FCC CFR47 PART 15 SUBPART E

CLASS II PERMISSIVE CHANGE
TEST REPORT FOR

802.11a/b/g ACCESS POINT

MODEL NUMBER: AR5BAP-00032

FCC ID: PPD-AR5BAP-00032

REPORT NUMBER: 06U10336-4

ISSUE DATE: OCTOBER 17, 2006

Prepared for
ATHEROS COMMUNICATIONS, INC.
529 ALMANOR AVENUE
SUNNYVALE
CA 94085, USA

Prepared by
COMPLIANCE CERTIFICATION SERVICES
561F MONTEREY ROAD,
MORGAN HILL, CA 95037, USA
TEL: (408) 463-0885
FAX: (408) 463-0888

LAB CODE:200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	10/17/2006	Initial Issue, based on 04U2590-1; Removed DFS Test Results	MH

TABLE OF CONTENTS

1. TEST RESULT CERTIFICATION

COMPANY NAME: ATHEROS COMMUNICATIONS, INC.
529 ALMANOR AVENUE
SUNNYVALE, CA 94085, USA

EUT DESCRIPTION: 802.11a/b/g Access Point

MODEL: AR5BAP-00032

DATE TESTED: MARCH 6 – APRIL 1, 2004

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
FCC PART 15 SUBPART E	NO NON-COMPLIANCE NOTED

Compliance Certification Services, Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: This document reports conditions under which testing was conducted and results of tests performed. This document may not be altered or revised in any way unless done so by Compliance Certification Services and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Compliance Certification Services will constitute fraud and shall nullify the document.

Approved & Released For CCS By:

MIKE HECKROTTE
ENGINEERING MANAGER
COMPLIANCE CERTIFICATION SERVICES

Tested By:

YAN ZHENG
EMC ENGINEER
COMPLIANCE CERTIFICATION SERVICES

2. DESCRIPTION OF CLASS II PERMISSIVE CHANGE

The EUT is an 802.11a/b/g Access Point contains two radios capable of simultaneous 802.11b/g (2.4 GHz) and 802.11a (5 GHz) operation.

The AR5BAP-00032 has the following maximum output power and antenna gain characteristics:
Output power of 28.04 dBm (637 mW) and an antenna gain of 1.5 dBi in the 2400 – 2483.5 MHz band.
Output power of 20.97 dBm (125 mW) and an antenna gain of 4.0 dBi in the 5150 – 5350 MHz band.
Output power of 28.55 dBm (716 mW) and an antenna gain of 4.0 dBi in the 5750 - 5825 MHz band.

The purpose of the Class II Permissive Change is to add operation in the 5470 to 5725 MHz UNII band. This report also documents the additional TPC measurements that are applicable to the previously authorized 5250 to 5350 MHz band.

No hardware changes are made relative to the EUT as originally submitted. The only changes are in software, to enable operation in the new band and to perform the DFS and TPC functions as required by the new rules.

The transmitter has a maximum peak conducted output power in the additional band as follows:

Frequency Band (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5500 ~ 5700	802.11a	17.43	55.34

The maximum antenna gain is 4.0 dBi.

The output power in the additional band associated with this Class II Permissive Change is lower than that of the dominant transmitter as documented in the original filing. Therefore the worst-case co-location tests and MPE calculations as originally submitted are also applicable to this Class II Permissive Change.

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4/2001, FCC CFR 47 Part 2 and FCC CFR 47 Part 15.

4. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 561F Monterey Road, Morgan Hill, California, USA. The sites are constructed in conformance with the requirements of ANSI C63.4, ANSI C63.7 and CISPR Publication 22. All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

CCS is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at http://www.ccsemc.com.

No part of this report may be used to claim or imply product endorsement by NVLAP or any agency of the US Government.

5. CALIBRATION AND UNCERTAINTY

5.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

5.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Radiated Emission, 30 to 200 MHz	+/- 3.3 dB
Radiated Emission, 200 to 1000 MHz	+4.5 / -2.9 dB
Radiated Emission, 1000 to 2000 MHz	+4.5 / -2.9 dB
Power Line Conducted Emission	+/- 2.9 dB

Uncertainty figures are valid to a confidence level of 95%.

5.3. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

TEST EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Serial Number**	**Cal Due**
EMI Receiver, 9 kHz ~ 2.9 GHz	HP	8542E	3942A00286	11/21/2004
RF Filter Section	HP	85420E	3705A00256	11/21/04
Bilog Antenna 30MHz~ 2Ghz	Sunol Sciences	JB1 Antenna	A121003	12/22/04
Spectrum Analyzer 20Hz ~ 44GHz	Agilent	E4446A	MY43360112	1/13/05
Peak / Average Power Sensor	Agilent	E9327A	US40440755	11/7/04
Peak Power Meter	Agilent	E4416A	GB41291160	11/7/04
Preamplifier, 1 ~ 26 GHz	Miteq	NSP10023988	646456	4/25/04
Antenna, Horn 1 ~ 18 GHz	EMCO	3115	6717	2/4/05
Antenna, Horn, 18 ~ 26 GHz	ARA	MWH-1826/B	1013	2/24/05
Antenna, Horn 26 ~ 40 GHz	ARA	MWH-2640/B	1029	12/3/2004
PreAmplifier 26-40 GHz	MITEQ	NSP4000-SP2	924343	6/1/2004
7.6GHz High Pass Filter	Micro-Tronics	HPM13195	1	N/A
10dB Attenuator	Weinschel	56-10	k16148	N/A
Pulse Generator	Agilent	81101A	DE38900835	2/13/2005
Signal Generator	HP	83732B	US34490599	7/7/2005

6. SETUP OF EQUIPMENT UNDER TEST

SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST				
Device Type	Manufacturer	Model	Serial Number	FCC ID
Laptop	Toshiba	NA	J291200E8019	Doc
Power Adapter	Toshiba	PA3083U-1ACA	0536906G	Doc
5V DC power adapter	Switching Adapter	RHC-060200-1	0319	DOC

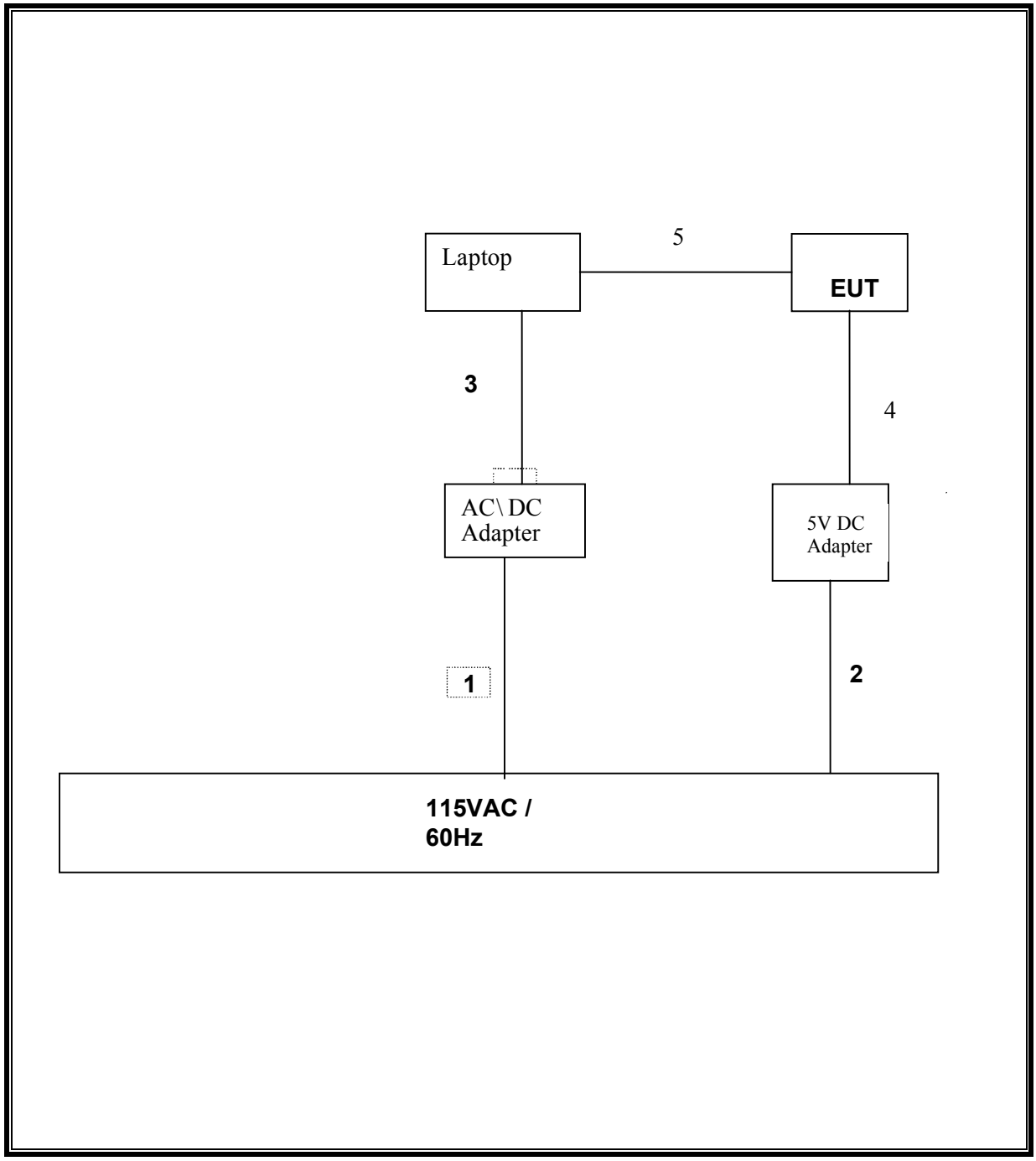
I/O CABLES

Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length	Remarks
1	AC	2	US115V	Un-Shielded	2m	NA
2	AC	2	US115V	Un-Shielded	2m	NA
3	DC	2	DC	Un-Shielded	2m	Integral with adapter
4	DC	2	DC	Un-Shielded	2m	Integral with adapter
5	RJ45	1	RJ45	Un-Shielded	2m	NA

TEST SETUP

The EUT was controlled by the laptop via Ethernet cable. The test software exercised the radio card during tests.

SETUP DIAGRAM FOR TESTS



SUPPLEMENTAL SUPPORT EQUIPMENT FOR DFS TESTS

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
LAPTOP	DELL	PP01L	DS/N CN-04P240-48643-2BK-4144	DOC
AC ADAPTER	DELL	AA20031	DS/N CN-09364U-16291-2A9-01LG	DOC
WLAN STATION	ATHEROS	AR5BMB-44	PROTOTYPE	PENDING

7. APPLICABLE LIMITS AND TEST RESULTS

7.1. EMISSION BANDWIDTH

LIMIT

§15.403 (c) Emission bandwidth. For purposes of this subpart the emission bandwidth shall be determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier. Determination of the emissions bandwidth is based on the use of measurement instrumentation employing a peak detector function with an instrument resolutions bandwidth approximately equal to 1.0 percent of the emission bandwidth of the device under measurement.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The RBW is set to 1% to 3% of the 26 dB bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled.

RESULTS

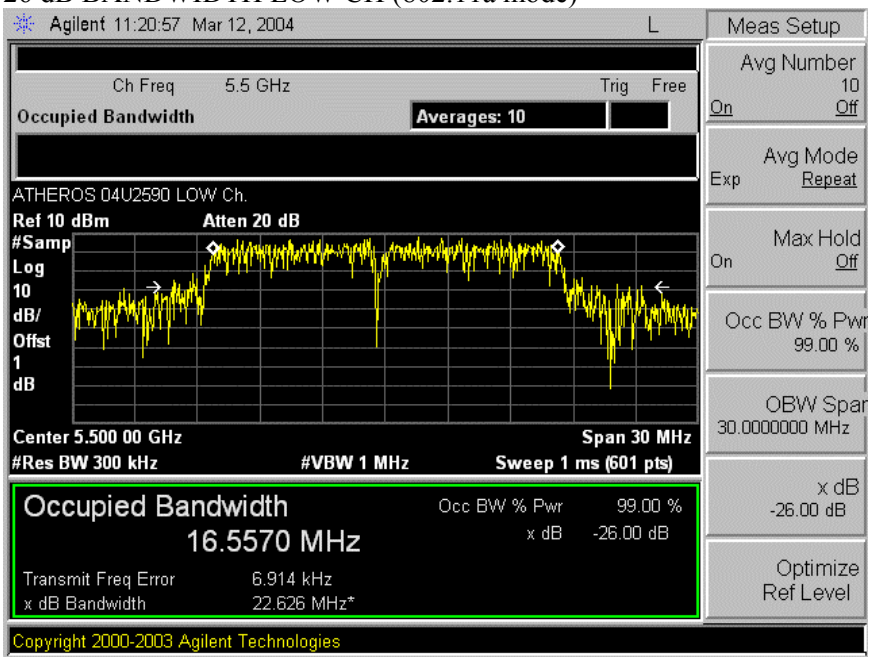
No non-compliance noted:

802.11a Mode

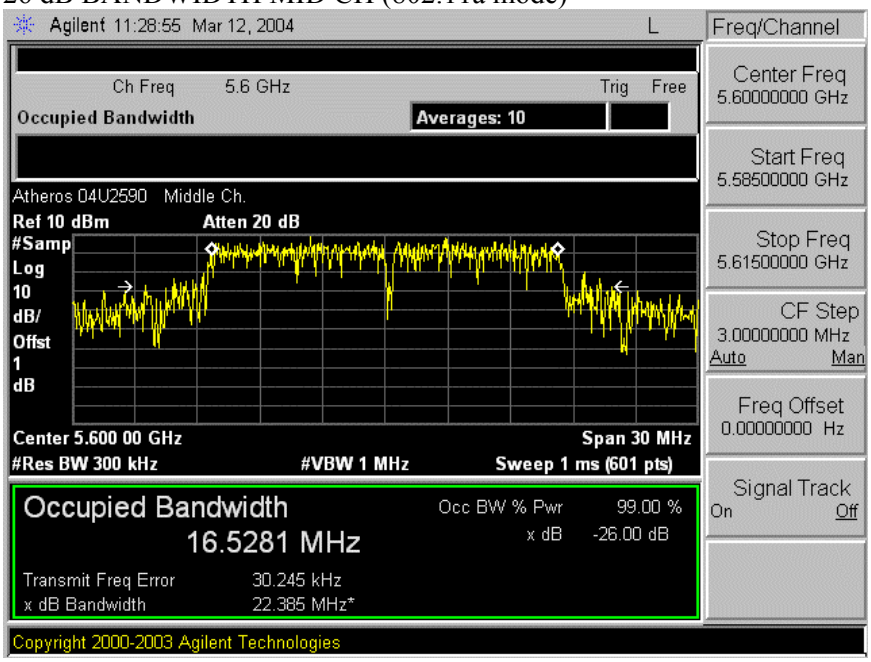
Channel	Frequency (MHz)	B (MHz)	10 Log B (dB)
Low	5500	22.63	13.55
Middle	5600	22.39	13.50
High	5700	22.05	13.43

26 dB EMISSION BANDWIDTH (802.11a MODE)

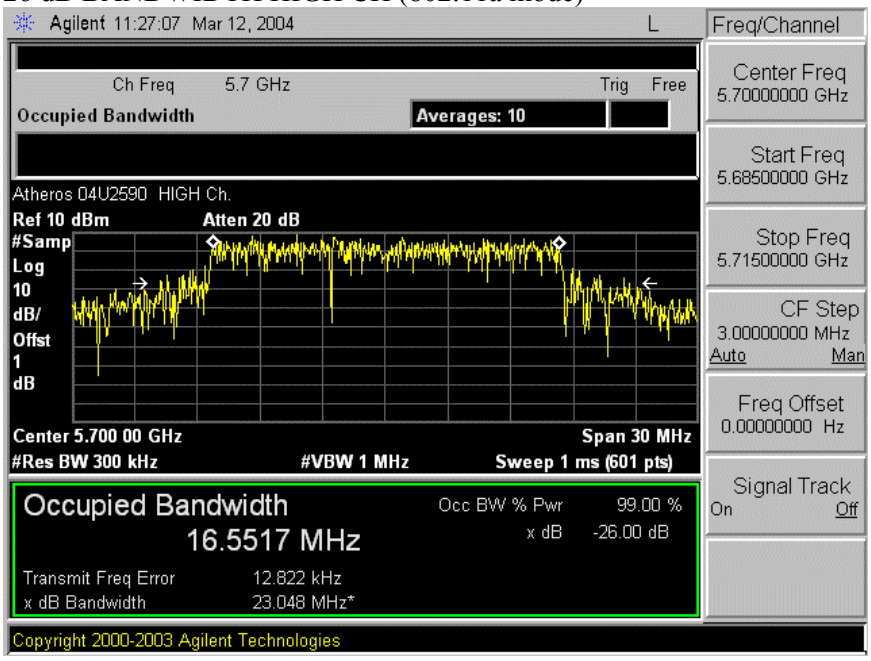
26 dB BANDWIDTH LOW CH (802.11a mode)



26 dB BANDWIDTH MID CH (802.11a mode)



26 dB BANDWIDTH HIGH CH (802.11a mode)



7.2. PEAK POWER

LIMIT

§15.407 (a) (2) For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the peak transmit power over the frequency band of operation shall not exceed the lesser of 250 mW (24 dBm) or 11 dBm + 10 log B, where B is the 26-dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

TEST PROCEDURE

The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002.

The transmitter output operates continuously therefore Method # 1 is used.

LIMITS AND RESULTS

No non-compliance noted:

Limit

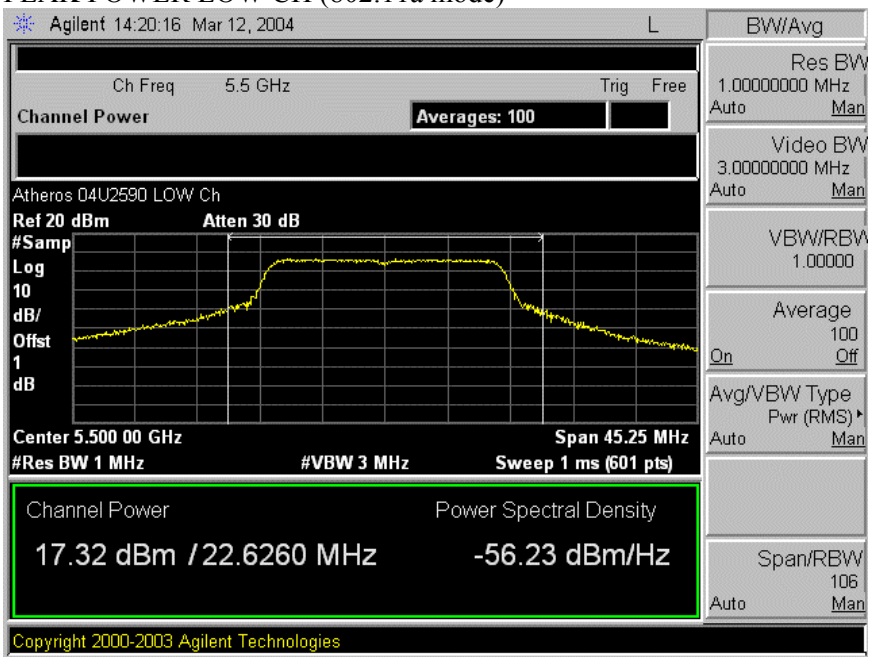
Channel	Frequency (MHz)	Fixed Limit (dBm)	B (MHz)	11 + 10 Log B Limit (dBm)	Antenna Gain (dBi)	Limit (dBm)
Low	5500	24	22.626	24.55	4.00	24.00
Mid	5600	24	22.385	24.50	4.00	24.00
High	5700	24	23.048	24.63	4.00	24.00

Results

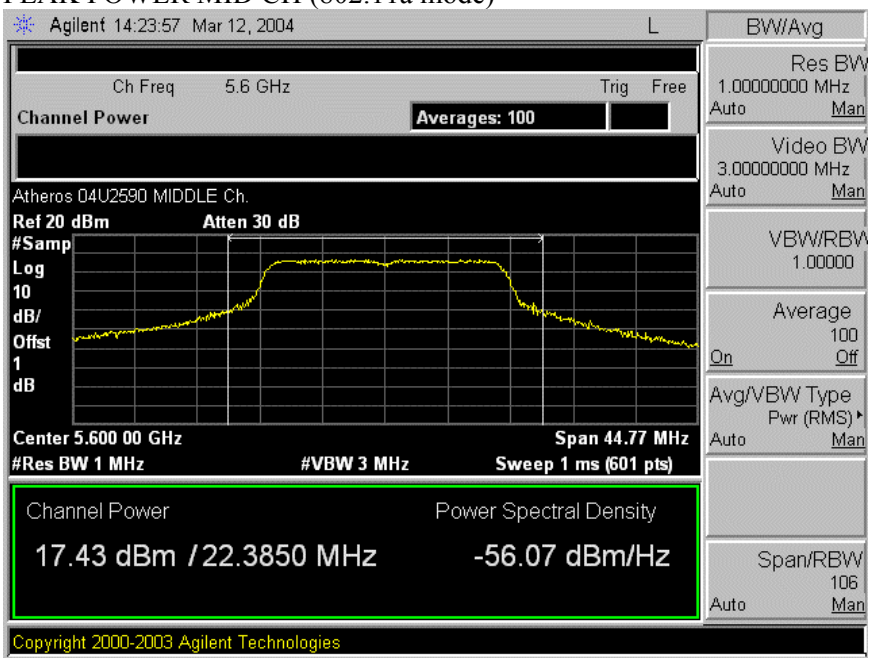
Channel	Frequency (MHz)	Power (dBm)	Limit (dBm)	Margin (dB)
Low	5500	17.32	24.00	-6.68
Middle	5600	17.43	24.00	-6.57
High	5700	17.27	24.00	-6.73

PEAK POWER (802.11a MODE)

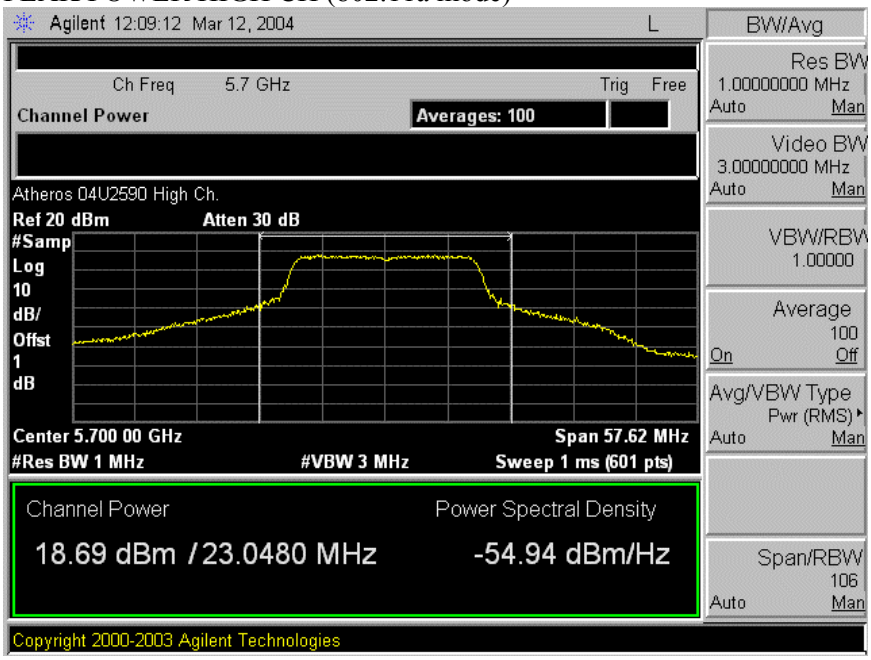
PEAK POWER LOW CH (802.11a mode)



PEAK POWER MID CH (802.11a mode)



PEAK POWER HIGH CH (802.11a mode)



7.3. TRANSMIT POWER CONTROL

LIMIT

§15.407 (a) (2) (h) (1) Transmit power control (TPC). UNII devices operating in the 5.25–5.35 GHz band and the 5.47–5.725 GHz band shall employ a TPC mechanism. The UNII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm. A TPC mechanism is not required for systems with an EIRP of less than 500 mW.

RESULTS

Note: 5250 to 5350 MHz data is from the original submission report.

802.11a mode Maximum EIRP Results

Channel	Frequency (MHz)	Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)
Low	5180	TPC Not Applicable			
Middle	5260	20.65	4.00	24.65	291.74
High	5320	17.10	4.00	21.10	128.82

802.11a mode Maximum EIRP Results

Channel	Frequency (MHz)	Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)
Low	5500	17.32	4.00	21.32	135.52
Middle	5600	17.43	4.00	21.43	139.00
High	5700	17.27	4.00	21.27	133.97

The system has an EIRP of less than 500 mW, therefore a TPC mechanism is not required.

7.4. AVERAGE POWER

AVERAGE POWER LIMIT

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

RESULTS

No non-compliance noted:

The cable assembly insertion loss of 12 dB (including 10 dB pad and 2 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

802.11a Mode

Channel	Frequency (MHz)	Average Power (dBm)
Low	5500	18.20
Middle	5600	18.20
High	5700	18.00

7.5. PEAK POWER SPECTRAL DENSITY

LIMIT

§15.407 (a) (2) For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the peak transmit power over the frequency band of operation shall not exceed the lesser of 250 mW (24 dBm) or 11 dBm + 10 log B, where B is the 26-dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

The maximum antenna gain = 4 dBi, therefore there is no reduction due to antenna gain.

TEST PROCEDURE

The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002. PPSD method #2 was used.

RESULTS

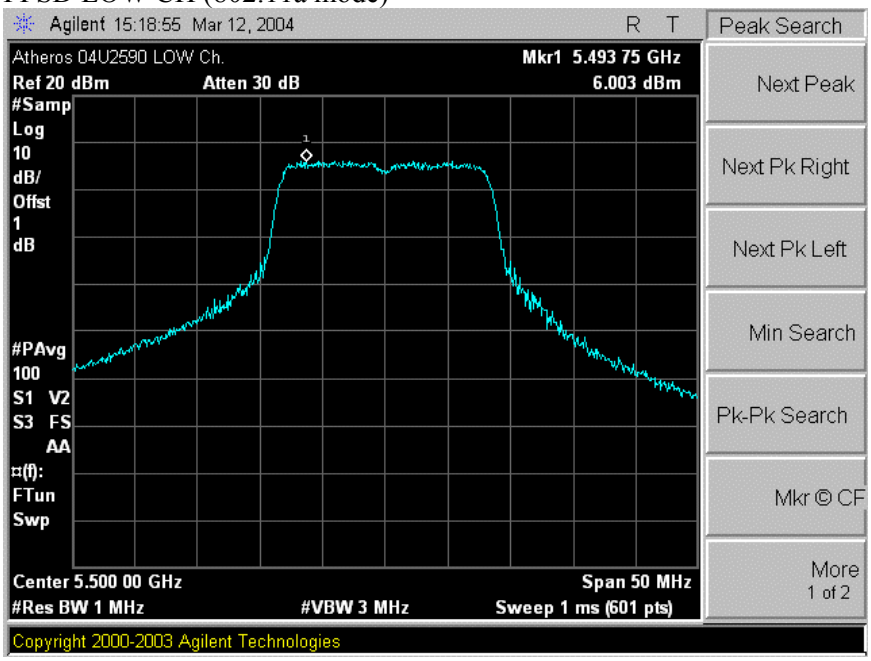
No non-compliance noted:

802.11a Mode

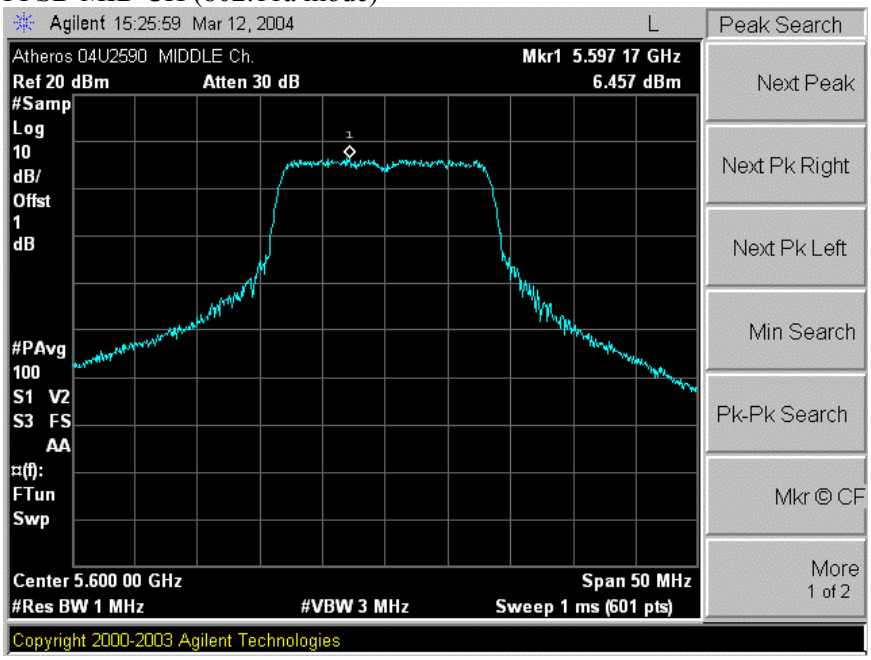
Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	5500	6.00	11.00	-5.00
Middle	5600	6.46	11.00	-4.54
High	5700	5.98	11.00	-5.02

PEAK POWER SPECTRAL DENSITY (802.11a MODE)

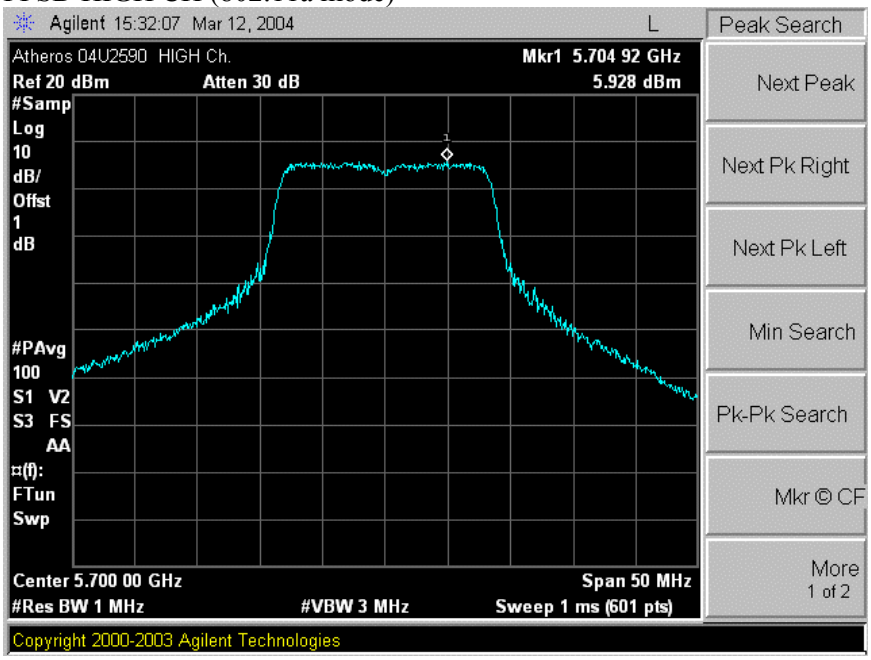
PPSD LOW CH (802.11a mode)



PPSD MID CH (802.11a mode)



PPSD HIGH CH (802.11a mode)



7.6. PEAK EXCURSION

LIMIT

§15.407 (a) (6) The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

TEST PROCEDURE

The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002.

Since Method # 1 was used for peak power measurements, Method # 1 settings are used for the second PPSD trace.

RESULTS

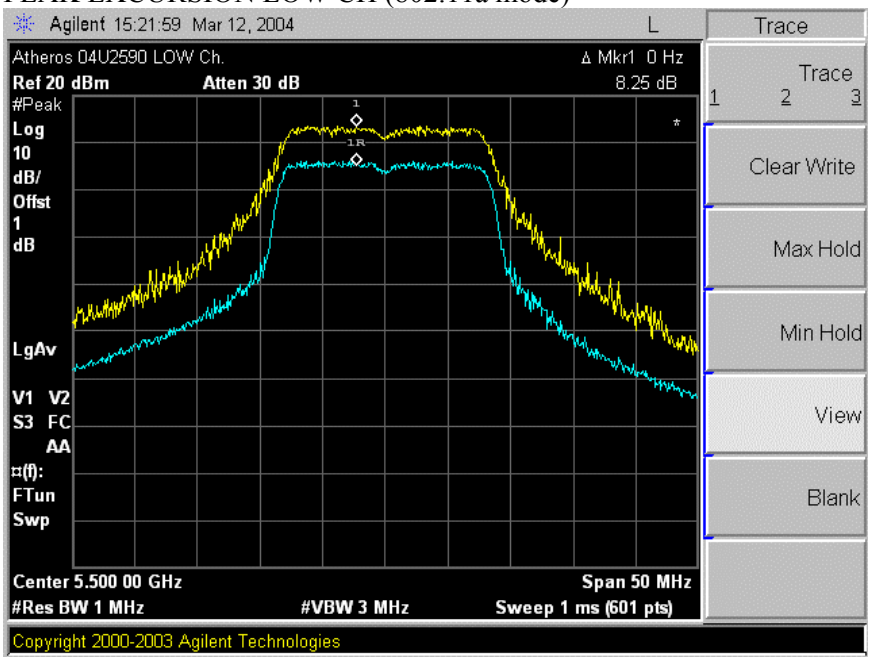
No non-compliance noted:

802.11a Mode

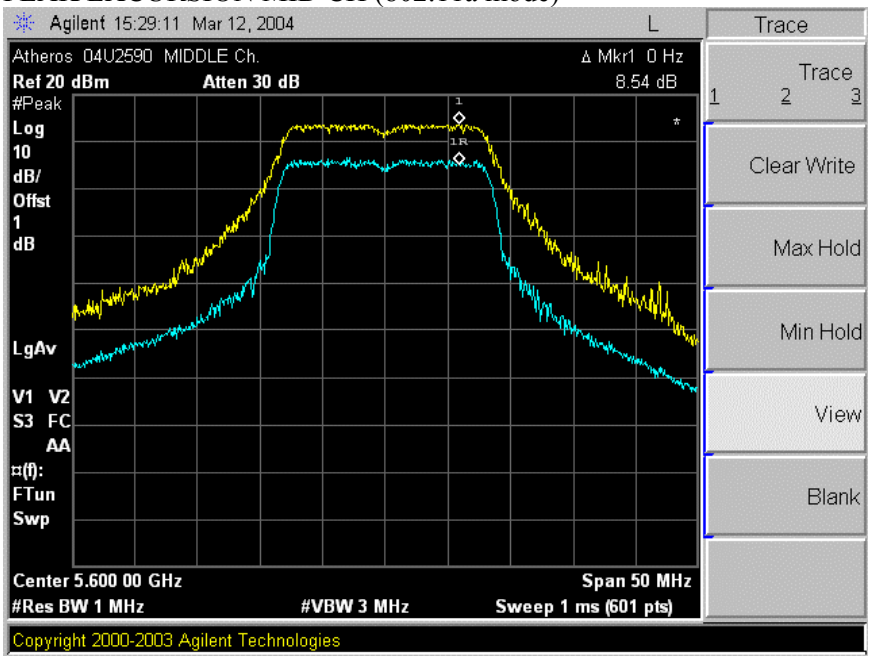
Channel	Frequency (MHz)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Low	5500	8.25	13	-4.75
Middle	5600	8.54	13	-4.46
High	5700	8.15	13	-4.85

PEAK EXCURSION (802.11a MODE)

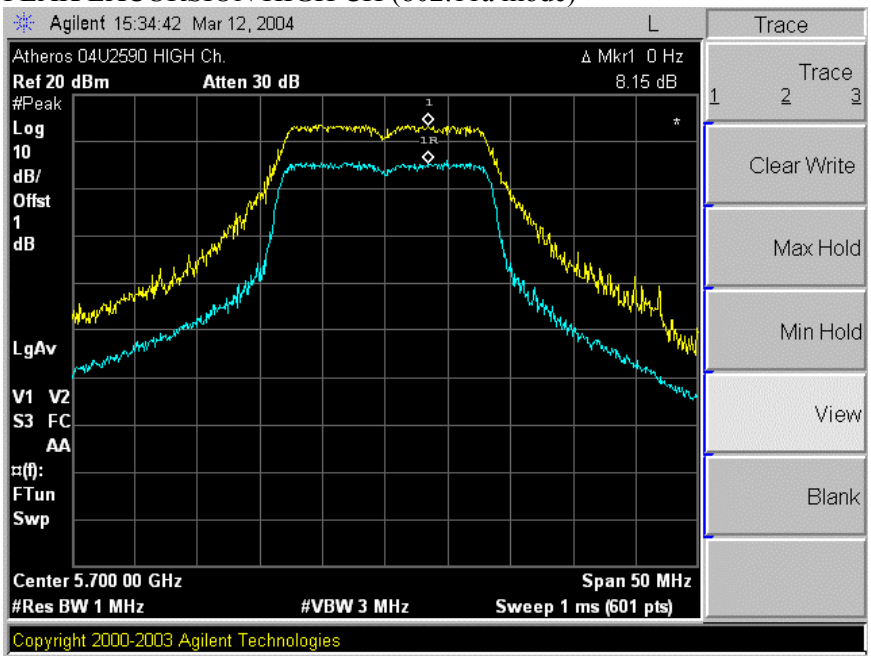
PEAK EXCURSION LOW CH (802.11a mode)



PEAK EXCURSION MID CH (802.11a mode)



PEAK EXCURSION HIGH CH (802.11a mode)



7.7. CONDUCTED SPURIOUS EMISSIONS

LIMITS

§15.407 (b) (3) For transmitters operating in the 5.47–5.725 GHz band: all emissions outside of the 5.47–5.725 GHz band shall not exceed an EIRP of -27 dBm / MHz.

TEST PROCEDURE

Conducted RF measurements of the transmitter output are made to confirm that the EUT antenna port conducted emissions meet the specified limit and to identify any spurious signals that require further investigation or measurements on the radiated emissions site.

The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 1 MHz. The video bandwidth is set to 1 MHz. Peak detection measurements are compared to the average EIRP limit, adjusted for the maximum antenna gain. If necessary, additional average detection measurements are made.

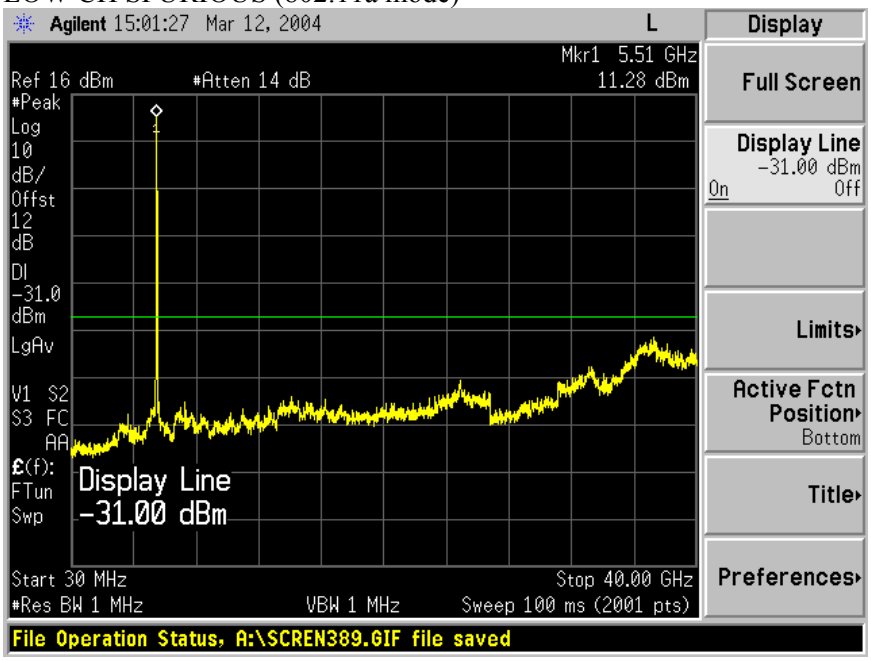
Measurements are made over the 30 MHz to 40 GHz range with the transmitter set to the lowest, middle, and highest channels.

RESULTS

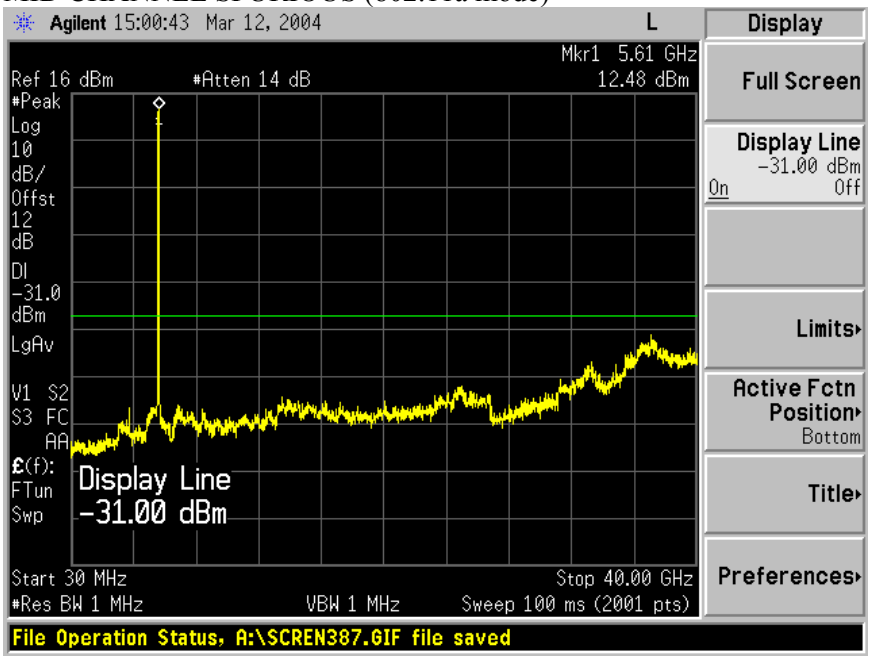
No non-compliance noted:

SPURIOUS EMISSIONS (802.11a MODE)

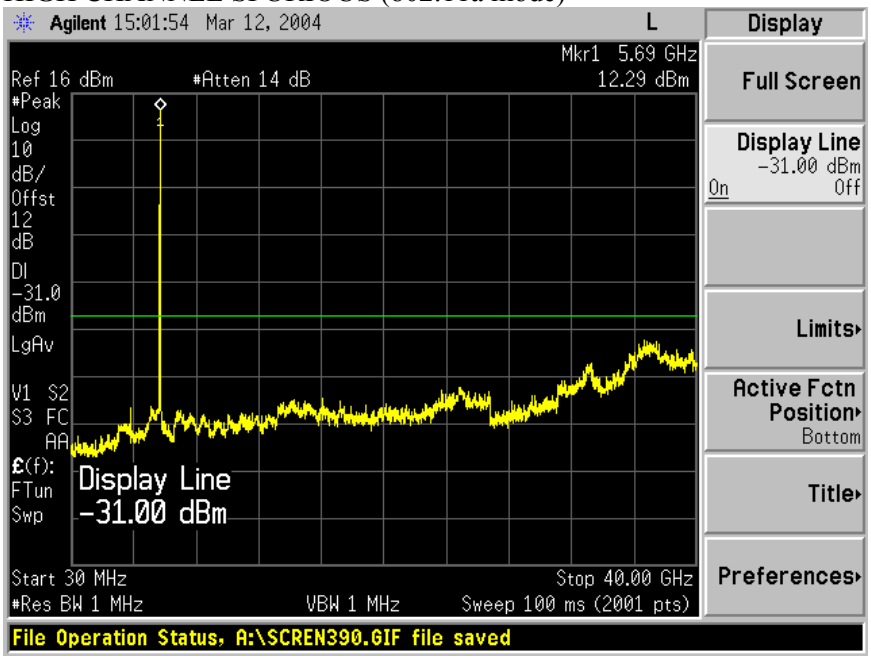
LOW CH SPURIOUS (802.11a mode)



MID CHANNEL SPURIOUS (802.11a mode)



HIGH CHANNEL SPURIOUS (802.11a mode)



7.8. RADIATED EMISSIONS

7.8.1. TRANSMITTER RADIATED SPURIOUS EMISSIONS

LIMITS

§15.205 (a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])
13.36 - 13.41			

[1] Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.
[2] Above 38.6

§15.205 (b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

§15.209 (a) Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
30 - 88	100 **	3
88 - 216	150 **	3
216 - 960	200 **	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

§15.209 (b) In the emission table above, the tighter limit applies at the band edges.

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.4. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

RESULTS

No non-compliance noted:

7.8.2. TRANSMITTER RADIATED EMISSIONS ABOVE 1 GHZ

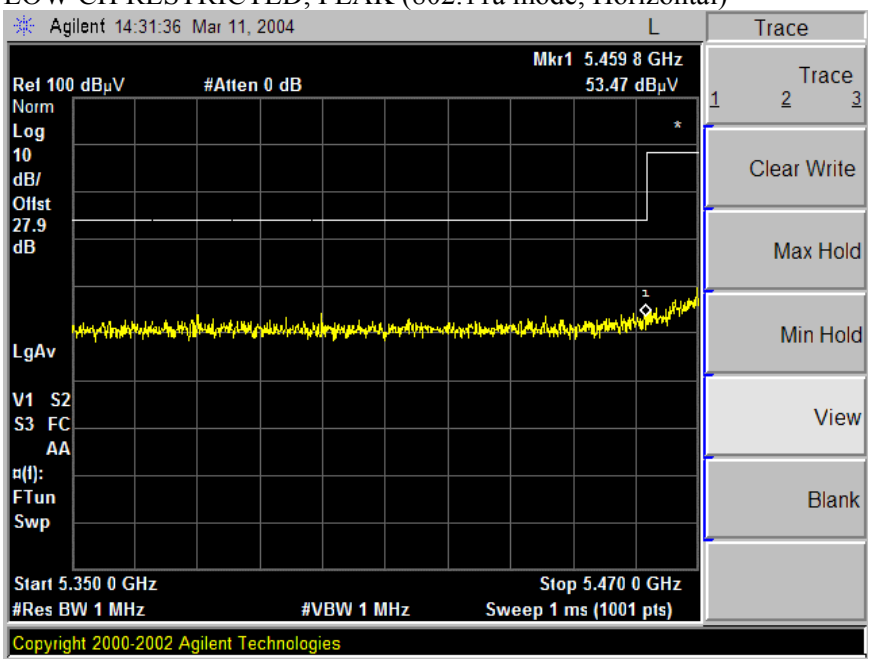
REPORTING NOTES

The nearby restricted band stops 10 MHz below the authorized band. A single plot is taken to show both restricted band emission levels and out-of-band radiated spurious emission levels at and near the lower authorized bandedge. The out-of-band spurious limits of -7 dBm Peak EIRP and -27 dBm Average EIRP are converted to the equivalent 3 meter field strengths of 88.2 dBuV/m Peak and 68.2 dBuV/m Average, respectively, for reporting purposes.

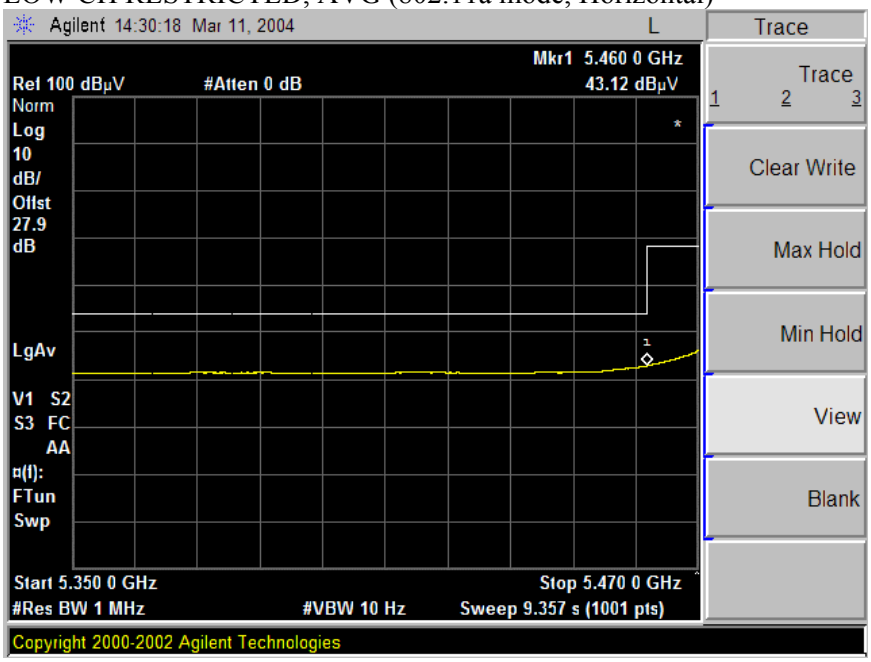
The out-of- band radiated spurious emission levels at and near the upper authorized bandedge are reported as EIRP values.

RESTRICTED BAND & BANDEDGE (802.11a MODE, LOW CHANNEL, HORIZONTAL)

LOW CH RESTRICTED, PEAK (802.11a mode, Horizontal)

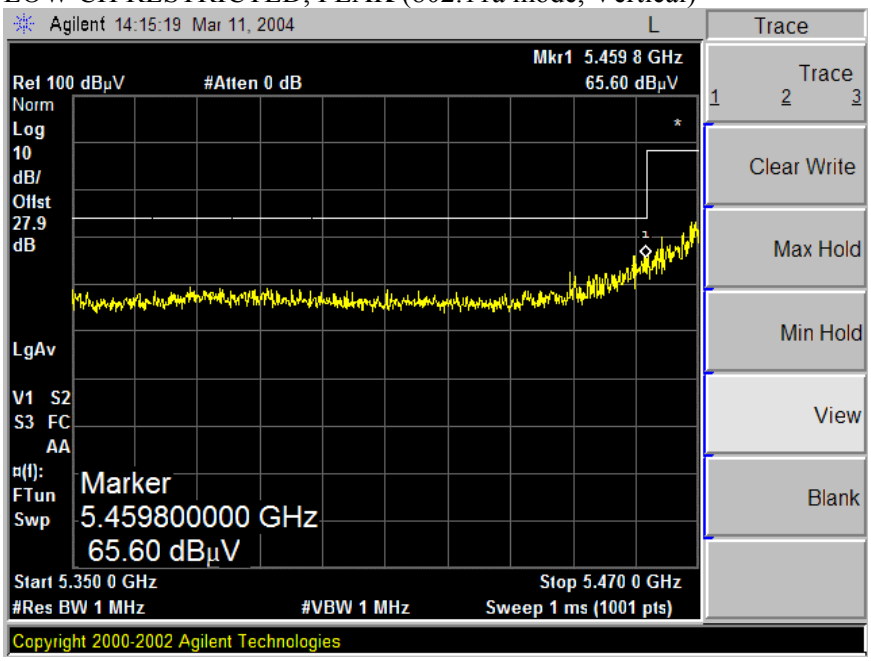


LOW CH RESTRICTED, AVG (802.11a mode, Horizontal)

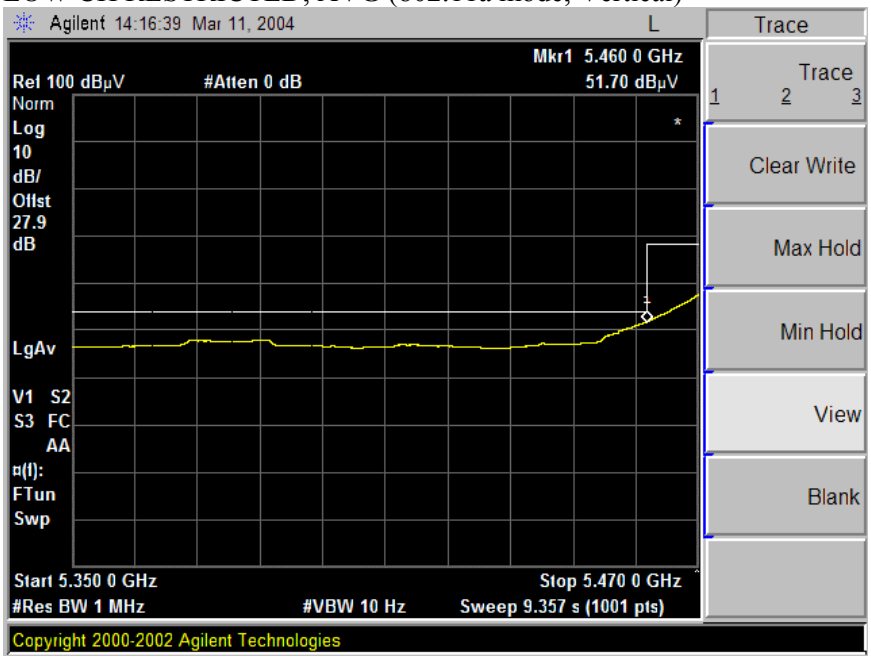


RESTRICTED BAND & BANDEDGE (802.11a MODE, LOW CHANNEL, VERTICAL)

LOW CH RESTRICTED, PEAK (802.11a mode, Vertical)

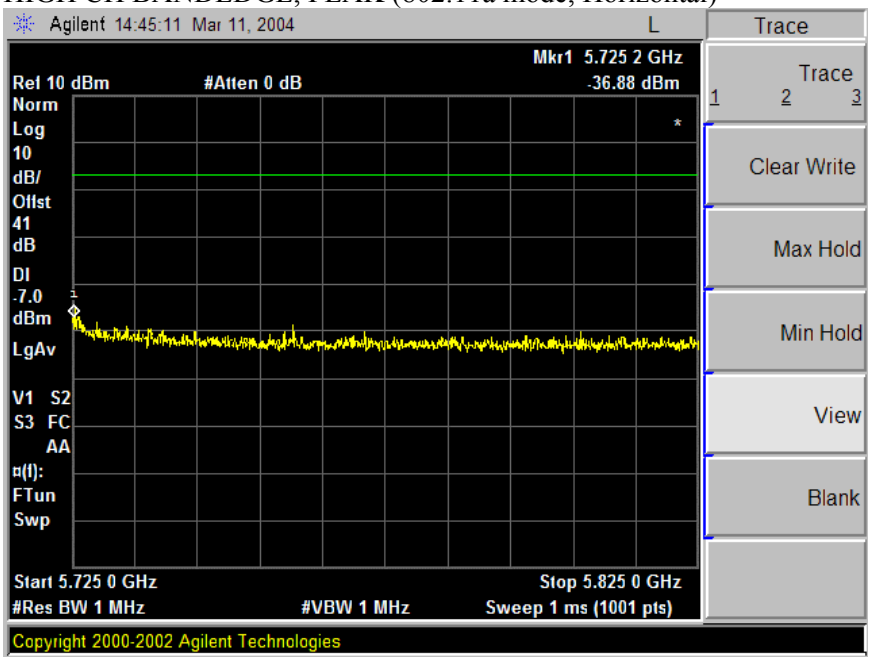


LOW CH RESTRICTED, AVG (802.11a mode, Vertical)

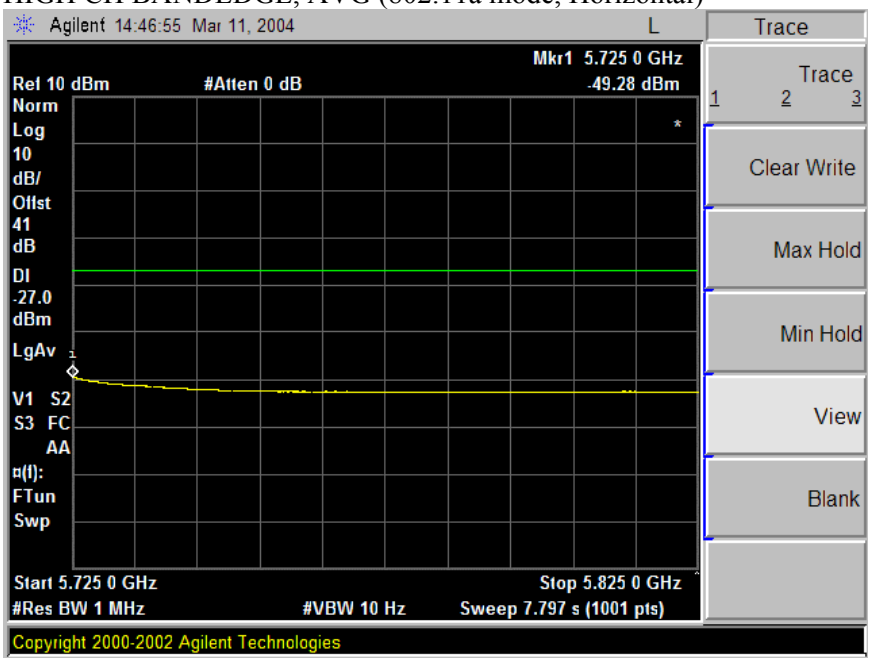


BANDEDGE (802.11a MODE, HIGH CHANNEL, HORIZONTAL)

HIGH CH BANDEDGE, PEAK (802.11a mode, Horizontal)

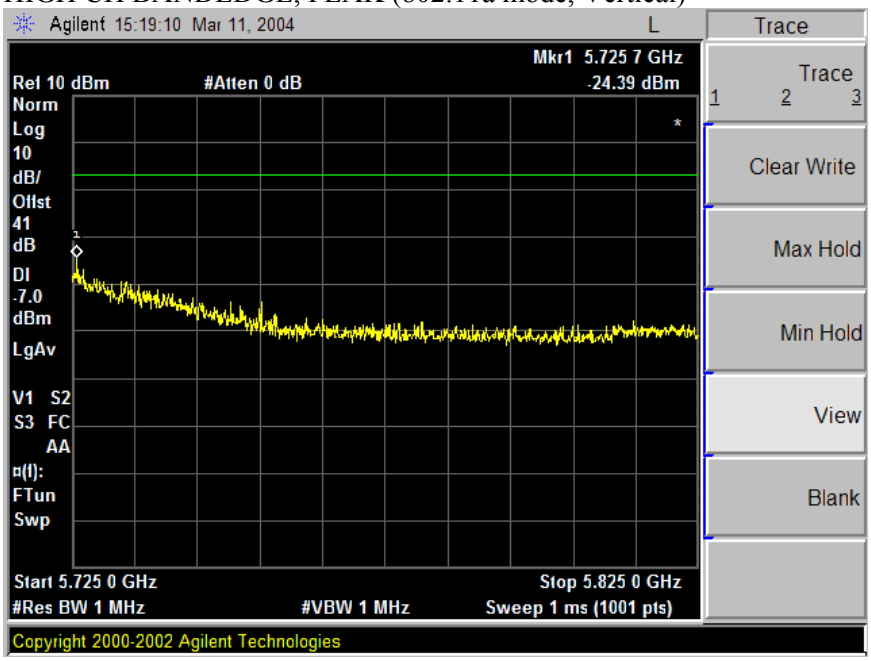


HIGH CH BANDEDGE, AVG (802.11a mode, Horizontal)

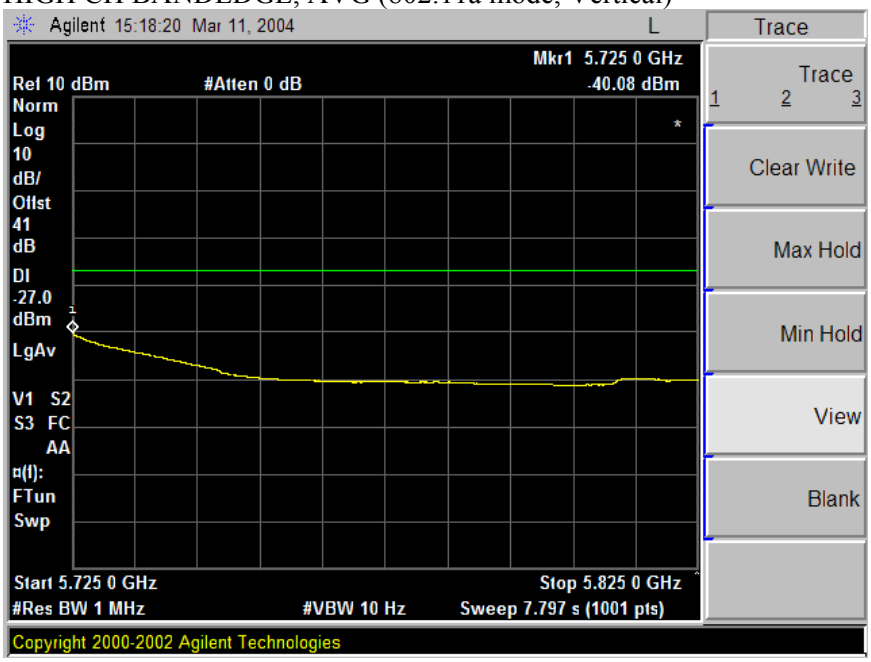


BANDEDGE (802.11a MODE, HIGH CHANNEL, VERTICAL)

HIGH CH BANDEDGE, PEAK (802.11a mode, Vertical)



HIGH CH BANDEDGE, AVG (802.11a mode, Vertical)



HARMONICS AND SPURIOUS EMISSIONS (802.11a MODE)

03/11/04 **High Frequency Measurement**
Compliance Certification Services, Morgan Hill Open Field Site

Test Engr: David Garcia
Project #: 04U2590
Company: Atheros
EUT Descrip.: WLAN standalone unit
EUT M/N: AP30
Test Target: Restricted band spurious emissions
Mode Oper: Transmitting, 5.5 GHz channel (normal mode)

Test Equipment:

EMCO Horn 1-18GHz	Spectrum Analyzer	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz
T73; S/N: 6717 @3m	Agilent E4446A Analyzer	T87 Miteq 924342		

Hi Frequency Cables: ☑ (2 ft) ☐ (2.0 ft) ☐ (3 ft) ☑ (12 ft)

Limit: FCC 15.205

Peak Measurements: 1 MHz Resolution Bandwidth, 1MHz Video Bandwidth
Average Measurements: 1 MHz Resolution Bandwidth, 10Hz Video Bandwidth

f GHz	Dist feet	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	HPF	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes
11a 5500 Channel															
11.000	9.8	54.4	42.9	38.4	4.6	-40.9	0.0	1.0	57.5	46.0	74.0	54.0	-16.5	-8.0	V
11.000	9.8	50.0	37.8	38.4	4.6	-40.9	0.0	1.0	53.1	40.9	74.0	54.0	-20.9	-13.1	H
11a 5600 Channel															
11.200	9.8	57.8	45.8	38.5	4.7	-41.1	0.0	1.0	60.9	48.9	74.0	54.0	-13.1	-5.1	V
11.200	9.8	50.2	39.1	38.5	4.7	-41.1	0.0	1.0	53.3	42.2	74.0	54.0	-20.7	-11.8	H
11a 5700 Channel															
11.400	9.8	53.8	40.6	38.7	4.7	-41.4	0.0	1.0	56.8	43.6	74.0	54.0	-17.2	-10.4	V
11.400	9.8	52.2	39.4	38.7	4.7	-41.4	0.0	1.0	55.2	42.4	74.0	54.0	-18.8	-11.6	H

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

8. SETUP PHOTOS

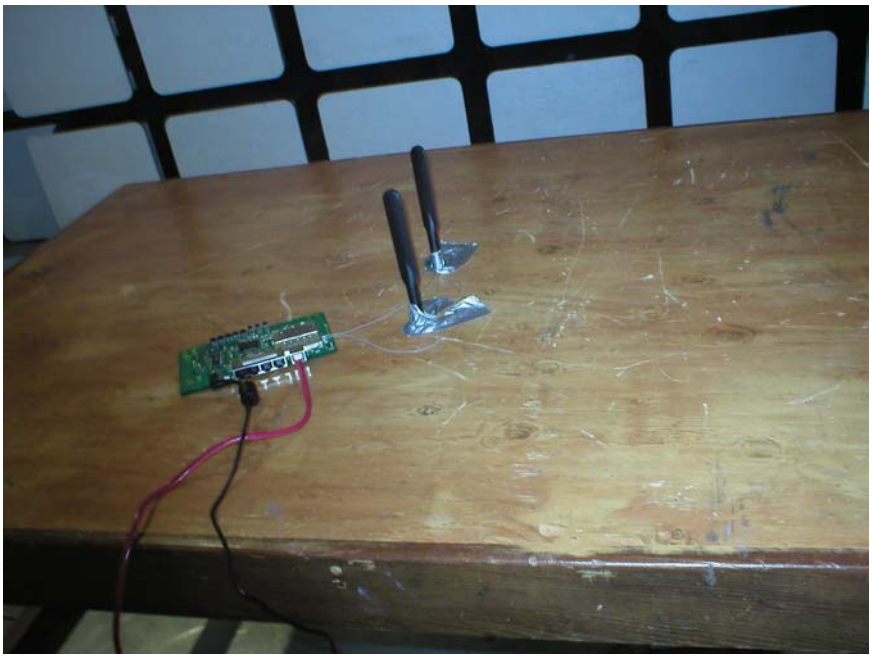
ANTENNA PORT CONDUCTED RF MEASUREMENT SETUP

ANTENNA PORT CONDUCTED PHOTO

RADIATED RF MEASUREMENT SETUP

RADIATED FRONT PHOTO

RADIATED BACK PHOTO



END OF REPORT