Report ID: MOBRAD_FCC.17138_407.doc Date of Issue: July 2006



Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions				
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4				
Test mode:	Compliance	Verdict: PASS				
Date:	07/04/2006	verdict.	PASS			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC			
Remarks: 802.11 a and 802.11 b/g						

7.14 Field strength of spurious emissions, 802.11 a and 802.11 b/g

7.14.1 General

This test was performed to measure field strength of spurious emissions from the EUT. Specification test limits are given in Table 7.14.1.

Table 7.14.1 Radiated spurious emissions limits below 1 GHz and within restricted bands above 1 GHz

Frequency, MHz	Field strength at 3 m, dB(μV/m)***				
Frequency, Wiriz	Peak	Quasi Peak	Average		
0.009 - 0.490*		128.5 – 93.8**			
0.490 - 1.705*		73.8 – 63.0**			
1.705 – 30.0*		69.5**			
30 – 88	NA	40.0	NA		
88 – 216		43.5			
216 – 960		46.0			
960 - 1000		54.0			
Above 1000	74.0	NA	54.0		

^{*-} The limit for 3 m test distance was calculated using the inverse square distance extrapolation factor as follows: LimS2 = LimS1 + 40 log (S1/S2),

where S1 and S2 – standard defined and test distance respectively in meters.

Table 7.14.2 EIRP of undesirable emissions limits outside restricted bands (above 1 GHz)

Frequency band, GHz	Out of band EIRP, dBm/MHz	Field strength at 3 m, dB(μV/m)
5.15 - 5.25		
5.25 - 5.35	-27	68.23
5.47 - 5.725		
5.725 – 5.825	-27 (below 5.715 and above 5.835 GHz)	68.23
3.723 - 3.023	-17 (in 5.715 – 5.725 GHz and 5.825 – 5.835 GHz)	78.23

7.14.2 Test procedure for spurious emission field strength measurements in 9 kHz to 30 MHz band

- 7.14.2.1 The EUT was set up as shown in Figure 7.14.1, energized and the performance check was conducted.
- **7.14.2.2** The specified frequency range was investigated with antenna connected to spectrum analyzer/ EMI receiver. To find maximum radiation the turntable was rotated 360⁰ and the measuring antenna was rotated around its vertical axis.
- 7.14.2.3 The worst test results (the lowest margins) were recorded and shown in the associated plots.

7.14.3 Test procedure for spurious emission field strength measurements above 30 MHz

- 7.14.3.1 The EUT was set up as shown in Figure 7.14.3, energized and the performance check was conducted.
- 7.14.3.2 The specified frequency range was investigated with antenna connected to spectrum analyzer/ EMI receiver. To find maximum radiation the turntable was rotated 360°, the measuring antenna height was changed from 1 to 4 m, its polarization was switched from vertical to horizontal.
- **7.14.3.3** The worst test results (the lowest margins) were recorded and shown in the associated plots.

^{**-} The limit decreases linearly with the logarithm of frequency.

^{*** -} The field strength limits applied from the lowest radio frequency generated in the device, without going below 9 kHz up to the tenth harmonic of the highest fundamental frequency.



Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions				
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4				
Test mode:	Compliance	Verdict: PASS				
Date:	07/04/2006	verdict.	PASS			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC			
Remarks: 802.11 a and 802.11 b/g						

Figure 7.14.1 Setup for spurious emission field strength measurements below 30 MHz

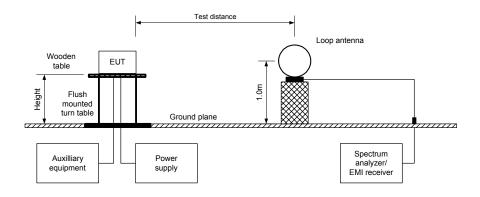
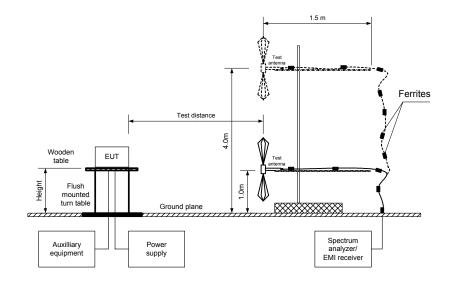


Figure 7.14.2 Setup for spurious emission field strength measurements above 30 MHz





Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions				
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4				
Test mode:	Compliance	Verdict: PASS				
Date:	07/04/2006	verdict.	PASS			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC			
Remarks: 802.11 a and 802.11 b/g						

Table 7.14.3 Field strength of emissions outside restricted bands

ASSIGNED FREQUENCY: 5.12-5.35GHz, 5.725-5.825GHz

INVESTIGATED FREQUENCY RANGE: 0.009 - 40GHz

TEST DISTANCE: 3 m MODULATION: OFDM

MODULATING SIGNAL: CCK and BPSK

BIT RATE: 1 Mbps TRANSMITTER OUTPUT POWER SETTINGS: Maximum DETECTOR: USED: Peak RESOLUTION BANDWIDTH: 1000 kHz

VIDEO BANDWIDTH: 1 kHz

Active loop (9 kHz – 30 MHz) Biconilog (30 MHz – 1000 MHz) **TEST ANTENNA TYPE:** Double ridged guide (above 1000 MHz)

			Boasie Hagea garde (aseve 1000 mm/2)						
requency, MHz	Antenna polarization	Antenna height, m	Azimuth, degrees*	Field strength of spurious, dB(μV/m)	Limit, dBµV/m	Margin, dB**	Verdict		
5.26 GHz carrier	rfrequency								
5150.0	V	1.0	180	51.00	68.23	-17.23	Pass		
10360.0	V	1.2	160	50.17	68.23	-18.06	Pass		
5.32 GHz carrier	rfrequency								
5350	V	1	230	57.67	68.23	-10.56	Pass		
10520.0	V	1.2	223	46.33	68.23	-21.90	Pass		
5.745 GHz carrie	er frequency								
5725.00	V	1.2	140	66.00	68.23	-2.23	Pass		
5.785 GHz carrie	er frequency								
5827.0	V	1.2	180	62.83	68.23	-5.40	Pass		
5.805 GHz carrie	er frequency								
5826.6	V	1.1	90	63.83	78.23	-14.37	Pass		
5840.0	V	1.2	100	65.17	78.23	-13.06.	Pass		

^{*-} EUT front panel refers to 0 degrees position of turntable.

Table 7.14.4 Restricted bands

MHz	MHz	MHz	MHz	MHz	GHz
0.09 - 0.11	8.37625 - 8.38675	73 - 74.6	399.9 - 410	2690 - 2900	10.6 - 12.7
0.495 - 0.505	8.41425 - 8.41475	74.8 - 75.2	608 - 614	3260 - 3267	13.25 - 13.4
2.1735 - 2.1905	12.29 - 12.293	108 - 121.94	960 - 1240	3332 - 3339	14.47 - 14.5
4.125 - 4.128	12.51975 - 12.52025	123 - 138	1300 - 1427	3345.8 - 3358	15.35 - 16.2
4.17725 - 4.17775	12.57675 - 12.57725	149.9 - 150.05	1435 - 1626.5	3600 - 4400	17.7 - 21.4
4.20725 - 4.20775	13.36 - 13.41	156.52475 - 156.52525	1645.5 - 1646.5	4500 - 5150	22.01 - 23.12
6.215 - 6.218	16.42 - 16.423	156.7 - 156.9	1660 - 1710	5350 - 5460	23.6 - 24
6.26775 - 6.26825	16.69475 - 16.69525	162.0125 - 167.17	1718.8 - 1722.2	7250 - 7750	31.2 - 31.8
6.31175 - 6.31225	16.80425 - 16.80475	167.72 - 173.2	2200 - 2300	8025 - 8500	36.43 - 36.5
8.291 - 8.294	25.5 - 25.67	240 - 285	2310 - 2390	9000 - 9200	Above 38.6
8.362 - 8.366	37.5 - 38.25	322 - 335.4	2483.5 - 2500	9300 - 9500	Above 36.0

^{**-} Margin = Attenuation below carrier – specification limit.





Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions				
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4				
Test mode:	Compliance	Verdict:	PASS			
Date:	07/04/2006	verdict.	PASS			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC			
Remarks: 802.11 a and 802.11 b/g						

Table 7.14.5 Field strength of spurious emissions within restricted bands

ASSIGNED FREQUENCY: 5.12-5.35GHz, 5.725-5.825GHz

INVESTIGATED FREQUENCY RANGE: 1000 - 40000 MHz

TEST DISTANCE: 3 m
MODULATION: OFDM

MODULATING SIGNAL: CCK and BPSK

MODULATING SIGNAL:

BIT RATE:

TRANSMITTER OUTPUT POWER SETTINGS:

DETECTOR USED:

RESOLUTION BANDWIDTH:

PRBS

1 Mbps

Maximum

Peak

1000 kHz

TEST ANTENNA TYPE: Double ridged guide

ILOI /(IVI	Double hagea galac									
Erogueney	Antenna A=i			Peak field strength(VBW=3 MHz) Average field strength (VBW=1KHz)						
Frequency, Polarization	Height, m	Azimuth, degrees*	Measured, dB(μV/m)	Limit, dB(μV/m)		Measured, dB(μV/m)	Limit, dB(µV/m)	Margin, dB***	Verdict	
5.18 GHz (5.18 GHz carrier frequency									
5150	V	1.2	230	68.67	74.00	-5.33	51.00	54.00	-3.00	Pass
5.32 GHz (5.32 GHz carrier frequency									
10640	V	1.5	190	63.17	74.00	-10.83	45.83	54.00	-8.17	Pass
5.745 GHz	5.745 GHz carrier frequency									
11490	V	1.2	200	66.33	74.00	-7.67	51.00	54.00	-3.00	Pass
5.785 GHz carrier frequency										
11570	V	1.2	150	63.83	74.00	-10.17	49.50	54.00	-4.50	Pass
5.805 GHz	carrier frequ	ency	•	•		·	•	•		
11610	V	1.5	220	64.50	74.00	-9.50	49.00	54.00	-5.00	Pass

^{*-} Margin = Measured emission - specification limit.

Reference numbers of test equipment used

HL 0446	_							1	
TIE 0440			HI 0521	HI 0580	HI USUA	LI 109∕I	⊔I 10/17	HI 2000	
		112 0440	111 0321	11L 0309	11L 000 4	11L 130 4	1111 1341	11L 2009	

Full description is given in Appendix A.

^{**-} EUT front panel refer to 0 degrees position of turntable.

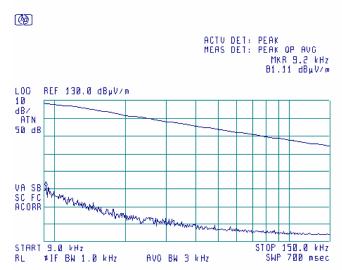


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions				
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4				
Test mode:	Compliance	Verdict: PASS				
Date:	07/04/2006	verdict.	PASS			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC			
Remarks: 802.11 a and 802.11 b/g						

Plot 7.14.1 Radiated emission measurements from 9 to 150 kHz at the 5.18GHz carrier frequency

TEST DISTANCE: 3 m

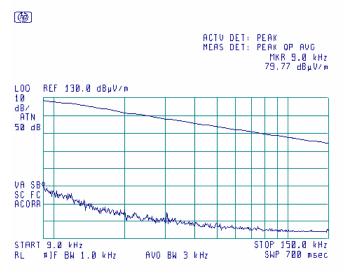
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.14.2 Radiated emission measurements from 9 to 150 kHz at the 5.26GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m



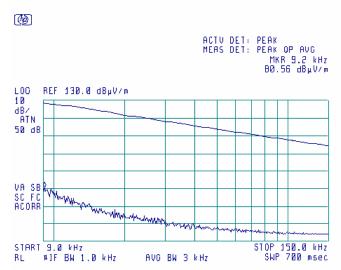


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions				
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4				
Test mode:	Compliance	Verdict: PASS				
Date:	07/04/2006	verdict.	PASS			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC			
Remarks: 802.11 a and 802.11 b/g						

Plot 7.14.3 Radiated emission measurements from 9 to 150 kHz at the 5.32GHz carrier frequency

TEST DISTANCE: 3 m

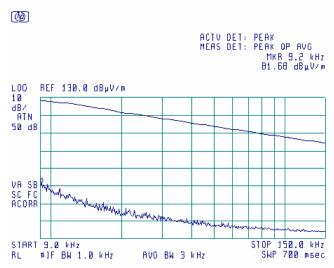
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.14.4 Radiated emission measurements from 9 to 150 kHz at the 5.745GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m



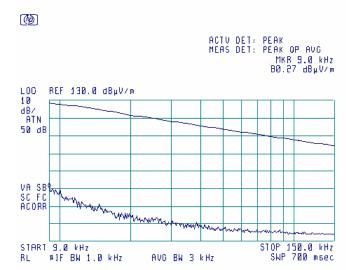


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4			
Test mode:	Compliance	Verdict: PASS			
Date:	07/04/2006	verdict.	PASS		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.14.5 Radiated emission measurements from 9 to 150 kHz at the 5.785GHz carrier frequency

TEST DISTANCE: 3 m

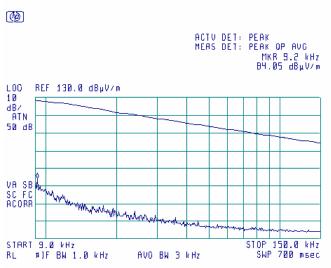
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.14.6 Radiated emission measurements from 9 to 150 kHz at the 5.805GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m



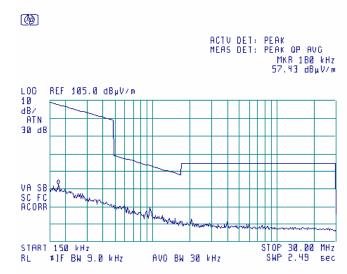


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4			
Test mode:	Compliance	Verdict: PASS			
Date:	07/04/2006	verdict.	PASS		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.14.7 Radiated emission measurements from 0.15 to 30 MHz at the 5.18GHz carrier frequency

TEST DISTANCE: 3 m

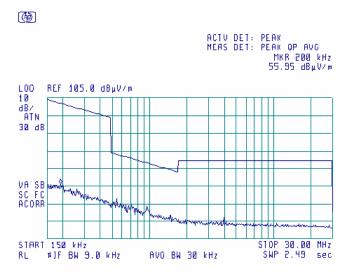
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.14.8 Radiated emission measurements from 0.15 to 30 MHz at the 5.26GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m



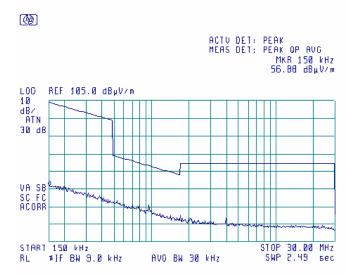


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.9 Radiated emission measurements from 0.15 to 30 MHz at the 5.32GHz carrier frequency

TEST DISTANCE: 3 m

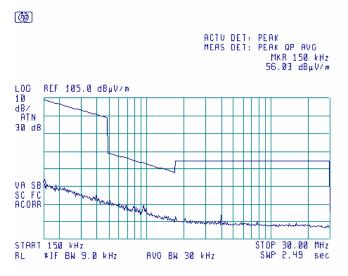
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.14.10 Radiated emission measurements from 0.15 to 30 MHz at the 5.745GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m



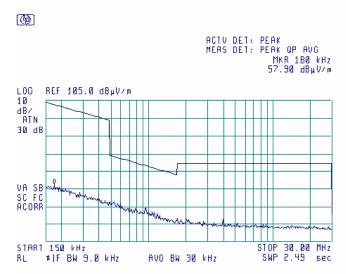


Test specification:	Section 15.407(b), Unwai	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4			
Test mode:	Compliance	Verdict: PASS			
Date:	07/04/2006	verdict.	FASS		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.14.11 Radiated emission measurements from 0.15 to 30 MHz at the 5.785GHz carrier frequency

TEST DISTANCE: 3 m

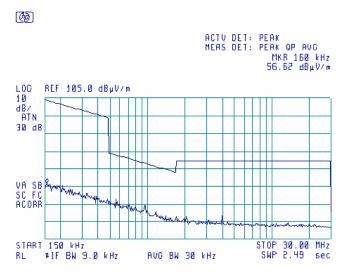
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.14.12 Radiated emission measurements from 0.15 to 30 MHz at the 5.805GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m



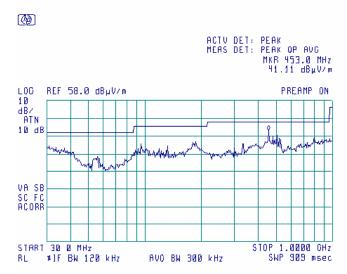


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4			
Test mode:	Compliance	Verdict: PASS			
Date:	07/04/2006	verdict.	PASS		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.14.13 Radiated emission measurements from 30 to 1000 MHz at the 5.18GHz carrier frequency

TEST DISTANCE: 3 m

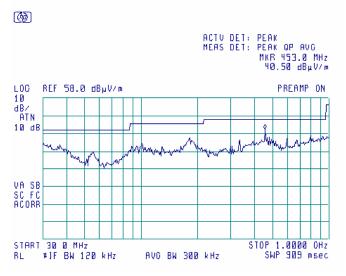
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.14.14 Radiated emission measurements from 30 to 1000 MHz at the 5.26GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m



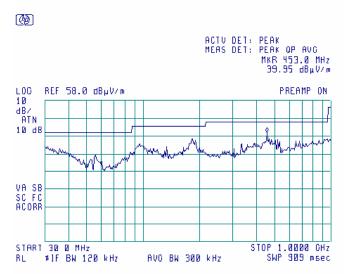


Test specification:	Section 15.407(b), Unwai	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4			
Test mode:	Compliance	Verdict: PASS			
Date:	07/04/2006	verdict.	FASS		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.14.15 Radiated emission measurements from 30 to 1000 MHz at the 5.32GHz carrier frequency

TEST DISTANCE: 3 m

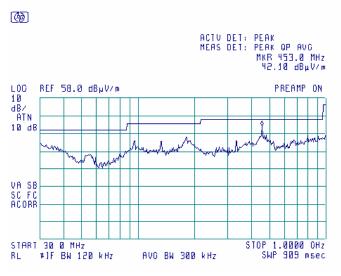
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.14.16 Radiated emission measurements from 30 to 1000 MHz at the 5.745GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m



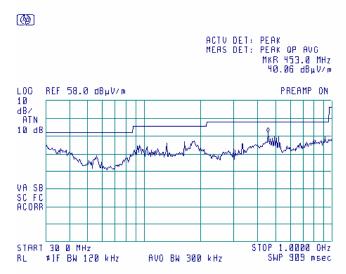


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4			
Test mode:	Compliance	Verdict: PASS			
Date:	07/04/2006	verdict.	PASS		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.14.17 Radiated emission measurements from 30 to 1000 MHz at the 5.785GHz carrier frequency

TEST DISTANCE: 3 m

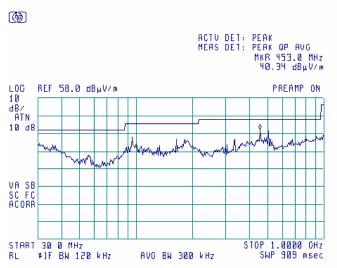
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.14.18 Radiated emission measurements from 30 to 1000 MHz at the 5.805GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m





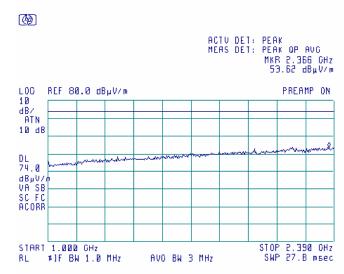
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4			
Test mode:	Compliance	Verdict: PASS			
Date:	07/04/2006	verdict.	PASS		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.14.19 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.18 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

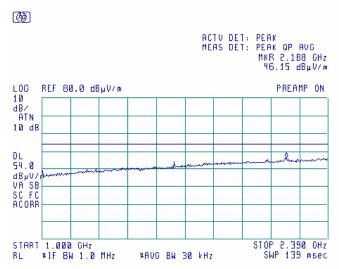


Plot 7.14.20 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.18 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





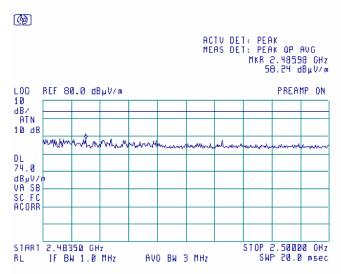
Test specification:	Section 15.407(b), Unwai	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4			
Test mode:	Compliance	Verdict: PASS			
Date:	07/04/2006	verdict.	FASS		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.14.21 Radiated emission measurements from 2.4835 to 2.5 GHz at the 5.18 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

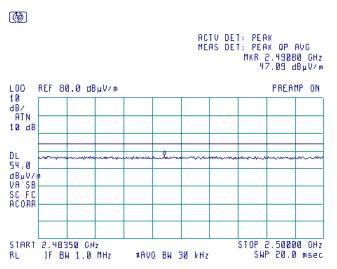


Plot 7.14.22 Radiated emission measurements from 2.4835 to 2.5 GHz at the 5.18GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





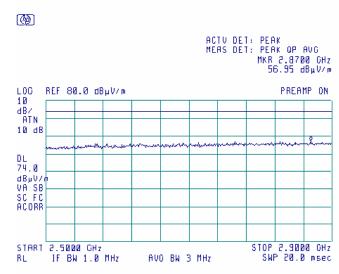
Test specification:	Section 15.407(b), Unwai	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4			
Test mode:	Compliance	Verdict: PASS			
Date:	07/04/2006	verdict.	FASS		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.14.23 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.18GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

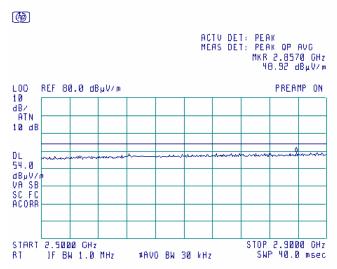


Plot 7.14.24 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.18GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



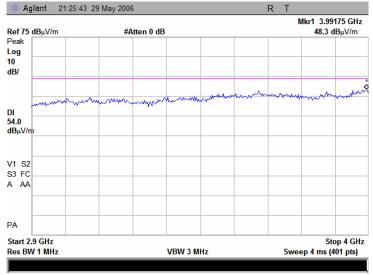


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.25 Radiated emission measurements from 2.9 to 4.0 GHz at the 5.18GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

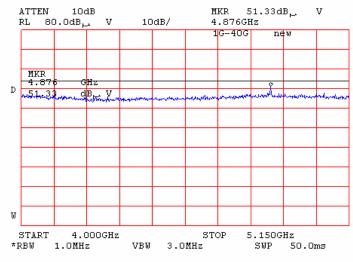


Plot 7.14.26 Radiated emission measurements from 4.0 to 5.15 GHz at the 5.18GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak



Second harmonic of 802.11b/g 4874MHz

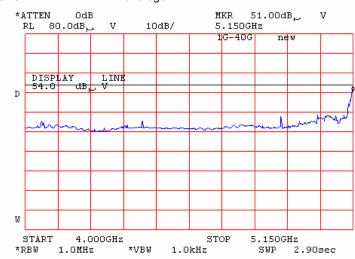


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4			
Test mode:	Compliance	Verdict: PASS			
Date:	07/04/2006	verdict.	PASS		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.14.27 Radiated emission measurements from 4.0 to 5.15 GHz at the 5.18 GHz carrier frequency

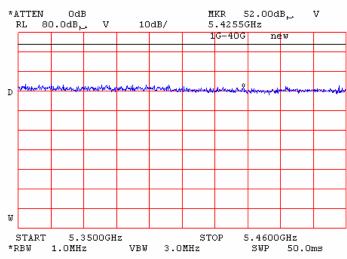
ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: average



Plot 7.14.28 Radiated emission measurements from 5.35 to 5.46 GHz at the 5.18GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m





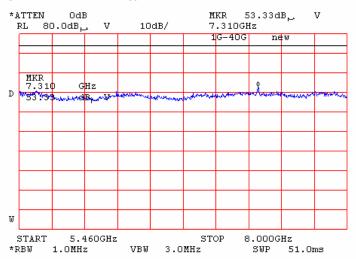
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.29 Radiated emission measurements from 5.46 to 8.0 GHz at the 5.18GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak



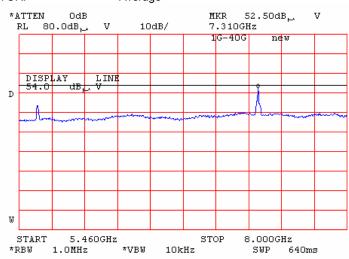
Third harmonic of 802.11b/g 7311MHz

Plot 7.14.30 Radiated emission measurements from 5.46 to 8.0 GHz at the 5.18GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





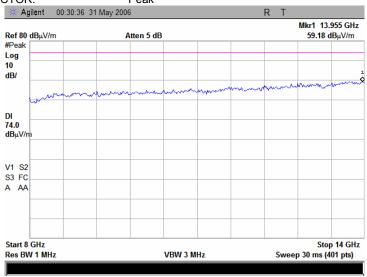
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.31 Radiated emission measurements from 8.0 to 14.0 GHz at the 5.18GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

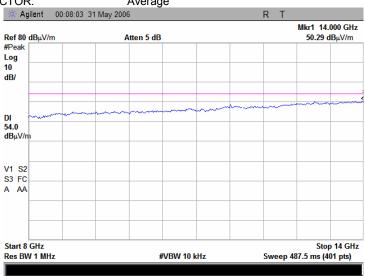


Plot 7.14.32 Radiated emission measurements from 8.0 to 14.0 GHz at the 5.18GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



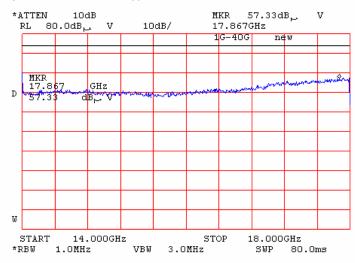


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.33 Radiated emission measurements from 14 to 18 GHz at the 5.18GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal

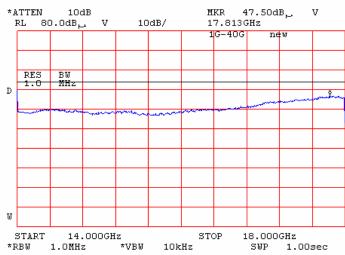
DETECTOR: Peak



Plot 7.14.34 Radiated emission measurements from 14 to 18 GHz at the 5.18GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

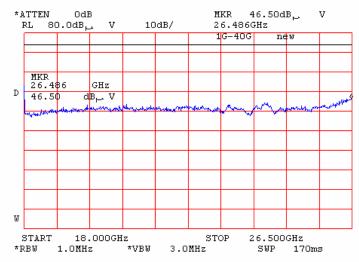




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

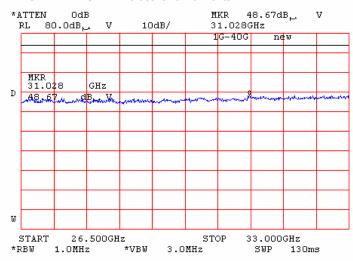
Plot 7.14.35 Radiated emission measurements from 18 to 26.5 GHz at the 5.18GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.14.36 Radiated emission measurements from 26.5 to 33 GHz at the 5.18GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

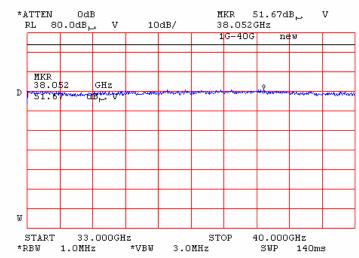




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.37 Radiated emission measurements from 33 to 40 GHz at the 5.18GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal

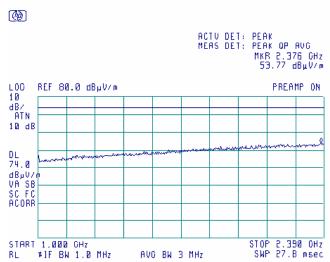


Plot 7.14.38 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.26 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





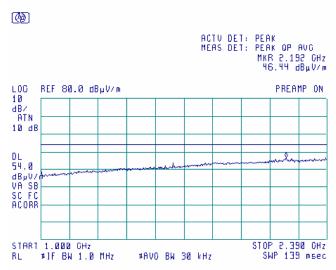
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.39 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.26 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Average

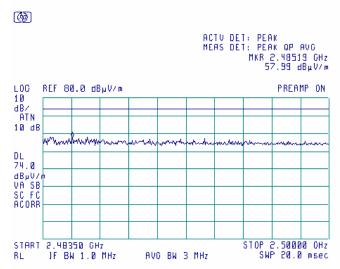


Plot 7.14.40 Radiated emission measurements from 2.4835 to 2.5GHz at the 5.26 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





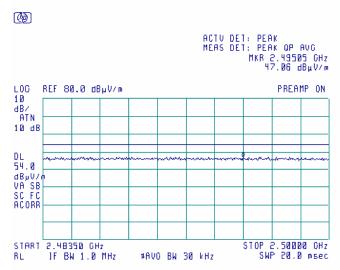
Test specification:	Section 15.407(b), Unwai	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4			
Test mode:	Compliance	Verdict: PASS			
Date:	07/04/2006	verdict.	FASS		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.14.41 Radiated emission measurements from 2.4835 to 2.5GHz at the 5.26 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Average

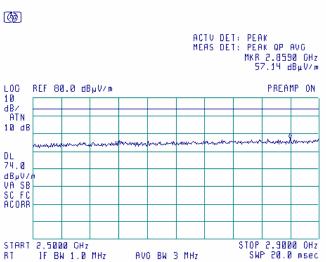


Plot 7.14.42 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.26 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





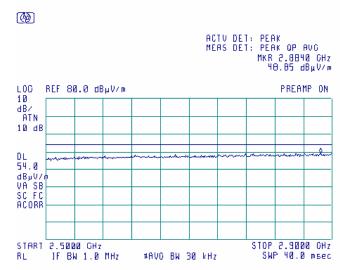
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.43 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.26 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

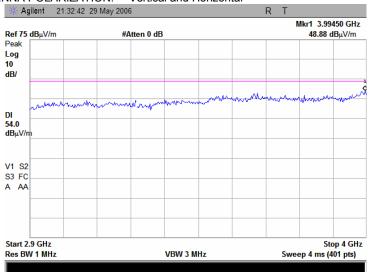
DETECTOR: Average



Plot 7.14.44 Radiated emission measurements from 2.9 to 4.0 GHz at the 5.26 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m





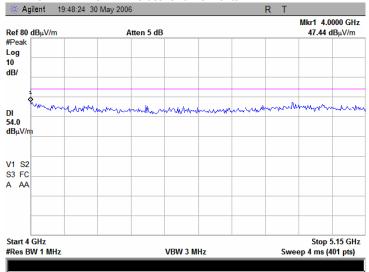
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.45 Radiated emission measurements from 4.0 to 5.15 GHz at the 5.26 GHz carrier frequency

TEST SITE: Semi anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

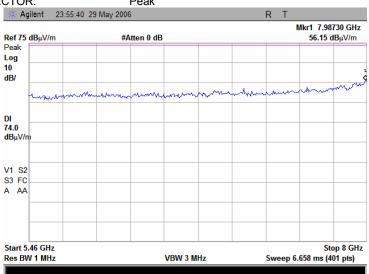


Plot 7.14.46 Radiated emission measurements from 5.46 to 8.0 GHz at the 5.26 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





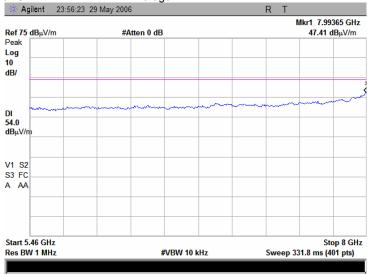
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4			
Test mode:	Compliance	Verdict: PASS			
Date:	07/04/2006	verdict.	PASS		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.14.47 Radiated emission measurements from 5.46 to 8.0 GHz at the 5.26 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Average

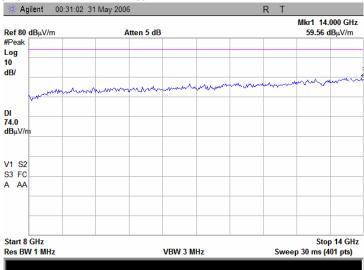


Plot 7.14.48 Radiated emission measurements from 8 to 14 GHz at the 5.26 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





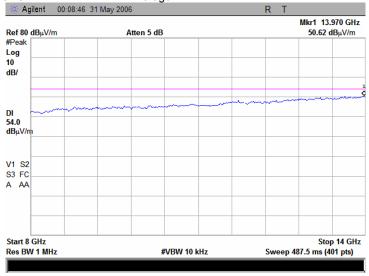
Test specification:	Section 15.407(b), Unwai	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4			
Test mode:	Compliance	Verdict: PASS			
Date:	07/04/2006	verdict.	FASS		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.14.49 Radiated emission measurements from 8 to 14 GHz at the 5.26 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

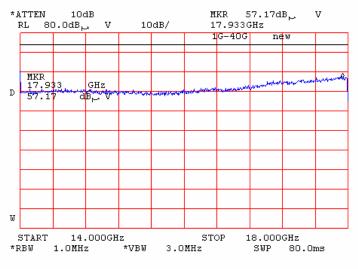
DETECTOR: Average



Plot 7.14.50 Radiated emission measurements from 14 to 18 GHz at the 5.26GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



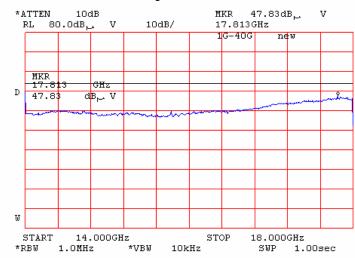


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.51 Radiated emission measurements from 14 to 18 GHz at the 5.26GHz carrier frequency

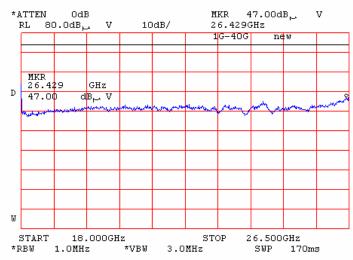
ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Average



Plot 7.14.52 Radiated emission measurements from 18 to 26.5 GHz at the 5.26GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

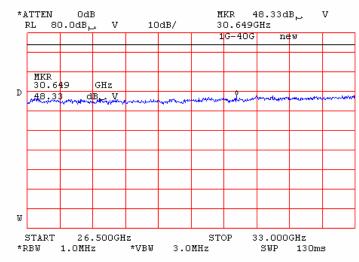




Test specification:	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS	DACC	
Date:	07/04/2006		FASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

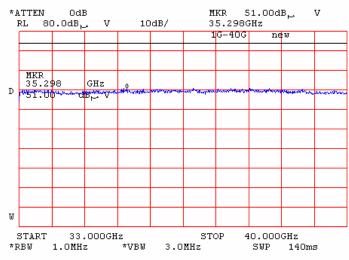
Plot 7.14.53 Radiated emission measurements from 26.5 to 33 GHz at the 5.26GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.14.54 Radiated emission measurements from 33 to 40 GHz at the 5.26GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m





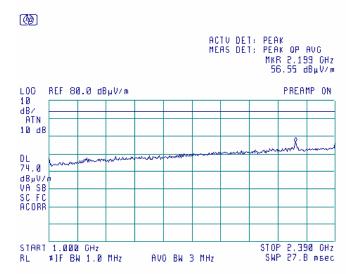
Test specification:	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict:	PASS	
Date:	07/04/2006	verdict.	FASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.55 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.32 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

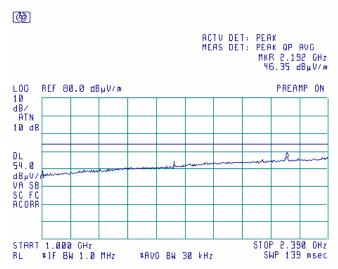


Plot 7.14.56 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.32 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





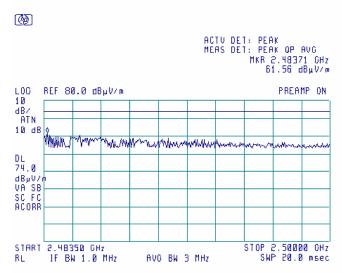
Test specification:	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict:	PASS
Date:	07/04/2006	verdict.	FASS
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC
Remarks: 802.11 a and 802.11 b/g			

Plot 7.14.57 Radiated emission measurements from 2.4835 to 2.5GHz at the 5.32 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

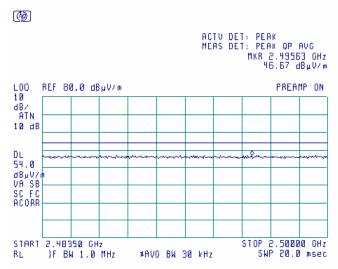


Plot 7.14.58 Radiated emission measurements from 2.4835 to 2.5GHz at the 5.32 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





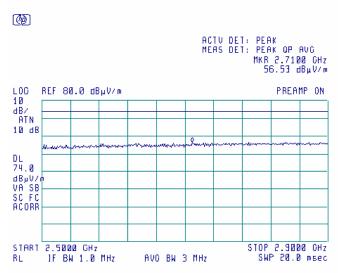
Test specification:	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict:	PASS
Date:	07/04/2006	verdict.	FASS
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC
Remarks: 802.11 a and 802.11 b/g			

Plot 7.14.59 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.32 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

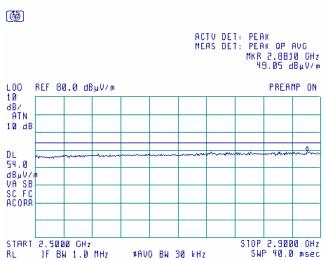


Plot 7.14.60 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.32 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



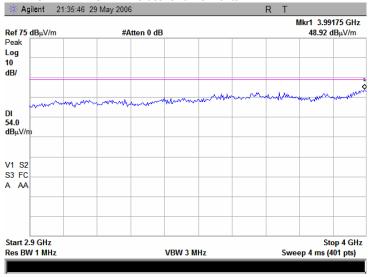


Test specification:	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	- Verdict: PASS	DACC	
Date:	07/04/2006		FASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.61 Radiated emission measurements from 2.9 to 4.0 GHz at the 5.32 GHz carrier frequency

TEST DISTANCE: 3 m

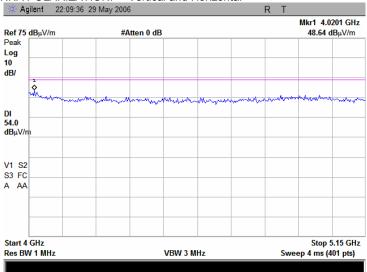
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.14.62 Radiated emission measurements from 4.0 to 5.15 GHz at the 5.32 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

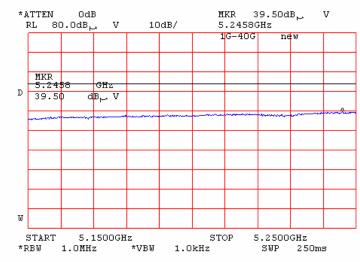




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict:	PASS	
Date:	07/04/2006	verdict.	FASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.63 Radiated emission measurements from 5.15 to 5.25 GHz at the 5.32 GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal

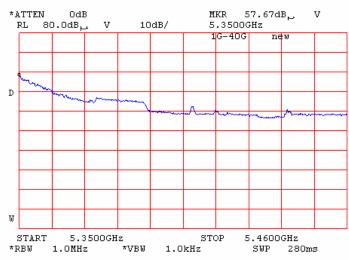


Plot 7.14.64 Radiated emission measurements from 5.35 to 5.46 GHz at the 5.32 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





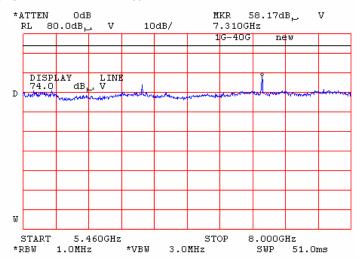
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.65 Radiated emission measurements from 5.46 to 8.0 GHz at the 5.32 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak



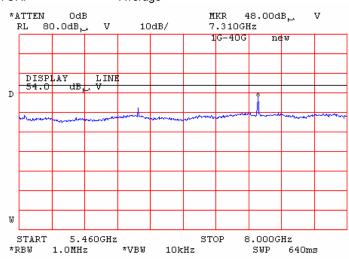
Third harmonic of 802.11b/g 7311MHz

Plot 7.14.66 Radiated emission measurements from 5.46 to 8.0 GHz at the 5.32GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





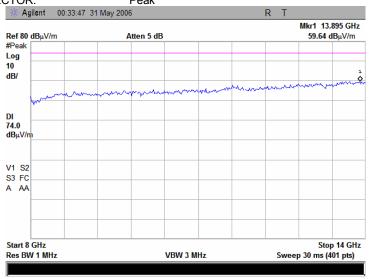
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.67 Radiated emission measurements from 8 to 14 GHz at the 5.32 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

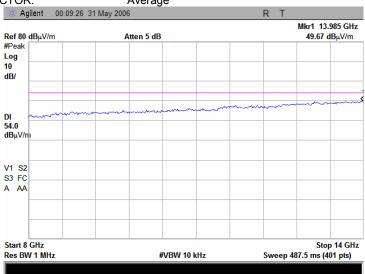


Plot 7.14.68 Radiated emission measurements from 8 to 14 GHz at the 5.32 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



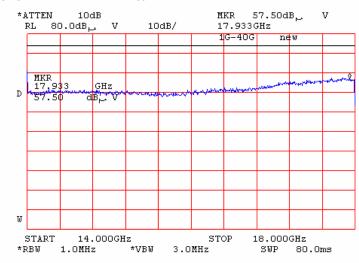


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.69 Radiated emission measurements from 14 to 18 GHz at the 5.32 GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

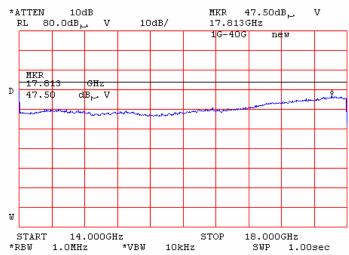


Plot 7.14.70 Radiated emission measurements from 14 to 18 GHz at the 5.32 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

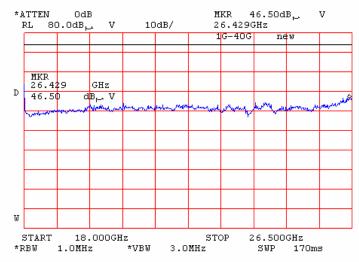




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

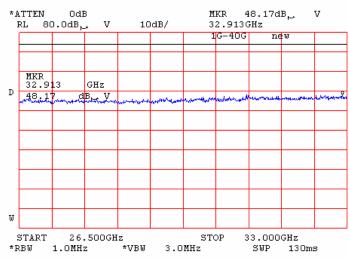
Plot 7.14.71 Radiated emission measurements from 18 to 26.5 GHz at the 5.32GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.14.72 Radiated emission measurements from 26.5 to 33 GHz at the 5.32GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

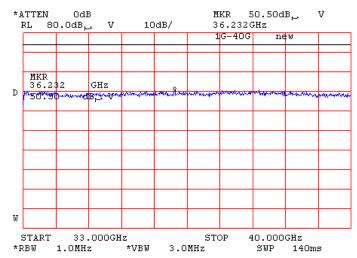




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.73 Radiated emission measurements from 33 to 40 GHz at the 5.32GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal

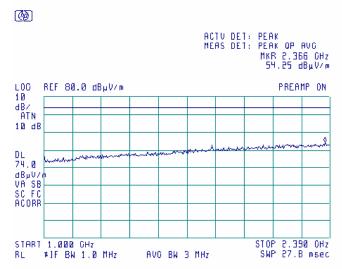


Plot 7.14.74 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.745 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





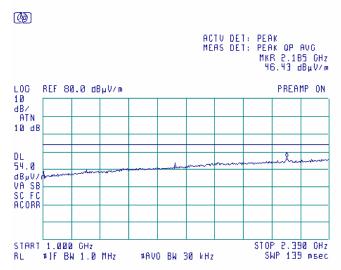
Test specification:	Section 15.407(b), Unwai	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	FASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.75 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.745 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Average

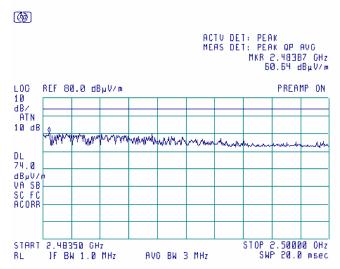


Plot 7.14.76 Radiated emission measurements from 2.4835 to 2.5GHz at the 5.745 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





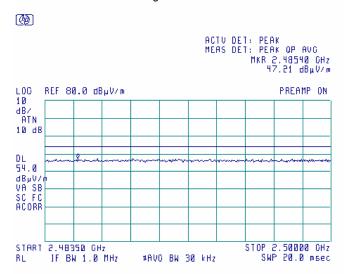
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.77 Radiated emission measurements from 2.4835 to 2.5GHz at the 5.745 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Average

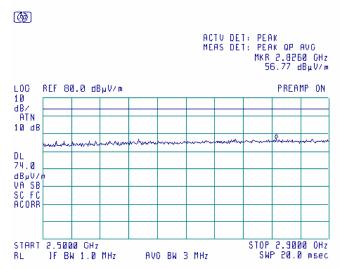


Plot 7.14.78 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.745 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





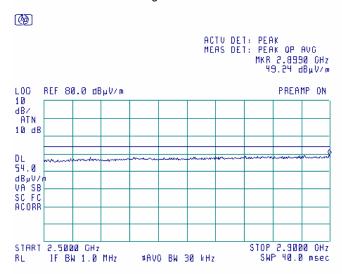
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.79 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.745 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

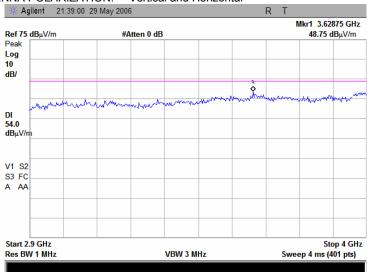
DETECTOR: Average



Plot 7.14.80 Radiated emission measurements from 2.9 to 4.0 GHz at the 5.745 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m



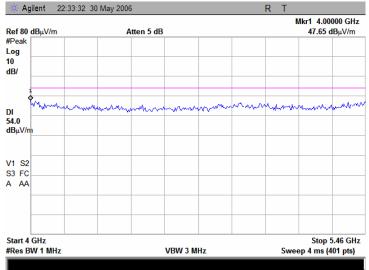


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.81 Radiated emission measurements from 4.0 to 5.46 GHz at the 5.745 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

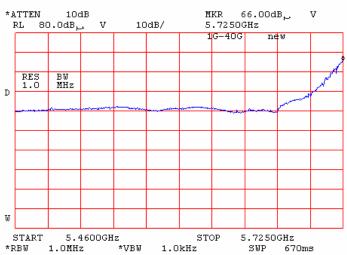


Plot 7.14.82 Radiated emission measurements from 5.46 to 5.725 GHz at the 5.745 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



Note: Outside restricted band range (between 5460 MHz and 7250 MHz), the limit is $78.23~dB\mu V/m$ between 5.715~GHz and 5.725~GHz; $68.23~dB\mu V/m$ below 5.715~GHz



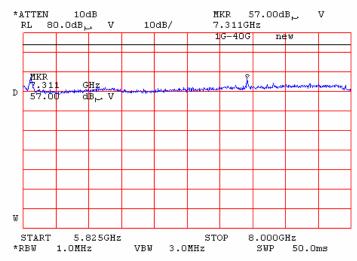
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.83 Radiated emission measurements from 5.825 to 8.0 GHz at the 5.745 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

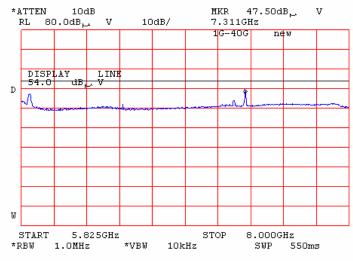


Plot 7.14.84 Radiated emission measurements from 5.825 to 8.0 GHz at the 5.745 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





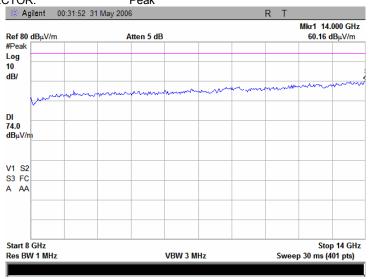
Test specification:	Section 15.407(b), Unwai	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.85 Radiated emission measurements from 8 to 14 GHz at the 5.745 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

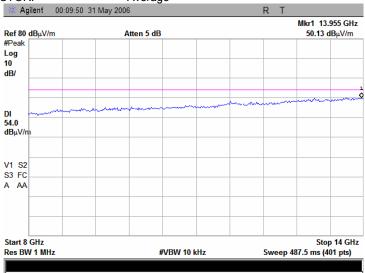


Plot 7.14.86 Radiated emission measurements from 8 to 14 GHz at the 5.745 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



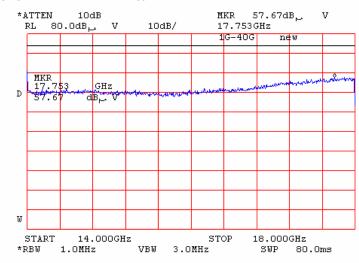


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.87 Radiated emission measurements from 14 to 18 GHz at the 5.745GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal

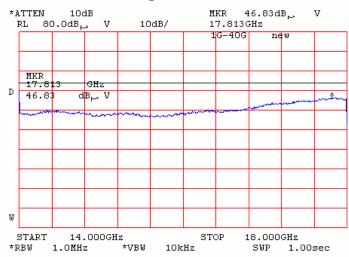
DETECTOR: Peak



Plot 7.14.88 Radiated emission measurements from 14 to 18 GHz at the 5.745GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

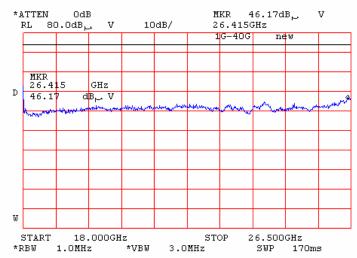




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

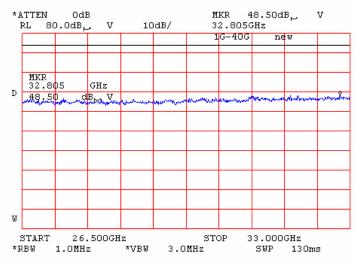
Plot 7.14.89 Radiated emission measurements from 18 to 26.5 GHz at the 5.745GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.14.90 Radiated emission measurements from 26.5 to 33 GHz at the 5.745GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

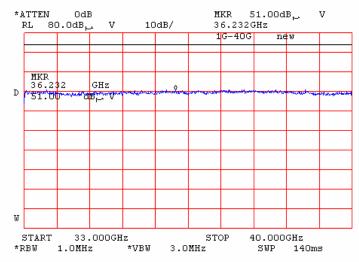




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	FASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.91 Radiated emission measurements from 33 to 40 GHz at the 5.745GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal

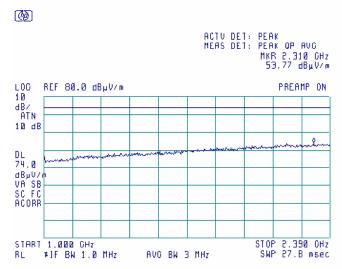


Plot 7.14.92 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.785 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





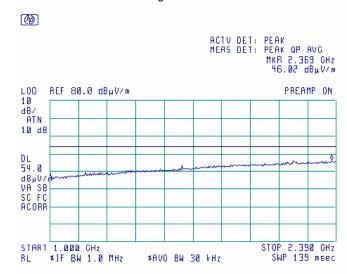
Test specification:	Section 15.407(b), Unwai	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4			
Test mode:	Compliance	Verdict: PASS			
Date:	07/04/2006	verdict.	FASS		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.14.93 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.785 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Average

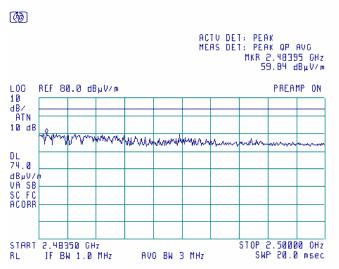


Plot 7.14.94 Radiated emission measurements from 2.4835 to 2.5GHz at the 5.785 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





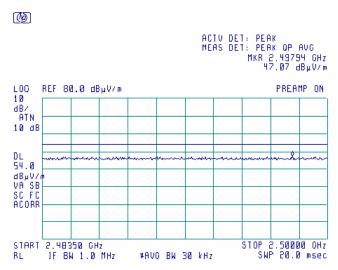
Test specification:	Section 15.407(b), Unwai	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4			
Test mode:	Compliance	Verdict: PASS			
Date:	07/04/2006				
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.14.95 Radiated emission measurements from 2.4835 to 2.5GHz at the 5.785 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Average

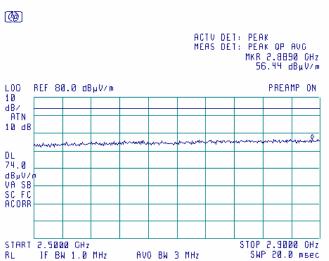


Plot 7.14.96 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.785 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





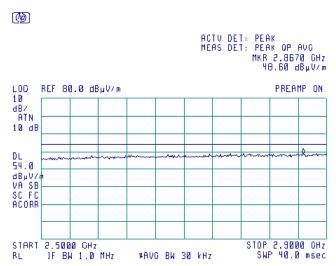
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.97 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.785 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

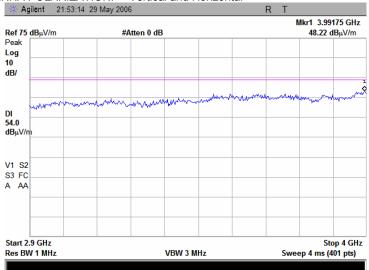
DETECTOR: Average



Plot 7.14.98 Radiated emission measurements from 2.9 to 4.0 GHz at the 5.785 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m



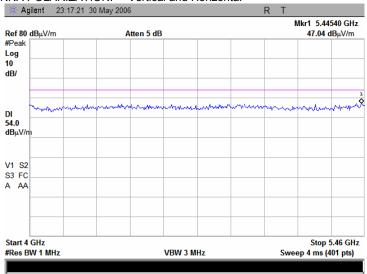


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.99 Radiated emission measurements from 4.0 to 5.46 GHz at the 5.785 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

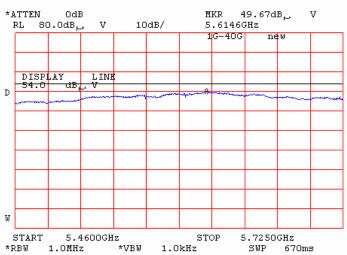


Plot 7.14.100 Radiated emission measurements from 5.46 to 5.725 GHz at the 5.785 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



Note: Outside restricted band range (between 5460 MHz and 7250 MHz) the limit is $78.23~dB\mu V/m$ between 5.715 GHz and 5.725 GHz; $68.23~dB\mu V/m$ below 5.715 GHz

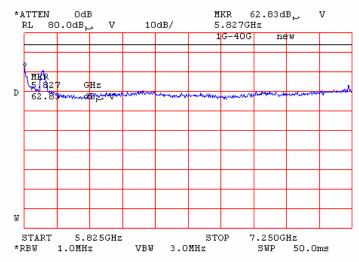


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict:	PASS	
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.101 Radiated emission measurements from 5.825 to 7.25 GHz at the 5.785 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



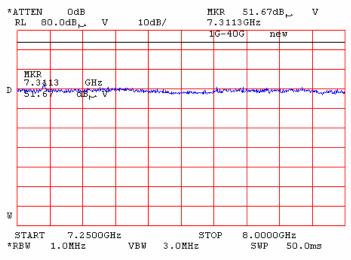
Note: Outside restricted band range (between 5460 MHz and 7250 MHz) the limit is $78.23~dB\mu V/m$ between 5.825~GHz and 5.835~GHz; $68.23~dB\mu V/m$ above 5.835~GHz

Plot 7.14.102 Radiated emission measurements from 7.25 to 8 GHz at the 5.785GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





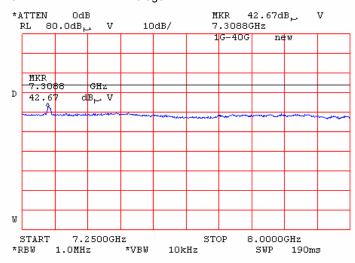
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.103 Radiated emission measurements from 7.25 to 8 GHz at the 5.785GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Average

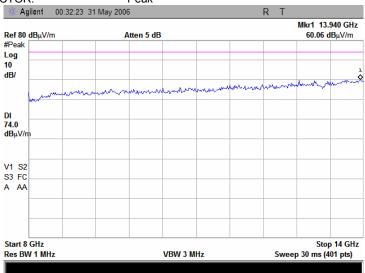


Plot 7.14.104 Radiated emission measurements from 8 to 14 GHz at the 5.785 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





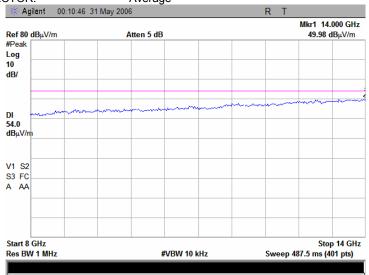
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.105 Radiated emission measurements from 8 to 14 GHz at the 5.785 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

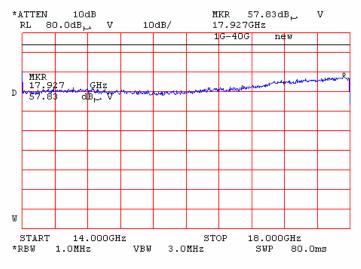
DETECTOR: Average



Plot 7.14.106 Radiated emission measurements from 14 to 18 GHz at the 5.785GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



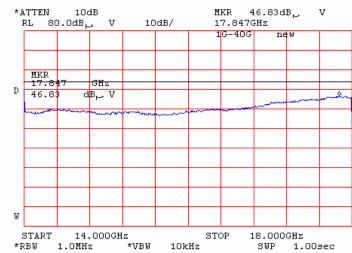


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.107 Radiated emission measurements from 14 to 18 GHz at the 5.785GHz carrier frequency

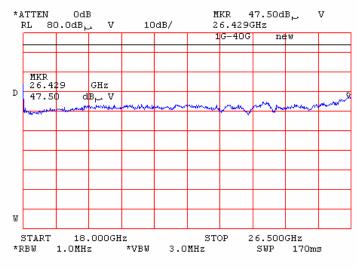
ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Average



Plot 7.14.108 Radiated emission measurements from 18 to 26.5 GHz at the 5.785GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

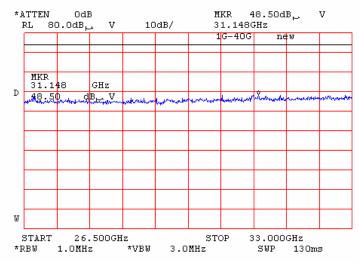




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

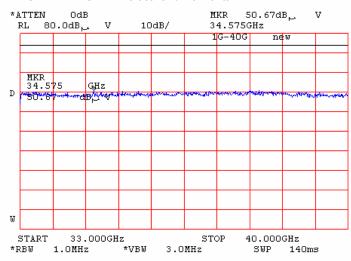
Plot 7.14.109 Radiated emission measurements from 26.5 to 33 GHz at the 5.785GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.14.110 Radiated emission measurements from 33 to 40 GHz at the 5.785GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m





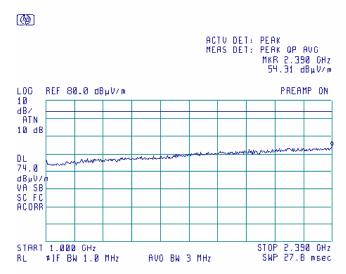
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.111 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.805 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

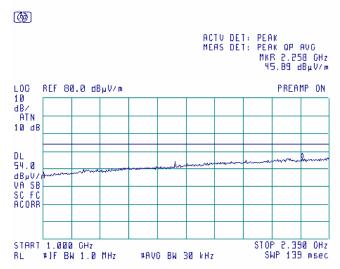


Plot 7.14.112 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.805 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





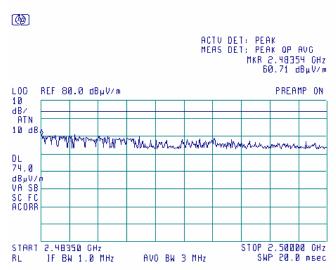
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.113 Radiated emission measurements from 2.4835 to 2.5GHz at the 5.805 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

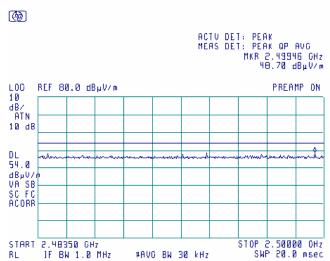


Plot 7.14.114 Radiated emission measurements from 2.4835 to 2.5GHz at the 5.805 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





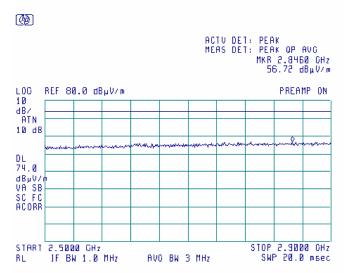
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.115 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.805 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

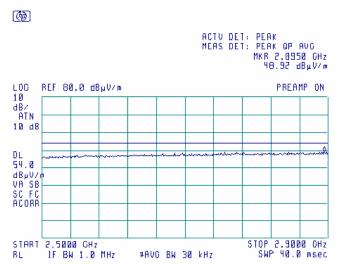


Plot 7.14.116 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.805 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



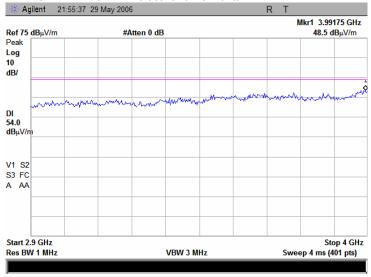


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.117 Radiated emission measurements from 2.9 to 4.0 GHz at the 5.805 GHz carrier frequency

TEST DISTANCE: 3 m

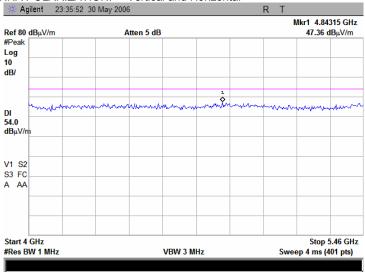
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.14.118 Radiated emission measurements from 4.0 to 5.46 GHz at the 5.805 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m



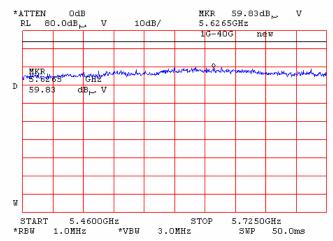




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.119 Radiated emission measurements from 5.46 to 5.725 GHz at the 5.805 GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal

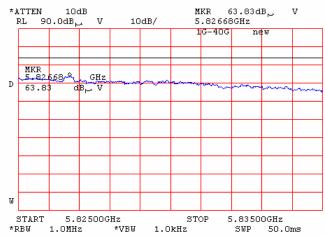


Note: Outside restricted band range (between 5460 MHz and 7250 MHz) the limit is $78.23 \text{ dB}\mu\text{V/m}$ between 5.715 GHz and 5.725 GHz; $68.23 \text{ dB}\mu\text{V/m}$ below 5.715 GHz

Plot 7.14.120 Radiated emission measurements from 5.825 to 5.835 GHz at the 5.805 GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



Note: Outside restricted band range (between 5460 MHz and 7250 MHz) the limit is 78.23 dB μ V/m between 5.825 GHz and 5.835 GHz.. Settings: RBW = 1 MHz, VBW \geq 1 / Ton = 1 / 2.1ms = 470 Hz \rightarrow VBW = 1 kHz

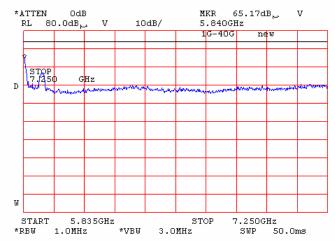


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.121 Radiated emission measurements from 5.835 to 7.25 GHz at the 5.805 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

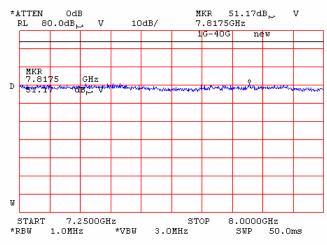


Note: Outside restricted band range (between 5460 MHz and 7250 MHz) the limit is $68.23~\text{dB}\mu\text{V/m}$ above 5.835~GHz

Plot 7.14.122 Radiated emission measurements from 7.25 to 8.0 GHz at the 5.805GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





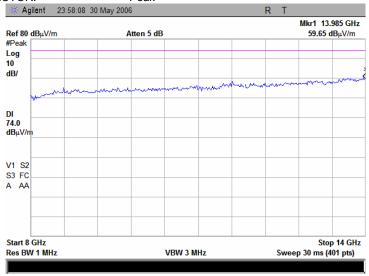
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.123 Radiated emission measurements from 8 to 14 GHz at the 5.805GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

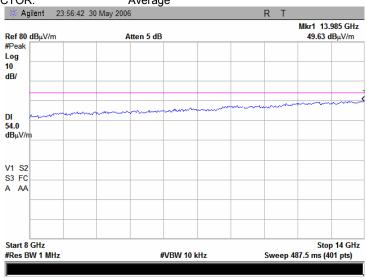


Plot 7.14.124 Radiated emission measurements from 8 to 14 GHz at the 5.805GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





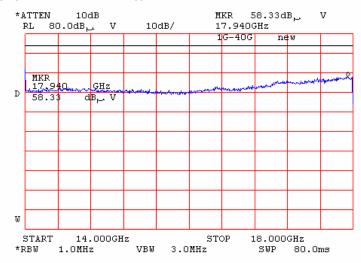
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.125 Radiated emission measurements from 14 to 18 GHz at the 5.805GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

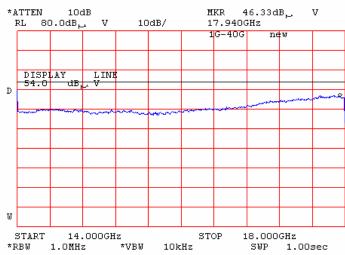


Plot 7.14.126 Radiated emission measurements from 14 to 18 GHz at the 5.805GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

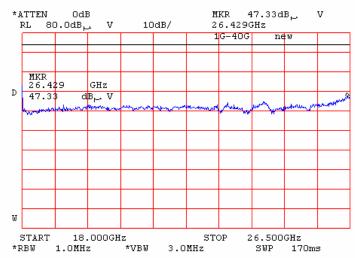




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

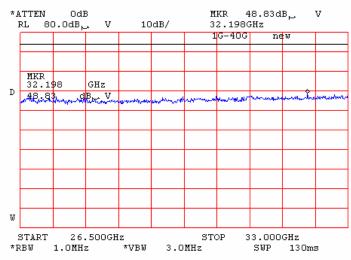
Plot 7.14.127 Radiated emission measurements from 18 to 26.5 GHz at the 5.805GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.14.128 Radiated emission measurements from 26.5 to 33 GHz at the 5.805GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

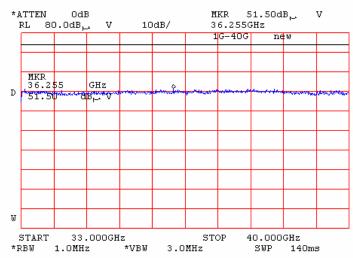




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

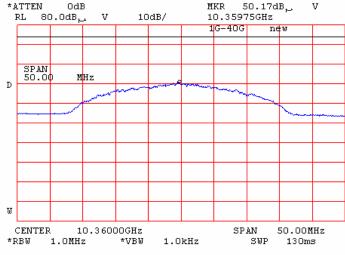
Plot 7.14.129 Radiated emission measurements from 33 to 40 GHz at the 5.805GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.14.130 Radiated emission measurements at the second harmonic of 5.18GHz carrier frequency

TEST SITE: OATS
TEST DISTANCE: 3 m





Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.14.131 Radiated emission measurements at the second harmonic of 5.26GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m 46.33dB *ATTEN OdB MKR RL 80.0dB 10dB/ 10.51975GHz 1G-40G new CENTER 10.52000 GHz D 50.00MHz CENTER 10.52000GHz SPAN

Note: outside restricted band emission, limit 68.23 dB μ V/m

*RBW

Plot 7.14.132 Radiated emission measurements at the second harmonic of 5.32GHz carrier frequency

1.0kHz

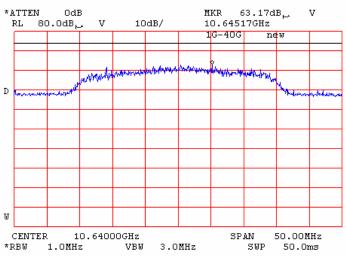
*VBW

SWP

130ms

TEST SITE: OATS
TEST DISTANCE: 3 m
DETECTOR: Peak

1.0MHz

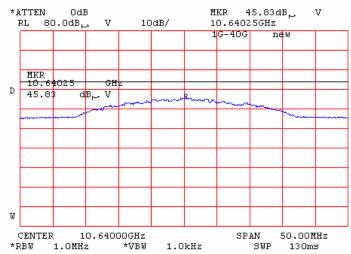




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

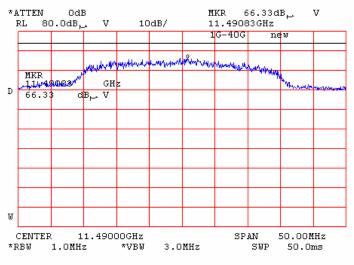
Plot 7.14.133 Radiated emission measurements at the second harmonic of 5.32GHz carrier frequency

TEST SITE: OATS
TEST DISTANCE: 3 m
DETECTOR: Average



Plot 7.14.134 Radiated emission measurements at the second harmonic of 5.745GHz carrier frequency

TEST SITE: OATS
TEST DISTANCE: 3 m
DETECTOR: Peak

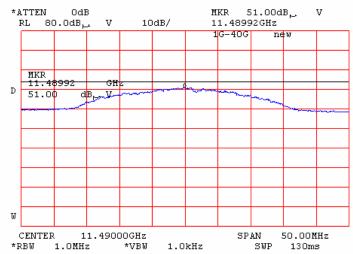




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

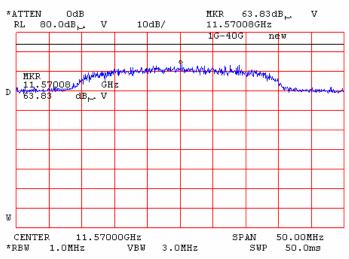
Plot 7.14.135 Radiated emission measurements at the second harmonic of 5.745GHz carrier frequency

TEST SITE: OATS
TEST DISTANCE: 3 m
DETECTOR: Average



Plot 7.14.136 Radiated emission measurements at the second harmonic of 5.785GHz carrier frequency

TEST SITE: OATS
TEST DISTANCE: 3 m
DETECTOR: Peak



V



TEST SITE:

TEST SITE:

TEST DISTANCE:

Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions				
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4				
Test mode:	Compliance	Verdict: PASS				
Date:	07/04/2006					
Temperature: 23 °C	Air Pressure: 1010 hPa	Air Pressure: 1010 hPa Relative Humidity: 45% Power Supply: 48 VDC				
Remarks: 802.11 a and 802.11 b/g						

Plot 7.14.137 Radiated emission measurements at the second harmonic of 5.785GHz carrier frequency

TEST DISTANCE: 3 m DETECTOR: Average *ATTEN OdB 49.50dB RL 80.0dB 11.56800GHz V 10dB/ 1G-40G MKR 11.5 6800 49.50 dB_{ry} V

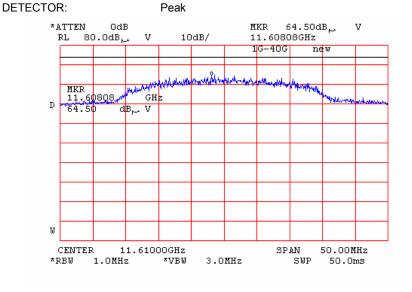
OATS

Plot 7.14.138 Radiated emission measurements at the second harmonic of 5.805GHz carrier frequency

OATS

3 m

new CENTER 11.57000GHz SPAN 50.00MHz *RBW 1.0MHz *VBW 1.0kHz SWP 130ms

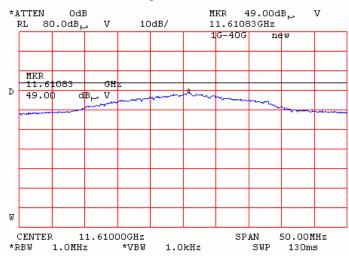




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions				
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4				
Test mode:	Compliance	Verdict: PASS				
Date:	07/04/2006	Verdict: PASS				
Temperature: 23 °C	Air Pressure: 1010 hPa	Air Pressure: 1010 hPa Relative Humidity: 45% Power Supply: 48 VDC				
Remarks: 802.11 a and 802.11 b/g						

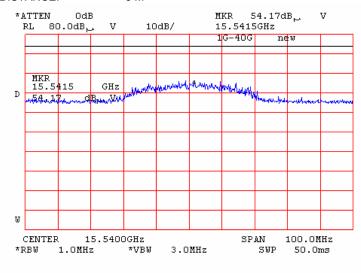
Plot 7.14.139 Radiated emission measurements at the second harmonic of 5.805GHz carrier frequency

TEST SITE: OATS
TEST DISTANCE: 3 m
DETECTOR: Average



Plot 7.14.140 Radiated emission measurements at the third harmonic of 5.18GHz carrier frequency

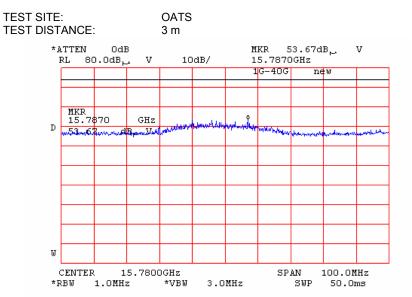
TEST SITE: OATS TEST DISTANCE: 3 m



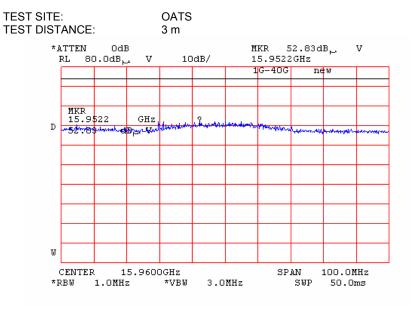


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions				
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4				
Test mode:	Compliance	Verdict: PASS				
Date:	07/04/2006	Verdict: PASS				
Temperature: 23 °C	Air Pressure: 1010 hPa	Air Pressure: 1010 hPa Relative Humidity: 45% Power Supply: 48 VDC				
Remarks: 802.11 a and 802.11 b/g						

Plot 7.14.141 Radiated emission measurements at the third harmonic of 5.26GHz carrier frequency



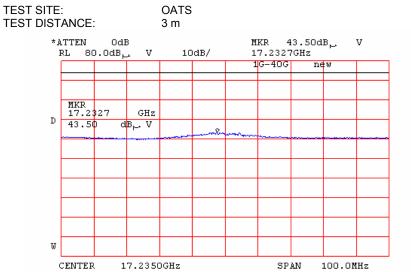
Plot 7.14.142 Radiated emission measurements at the third harmonic of 5.32GHz carrier frequency





Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions				
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4				
Test mode:	Compliance	Verdict: PASS				
Date:	07/04/2006	Verdict: PASS				
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC			
Remarks: 802.11 a and 802.11 b/g						

Plot 7.14.143 Radiated emission measurements at the third harmonic of 5.745GHz carrier frequency



Plot 7.14.144 Radiated emission measurements at the third harmonic of 5.785GHz carrier frequency

1.0kHz

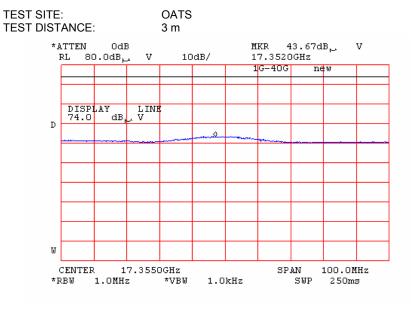
*VBW

1.0MHz

*RBW

SWP

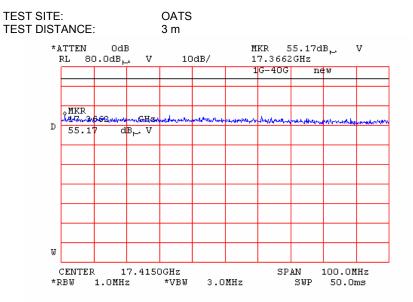
250ms



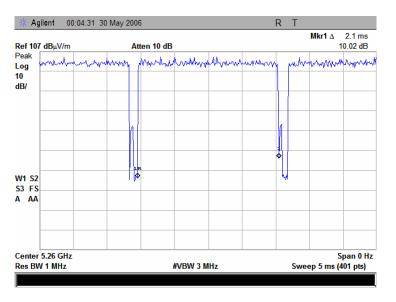


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions				
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4				
Test mode:	Compliance	Verdict: PASS				
Date:	07/04/2006	Verdict: PASS				
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC			
Remarks: 802.11 a and 802.11 b/g						

Plot 7.14.145 Radiated emission measurements at the third harmonic of 5.805GHz carrier frequency



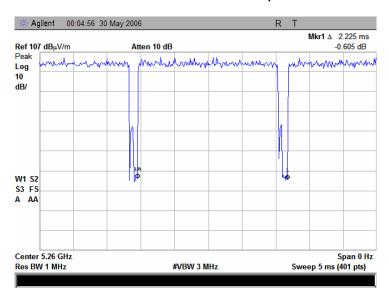
Plot 7.14.146 Transmission burst duration





Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions				
Test procedure:	Public notice DA 00-705/47 0	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4				
Test mode:	Compliance	Verdict: PASS				
Date:	07/04/2006	verdict.	FASS			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC			
Remarks: 802.11 a and 802.11 b/g						

Plot 7.14.147 Transmission burst period



Report ID: MOBRAD_FCC.17138_407.doc Date of Issue: July 2006



Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions				
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4				
Test mode:	Compliance	Verdict: PASS				
Date:	07/04/2006	verdict.	FASS			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC			
Remarks: 802.11 a, 802.11 b/g and CELL/PCS						

7.15 Field strength of spurious emissions, 802.11 a, 802.11 b/g and CELL/PCS

7.15.1 General

This test was performed to measure field strength of spurious emissions from the EUT. Specification test limits are given in Table 7.15.1.

Table 7.15.1 Radiated spurious emissions limits below 1 GHz and within restricted bands above 1 GHz

Frequency, MHz	Field strength at 3 m, dB(μV/m)***			
rrequericy, wiriz	Peak	Quasi Peak	Average	
0.009 - 0.490*		128.5 – 93.8**		
0.490 - 1.705*		73.8 – 63.0**		
1.705 – 30.0*		69.5**		
30 – 88	NA	40.0	NA	
88 – 216		43.5		
216 – 960		46.0		
960 - 1000	1	54.0		
Above 1000	74.0	NA	54.0	

^{*-} The limit for 3 m test distance was calculated using the inverse square distance extrapolation factor as follows: LimS2 = LimS1 + 40 log (S1/S2),

where S1 and S2 – standard defined and test distance respectively in meters.

Table 7.15.2 EIRP of undesirable emissions limits outside restricted bands (above 1 GHz)

Frequency band, GHz	Out of band EIRP, dBm/MHz	Field strength at 3 m, dB(μV/m)
5.15 – 5.25		
5.25 – 5.35	-27	68.23
5.47 – 5.725		
5.725 – 5.825	-27 (below 5.715 and above 5.835 GHz)	68.23
3.723 = 3.823	-17 (in 5.715 – 5.725 GHz and 5.825 – 5.835 GHz)	78.23

7.15.2 Test procedure for spurious emission field strength measurements in 9 kHz to 30 MHz band

- 7.15.2.1 The EUT was set up as shown in Figure 7.13.1, energized and the performance check was conducted.
- **7.15.2.2** The specified frequency range was investigated with antenna connected to spectrum analyzer/ EMI receiver. To find maximum radiation the turntable was rotated 360⁰ and the measuring antenna was rotated around its vertical axis.
- 7.15.2.3 The worst test results (the lowest margins) were recorded and shown in the associated plots.

7.15.3 Test procedure for spurious emission field strength measurements above 30 MHz

- 7.15.3.1 The EUT was set up as shown in Figure 7.13.2, energized and the performance check was conducted.
- 7.15.3.2 The specified frequency range was investigated with antenna connected to spectrum analyzer/ EMI receiver. To find maximum radiation the turntable was rotated 360°, the measuring antenna height was changed from 1 to 4 m, its polarization was switched from vertical to horizontal.
- 7.15.3.3 The worst test results (the lowest margins) were recorded and shown in the associated plots.

^{**-} The limit decreases linearly with the logarithm of frequency.

^{*** -} The field strength limits applied from the lowest radio frequency generated in the device, without going below 9 kHz up to the tenth harmonic of the highest fundamental frequency.



Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions				
Test procedure:	Public notice DA 00-705/47 0	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4				
Test mode:	Compliance	Verdict: PASS				
Date:	07/04/2006	Verdict: PASS				
Temperature: 23 °C	Air Pressure: 1010 hPa	Air Pressure: 1010 hPa Relative Humidity: 45% Power Supply: 48 VDC				
Remarks: 802.11 a, 802.11 b/g and CELL/PCS						

Figure 7.15.1 Setup for spurious emission field strength measurements below 30 MHz

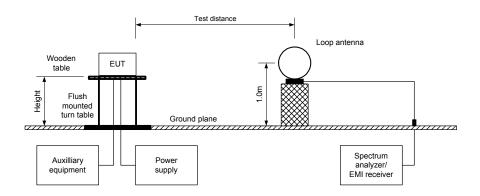
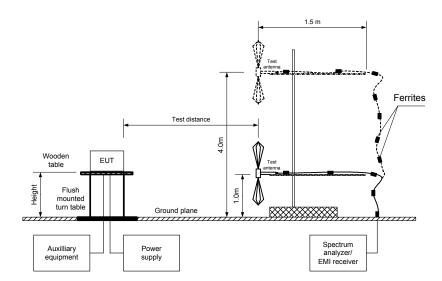


Figure 7.15.2 Setup for spurious emission field strength measurements above 30 MHz





Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/ 47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4			
Test mode:	Compliance	Verdict: PASS			
Date:	07/04/2006	verdict.	FASS		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC		
Remarks: 802.11 a, 802.11 b/g and CELL/PCS					

Table 7.15.3 Field strength of emissions outside restricted bands

ASSIGNED FREQUENCY: 5.12-5.35GHz, 5.725-5.825GHz

INVESTIGATED FREQUENCY RANGE: 0.009 - 40GHz

TEST DISTANCE: 3 m
MODULATION: OFDM

MODULATING SIGNAL: CCK and BPSK

BIT RATE: 1 Mbps
TRANSMITTER OUTPUT POWER SETTINGS: Maximum
DETECTOR: USED: Peak
RESOLUTION BANDWIDTH: 1000 kHz
VIDEO BANDWIDTH: 1 kHz

TEST ANTENNA TYPE:

Active loop (9 kHz – 30 MHz)

Biconilog (30 MHz – 1000 MHz)

Double ridged guide (above 1000 MHz)

	200010 110god galaa (00010 1100 111 12)						
Frequency, MHz	Antenna polarization	Antenna height, m	Azimuth, degrees*	Field strength of spurious, dB(μV/m)	Limit, dBµV/m	Margin, dB**	Verdict
5.26 GHz carrie	r frequency						
5150.0	V	1.0	180	51.00	68.23	-17.23	Pass
10360.0	V	1.2	160	50.50	68.23	-17.73	Pass
5.32 GHz carrie	r frequency						
5350	V	1	230	57.67	68.23	-10.56	Pass
10520.0	V	1.2	223	47.00	68.23	-21.23	Pass
5.745 GHz carri	er frequency						
5725.00	V	1.2	140	66.00	68.23	-2.23	Pass
5.785 GHz carri	er frequency						
5827.0	V	1.2	180	62.83	68.23	-5.40	Pass
5.805 GHz carri	er frequency						
5826.6	V	1.1	90	63.83	78.23	-14.37	Pass
5840.0	V	1.2	100	62.50	78.23	-15.73	Pass

^{*-} EUT front panel refers to 0 degrees position of turntable.

Table 7.15.4 Restricted bands

MHz	MHz	MHz	MHz	MHz	GHz
0.09 - 0.11	8.37625 - 8.38675	73 - 74.6	399.9 - 410	2690 - 2900	10.6 - 12.7
0.495 - 0.505	8.41425 - 8.41475	74.8 - 75.2	608 - 614	3260 - 3267	13.25 - 13.4
2.1735 - 2.1905	12.29 - 12.293	108 - 121.94	960 - 1240	3332 - 3339	14.47 - 14.5
4.125 - 4.128	12.51975 - 12.52025	123 - 138	1300 - 1427	3345.8 - 3358	15.35 - 16.2
4.17725 - 4.17775	12.57675 - 12.57725	149.9 - 150.05	1435 - 1626.5	3600 - 4400	17.7 - 21.4
4.20725 - 4.20775	13.36 - 13.41	156.52475 - 156.52525	1645.5 - 1646.5	4500 - 5150	22.01 - 23.12
6.215 - 6.218	16.42 - 16.423	156.7 - 156.9	1660 - 1710	5350 - 5460	23.6 - 24
6.26775 - 6.26825	16.69475 - 16.69525	162.0125 - 167.17	1718.8 - 1722.2	7250 - 7750	31.2 - 31.8
6.31175 - 6.31225	16.80425 - 16.80475	167.72 - 173.2	2200 - 2300	8025 - 8500	36.43 - 36.5
8.291 - 8.294	25.5 - 25.67	240 - 285	2310 - 2390	9000 - 9200	Above 38.6
8.362 - 8.366	37.5 - 38.25	322 - 335.4	2483.5 - 2500	9300 - 9500	Above 36.0

^{**-} Margin = Attenuation below carrier – specification limit.





Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4			
Test mode:	Compliance	Verdict: PASS			
Date:	07/04/2006	verdict.	FASS		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC		
Remarks: 802.11 a, 802.11 b/g and CELL/PCS					

Table 7.15.5 Field strength of spurious emissions within restricted bands

ASSIGNED FREQUENCY: 5.12-5.35GHz, 5.725-5.825GHz

INVESTIGATED FREQUENCY RANGE: 1000 - 40000 MHz

TEST DISTANCE: 3 m
MODULATION: OFDM

MODULATING SIGNAL: CCK and BPSK

MODULATING SIGNAL:

BIT RATE:

TRANSMITTER OUTPUT POWER SETTINGS:

DETECTOR USED:

RESOLUTION BANDWIDTH:

PRBS

1 Mbps

Maximum

Peak

1000 kHz

TEST ANTENNA TYPE: Double ridged guide

ILOI ANI		NATTI E. Double haged galde								
Erogueney	Antenna Azim			Peak field s	Peak field strength(VBW=3 MHz) Average field strength (VBW=1KHz)			(VBW=1KHz)		
Frequency, MHz	Polarization	Height, m	Azimuth, degrees*	Measured, dB(μV/m)	Limit, dB(μV/m)	• · · ·	Measured, dB(μV/m)	Limit, dB(μV/m)	Margin, dB***	Verdict
5.18 GHz c	arrier freque	ncy								
5150	V	1.2	230	68.67	74.00	-5.33	51.00	54.00	-3.00	Pass
5.32 GHz o	arrier freque	ncy								
10640	V	1.5	190	62.83	74.00	-11.17	49.67	54.00	-4.33	Pass
5.745 GHz	carrier frequ	ency								
11490	V	1.2	200	67.00	74.00	-7.00	51.00	54.00	-3.00	Pass
5.785 GHz carrier frequency										
11570	V	1.2	150	65.17	74.00	-8.83	51.00	54.00	-3.00	Pass
5.805 GHz	5.805 GHz carrier frequency									
11610	V	1.5	220	66.17	74.00	-7.83	50.17	54.00	-3.83	Pass

^{*-} Margin = Measured emission - specification limit.

Reference numbers of test equipment used

HL 0446	_							1	
TIE 0440			HI 0521	HI 0580	HI USUA	LI 109∕I	⊔I 10/17	HI 2000	
		112 0440	111 0321	11L 0309	11L 000 4	11L 130 4	1111 1341	11L 2009	

Full description is given in Appendix A.

^{**-} EUT front panel refer to 0 degrees position of turntable.

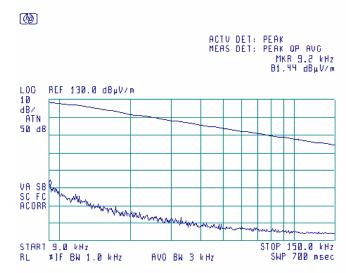


Test specification:	Section 15.407(b), Unwai	Section 15.407(b), Unwanted radiated emissions				
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4				
Test mode:	Compliance	Verdict: PASS				
Date:	07/04/2006	verdict.	FASS			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC			
Remarks: 802.11 a, 802.11 b/g and CELL/PCS						

Plot 7.15.1 Radiated emission measurements from 9 to 150 kHz at the 5.18GHz carrier frequency

TEST DISTANCE: 3 m

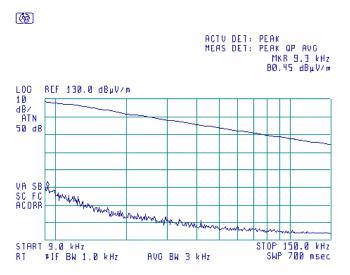
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.15.2 Radiated emission measurements from 9 to 150 kHz at the 5.26GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m



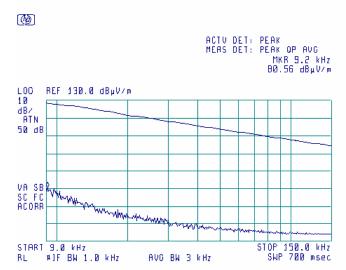


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions				
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4				
Test mode:	Compliance	Verdict: PASS				
Date:	07/04/2006	verdict.	PASS			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC			
Remarks: 802.11 a, 802.11 b/g and CELL/PCS						

Plot 7.15.3 Radiated emission measurements from 9 to 150 kHz at the 5.32GHz carrier frequency

TEST DISTANCE: 3 m

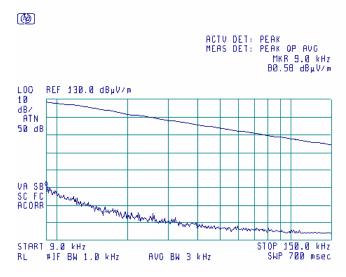
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.15.4 Radiated emission measurements from 9 to 150 kHz at the 5.745GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m



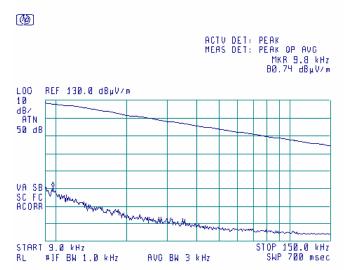


Test specification:	Section 15.407(b), Unwai	Section 15.407(b), Unwanted radiated emissions				
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4				
Test mode:	Compliance	Verdict: PASS				
Date:	07/04/2006	verdict.	PASS			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC			
Remarks: 802.11 a, 802.11 b/g and CELL/PCS						

Plot 7.15.5 Radiated emission measurements from 9 to 150 kHz at the 5.785GHz carrier frequency

TEST DISTANCE: 3 m

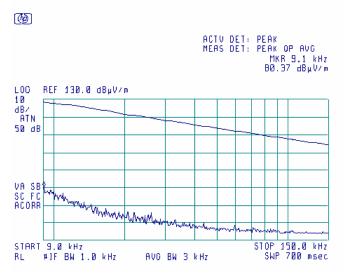
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.15.6 Radiated emission measurements from 9 to 150 kHz at the 5.805GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m



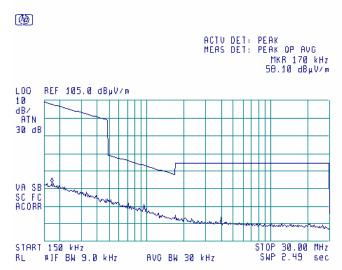


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions				
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4				
Test mode:	Compliance	Verdict: PASS				
Date:	07/04/2006	verdict.	PASS			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC			
Remarks: 802.11 a, 802.11 b/g and CELL/PCS						

Plot 7.15.7 Radiated emission measurements from 0.15 to 30 MHz at the 5.18GHz carrier frequency

TEST DISTANCE: 3 m

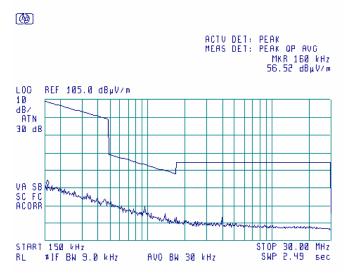
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.15.8 Radiated emission measurements from 0.15 to 30 MHz at the 5.26GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m



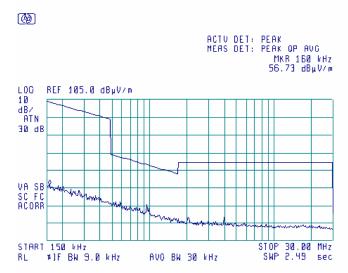


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions				
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4				
Test mode:	Compliance	Verdict: PASS				
Date:	07/04/2006	verdict.	PASS			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC			
Remarks: 802.11 a, 802.11 b/g and CELL/PCS						

Plot 7.15.9 Radiated emission measurements from 0.15 to 30 MHz at the 5.32GHz carrier frequency

TEST DISTANCE: 3 m

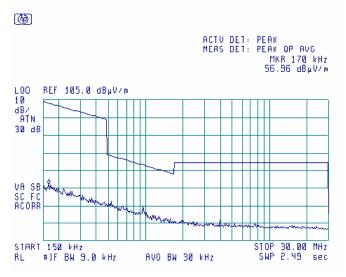
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.15.10 Radiated emission measurements from 0.15 to 30 MHz at the 5.745GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m



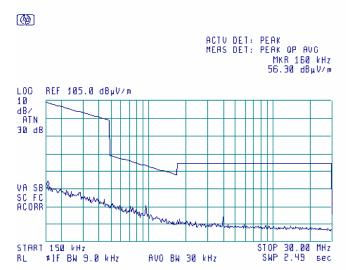


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions				
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4				
Test mode:	Compliance	Verdict: PASS				
Date:	07/04/2006	verdict.	PASS			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC			
Remarks: 802.11 a, 802.11 b/g and CELL/PCS						

Plot 7.15.11 Radiated emission measurements from 0.15 to 30 MHz at the 5.785GHz carrier frequency

TEST DISTANCE: 3 m

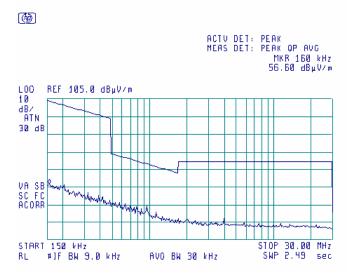
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.15.12 Radiated emission measurements from 0.15 to 30 MHz at the 5.805GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m



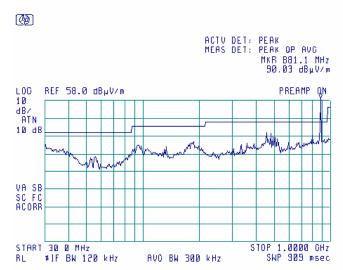


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions				
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4				
Test mode:	Compliance	Verdict: PASS				
Date:	07/04/2006	verdict.	PASS			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC			
Remarks: 802.11 a, 802.11 b/g and CELL/PCS						

Plot 7.15.13 Radiated emission measurements from 30 to 1000 MHz at the 5.18GHz carrier frequency

TEST DISTANCE: 3 m

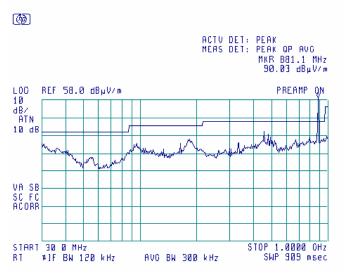
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.15.14 Radiated emission measurements from 30 to 1000 MHz at the 5.26GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m



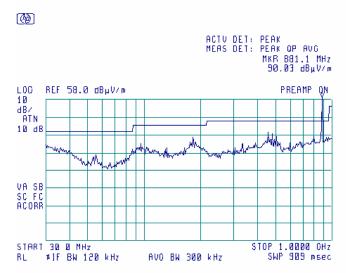


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions				
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4				
Test mode:	Compliance	Verdict: PASS				
Date:	07/04/2006	verdict.	PASS			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC			
Remarks: 802.11 a, 802.11 b/g and CELL/PCS						

Plot 7.15.15 Radiated emission measurements from 30 to 1000 MHz at the 5.32GHz carrier frequency

TEST DISTANCE: 3 m

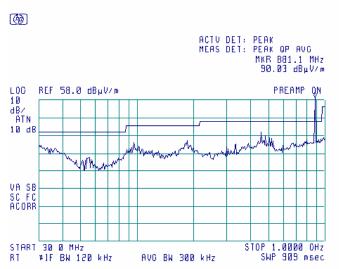
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.15.16 Radiated emission measurements from 30 to 1000 MHz at the 5.745GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m



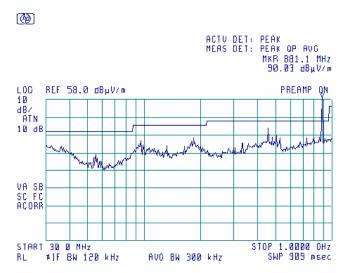


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.17 Radiated emission measurements from 30 to 1000 MHz at the 5.785GHz carrier frequency

TEST DISTANCE: 3 m

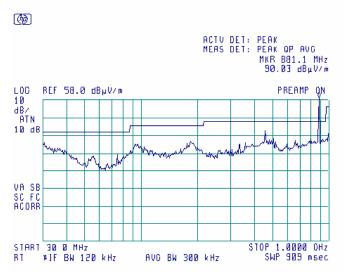
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.15.18 Radiated emission measurements from 30 to 1000 MHz at the 5.805GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m





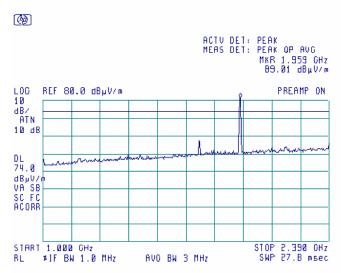
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.19 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.18 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak



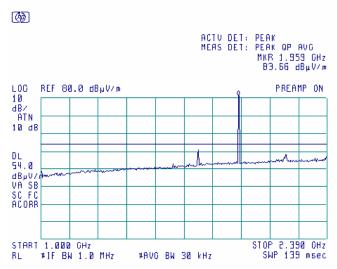
Note: 1960 MHz - intended emission of PCS module, 1763 MHz - second harmonic of CELL module

Plot 7.15.20 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.18 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





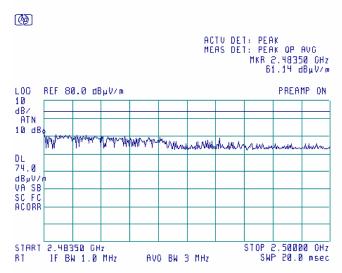
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.21 Radiated emission measurements from 2.4835 to 2.5GHz at the 5.18 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

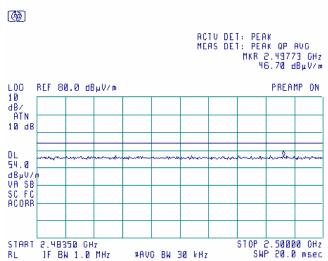


Plot 7.15.22 Radiated emission measurements from 2.4835 to 2.5GHz at the 5.18GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





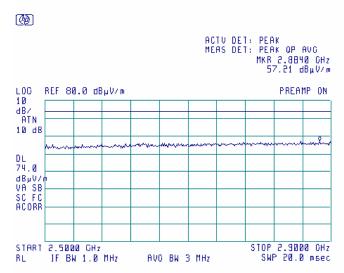
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.23 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.18GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

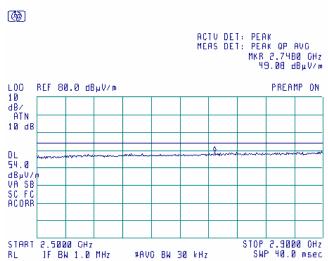


Plot 7.15.24 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.18GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



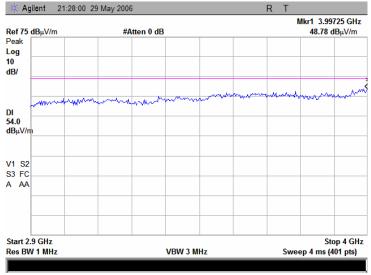


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.25 Radiated emission measurements from 2.9 to 4.0 GHz at the 5.18GHz carrier frequency

TEST DISTANCE: 3 m

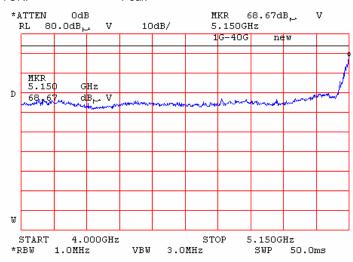
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.15.26 Radiated emission measurements from 4.0 to 5.15 GHz at the 5.18 GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



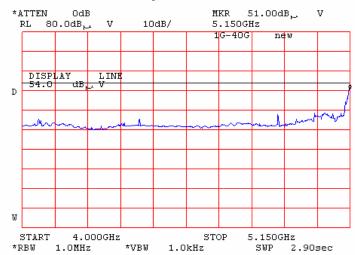


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.27 Radiated emission measurements from 4.0 to 5.15 GHz at the 5.18 GHz carrier frequency

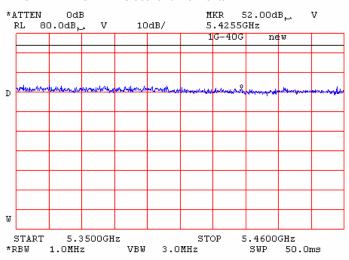
ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: average



Plot 7.15.28 Radiated emission measurements from 5.35 to 5.46 GHz at the 5.18 GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m





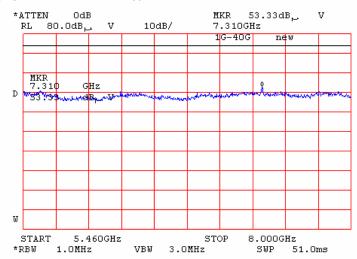
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.29 Radiated emission measurements from 5.46 to 8.0 GHz at the 5.18 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak



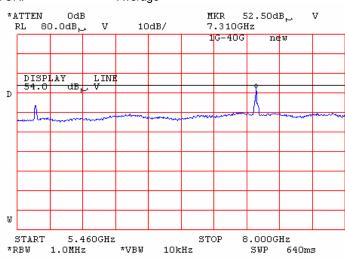
Third harmonic of 802.11b/g 7311MHz

Plot 7.15.30 Radiated emission measurements from 5.46 to 8.0 GHz at the 5.18 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





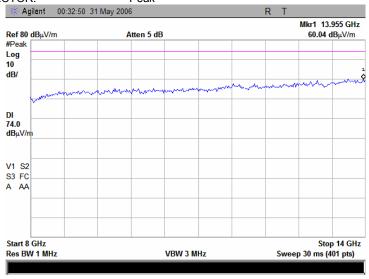
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.31 Radiated emission measurements from 8.0 to 14.0 GHz at the 5.18 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

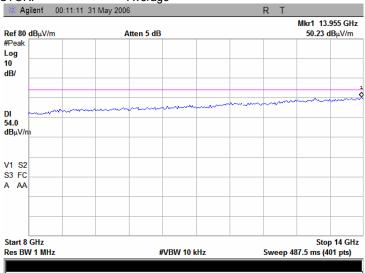


Plot 7.15.32 Radiated emission measurements from 8.0 to 14.0 GHz at the 5.18 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



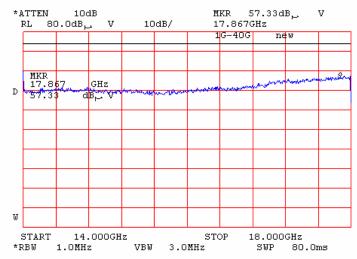


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.33 Radiated emission measurements from 14 to 18 GHz at the 5.18 GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal

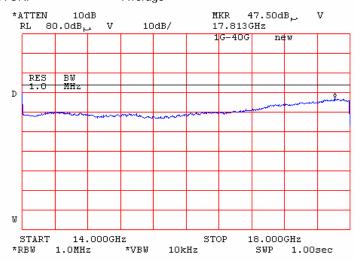
DETECTOR: Peak



Plot 7.15.34 Radiated emission measurements from 14 to 18 GHz at the 5.18GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

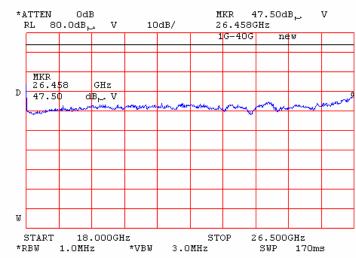




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 0	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

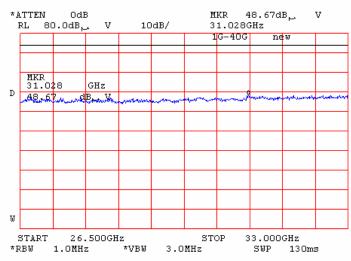
Plot 7.15.35 Radiated emission measurements from 18 to 26.5 GHz at the 5.18GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.15.36 Radiated emission measurements from 26.5 to 33 GHz at the 5.18GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

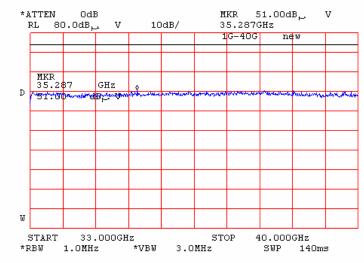




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.37 Radiated emission measurements from 33 to 40 GHz at the 5.18GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal

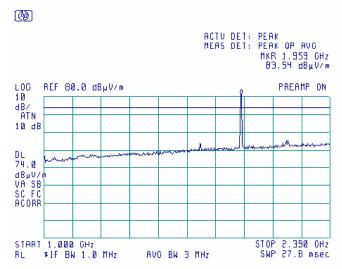


Plot 7.15.38 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.26 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





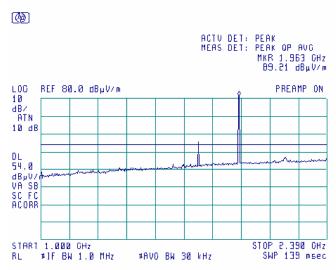
Test specification:	Section 15.407(b), Unwai	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	FASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.39 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.26 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Average

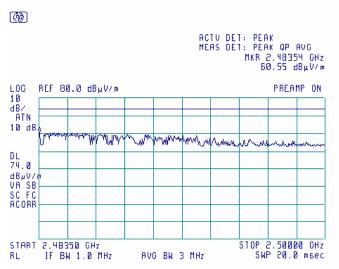


Plot 7.15.40 Radiated emission measurements from 2.4835 to 2.5GHz at the 5.26 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





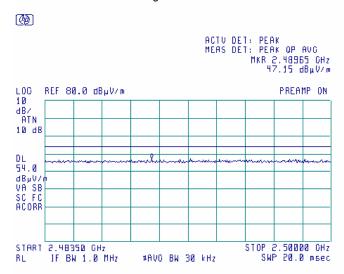
Test specification:	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict:	PASS	
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.41 Radiated emission measurements from 2.4835 to 2.5GHz at the 5.26 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Average

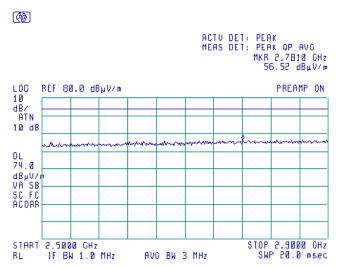


Plot 7.15.42 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.26 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





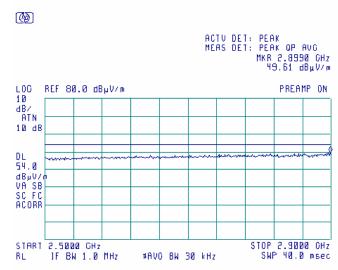
Test specification:	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict:	PASS
Date:	07/04/2006	verdict.	FASS
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC
Remarks: 802.11 a, 802.11 b/g and CELL/PCS			

Plot 7.15.43 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.26 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

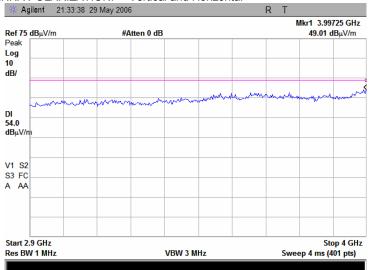
DETECTOR: Average



Plot 7.15.44 Radiated emission measurements from 2.9 to 4.0 GHz at the 5.26 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m



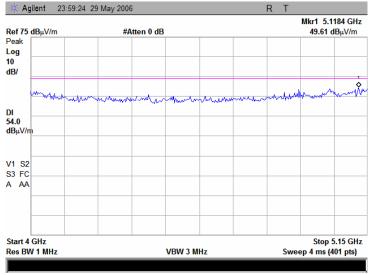


Test specification:	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict:	PASS	
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.45 Radiated emission measurements from 4.0 to 5.15 GHz at the 5.26 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

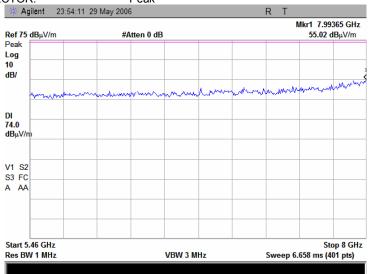


Plot 7.15.46 Radiated emission measurements from 5.46 to 8.0 GHz at the 5.26 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





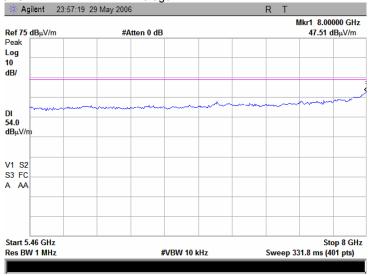
Test specification:	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict:	PASS	
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.47 Radiated emission measurements from 5.46 to 8.0 GHz at the 5.26 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Average

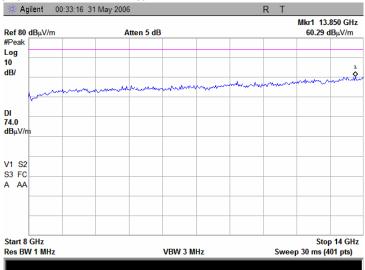


Plot 7.15.48 Radiated emission measurements from 8 to 14 GHz at the 5.26 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





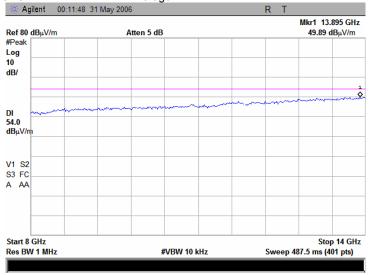
Test specification:	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict:	PASS	
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.49 Radiated emission measurements from 8 to 14 GHz at the 5.26 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

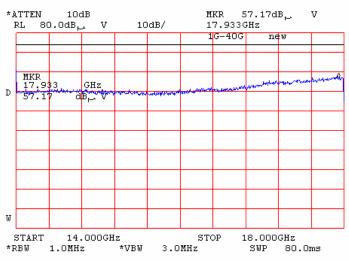
DETECTOR: Average



Plot 7.15.50 Radiated emission measurements from 14 to 18 GHz at the 5.26GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



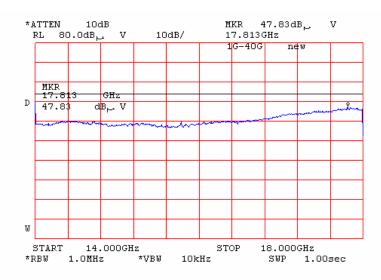


Test specification:	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict:	PASS	
Date:	07/04/2006	verdict.	FASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.51 Radiated emission measurements from 14 to 18 GHz at the 5.26GHz carrier frequency

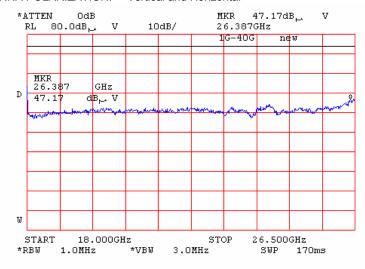
ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Average



Plot 7.15.52 Radiated emission measurements from 18 to 26.5 GHz at the 5.26GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

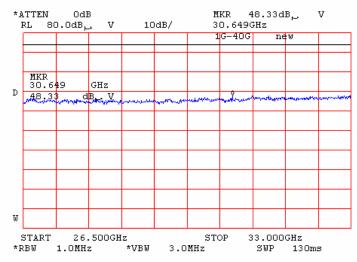




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

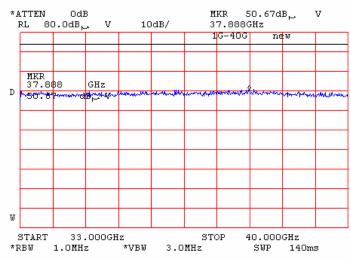
Plot 7.15.53 Radiated emission measurements from 26.5 to 33 GHz at the 5.26GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.15.54 Radiated emission measurements from 33 to 40 GHz at the 5.26GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m





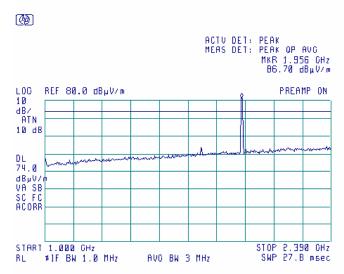
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.55 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.32 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

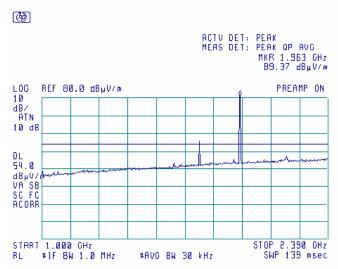


Plot 7.15.56 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.32 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





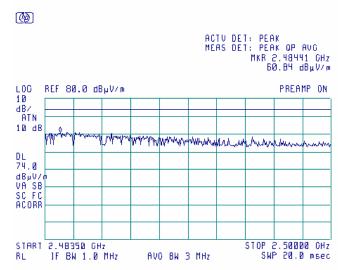
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.57 Radiated emission measurements from 2.4835 to 2.5GHz at the 5.32 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

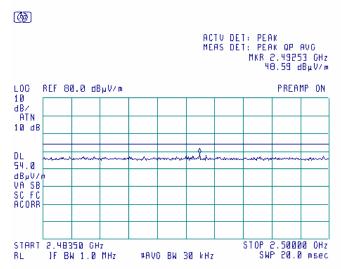


Plot 7.15.58 Radiated emission measurements from 2.4835 to 2.5GHz at the 5.32 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





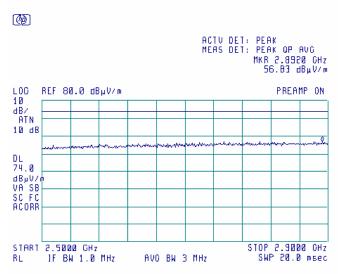
Test specification:	Section 15.407(b), Unwai	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	FASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.59 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.32 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

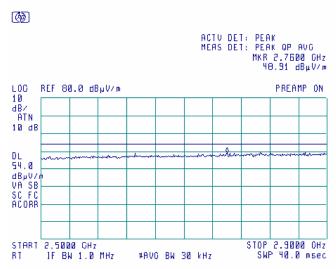


Plot 7.15.60 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.32 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



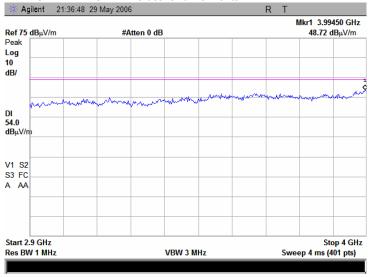


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 0	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.61 Radiated emission measurements from 2.9 to 4.0 GHz at the 5.32 GHz carrier frequency

TEST DISTANCE: 3 m

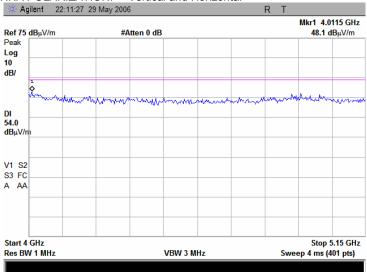
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.15.62 Radiated emission measurements from 4.0 to 5.15 GHz at the 5.32 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

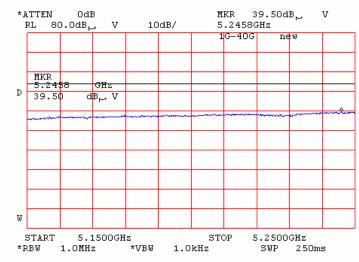




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.63 Radiated emission measurements from 5.15 to 5.25 GHz at the 5.32 GHz carrier frequency

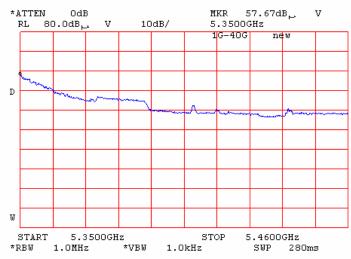
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.15.64 Radiated emission measurements from 5.35 to 5.46 GHz at the 5.32 GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



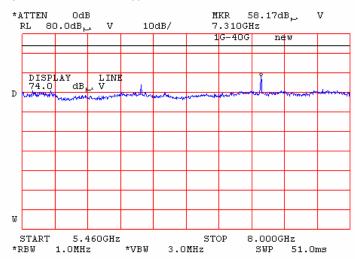


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.65 Radiated emission measurements from 5.46 to 8.0 GHz at the 5.32 GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak



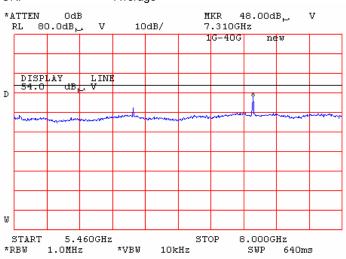
Third harmonic of 802.11b/g 7311MHz

Plot 7.15.66 Radiated emission measurements from 5.46 to 8.0 GHz at the 5.32GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





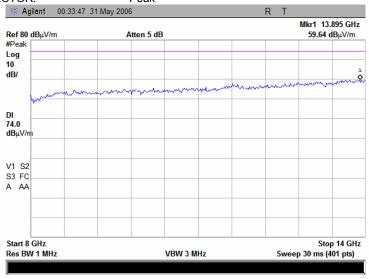
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.67 Radiated emission measurements from 8 to 14 GHz at the 5.32 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

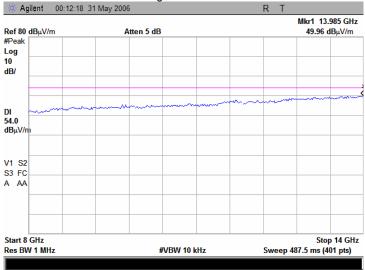


Plot 7.15.68 Radiated emission measurements from 8 to 14 GHz at the 5.32 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





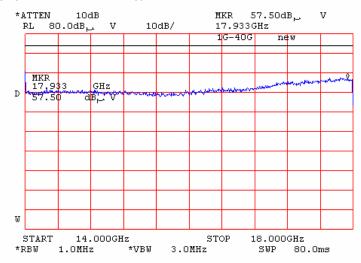
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.69 Radiated emission measurements from 14 to 18 GHz at the 5.32GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

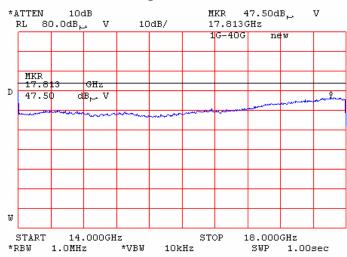
DETECTOR: Peak



Plot 7.15.70 Radiated emission measurements from 14 to 18 GHz at the 5.32GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

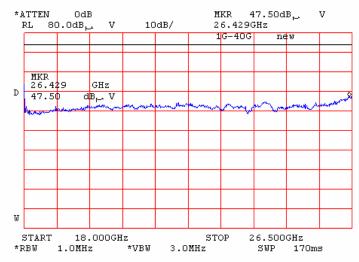




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

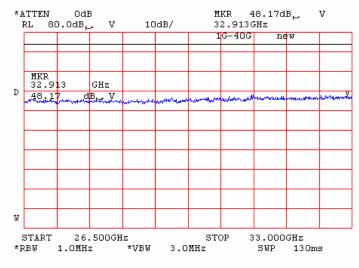
Plot 7.15.71 Radiated emission measurements from 18 to 26.5 GHz at the 5.32GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.15.72 Radiated emission measurements from 26.5 to 33 GHz at the 5.32GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

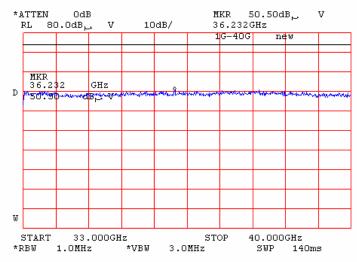




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.73 Radiated emission measurements from 33 to 40 GHz at the 5.32GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal

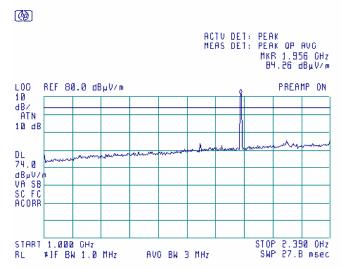


Plot 7.15.74 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.745 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





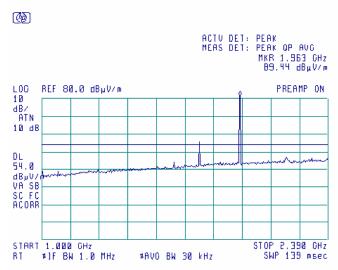
Test specification:	Section 15.407(b), Unwai	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	FASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.75 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.745 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Average

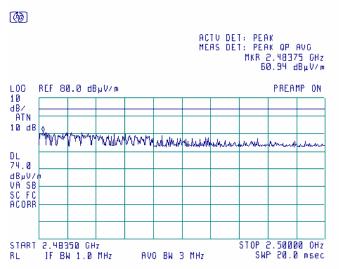


Plot 7.15.76 Radiated emission measurements from 2.4835 to 2.5GHz at the 5.745 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





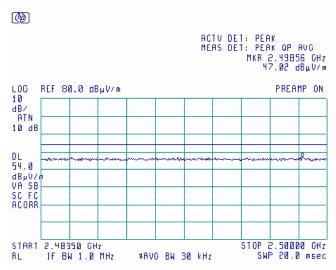
Test specification:	Section 15.407(b), Unwai	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.77 Radiated emission measurements from 2.4835 to 2.5GHz at the 5.745 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Average

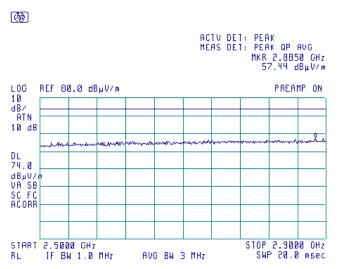


Plot 7.15.78 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.745 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





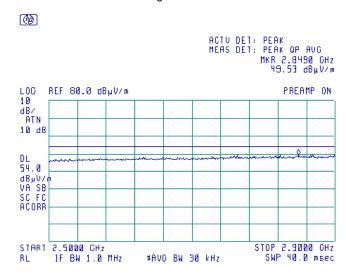
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.79 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.745 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

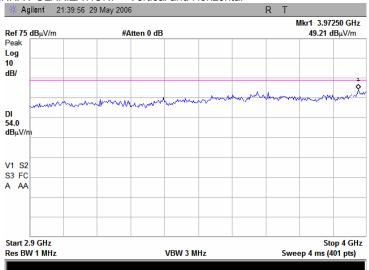
DETECTOR: Average



Plot 7.15.80 Radiated emission measurements from 2.9 to 4.0 GHz at the 5.745 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m



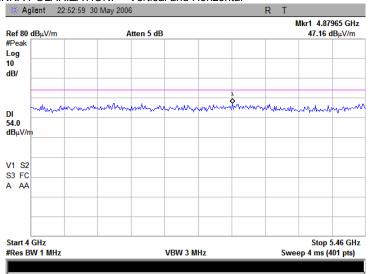


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.81 Radiated emission measurements from 4.0 to 5.46 GHz at the 5.745 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

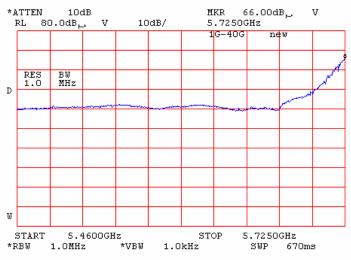


Plot 7.15.82 Radiated emission measurements from 5.46 to 5.725 GHz at the 5.745 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



Note: Outside restricted band range (between 5460 MHz and 7250 MHz) the limit is $78.23~dB\mu V/m$ between 5.715 GHz and 5.725 GHz; $68.23~dB\mu V/m$ below 5.715 GHz



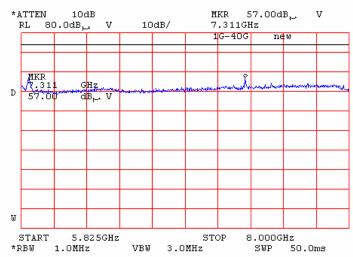
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.83 Radiated emission measurements from 5.825 to 8.0 GHz at the 5.745 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

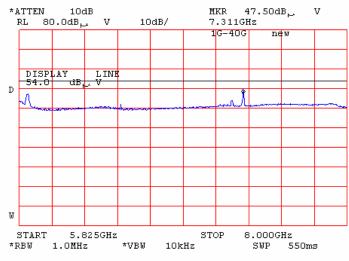


Plot 7.15.84 Radiated emission measurements from 5.825 to 8.0 GHz at the 5.745 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





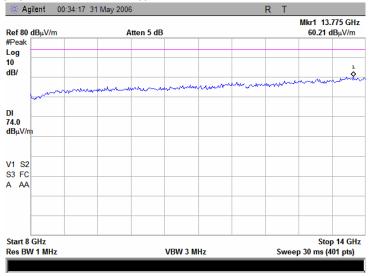
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.85 Radiated emission measurements from 8 to 14 GHz at the 5.745 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

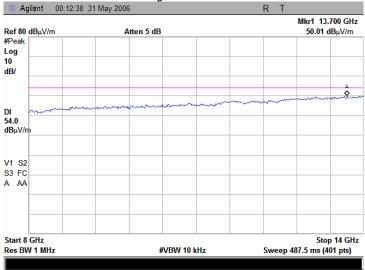


Plot 7.15.86 Radiated emission measurements from 8 to 14 GHz at the 5.745 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





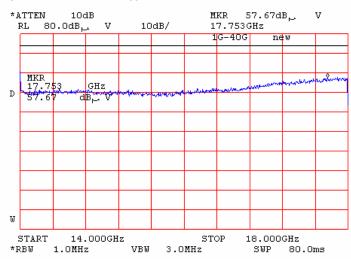
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 0	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4			
Test mode:	Compliance	Verdict: PASS			
Date:	07/04/2006	verdict.	PASS		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC		
Remarks: 802.11 a, 802.11 b/g and CELL/PCS					

Plot 7.15.87 Radiated emission measurements from 14 to 18 GHz at the 5.745GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

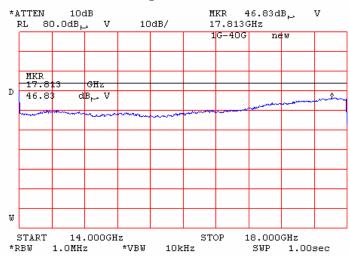
DETECTOR: Peak



Plot 7.15.88 Radiated emission measurements from 14 to 18 GHz at the 5.745GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

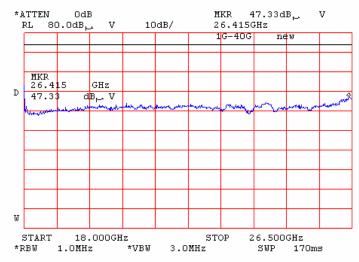




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

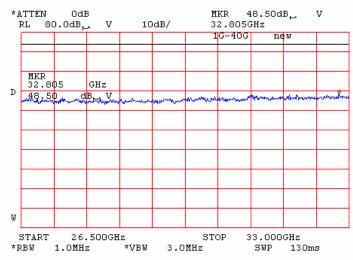
Plot 7.15.89 Radiated emission measurements from 18 to 26.5 GHz at the 5.745GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.15.90 Radiated emission measurements from 26.5 to 33 GHz at the 5.745GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

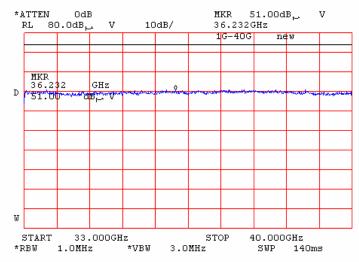




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.91 Radiated emission measurements from 33 to 40 GHz at the 5.745GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal

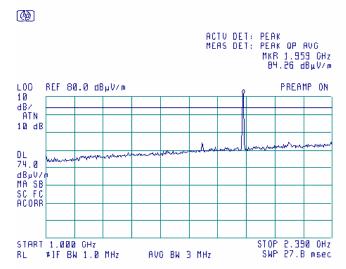


Plot 7.15.92 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.785 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





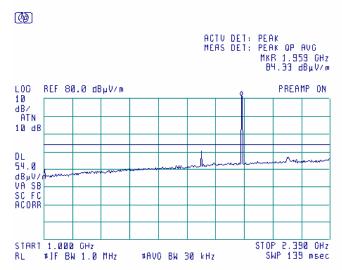
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.93 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.785 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Average

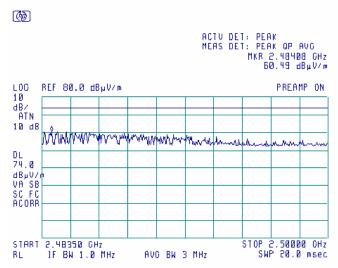


Plot 7.15.94 Radiated emission measurements from 2.4835 to 2.5GHz at the 5.785 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





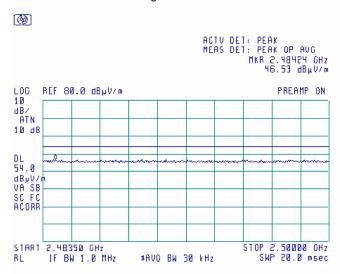
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 0	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4			
Test mode:	Compliance	Verdict: PASS			
Date:	07/04/2006	verdict.	PASS		
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC		
Remarks: 802.11 a, 802.11 b/g and CELL/PCS					

Plot 7.15.95 Radiated emission measurements from 2.4835 to 2.5GHz at the 5.785 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Average

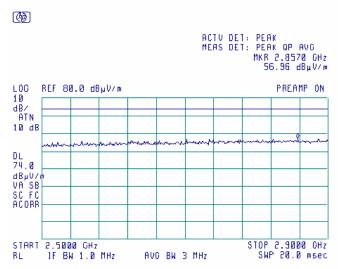


Plot 7.15.96 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.785 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





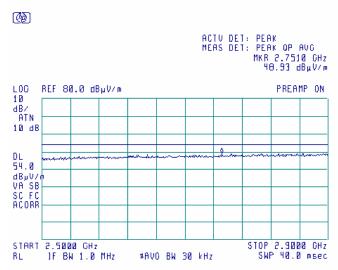
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.97 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.785 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

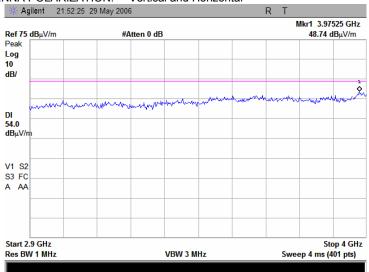
DETECTOR: Average



Plot 7.15.98 Radiated emission measurements from 2.9 to 4.0 GHz at the 5.785 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m



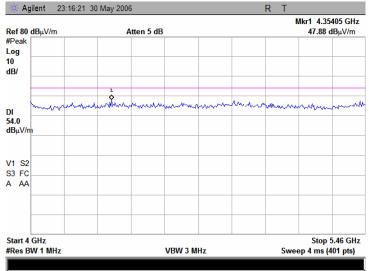


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.99 Radiated emission measurements from 4.0 to 5.46 GHz at the 5.785 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

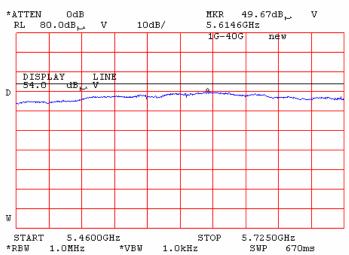


Plot 7.15.100 Radiated emission measurements from 5.46 to 5.725 GHz at the 5.785 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



Note: Outside restricted band range (between 5460 MHz and 7250 MHz) the limit is $78.23~dB\mu V/m$ between 5.715~GHz and 5.725~GHz; $68.23~dB\mu V/m$ below 5.715~GHz

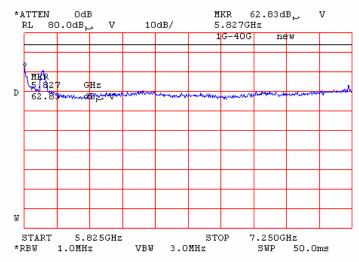


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.101 Radiated emission measurements from 5.825 to 7.25 GHz at the 5.785 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



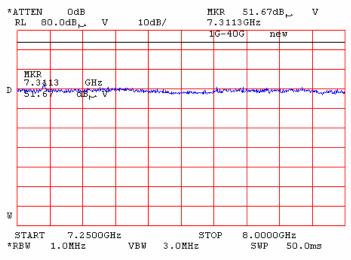
Note: Outside restricted band range (between 5460 MHz and 7250 MHz) the limit is $78.23~dB\mu V/m$ between 5.825~GHz and 5.835~GHz; $68.23~dB\mu V/m$ above 5.835~GHz

Plot 7.15.102 Radiated emission measurements from 7.25 to 8 GHz at the 5.785GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





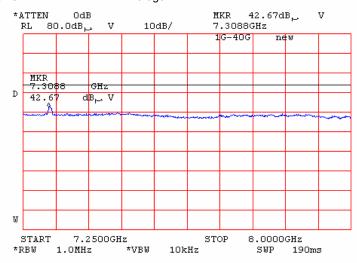
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.103 Radiated emission measurements from 7.25 to 8 GHz at the 5.785GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Average

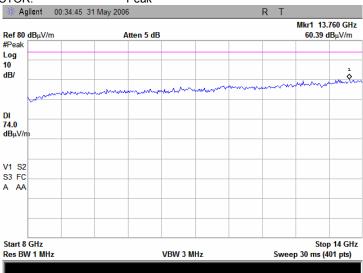


Plot 7.15.104 Radiated emission measurements from 8 to 14 GHz at the 5.785 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





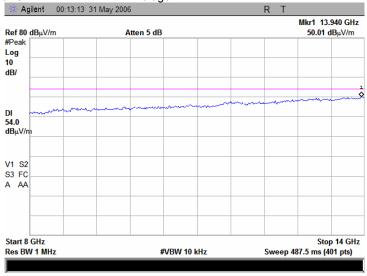
Test specification:	Section 15.407(b), Unwai	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.105 Radiated emission measurements from 8 to 14 GHz at the 5.785 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

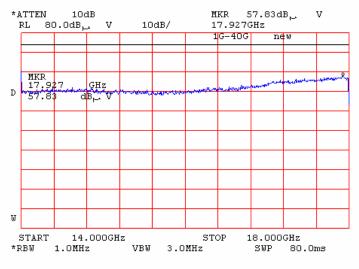
DETECTOR: Average



Plot 7.15.106 Radiated emission measurements from 14 to 18 GHz at the 5.785GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



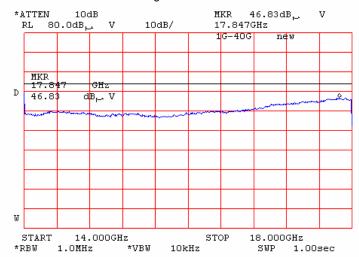


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict:	PASS	
Date:	07/04/2006	verdict.	FASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.107 Radiated emission measurements from 14 to 18 GHz at the 5.785GHz carrier frequency

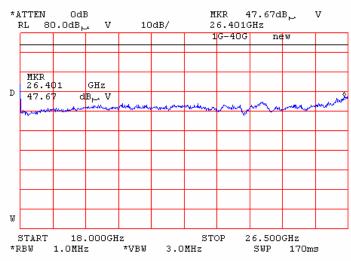
ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Average



Plot 7.15.108 Radiated emission measurements from 18 to 26.5 GHz at the 5.785GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

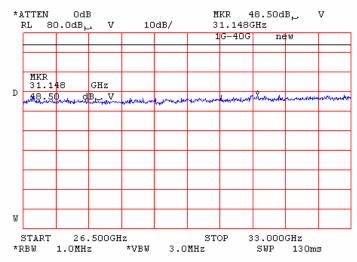




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

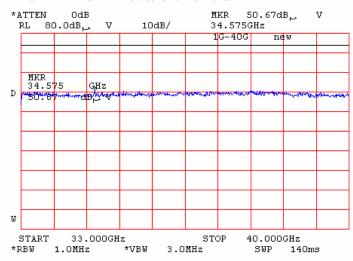
Plot 7.15.109 Radiated emission measurements from 26.5 to 33 GHz at the 5.785GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.15.110 Radiated emission measurements from 33 to 40 GHz at the 5.785GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m





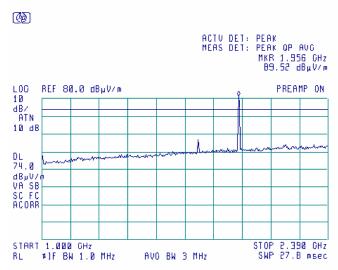
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.111 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.805 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

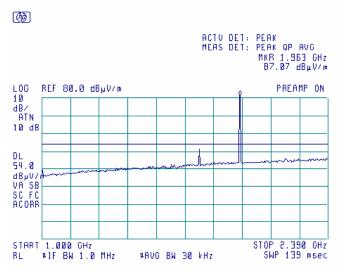


Plot 7.15.112 Radiated emission measurements from 1.0 to 2.39 GHz at the 5.805 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





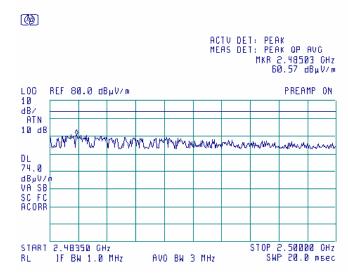
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.113 Radiated emission measurements from 2.4835 to 2.5GHz at the 5.805 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

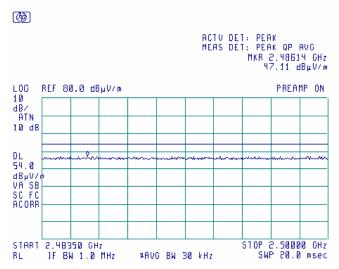


Plot 7.15.114 Radiated emission measurements from 2.4835 to 2.5GHz at the 5.805 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





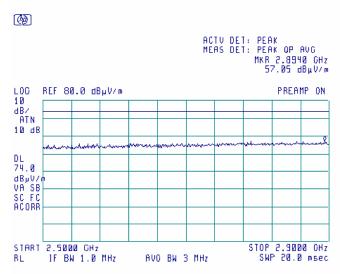
Test specification:	Section 15.407(b), Unwai	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.115 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.805 GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

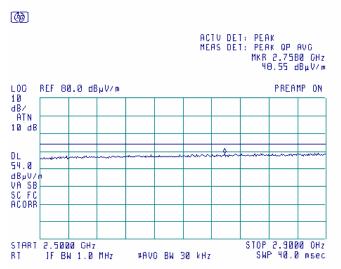


Plot 7.15.116 Radiated emission measurements from 2.5 to 2.9 GHz at the 5.805 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



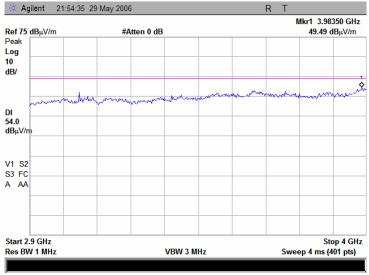


Test specification:	Section 15.407(b), Unwai	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	FASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.117 Radiated emission measurements from 2.9 to 4.0 GHz at the 5.805 GHz carrier frequency

TEST DISTANCE: 3 m

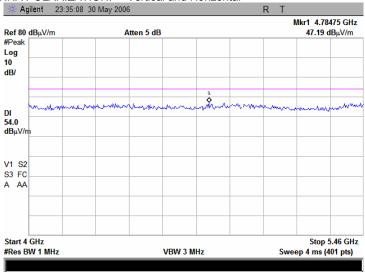
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.15.118 Radiated emission measurements from 4.0 to 5.46 GHz at the 5.805 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

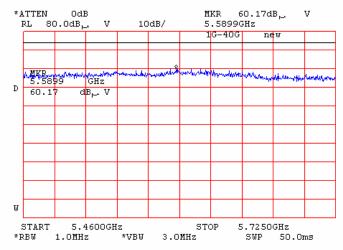




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.119 Radiated emission measurements from 5.46 to 5.725 GHz at the 5.805 GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal

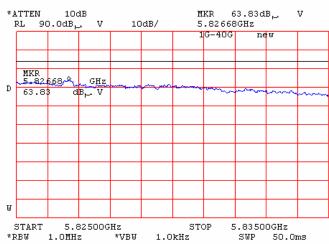


Note: Outside restricted band range (between 5460 MHz and 7250 MHz) the limit is $78.23~dB\mu V/m$ between 5.715~GHz and 5.725~GHz; $68.23~dB\mu V/m$ below 5.715~GHz

Plot 7.15.120 Radiated emission measurements from 5.825 to 5.835 GHz at the 5.805 GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



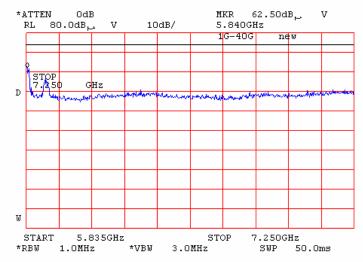
Note: Outside restricted band range (between 5460 MHz and 7250 MHz) the limit is 78.23 dB μ V/m between 5.825 GHz and 5.835 GHz.. Settings: RBW = 1 MHz, VBW \geq 1 / Ton = 1 / 2.1ms = 470 Hz \rightarrow VBW = 1 kHz



Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	FASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.121 Radiated emission measurements from 5.835 to 7.25 GHz at the 5.805 GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal



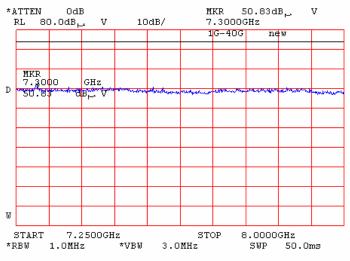
Note: Outside restricted band range (between 5460 MHz and 7250 MHz) the limit is 68.23 dBµV/m above 5.835 GHz

Plot 7.15.122 Radiated emission measurements from 7.25 to 8.0 GHz at the 5.805GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal





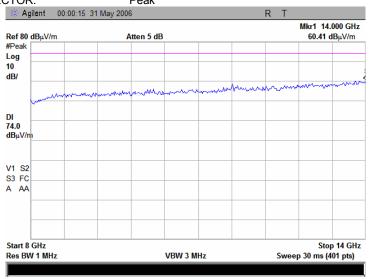
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.123 Radiated emission measurements from 8 to 14 GHz at the 5.805GHz carrier frequency

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

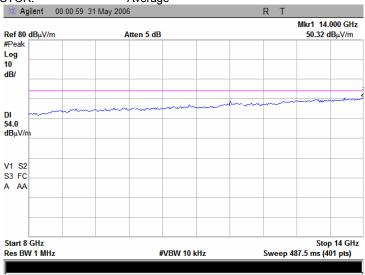


Plot 7.15.124 Radiated emission measurements from 8 to 14 GHz at the 5.805 GHz carrier frequency

TEST SITE: Anechoic chamber

TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal



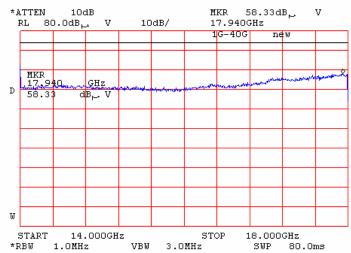


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.125 Radiated emission measurements from 14 to 18 GHz at the 5.805 GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Peak

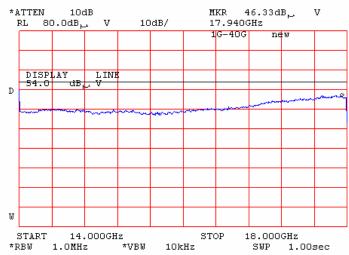


Plot 7.15.126 Radiated emission measurements from 14 to 18 GHz at the 5.805GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

DETECTOR: Average

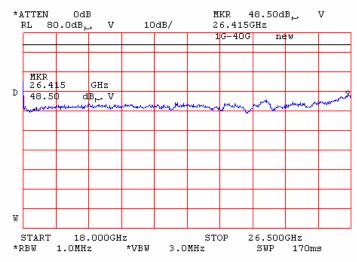




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.127 Radiated emission measurements from 18 to 26.5 GHz at the 5.805GHz carrier frequency

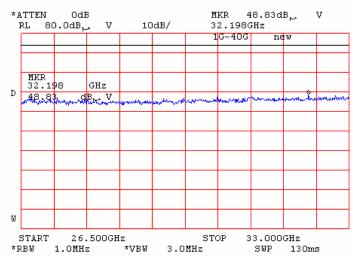
ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.15.128 Radiated emission measurements from 26.5 to 33 GHz at the 5.805GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m

ANTENNA POLARIZATION: Vertical and Horizontal

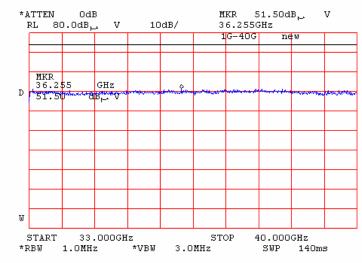




Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006	verdict.	PASS	
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

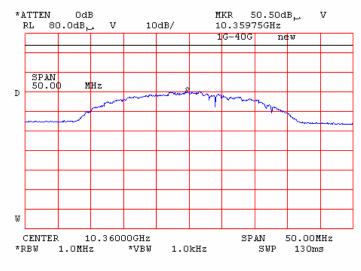
Plot 7.15.129 Radiated emission measurements from 33 to 40 GHz at the 5.805GHz carrier frequency

ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.15.130 Radiated emission measurements at the second harmonic of 5.18GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m





Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 0	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4			
Test mode:	Compliance	Verdict: PASS			
Date:	07/04/2006				
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC		
Remarks: 802.11 a, 802.11 b/g and CELL/PCS					

Plot 7.15.131 Radiated emission measurements at the second harmonic of 5.26GHz carrier frequency

TEST SITE: OATS TEST DISTANCE: 3 m 47.00dB *ATTEN OdB MKR RL 80.0dB 10dB/ 10.52042GHz 1G-40G new MKR 10.52042 GHz D 47.00 dB⊬ V 50.00MHz CENTER 10.52000GHz SPAN 1.0MHz SWP *VBW 1.0kHz

Note: outside restricted band emission, limit $68.23~dB\mu V/m$

TEST SITE: TEST DISTANCE:

*RBW

CENTER

1.0MHz

*RBW

Plot 7.15.132 Radiated emission measurements at the second harmonic of 5.32GHz carrier frequency

130ms

SPAN

SWP

50.00MHz

50.0ms

DETECTOR: Peak *ATTEN 62.83dB OdB MKR V 10.63250GHz RL 80.0dB V 10dB/ 1G-40G MKR 10.63250 GHz GHz

3.OMHz

10.64000GHz

VBW

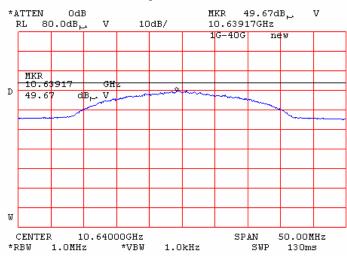
OATS

3 m



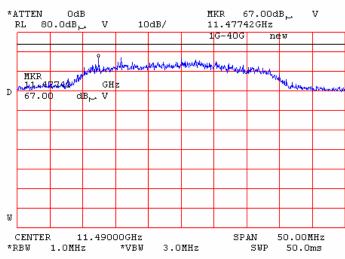
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.133 Radiated emission measurements at the second harmonic of 5.32GHz carrier frequency



Plot 7.15.134 Radiated emission measurements at the second harmonic of 5.745GHz carrier frequency

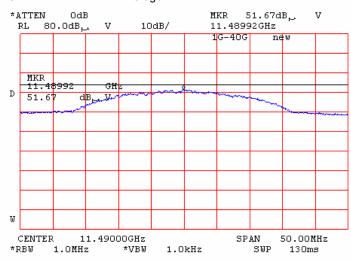
TEST SITE: OATS
TEST DISTANCE: 3 m
DETECTOR: Peak





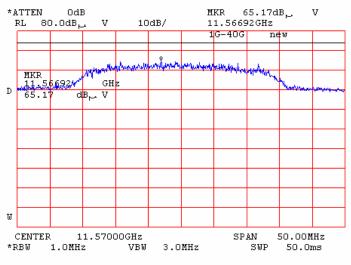
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.135 Radiated emission measurements at the second harmonic of 5.745GHz carrier frequency



Plot 7.15.136 Radiated emission measurements at the second harmonic of 5.785GHz carrier frequency

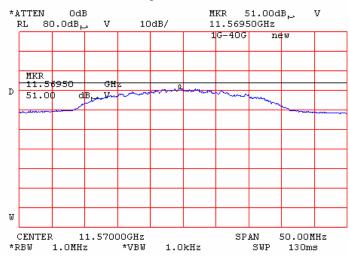
TEST SITE: OATS
TEST DISTANCE: 3 m
DETECTOR: Peak





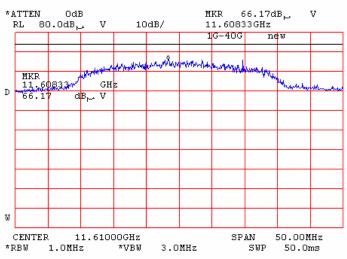
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.137 Radiated emission measurements at the second harmonic of 5.785GHz carrier frequency



Plot 7.15.138 Radiated emission measurements at the second harmonic of 5.805GHz carrier frequency

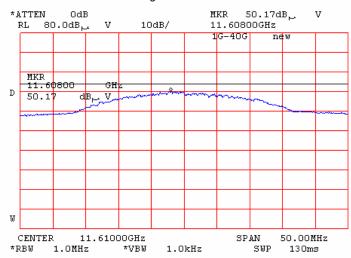
TEST SITE: OATS
TEST DISTANCE: 3 m
DETECTOR: Peak





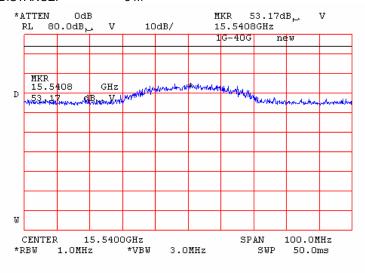
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.139 Radiated emission measurements at the second harmonic of 5.805GHz carrier frequency



Plot 7.15.140 Radiated emission measurements at the third harmonic of 5.18GHz carrier frequency

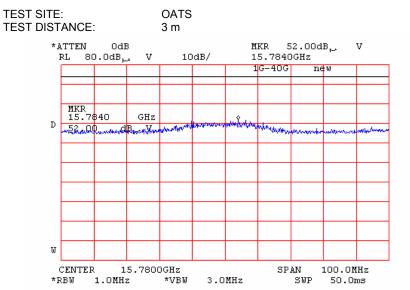
TEST SITE: OATS TEST DISTANCE: 3 m



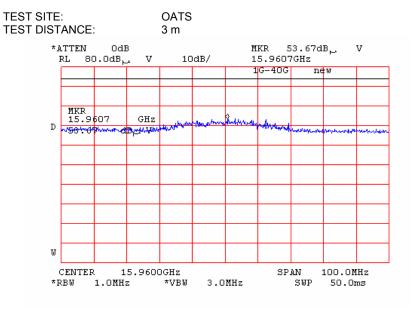


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions			
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4			
Test mode:	Compliance	Verdict: PASS			
Date:	07/04/2006				
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC		
Remarks: 802.11 a, 802.11 b/g and CELL/PCS					

Plot 7.15.141 Radiated emission measurements at the third harmonic of 5.26GHz carrier frequency



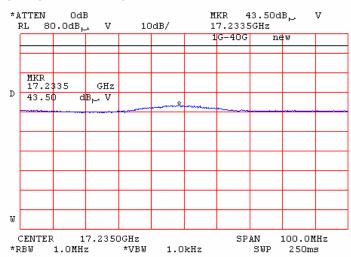
Plot 7.15.142 Radiated emission measurements at the third harmonic of 5.32GHz carrier frequency





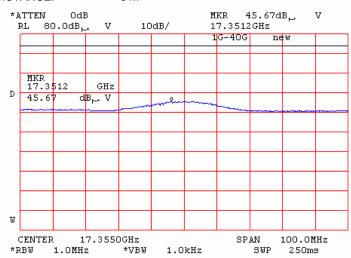
Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.143 Radiated emission measurements at the third harmonic of 5.745GHz carrier frequency



Plot 7.15.144 Radiated emission measurements at the third harmonic of 5.785GHz carrier frequency

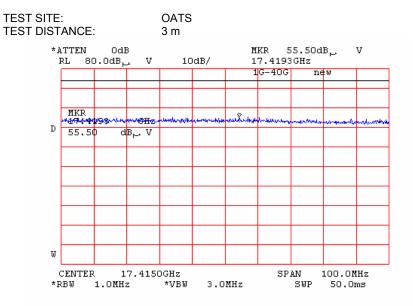
TEST SITE: OATS TEST DISTANCE: 3 m



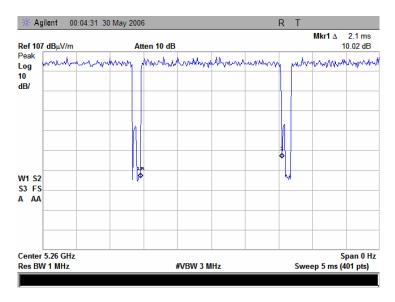


Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 (Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.145 Radiated emission measurements at the third harmonic of 5.805GHz carrier frequency



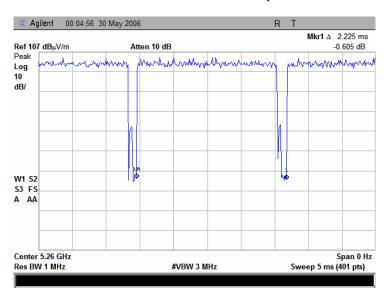
Plot 7.15.146 Transmission burst duration





Test specification:	Section 15.407(b), Unwar	Section 15.407(b), Unwanted radiated emissions		
Test procedure:	Public notice DA 00-705/47 C	Public notice DA 00-705/ 47 CFR, Section 15.247(c) / ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict: PASS		
Date:	07/04/2006			
Temperature: 23 °C	Air Pressure: 1010 hPa	Relative Humidity: 45%	Power Supply: 48 VDC	
Remarks: 802.11 a, 802.11 b/g and CELL/PCS				

Plot 7.15.147 Transmission burst period





Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict:	PASS		
Date:	06/27/2006	verdict.	FASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a only		•	-		

7.16 Spurious emissions at RF antenna connector test according to 47CFR part 15 subpart E requirements 802.11a only

7.16.1 General

This test was performed to measure spurious emissions at RF antenna connector. Specification test limits are given in Table 7.16.1.

Table 7.16.1 EIRP of undesirable emissions limits outside restricted bands

Frequency band, GHz	Out of band EIRP, dBm/MHz
5.15 – 5.25	
5.25 - 5.35	-27
5.47 – 5.725	
5.725 – 5.825	-27 (below 5.715 and above 5.835 GHz)
3.725 - 3.025	-17 (in 5.715 – 5.725 GHz and 5.825 – 5.835 GHz)

7.16.2 Test procedure for conducted spurious emission

- 7.16.2.1 The EUT was set up as shown in Figure 7.16.1, energized and its proper operation was checked.
- 7.16.2.2 The EUT was adjusted to produce maximum available for end user RF output power.
- 7.16.2.3 The spurious emission was measured with spectrum analyzer as provided in Table 7.16.2 and associated plots.

Figure 7.16.1 Setup for conducted spurious emission measurements





Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict:	PASS		
Date:	06/27/2006	verdict.	FASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a only					

Table 7.16.2 Conducted spurious emissions test results

ASSIGNED FREQUENCY: 5.12-5.35GHz, 5.725-5.825GHz

INVESTIGATED FREQUENCY RANGE: 0.009 – 40000 MHz

MODULATION: OFDM

MODULATING SIGNAL:

BIT RATE:

TRANSMITTER OUTPUT POWER SETTINGS:

RESOLUTION BANDWIDTH:

CCK and BPSK
6 Mbps
Maximum
1 MHz

RESOLUTION BANDY	лотп.	I MITZ		
Frequency, MHz	Peak emission, dBm	Limit, dBm/MHz**	Margin, dB*	Verdict
Carrier frequency 5.18 M	lHz			•
5149.20	-45.22	-27.00	-18.22	Pass
Carrier frequencies 5.26	MHz and 5.32 GHz			
	All emissions	were more than 20 dB below	w the limit	
Carrier frequency 5.745	MHz			
5713.20	-37.85	-27.00	-10.85	Pass
5724.10	-27.83	-17.00	-10.83	Pass
Carrier frequency 5.785	MHz			
5402.40	-44.16	-27.00	-17.16	Pass
Carrier frequency 5.805	MHz	•		
5406.00	-45.64	-27.00	-18.64	Pass

^{*-} Margin = Peak emission – limit.

Reference numbers of test equipment used

HL 1424	HL 1650	HL 2254	HL 2869	HL 2909		

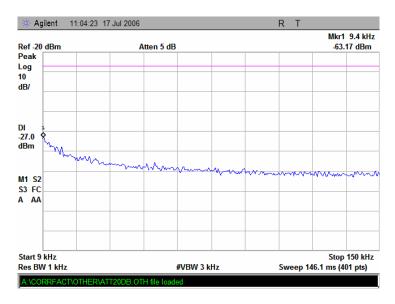
Full description is given in Appendix A.

^{**-} The limit was reduced by the gain of antenna, because the limit is EIRP limit.

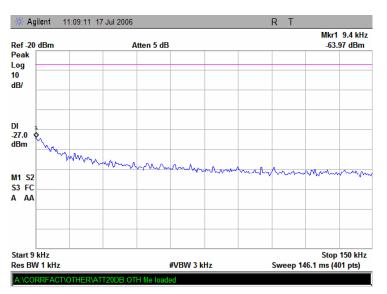


Test specification:	Section 15.407(b), Out o	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict:	PASS		
Date:	06/27/2006	verdict.	PASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a only					

Plot 7.16.1 Conducted emission measurements from 9 to 150 kHz at the 5.18GHz carrier frequency



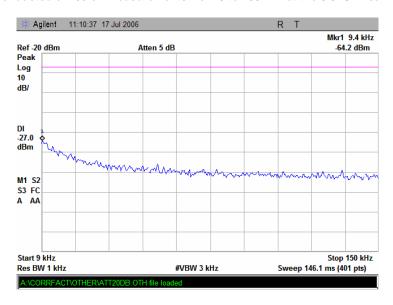
Plot 7.16.2 Conducted emission measurements from 9 to 150 kHz at the 5.26GHz carrier frequency



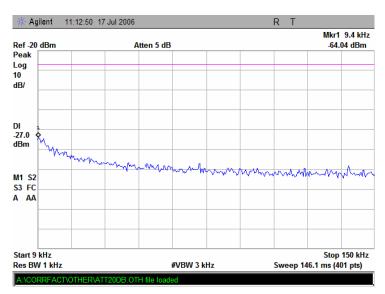


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict:	PASS		
Date:	06/27/2006	verdict.	FASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a only		•	-		

Plot 7.16.3 Conducted emission measurements from 9 to 150 kHz at the 5.32GHz carrier frequency



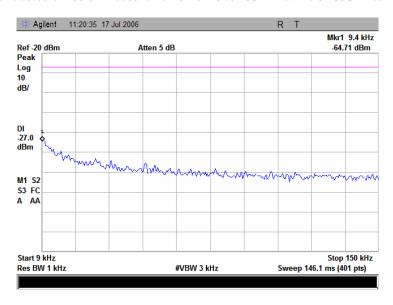
Plot 7.16.4 Conducted emission measurements from 9 to 150 kHz at the 5.745GHz carrier frequency



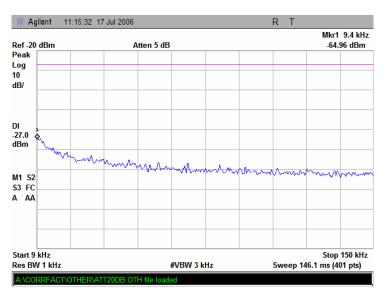


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict:	PASS		
Date:	06/27/2006	verdict.	PASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a only					

Plot 7.16.5 Conducted emission measurements from 9 to 150 kHz at the 5.785GHz carrier frequency



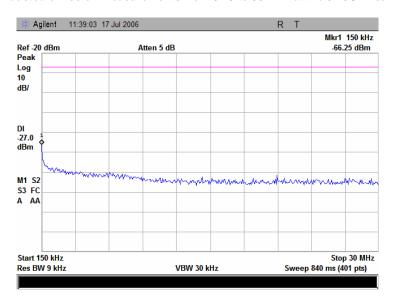
Plot 7.16.6 Conducted emission measurements from 9 to 150 kHz at the 5.805GHz carrier frequency



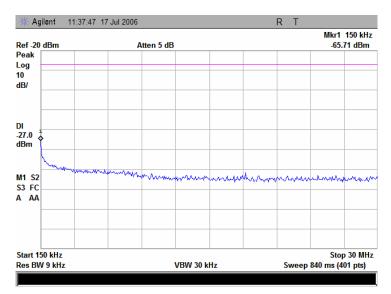


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict:	PASS		
Date:	06/27/2006	verdict.	FASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a only		•	-		

Plot 7.16.7 Conducted emission measurements from 0.15 to 30 MHz at the 5.18GHz carrier frequency



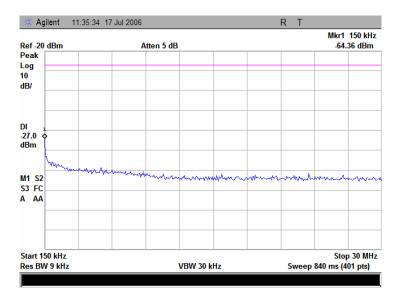
Plot 7.16.8 Conducted emission measurements from 0.15 to 30 MHz at the 5.26GHz carrier frequency



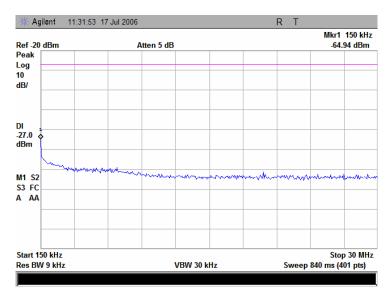


Test specification:	Section 15.407(b), Out o	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict:	PASS		
Date:	06/27/2006	verdict.	PASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a only					

Plot 7.16.9 Conducted emission measurements from 0.15 to 30 MHz at the 5.32GHz carrier frequency



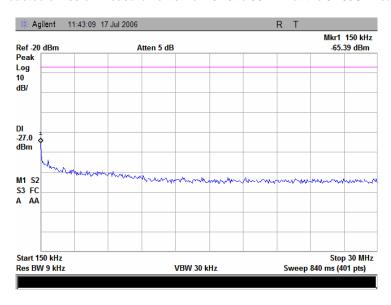
Plot 7.16.10 Conducted emission measurements from 0.15 to 30 MHz at the 5.745GHz carrier frequency



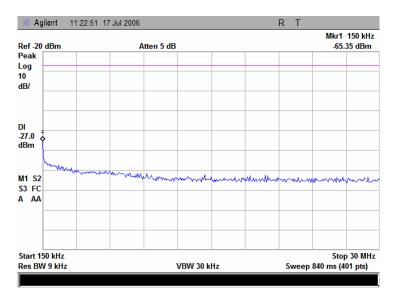


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict:	PASS		
Date:	06/27/2006	verdict.	FASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a only		•	-		

Plot 7.16.11 Conducted emission measurements from 0.15 to 30 MHz at the 5.785GHz carrier frequency



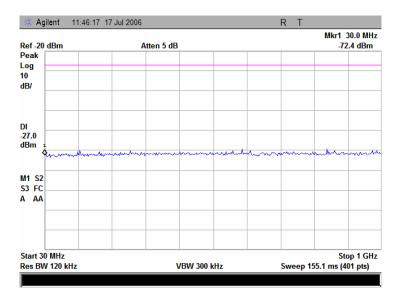
Plot 7.16.12 Conducted emission measurements from 0.15 to 30 MHz at the 5.805GHz carrier frequency



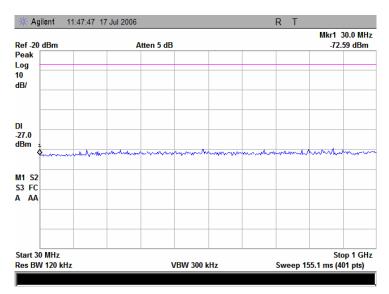


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict:	PASS		
Date:	06/27/2006	verdict.	FASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a only					

Plot 7.16.13 Conducted emission measurements from 30 to 1000 MHz at the 5.18GHz carrier frequency



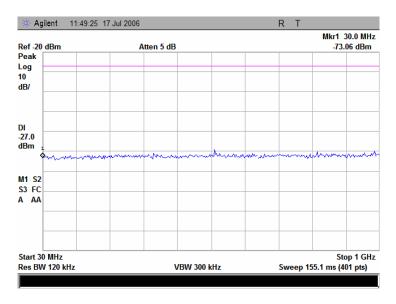
Plot 7.16.14 Conducted emission measurements from 30 to 1000 MHz at the 5.26GHz carrier frequency



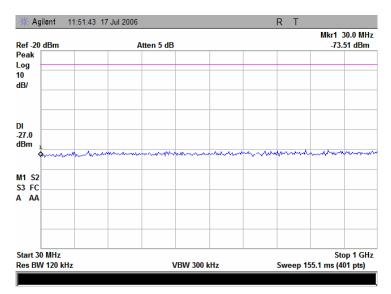


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions		
Test procedure:	Public notice DA02-2138			
Test mode:	Compliance	Verdict:	PASS	
Date:	06/27/2006	verdict.	FASS	
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC	
Remarks: 802.11 a only		•	-	

Plot 7.16.15 Conducted emission measurements from 30 to 1000 MHz at the 5.32GHz carrier frequency



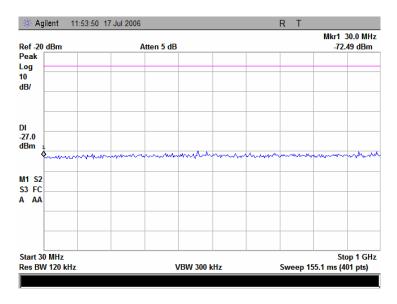
Plot 7.16.16 Conducted emission measurements from 30 to 1000 MHz at the 5.745GHz carrier frequency



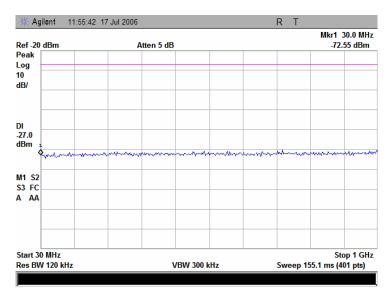


Test specification:	Section 15.407(b), Out o	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict: PASS			
Date:	06/27/2006	verdict.	PASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a only					

Plot 7.16.17 Conducted emission measurements from 30 to 1000 MHz at the 5.785GHz carrier frequency



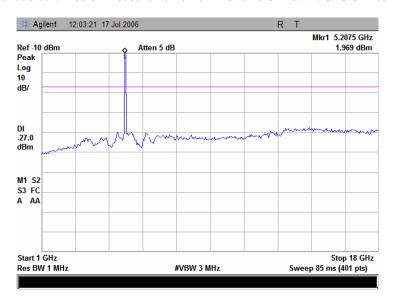
Plot 7.16.18 Conducted emission measurements from 30 to 1000 MHz at the 5.805GHz carrier frequency



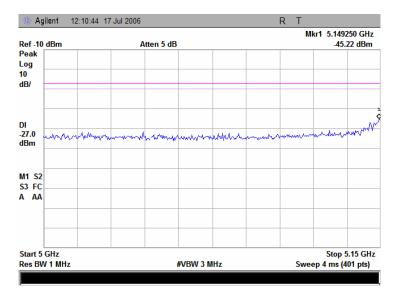


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions		
Test procedure:	Public notice DA02-2138			
Test mode:	Compliance	Verdict:	PASS	
Date:	06/27/2006	verdict.	FASS	
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC	
Remarks: 802.11 a only		•	-	

Plot 7.16.19 Conducted emission measurements from 1.0 to 18 GHz at the 5.18 GHz carrier frequency



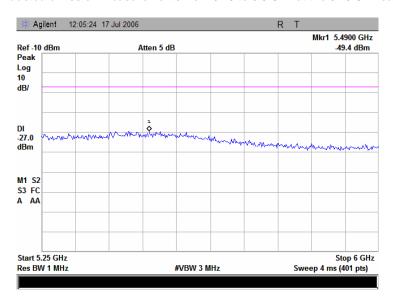
Plot 7.16.20 Conducted emission measurements from 5.0 to 5.15 GHz at the 5.18 GHz carrier frequency





Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions		
Test procedure:	Public notice DA02-2138			
Test mode:	Compliance	Verdict:	PASS	
Date:	06/27/2006	verdict.	FASS	
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC	
Remarks: 802.11 a only				

Plot 7.16.21 Conducted emission measurements from 5.25 to 6.0 GHz at the 5.18 GHz carrier frequency



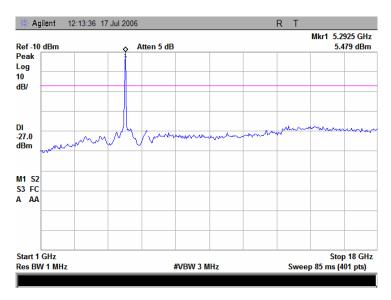
Plot 7.16.22 Conducted emission measurements from 18 to 40 GHz at the 5.18GHz carrier frequency



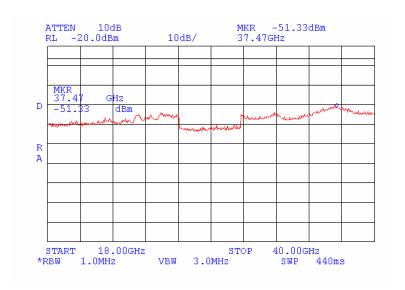


Test specification:	Section 15.407(b), Out o	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict: PASS			
Date:	06/27/2006	verdict.	PASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a only					

Plot 7.16.23 Conducted emission measurements from 1.0 to 18 GHz at the 5.26 GHz carrier frequency



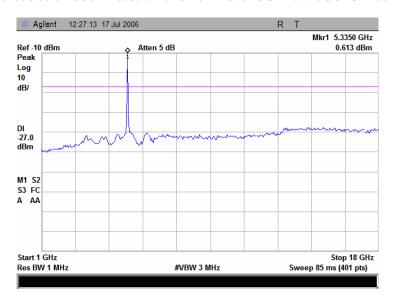
Plot 7.16.24 Conducted emission measurements from 18 to 40 GHz at the 5.26 GHz carrier frequency



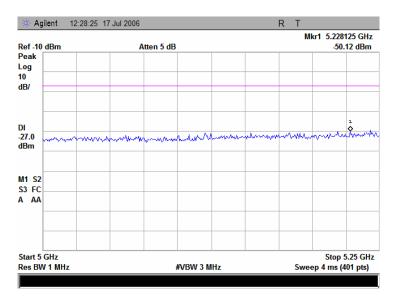


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions		
Test procedure:	Public notice DA02-2138			
Test mode:	Compliance	Verdict: PASS		
Date:	06/27/2006	verdict.	FASS	
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC	
Remarks: 802.11 a only		•	-	

Plot 7.16.25 Conducted emission measurements from 1.0 to 18 GHz at the 5.32 GHz carrier frequency



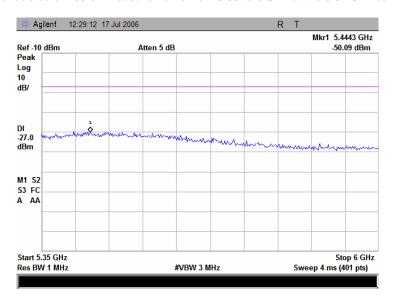
Plot 7.16.26 Conducted emission measurements from 5.0 to 5.25 GHz at the 5.32 GHz carrier frequency



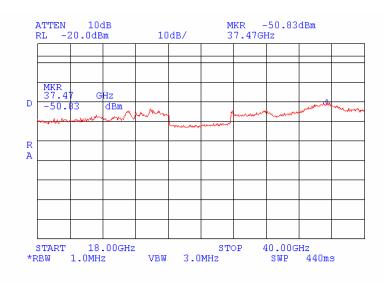


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions		
Test procedure:	Public notice DA02-2138			
Test mode:	Compliance	Verdict:	PASS	
Date:	06/27/2006	verdict.	FASS	
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC	
Remarks: 802.11 a only		•	-	

Plot 7.16.27 Conducted emission measurements from 5.35 to 6 GHz at the 5.32 GHz carrier frequency



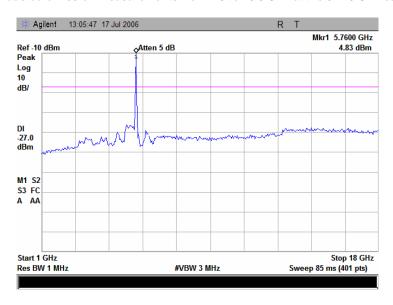
Plot 7.16.28 Conducted emission measurements from 18 to 40 GHz at the 5.32GHz carrier frequency



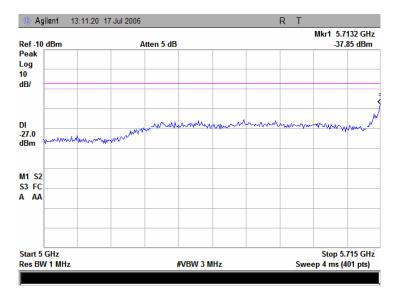


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions		
Test procedure:	Public notice DA02-2138			
Test mode:	Compliance	Verdict: PASS		
Date:	06/27/2006	verdict.	FASS	
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC	
Remarks: 802.11 a only		•	-	

Plot 7.16.29 Conducted emission measurements from 1.0 to 18.0 GHz at the 5.745 GHz carrier frequency



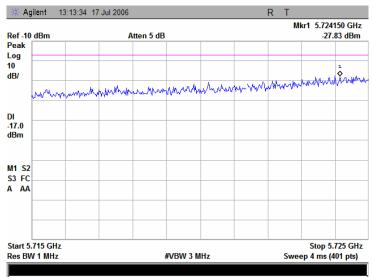
Plot 7.16.30 Conducted emission measurements from 5.0 to 5.715 GHz at the 5.745 GHz carrier frequency





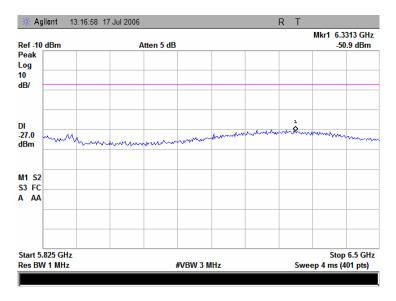
Test specification:	Section 15.407(b), Out o	Section 15.407(b), Out of band undesirable emissions		
Test procedure:	Public notice DA02-2138	Public notice DA02-2138		
Test mode:	Compliance	Verdict: PASS		
Date:	06/27/2006	verdict.	FASS	
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC	
Remarks: 802.11 a only		-	-	

Plot 7.16.31 Conducted emission measurements from 5.715 to 5.725 GHz at the 5.745 GHz carrier frequency



Note: The limit is -17dBm/MHz between 5.715 GHz and 5.725 GHz; -27 dBm/MHz below 5.715 GHz

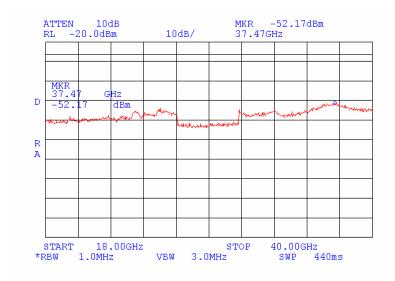
Plot 7.16.32 Conducted emission measurements from 5.825 to 6.5 GHz at the 5.745 GHz carrier frequency



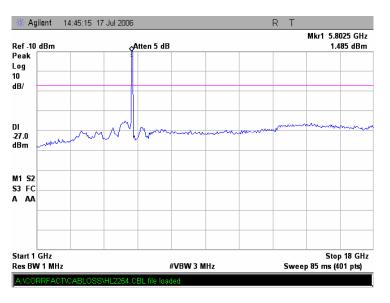


Test specification:	Section 15.407(b), Out o	Section 15.407(b), Out of band undesirable emissions		
Test procedure:	Public notice DA02-2138	Public notice DA02-2138		
Test mode:	Compliance	Verdict: PASS		
Date:	06/27/2006	verdict.	FASS	
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC	
Remarks: 802.11 a only		-	-	

Plot 7.16.33 Conducted emission measurements from 18 to 40 GHz at the 5.745GHz carrier frequency



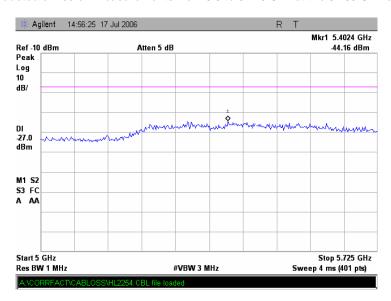
Plot 7.16.34 Conducted emission measurements from 1.0 to 18 GHz at the 5.785 GHz carrier frequency



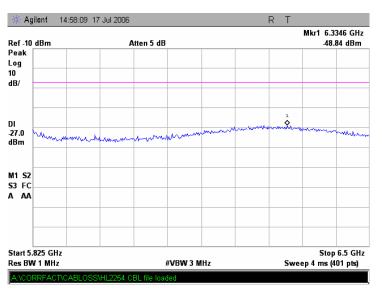


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions		
Test procedure:	Public notice DA02-2138			
Test mode:	Compliance	Verdict:	PASS	
Date:	06/27/2006	verdict.	FASS	
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC	
Remarks: 802.11 a only		·	-	

Plot 7.16.35 Conducted emission measurements from 5.0 to 5.725 GHz at the 5.785 GHz carrier frequency



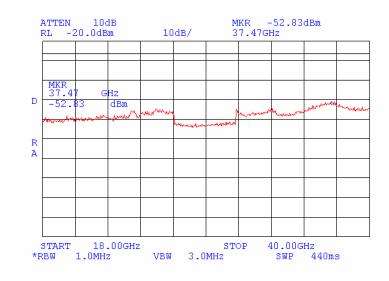
Plot 7.16.36 Conducted emission measurements from 5.825 to 6.5 GHz at the 5.785 GHz carrier frequency



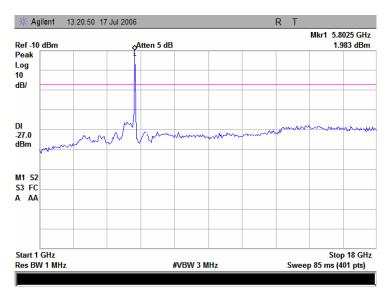


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions		
Test procedure:	Public notice DA02-2138			
Test mode:	Compliance	Verdict:	PASS	
Date:	06/27/2006	verdict.	FASS	
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC	
Remarks: 802.11 a only		·	-	

Plot 7.16.37 Conducted emission measurements from 18 to 40 GHz at the 5.785GHz carrier frequency



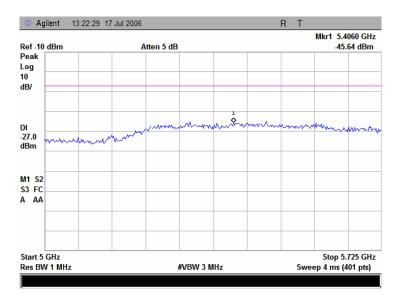
Plot 7.16.38 Conducted emission measurements from 1.0 to 18 GHz at the 5.805 GHz carrier frequency



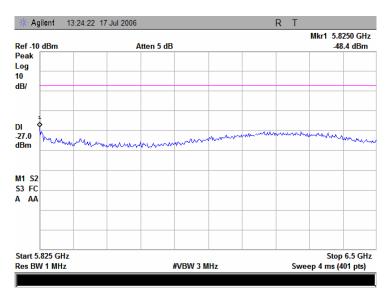


Test specification:	Section 15.407(b), Out of band undesirable emissions		
Test procedure:	Public notice DA02-2138		
Test mode:	Compliance	Verdict:	PASS
Date:	06/27/2006	verdict.	FASS
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC
Remarks: 802.11 a only		·	-

Plot 7.16.39 Conducted emission measurements from 5.0 to 5.725 GHz at the 5.805 GHz carrier frequency



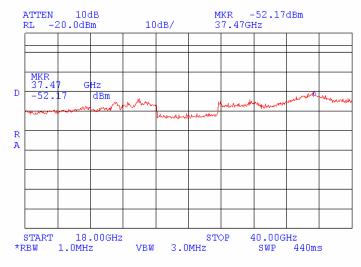
Plot 7.16.40 Conducted emission measurements from 5.825 to 6.5 GHz at the 5.805 GHz carrier frequency





Test specification:	Section 15.407(b), Out of band undesirable emissions		
Test procedure:	Public notice DA02-2138		
Test mode:	Compliance	Verdict:	PASS
Date:	06/27/2006	verdict.	PASS
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC
Remarks: 802.11 a only			

Plot 7.16.41 Conducted emission measurements from 18 to 40 GHz at the 5.805GHz carrier frequency





Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions	
Test procedure:	Public notice DA02-2138		
Test mode:	Compliance	Verdict:	PASS
Date:	06/27/2006	verdict.	FASS
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC
Remarks: 802.11 a and 802.11 b/g			

7.17 Spurious emissions at RF antenna connector test according to 47CFR part 15 subpart E requirements 802.11a and 802.11 b/g

7.17.1 General

This test was performed to measure spurious emissions at RF antenna connector. Specification test limits are given in Table 7.17.1.

Table 7.17.1 EIRP of undesirable emissions limits outside restricted bands

Frequency band, GHz	Out of band EIRP, dBm/MHz
5.15 – 5.25	
5.25 - 5.35	-27
5.47 – 5.725	
5.725 – 5.825	-27 (below 5.715 and above 5.835 GHz)
	-17 (in 5.715 – 5.725 GHz and 5.825 – 5.835 GHz)

7.17.2 Test procedure for conducted spurious emission

- 7.17.2.1 The EUT was set up as shown in Figure 7.17.1, energized and its proper operation was checked.
- 7.17.2.2 The EUT was adjusted to produce maximum available for end user RF output power.
- 7.17.2.3 The spurious emission was measured with spectrum analyzer as provided in Table 7.17.2 and associated plots.

Figure 7.17.1 Setup for conducted spurious emission measurements







Test specification:	Section 15.407(b), Out o	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict:	PASS		
Date:	06/27/2006	verdict.	FASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Table 7.17.2 Conducted spurious emissions test results

ASSIGNED FREQUENCY: 5.12-5.35GHz, 5.725-5.825GHz

INVESTIGATED FREQUENCY RANGE: 0.009 – 40000 MHz

MODULATION: OFDM

MODULATING SIGNAL:

BIT RATE:

TRANSMITTER OUTPUT POWER SETTINGS:

RESOLUTION BANDWIDTH:

CCK and BPSK
6 Mbps
Maximum
1 MHz

RESOLUTION BANDWIDTH:				
Frequency, MHz	Peak emission, dBm	Limit, dBm/MHz**	Margin, dB*	Verdict
Carrier frequency 5.18 G	Hz			
5150	-39.97	-34.0	-5.97	Pass
Carrier frequencies 5.26	GHz and 5.32 GHz			
	All emissions	were more than 20 dB below	w the limit	
Carrier frequency 5.745	GHz			
5725	-38.42	-24.0	-4.42	Pass
Carrier frequency 5.785	GHz			
5835	-45.31	-34.0	-11.31	Pass
Carrier frequency 5.805	GHz			
5825	-46.76	-34.0	-12.76	Pass

^{*-} Margin = Peak emission - limit.

Reference numbers of test equipment used

_							
	HL 1424	HL 1650	HL 2254	HL 2869	HL 2909		

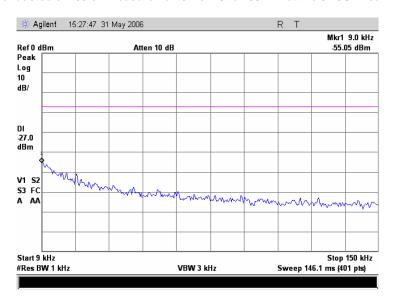
Full description is given in Appendix A.

^{**-} The limit was reduced by the gain of antenna, because the limit is EIRP limit.

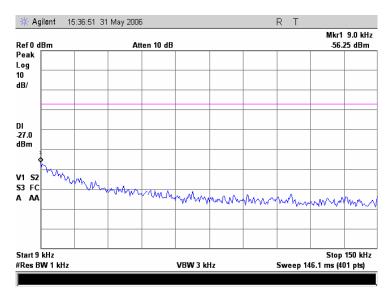


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict:	PASS		
Date:	06/27/2006	verdict.	PASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.17.1 Conducted emission measurements from 9 to 150 kHz at the 5.18GHz carrier frequency



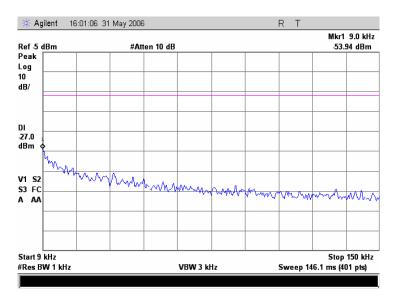
Plot 7.17.2 Conducted emission measurements from 9 to 150 kHz at the 5.26GHz carrier frequency



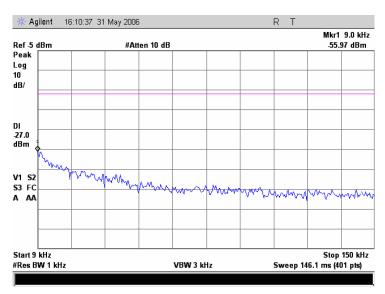


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict:	PASS		
Date:	06/27/2006	verdict.	PASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.17.3 Conducted emission measurements from 9 to 150 kHz at the 5.32GHz carrier frequency



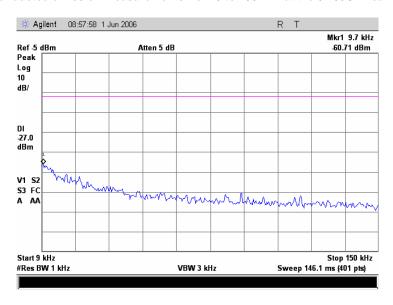
Plot 7.17.4 Conducted emission measurements from 9 to 150 kHz at the 5.745GHz carrier frequency



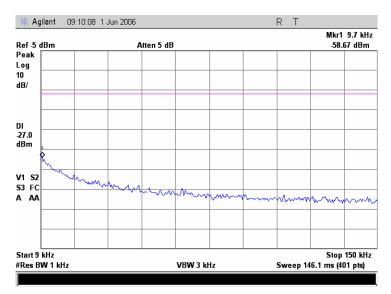


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict:	PASS		
Date:	06/27/2006	verdict.	PASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.17.5 Conducted emission measurements from 9 to 150 kHz at the 5.785GHz carrier frequency



Plot 7.17.6 Conducted emission measurements from 9 to 150 kHz at the 5.805GHz carrier frequency

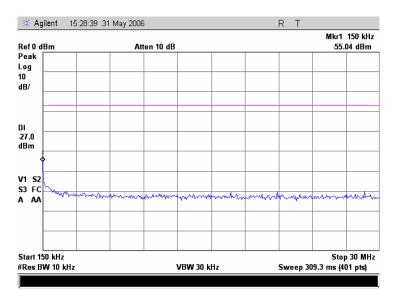




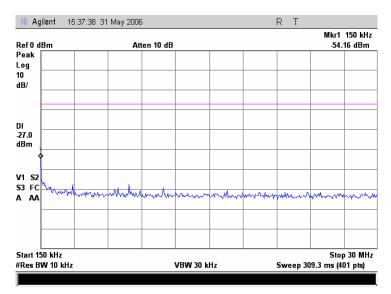


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict:	PASS		
Date:	06/27/2006	verdict.	PASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.17.7 Conducted emission measurements from 0.15 to 30 MHz at the 5.18GHz carrier frequency



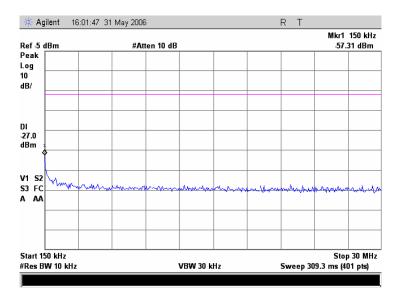
Plot 7.17.8 Conducted emission measurements from 0.15 to 30 MHz at the 5.26GHz carrier frequency



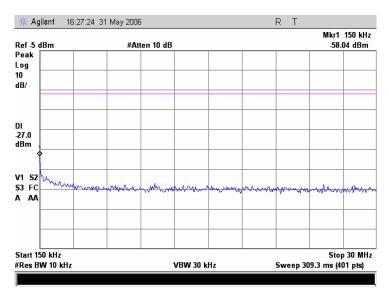


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict:	PASS		
Date:	06/27/2006	verdict.	PASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.17.9 Conducted emission measurements from 0.15 to 30 MHz at the 5.32GHz carrier frequency



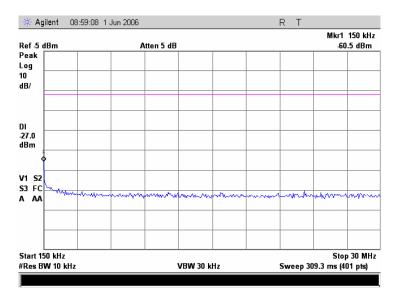
Plot 7.17.10 Conducted emission measurements from 0.15 to 30 MHz at the 5.745GHz carrier frequency



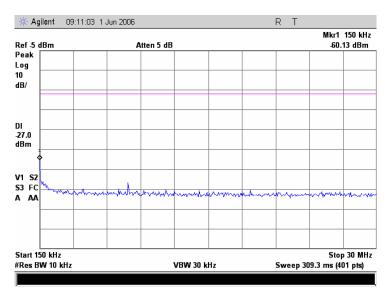


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict:	PASS		
Date:	06/27/2006	verdict.	PASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.17.11 Conducted emission measurements from 0.15 to 30 MHz at the 5.785GHz carrier frequency



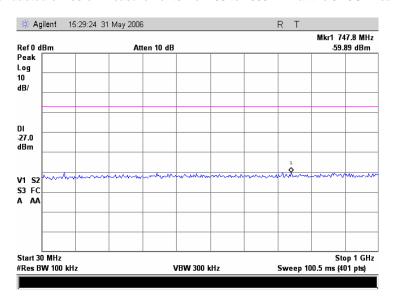
Plot 7.17.12 Conducted emission measurements from 0.15 to 30 MHz at the 5.805GHz carrier frequency



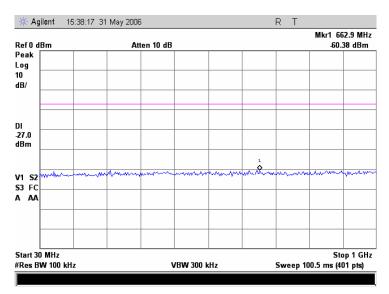


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict:	PASS		
Date:	06/27/2006	verdict.	PASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.17.13 Conducted emission measurements from 30 to 1000 MHz at the 5.18GHz carrier frequency



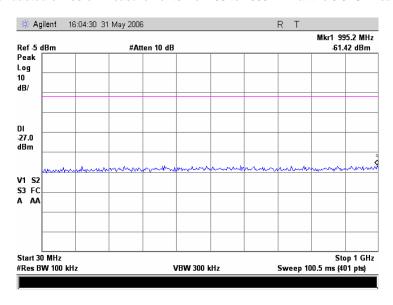
Plot 7.17.14 Conducted emission measurements from 30 to 1000 MHz at the 5.26GHz carrier frequency



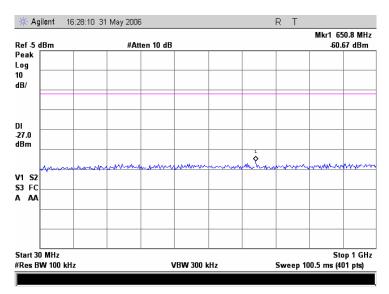


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict:	PASS		
Date:	06/27/2006	verdict.	PASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.17.15 Conducted emission measurements from 30 to 1000 MHz at the 5.32GHz carrier frequency



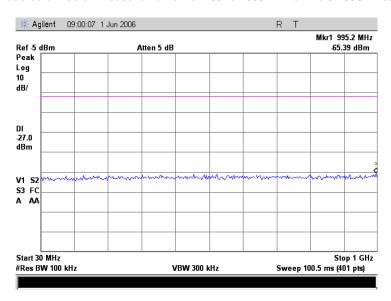
Plot 7.17.16 Conducted emission measurements from 30 to 1000 MHz at the 5.745GHz carrier frequency



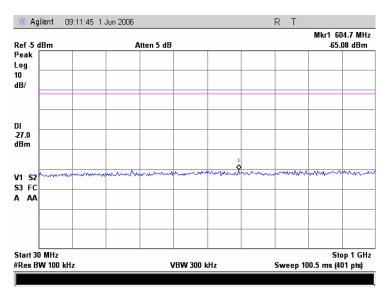


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict:	PASS		
Date:	06/27/2006	verdict.	PASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.17.17 Conducted emission measurements from 30 to 1000 MHz at the 5.785GHz carrier frequency



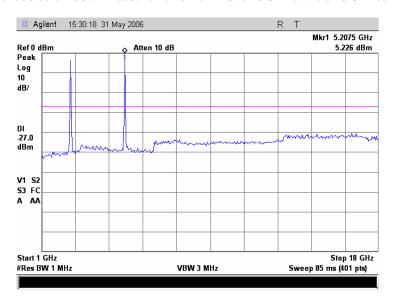
Plot 7.17.18 Conducted emission measurements from 30 to 1000 MHz at the 5.805GHz carrier frequency



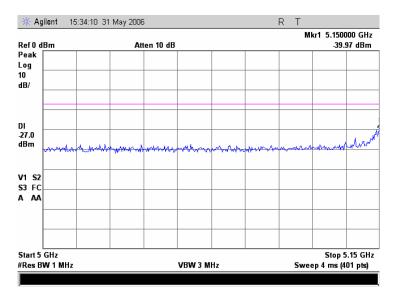


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138	Public notice DA02-2138			
Test mode:	Compliance	Verdict: PASS			
Date:	06/27/2006	verdict.	PASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.17.19 Conducted emission measurements from 1.0 to 18 GHz at the 5.18 GHz carrier frequency



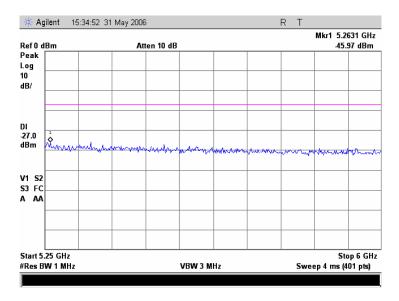
Plot 7.17.20 Conducted emission measurements from 5.0 to 5.15 GHz at the 5.18 GHz carrier frequency



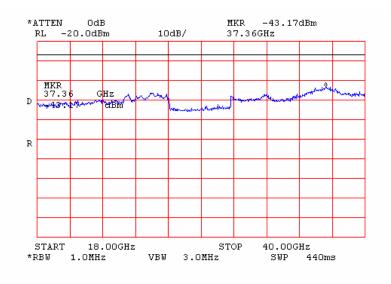


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict: PASS			
Date:	06/27/2006	verdict.	PASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.17.21 Conducted emission measurements from 5.25 to 6.0 GHz at the 5.18 GHz carrier frequency



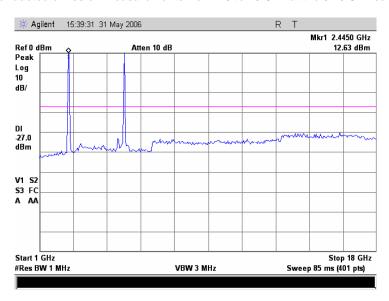
Plot 7.17.22 Conducted emission measurements from 18 to 40 GHz at the 5.18GHz carrier frequency



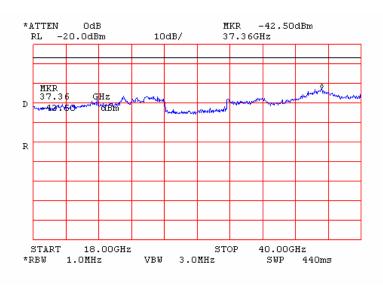


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict: PASS			
Date:	06/27/2006	verdict.	PASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.17.23 Conducted emission measurements from 1.0 to 18 GHz at the 5.26 GHz carrier frequency



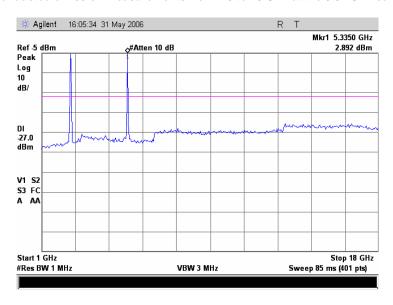
Plot 7.17.24 Conducted emission measurements from 18 to 40 GHz at the 5.26 GHz carrier frequency



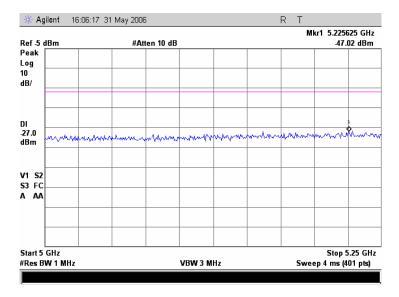


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict: PASS			
Date:	06/27/2006	verdict.	PASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.17.25 Conducted emission measurements from 1.0 to 18 GHz at the 5.32 GHz carrier frequency



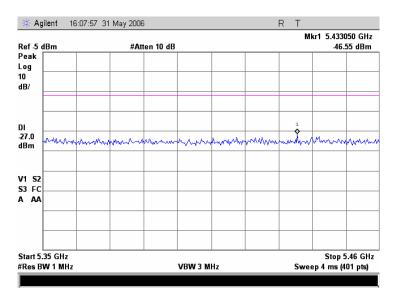
Plot 7.17.26 Conducted emission measurements from 5.0 to 5.25 GHz at the 5.32 GHz carrier frequency



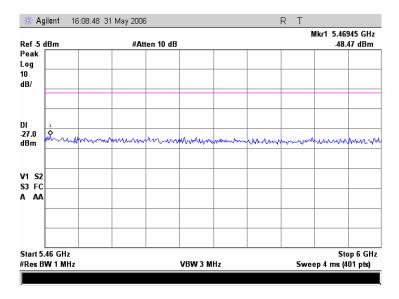


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict:	PASS		
Date:	06/27/2006	verdict.	FASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.17.27 Conducted emission measurements from 5.35 to 5.46 GHz at the 5.32 GHz carrier frequency



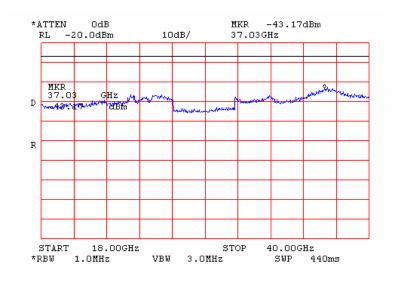
Plot 7.17.28 Conducted emission measurements from 5.46 to 6.0 GHz at the 5.32 GHz carrier frequency



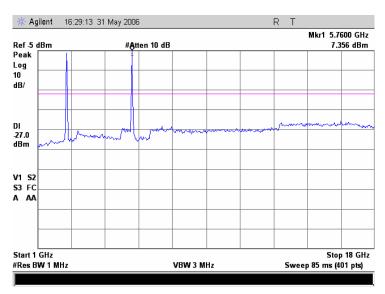


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict: PASS			
Date:	06/27/2006	verdict.	PASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.17.29 Conducted emission measurements from 18 to 40 GHz at the 5.32GHz carrier frequency



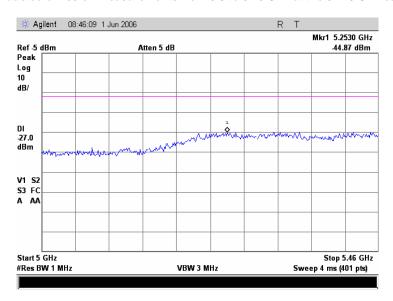
Plot 7.17.30 Conducted emission measurements from 1.0 to 18.0 GHz at the 5.745 GHz carrier frequency



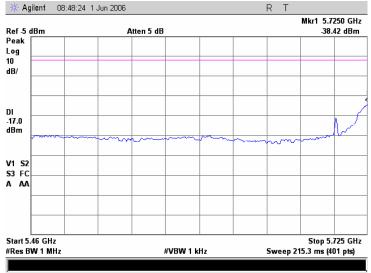


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict:	PASS		
Date:	06/27/2006	verdict.	FASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.17.31 Conducted emission measurements from 5.0 to 5.46 GHz at the 5.745 GHz carrier frequency



Plot 7.17.32 Conducted emission measurements from 5.46 to 5.725 GHz at the 5.745 GHz carrier frequency

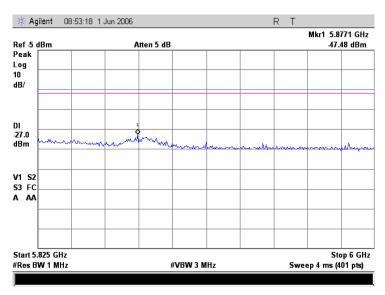


Note: The limit is -17dBm/MHz between 5.715 GHz and 5.725 GHz; -27 dBm/MHz below 5.715 GHz

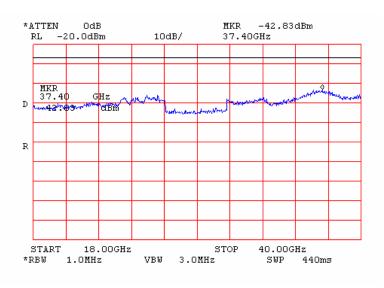


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions		
Test procedure:	Public notice DA02-2138			
Test mode:	Compliance	Verdict:	PASS	
Date:	06/27/2006	verdict.	FASS	
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC	
Remarks: 802.11 a and 802.11 b/g				

Plot 7.17.33 Conducted emission measurements from 5.825 to 6.0 GHz at the 5.745 GHz carrier frequency



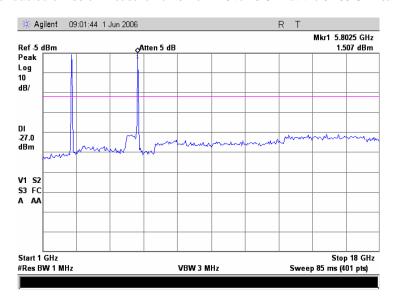
Plot 7.17.34 Conducted emission measurements from 18 to 40 GHz at the 5.745GHz carrier frequency



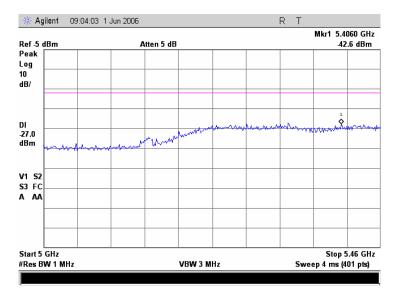


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict: PASS			
Date:	06/27/2006	verdict.	PASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.17.35 Conducted emission measurements from 1.0 to 18 GHz at the 5.785 GHz carrier frequency



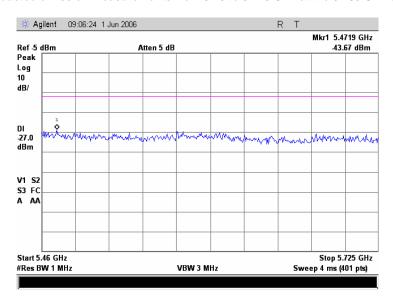
Plot 7.17.36 Conducted emission measurements from 5.0 to 5.46 GHz at the 5.785 GHz carrier frequency



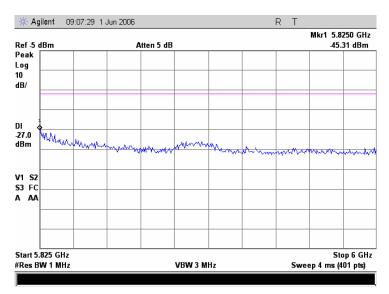


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138	Public notice DA02-2138			
Test mode:	Compliance	Verdict: PASS			
Date:	06/27/2006	verdict.	PASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.17.37 Conducted emission measurements from 5.46 to 5.725 GHz at the 5.785 GHz carrier frequency



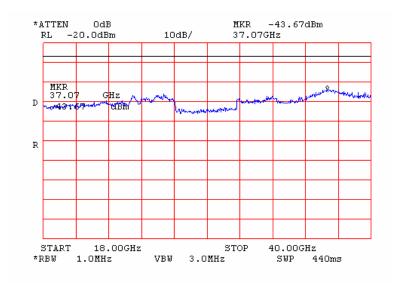
Plot 7.17.38 Conducted emission measurements from 5.825 to 6.0 GHz at the 5.785 GHz carrier frequency



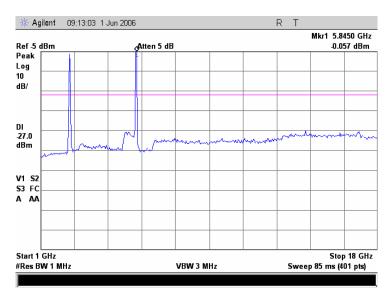


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138	Public notice DA02-2138			
Test mode:	Compliance	Verdict: PASS			
Date:	06/27/2006	verdict.	PASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.17.39 Conducted emission measurements from 18 to 40 GHz at the 5.785GHz carrier frequency



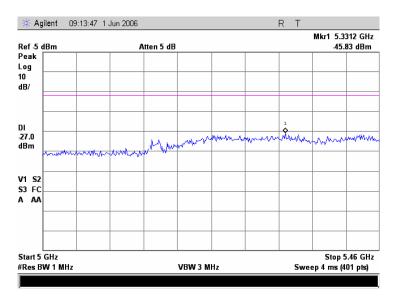
Plot 7.17.40 Conducted emission measurements from 1.0 to 18 GHz at the 5.805 GHz carrier frequency



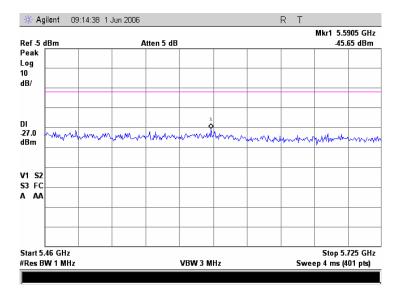


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions			
Test procedure:	Public notice DA02-2138				
Test mode:	Compliance	Verdict: PASS			
Date:	06/27/2006	verdict.	PASS		
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC		
Remarks: 802.11 a and 802.11 b/g					

Plot 7.17.41 Conducted emission measurements from 5.0 to 5.46 GHz at the 5.805 GHz carrier frequency



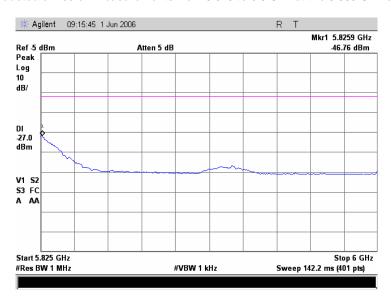
Plot 7.17.42 Conducted emission measurements from 5.46 to 5.725 GHz at the 5.805 GHz carrier frequency



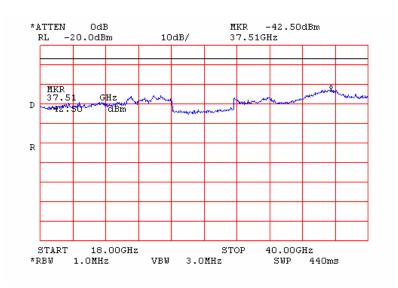


Test specification:	Section 15.407(b), Out of	Section 15.407(b), Out of band undesirable emissions				
Test procedure:	Public notice DA02-2138					
Test mode:	Compliance	Verdict:	PASS			
Date:	06/27/2006	verdict.	FASS			
Temperature: 22°C	Air Pressure: 1015 hPa	Relative Humidity: 49%	Power Supply: 48 VDC			
Remarks: 802.11 a and 802.11 b/g						

Plot 7.17.43 Conducted emission measurements from 5.825 to 6.0 GHz at the 5.805 GHz carrier frequency



Plot 7.17.44 Conducted emission measurements from 18 to 40 GHz at the 5.805GHz carrier frequency





8 APPENDIX A Test equipment and ancillaries used for tests

HL No	Description	Manufacturer	Model	Ser. No.	Last Cal.	Due Cal.
0446	Antenna, Loop active, 10kHz-30MHz	EMCO	6502	2857	28-Jun-06	28-Jun-07
0465	Anechoic Chamber 9(L) x 6.5(W) x 5.5(H) m	HL	AC - 1	023	11-Nov-05	11-Nov-06
0521	EMI Receiver (Spectrum Analyzer) with RF filter section 9 kHz-6.5 GHz	Hewlett Packard	8546A	3617A 00319, 3448A002 53	26-Sep-05	26-Sep-06
0589	Cable Coaxial, GORE A2P01POL118, 2.3 m	HL	GORE-3	176	02-Dec-05	02-Dec-06
0604	Antenna BiconiLog Log-Periodic/T Bow- TIE 26 - 2000 MHz	EMCO	3141	9611-1011	10-Jan-06	10-Jan-07
1424	Spectrum Analyzer, 30 Hz- 40 GHz	Agilent Technologies	8564EC	3946A002 19	30-Aug-05	30-Aug-06
1650	Attenuators Set (2, 3, 5, 20 dB), DC-18 GHz	M/A-COM	2082	1650	03-Jan-06	03-Jan-07
1947	Cable 18GHz, 6.5 m, blue	Rhophase Microwave Limited	NPS- 1803A- 6500-NPS	T4974	17-Oct-05	17-Oct-06
1984	Antenna, Double-Ridged Waveguide Horn, 1-18 GHz, 300 W, N-type	EMC Test Systems	3115	9911-5964	03-Mar-06	03-Mar-07
2009	Cable RF, 8 m	Alpha Wire	RG-214	C-56	02-Dec-05	02-Dec-06
2254	Cable 40GHz, 0.8 m, blue	Rhophase Microwave Limited	KPS- 1503A- 800-KPS	W4907	21-Jun-06	21-Jun-07
2780	EMS analyzer, 100 Hz to 26.5 GHz	Agilent Technologies	E7405A	MY451024 6	11-Jun-06	11-Jun-07
2867	Cable, 18 GHz, 0.9 m, SMA - SMA, Right Angle	Gore	NA	91P72076	16-Feb-06	16-Feb-07
2869	Cable, 18 GHz, 1.2 m, SMA - SMA, Right Angle	Gore	NA	91P72073	16-Feb-06	16-Feb-07
2909	Spectrum analyzer, ESA-E, 100 Hz to 26.5 GHz	Agilent Technologies	E4407B	MY414447 62	10-Apr-06	10-Apr-07



9 APPENDIX B Measurement uncertainties

Expanded uncertainty at 95% confidence in Hermon Labs EMC measurements

Test description	Expanded uncertainty
Conducted carrier power at RF antenna connector	Below 12.4 GHz: ± 1.7 dB
	12.4 GHz to 40 GHz: ± 2.3 dB
Conducted emissions at RF antenna connector	9 kHz to 2.9 GHz: ± 2.6 dB
	2.9 GHz to 6.46 GHz: ± 3.5 dB
	6.46 GHz to 13.2 GHz: ± 4.3 dB
	13.2 GHz to 22.0 GHz: ± 5.0 dB
	22.0 GHz to 26.8 GHz: ± 5.5 dB
	26.8 GHz to 40.0 GHz: ± 4.8 dB
Occupied bandwidth	± 8.0 %
Duty cycle, timing (Tx ON / OFF) and average factor measurements	± 1.0 %
Conducted emissions with LISN	9 kHz to 150 kHz: ± 3.9 dB
	150 kHz to 30 MHz: ± 3.8 dB
Radiated emissions at 3 m measuring distance	
Horizontal polarization	Biconilog antenna: ± 5.3 dB
	Biconical antenna: ± 5.0 dB
	Log periodic antenna: ± 5.3 dB
	Double ridged horn antenna: ± 5.3 dB
Vertical polarization	Biconilog antenna: ± 6.0 dB
	Biconical antenna: ± 5.7 dB
	Log periodic antenna: ± 6.0 dB
	Double ridged horn antenna: ± 6.0 dB

The test equipment has been calibrated according to its recommended procedures and is within the manufacturer's published limit of error. The standards and instruments used in the calibration system conform to the present requirements of ISO/IEC 17025 (or alternately ANSI/NCSL Z540-1).

The laboratory calibrates its measurement standards by a third party (traceable to NIST, USA) on a regular basis according to equipment manufacturer requirements. The Hermon Labs EMC measurements uncertainty is given in the table above.





10 APPENDIX C Test facility description

Tests were performed at Hermon Laboratories Ltd., which is a fully independent, private, EMC, safety, environmental and telecommunication testing facility. Hermon Laboratories is listed by the Federal Communications Commission (USA) for all parts of Code of Federal Regulations 47 (CFR 47) and by Industry Canada for electromagnetic emissions (file numbers IC 2186-1 for OATS and IC 2186-2 for anechoic chamber), certified by VCCI, Japan (the registration numbers are R-808 for OATS, R-1082 for anechoic chamber, C-845 for conducted emissions site), assessed by TNO Certification EP&S (Netherlands) for a number of EMC, telecommunications, environmental, safety standards, and by AMTAC (UK) for safety of medical devices. The laboratory is accredited by American Association for Laboratory Accreditation (USA) according to ISO/IEC 17025 for electromagnetic compatibility, product safety, telecommunications testing and environmental simulation (for exact scope please refer to Certificate No. 839.01).

Address: P.O. Box 23, Binyamina 30500, Israel.

Telephone: +972 4628 8001 Fax: +972 4628 8277 e-mail: mail@hermonlabs.com website: www.hermonlabs.com

Person for contact: Mr. Alex Usoskin, CEO.

11 APPENDIX D Specification references

47CFR part 15: 2005 Radio Frequency Devices.

FCC Public Notice DA 02-2138

August 30, 2002

Measurement procedure updated for peak transmit power in U-NII bands $\,$

ANSI C63.2: 1996 American National Standard for Instrumentation-Electromagnetic Noise and Field

Strength, 10 kHz to 40 GHz-Specifications.

ANSI C63.4: 2003 American National Standard for Methods of Measurement of Radio-Noise Emissions

from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.





12 APPENDIX E Abbreviations and acronyms

ampere

AC alternating current ampere per meter A/m ΑM amplitude modulation **AVRG** average (detector)

cm centimeter dΒ decibel

dBmdecibel referred to one milliwatt $dB(\mu V)$ decibel referred to one microvolt

 $dB(\mu V/m)$ decibel referred to one microvolt per meter $dB(\mu A)$ decibel referred to one microampere

 $dB\Omega$ decibel referred to one Ohm DC direct current

DTS digital transmission system

equivalent isotropically radiated power

EIRP

effective radiated power **ERP EUT** equipment under test

frequency

FHSS frequency hopping spread spectrum

GHz gigahertz **GND** ground height Н

HL Hermon laboratories

Hz hertz

information technology equipment ITE

kilo k kHz kilohertz

LISN line impedance stabilization network

local oscillator LO

meter m MHz megahertz minute min millimeter mm millisecond ms microsecond μ s NA not applicable NT not tested

OATS open area test site

Ω Ohm

PCB printed circuit board РМ pulse modulation PS power supply

part per million (10⁻⁶) ppm QΡ quasi-peak

RE radiated emission RF radio frequency rms root mean square

Rx receive second s Т temperature Tx transmit volt ۷A volt-ampere





13 APPENDIX F Test equipment correction factors

Antenna factor
Biconilog antenna EMCO, model 3141, serial number 1011, HL 0604

Frequency, MHz	Antenna factor, dB(1/m)	Frequency, MHz	Antenna factor, dB(1/m)	Frequency, MHz	Antenna factor, dB(1/m)
26	7.8	560	19.8	1300	27.0
28	7.8	580	20.6	1320	27.8
30	7.8	600	21.3	1340	28.3
40	7.2	620	21.5	1360	28.2
60	7.1	640	21.2	1380	27.9
70	8.5	660	21.4	1400	27.9
80	9.4	680	21.9	1420	27.9
90	9.8	700	22.2	1440	27.8
100	9.7	720	22.2	1460	27.8
110	9.3	740	22.1	1480	28.0
120	8.8	760	22.3	1500	28.5
130	8.7	780	22.6	1520	28.9
140	9.2	800	22.7	1540	29.6
150	9.8	820	22.9	1560	29.8
160	10.2	840	23.1	1580	29.6
170	10.4	860	23.4	1600	29.5
180	10.4	880	23.8	1620	29.3
190	10.3	900	24.1	1640	29.2
200	10.6	920	24.1	1660	29.4
220	11.6	940	24.0	1680	29.6
240	12.4	960	24.1	1700	29.8
260	12.8	980	24.5	1720	30.3
280	13.7	1000	24.9	1740	30.8
300	14.7	1020	25.0	1760	31.1
320	15.2	1040	25.2	1780	31.0
340	15.4	1060	25.4	1800	30.9
360	16.1	1080	25.6	1820	30.7
380	16.4	1100	25.7	1840	30.6
400	16.6	1120	26.0	1860	30.6
420	16.7	1140	26.4	1880	30.6
440	17.0	1160	27.0	1900	30.6
460	17.7	1180	27.0	1920	30.7
480	18.1	1200	26.7	1940	30.9
500	18.5	1220	26.5	1960	31.2
520	19.1	1240	26.5	1980	31.6
540	19.5	1260 1280	26.5 26.6	2000	32.0

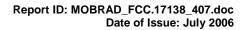
Antenna factor in dB(1/m) is to be added to receiver meter reading in dB(μ V) to convert it into field intensity in dB(μ V/m).



Antenna factor Double-ridged wave guide horn antenna EMC Test Systems, model 3115, serial no: 9911-5964, HL 1984

Frequency, MHz	Antenna gain, dBi	Antenna factor. dB(1/m)
1000.0	5.8	24.5
1500.0	9.0	24.8
2000.0	8.6	27.7
2500.0	9.5	28.7
3000.0	8.9	30.8
3500.0	8.2	32.9
4000.0	9.6	32.7
4500.0	11.2	32.1
5000.0	10.6	33.6
5500.0	9.8	35.3
6000.0	10.1	35.7
6500.0	10.7	35.8
7000.0	10.9	36.2
7500.0	10.5	37.2
8000.0	11.1	37.2
8500.0	10.8	38.1
9000.0	10.7	38.6
9500.0	11.5	38.3
10000.0	11.8	38.4
10500.0	12.3	38.3
11000.0	12.3	38.8
11500.0	11.5	39.9
12000.0	12.2	39.6
12500.0	12.6	39.5
13000.0	12.0	40.5
13500.0	11.7	41.1
14000.0	11.7	41.5
14500.0	12.7	40.8
15000.0	14.2	39.5
15500.0	16.0	38.1
16000.0	16.2	38.1
16500.0	14.5	40.1
17000.0	12.2	42.6
17500.0	9.7	45.4
18000.0	6.6	48.7

Antenna factor is to be added to receiver meter reading in $dB(\mu V)$ to convert it into field intensity in $dB(\mu V/m)$.





Antenna Factor Active Loop Antenna EMC Test Systems, model 6502, serial number 2857, HL 0446

Frequency, MHz	Magnetic Antenna Factor, dB(S/m)	Electric Antenna Factor, dB(1/m)
0.009	-32.8	18.7
0.010	-33.8	17.7
0.020	-38.3	13.2
0.050	-41.1	10.4
0.075	-41.3	10.2
0.100	-41.6	9.9
0.150	-41.7	9.8
0.250	-41.6	9.9
0.500	-41.8	9.7
0.750	-41.9	9.6
1.000	-41.4	10.1
2.000	-41.5	10.0
3.000	-41.4	10.1
4.000	-41.4	10.1
5.000	-41.5	10.0
10.000	-41.9	9.6
15.000	-41.9	9.6
20.000	-42.2	9.3
25.000	-42.8	8.7
30.000	-44.0	7.5

Antenna factor in dB(S/m) is to be added to receiver meter reading in dB(μ V) to convert it into field intensity in dB(μ A/m).



Cable loss Cable Coaxial, GORE A2P01POL118, 2.3 m, model:GORE-3, HL 0589 + Cable Coaxial, ANDREW PSWJ4, 6m, model: ANDREW-6, HL 1004

No.	Frequency, MHz	Cable loss, dB	Tolerance (Specification), dB	Measurement uncertainty, dB
1	30	0.33		
2	50	0.40		
3	100	0.57		
4	300	0.97		
5	500	1.25		
6	800	1.59		
7	1000	1.81		
8	1200	1.97	≤ 6.5	±0.12
9	1400	2.15		
10	1600	2.28		
11	1800	2.43		
12	2000	2.61		
13	2200	2.75		
14	2400	2.89		
15	2600	2.97		
16	2800	3.21	≤ 6.5	±0.12
17	3000	3.32		
18	3300	3.47		
19	3600	3.62		
20	3900	3.84		
21	4200	3.92		±0.17
22	4500	4.07		
23	4800	4.36]	
24	5100	4.62		
25	5400	4.78		
26	5700	5.16		
27	6000	5.67		
28	6500	5.99]	



Cable loss Cable 18 GHz, 6.5 m, blue, model: NPS-1803A-6500-NPS, S/N T4974, HL 1947

Frequency, GHz	Cable loss, dB
0.03	0.30
0.05	0.38
0.10	0.53
0.20	0.74
0.30	0.91
0.40	1.05
0.50	1.18
0.60	1.29
0.70	1.40
0.80	1.50
0.90	1.59
1.00	1.68
1.10	1.77
1.20	1.86
1.30	1.94
1.40	2.01
1.50	2.08
1.60	2.16
1.70	2.22
1.80	2.29
1.90	2.36
2.00	2.42
2.10	2.48
2.20	2.54
2.30	2.60
2.40	2.66
2.50	2.71
2.60	2.77
2.70	2.83
2.80	2.89
2.90	2.95
3.10	3.06
3.30	3.17
3.50	3.28
3.70	3.39
3.90	3.51
4.10	3.62
4.30	3.76
4.50	3.87
4.70	4.01
4.90	4.10
5.10	4.21
5.30	4.31
5.50	4.43
5.70	4.56 4.71
5.90	4.71

Frequency, GHz	Cable loss, dB
6.10	4.87
6.30	4.95
6.50	4.94
6.70	4.88
6.90	4.87
7.10	4.83
7.30	4.85
7.50	4.86
7.70	4.91
7.90	4.96
8.10	5.03
8.30	5.08
8.50	5.13
8.70	5.21
8.90	5.22
9.10	5.34
9.30	5.35
9.50	5.52
9.70	5.51
9.90	5.66
10.10	5.70
10.30	5.78
10.50	5.79
10.70	5.82
10.90	5.86
11.10	5.94
11.30	6.06
11.50	6.21
11.70 11.90	6.44 6.61
12.10	6.76
12.10	
13.00	6.68 6.66
13.50	6.81
14.00	6.90
14.50	6.90
15.00	6.97
15.50	7.17
16.00	7.17
16.50	7.27
17.00	7.38
17.50	7.68
18.00	7.92
10.00	1.34



Cable loss RF cable 8 m, model RG-214, HL 2009

No.	Frequency, MHz	Cable loss, dB	Tolerance (Specification), dB	Measurement uncertainty, dB
1	1	0.10		
2	10	0.14		
3	30	0.25		
4	50	0.34		
5	100	0.53		
6	300	0.99		
7	500	1.31		
8	800	1.73		
9	1000	1.98		
10	1100	2.11	NA	±0.12
11	1200	2.21		
12	1300	2.35		
13	1400	2.46		
14	1500	2.55		
15	1600	2.68		
16	1700	2.78		
17	1800	2.88		
18	1900	2.98		
19	2000	3.09		



Cable loss
Cable 40 GHz, 0.8 m, blue, model: KPS-1503A-800-KPS, S/N W4907, HL 2254

Frequency,	Cable loss,	Frequency,	Cable loss,	Frequency,	Cable loss,
GHz	dB	GHz	dB	GHz	dB
0.03	0.04	5.10	0.80	15.00	1.49
0.05	0.07	5.30	0.83	15.50	1.49
0.10	0.09	5.50	0.83	16.00	1.46
0.20	0.15	5.70	0.84	16.50	1.47
0.30	0.19	5.90	0.87	17.00	1.50
0.40	0.25	6.10	0.86	17.50	1.57
0.50	0.29	6.30	0.89	18.00	1.63
0.60	0.33	6.50	0.90	18.50	1.57
0.70	0.37	6.70	0.89	19.00	1.63
0.80	0.41	6.90	0.93	19.50	1.65
0.90	0.44	7.10	0.92	20.00	1.64
1.00	0.45	7.30	0.95	20.50	1.75
1.10	0.48	7.50	0.96	21.00	1.72
1.20	0.51	7.70	0.97	21.50	1.78
1.30	0.53	7.90	1.01	22.00	1.76
1.40	0.54	8.10	1.00	22.50	1.72
1.50	0.57	8.30	1.05	23.00	1.83
1.60	0.59	8.50	1.04	23.50	1.80
1.70	0.04	8.70	1.07	24.00	1.90
1.80	0.07	8.90	1.11	24.50	1.81
1.90	0.09	9.10	1.09	25.00	1.98
2.00	0.15	9.30	1.14	25.50	1.91
2.10	0.19	9.50	1.12	26.00	2.02
2.20	0.25	9.70	1.15	26.50	1.92
2.30	0.29	9.90	1.16	27.00	1.97
2.40	0.33	10.10	1.16	28.00	2.02
2.50	0.37	10.30	1.19	29.00	1.95
2.60	0.41	10.50	1.14	30.00	1.94
2.70	0.44	10.70	1.19	31.00	2.11
2.80	0.45	10.90	1.17	32.00	2.17
2.90	0.48	11.10	1.13	33.00	2.27
3.10	0.61	11.30	1.20	34.00	2.27
3.30	0.64	11.50	1.13	35.00	2.29
3.50	0.65	11.70	1.20	36.00	2.35
3.70	0.68	11.90	1.18	37.00	2.37
3.90	0.69	12.10	1.14	38.00	2.40
4.10	0.71	12.40	1.19	39.00	2.57
4.30	0.73	13.00	1.34	40.00	2.36
4.50	0.75	13.50	1.33		
4.70	0.77	14.00	1.48		
4.90	0.79	14.50	1.45		



Cable loss Cable coaxial, Gore, 18 GHz, 0.9 m, SMA - SMA, model Right Angle, HL 2867

Frequency, GHz	Cable loss, dB	Frequency, GHz	Cable loss, dB	Frequency, GHz	Cable loss, dB
10	0.06	5750	0.68	12000	1.06
30	0.04	6000	0.69	12250	1.07
100	0.07	6250	0.70	12500	1.09
250	0.14	6500	0.73	12750	1.09
500	0.19	6750	0.74	13000	1.15
750	0.22	7000	0.78	13250	1.17
1000	0.26	7250	0.77	13500	1.16
1250	0.27	7500	0.79	13750	1.17
1500	0.31	7750	0.81	14000	1.14
1750	0.35	8000	0.86	14250	1.13
2000	0.38	8250	0.86	14500	1.06
2250	0.41	8500	0.87	14750	1.12
2500	0.43	8750	0.87	15000	1.16
2750	0.46	9000	0.88	15250	1.11
3000	0.48	9250	0.89	15500	1.06
3250	0.51	9500	0.90	15750	1.12
3500	0.53	9750	0.94	16000	1.20
3750	0.55	10000	1.00	16250	1.25
4000	0.56	10250	1.01	16500	1.24
4250	0.58	10500	1.02	16750	1.34
4500	0.60	10750	1.01	17000	1.35
4750	0.62	11000	1.01	17250	1.35
5000	0.64	11250	1.01	17500	1.36
5250	0.67	11500	1.01	17750	1.40
5500	0.68	11750	1.05	18000	1.51