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**Radio Test Report: EDCS -965718**

**For**

**CP-7926G-W-K9 (5GHz Radio)**

**Against the following Specifications :**

**FCC CFR 47 part 15.247**

**FCC CFR 47 part 15.407**

**RSS-210**

**RSS-102**

**Cisco Systems**

EMC Laboratory

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San Jose, CA 95134

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**Title:** Telecom Compliance Engineer

This report replaces any previously entered test report under EDCS - 965718



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## **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 15.407

RSS-210

RSS-102

#### **Notes:**

- 1) Measurements were made in accordance with FCC docket #: DA-02-2138A1, KDB Publication No. 558074 & measurement method of spurious emission tolerance to the International Telecommunication Union (ITU) Recommendation SM329.

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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.**

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.

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**2.2 Start Date of Testing**

16-Mar-2011

**2.3 Report Issue Date**

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**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**

<b>Cisco System Site</b>	<b>Site Identifier</b>
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**

Phillip Carranco

**2.5 Equipment Assessed (EUT)**

CP-7926G-W-K9

## 2.6 EUT Description

The CP-7926G-W-K9 is the next generation Wireless IP Phone that will be more rugged and more resistant to dust, alcohol-based wipes, and liquid splashes, repeated drops and shocks therefore targeting the following markets: Retail, Warehouse, Distribution Centers, Manufacturing, Healthcare. It will also support Bluetooth as an optional interface for wireless headset.

The CP-7926G- will comprise of the MuRata LBEE1W9GVC module with support for TNET1253 for wlan and BRF6300 for Bluetooth support. The MuRata module will interface to the TNETV1700 host processor via SDIO interface, and it has 2 antenna interfaces, one for 2.4 GHz for both Bluetooth and 802.11b/g support, and an additional antenna for 5 GHz for 802.11a support.

## 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:

$$\text{Emission level [dBuV]} = \text{Indicated voltage level [dBuV]} + \text{Cable Loss [dB]} + \text{Other correction factors [dB]}$$

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:-

$$\text{Level in uV/m} = \text{Common Antilogarithm } [(X \text{ dBuV/m})/20] = Y \text{ uV/m}$$

## 2.9 Report Template Control No.

EDCS#: 703457

### Section 3: Result Summary

#### Conducted emissions

Basic Standard	Result
6dB Bandwidth	Pass
99% and 26dB Bandwidth	Pass
Peak Output Power	Pass
Power Spectral Density	Pass
Peak Excursion	Pass
Conducted Spurious Emissions	Pass

#### Radiated emissions

Basic Standard	Result
Radiated Spurious and Harmonic Emissions	Pass
Co-Locator Radiated Spurious Emissions	Pass
Restricted Band Edge Measurements	Pass

### 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. During preliminary testing all three planes (X,Y & Z) were evaluated to determine "Worst Case". The orientation used for this report was demind "Worst Case".

#### 4.1 Sample Details

Sample Number	Equipment Details	Serial Number	Part Number
S01	CP-7926G-W-K9	IAC1444E03U	74-7643-01

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 at 5GHz, Gain: ( no external antenna can be used. )

5150 – 5250MHz: 4,47dBi

5250 – 5350MHz: 4,96dBi

5500 – 5700MHz: 5.85dBi

5745 – 5805MHz: 6.42dBi



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#### 4.2 System Details

System #	Description	Samples
1	Radio Test Sample	S01

#### 4.3 Mode of Operation Details

Mode#	Description	Comments
1	802.11A Test Mode	System is placed in a continuous Tx State at various channels per Test Requirements. 802.11A running at 6Mbps

### Section 5: Modifications

#### 5.1 Sample Modifications Performed During Assessment

No modifications were performed during assessment.





**Appendix A: Formal Test Results**

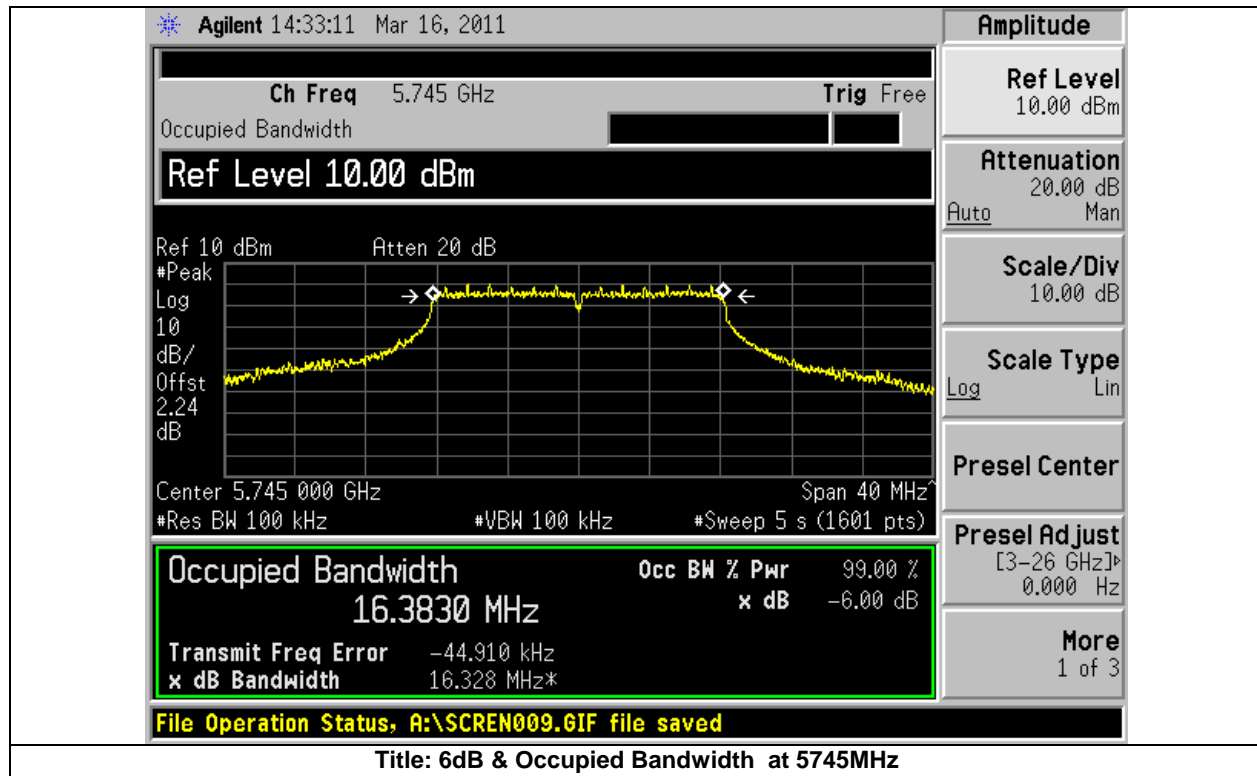
**6dB & 99% Bandwidth**

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.

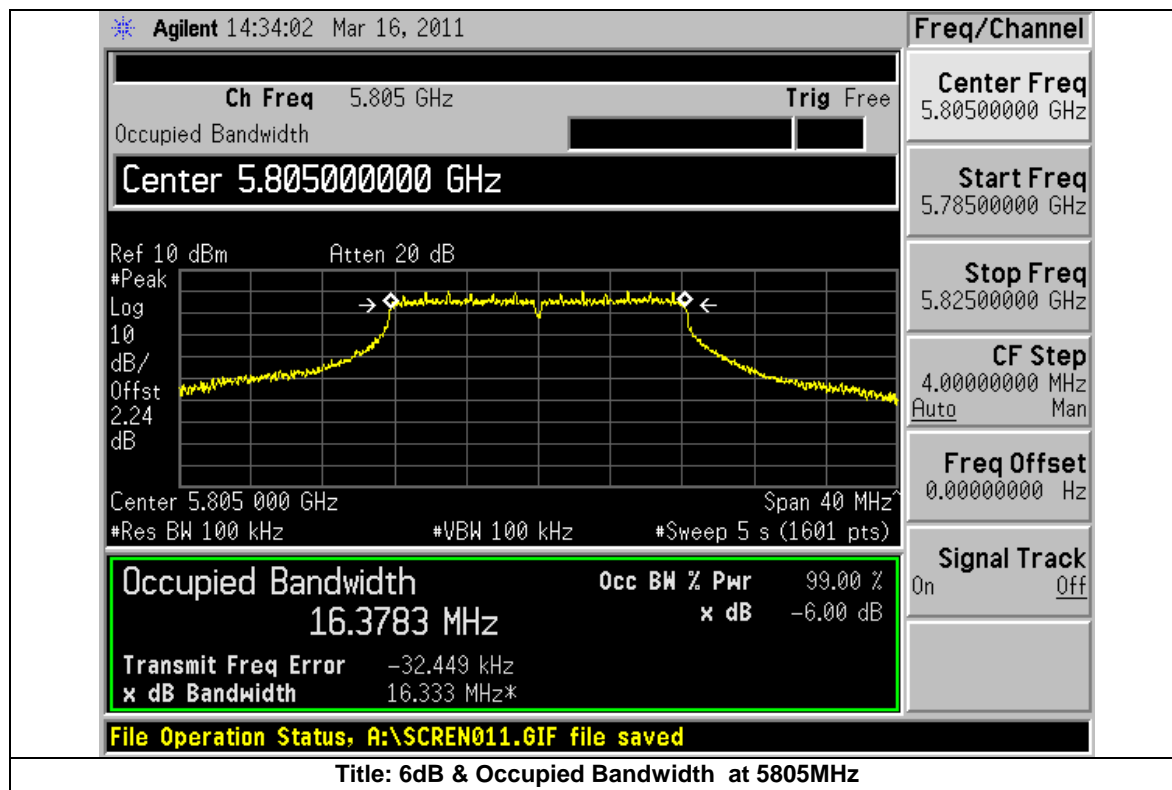
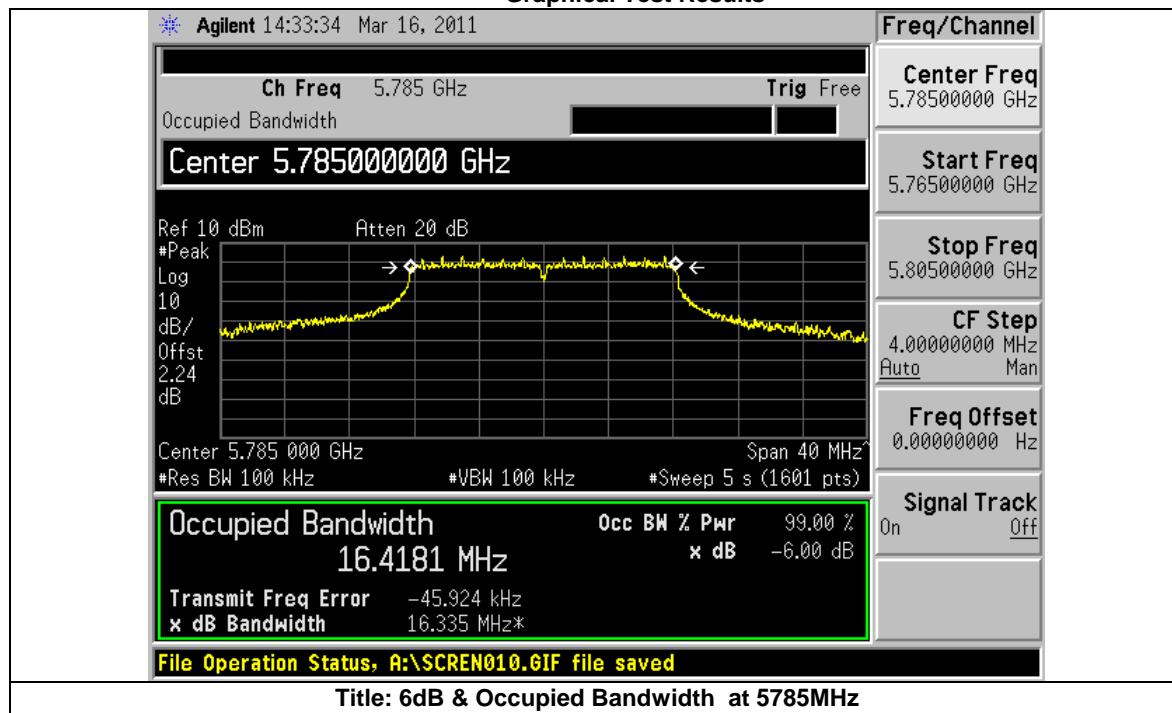
Frequency (MHz)	Data Rate (Mbps)	6dB Bandwidth (kHz)	Limit (kHz)	Margin (kHz)
5745	6	16328	500	-15828
5785	6	16335	500	-15835
5805	6	16333	500	-15833

Frequency (MHz)	Data Rate (Mbps)	99% Bandwidth (kHz)
5745	6	16383
5785	6	16418
5805	6	16378





**Graphical Test Results**

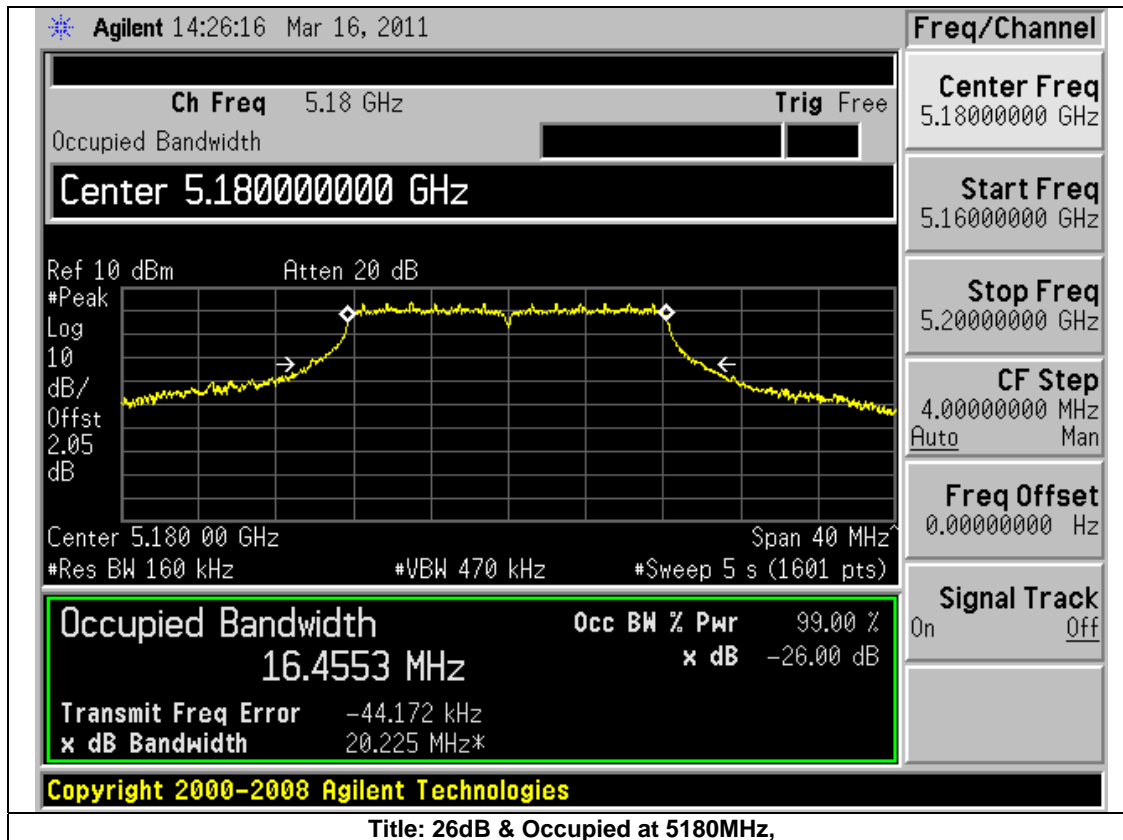


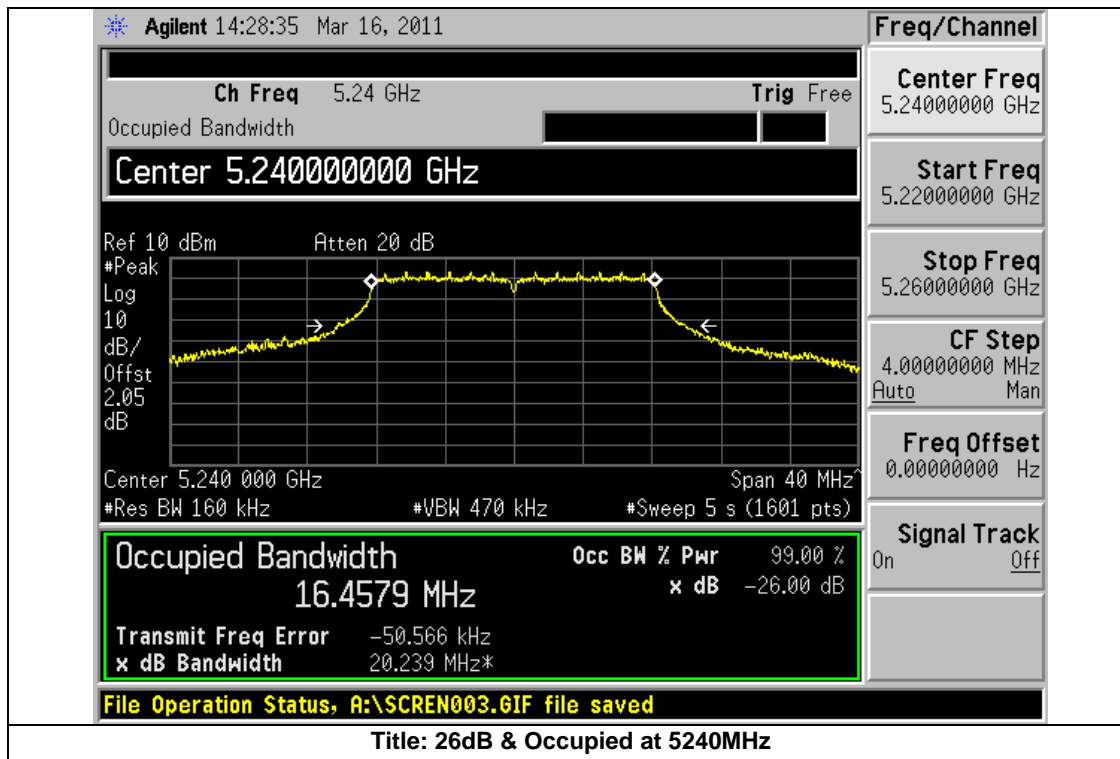
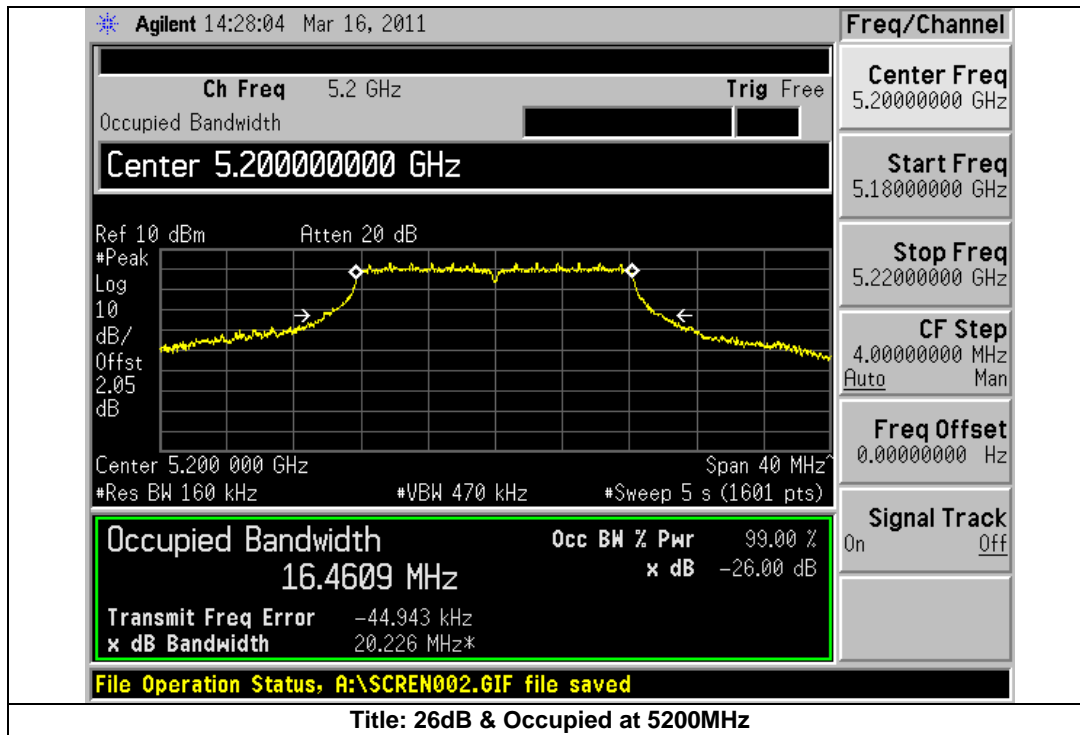


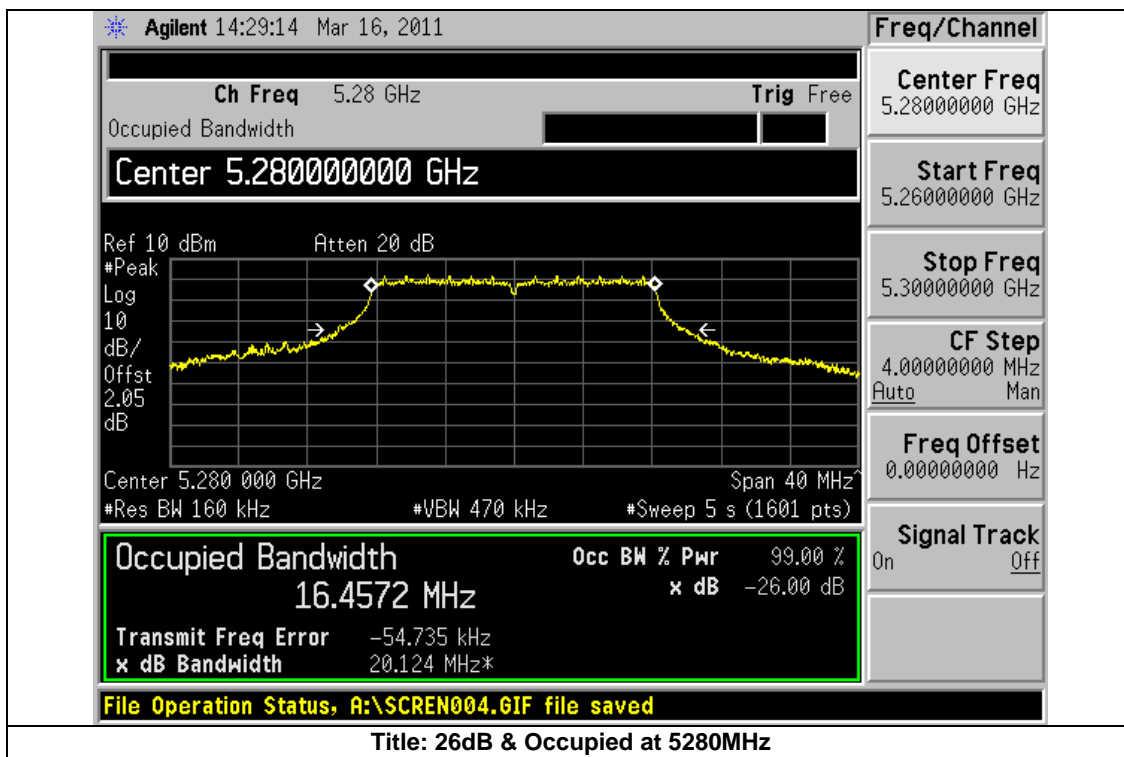
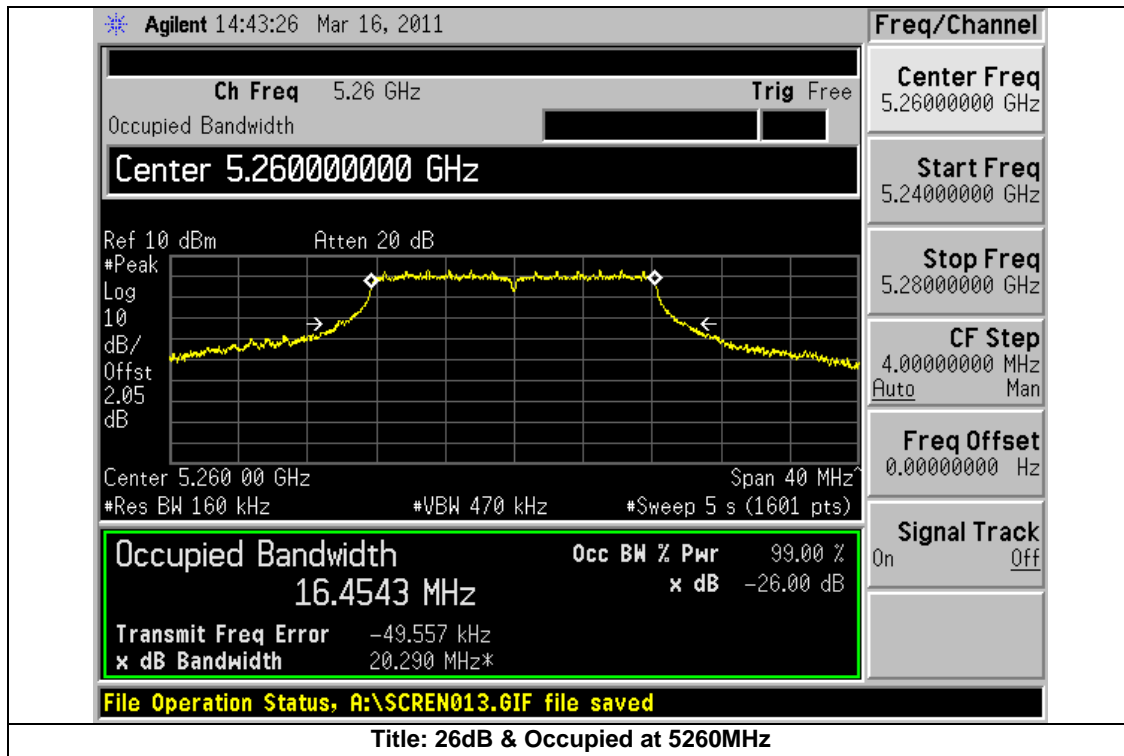
99% and 26dB Bandwidth

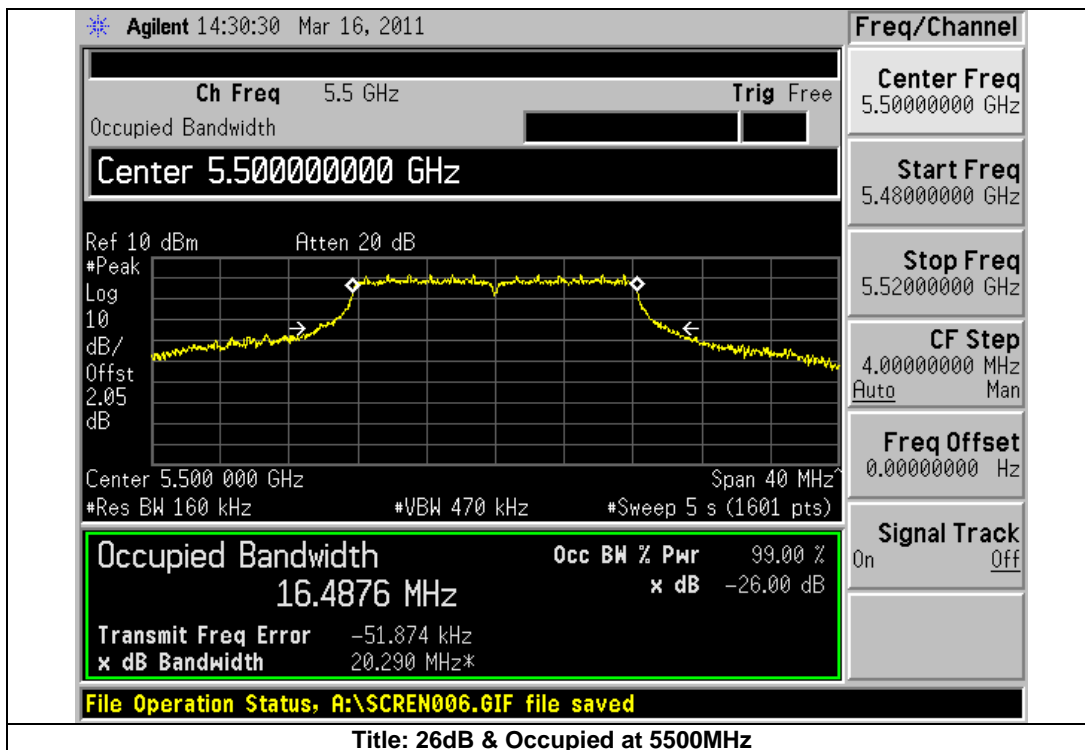
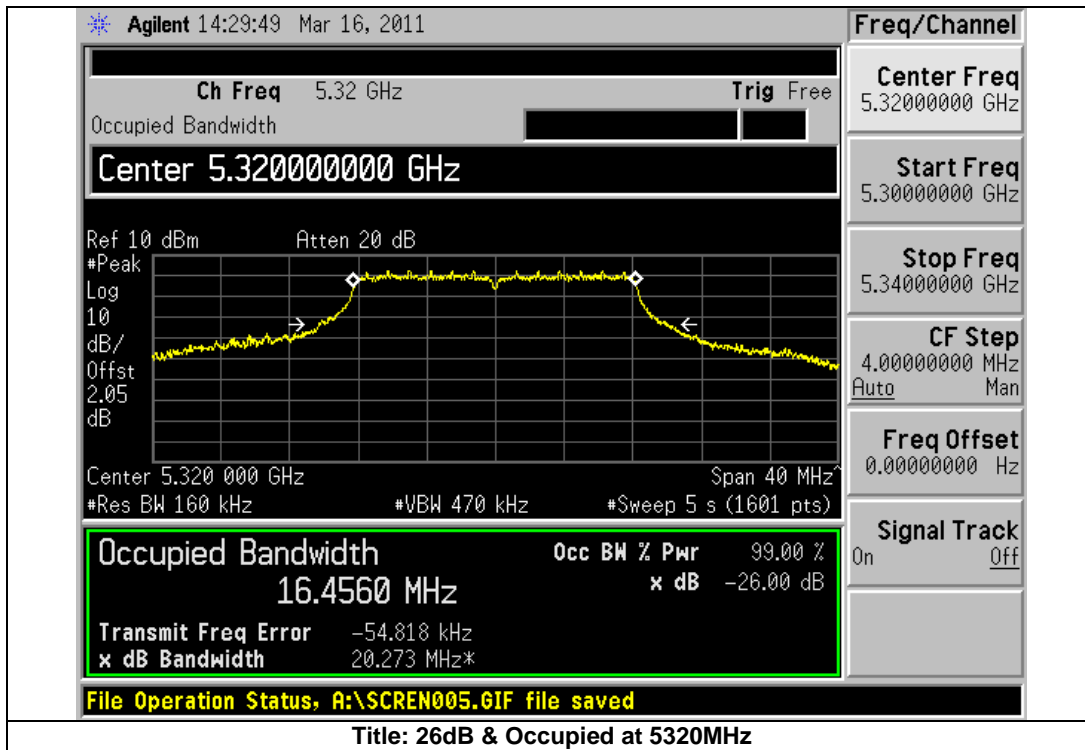
Frequency (MHz)	Data Rate (Mbps)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
5180	6	16.455	20.225
5200	6	16.461	20.226
5240	6	16.458	20.239
5260	6	16.454	20.29
5280	6	16.457	20.124
5320	6	16.456	20.273
5500	6	16.488	20.29
5600	6	16.502	20.471
5700	6	16.465	20.287

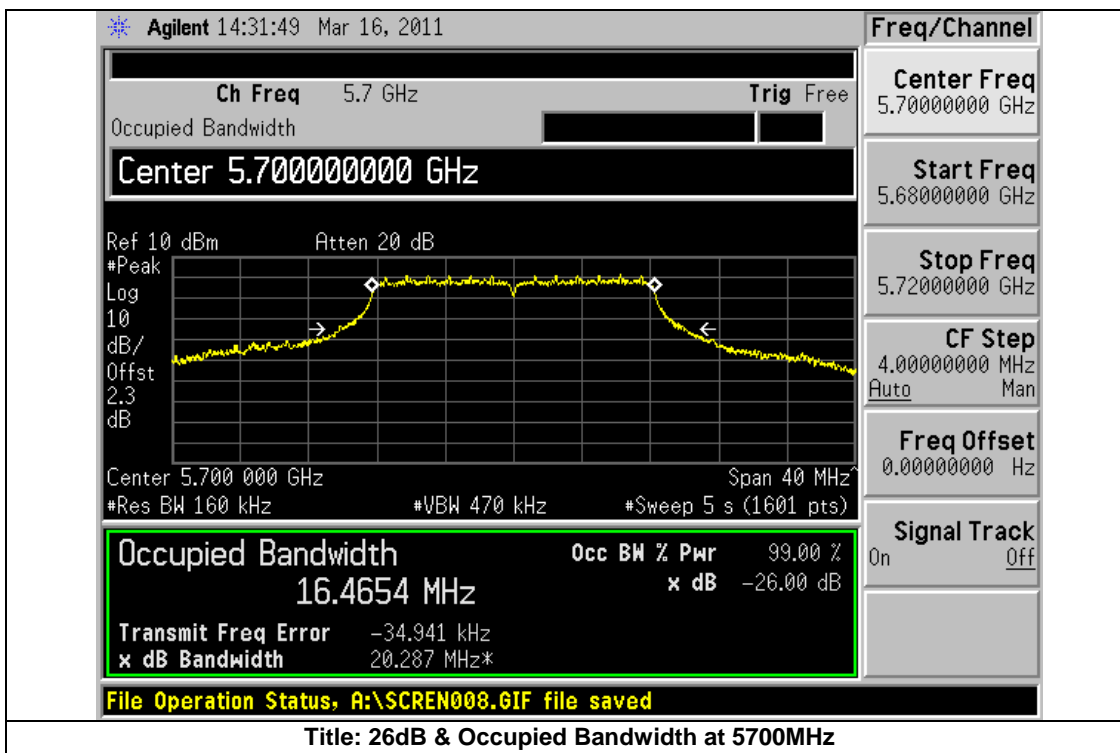
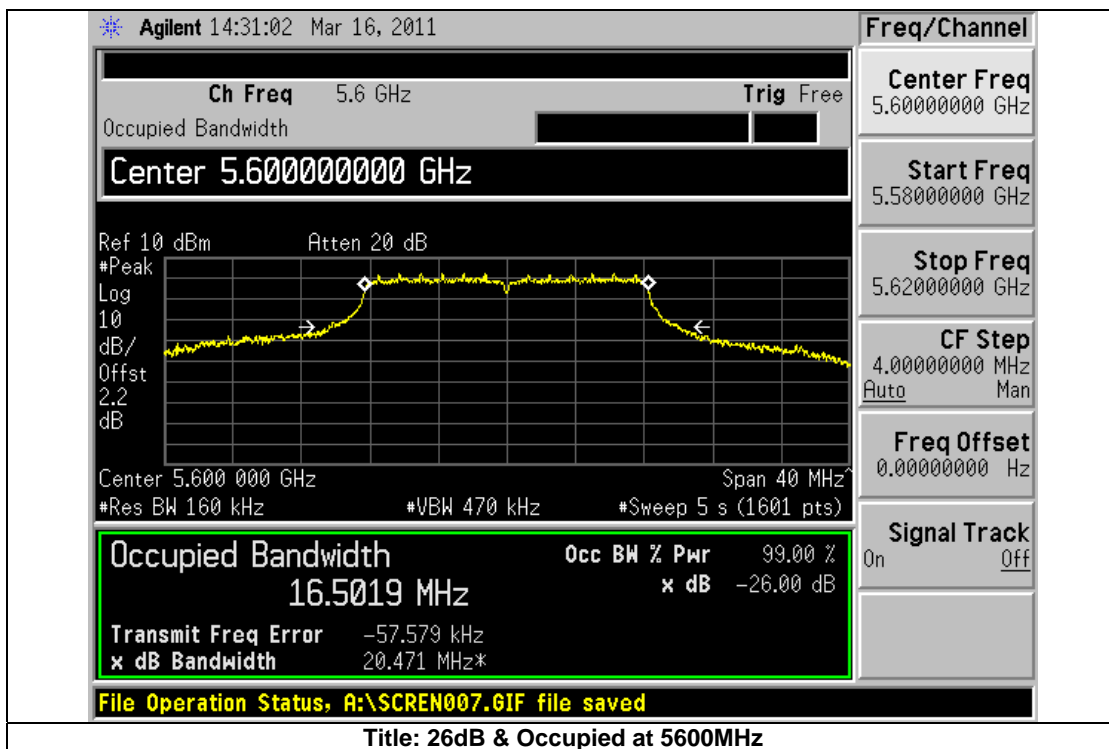
Graphical Test Results













**Peak Output Power**

15.407 & RSS-210(A9.2):

For the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26-dB emission bandwidth in MHz. 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.

The smallest 26dB bandwidth for all channels is 20.225MHz. The maximum conducted output power is calculated as  $4\text{dBm} + 10 \cdot \log(20.225\text{MHz}) = 17.06\text{dBm}$ . Which is greater than 50mW

the frequency bands of operation shall For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. 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.

The smallest 26dB bandwidth for all channels is 20.124MHz. The maximum conducted output power is calculated as  $11\text{dBm} + 10 \cdot \log(20.124\text{MHz}) = 24.04\text{dBm}$ . Which is greater than 250mW.

15.247 & RSS-210(A8.4):

The maximum conducted output power of the intentional radiator for systems using digital modulation in the 5725-5850MHz 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)
5180	6	13.68	17	-3.32
5200	6	13.56	17	-3.44
5240	6	13.51	17	-3.49
5260	6	13.35	24	-10.65
5280	6	12.35	24	-11.65
5320	6	12.86	24	-11.14
5500	6	11.99	24	-12.01
5600	6	12.67	24	-11.33
5700	6	11.45	24	-12.55

(Measurement made using FCC Public Notice DA 02-2138, August 30, 2002)

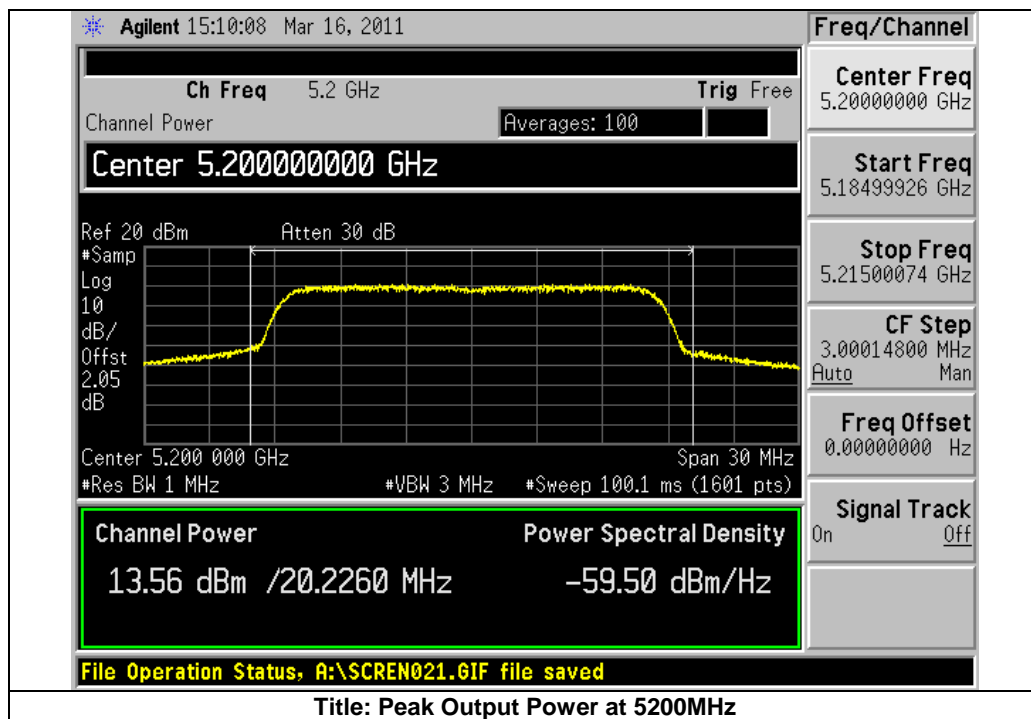
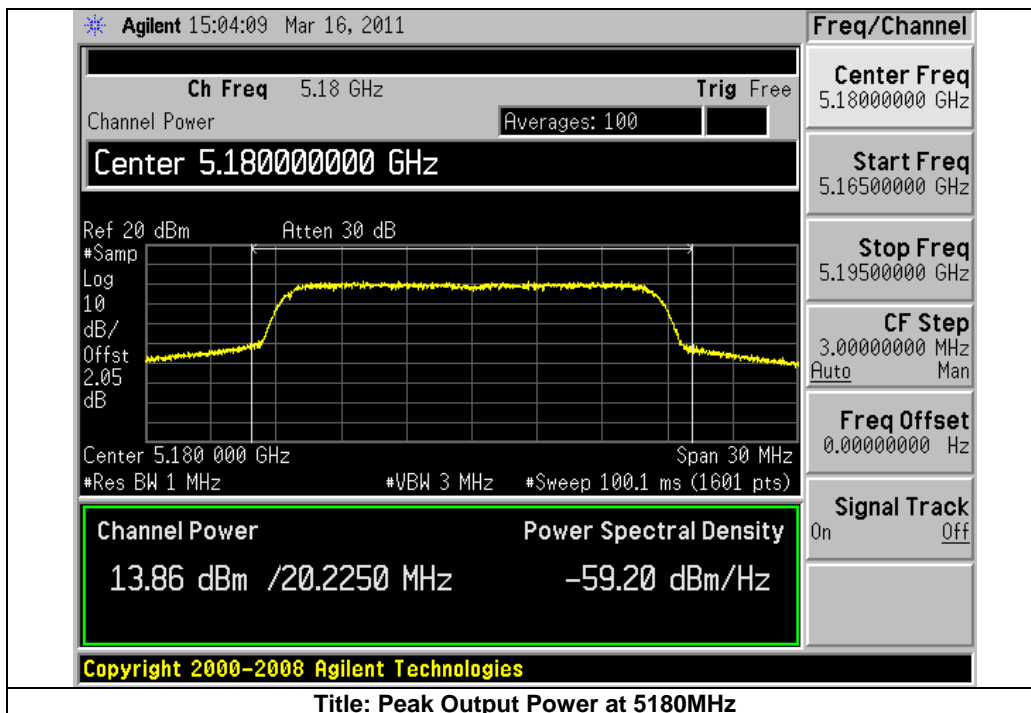
Frequency (MHz)	Data Rate (Mbps)	Peak Output Power (dBm)	Limit (dBm)	Margin (dB)
5745	6	11.88	30	-18.12
5785	6	14.78	30	-15.22
5805	6	11.64	30	-18.36

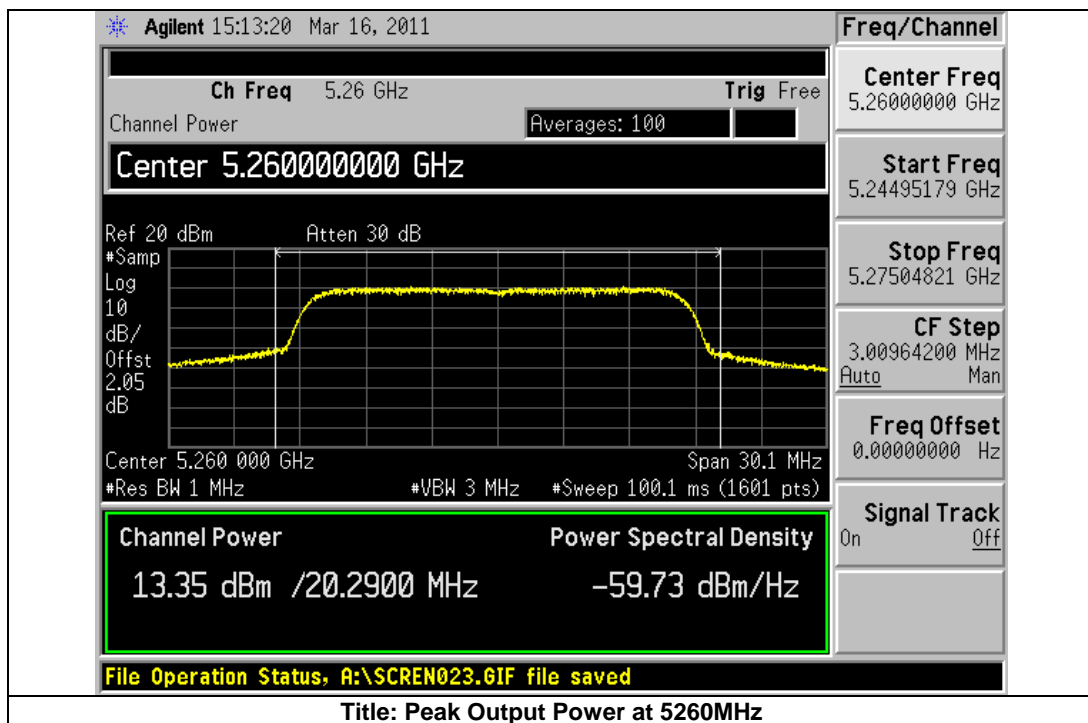
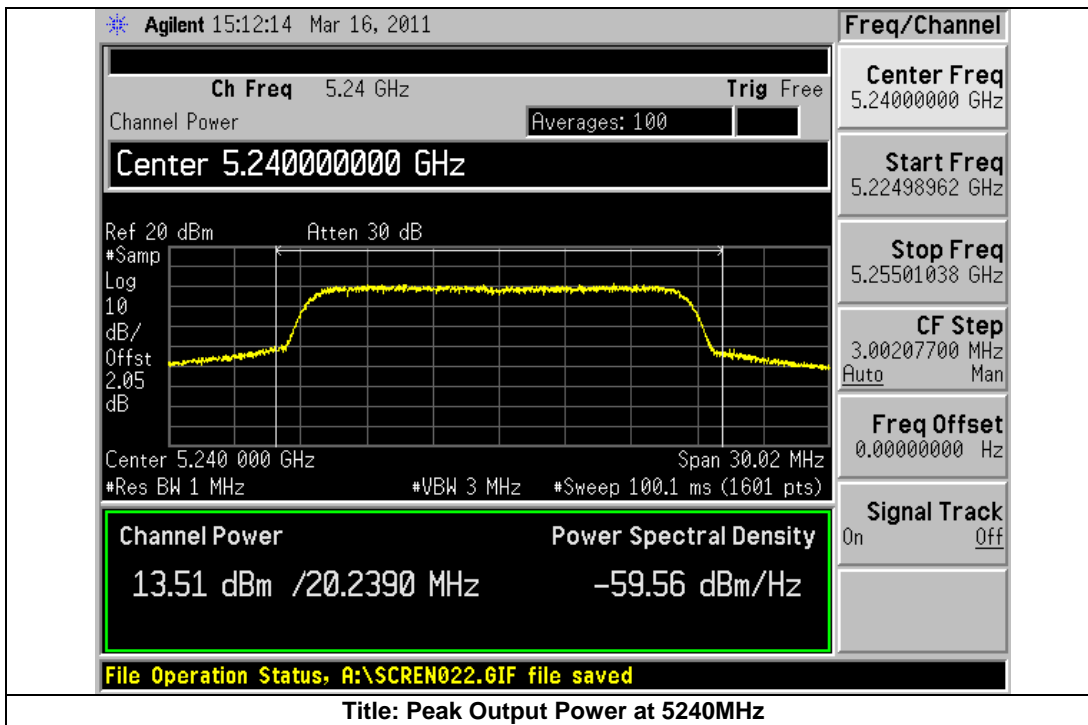
(Measurement made using KDB Publication No. 558074 power option 1, peak power meter)

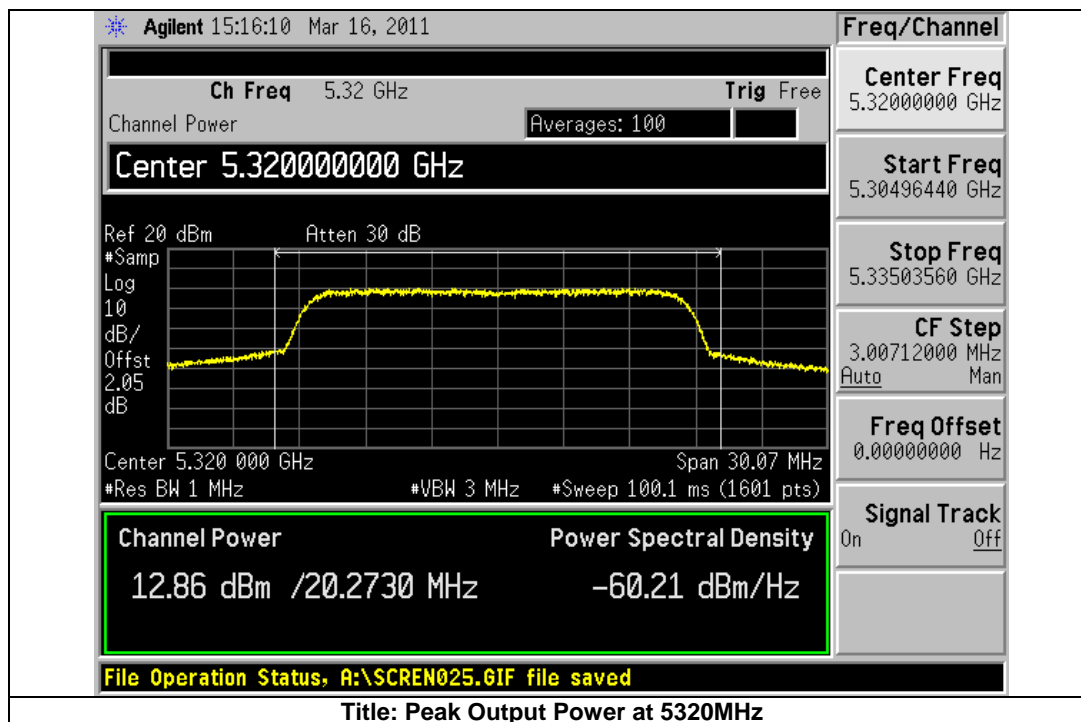
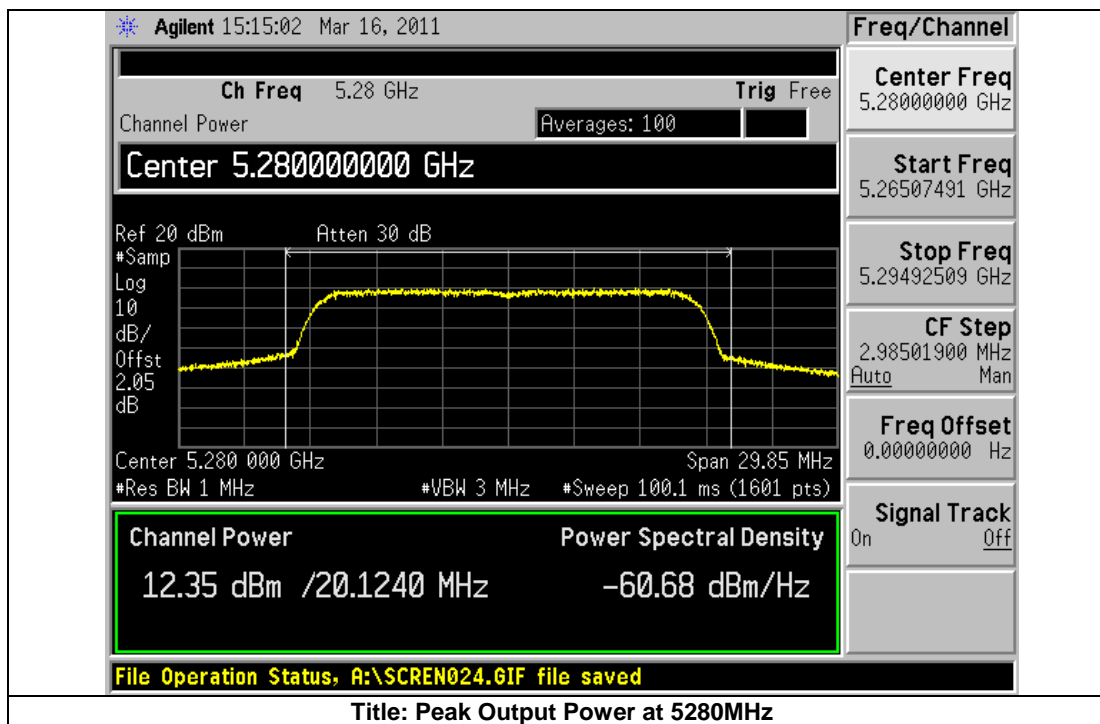


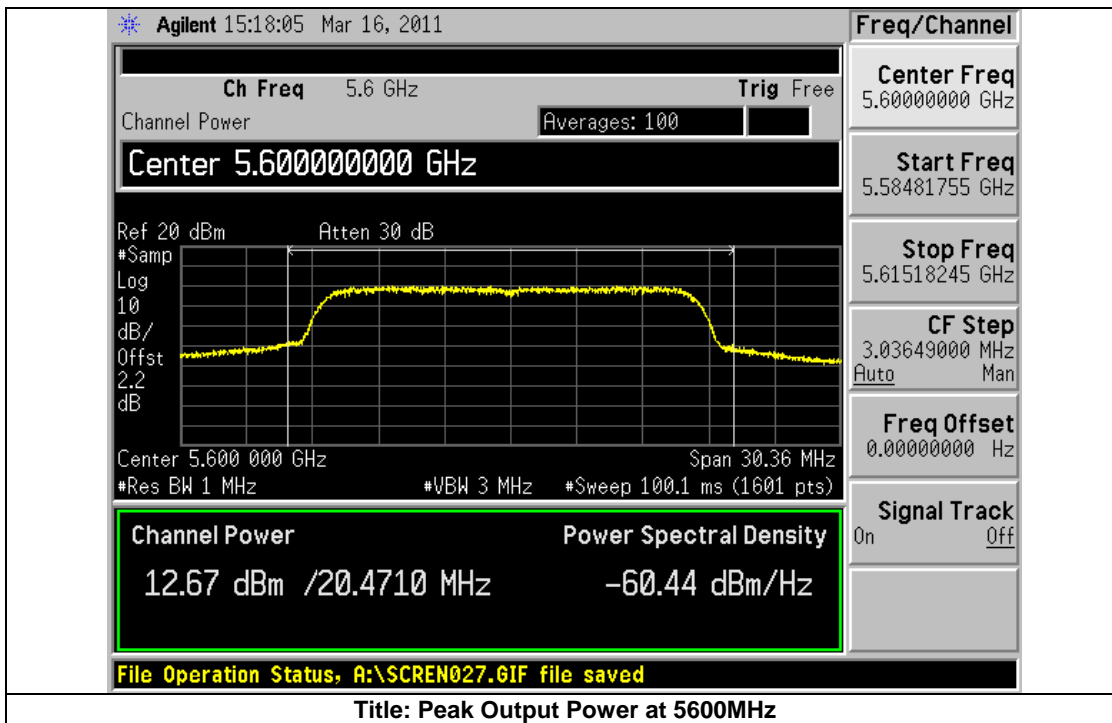
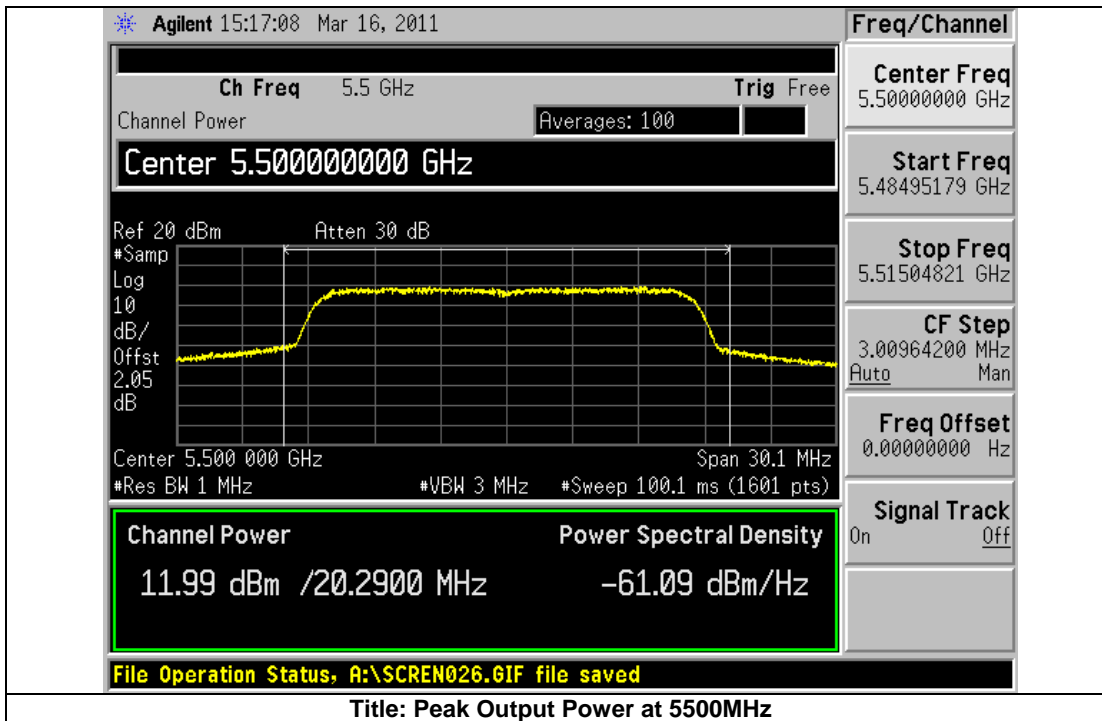


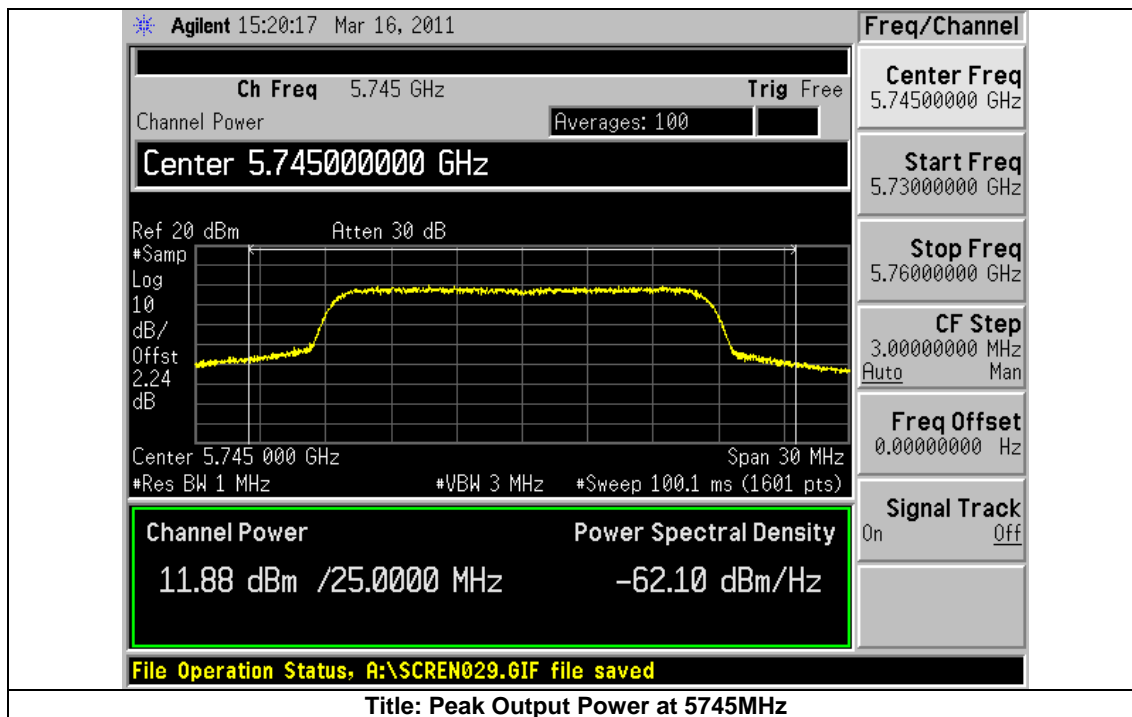
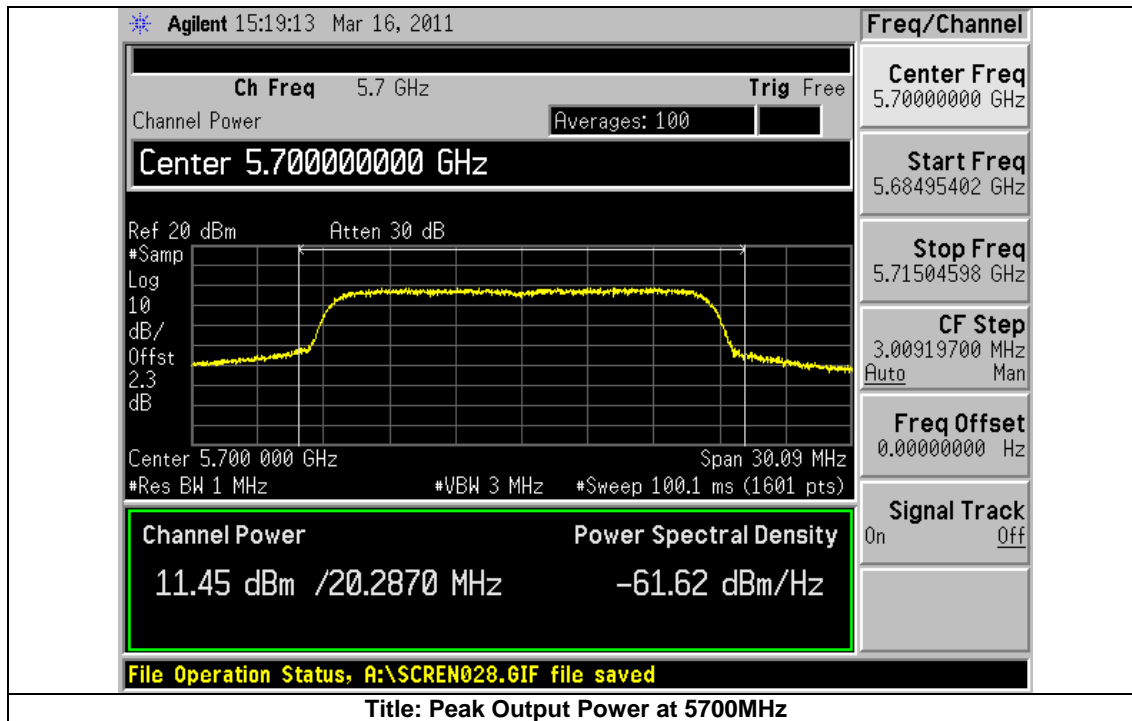
Graphical Test Results

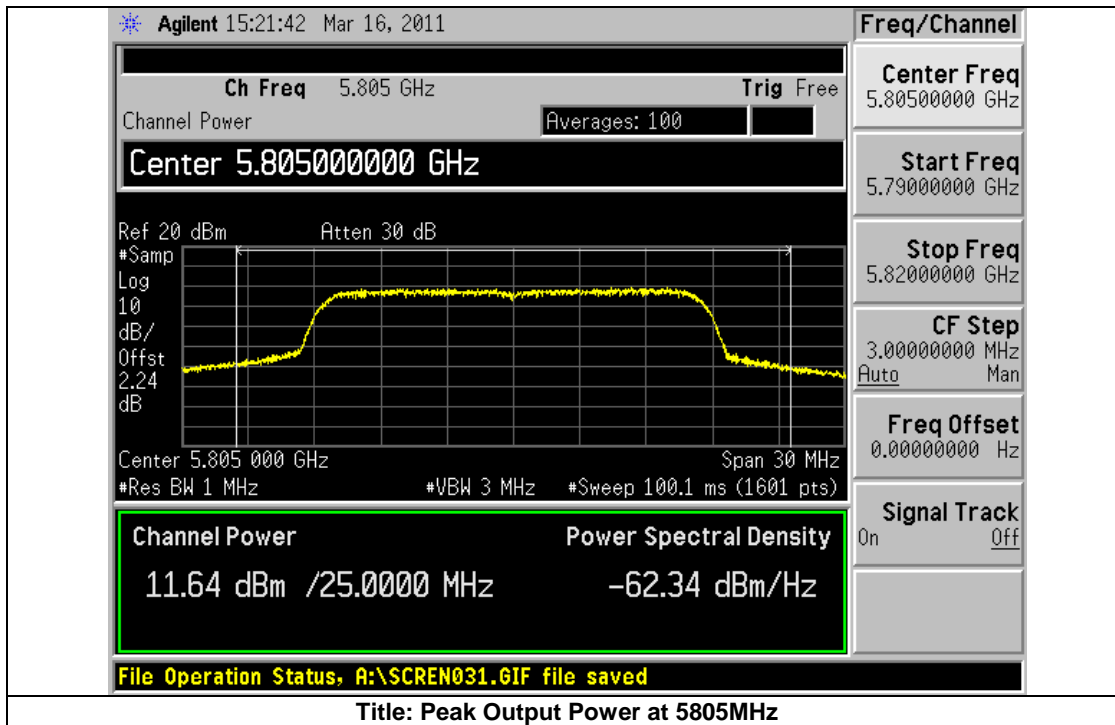
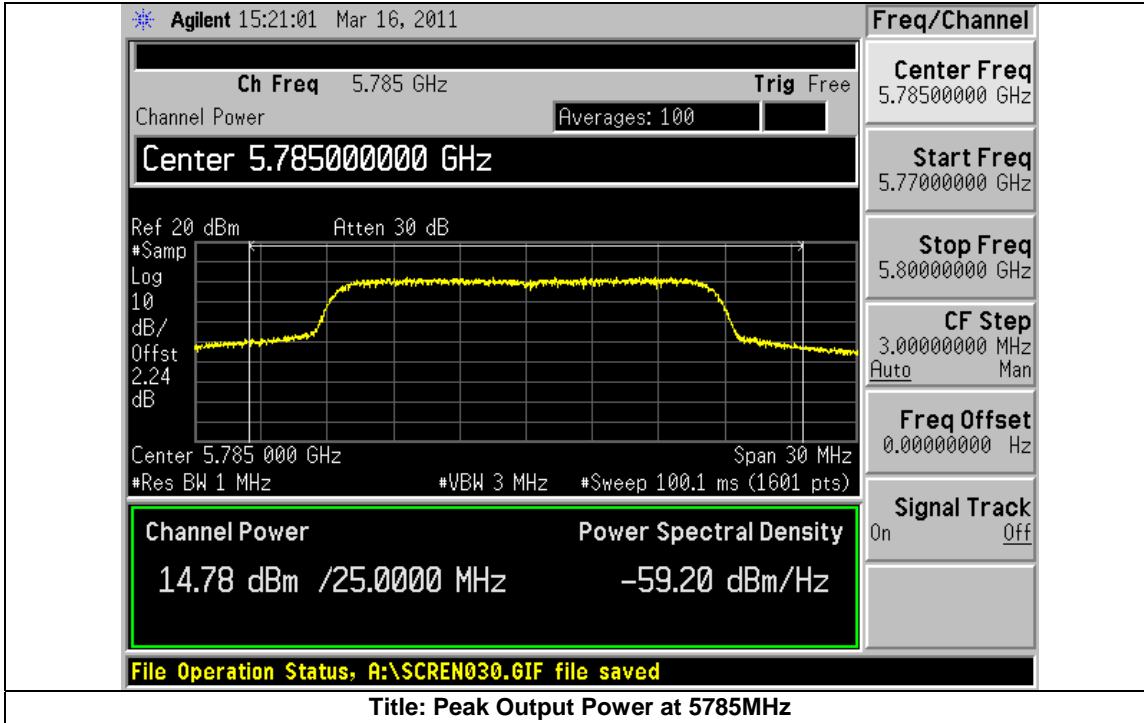














**Power Spectral Density**

**15.407 & RSS-210(A9.2):**

For the band 5.15-5.25 GHz, the peak power spectral density shall not exceed 4 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the peak power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

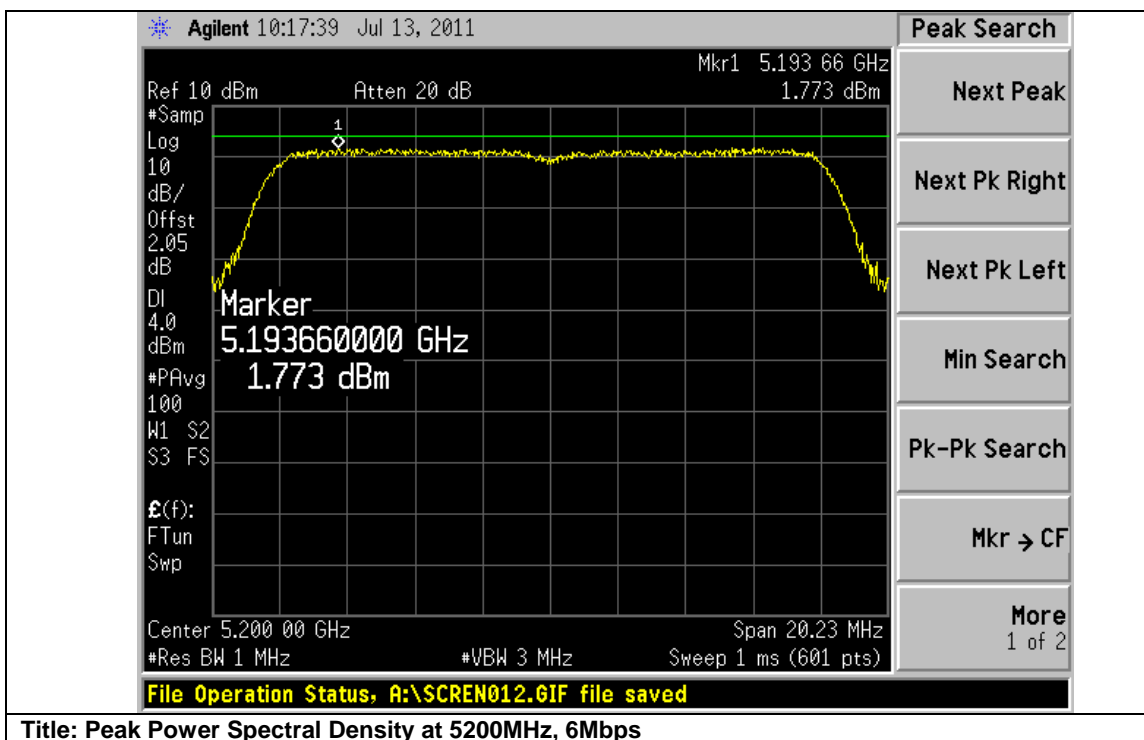
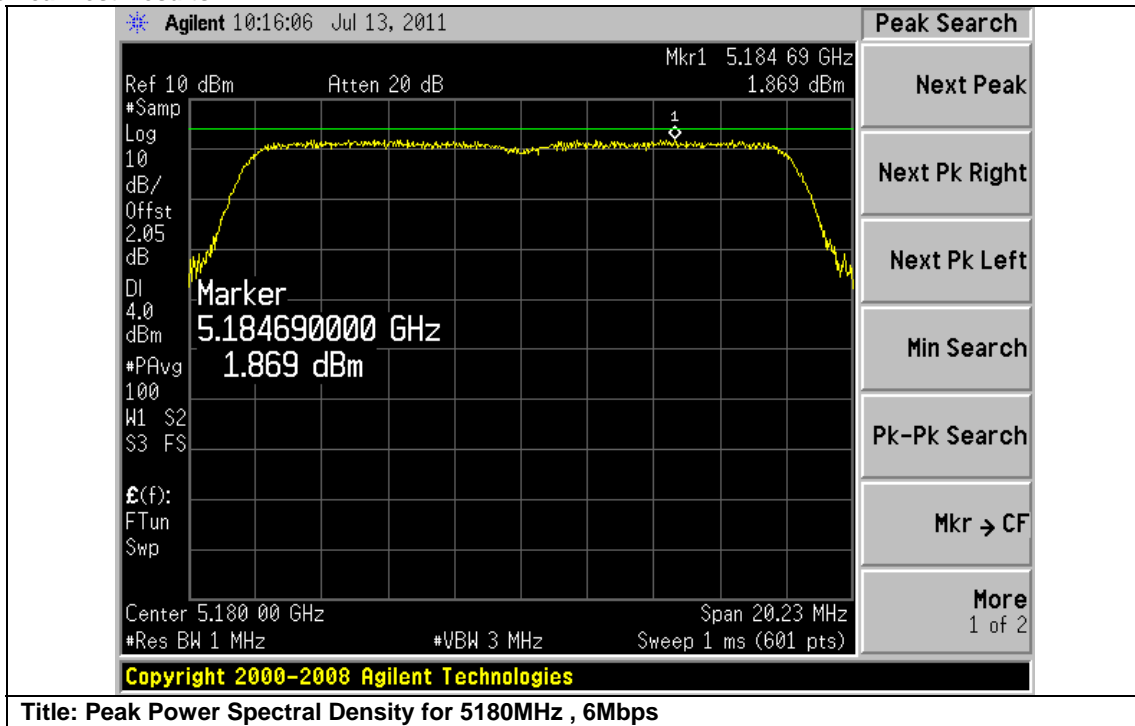
**15.247 & RSS-210(A8.2):**

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.

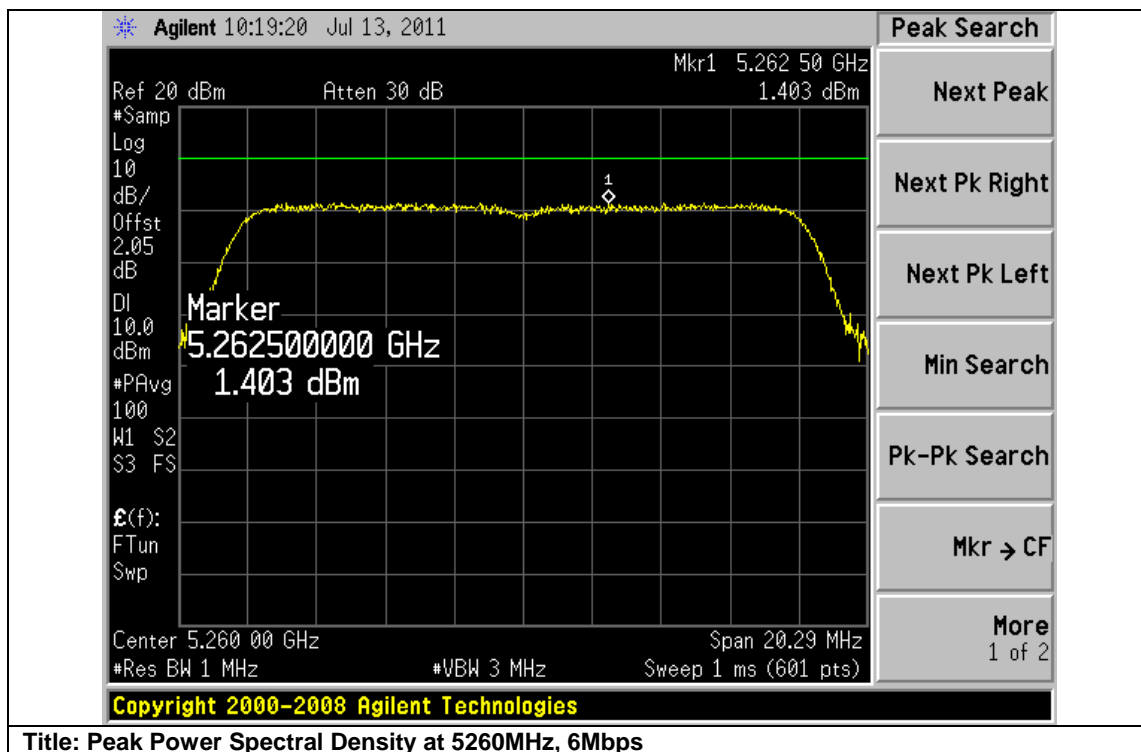
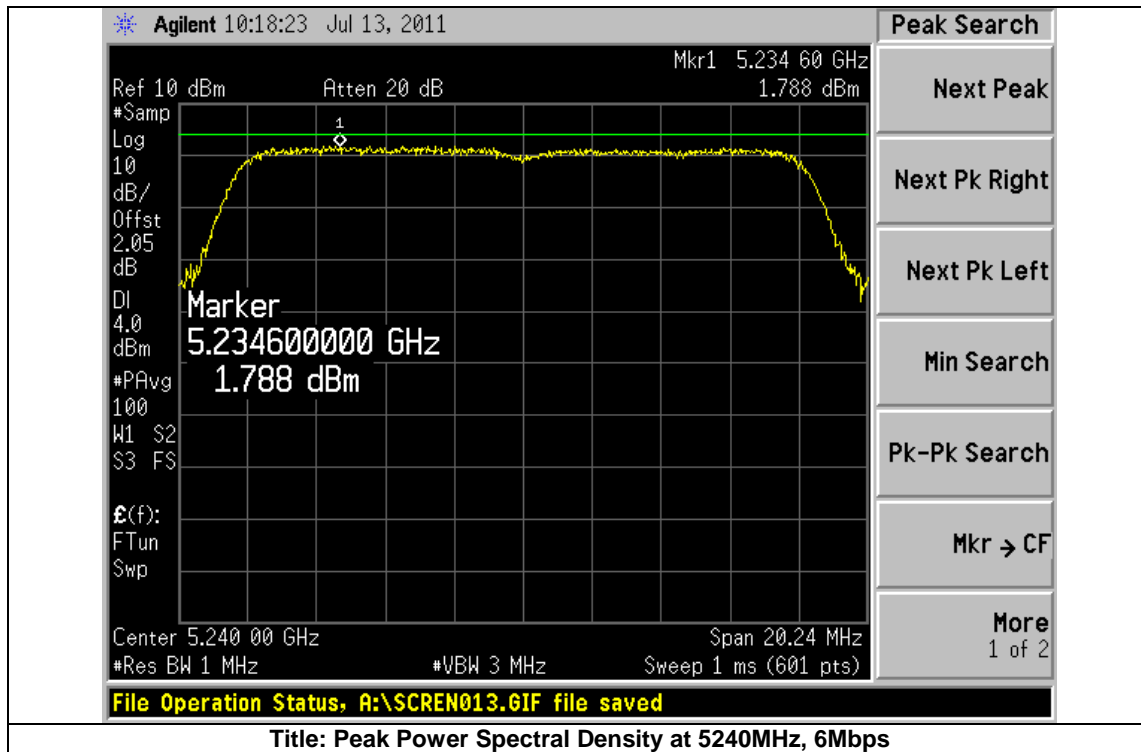
Frequency (MHz)	Data Rate (Mbps)	Peak Power Spectral Density (dBm/MHz)	Limit (dBm)	Margin (dB)
5180	6	1.869	4	-2.131
5200	6	1.773	4	-2.227
5240	6	1.788	4	-2.212
5260	6	1.403	11	-9.597
5280	6	0.596	11	-10.404
5320	6	1.65	11	-9.35
5500	6	0.629	11	-10.371
5600	6	1.896	11	-9.104
5700	6	1.166	11	-9.834

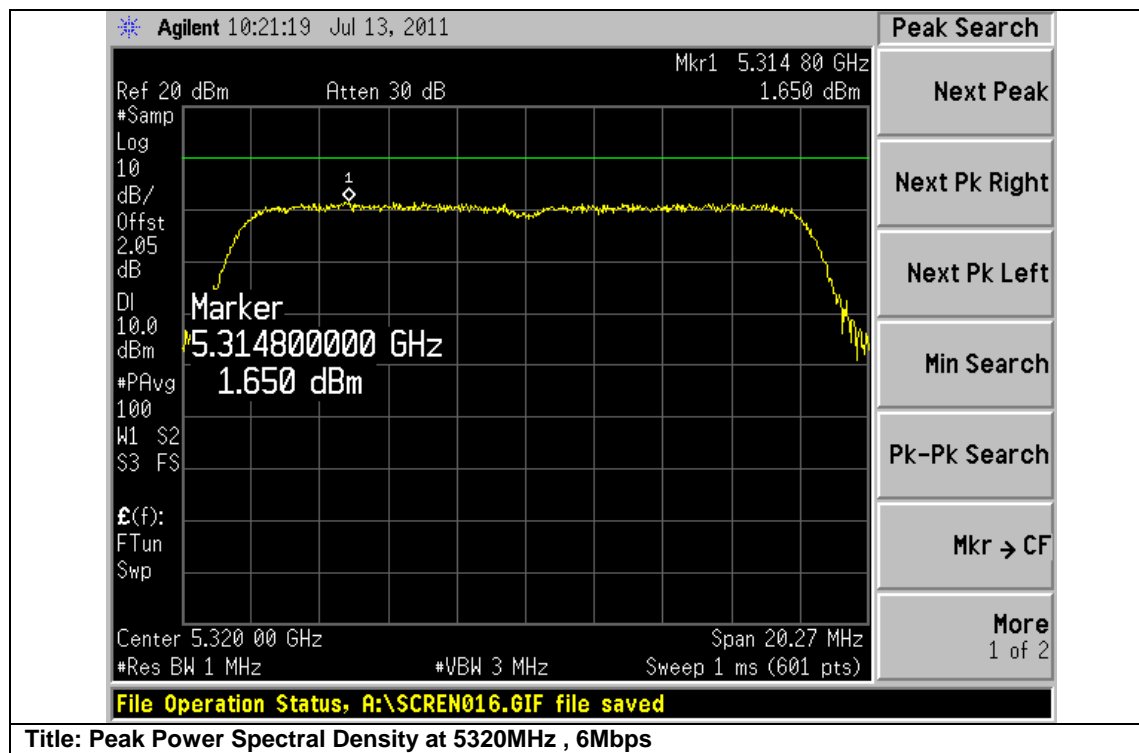
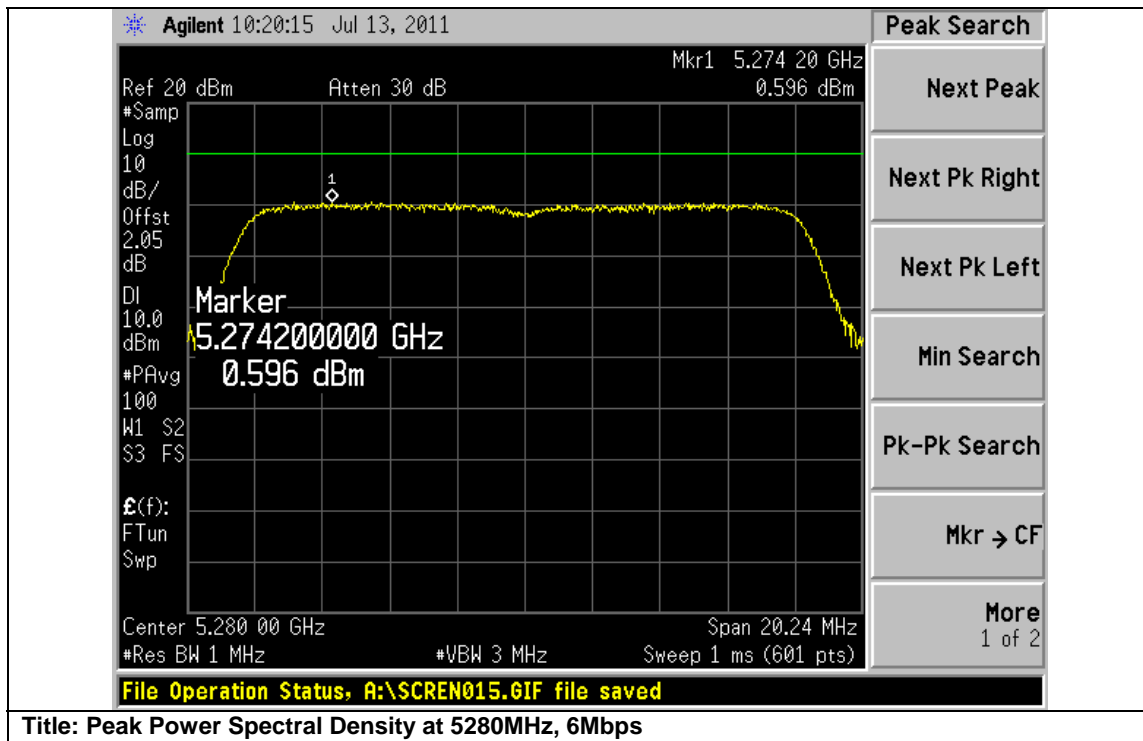
Frequency (MHz)	Data Rate (Mbps)	Peak Power Spectral Density (dBm/3kHz)	Limit (dBm)	Margin (dB)
5745	6	-15.24	8	-23.24
5785	6	-12.32	8	-20.32
5805	6	-15.06	8	-23.06

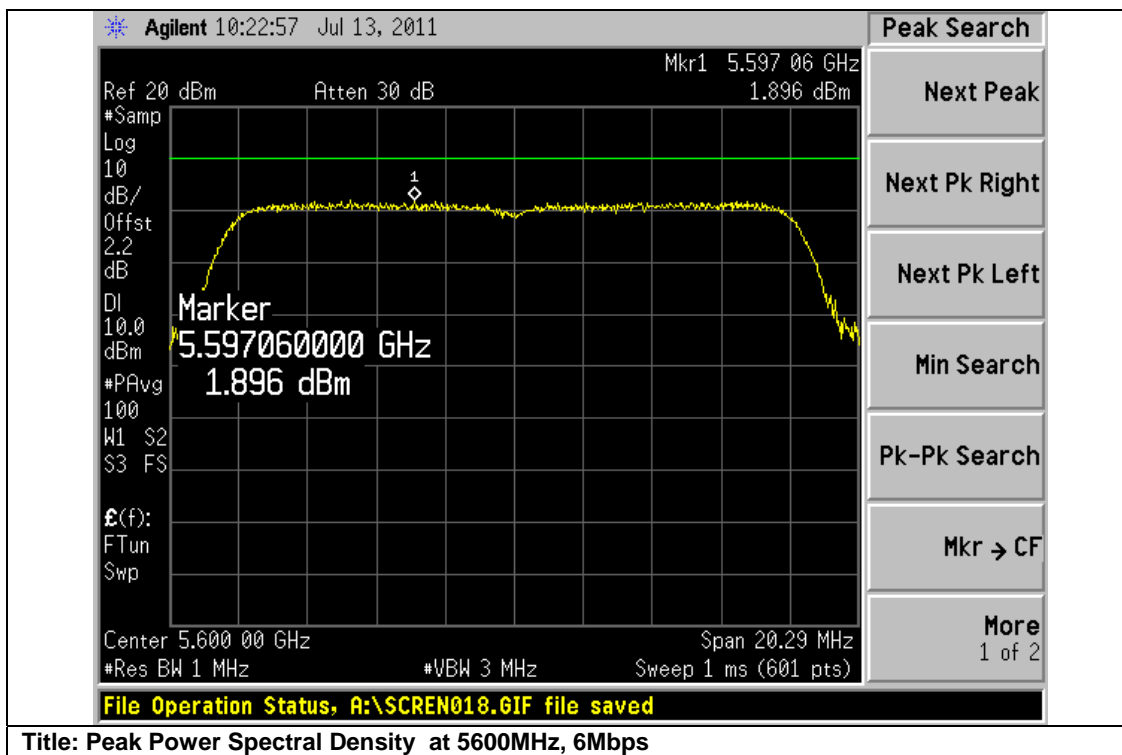
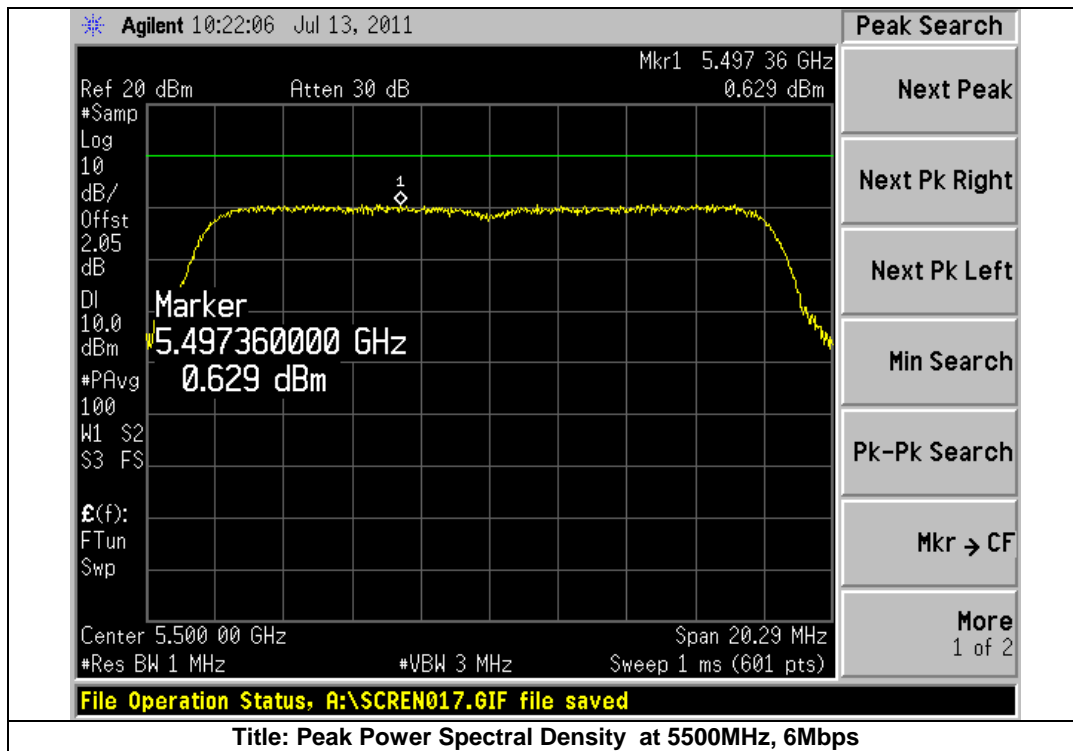
Graphical Test Results

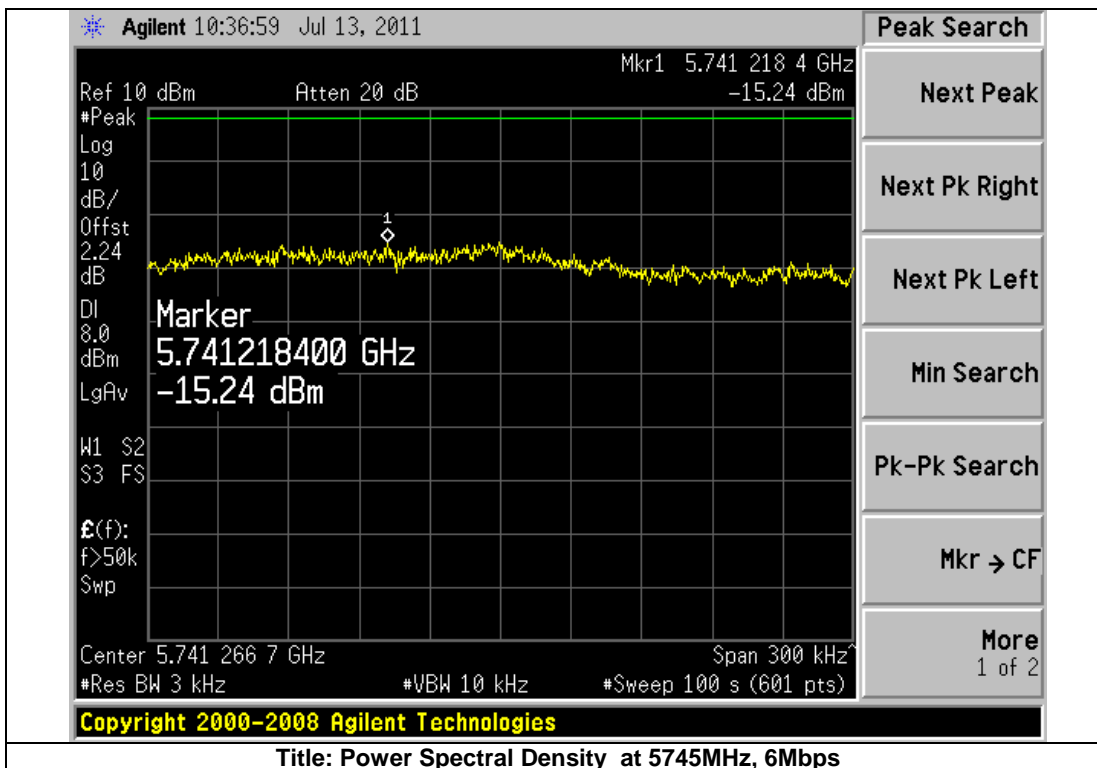
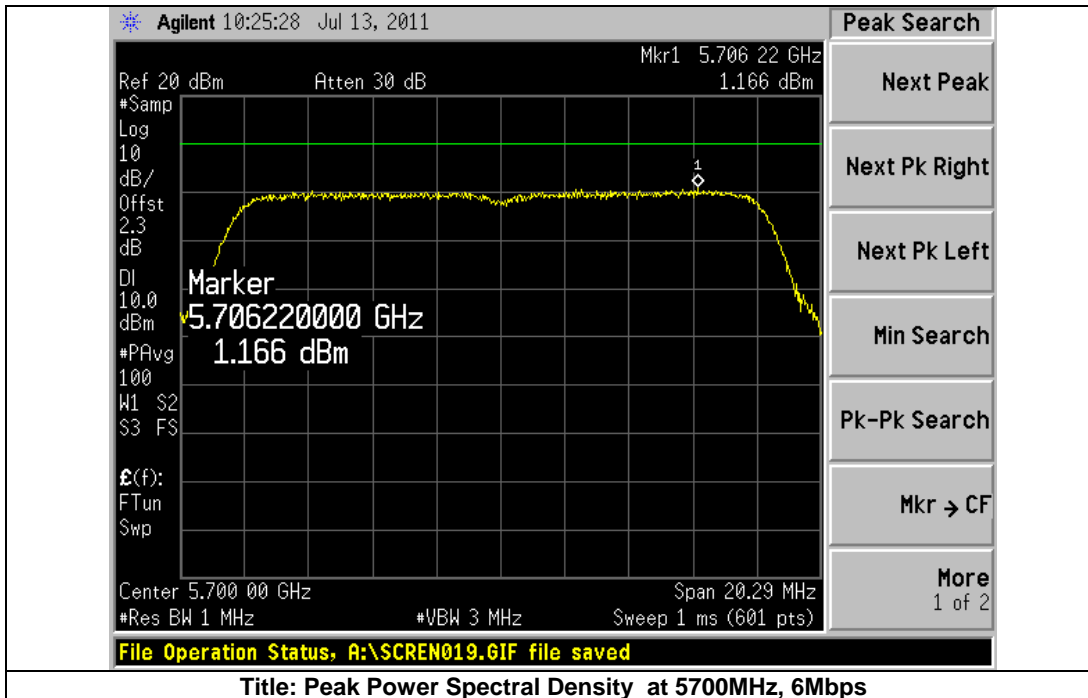


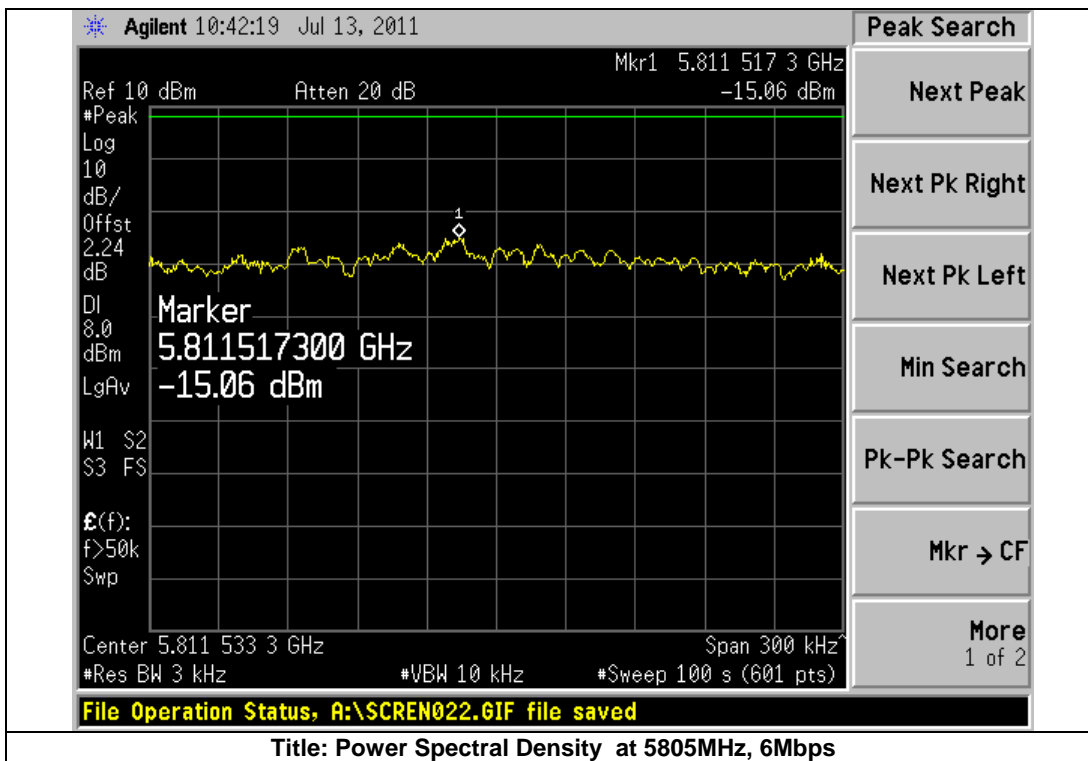
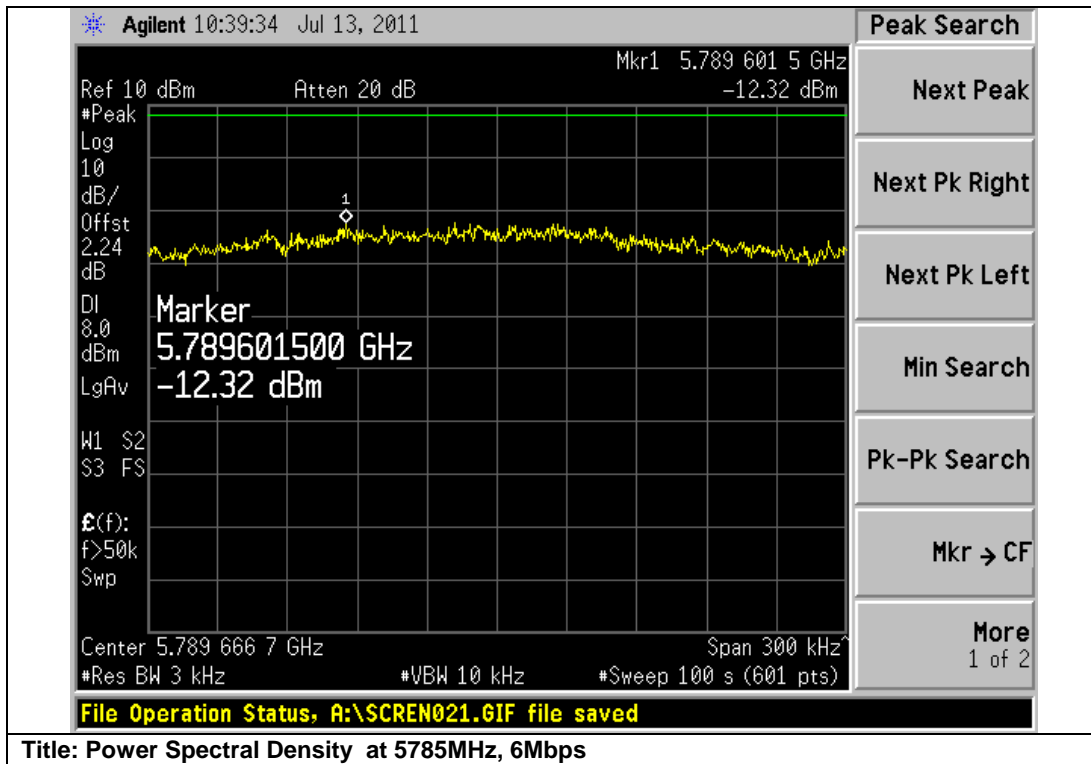










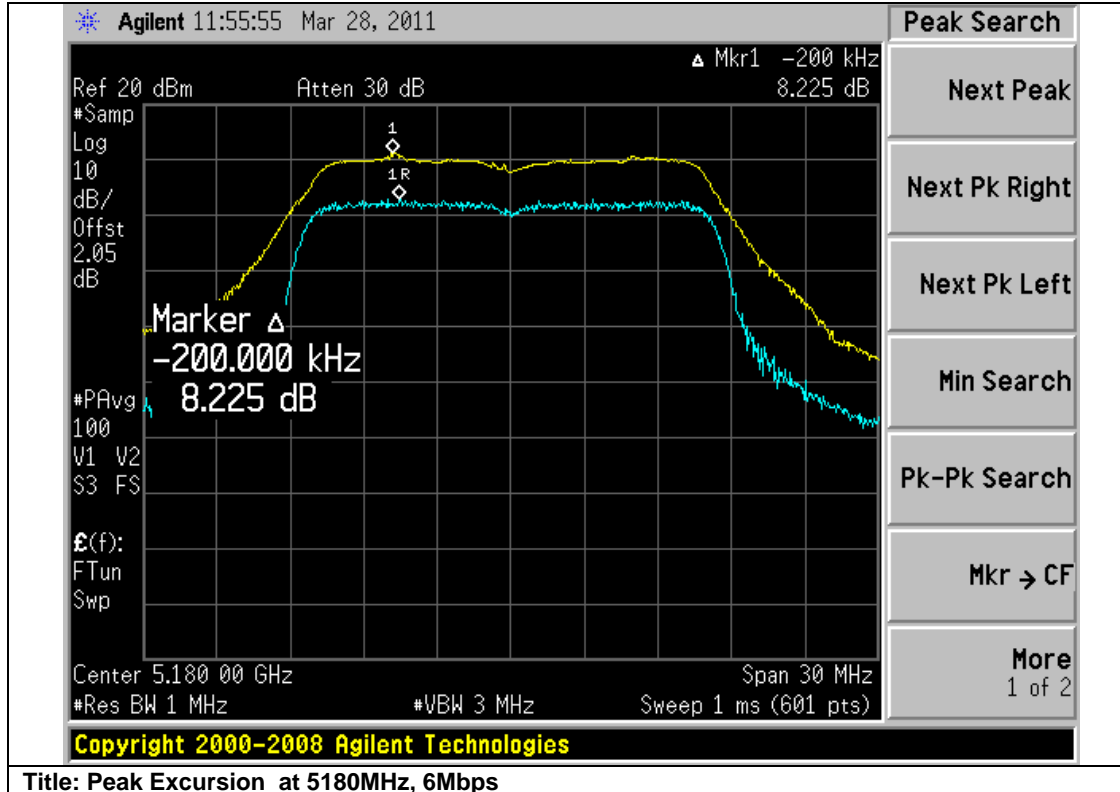


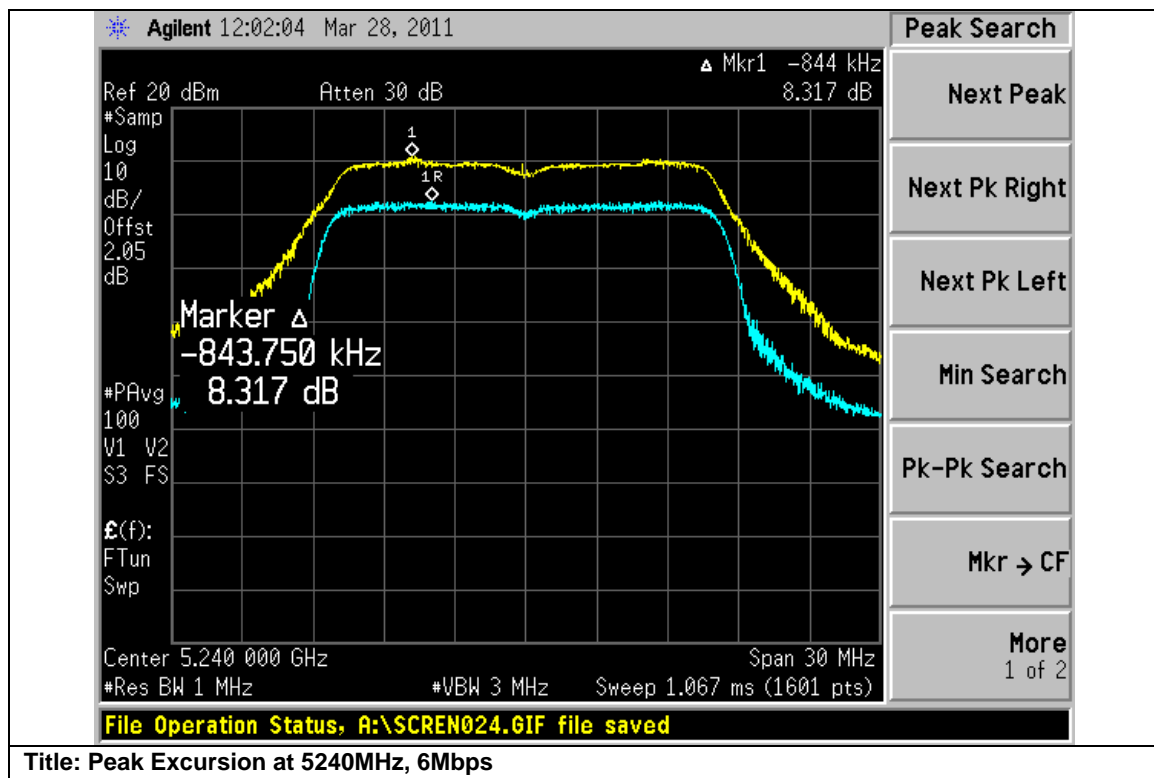
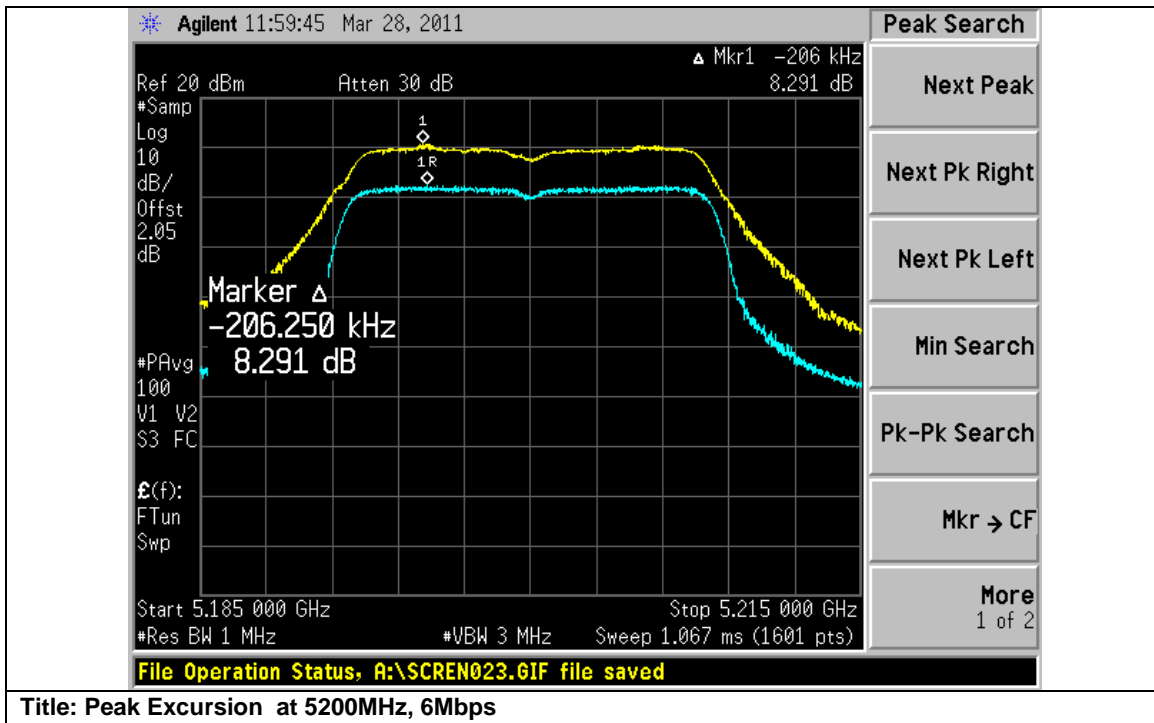
**Peak Excursion**

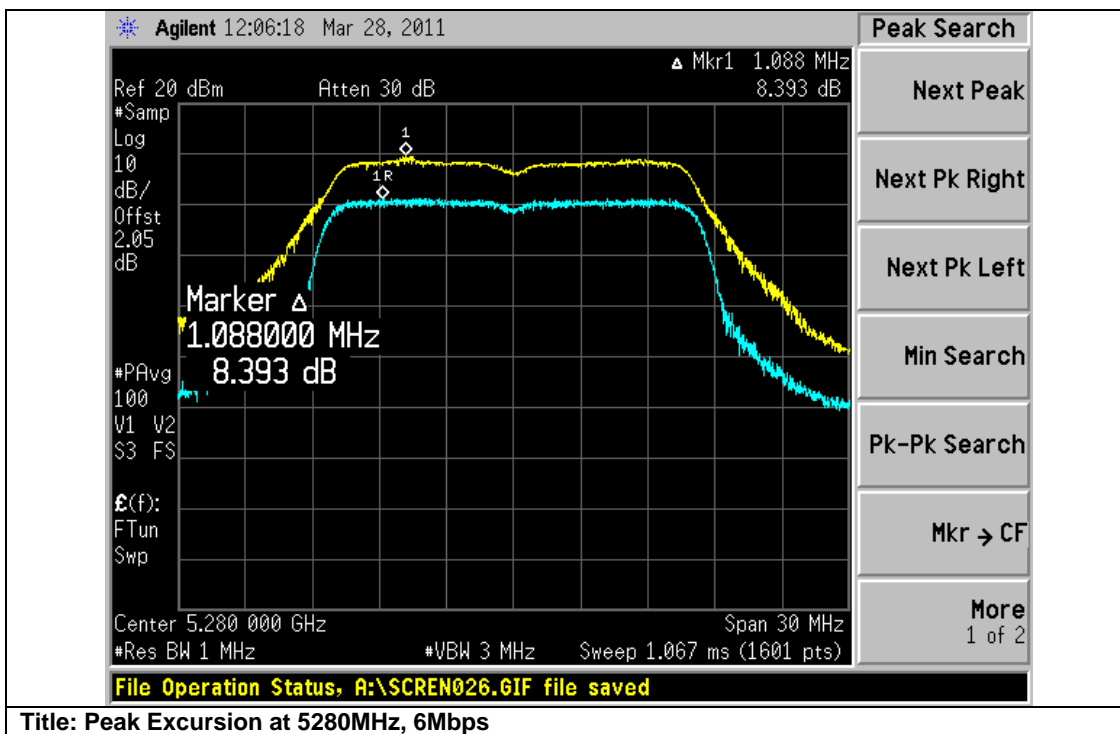
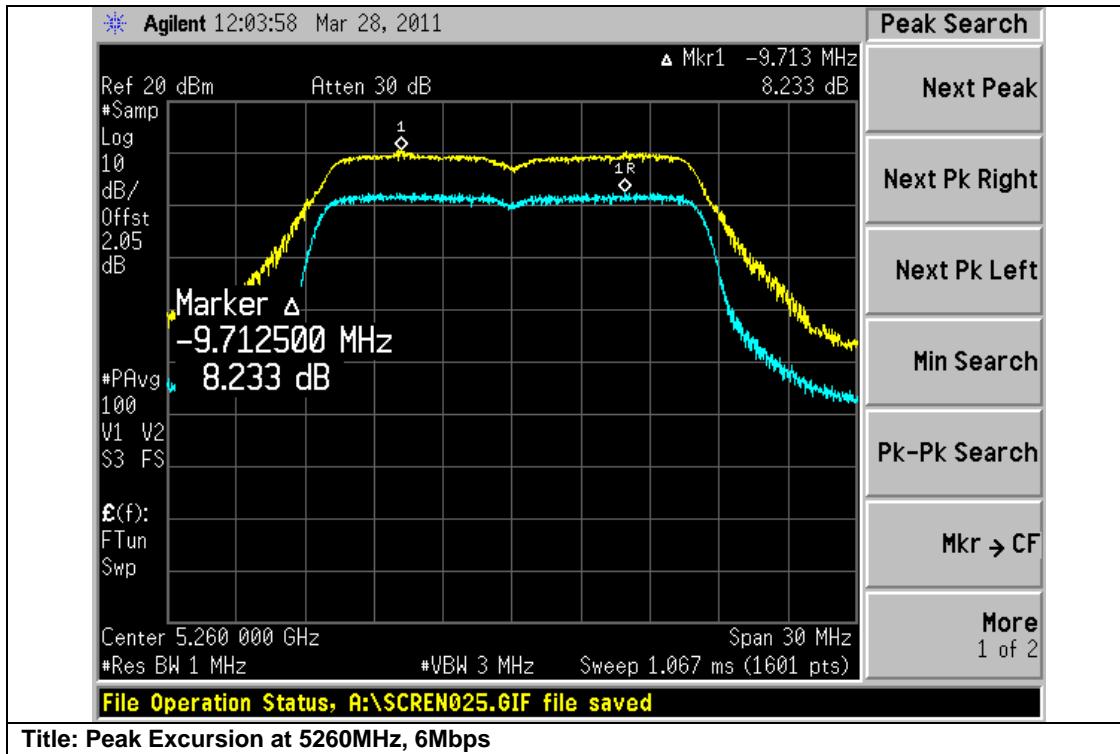
15.407: The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the maximum conducted output power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

Frequency (MHz)	Data Rate (Mbps)	Peak Excursion (dB)	Limit (dBm)	Margin (dB)
5180	6	8.225	13	-4.775
5200	6	8.291	13	-4.709
5240	6	8.317	13	-4.683
5260	6	8.233	13	-4.767
5280	6	8.393	13	-4.607
5320	6	8.12	13	-4.88
5500	6	8.157	13	-4.843
5600	6	8.048	13	-4.952
5700	6	7.712	13	5.288

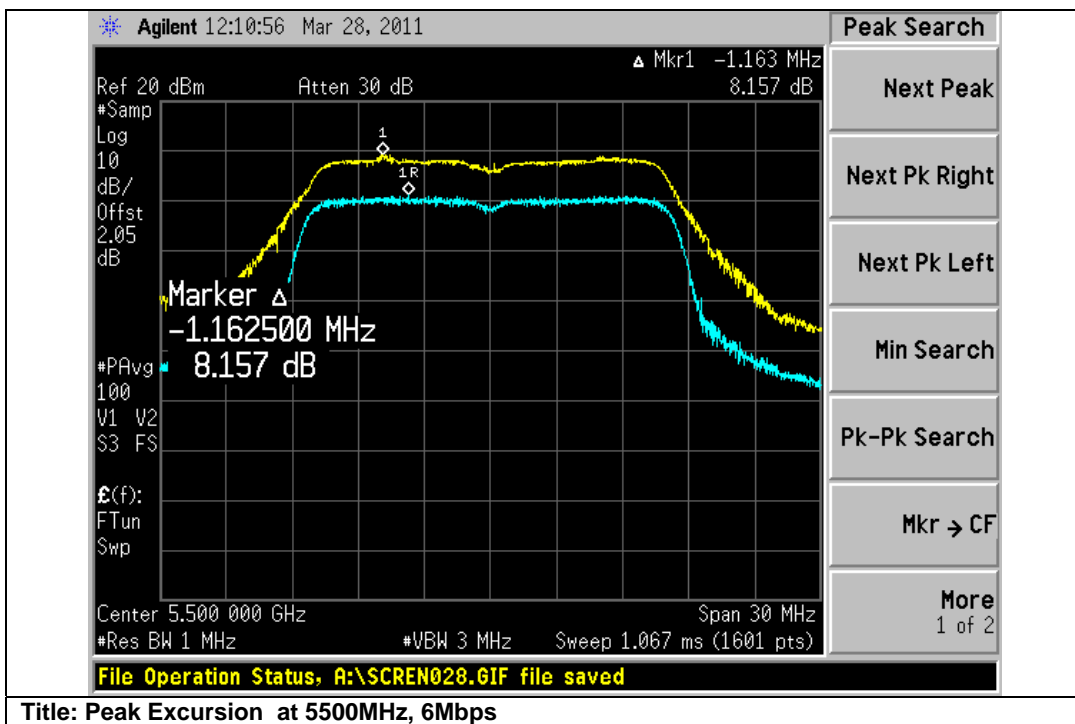
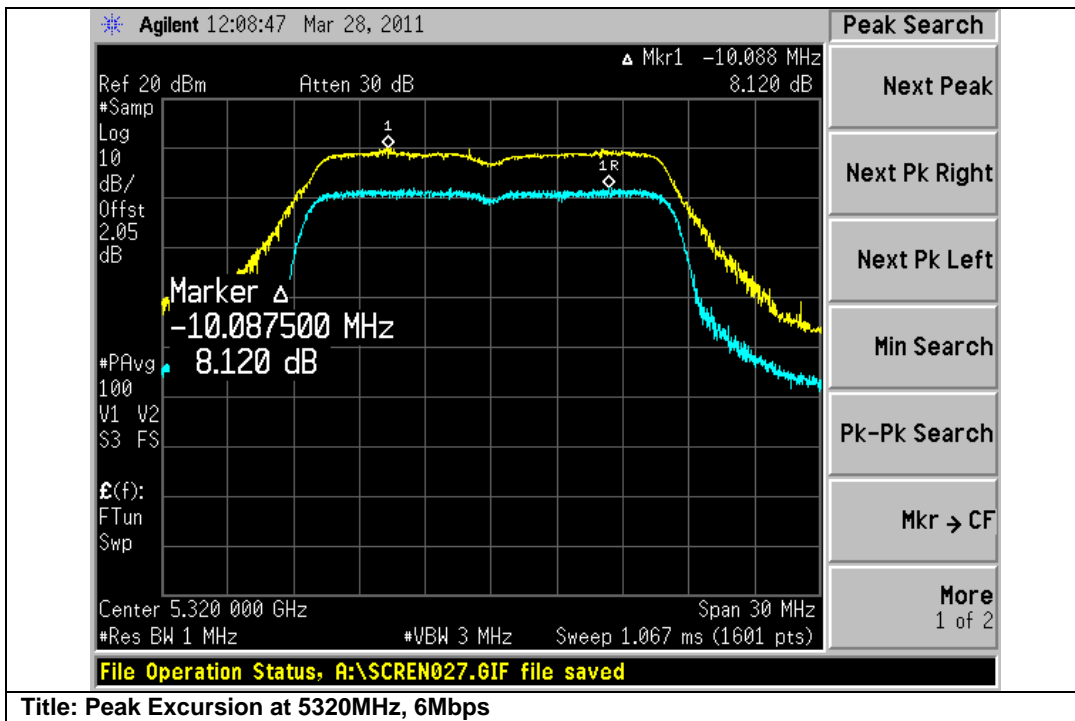
**Graphical Test Results**

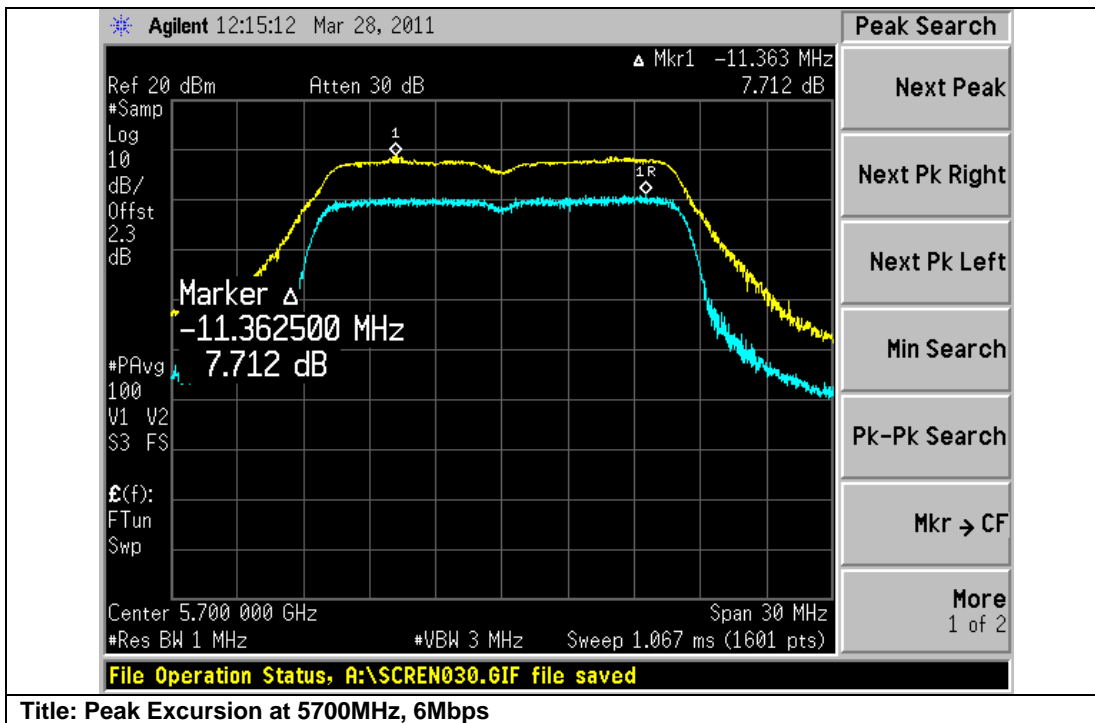
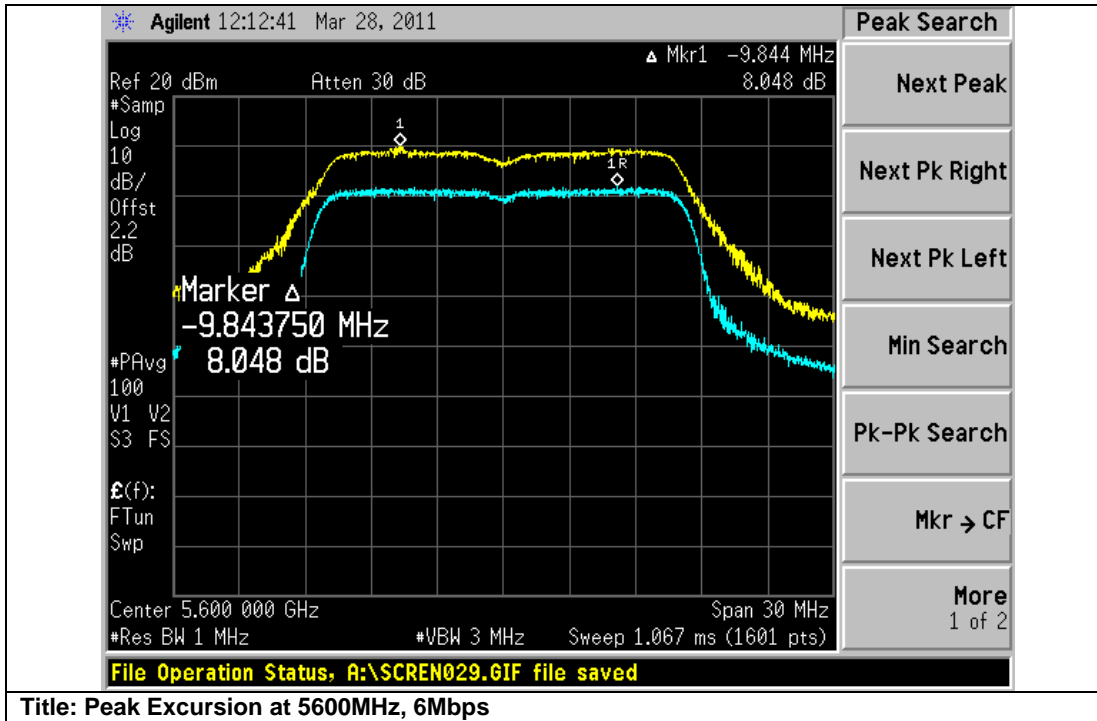












Conducted Spurious Emissions



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.

<b>Test Number:</b> 59546		<b>Spec ID:</b> 652		
Basic Standard	Applied to	Class	Freq Range	Test Details / Comments
Conducted Spurious Emissions	RF Ports	N/A	30MHz - xGHz	Also complies with RSS 210, LP0002, HKTA1039
<b>Operating Mode</b>	<b>Mode :</b> 1, 802.11A Radio Test			
<b>Power Input</b>	110, 60Hz (+/-20%)			
<b>Overall Result</b>	Pass			

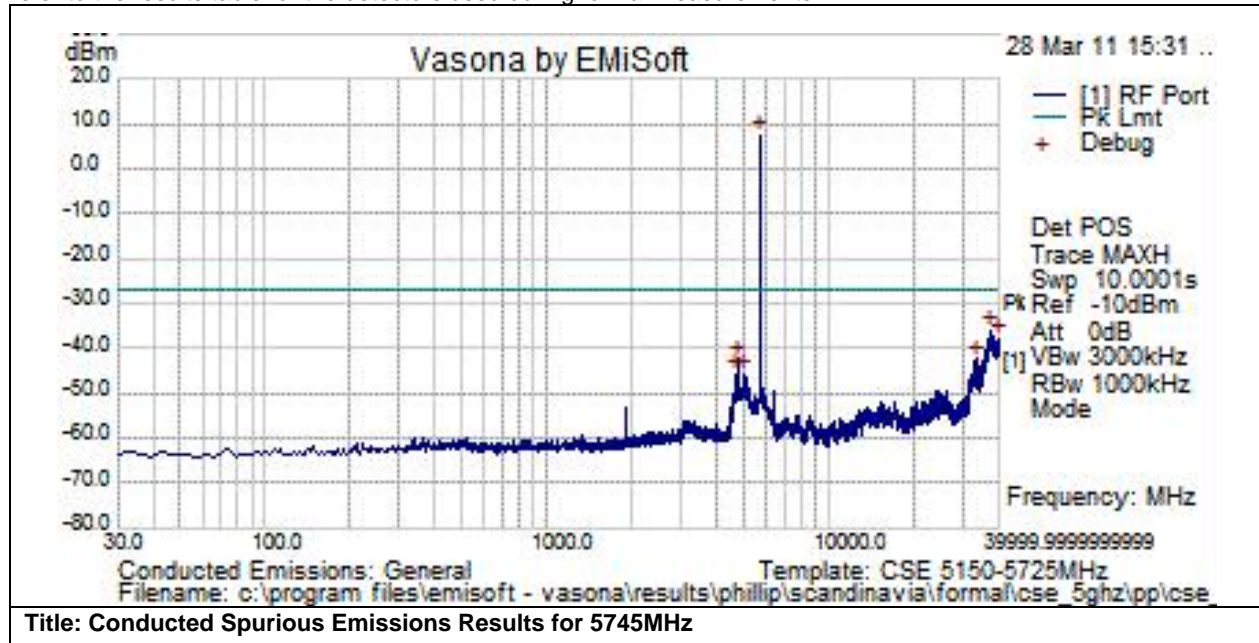
System Number	Description	Samples	System under test	Support equipment
1	5GHz Radio Test Sample	S01	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<b>Subtest Number:</b> 59546 - 10		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building B, Radio Area		
<b>Subtest Results</b>			
<b>Line Under Test</b>	[A] Antenna Port		
<b>Transducer</b>	Direct		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	40000.0		
<b>Lowest Frequency</b>	30.0		
<b>Comments on the above Test Results</b>	No further comments		
<b>Environmental Conditions:</b>			
Temperature: within range of 54 to 95 F:	Yes		
Humidity: between 10 and 75%:	Yes		
<b>Equipment used:</b>			
CIS033988	Agilent	E4446A	PSA Spectrum Analyzer
CIS035095	Micro-Coax	UFA147A-0-0180-110200	RF Coaxial Cable, to 40 GHz, 18 in
CIS034974	Midwest Microwave	ATT-0640-20-29M-02	Attenuator, 20dB, DC-40GHz
CIS041986	Murata Electronics	MXGS83RK3000	Special Radio Test Adaptor Cable
CIS041987	Murata Electronics	MXGS83RK3000	Special Radio Test Adaptor Cable

**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



**Test Results Table**

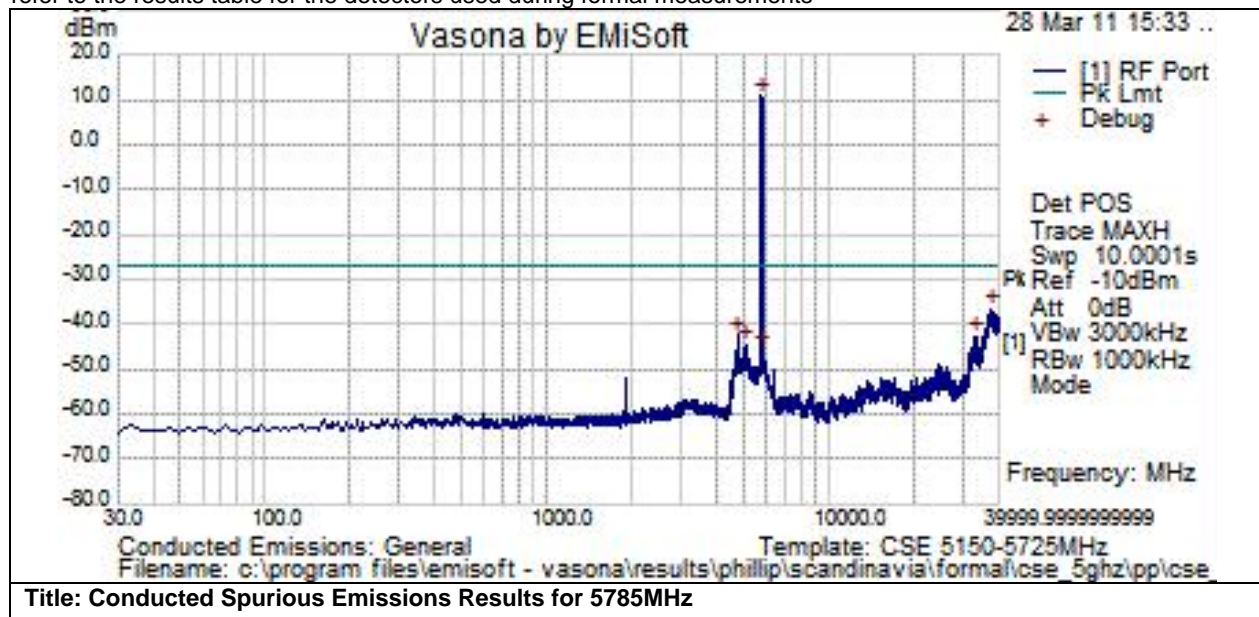
Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
5740.23	-14.7	22.1	0	7.4	NA	RF	-27	34.4	Fail	Tx Signal
37354.719	-57.9	22	0	-35.9	NA	RF	-27	-8.9	Pass	Noise Floor
39891.222	-59.6	21.7	0	-37.9	NA	RF	-27	-10.9	Pass	Noise Floor
4799.835	-64	21.7	0	-42.4	NA	RF	-27	-15.4	Pass	
4641.487	-67.4	21.7	0	-45.7	NA	RF	-27	-18.7	Pass	
4961.415	-67.6	21.8	0	-45.8	NA	RF	-27	-18.8	Pass	



<b>Subtest Number:</b> 59546 - 11		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building B, Radio Area		
<b>Subtest Results</b>			
<b>Line Under Test</b>	[A] Antenna Port		
<b>Transducer</b>	Direct		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	40000.0		
<b>Lowest Frequency</b>	30.0		

**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



**Test Results Table**

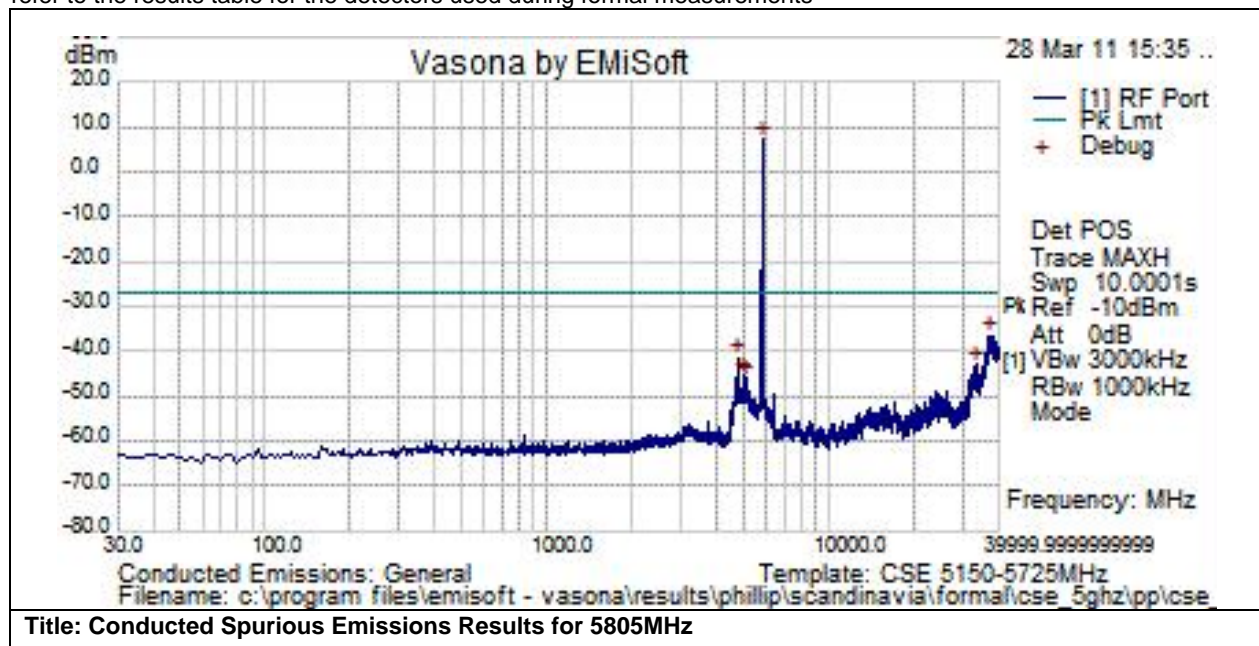
Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
5779.009	-11.3	22.1	0	10.8	NA	RF	-27	37.8	Fail	Tx Signal
38004.09	-58.5	22	0	-36.5	NA	RF	-27	-9.5	Pass	Noise Floor
4799.835	-64.2	21.7	0	-42.5	NA	RF	-27	-15.5	Pass	
33203.028	-64.5	21.8	0	-42.7	NA	RF	-27	-15.7	Pass	Noise Floor
5119.763	-66.4	21.8	0	-44.6	NA	RF	-27	-17.6	Pass	



<b>Subtest Number:</b> 59546 - 12		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building B, Radio Area		
<b>Subtest Results</b>			
<b>Line Under Test</b>	[A] Antenna Port		
<b>Transducer</b>	Direct		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	40000.0		
<b>Lowest Frequency</b>	30.0		

**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



**Test Results Table**

Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
5798.398	-14.8	22	0	7.2	NA	RF	-27	34.2	Fail	Tx Signal
37433.83	-58.4	21.9	0	-36.5	NA	RF	-27	-9.5	Pass	Noise Floor
4799.835	-63.3	21.7	0	-41.6	NA	RF	-27	-14.6	Pass	
33320.046	-64.9	21.9	0	-43	NA	RF	-27	-16	Pass	Noise Floor
4958.183	-67.2	21.8	0	-45.4	NA	RF	-27	-18.4	Pass	
5119.763	-67.6	21.8	0	-45.9	NA	RF	-27	-18.9	Pass	



**Conducted Spurious Emissions**

15.407 & RSS-210(A9.3):

For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27dBm/MHz.

For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27dBm/MHz. Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15-5.25 GHz band.

For transmitters operating in the 5.47-5.725 GHz band: all emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of -27dBm/MHz.

<b>Test Number:</b> 52309 <b>Spec ID:</b> 652				
<b>Basic Standard</b>	<b>Applied to</b>	<b>Class</b>	<b>Freq Range</b>	<b>Test Details / Comments</b>
Conducted Spurious Emissions	RF Ports	N/A	30MHz - xGHz	Also complies with RSS 210, LP0002, HKTA1039
<b>Operating Mode</b>	<b>Mode :</b> 1, 802.11A Radio Test			
<b>Power Input</b>	110, 60Hz (+/-20%)			
<b>Overall Result</b>	Pass			
<b>Comments</b>	No further comments			
<b>Deviation</b>	There were no deviations from the specification			

System Number	Description	Samples	System under test	Support equipment
1	5GHz Radio Test Sample	S01	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<b>Subtest Number:</b> 59546 - 1		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>		Phillip Carranco	
<b>Lab Information</b>		Building B, Radio Area	
<b>Subtest Results</b>			
<b>Line Under Test</b>		[A] Antenna Port	
<b>Transducer</b>		Direct	
<b>Subtest Result</b>		Pass	
<b>Highest Frequency</b>		40000.0	
<b>Lowest Frequency</b>		30.0	
<b>Comments on the above Test Results</b>		No further comments	
<b>Environmental Conditions:</b>			
Temperature: within range of 54 to 95 F:		Yes	
Humidity: between 10 and 75%:		Yes	

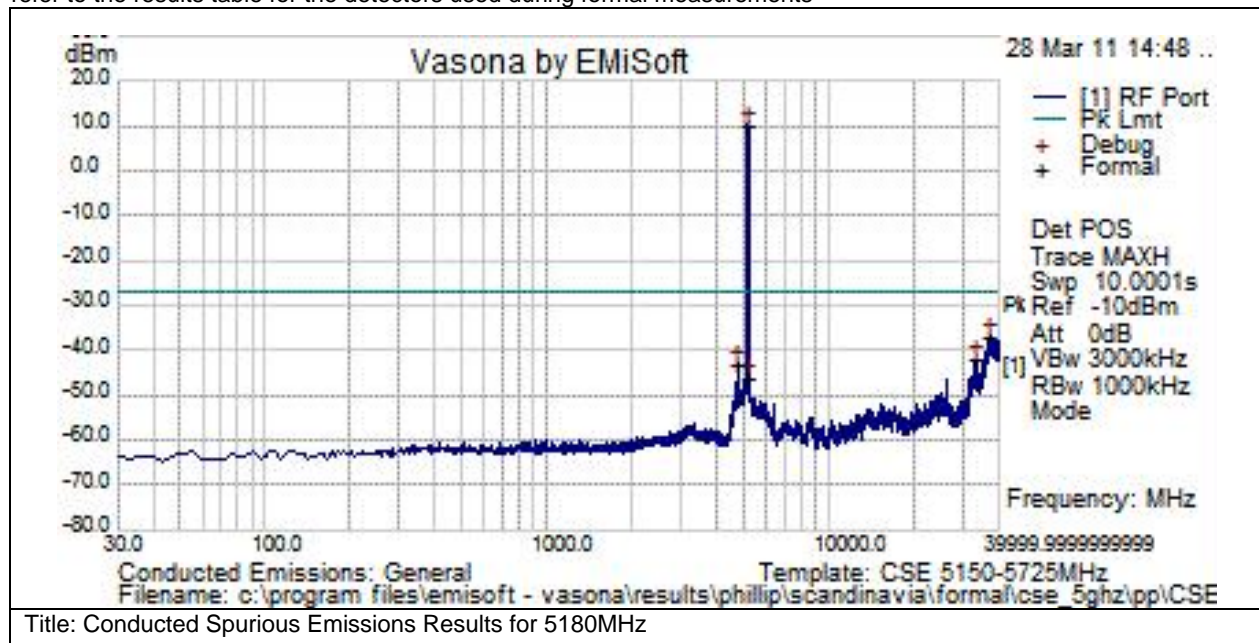




Comments:			
<b>Equipment used:</b>			
Equipment No	Manufacturer	Model	Description
CIS033988	Agilent	E4446A	PSA Spectrum Analyzer
CIS035095	Micro-Coax	UFA147A-0-0180-110200	RF Coaxial Cable, to 40 GHz, 18 in
CIS034974	Midwest Microwave	ATT-0640-20-29M-02	Attenuator, 20dB, DC-40GHz
CIS041986	Murata Electronics	MXGS83RK3000	Special Radio Test Adaptor Cable
CIS041987	Murata Electronics	MXGS83RK3000	Special Radio Test Adaptor Cable

**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



**Test Results Table**

Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
5174.7	-11.5	21.8	0	10.3	NA	RF	-27	37.3	Fail	Tx Signal
37433.83	-58.8	21.9	0	-36.9	NA	RF	-27	-9.9	Pass	Noise Floor
33516.176	-63.9	21.9	0	-42.1	NA	RF	-27	-15.1	Pass	Noise Floor
4799.835	-64.7	21.7	0	-43	NA	RF	-27	-16	Pass	
5226.406	-68	21.9	0	-46.2	NA	RF	-27	-19.2	Pass	

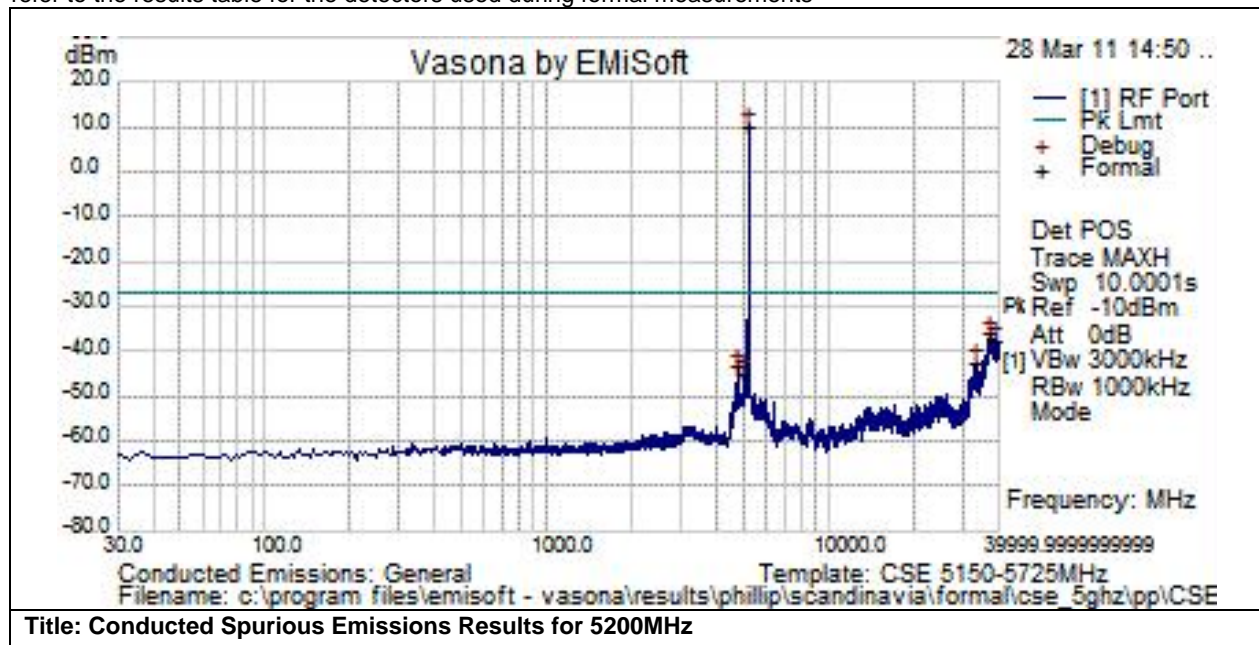




<b>Subtest Number:</b> 59546 - 2		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building B, Radio Area		
<b>Subtest Results</b>			
<b>Line Under Test</b>	[A] Antenna Port		
<b>Transducer</b>	Direct		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	40000.0		
<b>Lowest Frequency</b>	30.0		
<b>Comments on the above Test Results</b>	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



**Test Results Table**

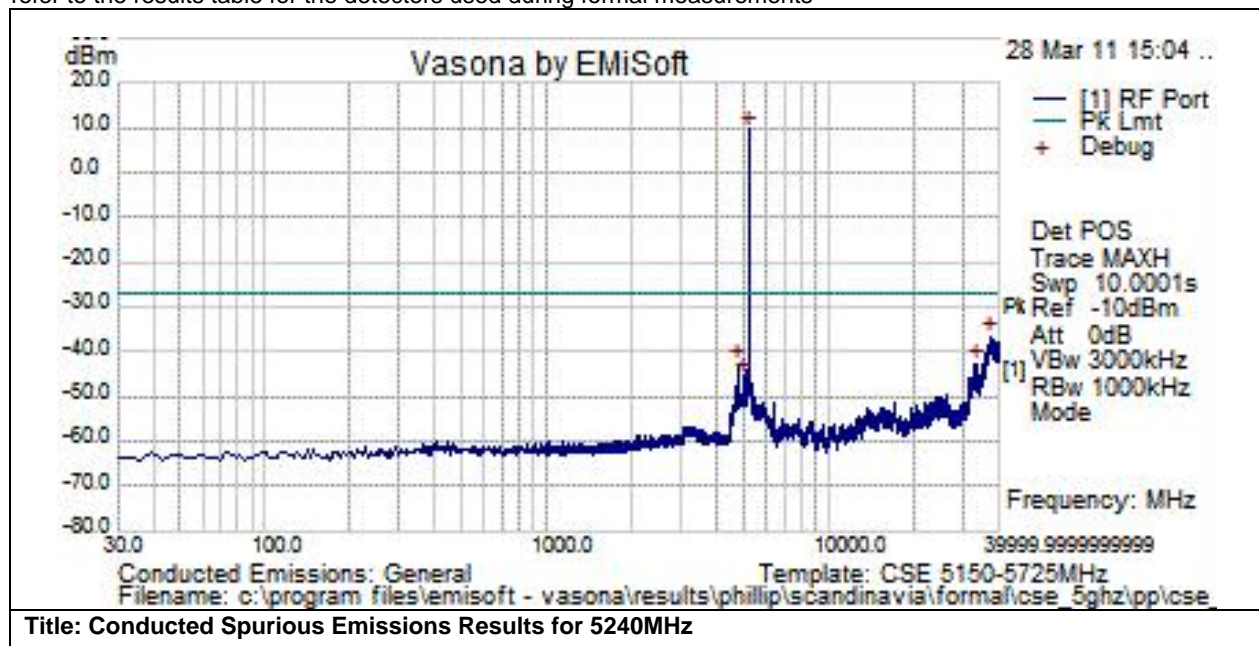
Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
5194.09	-11.7	21.9	0	10.2	NA	RF	-27	37.2	Fail	Tx Signal
37346.478	-58.1	22	0	-36.1	NA	RF	-27	-9.1	Pass	Noise Floor
39330.851	-59.4	21.8	0	-37.5	NA	RF	-27	-10.5	Pass	Noise Floor
33369.491	-64.6	21.8	0	-42.8	NA	RF	-27	-15.8	Pass	Noise Floor
4799.835	-65.1	21.7	0	-43.5	NA	RF	-27	-16.5	Pass	
4961.415	-67	21.8	0	-45.2	NA	RF	-27	-18.2	Pass	



<b>Subtest Number:</b> 59546 - 3		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building B, Radio Area		
<b>Subtest Results</b>			
<b>Line Under Test</b>	[A] Antenna Port		
<b>Transducer</b>	Direct		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	40000.0		
<b>Lowest Frequency</b>	30.0		
<b>Comments on the above Test Results</b>	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



**Test Results Table**

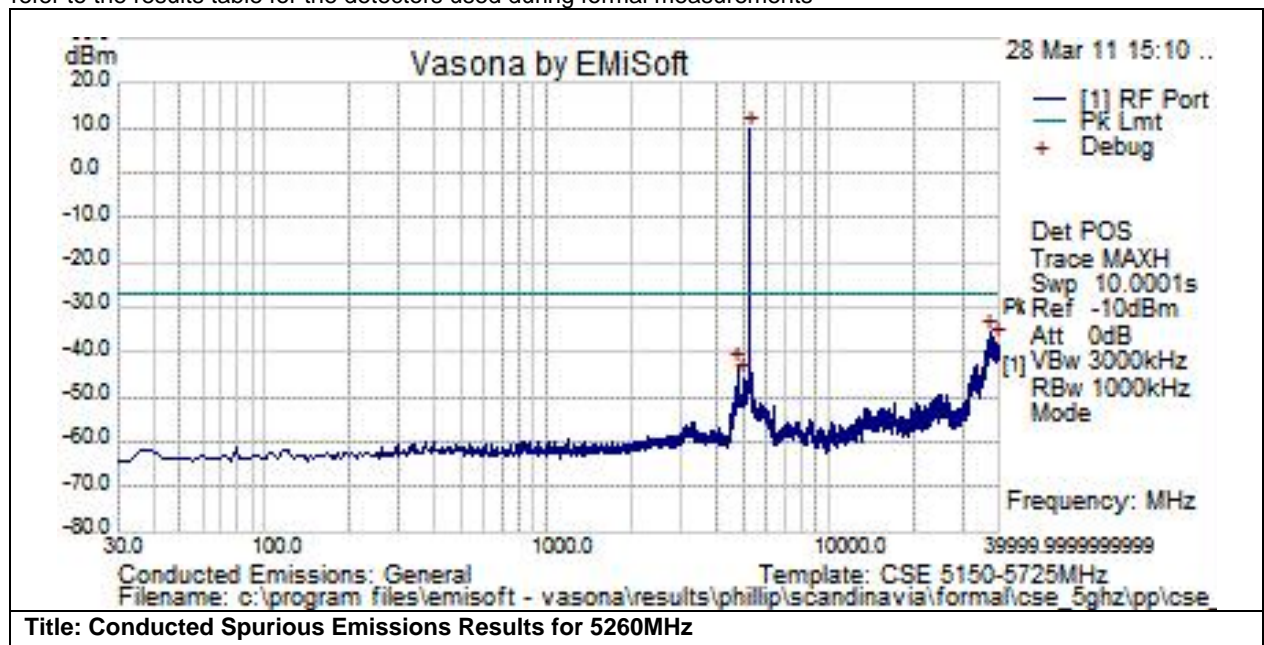
Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
5245.795	-12.4	21.9	0	9.5	NA	RF	-27	36.5	Fail	Tx Signal
37323.404	-58.4	21.9	0	-36.5	NA	RF	-27	-9.5	Pass	Noise Floor
33125.565	-64.4	21.8	0	-42.6	NA	RF	-27	-15.6	Pass	Noise Floor
4799.835	-64.5	21.7	0	-42.8	NA	RF	-27	-15.8	Pass	
4961.415	-67.3	21.8	0	-45.5	NA	RF	-27	-18.5	Pass	



Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
<b>Subtest Number:</b> 59546 - 4						<b>Subtest Date:</b> 30-Mar-2011				
<b>Engineer</b>		Phillip Carranco								
<b>Lab Information</b>		Building B, Radio Area								
<b>Subtest Results</b>										
<b>Line Under Test</b>		[A] Antenna Port								
<b>Transducer</b>		Direct								
<b>Subtest Result</b>		Pass								
<b>Highest Frequency</b>		40000.0								
<b>Lowest Frequency</b>		30.0								
<b>Comments on the above Test Results</b>		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



**Test Results Table**

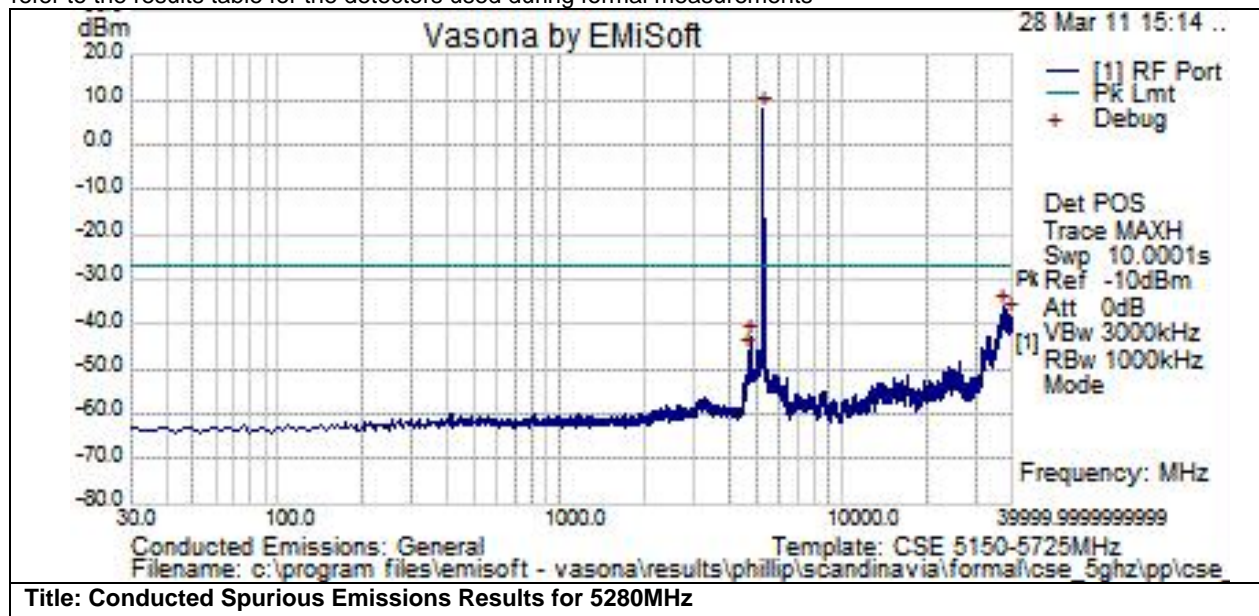
Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
5265.185	-12.4	21.9	0	9.5	NA	RF	-27	36.5	Fail	Tx Signal
37498.108	-57.7	21.9	0	-35.8	NA	RF	-27	-8.8	Pass	Noise Floor
39647.296	-59.6	21.7	0	-37.9	NA	RF	-27	-10.9	Pass	Noise Floor
4799.835	-64.8	21.7	0	-43.2	NA	RF	-27	-16.2	Pass	
4958.183	-67.5	21.8	0	-45.7	NA	RF	-27	-18.7	Pass	



<b>Subtest Number:</b> 59546 - 5		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building B, Radio Area		
<b>Subtest Results</b>			
<b>Line Under Test</b>	[A] Antenna Port		
<b>Transducer</b>	Direct		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	40000.0		
<b>Lowest Frequency</b>	30.0		
<b>Comments on the above Test Results</b>	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



**Test Results Table**

Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
5274.88	-13.9	21.9	0	8	NA	RF	-27	35	Fail	Tx Signal
37334.941	-58.3	22	0	-36.3	NA	RF	-27	-9.3	Pass	Noise Floor
39554.999	-60	21.8	0	-38.2	NA	RF	-27	-11.2	Pass	Noise Floor
4799.835	-64.5	21.7	0	-42.8	NA	RF	-27	-15.8	Pass	
4641.487	-68	21.7	0	-46.2	NA	RF	-27	-19.2	Pass	

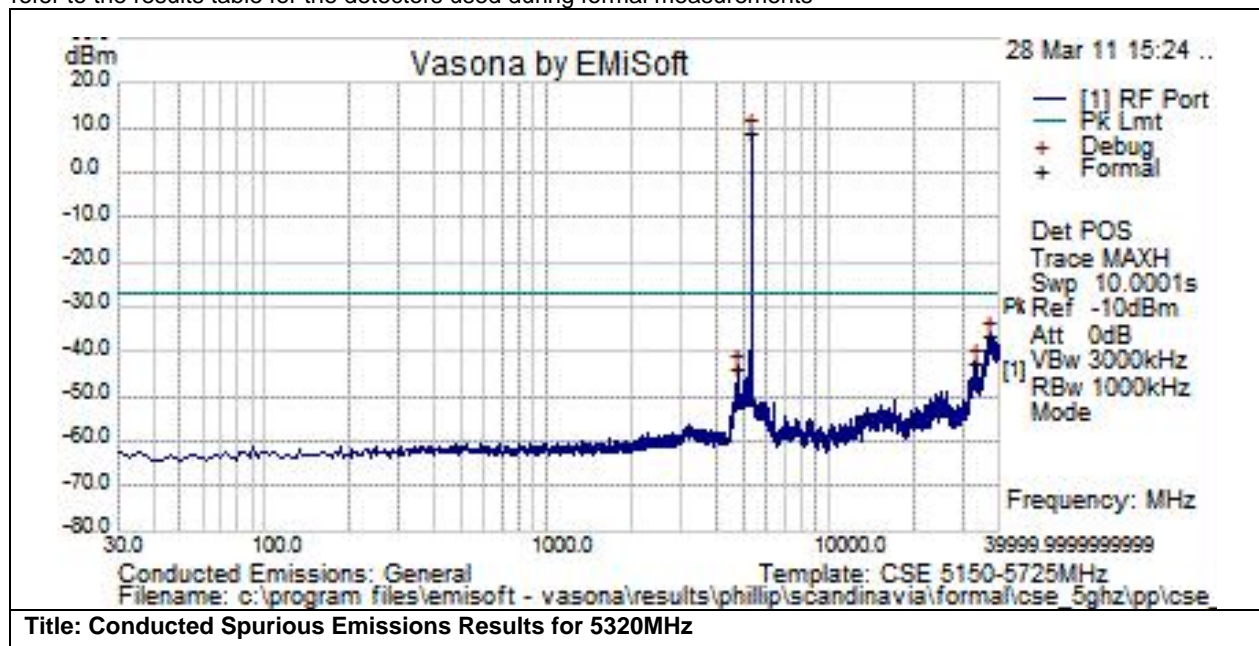




<b>Subtest Number:</b> 59546 - 6		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building B, Radio Area		
<b>Subtest Results</b>			
<b>Line Under Test</b>	[A] Antenna Port		
<b>Transducer</b>	Direct		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	40000.0		
<b>Lowest Frequency</b>	30.0		
<b>Comments on the above Test Results</b>	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



**Test Results Table**

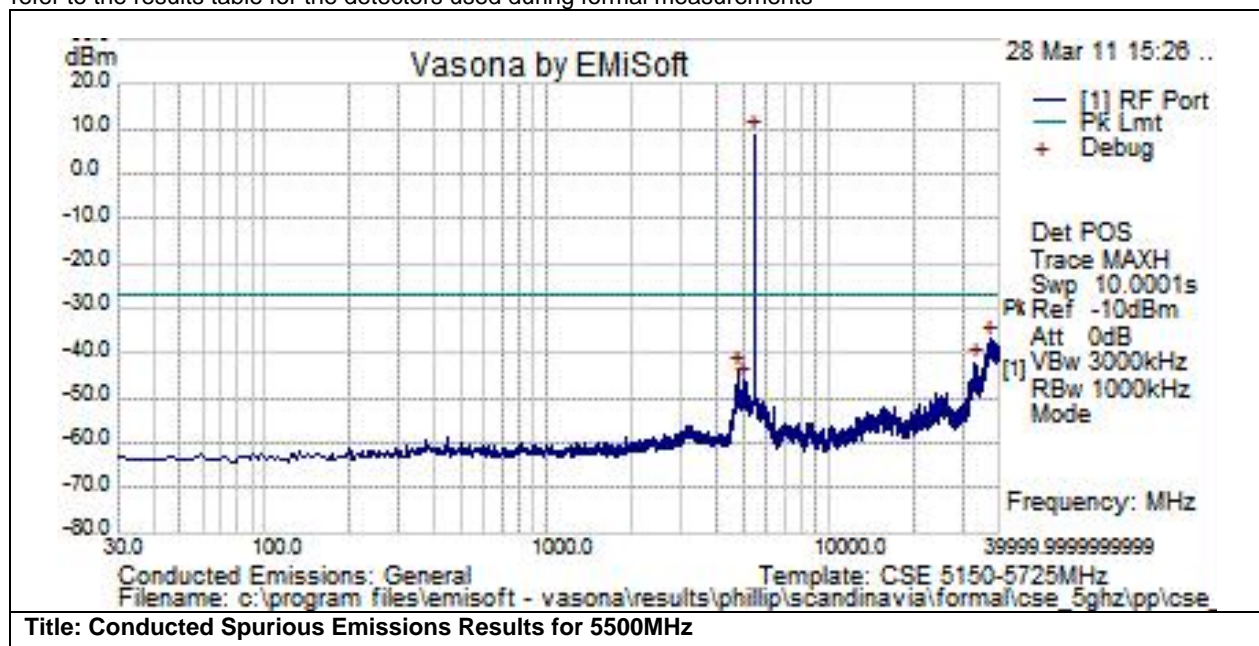
Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
5316.89	-13.2	21.9	0	8.8	NA	RF	-27	35.8	Fail	Tx Signal
37552.497	-58.4	22.1	0	-36.3	NA	RF	-27	-9.3	Pass	Noise Floor
33219.509	-64.1	21.8	0	-42.3	NA	RF	-27	-15.3	Pass	Noise Floor
4799.835	-65.5	21.7	0	-43.8	NA	RF	-27	-16.8	Pass	



<b>Subtest Number:</b> 59546 - 7		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building B, Radio Area		
<b>Subtest Results</b>			
<b>Line Under Test</b>	[A] Antenna Port		
<b>Transducer</b>	Direct		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	40000.0		
<b>Lowest Frequency</b>	30.0		

**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



**Test Results Table**

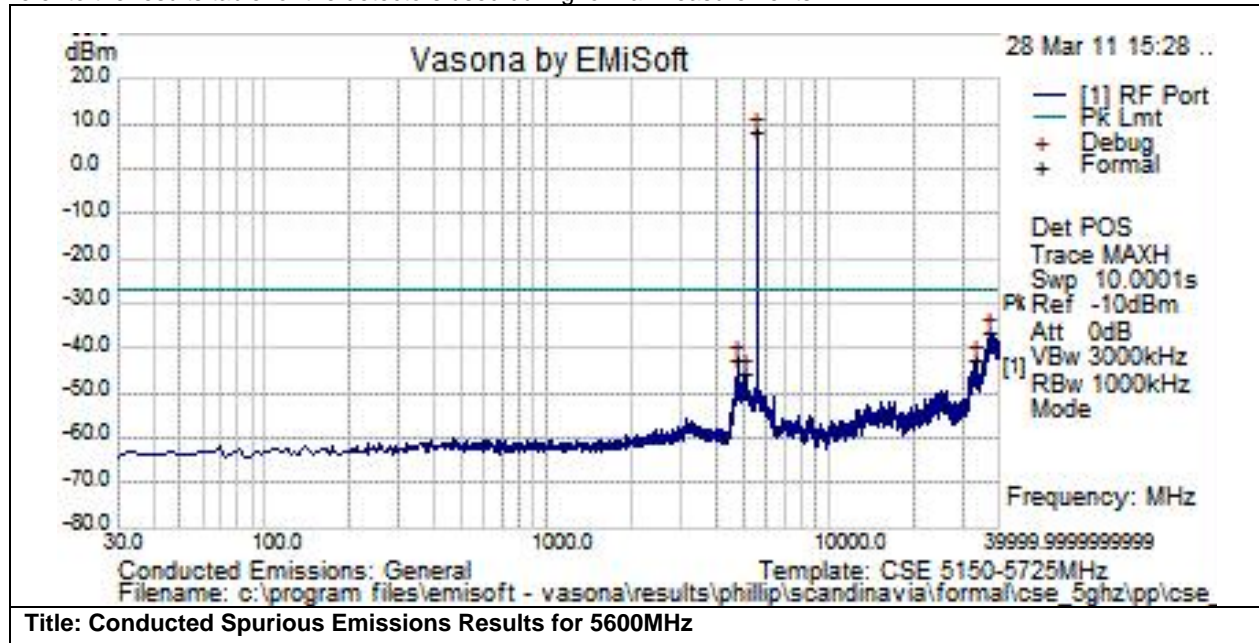
Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
5494.628	-13.2	21.9	0	8.7	NA	RF	-27	35.7	Fail	Tx Signal
37376.145	-59	22	0	-37	NA	RF	-27	-10	Pass	Noise Floor
33135.454	-64	21.8	0	-42.2	NA	RF	-27	-15.2	Pass	Noise Floor
4799.835	-65.2	21.7	0	-43.5	NA	RF	-27	-16.5	Pass	
4958.183	-67.8	21.8	0	-46	NA	RF	-27	-19	Pass	



<b>Subtest Number:</b> 59546 - 8		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building B, Radio Area		
<b>Subtest Results</b>			
<b>Line Under Test</b>	[A] Antenna Port		
<b>Transducer</b>	Direct		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	40000.0		
<b>Lowest Frequency</b>	30.0		

**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



**Test Results Table**

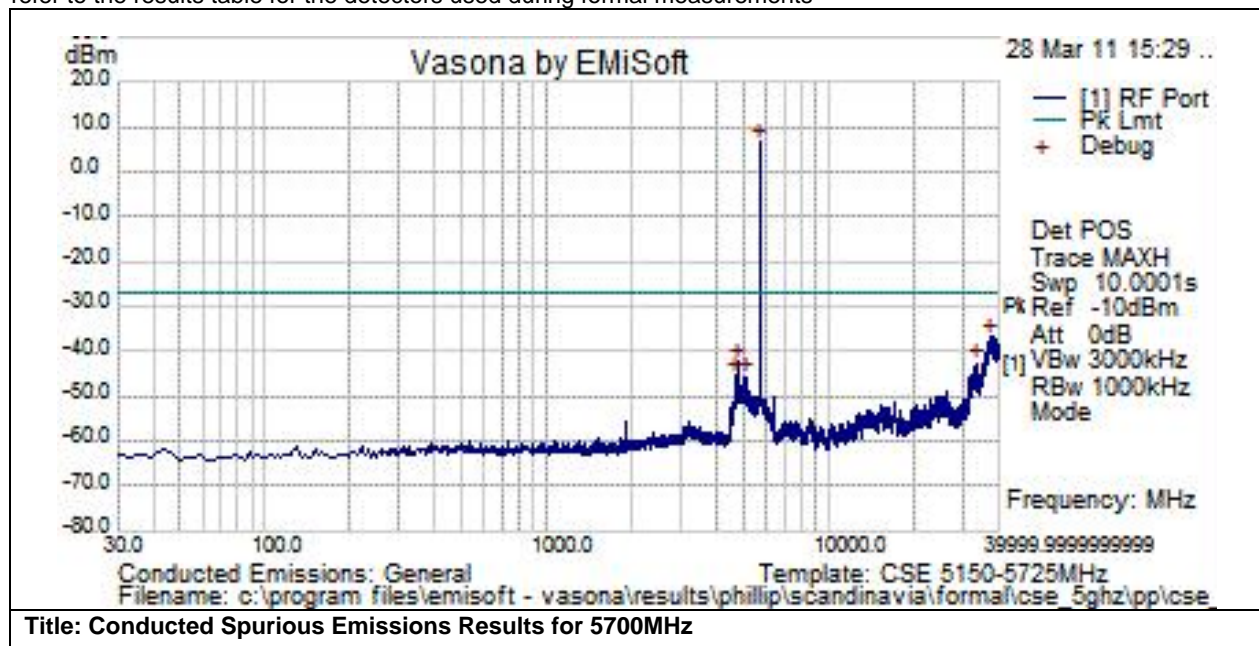
Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
5604.503	-13.6	22	0	8.5	NA	RF	-27	35.5	Fail	Tx Signal
37536.015	-58.6	22	0	-36.6	NA	RF	-27	-9.6	Pass	Noise Floor
33321.695	-64.3	21.9	0	-42.4	NA	RF	-27	-15.4	Pass	Noise Floor
4799.835	-64.1	21.7	0	-42.5	NA	RF	-27	-15.5	Pass	
5119.763	-67.6	21.8	0	-45.8	NA	RF	-27	-18.8	Pass	



<b>Subtest Number:</b> 59546 - 9		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building B, Radio Area		
<b>Subtest Results</b>			
<b>Line Under Test</b>	[A] Antenna Port		
<b>Transducer</b>	Direct		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	40000.0		
<b>Lowest Frequency</b>	30.0		

**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

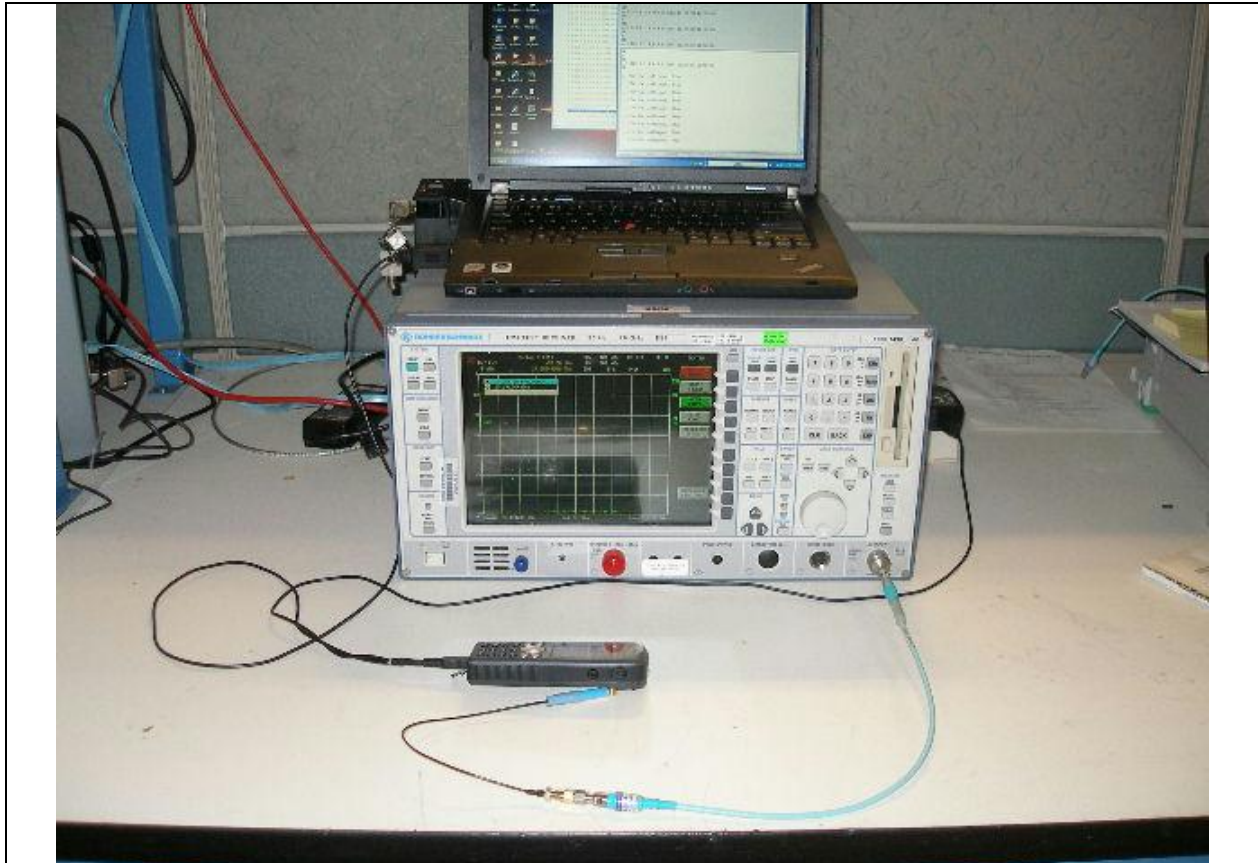


**Test Results Table**

Frequency MHz	Raw dBm	Cable Loss	Factors dB	Level dBm	Measurement Type	Line	Limit dBm	Margin dB	Pass /Fail	Comments
5704.682	-15.5	22.1	0	6.6	NA	RF	-27	33.6	Fail	Tx Signal
37565.682	-58.8	22	0	-36.8	NA	RF	-27	-9.8	Pass	Noise Floor
4799.835	-64.1	21.7	0	-42.4	NA	RF	-27	-15.4	Pass	
33275.546	-64.5	21.9	0	-42.7	NA	RF	-27	-15.7	Pass	Noise Floor
4641.487	-67.3	21.7	0	-45.6	NA	RF	-27	-18.6	Pass	
5119.763	-67.6	21.8	0	-45.8	NA	RF	-27	-18.8	Pass	



**Physical Test arrangement Photograph:**



**Title:** Conducted Spurious Emissions Test Configuration

**Comments on the above Photograph:**

No further comments



Conducted Emissions

<b>Test Number:</b> 63991		<b>Spec ID:</b> 1373		
Basic Standard	Applied to	Class	Freq Range	Test Details / Comments
CFR47 Part 15: 2008 (CAN/CSA-CISPR 22-02)	AC Power Line	B	0.15MHz - 30MHz	U.S line voltages must be used (e.g. 110V/208V 60Hz).
<b>Operating Mode</b>	<b>Mode :</b> 1, Adapter Mode			
<b>Power Input</b>	110, 60Hz (+/-20%)			
<b>Overall Result</b>	Pass			
<b>Comments</b>	No further comments			
<b>Deviation</b>	There were no deviations from the specification			

System Number	Description	Samples	System under test	Support equipment
1	CP-7926G-W-K9 Tested	S01, S02, S03, S04, S05 and S15	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Support Equipment	S06, S08, S09, S10, S11, S12, S13 and S14	<input type="checkbox"/>	<input checked="" type="checkbox"/>

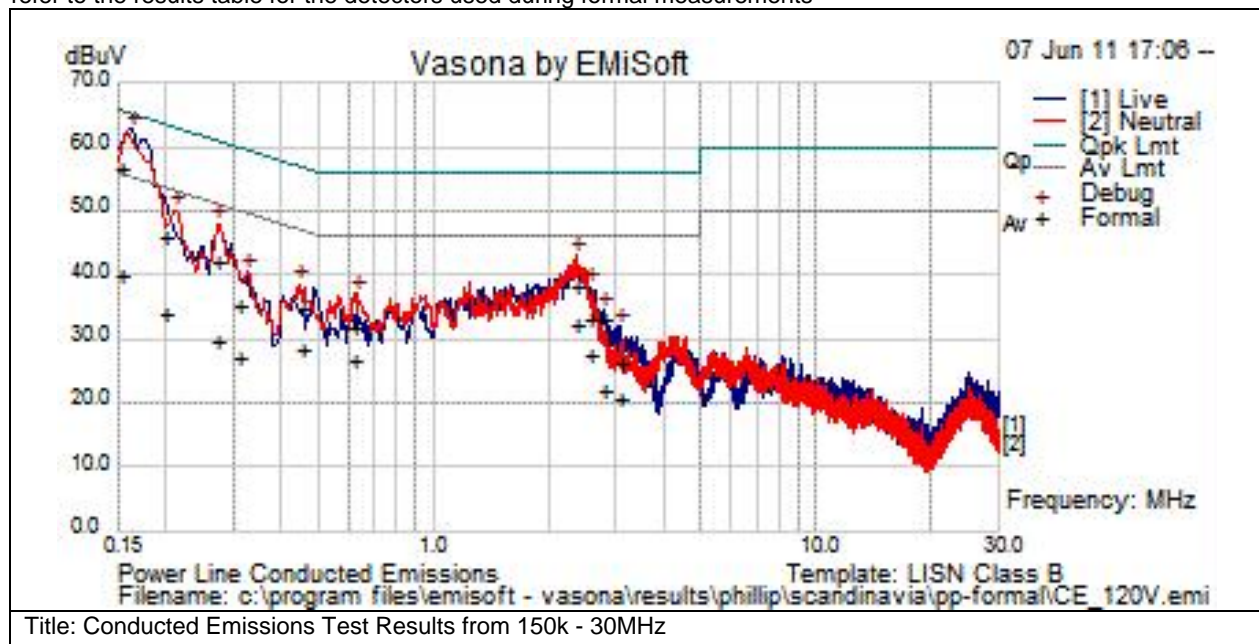
<b>Subtest Number:</b> 63991 - 1		<b>Subtest Date:</b> 07-Jun-2011	
<b>Engineer</b>		Phillip Carranco	
<b>Lab Information</b>		Building B, Shield Room	
<b>Subtest Results</b>			
<b>Line Under Test</b>		[A] AC Mains	
<b>Transducer</b>		LISN	
<b>Subtest Result</b>		Pass	
<b>Highest Frequency</b>		30.0	
<b>Lowest Frequency</b>		0.15	
<b>Comments on the above Test Results</b>		No further comments	
<b>Environmental Conditions:</b>			
Temperature: (59 to 95)F		72F	
Humidity: ( 10 to 75)%:		36%	
Comments:			
<b>Equipment used:</b>			
Equipment No	Manufacturer	Model	Description
CIS008097	Huber + Suhner	RG-223	RG-233 Cable 9m
CIS004924	Rohde & Schwarz	ESHS30	EMI Receiver (9KHz-30MHz)
CIS008185	Fischer Custom Communications	FCC-450B-2.4-N	Instrumentation Limiter



CIS008197	TTE	H613-150K-50-21378	Hi Pass Filter - 150KHz cutoff
CIS008394	Coleman	RG-223	RG-223 Cable 6 ft
CIS008490	Bird	5-T-MN	5W 50 Ohm Terminator
CIS007036	HP	E7401A	Spectrum Analyzer
CIS018981	Fischer Custom Communications	FCC-801-M2-32A	Power Line Coupling/Decoupling Network
CIS020767	Fischer Custom Communications	FCC-450B-2.4-N	Instrumentation Limiter
CIS023874	Fischer Custom Communications	FCC-LISN-PA-NEMA-5-15	Power Adaptor, Polarized 120VAC
CIS036033	York	CNE V	Comparison Noise Emitter

**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

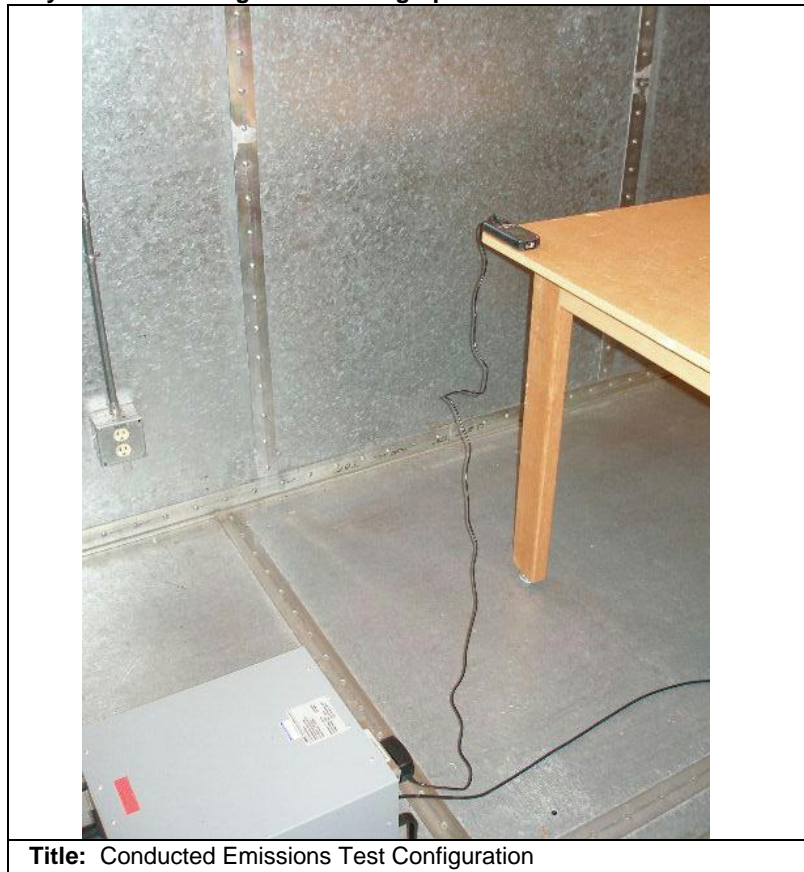


**Test Results Table**

Frequency MHz	Raw dBuV	Cable Loss	Factors dB	Level dBuV	Measurement Type	Line	Limit dBuV	Margin dB	Pass /Fail	Comments
0.1514	35.7	21	0.1	56.8	Qp	L	65.9	-9.2	Pass	
2.343	12.2	19.9	0	32.1	Av	N	46	-13.9	Pass	
0.1514	19	21	0.1	40	Av	L	55.9	-15.9	Pass	
2.343	18.2	19.9	0	38.2	Qp	N	56	-17.8	Pass	
0.1976	25	20.8	0	45.8	Qp	N	63.7	-17.9	Pass	
0.4531	8.2	20	0	28.2	Av	N	46.8	-18.6	Pass	
2.568	7.4	19.8	0	27.3	Av	L	46	-18.7	Pass	

Frequency MHz	Raw dBuV	Cable Loss	Factors dB	Level dBuV	Measurement Type	Line	Limit dBuV	Margin dB	Pass /Fail	Comments
0.2696	21.7	20.5	0	42.2	Qp	N	61.1	-18.9	Pass	
0.6171	6.6	20	0	26.6	Av	N	46	-19.4	Pass	
0.1976	13	20.8	0	33.8	Av	N	53.7	-20	Pass	
0.2696	9.3	20.5	0	29.8	Av	N	51.1	-21.3	Pass	
0.4531	14.7	20	0	34.7	Qp	N	56.8	-22.1	Pass	
2.568	13.2	19.8	0	33.1	Qp	L	56	-22.9	Pass	
2.784	13.2	19.8	0	33.1	Qp	L	56	-22.9	Pass	
0.3102	6.5	20.3	0	26.9	Av	N	50	-23.1	Pass	
0.6171	12	20	0	32	Qp	N	56	-24	Pass	
2.784	1.8	19.8	0	21.7	Av	L	46	-24.3	Pass	
0.3102	14.9	20.3	0	35.3	Qp	N	60	-24.7	Pass	
3.058	0.6	19.9	0	20.5	Av	L	46	-25.5	Pass	
3.058	6.3	19.9	0	26.2	Qp	L	56	-29.8	Pass	

**Physical Test arrangement Photograph:**





**Radiated Transmitter Spurious Emissions**

15.205

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

Radiated emissions which fall in the restricted bands, as defined in Sec. 2.7-Table 1 must also comply with the radiated emission limits specified in Sec. 2.7-Table 2.

**Note: All 3-axis (X,Y, Z) were evaluated during preliminary testing and the worse case orientation was for all formal testing shown below.**

**Test Results**

<b>Test Number:</b> 61587 <b>Spec ID:</b> 966				
<b>Basic Standard</b>	<b>Applied to</b>	<b>Class</b>	<b>Freq Range</b>	<b>Test Details / Comments</b>
Radiated Spurious Emissions	Enclosure	N/A	30MHz - 40GHz	CFR47 Part 15.109, CFR47 Part 15.407, RSS-210, LP0002 HKTA1039
<b>Operating Mode</b>	<b>Mode :</b> 1, 802.11A Radio Test			
<b>Power Input</b>	110, 60Hz (+/-20%)			
<b>Overall Result</b>	Pass			
<b>Comments</b>	No further comments			
<b>Deviation</b>	There were no deviations from the specification			

System Number	Description	Samples	System under test	Support equipment
1	5GHz Radio Test Sample	S01	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<b>Subtest Number:</b> 61587 - 1		<b>Subtest Date:</b> 29-Apr-2011		
<b>Engineer</b>		Phillip Carranco		
<b>Lab Information</b>		Building I, 5m Anechoic		
<b>Subtest Results</b>				
<b>Subtest Title</b>		Radiated Spurious Emissions Results from 30 - 1000MHz		
<b>Subtest Result</b>		Pass		
<b>Highest Frequency</b>		1000.0		
<b>Lowest Frequency</b>		30.0		
<b>Comments on the above Test Results</b>		No further comments		
<b>Environmental Conditions:</b>				
Temperature: (59 to 95)F		73F		
Humidity: ( 10 to 75)%:		37%		
Comments:				
<b>Equipment used:</b>				
Equipment No	Manufacturer	Model	Description	
CIS002119	EMC Test Systems	3115	Double Ridged Guide Horn Antenna	

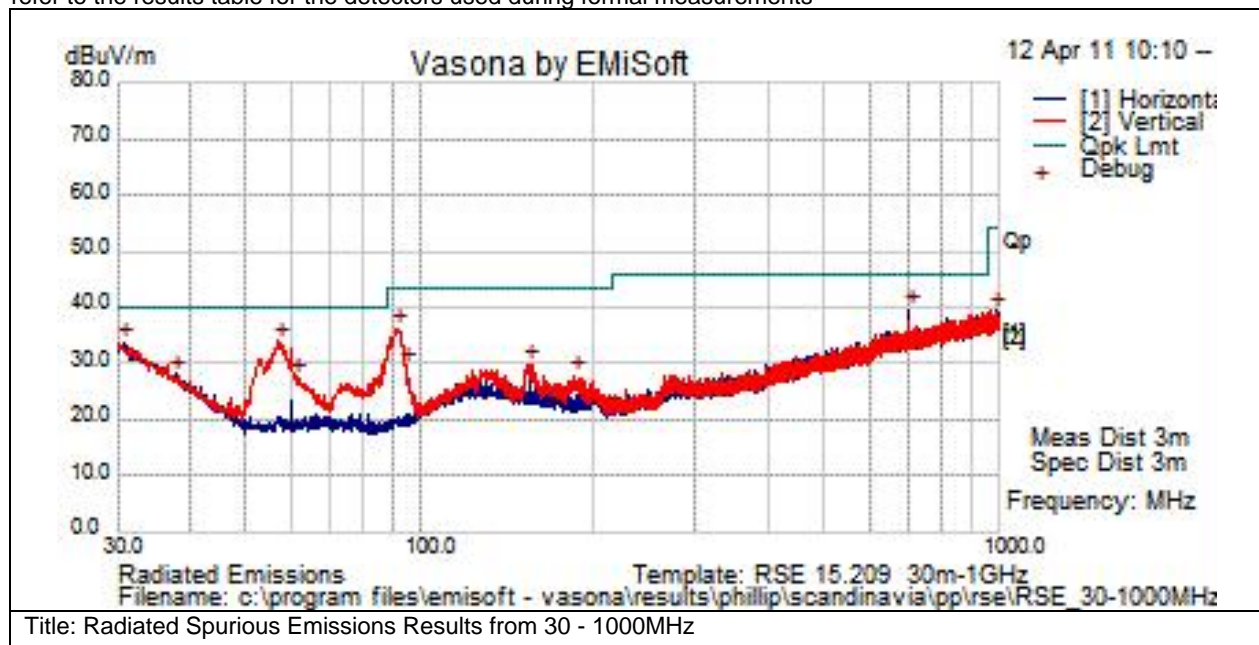




CIS008022	Huber + Suhner	SF106A	1 meter Sucoflex cable
CIS008024	Huber + Suhner	SF106A	3 meter Sucoflex cable
CIS005691	Miteq	NSP1800-25-S1	Broadband Preamp (1-18GHz)
CIS024201	Rohde & Schwarz	FSEK30	Spectrum Analyzer 20Hz - 40GHz
CIS027235	York	CNE V	Comparison Noise Emitter
CIS028072	Cisco	1840	18-40GHz EMI Test Head/Verification Fixture
CIS030443	Micro-Coax	UFB311A-0-1560-520520	RF Coaxial Cable, to 18GHz, 156 In.
CIS033602	Midwest Microwave	CSY-NMNM-80-273001	RF Coaxial Cable, 27ft. to 18GHz
CIS042000	Agilent	E4440A	Spectrum Analyzer
CIS045588	Sunol Sciences	JB1	Combination Antenna, 30MHz-2GHz
CIS045051	Rohde & Schwarz	ESCI	EMI Test Receiver

**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



**Test Results Table**

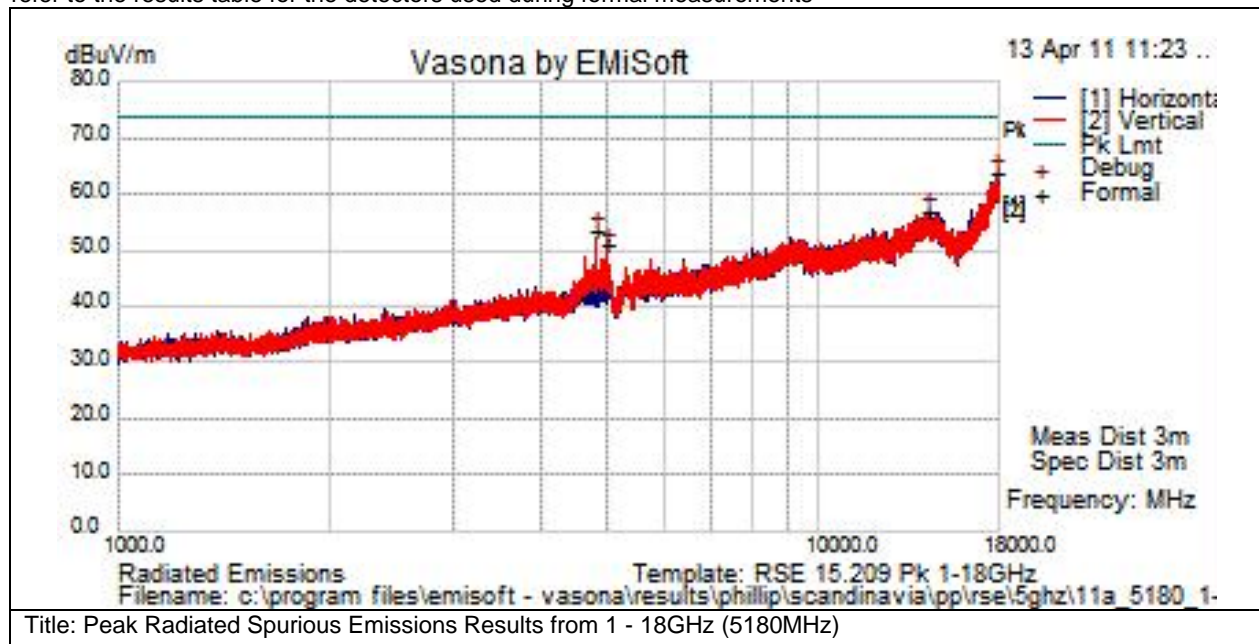
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
701.977	13.2	2.2	20.1	35.5	Qp	H	117	294	46	-10.5	Pass	
56.882	21.3	0.6	7	28.9	Qp	V	100	308	40	-11.1	Pass	
91.372	19.6	0.8	7.7	28	Qp	V	106	327	43.5	-15.5	Pass	
30.728	-3.6	0.4	20.7	17.5	Qp	H	100	308	40	-22.5	Pass	



<b>Subtest Number:</b> 61587 - 2		<b>Subtest Date:</b> 29-Apr-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Peak Radiated Spurious Emissions Results from 1 - 18GHz (5180MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

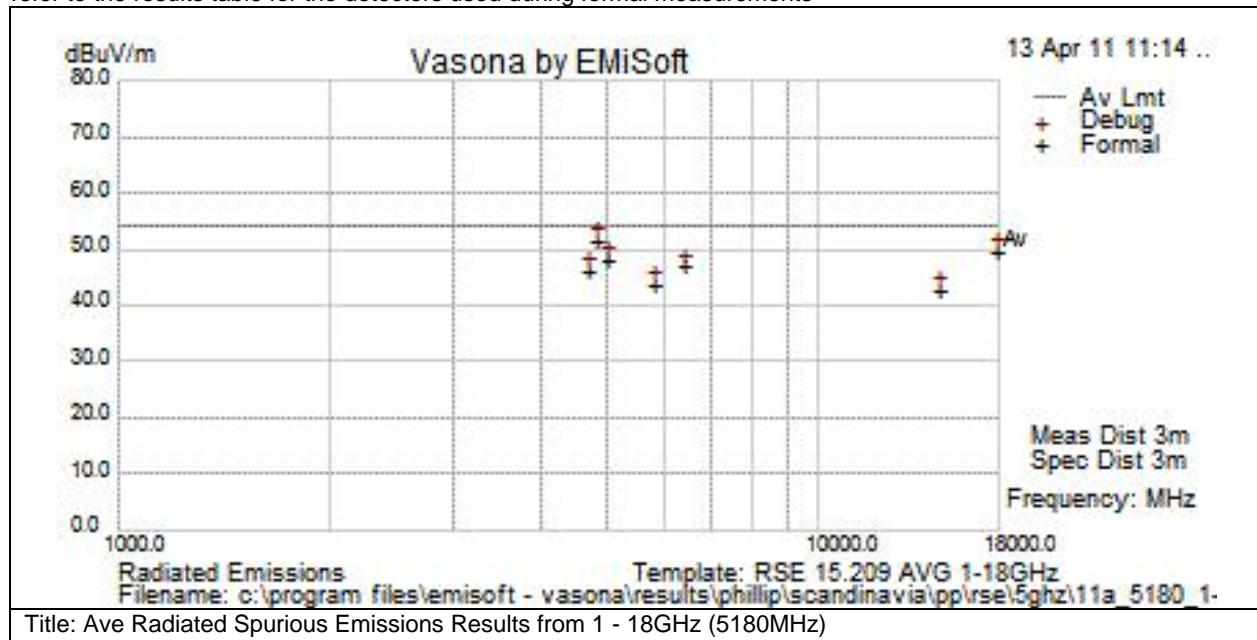
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17874.954	38.8	13.6	11.3	63.6	Pk	V	100	0	74	-10.4	Pass	Noise Floor
14286.503	38	11.7	7.2	56.9	Pk	H	100	0	74	-17.1	Pass	Noise Floor
4800.074	50.8	6.6	-3.8	53.6	Pk	V	131	320	74	-20.4	Pass	
4960.002	48.1	6.7	-4	50.8	Pk	V	117	292	74	-23.2	Pass	



<b>Subtest Number:</b> 33481 - 3		<b>Subtest Date:</b> 25-Sep-2008	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Ave Radiated Spurious Emissions Results from 1 - 18GHz (5180MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**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
4799.964	48.66	6.6	-3.8	51.45	Av	V	102	258	54	-2.55	Pass	
17893.114	24.30	13.7	11.3	49.33	Av	V	100	0	54	-4.7	Pass	Noise Floor
4959.99	45.19	6.7	-4.0	47.86	Av	V	135	308	54	-6.14	Pass	
6399.95	42.07	8	-4.1	46.83	Av	V	123	341	54	-7.17	Pass	
4639.960	43.84	6.4	-4.1	46.18	Av	V	136	17	54	-7.82	Pass	
5760.01	40.53	7.4	-4.1	43.84	Av	V	128	336	54	-10.16	Pass	
14698.48	24.00	12	6.5	42.5	Av	V	100	0	54	-11.5	Pass	Noise Floor

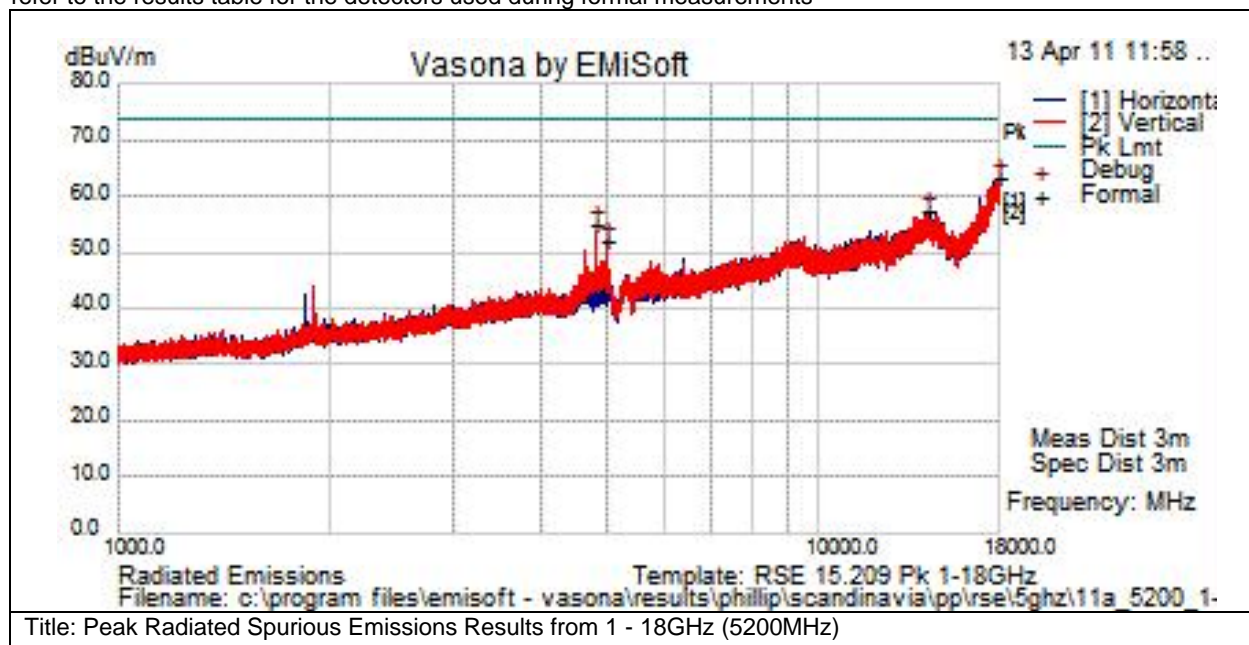




<b>Subtest Number:</b> 61587 - 4		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Peak Radiated Spurious Emissions Results from 1 - 18GHz (5200MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

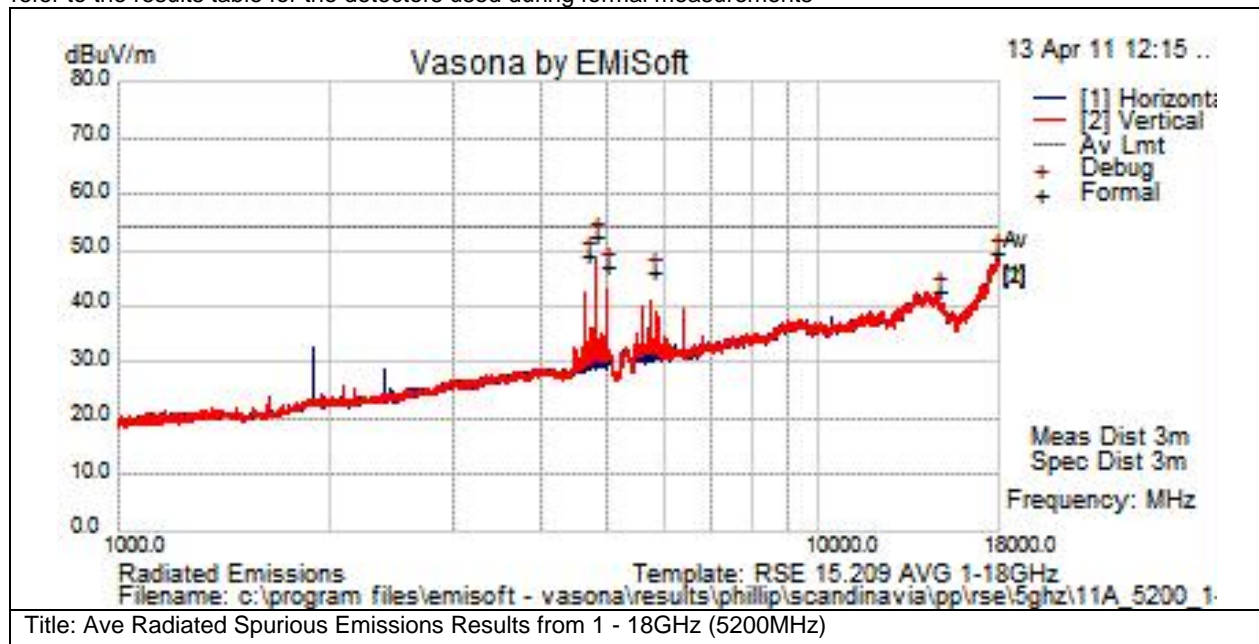
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17907.124	38	13.6	11.5	63.1	Pk	V	100	0	74	-10.9	Pass	Noise Floor
14254.334	38.3	11.8	7.2	57.3	Pk	V	100	0	74	-16.7	Pass	Noise Floor
4799.741	52.3	6.6	-3.8	55.1	Pk	V	120	22	74	-18.9	Pass	
4959.71	49.4	6.7	-4	52	Pk	V	102	257	74	-22	Pass	



<b>Subtest Number:</b> 61587 - 5		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Ave Radiated Spurious Emissions Results from 1 - 18GHz (5200MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

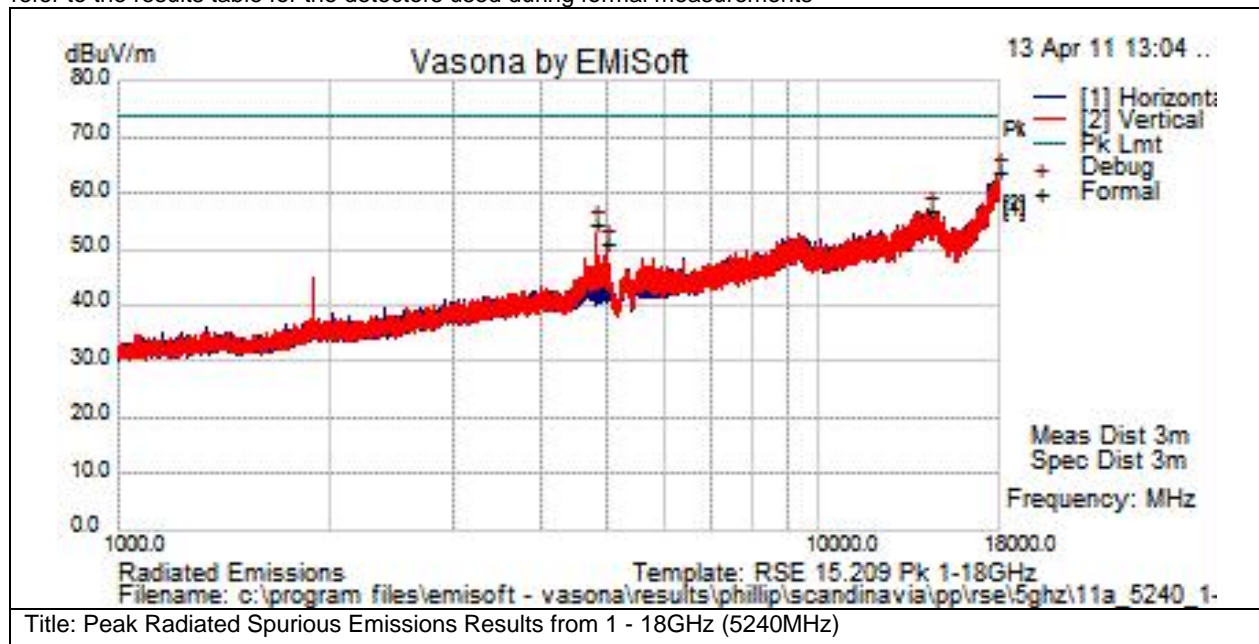
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4799.973	49.8	6.6	-3.8	52.6	Av	V	121	23	54	-1.4	Pass	
17887.407	24.3	13.7	11.3	49.4	Av	V	100	0	54	-4.6	Pass	Noise Floor
4639.963	46.7	6.4	-4.1	49	Av	V	106	21	54	-5	Pass	
4959.934	44.6	6.7	-4	47.2	Av	V	123	342	54	-6.8	Pass	
5759.986	42.7	7.4	-4.1	46	Av	V	130	341	54	-8	Pass	
14723.904	24	12	6.5	42.5	Av	V	100	0	54	-11.5	Pass	Noise Floor



<b>Subtest Number:</b> 61587 - 6		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Peak Radiated Spurious Emissions Results from 1 - 18GHz (5240MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

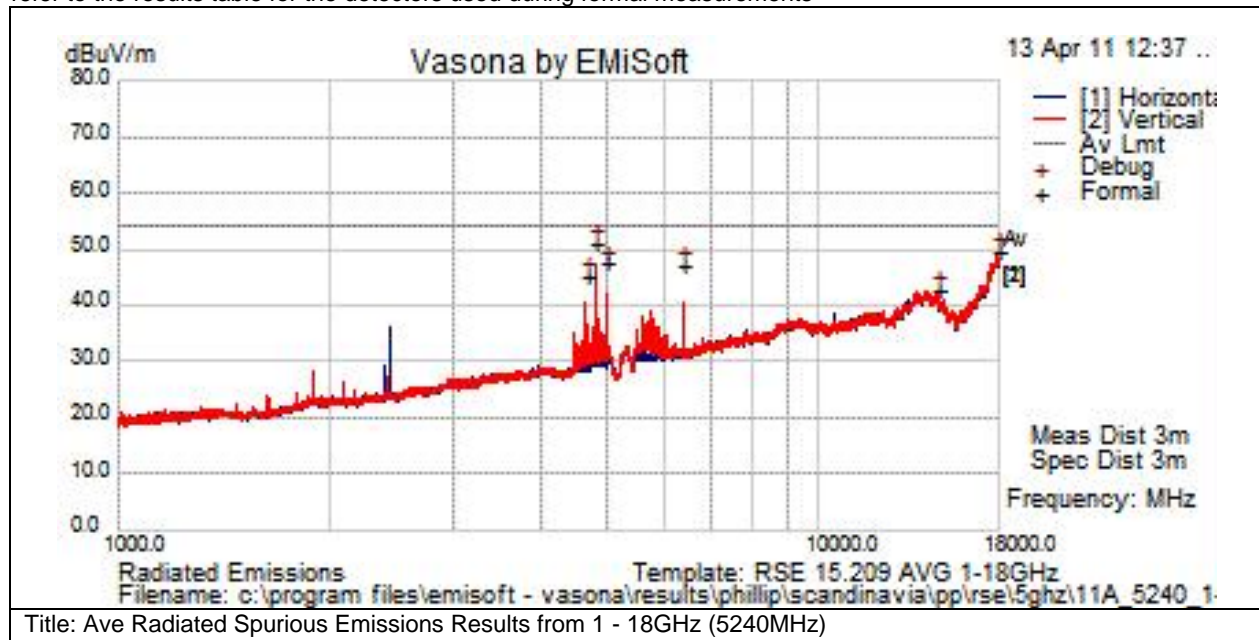
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17900.897	38.6	13.6	11.4	63.7	Pk	H	100	0	74	-10.3	Pass	Noise Floor
14306.22	38	11.8	7.3	57	Pk	H	100	0	74	-17	Pass	Noise Floor
4800.032	51.9	6.6	-3.8	54.7	Pk	V	104	351	74	-19.3	Pass	
4959.781	48.5	6.7	-4	51.2	Pk	V	101	258	74	-22.8	Pass	



<b>Subtest Number:</b> 61587 - 7		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Ave Radiated Spurious Emissions Results from 1 - 18GHz (5240MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

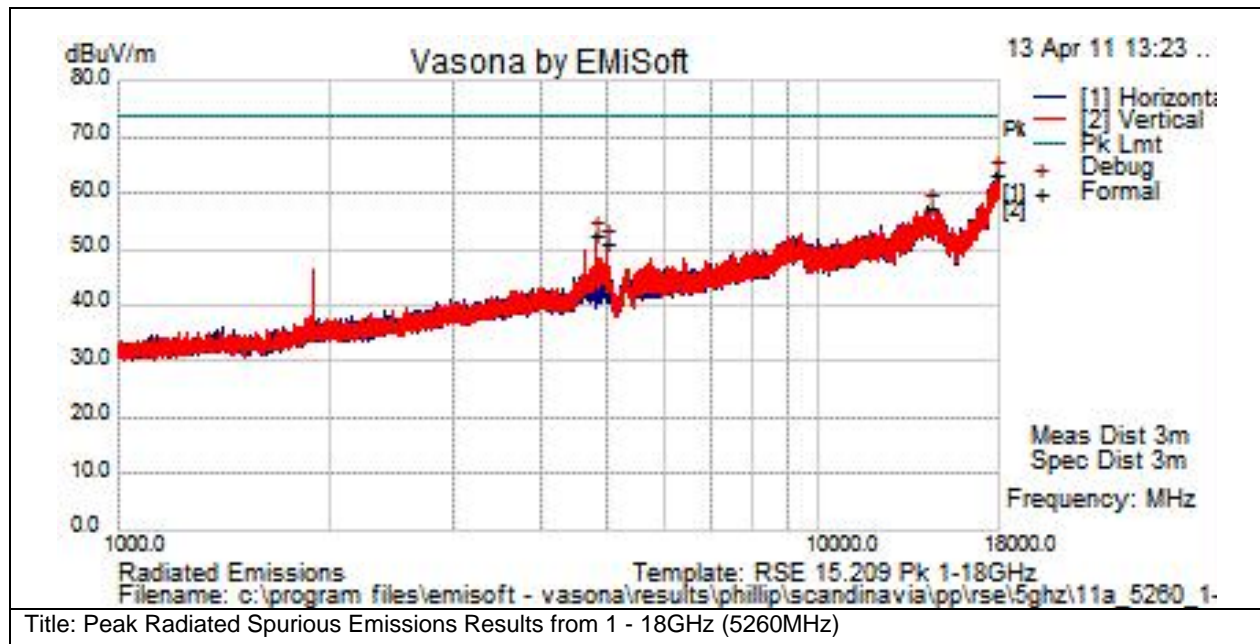
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4799.968	48.1	6.6	-3.8	50.9	Av	V	100	300	54	-3.1	Pass	
17902.454	24.3	13.6	11.4	49.3	Av	V	100	0	54	-4.7	Pass	Noise Floor
4959.944	44.7	6.7	-4	47.4	Av	V	114	244	54	-6.6	Pass	
6399.964	42.3	8	-3.2	47.1	Av	V	124	352	54	-6.9	Pass	
4639.95	42.8	6.4	-4.1	45.2	Av	V	135	349	54	-8.8	Pass	
14711.97	24	12	6.5	42.5	Av	V	100	0	54	-11.5	Pass	Noise Floor



<b>Subtest Number:</b> 61587 - 8		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Peak Radiated Spurious Emissions Results from 1 - 18GHz (5260MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**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
17895.19	38.3	13.7	11.3	63.3	Pk	H	100	0	74	-10.7	Pass	Noise Floor
14315.56	38.4	11.8	7.2	57.5	Pk	H	100	0	74	-16.5	Pass	Noise Floor
4799.703	49.7	6.6	-3.8	52.5	Pk	V	116	301	74	-21.5	Pass	
4959.881	48.5	6.7	-4	51.2	Pk	V	115	246	74	-22.8	Pass	

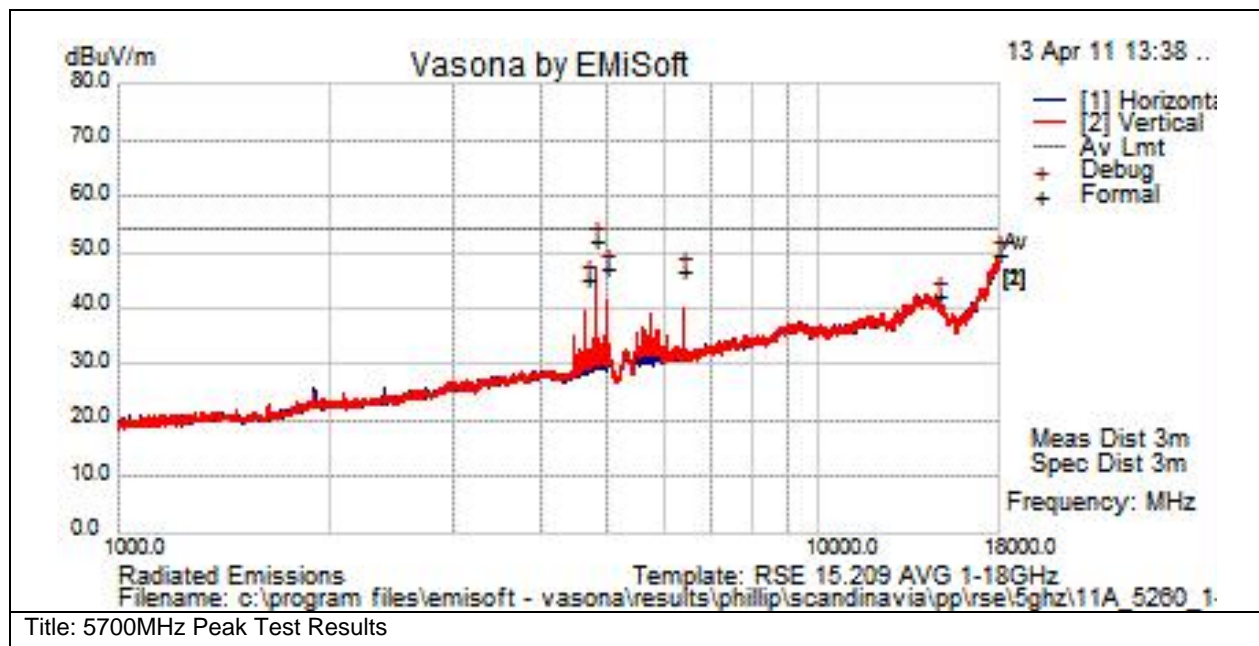




<b>Subtest Number:</b> 61587 - 9		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Ave Radiated Spurious Emissions Results from 1 - 18GHz (5260MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

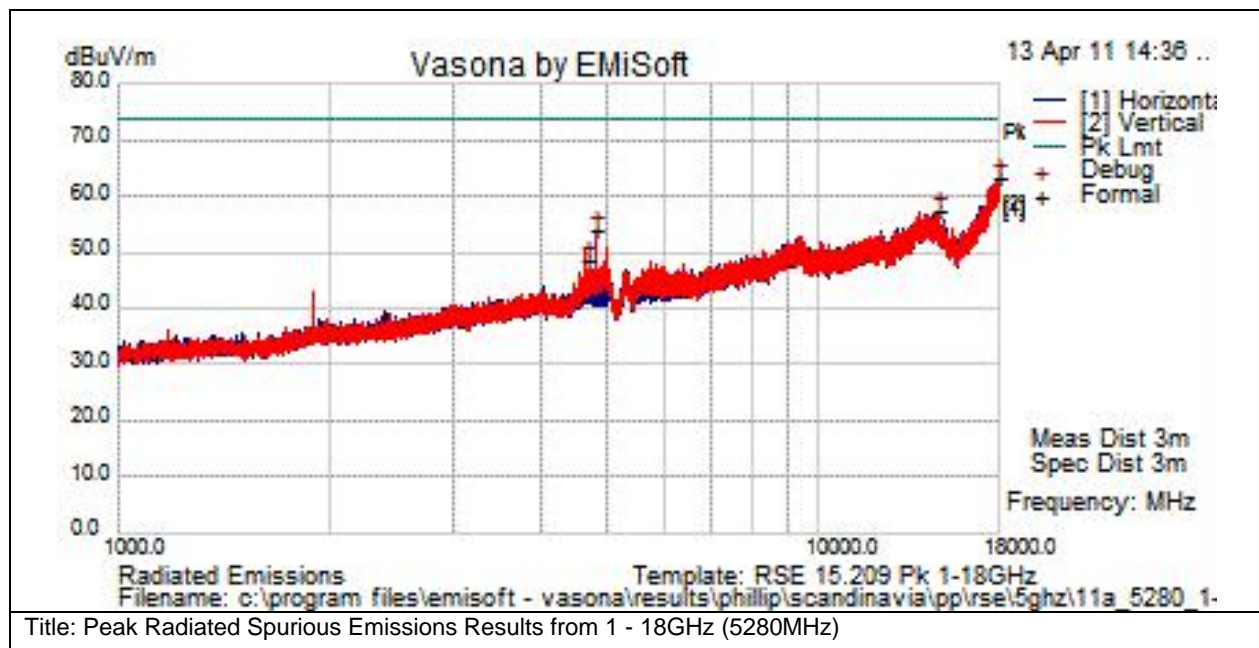
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4799.986	49.1	6.6	-3.8	51.9	Av	V	104	260	54	-2.1	Pass	
17899.341	24.3	13.7	11.4	49.4	Av	V	100	0	54	-4.6	Pass	Noise Floor
4959.969	44.6	6.7	-4	47.3	Av	V	110	313	54	-6.7	Pass	
6399.959	41.8	8	-3.2	46.6	Av	V	124	340	54	-7.4	Pass	
4639.949	43	6.4	-4.1	45.3	Av	V	109	262	54	-8.7	Pass	
14729.093	23.9	12	6.5	42.4	Av	V	100	0	54	-11.6	Pass	Noise Floor



<b>Subtest Number:</b> 61587 - 10		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Peak Radiated Spurious Emissions Results from 1 - 18GHz (5280MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

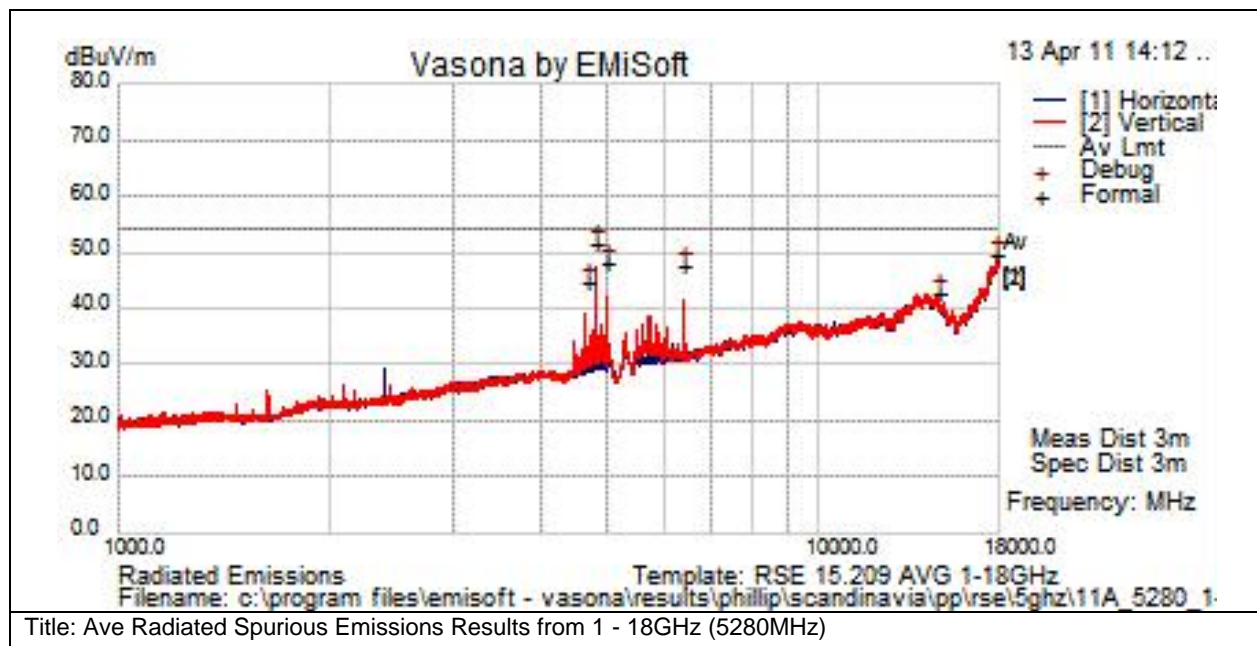
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17923.727	37.9	13.6	11.6	63.1	Pk	H	100	0	74	-10.9	Pass	Noise Floor
14709.376	38.8	12	6.5	57.3	Pk	H	100	0	74	-16.7	Pass	Noise Floor
4799.879	51.1	6.6	-3.8	53.9	Pk	V	116	300	74	-20.1	Pass	
4639.848	46.2	6.4	-4.1	48.5	Pk	V	136	341	74	-25.5	Pass	



<b>Subtest Number:</b> 61587 - 11		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Ave Radiated Spurious Emissions Results from 1 - 18GHz (5280MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**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
4799.98	48.6	6.6	-3.8	51.4	Av	V	116	301	54	-2.6	Pass	
17887.407	24.3	13.7	11.3	49.4	Av	V	100	0	54	-4.6	Pass	Noise Floor
4959.976	45.4	6.7	-4	48.1	Av	V	102	245	54	-5.9	Pass	
6400	42.7	8	-3.2	47.5	Av	V	124	346	54	-6.5	Pass	
4639.992	42.5	6.4	-4.1	44.8	Av	V	124	267	54	-9.2	Pass	
14714.046	24.1	12	6.5	42.6	Av	V	100	0	54	-11.4	Pass	Noise Floor

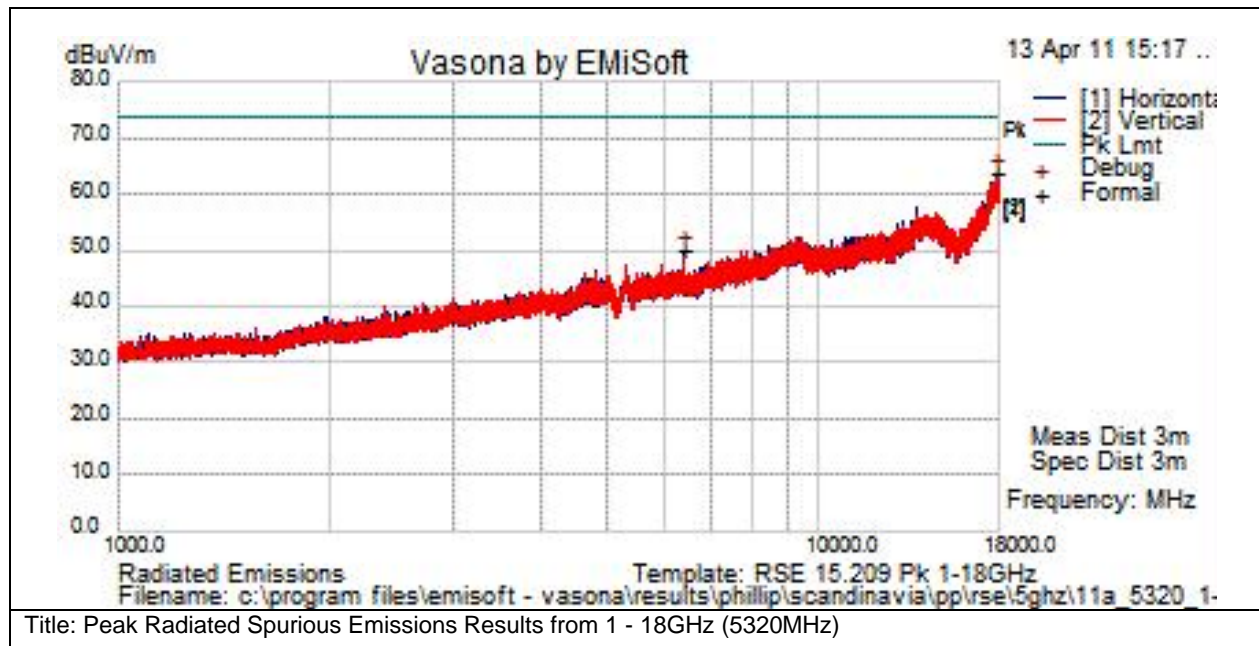




<b>Subtest Number:</b> 61587 - 12		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Peak Radiated Spurious Emissions Results from 1 - 18GHz (5320MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

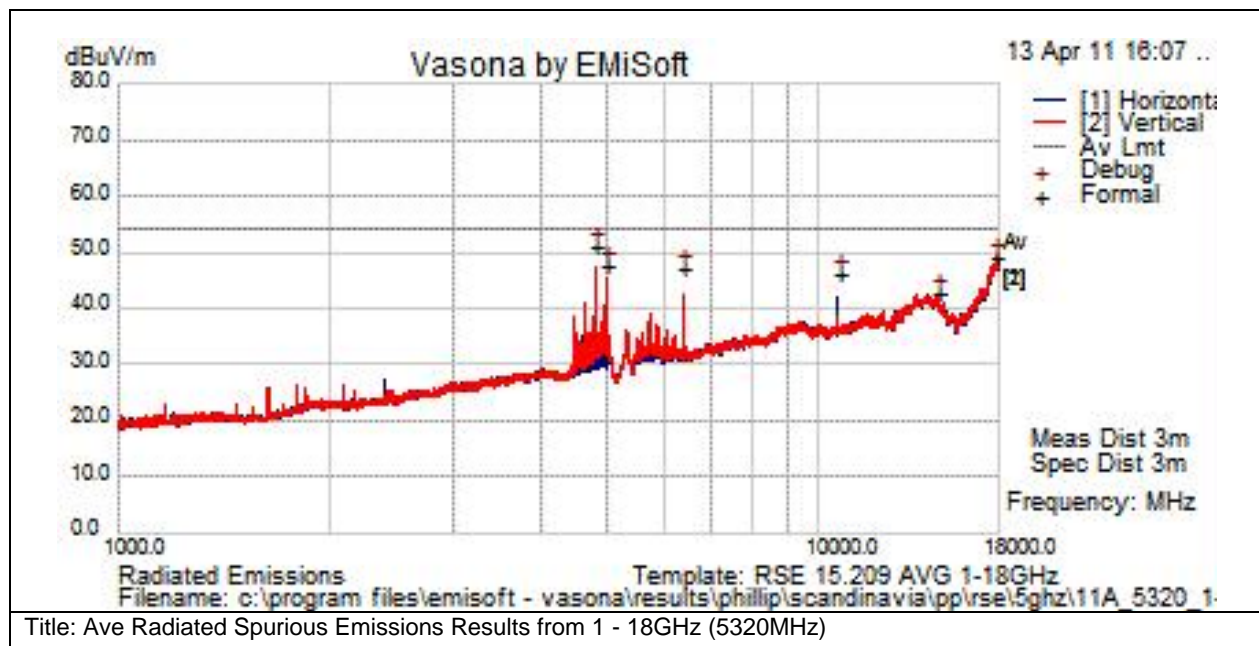
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17869.766	38.7	13.5	11.3	63.5	Pk	V	100	0	74	-10.5	Pass	Noise Floor
6399.967	45.2	8	-3.2	50	Pk	H	120	-2	74	-24	Pass	



<b>Subtest Number:</b> 61587 - 13		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Ave Radiated Spurious Emissions Results from 1 - 18GHz (5320MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

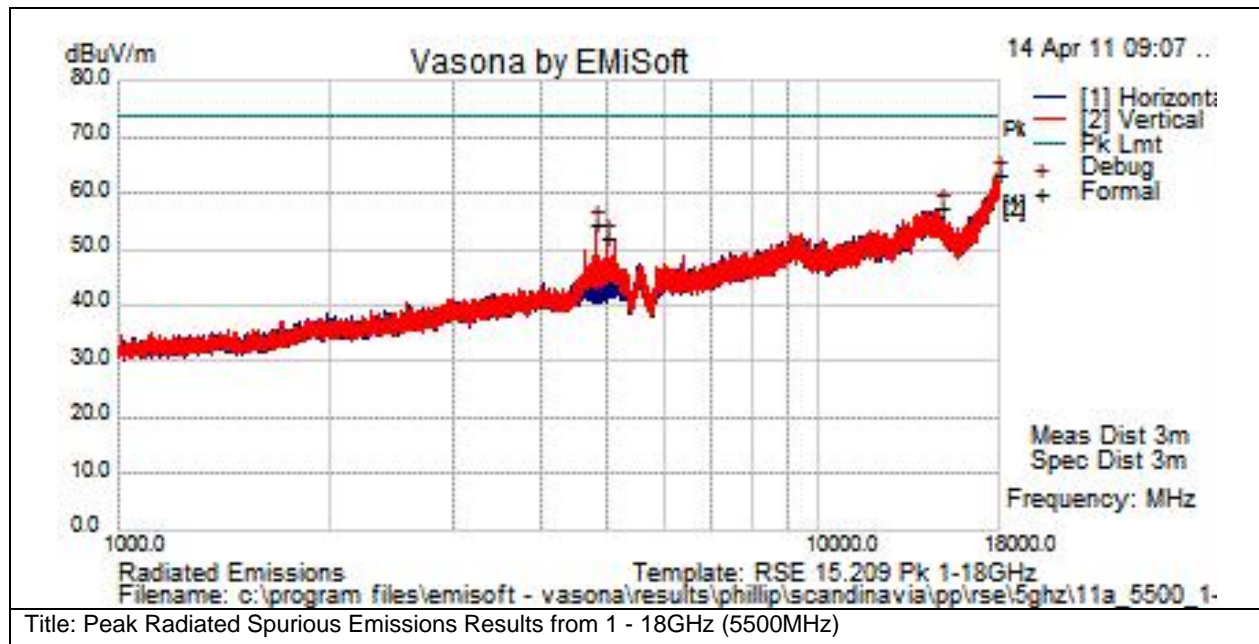
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4799.962	48.4	6.6	-3.8	51.2	Av	V	144	341	54	-2.8	Pass	
17891.672	24.1	13.7	11.3	49.2	Av	V	109	335	54	-4.8	Pass	Noise Floor
4959.998	45	6.7	-4	47.7	Av	V	137	312	54	-6.3	Pass	
6399.959	42.4	8	-3.2	47.2	Av	V	126	344	54	-6.8	Pass	
10639.925	30.9	9.7	5.4	46	Av	H	109	335	54	-8	Pass	Noise Floor
14697.961	24.1	12	6.5	42.5	Av	V	100	0	54	-11.5	Pass	Noise Floor



<b>Subtest Number:</b> 61587 - 14		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Peak Radiated Spurious Emissions Results from 1 - 18GHz (5500MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

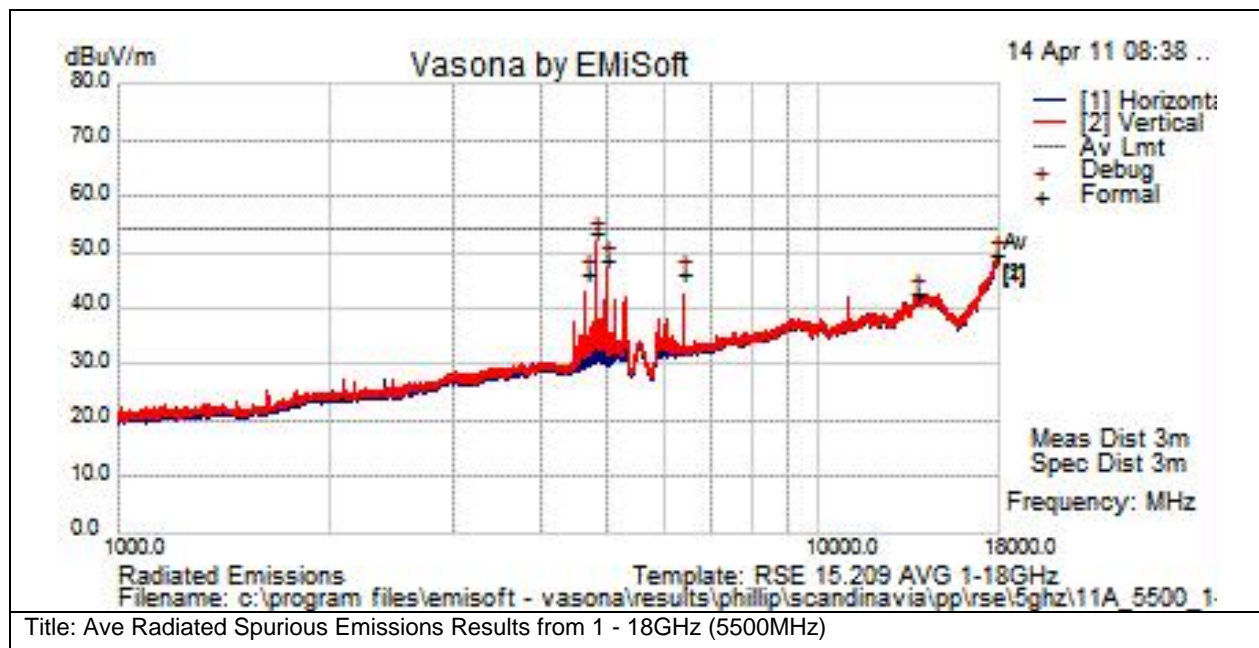
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17916.982	38.3	13.6	11.5	63.4	Pk	H	100	0	74	-10.6	Pass	Noise Floor
14847.393	39.4	12	5.9	57.3	Pk	V	100	0	74	-16.7	Pass	Noise Floor
4799.978	51.8	6.6	-3.8	54.6	Pk	V	102	305	74	-19.4	Pass	
4959.875	49.4	6.7	-4	52.1	Pk	V	104	246	74	-21.9	Pass	



<b>Subtest Number:</b> 61587 - 15		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Ave Radiated Spurious Emissions Results from 1 - 18GHz (5500MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

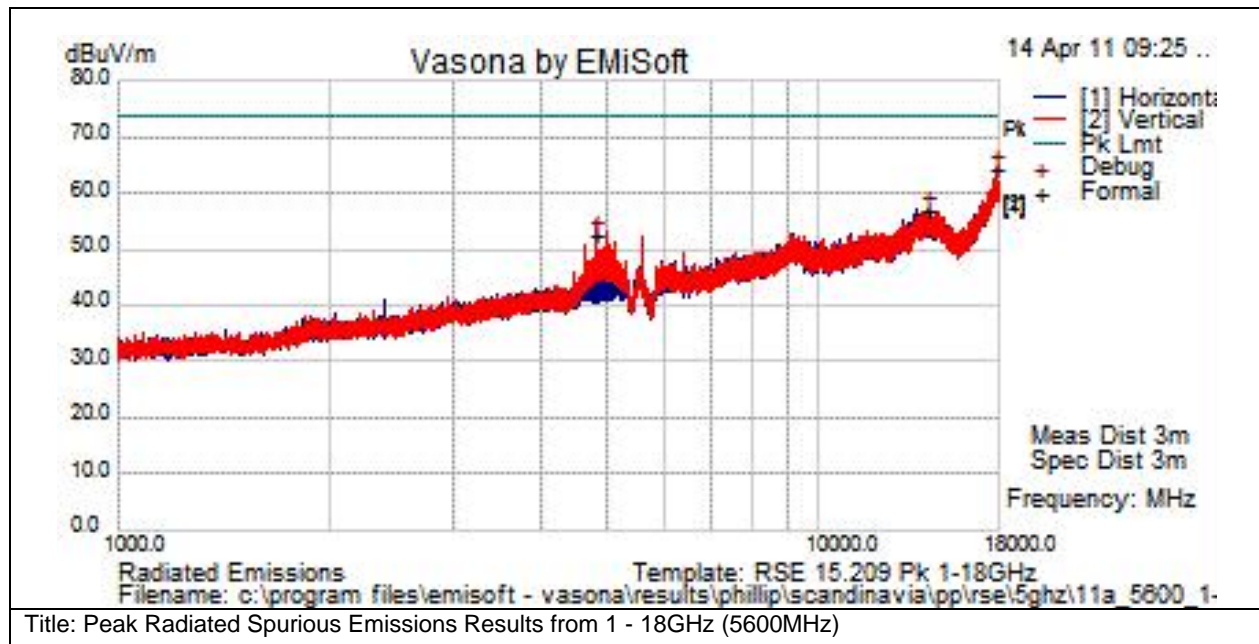
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4799.977	50.4	6.6	-3.8	53.2	Av	V	122	24	54	-0.8	Pass	
17882.737	24.5	13.7	11.3	49.5	Av	V	100	0	54	-4.5	Pass	Noise Floor
4959.986	45.9	6.7	-4	48.6	Av	V	110	317	54	-5.4	Pass	
6399.953	41.4	8	-3.2	46.1	Av	V	124	343	54	-7.9	Pass	
4640	43.6	6.4	-4.1	46	Av	V	110	261	54	-8	Pass	
13750	24.3	11.8	6.4	42.6	Av	V	100	0	54	-11.4	Pass	Noise Floor



<b>Subtest Number:</b> 61587 - 16		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Peak Radiated Spurious Emissions Results from 1 - 18GHz (5600MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**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
17860.426	39.5	13.5	11.3	64.3	Pk	V	100	0	74	-9.7	Pass	Noise Floor
14224.24	37.9	11.8	7.4	57	Pk	V	100	0	74	-17	Pass	Noise Floor
4799.516	49.7	6.6	-3.8	52.5	Pk	V	106	260	74	-21.5	Pass	

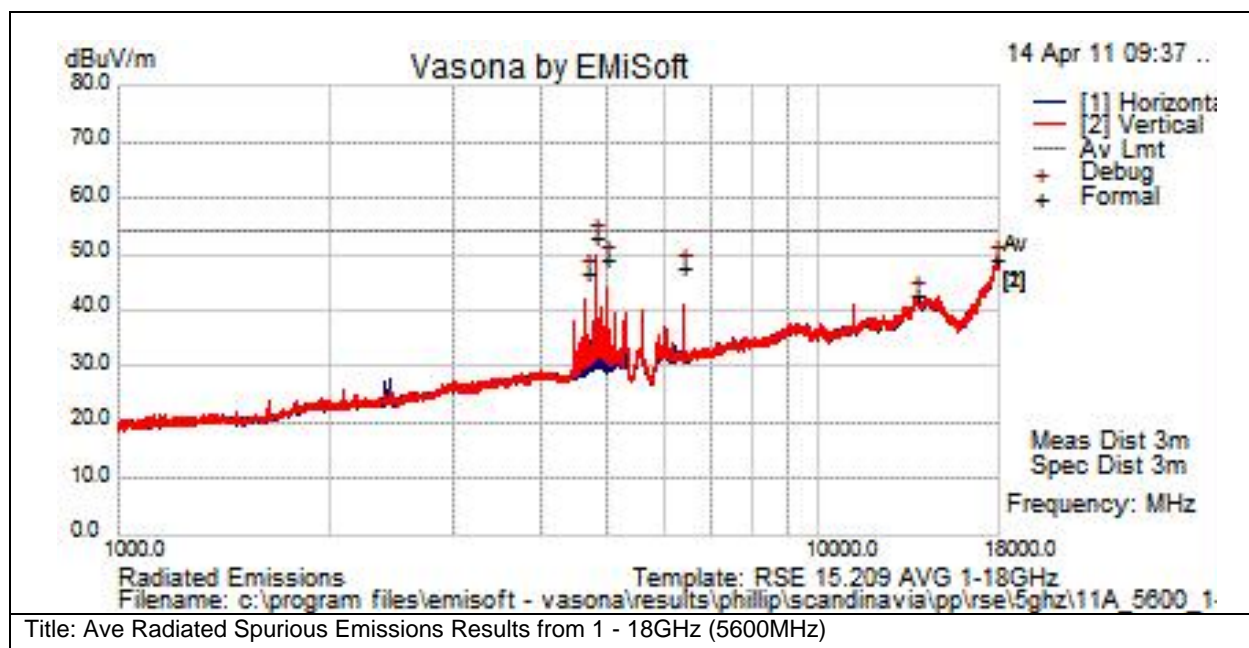




<b>Subtest Number:</b> 61587 - 17		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Ave Radiated Spurious Emissions Results from 1 - 18GHz (5600MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

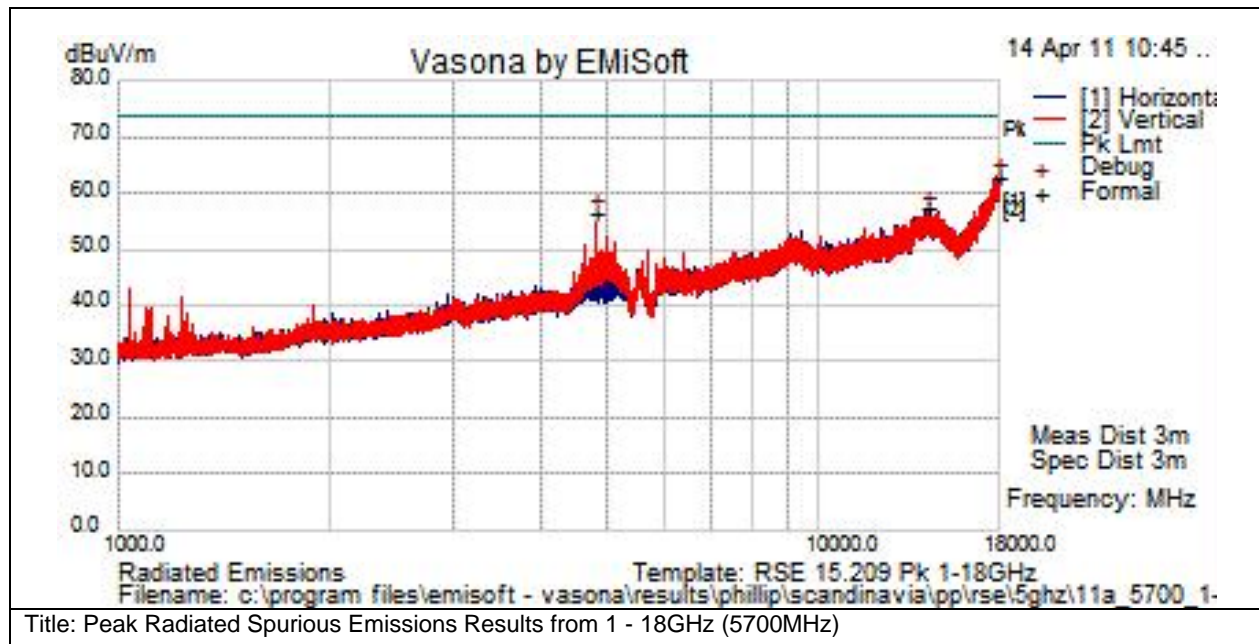
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4799.97	50	6.6	-3.8	52.8	Av	V	102	305	54	-1.2	Pass	
4959.962	46.6	6.7	-4	49.2	Av	V	104	248	54	-4.8	Pass	
17882.737	24.2	13.7	11.3	49.2	Av	H	100	0	54	-4.8	Pass	Noise Floor
6399.95	42.7	8	-3.2	47.5	Av	V	115	339	54	-6.5	Pass	
4639.953	44.1	6.4	-4.1	46.5	Av	V	118	308	54	-7.5	Pass	
13720.425	24.2	11.8	6.7	42.7	Av	H	100	0	54	-11.3	Pass	Noise Floor



<b>Subtest Number:</b> 61587 - 18		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Peak Radiated Spurious Emissions Results from 1 - 18GHz (5700MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**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
17913.35	37.9	13.6	11.5	63	Pk	V	100	0	74	-11	Pass	Noise Floor
14185.325	38.2	11.8	7.2	57.1	Pk	H	100	0	74	-16.9	Pass	Noise Floor
4799.801	53.5	6.6	-3.8	56.2	Pk	V	100	306	74	-17.8	Pass	

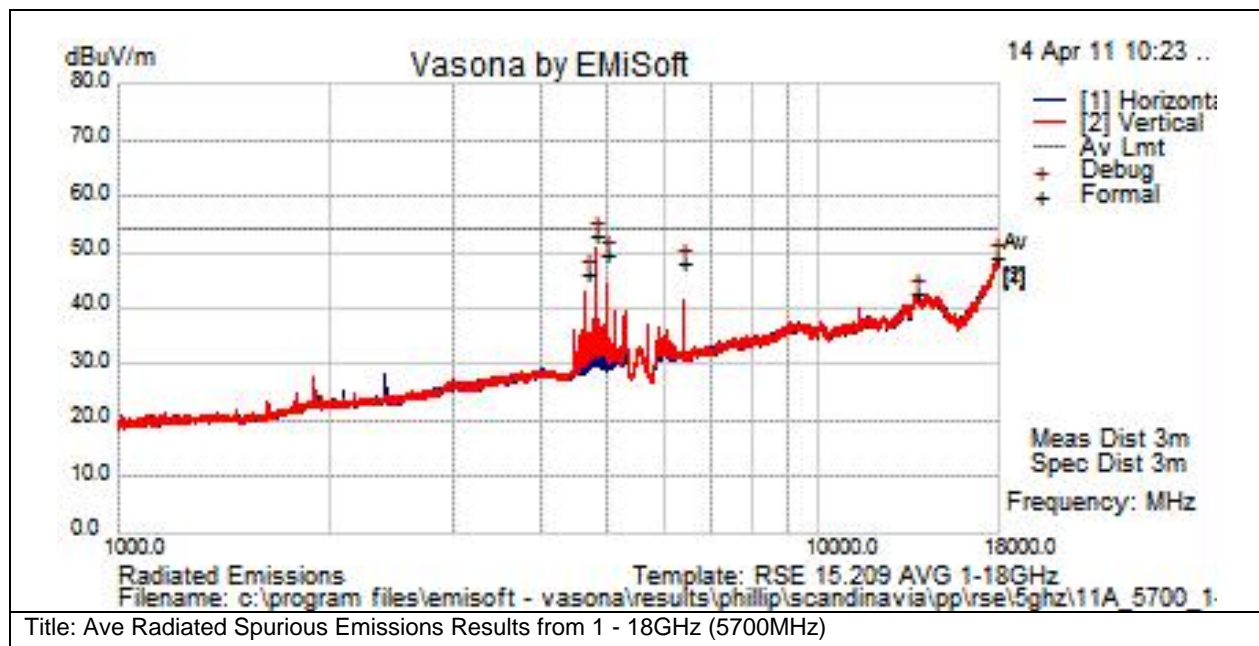




<b>Subtest Number:</b> 61587 - 19		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Ave Radiated Spurious Emissions Results from 1 - 18GHz (5700MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

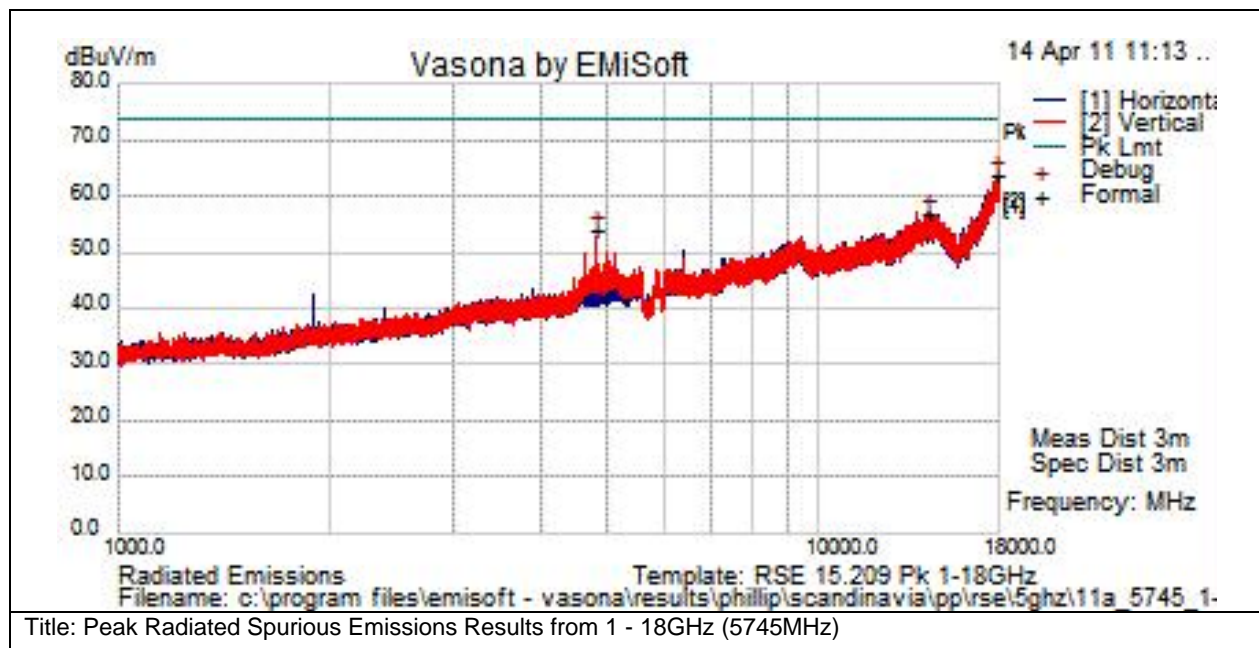
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4799.977	50.1	6.6	-3.8	52.8	Av	V	101	305	54	-1.2	Pass	
4959.97	46.9	6.7	-4	49.5	Av	V	101	260	54	-4.5	Pass	
17886.888	23.9	13.7	11.3	49	Av	V	100	0	54	-5	Pass	Noise Floor
6399.979	43.3	8	-3.2	48	Av	V	125	348	54	-6	Pass	
4640.007	44	6.4	-4.1	46.3	Av	V	119	310	54	-7.7	Pass	
13737.028	24	11.9	6.6	42.5	Av	H	100	0	54	-11.5	Pass	Noise Floor



<b>Subtest Number:</b> 61587 - 20		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Peak Radiated Spurious Emissions Results from 1 - 18GHz (5745MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

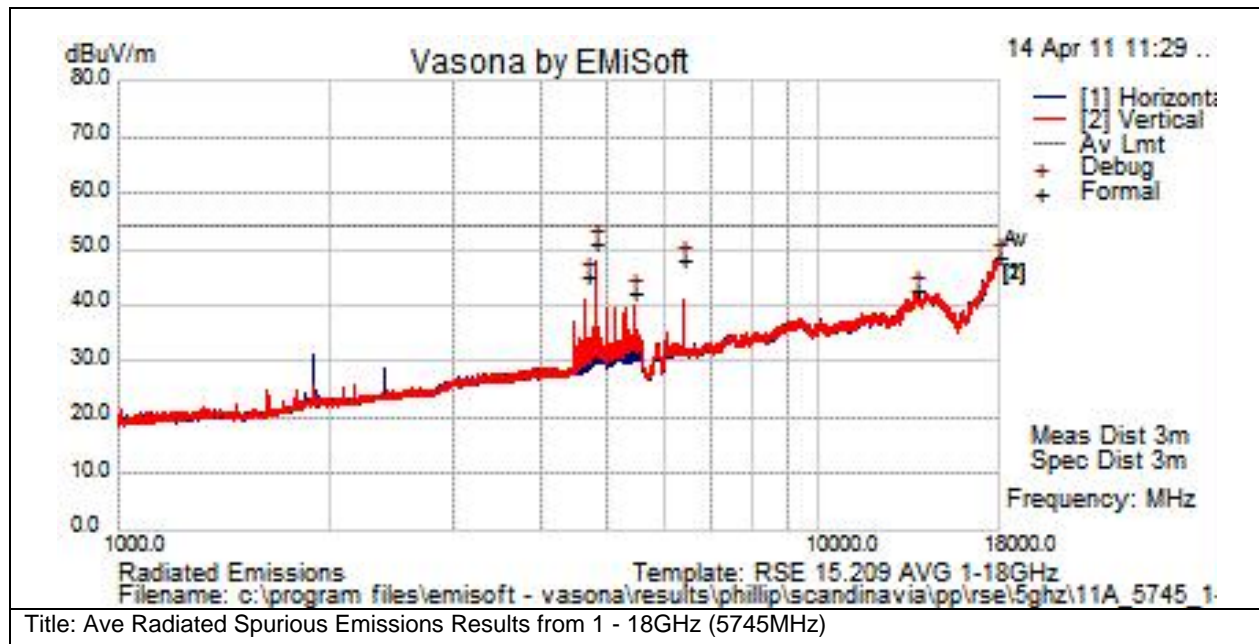
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17859.907	38.8	13.5	11.3	63.6	Pk	V	100	0	74	-10.4	Pass	Noise Floor
14245.513	38.1	11.8	7.2	57.1	Pk	V	100	0	74	-16.9	Pass	Noise Floor
4800.016	51	6.6	-3.8	53.8	Pk	V	115	304	74	-20.2	Pass	



<b>Subtest Number:</b> 61587 - 21		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Ave Radiated Spurious Emissions Results from 1 - 18GHz (5745MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

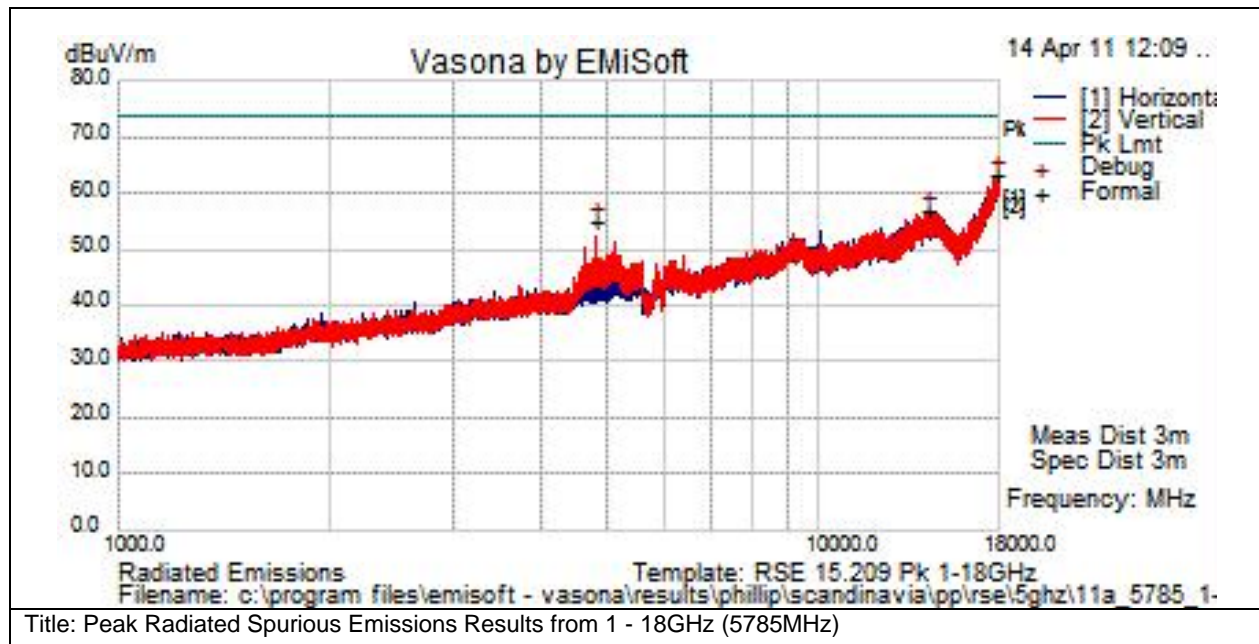
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4799.955	48.4	6.6	-3.8	51.2	Av	V	129	315	54	-2.8	Pass	
17994.811	23.3	13.7	11.6	48.6	Av	V	100	0	54	-5.4	Pass	Noise Floor
6399.954	43.4	8	-3.2	48.2	Av	V	124	344	54	-5.8	Pass	
4639.984	43	6.4	-4.1	45.3	Av	V	113	336	54	-8.7	Pass	
13740.142	24.3	11.9	6.5	42.7	Av	H	100	0	54	-11.3	Pass	Noise Floor
5439.994	38.5	7	-3.5	42	Av	V	125	324	54	-12	Pass	



<b>Subtest Number:</b> 61587 - 22		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Peak Radiated Spurious Emissions Results from 1 - 18GHz (5785MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

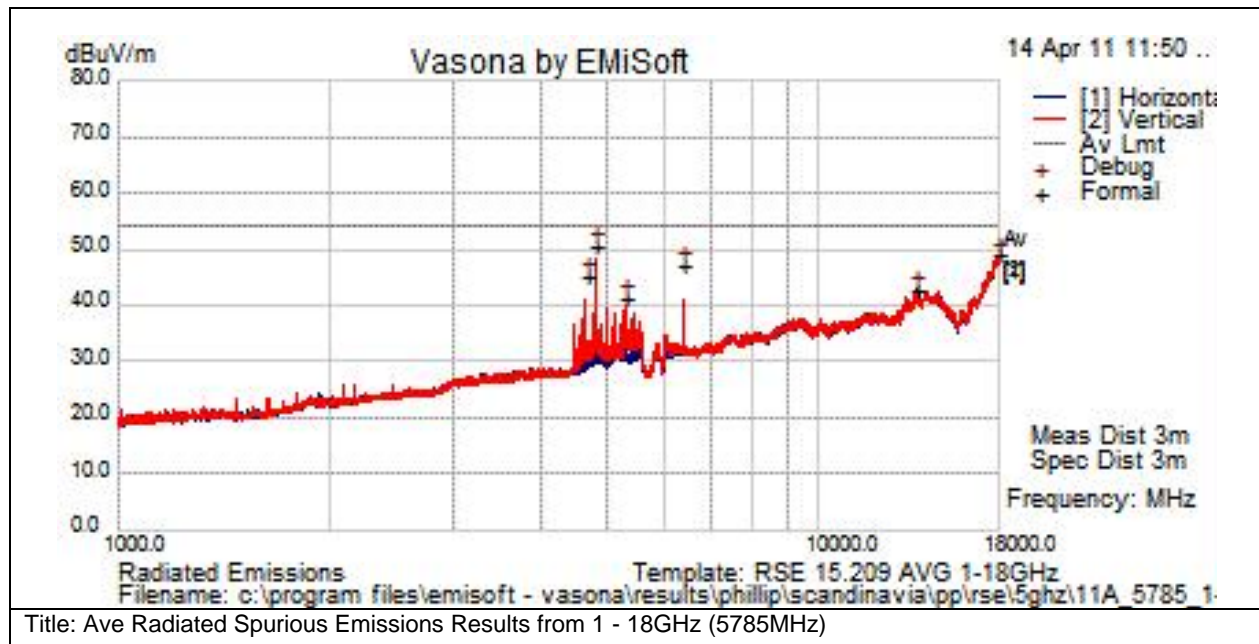
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17852.643	38.3	13.6	11.3	63.2	Pk	V	100	0	74	-10.8	Pass	Noise Floor
14184.806	37.9	11.8	7.2	56.9	Pk	V	100	0	74	-17.1	Pass	Noise Floor
4800.098	52	6.6	-3.8	54.8	Pk	V	116	304	74	-19.2	Pass	



<b>Subtest Number:</b> 61587 - 23		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Ave Radiated Spurious Emissions Results from 1 - 18GHz (5785MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**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
4799.972	47.7	6.6	-3.8	50.4	Av	V	143	306	54	-3.6	Pass	
17992.217	23.5	13.7	11.6	48.8	Av	H	100	0	54	-5.2	Pass	Noise Floor
6399.967	42.4	8	-3.2	47.2	Av	V	116	343	54	-6.8	Pass	
4639.979	42.9	6.4	-4.1	45.2	Av	V	118	326	54	-8.8	Pass	
13730.802	24.4	11.8	6.6	42.8	Av	H	100	0	54	-11.2	Pass	Noise Floor



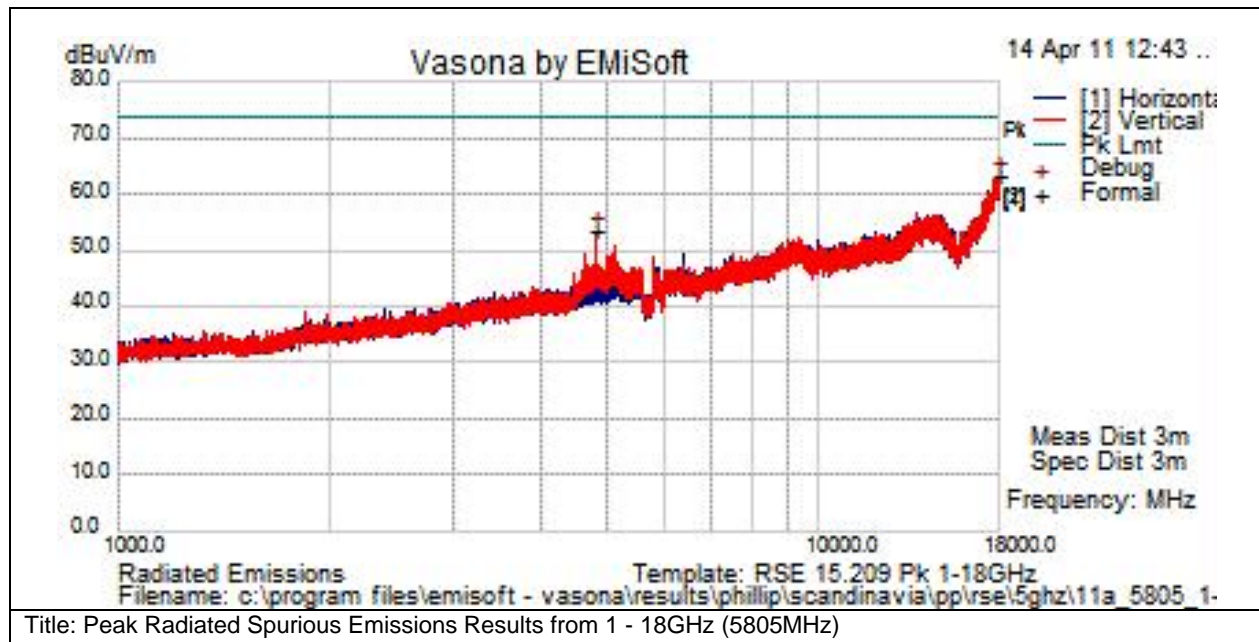


Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
5279.96	37.6	6.9	-3.4	41.1	Av	V	128	311	54	-12.9	Pass	

<b>Subtest Number:</b> 61587 - 24		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Peak Radiated Spurious Emissions Results from 1 - 18GHz (5805MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

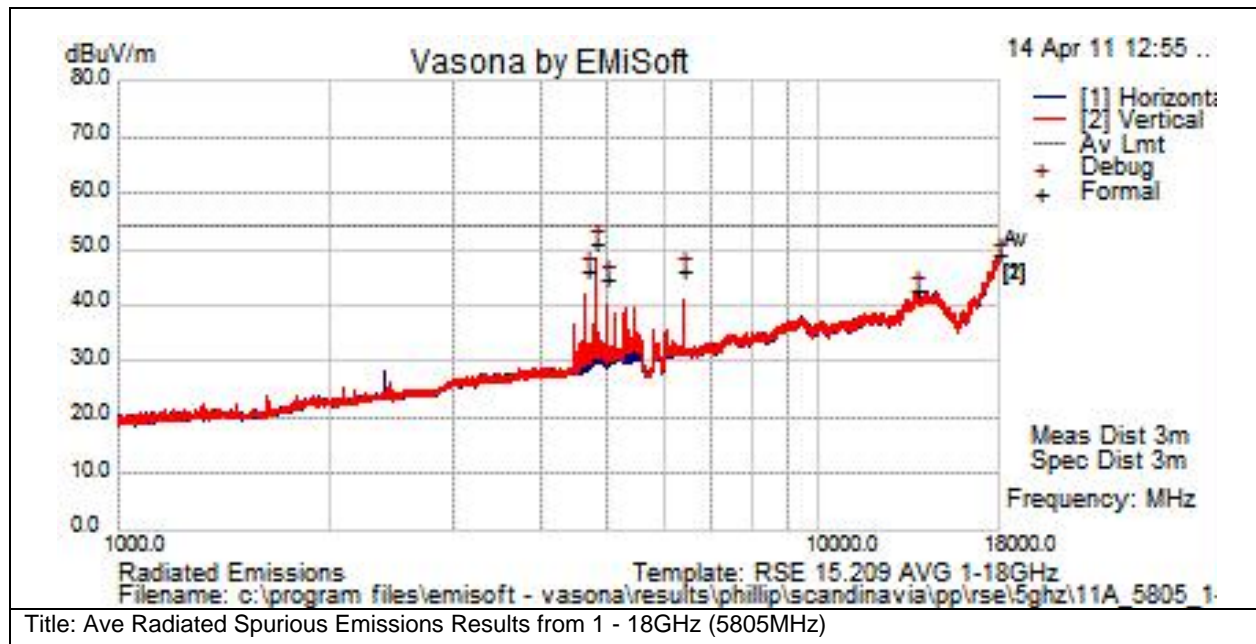
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17969.387	38.2	13.5	11.6	63.2	Pk	V	100	0	74	-10.8	Pass	Noise Floor
4800.141	50.6	6.6	-3.8	53.4	Pk	V	115	305	74	-20.6	Pass	



<b>Subtest Number:</b> 61587 - 25		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Ave Radiated Spurious Emissions Results from 1 - 18GHz (5805MHz)		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**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
4799.987	48.1	6.6	-3.8	50.9	Av	V	116	304	54	-3.1	Pass	
17999.481	23.4	13.8	11.6	48.8	Av	H	100	0	54	-5.2	Pass	Noise Floor
6399.979	41.5	8	-3.2	46.3	Av	V	118	352	54	-7.7	Pass	
4639.982	43.7	6.4	-4.1	46	Av	V	136	344	54	-8	Pass	
4959.939	42.2	6.7	-4	44.8	Av	V	113	249	54	-9.2	Pass	
13740.142	24.2	11.9	6.5	42.6	Av	H	100	0	54	-11.4	Pass	Noise Floor

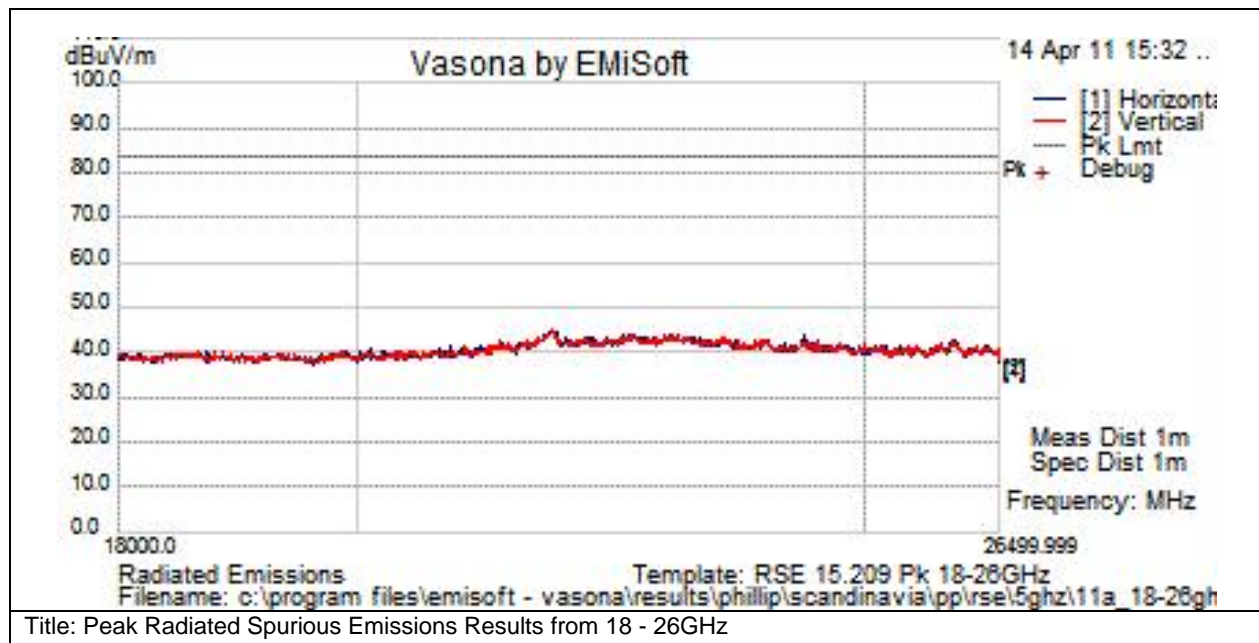




<b>Subtest Number:</b> 61587 - 26		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Peak Radiated Spurious Emissions Results from 18 - 26GHz		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	26499.999		
<b>Lowest Frequency</b>	18000.0		
<b>Comments on the above Test Results</b>	No signals seen within 10dB of the Limit		

**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

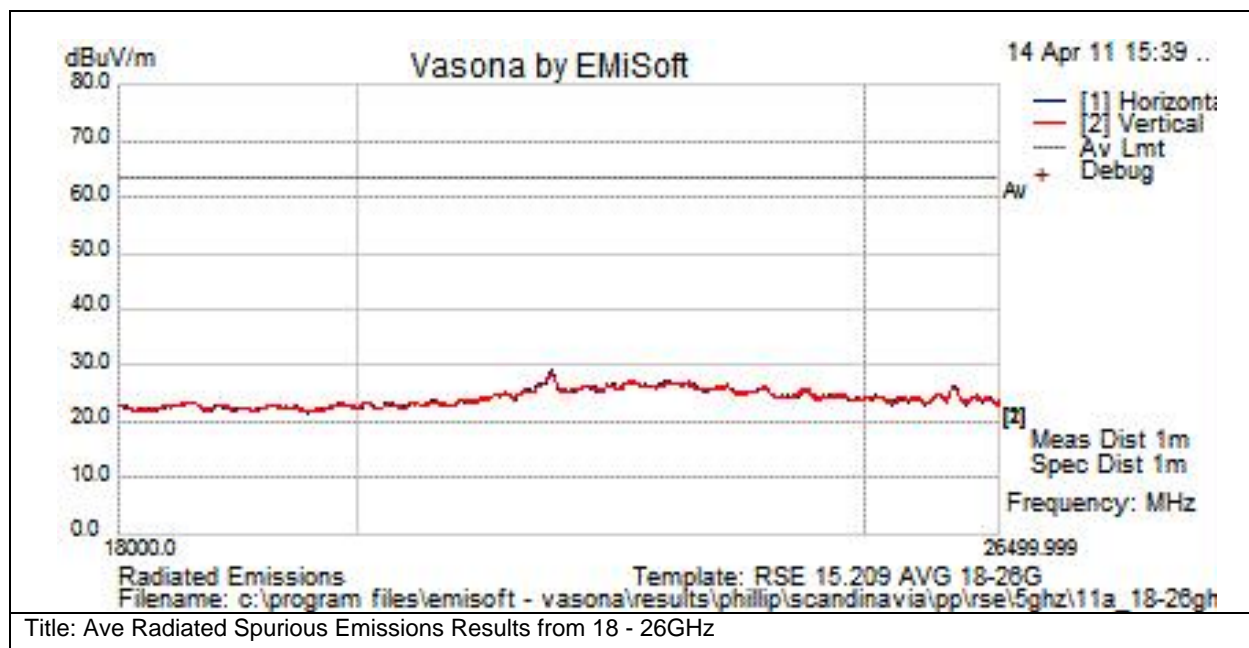




<b>Subtest Number:</b> 61587 - 27		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Ave Radiated Spurious Emissions Results from 18 - 26GHz		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	26499.999		
<b>Lowest Frequency</b>	18000.0		
<b>Comments on the above Test Results</b>	No signals seen within 10dB of the Limit		

**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

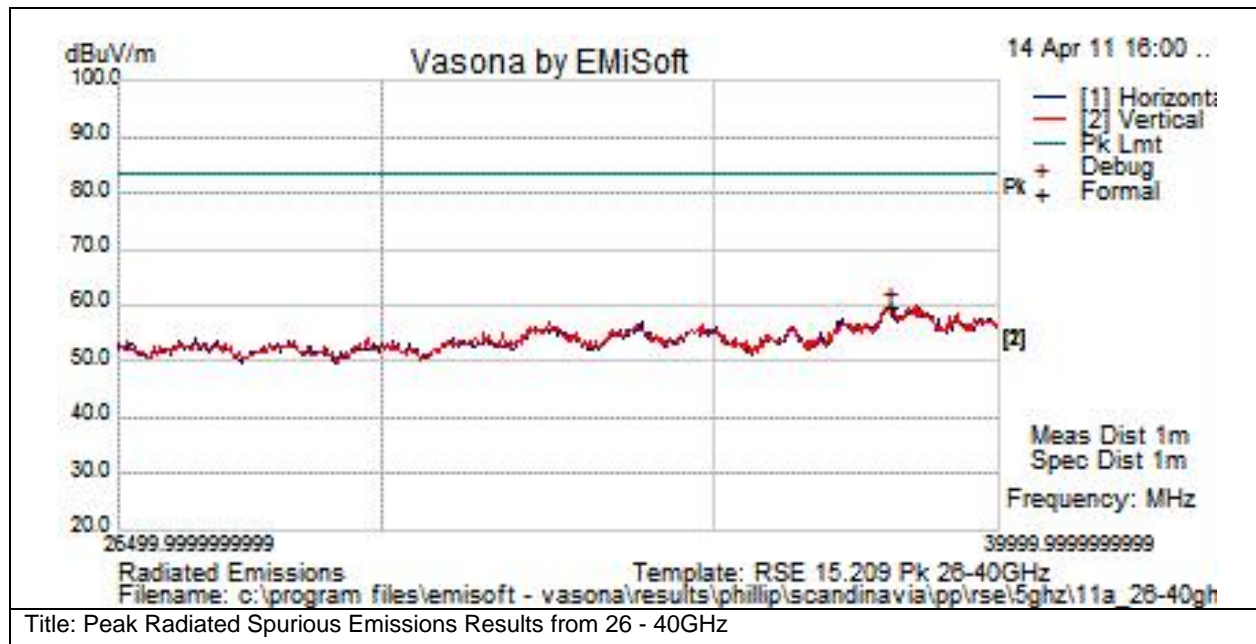




<b>Subtest Number:</b> 61587 - 28		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Peak Radiated Spurious Emissions Results from 26 - 40GHz		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	40000.0		
<b>Lowest Frequency</b>	26500.0		

**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



**Test Results Table**

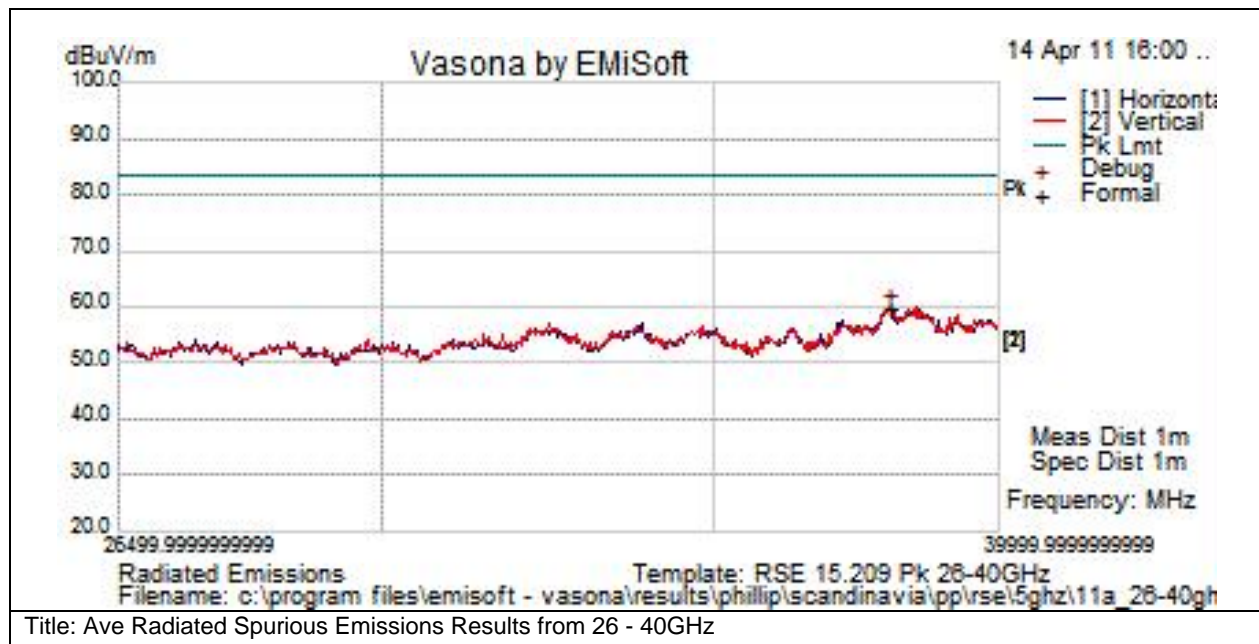
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
37999.091	61.6	0	-2	59.7	Peak(Scan)	H	101	-1	83.5	-23.8	Pass	Noise Floor



<b>Subtest Number:</b> 61587 - 29		<b>Subtest Date:</b> 03-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Ave Radiated Spurious Emissions Results from 26 - 40GHz		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	40000.0		
<b>Lowest Frequency</b>	26500.0		

**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



**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
37998.911	49.2	0	-2	47.3	Peak(Scan)	H	101	-1	63.5	-16.2	Pass	Noise Floor



**Radiated Band Edge 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).

**Note: All 3-axis (X,Y, Z) were evaluated during preliminary testing and the worse case orientation was for all formal testing shown below.**

<b>Test Number:</b> 33480		<b>Spec ID:</b> 860		
Basic Standard	Applied to	Class	Freq Range	Test Details / Comments
Restricted Bandedge Measurements	Enclosure	N/A	2.4GHz - 5.825GHz	CFR47 Part 15.205,CFR47 Part 15.209,LP002, RSS210HKTA1039
<b>Operating Mode</b>	<b>Mode :</b> 1, 802.11A Radio Test			
<b>Power Input</b>	110, 60Hz (+/-20%)			
<b>Overall Result</b>	Pass			
<b>Comments</b>	No further comments			
<b>Deviation</b>	There were no deviations from the specification			

System Number	Description	Samples	System under test	Support equipment
1	5GHz Radio Test Sample	S01	<input checked="" type="checkbox"/>	<input type="checkbox"/>

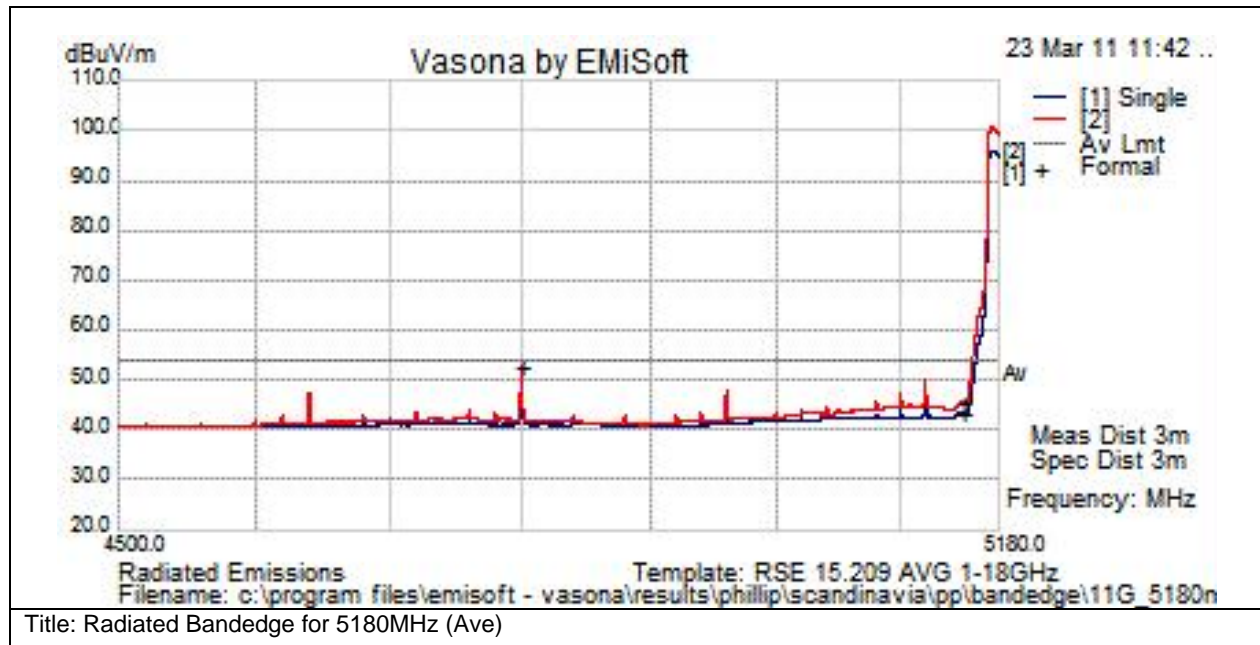
<b>Subtest Number:</b> 59508 - 1		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>		Phillip Carranco	
<b>Lab Information</b>		Building I, 5m Anechoic	
<b>Subtest Results</b>			
<b>Subtest Title</b>		Radiated Bandedge Results	
<b>Subtest Result</b>		Pass	
<b>Highest Frequency</b>		5180.0	
<b>Lowest Frequency</b>		4500.0	
<b>Comments on the above Test Results</b>		No further comments	
<b>Environmental Conditions:</b>			
Temperature: within range of 54 to 95 F:		Yes	
Humidity: between 10 and 75%:		Yes	
<b>Equipment used:</b>			
Equipment No	Manufacturer	Model	Description
CIS002119	EMC Test Systems	3115	Double Ridged Guide Horn Antenna
CIS008022	Huber + Suhner	SF106A	1 meter Sucoflex cable
CIS008024	Huber + Suhner	SF106A	3 meter Sucoflex cable
CIS019511	Miteq	NSP1000-S1	RF Preamplifier, 1-10GHz



CIS030443	Micro-Coax	UFB311A-0-1560-520520	RF Coaxial Cable, to 18GHz, 156 In.
CIS033602	Midwest Microwave	CSY-NMNM-80-273001	RF Coaxial Cable, 27ft. to 18GHz
CIS042000	Agilent	E4440A	Spectrum Analyzer

**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



**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
4800.011	48.7	6.6	-2.7	52.6	Ave	V	119	310	54	-1.4	Pass	
5150	41.2	6.8	-2.5	45.5	Ave	V	119	310	54	-8.5	Pass	
5150	39	6.8	-2.5	43.3	Ave	H	136	315	54	-10.7	Pass	

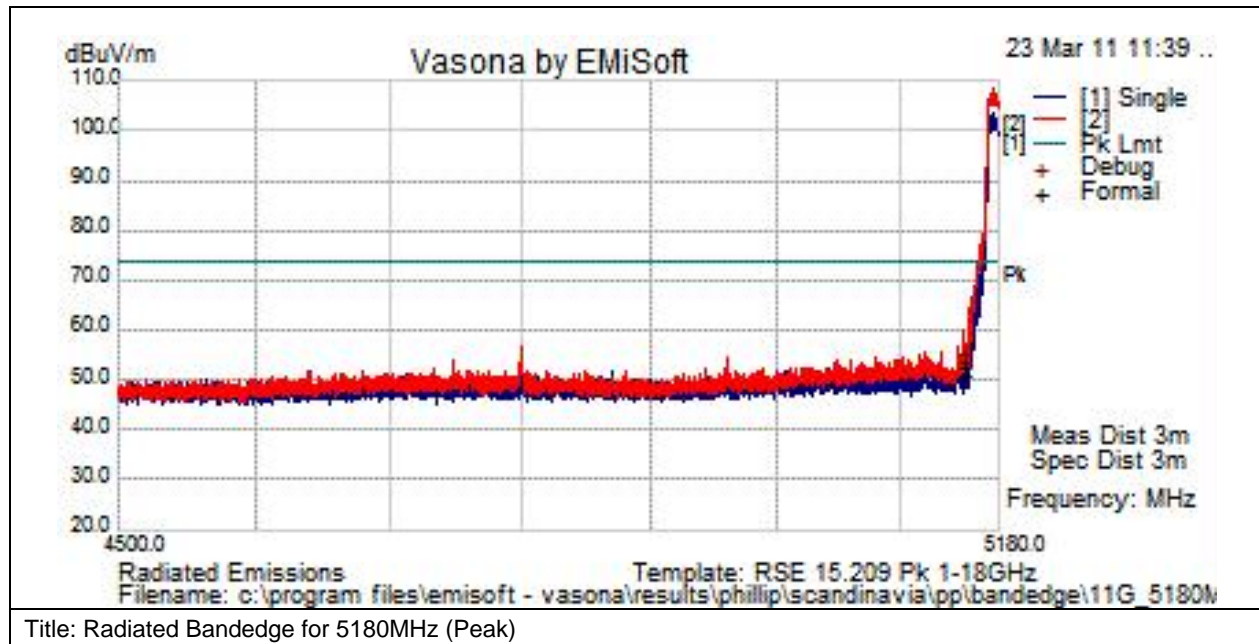




<b>Subtest Number:</b> 59508 - 2		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Radiated Bandedge Test Results		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	5180.0		
<b>Lowest Frequency</b>	4500.0		

**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



**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
5150	48.3	6.8	-2.5	52.6	Peak(Scan)	V	119	310	74	-21.4	Pass	
5150	46.5	6.8	-2.5	50.8	Peak(Scan)	H	136	315	74	-23.2	Pass	

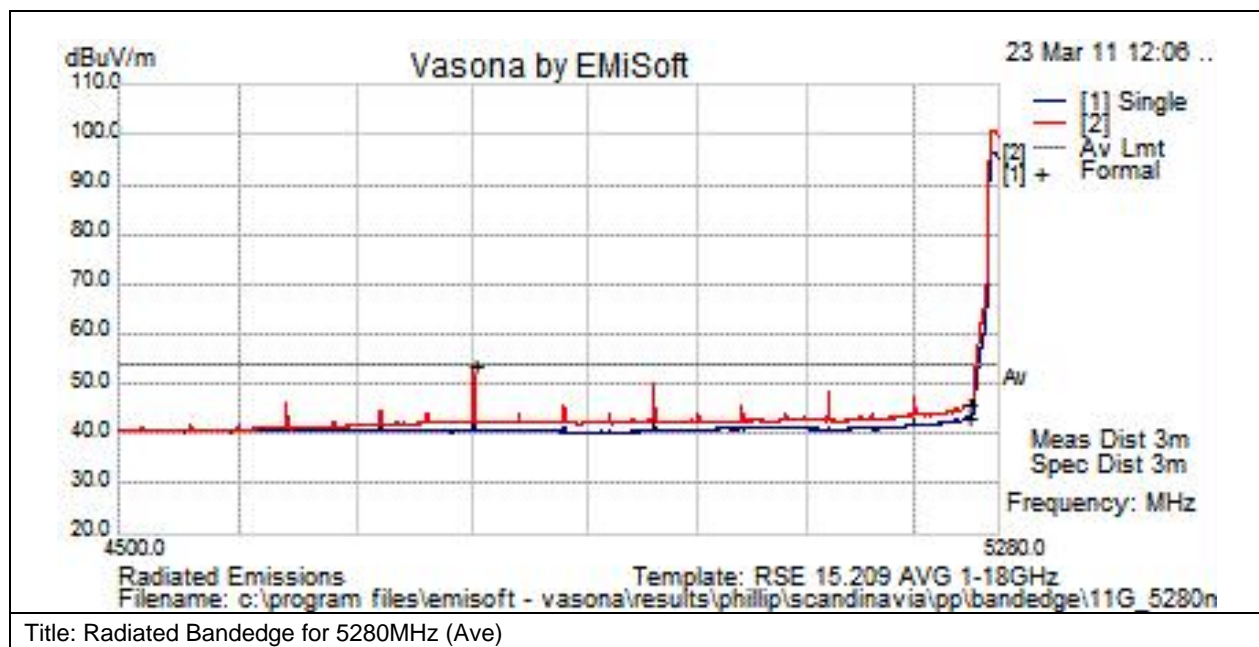




<b>Subtest Number:</b> 59508 - 3		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Radiated Bandedge Test Results		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	5280.0		
<b>Lowest Frequency</b>	4500.0		

**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



**Test Results Table**

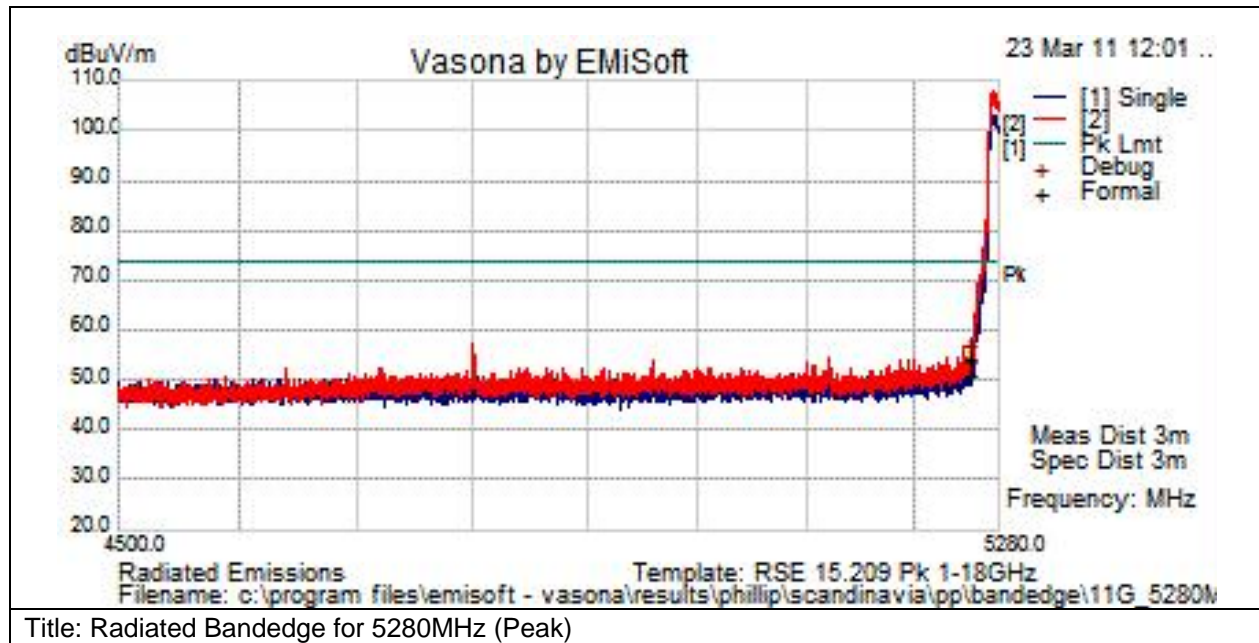
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4799.989	50	6.6	-2.7	53.9	Ave	V	128	315	54	-0.1	Pass	
5250	40.8	6.9	-1.8	45.8	Ave	V	128	315	54	-8.2	Pass	
5250	38.1	6.9	-1.8	43.2	Ave	H	125	37	54	-10.8	Pass	



<b>Subtest Number:</b> 59508 - 4		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Radiated Bandedge Test Results		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	5280.0		
<b>Lowest Frequency</b>	4500.0		

**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



**Test Results Table**

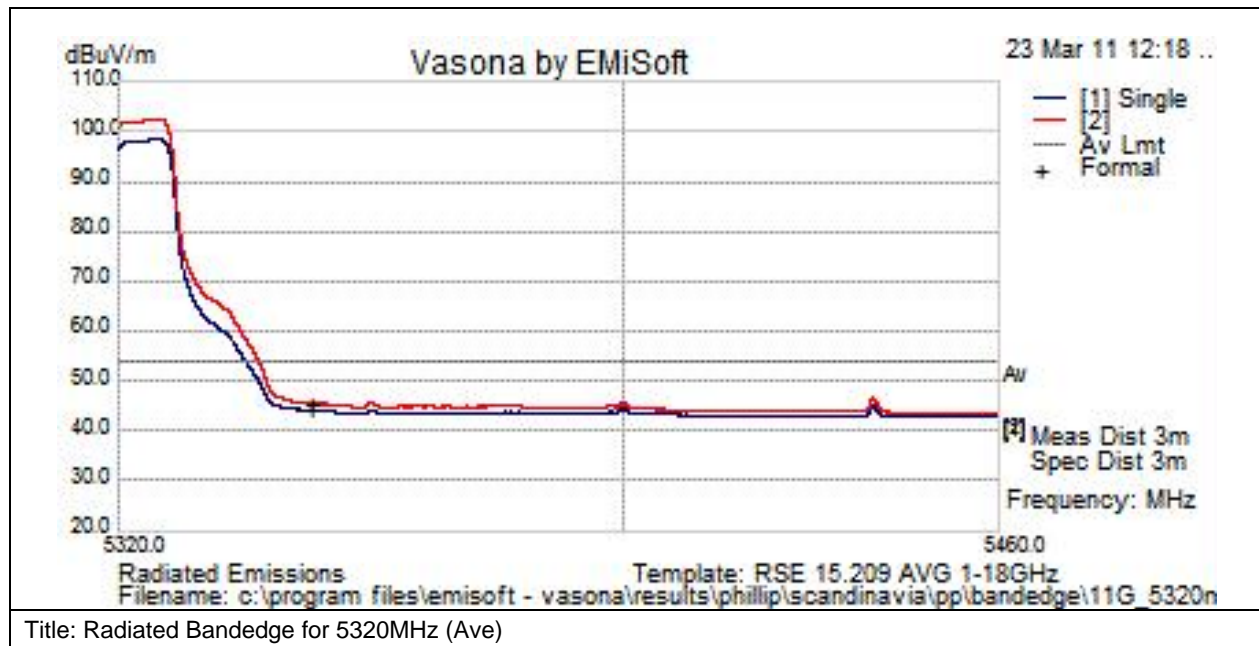
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV	Margin dB	Pass /Fail	Comments
5250	49.4	6.9	-1.8	54.5	Peak(Scan)	V	128	315	74	-19.5	Pass	
5250	45.8	6.9	-1.8	50.9	Peak(Scan)	H	125	37	74	-23.1	Pass	



<b>Subtest Number:</b> 59508 - 5		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Radiated Bandedge Test Results		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	5460.0		
<b>Lowest Frequency</b>	5320.0		

**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



**Test Results Table**

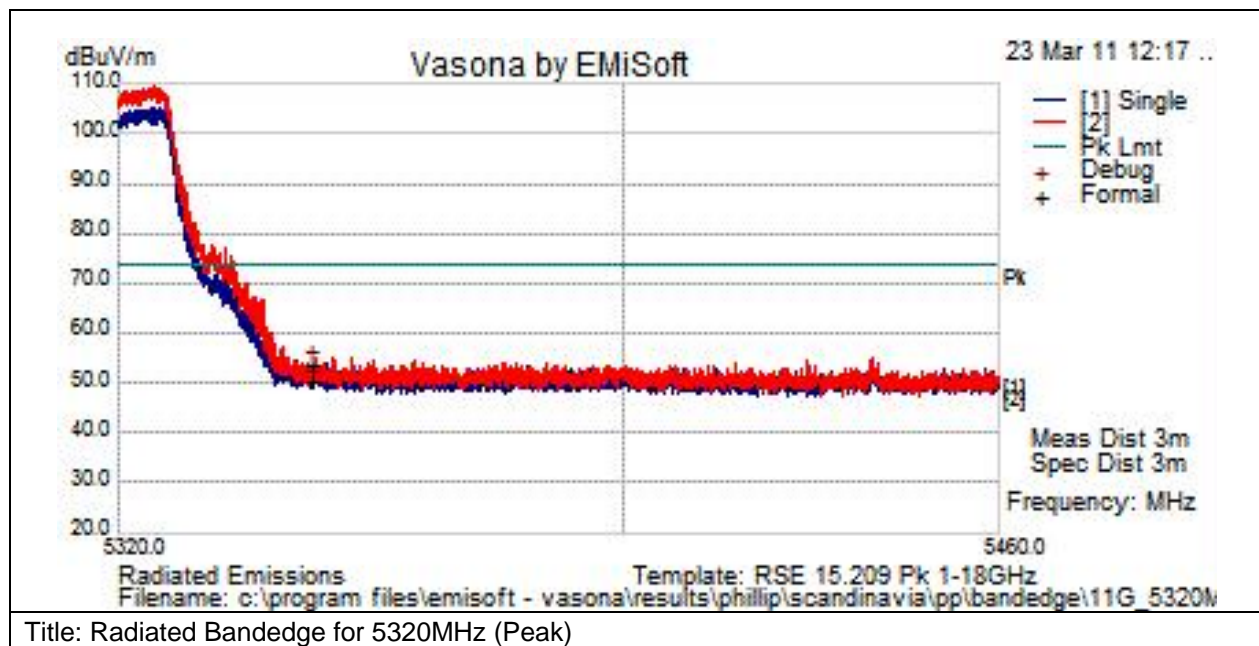
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
5350	40	7	-1.5	45.6	Ave	V	126	320	54	-8.4	Pass	
5350	38.5	7	-1.5	44	Ave	H	139	34	54	-10	Pass	



<b>Subtest Number:</b> 59508 - 6		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Radiated Bandedge Test Results		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	5460.0		
<b>Lowest Frequency</b>	5320.0		

**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



**Test Results Table**

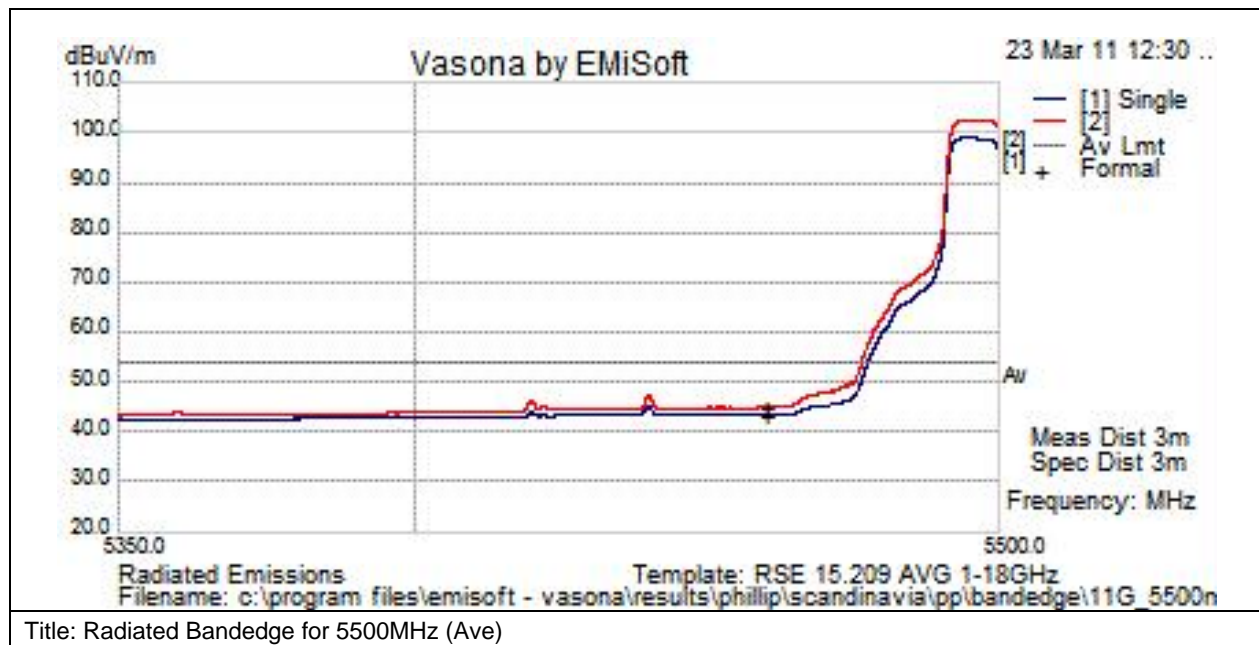
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV	Measurement Type	Pol	Hgt cm	Azi Deg	Limit dBuV	Margin dB	Pass /Fail	Comments
5350	48.2	7	-1.5	53.7	Peak(Scan)	V	126	320	74	-20.3	Pass	
5350	44.6	7	-1.5	50.1	Peak(Scan)	H	139	34	74	-23.9	Pass	



<b>Subtest Number:</b> 59508 - 7		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Radiated Bandedge Test Results		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	5500.0		
<b>Lowest Frequency</b>	5350.0		

**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



**Test Results Table**

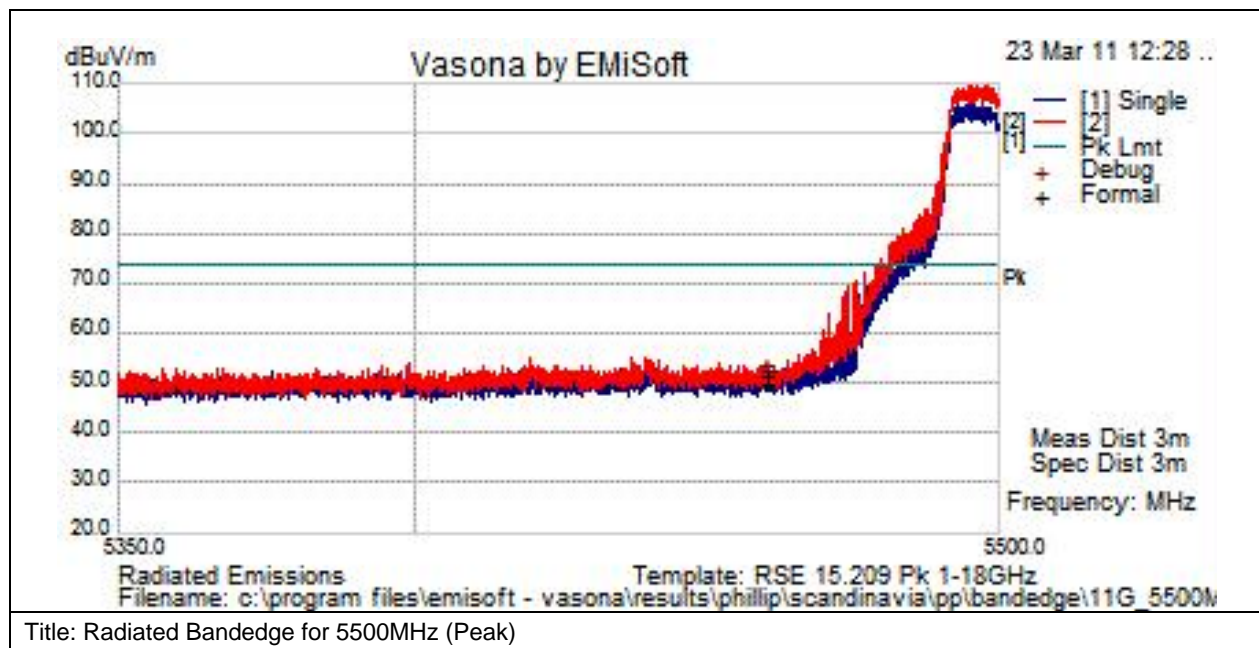
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
5460	39.1	7.1	-1.3	44.9	Ave	V	130	323	54	-9.1	Pass	
5460	37.6	7.1	-1.3	43.4	Ave	H	117	343	54	-10.6	Pass	



<b>Subtest Number:</b> 59508 - 8		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Radiated Bandedge Test Results		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	5500.0		
<b>Lowest Frequency</b>	5350.0		

**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



**Test Results Table**

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azi Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
5460	45.4	7.1	-1.3	51.2	Peak(Scan)	V	130	323	74	-22.8	Pass	
5460	44.2	7.1	-1.3	50	Peak(Scan)	H	117	343	74	-24	Pass	

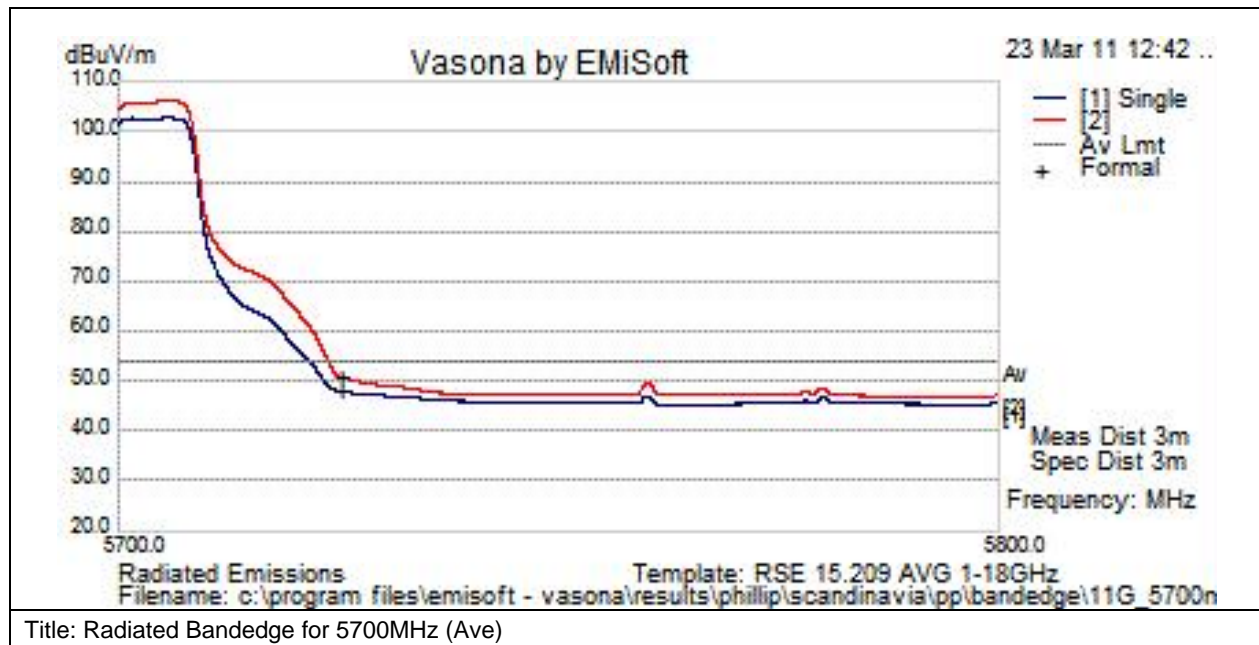




<b>Subtest Number:</b> 59508 - 9		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Radiated Bandedge Test Results		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	5800.0		
<b>Lowest Frequency</b>	5700.0		

**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



**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
5725	44.8	7.3	-1.2	50.9	Ave	V	131	346	54	-3.1	Pass	
5725	41.9	7.3	-1.2	48	Ave	H	126	47	54	-6	Pass	

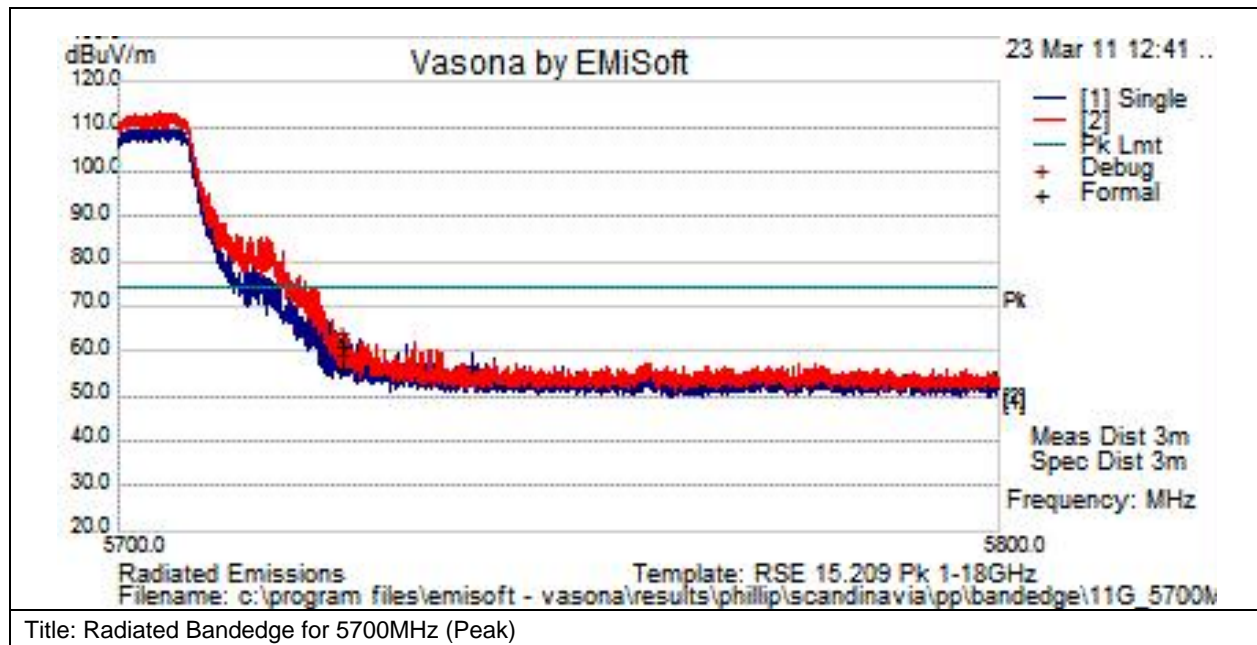




<b>Subtest Number:</b> 59508 - 10		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Radiated Bandedge Test Results		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	5800.0		
<b>Lowest Frequency</b>	5700.0		

**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



**Test Results Table**

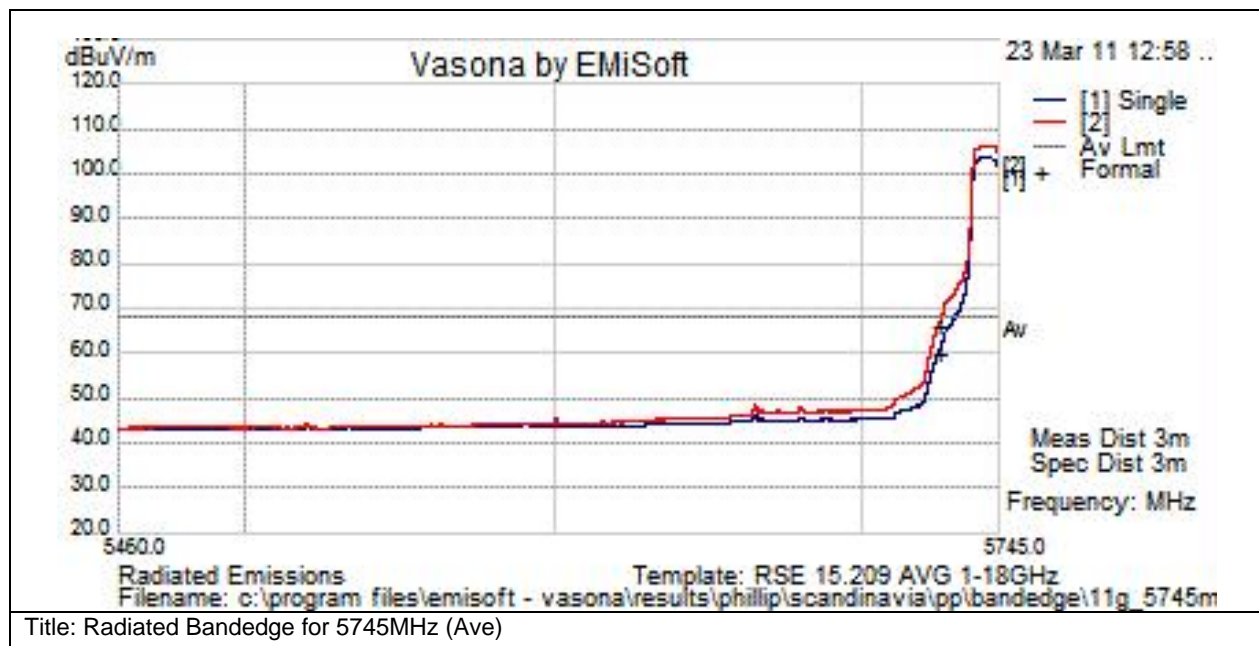
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
5725	54.9	7.3	-1.2	61	Peak(Scan)	V	131	346	74	-13	Pass	
5725	49.9	7.3	-1.2	56	Peak(Scan)	H	126	47	74	-18	Pass	



<b>Subtest Number:</b> 59508 - 11		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Radiated Bandedge Test Results		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	5745.0		
<b>Lowest Frequency</b>	5460.0		

**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



**Test Results Table**

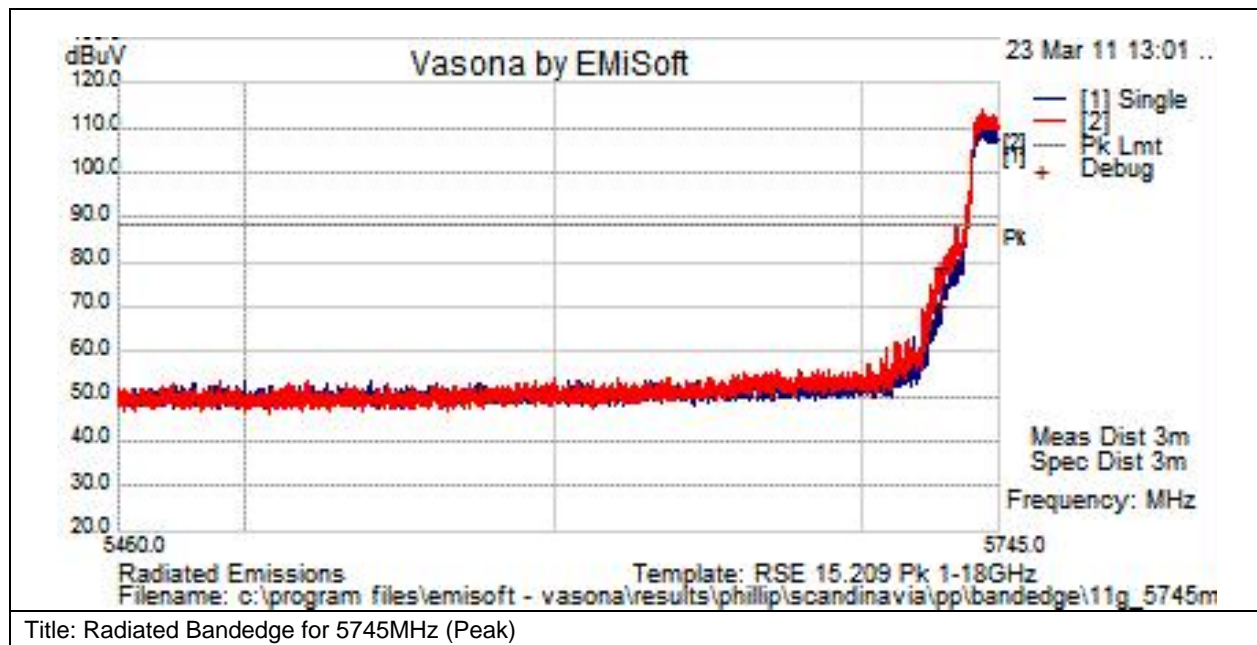
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
5725	60	7.3	-1.2	66.1	Ave	V	129	338	68.2	-2.1	Pass	
5725	53.6	7.3	-1.2	59.7	Ave	H	128	46	68.2	-8.5	Pass	



<b>Subtest Number:</b> 59508 - 12		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Radiated Bandedge Test Results		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	5745.0		
<b>Lowest Frequency</b>	5460.0		

**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



**Test Results Table**

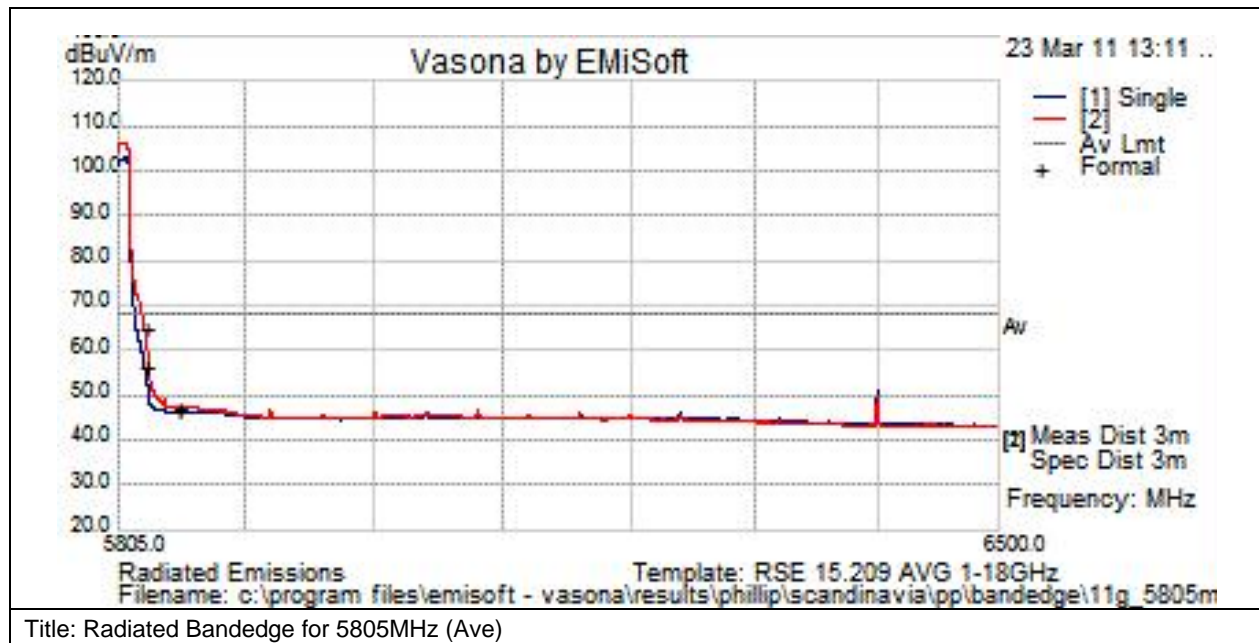
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
5725	69.5	7.3	-1.2	75.6	Peak(Scan)	V	129	338	88.2	-12.6	Pass	
5725	60.9	7.3	-1.2	67	Peak(Scan)	H	128	46	88.2	-21.2	Pass	



<b>Subtest Number:</b> 59508 - 13		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Radiated Bandedge Test Results		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	6500.0		
<b>Lowest Frequency</b>	5805.0		

**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



**Test Results Table**

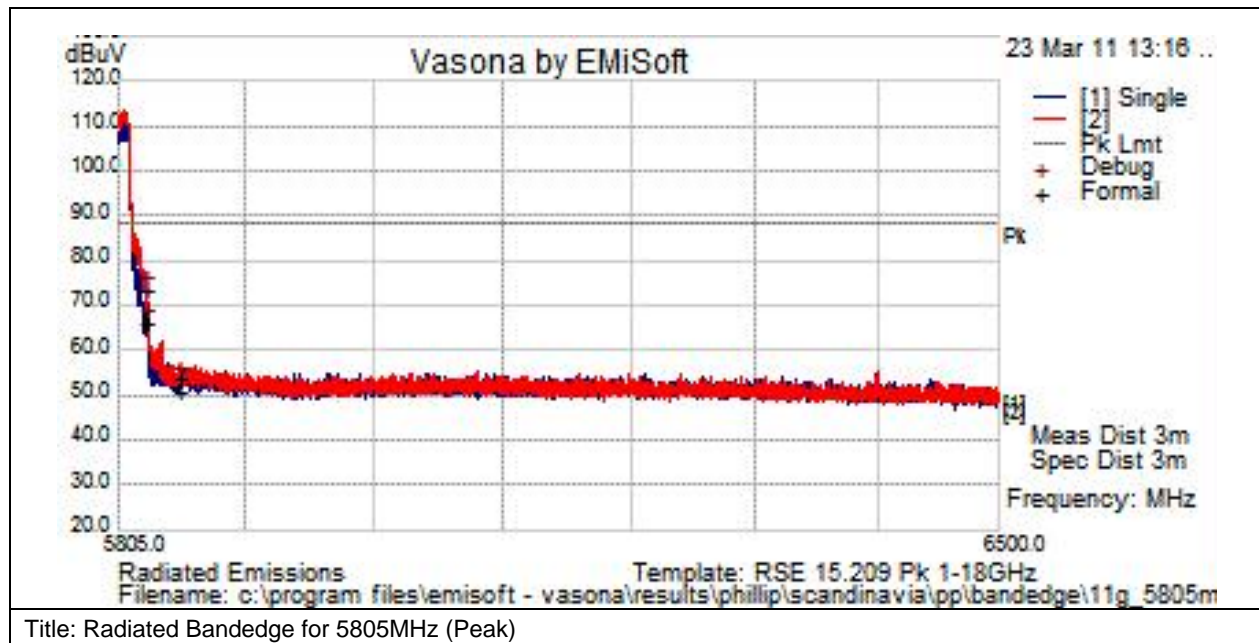
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
5825	58.6	7.4	-1.2	64.8	Ave	V	131	350	68.2	-3.4	Pass	
5825	49.8	7.4	-1.2	56	Ave	H	125	344	68.2	-12.2	Pass	
5850	40.8	7.5	-1.1	47.2	Ave	V	131	350	68.2	-21	Pass	
5850	39.7	7.5	-1.1	46.1	Ave	H	125	344	68.2	-22.1	Pass	



<b>Subtest Number:</b> 59508 - 14		<b>Subtest Date:</b> 30-Mar-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	Radiated Bandedge Test Results		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	6500.0		
<b>Lowest Frequency</b>	5805.0		

**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



**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
5825	67	7.4	-1.2	73.2	Peak(Scan)	V	131	350	88.2	-15	Pass	
5825	59.6	7.4	-1.2	65.9	Peak(Scan)	H	125	344	88.2	-22.3	Pass	
5850	47	7.5	-1.1	53.4	Peak(Scan)	V	131	350	88.2	-34.8	Pass	
5850	44.3	7.5	-1.1	50.7	Peak(Scan)	H	125	344	88.2	-37.5	Pass	



**Co-Locator Radiated Spurious 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).

**Note: All 3-axis (X,Y, Z) were evaluated during preliminary testing and the worse case orientation was for all formal testing shown below.**

<b>Test Number:</b> 62817		<b>Spec ID:</b> 441		
Basic Standard	Applied to	Class	Freq Range	Test Details / Comments
Co-Located Transmitters	Enclosure	N/A	1GHz-1.0GHz	Compliance based upon meeting the emission levels for radiated spurious emissions as stated in RSS-210, FCC part 15.209 and HKTA1039. CISPR limits are not applicable for this test
<b>Operating Mode</b>	<b>Mode :</b> 1, 802.11A Radio Test			
<b>Power Input</b>	110, 60Hz (+/-20%)			
<b>Overall Result</b>	Pass			
<b>Comments</b>	No further comments			
<b>Deviation</b>	There were no deviations from the specification			

System Number	Description	Samples	System under test	Support equipment
1	5GHz Radio Test Sample	S01	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<b>Subtest Number:</b> 62817 - 1		<b>Subtest Date:</b> 17-May-2011	
<b>Engineer</b>		Phillip Carranco	
<b>Lab Information</b>		Building I, 5m Anechoic	
<b>Subtest Results</b>			
<b>Subtest Title</b>		802.11A & BT Radiated Emissions Test Results 30 - 1000MHz	
<b>Subtest Result</b>		Pass	
<b>Highest Frequency</b>		1000.0	
<b>Lowest Frequency</b>		30.0	
<b>Comments on the above Test Results</b>		No further comments	
<b>Environmental Conditions:</b>			
Temperature: within range of 54 to 95 F:		Yes	
Humidity: between 10 and 75%:		Yes	
Comments:			
<b>Equipment used:</b>			
Equipment No	Manufacturer	Model	Description
CIS002119	EMC Test Systems	3115	Double Ridged Guide Horn Antenna
CIS008022	Huber + Suhner	SF106A	1 meter Sucoflex cable

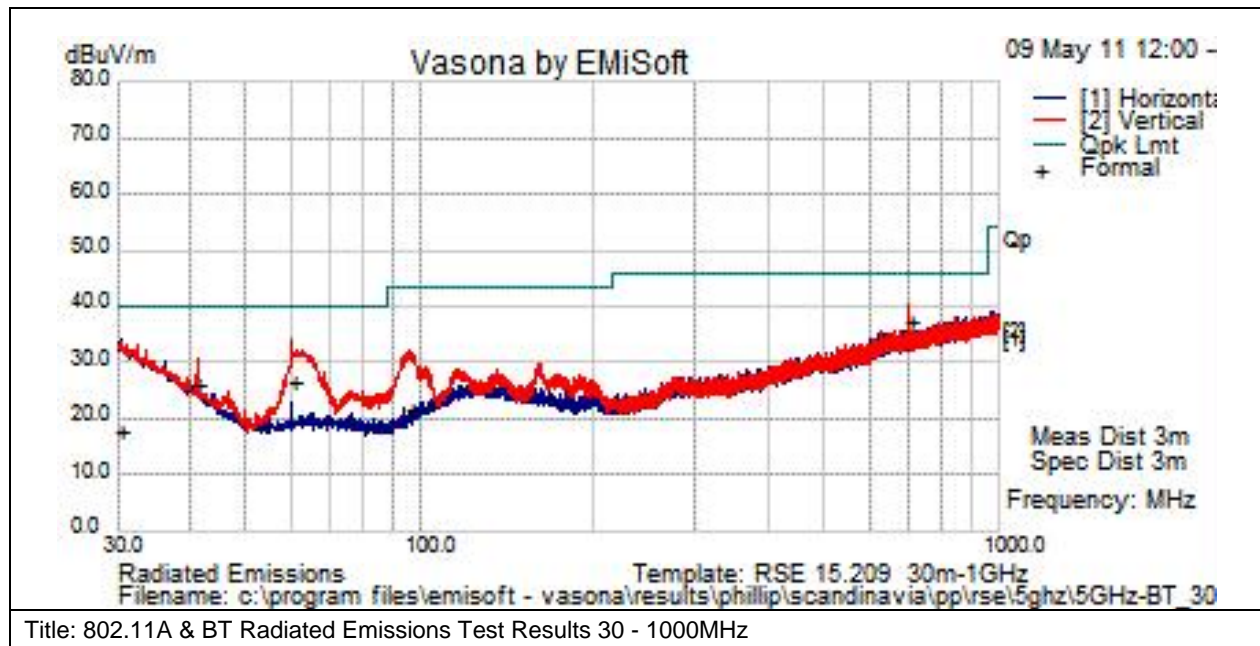




CIS008024	Huber + Suhner	SF106A	3 meter Sucoflex cable
CIS005691	Miteq	NSP1800-25-S1	Broadband Preamplifier (1-18GHz)
CIS024201	Rohde & Schwarz	FSEK30	Spectrum Analyzer 20Hz - 40GHz
CIS028072	Cisco	1840	18-40GHz EMI Test Head/Verification Fixture
CIS030443	Micro-Coax	UFB311A-0-1560-520520	RF Coaxial Cable, to 18GHz, 156 In.
CIS033602	Midwest Microwave	CSY-NMNM-80-273001	RF Coaxial Cable, 27ft. to 18GHz
CIS042000	Agilent	E4440A	Spectrum Analyzer
CIS045588	Sunol Sciences	JB1	Combination Antenna, 30MHz-2GHz
CIS045051	Rohde & Schwarz	ESCI	EMI Test Receiver

**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



**Test Results Table**

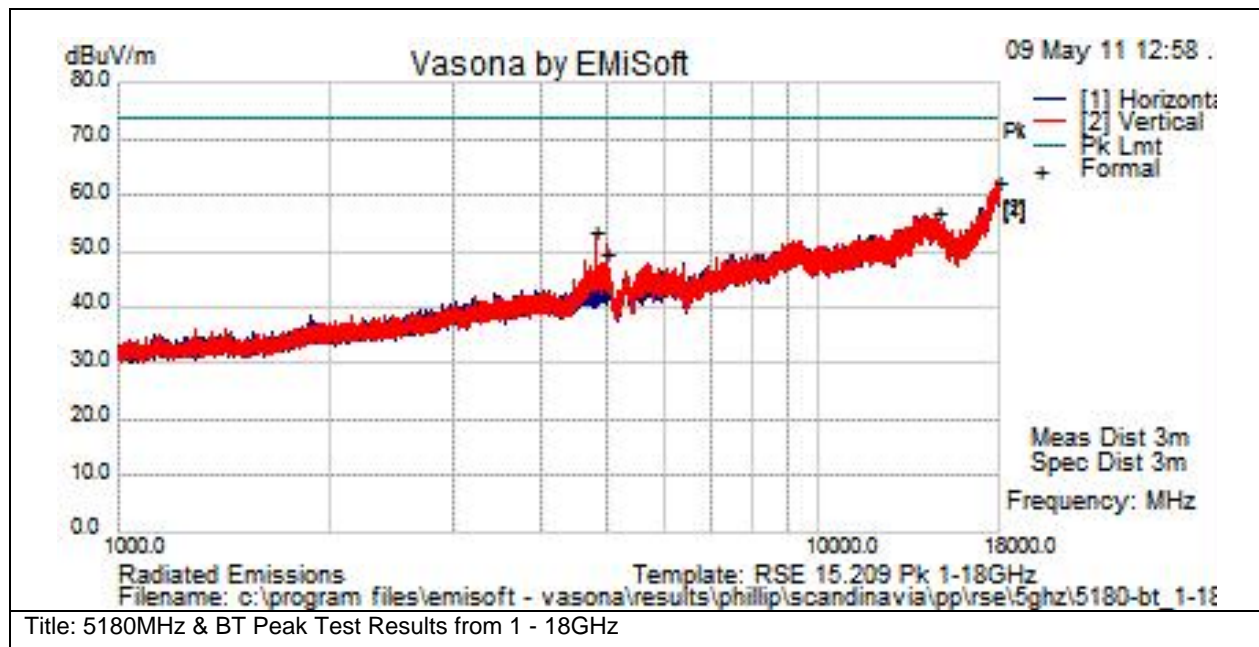
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
701.979	15.1	2	20.1	37.2	Qp	V	101	139	46	-8.8	Pass	
60.001	18.9	0.6	7.2	26.7	Qp	V	101	168	40	-13.3	Pass	
41.259	12.7	0.5	13	26.2	Qp	V	102	326	40	-13.8	Pass	
96.216	11.8	0.7	8.9	21.4	Qp	V	112	363	43.5	-22.1	Pass	
30.364	-3.9	0.4	21.1	17.6	Qp	H	100	289	40	-22.4	Pass	



<b>Subtest Number:</b> 62817 - 2		<b>Subtest Date:</b> 17-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	5180MHz & BT Peak Test Results from 1 - 18GHz		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

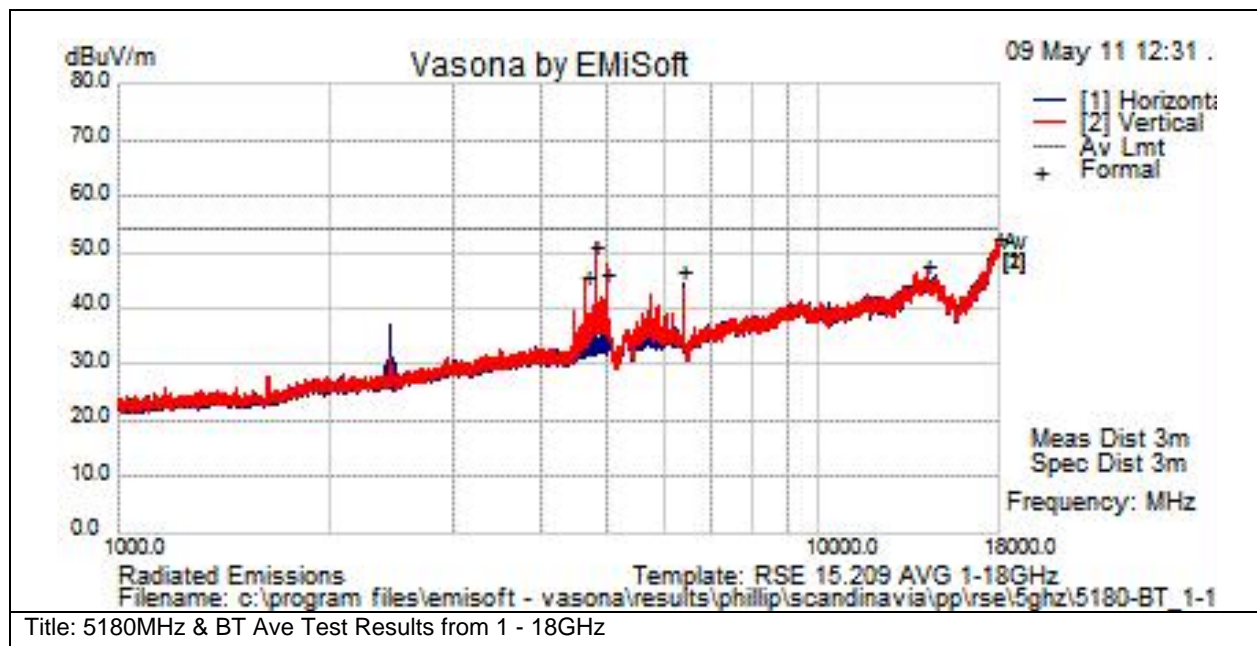
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17922.171	37.2	13.6	11.6	62.4	NA	V	100	0	74	-11.6	Pass	Noise Floor
14708.857	38.3	12	6.5	56.8	NA	H	100	0	74	-17.2	Pass	Noise Floor
4799.933	50.6	6.6	-3.8	53.4	Pk	V	108	337	74	-20.6	Pass	
4959.696	46.9	6.7	-4	49.6	Pk	V	109	313	74	-24.4	Pass	



<b>Subtest Number:</b> 62817 - 3		<b>Subtest Date:</b> 17-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	5180MHz & BT Ave Test Results from 1 - 18GHz		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

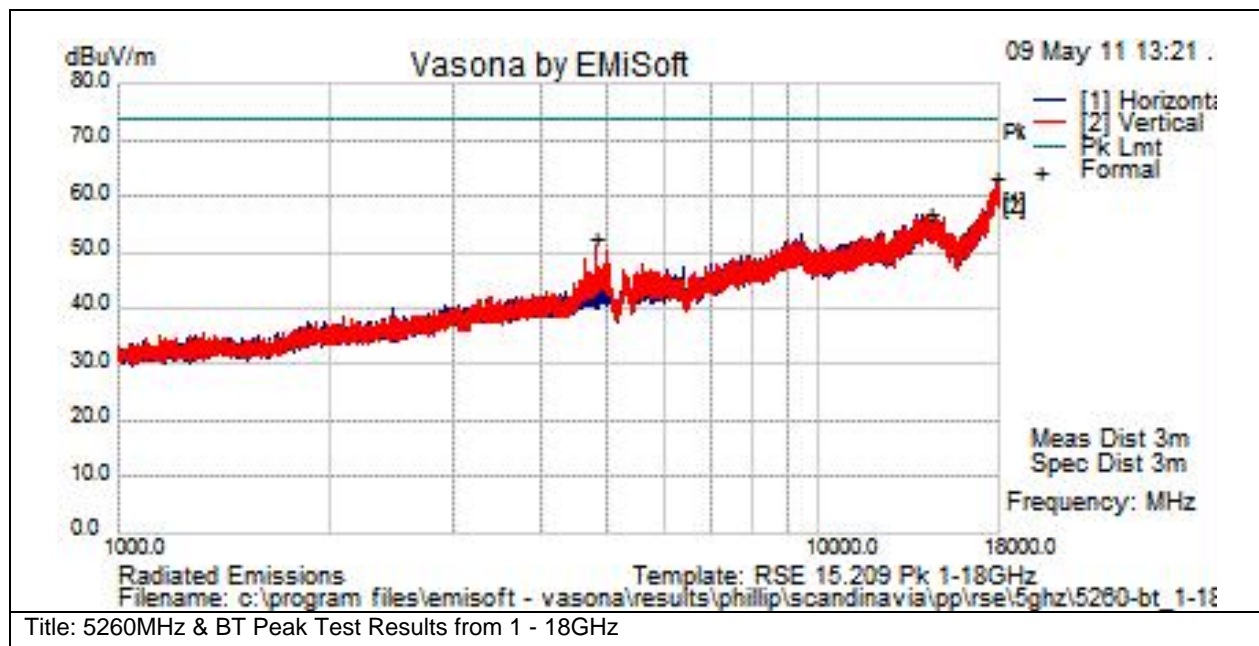
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17901.935	27.2	13.6	11.4	52.2	NA	H	100	0	54	-1.8	Pass	Noise Floor
4799.936	48.2	6.6	-3.8	51	Av	V	101	8	54	-3	Pass	
14225.797	28.2	11.8	7.4	47.4	NA	V	100	0	54	-6.6	Pass	Noise Floor
6400.001	41.6	8	-3.2	46.4	Av	H	121	353	54	-7.6	Pass	
4959.924	43.6	6.7	-4	46.3	Av	V	137	302	54	-7.7	Pass	
4639.976	43.3	6.4	-4.1	45.6	Av	V	106	22	54	-8.4	Pass	



<b>Subtest Number:</b> 62817 - 4		<b>Subtest Date:</b> 17-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	5260MHz & BT Peak Test Results from 1 - 18GHz		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

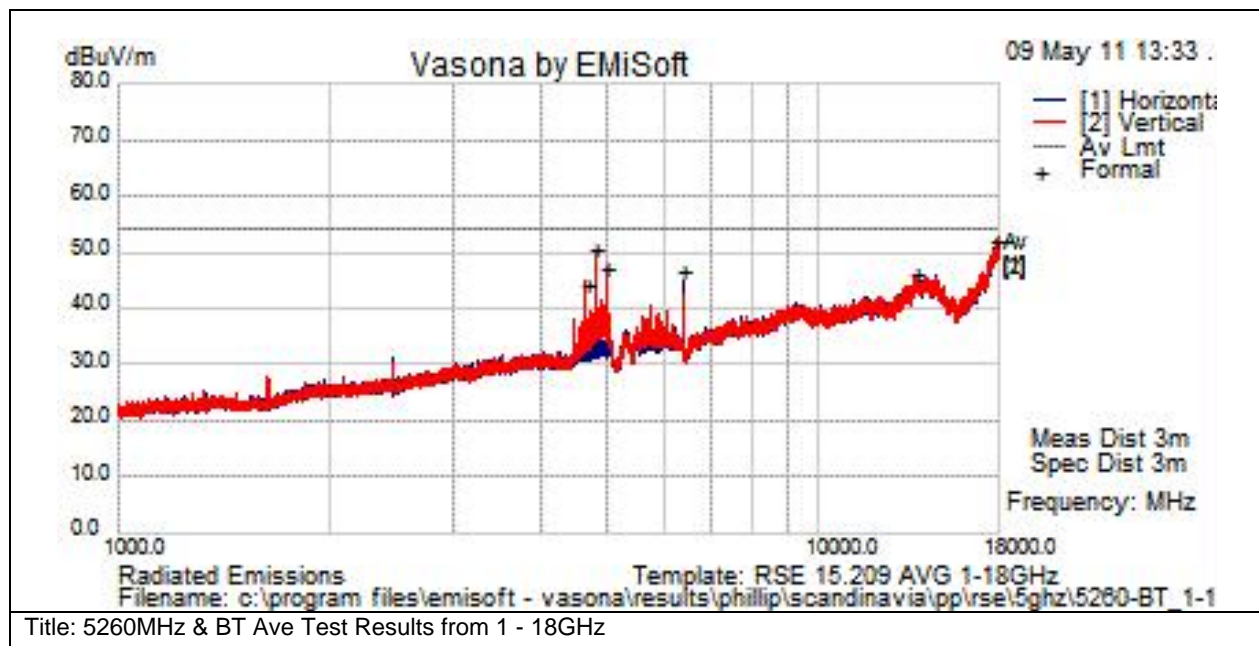
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17840.709	38.2	13.7	11.2	63.1	NA	V	100	0	74	-10.9	Pass	
14316.597	37.7	11.8	7.2	56.7	NA	H	100	0	74	-17.3	Pass	
4800.183	49.9	6.6	-3.8	52.7	Pk	V	122	27	74	-21.3	Pass	



<b>Subtest Number:</b> 62817 - 5		<b>Subtest Date:</b> 17-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	5260MHz & BT Ave Test Results from 1 - 18GHz		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**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
17889.482	27.1	13.7	11.3	52.1	NA	V	100	0	54	-1.9	Pass	Noise Floor
4799.945	47.9	6.6	-3.8	50.7	Av	V	104	354	54	-3.3	Pass	
4959.915	44.6	6.7	-4	47.3	Av	V	117	262	54	-6.7	Pass	
6399.95	41.7	8	-3.2	46.5	Av	H	120	0	54	-7.5	Pass	
13722.5	27.6	11.8	6.7	46.1	NA	H	100	0	54	-7.9	Pass	Noise Floor
4639.958	42	6.4	-4.1	44.3	Av	V	116	347	54	-9.7	Pass	

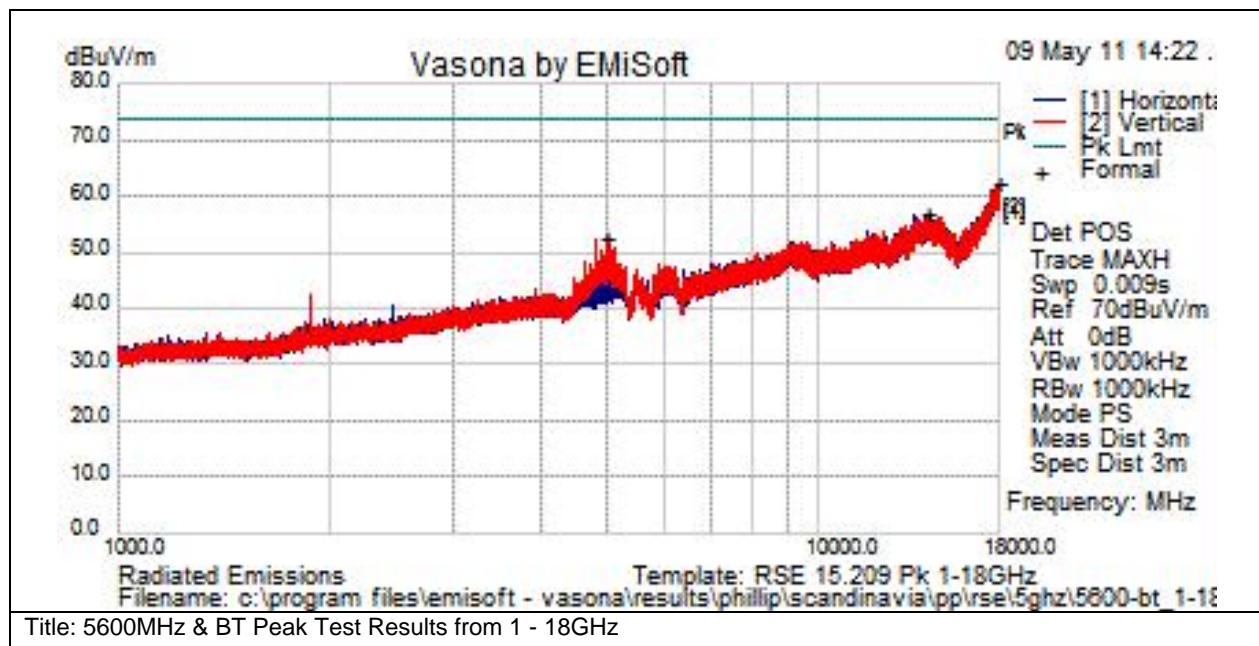




<b>Subtest Number:</b> 62817 - 6		<b>Subtest Date:</b> 17-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	5600MHz & BT Peak Test Results from 1 - 18GHz		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azi Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17902.454	37.1	13.6	11.4	62.1	NA	H	100	0	74	-11.9	Pass	Noise Floor
14232.023	37.6	11.8	7.3	56.7	NA	H	100	0	74	-17.3	Pass	Noise Floor
4960.191	49.6	6.7	-4	52.2	Pk	V	117	263	74	-21.8	Pass	

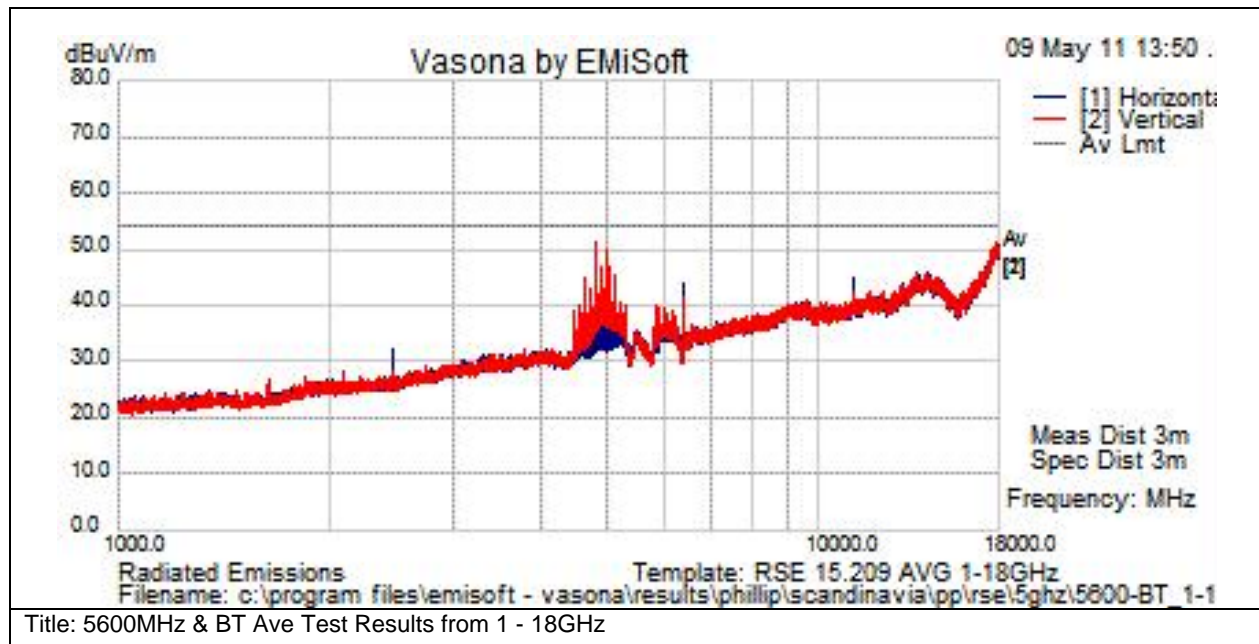




<b>Subtest Number:</b> 62817 - 7		<b>Subtest Date:</b> 17-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	5600MHz & BT Ave Test Results from 1 - 18GHz		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

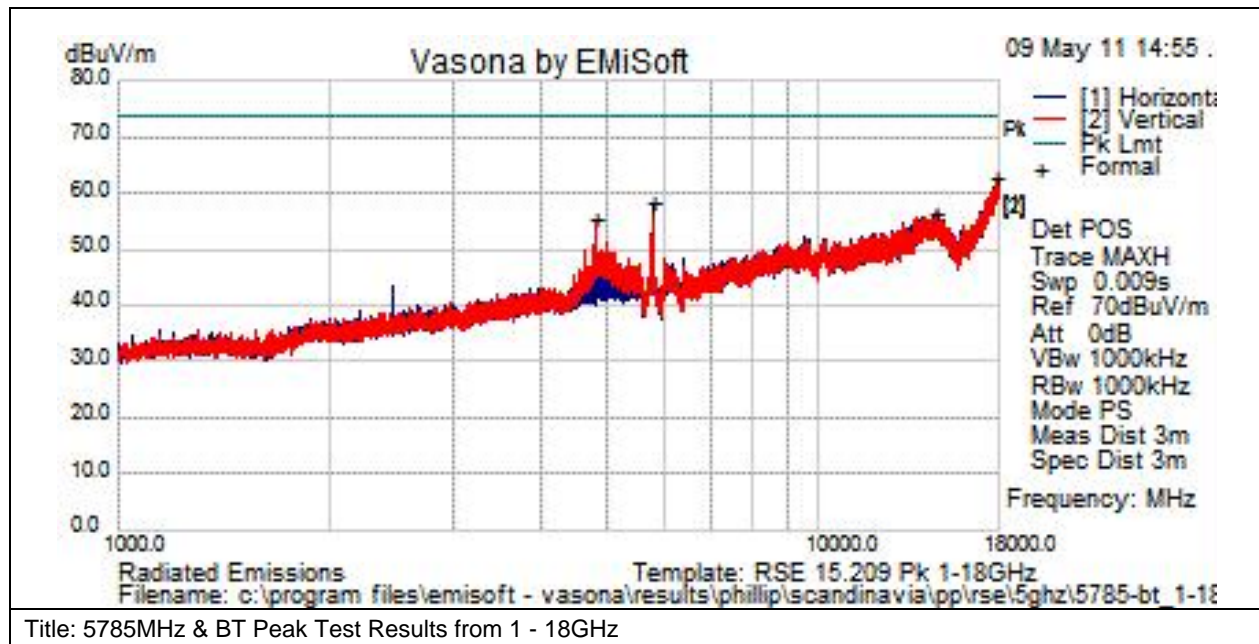
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17905.048	26.2	13.6	11.4	51.3	NA	V	100	0	54	-2.7	Pass	Noise Floor
4799.97	48.4	6.6	-3.8	51.2	Av	V	123	346	54	-2.8	Pass	
4959.999	44.8	6.7	-4	47.4	Av	V	123	318	54	-6.6	Pass	
5039.974	42.2	6.7	-3.9	45	Av	V	128	252	54	-9	Pass	
4879.964	41.8	6.6	-4	44.4	Av	V	116	292	54	-9.6	Pass	



<b>Subtest Number:</b> 62817 - 8		<b>Subtest Date:</b> 17-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	5785MHz & BT Peak Test Results from 1 - 18GHz		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

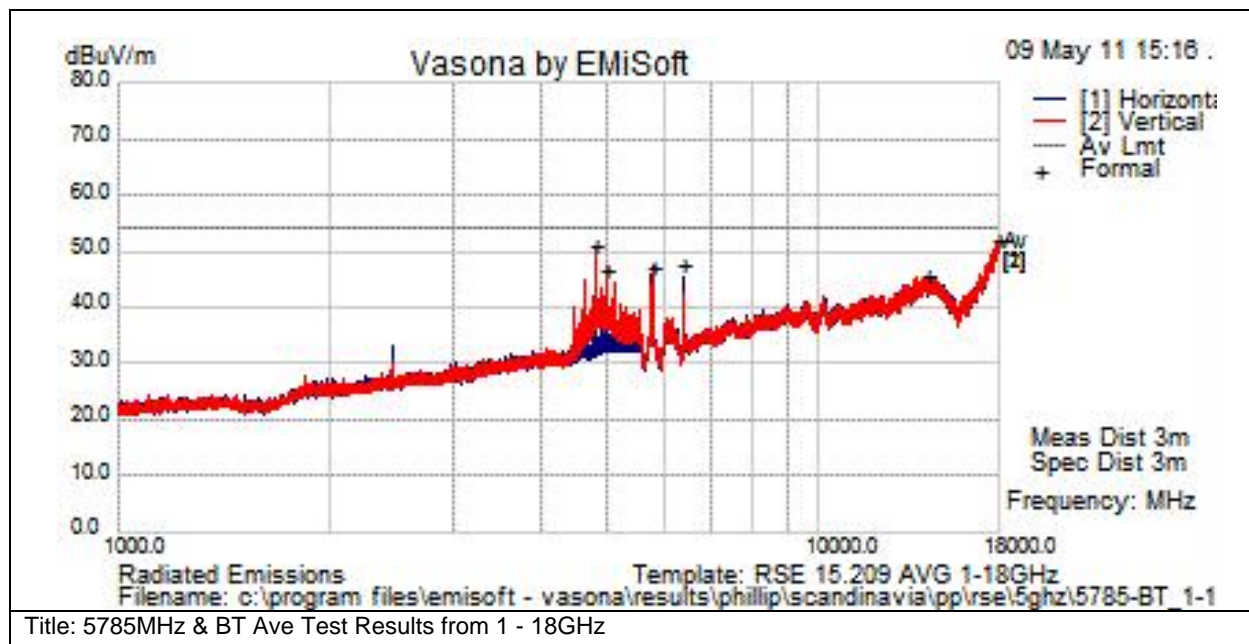
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17879.624	37.8	13.6	11.3	62.7	NA	H	100	0	74	-11.3	Pass	Noise Floor
5788.579	54.9	7.4	-4.1	58.2	NA	H	100	0	74	-15.8	Pass	Tx Signal
14673.056	38.2	11.9	6.5	56.6	NA	V	100	0	74	-17.4	Pass	Noise Floor
4799.674	52.8	6.6	-3.8	55.6	Pk	V	106	8	74	-18.4	Pass	



<b>Subtest Number:</b> 62817 - 9		<b>Subtest Date:</b> 17-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	5785MHz & BT Ave Test Results from 1 - 18GHz		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	18000.0		
<b>Lowest Frequency</b>	1000.0		

**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



**Test Results Table**

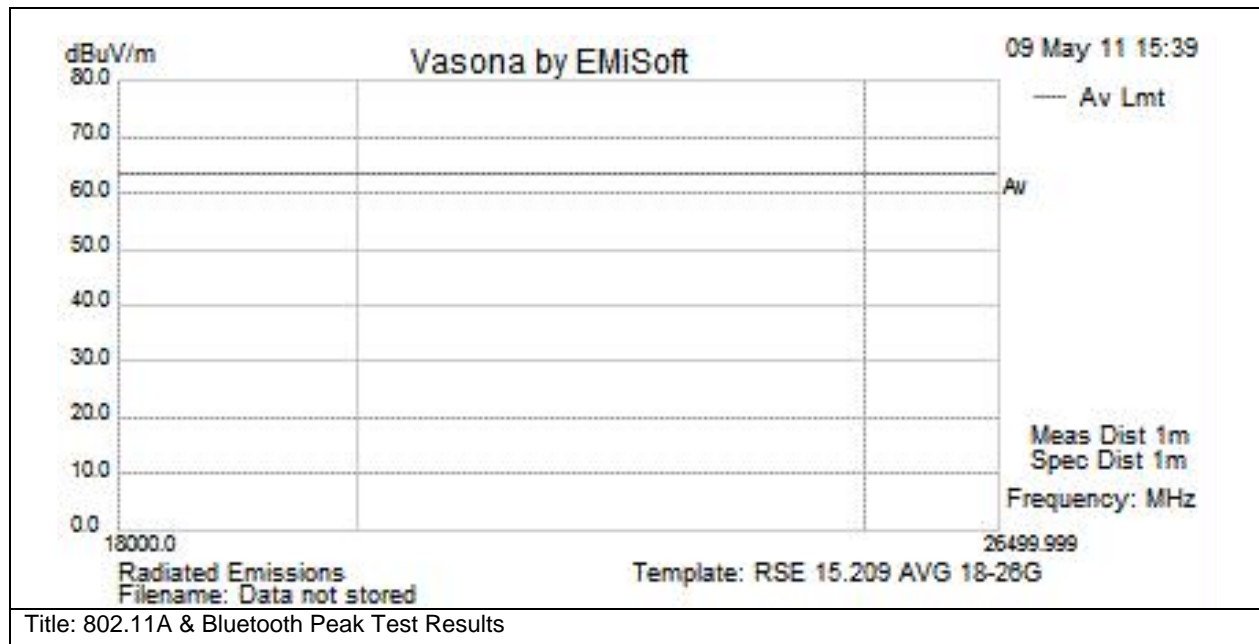
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
17948.633	26.5	13.7	11.7	51.8	Av	V	100	0	54	-2.2	Pass	Noise Floor
4799.973	48.3	6.6	-3.8	51	Av	V	129	348	54	-3	Pass	
4960.022	44.1	6.7	-4	46.8	Av	V	115	248	54	-7.2	Pass	
5789.098	43.9	7.4	-4.1	47.2	Av	H	100	0	54	-6.8	Pass	Tx Signal
14182.731	26.5	11.8	7.1	45.4	Av	V	100	0	54	-8.6	Pass	Noise Floor
6400.01	43	8	-3.2	47.8	Av	H	121	348	54	-6.2	Pass	



<b>Subtest Number:</b> 62817 - 10		<b>Subtest Date:</b> 17-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	5GHz & BT Ave Test Results from 18 - 26GHz		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	26499.999		
<b>Lowest Frequency</b>	18000.0		

**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



**Test Results Table**

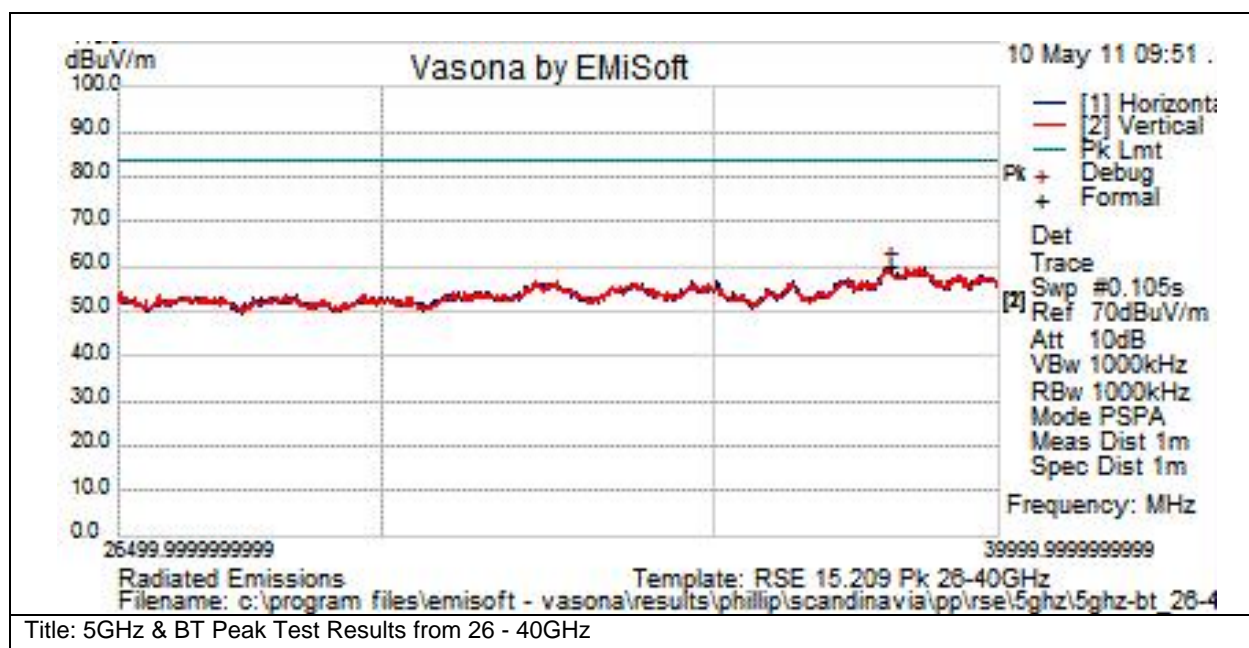
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
21773.253	38	0	17.5	55.5	Peak(Scan)	V	100	0	83.5	-28	Pass	Noise Floor



<b>Subtest Number:</b> 62817 - 11		<b>Subtest Date:</b> 17-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	5GHz & BT Peak Test Results from 26 - 40GHz		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	40000.0		
<b>Lowest Frequency</b>	26500.0		

**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



**Test Results Table**

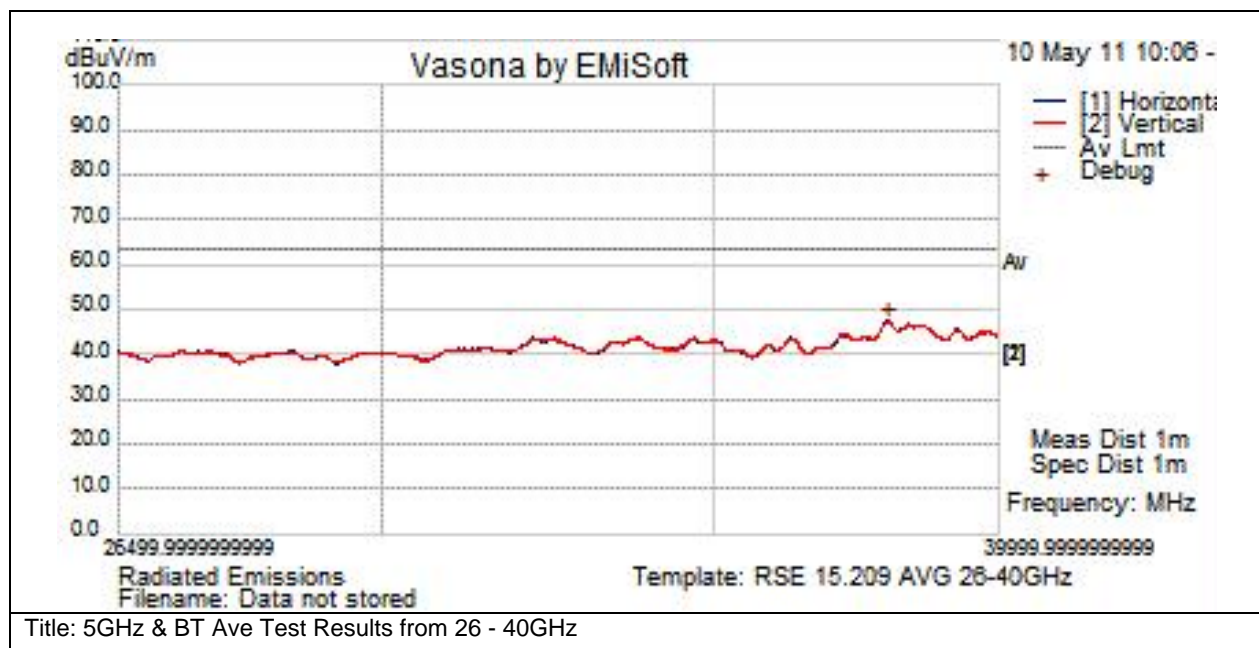
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
37984.435	61.8	0	-2	59.9	Peak(Scan)	V	101	361	83.5	-23.6	Pass	Noise Floor



<b>Subtest Number:</b> 62817 - 12		<b>Subtest Date:</b> 17-May-2011	
<b>Engineer</b>	Phillip Carranco		
<b>Lab Information</b>	Building I, 5m Anechoic		
<b>Subtest Results</b>			
<b>Subtest Title</b>	5GHz & BT Ave Test Results from 26 - 40GHz		
<b>Subtest Result</b>	Pass		
<b>Highest Frequency</b>	40000.0		
<b>Lowest Frequency</b>	26500.0		

**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



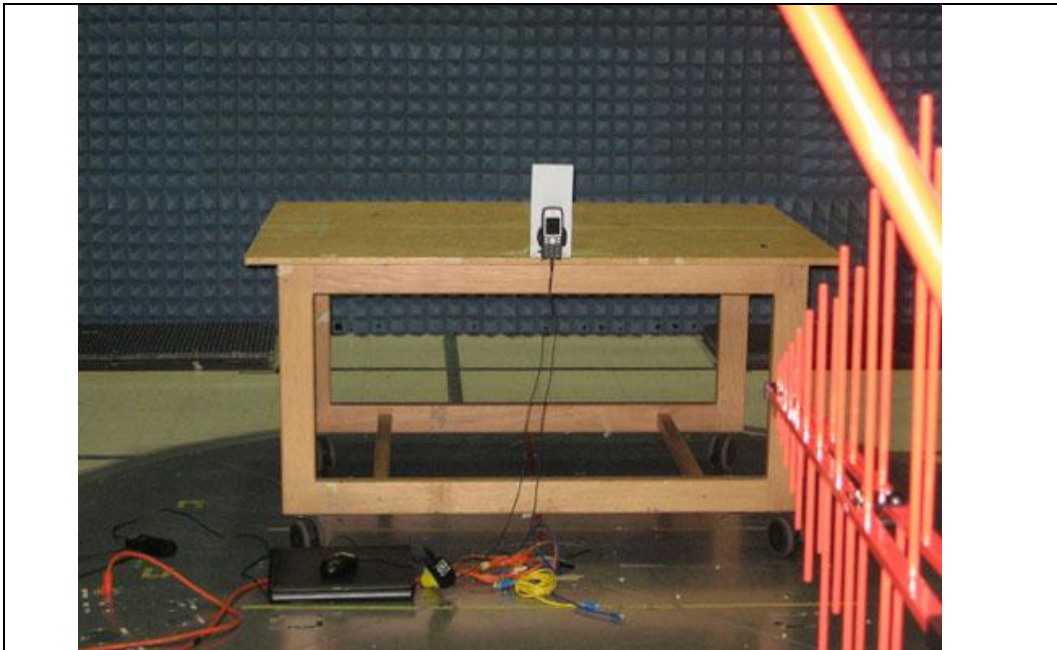
**Test Results Table**

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
37968.399	49.3	0	-2	47.3	Peak(Scan)	H	101	360	63.5	-16.2	Pass	

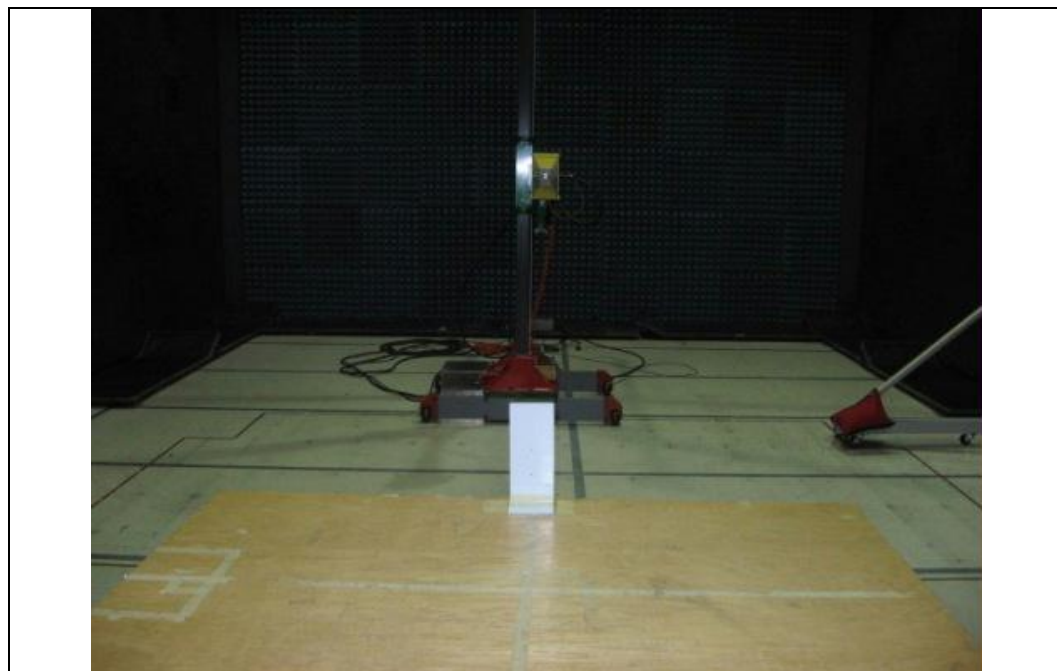


**Physical Test arrangement Photograph:**

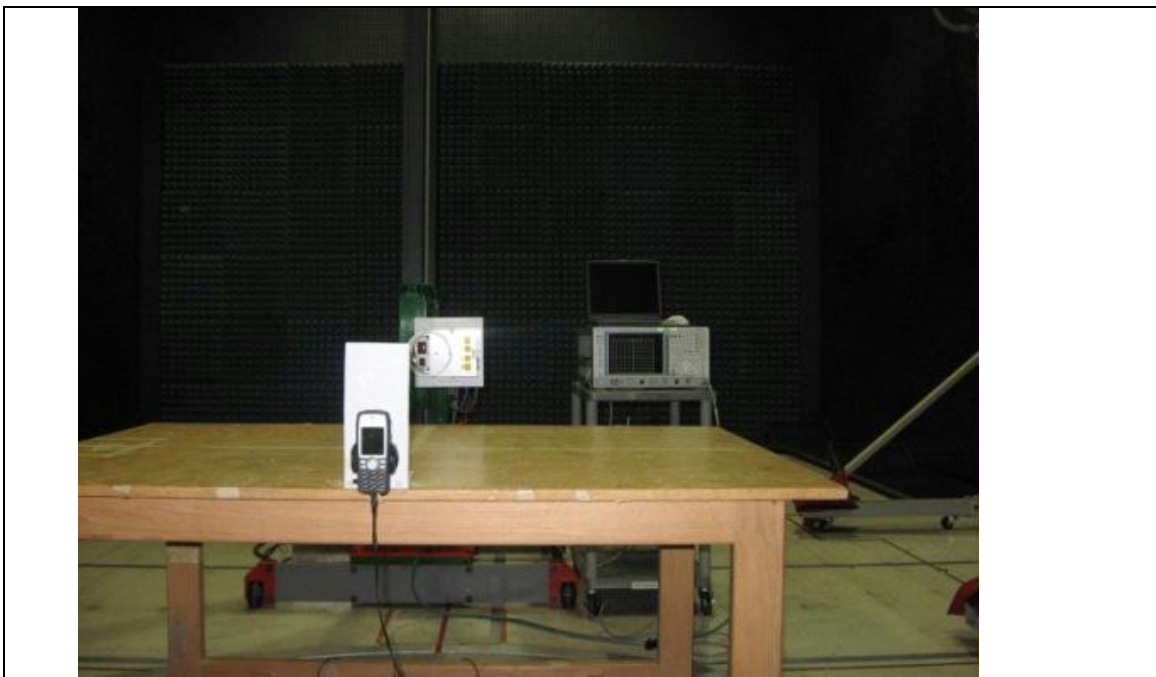
**Note:** All 3-axis (X,Y, Z) were evaluated during preliminary testing and the worse case orientation was for all formal testing shown below.



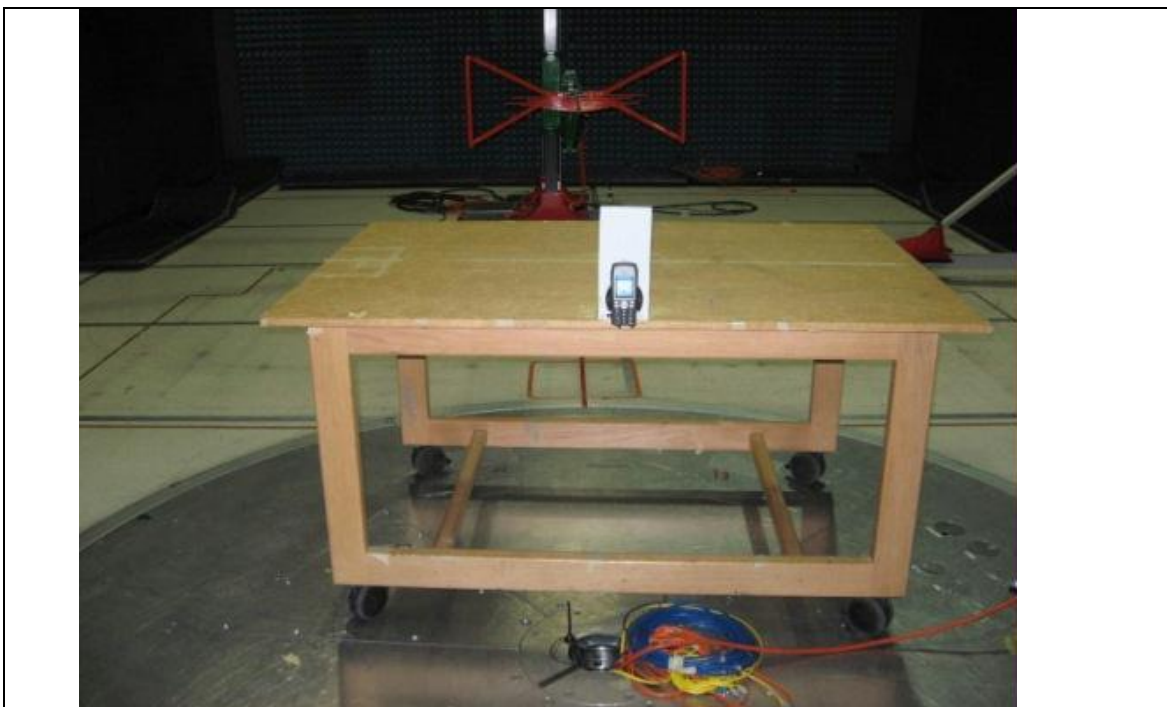
**Title:** Radiated Spurious Emissions Test Configuration from 30M to 1000MHz



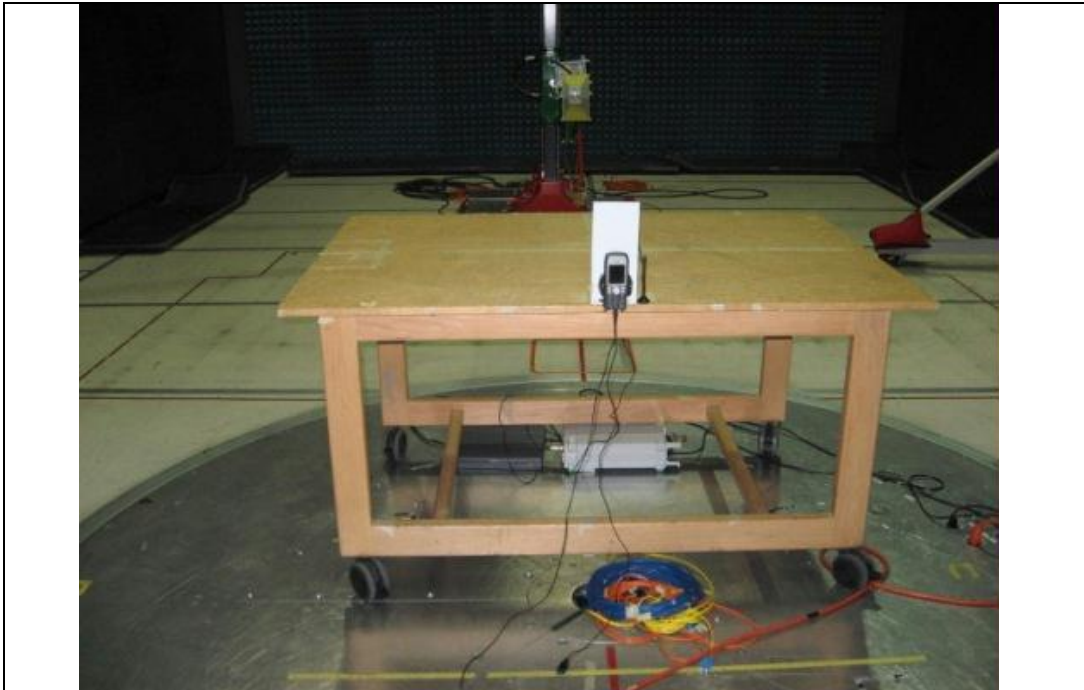
**Title:** Radiated Spurious Emissions 1G to 18GHz & Bandedge Test Configuration



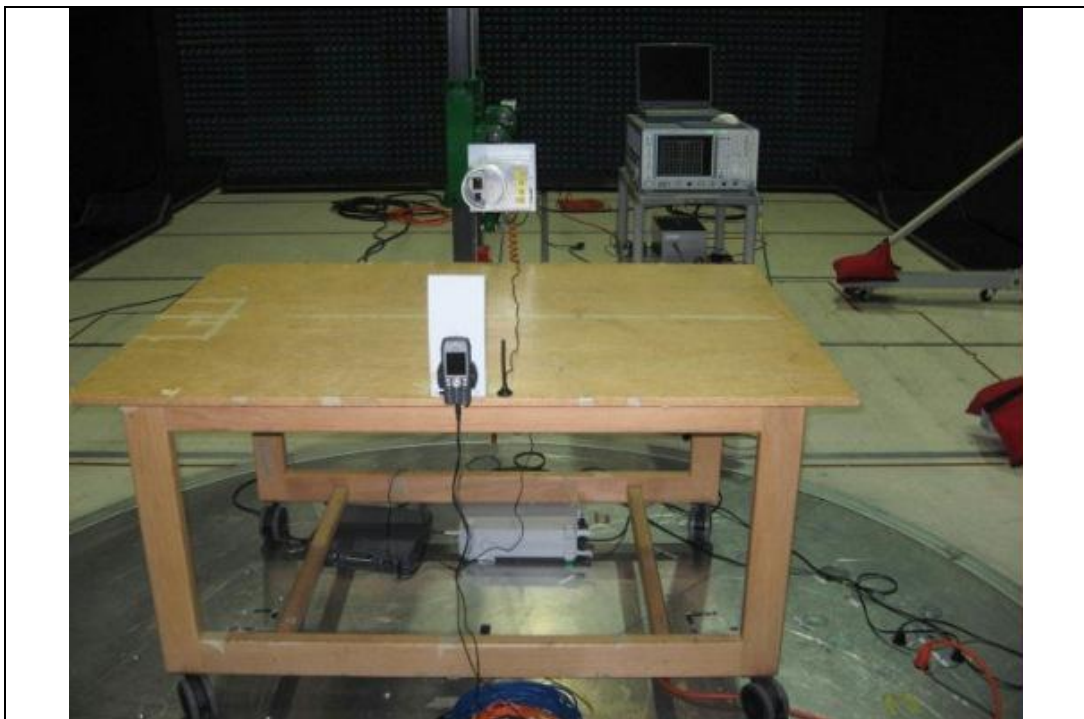
**Title:** Radiated Spurious Emissions Test Configuration from 18 to 40GHz



**Title:** Co-Locator Radiated Spurious Emissions Test Configuration from 30MHz to 1000MHz



**Title:** Co-Locator Radiated Spurious Emissions Test Configuration from 1 - 18GHz



**Title:** Co-Locator Radiated Spurious Emissions Test Configuration from 18 - 40GHz



**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 <sup>3</sup> )
EN	European Norm	MHz	MegaHertz (1x10 <sup>6</sup> )
IEC	International Electro technical Commission	GHz	Gigahertz (1x10 <sup>9</sup> )
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 <sup>3</sup> )
L1	Line 1	μV	Microvolt (1x10 <sup>-6</sup> )
L2	Line2	A	Amp
L3	Line 3	μA	Micro Amp (1x10 <sup>-6</sup> )
DC	Direct Current	mS	Milli Second (1x10 <sup>-3</sup> )
RAW	Uncorrected measurement value, as indicated by the measuring device	μS	Micro Second (1x10 <sup>-6</sup> )
RF	Radio Frequency	μS	Micro Second (1x10 <sup>-6</sup> )
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: Test Equipment Used to perform the test**

Equip#	Manufacturer/ Model	Description	Last Cal	Next Due
041986	Murata Electronics MXGS83RK3000	Special Radio Test Adaptor Cable	12-MAY-11	12-MAY-12
034974	Midwest Microwave ATT-0640-20-29M-02	Attenuator, 20dB, DC- 40GHz	16-MAY-11	16-MAY-12
035609	Micro-Tronics BRC50703-02	Notch Filter, SB: 5.150- 5.350 GHz, to 11 GHz	14-Jul-10	14-Jul-11
033988	Agilent E4446A	Precision Spectrum Analyzer	16-Nov-10	16-Nov-11
008024	Huber + Suhner SF106A	3 meter Sucoflex cable	10-Nov-11	10-Nov-11
030443	Micro-Coax UFB311A-0-1560-520520	RF Coaxial Cable, to 18GHz, 156 In.	10-Nov-10	10-Nov-11
033602	Midwest Microwave CSY-NMNM-80-273001	RF Coaxial Cable, 27ft. to 18GHz	10-Nov-10	10-Nov-11
045588	Sunol Sciences JB1	Combination Antenna	03-Dec-10	03-Dec-11
045051	Rohde & Schwarz ESCI	EMI Test Receiver	03-Nov-11	03-Nov-12
002119	EMC Test Systems/ 3115	Double Ridged Guide Horn Antenna	30-JUN-10	30-JUN-11
008022	Huber + Suhner SF106A	1m Sucoflex cable	16-Dec-10	16-Dec-11
005691	Miteq NSP1800-25-S1	Broadband Preampifier (1- 18GHz)	02-Feb-11	02-Feb-12
035613	Micro-Tronics BRM50702-02	Notch Filter, SB: 2.4 - 2.5 GHz, to 18 GHz	04-Jun-10	04-Jun-12
042000	Agilent E4440A	Spectrum Analyzer	14-Jun-10	14-Jun-11
024201	Rohde & Schwarz FSEK30	EMI Test Receiver	22-Nov-10	22-Nov-11
028072	CISCO 1840	18-40GHz EMI Test Fixture	17-Feb-11	17-Feb-12
035095	Micro-Coax UFA147A-0-0180-110200	RF Coax Cable to 40 GHz, 18in	13-Oct-10	13-Oct-11
043023	Anritsu MT8852B	Bluetooth Test Set	27-Aug-10	27-Aug-11
035639	Micro-Tronics BRC50704-02	Notch Filter, SB: 5.470- 5.725 GHz, to 12 GHz	07-Jul-10	07-Jul-11
031700	Micro-Tronics BRC50705	Notch Filter, SB: 5.725- 5.875 GHz, to 12 GHz	04-Jul-10	04-Jul-11
008097	Huber + Suhner/ RG-223	RG-223 Cable 9m	26-JUL-10	26-JUL-11
004924	Rohde & Schwarz/ ESHS30	EMI Receiver (9KHz- 30MHz)	29-NOV-10	29-NOV-11
008185	Fischer Custom Communications/ FCC-450B-2.4-N	Instrumentation Limiter	06-AUG-10	06-AUG-11
008197	TTE/ H613-150K-50-21378	Hi Pass Filter - 150KHz cutoff	30-MAR-11	30-MAR-12
008394	Coleman/ RG-223	RG-223 Cable 6 ft	27-MAY-11	27-MAY-12



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008490	Bird/ 5-T-MN	5W 50 Ohm Terminator	27-MAY-11	27-MAY-12
007036	HP/ E7401A	Spectrum Analyzer	27-SEP-10	27-SEP-11
018981	Fischer Custom Communications/ FCC-801-M2-32A	Power Line Coupling/Decoupling Network	03-MAY-11	03-MAY-12
020767	Fischer Custom Communications/ FCC-450B-2.4-N	Instrumentation Limiter	06-AUG-10	06-AUG-11
023874	Fischer Custom Communications/ FCC-LISN-PA-NEMA-5-15	Power Adaptor, Polarized 120VAC	22-SEP-10	22-SEP-11
036033	York/ CNE V	Comparison Noise Emitter	Cal Not Required	N/A





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## Appendix D: Test Procedures

Measurements were made in accordance with

- FCC docket #: DA-02-2138A1
- KDB Publication No. 558074
- Measurement method of spurious emission tolerance to the International Telecommunication Union (ITU) Recommendation SM329.
- ANSI C63.4
- ANSI PC63.10/D8

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