Radio Intentional EMC Test Report: EDCS - 548081

For

CP-7921G 2.4GHz Radio

Against the following Specifications :

47 CFR 15.247

RSS-210

RSS-102

Cisco Systems

EMC Laboratory

170 West Tasman Drive

San Jose, CA 95134

ACCREDITED

Certificate Number : 1178-01

Author: Phillip Carranco
Approved By: Craig Mullis
Title: Regulatory Compliance Manager

This report replaces any previously entered test report under EDCS - 548081

This test report has been electronically authorized and archived using the CISCO Engineering Document Control system.

Section 1: Overview

Test Summary

The samples were assessed against the tests detailed in section 3 under the requirements of the following standards:

Emissions:
CFR47 Part 15.247
CFR47 Part 15.249
RSS-210
RSS102

Notes:

1) Measurements were made in accordance with FCC docket #:DA 02-2138, ET docket 96-8, KDB Publication No. 558074& measurement method of spurious emission tolerance to the International Telecommunication Union (ITU) Recommendation SM329.

Section 2: Assessment Information

2.1 General

This report must not be used to claim product certification, approval, or endorsement by A2LA, NIST, or any agency of the federal Government.

This report may contain data that is not enveloped by the scope of the A2LA accreditation (A2LA certificate number 1178-01). Please refer to Appendix C for further details.

With regard to this assessment, the following points should be noted:

a) The results contained in this report relate only to the items tested and were obtained in the period between the date of the initial assessment and the date of issue of the report. Manufactured products will not necessarily give identical results, due to production tolerances and measurement uncertainties.

b) The apparatus was set up and exercised using the configuration and modes of operation defined in this report only.

c) Where relevant, the apparatus was only assessed using the susceptibility criteria defined in this report and the Test Assessment Plan (TAP).

d) All testing was performed under the following environmental conditions:

Temperature	15°C to 35°C (54°F to 95°F)
Atmospheric Pressure	860mbar to 1060mbar (25.4" to 31.3")
Humidity	10% to 75*%

e) All AC testing was performed at one or more of the following supply voltages:
110V (+/-10%) 60Hz
220V (+/-10%) 50 or 60Hz

f) Cisco Systems, Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). The scope of accreditation, certificate number 1178-01 is referenced in appendix C, along with further details.

2.2 Start Date of Testing

21-Aug-2006

2.3 Report Issue Date

Cisco Systems, Inc. uses an electronic system to issue, store and control the revision of test reports. This system is called the Engineering Document Control System (EDCS). The actual report issue date is embedded into the original file on EDCS. Any copies of this report, either electronic or paper, that are not on EDCS must be considered uncontrolled

2.4 Testing facilities

This assessment was performed by:

Testing Laboratory

Cisco Systems, Inc.,
170 West Tasman Drive
San Jose, CA 95134,
USA

Registration Numbers for Industry Canada

Cisco System Site	Site Identifier
Building P, 10m Chamber	Company #: 4624-2
Building P, 5m Chamber	Company #: 4624-1
Building N, 5m Chamber	Company #: 6111
Building I, 5m Chamber	Company #: 6112

Test Engineers

Jose Aguirre, Phillip Carranco

2.5 Equipment Assessed (EUT)

CP-7921G (FCC 2.4GHz)

2.6 EUT Description

The CP-7921G will develop the next generation 802.11 wireless IP phone that will provide greater network capacity by incorporating 802.11a/b/g, smaller form factor, color active matrix display, increased battery life and enhanced durability as compared.

2.7 Scope of Assessment

Tests have been performed in accordance with the relevant Test and Assessment Plan (TAP), a copy of which is contained in Appendix F of this report, and the relevant Cisco Systems, Inc. radio test procedures (EDCS-420238). This test report may not cover all of the tests highlighted in the test plan.

2.8 Units of Measurement

The units of measurements defined in the appendices are reported in specific terms, which are test dependent. Where radiated measurements are concerned these are defined at a particular distance. Basic voltage measurements are defined in units of [dBuV]

As an example, the basic calculation for all measurements is as follows:

Emission level [dBuV] = Indicated voltage level [dBuV] + Cable Loss [dB] + Other correction factors [dB]

The combinations of correction factors are dependent upon the exact test configurations [see test equipment lists for further details] and may include:-

Antenna Factors, Pre Amplifier Gain, LISN Loss, Pulse Limiter Loss and Filter Insertion Loss..

Note: to convert the results from dBuV/m to uV/m use the following formula:-

Level in uV/m = Common Antilogarithm [(X dBuV/m)/20] = Y uV/m

2.9 Report Template Control No.

Revision: SJRIA 2.0

Section 3: Result Summary

3.1 Results Summary Table

Conducted emissions

Basic Standard	Test Details / Comments	Result
Power Spectral Density	15.247: For digitally modulated systems, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. *(RSS-210 A8.2)*	Pass
Peak Output Power	15.247: The maximum conducted output power of the intentional radiator for systems using digital modulation in the 2400-2483.5MHz band shall not exceed 1 Watt (30dBm). If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. (*RSS-210 A8.4)*	Pass
6dB Bandwidth	15.247: Systems using digital modulation techniques may operate in the 5725-5850MHz band. The minimum 6 dB bandwidth shall be at least 500 kHz. *(RSS-210 A8.2)*	Pass
Conducted Spurious Emissions	15.247: In any 100 kHz bandwidth outside the frequency band in which the digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.(*RSS-210 A8.5)*	Pass

Radiated emissions

Basic Standard	Test Details / Comments	Result
Radiated Spurious and Harmonic Emissions	Radiated emissions which fall in the restricted bands, as defined in Sec. 15.205(a), must also comply with the radiated emission limits specified in Sec. 15.209(a). (*RSS-210 Sec2.7)*	Pass
Restricted Bandedge Measurements	Radiated emissions which fall in the restricted bands, as defined in Sec. 15.205(a), must also comply with the radiated emission limits specified in Sec. 15.209(a). (*RSS-210 Sec2.7)*	Pass

* SAR measurements to reported in separate report

Section 4: Sample Details

Note: Each sample was evaluated to ensure that its condition was suitable to be used as a test sample prior to the commencement of testing. Please also refer to the “Justification for worst Case test Configuration” section of this report for further details on the selection of EUT samples.

4.1 Sample Details

Sample Number	Equipment Details	Serial Number	Part Number
S01	cp7921g	IAC102900AD	cp7921g
S02	Laptop computer	60739762u	Tecra 8100

The following antennas were evaluated as part of this testing process. The antennas listed reflect the maximum gain allowed for each family type of antenna:

Fixed internal Antenna, Gain = 2.5dBi (no external antenna can be used.)

4.2 System Details

System #	Description	Samples
1	CP7921G Radio	S01
2	Support	S02

4.3 Mode of Operation Details

Mode#	Description	Comments
1	802.11B/G	FCC Continuous at 1Mbps (802.11B) & 6mbps (802.11G)

Section 5: Modifications

5.1 Sample Modifications Performed During Assessment

No modifications were performed during assessment.

Appendix A: Formal Test Results

6 dB Bandwidth

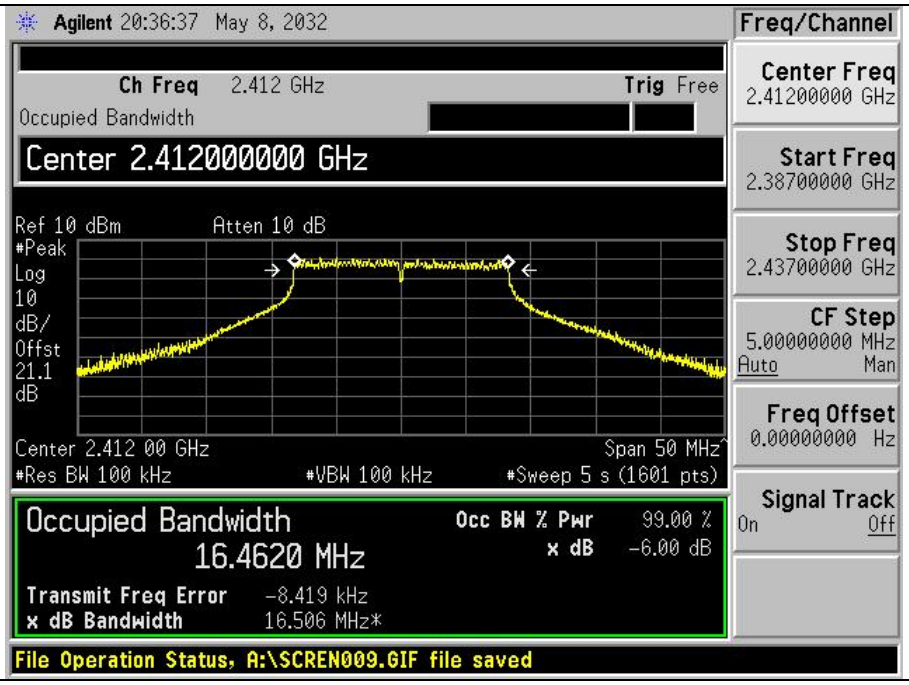
15.247 & RSS-210 A8.2:

Systems using digital modulation techniques may operate in the 5725-5850MHz band. The minimum 6 dB bandwidth shall be at least 500 kHz

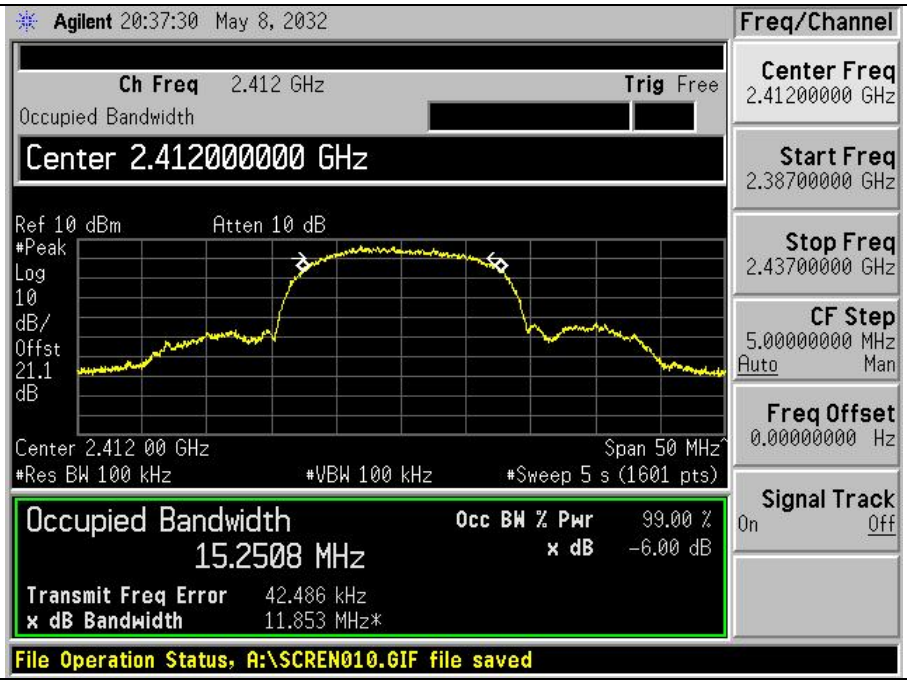
Frequency (MHz)	Data Rate (Mbps)	6dB Bandwidth (kHz)	Limit (kHz)	Margin (kHz)
2412	1	11853	500	-11353
2437	1	11850	500	-11350
2462	1	11924	500	-11424
2412	6	16506	500	-16006
2437	6	16510	500	-16010
2462	6	16532	500	-16032

Frequency (MHz)	Data Rate (Mbps)	99% Bandwidth (kHz)
2412	1	15251
2437	1	15256
2462	1	15281
2412	6	16462
2437	6	16467
2462	6	16488

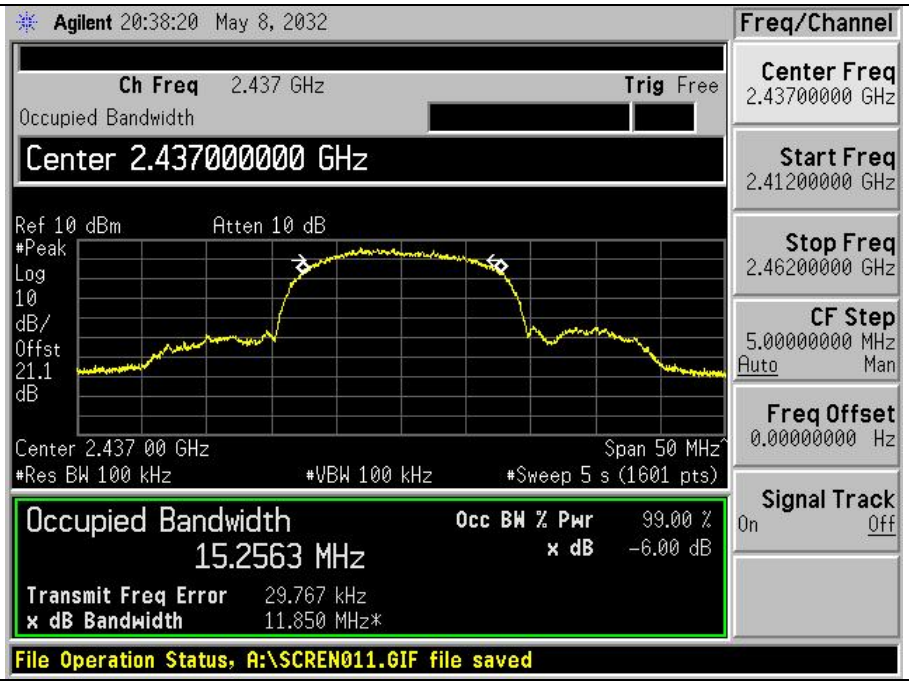
Graphical Test Results



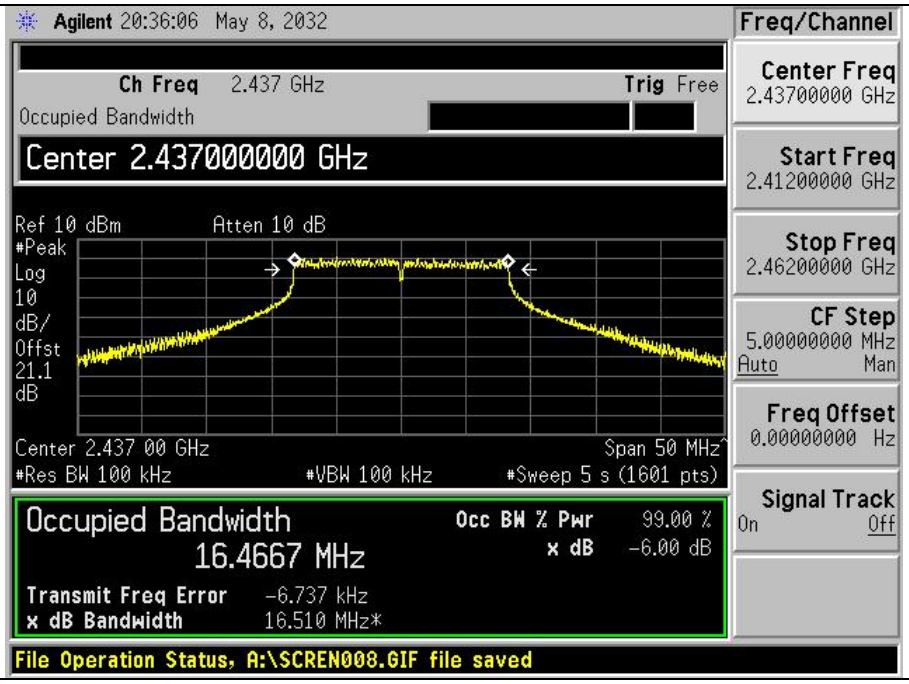
Title: 6dB Bandwidth 2412MHz, 6Mbps



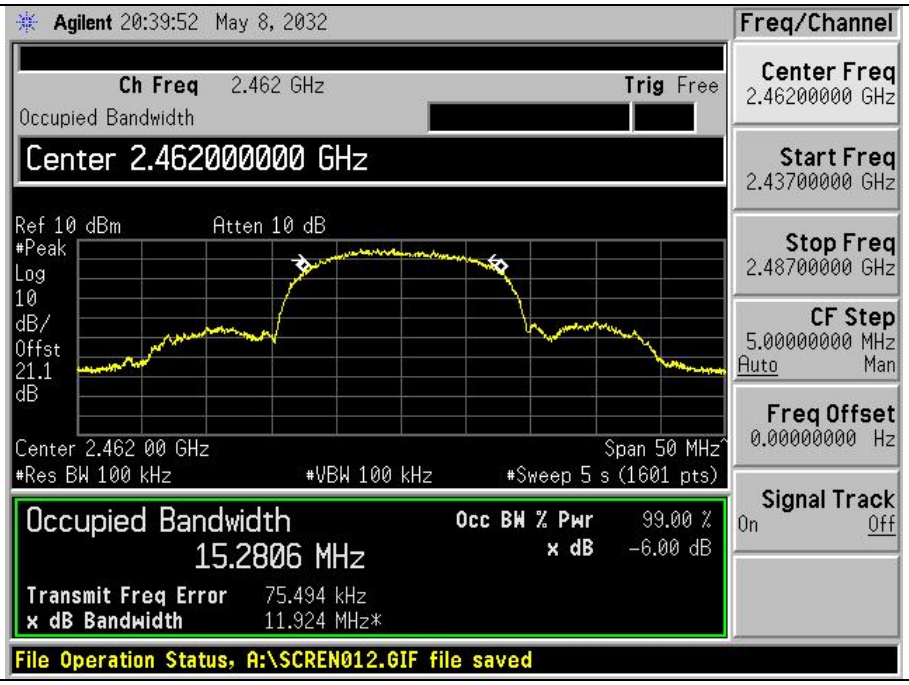
Title: 6dB Bandwidth 2412MHz , 1Mbps



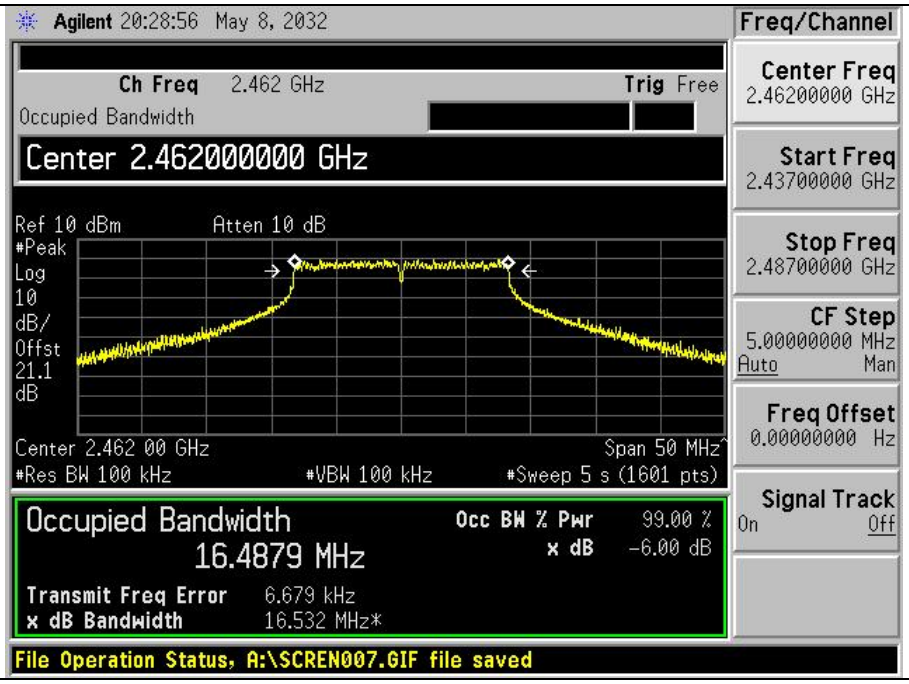
Title: 6dB Bandwidth 2437MHz, 1Mbps



Title: 6dB Bandwidth 2437MHz, 6Mbps



Title: 6dB Bandwidth 2462MHz, 1Mbps



Title: 6dB Bandwidth 2462MHz, 6Mbps

Peak Output Power

15.247 & RSS-210 A8.4:

The maximum conducted output power of the intentional radiator for systems using digital modulation in the 2400-2483.5MHz band shall not exceed 1 Watt (30dBm). If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Frequency (MHz)	Data Rate (Mbps)	Peak Output Power (dBm)	Limit (dBm)	Margin (dB)
2412	1	18.80	30	-11.20
2437	1	19.16	30	-10.84
2462	1	18.25	30	-11.75
2412	6	19.50	30	-10.50
2437	6	22.60	30	-7.40
2462	6	18.25	30	-11.75

Measurement procedure as per KDB Publication No. 558074 power output option 1, peak power meter.

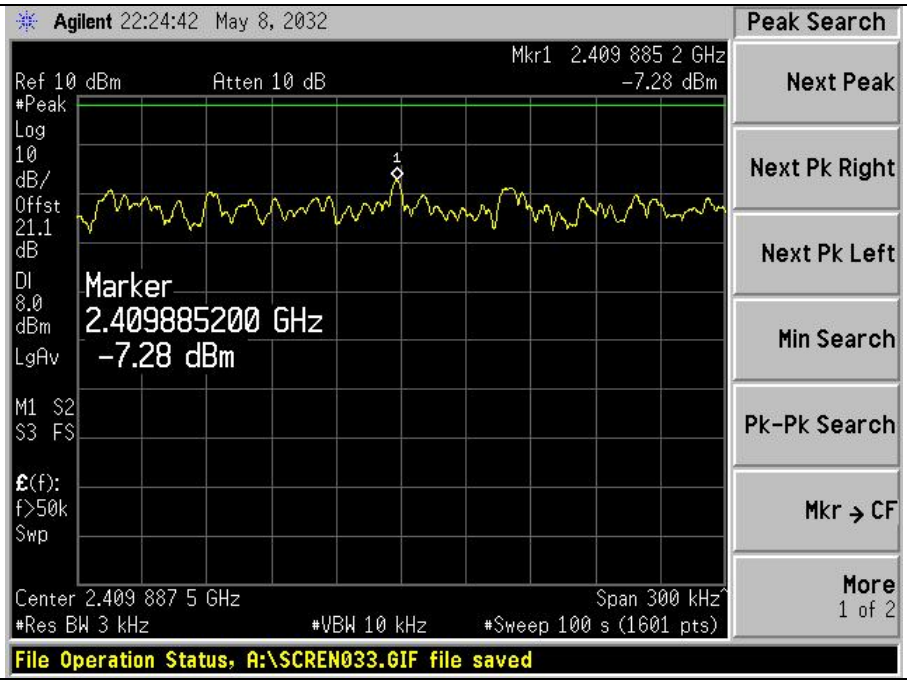
Power Spectral Density

15.247 & RSS-210 A8.2:

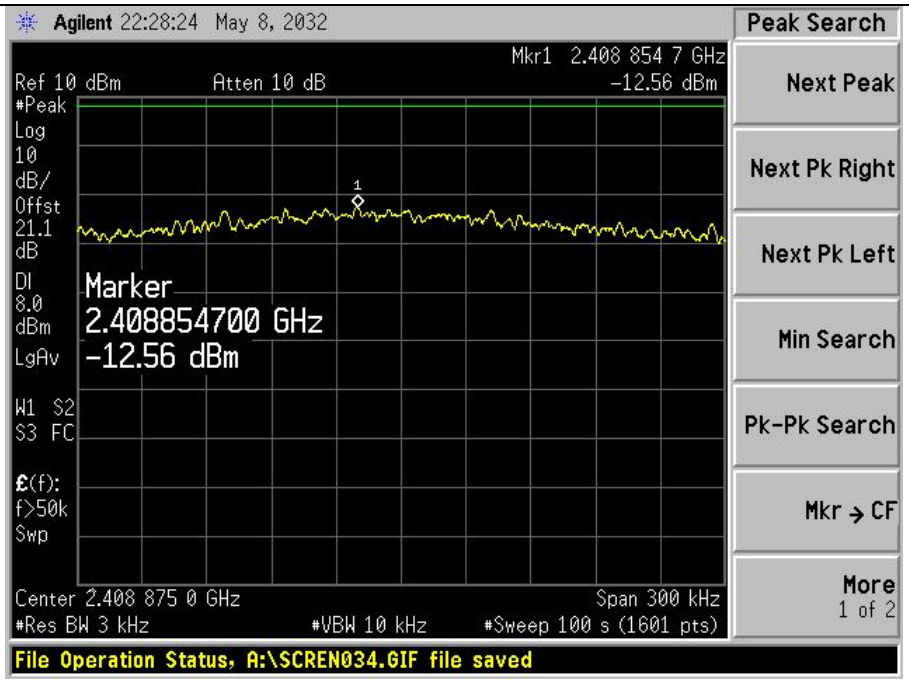
For digitally modulated systems, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission

Frequency (MHz)	Data Rate (Mbps)	Peak Power Spectral Density (dBm/3kHz)	Limit (dBm)	Margin (dB)
2412	1	-7.28	8	-15.28
2437	1	-7.97	8	-15.97
2462	1	-7.85	8	-15.85
2412	6	-12.56	8	-20.56
2437	6	-8.98	8	-16.98
2462	6	-12.42	8	-20.42

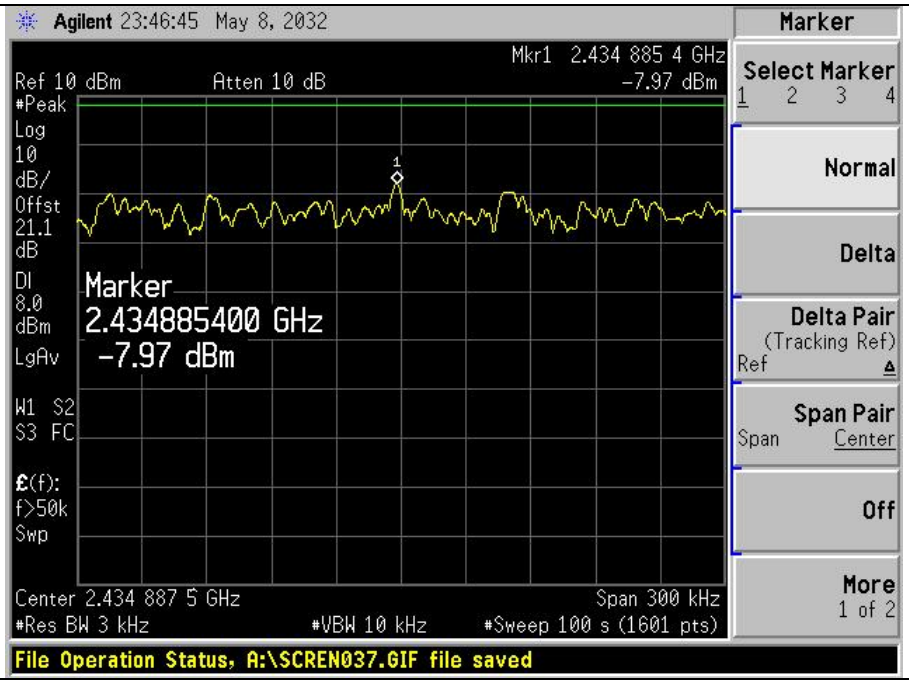
Graphical Test Results



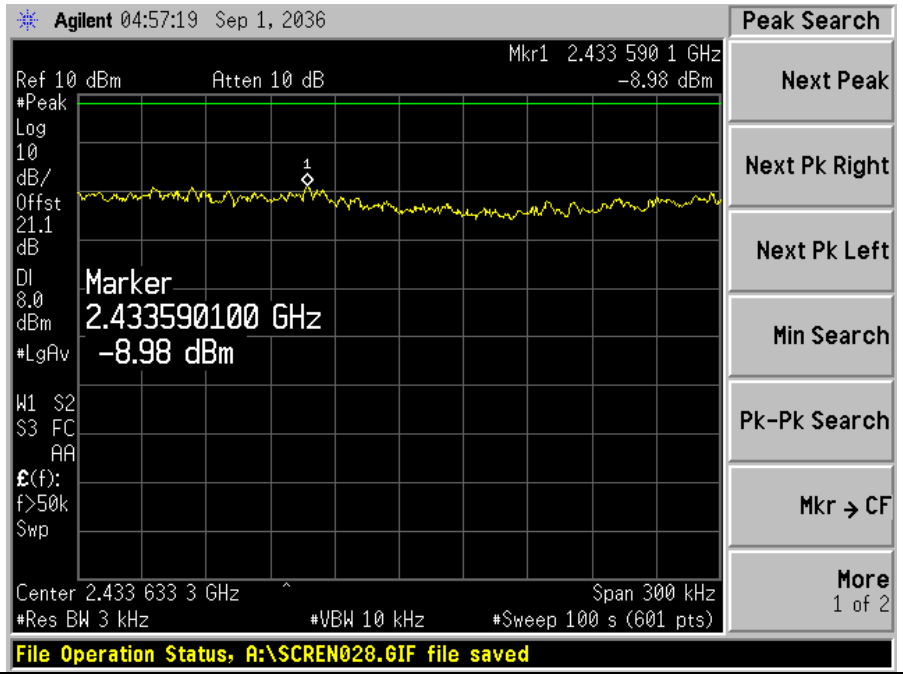
Title: **Power Spectral Density, 2412 MHz, 1 Mbps**



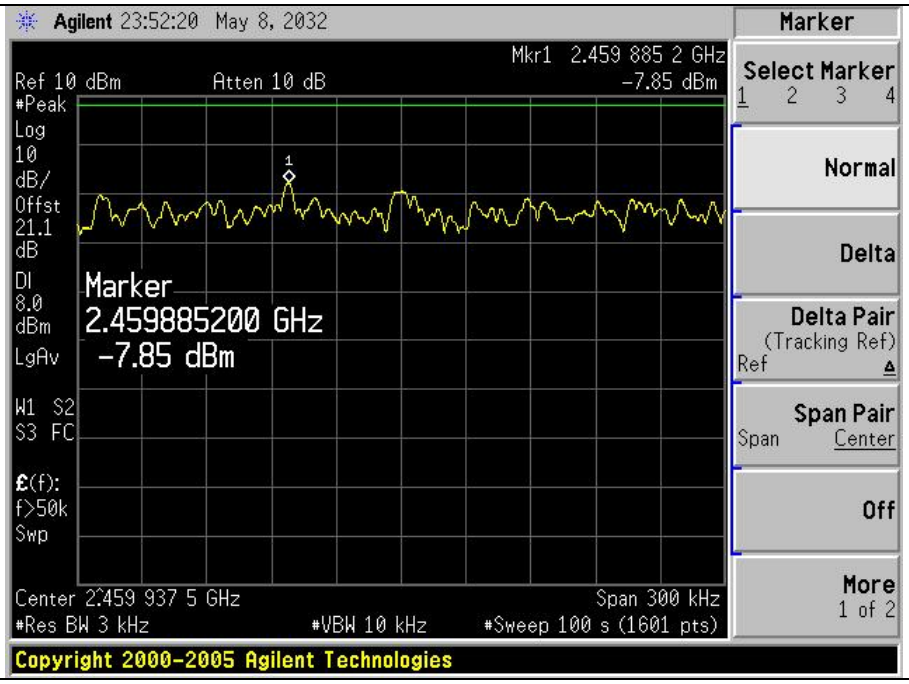
Title: **Power Spectral Density, 2412 MHz, 6 Mbps**



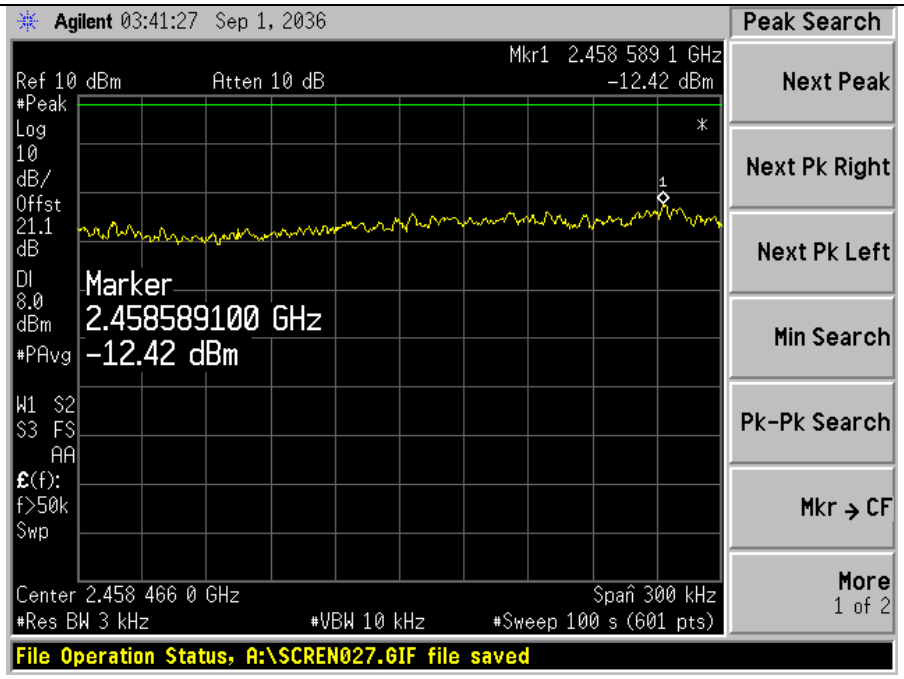
Title: **Power Spectral Density, 2437 MHz, 1 Mbps**



Title: **Power Spectral Density, 2437 MHz, 6 Mbps**



Title: **Power Spectral Density, 2462 MHz, 1 Mbps**



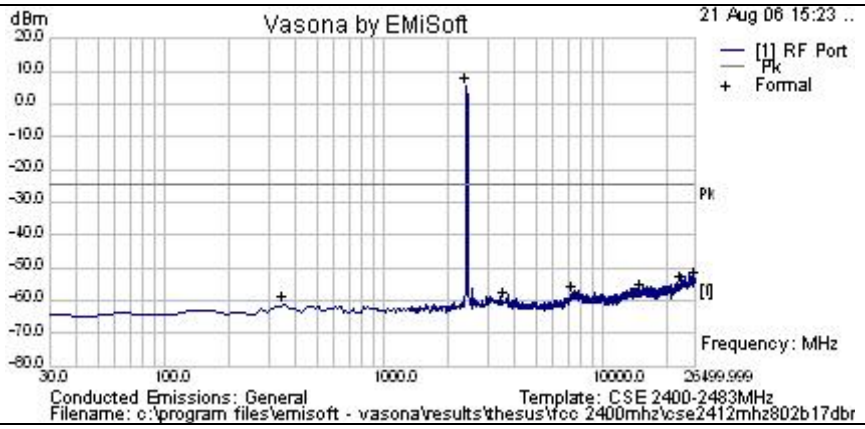
Title: **Power Spectral Density, 2462 MHz, 6 Mbps**

Conducted Spurious emissions

15.247 & RSS-210 A8.5:

In any 100 kHz bandwidth outside the frequency band in which the digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

Graphical Test Results



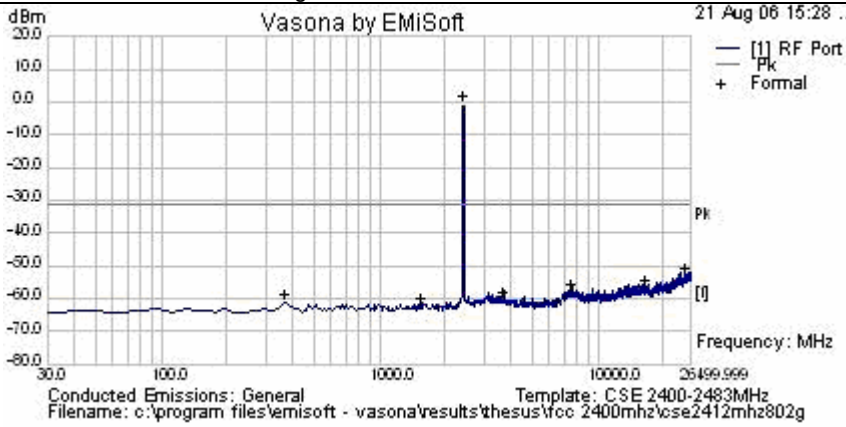
Title: 2412MHz 1Mbps, 17dBm

Test Results Table

Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
26499.999	-76	1.7	20.4	-54	Peak(Scan)	RF	-24.6	-29.3	Pass	
22981.44	-76.5	1	20.2	-55.3	Peak(Scan)	RF	-24.6	-30.6	Pass	
15039.883	-78.6	0.8	20	-57.8	Peak(Scan)	RF	-24.6	-33.2	Pass	
7352.386	-78.8	0.5	19.8	-58.5	Peak(Scan)	RF	-24.6	-33.8	Pass	
3582.111	-80.7	0.4	19.8	-60.6	Peak(Scan)	RF	-24.6	-35.9	Pass	
350.826	-81.7	0.1	19.7	-61.8	Peak(Scan)	RF	-24.6	-37.2	Pass	

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



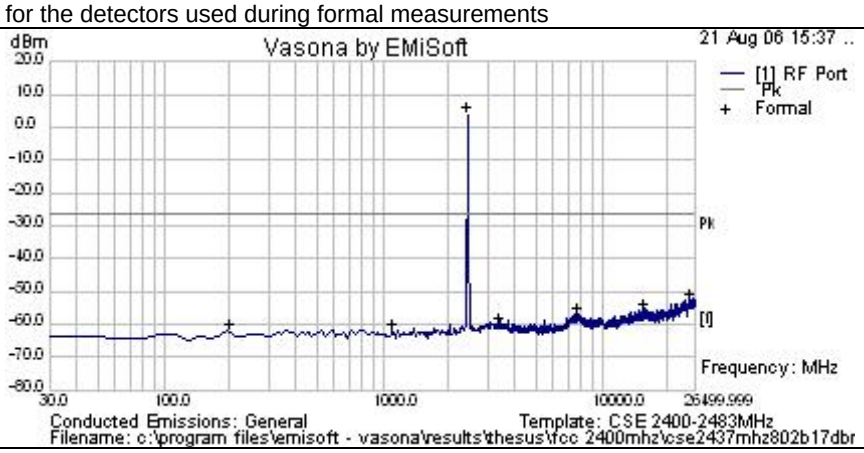
Title: 2412MHz , 6Mbps 16dBm

Test Results Table

Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
25529.492	-75.4	1.2	20.3	-53.8	Peak(Scan)	RF	-31.2	-22.7	Pass	
16764.185	-78.5	0.9	20.1	-57.5	Peak(Scan)	RF	-31.2	-26.3	Pass	
7657.818	-78.6	0.5	19.8	-58.3	Peak(Scan)	RF	-31.2	-27.1	Pass	
3730.919	-81.1	0.4	19.8	-60.9	Peak(Scan)	RF	-31.2	-29.8	Pass	
1571.032	-82.7	0.2	19.8	-62.7	Peak(Scan)	RF	-31.2	-31.5	Pass	
372.912	-81.2	0.1	19.7	-61.3	Peak(Scan)	RF	-31.2	-30.2	Pass	

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



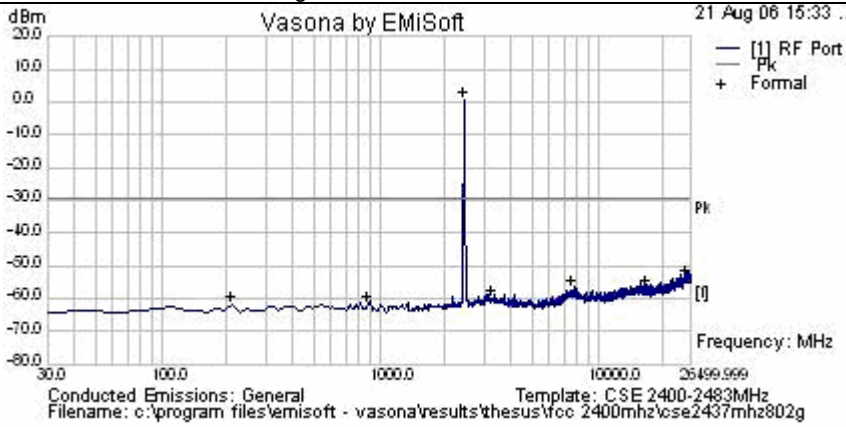
Title: 2437MHz 802.11B 17dBm

Test Results Table

Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
25529.492	-74.9	1.2	20.3	-53.4	Peak(Scan)	RF	-26.4	-27	Pass	
15717.891	-77.3	0.8	20	-56.5	Peak(Scan)	RF	-26.4	-30.1	Pass	
7815.26	-78.4	0.6	19.8	-57.9	Peak(Scan)	RF	-26.4	-31.6	Pass	
3427.593	-81.2	0.3	19.8	-61.1	Peak(Scan)	RF	-26.4	-34.8	Pass	
1119.125	-82.7	0.2	19.8	-62.8	Peak(Scan)	RF	-26.4	-36.4	Pass	
202.514	-82.4	0.1	19.7	-62.6	Peak(Scan)	RF	-26.4	-36.3	Pass	

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



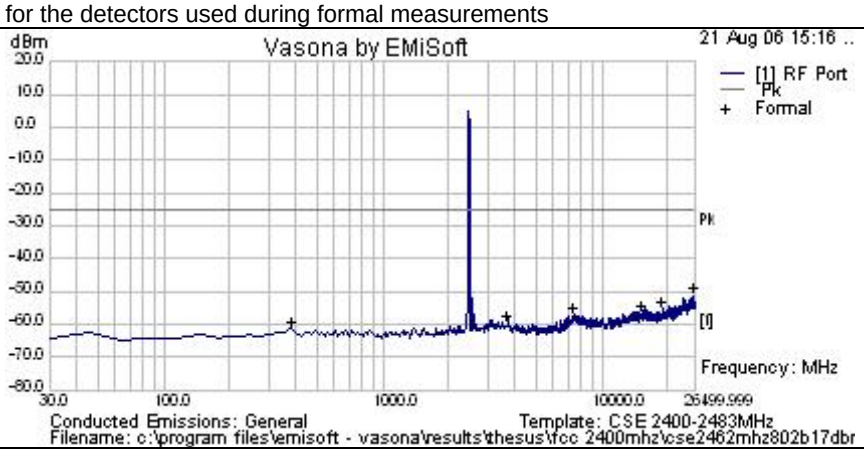
Title: 2437MHz 802.11G , 6Mbps

Test Results Table

Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
25529.492	-75.4	1.2	20.3	-53.9	Peak(Scan)	RF	-29.7	-24.3	Pass	
16764.185	-78.3	0.9	20.1	-57.3	Peak(Scan)	RF	-29.7	-27.6	Pass	
7657.818	-77.8	0.5	19.8	-57.5	Peak(Scan)	RF	-29.7	-27.8	Pass	
3290.884	-80.6	0.3	19.8	-60.4	Peak(Scan)	RF	-29.7	-30.8	Pass	
888.609	-81.9	0.2	19.8	-61.9	Peak(Scan)	RF	-29.7	-32.3	Pass	
210.927	-82	0.1	19.7	-62.2	Peak(Scan)	RF	-29.7	-32.5	Pass	

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



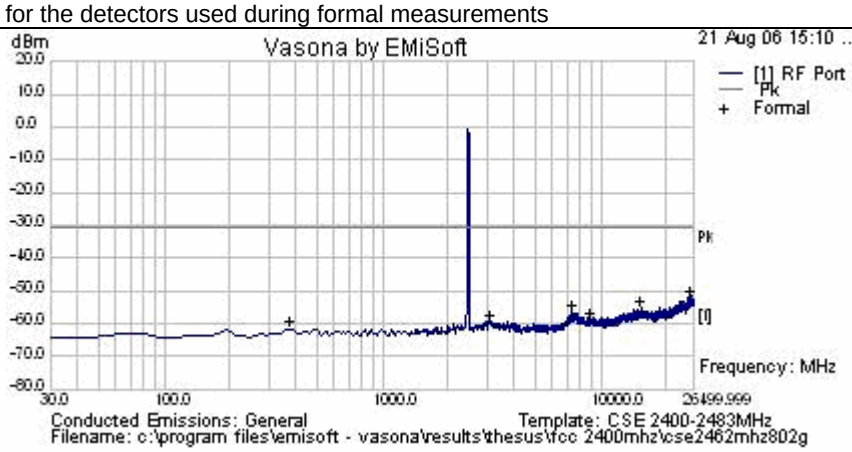
Title: 2462MHz , 1Mbps, 17dBm

Test Results Table

Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
26337.92	-73.6	1.2	20.4	-52	Peak(Scan)	RF	-25.2	-26.8	Pass	
19024.951	-77.1	1.2	20.1	-55.8	Peak(Scan)	RF	-25.2	-30.6	Pass	
15430.285	-78.1	0.8	20	-57.3	Peak(Scan)	RF	-25.2	-32.1	Pass	
7503.548	-78.1	0.6	19.8	-57.7	Peak(Scan)	RF	-25.2	-32.5	Pass	
3730.919	-80.5	0.4	19.8	-60.4	Peak(Scan)	RF	-25.2	-35.2	Pass	
389.723	-81.7	0.1	19.7	-61.8	Peak(Scan)	RF	-25.2	-36.6	Pass	

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements

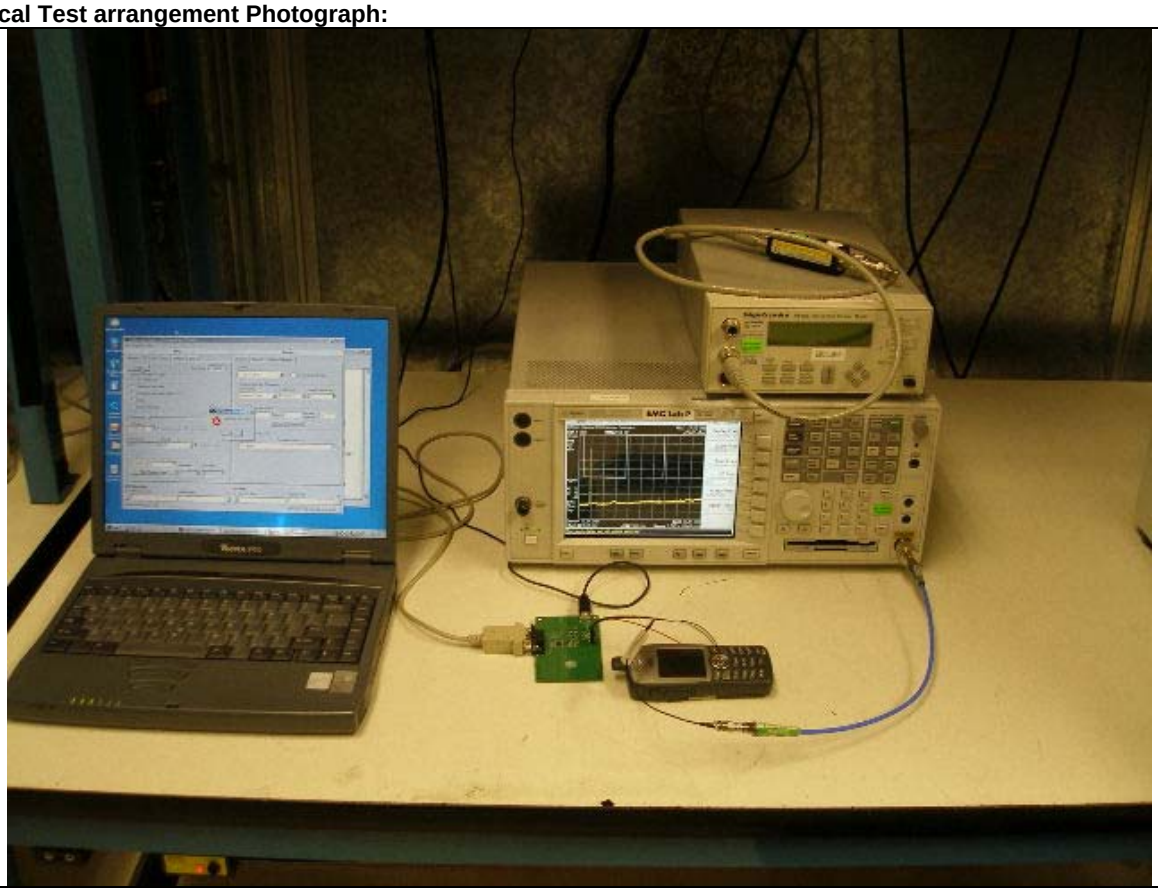


Title: 2462MHz 802.11G , 6Mbps

Test Results Table

Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
2463.26	-20.2	0.3	19.8	-0.2	Peak(Scan)	RF	-30.6	30.5	Fail	
25980.87	-74.8	1.5	20.3	-53	Peak(Scan)	RF	-30.6	-22.4	Pass	
15348.023	-77	0.8	20	-56.2	Peak(Scan)	RF	-30.6	-25.6	Pass	
7404.063	-77.4	0.5	19.8	-57.1	Peak(Scan)	RF	-30.6	-26.4	Pass	
9073.152	-79.9	0.6	19.9	-59.5	Peak(Scan)	RF	-30.6	-28.9	Pass	
3148.928	-80.3	0.3	19.8	-60.2	Peak(Scan)	RF	-30.6	-29.5	Pass	
381.872	-81.7	0.1	19.7	-61.9	Peak(Scan)	RF	-30.6	-31.2	Pass	

Physical Test arrangement Photograph:



Title: setup test Bench

Comments on the above Photograph:

No further comments

Radiated Spurious and Harmonics Emissions

15.205 & RSS-210 sec2.7:

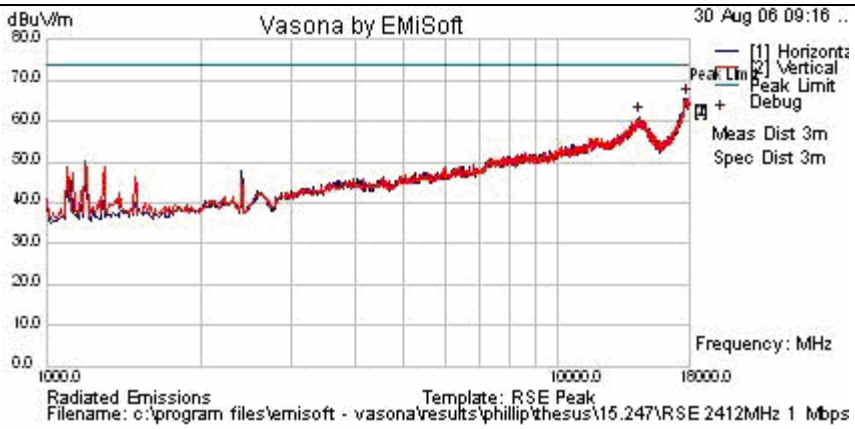
Radiated emissions which fall in the restricted bands, as defined in Sec. 15.205(a), must also comply with the radiated emission limits specified in Sec. 15.209(a).

Test Number: 23078 **Spec ID:** 647				
Basic Standard	**Applied to**	**Class**	**Freq Range**	**Test Details / Comments**
Radiated Spurious Emissions	Enclosure	B	30MHz-1.0GHz	Radiated emissions which fall in the restricted bands, as defined in Sec. 15.205(a), must also comply with the radiated emission limits specified in Sec. 15.209(a).
Operating Mode	**Mode :** 1, 802.11B/G			
Power Input	3.7v (+/-10%), DC			
Overall Result	Pass			
Comments	No further comments			
Deviation	There were no deviations from the specification			

System Number	**Description**	**Samples**	**System under test**	**Support equipment**
1	CP7921G Radio	S01	☑	☐
2	Support	S02	☐	☑

Subtest Number: 23078 - 1	**Subtest Date:** 31-Aug-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11B RSE Peak (2412MHz)
Subtest Result	Pass
Highest Frequency	18000.0
Lowest Frequency	1000.0
Comments on the above Test Results	1MHz RBW, 1MHz VBW

Graphical Test Results
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Title: RSE 2412MHz 1Mbps Peak

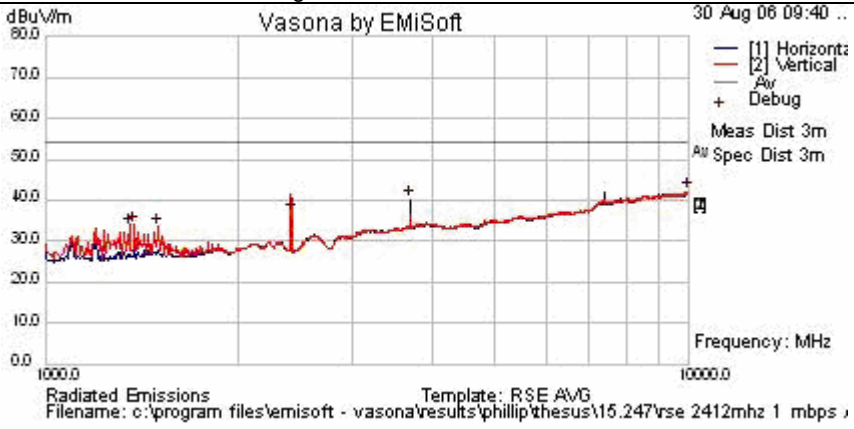
Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17809.108	41.7	12.7	11.3	65.7	Peak(Scan)	V	200	0	74	-8.3	Pass	noise floor
14426.076	42.5	11.5	7.1	61.1	Peak(Scan)	V	200	0	74	-12.9	Pass	noise floor
2409.171	50	4.1	-7.2	46.9	Peak(Scan)	H	100	-3	74	-27.1	Pass	
1296.264	56.4	2.9	-10.6	48.7	Peak(Scan)	H	100	-3	74	-25.3	Pass	
1495.748	52.2	3.2	-10.4	45	Peak(Scan)	H	100	-3	74	-29	Pass	
1201.562	55.8	2.9	-10.9	47.8	Peak(Scan)	H	100	-3	74	-26.2	Pass	
1099.522	55.8	2.7	-11.5	47	Peak(Scan)	H	100	-3	74	-27	Pass	

Subtest Number: 23078 - 2	**Subtest Date:** 31-Aug-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11B RSE Average 1-10GHz (2412MHz)
Subtest Result	Pass
Highest Frequency	10000.0
Lowest Frequency	1000.0
Comments on the above Test Results	1MHz RBW, 10Hz VBW

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Title: rse 2412mhz 1mbps AVG 1-10G

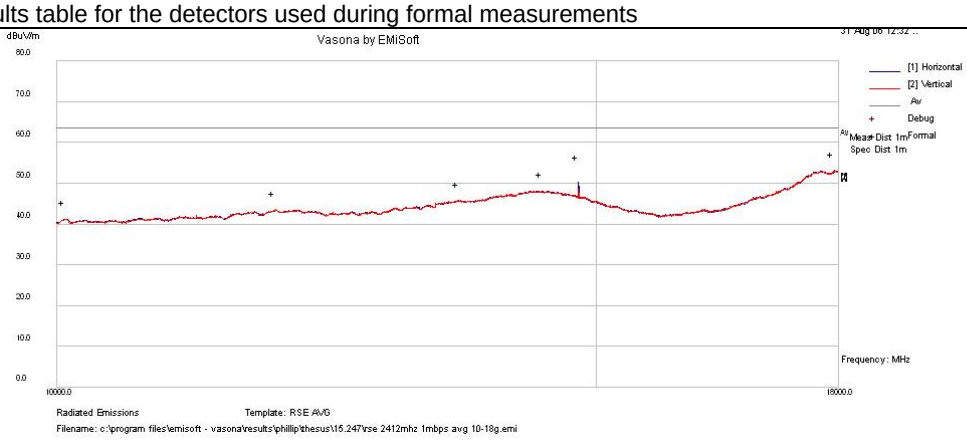
Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
3702.050	38.57	5.10	-3.61	40.07	Avg	V	149	162.0	54	-13.93	Pass	
2411.100	39.80	4.10	-7.20	36.70	Avg	V	120	166.0	54	-17.3	Pass	
1376.096	41.40	3.00	-10.50	33.87	Avg	H	120	166.0	54	-20.10	Pass	
1499.689	40.80	3.20	-10.30	33.61	Avg	H	120	166.0	54	-20.40	Pass	
1354.246	40.80	3.00	-10.40	33.35	Avg	H	120	166.0	54	-20.70	Pass	

Subtest Number: 23078 - 3	**Subtest Date:** 31-Aug-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11B RSE Average 10-18GHz (2412MHz)
Subtest Result	Pass
Highest Frequency	18000.0
Lowest Frequency	10000.0
Comments on the above Test Results	RBW = 1MHz, VBW= 10Hz

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Title: rse 2412mhz 1mbps avg 10-18g

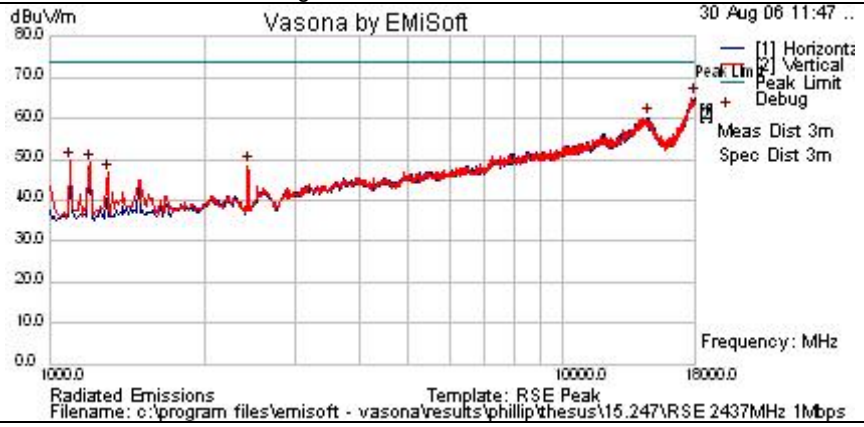
Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17945.103	29.1	12.8	11.2	53.1	Av	V	100	0	63.5	-10.4	Pass	Noise Floor
14807.99	35.2	11.3	5.7	52.2	Av	H	100	147	63.5	-11.3	Pass	
14407.705	29.4	11.6	7.1	48.1	Av	H	100	0	63.5	-15.4	Pass	Noise Floor
13529.815	28.5	10.4	6.8	45.7	Av	H	100	0	63.5	-17.8	Pass	Noise Floor
11787.566	30	9.4	4	43.5	Av	V	100	0	63.5	-20	Pass	
10065.014	30.7	8.8	1.7	41.2	Av	V	100	0	63.5	-22.3	Pass	

Subtest Number: 23078 - 4	**Subtest Date:** 31-Aug-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11B RSE Peak (2437MHz)
Subtest Result	Pass
Highest Frequency	18000.0
Lowest Frequency	1000.0
Comments on the above Test Results	RBW = 1MHz, VBW= 1MHz

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



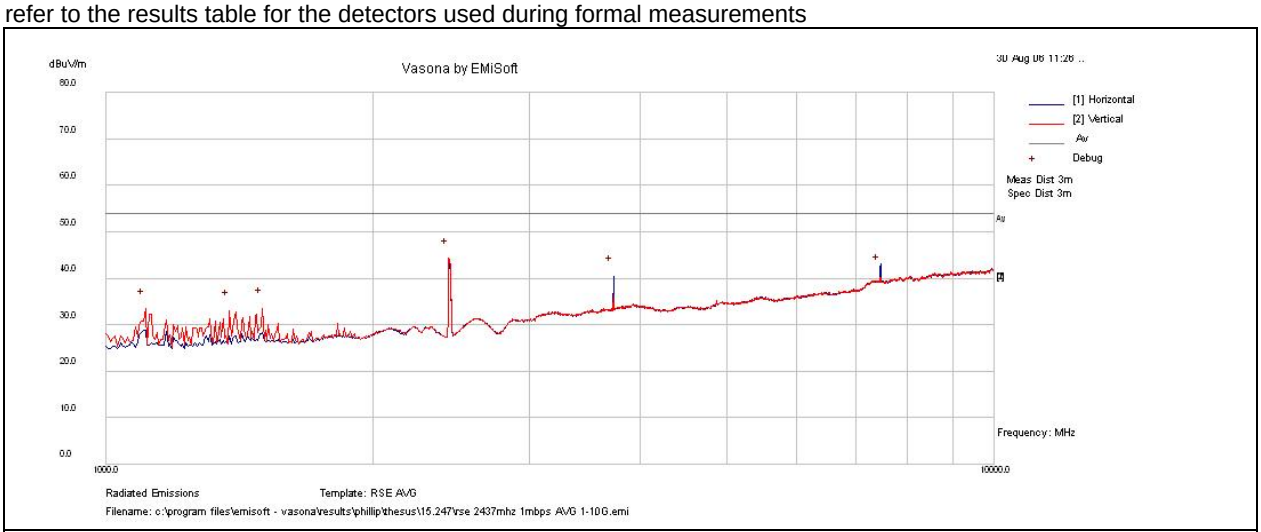
Title: RSE 2437MHz 1Mbps Peak

Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17968.185	41	12.8	11.3	65.1	Peak(Scan)	H	100	0	74	-8.9	Pass	noise floor
14606.363	42	11.5	6.8	60.2	Peak(Scan)	H	200	0	74	-13.8	Pass	noise floor
1095.65	58.3	2.7	-11.5	49.4	Peak(Scan)	V	98	-3	74	-24.6	Pass	
1200.357	57	2.9	-10.9	49	Peak(Scan)	V	98	-3	74	-25	Pass	
1297.145	54.2	2.9	-10.6	46.6	Peak(Scan)	V	98	-3	74	-27.4	Pass	

Subtest Number: 23078 - 5	**Subtest Date:** 31-Aug-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11B RSE Average 1-10GHz (2437MHz)
Subtest Result	Pass
Highest Frequency	10000.0
Lowest Frequency	1000.0
Comments on the above Test Results	RBW = 1MHz, VBW= 10Hz

Graphical Test Results
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



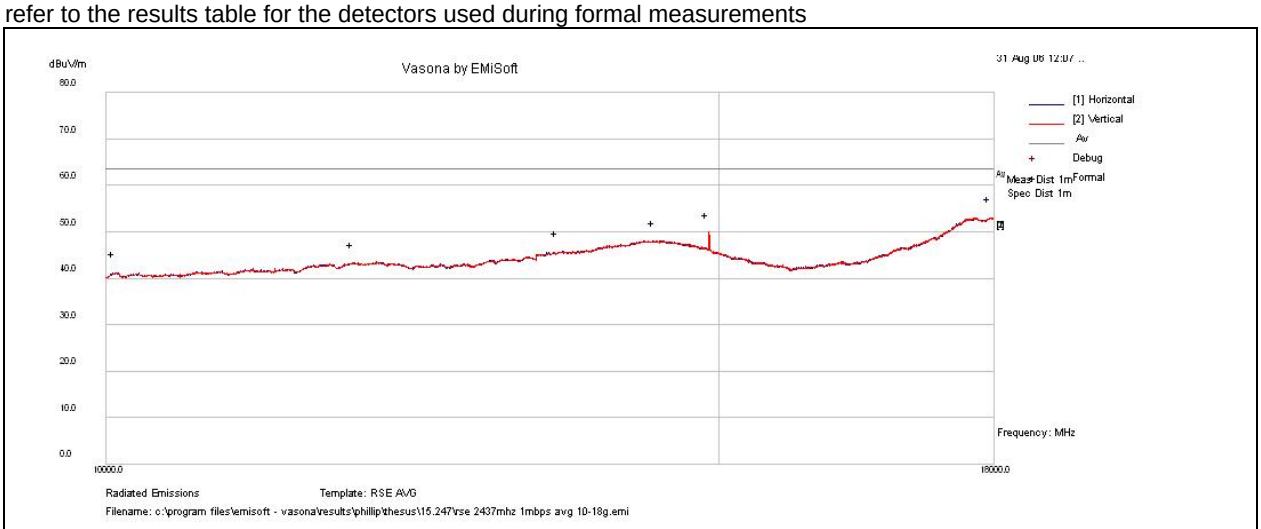
Title: rse 2437mhz 1mbps AVG 1-10G

Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
7454.05	32.9	7.6	0.3	40.8	Av	H	152	352	54	-13.2	Pass	
3727.04	38.5	5.1	-3.4	40.2	Av	H	143	151	54	-13.8	Pass	
1499.695	40.7	3.2	-10.3	33.5	Av	V	100	-3	54	-20.5	Pass	
1106.68	42.1	2.7	-11.4	33.4	Av	V	100	-3	54	-20.6	Pass	
1376.209	40.6	3	-10.5	33.1	Av	V	100	-3	54	-20.9	Pass	

Subtest Number: 23078 - 6	**Subtest Date:** 31-Aug-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11B RSE Average 10-18GHz (2437MHz)
Subtest Result	Pass
Highest Frequency	18000.0
Lowest Frequency	10000.0
Comments on the above Test Results	RBW = 1MHz, VBW= 10Hz

Graphical Test Results
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Title: rse 2437mhz 1mbps avg 10-18g

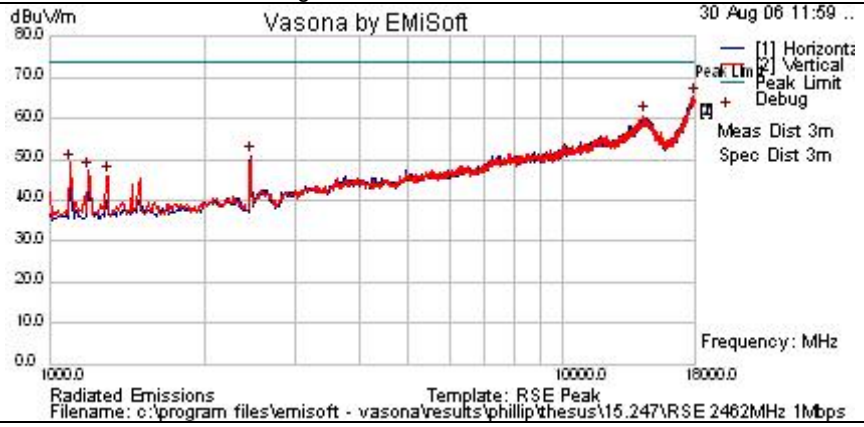
Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17970.056	29	12.8	11.3	53.1	Av	H	100	0	63.5	-10.4	Pass	Noise Floor
14907.95	33.2	11.3	5.1	49.6	Av	V	106	203	63.5	-13.9	Pass	
14392.668	29.3	11.5	7.1	47.9	Av	V	101	363	63.5	-15.6	Pass	Noise Floor
13495.5	28.4	10.4	6.8	45.5	Av	H	101	360	63.5	-18	Pass	Noise Floor
11788.982	29.7	9.4	4	43.1	Av	H	101	363	63.5	-20.4	Pass	
10064.866	30.7	8.8	1.7	41.1	Av	H	104	363	63.5	-22.4	Pass	

Subtest Number: 23078 - 7	**Subtest Date:** 31-Aug-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11B RSE Peak (2462MHz)
Subtest Result	Pass
Highest Frequency	18000.0
Lowest Frequency	1000.0
Comments on the above Test Results	RBW = 1MHz, VBW= 1MHz

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



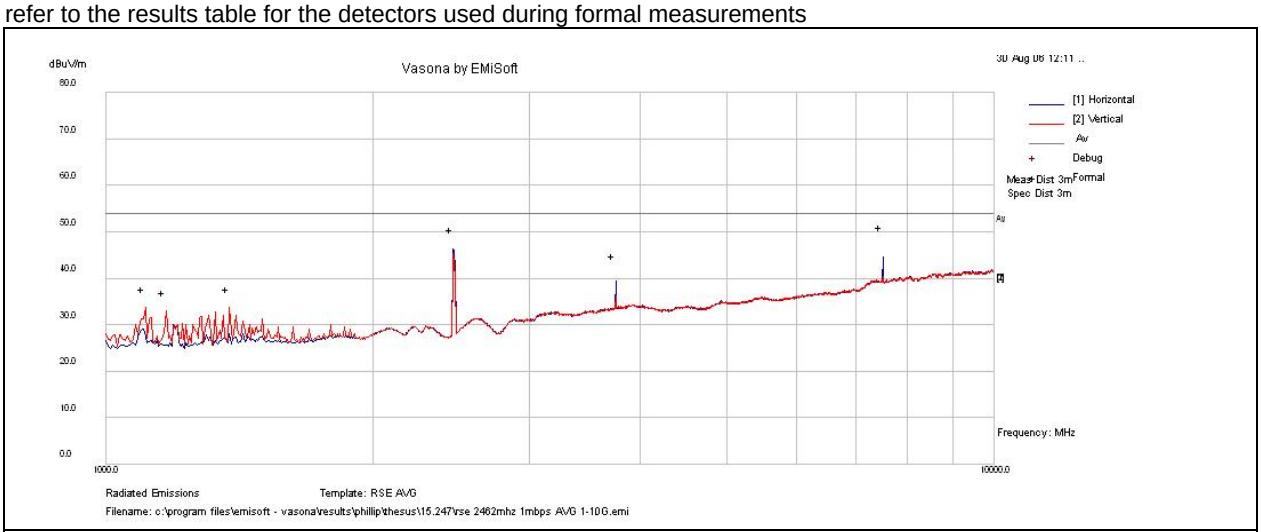
Title: RSE 2462MHz 1Mbps Peak

Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17957.58	41.3	12.8	11.3	65.4	Peak(Scan)	V	150	0	74	-8.6	Pass	noise floor
14330.63	41.9	11.4	7.4	60.7	Peak(Scan)	V	200	0	74	-13.3	Pass	noise floor
1095.47	57.9	2.7	-11.5	49.1	Peak(Scan)	V	100	-3	74	-24.9	Pass	
1190.611	54.9	2.9	-10.9	47	Peak(Scan)	V	100	-3	74	-27.1	Pass	
1296.586	53.6	2.9	-10.6	46	Peak(Scan)	V	100	-3	74	-28	Pass	

Subtest Number: 23078 - 8	**Subtest Date:** 31-Aug-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11B RSE Average 1-10GHz (2462MHz)
Subtest Result	Pass
Highest Frequency	10000.0
Lowest Frequency	1000.0
Comments on the above Test Results	RBW = 1MHz, VBW= 10Hz

Graphical Test Results
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



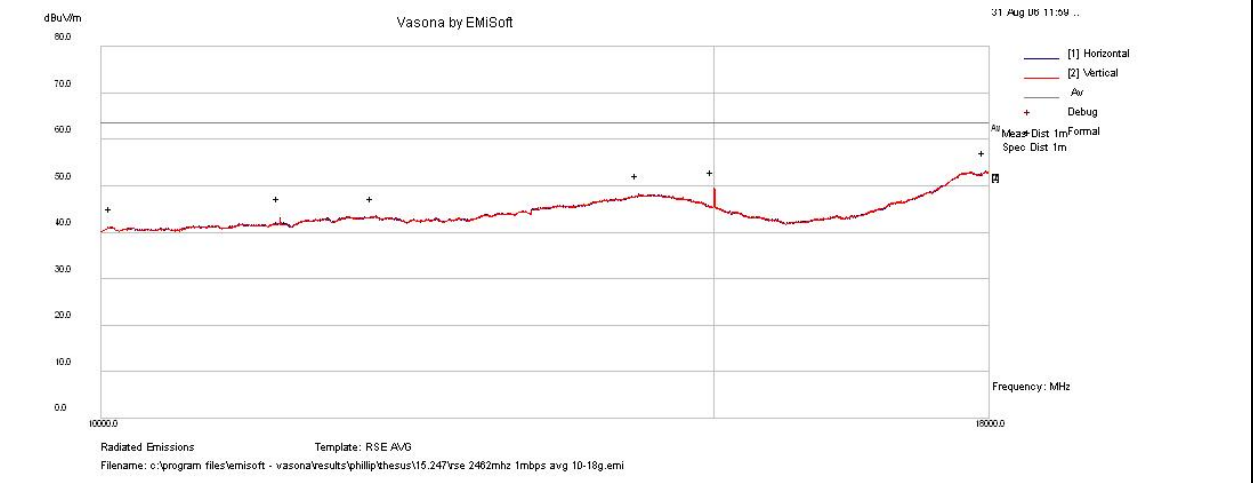
Title: rse 2462mhz 1mbps AVG 1-10G

Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
7503.9	39.1	7.6	0.2	46.9	Av	H	112	181	54	-7.1	Pass	
3752.09	38.8	5.1	-3.3	40.6	Av	H	149	187	54	-13.4	Pass	
1376.212	41.2	3	-10.5	33.7	Av	V	100	-3	54	-20.3	Pass	
1106.764	42.3	2.7	-11.4	33.6	Av	V	100	-3	54	-20.4	Pass	
1168.473	41.2	2.8	-11.2	32.9	Av	V	100	-3	54	-21.1	Pass	

Subtest Number: 23078 - 9	**Subtest Date:** 31-Aug-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11B RSE Average 10-18GHz (2462MHz)
Subtest Result	Pass
Highest Frequency	18000.0
Lowest Frequency	10000.0
Comments on the above Test Results	RBW = 1MHz, VBW = 10Hz

Graphical Test Results
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Title: rse 2462mhz 1mbps avg 10-18g

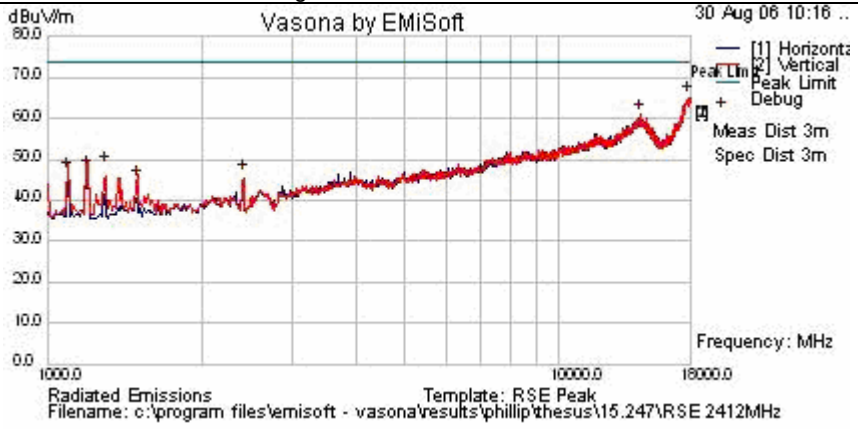
Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17970.056	29	12.8	11.3	53.1	Av	H	100	0	63.5	-10.4	Pass	Noise Floor
15007.96	33.2	11.3	4.4	48.9	Av	V	104	204	63.5	-14.6	Pass	
14276.773	29.3	11.3	7.6	48.2	Av	V	103	0	63.5	-15.4	Pass	Noise Floor
11984.611	29.9	9.6	3.7	43.2	Av	V	103	0	63.5	-20.3	Pass	
11257.675	30.6	9.4	3.1	43.1	Av	H	103	0	63.5	-20.4	Pass	
10073.744	30.5	8.8	1.7	40.9	Av	V	103	0	63.5	-22.6	Pass	

Subtest Number: 23078 - 10	**Subtest Date:** 31-Aug-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11G RSE Peak (2412MHz)
Subtest Result	Pass
Highest Frequency	18000.0
Lowest Frequency	1000.0
Comments on the above Test Results	RBW = 1MHz, VBW = 1MHz

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



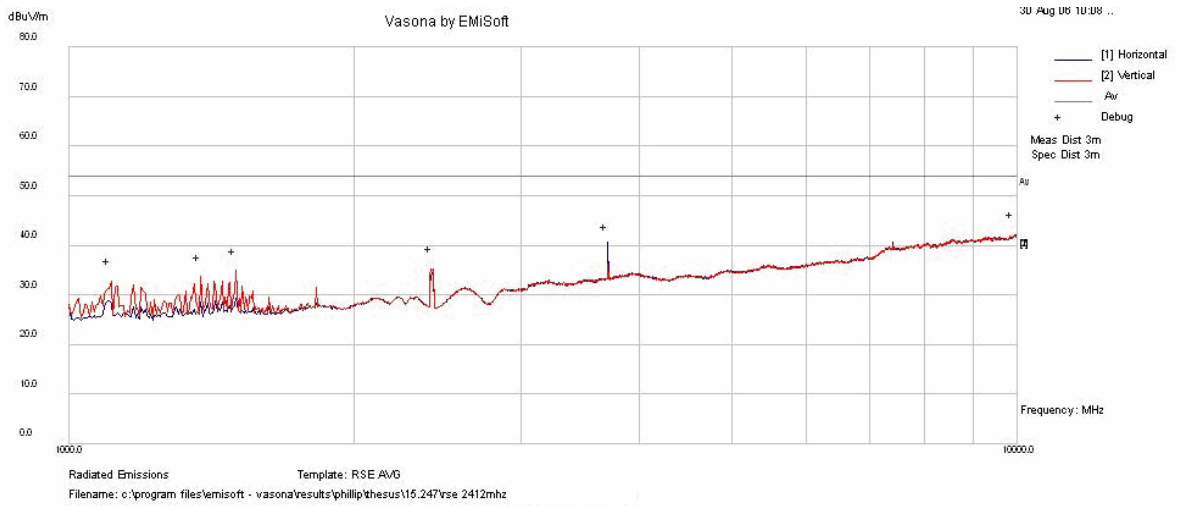
Title: RSE 2412MHz 6Mbps Peak

Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17809.108	41.7	12.7	11.3	65.7	Peak(Scan)	H	200	0	74	-8.3	Pass	noise floor
14426.076	42.5	11.5	7.1	61.1	Peak(Scan)	H	200	0	74	-12.9	Pass	noise floor
1296.264	56.4	2.9	-10.6	48.7	Peak(Scan)	V	100	-3	74	-25.3	Pass	
1201.562	55.8	2.9	-10.9	47.8	Peak(Scan)	V	100	-3	74	-26.2	Pass	
1099.522	55.8	2.7	-11.5	47	Peak(Scan)	V	100	-3	74	-27	Pass	
2409.171	50	4.1	-7.2	46.9	Peak(Scan)	V	100	-3	74	-27.1	Pass	
1495.748	52.2	3.2	-10.4	45	Peak(Scan)	V	100	-3	74	-29	Pass	

Subtest Number: 23078 - 11	**Subtest Date:** 31-Aug-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11G RSE Average 1-10GHz (2412MHz)
Subtest Result	Pass
Highest Frequency	10000.0
Lowest Frequency	1000.0
Comments on the above Test Results	RBW = 1MHz, VBW = 10Hz

Graphical Test Results
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Title: rse 2412mhz 6mbps AVG 1-10G

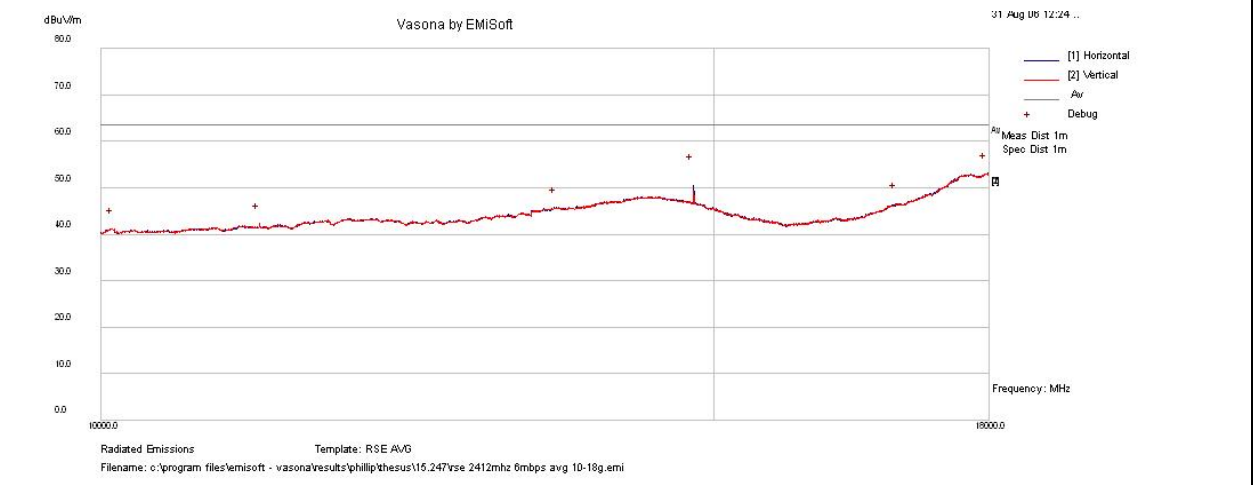
Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
9949.47	31.8	8.7	1.6	42.1	Av	H	150	0	54	-11.9	Pass	noise floor
3702.05	38.2	5.1	-3.6	39.7	Av	H	146	157	54	-14.3	Pass	
1499.688	42.1	3.2	-10.3	34.9	Av	V	100	0	54	-19.1	Pass	
1376.315	41	3	-10.5	33.5	Av	V	146	53	54	-20.5	Pass	
1106.602	41.4	2.7	-11.4	32.7	Av	V	146	53	54	-21.3	Pass	

Subtest Number: 23078 - 12	**Subtest Date:** 31-Aug-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11G RSE Average 10-18GHz (2412MHz)
Subtest Result	Pass
Highest Frequency	18000.0
Lowest Frequency	10000.0
Comments on the above Test Results	RBW = 1MHz, VBW = 10Hz

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Title: rse 2412mhz 6mbps avg 10-18g

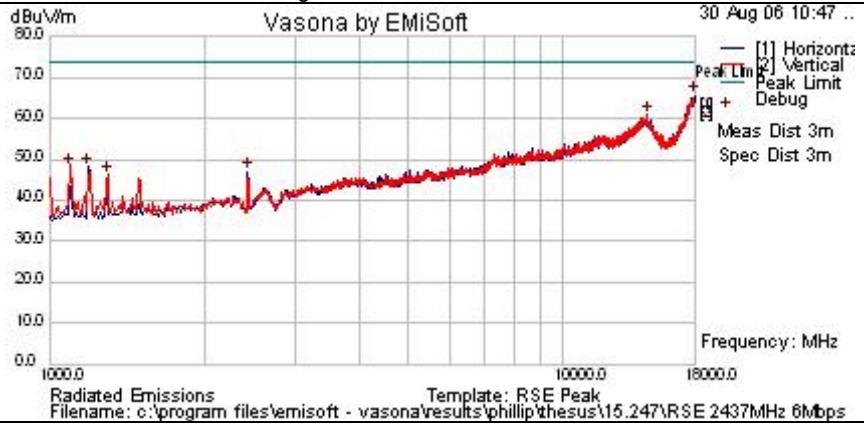
Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17985.028	29	12.8	11.3	53.1	Av	H	100	0	63.5	-10.4	Pass	Noise Floor
14807.94	35.8	11.3	5.7	52.8	Av	H	100	146	63.5	-10.7	Pass	
16947.556	29	12.1	5.5	46.5	Av	H	100	0	63.5	-17	Pass	Noise Floor
13527.267	28.4	10.4	6.8	45.5	Av	H	100	0	63.5	-18	Pass	Noise Floor
11108.17	30	9.4	2.8	42.2	Av	V	100	0	63.5	-21.3	Pass	
10085.065	30.6	8.8	1.7	41.1	Av	V	100	0	63.5	-22.4	Pass	

Subtest Number: 23078 - 13	**Subtest Date:** 31-Aug-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11G RSE Peak (2437MHz)
Subtest Result	Pass
Highest Frequency	18000.0
Lowest Frequency	1000.0
Comments on the above Test Results	RBW = 1MHz, VBW = 1MHz

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Title: RSE 2437MHz 6Mbps Peak

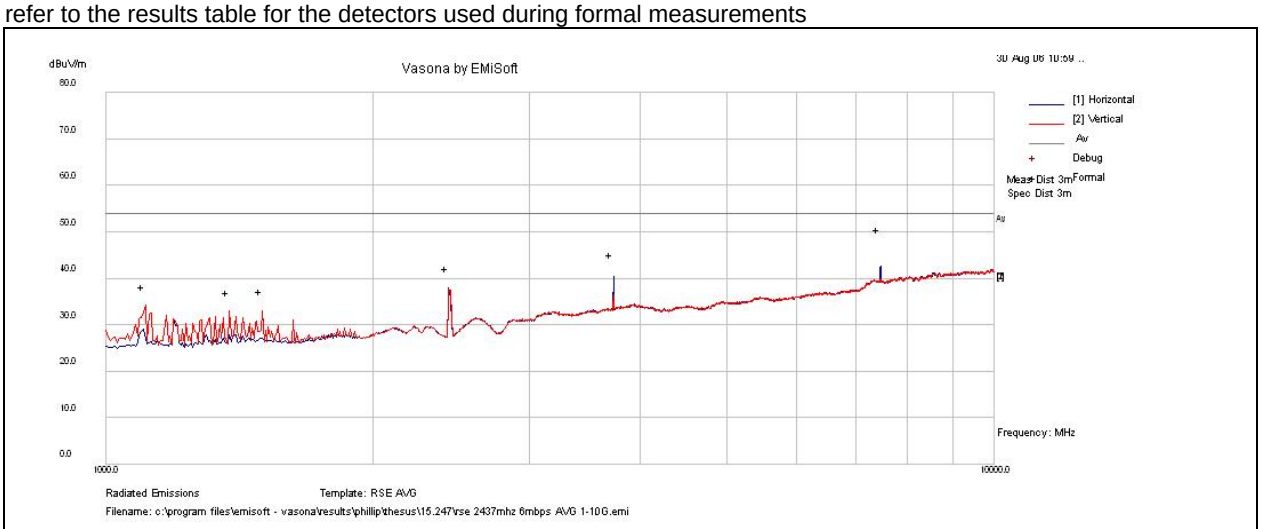
Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
18000	41.5	12.9	11.3	65.8	Peak(Scan)	H	100	0	74	-8.2	Pass	noise floor
14585.153	42.6	11.5	6.8	60.9	Peak(Scan)	V	100	0	74	-13.1	Pass	noise floor
1191.595	56.2	2.9	-10.8	48.3	Peak(Scan)	H	100	-3	74	-25.7	Pass	
1096.325	56.9	2.7	-11.5	48.1	Peak(Scan)	V	100	-3	74	-25.9	Pass	
2431.822	50.2	4.1	-7.3	46.9	Peak(Scan)	H	100	-3	74	-27.1	Pass	
1296.255	54	2.9	-10.6	46.3	Peak(Scan)	V	100	-3	74	-27.7	Pass	

Subtest Number: 23078 - 14	**Subtest Date:** 31-Aug-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11G RSE Average 1-10GHz (2437MHz)
Subtest Result	Pass
Highest Frequency	10000.0
Lowest Frequency	1000.0
Comments on the above Test Results	RBW = 1MHz, VBW = 10Hz

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Title: rse 2437mhz 6mbps AVG 1-10G

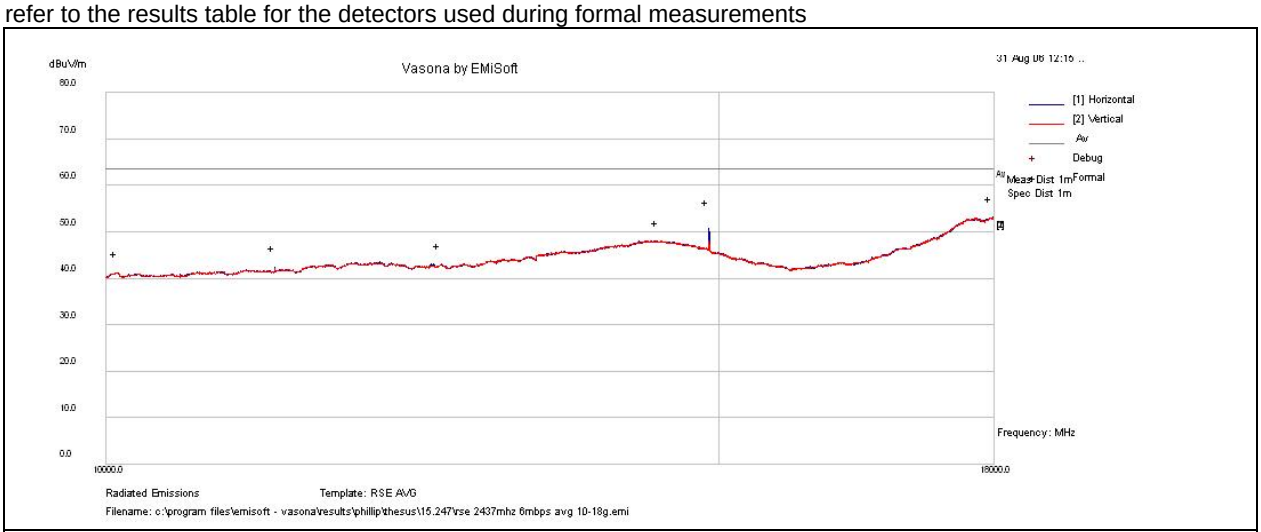
Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
7454.07	38.4	7.6	0.3	46.3	Av	H	113	178	54	-7.7	Pass	
3726.93	39.2	5.1	-3.4	40.8	Av	H	129	178	54	-13.2	Pass	
1106.675	42.8	2.7	-11.4	34.2	Av	V	100	0	54	-19.8	Pass	
1499.702	40.2	3.2	-10.3	33	Av	V	129	178	54	-21	Pass	
1376.236	40.4	3	-10.5	32.9	Av	V	129	178	54	-21.1	Pass	

Subtest Number: 23078 - 15	**Subtest Date:** 31-Aug-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11G RSE Average 10-18GHz (2437MHz)
Subtest Result	Pass
Highest Frequency	18000.0
Lowest Frequency	10000.0
Comments on the above Test Results	RBW = 1MHz, VBW = 10Hz

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



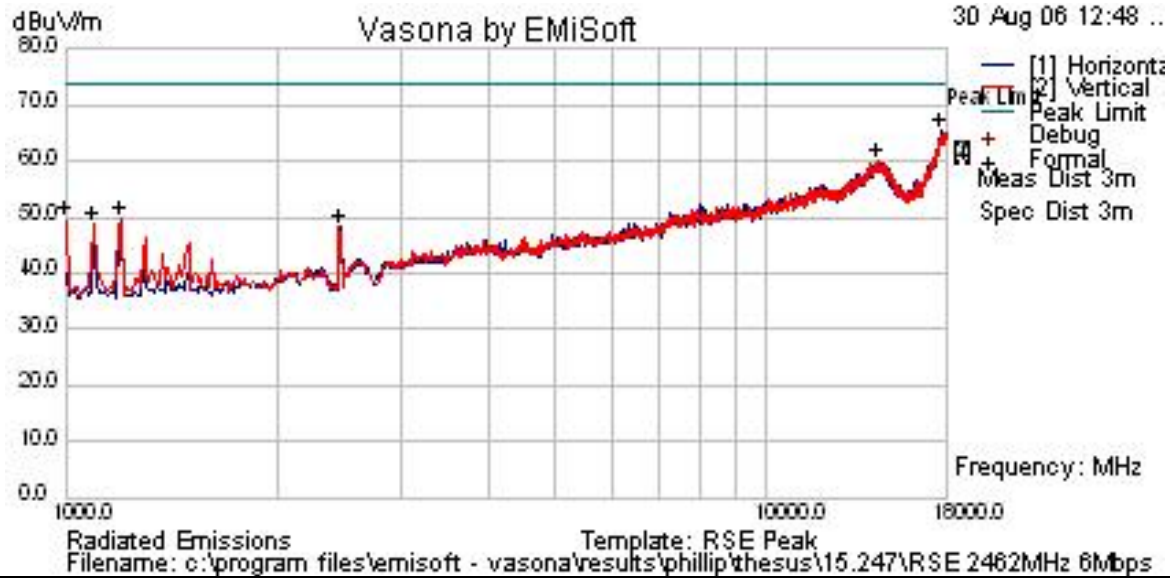
Title: rse 2437mhz 6mbps avg 10-18g

Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17985.028	29	12.8	11.3	53.1	Av	H	100	0	63.5	-10.4	Pass	Noise Floor
14907.89	35.9	11.3	5.1	52.3	Av	H	100	148	63.5	-11.2	Pass	
14426.547	29.1	11.5	7.1	47.8	Av	H	100	363	63.5	-15.8	Pass	Noise Floor
12486.324	29.6	9.6	3.6	42.9	Av	V	100	363	63.5	-20.6	Pass	
11182.892	30	9.4	3	42.4	Av	H	110	363	63.5	-21.1	Pass	
10079.667	30.6	8.8	1.7	41.1	Av	H	100	363	63.5	-22.4	Pass	

Subtest Number: 23078 - 16	**Subtest Date:** 31-Aug-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11G RSE Peak (2462MHz)
Subtest Result	Pass
Highest Frequency	18000.0
Lowest Frequency	1000.0
Comments on the above Test Results	RBW = 1MHz, VBW = 1MHz

Graphical Test Results
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Title: RSE 2462MHz 6Mbps Peak

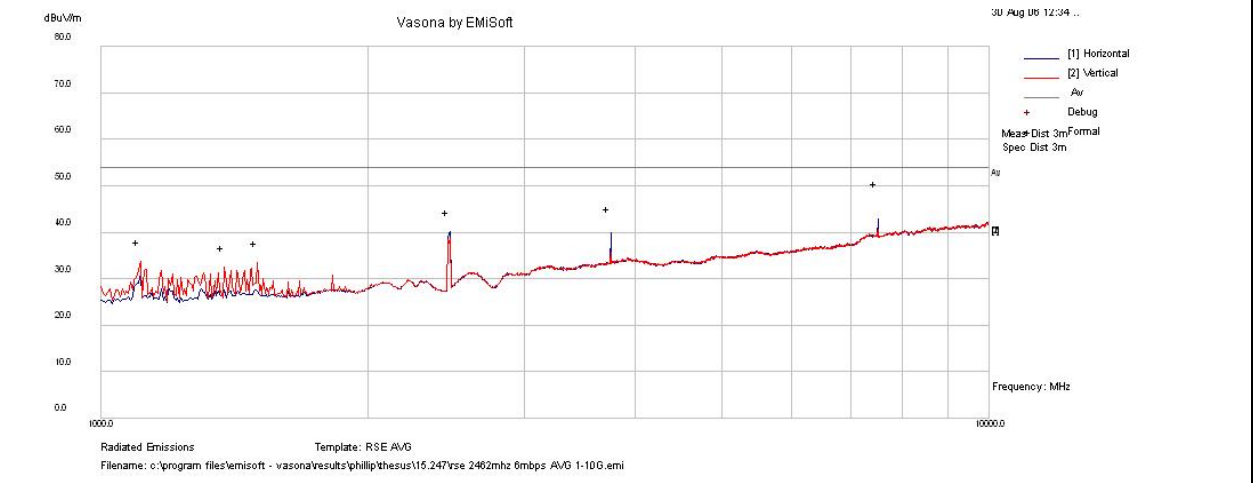
Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17671.241	41.8	12.7	10.9	65.3	Peak(Scan)	H	200	0	74	-8.7	Pass	noise floor
14415.471	41.4	11.6	7.1	60.1	Peak(Scan)	H	150	0	74	-13.9	Pass	noise floor
1201.508	57.7	2.9	-10.9	49.7	Peak(Scan)	V	98	363	74	-24.3	Pass	
1000	59.4	2.6	-12.5	49.5	Peak(Scan)	V	98	363	74	-24.5	Pass	
1094.954	57.2	2.7	-11.5	48.4	Peak(Scan)	V	98	363	74	-25.6	Pass	

Subtest Number: 23078 - 17	**Subtest Date:** 31-Aug-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11G RSE Average 1-10GHz (2462MHz)
Subtest Result	Pass
Highest Frequency	10000.0
Lowest Frequency	1000.0
Comments on the above Test Results	RBW = 1MHz, VBW = 10Hz

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Title: rse 2462mhz 6mbps AVG 1-10G

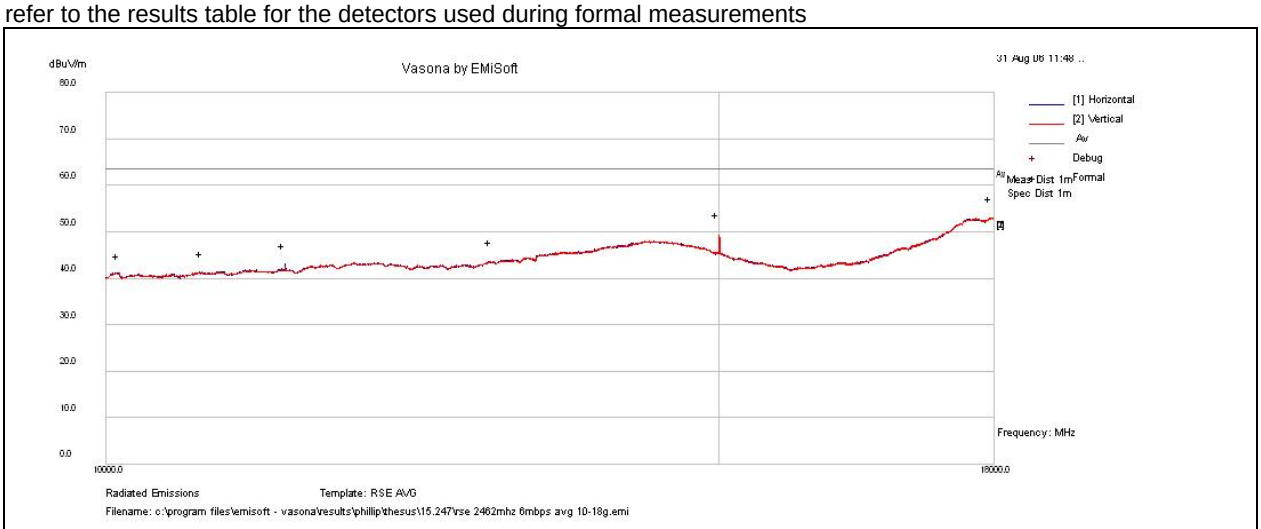
Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
7504.08	38.6	7.6	0.2	46.5	Av	H	112	176	54	-7.5	Pass	
3752.04	39.2	5.1	-3.3	41	Av	H	146	186	54	-13	Pass	
1106.663	42.5	2.7	-11.4	33.8	Av	V	98	363	54	-20.2	Pass	
1499.704	40.6	3.2	-10.3	33.5	Av	V	98	363	54	-20.5	Pass	
1376.189	39.9	3	-10.5	32.4	Av	V	98	363	54	-21.6	Pass	

Subtest Number: 23078 - 18	**Subtest Date:** 31-Aug-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11G RSE Average 10-18GHz (2462MHz)
Subtest Result	Pass
Highest Frequency	18000.0
Lowest Frequency	10000.0
Comments on the above Test Results	RBW = 1MHz, VBW = 10Hz

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Title: rse 2462mhz 6mbps avg 10-18g

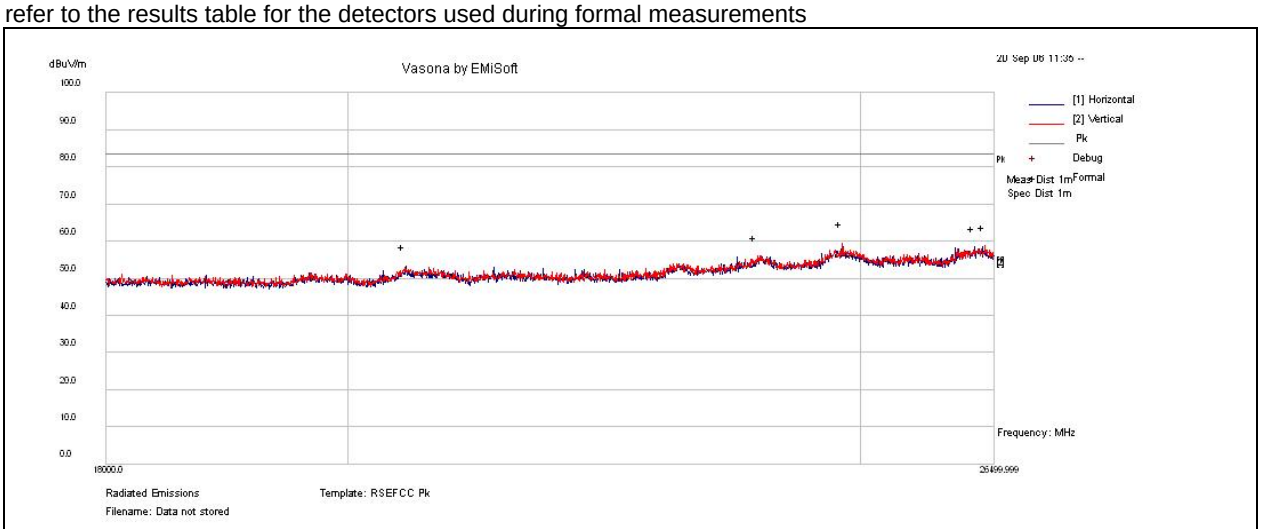
Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17985.028	28.9	12.8	11.3	53	Av	H	100	0	63.5	-10.5	Pass	Noise Floor
15007.96	33.9	11.3	4.4	49.6	Av	V	103	202	63.5	-13.9	Pass	
12917.283	28.6	10	5	43.6	Av	H	100	0	63.5	-19.9	Pass	
11258.04	30.5	9.4	3.1	43	Av	H	100	0	63.5	-20.5	Pass	
10667.926	29.2	9.3	2.6	41.1	Av	H	100	0	63.5	-22.4	Pass	
10088.558	30.1	8.8	1.7	40.6	Av	V	100	0	63.5	-22.9	Pass	

Subtest Number: 23078 - 19	**Subtest Date:** 22-Sep-2006
Engineer	Phillip Carranco
Lab Information	Building N, 5m Anechoic
Subtest Results	
Subtest Title	802.11B RSE Peak 18-26.5GHz (2412MHz)
Subtest Result	Pass
Highest Frequency	26499.999
Lowest Frequency	18000.0
Comments on the above Test Results	RBW = 1MHz, VBW = 1MHz

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



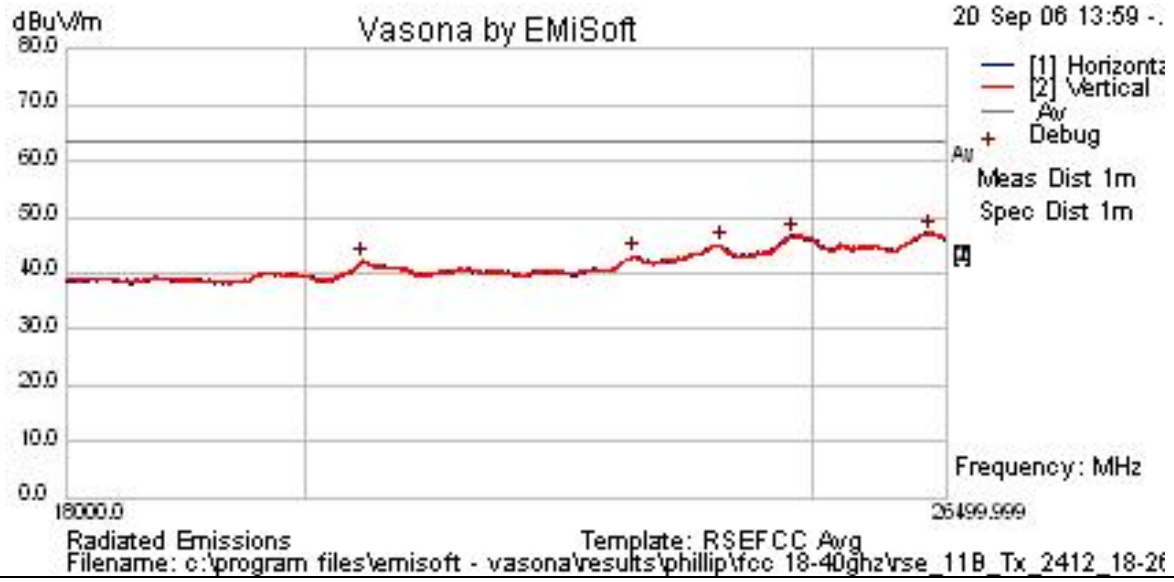
Title: RSE_Tx_2412_18-26GHz

Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
24808.501	43.8	0	15.6	59.4	Peak(Scan)	V	100	0	83.5	-24	Pass	
26404.527	42.6	0	16.1	58.7	Peak(Scan)	V	100	0	83.5	-24.8	Pass	
26282.811	42.1	0	16.1	58.2	Peak(Scan)	H	100	0	83.5	-25.3	Pass	
23908.242	41.1	0	14.7	55.8	Peak(Scan)	V	100	0	83.5	-27.7	Pass	
20507.914	39.4	0	13.9	53.3	Peak(Scan)	H	100	0	83.5	-30.2	Pass	

Subtest Number: 23078 - 20	**Subtest Date:** 22-Sep-2006
Engineer	Phillip Carranco
Lab Information	Building N, 5m Anechoic
Subtest Results	
Subtest Title	802.11B RSE Average 18-26.5GHz (2412MHz)
Subtest Result	Pass
Highest Frequency	26499.999
Lowest Frequency	18000.0
Comments on the above Test Results	RBW = 1MHz, VBW = 1MHz

Graphical Test Results
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Title: rse_11B_Tx_2412_18-26GHz_AVE

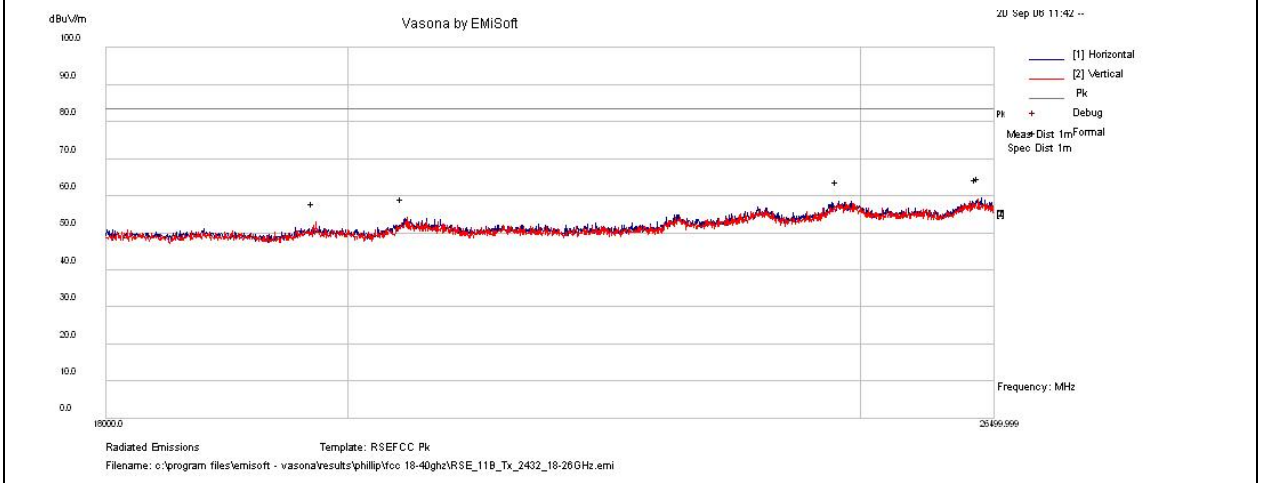
Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
26298.502	31.3	0	16.1	47.4	NA	V	100	0	63.5	-16.1	Pass	
24782.515	31.1	0	15.6	46.8	Peak(Scan)	H	100	0	63.5	-16.7	Pass	
23996.087	30.4	0	14.7	45.1	Peak(Scan)	H	100	0	63.5	-18.4	Pass	
23103.594	28.7	0	14.4	43.1	Peak(Scan)	H	100	0	63.5	-20.4	Pass	
20507.18	28.4	0	13.9	42.3	Peak(Scan)	V	100	0	63.5	-21.2	Pass	

Subtest Number: 23078 - 21	**Subtest Date:** 22-Sep-2006
Engineer	Phillip Carranco
Lab Information	Building N, 5m Anechoic
Subtest Results	
Subtest Title	802.11B RSE Peak 18-26.5GHz (2437MHz)
Subtest Result	Pass
Highest Frequency	26499.999
Lowest Frequency	18000.0
Comments on the above Test Results	RBW = 1MHz, VBW = 1MHz

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



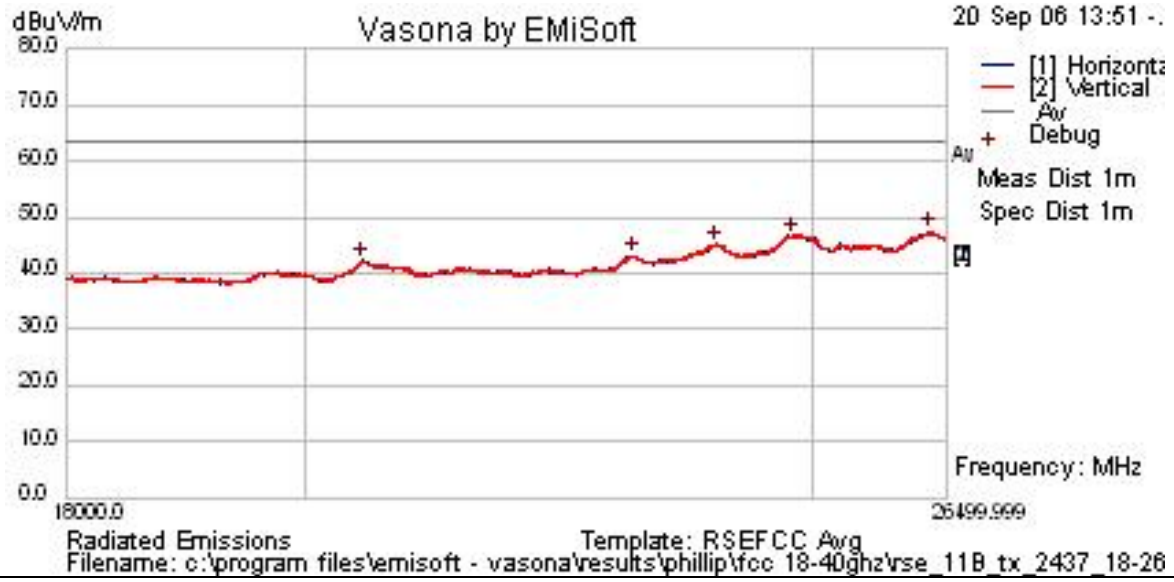
Title: RSE_11B_Tx_2437_18-26GHz

Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
26357	43.4	0	16	59.4	Peak(Scan)	H	100	0	83.5	-24.1	Pass	
26325.074	43	0	16.1	59.1	Peak(Scan)	V	100	0	83.5	-24.4	Pass	
24771.389	43	0	15.6	58.6	Peak(Scan)	H	100	0	83.5	-24.9	Pass	
20497.513	40	0	13.9	53.9	Peak(Scan)	H	100	0	83.5	-29.6	Pass	
19718.055	39.3	0	13.5	52.8	Peak(Scan)	V	100	0	83.5	-30.7	Pass	

Subtest Number: 23078 - 22	**Subtest Date:** 22-Sep-2006
Engineer	Phillip Carranco
Lab Information	Building N, 5m Anechoic
Subtest Results	
Subtest Title	802.11B RSE Average 18-26.5GHz (2437MHz)
Subtest Result	Pass
Highest Frequency	26499.999
Lowest Frequency	18000.0
Comments on the above Test Results	RBW = 1MHz, VBW = 10Hz

Graphical Test Results
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Title: rse_11B_tx_2437_18-26GHz_AVE

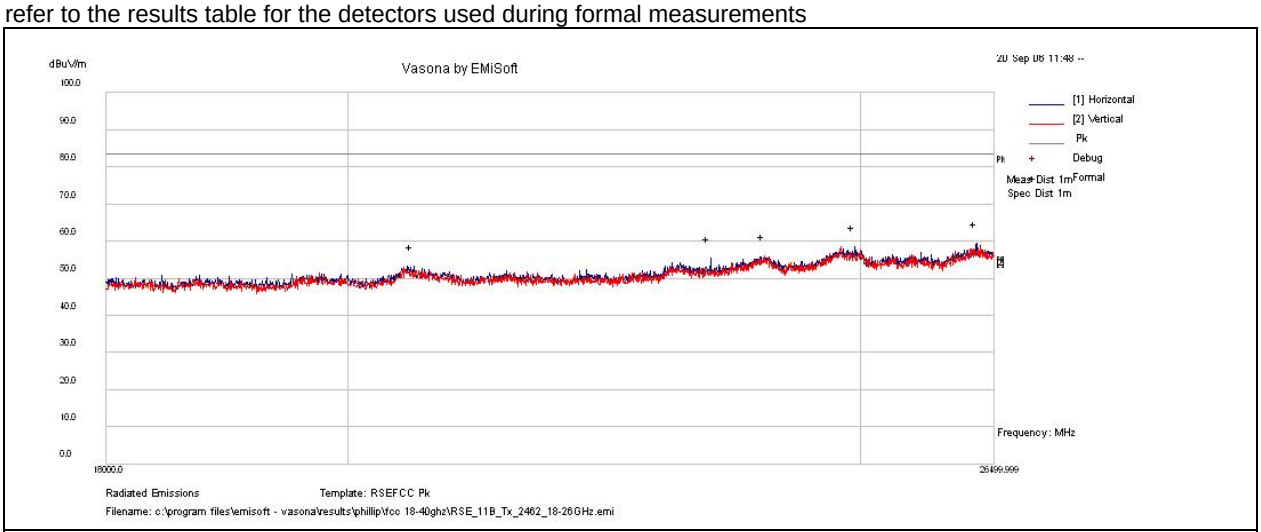
Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
26303.804	31.3	0	16.1	47.4	Avg	V	100	0	63.5	-16.1	Pass	
24780.627	31.2	0	15.6	46.8	Avg	H	100	0	63.5	-16.7	Pass	
23944.788	30.3	0	14.8	45.2	Avg	V	100	0	63.5	-18.3	Pass	
23105.398	28.7	0	14.4	43.1	Avg	V	100	0	63.5	-20.4	Pass	
20503.291	28.2	0	13.9	42.1	Avg	H	100	0	63.5	-21.4	Pass	

Subtest Number: 23078 - 23	**Subtest Date:** 22-Sep-2006
Engineer	Phillip Carranco
Lab Information	Building N, 5m Anechoic
Subtest Results	
Subtest Title	802.11B RSE Peak 18-26.5GHz (2462MHz)
Subtest Result	Pass
Highest Frequency	26499.999
Lowest Frequency	18000.0
Comments on the above Test Results	RBW = 1MHz, VBW = 1MHz

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



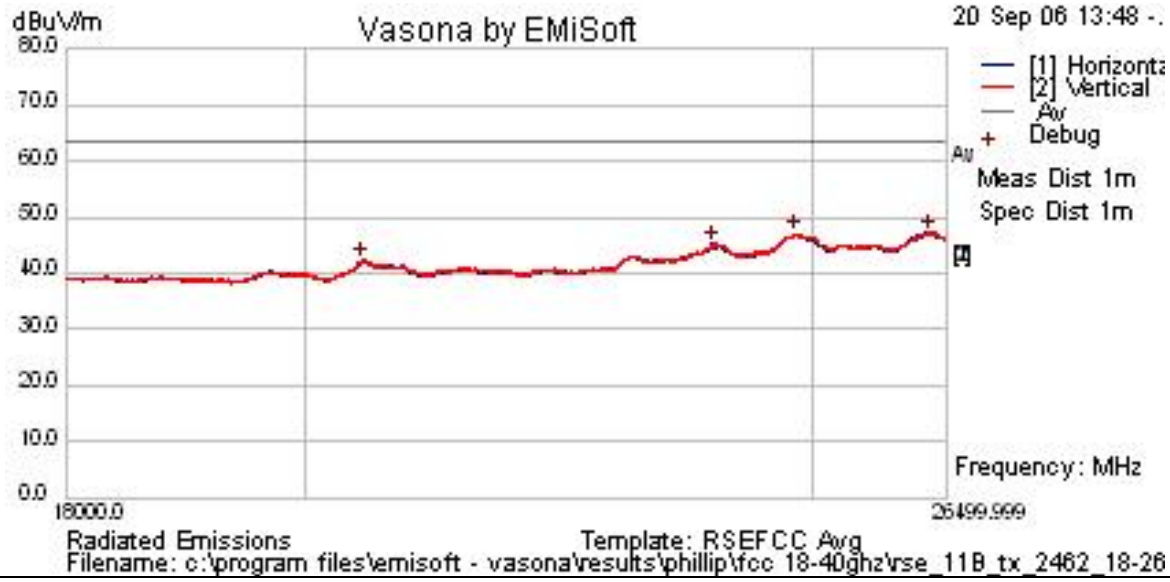
Title: RSE_11B_Tx_2462_18-26GHz

Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
26309.128	43.4	0	16.1	59.5	Peak(Scan)	H	100	0	83.5	-24	Pass	
24946.375	42.9	0	15.7	58.6	Peak(Scan)	H	100	0	83.5	-24.9	Pass	
23986.644	41.3	0	14.8	56.1	Peak(Scan)	V	100	0	83.5	-27.4	Pass	
23424.669	40.9	0	14.5	55.4	Peak(Scan)	H	100	0	83.5	-28.1	Pass	
20582.369	39.5	0	13.8	53.3	Peak(Scan)	H	100	0	83.5	-30.2	Pass	

Subtest Number: 23078 - 24	**Subtest Date:** 22-Sep-2006
Engineer	Phillip Carranco
Lab Information	Building N, 5m Anechoic
Subtest Results	
Subtest Title	802.11B RSE Average 18-26.5GHz (2462MHz)
Subtest Result	Pass
Highest Frequency	26499.999
Lowest Frequency	18000.0
Comments on the above Test Results	RBW = 1MHz, VBW = 10Hz

Graphical Test Results
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Title: rse_11B_tx_2462_18-26GHz_AVE

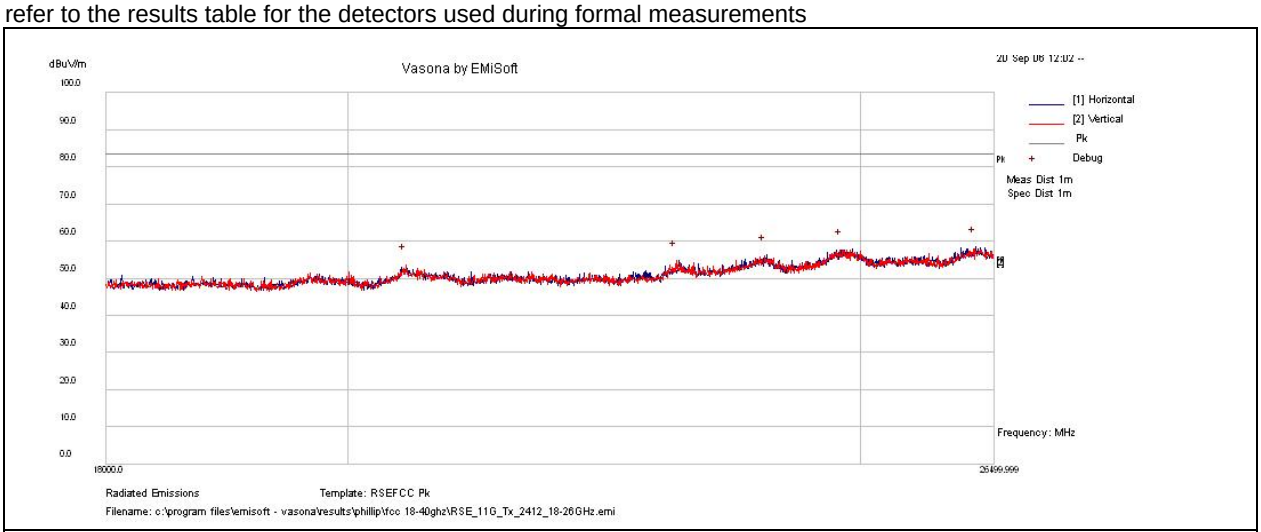
Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
26303.804	31.2	0	16.1	47.3	Avg	V	100	0	63.5	-16.2	Pass	
24808.221	31.3	0	15.6	46.9	Avg	H	100	0	63.5	-16.6	Pass	
23912.099	30.5	0	14.7	45.3	Avg	H	100	0	63.5	-18.2	Pass	
20503.586	28.5	0	13.9	42.4	Avg	V	100	0	63.5	-21.1	Pass	

Subtest Number: 23078 - 25	**Subtest Date:** 22-Sep-2006
Engineer	Phillip Carranco
Lab Information	Building N, 5m Anechoic
Subtest Results	
Subtest Title	802.11G RSE Peak 18-26.5GHz (2412MHz)
Subtest Result	Pass
Highest Frequency	26499.999
Lowest Frequency	18000.0
Comments on the above Test Results	RBW = 1MHz, VBW = 1MHz

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



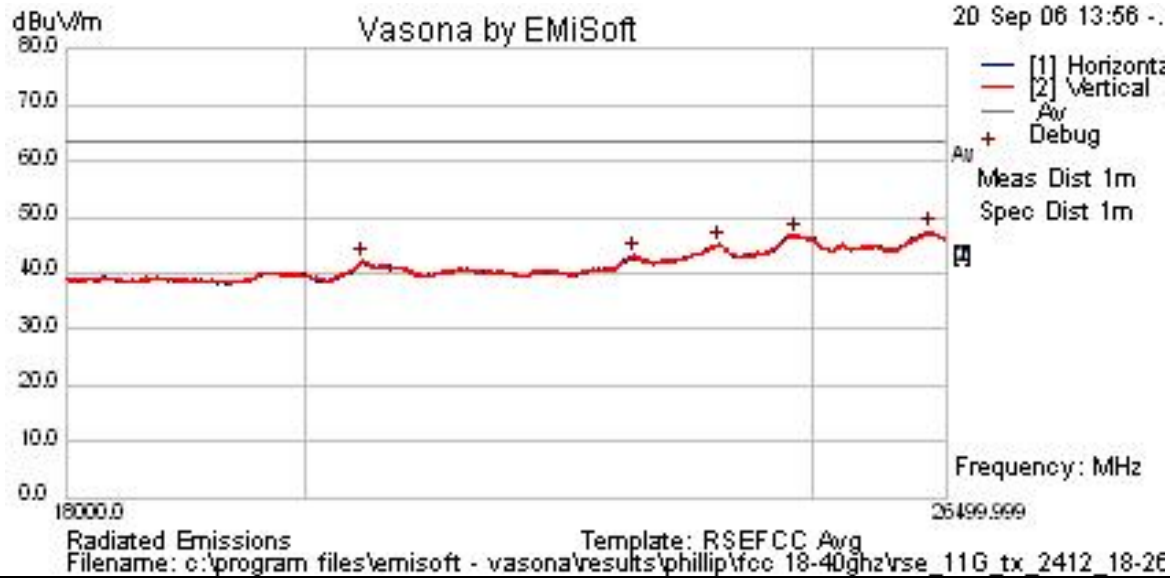
Title: RSE_11G_Tx_2412_18-26GHz

Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
26298.887	42.2	0	16.1	58.3	Peak(Scan)	H	100	0	83.5	-25.2	Pass	
24819.519	41.9	0	15.6	57.5	Peak(Scan)	H	100	0	83.5	-26	Pass	
24002.697	41.5	0	14.7	56.2	Peak(Scan)	H	100	0	83.5	-27.3	Pass	
23085.259	40.2	0	14.4	54.6	Peak(Scan)	V	100	0	83.5	-28.9	Pass	
20513.459	39.7	0	13.8	53.5	Peak(Scan)	V	100	0	83.5	-30	Pass	

Subtest Number: 23078 - 26	**Subtest Date:** 22-Sep-2006
Engineer	Phillip Carranco
Lab Information	Building N, 5m Anechoic
Subtest Results	
Subtest Title	802.11G RSE Average 18-26.5GHz (2412MHz)
Subtest Result	Pass
Highest Frequency	26499.999
Lowest Frequency	18000.0
Comments on the above Test Results	RBW = 1MHz, VBW = 10Hz

Graphical Test Results
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Title: rse_11G_tx_2412_18-26GHz_AVE

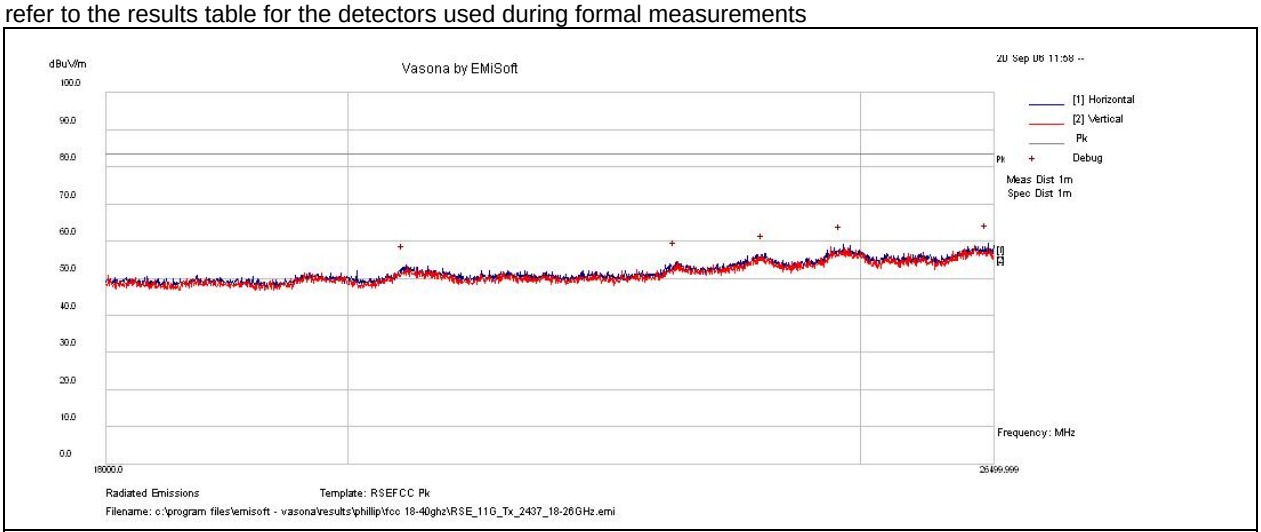
Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
26298.502	31.4	0	16.1	47.5	Avg	V	100	0	63.5	-16	Pass	
24803.394	31.2	0	15.6	46.8	Avg	H	100	0	63.5	-16.7	Pass	
23992.26	30.5	0	14.7	45.2	Avg	V	100	0	63.5	-18.3	Pass	
23104.446	28.8	0	14.4	43.1	Avg	V	100	0	63.5	-20.4	Pass	
20502.796	28.4	0	13.9	42.3	Avg	H	100	0	63.5	-21.2	Pass	

Subtest Number: 23078 - 27	**Subtest Date:** 22-Sep-2006
Engineer	Phillip Carranco
Lab Information	Building N, 5m Anechoic
Subtest Results	
Subtest Title	802.11G RSE Peak 18-26.5GHz (2437MHz)
Subtest Result	Pass
Highest Frequency	26499.999
Lowest Frequency	18000.0
Comments on the above Test Results	RBW = 1MHz, VBW = 1MHz

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



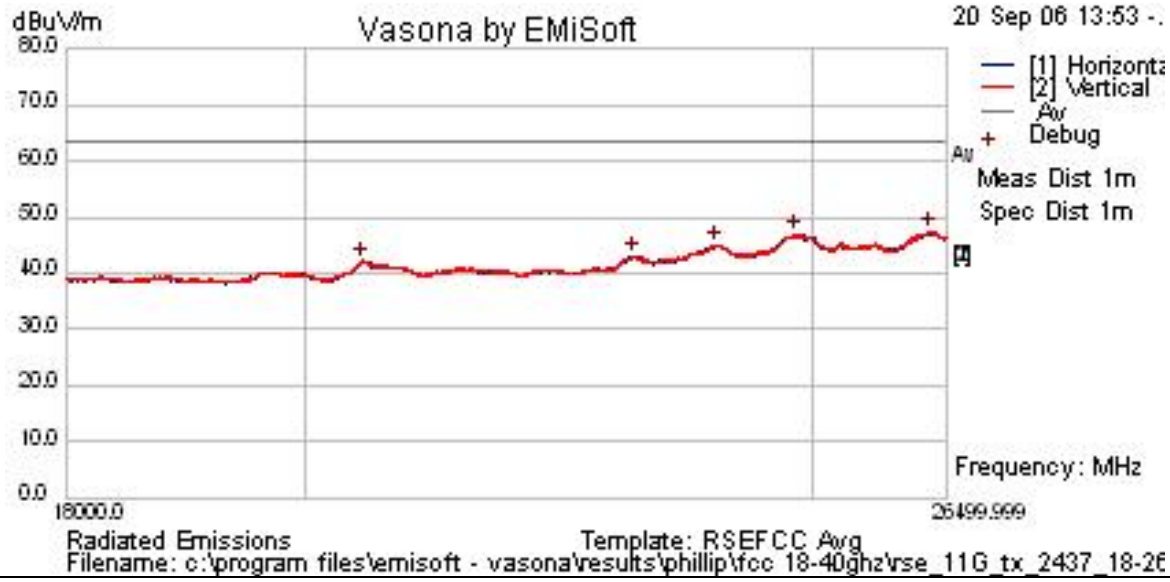
Title: RSE_11G_Tx_2437_18-26GHz

Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
26441.828	43.3	0	16.1	59.4	Peak(Scan)	H	100	0	83.5	-24.2	Pass	
24819.803	43.3	0	15.6	58.9	Peak(Scan)	H	100	0	83.5	-24.6	Pass	
23990.184	41.8	0	14.7	56.6	Peak(Scan)	H	100	0	83.5	-26.9	Pass	
23090.536	40.1	0	14.4	54.5	Peak(Scan)	V	100	0	83.5	-29	Pass	
20508.408	39.6	0	13.9	53.5	Peak(Scan)	H	100	0	83.5	-30	Pass	

Subtest Number: 23078 - 28	**Subtest Date:** 22-Sep-2006
Engineer	Phillip Carranco
Lab Information	Building N, 5m Anechoic
Subtest Results	
Subtest Title	802.11G RSE Average 18-26.5GHz (2437MHz)
Subtest Result	Pass
Highest Frequency	26499.999
Lowest Frequency	18000.0
Comments on the above Test Results	RBW = 1MHz, VBW = 10Hz

Graphical Test Results
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Title: rse_11G_tx_2437_18-26GHz_AVE

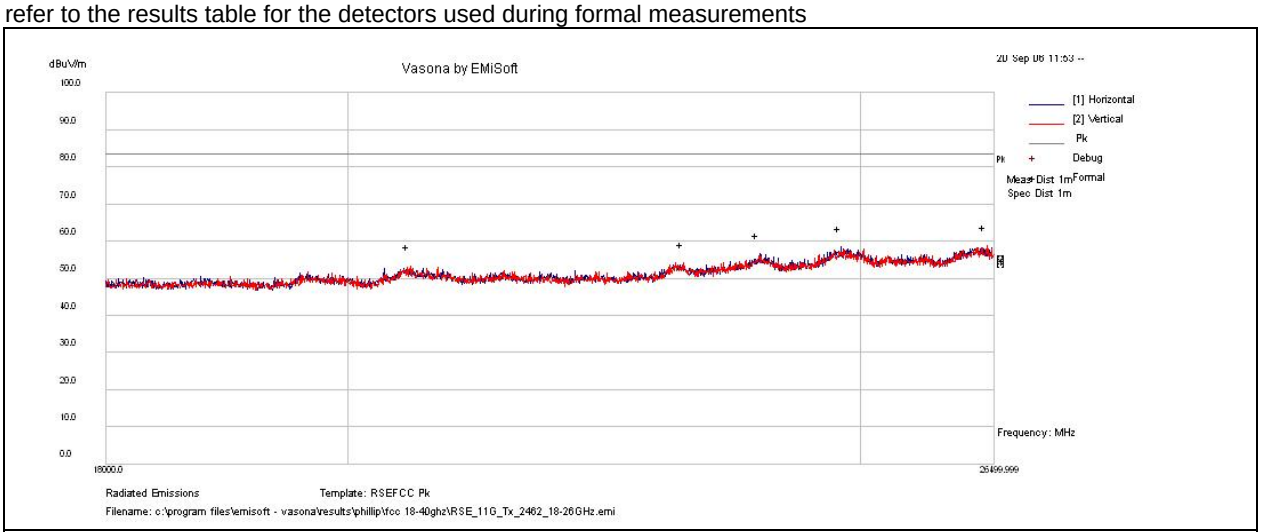
Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
26309.107	31.4	0	16.1	47.5	Avg	V	100	0	63.5	-16	Pass	
24809.108	31.4	0	15.6	47	Avg	H	100	0	63.5	-16.5	Pass	
23954.845	30.2	0	14.8	45	Avg	V	100	0	63.5	-18.5	Pass	
23103.128	28.7	0	14.4	43	Avg	V	100	0	63.5	-20.4	Pass	
20507.409	28.4	0	13.9	42.3	Avg	V	100	0	63.5	-21.2	Pass	

Subtest Number: 23078 - 29	**Subtest Date:** 22-Sep-2006
Engineer	Phillip Carranco
Lab Information	Building N, 5m Anechoic
Subtest Results	
Subtest Title	802.11G RSE Peak 18-26.5GHz (2462MHz)
Subtest Result	Pass
Highest Frequency	26499.999
Lowest Frequency	18000.0
Comments on the above Test Results	RBW = 1MHz, VBW = 1MHz

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



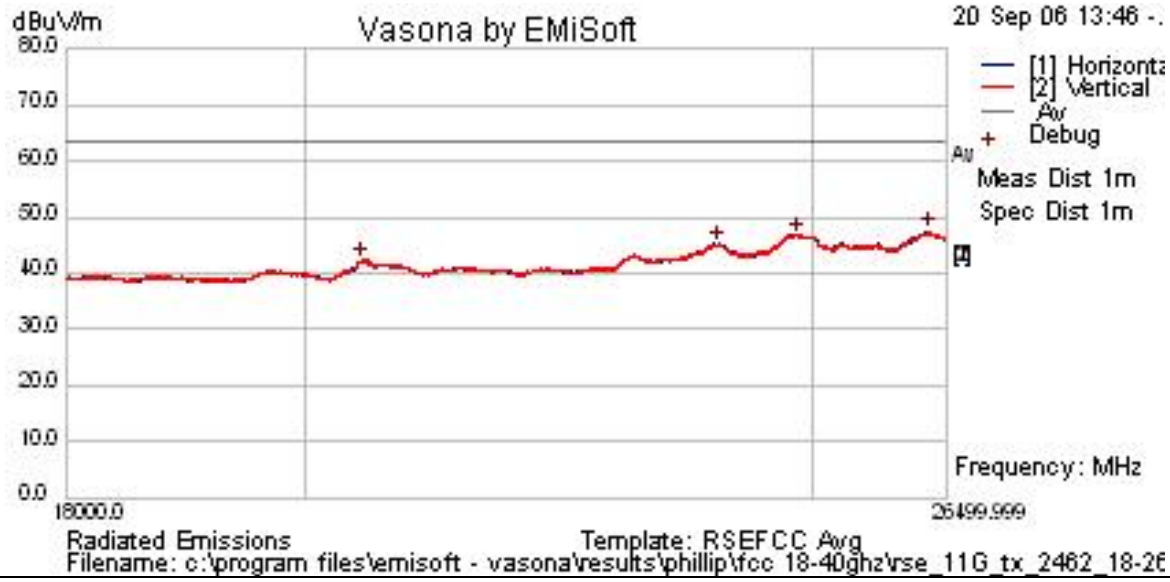
Title: RSE_11G_Tx_2462_18-26GHz

Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
26420.183	42.6	0	16	58.7	Peak(Scan)	V	100	0	83.5	-24.8	Pass	
24797.297	42.6	0	15.7	58.3	Peak(Scan)	H	100	0	83.5	-25.2	Pass	
23928.328	41.7	0	14.8	56.5	Peak(Scan)	H	100	0	83.5	-27	Pass	
23154.199	39.6	0	14.4	54	Peak(Scan)	V	100	0	83.5	-29.5	Pass	
20550.525	39.6	0	13.8	53.4	Peak(Scan)	V	100	0	83.5	-30.1	Pass	

Subtest Number: 23078 - 30	**Subtest Date:** 22-Sep-2006
Engineer	Phillip Carranco
Lab Information	Building N, 5m Anechoic
Subtest Results	
Subtest Title	802.11G RSE Average 18-26.5GHz (2462MHz)
Subtest Result	Pass
Highest Frequency	26499.999
Lowest Frequency	18000.0
Comments on the above Test Results	RBW = 1MHz, VBW = 10Hz

Graphical Test Results
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Title: rse_11G_tx_2462_18-26GHz_AVE

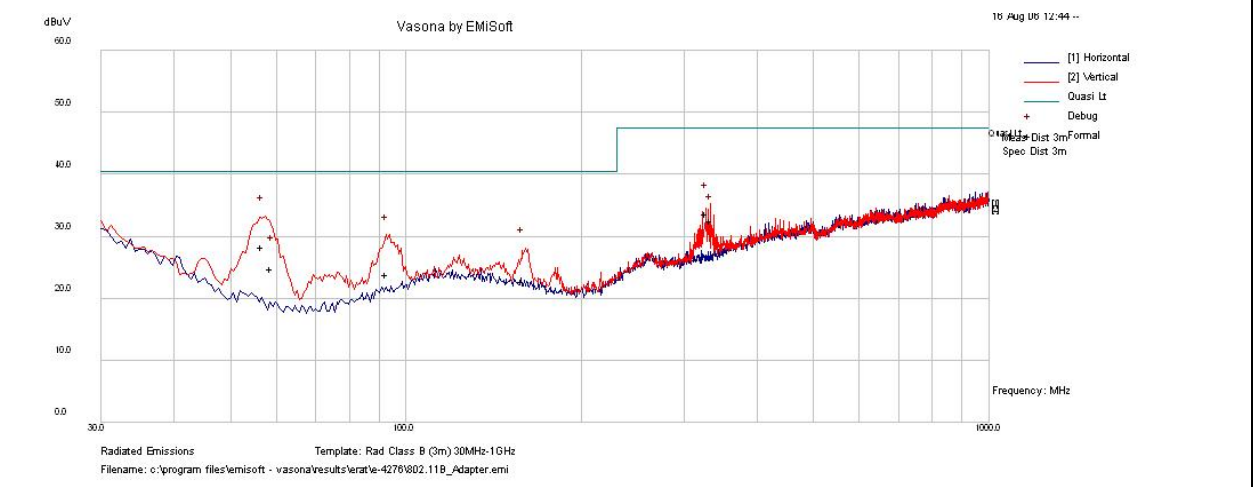
Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
26293.199	31.3	0	16.1	47.4	Avg	V	100	0	63.5	-16.1	Pass	
24819.612	31.3	0	15.6	46.9	Avg	H	100	0	63.5	-16.6	Pass	
23981.937	30.6	0	14.8	45.4	Avg	V	100	0	63.5	-18.1	Pass	
20509.178	28.5	0	13.9	42.4	Avg	V	100	0	63.5	-21.1	Pass	

Subtest Number: 23078 - 31	**Subtest Date:** 25-Sep-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	**802.11B RSE 30MHz to 1000MHz**
Subtest Result	Pass
Highest Frequency	1000.0
Lowest Frequency	30.0
Comments on the above Test Results	No further comments

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Title: 802.11B_battery

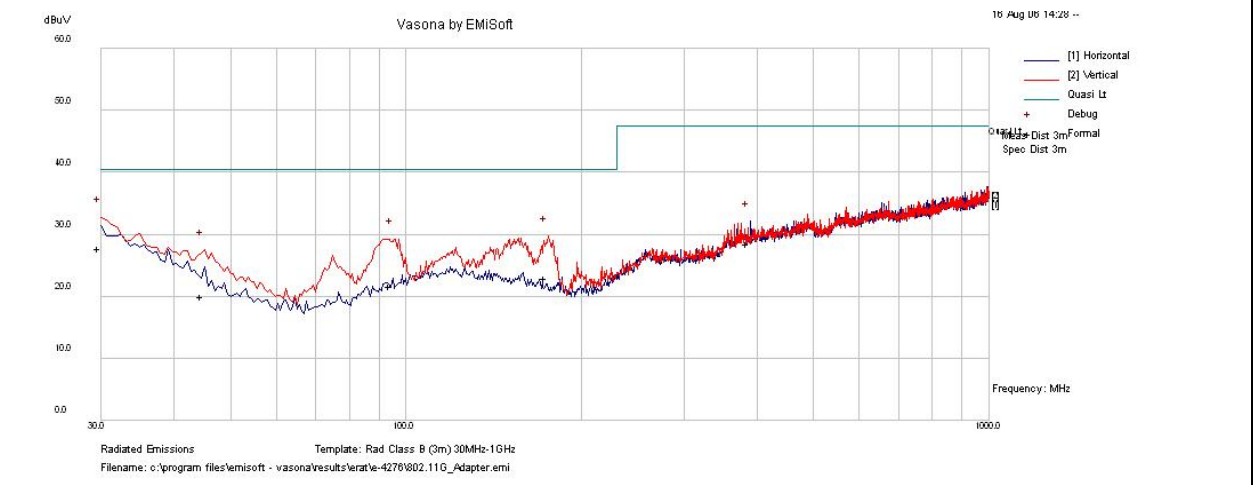
Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV	Margin dB	Pass /Fail	Comments
56.94	18.6	0.6	6.3	25.5	Qp	V	99	250	40.5	-15	Pass	
57.133	18.2	0.6	6.3	25.1	Qp	V	100	285	40.5	-15.4	Pass	
331.505	15.2	1.4	13.9	30.6	Qp	V	148	-3	47.5	-17	Pass	
336.405	13.9	1.4	14	29.3	Qp	V	119	248	47.5	-18.2	Pass	
93.784	10.2	0.7	9.8	20.7	Qp	V	135	74	40.5	-19.8	Pass	
160.301	8.4	1	10.2	19.6	Qp	V	144	98	40.5	-21	Pass	

Subtest Number: 23078 - 32	**Subtest Date:** 25-Sep-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	**802.11G RSE 30MHz to 1000MHz**
Subtest Result	Pass
Highest Frequency	1000.0
Lowest Frequency	30.0
Comments on the above Test Results	No further comments

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Title: 802-11G_Adapter

Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV	Margin dB	Pass /Fail	Comments
30.051	5.6	0.4	18.6	24.6	Qp	V	259	363	40.5	-15.9	Pass	
175.491	9.5	1	9.4	19.9	Qp	V	119	320	40.5	-20.6	Pass	
94.95	7.7	0.7	10	18.4	Qp	V	154	305	40.5	-22.1	Pass	
390.009	8.3	1.5	15.5	25.3	Qp	H	122	148	47.5	-22.2	Pass	
44.989	5.3	0.5	11	16.8	Qp	V	348	319	40.5	-23.7	Pass	

Radiated Band Edge Measurements

15.205 & RSS-210 sec2.7:

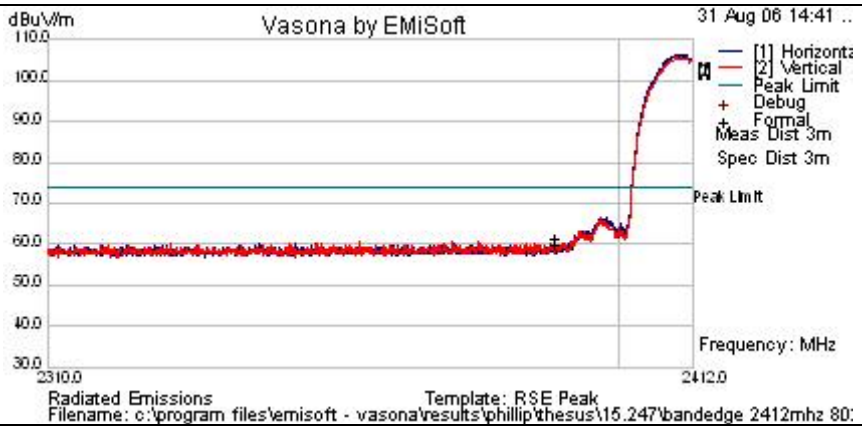
Radiated emissions which fall in the restricted bands, as defined in Sec. 15.205(a), must also comply with the radiated emission limits specified in Sec. 15.209(a).

Test Number: 23077 **Spec ID:** 648		
Basic Standard	**Applied to**	**Test Details / Comments**
Restricted Band edge Measurements	Enclosure	Radiated emissions which fall in the restricted bands, as defined in Sec. 15.205(a), must also comply with the radiated emission limits specified in Sec. 15.209(a).
Operating Mode	**Mode :** 1, 802.11B/G	
Power Input	3.7v (+/-10%), DC	
Overall Result	Pass	
Comments	No further comments	
Deviation	There were no deviations from the specification	

System Number	**Description**	**Samples**	**System under test**	**Support equipment**
1	CP7921G Radio	S01	☑	☐
2	Support	S02	☐	☑

Subtest Number: 23077 - 1	**Subtest Date:** 31-Aug-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11B Band Edge Peak (2412MHz)
Subtest Result	Pass
Highest Frequency	2412.0
Lowest Frequency	2310.0
Comments on the above Test Results	RBW = 1MHz, VBW = 1MHz

Graphical Test Results
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



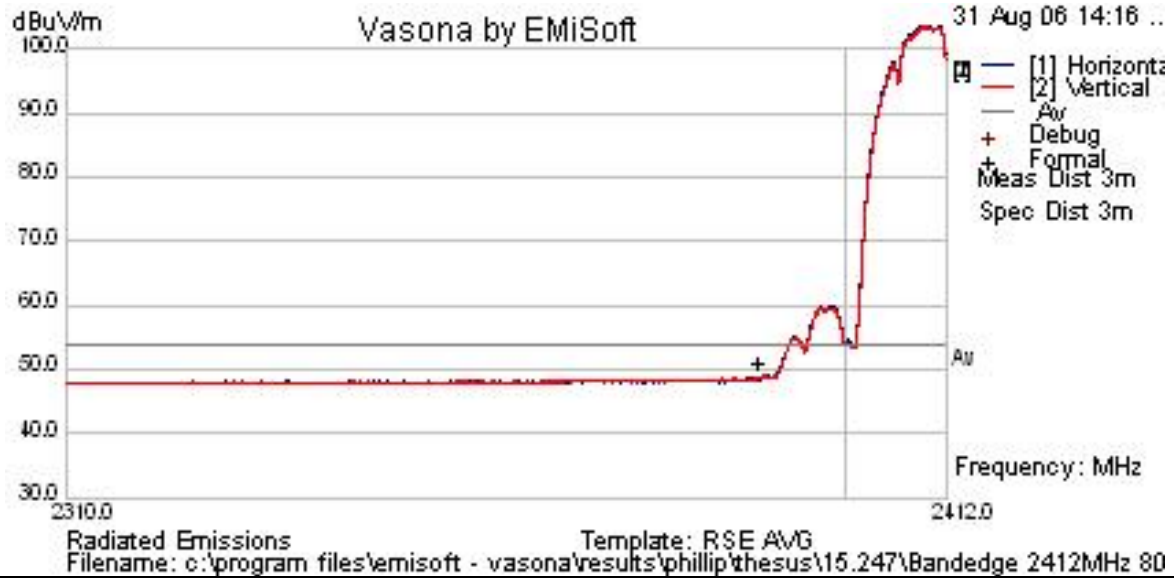
Title: bandedge 2412mhz 802b

Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
2390	41.2	23.8	-7.3	57.8	Peak(Scan)	H	98	-3	74	-16.2	Pass	
2390	42.6	23.8	-7.3	59.2	Peak(Scan)	V	98	-3	74	-14.8	Pass	

Subtest Number: 23077 - 2	**Subtest Date:** 31-Aug-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11B BandEdge Average (2412MHz)
Subtest Result	Pass
Highest Frequency	2412.0
Lowest Frequency	2310.0
Comments on the above Test Results	RBW = 1MHz, VBW = 10Hz

Graphical Test Results
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



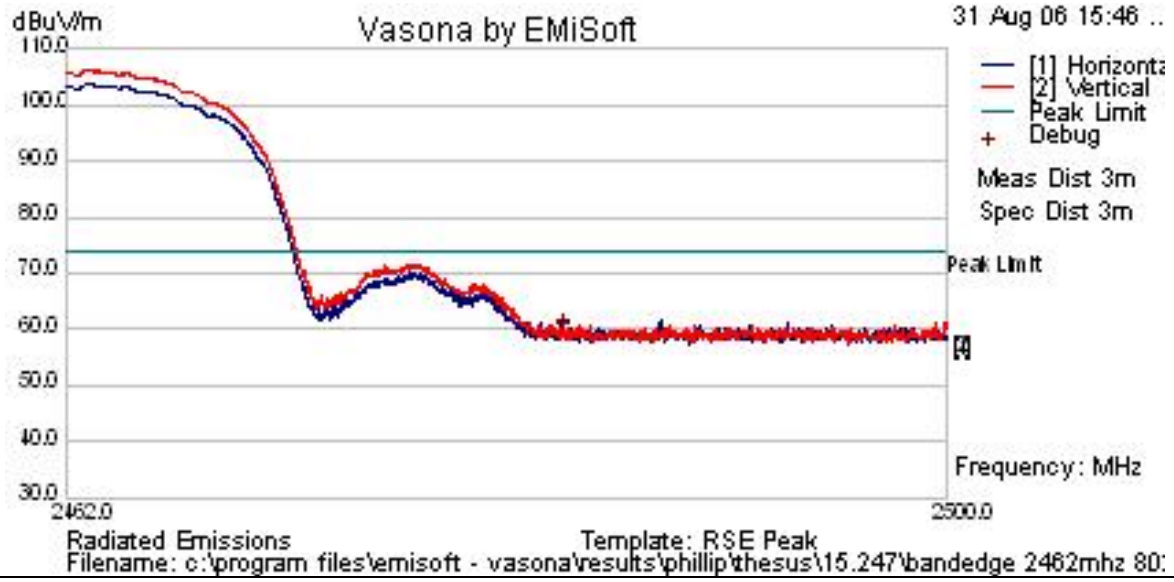
Title: Bandedge 2412MHz 802b

Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
2390	32.3	23.8	-7.3	48.9	Av	H	100	363	54	-5.1	Pass	
2390	32.3	23.8	-7.3	48.9	Av	V	100	363	54	-5.1	Pass	

Subtest Number: 23077 - 3	**Subtest Date:** 31-Aug-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11B BandEdge Peak (2462MHz)
Subtest Result	Pass
Highest Frequency	2500.0
Lowest Frequency	2462.0
Comments on the above Test Results	RBW = 1MHz, VBW = 1MHz

Graphical Test Results
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



Title: band edge 2462mhz 802b Peak

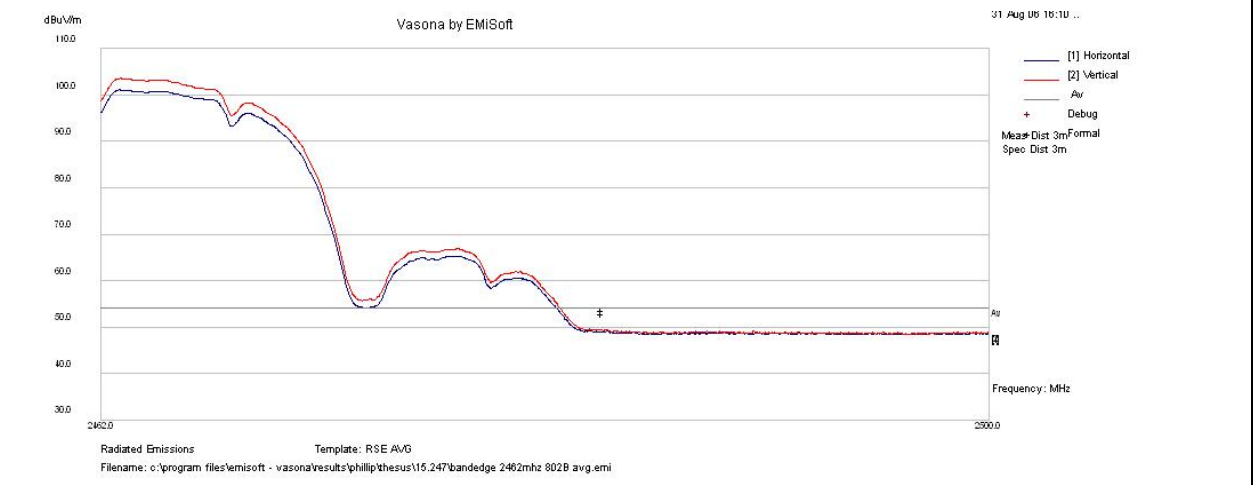
Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
2483.5	42.2	23.9	-7.2	59	Peak(Scan)	H	100	-3	74	-15	Pass	
2483.5	43	23.9	-7.2	59.7	Peak(Scan)	V	100	-3	74	-14.3	Pass	

Subtest Number: 23077 - 4	**Subtest Date:** 22-Sep-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11B Band Edge Average (2462MHz)
Subtest Result	Pass
Highest Frequency	2500.0
Lowest Frequency	2462.0
Comments on the above Test Results	RBW = 1MHz, VBW = 10Hz

Graphical Test Results

Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



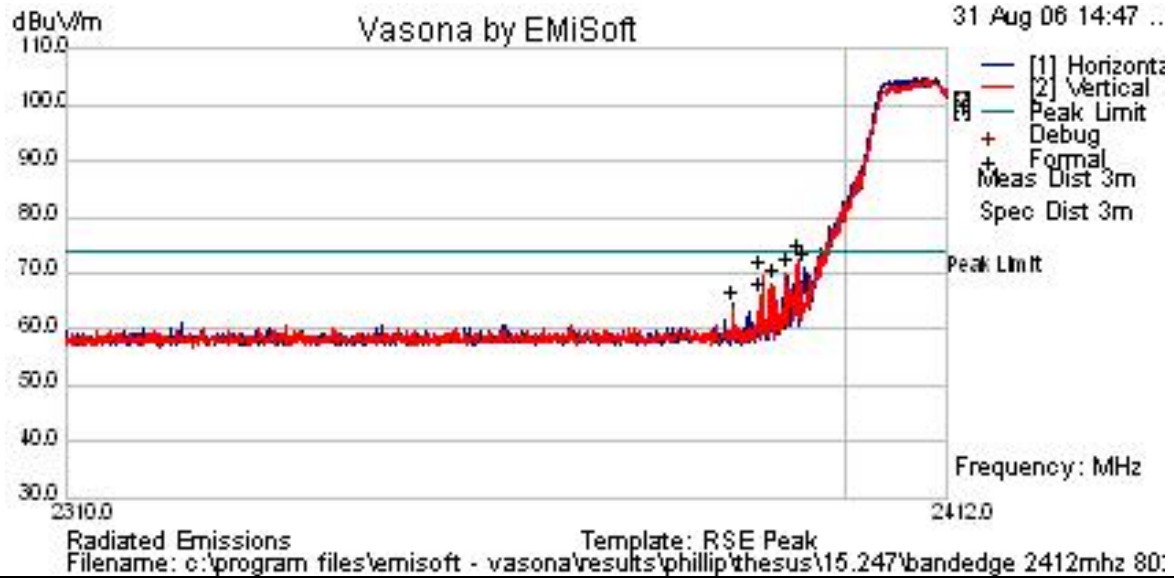
Title: bandedge 2462mhz 802B avg

Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
2483.5	32.2	23.9	-7.2	48.9	AV	H	100	-3	54	-5.1	Pass	
2483.5	32.7	23.9	-7.2	49.4	Av	V	100	-3	54	-4.6	Pass	

Subtest Number: 23077 - 5	**Subtest Date:** 22-Sep-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11G BandEdge Peak (2412MHz)
Subtest Result	Pass
Highest Frequency	2412.0
Lowest Frequency	2310.0
Comments on the above Test Results	RBW = 1MHz, VBW = 1MHz

Graphical Test Results
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



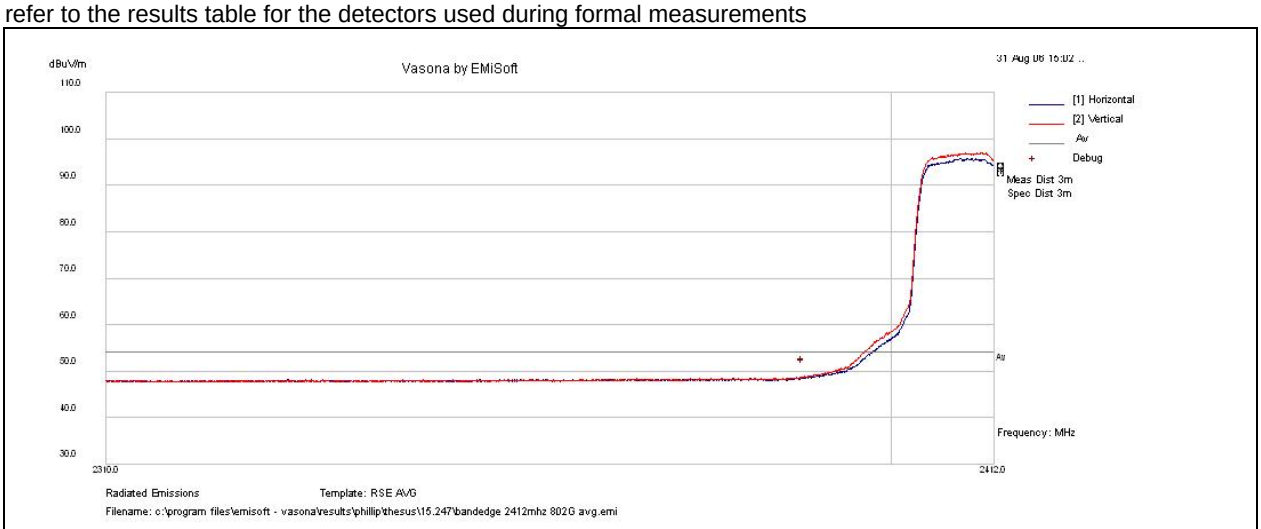
Title: bandedge 2412mhz 802g Peak

Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
2394.502	55.9	23.9	-7.2	72.5	Peak(Scan)	V	100	234	74	-1.5	Pass	
2395.138	54.5	23.9	-7.2	71.1	Peak(Scan)	H	100	166	74	-2.9	Pass	
2393.102	53.5	23.8	-7.3	70.1	Peak(Scan)	V	100	231	74	-3.9	Pass	
2390	53	23.8	-7.3	69.6	Peak(Scan)	H	100	45	74	-4.4	Pass	
2391.511	51.6	23.8	-7.3	68.2	Peak(Scan)	V	100	255	74	-5.8	Pass	
2390	49.3	23.8	-7.3	65.9	Peak(Scan)	V	100	45	74	-8.1	Pass	
2386.93	48	23.8	-7.3	64.6	Peak(Scan)	H	100	45	74	-9.4	Pass	

Subtest Number: 23077 - 6	**Subtest Date:** 22-Sep-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11G BandEdge Average (2412MHz)
Subtest Result	Pass
Highest Frequency	2412.0
Lowest Frequency	2310.0
Comments on the above Test Results	RBW = 1MHz, VBW = 10Hz

Graphical Test Results
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



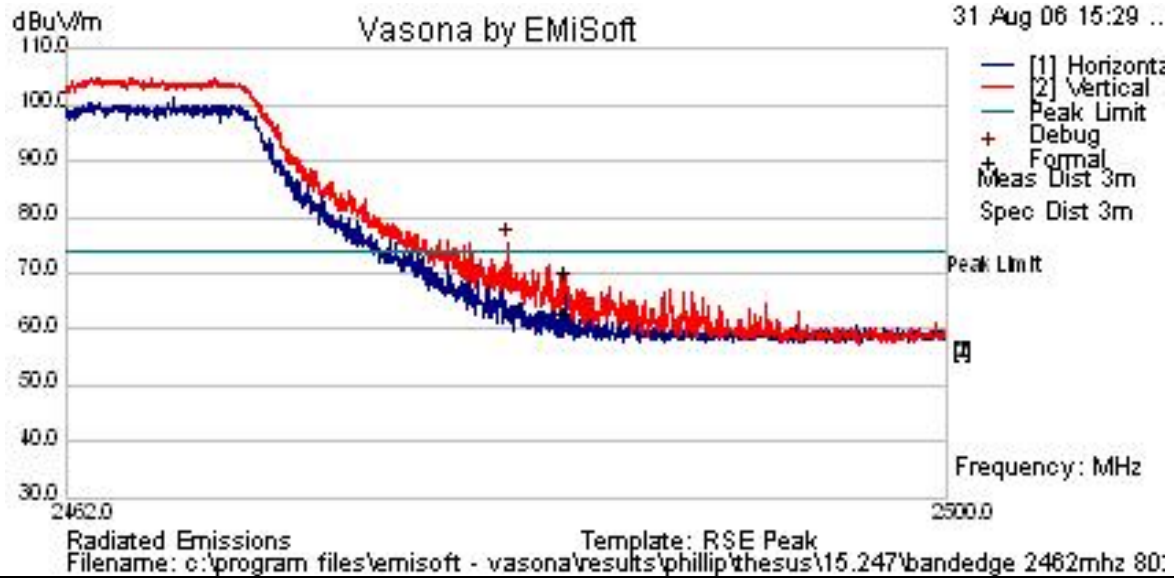
Title: bandedge 2412mhz 802G avg

Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
2390	32.1	23.8	-7.3	48.7	AV	V	104	-3	54	-5.3	Pass	
2390	31.8	23.8	-7.3	48.4	Av	H	104	-3	54	-5.6	Pass	

Subtest Number: 23077 - 7	**Subtest Date:** 22-Sep-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11G BandEdge Peak (2462MHz)
Subtest Result	Pass
Highest Frequency	2500.0
Lowest Frequency	2462.0
Comments on the above Test Results	RBW = 1MHz, VBW = 1MHz

Graphical Test Results
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements



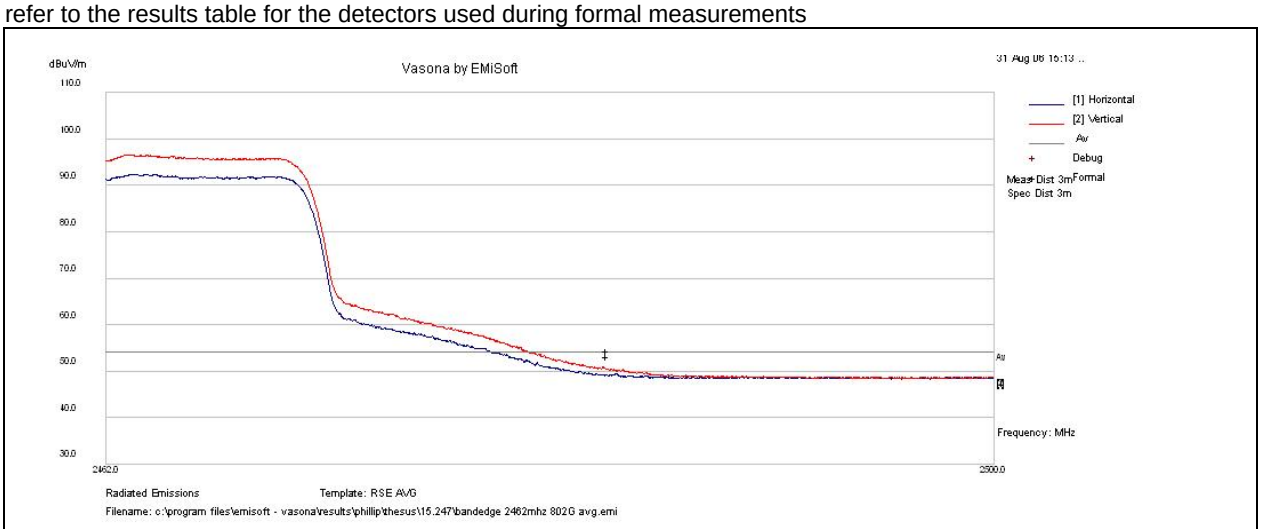
Title: bandedge 2462mhz 802g Peak

Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
2483.5	51.2	23.9	-7.2	67.9	Peak(Scan)	V	104	-3	74	-6.1	Pass	
2483.5	43.7	23.9	-7.2	60.4	Peak(Scan)	H	104	-3	74	-13.6	Pass	

Subtest Number: 23077 - 8	**Subtest Date:** 22-Sep-2006
Engineer	Phillip Carranco
Lab Information	Building I, 5m Anechoic
Subtest Results	
Subtest Title	802.11G BandEdge Average (2462MHz)
Subtest Result	Pass
Highest Frequency	2500.0
Lowest Frequency	2462.0
Comments on the above Test Results	RBW = 1MHz, VBW = 1MHz

Graphical Test Results
Note that the data displayed on the plots detailed in this appendix were measured using a 'Peak Detector'. Please refer to the results table for the detectors used during formal measurements

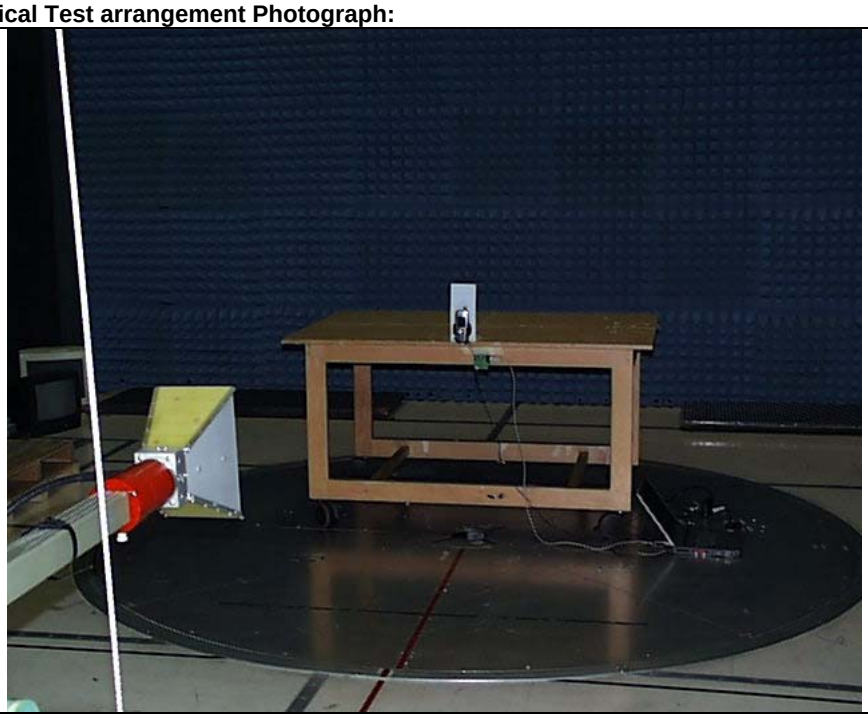


Title: bandedge 2462mhz 802G avg

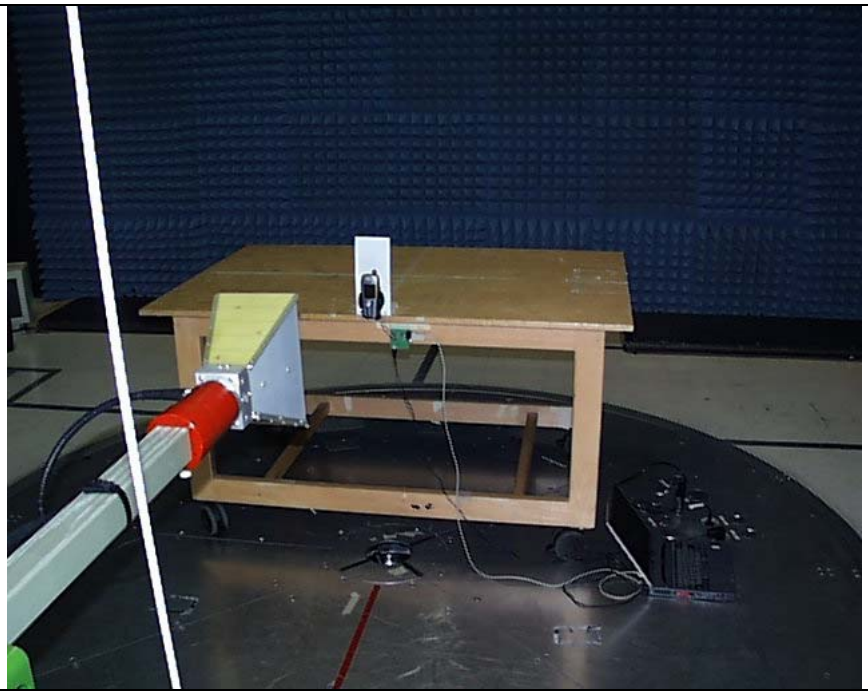
Test Results Table

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
2483.5	32.4	23.9	-7.2	49.1	Av	H	104	-3	54	-4.9	Pass	
2483.5	33.5	23.9	-7.2	50.2	Av	V	104	-3	54	-3.8	Pass	

Physical Test arrangement Photograph:



Title: 802.11B/G BandEdge Test Configuration



Title: Radiated Spurious Emissions Test Configuraiton at 1m (Front View)

Comments on the above Photograph: No further comments

Title: Radiated Spurious Emissions Test Configuration for 30MHz to 1000MHz

Appendix B: Abbreviation Key and Definitions

The following table defines abbreviations used within this test report.

Abbreviation	Description	Abbreviation	Description
EMC	Electro Magnetic Compatibility	°F	Degrees Fahrenheit
EMI	Electro Magnetic Interference	°C	Degrees Celsius
EUT	Equipment Under Test	Temp	Temperature
ITE	Information Technology Equipment	S/N	Serial Number
TAP	Test Assessment Schedule	Qty	Quantity
ESD	Electro Static Discharge	emf	Electromotive force
EFT	Electric Fast Transient	RMS	Root mean square
EDCS	Engineering Document Control System	Qp	Quasi Peak
Config	Configuration	Av	Average
CIS#	Cisco Number (unique identification number for Cisco test equipment)	Pk	Peak
Cal	Calibration	kHz	Kilohertz ($1x10^3$)
EN	European Norm	MHz	MegaHertz ($1x10^6$)
IEC	International Electro technical Commission	GHz	Gigahertz ($1x10^9$)
CISPR	International Special Committee on Radio Interference	H	Horizontal
CDN	Coupling/Decoupling Network	V	Vertical
LISN	Line Impedance Stabilization Network	dB	decibel
PE	Protective Earth	V	Volt
GND	Ground	kV	Kilovolt ($1x10^3$)
L1	Line 1	µV	Microvolt ($1x10^{-6}$)
L2	Line2	A	Amp
L3	Line 3	µA	Micro Amp ($1x10^{-6}$)
DC	Direct Current	mS	Milli Second ($1x10^{-3}$)
RAW	Uncorrected measurement value, as indicated by the measuring device	µS	Micro Second ($1x10^{-6}$)
RF	Radio Frequency	µS	Micro Second ($1x10^{-6}$)
SLCE	Signal Line Conducted Emissions	m	Meter
Meas dist	Measurement distance	Spec dist	Specification distance
N/A or NA	Not Applicable	SL	Signal Line (or Telecom Line)
P	Power Line	L	Live Line
N	Neutral Line	R	Return
S	Supply	AC	Alternating Current

Appendix C: Scope of Accreditation (A2LA certificate number 1178-01)

The scope of accreditation of Cisco Systems, Inc. can be found on the A2LA web page at:

http://www.a2la2.net/scopepdf/1178-01.pdf

Summary of accredited radio testing capabilities:

EMC/EMI

San Jose, CA, Building P**:**	LP0002: 2004 RRL no.2005-25
San Jose, CA, Building N**:**	LP0002: 2004 RRL no.2005-25
San Jose, CA, Building I**:**	LP0002: 2004 RRL no. 2005-25
San Jose, CA, Building B**:**	LP0002: 2004 (conducted measurements only) RRL no.2005-25 (conducted measurement only)

Appendix D: Test Equipment Used to perform the test

Equip#	Manufacturer/ Model	Description	Last Cal	Next Due	Test Number(s)
001229	HP/ 85460A	RF Filter Section	12-DEC-05	12-DEC-06	[23078]
001230	HP/ 85462A	EMI Receiver RF Section	12-DEC-05	12-DEC-06	[23078]
004234	Schaffner/ CBL6112B	BiLog Antenna	12-APR-06	12-APR-07	[23078]
004840	HP/ 8449B	PreAmplifier	17-JAN-06	17-JAN-07	[23077], [23078]
005972	HP/ 83712B	Synthesized CW Generator	25-JAN-06	25-JAN-07	[22903]
007614	Giga-tronics/ 8542C	Universal Power Meter	13-SEP-05	13-SEP-06	[22894], [22903], [22911], [22986], [22987]
007616	Giga-tronics/ 80401A	Power Sensor, .01-18GHz	13-SEP-05	13-SEP-06	[22894], [22903], [22911], [22986], [22987]
008024	Huber + Suhner/ SF106A	3 meter Sucoflex cable	16-NOV-05	16-NOV-06	[23077], [23078]
008081	Huber + Suhner/ SF106A	1m Sucoflex cable	16-NOV-05	16-NOV-06	[23077], [23078]
019638	Emco/ 3115	Double Ridged Guide Horn Antenna	19-APR-06	19-APR-07	[23077], [23078]
020821	Micro-Coax/ UFB142A-1-1572-200200	RF Coaxial Cable, to 40GHz, 157.2 in	05-OCT-05	05-OCT-06	[23078]
024905	Agilent/ E4440A	Precision Spectrum Analyzer	08-FEB-06	08-FEB-07	[22894], [22903], [22911], [22986], [22987], [23077], [23078]
026860	Cisco/ 1840	18-40GHz EMI Test Head/Verification Fixture	05-OCT-05	05-OCT-06	[23078]
027235	York/ CNE V	Comparison Noise Emitter	23-MAY-06	23-MAY-07	[23078]
030443	Micro-Coax/ UFB311A-0-1560-520520	RF Coaxial Cable, to 18GHz, 156 In.	16-NOV-05	16-NOV-06	[23077], [23078]
033602	Midwest Microwave/ CSY-NMNM-80-273001	RF Coaxial Cable, 27ft. to 18GHz	16-NOV-05	16-NOV-06	[23077], [23078]

034974	Midwest Microwave/ ATT-0640-20-29M-02	Attenuator, 20dB, DC-40GHz	09-MAY-06	09-MAY-07	[22894], [22903], [22911], [22986], [22987]
035097	Micro-Coax/ UFA147A-0-0180-110200	RF Coaxial Cable, to 40 GHz, 18 in	06-MAR-06	06-MAR-07	[22911], [22986], [22987]
035613	Micro-Tronics/ BRM50702-02	Notch Filter, SB:2.4-2.5GHz, to 18GHz	15-JUN-06	15-JUN-07	[23077], [23078]
036716	Cisco/ RF Coaxial Cable-SMA	Radio Test Cable, SMA-SMA	03-DEC-05	03-DEC-06	[22903], [22911], [22986], [22987]
037232	JFW/ 50CB-015	Control Box, GPIB	Cal Not Required	N/A	[23078]
037552	Murata Electronics/ MXGS83RK3000	Special Radio Test Adaptor Cable	18-APR-06	18-APR-07	[22894], [22903], [22911], [22986], [22987]
038393	Agilent/ E4446A	PSA Spectrum Analyzer	26-JUN-06	26-JUN-07	[23078]

Software used in the tests

A: Vasona File Version

Vasona File Version	Used in Subtests
4.1111	[23078 - 19, 23078 - 20, 23078 - 21, 23078 - 22, 23078 - 23, 23078 - 24, 23078 - 25, 23078 - 26, 23078 - 27, 23078 - 28, 23078 - 29, 23078 - 30, 22894 - 1, 22903 - 1, 22903 - 2, 22903 - 3, 22903 - 5, 22903 - 6, 22903 - 7]
4.196	[23078 - 1, 23078 - 2, 23078 - 3, 23078 - 4, 23078 - 5, 23078 - 6, 23078 - 7, 23078 - 8, 23078 - 9, 23078 - 10, 23078 - 11, 23078 - 12, 23078 - 13, 23078 - 14, 23078 - 15, 23078 - 16, 23078 - 17, 23078 - 18, 23078 - 31, 23078 - 32, 23077 - 1, 23077 - 2, 23077 - 3, 23077 - 4, 23077 - 5, 23077 - 6, 23077 - 7, 23077 - 8]

Appendix E: Test Procedures

Test procedures are summarized below

6dB Bandwidth	EDCS # - 422115
26dB Bandwidth	EDCS # - 422115
Average Output Power	EDCS # - 422117
Co-Located Transmitter	EDCS # - 422118
Conducted Spurious Test	EDCS # - 422119
Peak Transmit Power Measurement	EDCS # - 422123
Power Spectral Density	EDCS # - 422113
Peak Excursion Test	EDCS # - 422121
Radiated Band Edge	EDCS # - 422124
Radiated Spurious Test	EDCS # - 422125
Extreme Test Condition	EDCS # - 450056
Equivalent Isotropic Radiated Power	EDCS # - 450047
Frequency Tolerance	EDCS # - 462996
Power per MHz	EDCS # - 463000