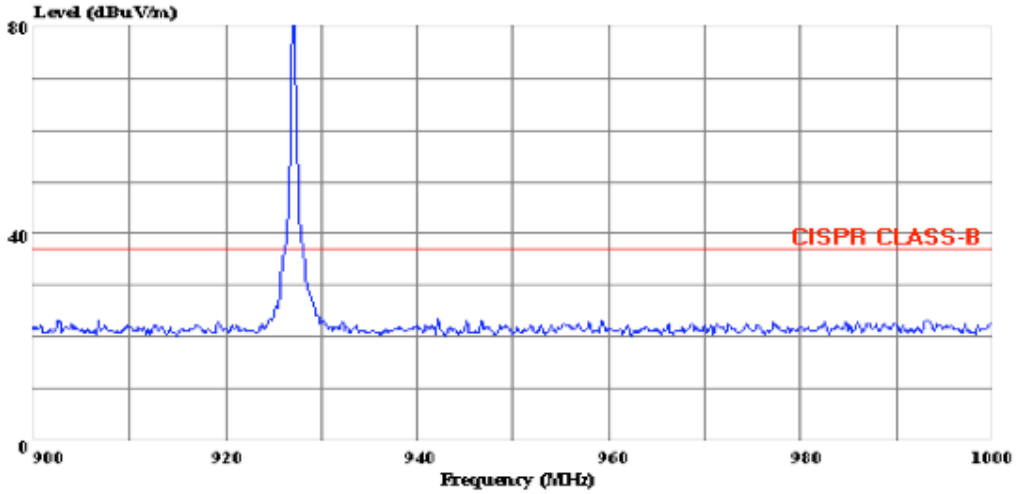
Fremont, CA 94538
Tel: (510) 771-1000
Fax: (510) 661-0888

Data#: 6 File#: 08U12292Chamber_Mono.EMI Date: 12-22-2008 Time: 11:33:11



Trace: Ref Trace:

Condition: CISPR CLASS-B VERTICAL
Test Operator:: Doug Anderson
Project #: : 08U12292
Company: : Silver Spring Network
Model: : Mono
Configuration:: EUT and DC Power Supply
Mode : : Frequency Hopping Spread Spectrum
Target: : EN55022 Class B

Compliance Certification Services
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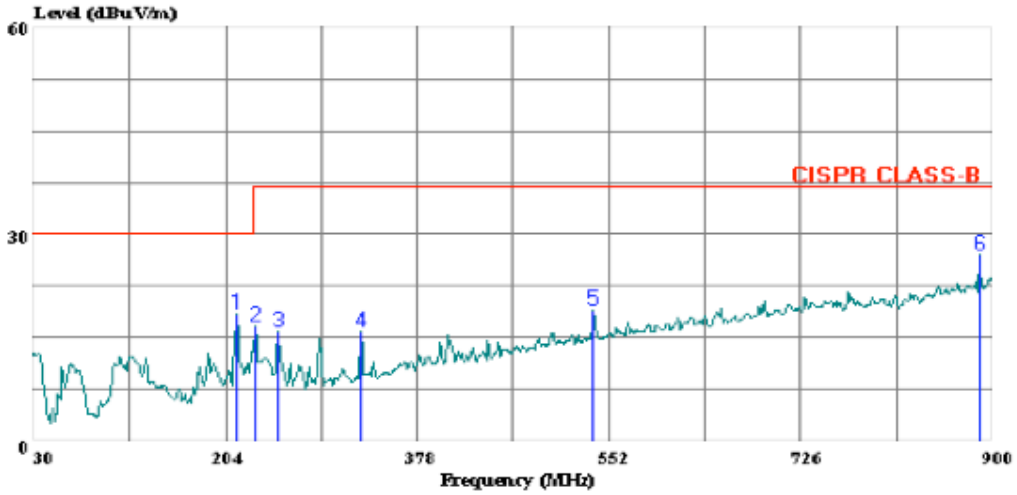
Tel: (510) 771-1000
Fax: (510) 661-0888

Data#: 11 File#: 08U12292Chamber_Mono.EMI Date: 12-22-2008 Time: 11:46:44



Trace: 10 Ref Trace:

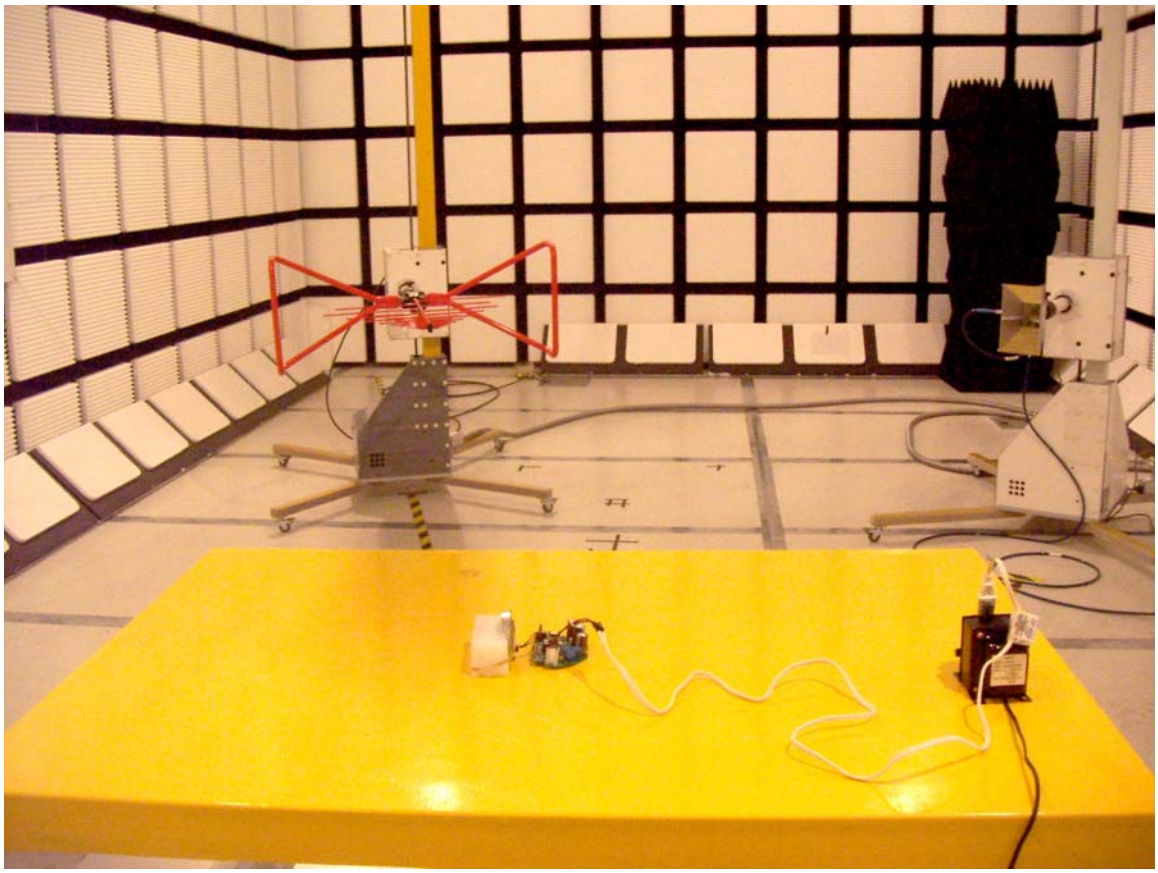
Condition: CISPR CLASS-B HORIZONTAL
Test Operator:: Doug Anderson
Project #: : 08U12292
Company: : Silver Spring Network
Model: : Mono
Configuration:: EUT and DC Power Supply
Mode : : Frequency Hopping Spread Spectrum
Target: : EN55022 Class B

Page: 1

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
1	214.440	31.47	-13.07	18.40	30.00	-11.60	Peak
2	231.840	29.76	-13.16	16.60	37.00	-20.40	Peak
3	250.980	29.11	-13.22	15.89	37.00	-21.11	Peak
4	327.540	26.15	-10.28	15.87	37.00	-21.13	Peak
5	538.080	23.08	-4.07	19.01	37.00	-17.99	Peak
6	888.690	24.32	2.64	26.96	37.00	-10.04	Peak

SETUP PHOTOS

RADIATED RF MEASUREMENT SETUP



END OF REPORT

Report Revision History

Revision No.	Revision Description	Pages Revised	Revised by	Date
-	Original Issue		T.Cokenias	1/30/09
1	Correct typo in equipment list Add power measurements data	5,15	T.Cokenias	2/5/09
2	Add 2.4 GHz HAN radio radiated data for channel 25	15	T.Cokenias	2/9/09
3	Add Ch 26 antenna port output power plot		T.Cokenias	3/6/09