FCC CFR47 PART 15 SUBPART E
INDUSTRY CANADA RSS-210 ISSUE 8

CERTIFICATION TEST REPORT

FOR

PHONE WITH 802.11A/B/G/N AND BLUETOOTH 2.1+EDR

MODEL NUMBER: HSTNH-F30CV

FCC ID: B94HHF30CV
IC: 3905A-HHF30CV

REPORT NUMBER: 11U13622-4, Revision A

ISSUE DATE: APRIL 27, 2011

Prepared for
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
---	04/07/2011	Initial Issue	T. Chan
A	04/27/2011	Revised IC ID	A. Zaffar

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: HEWLETT-PACKARD COMPANY, PALM GBU
950 MAUDE AVENUE
SUNNYVALE, CA 94085, U.S.A.

EUT DESCRIPTION: PHONE WITH 802.11A/B/G/N AND BLUETOOTH 2.1+EDR

MODEL: HSTNH-F30CV

SERIAL NUMBER: 5161-0081 (Radiated Unit); 5161-0123 (Conducted Unit)

DATE TESTED: MARCH 21-31, 2011

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart E	Pass
INDUSTRY CANADA RSS-210 Issue 8 Annex 9	Pass
INDUSTRY CANADA RSS-GEN Issue 3	Pass

Compliance Certification Services (UL CCS) tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL CCS based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL CCS and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL CCS will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For UL CCS By:

THU CHAN
ENGINEERING MANAGER
UL CCS

Tested By:

CHIN PANG
EMC ENGINEER
UL CCS

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4-2003, FCC CFR 47 Part 2, FCC CFR 47 Part 15, FCC 06-96, RSS-GEN Issue 3, and RSS-210 Issue 8.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

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

4. CALIBRATION AND UNCERTAINTY

4.1. 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.

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)
36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 30 to 1000 MHz	4.94 dB

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a phone operating on CDMA/EvDO (850/1900), GSM (850/900/1800/1900), UMTS (900, 2100) + BT 2.1 + EDR, 802.11abgn 1×1.

ACCESSORIES

The EUT was constructed and using the following accessories:

Accessories Description	Manufacturer/ Trademark	Part Number
AC Power Adapter source #1 Input Rating: 100–240 Vac, 50/60Hz, 0.2 A Output Rating: 5 Vdc, 1000 mA	HP/Palm	157-10124-00 157-10130-00
Inductive Charging Dock Input Rating: 5 Vdc, 1000 mA	HP/Palm	157-10123-00
Battery source Type: Rechargeable Li-Ion Polymer Rating: 3.7 Vdc, 1230 mAh (typical)	HP/Palm	157-10158-00 157-10145-00
Wired Stereo Headset	HP/Palm	180-10632-00
USB cable	HP/Palm	180-10647-00

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5180 - 5240	802.11a	16.11	40.83
5180 - 5240	802.11n HT20 SISO	15.66	36.81
5190 - 5230	802.11n HT40 SISO	15.59	36.22
5260 - 5320	802.11a	16.24	42.07
5260 - 5320	802.11n HT20 SISO	16.22	41.88
5270 - 5310	802.11n HT40 SISO	15.88	38.73
5500 - 5700	802.11a	15.53	35.73
5500 - 5700	802.11n HT20 SISO	15.46	35.16
5510 - 5670	802.11n HT40 SISO	15.08	32.21

5.3. SOFTWARE AND FIRMWARE

The EUT driver software installed during testing was Palm HWtools 55.

5.4. WORST-CASE CONFIGURATION AND MODE

The worst-case channel is determined as the channel with the highest output power.

All final tests in the 802.11a Mode were made at 6 Mb/s.
All final tests in the 802.11n HT20 SISO mode were made at MCS 0Mb/s.
All final tests in the 802.11n HT40 SISO mode were made at MCS 0Mb/s.

For the fundamental investigation, since the EUT is a portable device that has three orientations; therefore X, Y and Z orientations have been investigated, also with AC/DC adapter, and the worst case was found to be at Z orientation open with phone slide open.

5.5. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a PCB integrated antenna, with a maximum gain of 4.5dBi.
The 802.11bgn and Bluetooth transmitters share a common antenna.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
AC Adaptor	HP/PALM	157-10124-00	N/A	DOC
Earphone	HP/PALM	180-10632-00	N/A	DOC

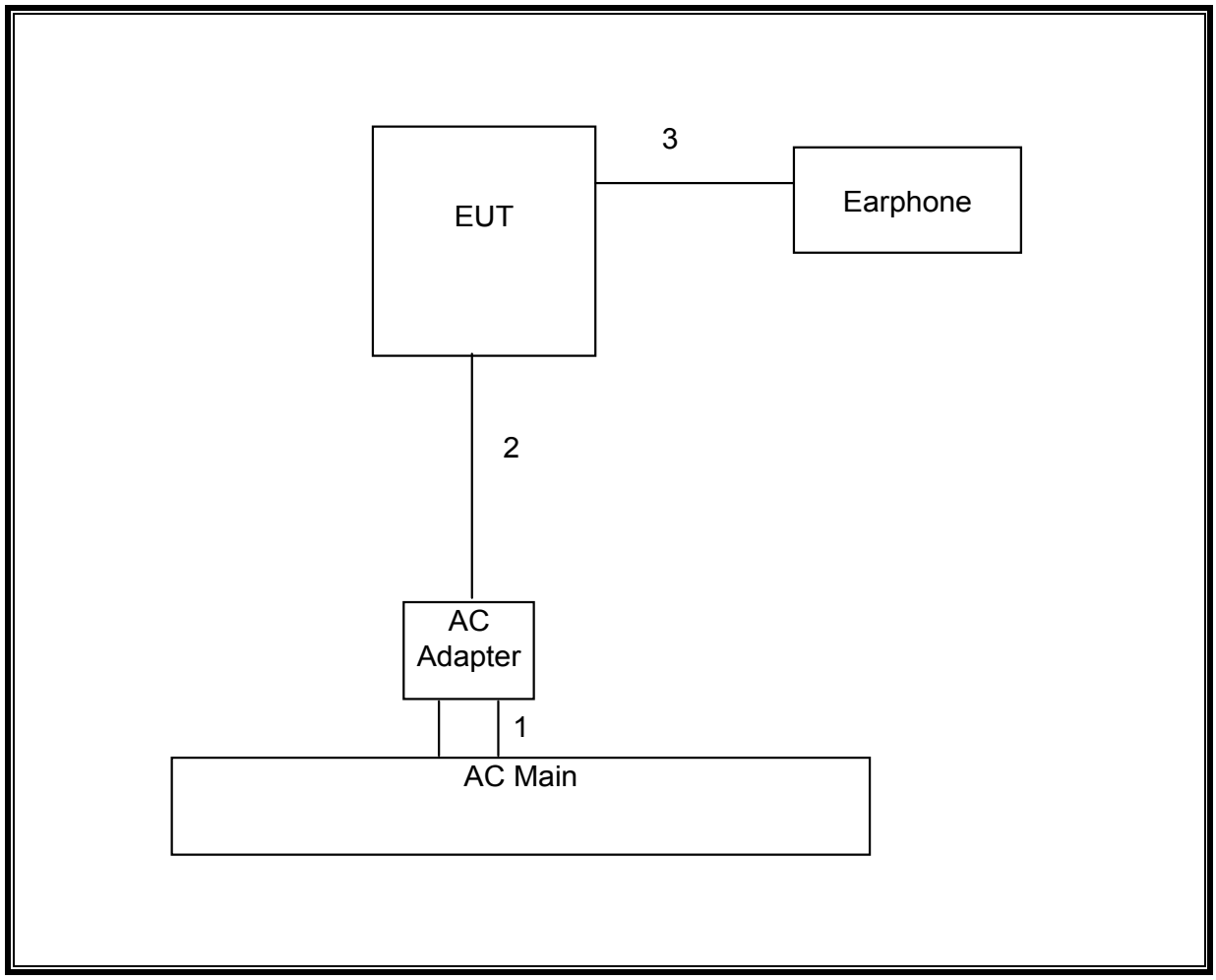
I/O CABLES

I/O CABLE LIST						
Cable No.	**Port**	**# of Identica Ports**	**Connector Type**	**Cable Type**	**Cable Length**	**Remarks**
1	AC	1	USB	Un-shielded	None	N/A
2	DC	1	DC	Un-shielded	1.5m	N/A
3	Ear phone	1	jack	Un-shielded	1.2m	N/A

TEST SETUP

EUT is a stand alone device.

SETUP DIAGRAM



6. 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**	**Asset**	**Cal Due**
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C00996	10/29/11
Spectrum Analyzer, 26.5 GHz	Agilent / HP	E4440A	C01176	08/24/11
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01171	07/14/11
Antenna, Horn, 18 GHz	EMCO	3115	C00872	07/29/11
Antenna, Horn, 26.5 GHz	ARA	MWH-1826/B	C00980	07/29/11
Antenna, Horn, 40 GHz	ARA	MWH-2640/B	C00981	06/08/11
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00778	07/06/11
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C00749	08/04/11
Preamplifier, 40 GHz	Miteq	NSP4000-SP2	C00990	08/03/11
Peak Power Meter	Boonton	4541	C01186	03/14/12
Peak Power Sensor	Boonton	57318	0	03/14/12
Peak Power Meter	Agilent / HP	E4416A	C00963	12/04/11
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/04/11
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	05/06/11
LISN, 30 MHz	FCC	LISN-50/250-25-2	N02625	11/10/11
Highpass Filter, 7.6 GHz	Micro-Tronics	HPM13195	N02601	CNR

7. ANTENNA PORT TEST RESULTS

7.1. 802.11a MODE IN THE 5.2 GHz BAND

7.1.1. 26 dB and 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

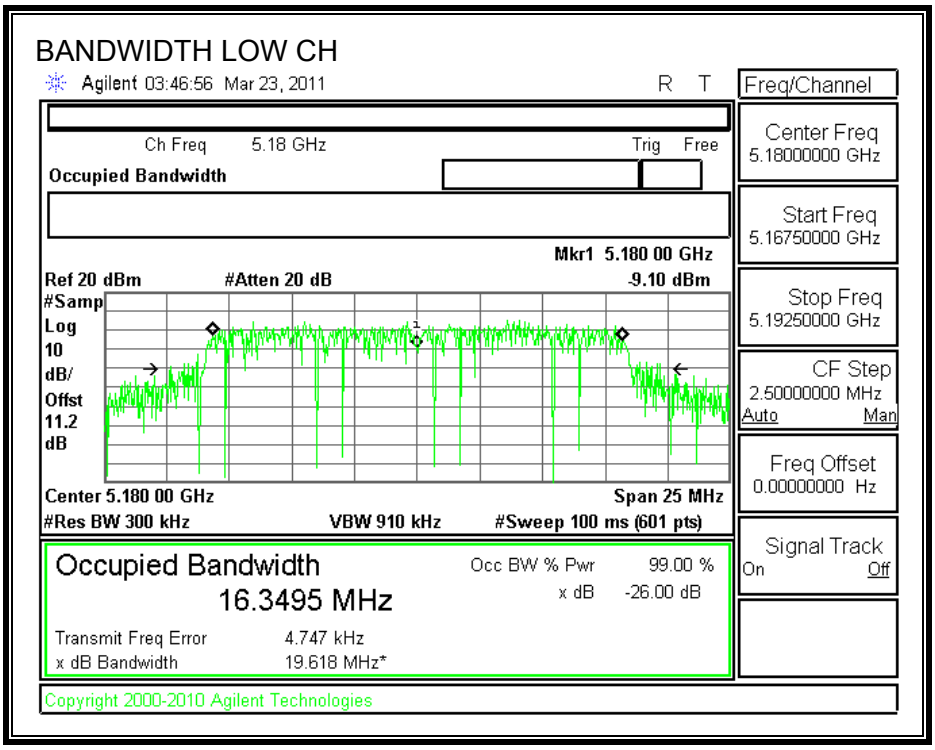
TEST PROCEDURE

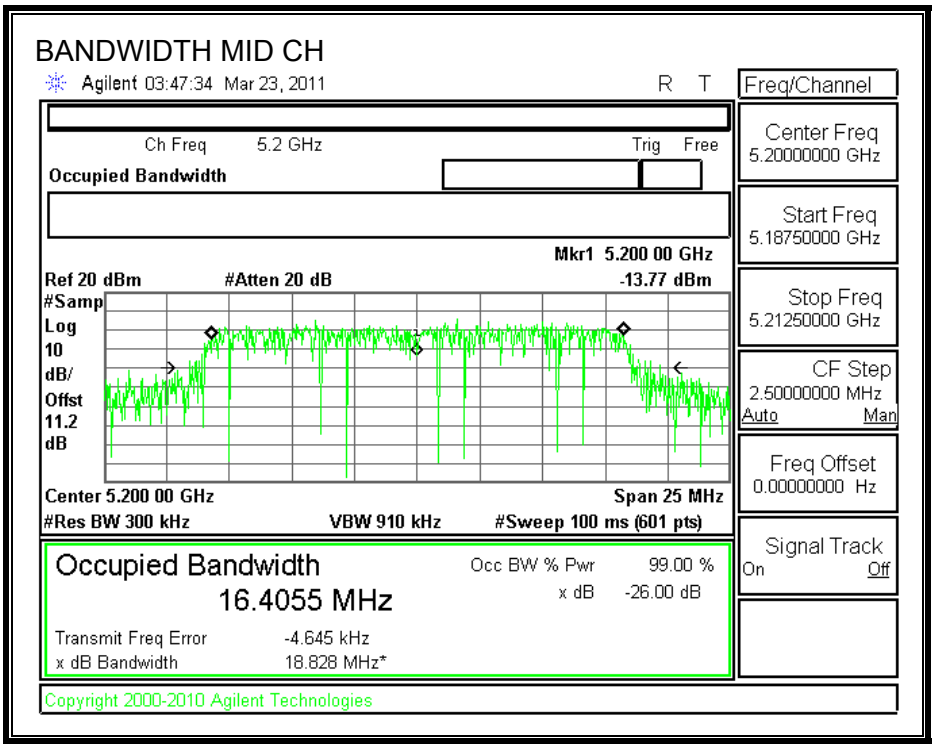
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the measured bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal bandwidth function is utilized.

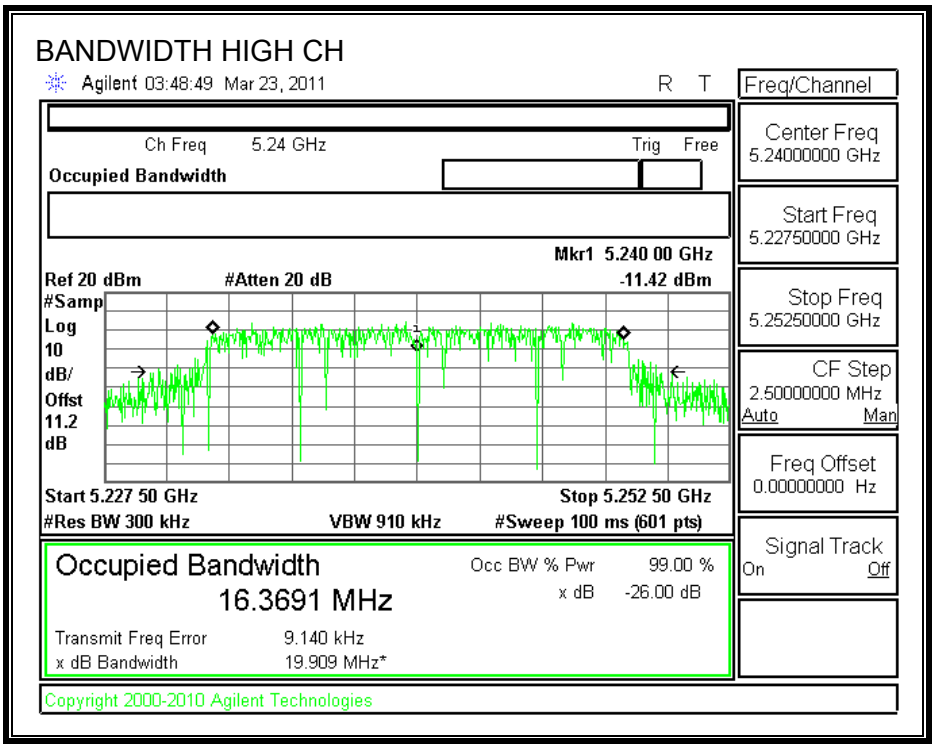
RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5180	19.618	16.35
Middle	5200	18.828	16.41
High	5240	19.909	16.37

26 dB & 99%BANDWIDTH







7.1.2. OUTPUT POWER

LIMITS

FCC §15.407 (a) (1)

IC RSS-210 A9.2 (1)

For the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26-dB emission bandwidth in MHz. If transmitting antennas of directional gain greater than 6 dBi are used, 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.

RESULTS

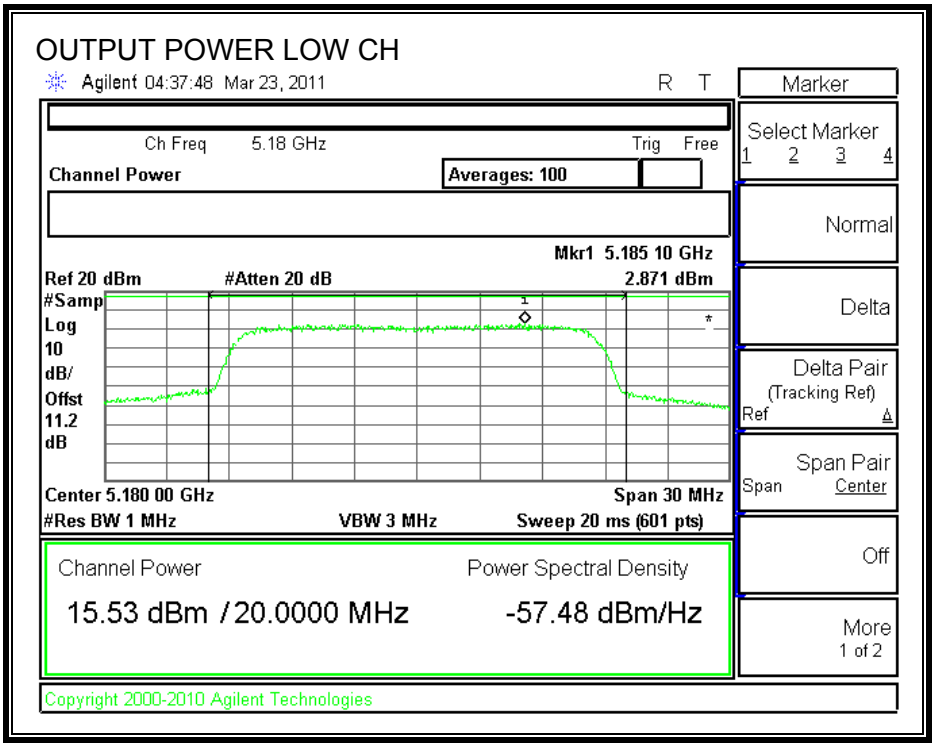
Limit

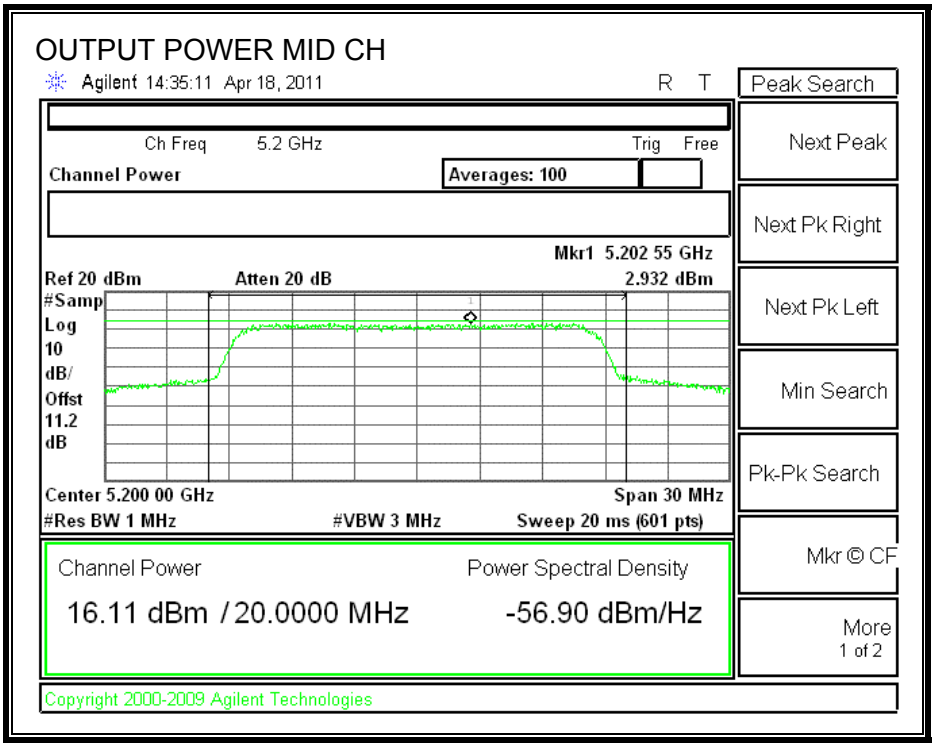
Channel	Frequency (MHz)	Fixed Limit (dBm)	B (MHz)	4 + 10 Log B Limit (dBm)	Antenna Gain (dBi)	Limit (dBm)
Low	5180	17	19.618	16.93	5.50	16.93
Mid	5200	17	18.828	16.75	5.50	16.75
High	5240	17	19.909	16.99	5.50	16.99

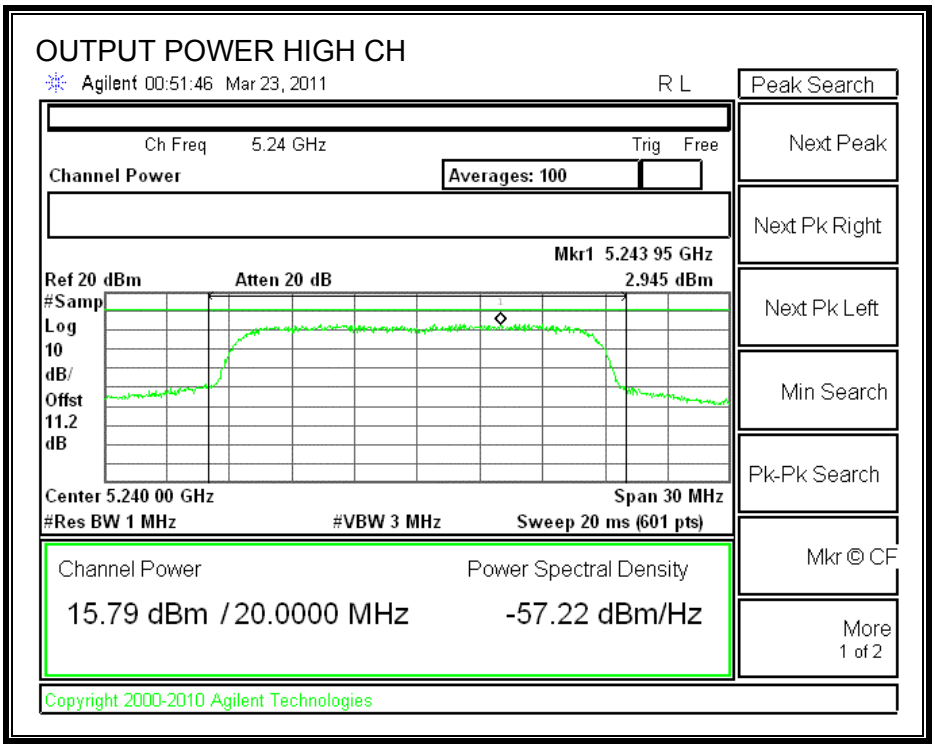
Results

Channel	Frequency (MHz)	Power (dBm)	Limit (dBm)	Margin (dB)
Low	5180	15.53	16.93	-1.40
Mid	5200	16.11	16.75	-0.64
High	5240	15.79	16.99	-1.20

OUTPUT POWER







7.1.3. PEAK POWER SPECTRAL DENSITY

LIMITS

FCC §15.407 (a) (1)

IC RSS-210 A9.2 (1)

For the 5.15-5.25 GHz band, the peak power spectral density shall not exceed 4 dBm in any 1 MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, 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 is equal to 5.93 dBi, therefore the limit is 4 dBm.

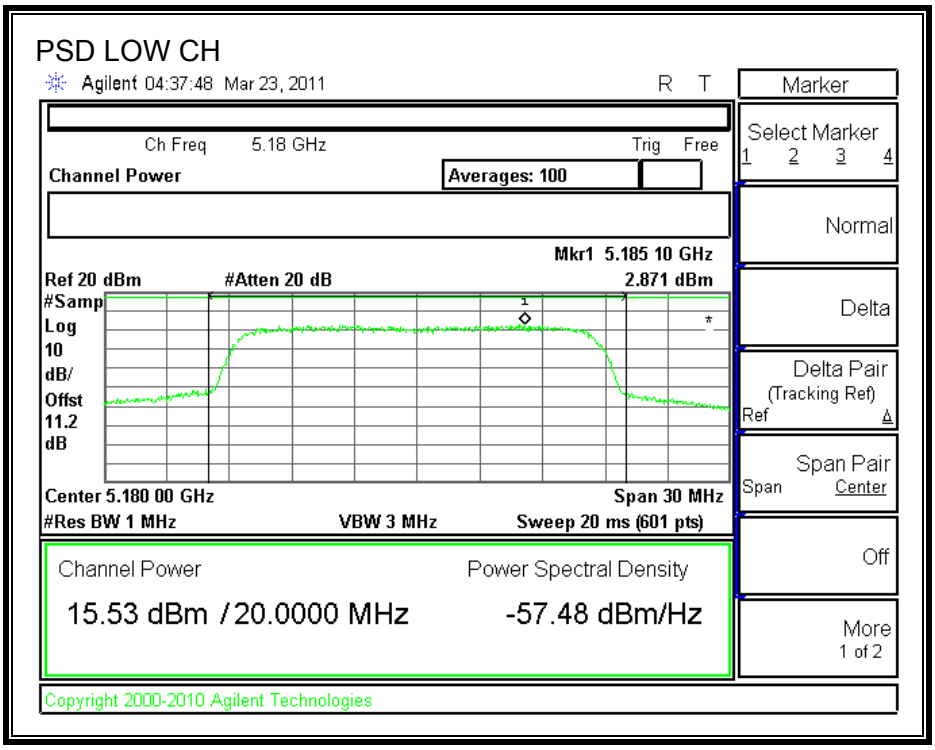
TEST PROCEDURE

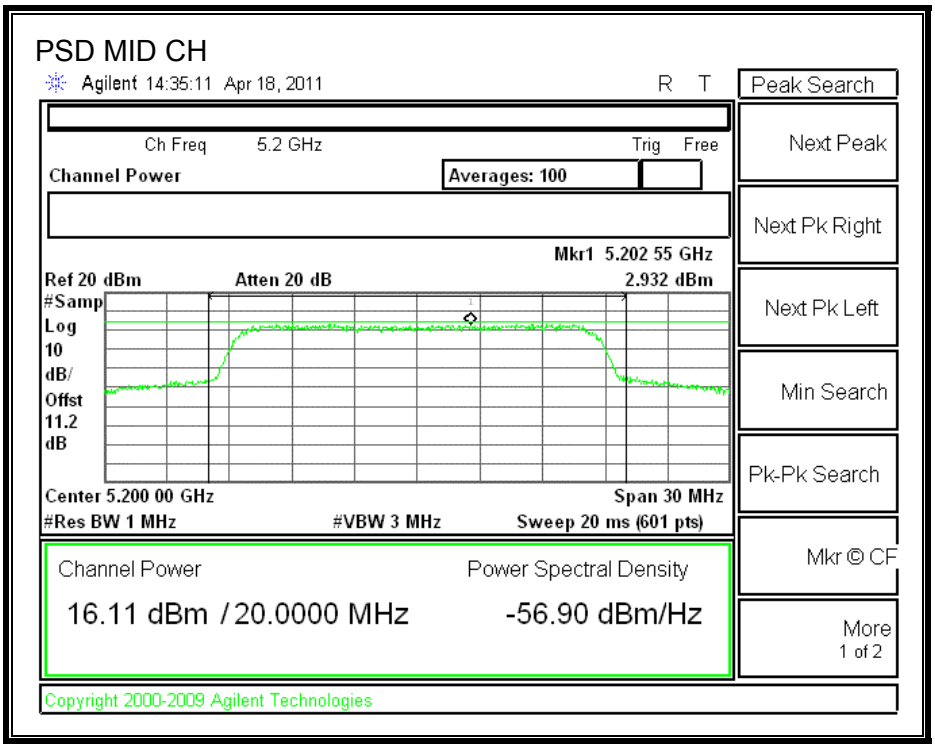
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002. PPSD method #2 was used.

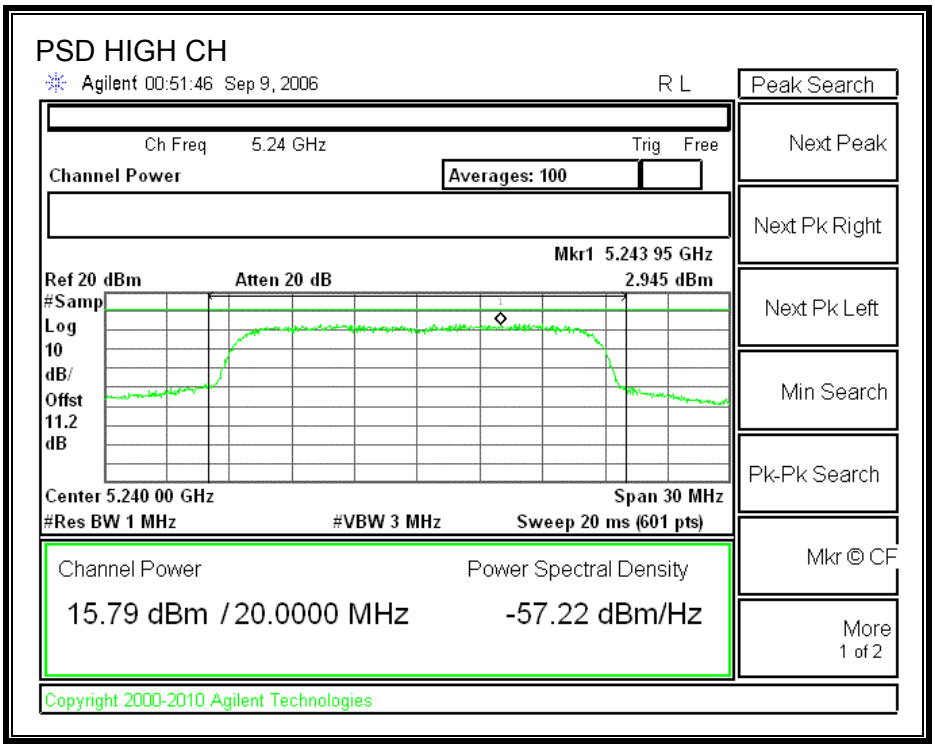
RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	5180	2.871	4.00	-1.13
Middle	5200	2.932	4.00	-1.07
High	5240	2.945	4.00	-1.06

POWER SPECTRAL DENSITY







7.1.4. PEAK EXCURSION

LIMITS

FCC §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

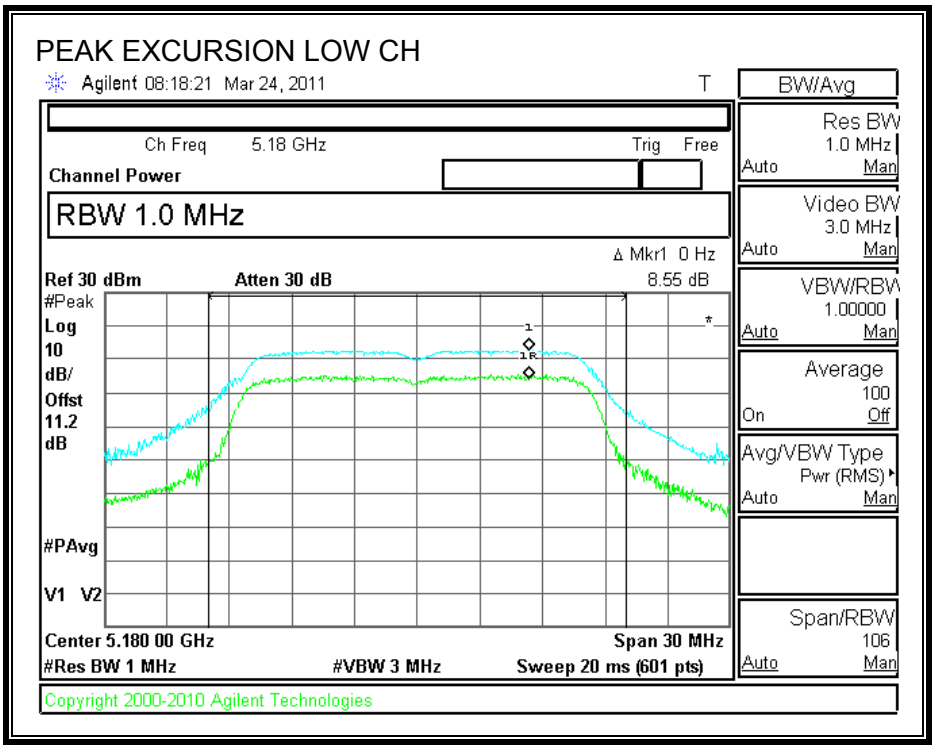
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002.

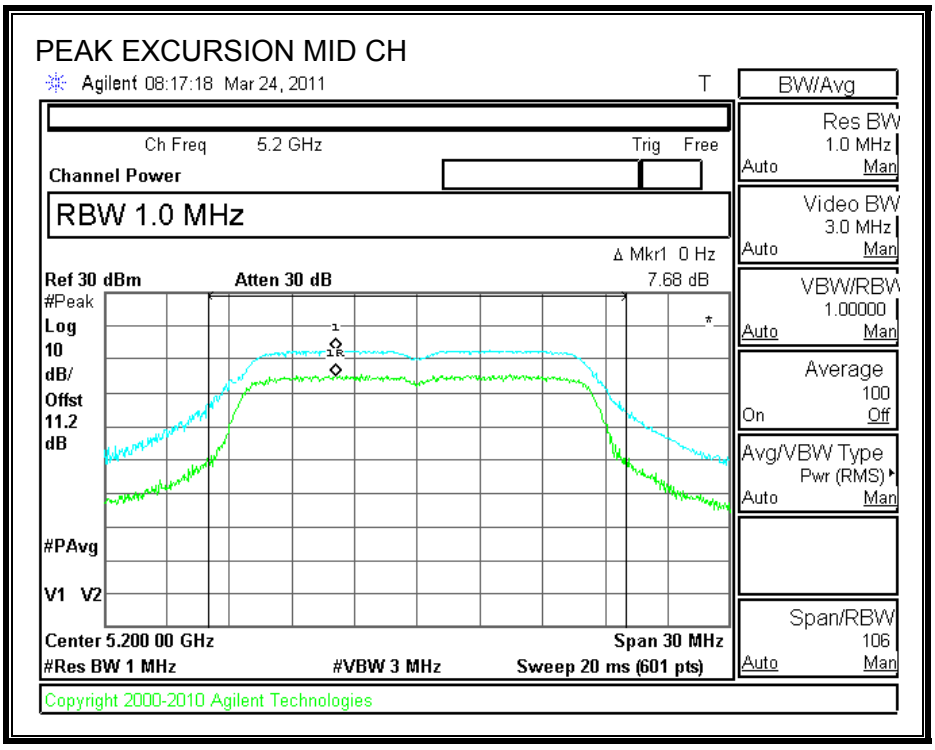
Since Method # 1 was used for peak power measurements, Method # 1 settings are used for the second PPSD trace.

RESULTS

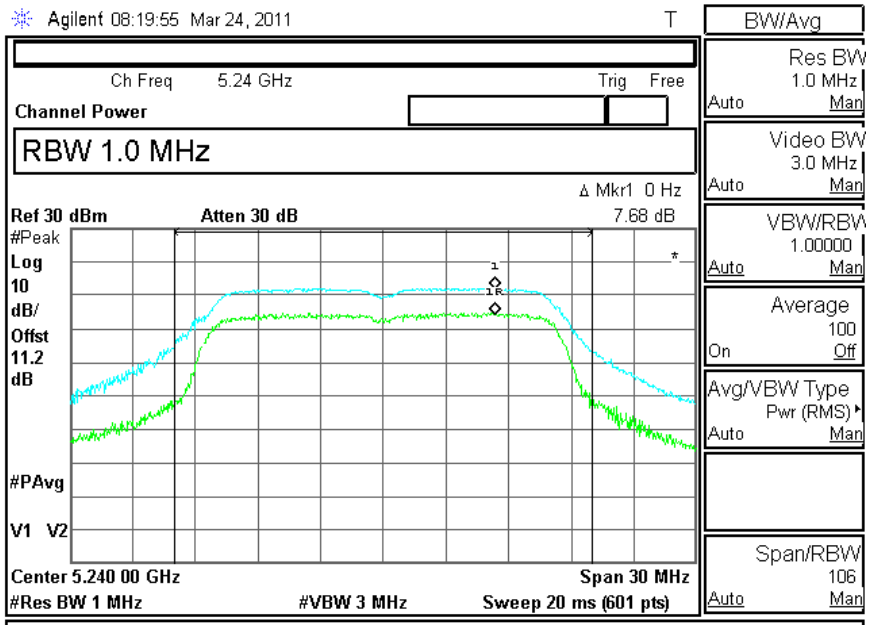
Channel	Frequency (MHz)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Low	5180	8.55	13	-4.45
Middle	5200	7.68	13	-5.32
High	5240	7.68	13	-5.32

PEAK EXCURSION





PEAK EXCURSION HIGH CH



7.1.5. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.407 (b) (1)

IC RSS-210 A9.3 (1)

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

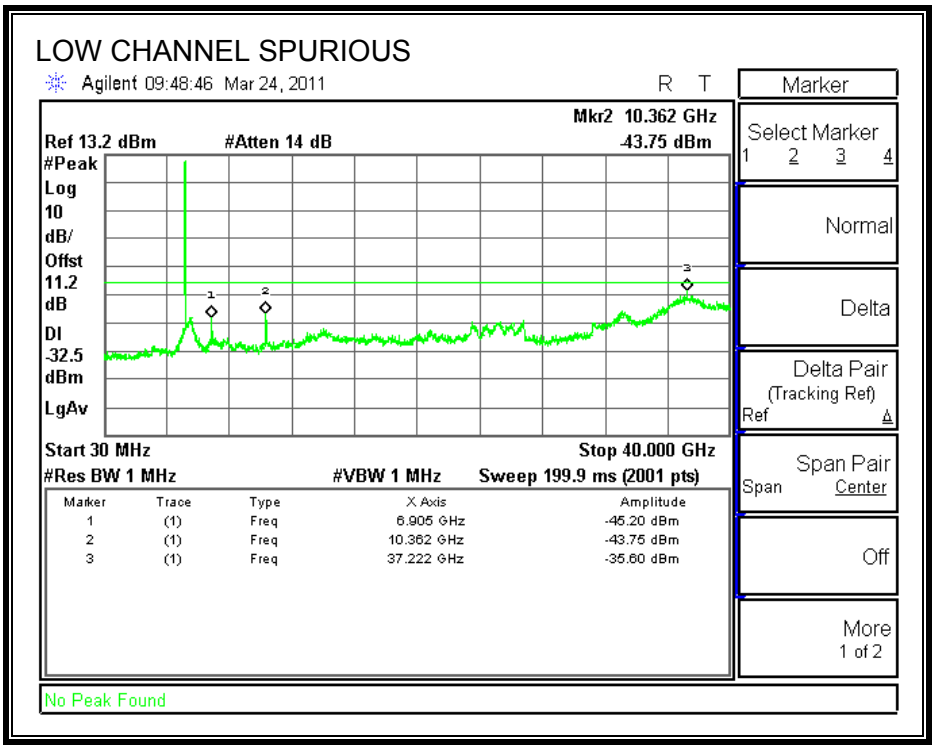
TEST PROCEDURE

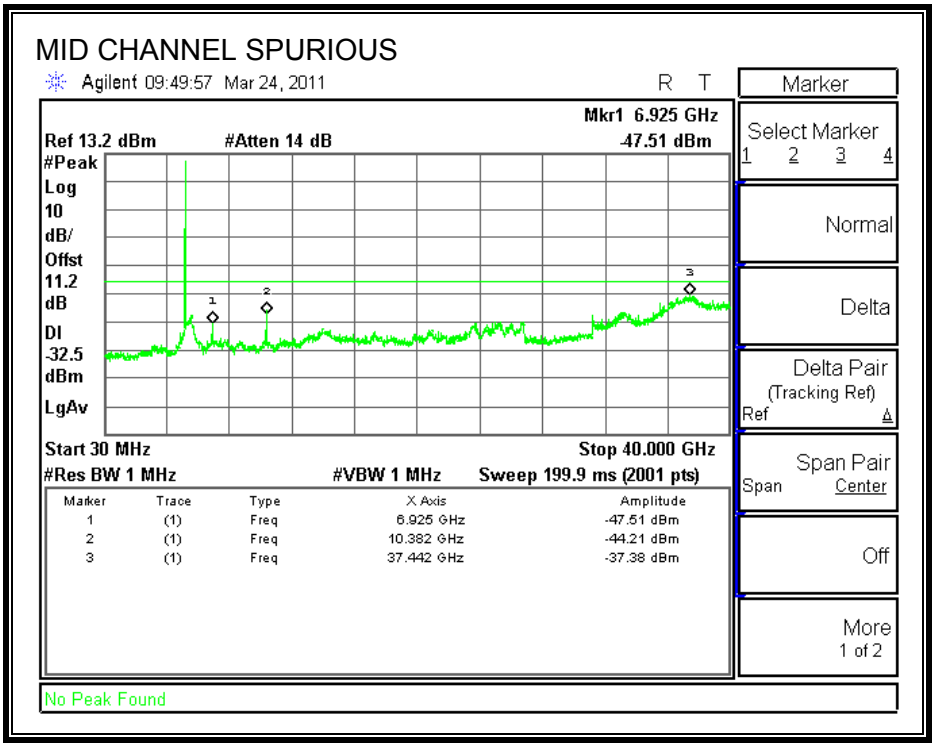
Conducted RF measurements of the transmitter output are made to confirm that the EUT antenna port conducted emissions meet the specified limit and to identify any spurious signals that require further investigation or measurements on the radiated emissions site.

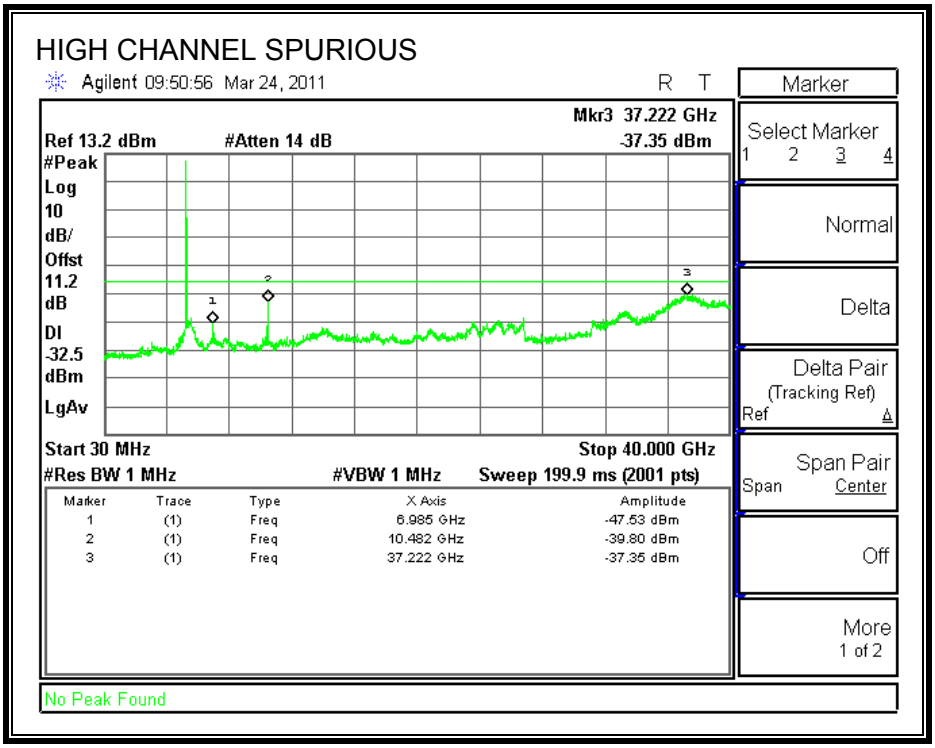
The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 1 MHz. The video bandwidth is set to 1MHz. Peak detection measurements are compared to EIRP limit, adjusted for the maximum antenna gain.

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

SPURIOUS EMISSIONS







7.2. 802.11n HT20 SISO MODE IN THE 5.2 GHz BAND

7.2.1. 26 dB and 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

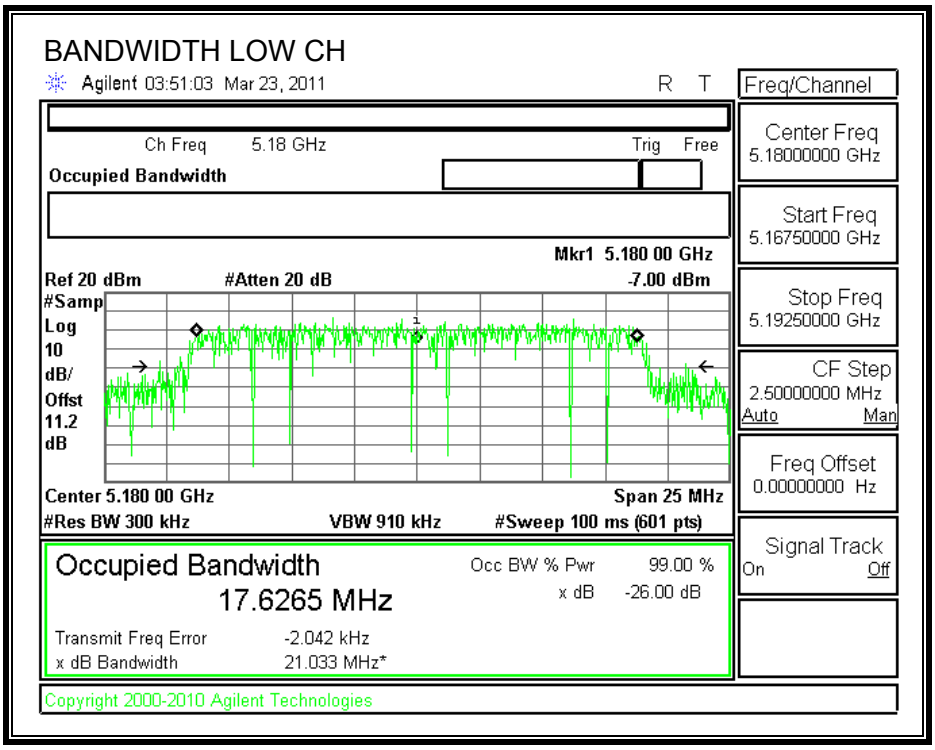
TEST PROCEDURE

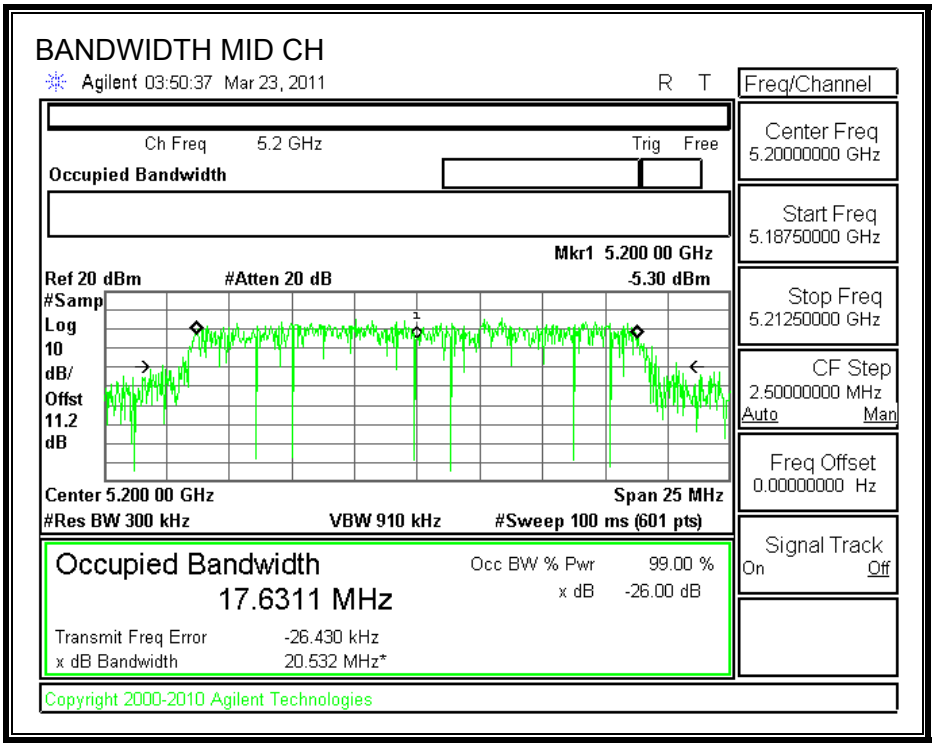
The transmitter outputs are connected to the spectrum analyzer via a combiner. The RBW is set to 1% to 3% of the measured bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal bandwidth function is utilized.

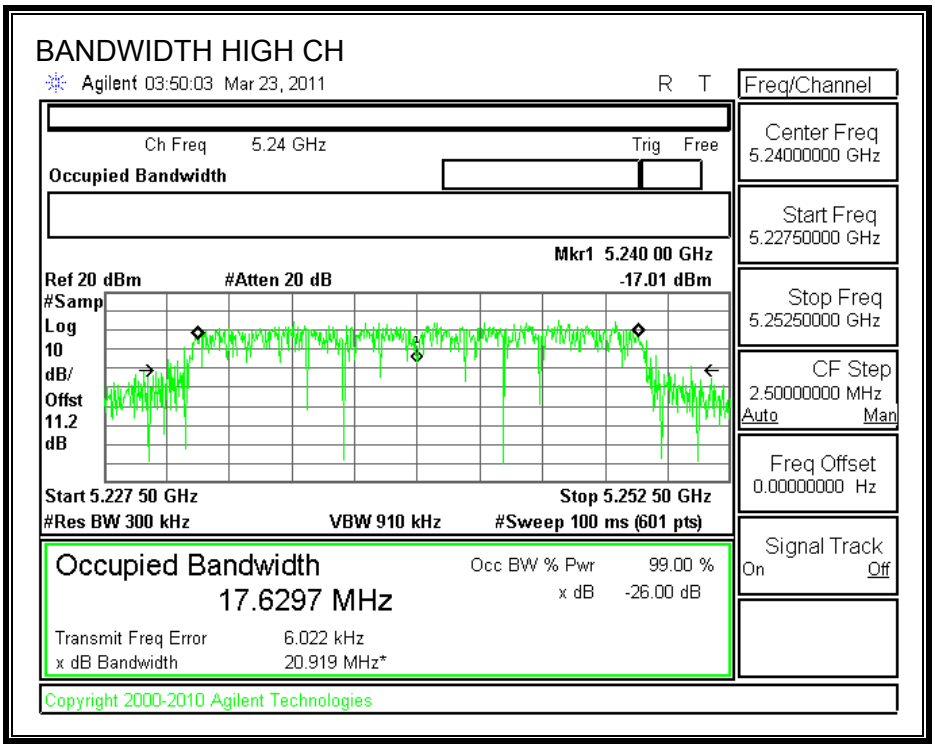
RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5180	21.03	17.63
Middle	5200	20.53	17.63
High	5240	20.92	17.63

26 dB and 99% BANDWIDTH







7.2.2. OUTPUT POWER

LIMITS

FCC §15.407 (a) (1)

IC RSS-210 A9.2 (1)

For the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26-dB emission bandwidth in MHz. If transmitting antennas of directional gain greater than 6 dBi are used, 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.

RESULTS

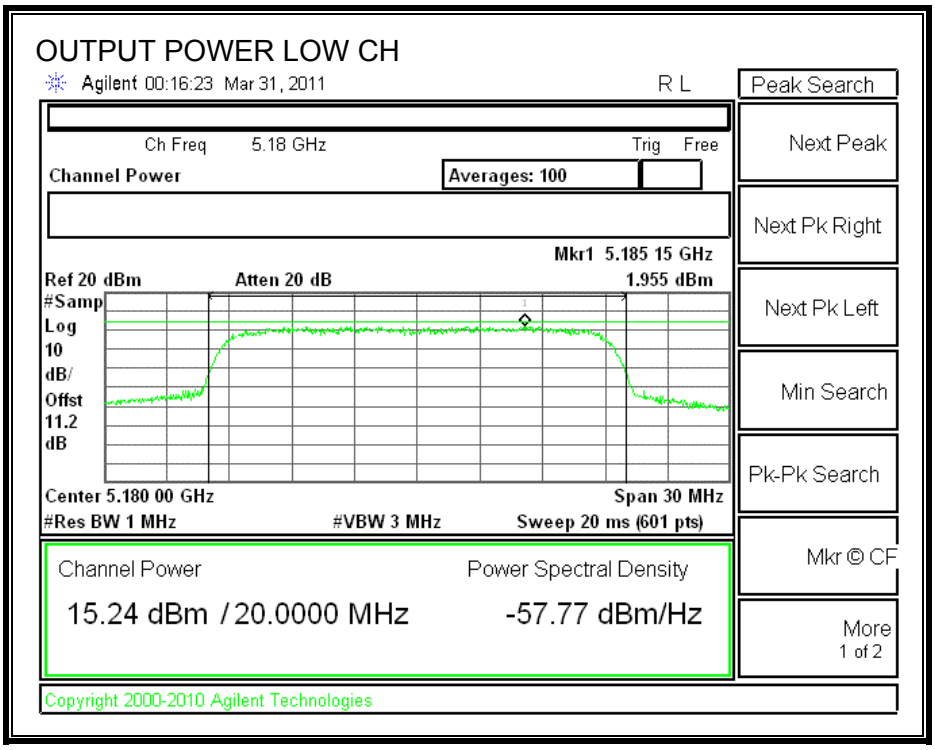
Limit

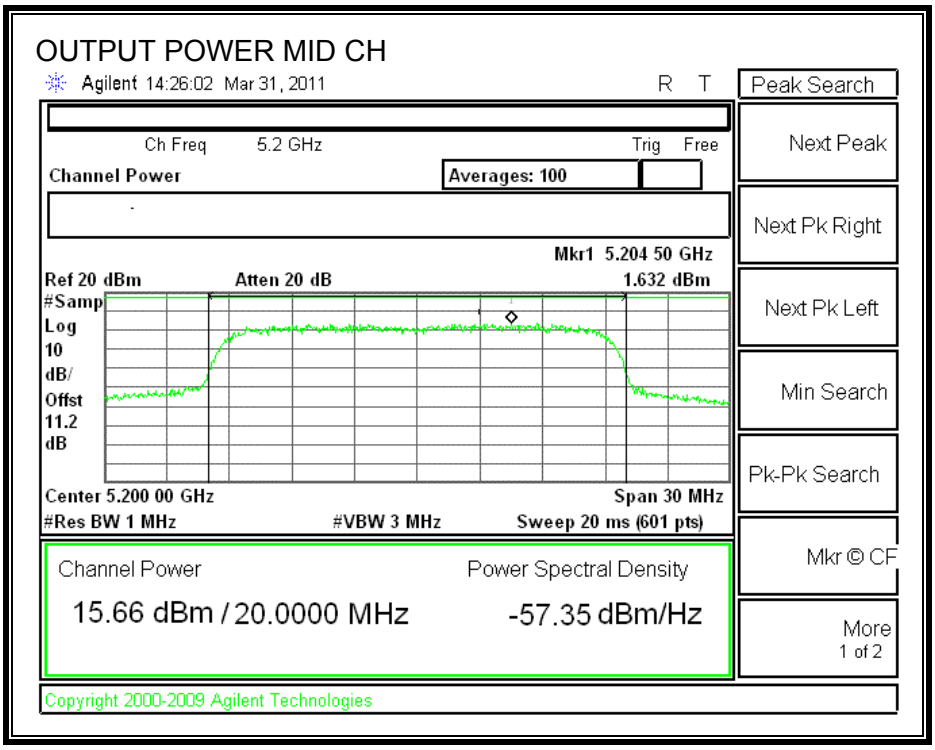
Channel	Frequency (MHz)	Fixed Limit (dBm)	B (MHz)	4 + 10 Log B Limit (dBm)	Antenna Gain (dBi)	Limit (dBm)
Low	5180	17	21.03	17.23	5.50	17.00
Mid	5200	17	20.53	17.12	5.50	17.00
High	5240	17	20.92	17.21	5.50	17.00

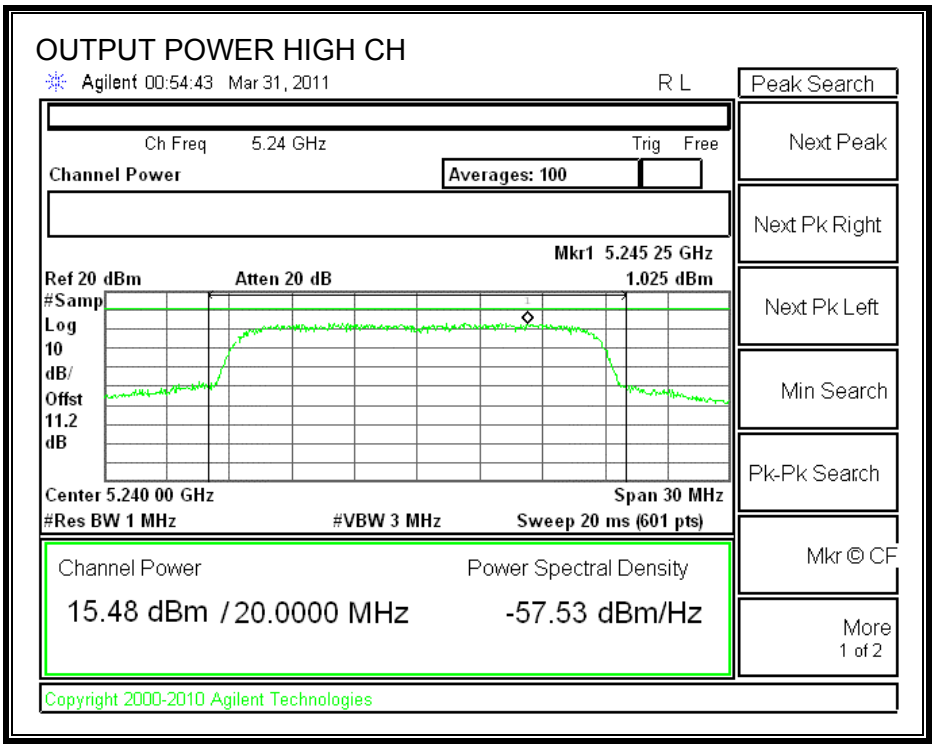
Results

Channel	Frequency (MHz)	Power (dBm)	Limit (dBm)	Margin (dB)
Low	5180	15.24	17.00	-1.76
Mid	5200	15.66	17.00	-1.34
High	5240	15.48	17.00	-1.52

OUTPUT POWER







7.2.3. PEAK POWER SPECTRAL DENSITY

LIMITS

FCC §15.407 (a) (1)

IC RSS-210 A9.2 (1)

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

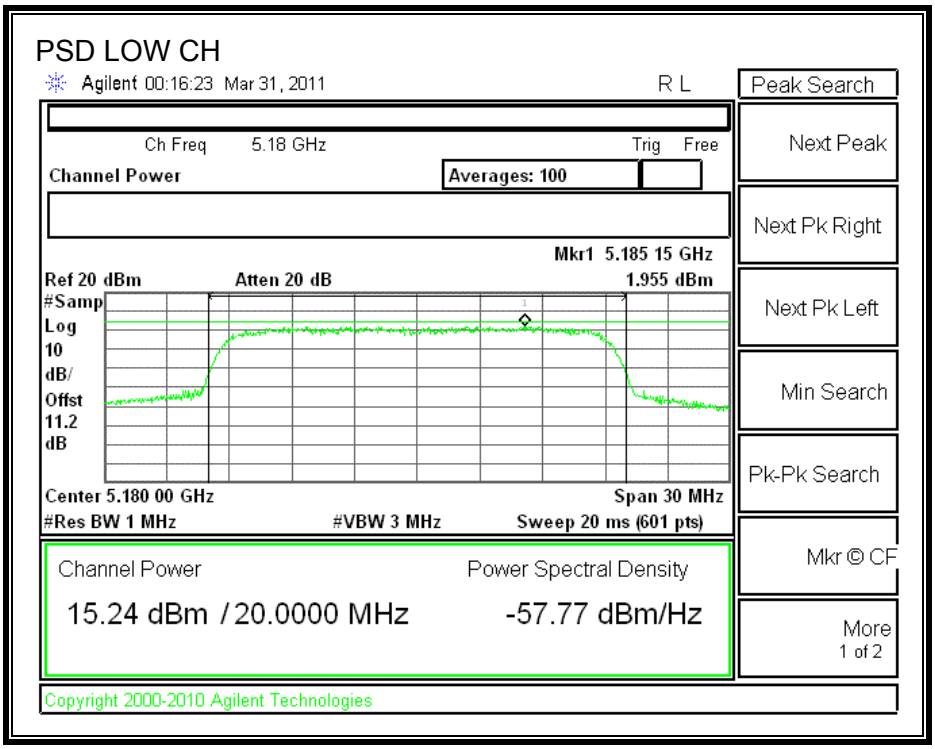
TEST PROCEDURE

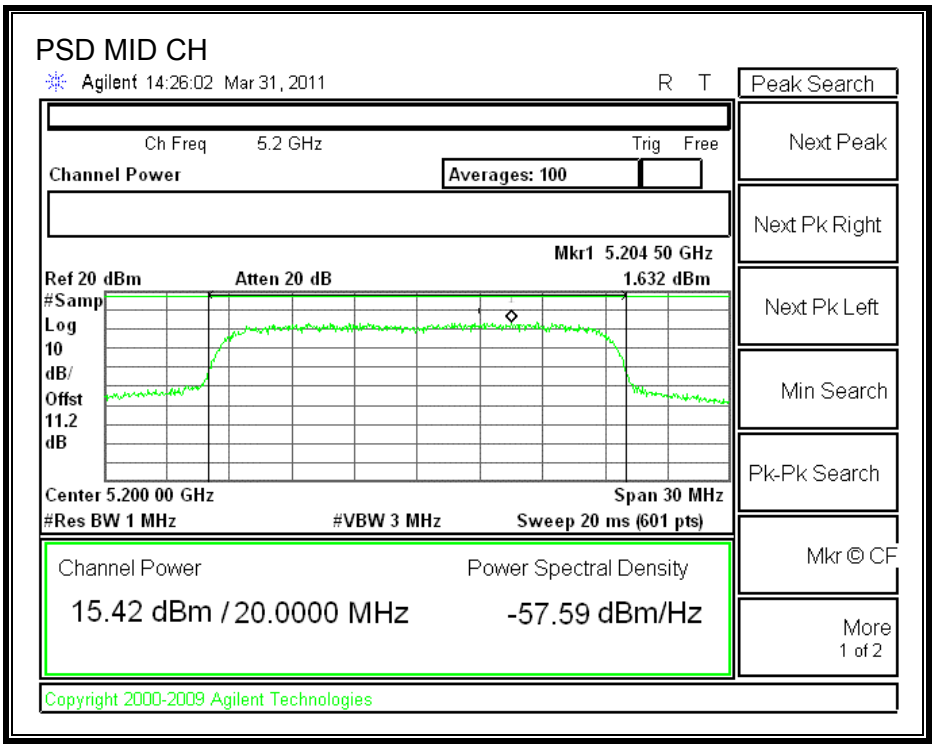
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002. PPSD method #2 was used.

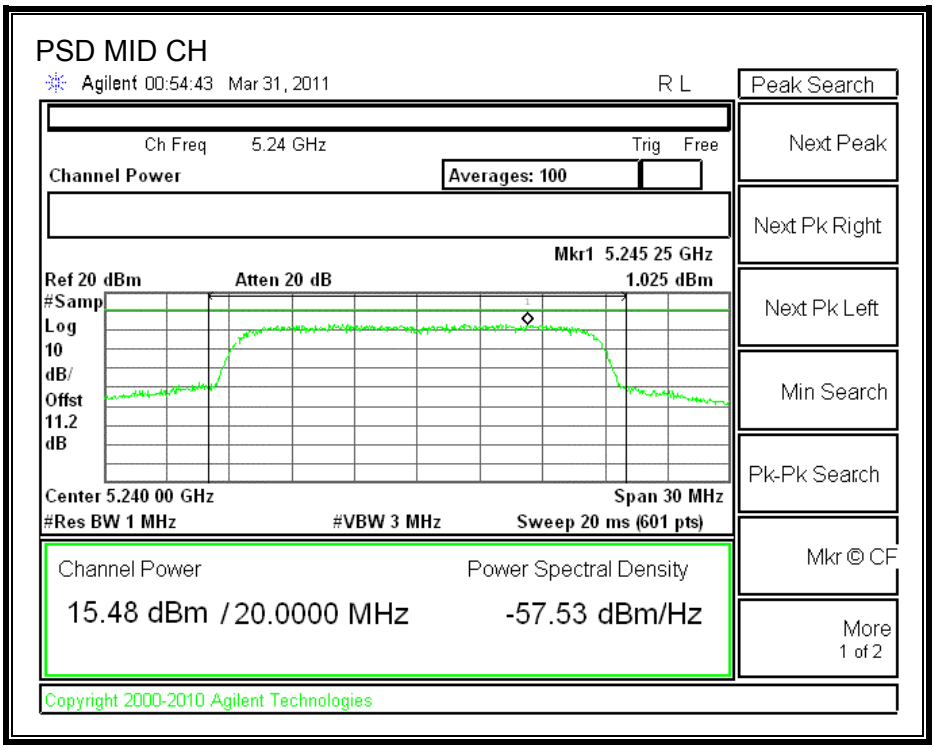
RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	5180	1.955	1.96	4	-2.05
Middle	5200	1.632	1.63	4	-2.37
High	5240	1.025	1.03	4	-2.98

POWER SPECTRAL DENSITY







7.2.4. PEAK EXCURSION

LIMITS

FCC §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 transmitter outputs are connected to the spectrum analyzer via a combiner.

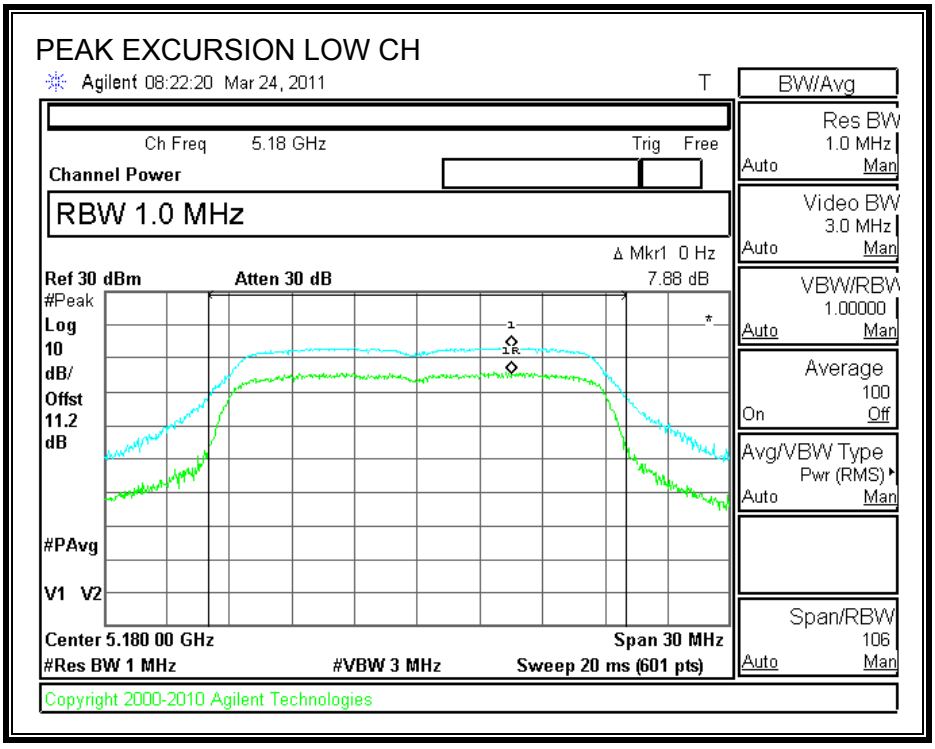
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002.

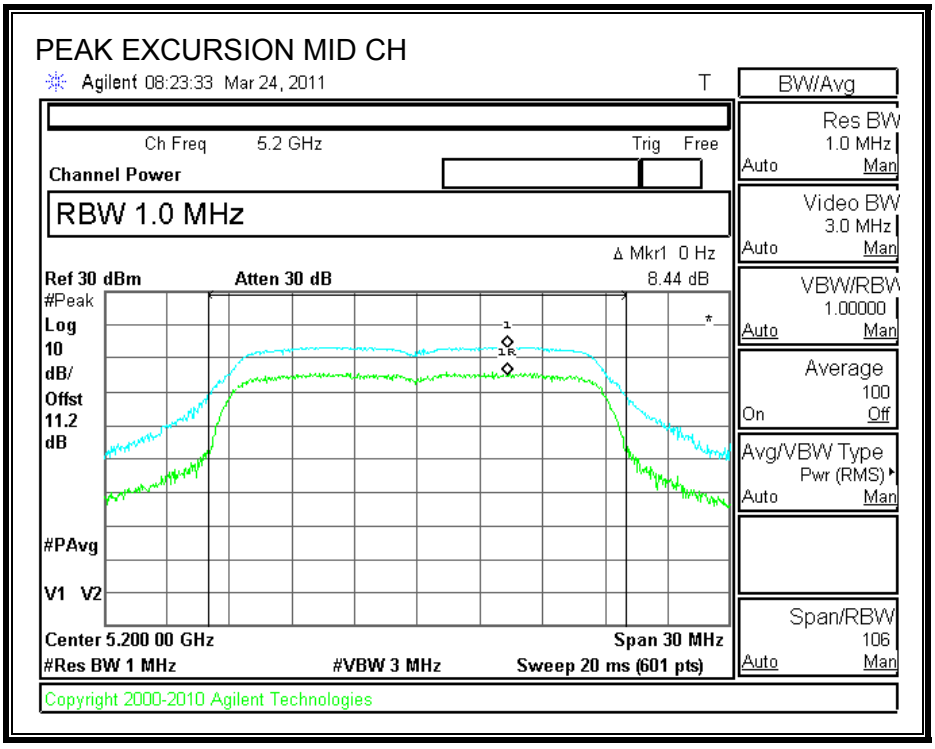
Since Method # 1 was used for peak power measurements, Method # 1 settings are used for the second PPSD trace.

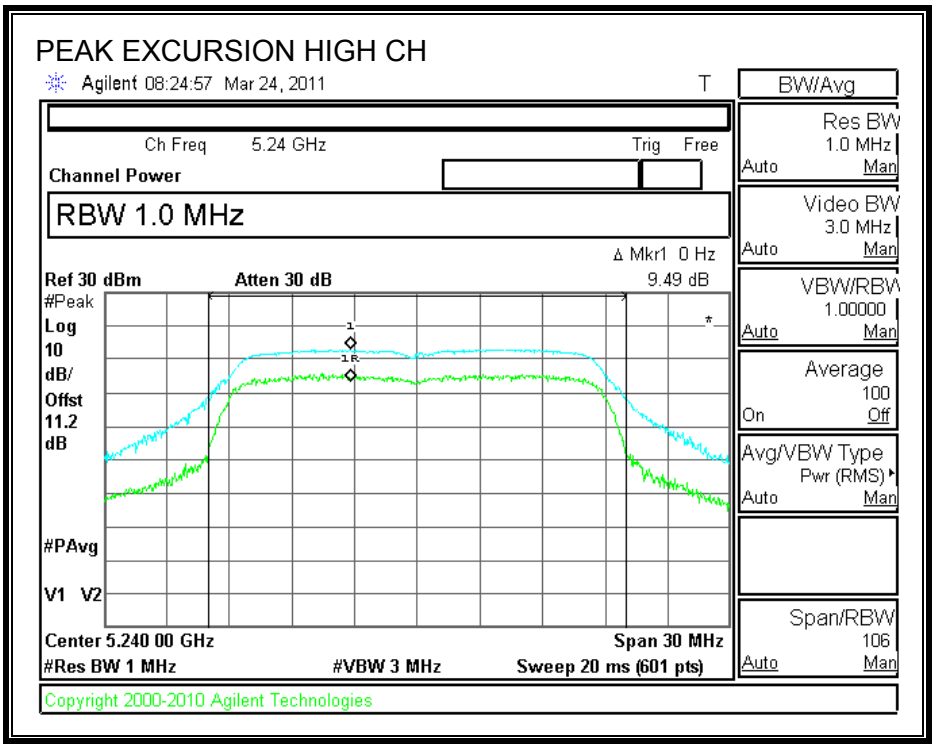
RESULTS

Channel	Frequency (MHz)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Low	5180	7.88	13	-5.12
Middle	5200	8.44	13	-4.56
High	5240	9.49	13	-3.51

PEAK EXCURSION







7.2.5. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.407 (b) (1)

IC RSS-210 A9.3 (1)

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

TEST PROCEDURE

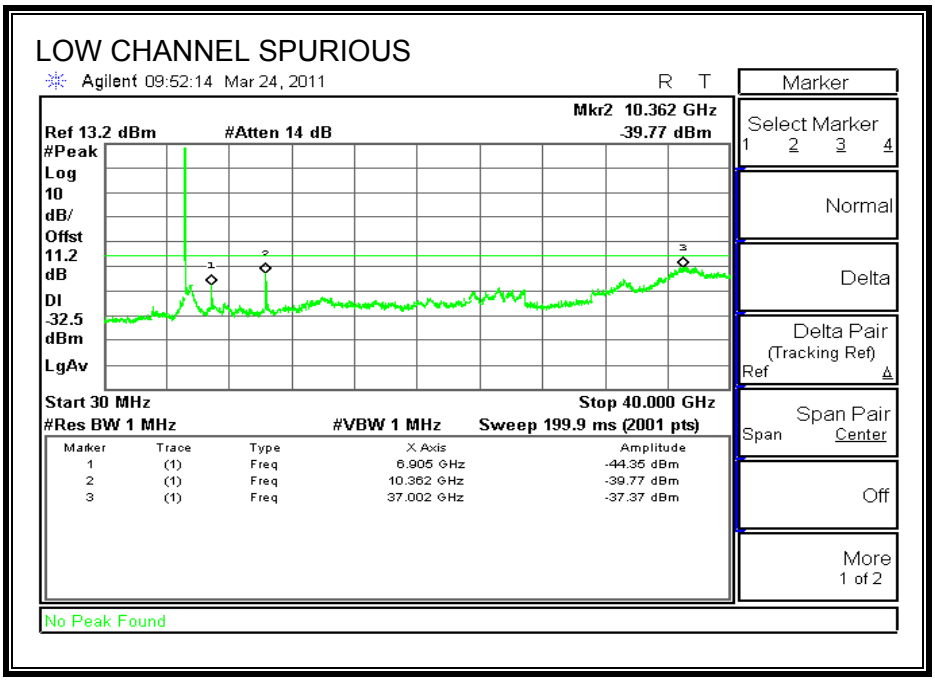
Conducted RF measurements of the transmitter output are made to confirm that the EUT antenna port conducted emissions meet the specified limit and to identify any spurious signals that require further investigation or measurements on the radiated emissions site.

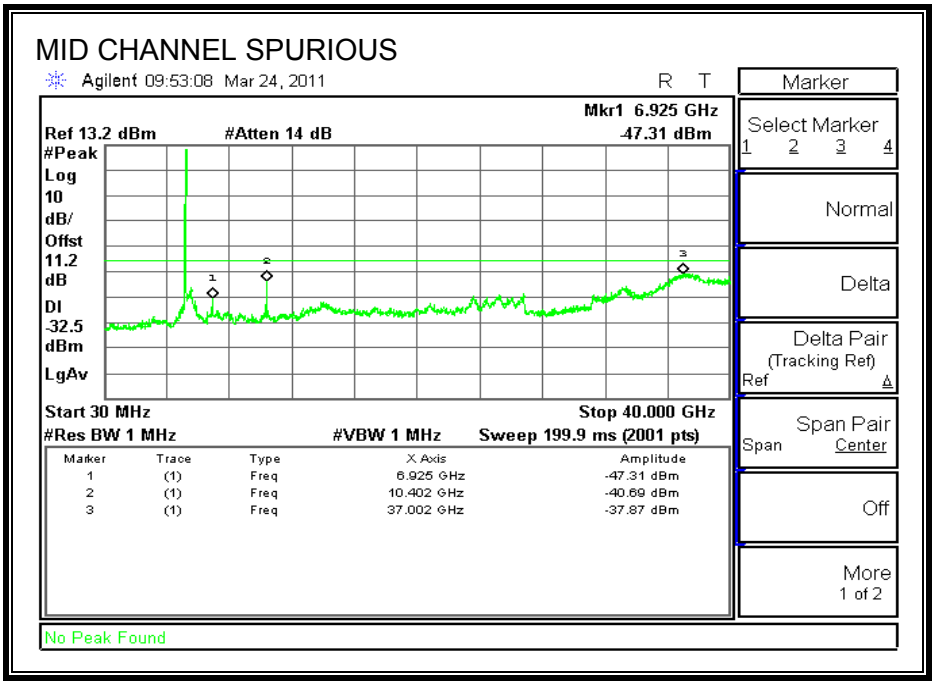
The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 1 MHz. The video bandwidth is set to 1MHz. Peak detection measurements are compared to EIRP limit, adjusted for the maximum antenna gain.

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

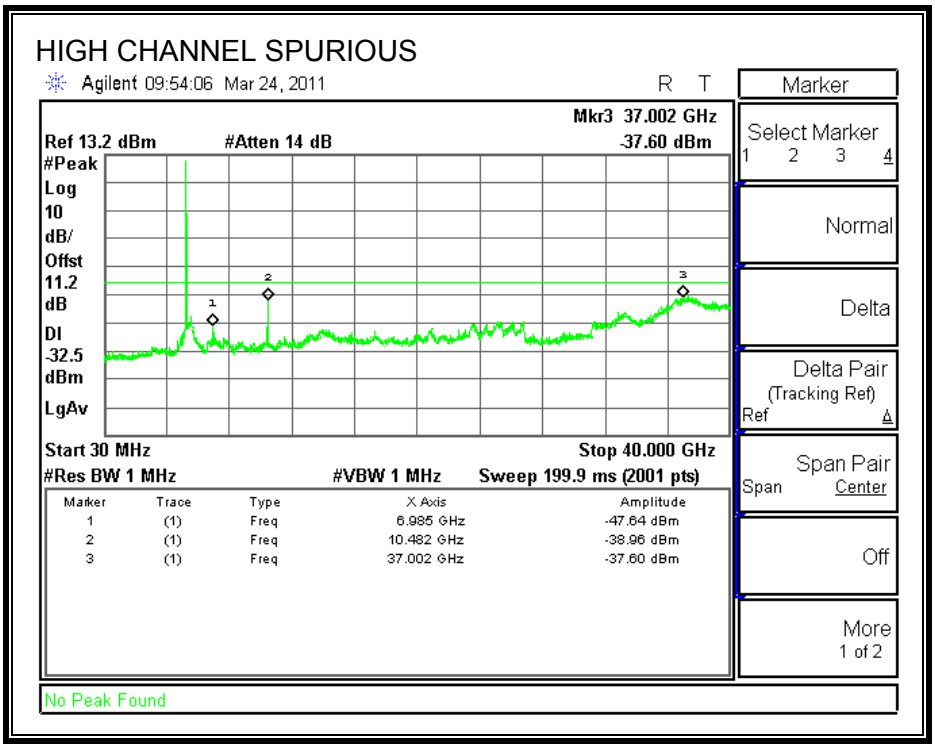
RESULTS

SPURIOUS EMISSIONS





HIGH CHANNEL SPURIOUS



7.3. 802.11n HT40 SISO MODE IN THE 5.2 GHz BAND

7.3.1. 26 dB and 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

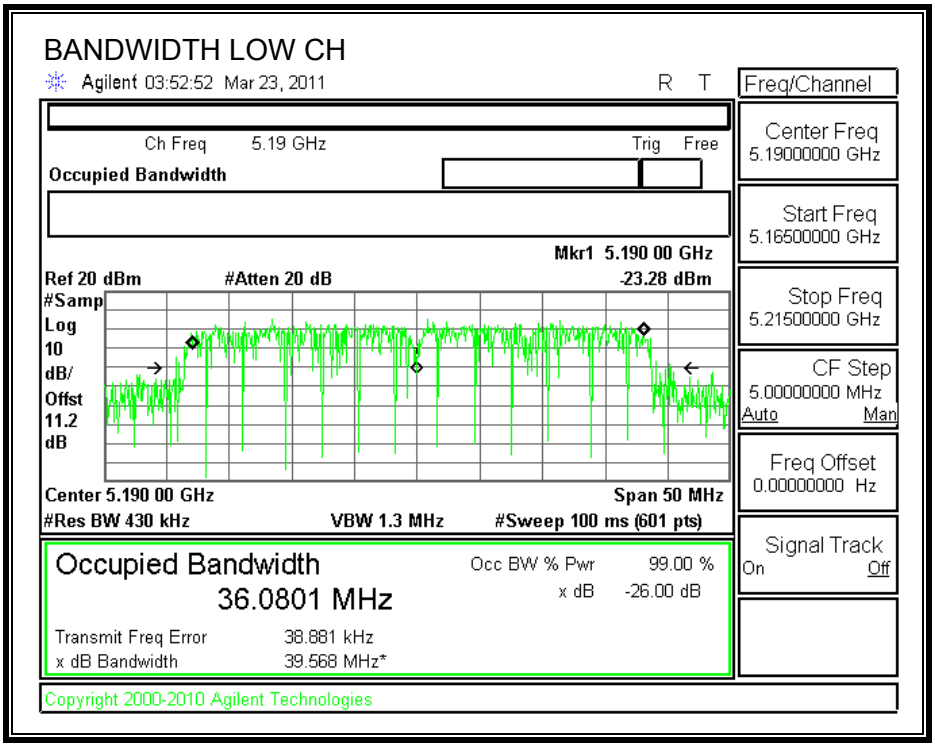
TEST PROCEDURE

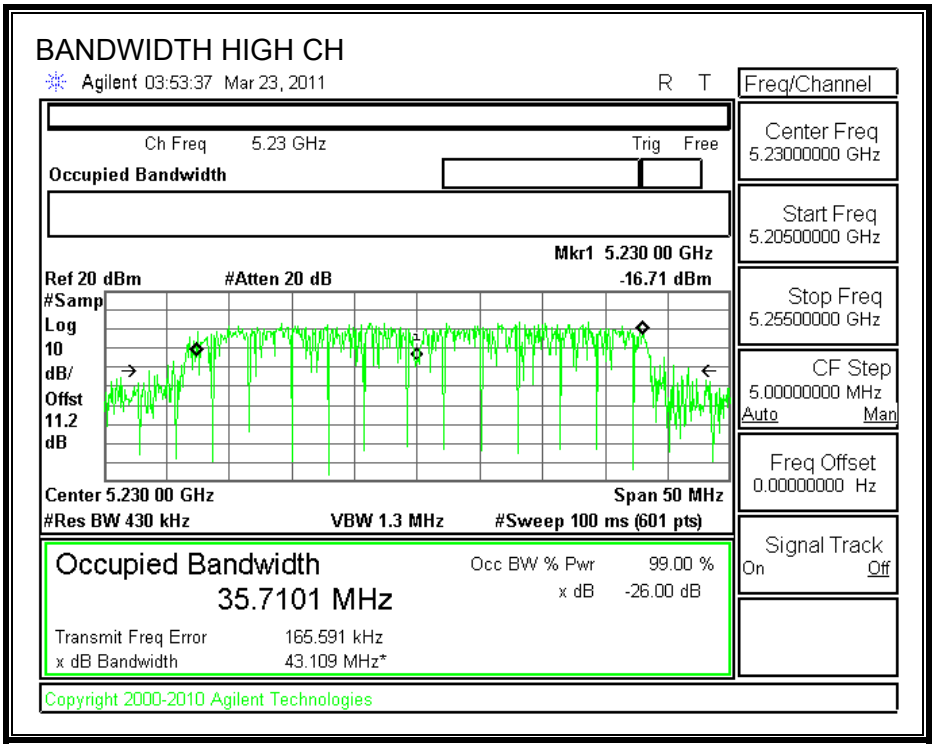
The transmitter outputs are connected to the spectrum analyzer via a combiner. The RBW is set to 1% to 3% of the measured bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal bandwidth function is utilized.

RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5190	39.57	36.08
High	5230	43.11	35.71

26 dB and 99% BANDWIDTH





7.3.2. OUTPUT POWER

LIMITS

FCC §15.407 (a) (1)

IC RSS-210 A9.2 (1)

For the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26-dB emission bandwidth in MHz. If transmitting antennas of directional gain greater than 6 dBi are used, 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.

RESULTS

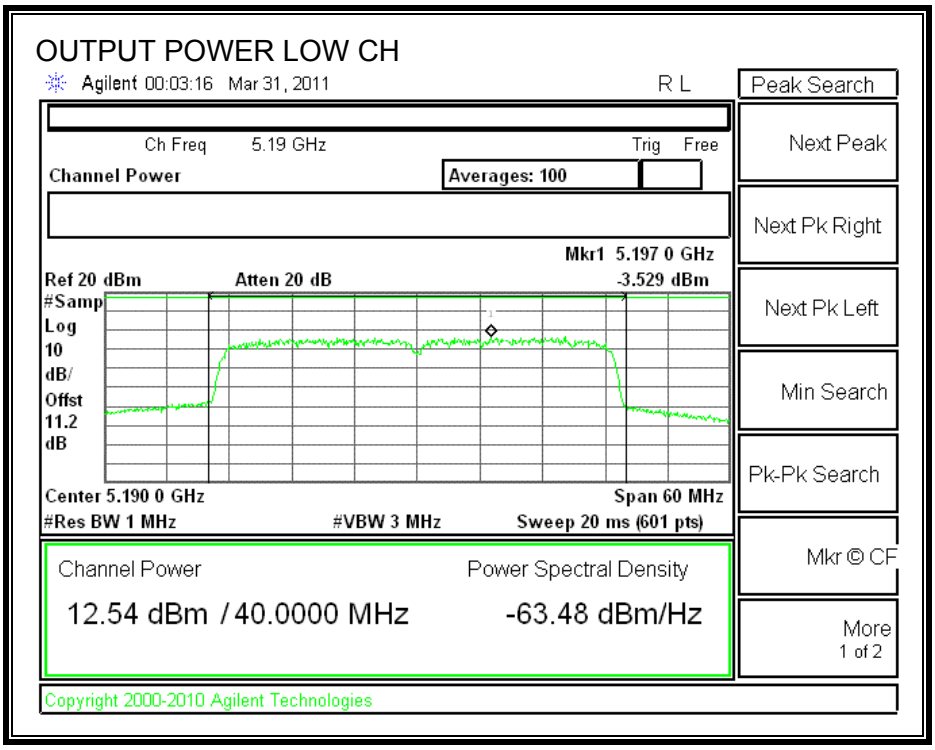
Limit

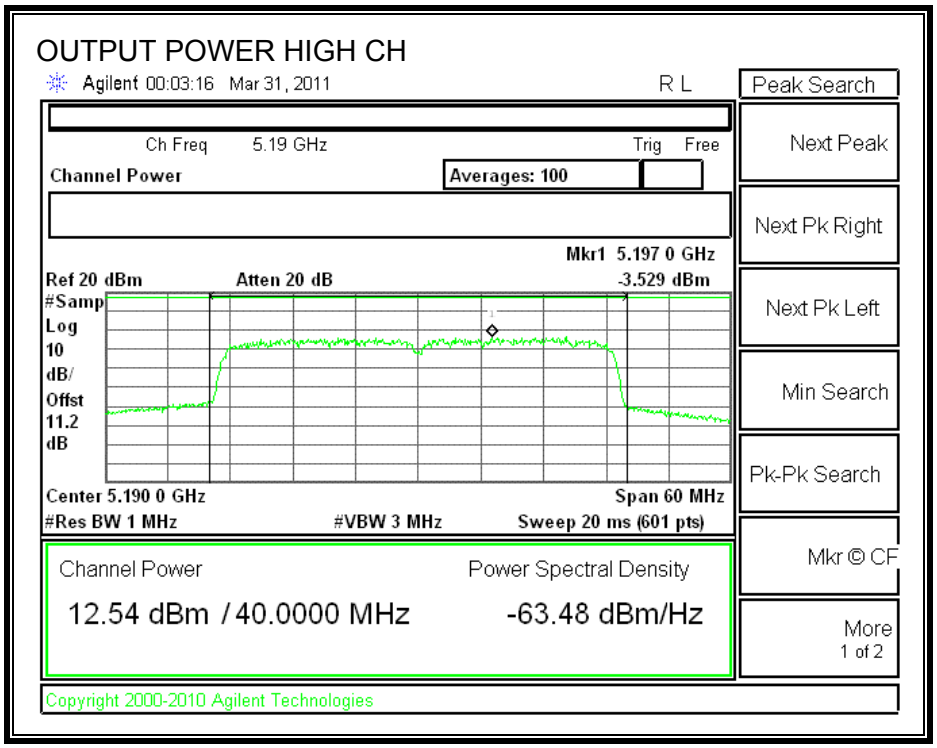
Channel	Frequency (MHz)	Fixed Limit (dBm)	B (MHz)	4 + 10 Log B Limit (dBm)	Antenna Gain (dBi)	Limit (dBm)
Low	5190	17	39.568	19.97	5.50	17.00
High	5230	17	43.109	20.35	5.50	17.00

Results

Channel	Frequency (MHz)	Power (dBm)	Limit (dBm)	Margin (dB)
Low	5190	12.54	17.00	-4.46
High	5230	15.59	17.00	-1.41

OUTPUT POWER





7.3.3. PEAK POWER SPECTRAL DENSITY

LIMITS

FCC §15.407 (a) (1)

IC RSS-210 A9.2 (1)

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

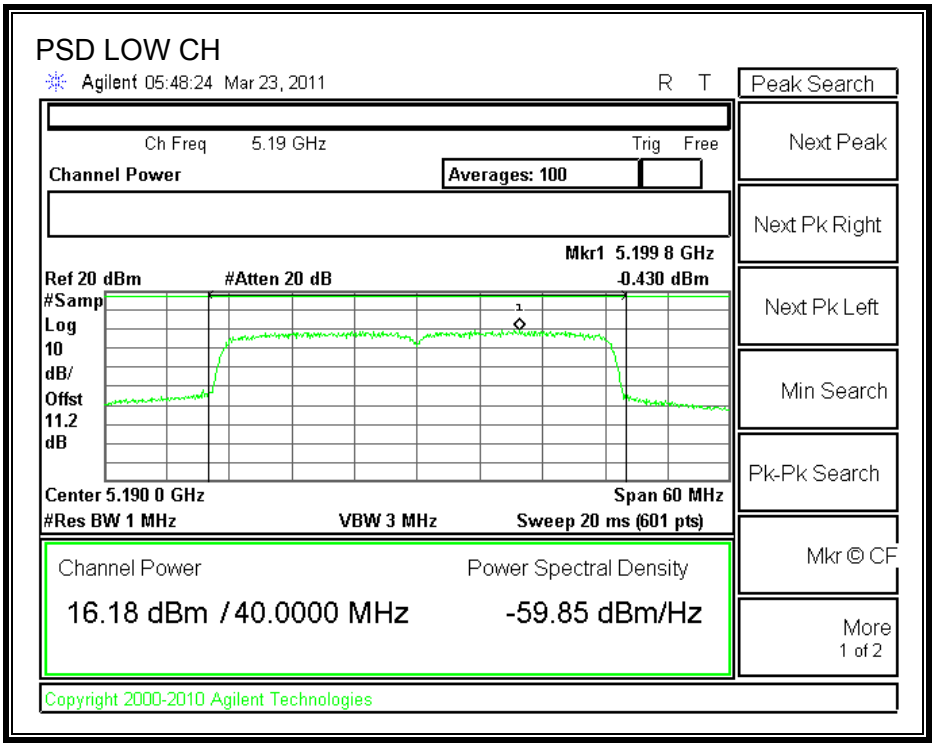
TEST PROCEDURE

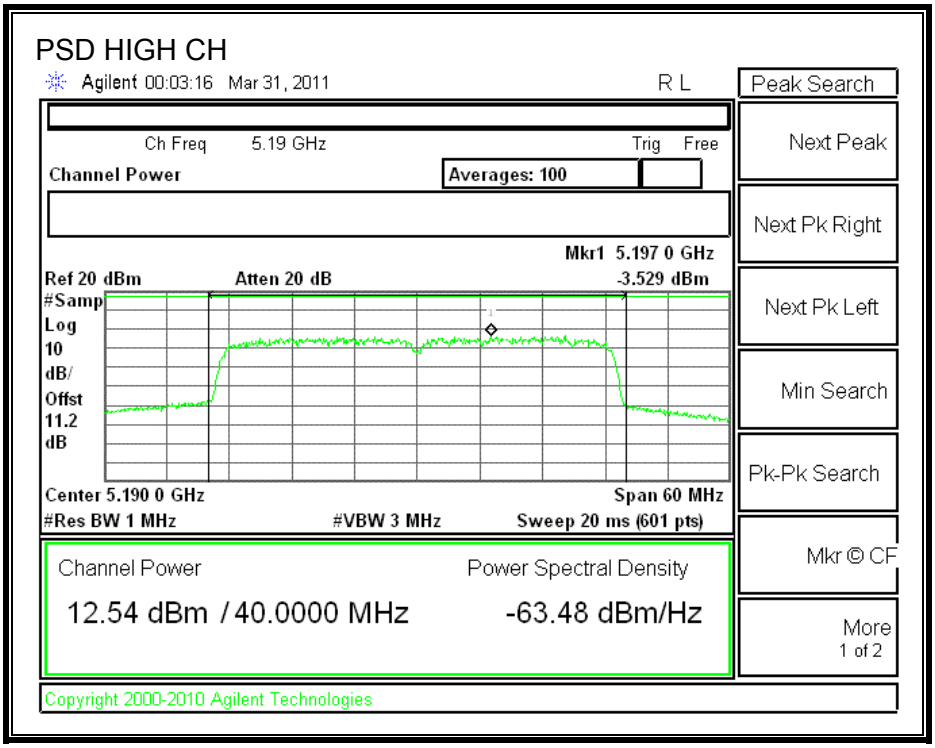
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002. PPSD method #2 was used.

RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	5190	-0.430	-0.43	4	-4.43
High	5230	-2.091	-2.09	4	-6.09

POWER SPECTRAL DENSITY





7.3.4. PEAK EXCURSION

LIMITS

FCC §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 transmitter outputs are connected to the spectrum analyzer via a combiner.

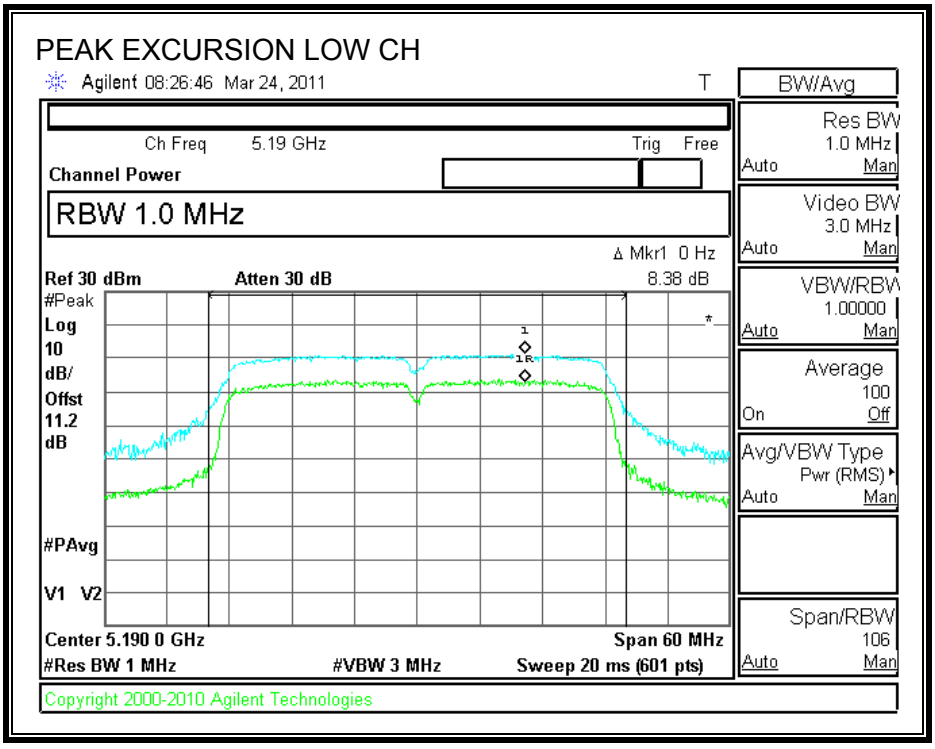
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002.

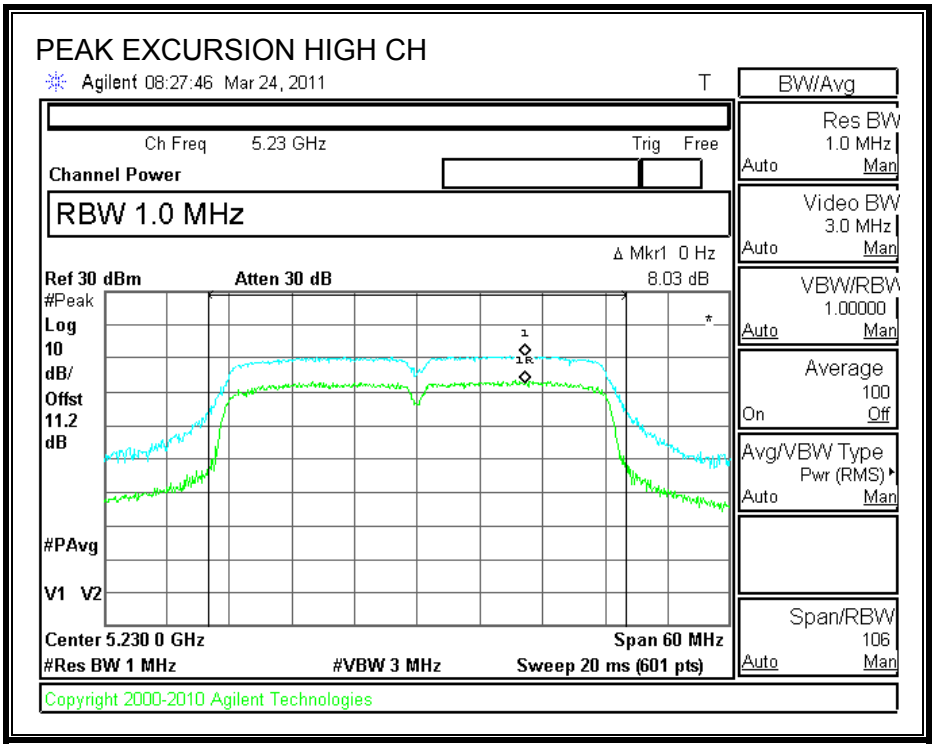
Since Method # 1 was used for peak power measurements, Method # 1 settings are used for the second PPSD trace.

RESULTS

Channel	Frequency (MHz)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Low	5190	8.38	13	-4.62
High	5230	8.03	13	-4.97

PEAK EXCURSION





7.3.5. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.407 (b) (1)

IC RSS-210 A9.3 (1)

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

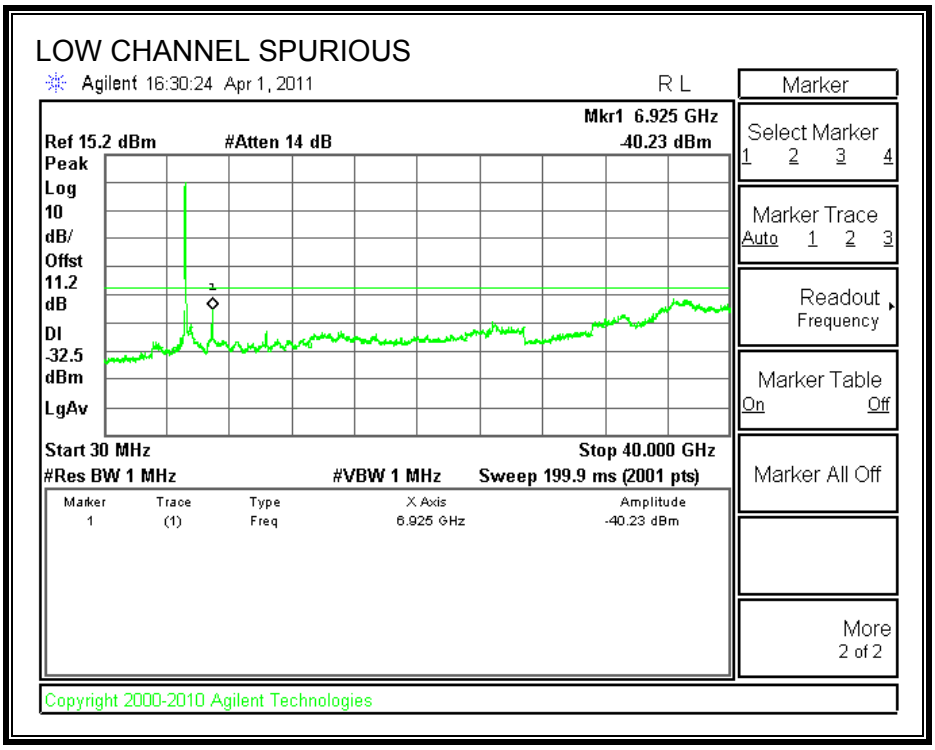
TEST PROCEDURE

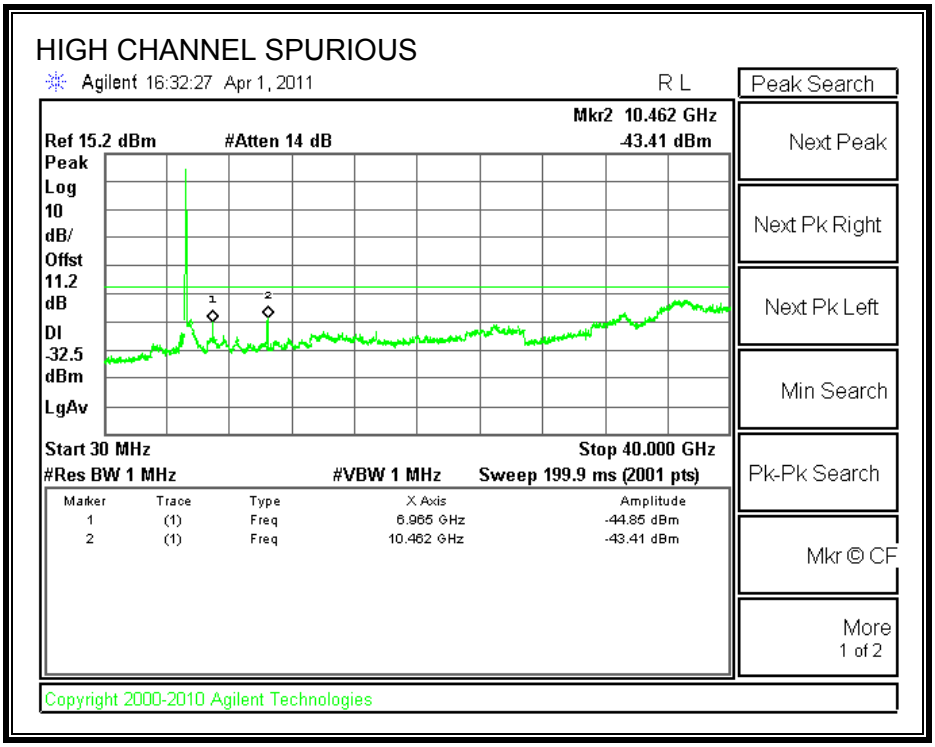
Conducted RF measurements of the transmitter output are made to confirm that the EUT antenna port conducted emissions meet the specified limit and to identify any spurious signals that require further investigation or measurements on the radiated emissions site.

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

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

SPURIOUS EMISSIONS





7.4. 802.11a MODE IN THE 5.3 GHz BAND

7.4.1. 26 dB and 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

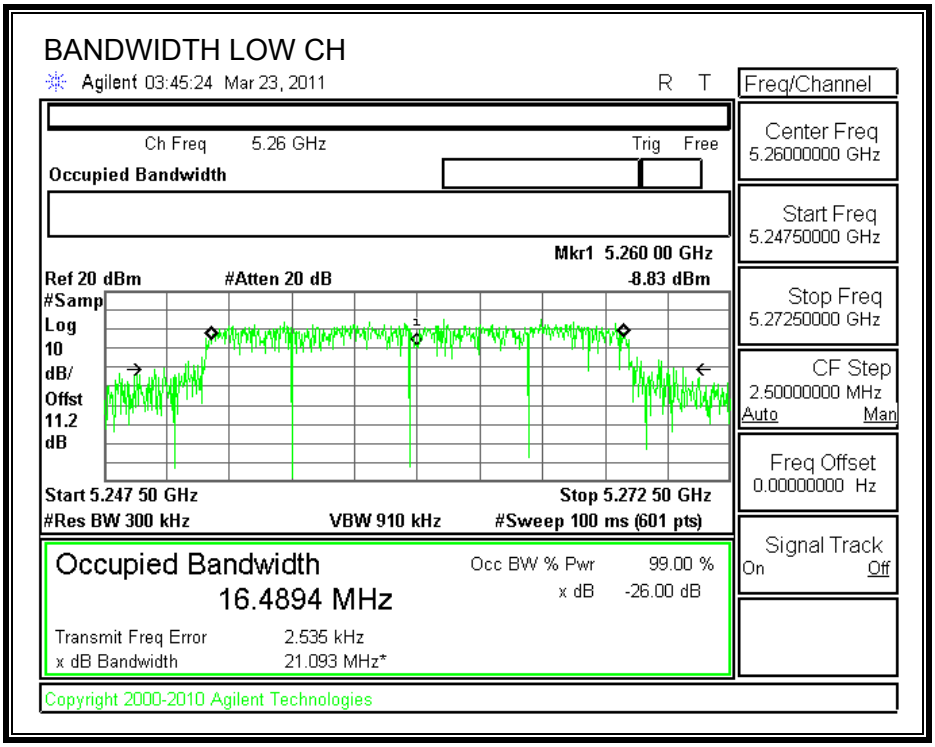
TEST PROCEDURE

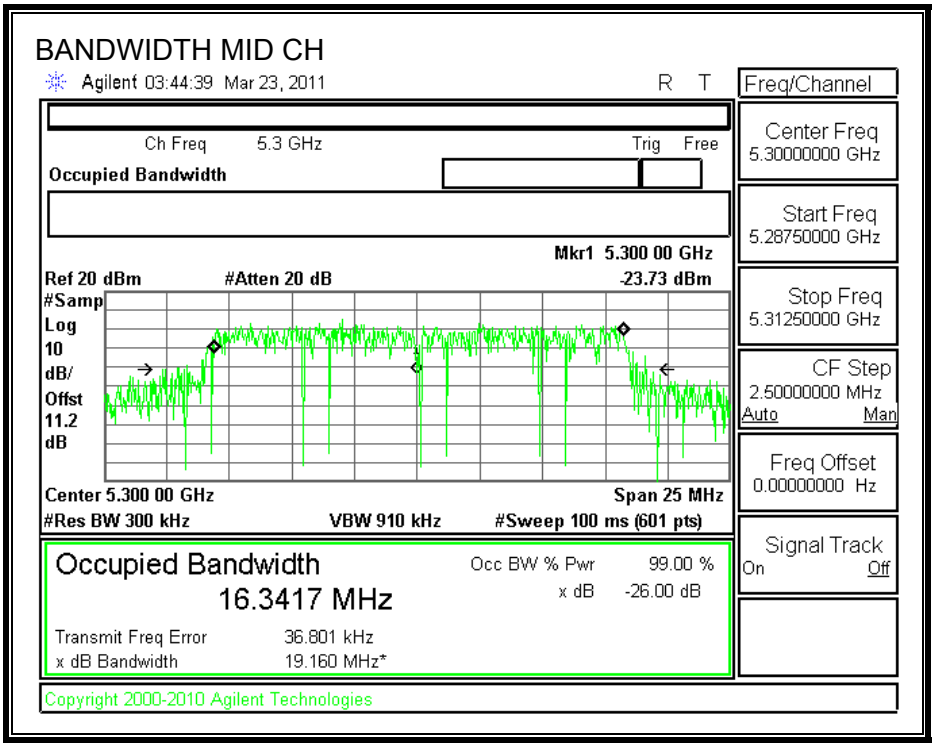
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the measured bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal bandwidth function is utilized.

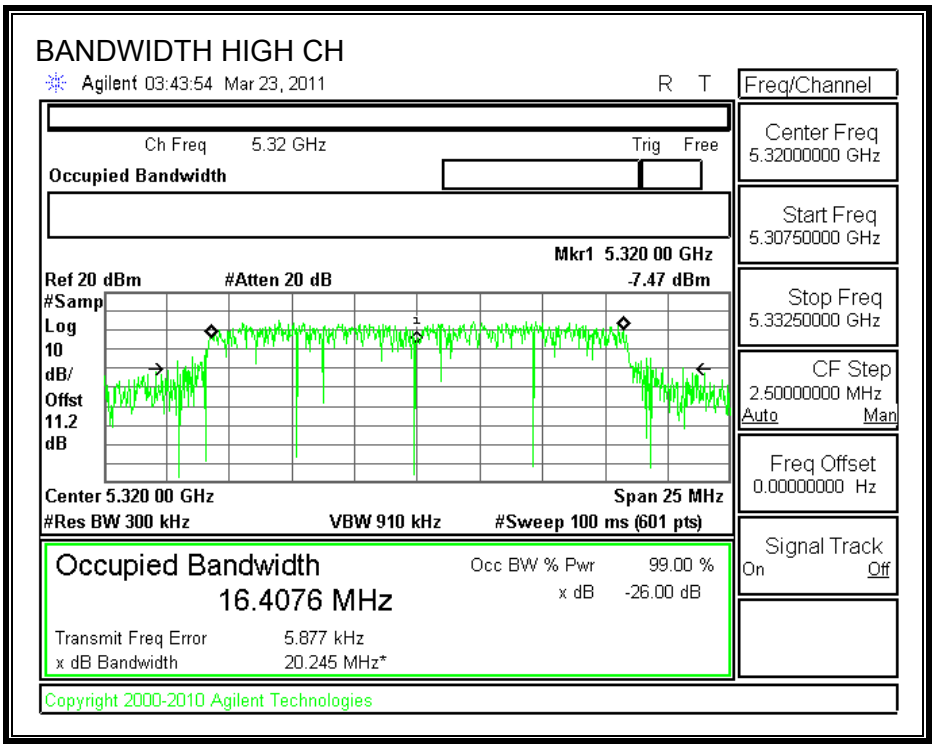
RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5260	21.09	16.49
Middle	5300	19.16	16.34
High	5320	20.25	16.41

26 dB and 99% BANDWIDTH







7.4.2. OUTPUT POWER

LIMITS

FCC §15.407 (a) (2)

IC RSS-210 A9.2 (2)

For the 5.25-5.35 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26-dB emission bandwidth in MHz. If transmitting antennas of directional gain greater than 6 dBi are used, 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.

RESULTS

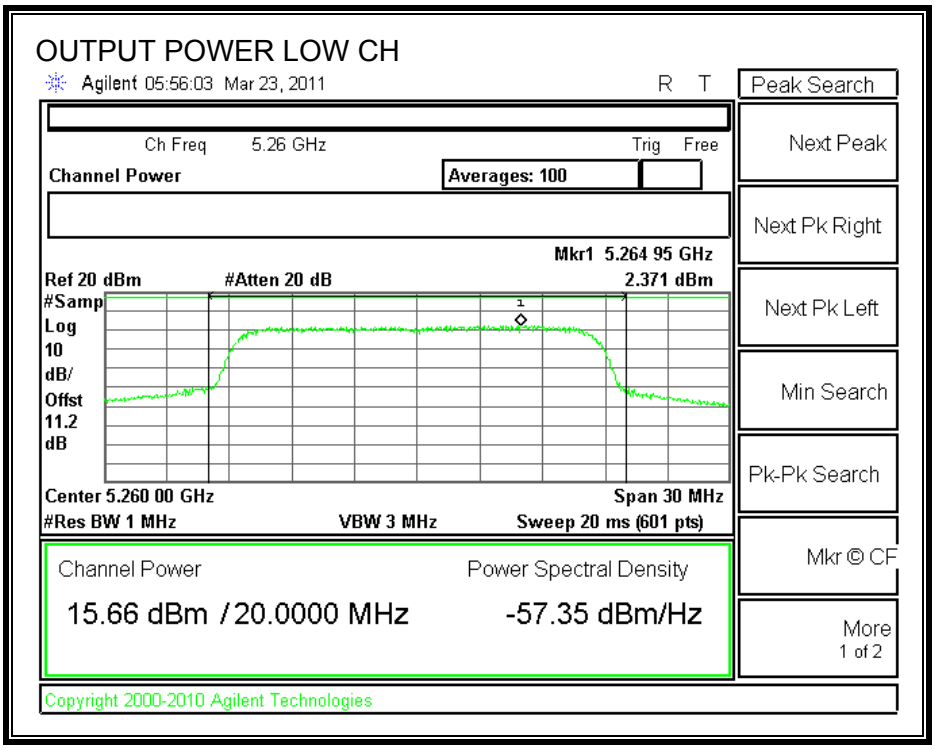
Limit

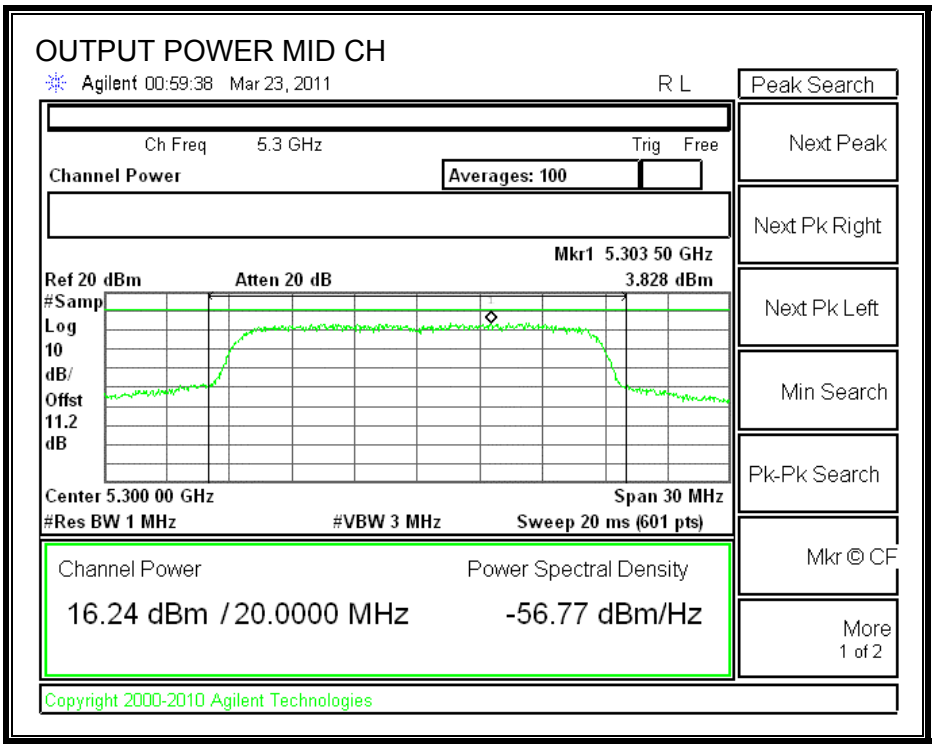
Channel	Frequency (MHz)	Fixed Limit (dBm)	B (MHz)	11 + 10 Log B Limit (dBm)	Antenna Gain (dBi)	Limit (dBm)
Low	5260	24	21.09	24.24	5.50	24.00
Mid	5300	24	19.16	23.82	5.50	23.82
High	5320	24	20.25	24.06	5.50	24.00

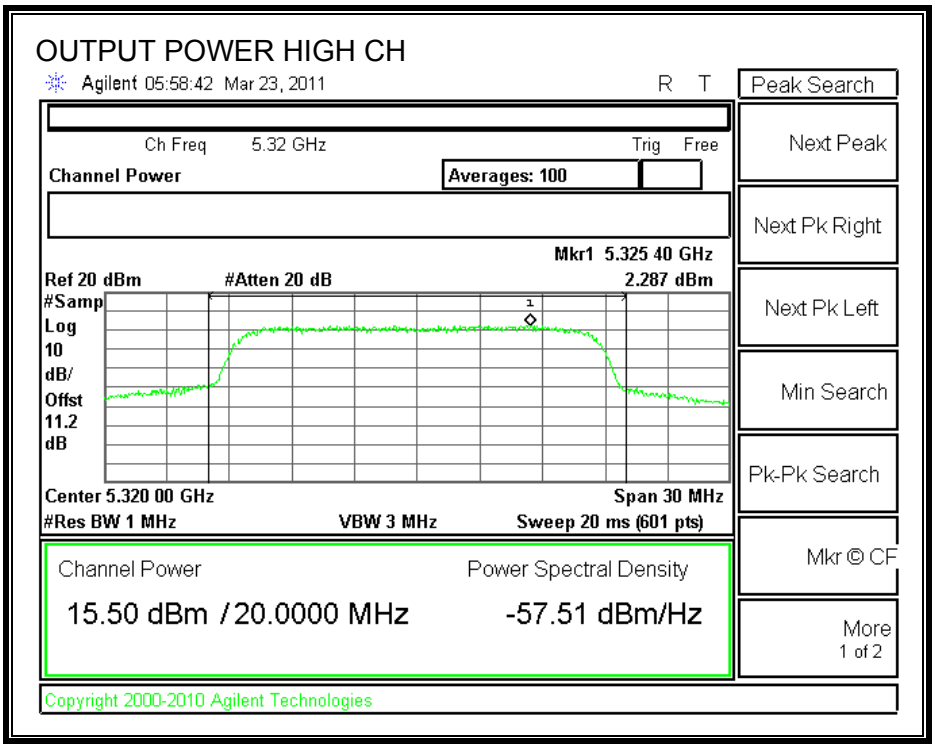
Results

Channel	Frequency (MHz)	Power (dBm)	Limit (dBm)	Margin (dB)
Low	5260	15.66	24.00	-8.34
Mid	5300	16.24	23.82	-7.58
High	5320	15.50	24.00	-8.50

OUTPUT POWER







7.4.3. PEAK POWER SPECTRAL DENSITY

LIMITS

FCC §15.407 (a) (2)

IC RSS-210 A9.2 (2)

For the 5.25–5.35 GHz band, 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.

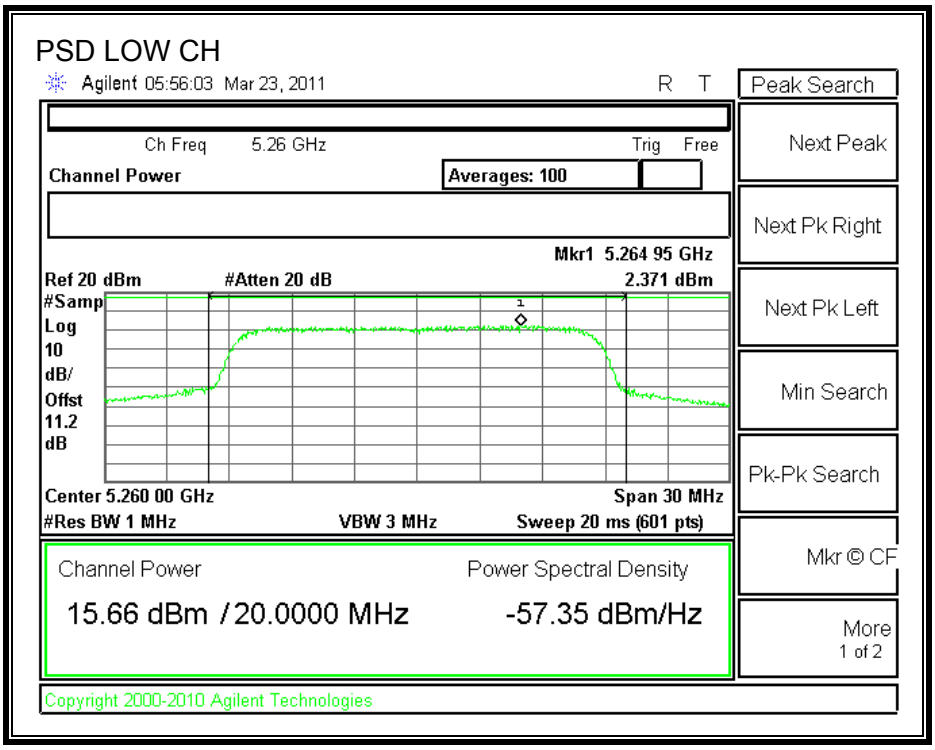
TEST PROCEDURE

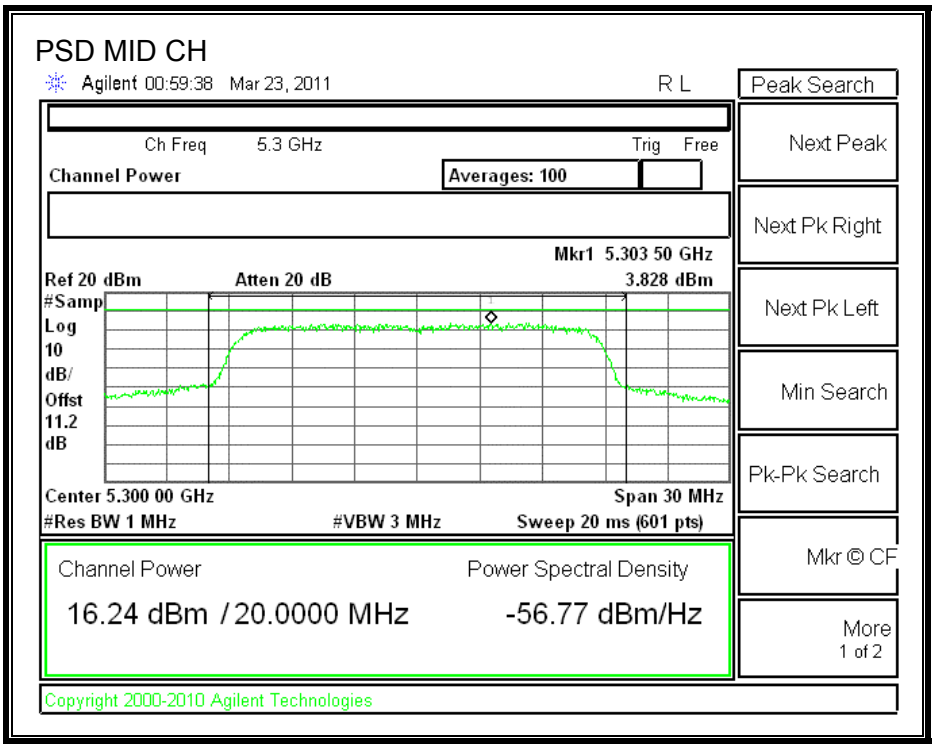
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002. PPSD method #2 was used.

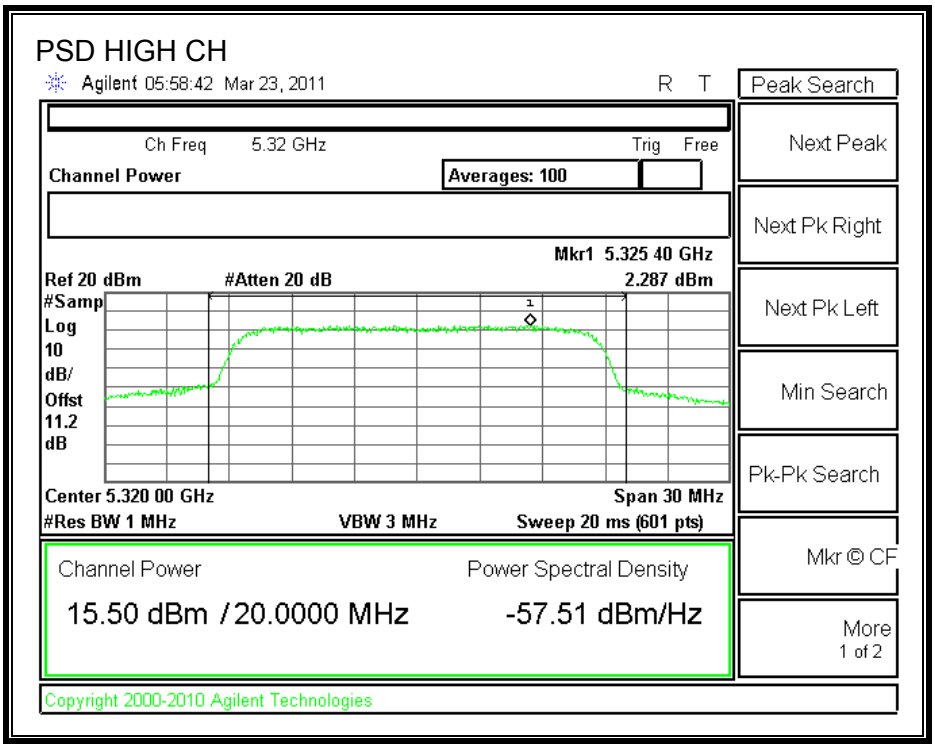
RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	5260	2.371	11	-8.63
Middle	5300	3.828	11	-7.17
High	5320	2.287	11	-8.71

POWER SPECTRAL DENSITY







7.4.4. PEAK EXCURSION

LIMITS

FCC §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

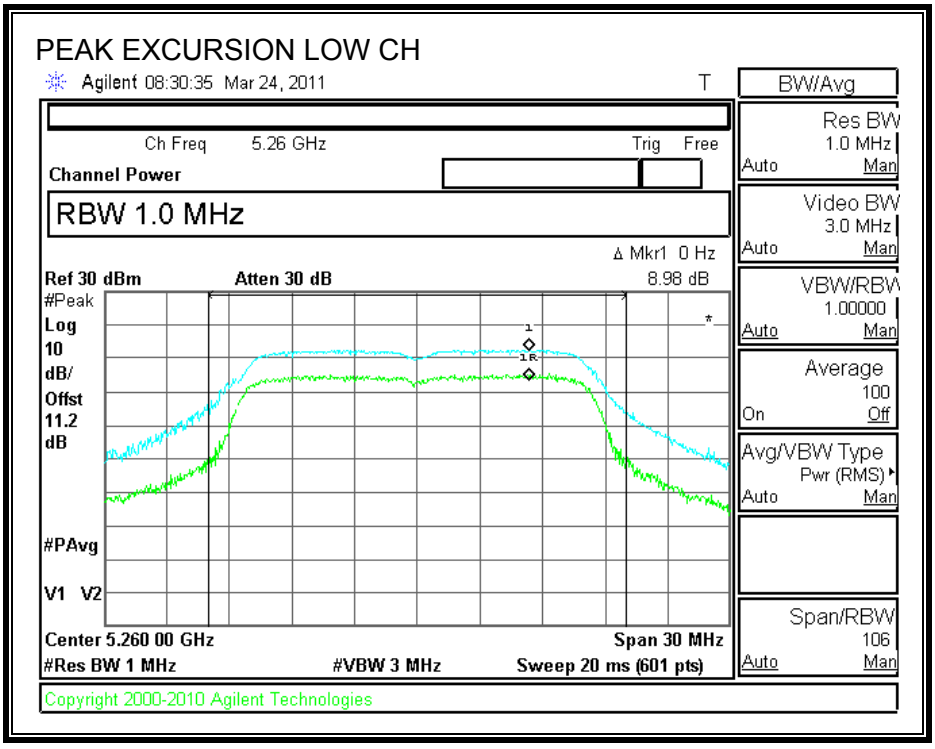
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002.

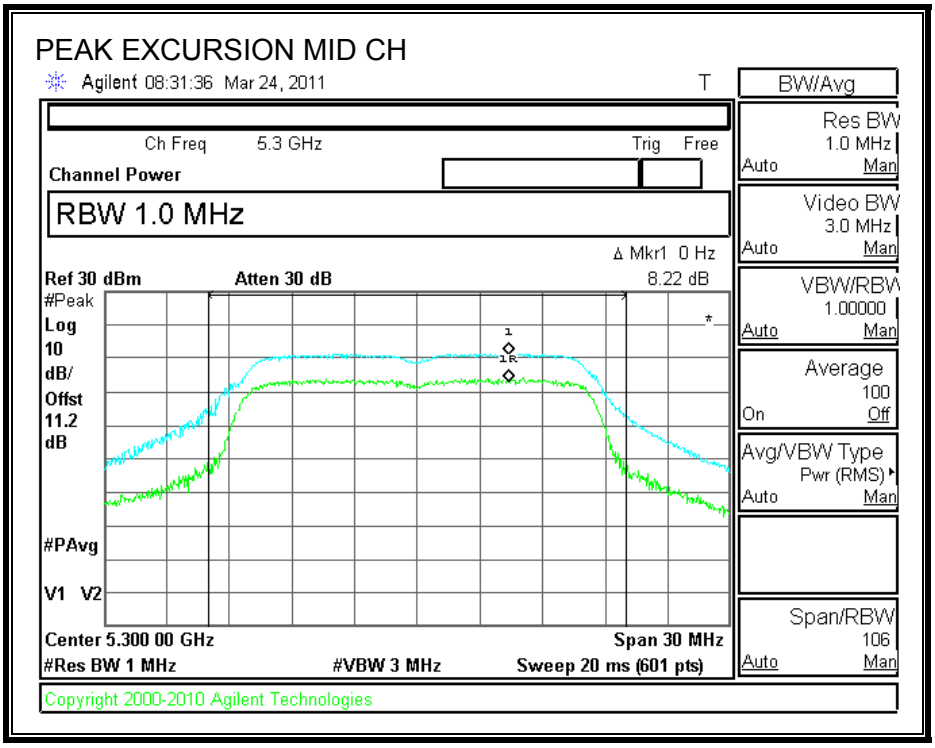
Since Method # 1 was used for peak power measurements, Method # 1 settings are used for the second PPSD trace.

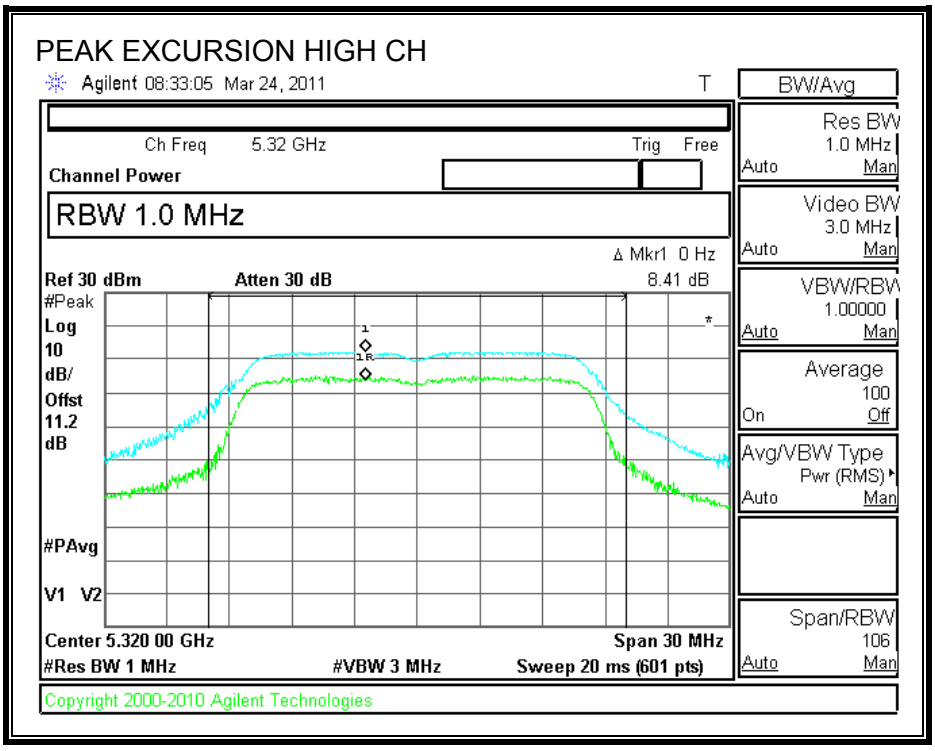
RESULTS

Channel	Frequency (MHz)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Low	5260	8.98	13	-4.02
Middle	5300	8.22	13	-4.78
High	5320	8.41	13	-4.59

PEAK EXCURSION







7.4.5. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.407 (b) (2)

IC RSS-210 A9.3 (2)

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

Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15-5.25 GHz band.

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.

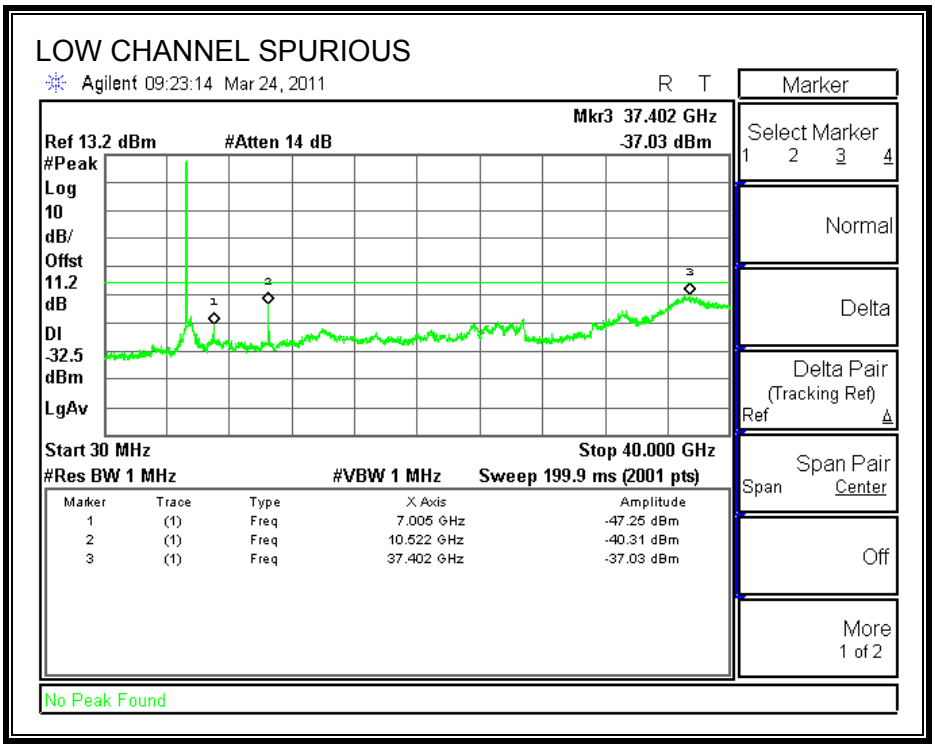
The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 1 MHz. The video bandwidth is set to 1MHz. Peak detection measurements are compared to EIRP limit, adjusted for the maximum antenna gain.

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

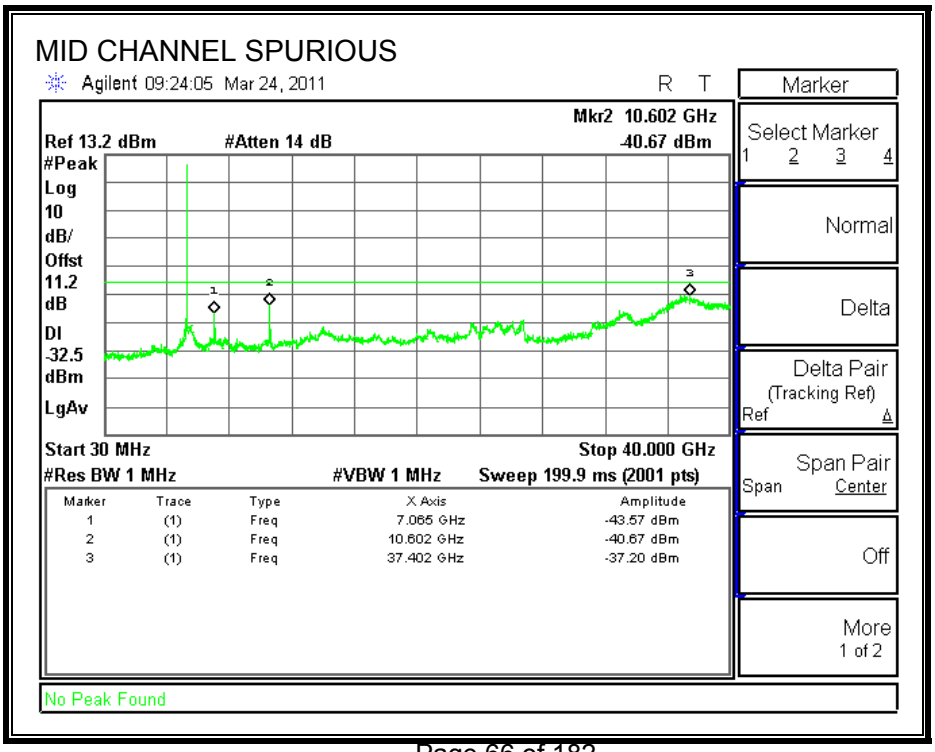
RESULTS

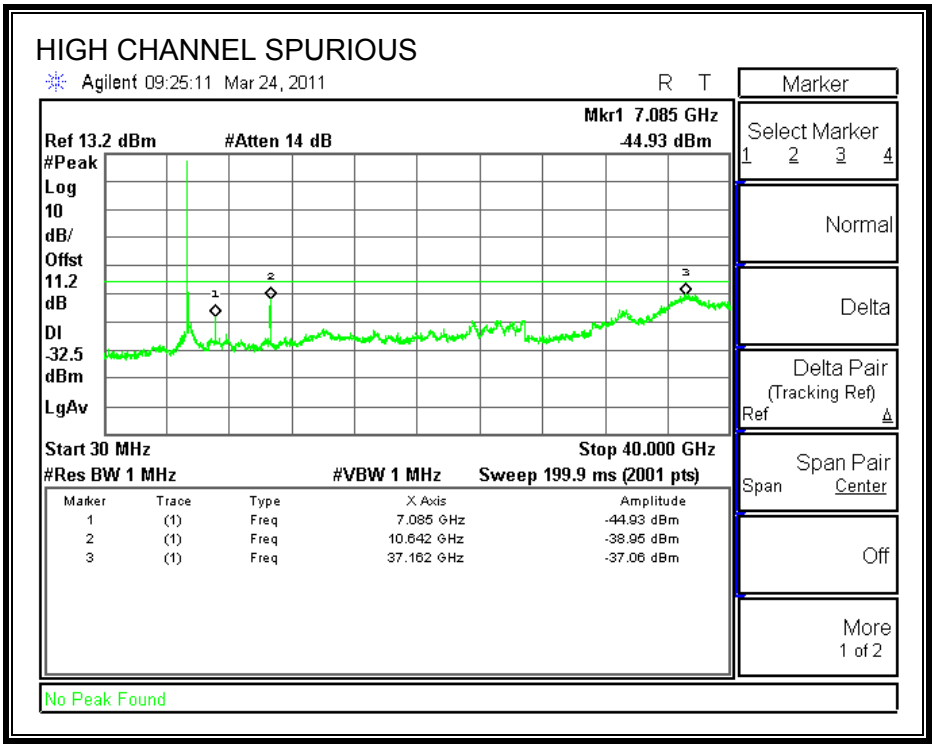
SPURIOUS EMISSIONS

LOW CHANNEL SPURIOUS



MID CHANNEL SPURIOUS





7.5. 802.11n HT20 SISO MODE IN THE 5.3 GHz BAND

7.5.1. 26 dB and 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

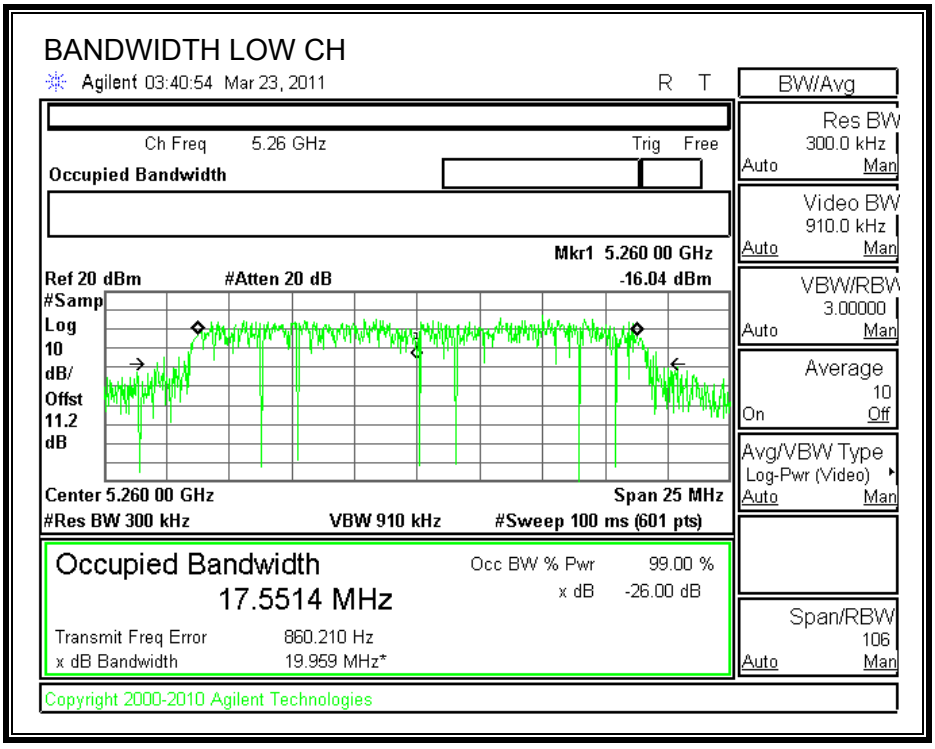
TEST PROCEDURE

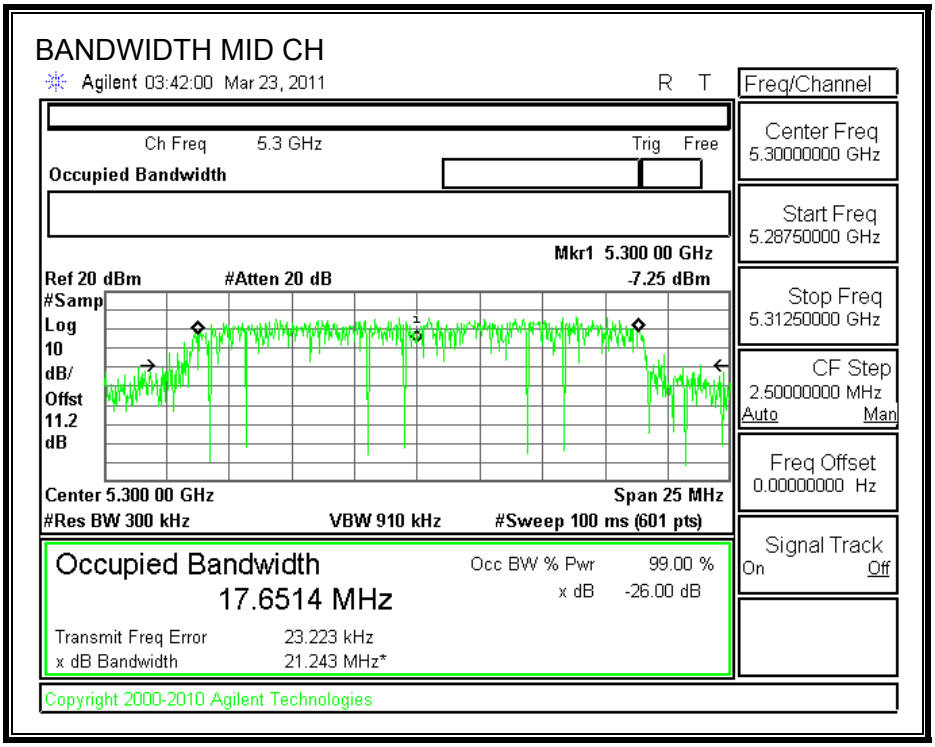
The transmitter outputs are connected to the spectrum analyzer via a combiner. The RBW is set to 1% to 3% of the measured bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal bandwidth function is utilized.

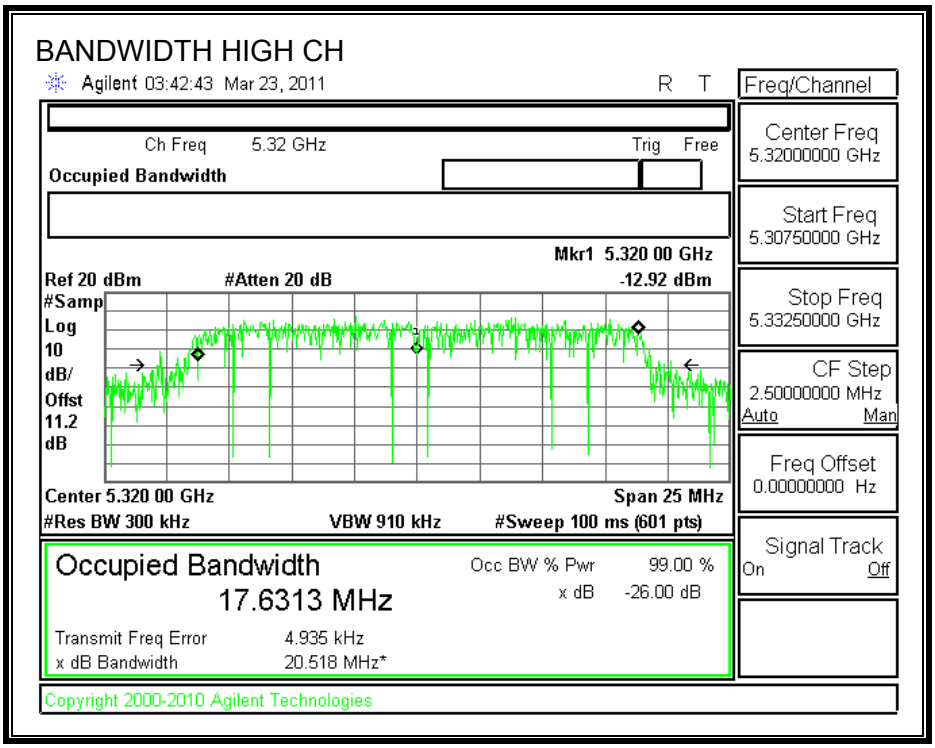
RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5260	19.96	17.55
Middle	5300	21.24	17.65
High	5320	20.52	17.63

26 dB and 99% BANDWIDTH







7.5.2. OUTPUT POWER

LIMITS

FCC §15.407 (a) (2)

IC RSS-210 A9.2 (2)

For the 5.25-5.35 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26-dB emission bandwidth in MHz. If transmitting antennas of directional gain greater than 6 dBi are used, 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.

RESULTS

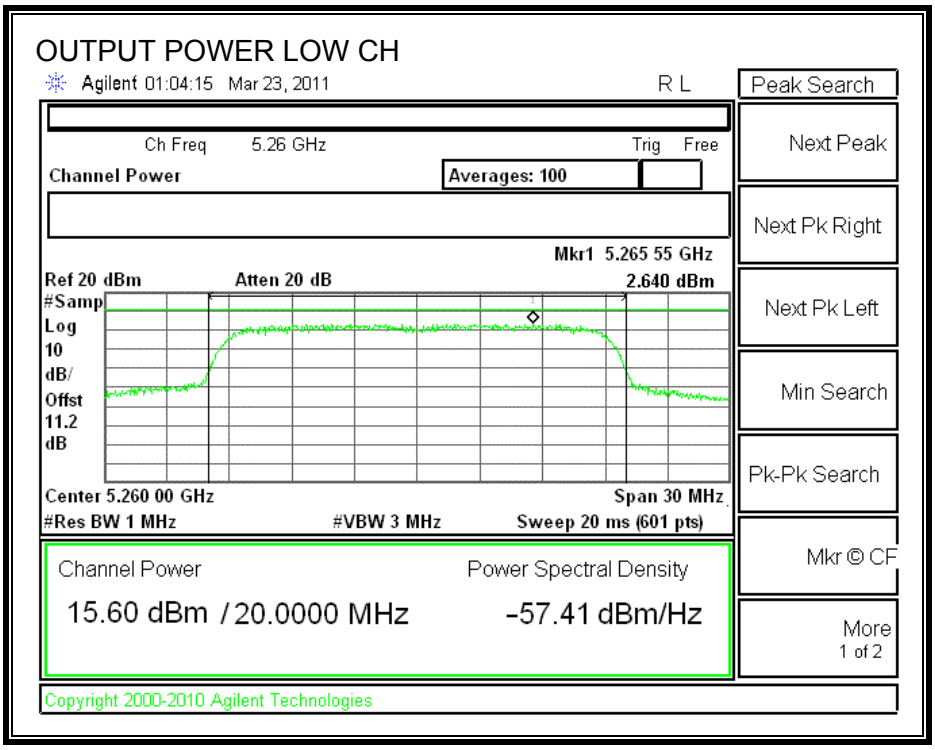
Limit

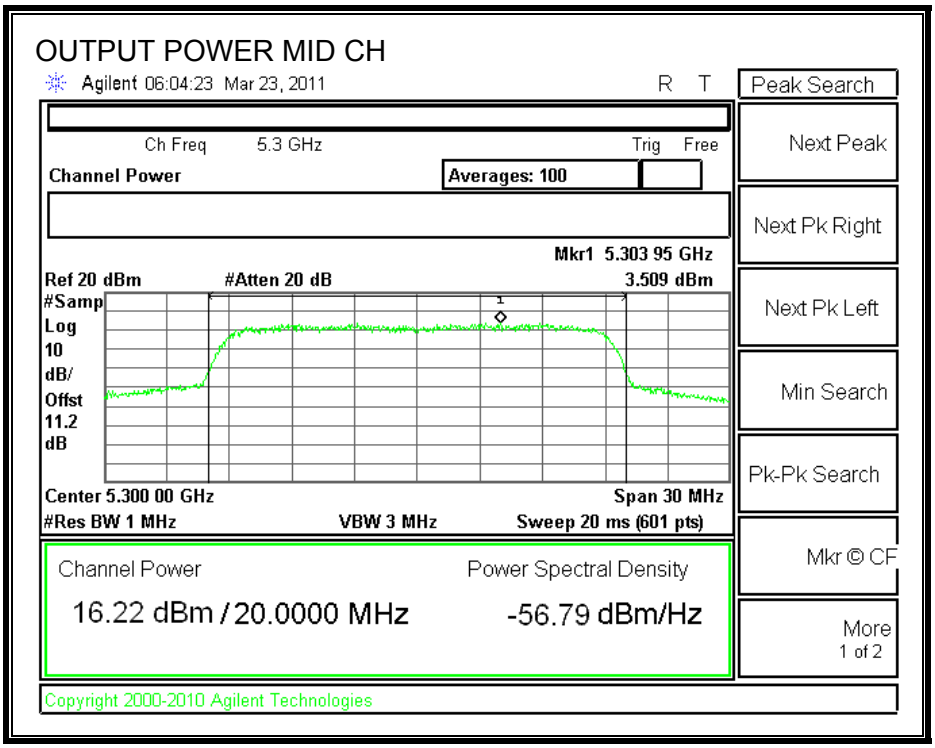
Channel	Frequency (MHz)	Fixed Limit (dBm)	B (MHz)	11 + 10 Log B Limit (dBm)	Antenna Gain (dBi)	Limit (dBm)
Low	5260	24	19.96	24.00	5.50	24.00
Mid	5300	24	21.24	24.27	5.50	24.00
High	5320	24	20.52	24.12	5.50	24.00

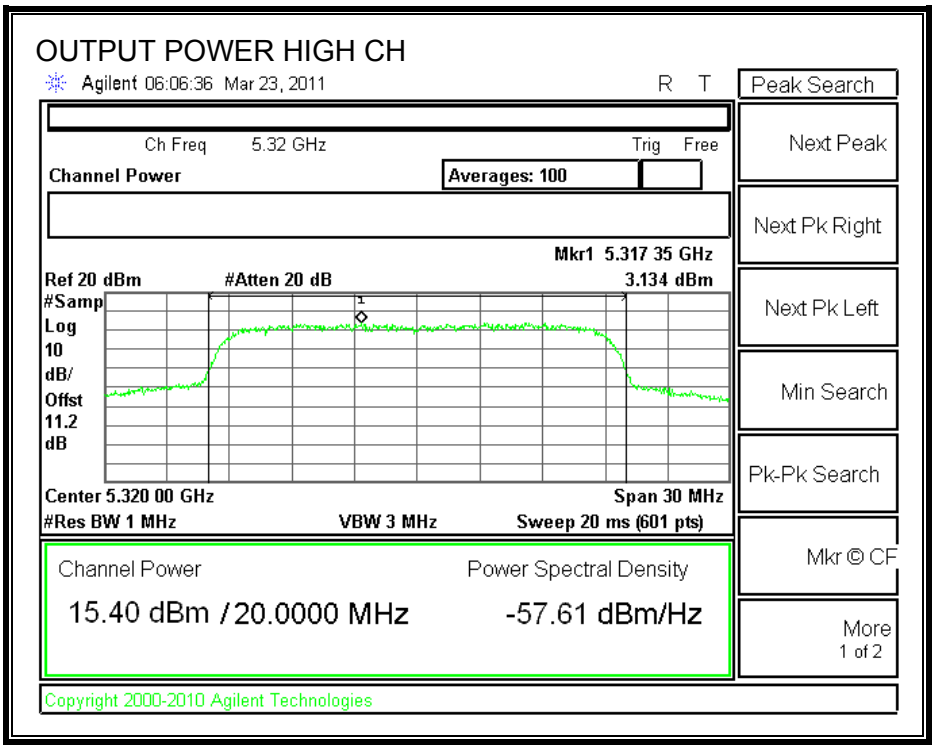
Results

Channel	Frequency (MHz)	Power (dBm)	Limit (dBm)	Margin (dB)
Low	5260	15.60	24.00	-8.40
Mid	5300	16.22	24.00	-7.78
High	5320	15.40	24.00	-8.60

OUTPUT POWER







7.5.3. PEAK POWER SPECTRAL DENSITY

LIMITS

FCC §15.407 (a) (2)

IC RSS-210 A9.2 (2)

For the 5.25-5.35 GHz band, 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.

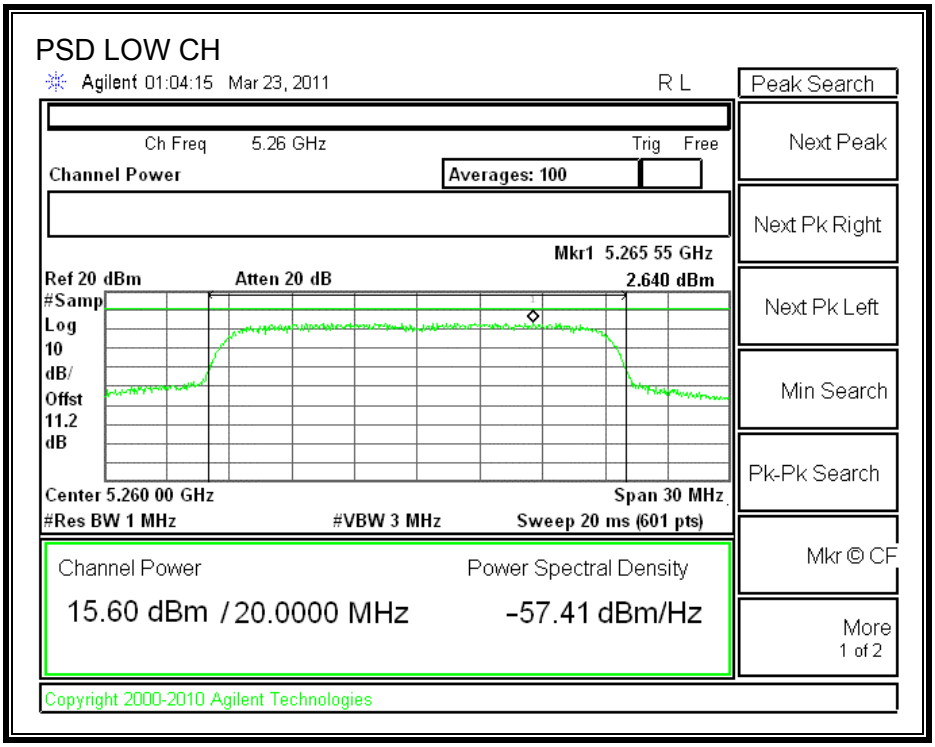
TEST PROCEDURE

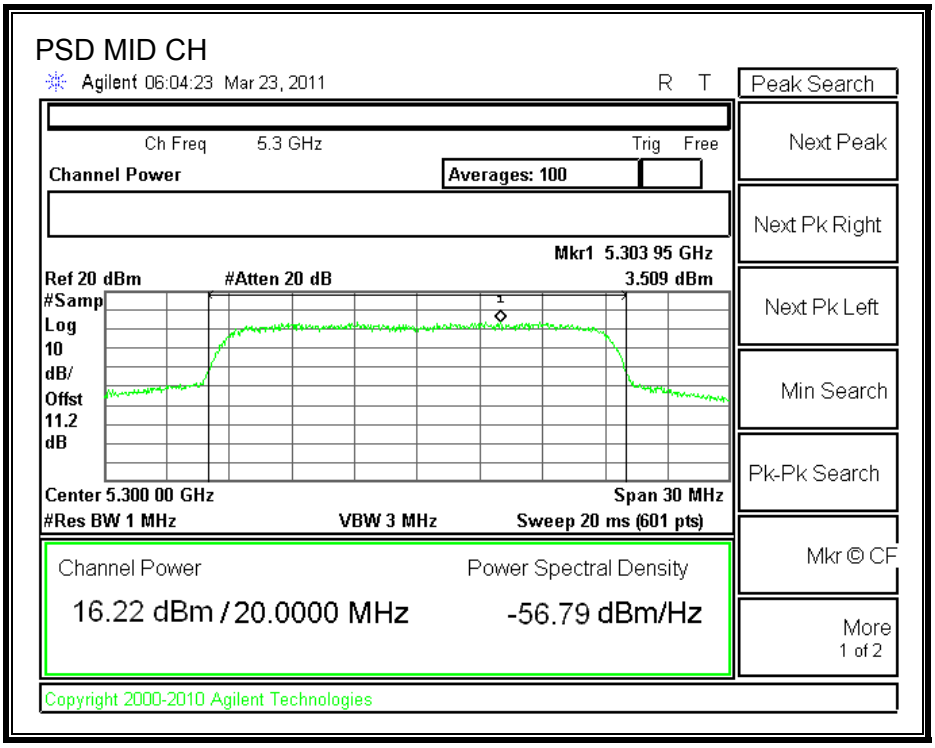
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002. PPSD method #2 was used.

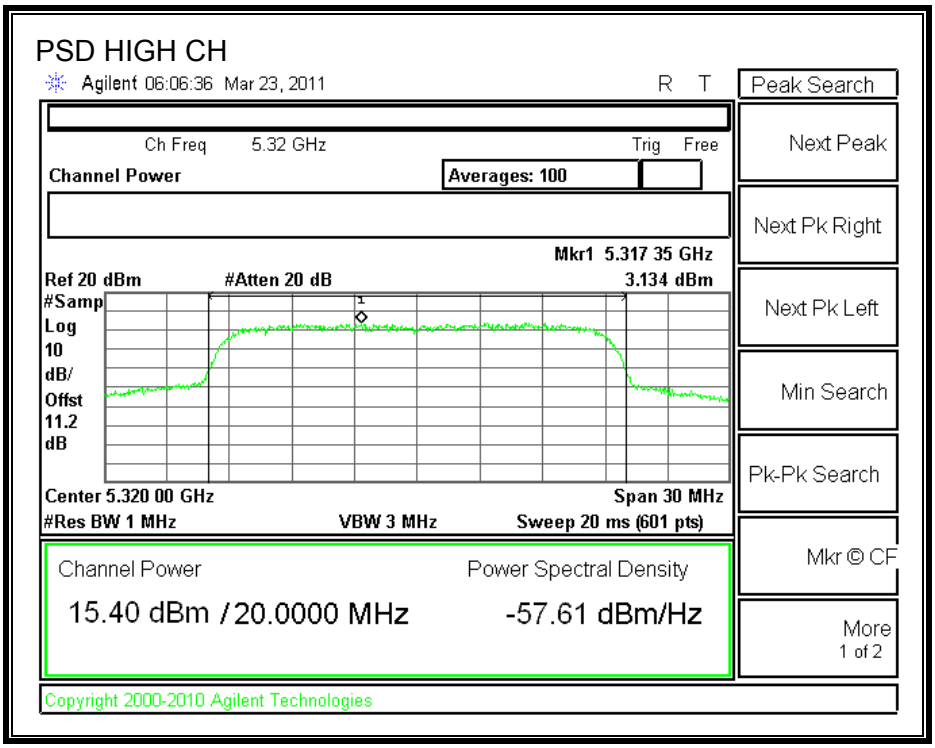
RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	5260	2.640	11	-8.36
Middle	5300	3.509	11	-7.49
High	5320	3.134	11	-7.87

POWER SPECTRAL DENSITY







7.5.4. PEAK EXCURSION

LIMITS

FCC §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 transmitter outputs are connected to the spectrum analyzer via a combiner.

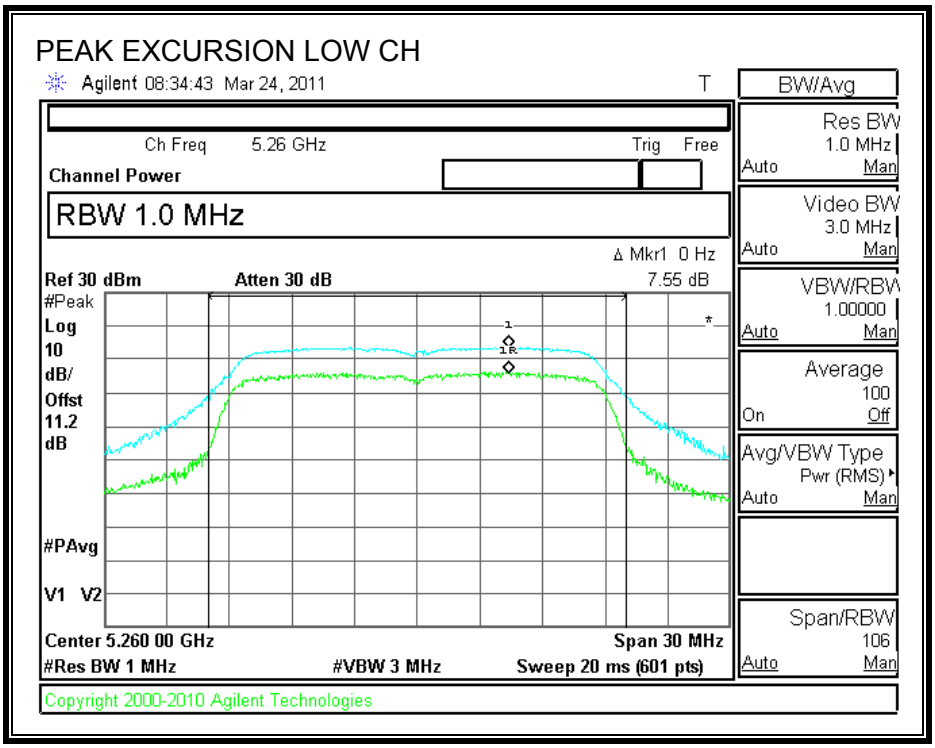
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002.

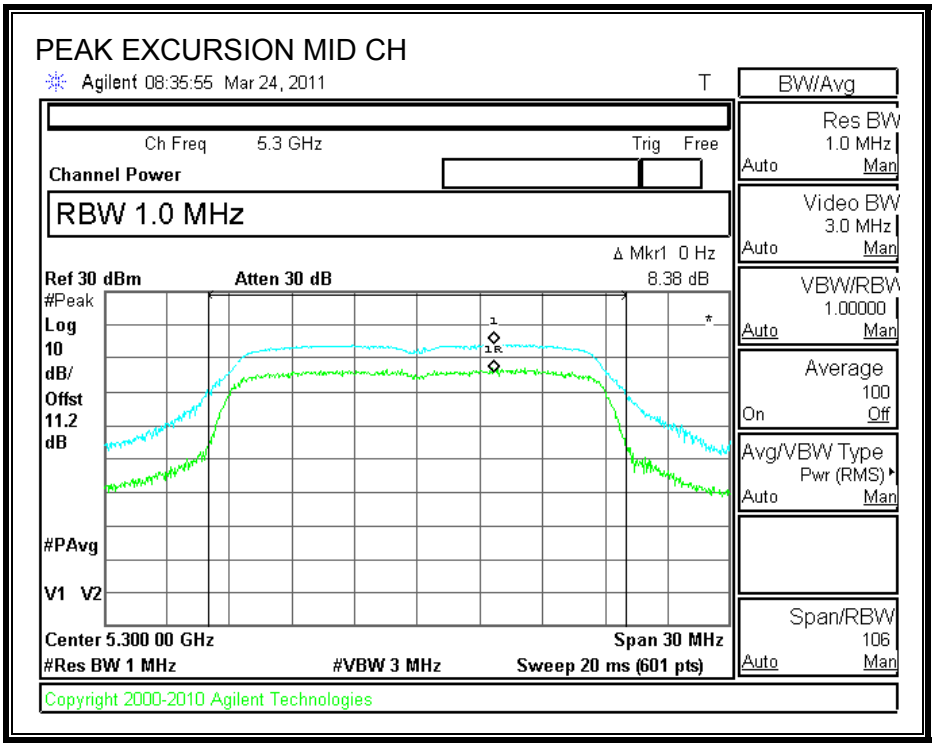
Since Method # 1 was used for peak power measurements, Method # 1 settings are used for the second PPSD trace.

RESULTS

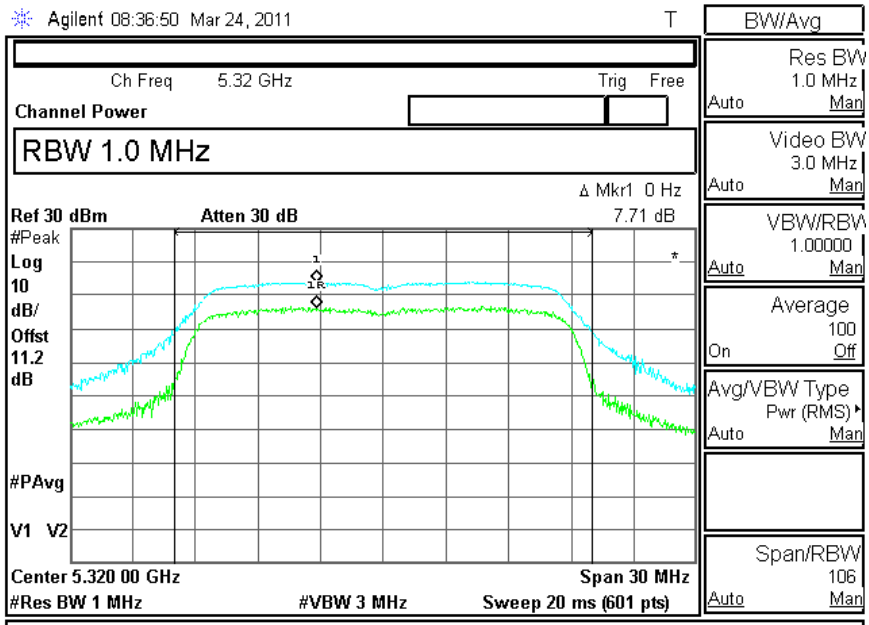
Channel	Frequency (MHz)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Low	5260	7.55	13	-5.45
Middle	5300	8.38	13	-4.62
High	5320	7.71	13	-5.29

PEAK EXCURSION





PEAK EXCURSION HIGH CH



7.5.5. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.407 (b) (2)

IC RSS-210 A9.3 (2)

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

Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15-5.25 GHz band.

TEST PROCEDURE

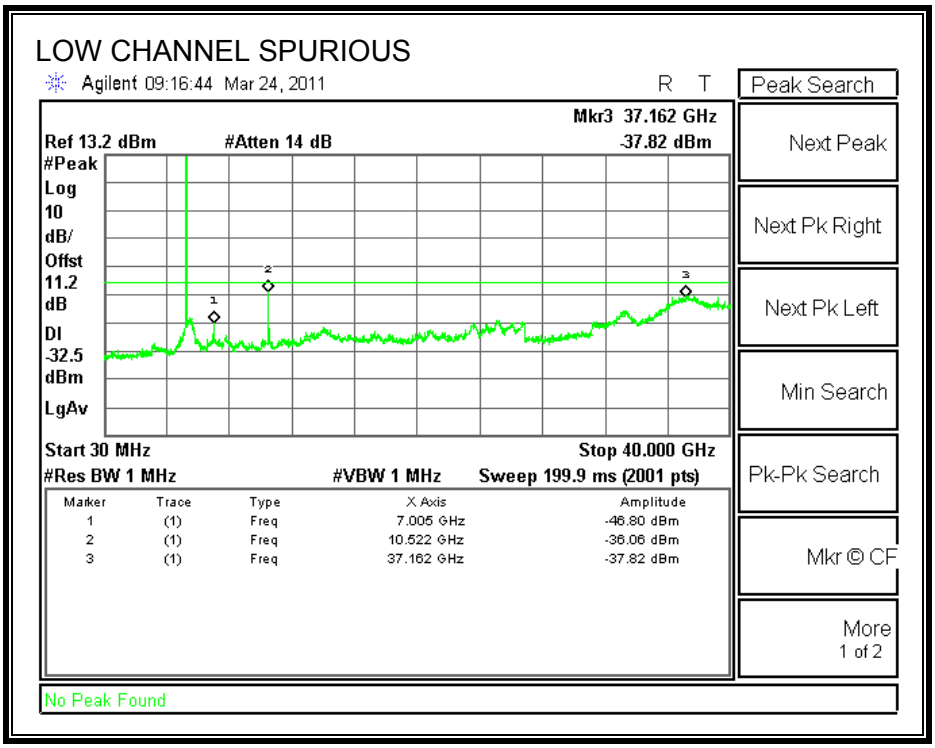
Conducted RF measurements of the transmitter output are made to confirm that the EUT antenna port conducted emissions meet the specified limit and to identify any spurious signals that require further investigation or measurements on the radiated emissions site.

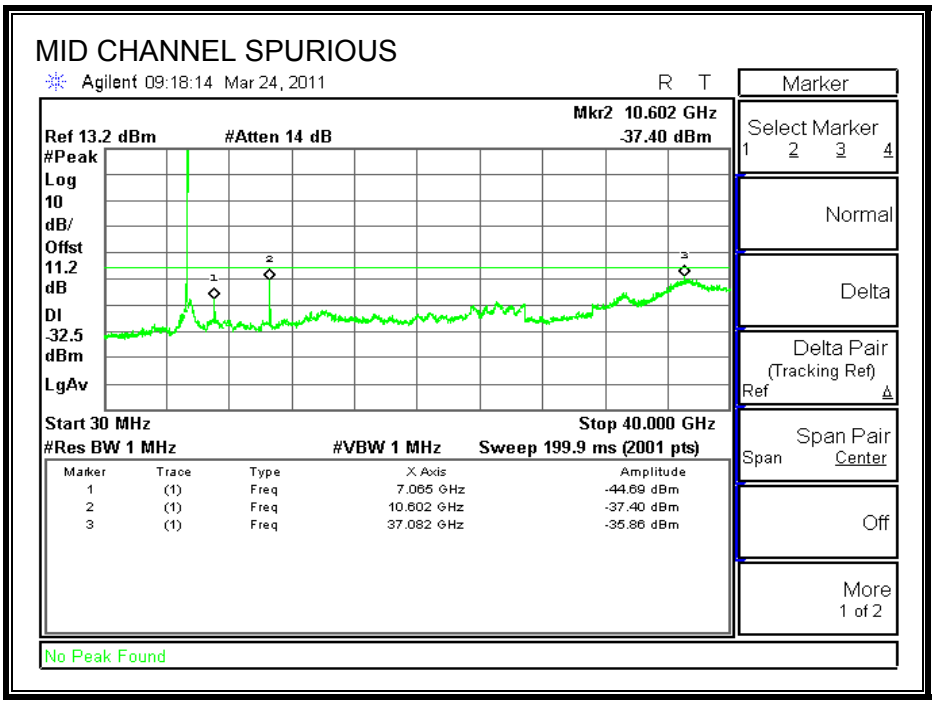
The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 1 MHz. The video bandwidth is set to 1MHz. Peak detection measurements are compared to EIRP limit, adjusted for the maximum antenna gain.

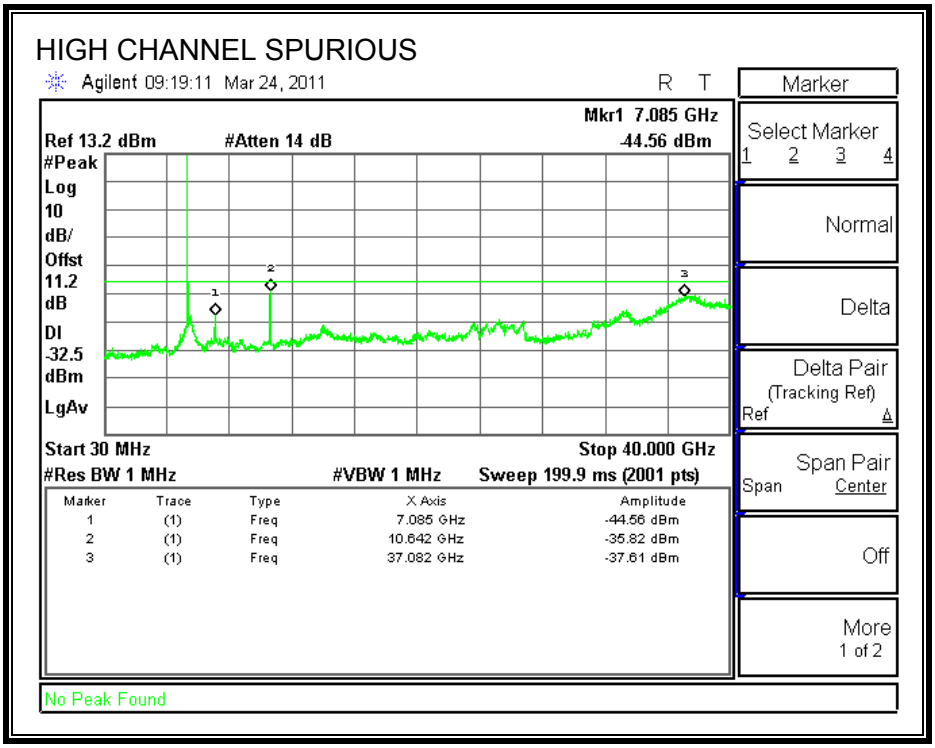
Measurements are made over the 30 MHz to 40 GHz range with the transmitter set to the lowest, middle, and highest channels.

RESULTS

SPURIOUS EMISSIONS







7.6. 802.11n HT40 SISO MODE IN THE 5.3 GHz BAND

7.6.1. 26 dB and 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

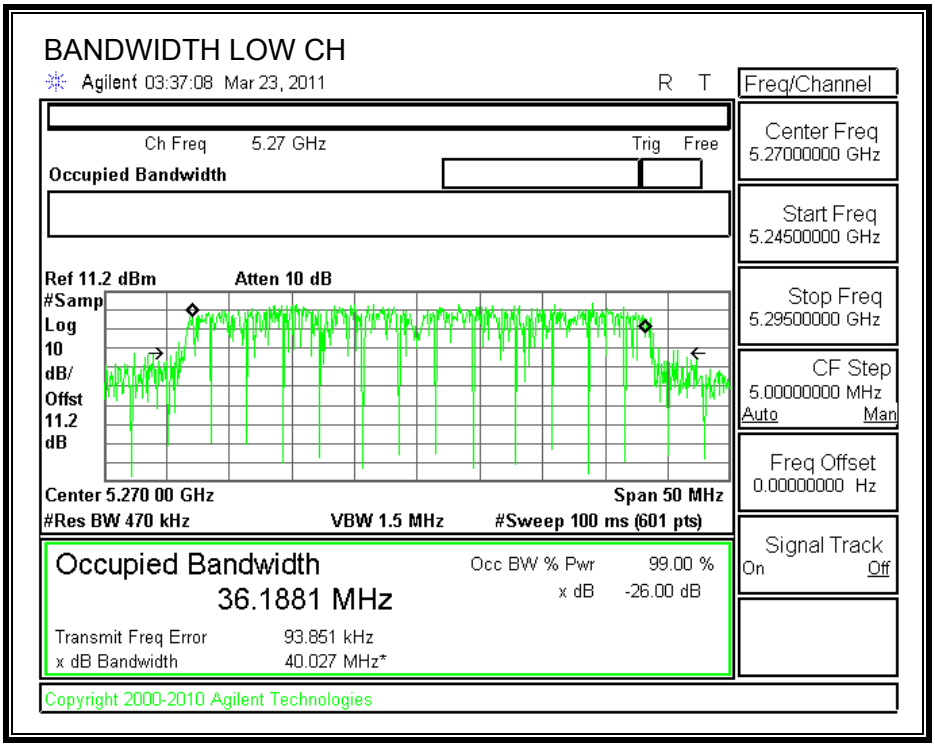
TEST PROCEDURE

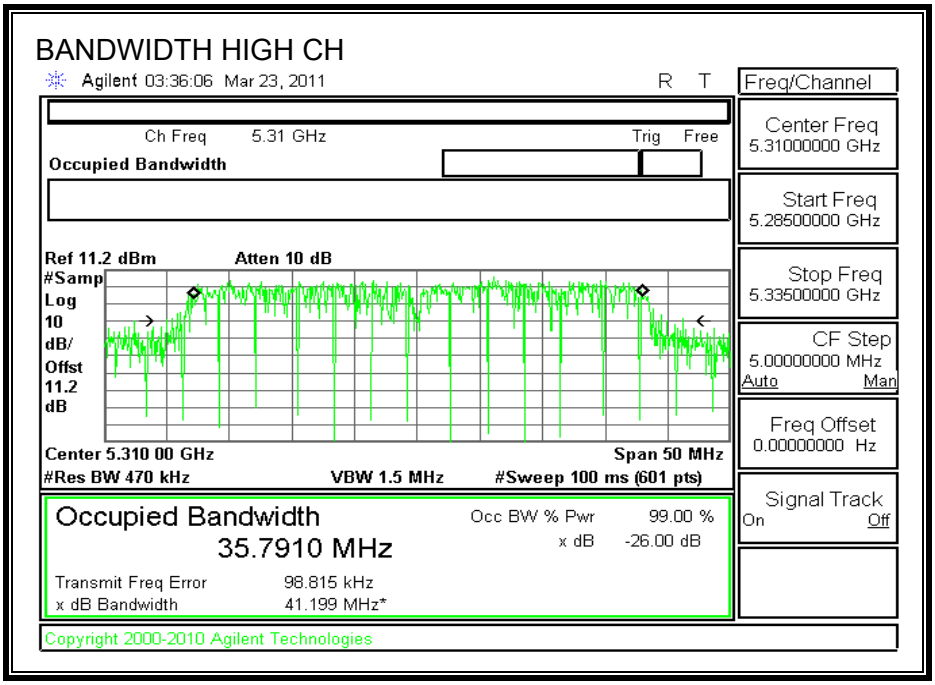
The transmitter outputs are connected to the spectrum analyzer via a combiner. The RBW is set to 1% to 3% of the measured bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal bandwidth function is utilized.

RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5270	40.02	36.19
High	5310	41.20	35.80

26 dB and 99% BANDWIDTH





7.6.2. OUTPUT POWER

LIMITS

FCC §15.407 (a) (1)

IC RSS-210 A9.2 (1)

For the 5.25-5.35 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26-dB emission bandwidth in MHz. If transmitting antennas of directional gain greater than 6 dBi are used, 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.

RESULTS

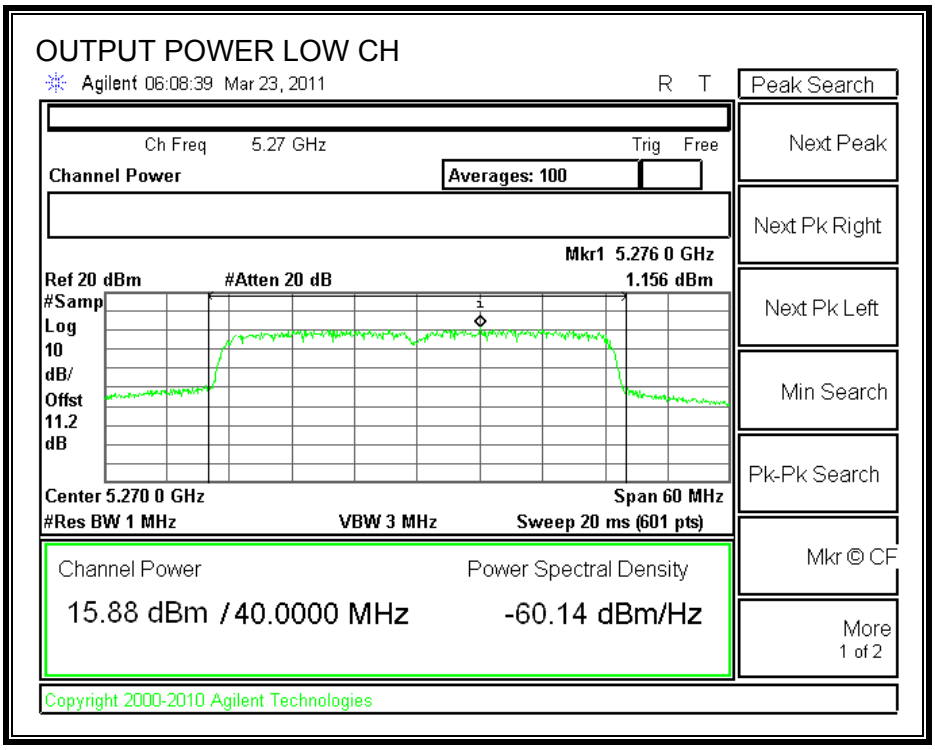
Limit

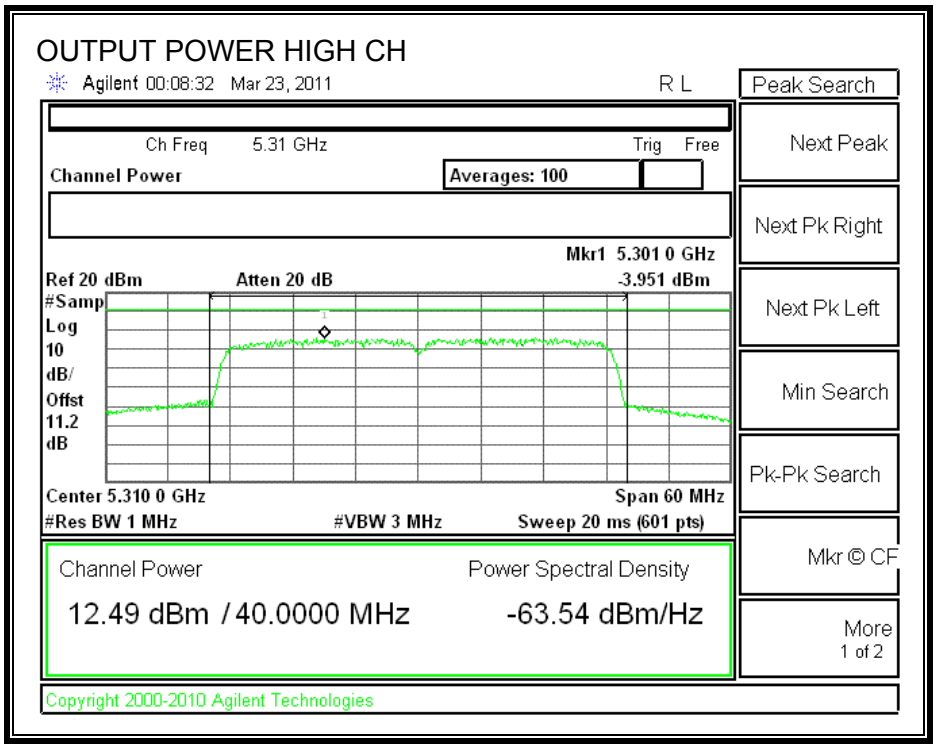
Channel	Frequency (MHz)	Fixed Limit (dBm)	B (MHz)	11 + 10 Log B Limit (dBm)	Antenna Gain (dBi)	Limit (dBm)
Low	5270	24	40.02	20.02	5.50	20.02
High	5310	24	41.20	20.15	5.50	20.15

Results

Channel	Frequency (MHz)	Power (dBm)	Limit (dBm)	Margin (dB)
Low	5270	15.88	20.02	-4.14
High	5310	12.49	20.15	-7.66

OUTPUT POWER





7.6.3. PEAK POWER SPECTRAL DENSITY

LIMITS

FCC §15.407 (a) (1)

IC RSS-210 A9.2 (1)

For the 5.25-5.35 GHz band, 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.

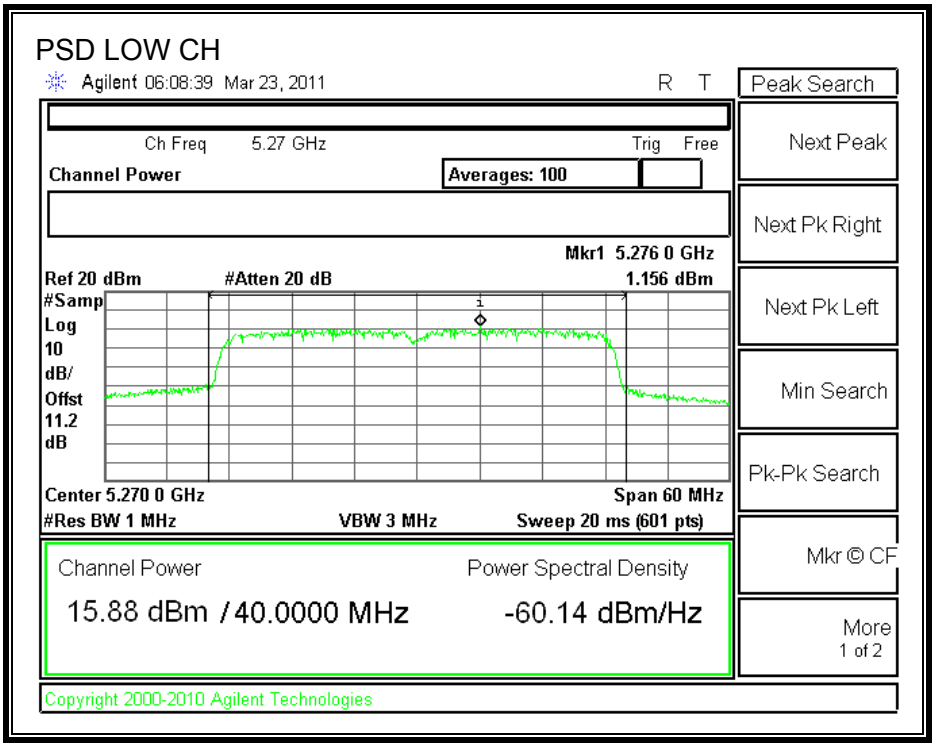
TEST PROCEDURE

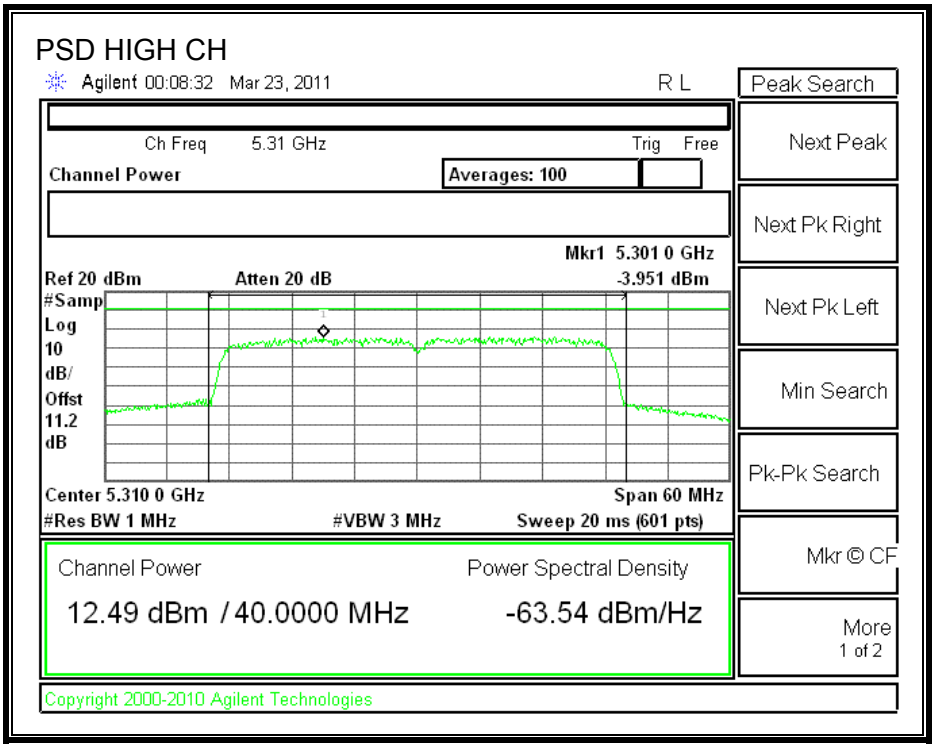
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002. PPSD method #2 was used.

RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	5270	1.16	11	-9.84
High	5310	-3.95	11	-14.95

POWER SPECTRAL DENSITY





7.6.4. PEAK EXCURSION

LIMITS

FCC §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 transmitter outputs are connected to the spectrum analyzer via a combiner.

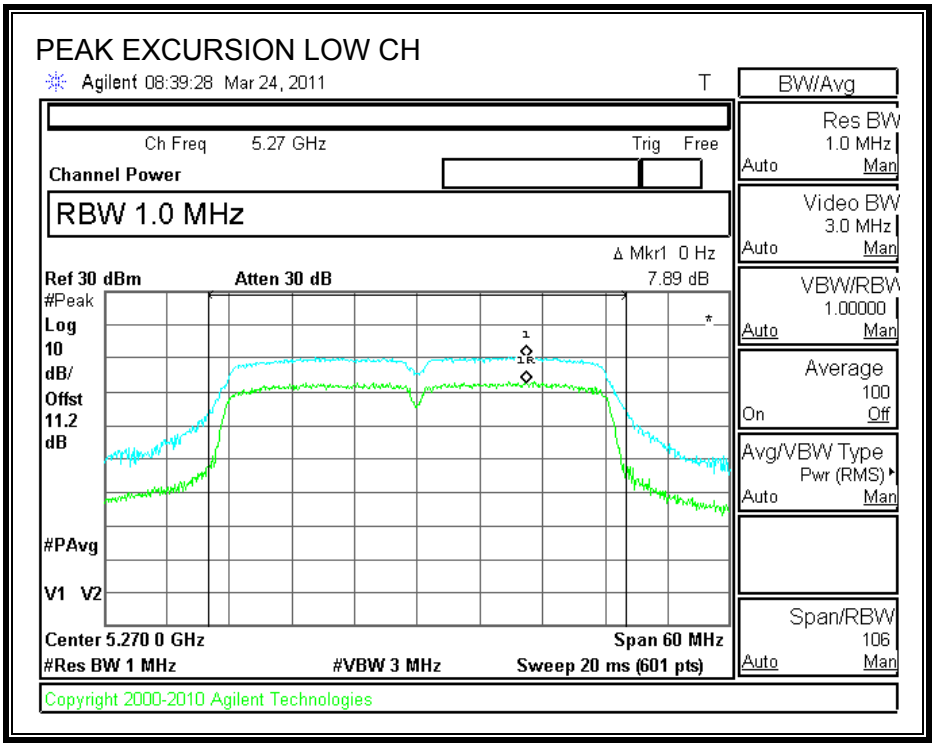
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002.

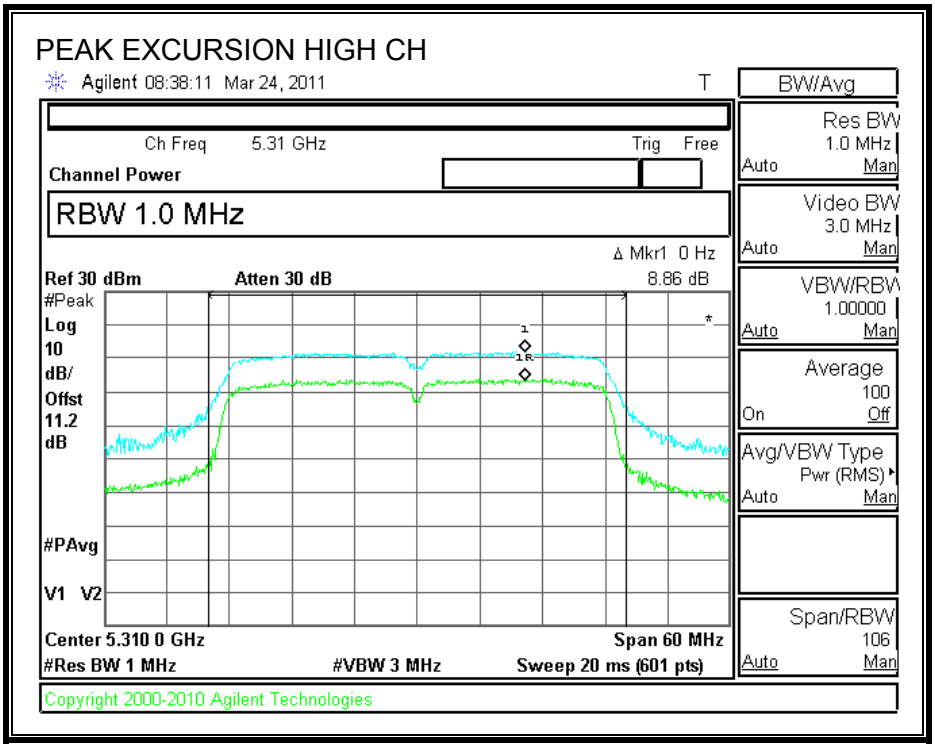
Since Method # 1 was used for peak power measurements, Method # 1 settings are used for the second PPSD trace.

RESULTS

Channel	Frequency (MHz)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Low	5270	7.89	13	-5.11
High	5310	8.86	13	-4.14

PEAK EXCURSION





7.6.5. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.407 (b) (1)

IC RSS-210 A9.3 (1)

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

TEST PROCEDURE

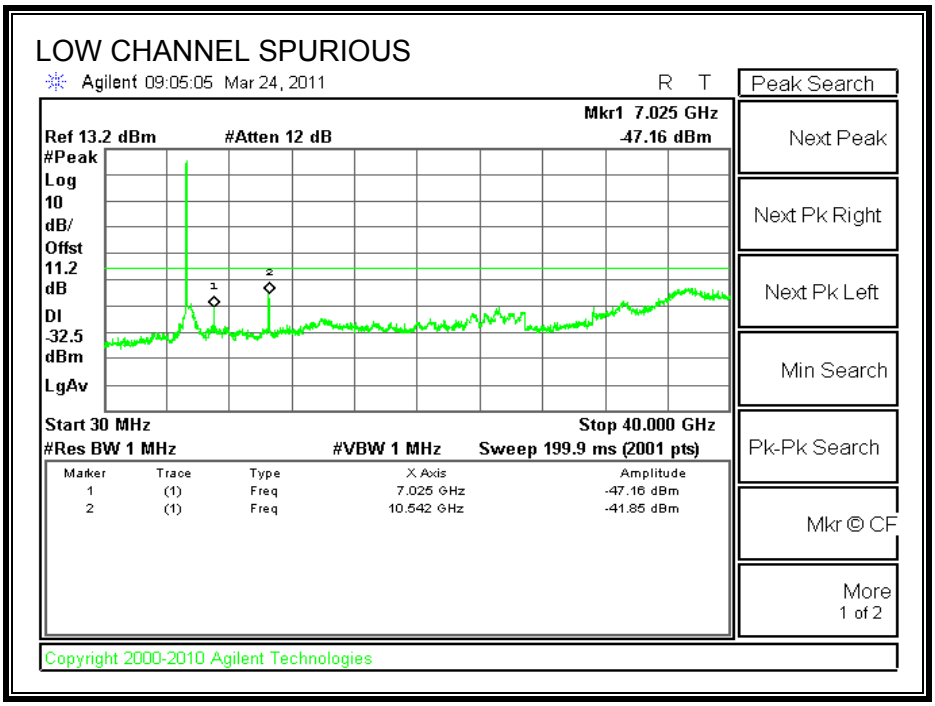
Conducted RF measurements of the transmitter output are made to confirm that the EUT antenna port conducted emissions meet the specified limit and to identify any spurious signals that require further investigation or measurements on the radiated emissions site.

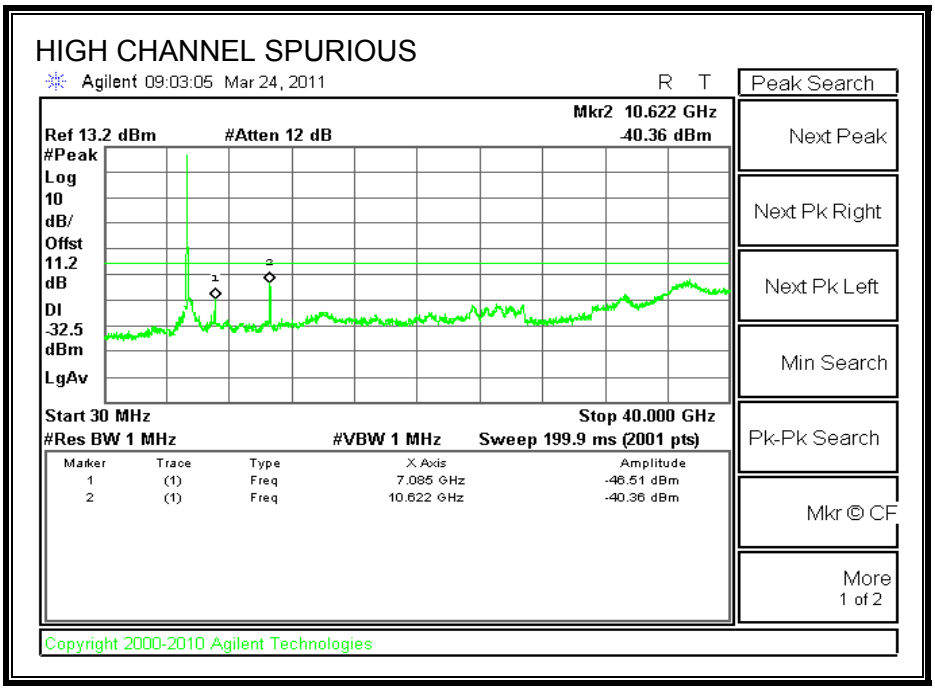
The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 1 MHz. The video bandwidth is set to 1MHz. Peak detection measurements are compared to EIRP limit, adjusted for the maximum antenna gain.

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

RESULTS

SPURIOUS EMISSIONS





7.7. 802.11a MODE IN THE 5.6 GHz BAND

7.7.1. 26 dB and 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

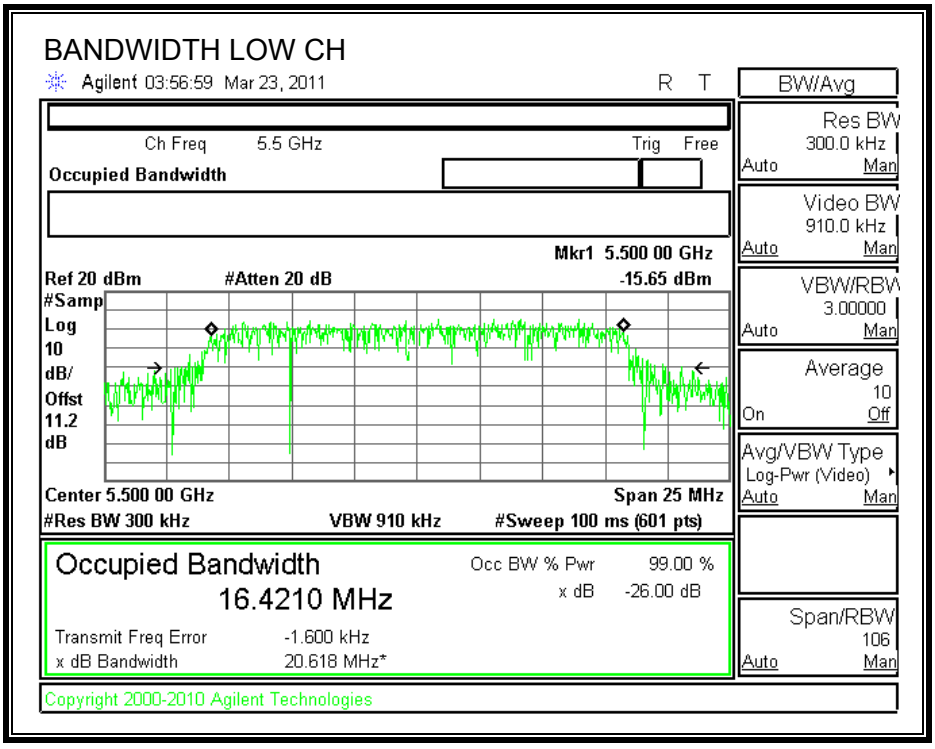
TEST PROCEDURE

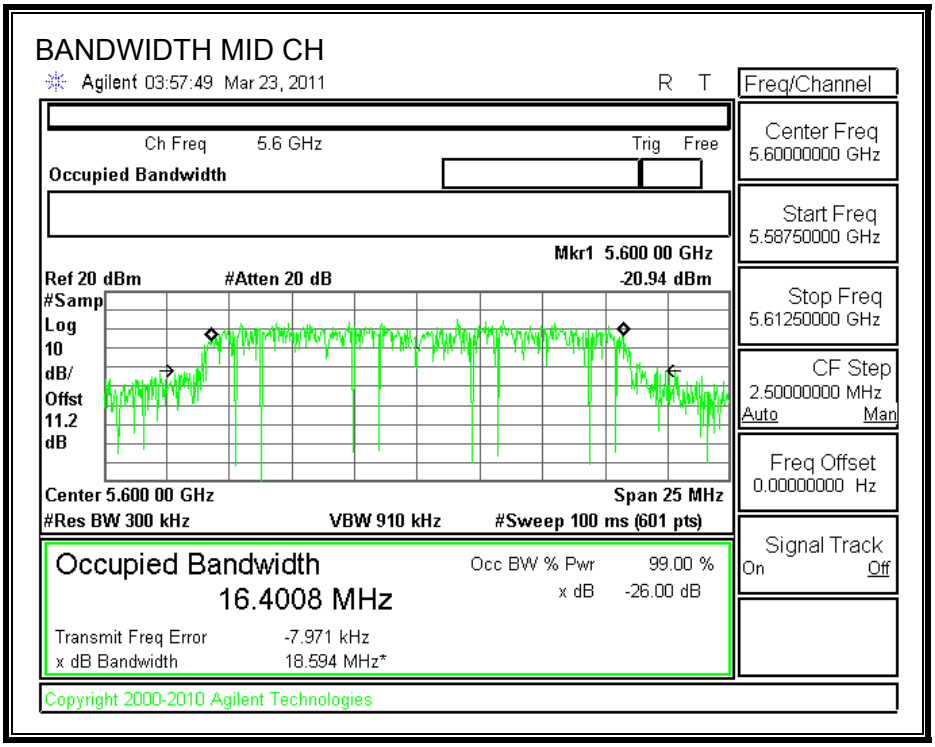
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the measured bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal bandwidth function is utilized.

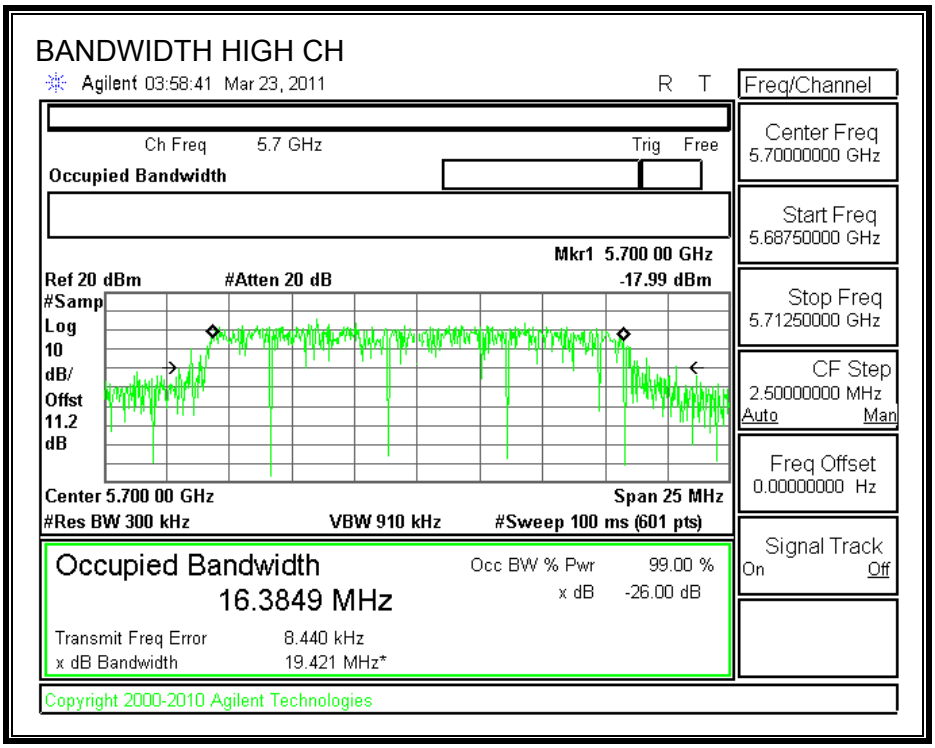
RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5500	20.62	16.42
Middle	5600	18.60	16.40
High	5700	19.42	16.38

26 dB and 99% BANDWIDTH







7.7.2. OUTPUT POWER

LIMITS

FCC §15.407 (a) (2)

IC RSS-210 A9.2 (2)

For the 5.47-5.725 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26-dB emission bandwidth in MHz. If transmitting antennas of directional gain greater than 6 dBi are used, 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.

RESULTS

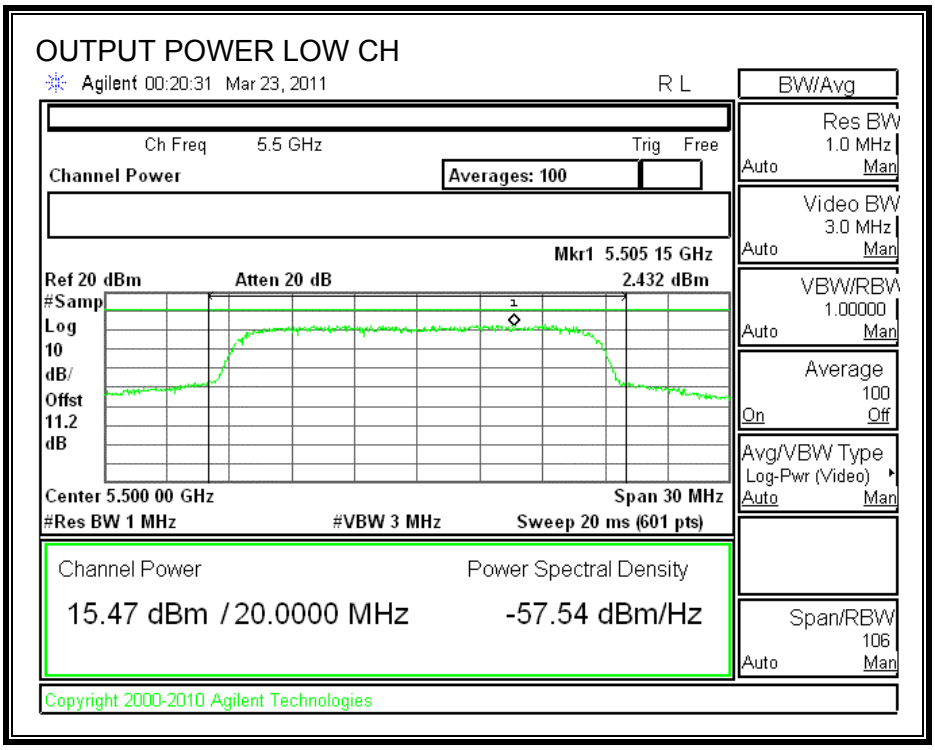
Limit

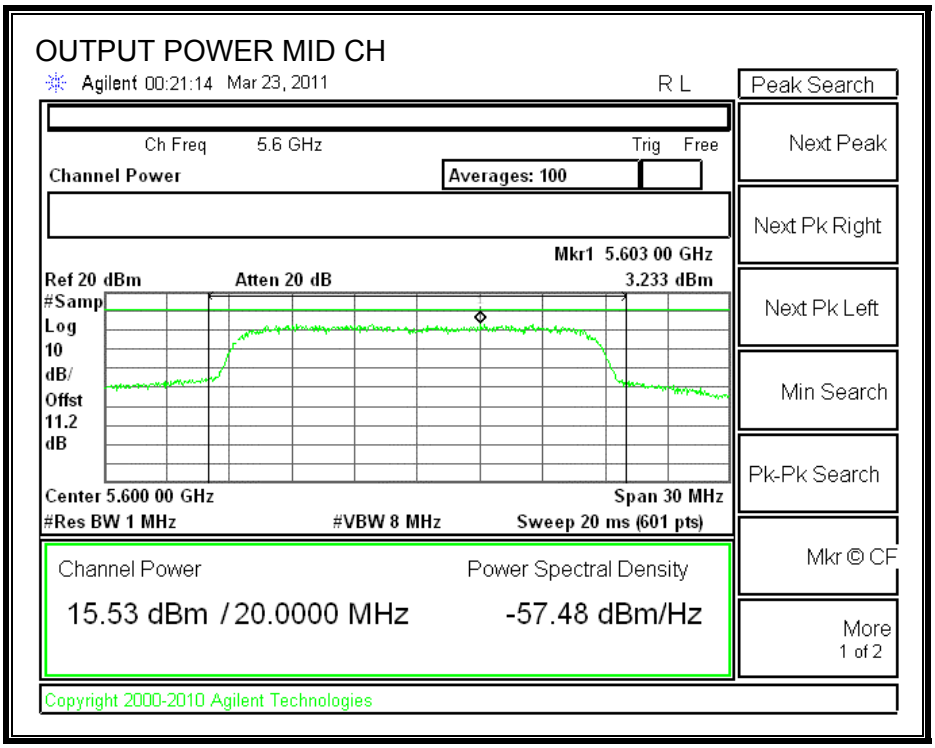
Channel	Frequency (MHz)	Fixed Limit (dBm)	B (MHz)	11 + 10 Log B Limit (dBm)	Antenna Gain (dBi)	Limit (dBm)
Low	5500	24	20.62	24.14	5.50	24.00
Mid	5580	24	18.62	23.70	5.50	23.70
High	5700	24	19.42	23.88	5.50	23.88

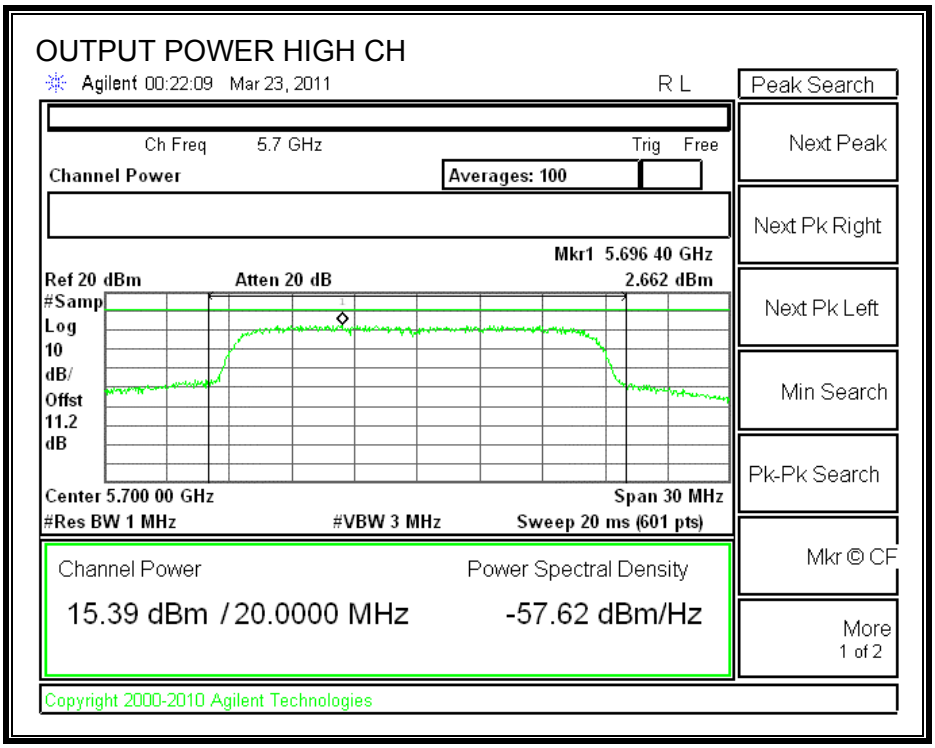
Results

Channel	Frequency (MHz)	Power (dBm)	Limit (dBm)	Margin (dB)
Low	5500	15.47	24.00	-8.53
Mid	5580	15.53	23.70	-8.17
High	5700	15.39	23.88	-8.49

OUTPUT POWER







7.7.3. PEAK POWER SPECTRAL DENSITY

LIMITS

FCC §15.407 (a) (2)

IC RSS-210 A9.2 (2)

For the 5.47-5.725 GHz band, 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 is less than or equal to 6 dBi, therefore the limit is 11 dBm.

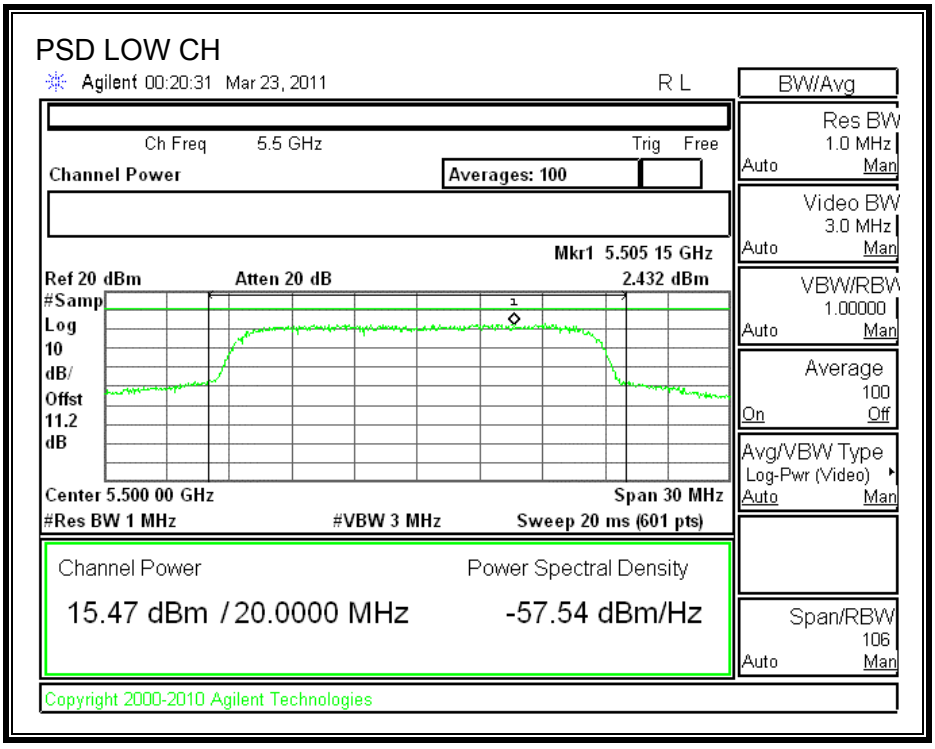
TEST PROCEDURE

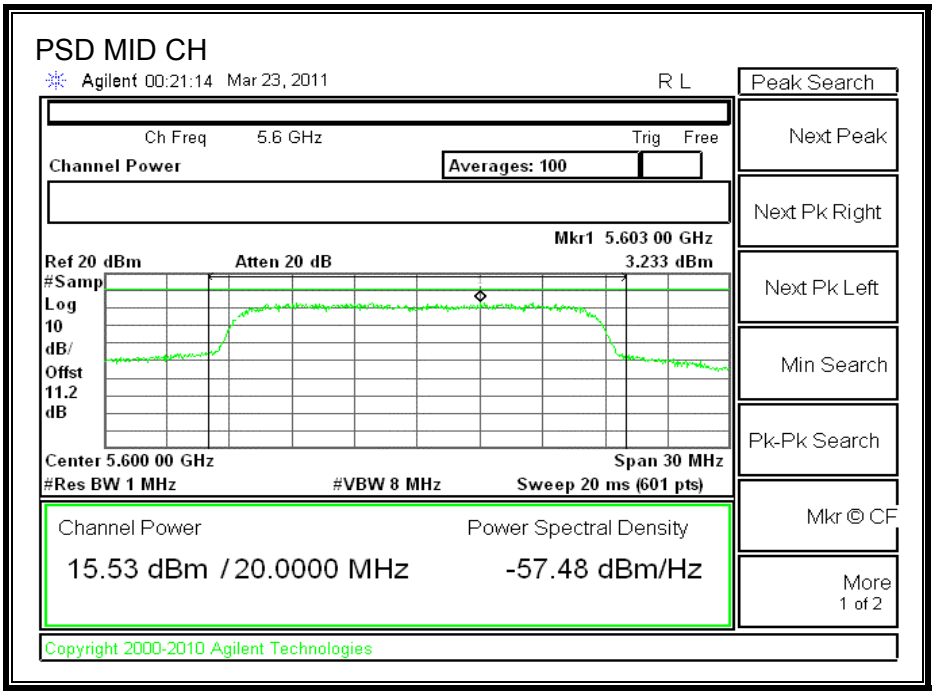
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002. PPSD method #2 was used.

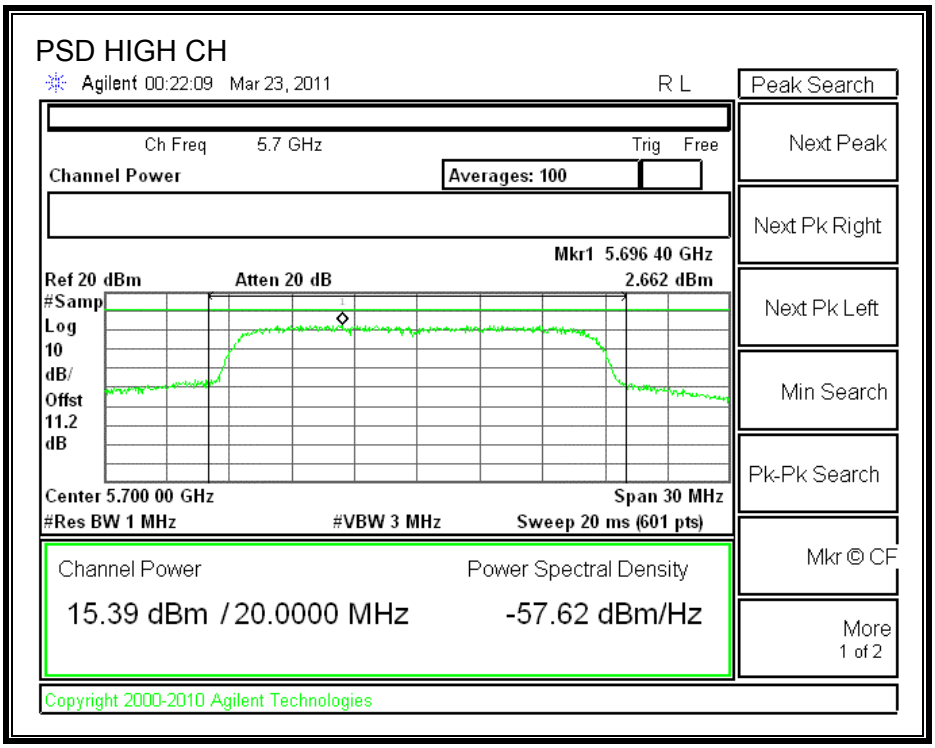
RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	5500	2.432	11	-8.57
Middle	5600	3.233	11	-7.77
High	5700	2.662	11	-8.34

POWER SPECTRAL DENSITY







7.7.4. PEAK EXCURSION

LIMITS

FCC §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.

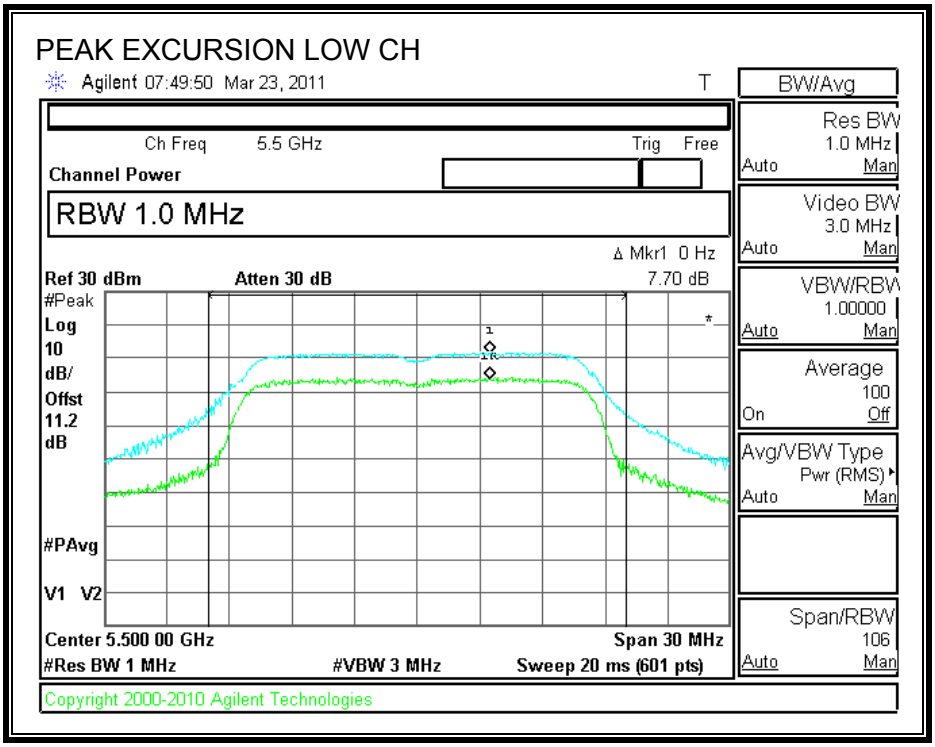
Since Method # 1 was used for peak power measurements, Method # 1 settings are used for the second PPSD trace.

RESULTS

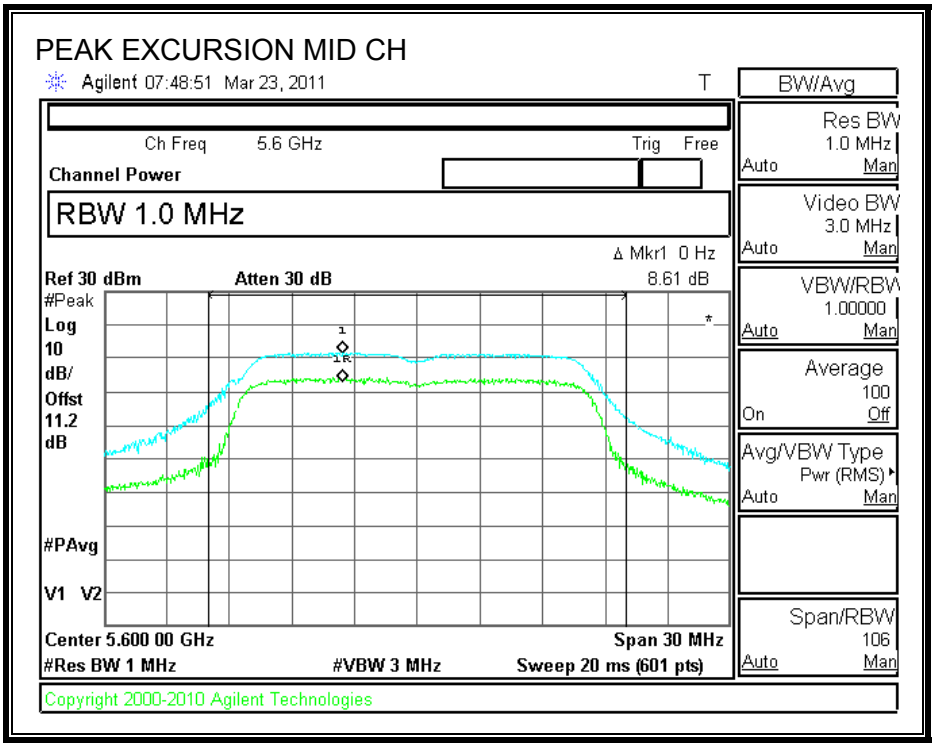
Channel	Frequency (MHz)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Low	5500	7.70	13	-5.30
Middle	5600	8.61	13	-4.39
High	5700	7.80	13	-5.20

PEAK EXCURSION

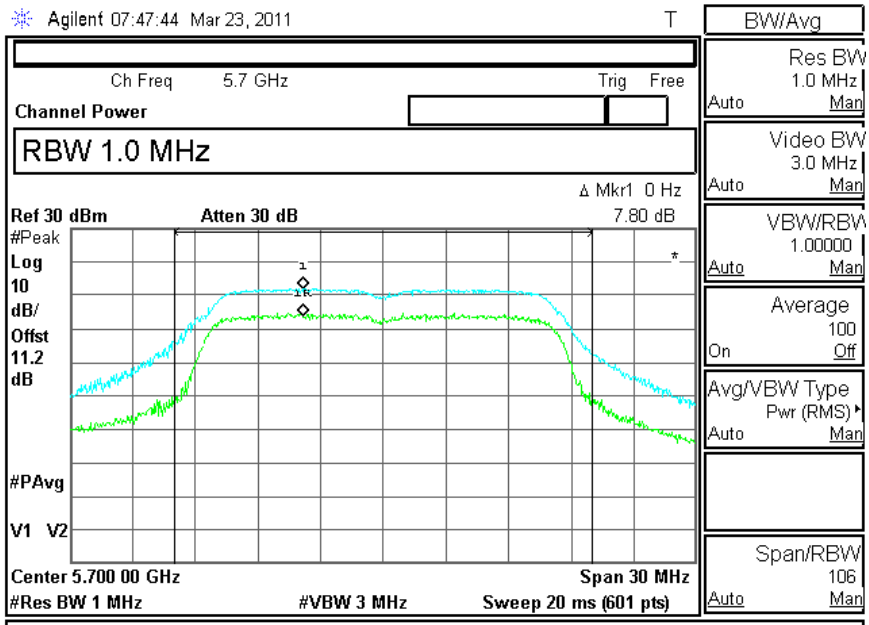
PEAK EXCURSION LOW CH



PEAK EXCURSION MID CH



PEAK EXCURSION HIGH CH



7.7.5. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.407 (b) (3)

IC RSS-210 A9.3 (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.

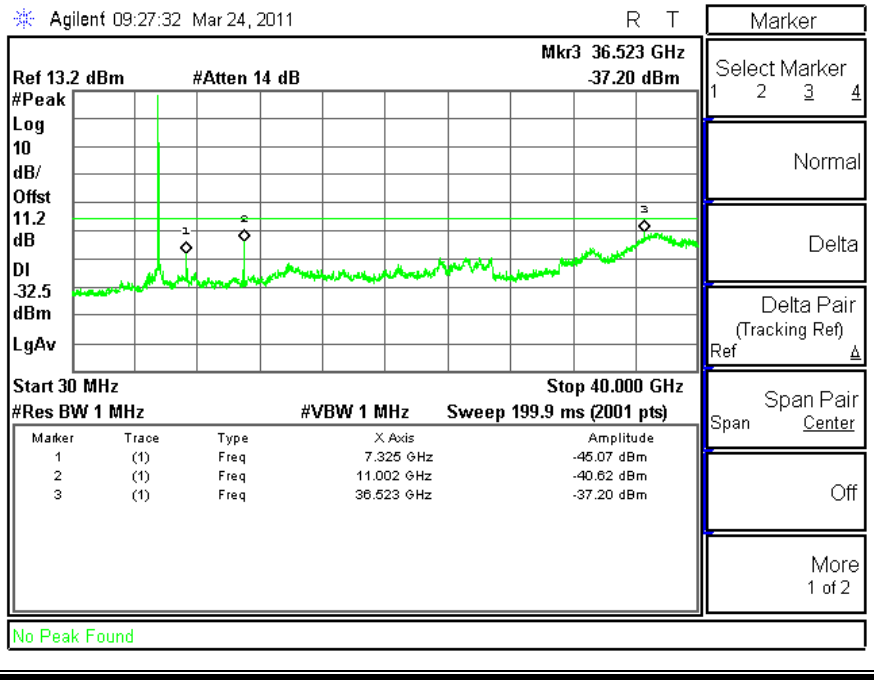
The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 1 MHz. The video bandwidth is set to 1 MHz. Peak detection measurements are compared to EIRP limit, adjusted for the maximum antenna gain.

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

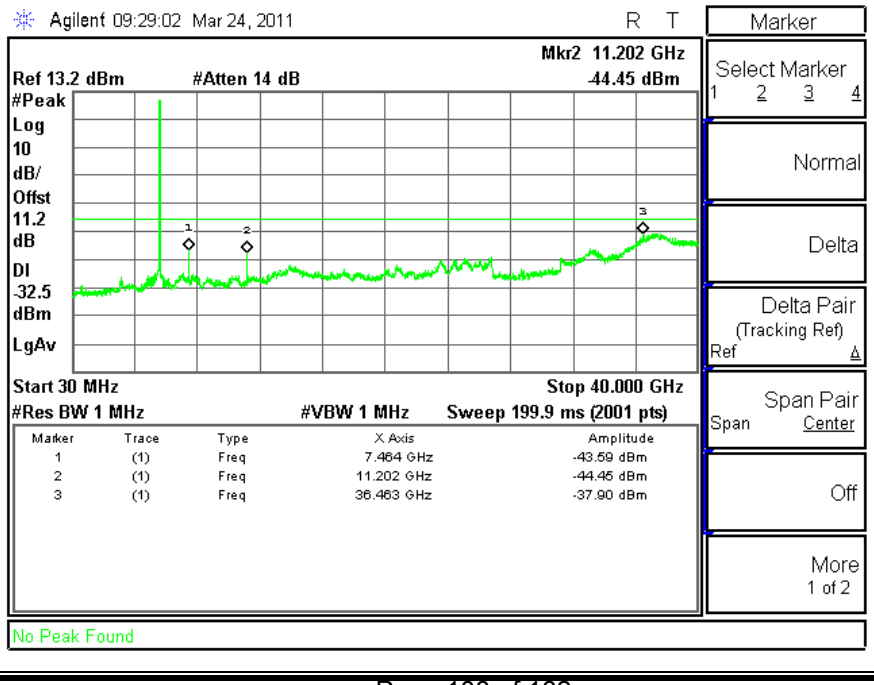
RESULTS

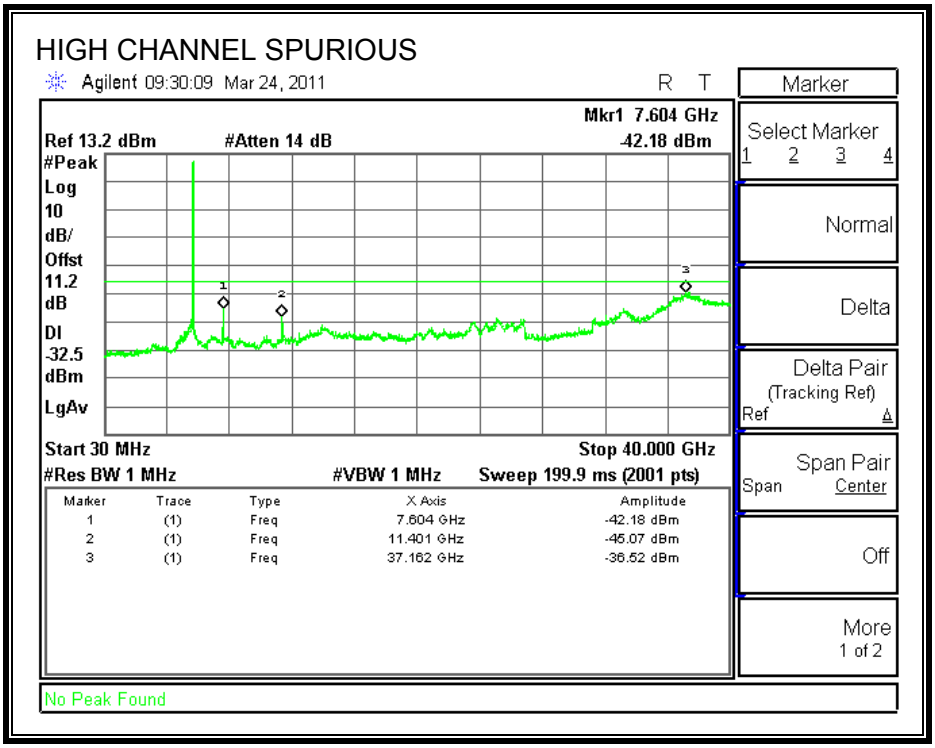
SPURIOUS EMISSIONS

LOW CHANNEL SPURIOUS



MID CHANNEL SPURIOUS





7.8. 802.11n HT20 SISO MODE IN THE 5.6 GHz BAND

7.8.1. 26 dB and 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

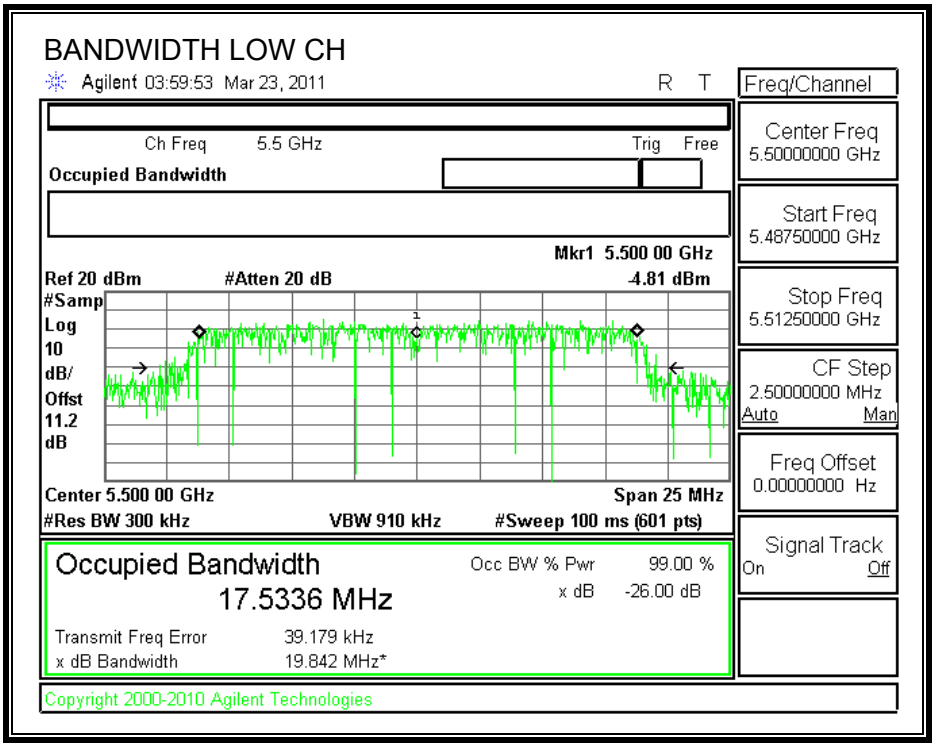
TEST PROCEDURE

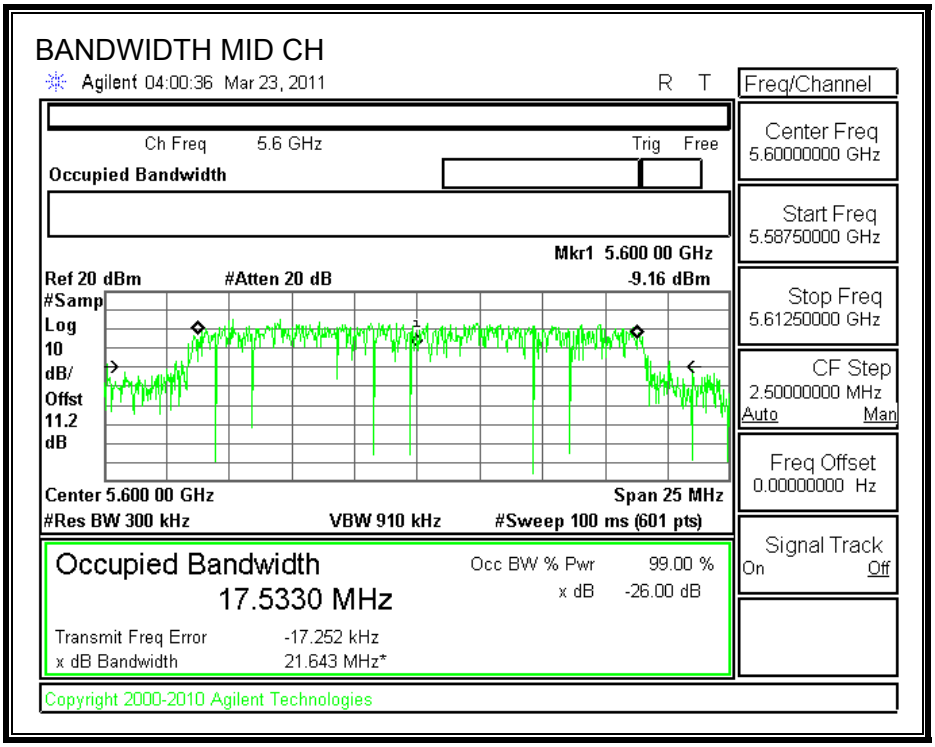
The transmitter outputs are connected to the spectrum analyzer via a combiner. The RBW is set to 1% to 3% of the measured bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal bandwidth function is utilized.

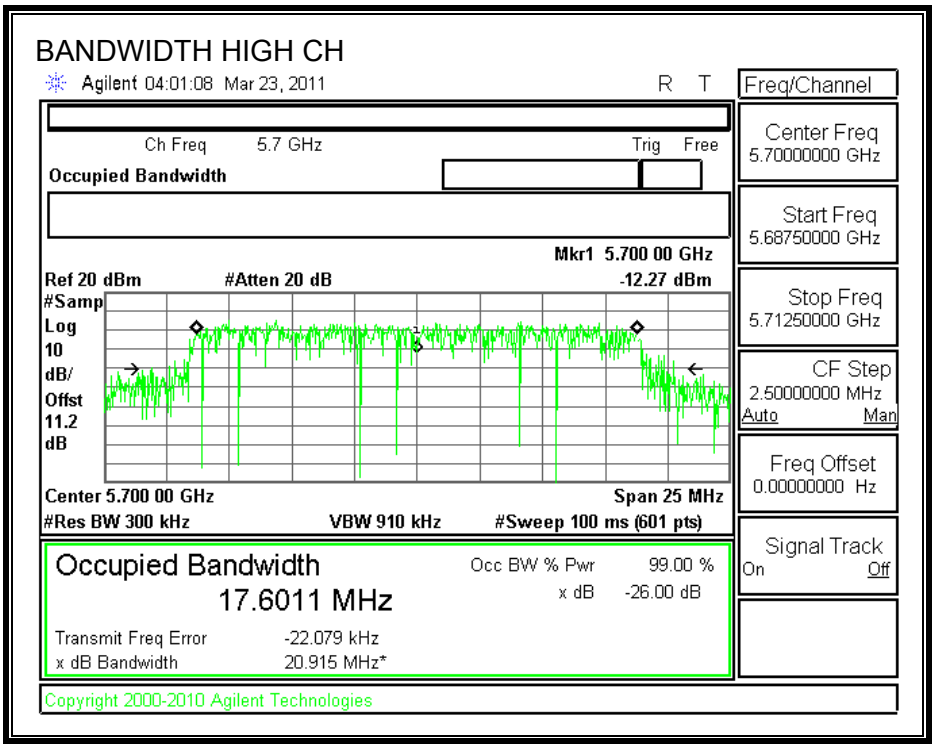
RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5500	19.842	17.5336
Middle	5600	21.643	17.5330
High	5700	20.915	17.6011

26 dB and 99% BANDWIDTH







7.8.2. OUTPUT POWER

LIMITS

FCC §15.407 (a) (2)

IC RSS-210 A9.2 (2)

For the 5.47-5.725 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26-dB emission bandwidth in MHz. If transmitting antennas of directional gain greater than 6 dBi are used, 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.

RESULTS

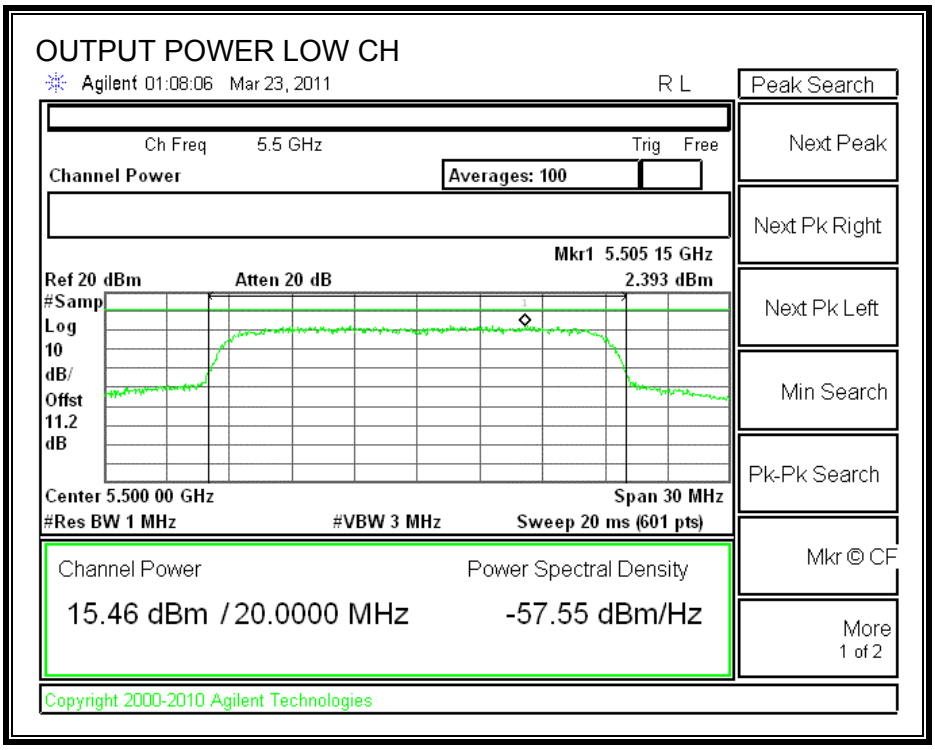
Limit

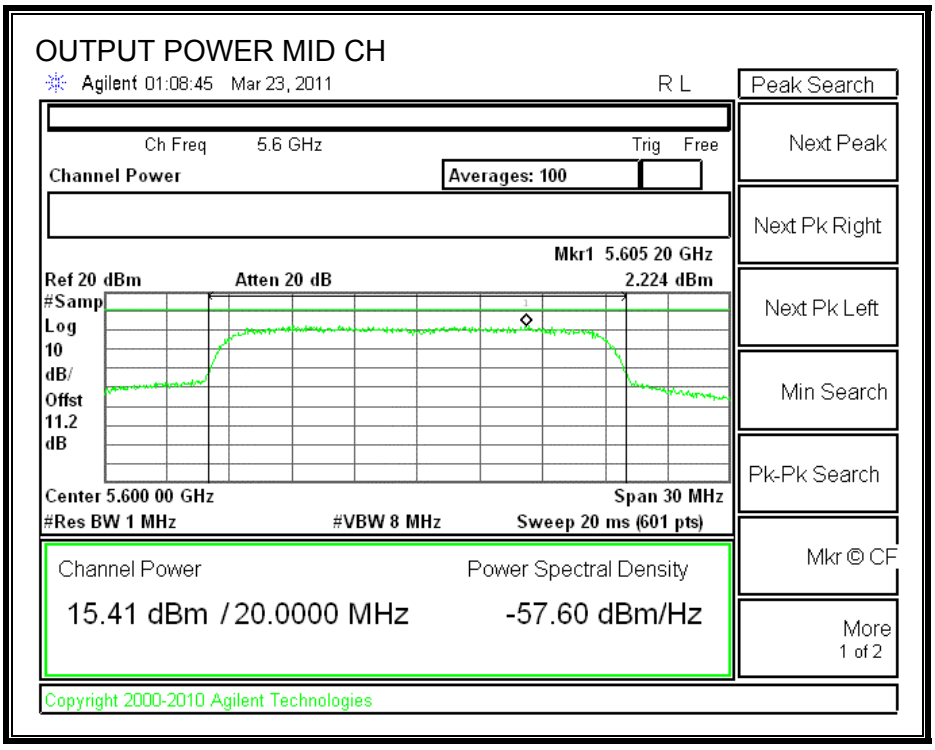
Channel	Frequency (MHz)	Fixed Limit (dBm)	B (MHz)	11 + 10 Log B Limit (dBm)	Antenna Gain (dBi)	Limit (dBm)
Low	5500	24	19.842	23.98	5.50	23.98
Mid	5600	24	21.643	24.35	5.50	24.00
High	5700	24	20.915	24.20	5.50	24.00

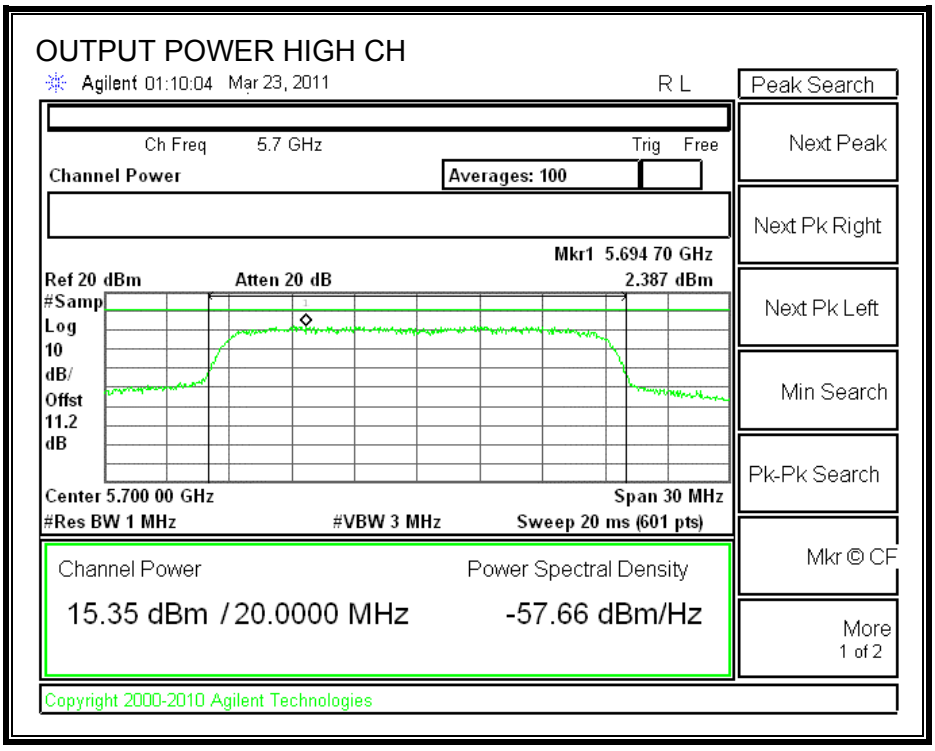
Results

Channel	Frequency (MHz)	Power (dBm)	Limit (dBm)	Margin (dB)
Low	5500	15.46	23.98	-8.52
Mid	5600	15.41	24.00	-8.59
High	5700	15.35	24.00	-8.65

CHAIN 0 OUTPUT POWER







7.8.3. PEAK POWER SPECTRAL DENSITY

LIMITS

FCC §15.407 (a) (2)

IC RSS-210 A9.2 (2)

For the 5.47-5.725 GHz band, 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.

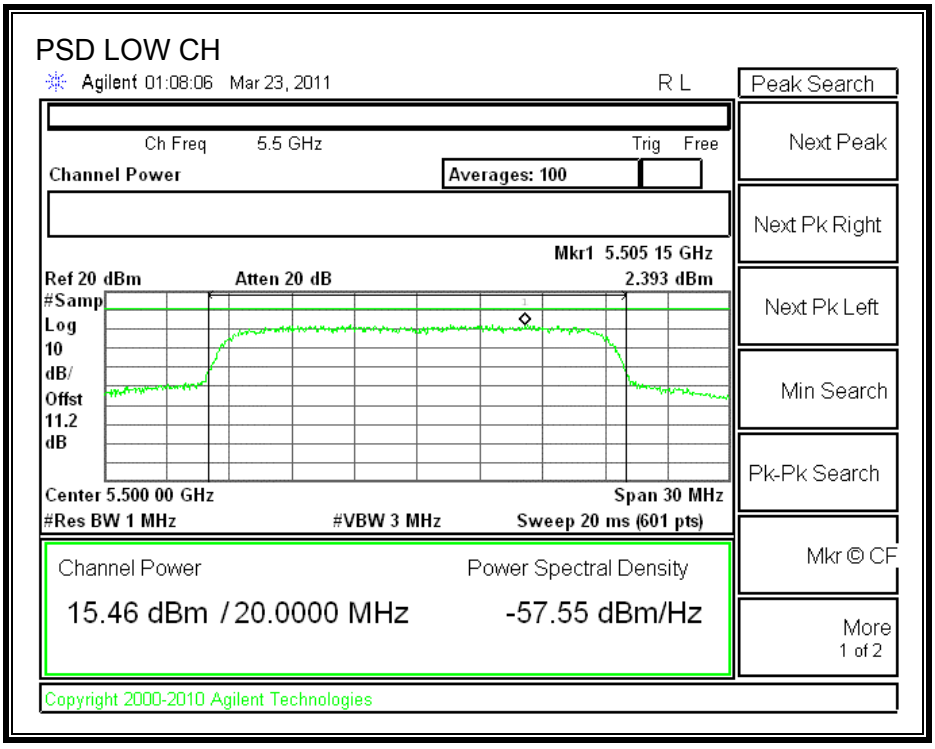
TEST PROCEDURE

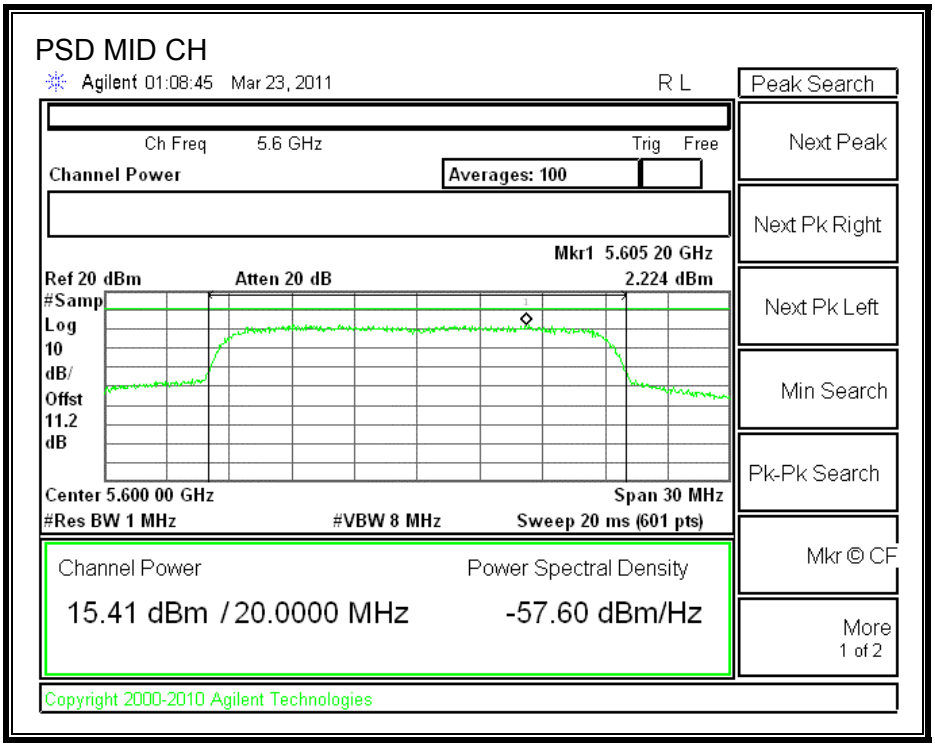
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002. PPSD method #2 was used.

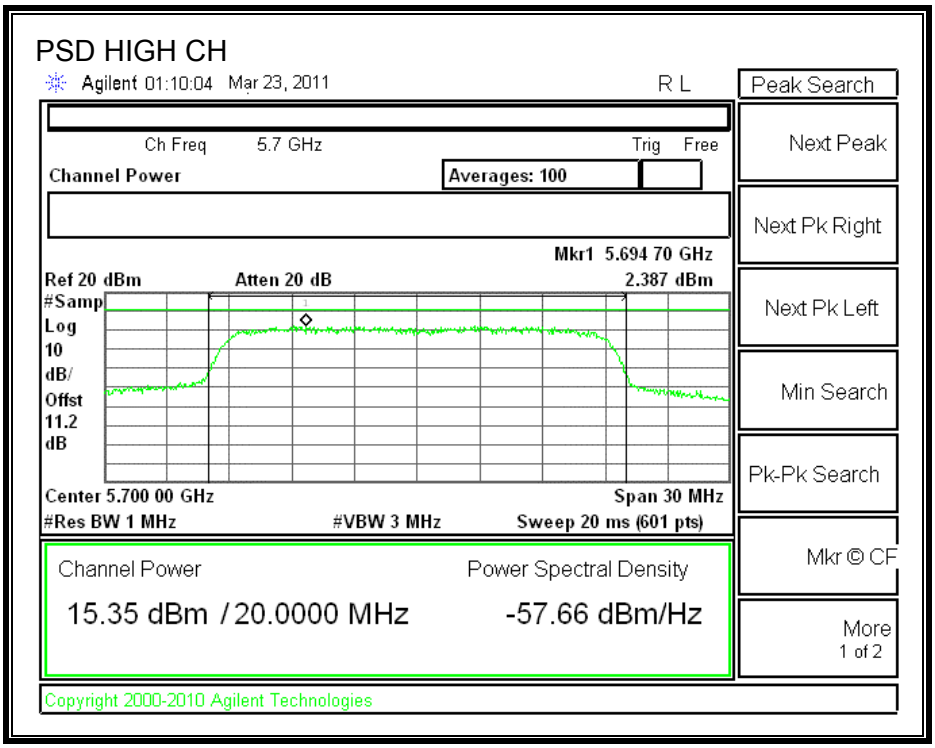
RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	5500	2.393	11	-8.61
Middle	5600	2.224	11	-8.78
High	5700	2.387	11	-8.61

POWER SPECTRAL DENSITY







7.8.4. PEAK EXCURSION

LIMITS

FCC §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 transmitter outputs are connected to the spectrum analyzer via a combiner.

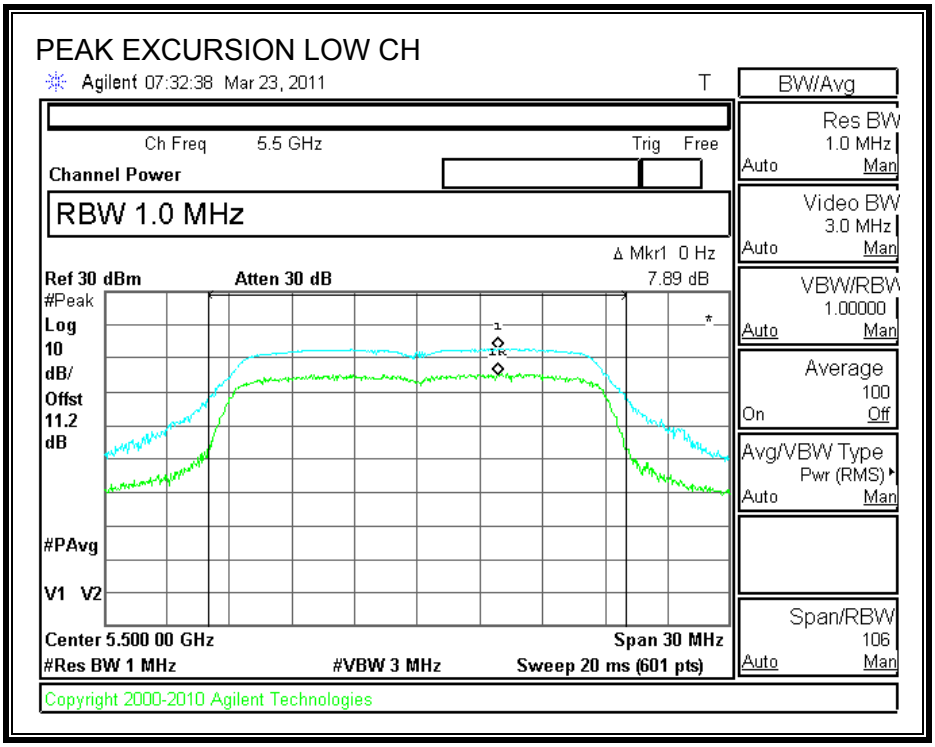
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002.

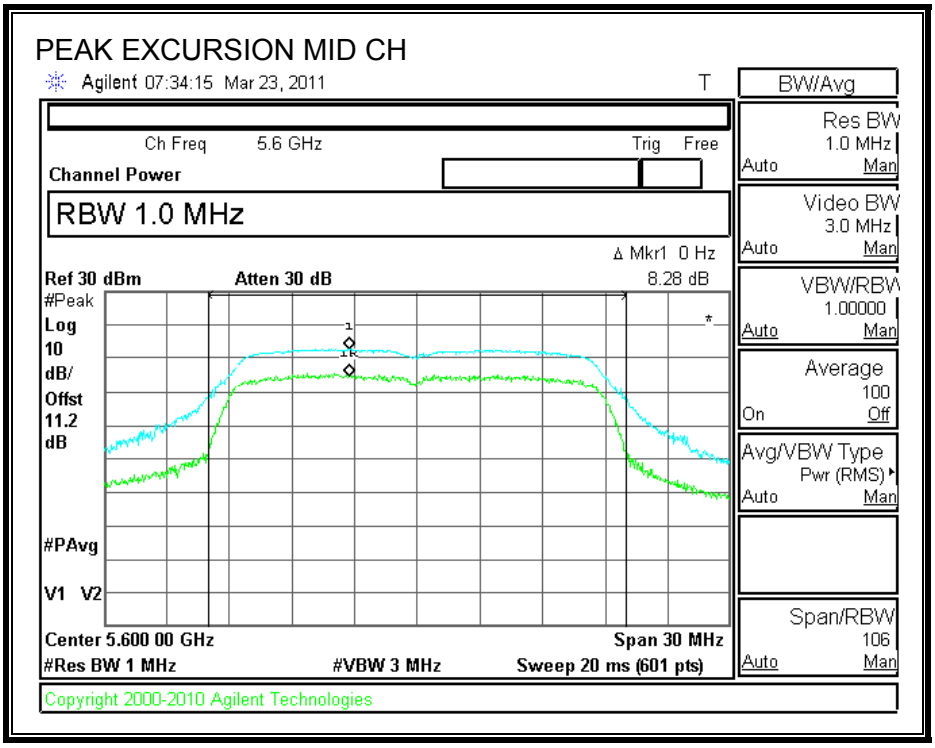
Since Method # 1 was used for peak power measurements, Method # 1 settings are used for the second PPSD trace.

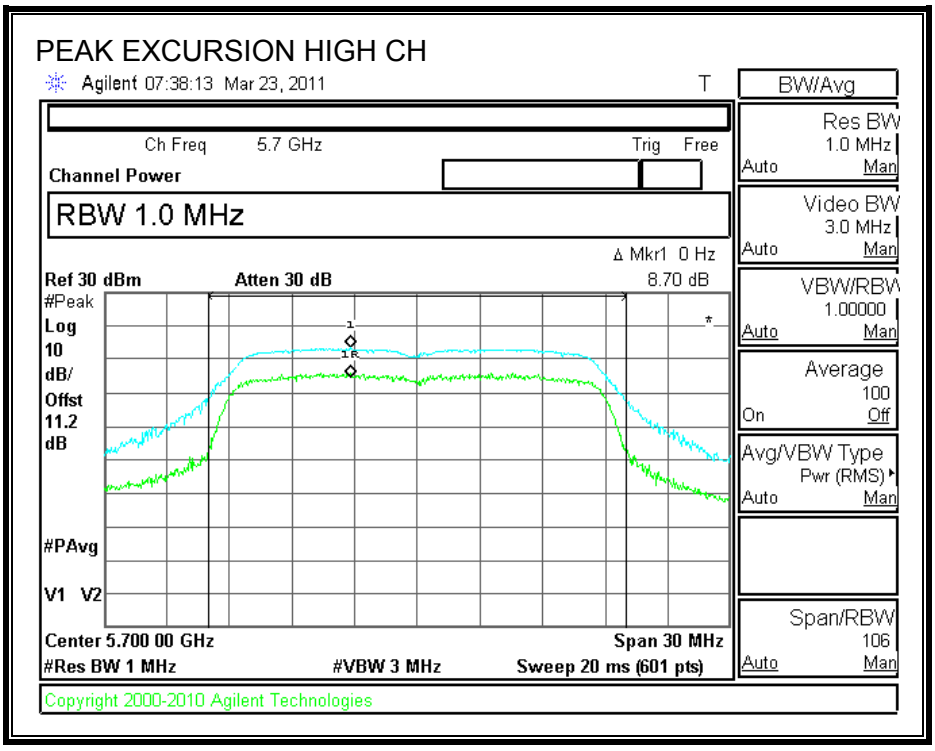
RESULTS

Channel	Frequency (MHz)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Low	5500	7.89	13	-5.11
Middle	5600	8.28	13	-4.72
High	5700	8.70	13	-4.30

PEAK EXCURSION







7.8.5. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.407 (b) (3)

IC RSS-210 A9.3 (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

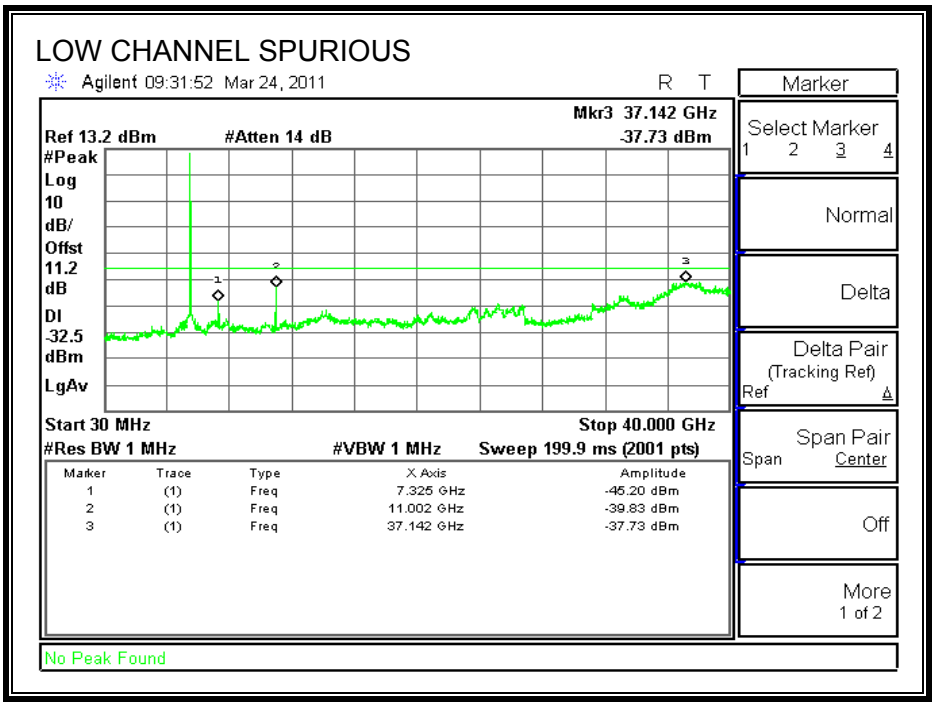
Conducted RF measurements of the transmitter output are made to confirm that the EUT antenna port conducted emissions meet the specified limit and to identify any spurious signals that require further investigation or measurements on the radiated emissions site.

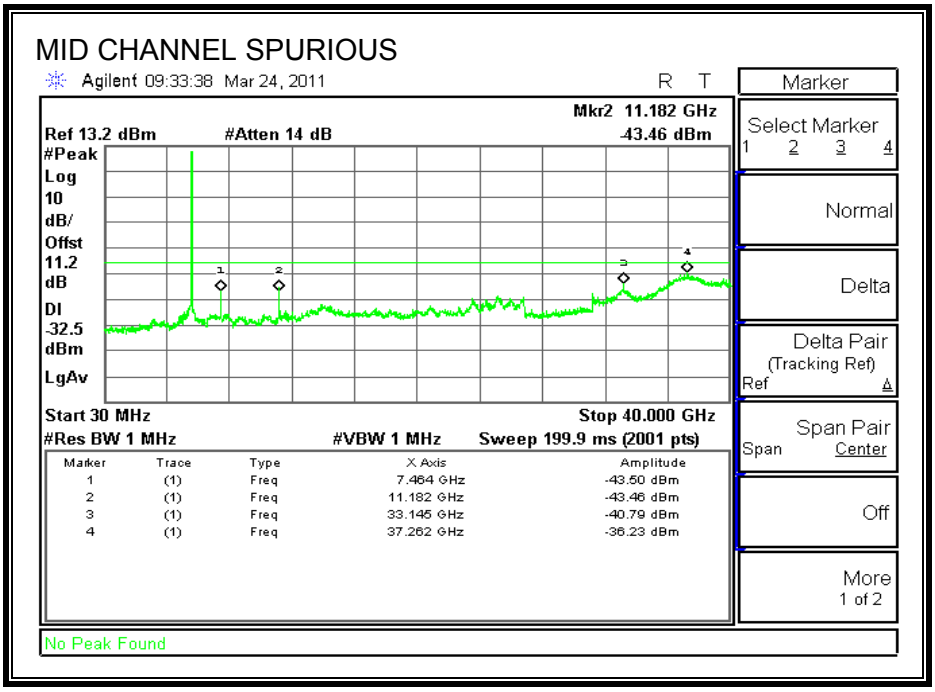
The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 1 MHz. The video bandwidth is set to 1MHz. Peak detection measurements are compared to EIRP limit, adjusted for the maximum antenna gain.

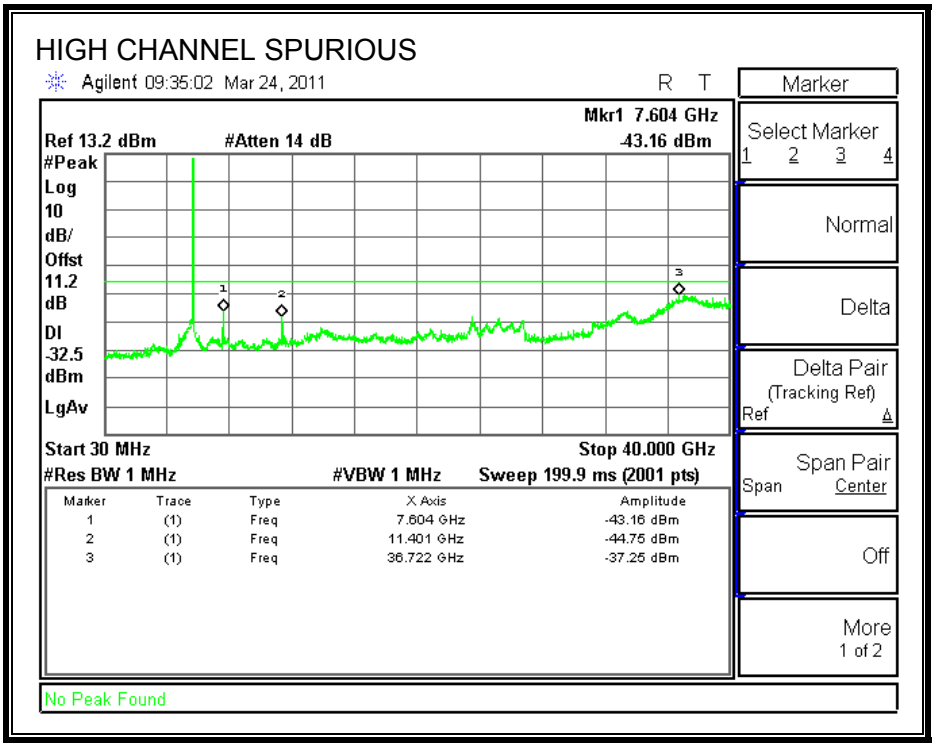
Measurements are made over the 30 MHz to 40 GHz range with the transmitter set to the lowest, middle, and highest channels.

RESULTS

SPURIOUS EMISSIONS







7.9. 802.11n HT40 SISO MODE IN THE 5.6 GHz BAND

7.9.1. 26 dB and 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

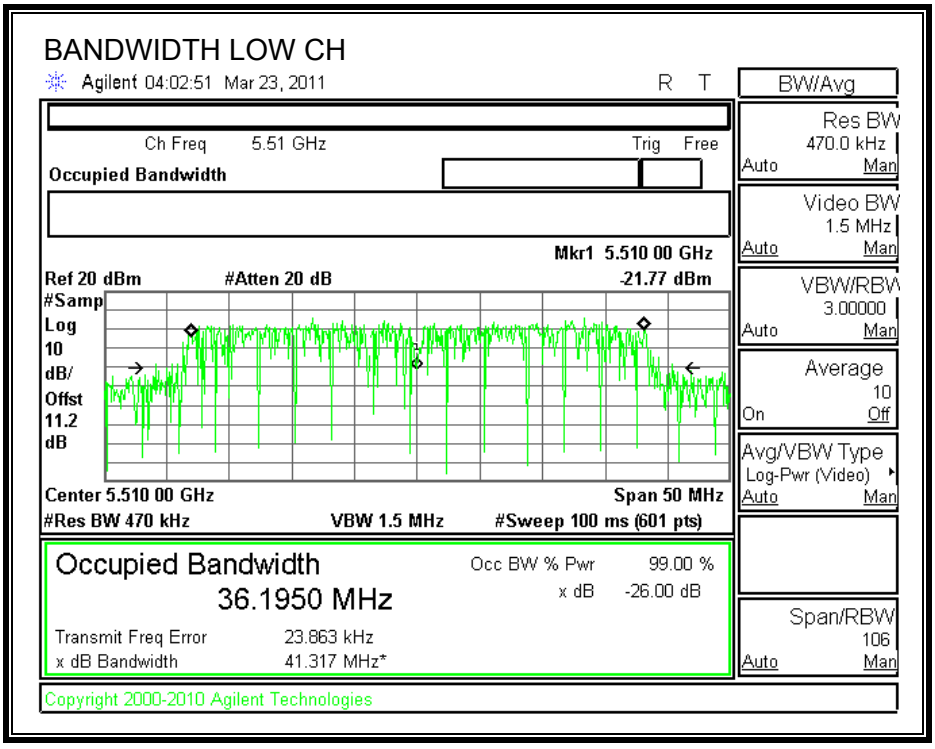
TEST PROCEDURE

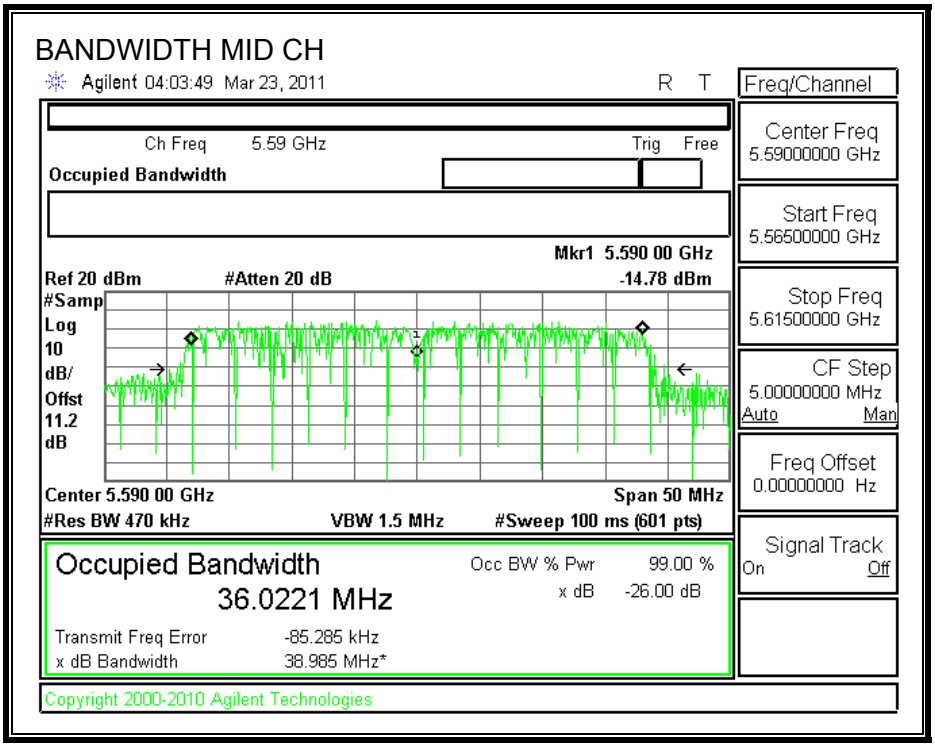
The transmitter outputs are connected to the spectrum analyzer via a combiner. The RBW is set to 1% to 3% of the measured bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal bandwidth function is utilized.

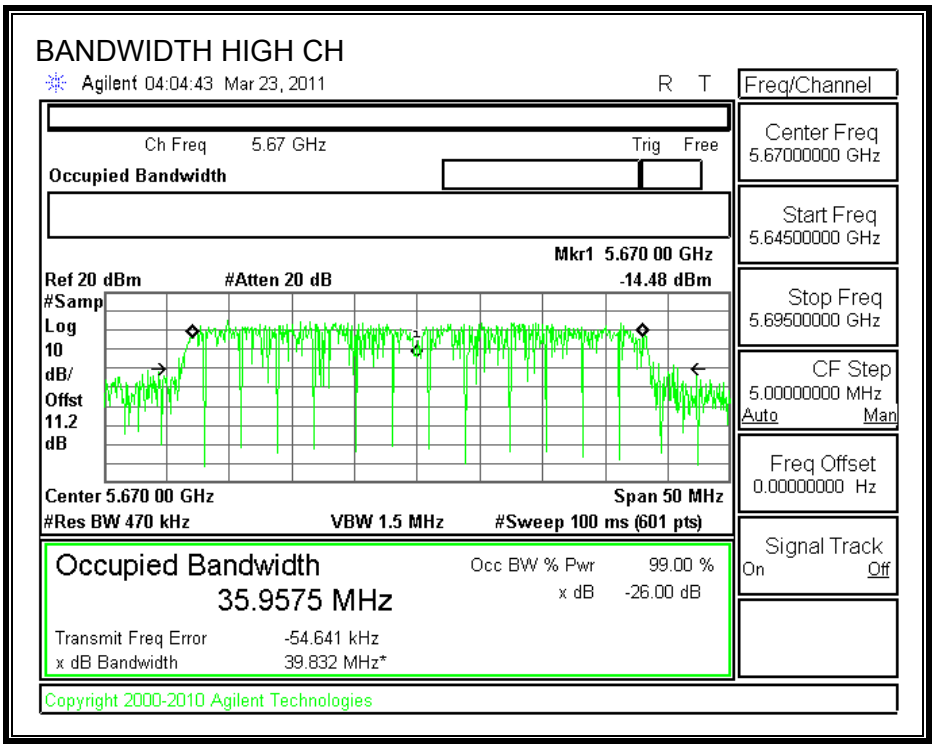
RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	5510	41.317	36.1950
Middle	5590	38.985	36.0221
High	5670	39.832	35.9575

26 dB and 99% BANDWIDTH







7.9.2. OUTPUT POWER

LIMITS

FCC §15.407 (a) (1)

IC RSS-210 A9.2 (1)

For the 5.47-5.725 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26-dB emission bandwidth in MHz. If transmitting antennas of directional gain greater than 6 dBi are used, 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.

RESULTS

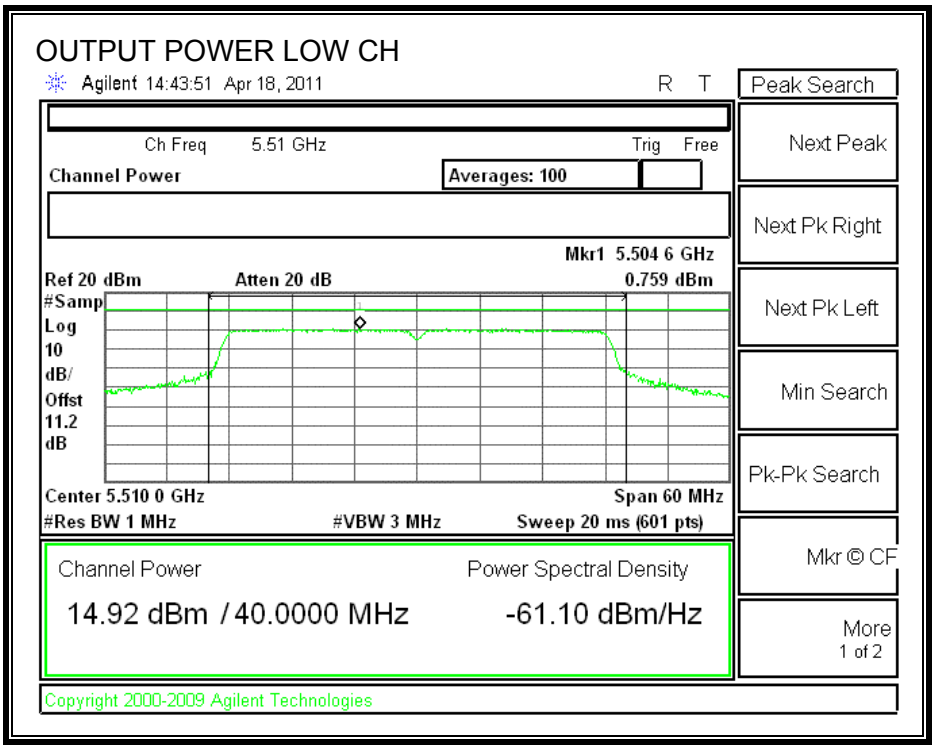
Limit

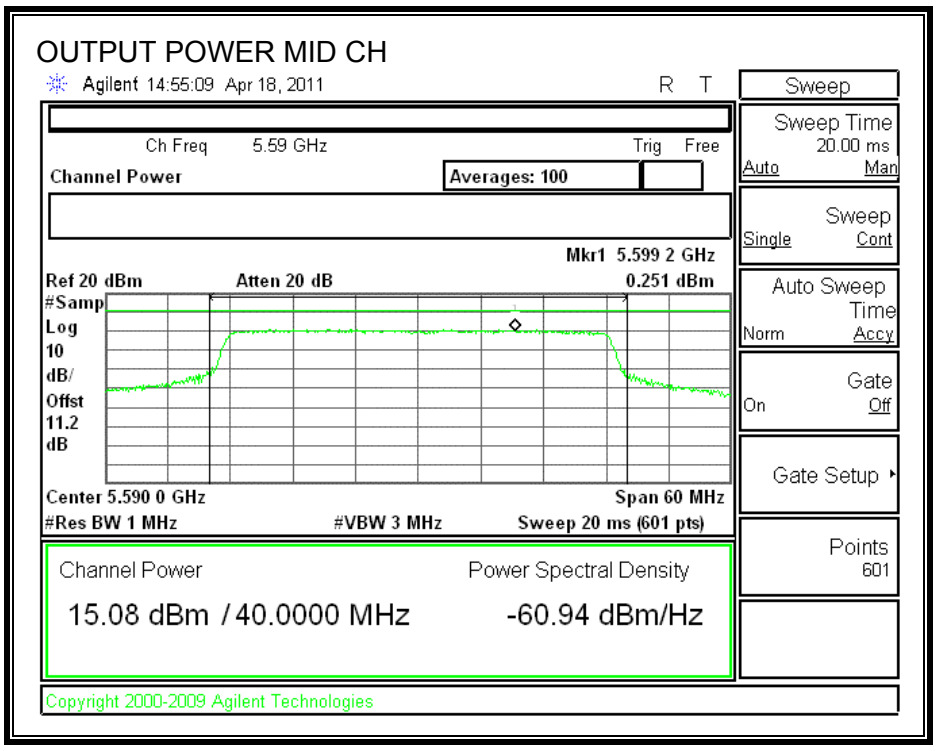
Channel	Frequency (MHz)	Fixed Limit (dBm)	B (MHz)	11 + 10 Log B Limit (dBm)	Antenna Gain (dBi)	Limit (dBm)
Low	5510	24	41.317	27.16	5.50	24.00
Mid	5590	24	38.985	26.91	5.50	24.00
High	5670	24	39.832	27.00	5.50	24.00

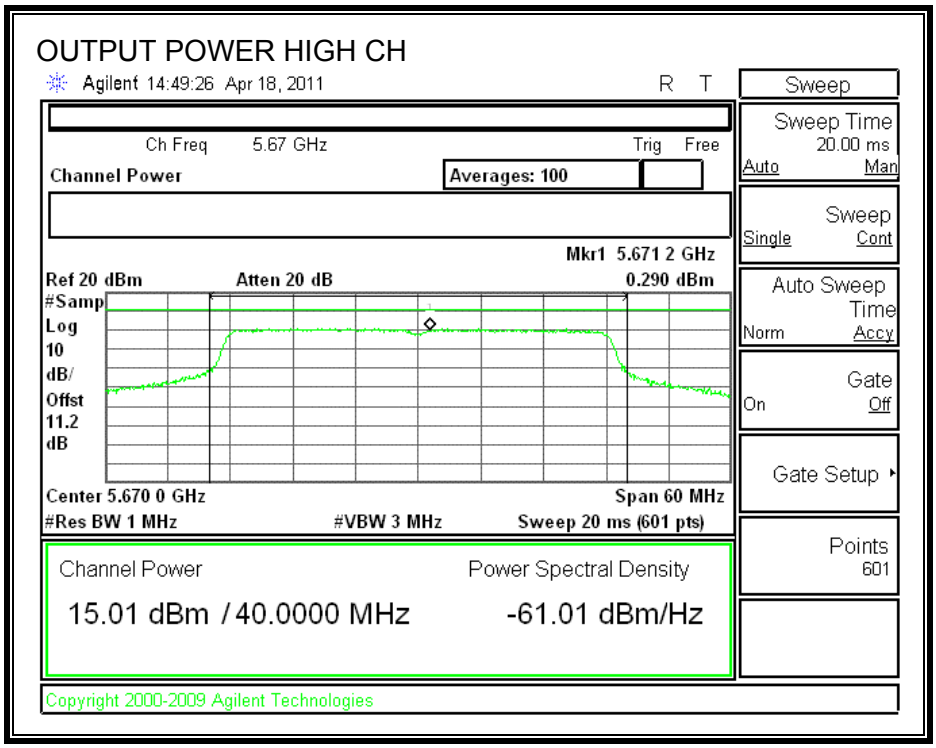
Results

Channel	Frequency (MHz)	Power (dBm)	Limit (dBm)	Margin (dB)
Low	5510	14.92	24.00	-9.08
Mid	5590	15.08	24.00	-8.92
High	5670	15.01	24.00	-8.99

OUTPUT POWER







7.9.3. PEAK POWER SPECTRAL DENSITY

LIMITS

FCC §15.407 (a) (1)

IC RSS-210 A9.2 (1)

For the 5.47-5.725 GHz band, 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.

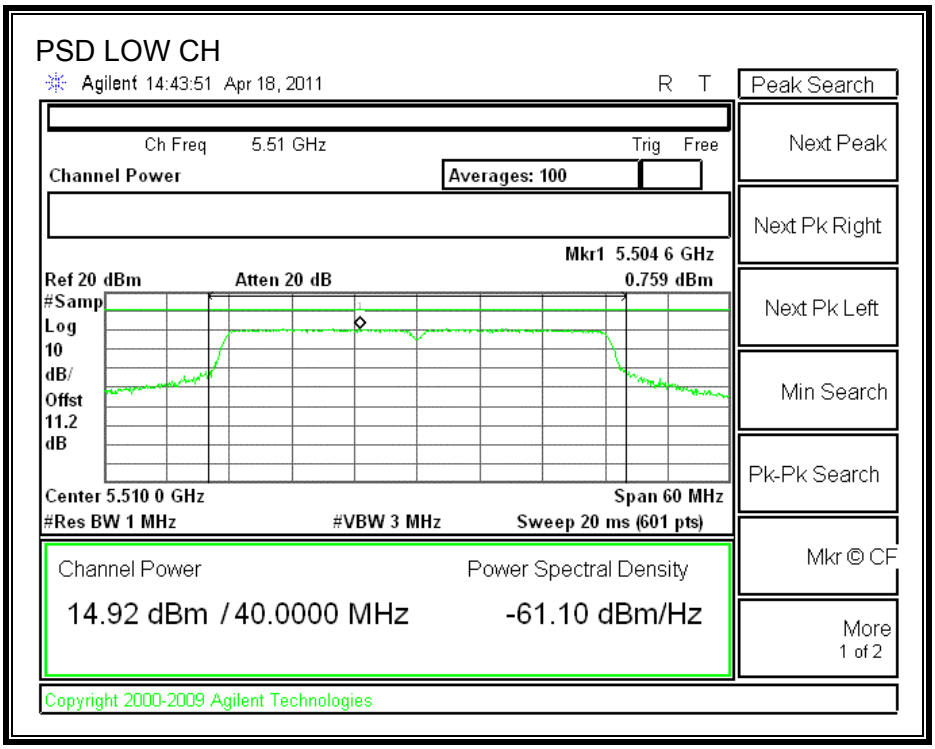
TEST PROCEDURE

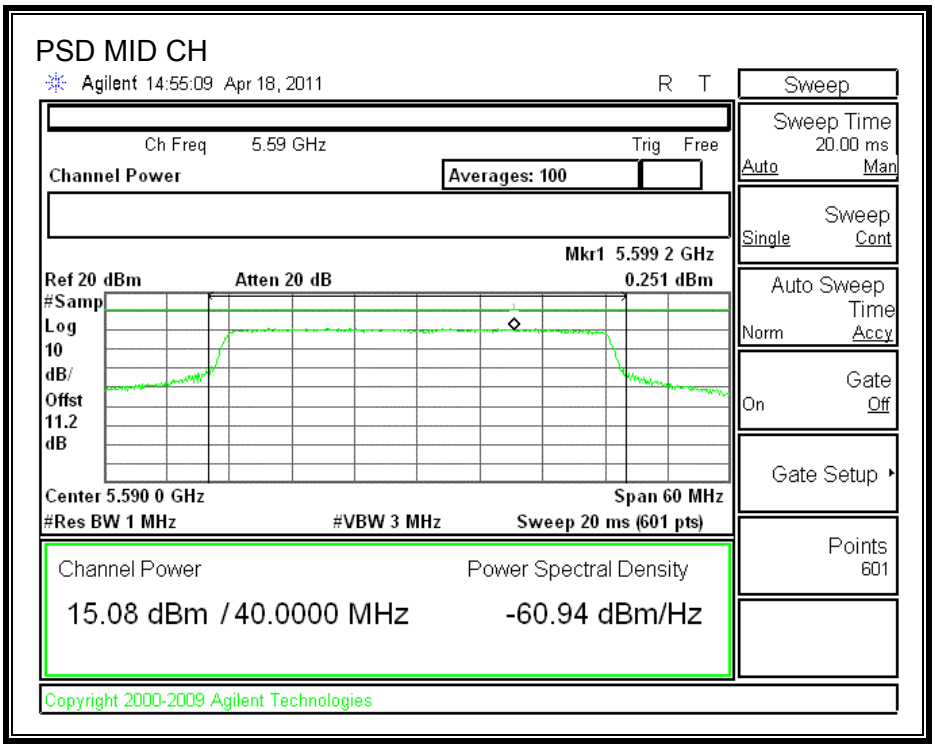
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002. PPSD method #2 was used.

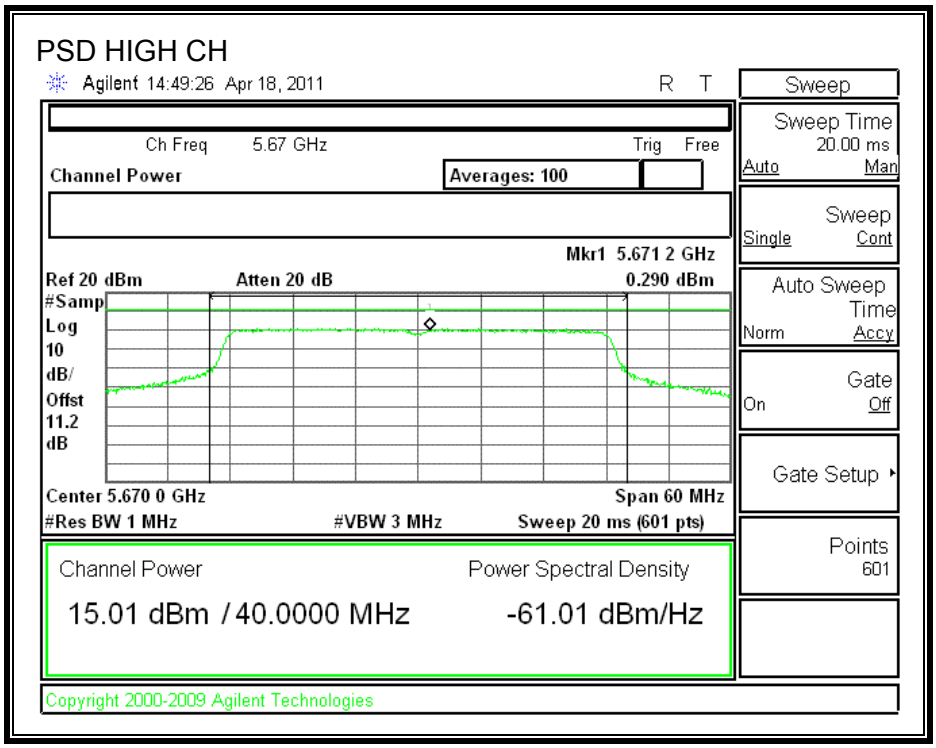
RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	5510	0.759	11	-10.24
Middle	5590	0.251	11	-10.75
High	5670	0.290	11	-10.71

POWER SPECTRAL DENSITY







7.9.4. PEAK EXCURSION

LIMITS

FCC §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 transmitter outputs are connected to the spectrum analyzer via a combiner.

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.

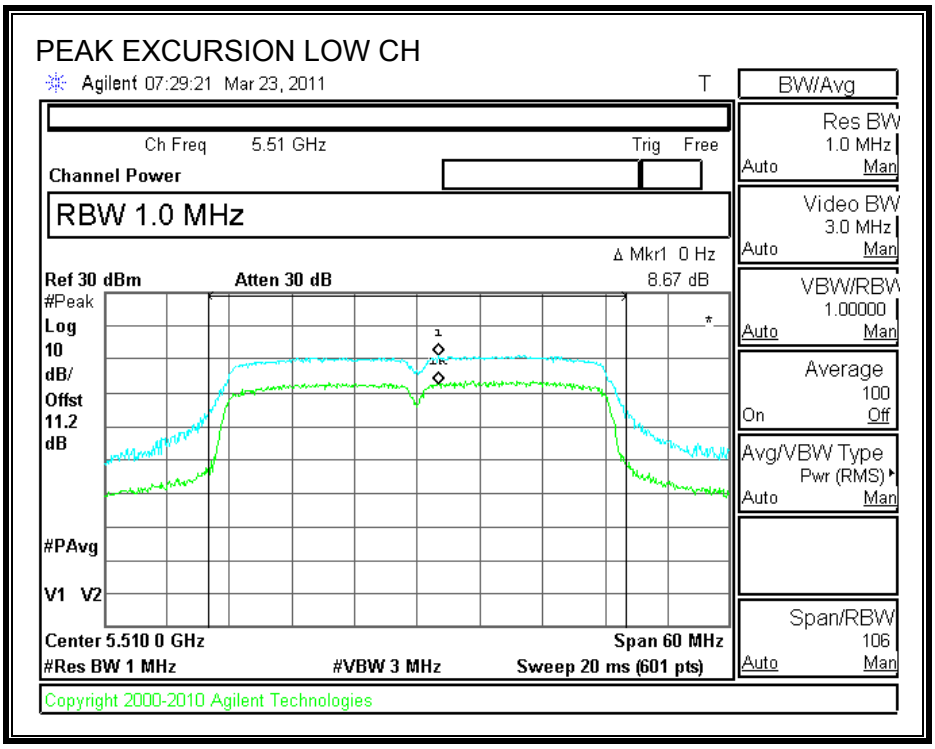
Since Method # 1 was used for peak power measurements, Method # 1 settings are used for the second PPSD trace.

RESULTS

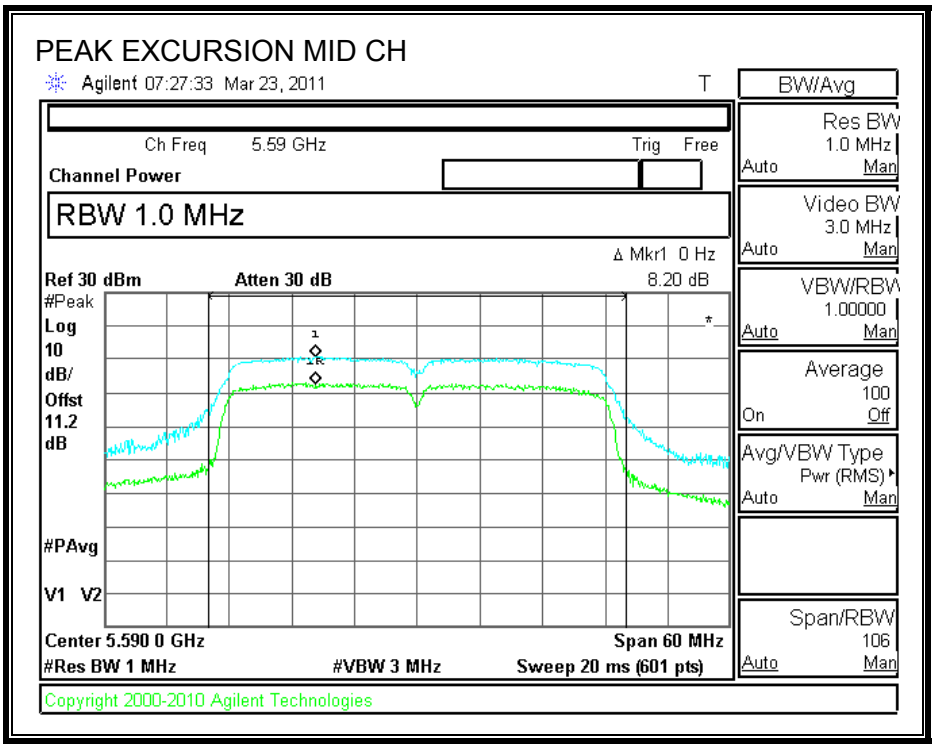
Channel	Frequency (MHz)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Low	5510	8.67	13	-4.33
Middle	5590	8.20	13	-4.80
High	5670	9.44	13	-3.56

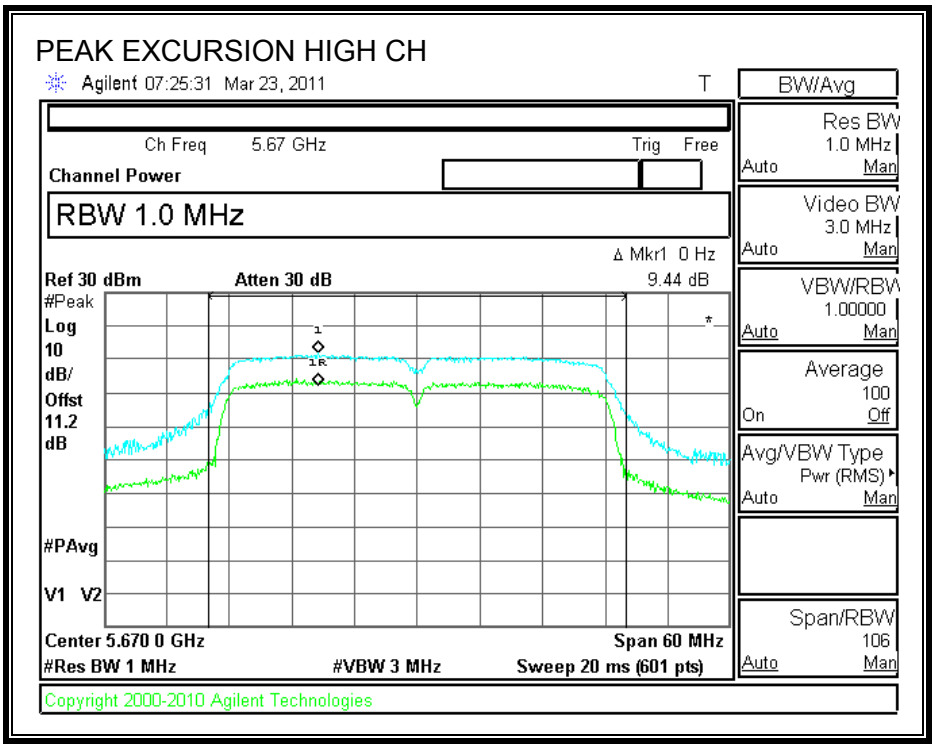
PEAK EXCURSION

PEAK EXCURSION LOW CH



PEAK EXCURSION MID CH





7.9.5. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.407 (b) (1)

IC RSS-210 A9.3 (1)

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

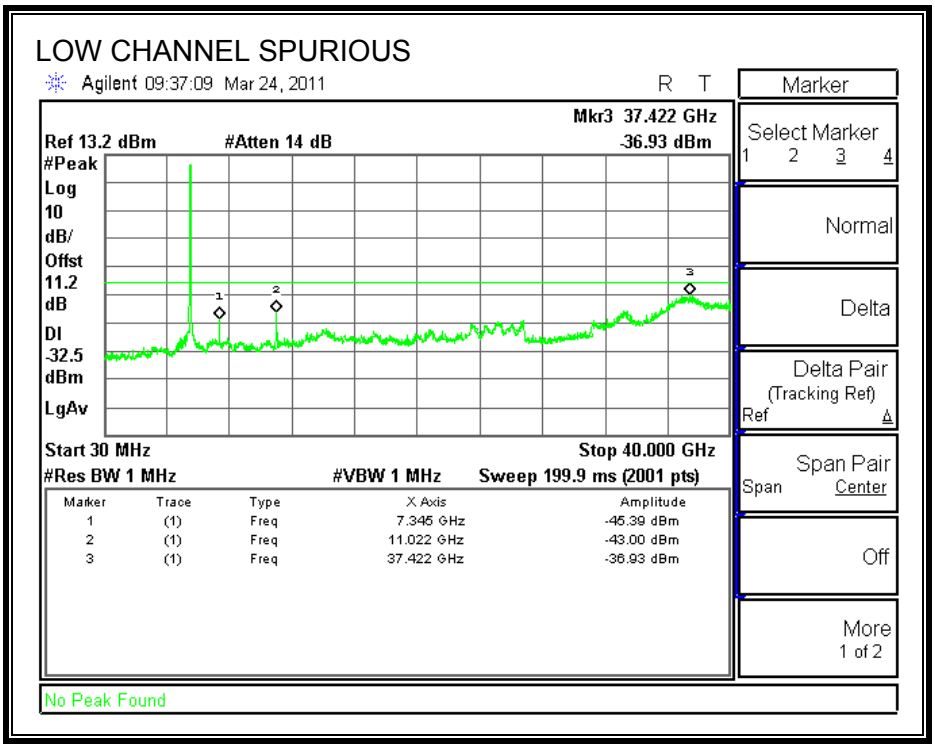
Conducted RF measurements of the transmitter output are made to confirm that the EUT antenna port conducted emissions meet the specified limit and to identify any spurious signals that require further investigation or measurements on the radiated emissions site.

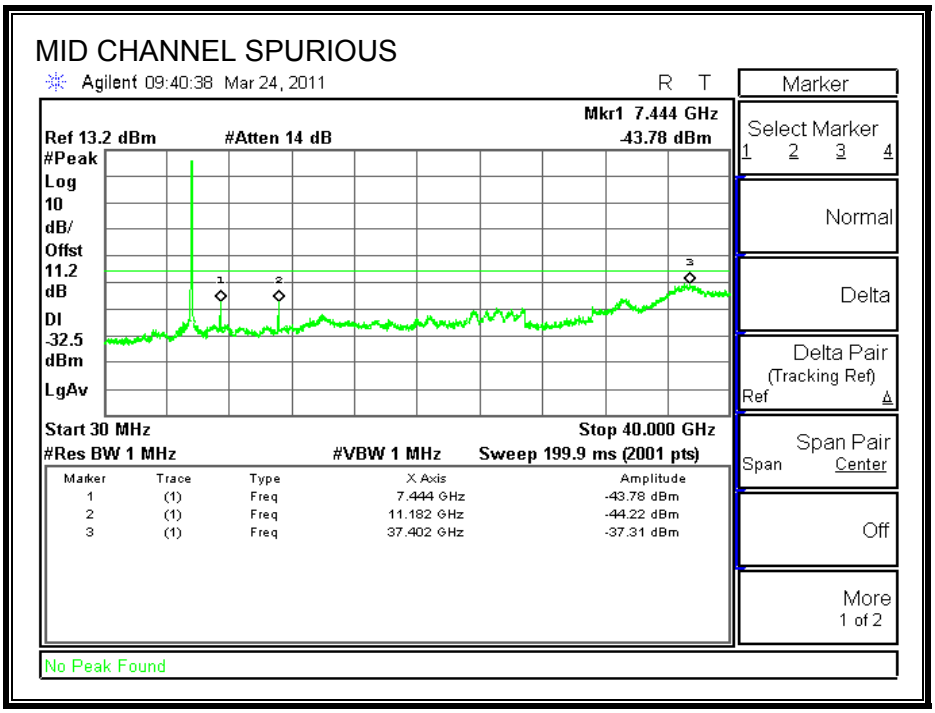
The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 1 MHz. The video bandwidth is set to 1MHz. Peak detection measurements are compared to EIRP limit, adjusted for the maximum antenna gain.

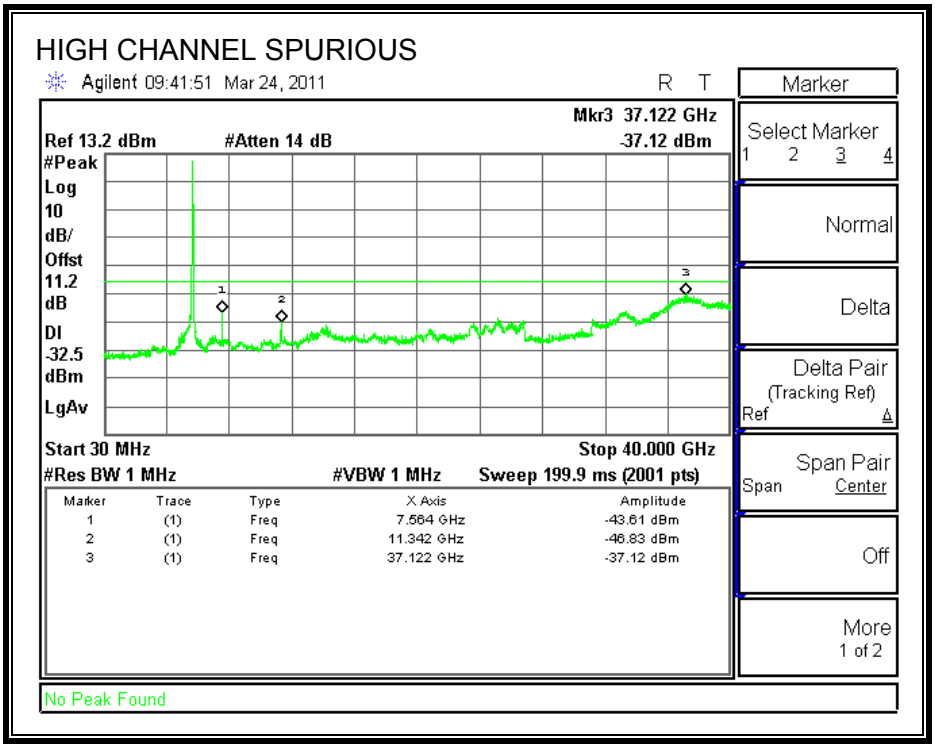
Measurements are made over the 30 MHz to 40 GHz range with the transmitter set to the lowest, middle, and highest channels.

RESULTS

SPURIOUS EMISSIONS







8. RADIATED TEST RESULTS

8.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

IC RSS-210 Clause 2.6 (Transmitter)

IC RSS-GEN Clause 6 (Receiver)

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

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

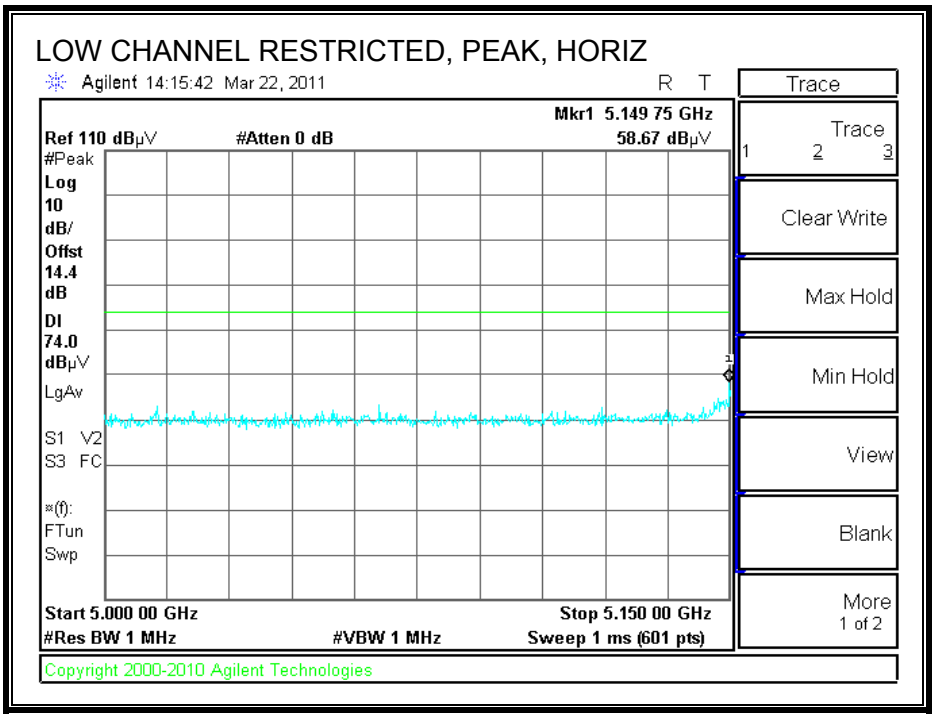
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

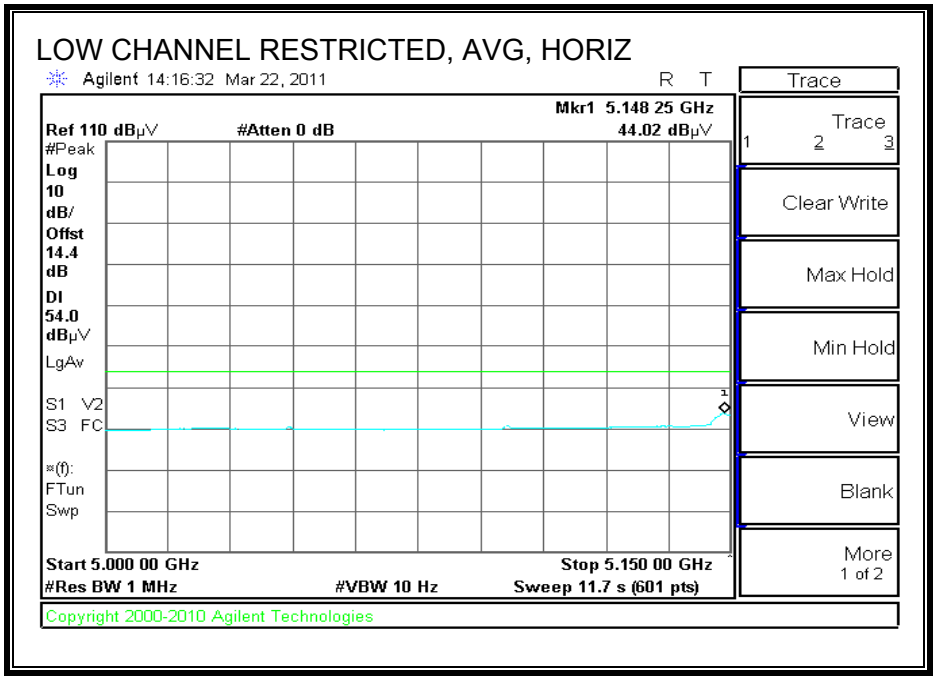
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

8.2. TRANSMITTER ABOVE 1 GHz

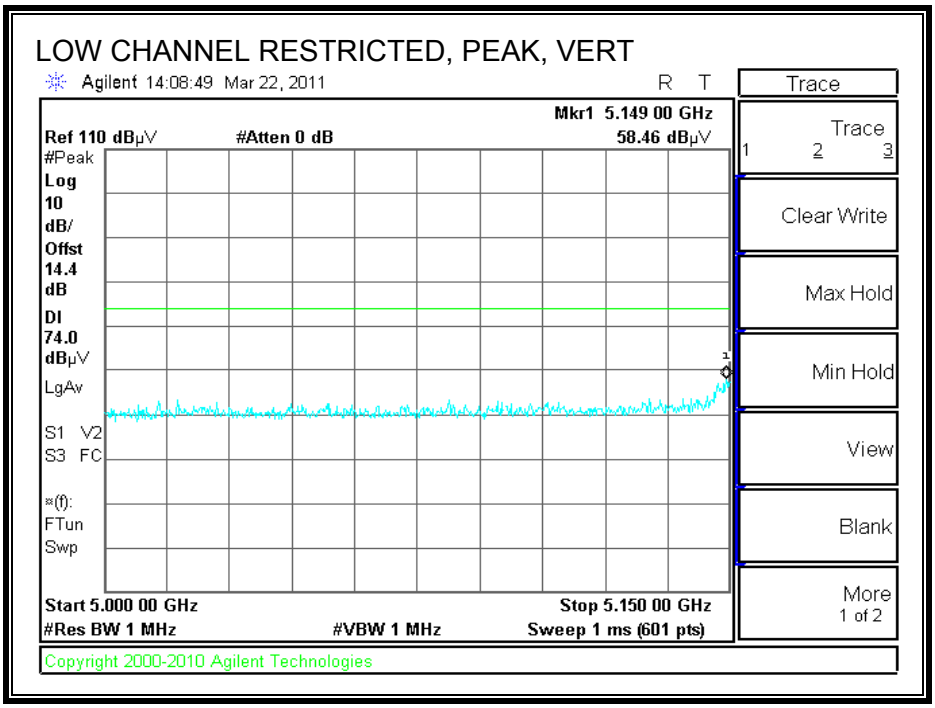
8.2.1. 802.11a MODE IN THE LOWER 5.2 GHz BAND

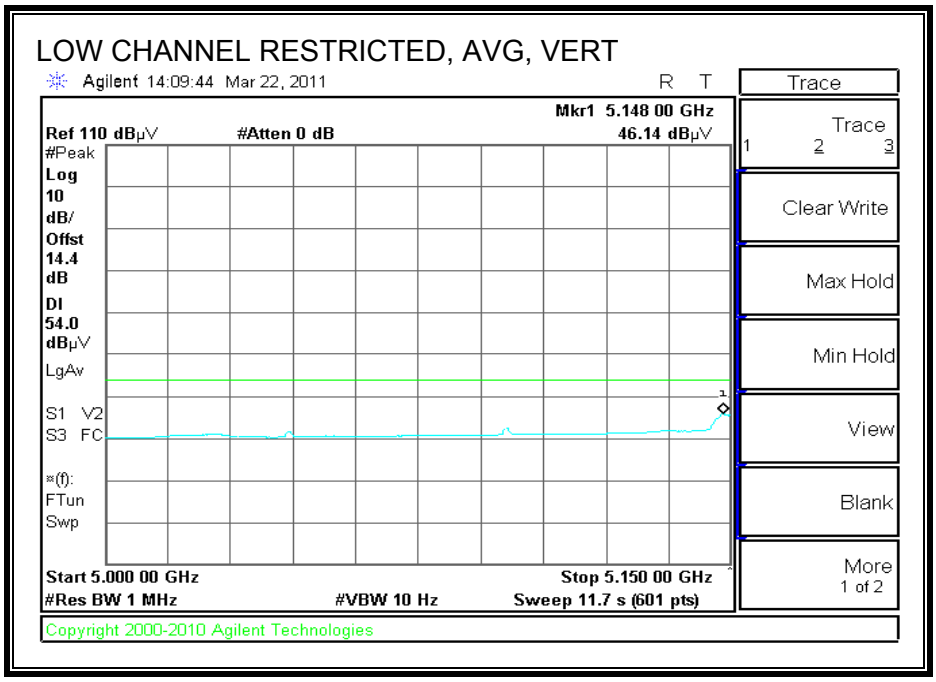
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 03-23-11
Project #: 11U13622
Company: Palm
Test Target: FCC 15.407
Mode Oper: 5.2GHz Band, Legacy, TX

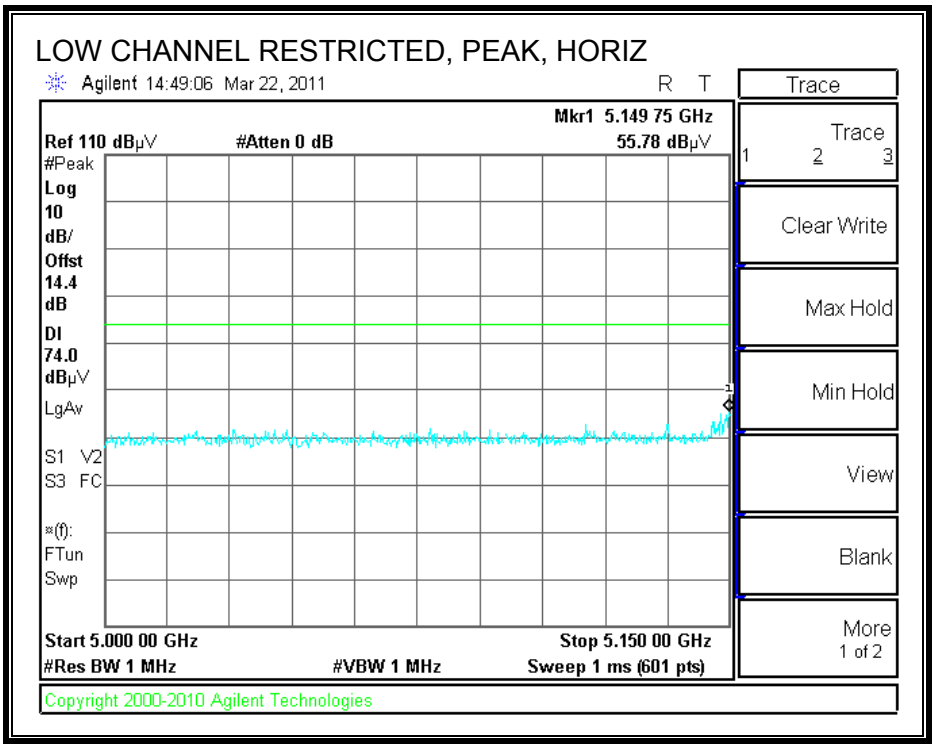
f	Measurement Frequency	Amp	Preamp Gain	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Margin vs.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

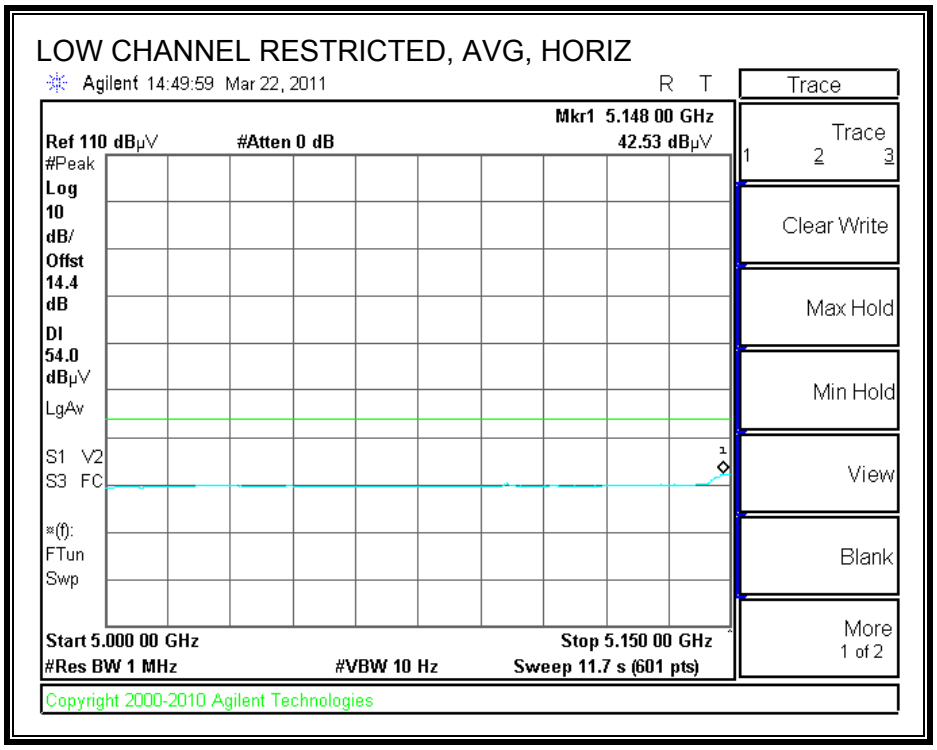
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 5180MHz													
15.540	3.0	34.8	38.9	10.2	-32.3	0.0	0.7	83.9	74.0	-21.6	H	P	
15.540	3.0	21.7	38.9	10.2	-32.3	0.0	0.7	70.8	54.0	-14.8	H	A	
15.540	3.0	34.1	38.9	10.2	-32.3	0.0	0.7	83.2	74.0	-22.4	V	P	
15.540	3.0	21.7	38.9	10.2	-32.3	0.0	0.7	70.7	54.0	-14.8	V	A	
Mid Ch, 5200MHz													
15.600	3.0	34.6	38.7	10.2	-32.3	0.0	0.7	83.5	74.0	-22.0	H	P	
15.600	3.0	22.3	38.7	10.2	-32.3	0.0	0.7	71.2	54.0	-14.3	H	A	
15.600	3.0	34.4	38.7	10.2	-32.3	0.0	0.7	83.3	74.0	-22.2	V	P	
15.600	3.0	22.3	38.7	10.2	-32.3	0.0	0.7	71.2	54.0	-14.3	V	A	
High Ch, 5240MHz													
15.720	3.0	34.1	38.4	11.4	-32.3	0.0	0.7	52.4	74.0	-21.6	H	P	
15.720	3.0	21.9	38.4	11.4	-32.3	0.0	0.7	40.2	54.0	-13.8	H	A	
15.720	3.0	33.4	38.4	11.4	-32.3	0.0	0.7	51.7	74.0	-22.3	V	P	
15.720	3.0	21.6	38.4	11.4	-32.3	0.0	0.7	39.9	54.0	-14.1	V	A	

Rev. 4.1.2.7
Note: No other emissions were detected above the system noise floor.

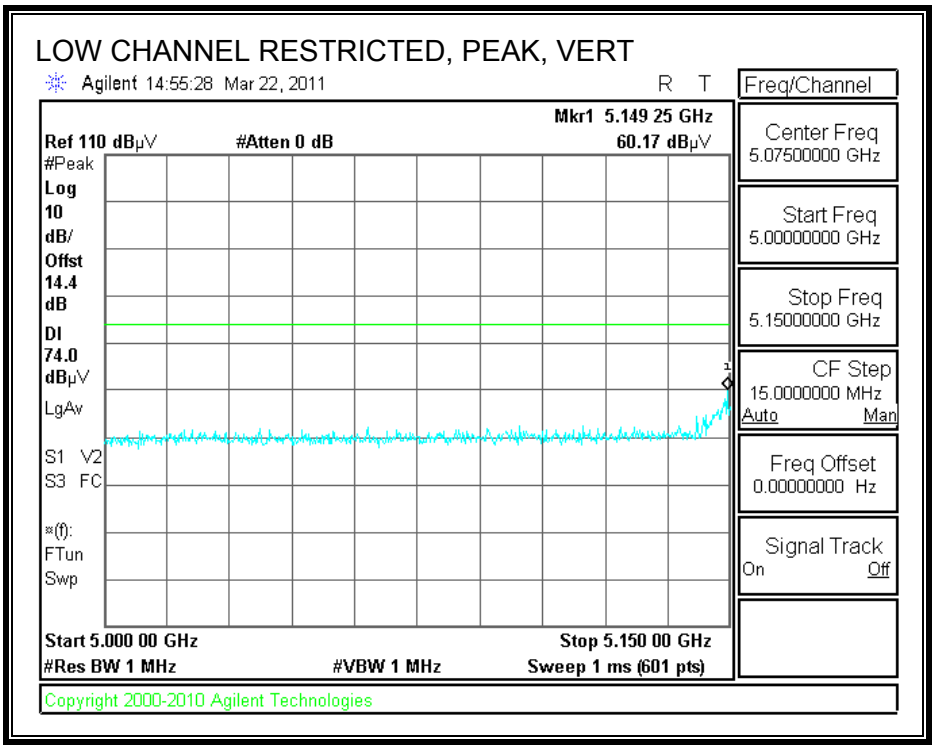
8.2.2. 802.11n HT20 SISO MODE IN THE LOWER 5.2 GHz BAND

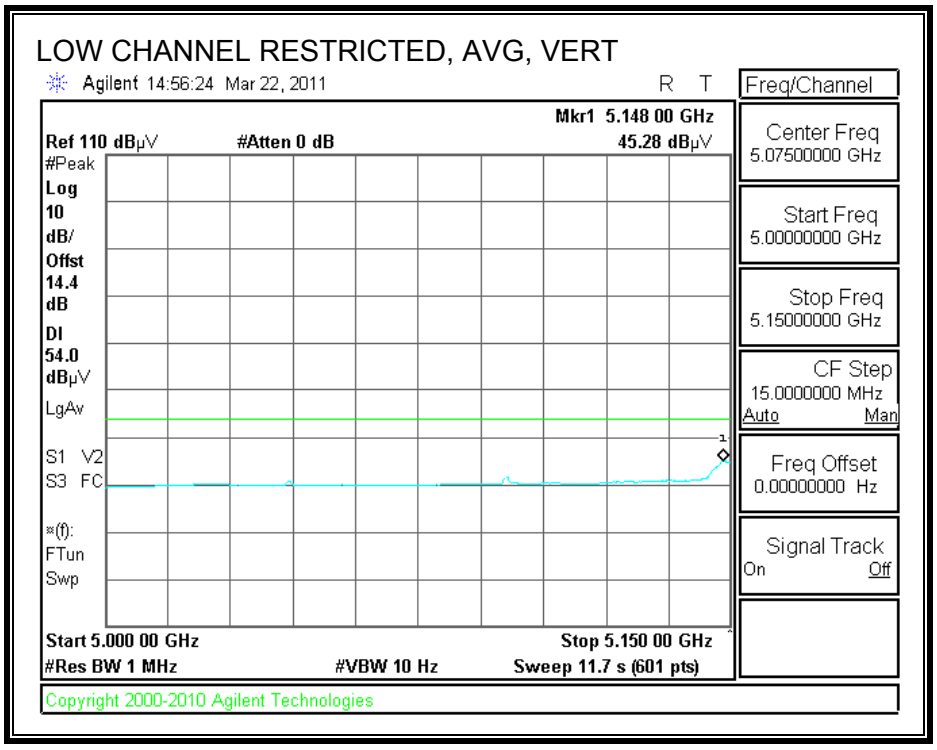
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 03-23-11
Project #: 11U13622
Company: Palm
Test Target: FCC 15.407
Mode Oper: 5.2GHz band, HT20, TX

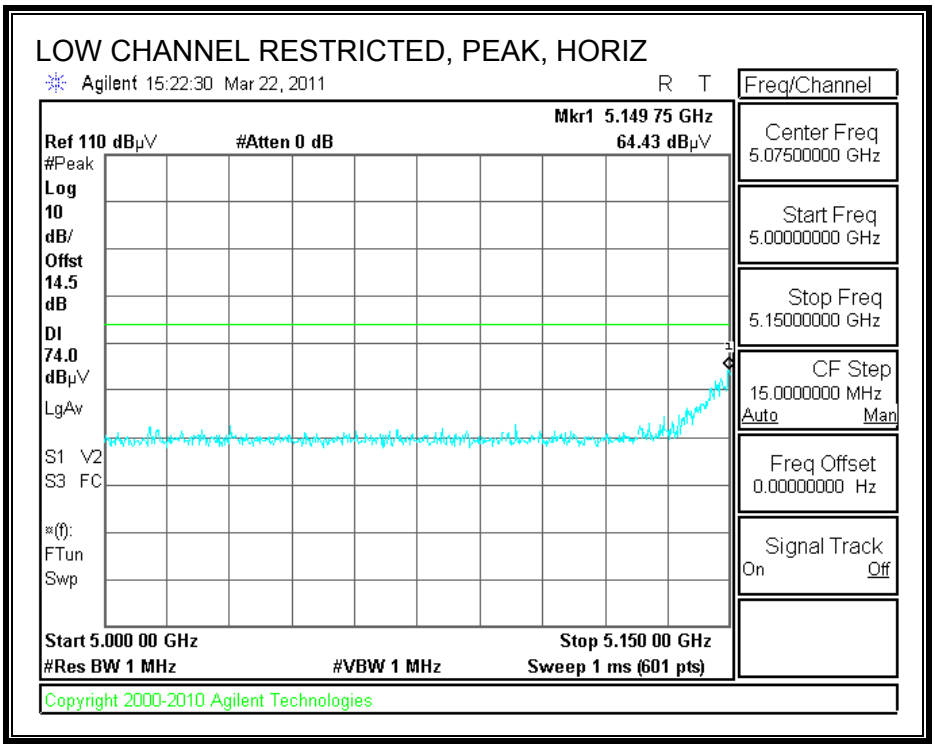
f	Measurement Frequency	Amp	Preamp Gain		Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters		Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m		Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength		Margin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

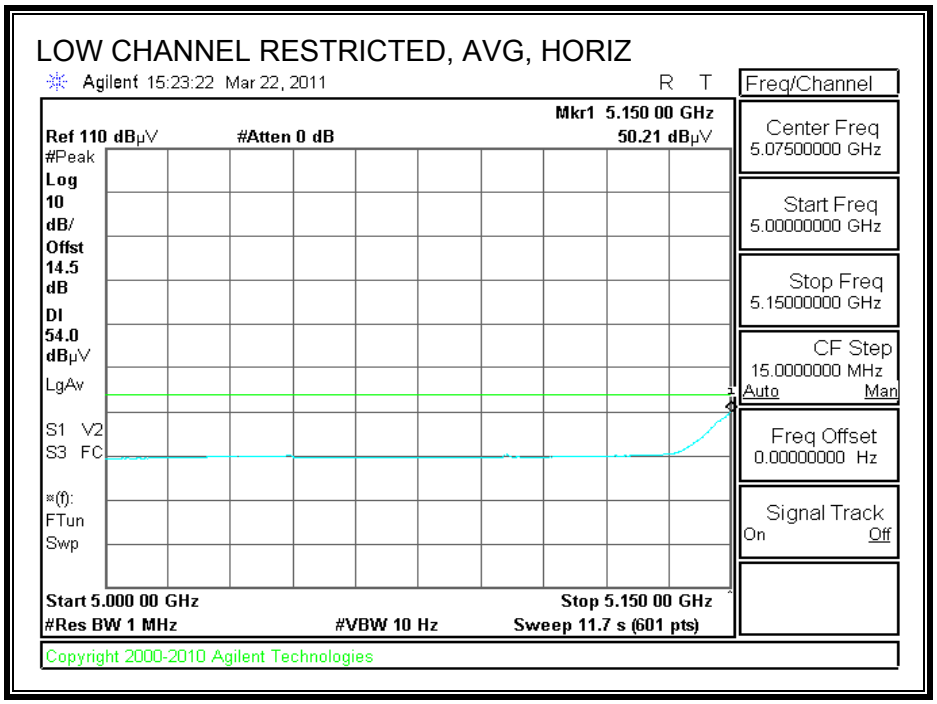
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 5180MHz													
15.540	3.0	33.7	38.9	11.3	-32.3	0.0	0.7	52.4	74.0	-21.6	H	P	
15.540	3.0	21.6	38.9	11.3	-32.3	0.0	0.7	40.3	54.0	-13.7	H	A	
15.540	3.0	33.9	38.9	11.3	-32.3	0.0	0.7	52.5	74.0	-21.5	V	P	
15.540	3.0	21.6	38.9	11.3	-32.3	0.0	0.7	40.3	54.0	-13.7	V	A	
Mid Ch, 5200MHz													
15.600	3.0	34.1	38.7	11.4	-32.3	0.0	0.7	52.6	74.0	-21.4	H	P	
15.600	3.0	21.7	38.7	11.4	-32.3	0.0	0.7	40.2	54.0	-13.8	H	A	
15.600	3.0	33.9	38.7	11.4	-32.3	0.0	0.7	52.4	74.0	-21.6	V	P	
15.600	3.0	21.7	38.7	11.4	-32.3	0.0	0.7	40.3	54.0	-13.7	V	A	
High Ch, 5240MHz													
15.720	3.0	34.0	38.4	11.4	-32.3	0.0	0.7	52.3	74.0	-21.7	H	P	
15.720	3.0	21.5	38.4	11.4	-32.3	0.0	0.7	39.8	54.0	-14.2	H	A	
15.720	3.0	33.3	38.4	11.4	-32.3	0.0	0.7	51.6	74.0	-22.4	V	P	
15.720	3.0	21.5	38.4	11.4	-32.3	0.0	0.7	39.8	54.0	-14.2	V	A	

Rev. 4.1.2.7
Note: No other emissions were detected above the system noise floor.

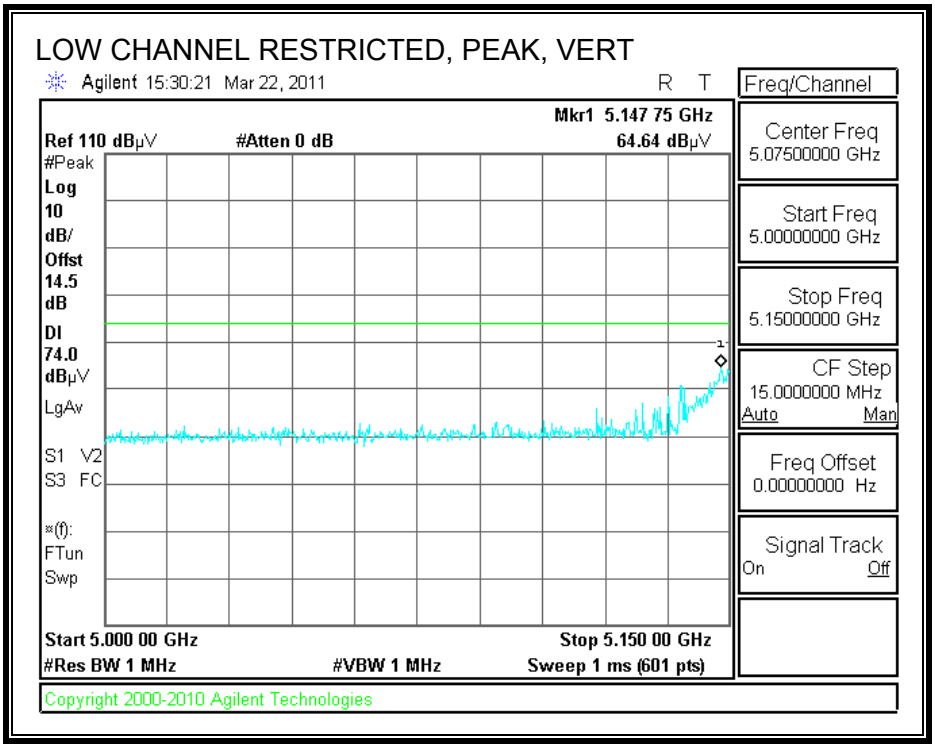
8.2.3. 802.11n HT40 SISO MODE IN THE LOWER 5.2 GHz BAND

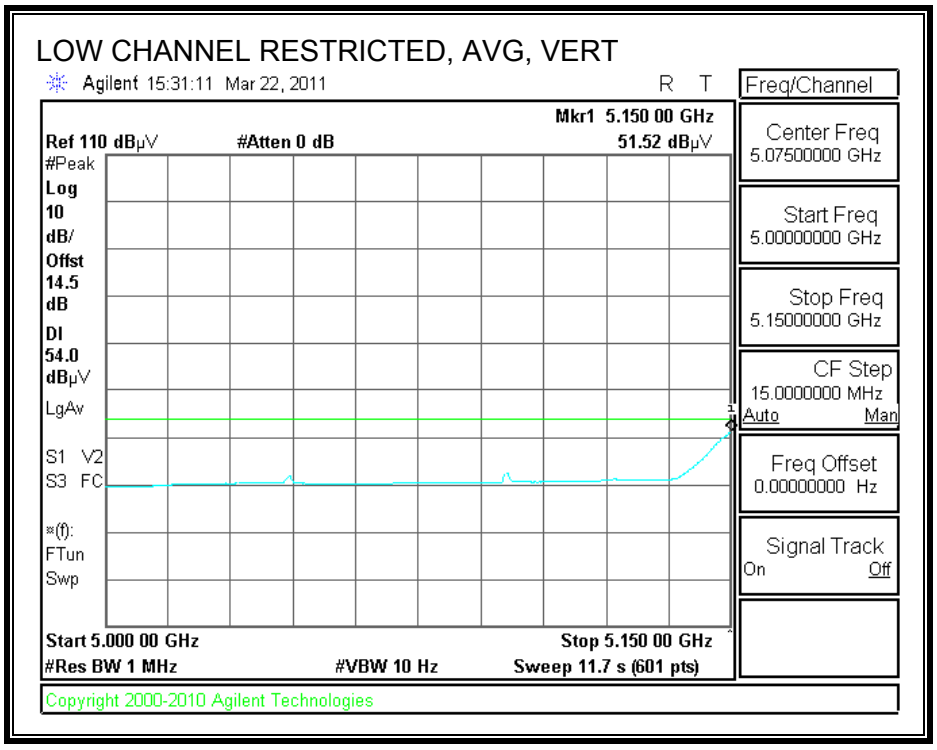
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 03-23-11
Project #: 11U13622
Company: Palm
Test Target: FCC 15.407
Mode Oper: 5.2GHz Band, HT40, TX

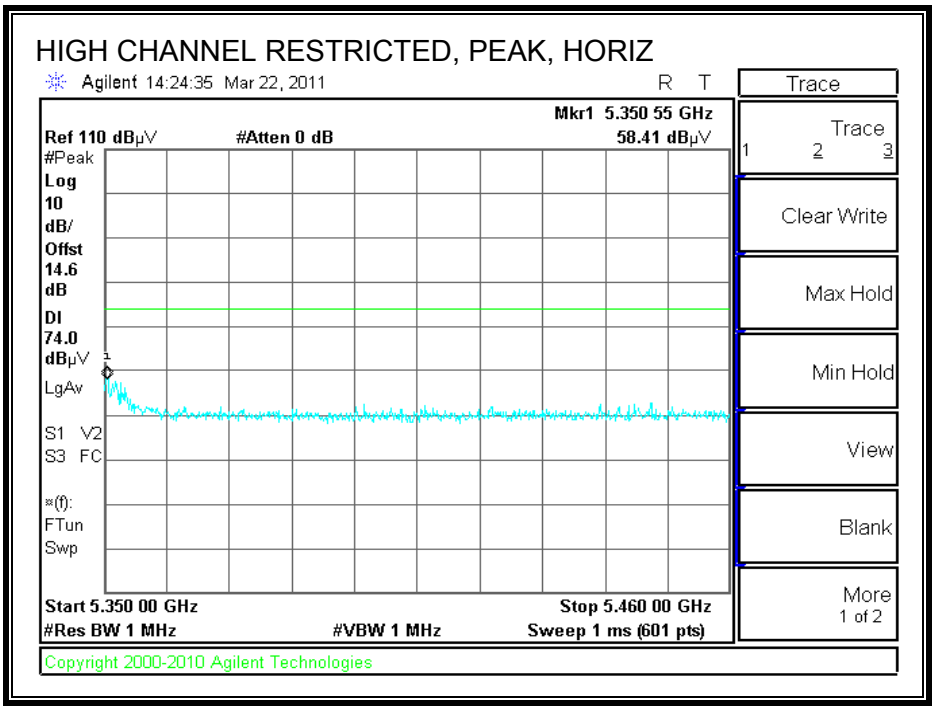
f	Measurement Frequency	Amp	Preamp Gain	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Margin vs.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

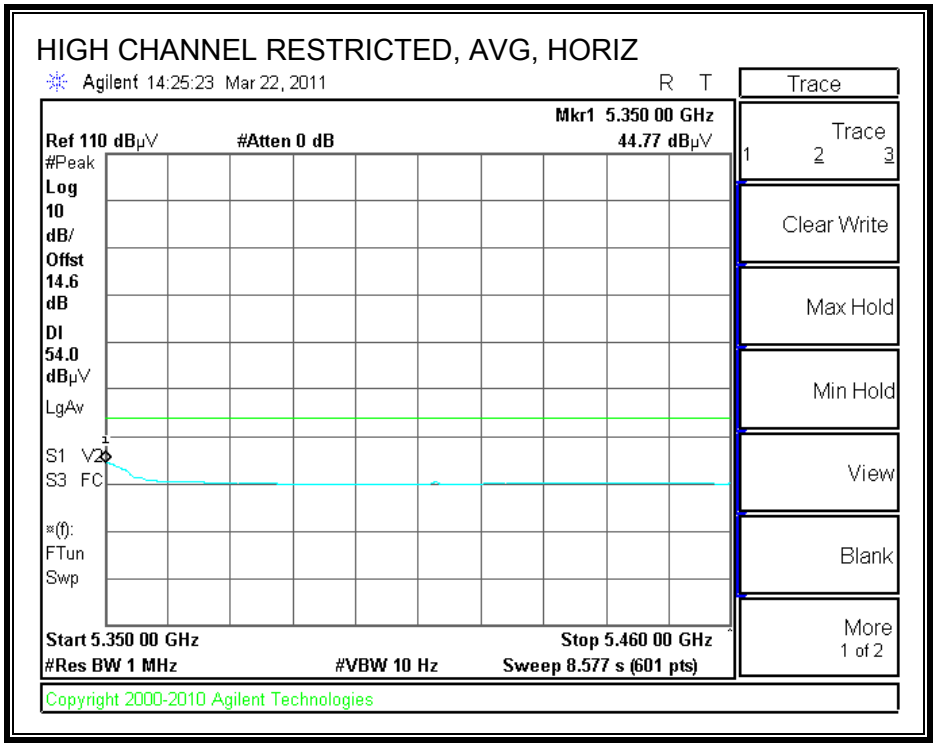
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
15.570	3.0	34.1	38.8	11.4	-32.3	0.0	0.7	52.7	74.0	-21.3	H	P	
15.570	3.0	21.8	38.8	11.4	-32.3	0.0	0.7	40.4	54.0	-13.6	H	A	
15.570	3.0	34.4	38.8	11.4	-32.3	0.0	0.7	53.1	74.0	-20.9	V	P	
15.570	3.0	21.8	38.8	11.4	-32.3	0.0	0.7	40.4	54.0	-13.6	V	A	
High Ch, 5230MHz													
15.690	3.0	33.7	38.5	11.4	-32.3	0.0	0.7	52.0	74.0	-22.0	H	P	
15.690	3.0	21.6	38.5	11.4	-32.3	0.0	0.7	40.0	54.0	-14.0	H	A	
15.690	3.0	34.0	38.5	11.4	-32.3	0.0	0.7	52.4	74.0	-21.6	V	P	
15.690	3.0	21.6	38.5	11.4	-32.3	0.0	0.7	40.0	54.0	-14.0	V	A	

Rev. 4.1.2.7
Note: No other emissions were detected above the system noise floor.

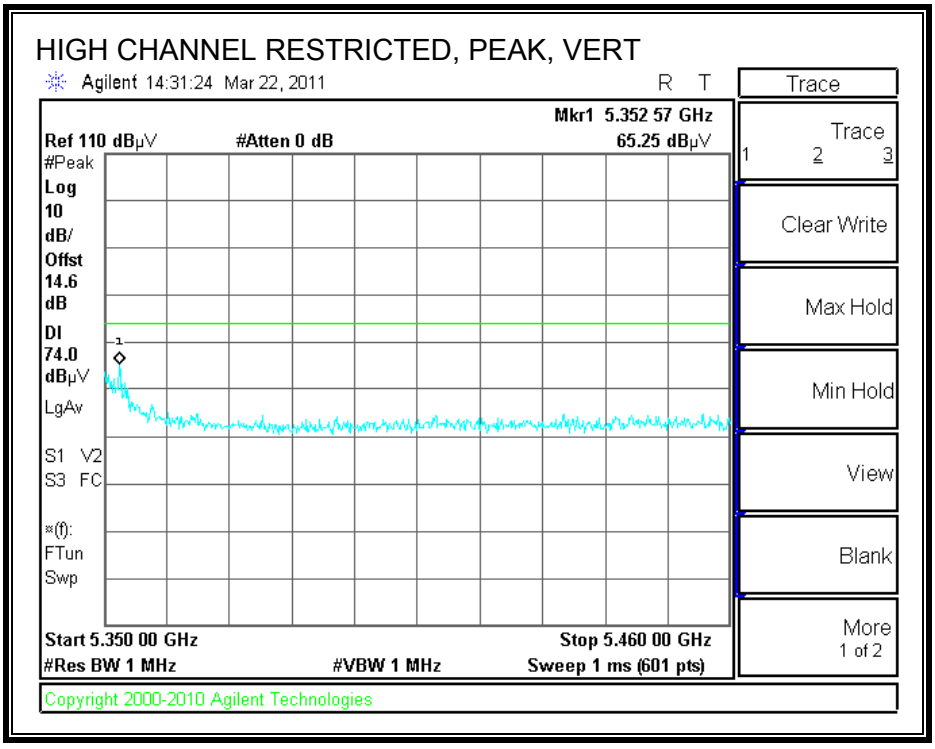
8.2.4. 802.11a MODE IN THE UPPER 5.3 GHz BAND

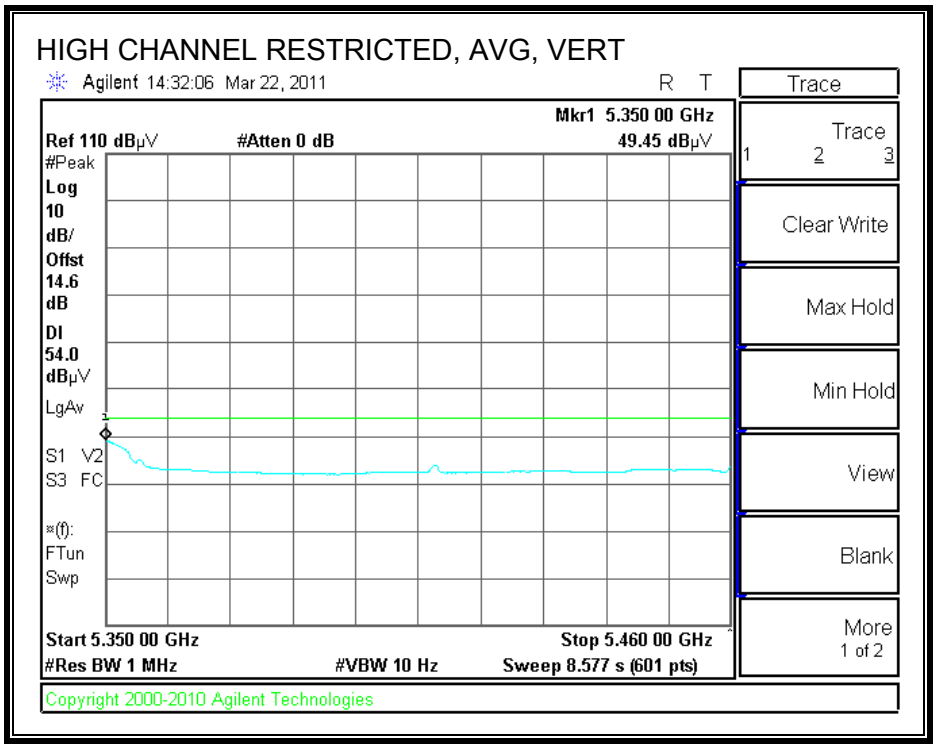
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 03-23-11
Project #: 11U13622
Company: Palm
Test Target: FCC 15.407
Mode Oper: 5.3GHz Band, Legacy, TX

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

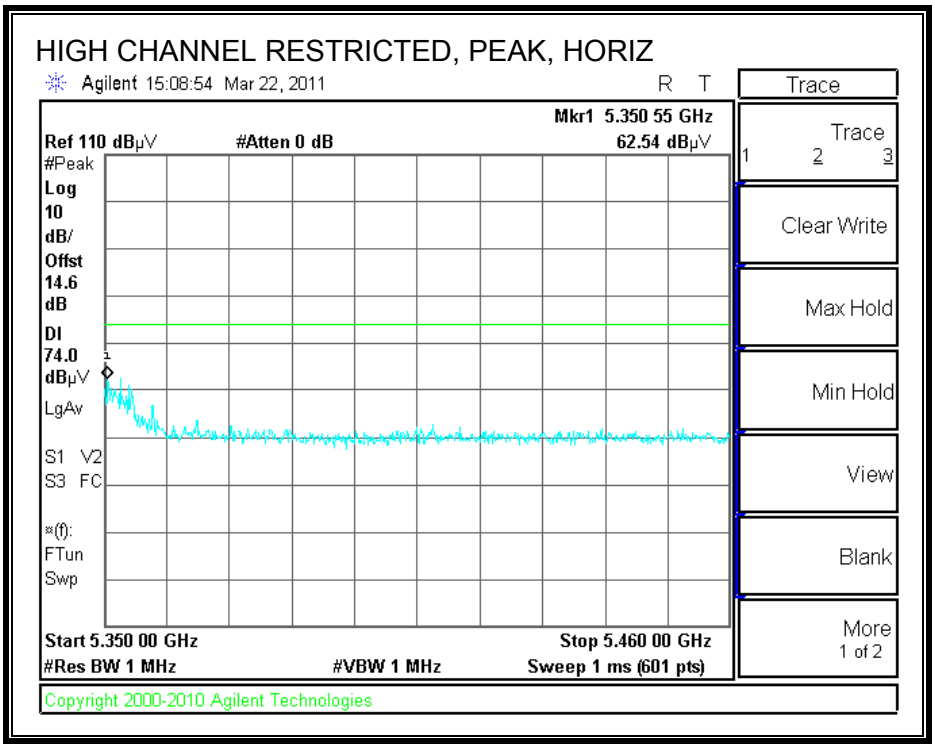
Average Field Strength Limit
Peak Field Strength Limit
Margin vs. Average Limit
Margin vs. Peak Limit

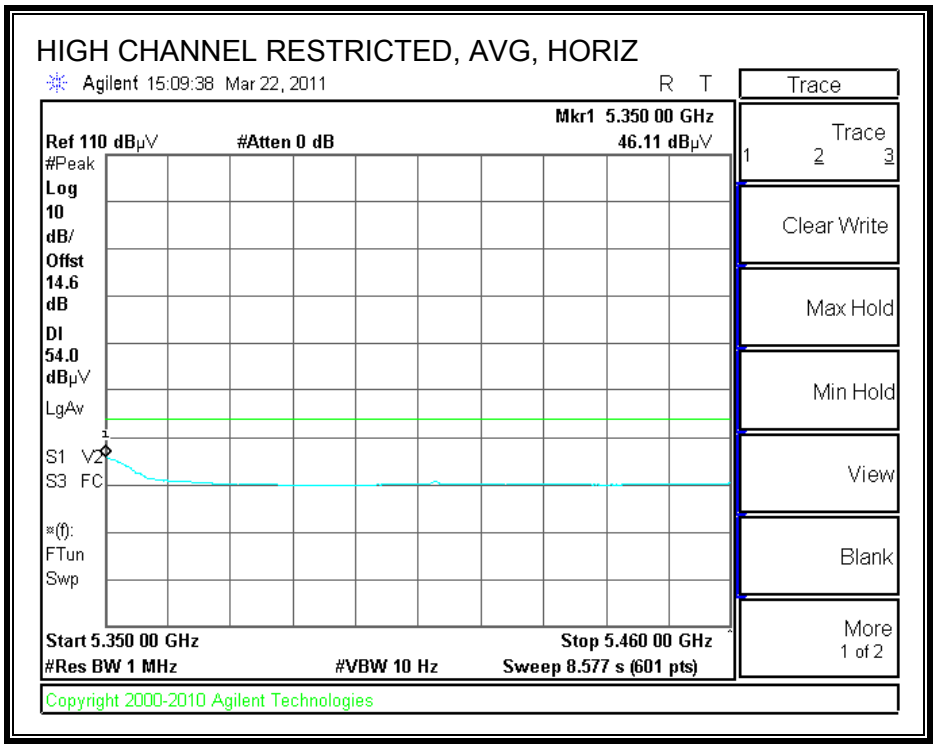
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 5260MHz													
15.780	3.0	34.0	38.2	11.5	-32.2	0.0	0.7	52.1	74.0	-21.9	V	P	
15.780	3.0	21.6	38.2	11.5	-32.2	0.0	0.7	39.8	54.0	-14.2	V	A	
15.780	3.0	34.1	38.2	11.5	-32.2	0.0	0.7	52.3	74.0	-21.7	H	P	
15.780	3.0	21.6	38.2	11.5	-32.2	0.0	0.7	39.8	54.0	-14.2	H	A	
Mid Ch, 5300MHz													
10.600	3.0	51.7	37.5	9.0	-34.3	0.0	0.8	64.7	74.0	-9.3	V	P	
10.600	3.0	38.5	37.5	9.0	-34.3	0.0	0.8	51.5	54.0	-2.5	V	A	
15.900	3.0	33.7	37.9	11.5	-32.2	0.0	0.7	51.6	74.0	-22.4	V	P	
15.900	3.0	21.5	37.9	11.5	-32.2	0.0	0.7	39.5	54.0	-14.5	V	A	
10.600	3.0	53.4	37.5	9.0	-34.3	0.0	0.8	66.4	74.0	-7.6	H	P	
10.600	3.0	40.2	37.5	9.0	-34.3	0.0	0.8	53.2	54.0	-0.8	H	A	
15.900	3.0	34.0	37.9	11.5	-32.2	0.0	0.7	51.9	74.0	-22.1	H	P	
15.900	3.0	21.5	37.9	11.5	-32.2	0.0	0.7	39.4	54.0	-14.6	H	A	
High Ch, 5320MHz													
10.640	3.0	51.0	37.6	9.1	-34.2	0.0	0.8	64.2	74.0	-9.8	V	P	
10.640	3.0	37.6	37.6	9.1	-34.2	0.0	0.8	50.7	54.0	-3.3	V	A	
15.960	3.0	33.6	37.7	11.5	-32.2	0.0	0.7	51.4	74.0	-22.6	V	P	
15.960	3.0	21.6	37.7	11.5	-32.2	0.0	0.7	39.4	54.0	-14.6	V	A	
10.640	3.0	52.4	37.6	9.1	-34.2	0.0	0.8	65.5	74.0	-8.5	H	P	
10.640	3.0	39.7	37.6	9.1	-34.2	0.0	0.8	52.9	54.0	-1.1	H	A	
15.960	3.0	34.5	37.7	11.5	-32.2	0.0	0.7	52.3	74.0	-21.7	H	P	
15.960	3.0	21.6	37.7	11.5	-32.2	0.0	0.7	39.4	54.0	-14.6	H	A	

Rev. 4.1.2.7
Note: No other emissions were detected above the system noise floor.

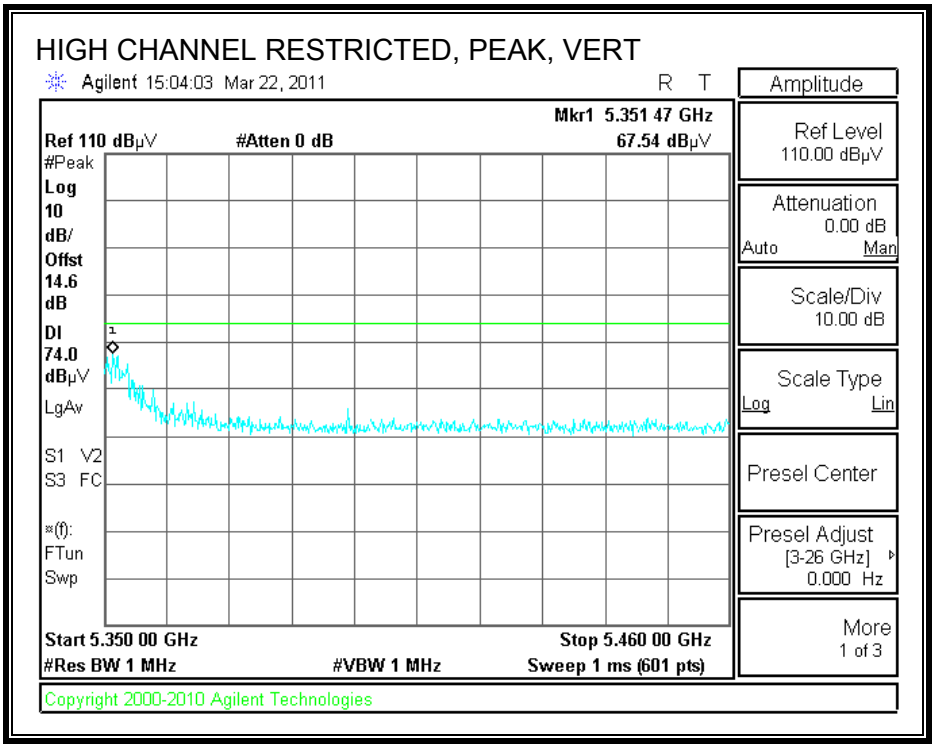
8.2.5. 802.11n HT20 SISO MODE IN THE UPPER 5.3 GHz BAND

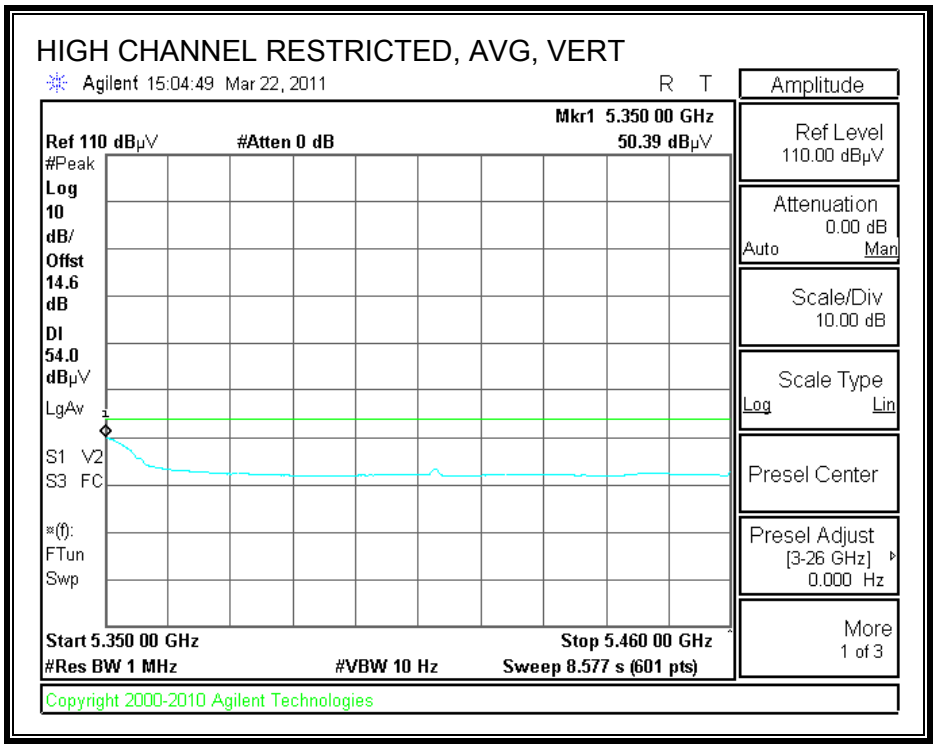
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (HIGH CHANNEL, VERT)





HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 03-23-11
Project #: 11U13622
Company: Palm
Test Target: FCC 15.407
Mode Oper: 5.3GHz Band, HT20, TX

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

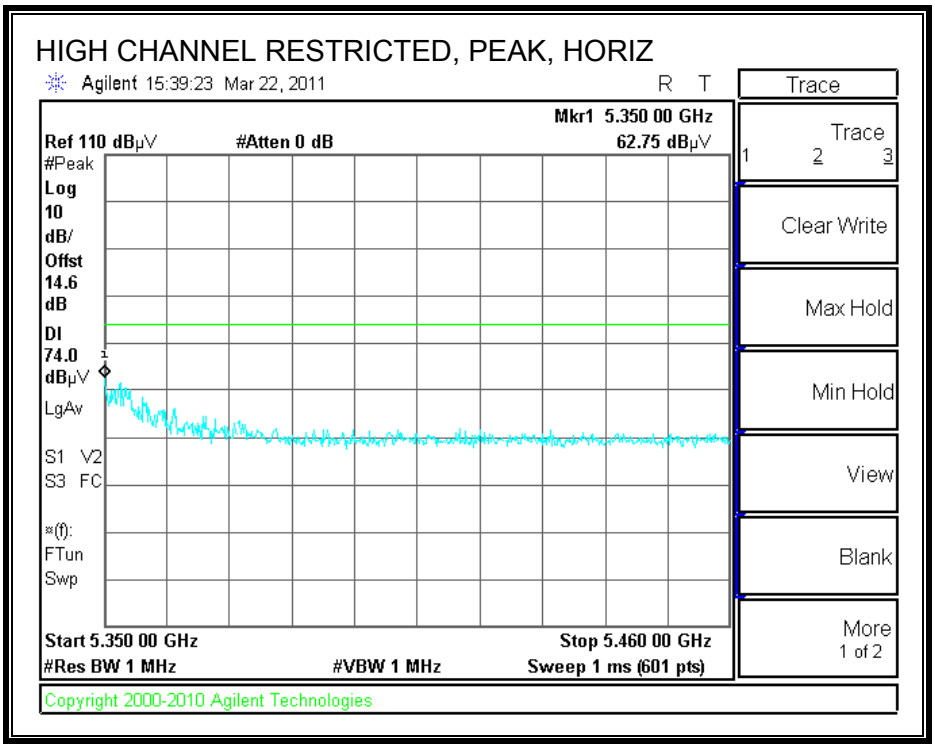
Average Field Strength Limit
Peak Field Strength Limit
Margin vs. Average Limit
Margin vs. Peak Limit

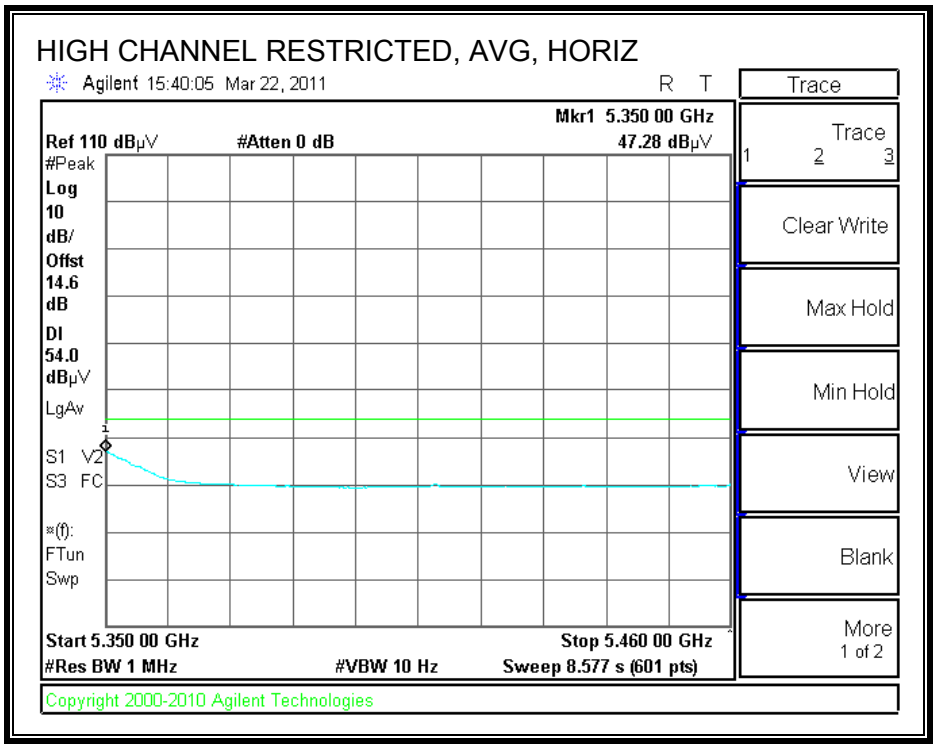
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 5260MHz													
15.780	3.0	33.5	38.2	11.5	-32.2	0.0	0.7	51.7	74.0	-22.3	V	P	
15.780	3.0	21.6	38.2	11.5	-32.2	0.0	0.7	39.8	54.0	-14.2	V	A	
15.780	3.0	33.6	38.2	11.5	-32.2	0.0	0.7	51.7	74.0	-22.3	H	P	
15.780	3.0	21.6	38.2	11.5	-32.2	0.0	0.7	39.8	54.0	-14.2	H	A	
Mid Ch, 5300MHz													
10.600	3.0	49.6	37.5	9.0	-34.3	0.0	0.8	62.6	74.0	-11.4	V	P	
10.600	3.0	36.0	37.5	9.0	-34.3	0.0	0.8	49.0	54.0	-5.0	V	A	
15.900	3.0	33.9	37.9	11.5	-32.2	0.0	0.7	51.8	74.0	-22.2	V	P	
15.900	3.0	21.5	37.9	11.5	-32.2	0.0	0.7	39.5	54.0	-14.5	V	A	
10.600	3.0	49.9	37.5	9.0	-34.3	0.0	0.8	62.9	74.0	-11.1	H	P	
10.600	3.0	36.3	37.5	9.0	-34.3	0.0	0.8	49.4	54.0	-4.6	H	A	
15.900	3.0	33.9	37.9	11.5	-32.2	0.0	0.7	51.8	74.0	-22.2	H	P	
15.900	3.0	21.5	37.9	11.5	-32.2	0.0	0.7	39.4	54.0	-14.6	H	A	
High Ch, 5320MHz													
10.640	3.0	50.9	37.6	9.1	-34.2	0.0	0.8	64.1	74.0	-9.9	V	P	
10.640	3.0	36.0	37.6	9.1	-34.2	0.0	0.8	49.1	54.0	-4.9	V	A	
15.960	3.0	33.7	37.7	11.5	-32.2	0.0	0.7	51.5	74.0	-22.5	V	P	
15.960	3.0	21.6	37.7	11.5	-32.2	0.0	0.7	39.4	54.0	-14.6	V	A	
10.640	3.0	52.3	37.6	9.1	-34.2	0.0	0.8	65.4	74.0	-8.6	H	P	
10.640	3.0	37.9	37.6	9.1	-34.2	0.0	0.8	51.0	54.0	-3.0	H	A	
15.960	3.0	33.4	37.7	11.5	-32.2	0.0	0.7	51.2	74.0	-22.8	H	P	
15.960	3.0	21.5	37.7	11.5	-32.2	0.0	0.7	39.3	54.0	-14.7	H	A	

Rev. 4.1.2.7
Note: No other emissions were detected above the system noise floor.

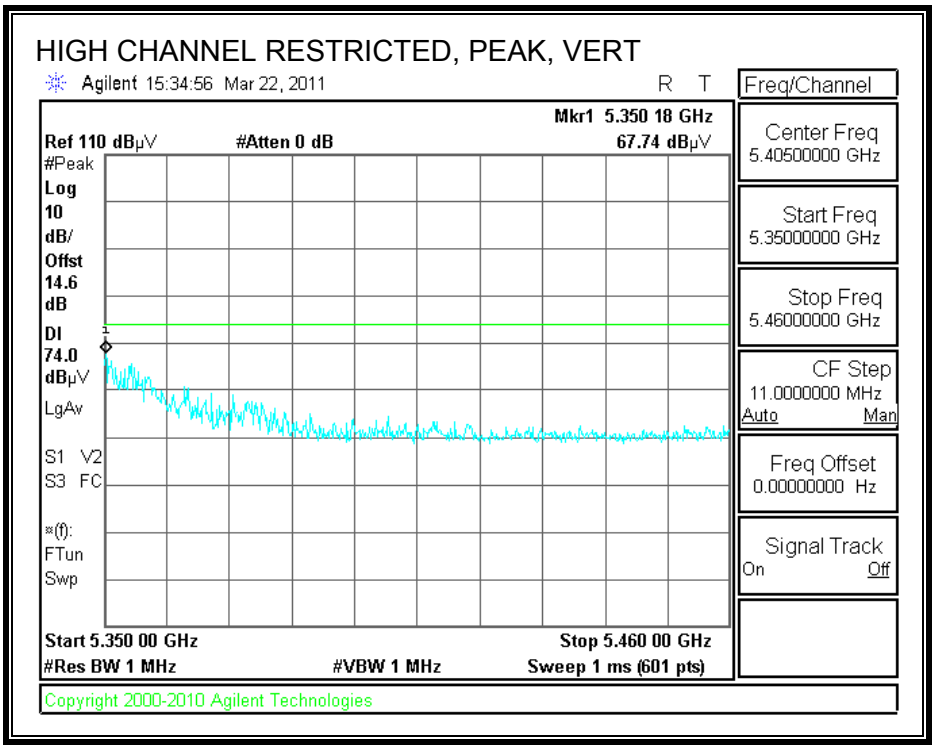
8.2.6. 802.11n HT40 SISO MODE IN THE UPPER 5.3 GHz BAND

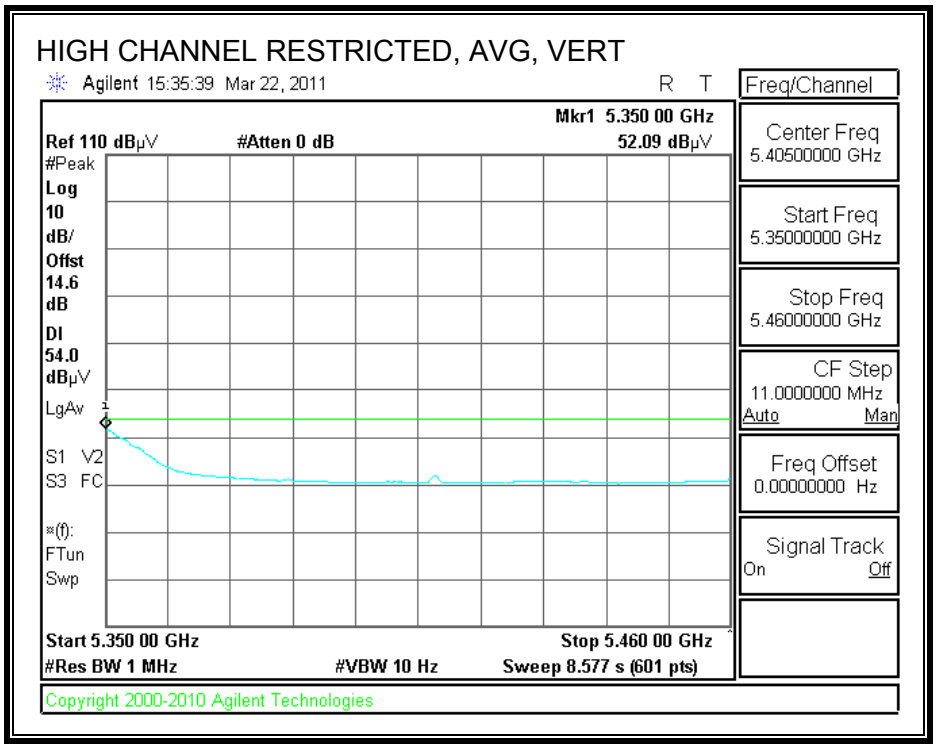
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 03-23-11
Project #: 11U13622
Company: Palm
Test Target: FCC 15.407
Mode Oper: 5.3Ghz Band, HT40, TX

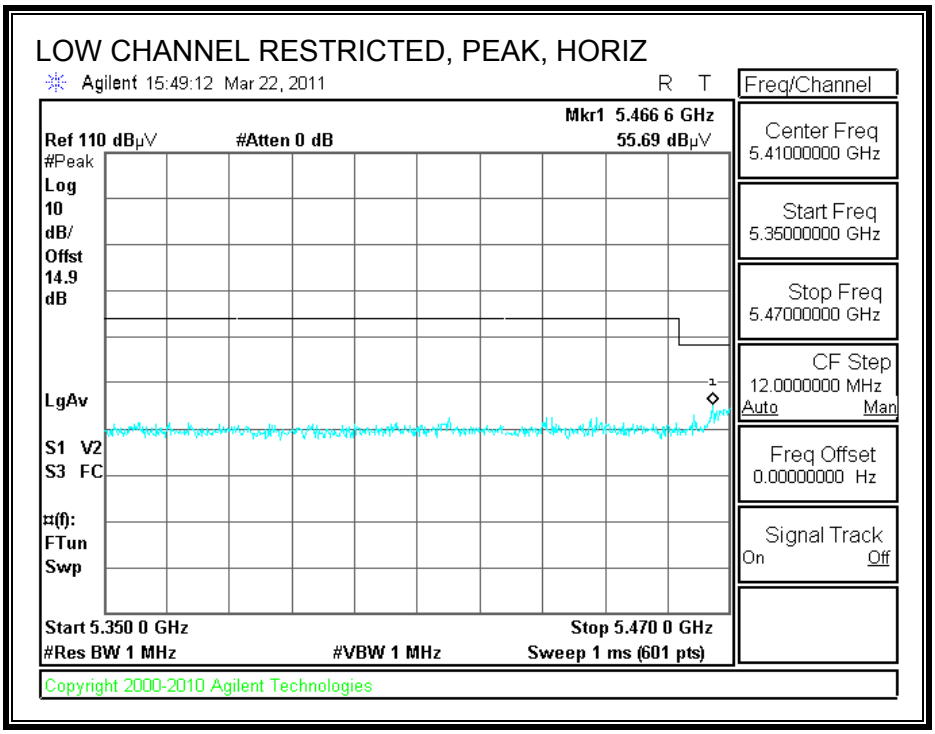
f	Measurement Frequency	Amp	Preamp Gain		Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters		Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m		Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength		Margin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

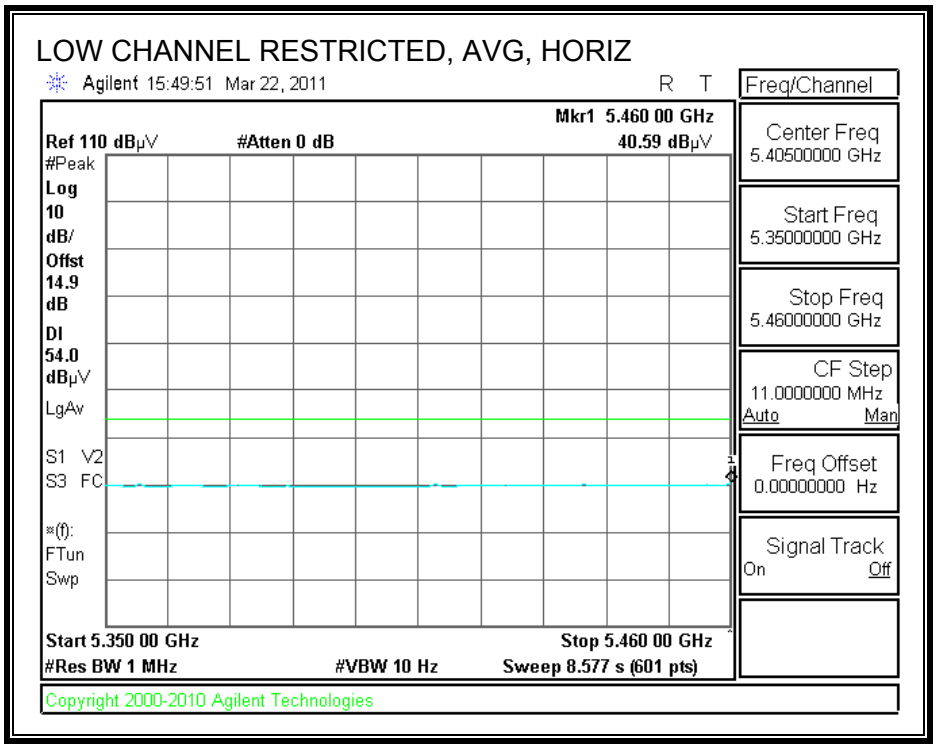
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 5270MHz													
15.810	3.0	33.7	38.2	11.5	-32.2	0.0	0.7	51.9	74.0	-22.1	H	P	
15.810	3.0	21.6	38.2	11.5	-32.2	0.0	0.7	39.7	54.0	-14.3	H	A	
15.810	3.0	33.6	38.2	11.5	-32.2	0.0	0.7	51.7	74.0	-22.3	V	P	
15.810	3.0	21.5	38.2	11.5	-32.2	0.0	0.7	39.7	54.0	-14.3	V	A	
High Ch, 5310MHz													
10.620	3.0	47.0	37.5	9.1	-34.3	0.0	0.8	60.1	74.0	-13.9	H	P	
10.620	3.0	35.1	37.5	9.1	-34.3	0.0	0.8	48.2	54.0	-5.8	H	A	
15.930	3.0	35.0	37.8	11.5	-32.2	0.0	0.7	52.9	74.0	-21.1	H	P	
15.930	3.0	21.7	37.8	11.5	-32.2	0.0	0.7	39.5	54.0	-14.5	H	A	
10.620	3.0	46.7	37.5	9.1	-34.3	0.0	0.8	59.8	74.0	-14.2	V	P	
10.620	3.0	34.5	37.5	9.1	-34.3	0.0	0.8	47.6	54.0	-6.4	V	A	
15.930	3.0	33.9	37.8	11.5	-32.2	0.0	0.7	51.8	74.0	-22.2	V	P	
15.930	3.0	21.6	37.8	11.5	-32.2	0.0	0.7	39.5	54.0	-14.5	V	A	

Rev. 4.1.2.7
Note: No other emissions were detected above the system noise floor.

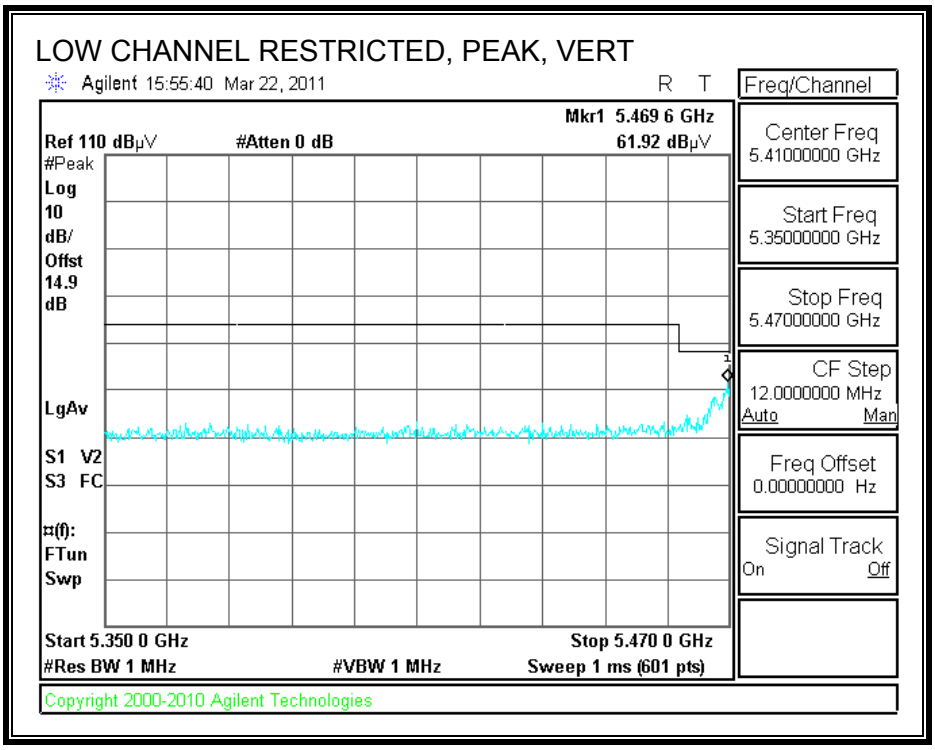
8.2.7. 802.11a MODE IN THE 5.6 GHz BAND

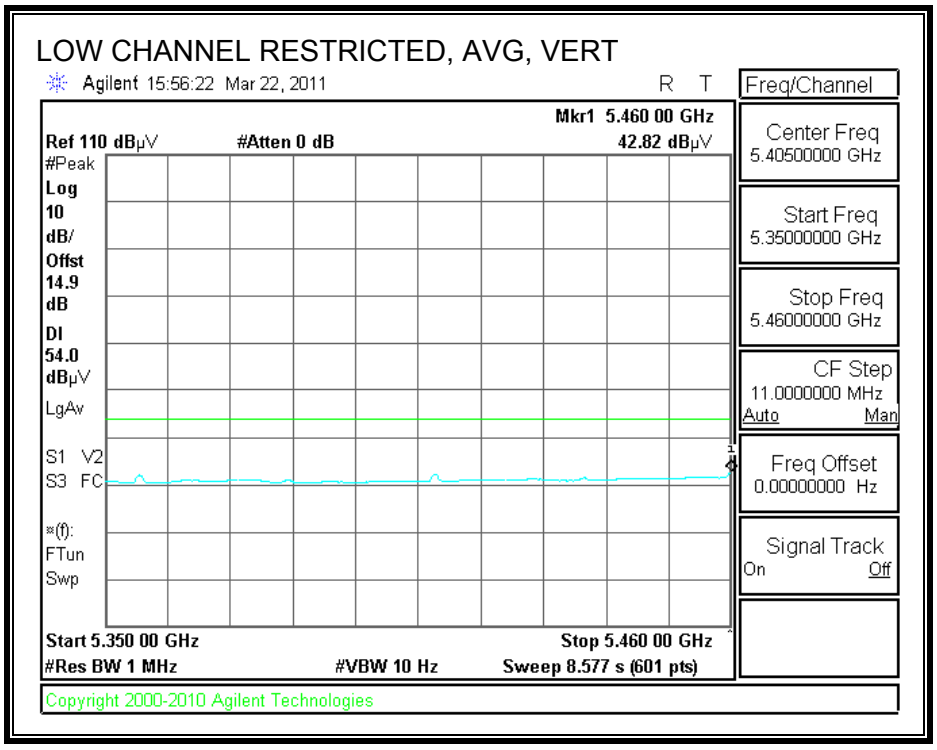
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



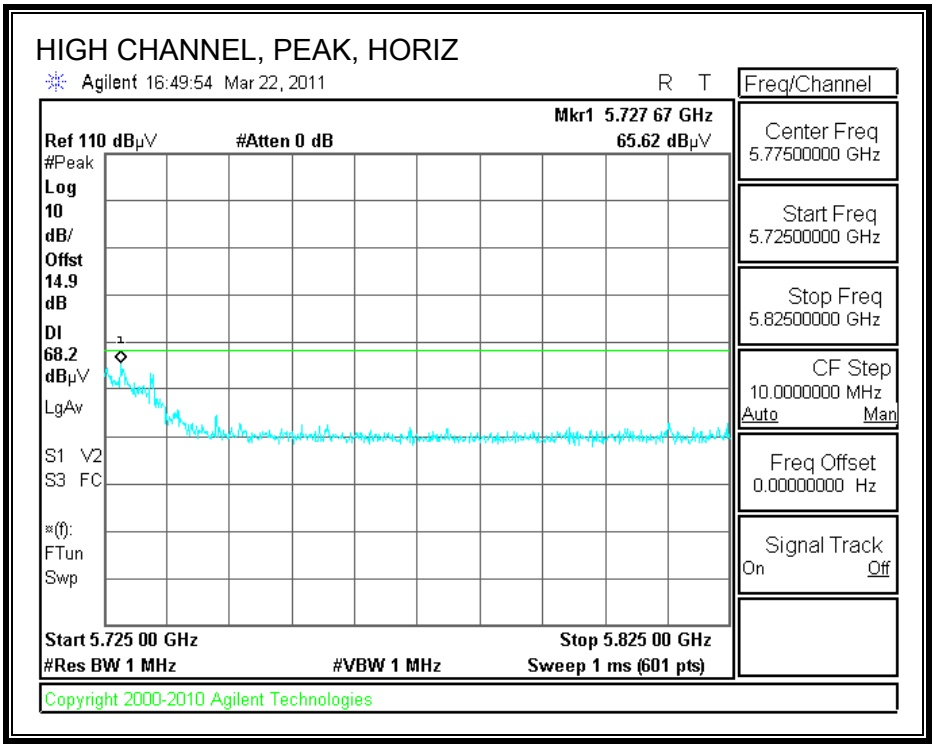


RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

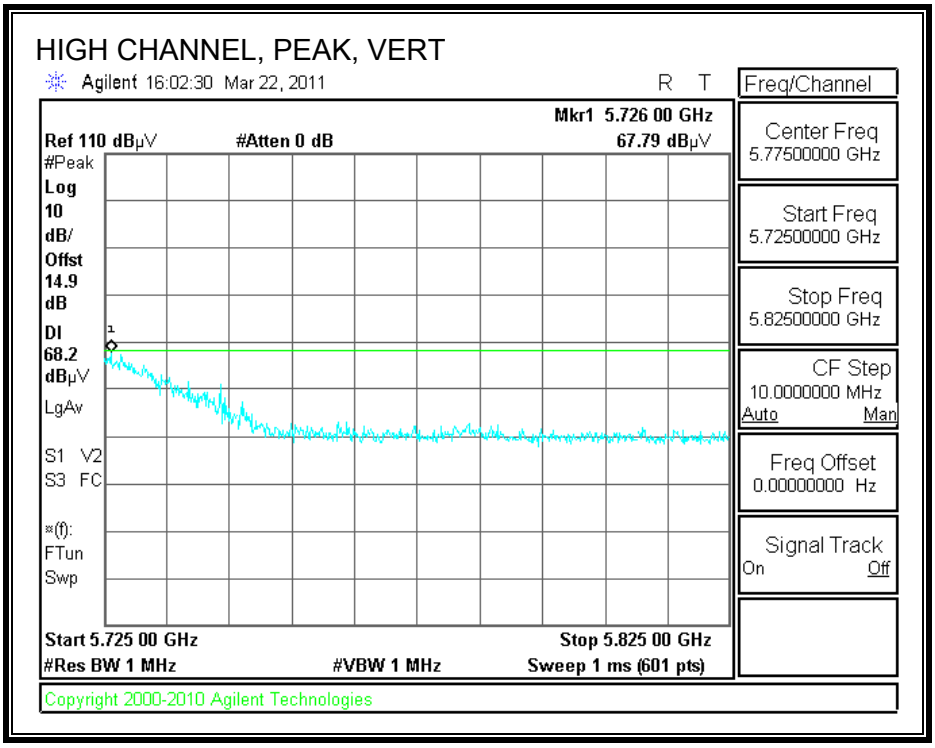




AUTHORIZED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



AUTHORIZED BANDEDGE (HIGH CHANNEL, VERTICAL)



HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 03-23-11
Project #: 11U13622
Company: Palm
Test Target: FCC 15.407
Mode Oper: 5.6GHz Band, Legacy, TX

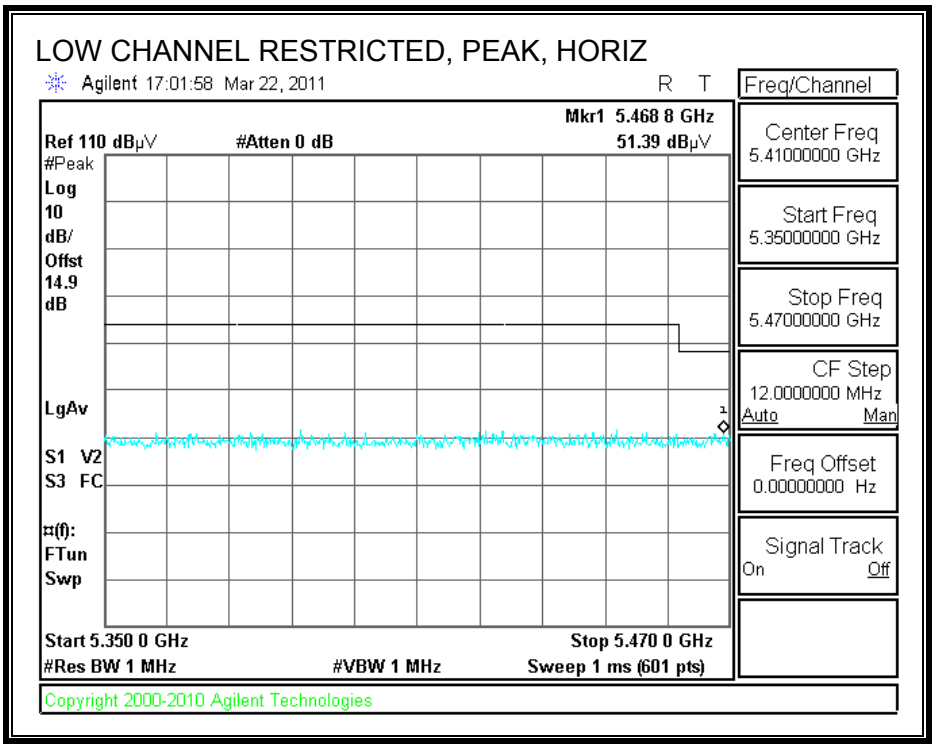
f	Measurement Frequency	Amp	Preamp Gain	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Margin vs.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

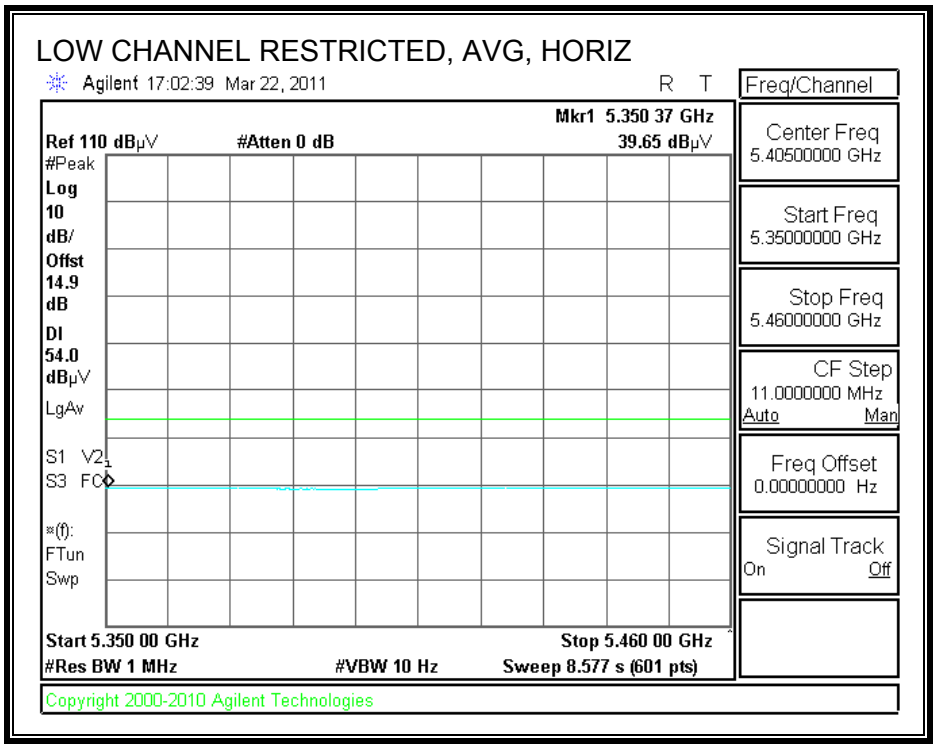
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 5500MHz													
11.000	3.0	44.2	37.7	9.2	-33.8	0.0	0.7	58.2	74.0	-15.8	H	P	
11.000	3.0	32.0	37.7	9.2	-33.8	0.0	0.7	45.9	54.0	-8.1	H	A	
11.000	3.0	42.9	37.7	9.2	-33.8	0.0	0.7	56.8	74.0	-17.2	V	P	
11.000	3.0	30.7	37.7	9.2	-33.8	0.0	0.7	44.6	54.0	-9.4	V	A	
Mid Ch, 5600MHz													
11.200	3.0	35.0	37.9	9.3	-33.5	0.0	0.7	49.5	74.0	-24.5	H	P	
11.200	3.0	22.3	37.9	9.3	-33.5	0.0	0.7	36.8	54.0	-17.2	H	A	
11.200	3.0	35.9	37.9	9.3	-33.5	0.0	0.7	50.3	74.0	-23.7	V	P	
11.200	3.0	23.5	37.9	9.3	-33.5	0.0	0.7	37.9	54.0	-16.1	V	A	
High Ch, 5700MHz													
11.400	3.0	34.5	38.0	9.4	-33.2	0.0	0.7	49.4	74.0	-24.6	H	P	
11.400	3.0	22.1	38.0	9.4	-33.2	0.0	0.7	37.0	54.0	-17.0	H	A	
11.400	3.0	34.0	38.0	9.4	-33.2	0.0	0.7	49.0	74.0	-25.0	V	P	
11.400	3.0	22.2	38.0	9.4	-33.2	0.0	0.7	37.1	54.0	-16.9	V	A	

Rev. 4.1.2.7
Note: No other emissions were detected above the system noise floor.

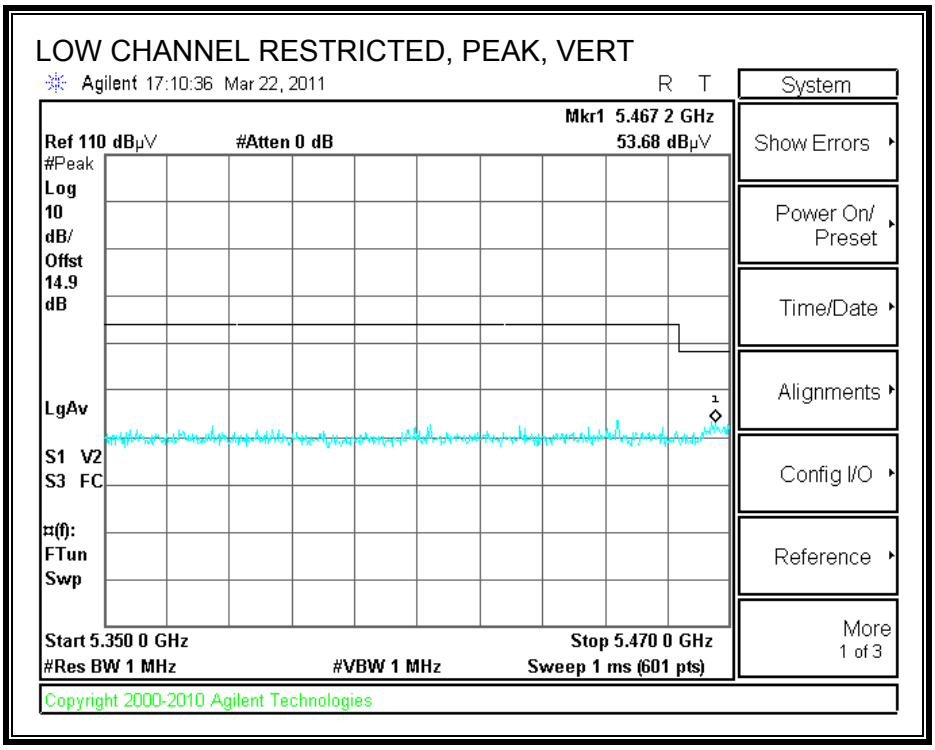
8.2.8. 802.11n HT20 SISO MODE IN THE 5.6 GHz BAND

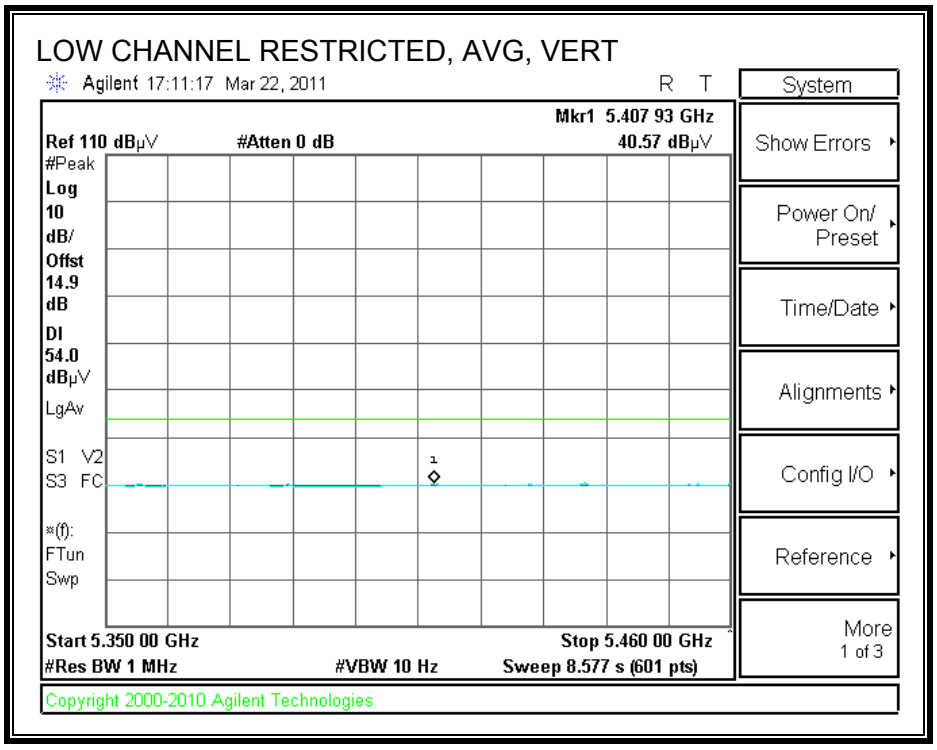
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



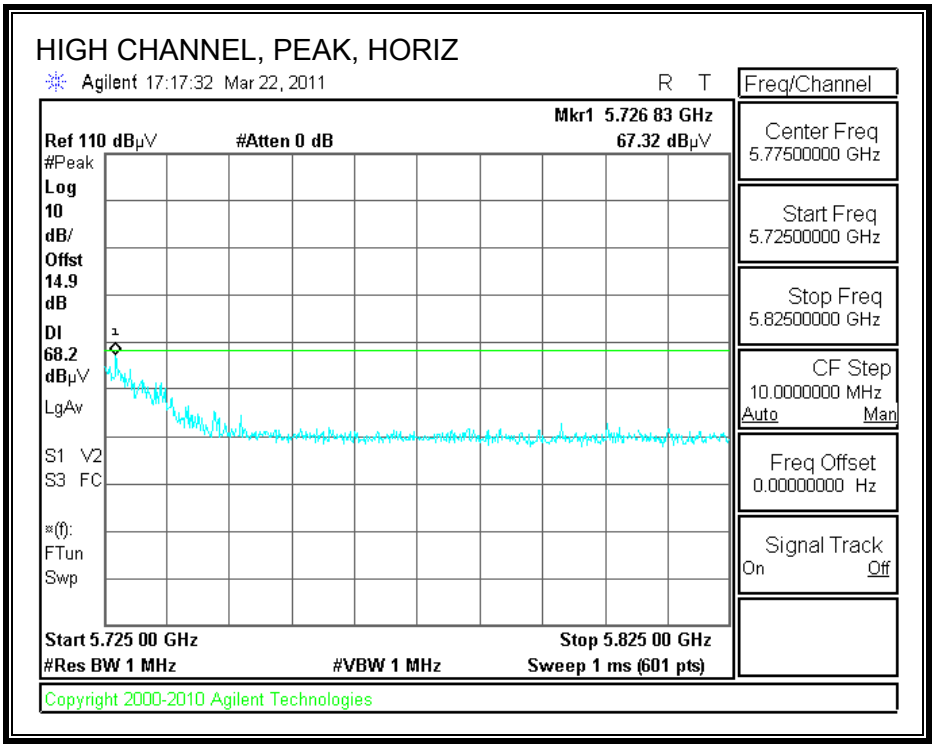


RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

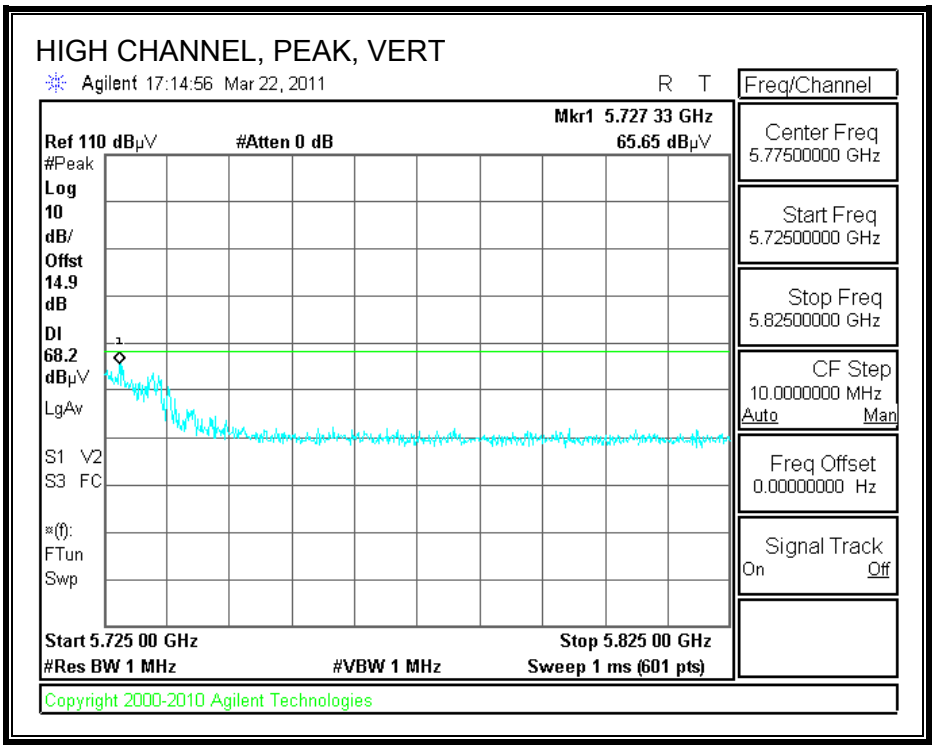




AUTHORIZED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



AUTHORIZED BANDEDGE (HIGH CHANNEL, VERTICAL)



HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 03-23-11
Project #: 11U13622
Company: Palm
Test Target: FCC 15.407
Mode Oper: 5.6GHz Band, HT20, TX

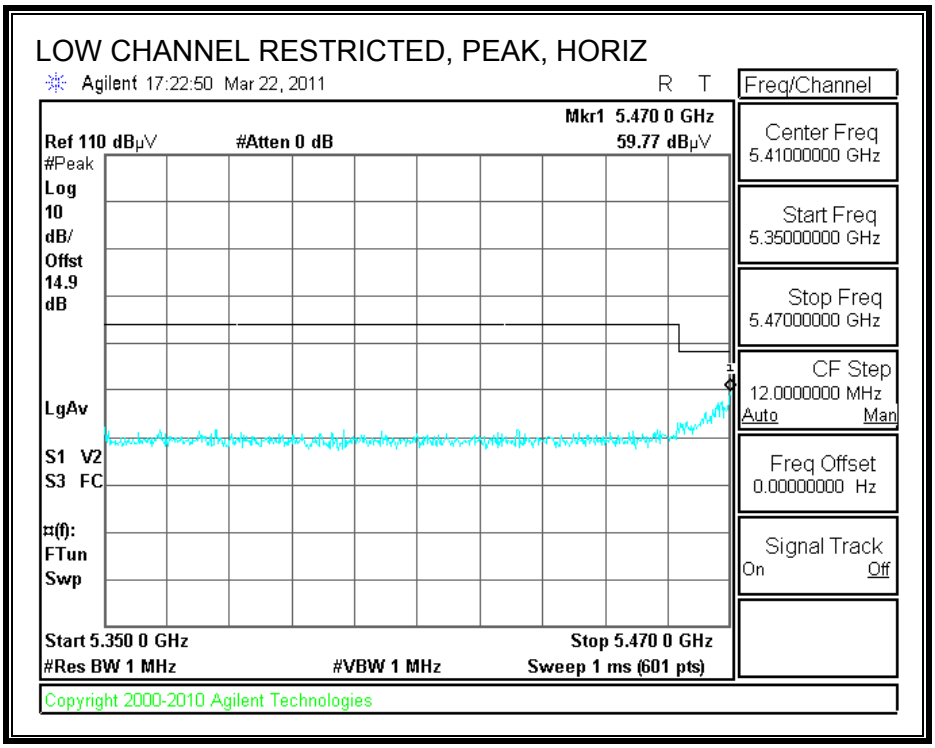
f	Measurement Frequency	Amp	Preamp Gain	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Margin vs.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

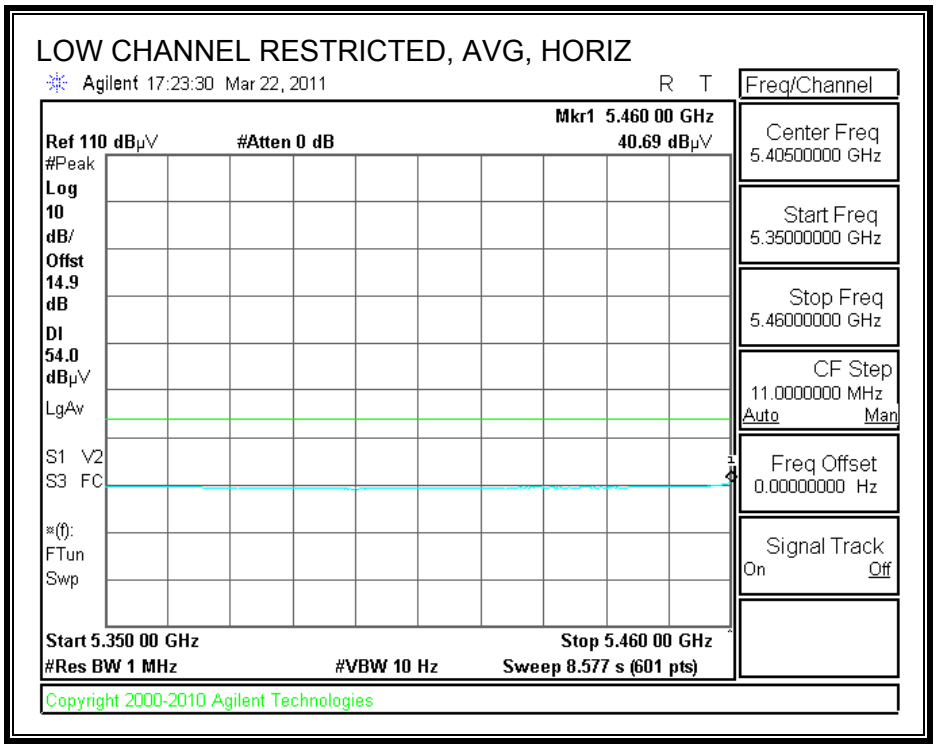
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 5500MHz													
11.000	3.0	42.3	37.7	9.2	-33.8	0.0	0.7	56.2	74.0	-17.8	V	P	
11.000	3.0	28.9	37.7	9.2	-33.8	0.0	0.7	42.8	54.0	-11.2	V	A	
11.000	3.0	43.5	37.7	9.2	-33.8	0.0	0.7	57.4	74.0	-16.6	H	P	
11.000	3.0	29.3	37.7	9.2	-33.8	0.0	0.7	43.3	54.0	-10.7	H	A	
Mid Ch, 5600MHz													
11.200	3.0	35.1	37.9	9.3	-33.5	0.0	0.7	49.5	74.0	-24.5	V	P	
11.200	3.0	22.9	37.9	9.3	-33.5	0.0	0.7	37.3	54.0	-16.7	V	A	
11.200	3.0	34.2	37.9	9.3	-33.5	0.0	0.7	48.6	74.0	-25.4	H	P	
11.200	3.0	22.6	37.9	9.3	-33.5	0.0	0.7	37.0	54.0	-17.0	H	A	
High Ch, 5700MHz													
11.400	3.0	34.0	38.0	9.4	-33.2	0.0	0.7	48.9	74.0	-25.1	V	P	
11.400	3.0	22.1	38.0	9.4	-33.2	0.0	0.7	37.0	54.0	-17.0	V	A	
11.400	3.0	34.2	38.0	9.4	-33.2	0.0	0.7	49.2	74.0	-24.8	H	P	
11.400	3.0	22.0	38.0	9.4	-33.2	0.0	0.7	36.9	54.0	-17.1	H	A	

Rev. 4.1.2.7
Note: No other emissions were detected above the system noise floor.

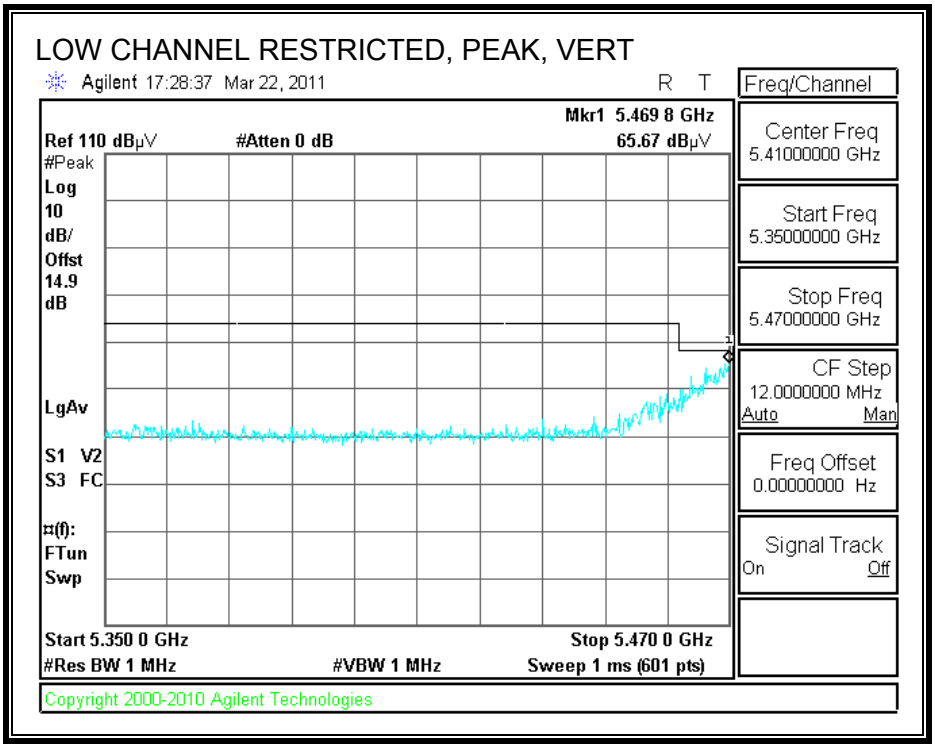
8.2.9. 802.11n HT40 SISO MODE IN THE 5.6 GHz BAND

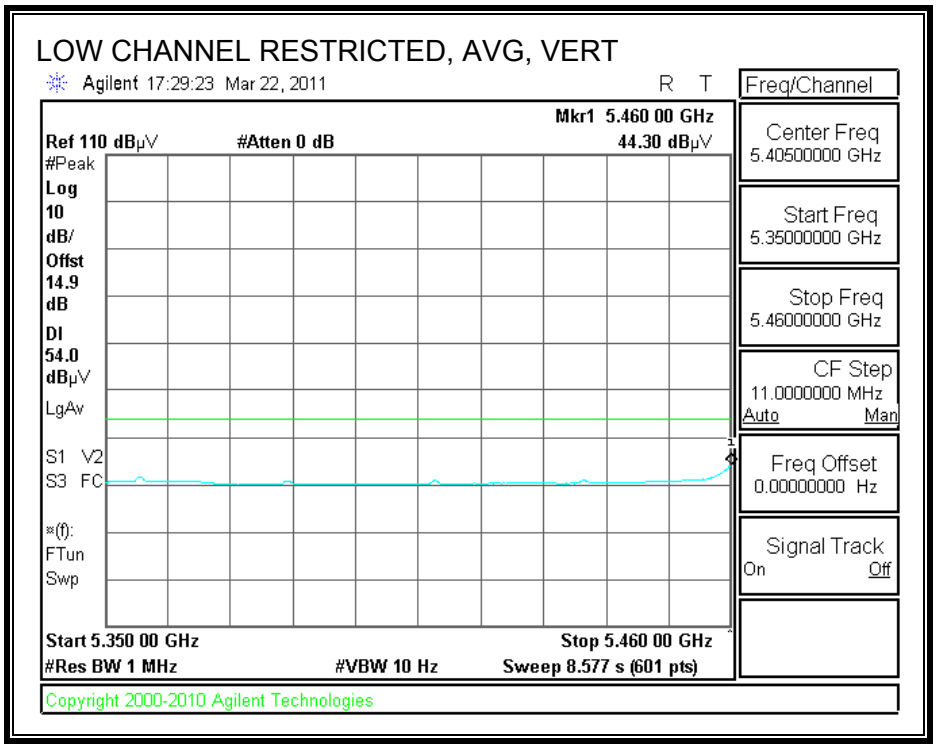
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



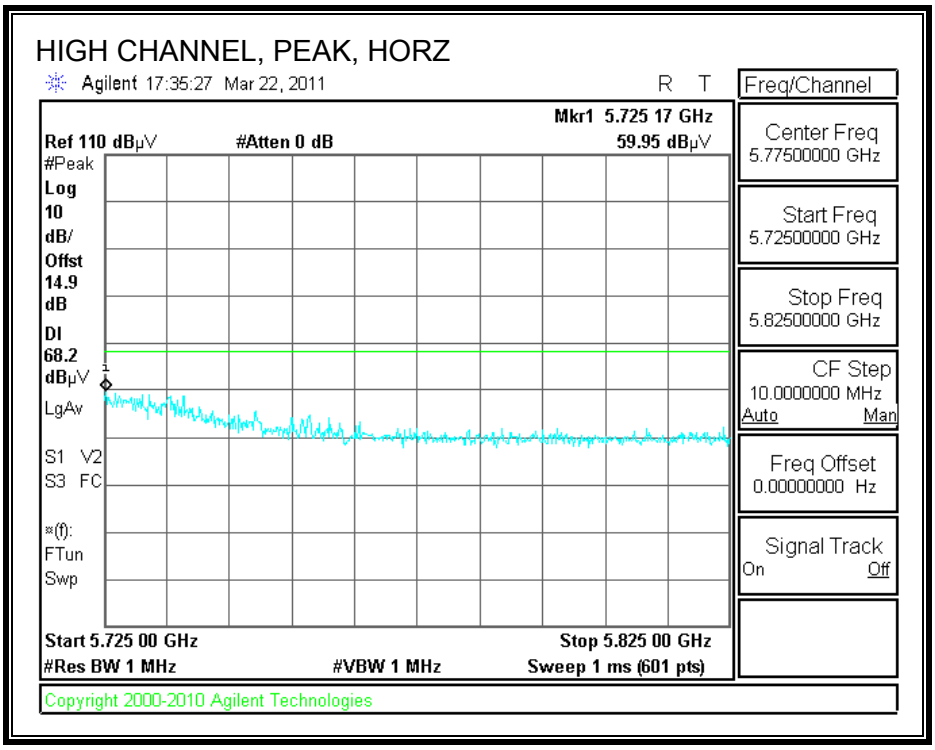


RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

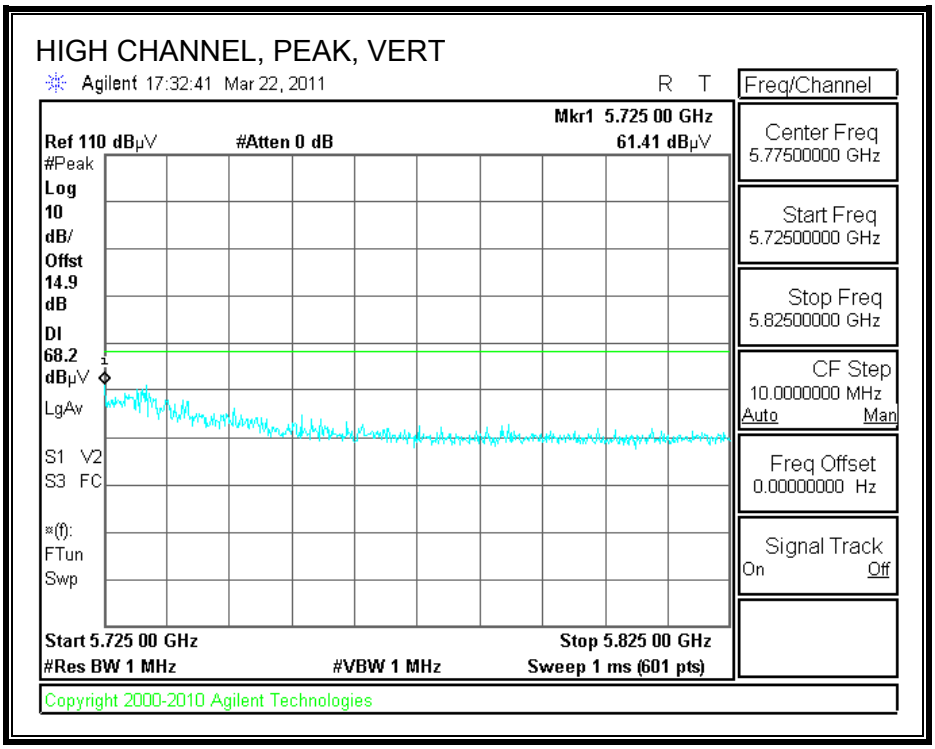




AUTHORIZED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



AUTHORIZED BANDEDGE (HIGH CHANNEL, VERTICAL)



HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 03-24-11
Project #: 11u13622
Company: Palm
Test Target: FCC 15.407
Mode Oper: 5.6GHz, HT40, TX

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

f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 5510MHz													
11.020	3.0	39.9	37.7	9.2	-33.7	0.0	0.7	53.9	74.0	-20.1	H	P	
11.020	3.0	28.7	37.7	9.2	-33.7	0.0	0.7	42.6	54.0	-11.4	H	A	
11.020	3.0	38.9	37.7	9.2	-33.7	0.0	0.7	52.9	74.0	-21.1	V	P	
11.020	3.0	27.8	37.7	9.2	-33.7	0.0	0.7	41.7	54.0	-12.3	V	A	
Mid Ch, 5590MHz													
11.180	3.0	36.1	37.8	9.3	-33.5	0.0	0.7	50.5	74.0	-23.5	V	P	
11.180	3.0	23.9	37.8	9.3	-33.5	0.0	0.7	38.3	54.0	-15.7	V	A	
11.180	3.0	35.8	37.8	9.3	-33.5	0.0	0.7	50.2	74.0	-23.8	H	P	
11.180	3.0	22.7	37.8	9.3	-33.5	0.0	0.7	37.1	54.0	-16.9	H	A	
High Ch, 5670MHz													
11.340	3.0	34.2	38.0	9.4	-33.3	0.0	0.7	49.0	74.0	-25.0	H	P	
11.340	3.0	22.2	38.0	9.4	-33.3	0.0	0.7	36.9	54.0	-17.1	H	A	
11.340	3.0	35.3	38.0	9.4	-33.3	0.0	0.7	50.0	74.0	-24.0	V	P	
11.340	3.0	22.2	38.0	9.4	-33.3	0.0	0.7	36.9	54.0	-17.1	V	A	

Rev. 4.1.2.7
Note: No other emissions were detected above the system noise floor.

8.3. RECEIVER ABOVE 1 GHz

8.3.1. FOR 20 MHz BANDWIDTH IN THE 5 GHz BAND

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Company:	Palm
Project #:	11U13622
Date:	04-01-11
Test Engineer:	Chin Pang
Configuration:	EUT and AC Adapter
Mode:	RX, 20MHz

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz	Limit
T59; S/N: 3245 @3m	T145 Agilent 3008A0056			RX RSS 210

Hi Frequency Cables

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

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

f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
1.133	3.0	52.7	31.6	24.4	2.5	-36.0	0.0	0.0	43.6	22.5	74	54	-30.4	-31.5	V
3.250	3.0	45.8	30.0	30.6	4.6	-35.1	0.0	0.0	45.8	30.0	74	54	-28.2	-24.0	V
1.053	3.0	48.6	29.3	24.1	2.4	-36.1	0.0	0.0	39.0	19.7	74	54	-35.0	-34.3	H
1.660	3.0	46.9	32.0	26.4	3.1	-35.7	0.0	0.0	40.7	25.8	74	54	-33.3	-28.2	H

Rev. 07.22.09

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		

8.3.2. FOR 40 MHz BANDWIDTH IN THE 5 GHz BAND

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Company: Palm
Project #: 11U13622
Date: 04-01-11
Test Engineer: Chin Pang
Configuration: EUT and AC Adapter
Mode: RX, HT40MHz

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz	Limit
T59; S/N: 3245 @3m	T145 Agilent 3008A0056			RX RSS 210

Hi Frequency Cables

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

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

f GHz	Dist (m)	Read Pk dBuV	Read Avg dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
1.160	3.0	56.0	31.5	24.5	2.6	-36.0	0.0	0.0	47.0	22.5	74	54	-27.0	-31.5	V
2.560	3.0	48.0	29.6	28.7	4.0	-35.1	0.0	0.0	45.5	27.1	74	54	-28.5	-26.9	V
3.485	3.0	45.0	30.0	31.0	4.7	-35.0	0.0	0.0	45.8	30.8	74	54	-28.2	-23.2	V
1.223	3.0	50.0	30.0	24.8	2.6	-36.0	0.0	0.0	41.4	21.4	74	54	-32.6	-32.6	H
2.260	3.0	45.0	29.5	28.0	3.7	-35.2	0.0	0.0	41.5	26.0	74	54	-32.5	-28.0	H

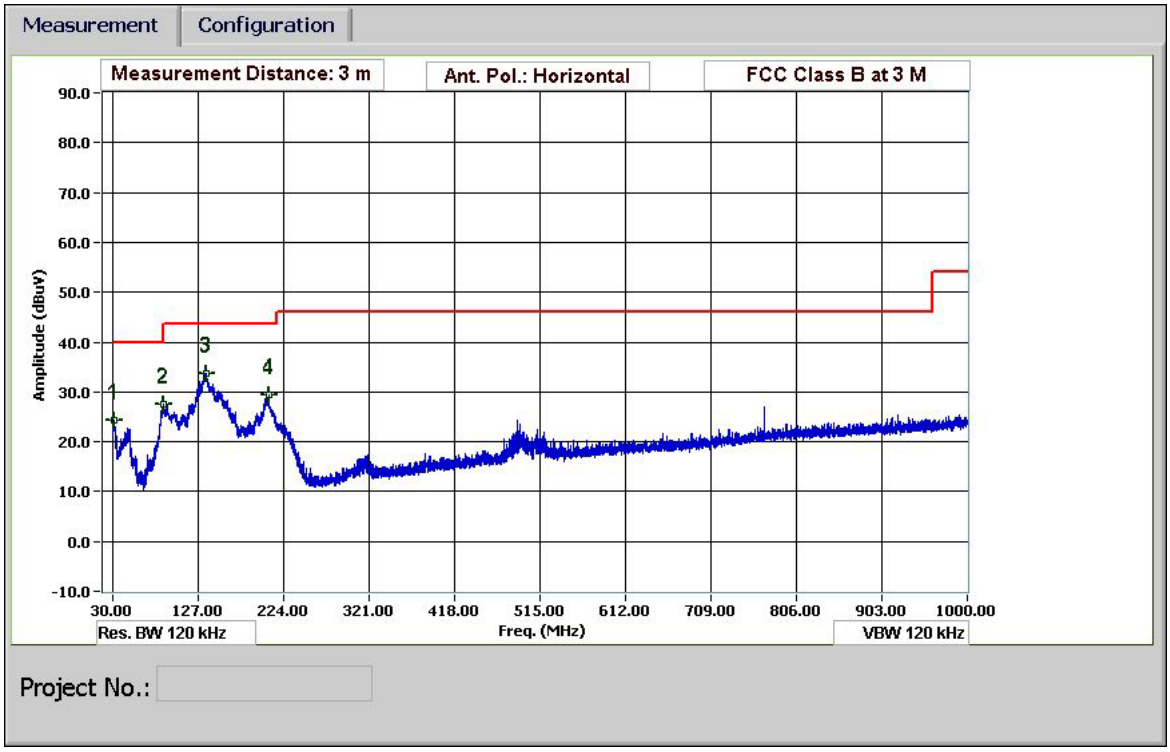
Rev. 07.22.09

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		

8.4. WORST-CASE BELOW 1 GHz

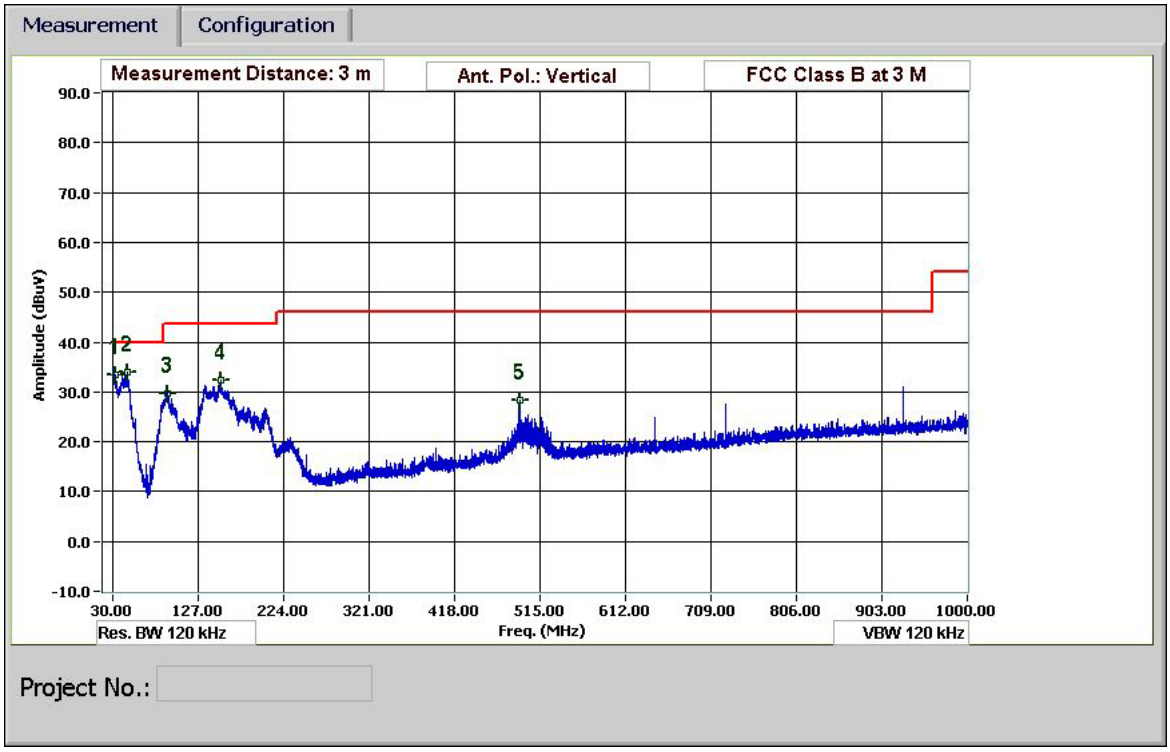
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION)

HORIZONTAL PLOT



RADIATED EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)

VERTICAL PLOT



RADIATED EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION)

HORIZONTAL AND VERTICAL DATA

30-1000MHz Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 04-01-11
Project #: 11U13622
Company: Palm
Test Target: FCC 15C
Mode Oper: TX, 5GHz Band (Worst Case)

f	Measurement Frequency	Amp	Preamp Gain	Margin	Margin vs. Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters		
Read	Analyzer Reading	Filter	Filter Insert Loss		
AF	Antenna Factor	Corr.	Calculated Field Strength		
CL	Cable Loss	Limit	Field Strength Limit		

f MHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Pad dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
vert													
30.48	3.0	46.7	20.1	0.5	29.7	0.0	0.0	37.7	40.0	-2.3	V	P	
30.48	3.0	41.5	20.1	0.5	29.7	0.0	0.0	32.5	40.0	-7.5	V	QP	
54.961	3.0	52.2	7.9	0.6	29.6	0.0	0.0	31.1	40.0	-8.9	V	P	
135.604	3.0	45.3	13.4	1.0	29.4	0.0	0.0	30.4	43.5	-13.1	V	P	
389.415	3.0	38.1	14.8	1.9	29.2	0.0	0.0	25.6	46.0	-20.4	V	P	
456.738	3.0	38.1	16.0	2.0	29.5	0.0	0.0	26.6	46.0	-19.4	V	P	
490.579	3.0	37.1	16.6	2.1	29.7	0.0	0.0	26.2	46.0	-19.8	V	P	
32.76	3.0	35.2	19.1	0.5	29.7	0.0	0.0	25.1	40.0	-14.9	H	P	
54.721	3.0	44.4	7.9	0.6	29.6	0.0	0.0	23.3	40.0	-16.7	H	P	
133.684	3.0	44.3	13.5	1.0	29.4	0.0	0.0	29.4	43.5	-14.1	H	P	
319.452	3.0	37.4	13.6	1.7	28.9	0.0	0.0	23.8	46.0	-22.2	H	P	
488.899	3.0	39.1	16.6	2.1	29.7	0.0	0.0	28.1	46.0	-17.9	H	P	

Rev. 1.27.09
Note: No other emissions were detected above the system noise floor.

9. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 7.2.2

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

TEST PROCEDURE

ANSI C63.4

RESULTS

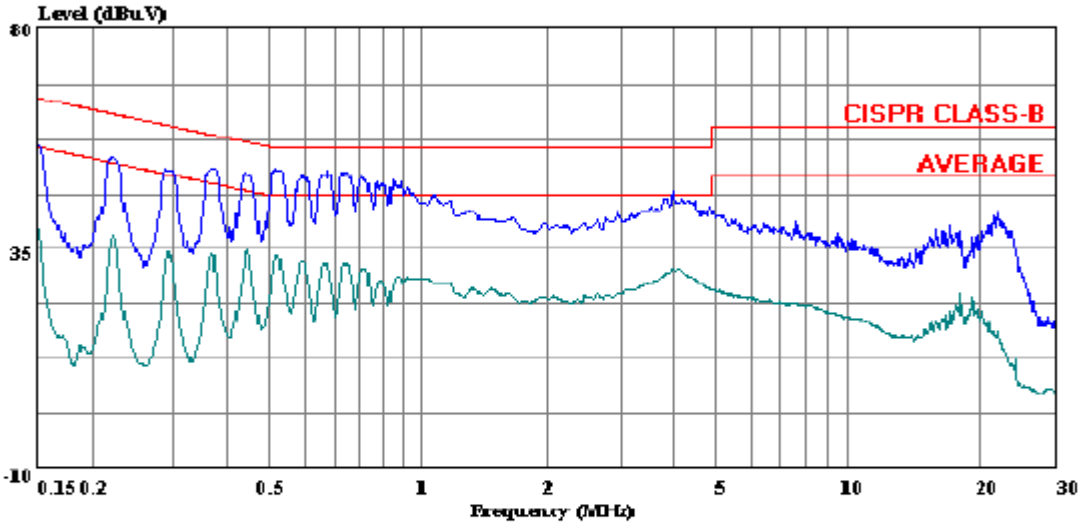
CONDUCTED EMISSIONS DATA (115VAC 60Hz)

Freq.	Reading			Closs	Limit	EN_B	Margin		Remark
(MHz)	PK (dBuV)	QP (dBuV)	AV (dBuV)	(dB)	QP	AV	QP (dB)	AV (dB)	L1 / L2
0.22	53.18	--	27.19	0.00	62.74	52.74	-9.56	-25.55	L1
0.44	51.43	--	34.67	0.00	56.99	46.99	-5.56	-12.32	L1
4.20	46.80	--	30.90	0.00	56.00	46.00	-9.20	-15.10	L1
0.22	52.69	--	36.08	0.00	62.74	52.74	-10.05	-16.66	L2
0.44	51.33	--	32.98	0.00	56.99	46.99	-5.66	-14.01	L2
4.09	44.26	--	22.52	0.00	56.00	46.00	-11.74	-23.48	L2
6 Worst Data									

LINE 1 RESULTS

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

Data#: 119 File#: 11u13622.emi Date: 04-01-2011 Time: 21:10:44



Trace: 117 Ref Trace:

Condition: CISPR CLASS-B
Test Operator : Chin Pang
Project # : 11U13622
Company : Palm
Configuration : EUT with AC Adapter and Earphone
EUT Description: Nemo Verizon WP
Mode : TX , 5GHz (Worst Case)
Target : FCC 15C
Voltage : 115VAC / 60Hz
: L1 Blue (Peak), Green (Average)

LINE 2 RESULTS