FCC 47 CFR PART 15 SUBPART E

CERTIFICATION TEST REPORT

FOR

BCM94709R-H 802.11 a/n/ac Access Point

MODEL NUMBER: BCM94709R-H

FCC ID: QDS-BRCM1092

REPORT NUMBER: 11533147-E1V3

ISSUE DATE: FEBRUARY 27, 2017

Prepared for
BROADCOM CORPORATION
190 MATHILDA PLACE
SUNNYVALE, CA, 94086, U.S.A

Prepared by
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	01/20/17	Initial Issue	C. Vergonio
V2	02/22/17	Updated Section 5.1, added AP Indoor application only Updated 26dB BW, section 8.5.1 plot and test procedure. Updated Section 8.5.2 Limits. Updated Section 8.9.2 Limits frequency range.	C. Vergonio
V3	02/27/17	Updated Section 6, test and measurement equipment list. Updated 26dB BW plot, section 8.5.1. Updated Section 8.5.2, Limits and added notes.	C. Vergonio

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: BROADCOM CORPORATION
190 MATHILDA PLACE
SUNNYVALE, CA 94086, U.S.A

EUT DESCRIPTION: BCM94709R-H 802.11 a/n/ac Access Point

MODEL: BCM94709R-H

SERIAL NUMBER: 2122400 (Conducted) ; 2122423 (Radiated)

DATE TESTED: December 05, 2016 to February 27, 2017

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart E	Pass

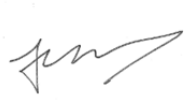
UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services Inc. based on interpretations and/or observations of test results. Measurement 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 Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. 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, or any agency of the U.S. Government.

Approved & Released For
UL Verification Services Inc. By:

CHARLES VERGONIO
PROJECT LEAD
UL Verification Services Inc.

Prepared By:



JASON QIAN
EMC ENGINEER
UL Verification Services Inc.

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10-2013.

3. FACILITIES AND ACCREDITATION

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

The test sites and measurement facilities used to collect data are located at 47173 and 47266 Benicia Street, Fremont, California, USA. Line conducted emissions are measured only at the 47173 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

47173 Benicia Street	47266 Benicia Street
☒ Chamber A	☐ Chamber D
☐ Chamber B	☐ Chamber E
☐ Chamber C	☐ Chamber F
	☐ Chamber G
	☐ Chamber H

The above test sites and facilities are covered under FCC Test Firm Registration # 208313. Chambers A through H are covered under Industry Canada company address code 2324B with site numbers 2324B -1 through 2324B-8, respectively.

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at http://ts.nist.gov/standards/scopes/2000650.htm.

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, 9KHz to 0.15 MHz	3.84 dB
Conducted Disturbance, 0.15 to 30 MHz	3.65 dB
Radiated Disturbance, 9KHz to 30 MHz	3.15 dB
Radiated Disturbance, 30 to 1000 MHz	5.36 dB
Radiated Disturbance,1000 to 18000 MHz	4.32 dB
Radiated Disturbance,18000 to 26000 MHz	4.45 dB
Radiated Disturbance,26000 to 40000 MHz	5.24 dB

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is an BCM94709R-H 802.11 a/n/ac Access Point. The radio module is BCM94366MCH5L 802.11 a/n/ac radio as manufactured by Broadcom Limited. Access Point is for indoor application only.

5.2. MAXIMUM OUTPUT POWER

Beamforming Output Power:

The CDD power was measured, the TXBF antenna array gain needs to be taken into account and this measurement used to define TXBF conducted power. Only TXBF 4TX power needed in report.

The transmitter has a maximum conducted output power as follows:

5.3 GHz BAND

Frequency Range (MHz)	Mode	Power, Chain 0 (dBm)	Power, Chain 1 (dBm)	Power, Chain 2 (dBm)	Power, Chain 3 (dBm)	Output Power (dBm)	Output Power (mW)
5.3 GHz band, 4TX BF							
5270 - 5310	802.11n HT40 BF	16.67	16.76	16.52	17.11	22.79	190.15

5.6 GHz BAND

Frequency Range (MHz)	Mode	Power, Chain 0 (dBm)	Power, Chain 1 (dBm)	Power, Chain 2 (dBm)	Power, Chain 3 (dBm)	Output Power (dBm)	Output Power (mW)
5.6 GHz band, 4TX BF							
5530 - 5690	802.11n HT80 BF	17.71	16.95	17.00	17.41	23.30	213.76

CDD Output Power:

The transmitter has a maximum conducted output power as follows:

5.2 & 5.3 GHz BAND

Frequency Range (MHz)	Mode	Power, Chain 0 (dBm)	Power, Chain 1 (dBm)	Power, Chain 2 (dBm)	Power, Chain 3 (dBm)	Output Power (dBm)	Output Power (mW)
5.2GHz & 5.3GHz, 2TX CDD							
5210	802.11ac HT80+HT80 CDD	16.02	16.05	N/A	N/A	19.05	80.27
5290	802.11ac HT80+HT80 CDD	N/A	N/A	14.56	15.15	17.88	61.31

5.6 GHz BAND

Frequency Range (MHz)	Mode	Power, Chain 0 (dBm)	Power, Chain 1 (dBm)	Power, Chain 2 (dBm)	Power, Chain 3 (dBm)	Output Power (dBm)	Output Power (mW)
5.6 GHz band, 2TX CDD							
5530	802.11ac HT80+HT80 CDD	16.98	17.11	N/A	N/A	20.06	101.29
5610	802.11ac HT80+HT80 CDD	N/A	N/A	17.31	17.43	20.38	109.16

List of test reduction and modes covering other modes:

5.3 GHz BAND

5250 - 5350 MHz Authorized Frequency Band (Antenna Port Testing)		
Frequency Range (MHz)	**Mode**	**Covered By**
5.3 GHz band, 4TX		
5260 - 5320	802.11n HT20 1TX, 2TX, 3TX, 4TX CDD/SDM/STBC	802.11n HT20 4TX BF
5270 - 5310	802.11n HT40 1TX, 2TX, 3TX, 4TX CDD/SDM/STBC	802.11n HT40 4TX BF
5290	802.11ac HT80 1TX, 2TX, 3TX, 4TX CDD/SDM/STBC	802.11ac HT80 4TX BF

5210-5290 MHz Authorized Frequency Band (Antenna Port Testing)		
Frequency Range (MHz)	**Mode**	**Covered By**
5.2 GHz & 5.3 GHz band, 2TX		
5210	802.11ac HT80+HT80 2TX SDM/STBC	802.11ac HT80+HT80 2TX CDD
5290	802.11ac HT80+HT80 2TX SDM/STBC	802.11ac HT80+HT80 2TX CDD

5.6 GHz BAND

5500 - 5720 MHz Authorized Frequency Band (Antenna Port Testing)		
Frequency Range (MHz)	**Mode**	**Covered By**
5.6 GHz band, 4TX		
5500 - 5720	802.11n HT20 1TX, 2TX, 3TX, 4TX CDD/SDM/STBC	802.11n HT20 4TX BF
5510 - 5710	802.11n HT40 1TX, 2TX, 3TX, 4TX CDD/SDM/STBC	802.11n HT40 4TX BF
5530 - 5690	802.11ac HT80 1TX, 2TX, 3TX, 4TX CDD/SDM/STBC	802.11ac HT80 4TX BF

5530-5610 MHz Authorized Frequency Band (Antenna Port Testing)		
Frequency Range (MHz)	**Mode**	**Covered By**
5.6 GHz band, 2TX		
5530	802.11ac HT80+HT80 2TX SDM/STBC	802.11ac HT80+HT80 2TX CDD
5610	802.11ac HT80+HT80 2TX SDM/STBC	802.11ac HT80+HT80 2TX CDD

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes 4 WLAN omni-directional antennas, with a maximum gain of 0.3 dBi.

5.4. SOFTWARE AND FIRMWARE

The test utility software used during testing was PuTTY Ver 0.63.0.0.

The test software used during testing was Broadcom REL 7.14.164.301.

5.5. WORST-CASE CONFIGURATION AND MODE

Radiated emission below 1GHz, above 18GHz, and power line conducted emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

The EUT normal position is placed flat on the turn table with all four antennas pointing up. There was no X, Y, Z worst-case positions investigation needed. Please see setup photos.

Worst-case data rates as provided by the client were:

802.11n HT20 mode: MCS0
802.11n HT40 mode: MCS0
802.11ac HT80 mode: MCS0
802.11ac HT80+HT80 mode: MCS0

Radiated emissions for EUT with antenna was performed and passed; therefore, antenna port spurious was not performed.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Monitor	ASUS	VS197	E2LMTF118423	DoC
Support PCB Board	Broadcom	BCM94709R_1	1766008	DoC
Support PCB Board	Broadcom	BCM94709R_1	1923036	DoC
Linux Laptop	GIGABYTE	P105	1517631219	DoC
AC/DC Adapter	FSP GROUP INC	FSP065-REB	-	DoC
Keyboard	DELL	SK-8135	E145614	DoC
Mouse	Logitech	M100	1510HS03JPK8	DoC
Laptop	Lenovo	G560	CB06427441	DoC
AC/DC Adapter	Lenovo	ADP-65YB B	-	DoC

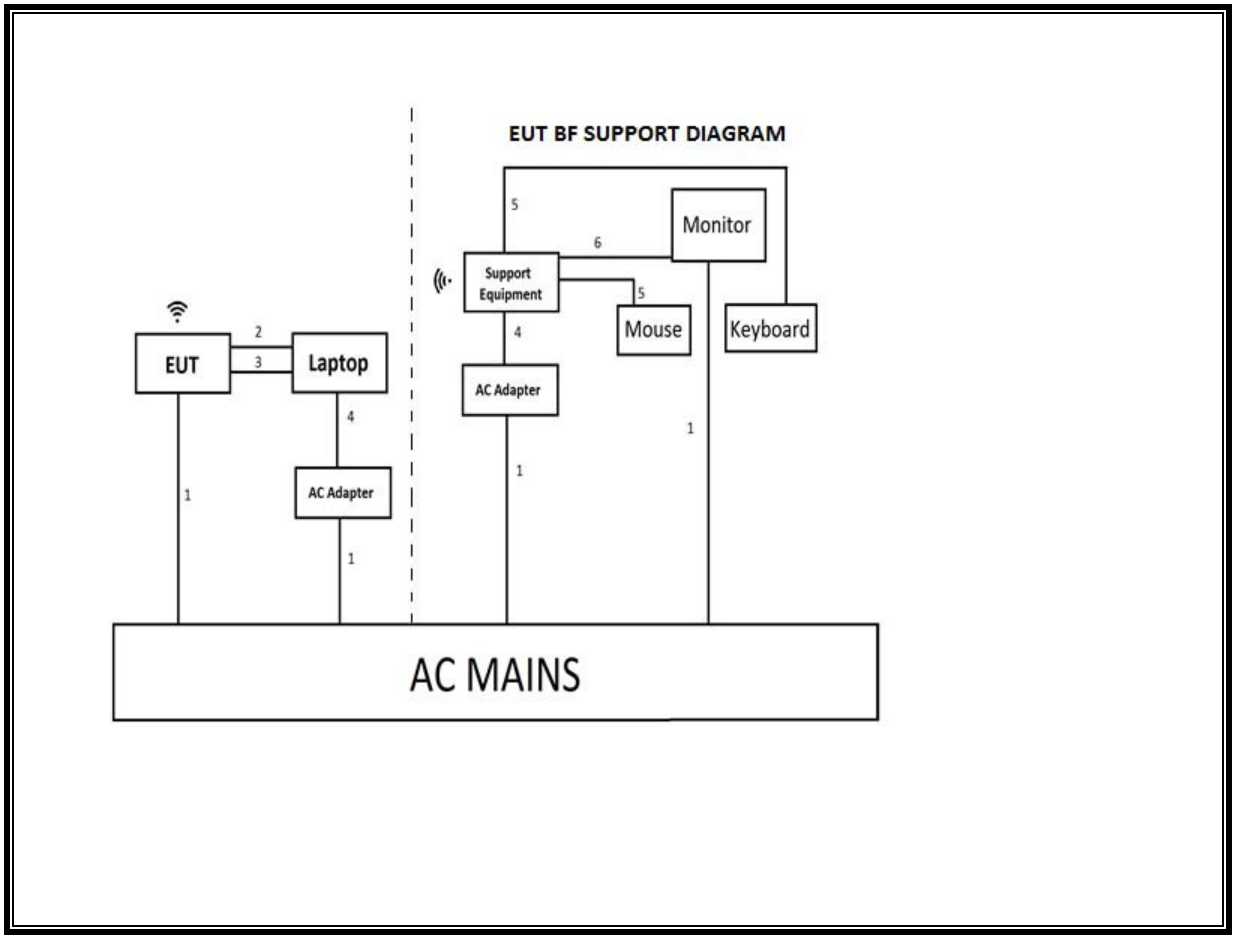
I/O CABLES

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	AC Power	4	AC	Unshielded	1	-
2	USB	1	USB-Serial	Shielded	1	EUT to Laptop
3	Ethernet	1	RJ45	Unshielded	1	EUT to Laptop
4	DC Power	2	DC	Unshielded	1	-
5	USB	2	USB	Unshielded	1	-
6	HDMI	1	HDMI	Shielded	1	-

TEST SETUP

The EUT is installed in a support PCB Board, which is connected to a laptop via a USB-Serial cable during the tests. Test software exercised the radio card.

TEST 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**	**T No.**	**Cal Date**	**Cal Due**
Bilog Antenna 30-1000MHz	Sunol	JB1	899	05/26/16	05/26/17
Horn Antenna 1-18GHz	ETS Lindgren	3117	346	02/22/16	02/22/17
Horn Antenna 18-26GHz	ARA	MWH-1826/B	449	05/26/16	05/26/17
Horn Antenna 26.5- 40GHz	ARA	MWH-2640/B	446	05/25/16	05/25/17
Preamp 10kHz-1000MHz	Sonoma	310	300	11/10/16	11/10/17
Preamp 1-8GHz	Miteq	AMF-4D-01000800-30-29P	1170	04/28/16	04/28/17
Preamp 1-18GHz	Miteq	AFS42-00101800-25-2-42	1165	08/01/16	08/01/17
Preamp 1-26.5GHz	Agilent	8449B	404	07/05/16	07/05/17
Amplifier, 26-40GHz	Miteq	NSP4000-SP2	88	04/07/16	04/17/17
Spectrum Analyzer 26.5GHz	Agilent	E4440A	199	07/22/16	07/22/17
Spectrum Analyzer 40GHz	Agilent	8564E	106	09/07/16	09/07/17
Coaxial Switchbox	Agilent	SP6T	927	02/25/16	02/25/17
EMI Test Receiver	Rohde & Schwarz	ESR-EMI	1436	11/19/16	11/19/17
Spectrum Analzer 44GHz	Agilent	N9030A	908	04/13/16	04/13/17
P-Series Power Meter	Keysight	N1911A	1264	07/08/16	07/08/17
LISN for Conducted Emission	FCC	50/250-25-2	1310	06/08/16	06/08/17
Power Sensor	Agilent	N1921A	1224	03/22/16	03/22/17
RF Switch Box	Agilent	BOX #2	927	03/03/16	03/03/17
Attenuator/Switch Driver	Agilent	11713A	745	03/03/16	03/03/17
Loop Antenna	EMCO	6502	35	03/24/16	03/24/17
Antenna Port Software	UL	UL RF	Ver 4.2, Mar 7, 2016		
Radiated Software	UL	UL EMC	Ver 9.5, June 24, 2015		
Conducted Software	UL	UL EMC	Ver 9.5, Mar 26, 2015		

7. MEASUREMENT METHODS

On Time and Duty Cycle: KDB 789033 D02 v01r03, Section B.

26 dB Emission BW: KDB 789033 D02 v01r03, Section C and KDB 644545 D03 v01, Section D) 1) a).

Conducted Output Power: KDB 789033 D02 v01r03, Section E.3.b (Method PM-G), KDB 662911 D01 v02r01.

Power Spectral Density: KDB 789033 D02 v01r03, Section F, KDB 662911 D01 v02r01.

Unwanted emissions in restricted bands: KDB 789033 D02 v01r03, Sections G.3, G.4, G.5, and G.6.

Unwanted emissions in non-restricted bands: KDB 789033 D02 v01r03, Sections G.3, G.4, and G.5.

Use of IEEE 802.11 channels that straddle the UNII-2C and UNII-3 bands at 5725 MHz: KDB 789033 D02 v01r03, Section III

AC Power Line Conducted Emissions: ANSI C63.10-2013, Section 6.2.

8. ANTENNA PORT TEST RESULTS

8.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

PROCEDURE

KDB 789033 Zero-Span Spectrum Analyzer Method.

ON TIME AND DUTY CYCLE RESULTS

CDD (for conducted)

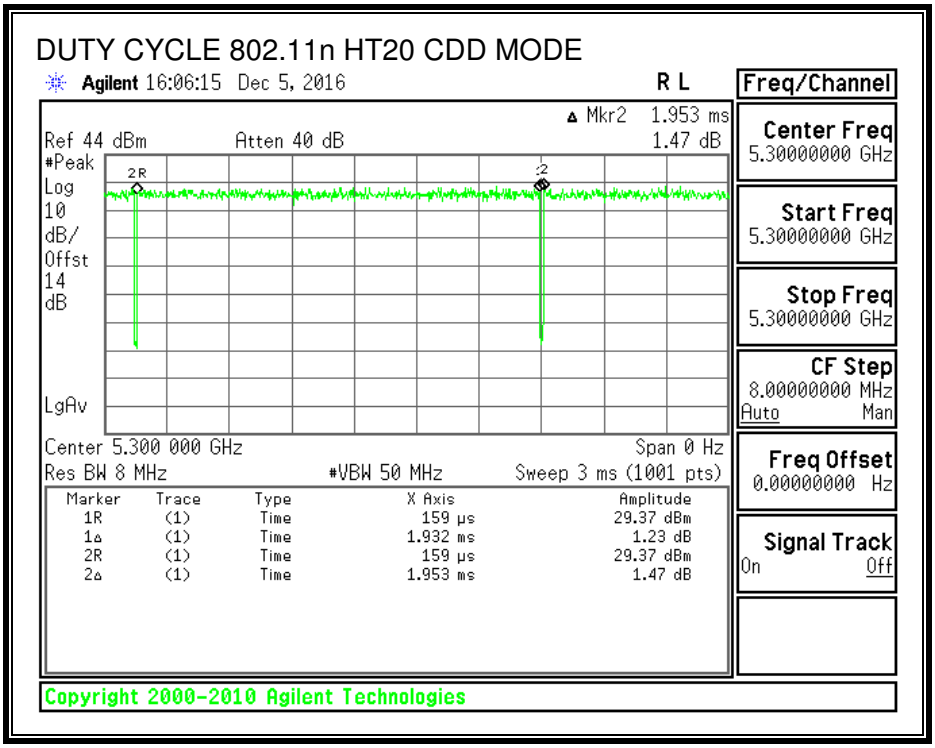
Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
802.11n HT20 CDD	1.9320	1.9530	0.989	98.92%	0.00	0.01
802.11n HT40 CDD	0.9460	0.9720	0.973	97.33%	0.12	1.06
802.11ac HT80 CDD	0.4600	0.4800	0.958	95.83%	0.18	2.17
802.11ac HT80+HT80 CDD	0.2512	0.2712	0.926	92.63%	0.33	3.98

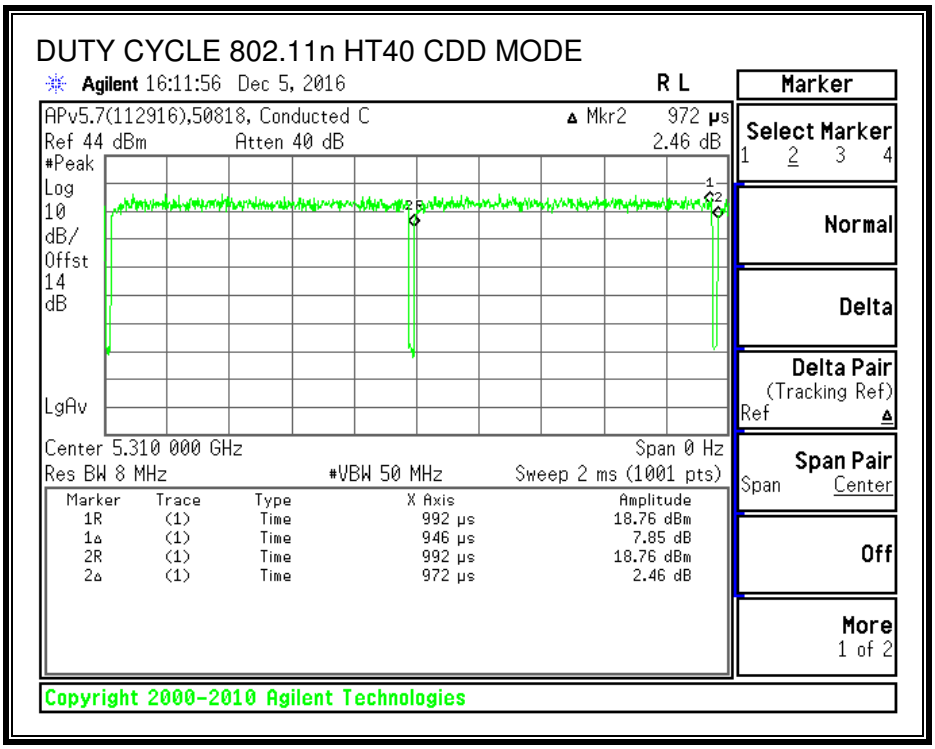
TXBF (for radiated)

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
802.11n HT20 TxBF	3.8520	4.1520	0.928	92.77%	0.33	0.260
802.11n HT40 TxBF	4.6200	4.9500	0.933	93.33%	0.30	0.216
802.11ac HT80 TxBF	5.1300	5.4300	0.945	94.48%	0.25	0.195
802.11ac HT80+HT80 CDD	0.2512	0.2712	0.926	92.63%	0.33	3.981

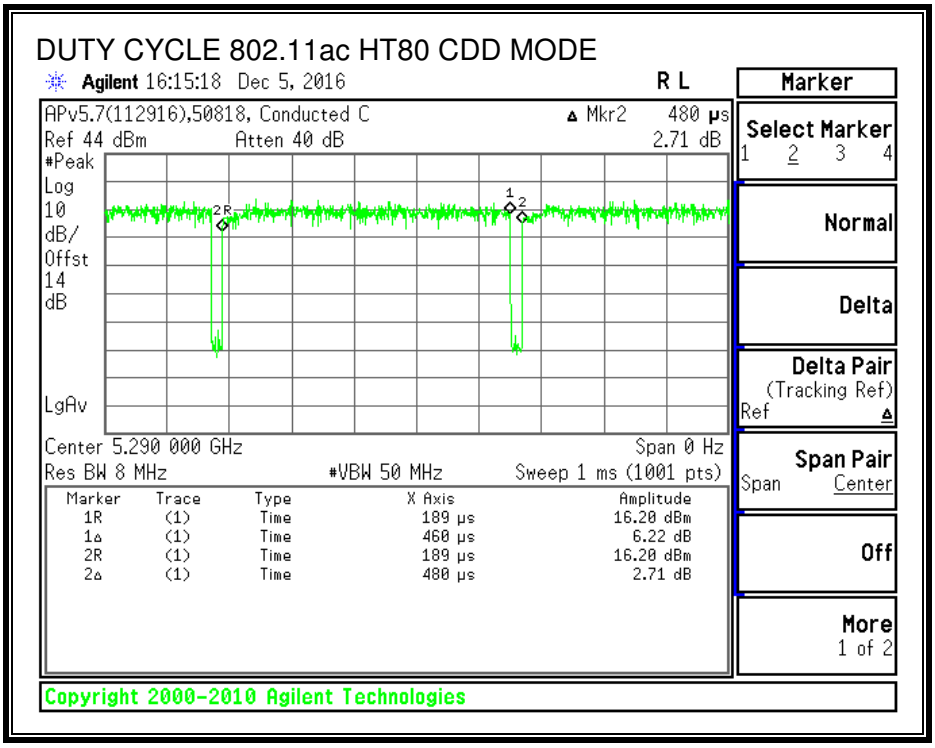
NOTE: The 802.11ac HT80+HT80 does not support TxBF so the duty cycle above is from CDD mode.

DUTY CYCLE PLOTS for CDD Mode

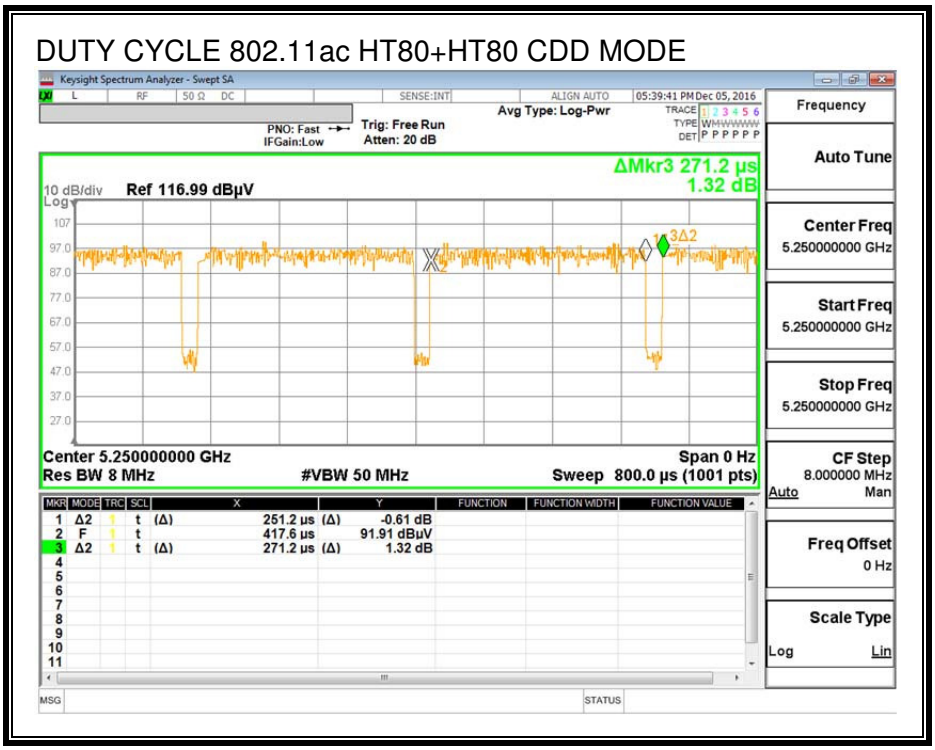




DUTY CYCLE 802.11ac HT80 CDD MODE

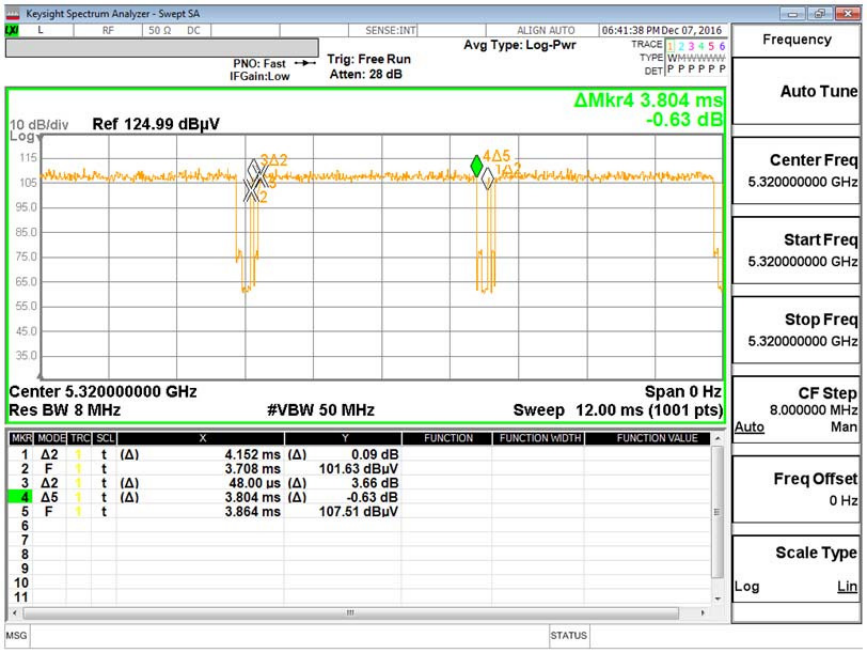


DUTY CYCLE 802.11ac HT80+HT80 CDD MODE



DUTY CYCLE PLOTS for TXBF

DUTY CYCLE 802.11n HT20 TXBF MODE



DUTY CYCLE 802.11n HT40 TXBF MODE

DUTY CYCLE 802.11ac HT80 TXBF MODE

DUTY CYCLE 802.11ac HT80+HT80 CDD MODE

8.2. 802.11n HT20 MODE IN THE 5.3 GHz BAND

8.2.1. 26 dB BANDWIDTH

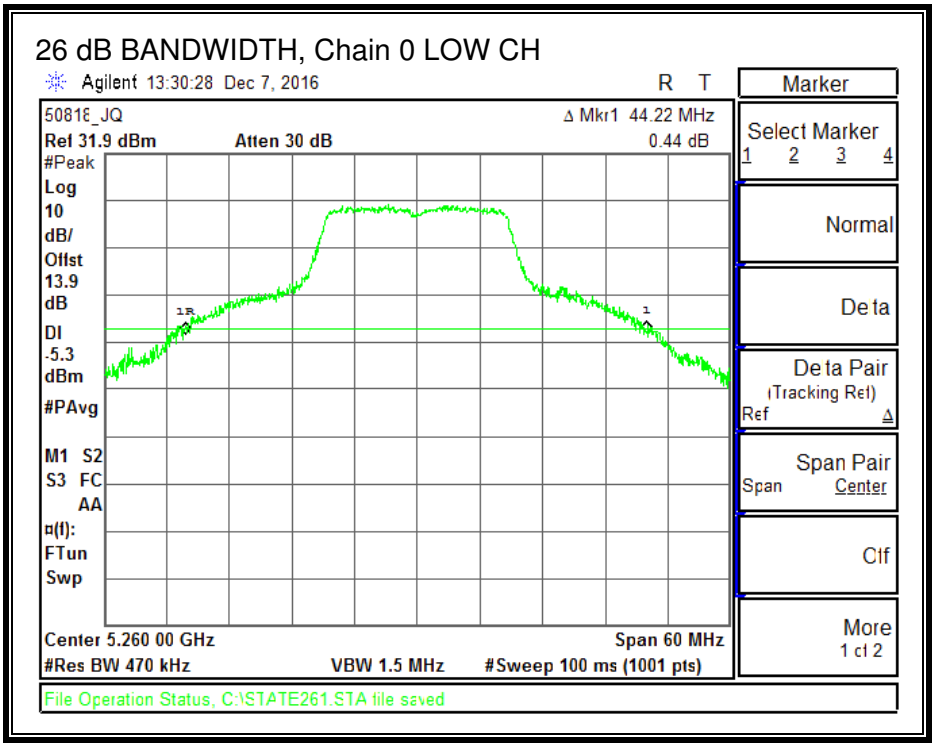
LIMITS

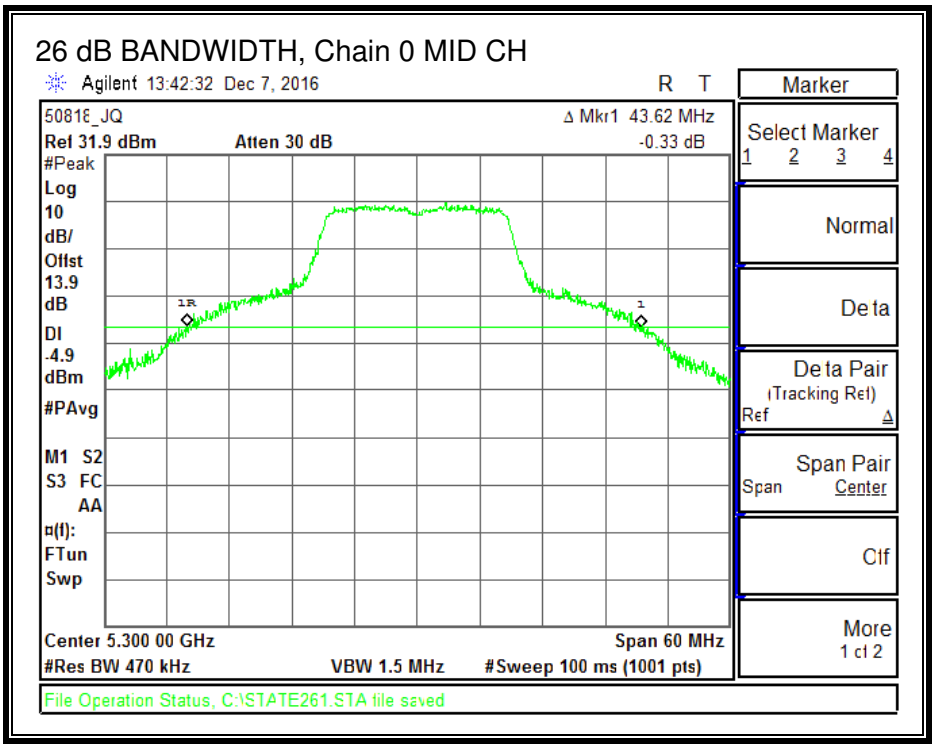
None; for reporting purposes only.

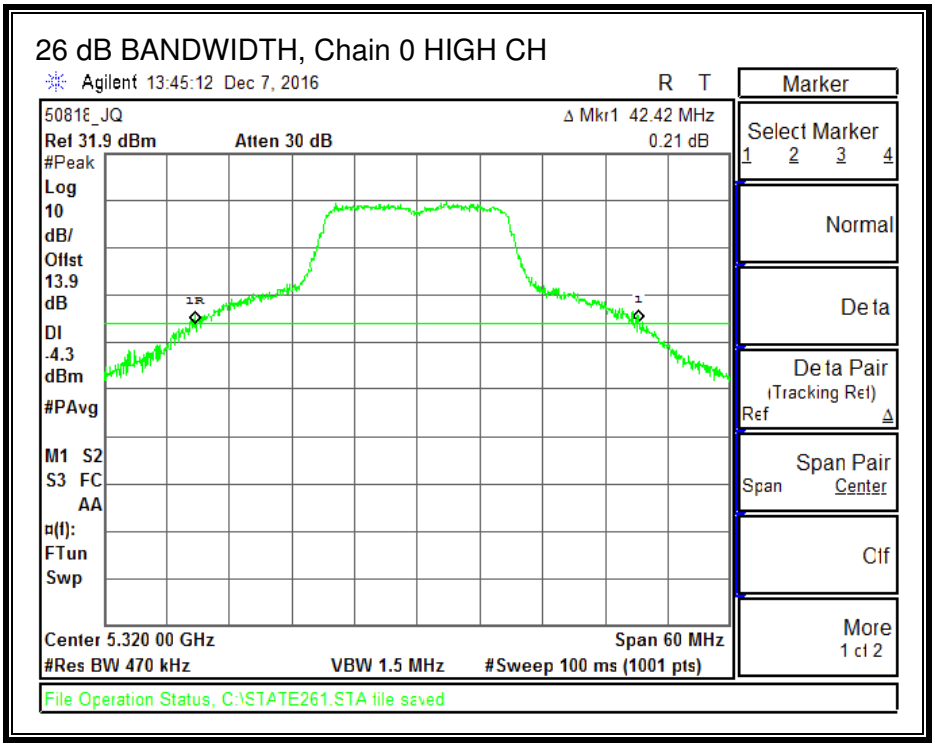
RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)	26 dB BW Chain 3 (MHz)
Low	5260	44.22	42.36	43.14	43.08
Mid	5300	43.62	41.76	42.48	40.68
High	5320	42.42	41.22	41.28	40.50

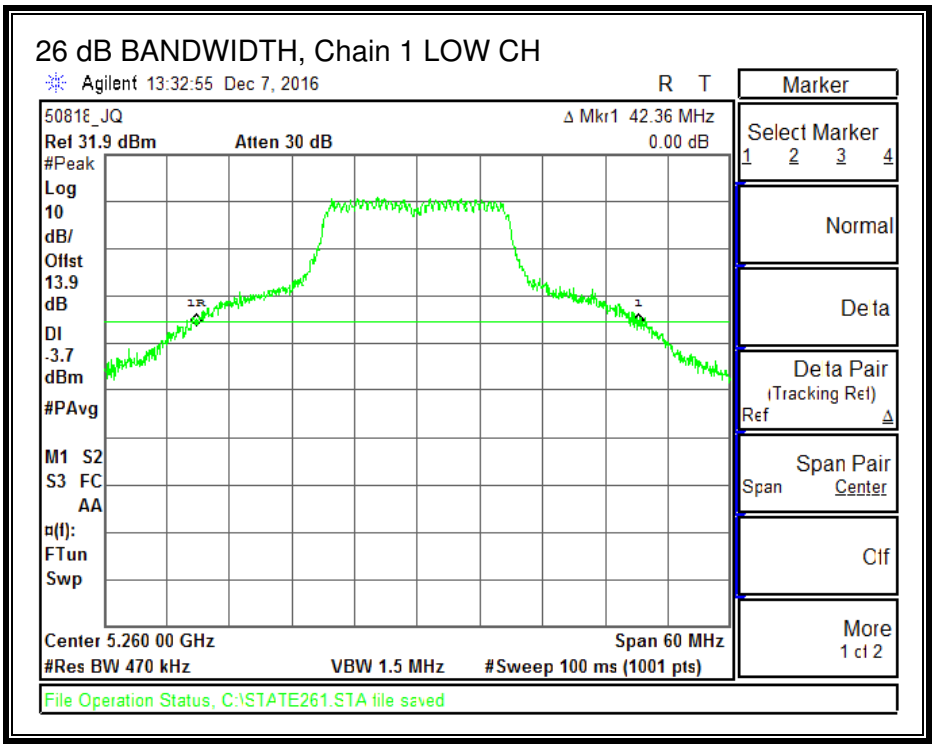
26 dB BANDWIDTH, Chain 0

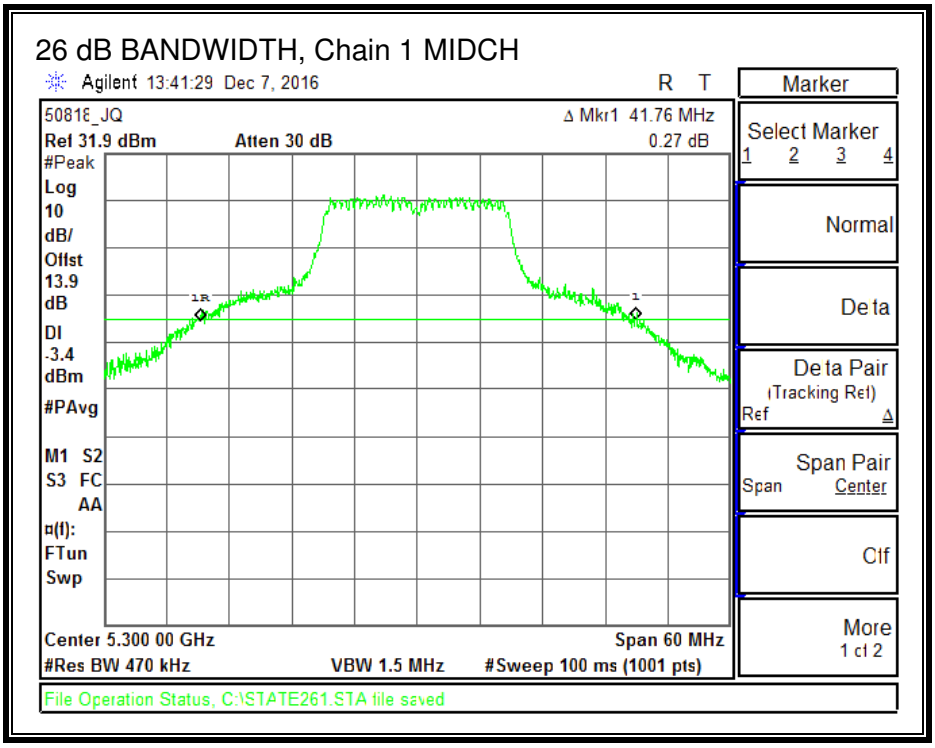


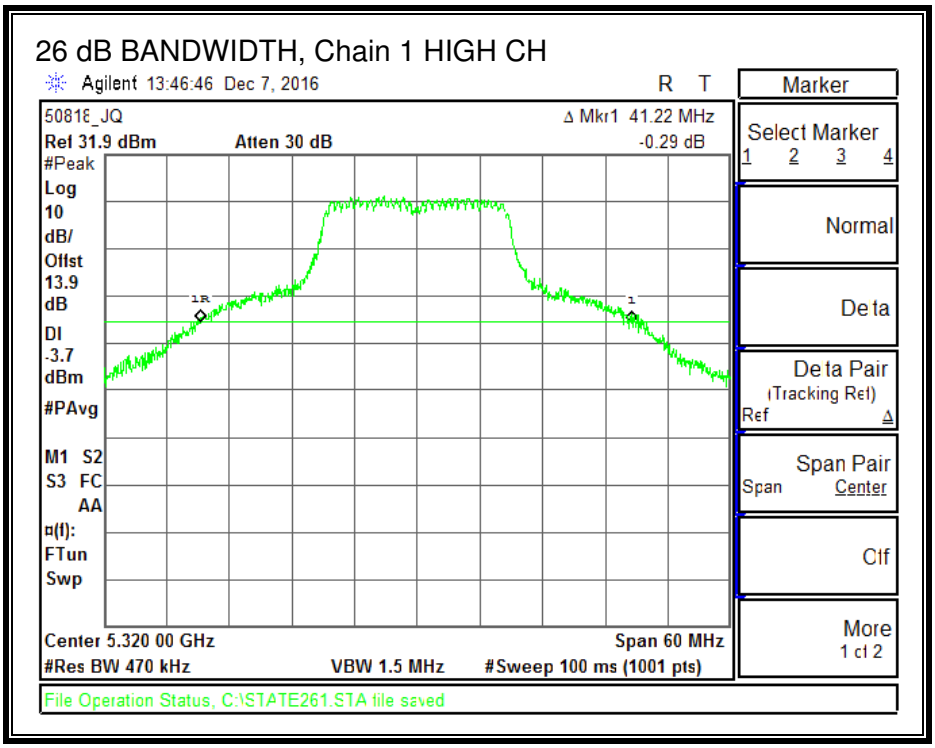




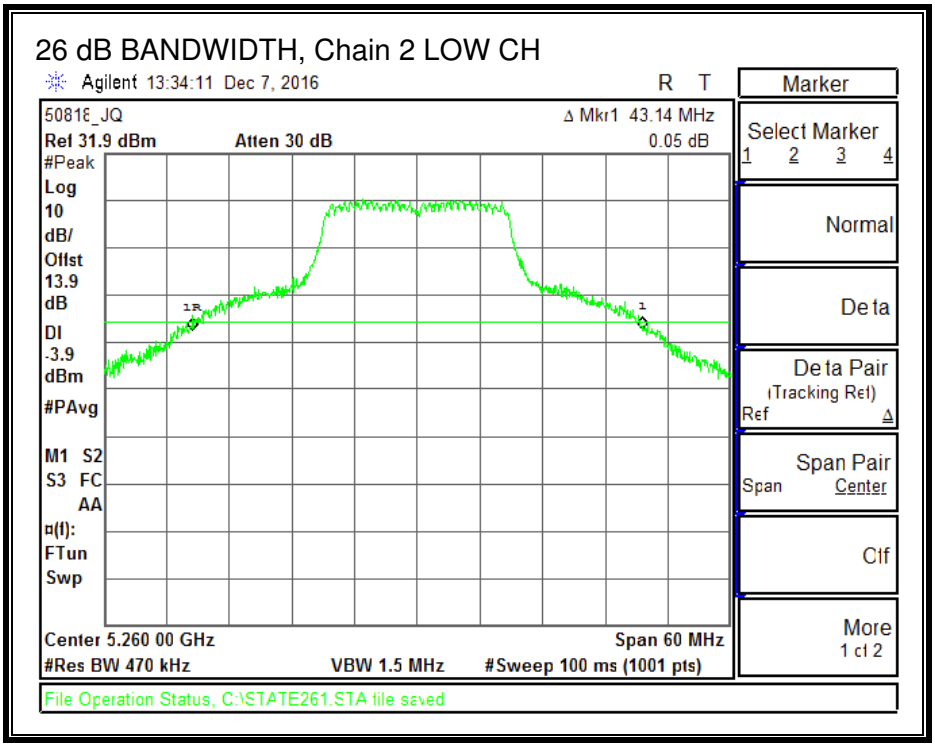
26 dB BANDWIDTH, Chain 1

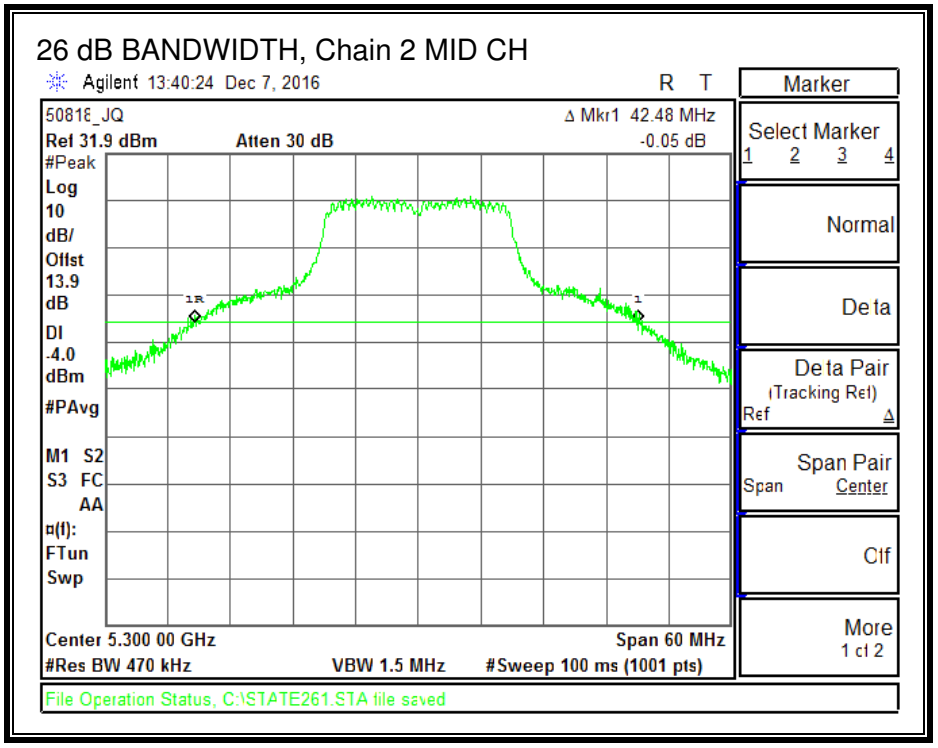


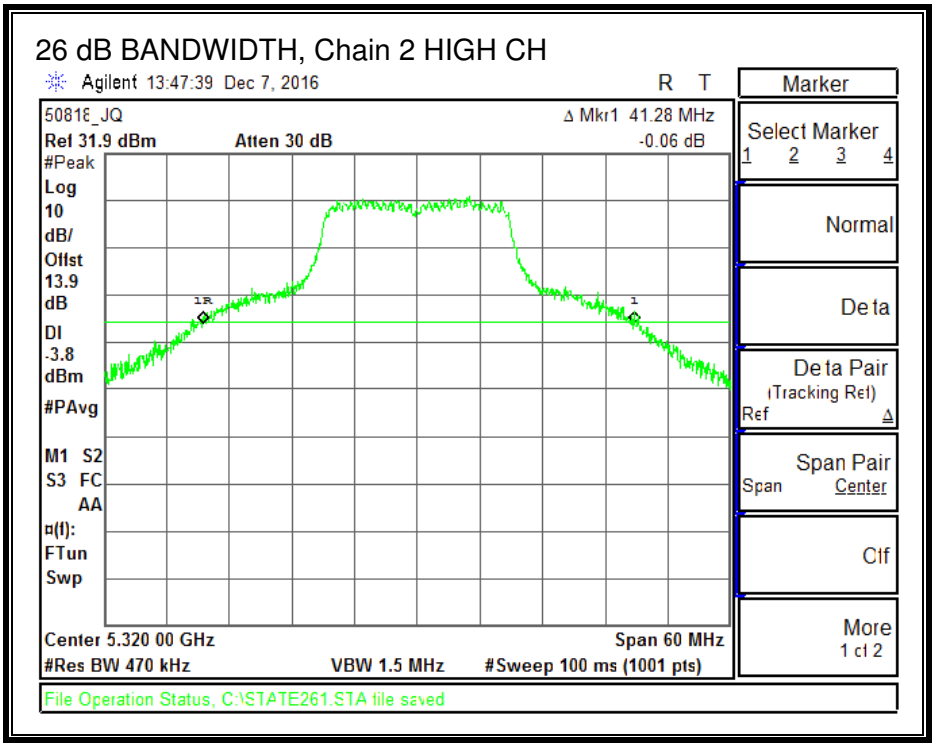




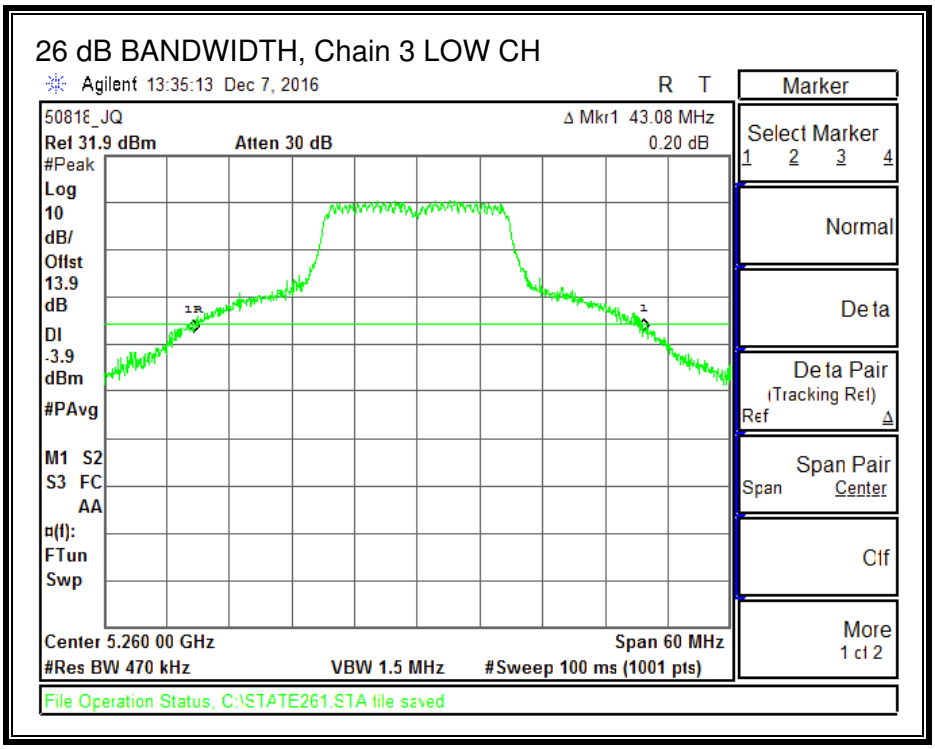
26 dB BANDWIDTH, Chain 2

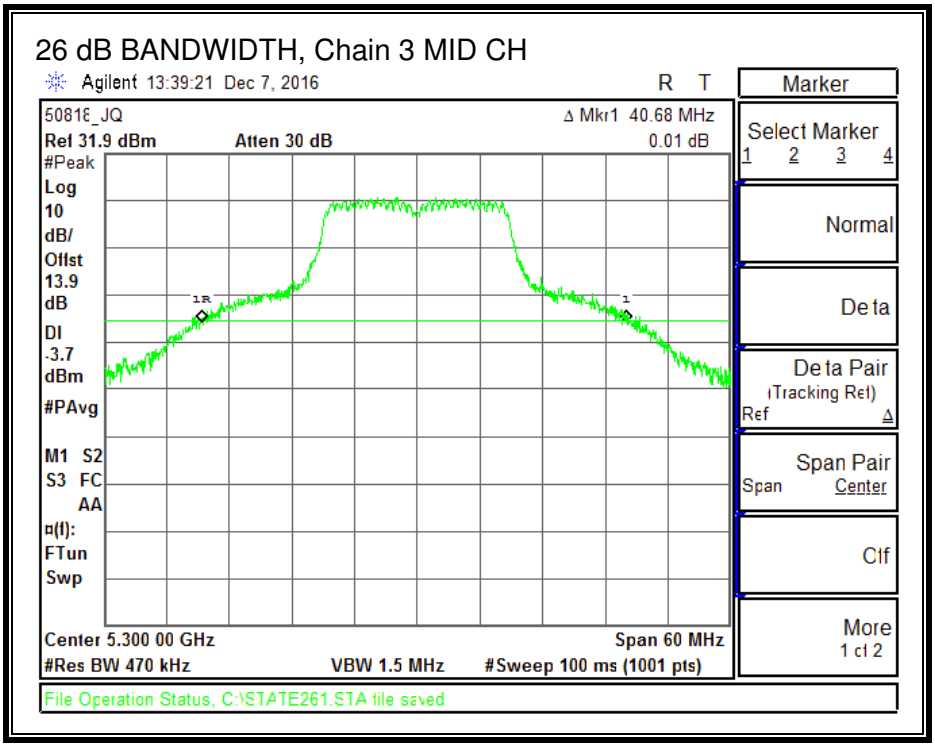


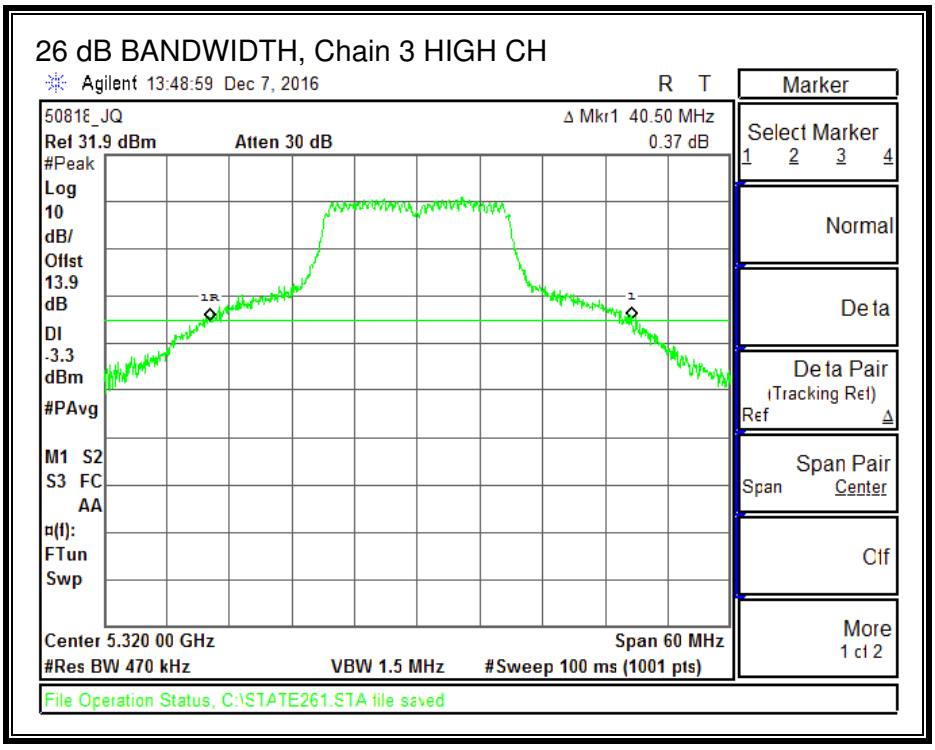




26 dB BANDWIDTH, Chain 3







8.2.2. OUTPUT POWER AND PSD

LIMITS

FCC §15.407 (a) (2)

For the band 5.25–5.35 GHz, 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. In addition, the maximum 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 maximum conducted output 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.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is the same for each chain. The directional gain is:

Antenna Gain (dBi)	10 * Log (4 chains) (dB)	Correlated Chains Directional Gain (dBi)
0.30	6.02	6.32

RESULTS

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
Low	5260	42.36	6.32	6.32	23.68	10.68
Mid	5300	40.68	6.32	6.32	23.68	10.68
High	5320	40.50	6.32	6.32	23.68	10.68

Duty Cycle CF (dB)	0.00	Included in Calculations of PSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Chain 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	14.65	14.64	14.60	14.56	20.63	23.68	-3.05
Mid	5300	14.71	14.60	14.66	14.55	20.65	23.68	-3.03
High	5320	14.81	14.89	14.92	14.90	20.90	23.68	-2.78

PSD Results

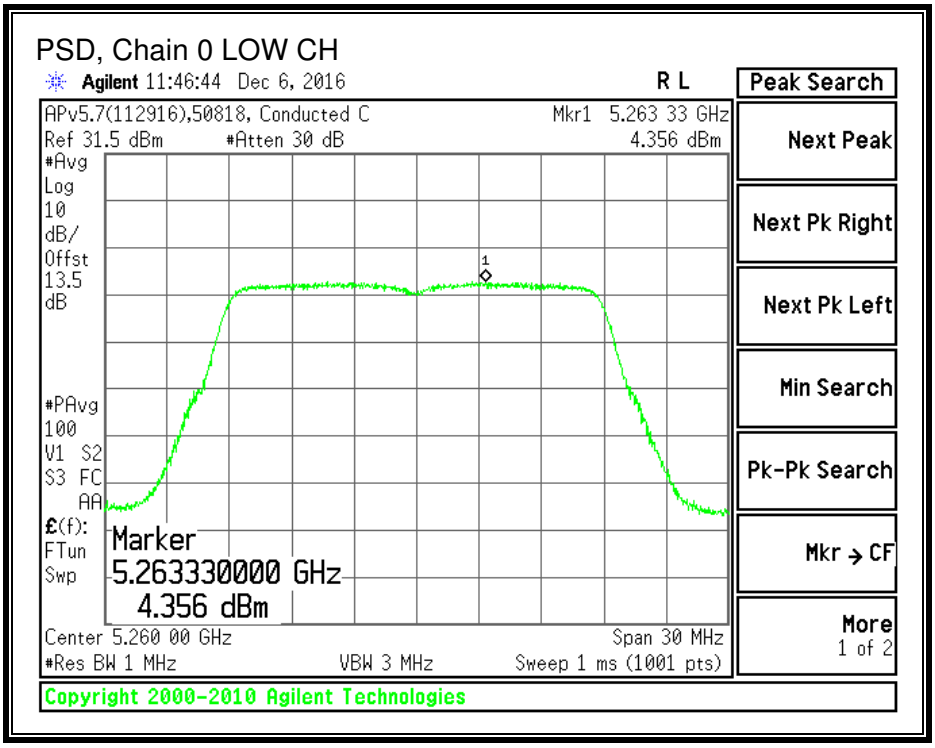
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Chain 3 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5260	4.36	4.47	4.60	4.56	10.52	10.68	-0.16
Mid	5300	4.37	4.27	4.59	4.35	10.42	10.68	-0.26
High	5320	4.61	4.45	4.47	4.71	10.58	10.68	-0.10

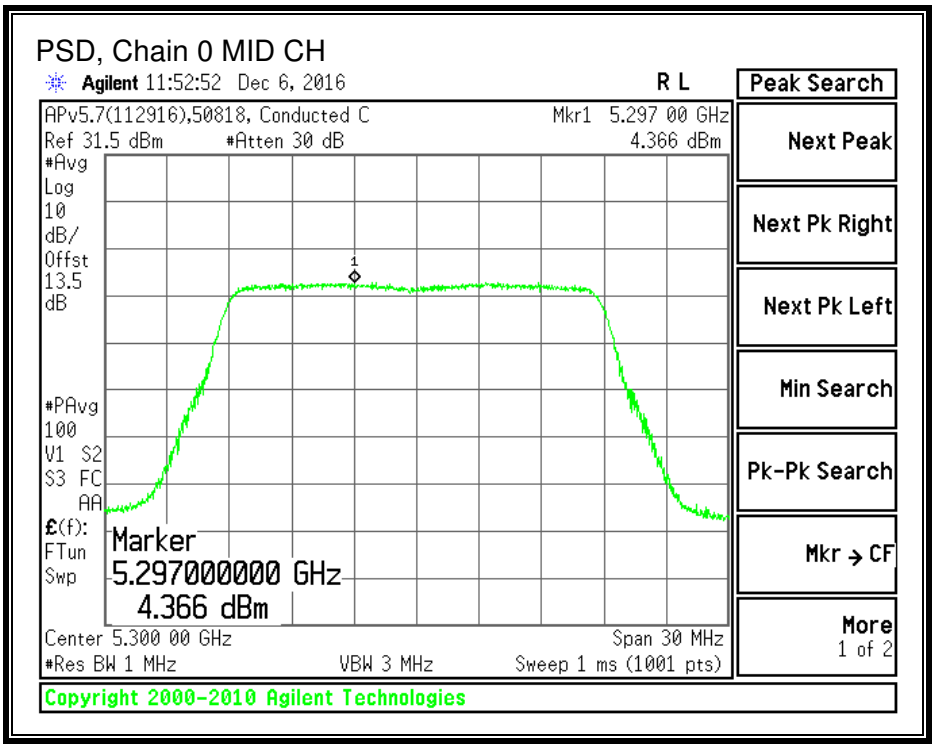
Note:

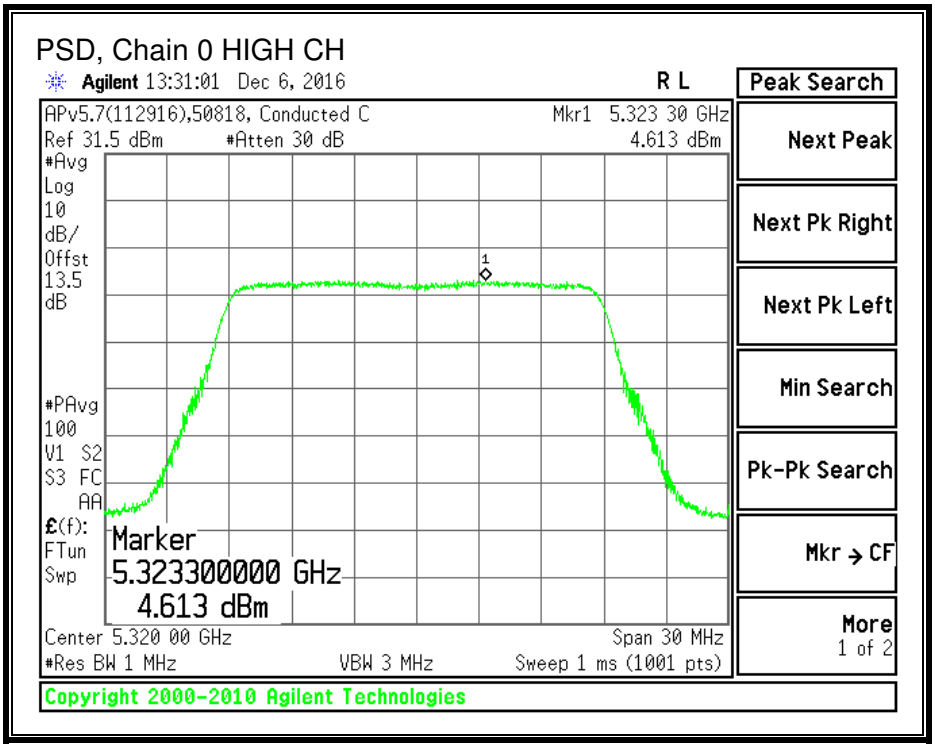
_The Output power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

_The CDD power was measured, the TXBF antenna array gain needs to be taken into account and this measurement used to define TXBF conducted power.

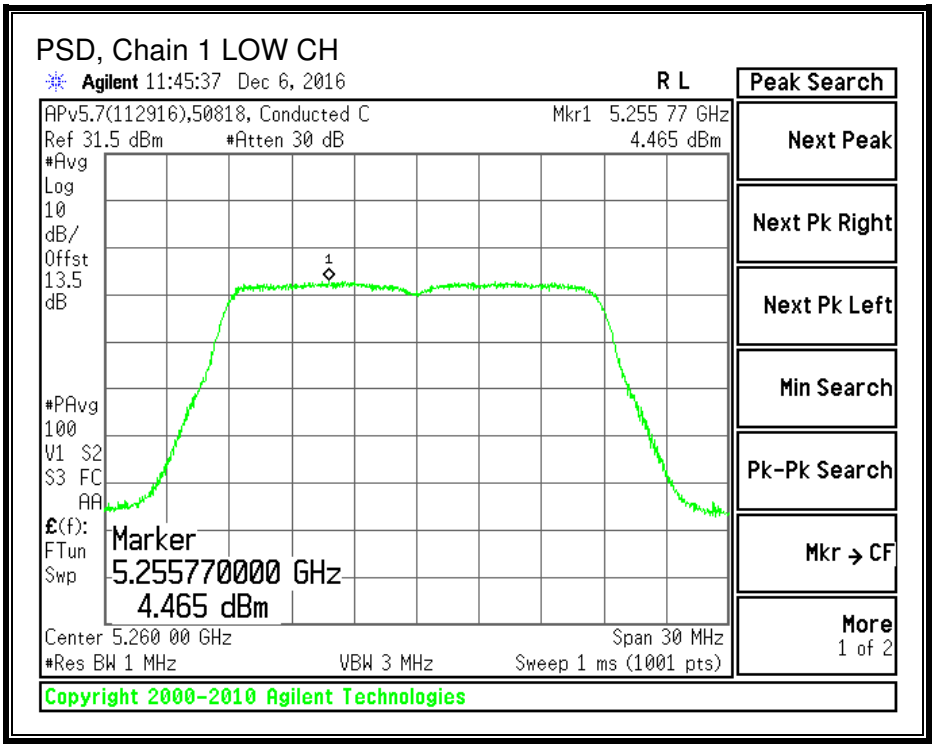
PSD, Chain 0



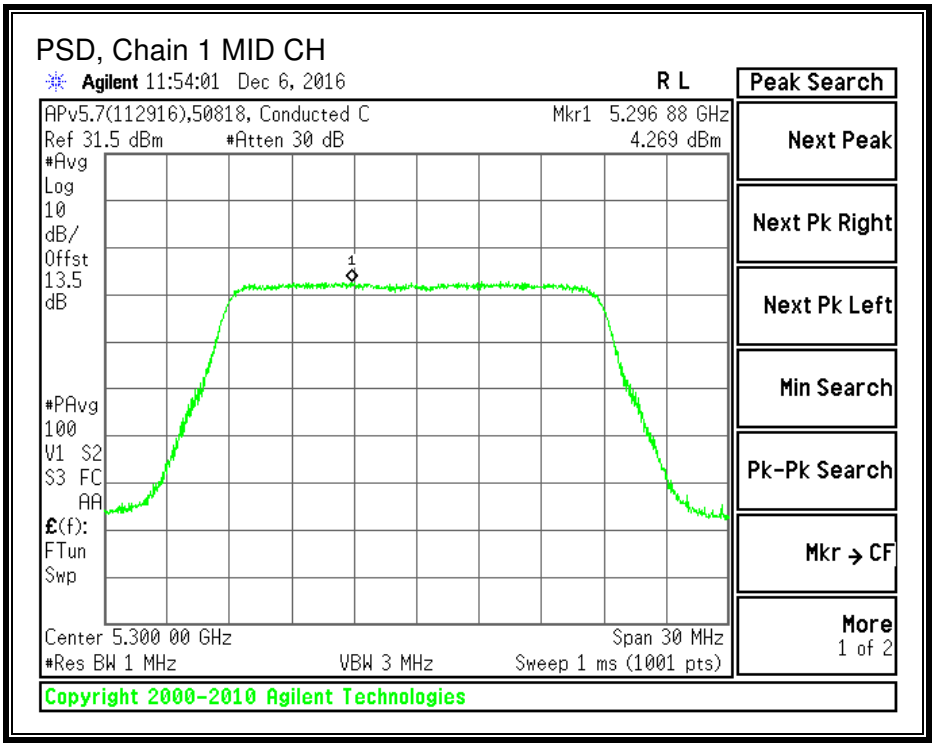




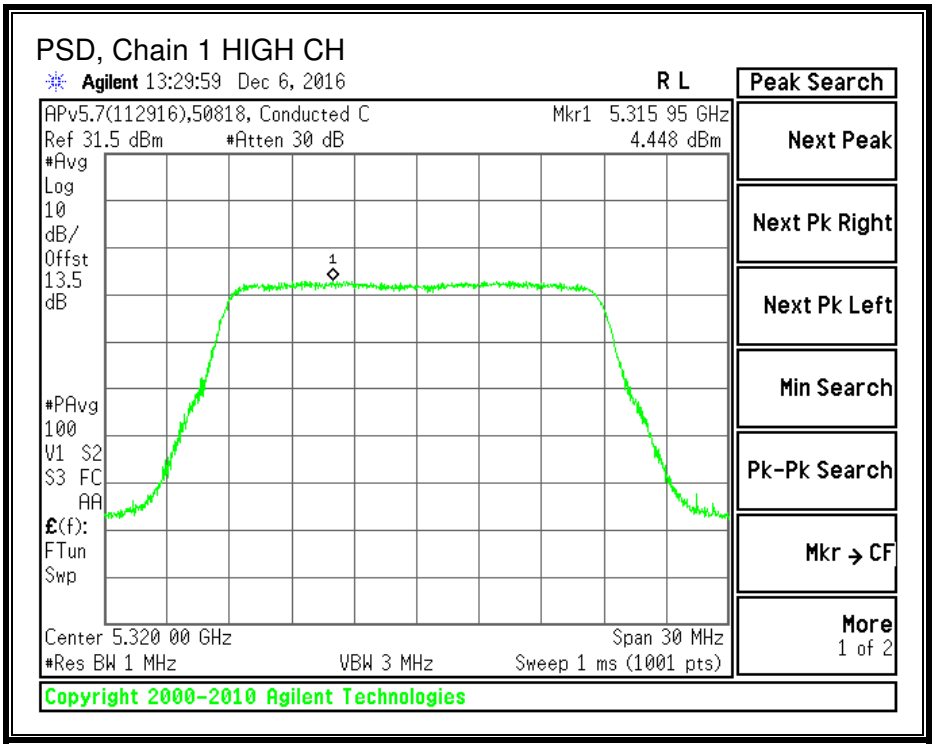
PSD, Chain 1



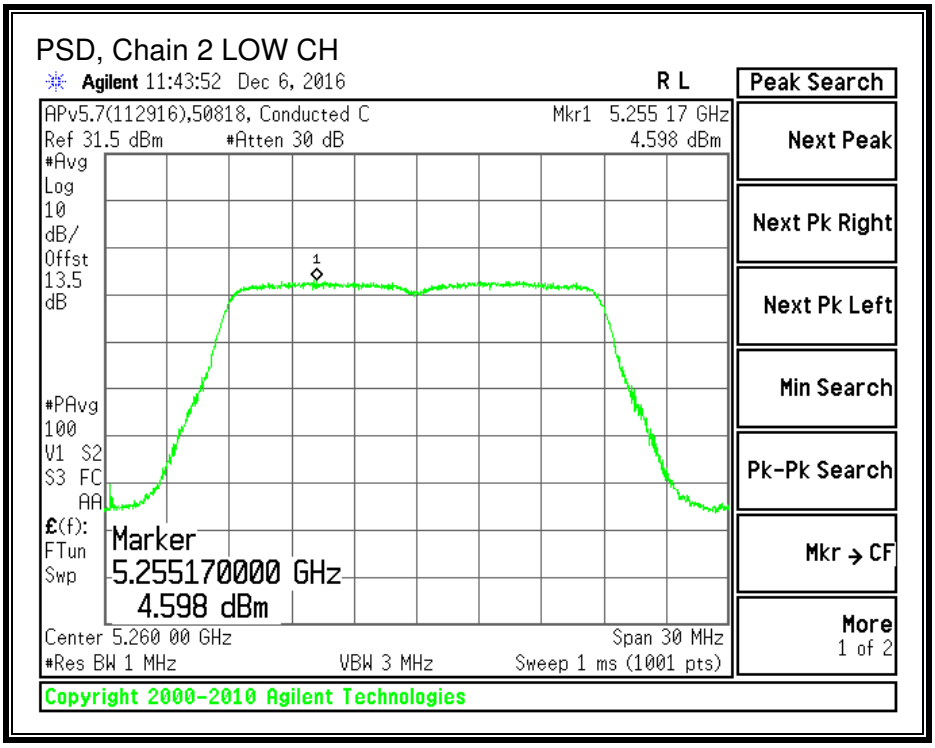
PSD, Chain 1 MID CH

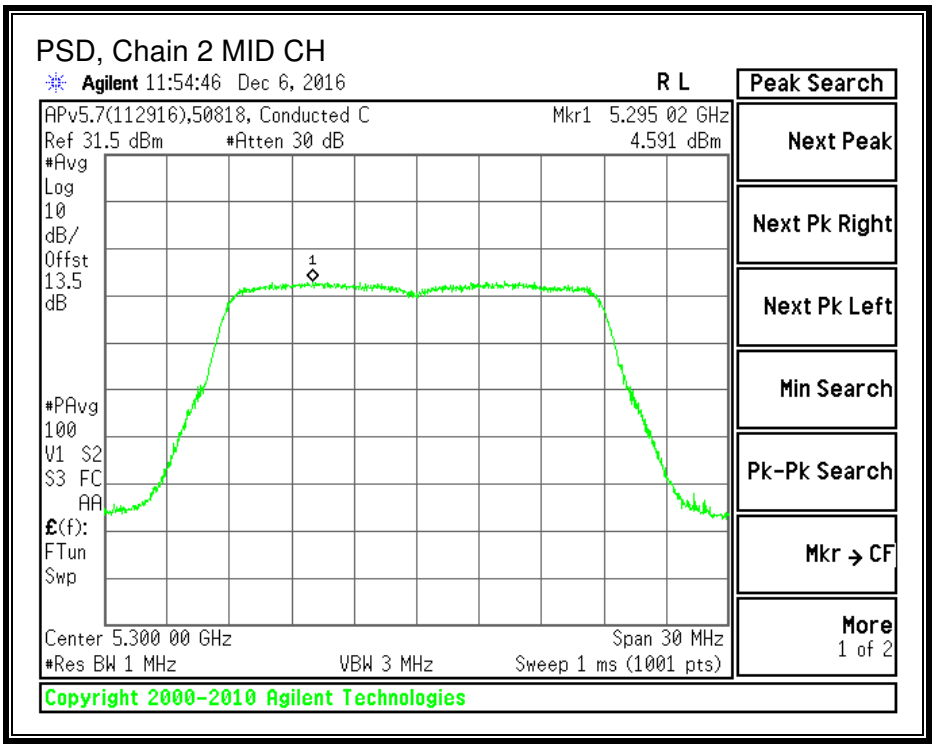


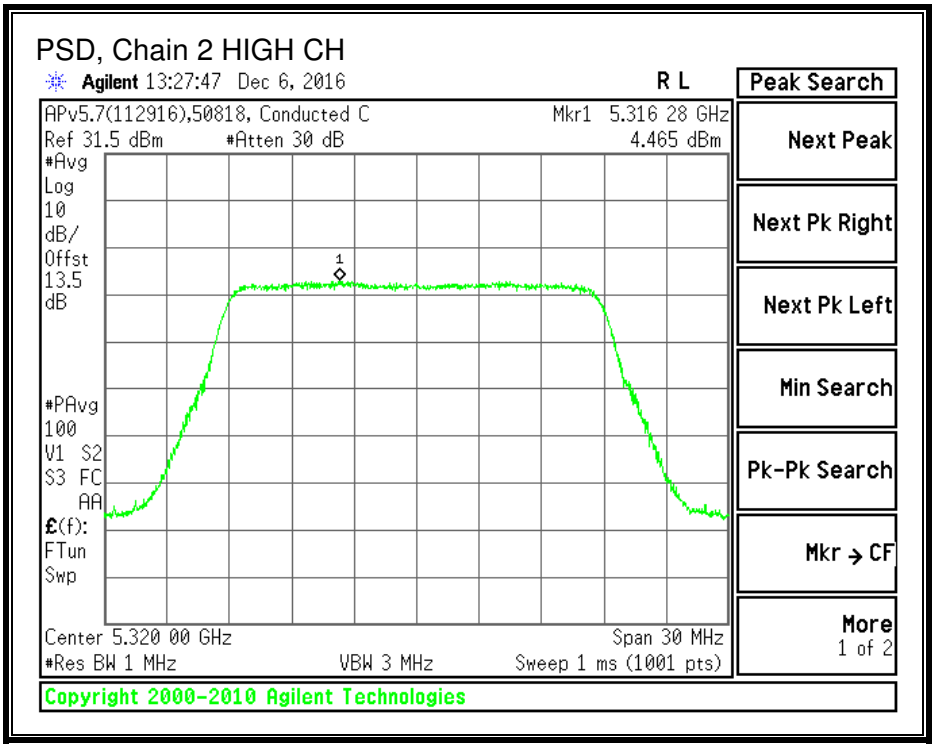
PSD, Chain 1 HIGH CH



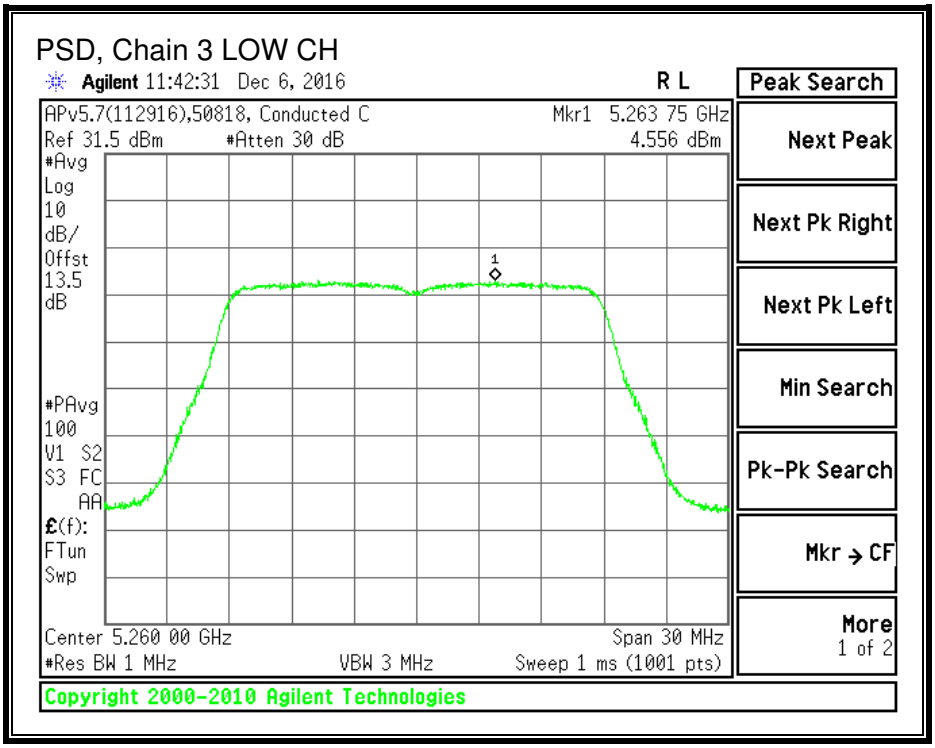
PSD, Chain 2



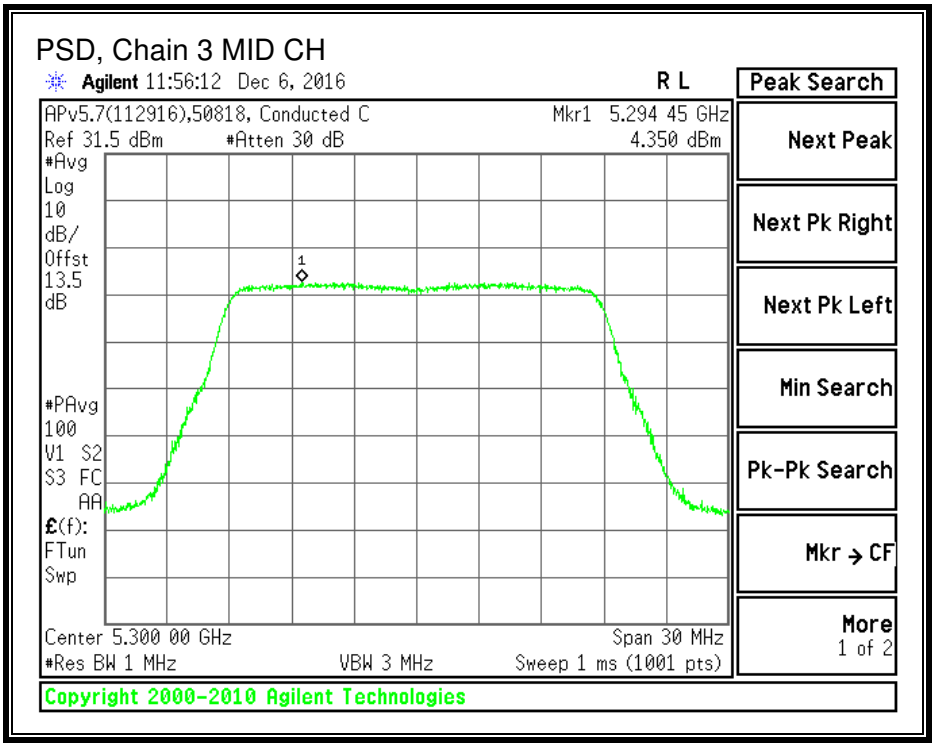




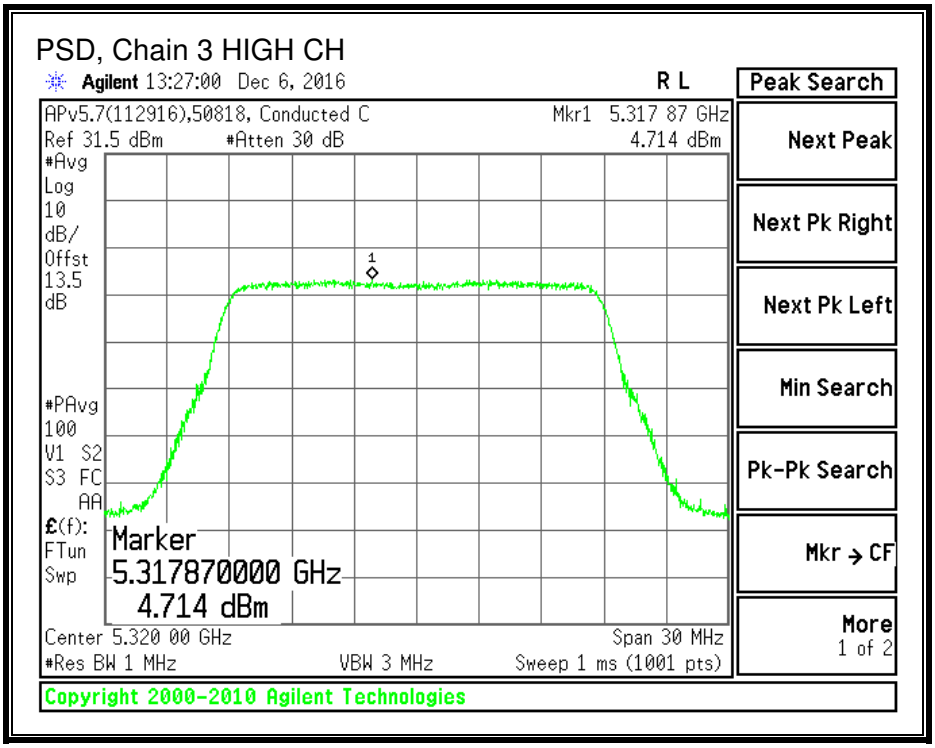
PSD, Chain 3



PSD, Chain 3 MID CH



PSD, Chain 3 HIGH CH



8.3. 802.11n HT40 MODE IN THE 5.3 GHz BAND

8.3.1. 26 dB BANDWIDTH

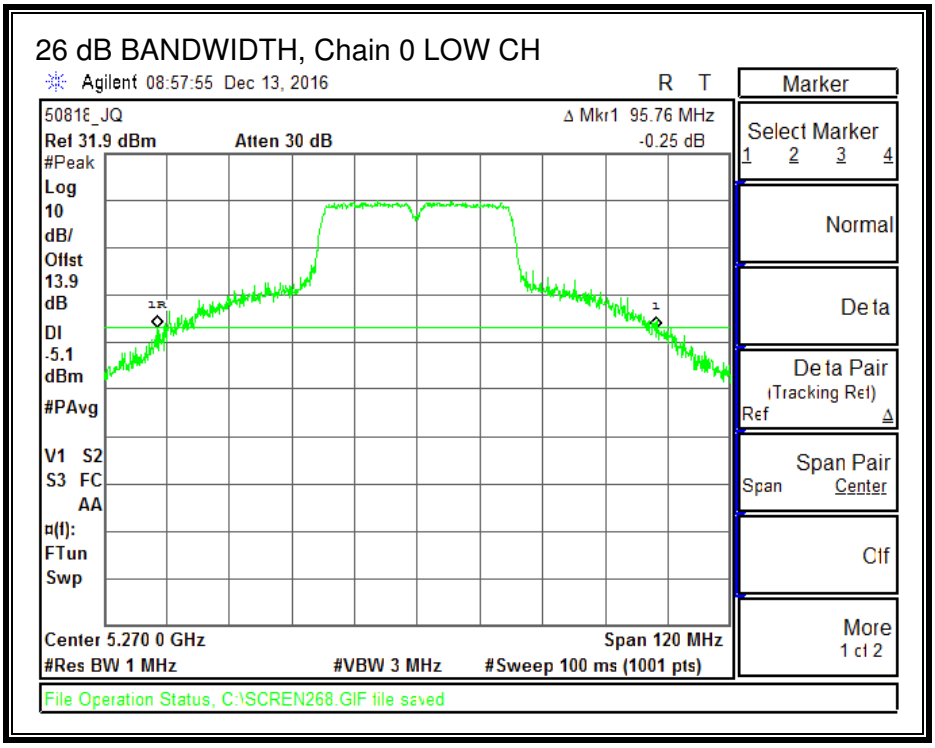
LIMITS

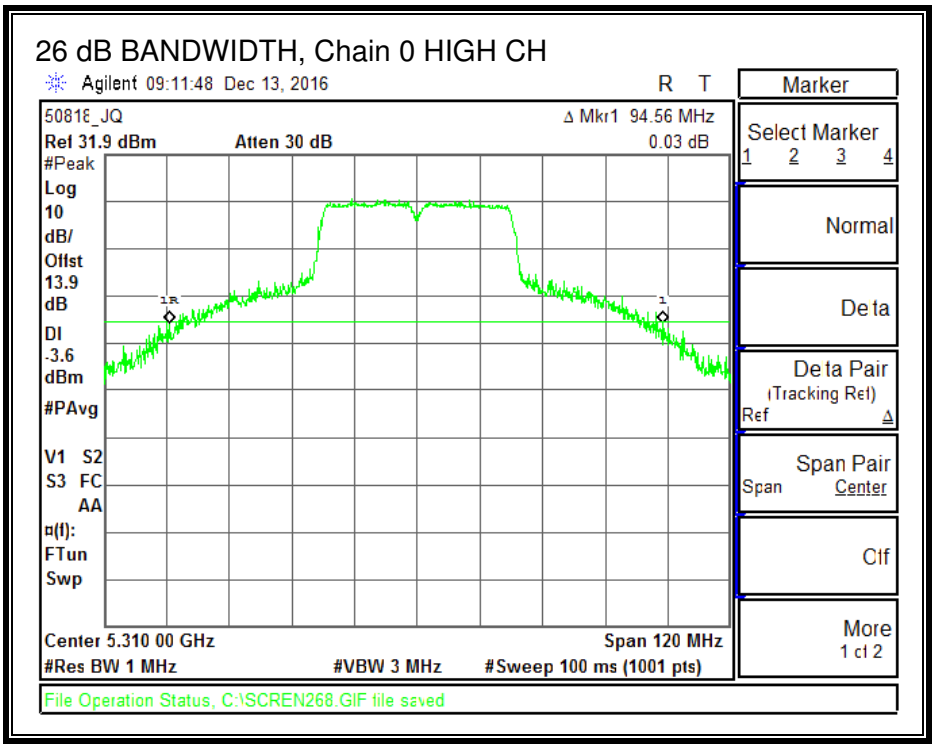
None; for reporting purposes only.

RESULTS

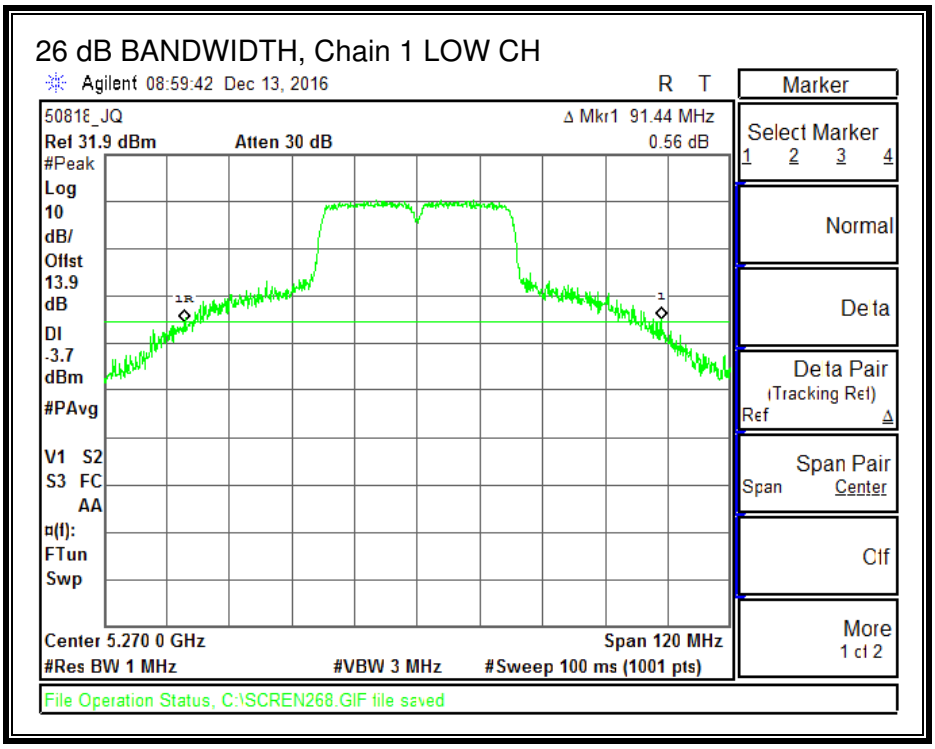
Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)	26 dB BW Chain 3 (MHz)
Low	5270	95.76	91.44	88.92	90.72
High	5310	94.56	90.60	91.68	89.16

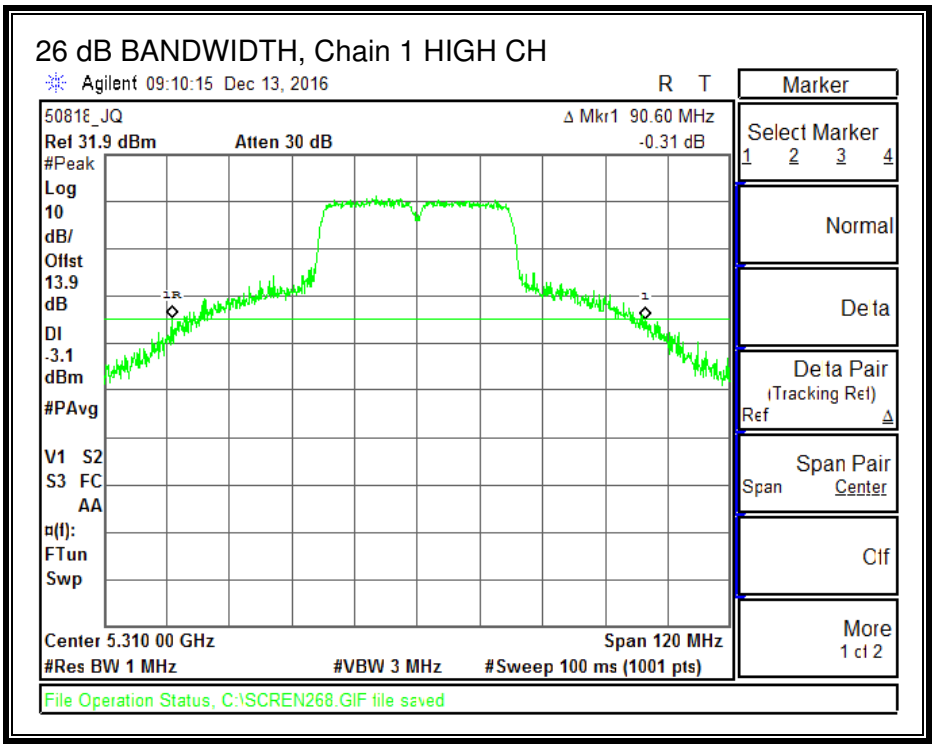
26 dB BANDWIDTH, Chain 0



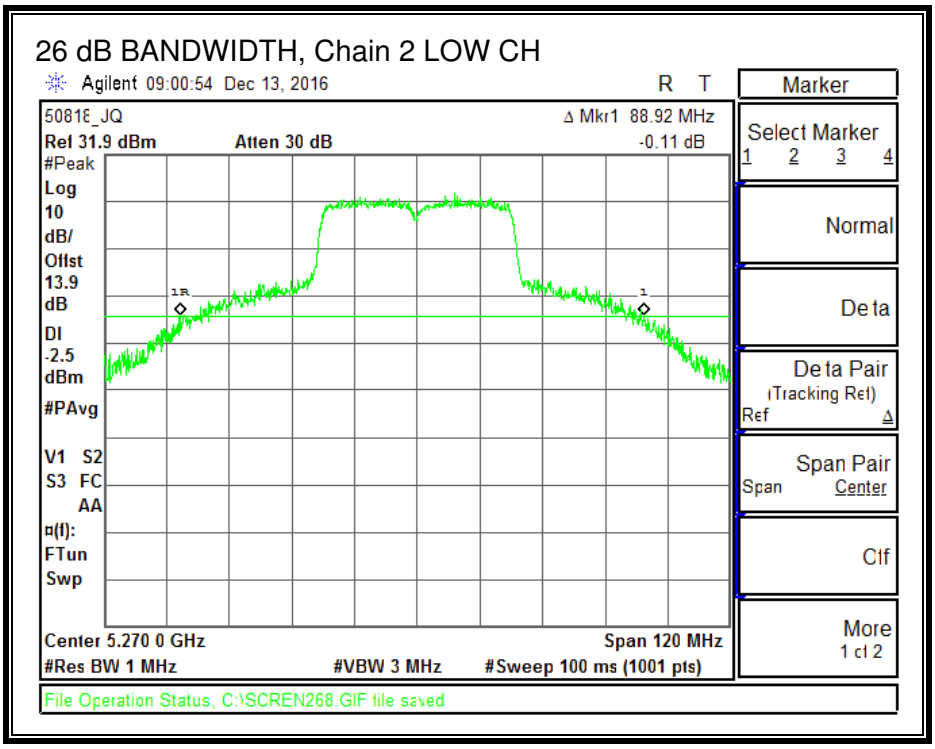


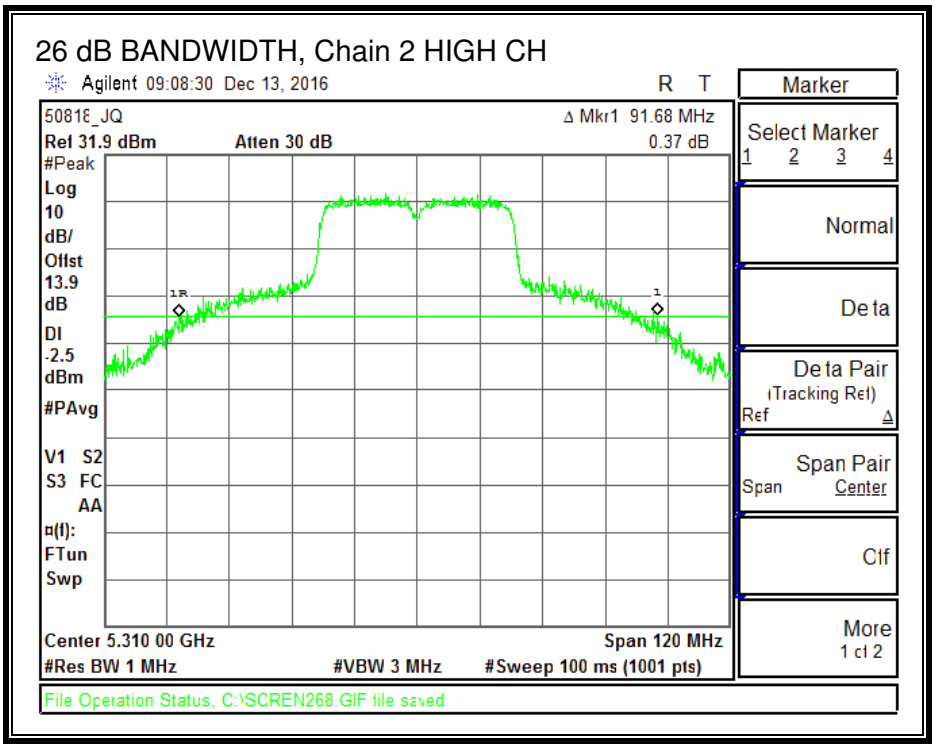
26 dB BANDWIDTH, Chain 1



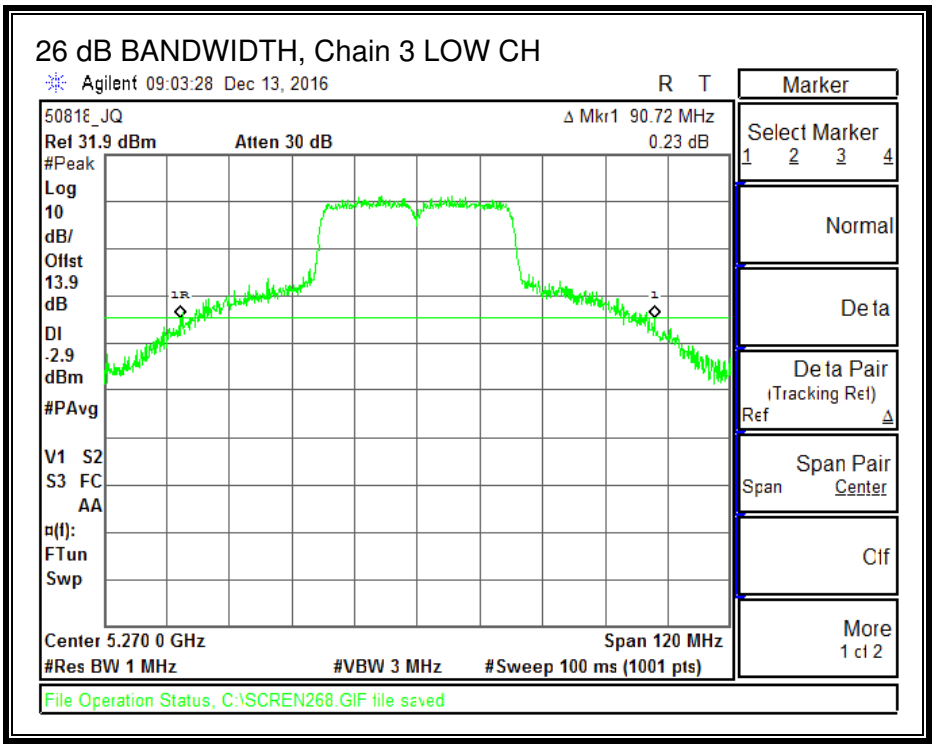


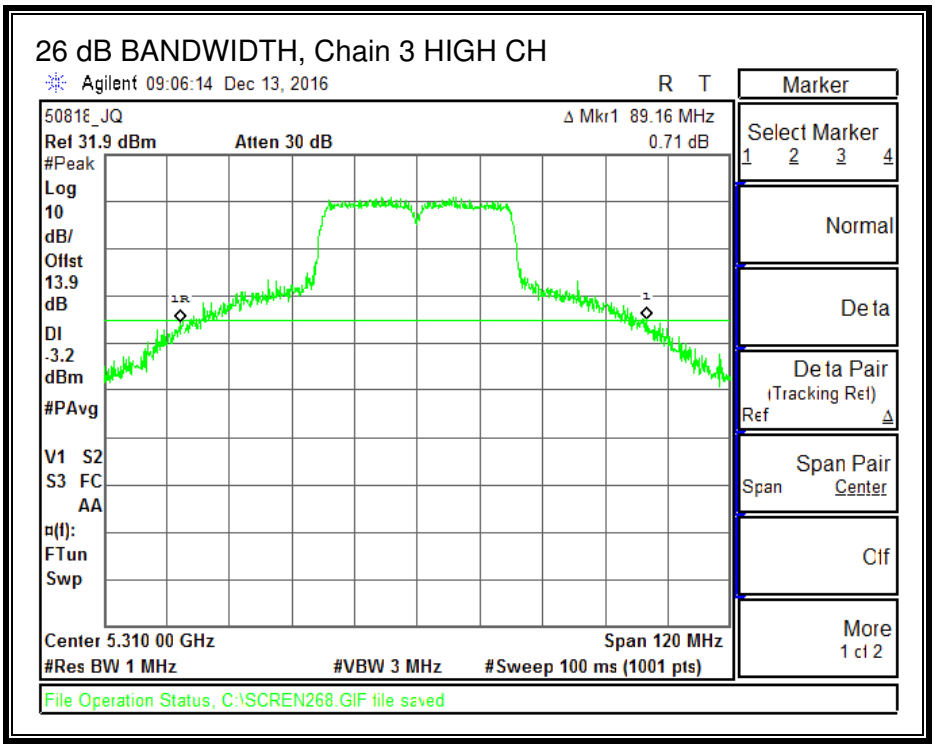
26 dB BANDWIDTH, Chain 2





26 dB BANDWIDTH, Chain 3





8.3.2. OUTPUT POWER AND PSD

LIMITS

FCC §15.407 (a) (2)

For the band 5.25–5.35 GHz, 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. In addition, the maximum 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 maximum conducted output 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.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is the same for each chain. The directional gain is:

Antenna Gain (dBi)	10 * Log (4 chains) (dB)	Correlated Chains Directional Gain (dBi)
0.30	6.02	6.32

RESULTS

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
Low	5270	88.92	6.32	6.32	23.68	10.68
High	5310	89.16	6.32	6.32	23.68	10.68

Duty Cycle CF (dB)	0.12	Included in Calculations of PSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Chain 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5270	16.67	16.76	16.52	17.11	22.79	23.68	-0.89
High	5310	16.26	16.08	15.93	16.25	22.15	23.68	-1.53

PSD Results

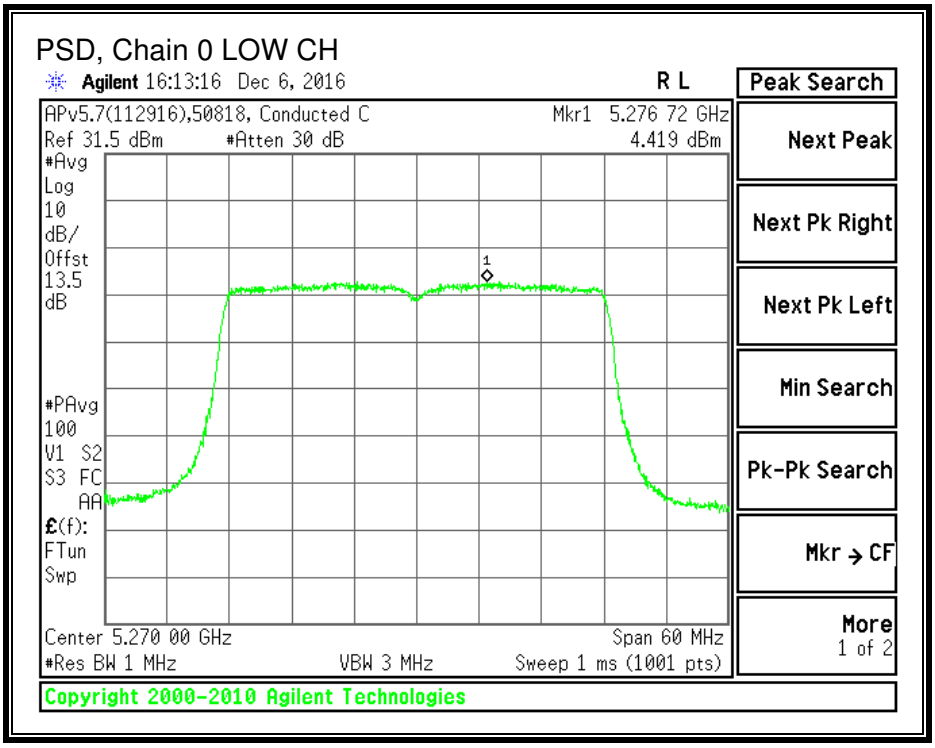
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Chain 3 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5270	4.42	4.26	4.52	4.58	10.59	10.68	-0.09
High	5310	4.09	4.08	4.50	3.73	10.25	10.68	-0.43

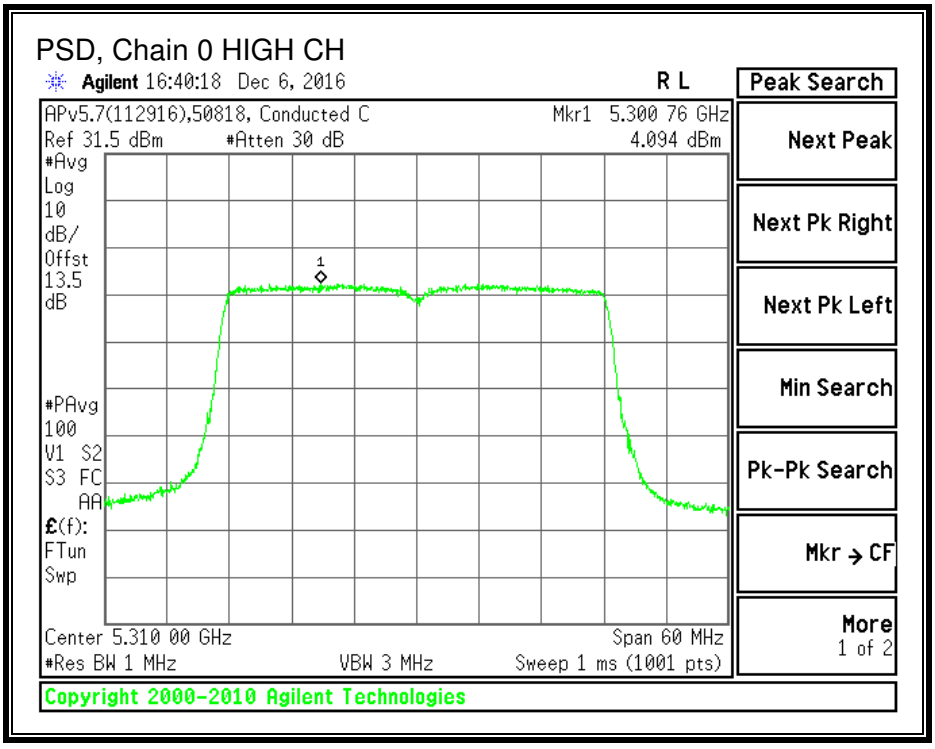
Note:

_The Output power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

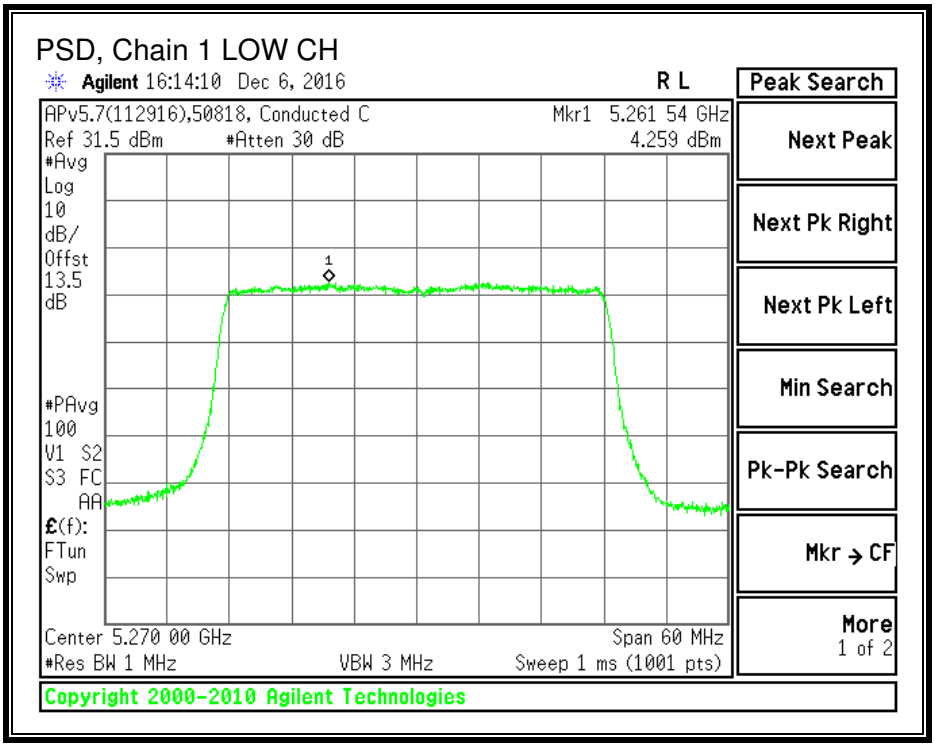
_The CDD power was measured, the TXBF antenna array gain needs to be taken into account and this measurement used to define TXBF conducted power.

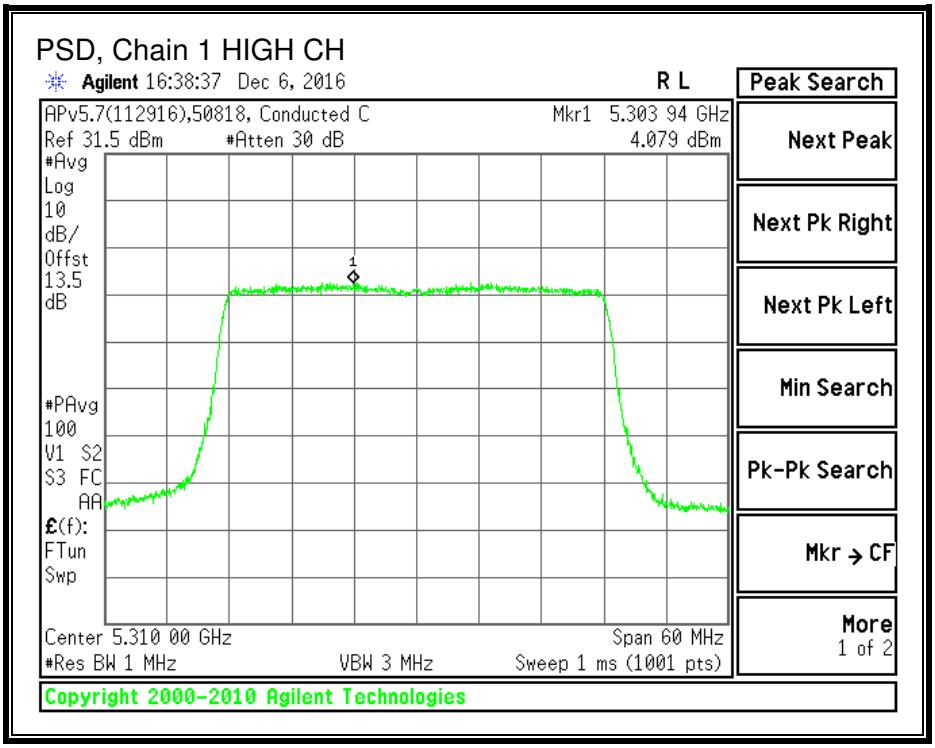
PSD, Chain 0



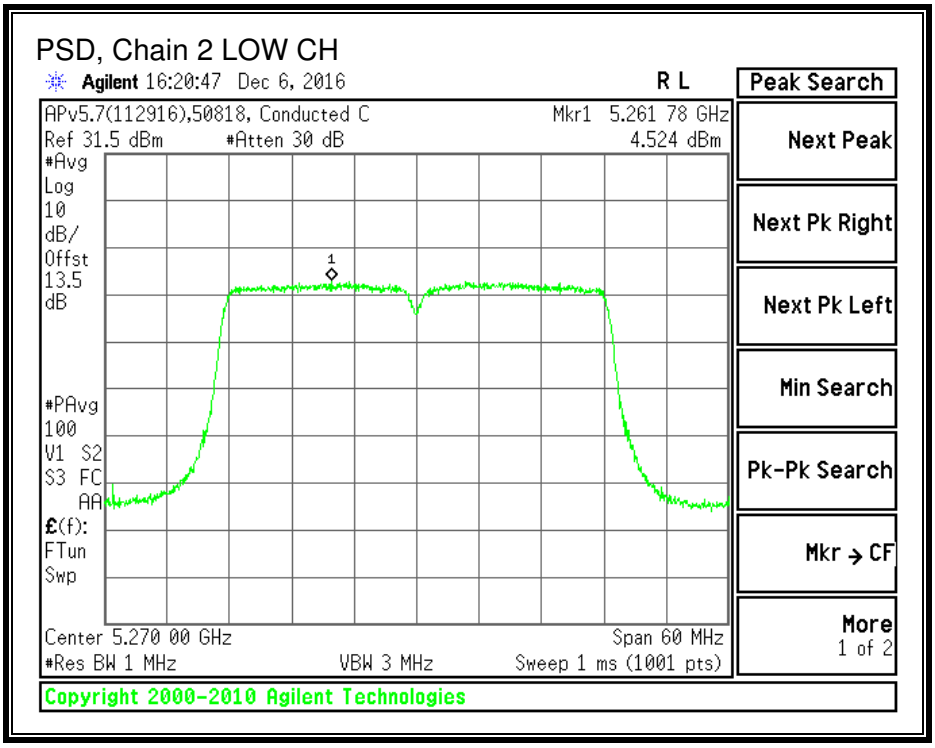


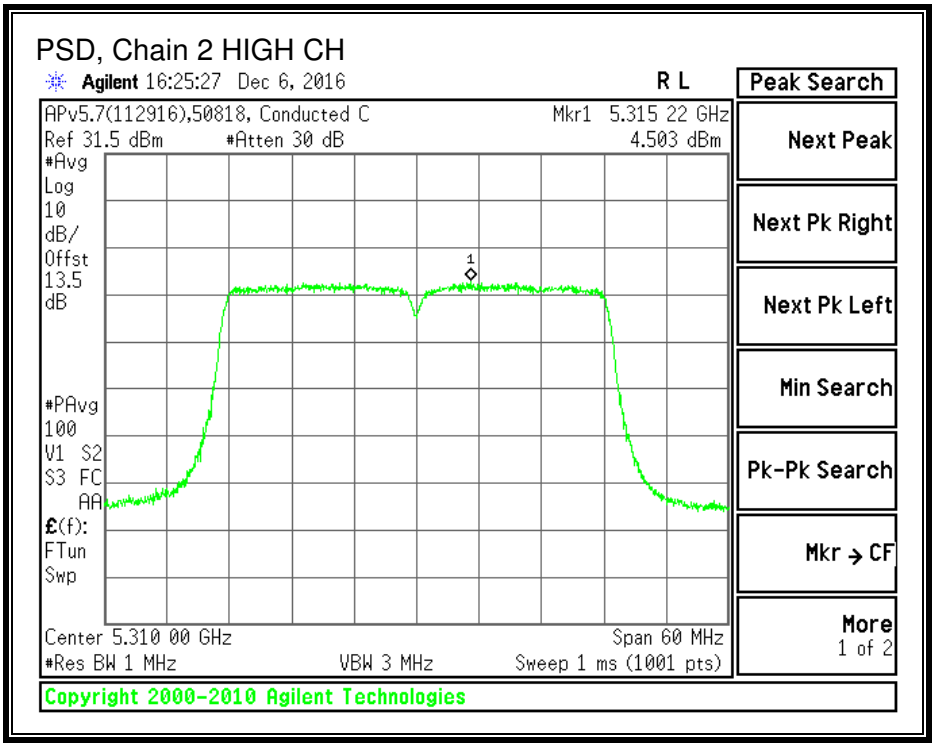
PSD, Chain 1



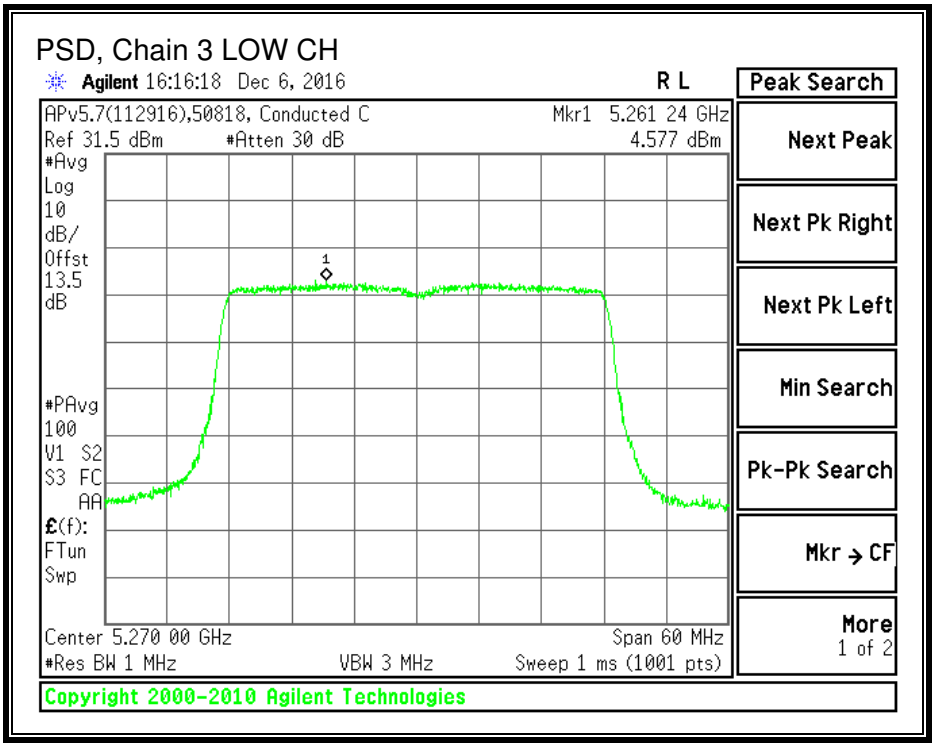


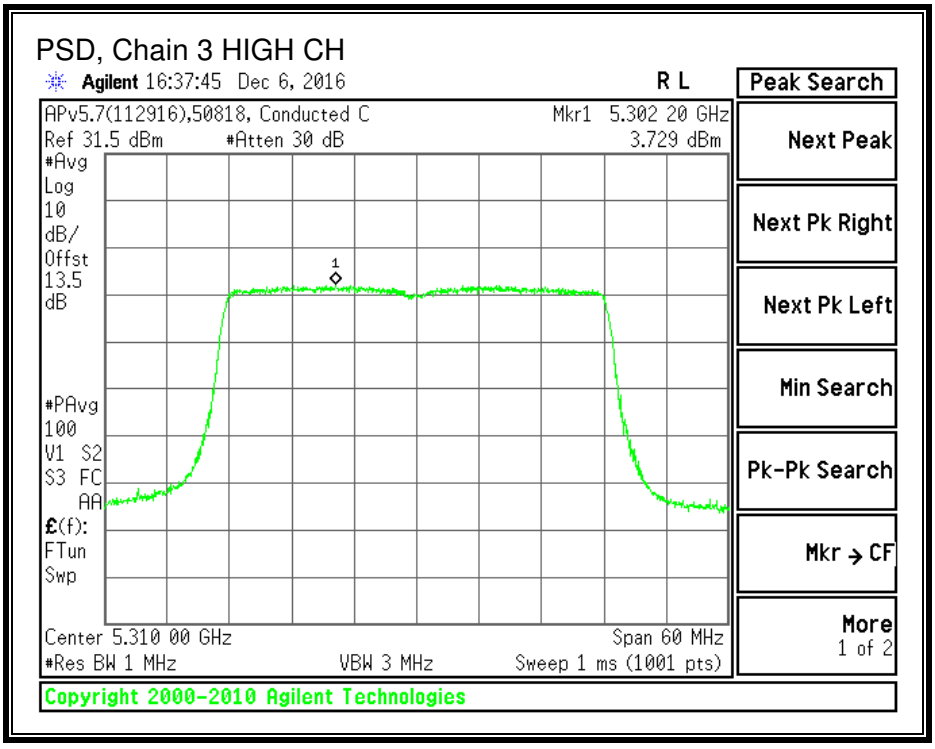
PSD, Chain 2





PSD, Chain 3





8.4. 802.11ac HT80 MODE IN THE 5.3 GHz BAND

8.4.1. 26 dB BANDWIDTH

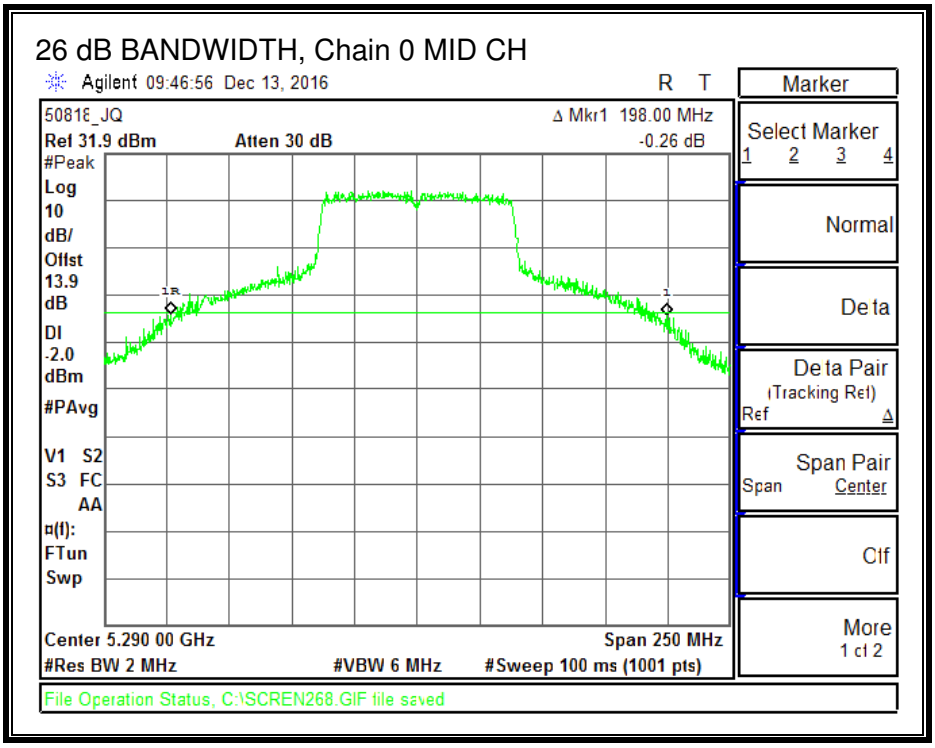
LIMITS

None; for reporting purposes only.

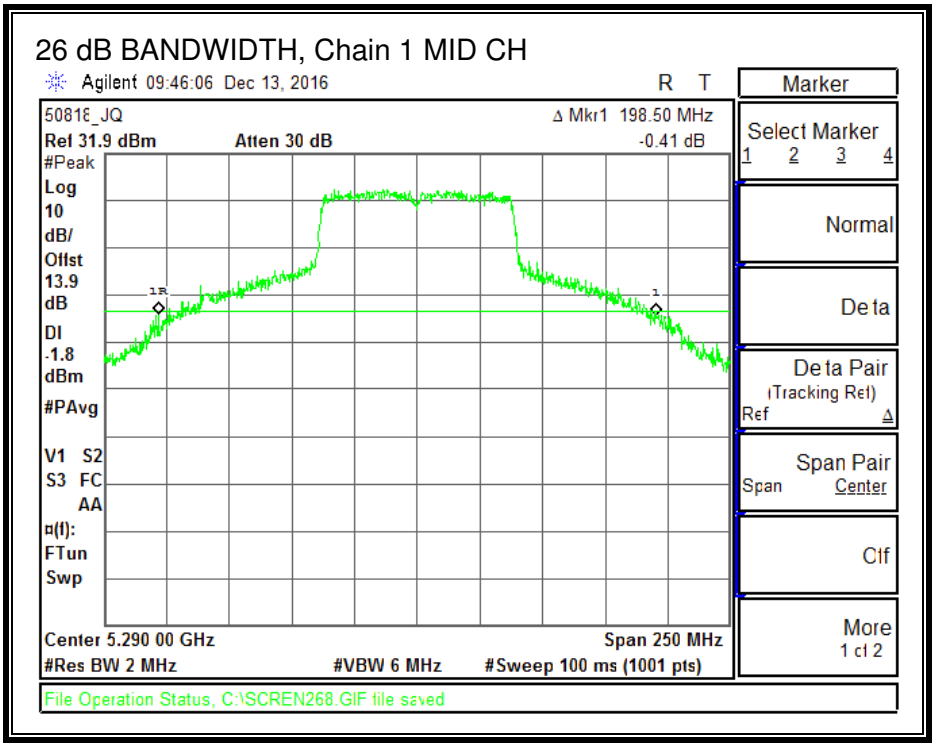
RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)	26 dB BW Chain 3 (MHz)
Mid	5290	198.00	198.50	188.00	195.50

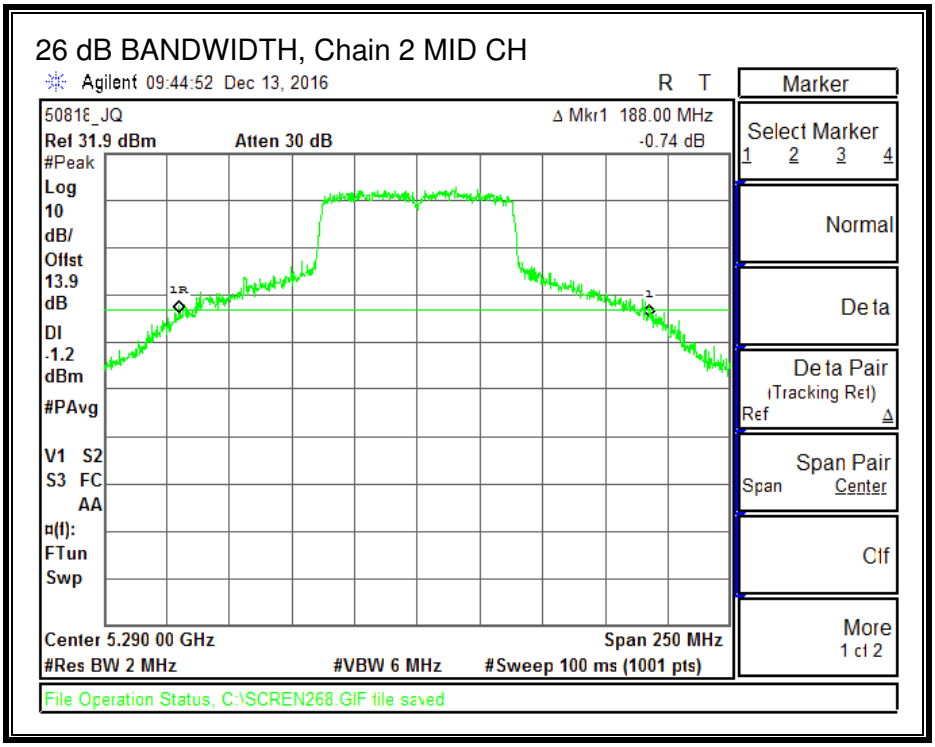
26 dB BANDWIDTH, Chain 0



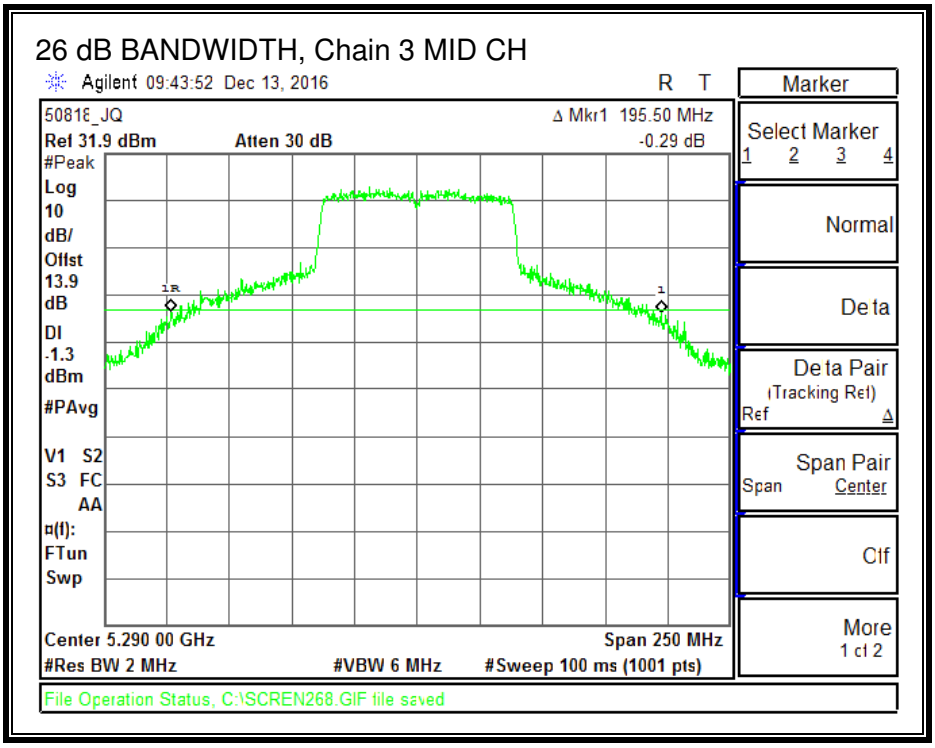
26 dB BANDWIDTH, Chain 1



26 dB BANDWIDTH, Chain 2



26 dB BANDWIDTH, Chain 3



8.4.2. OUTPUT POWER AND PSD

LIMITS

FCC §15.407 (a) (2)

For the band 5.25–5.35 GHz, 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. In addition, the maximum 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 maximum conducted output 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.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is the same for each chain. The directional gain is:

Antenna Gain (dBi)	10 * Log (4 chains) (dB)	Correlated Chains Directional Gain (dBi)
0.30	6.02	6.32

RESULTS

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
Mid	5290	188.00	6.32	6.32	23.68	10.68

Duty Cycle CF (dB)	0.18	Included in Calculations of PSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Chain 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5290	15.42	15.61	15.15	15.36	21.41	23.68	-2.27

PSD Results

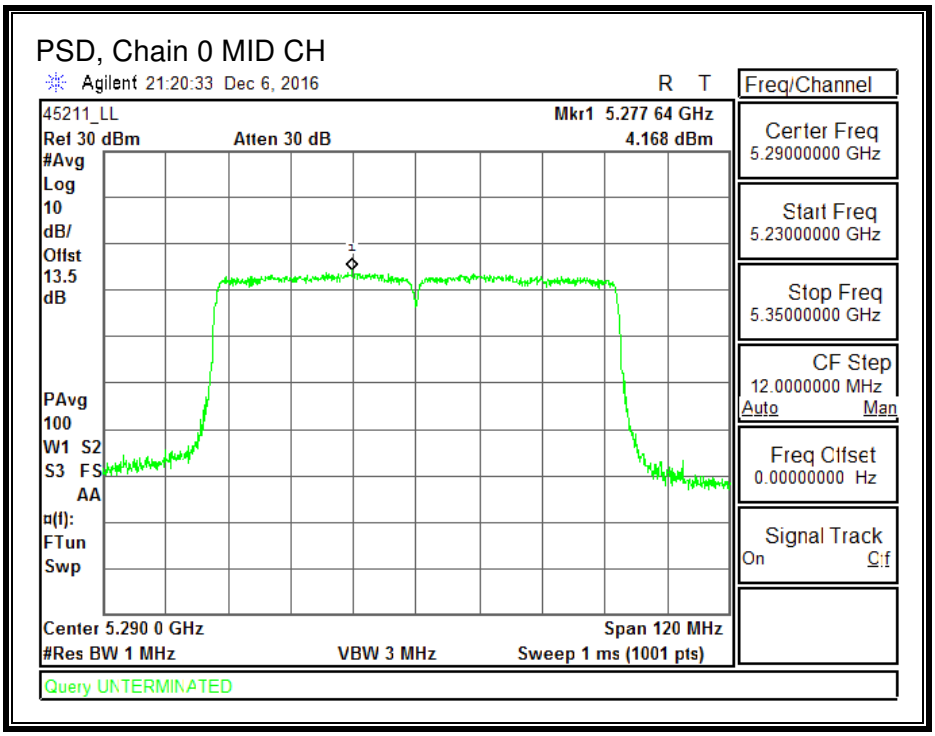
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Chain 3 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Mid	5290	4.17	4.05	3.52	3.72	10.07	10.68	-0.61

Note:

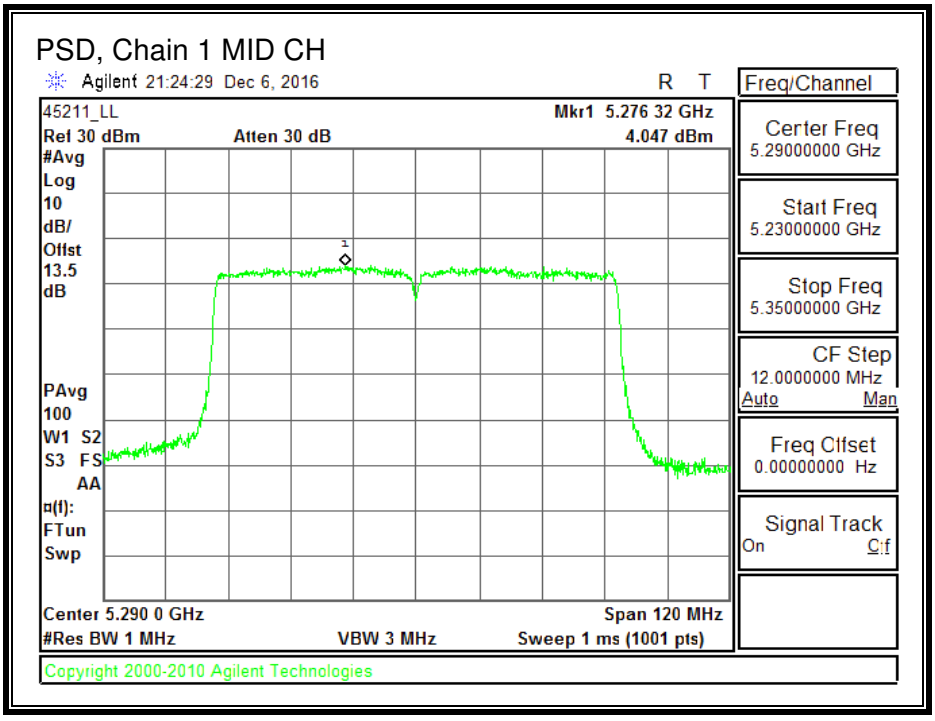
_The Output power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

_The CDD power was measured, the TXBF antenna array gain needs to be taken into account and this measurement used to define TXBF conducted power.

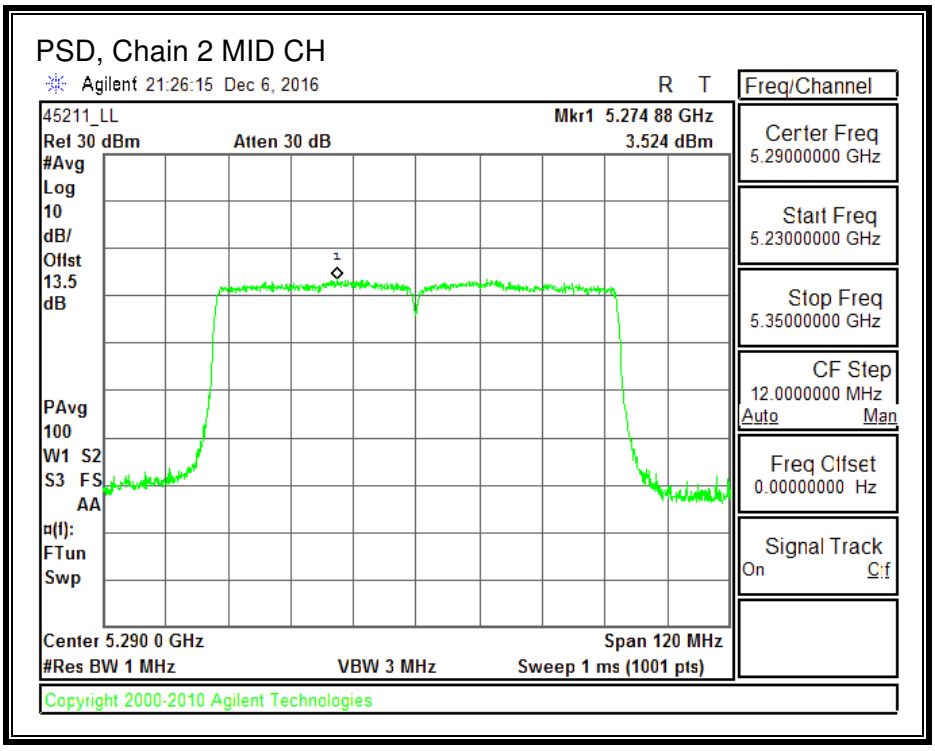
PSD, Chain 0



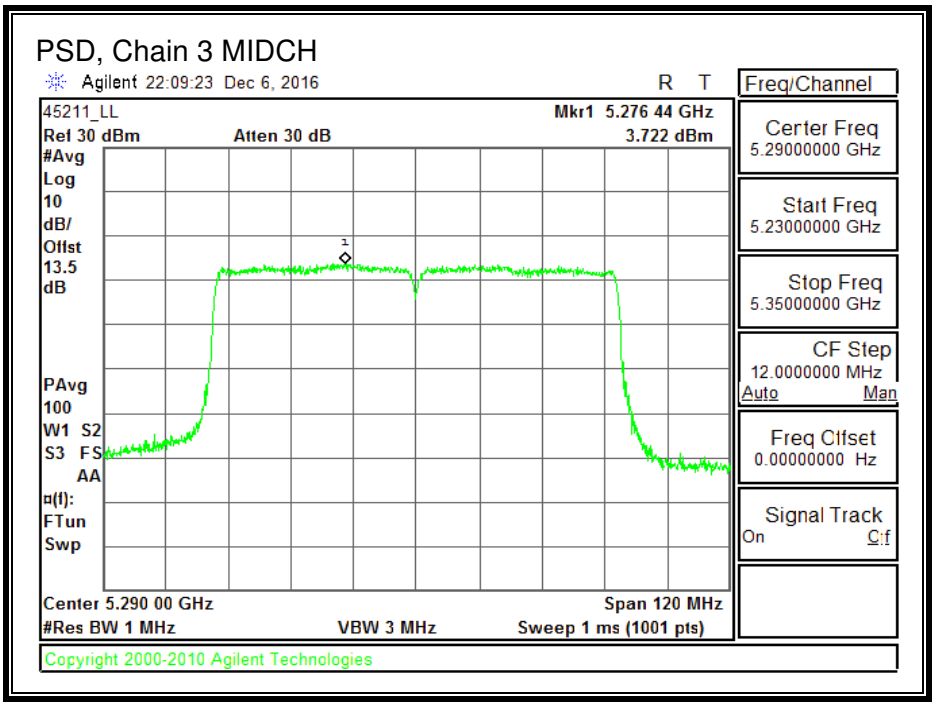
PSD, Chain 1



PSD, Chain 2



PSD, Chain 3



8.5. 802.11ac HT80+HT80 MODE IN THE 5.2 & 5.3 GHz BANDS

8.5.1. 26 dB BANDWIDTH

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

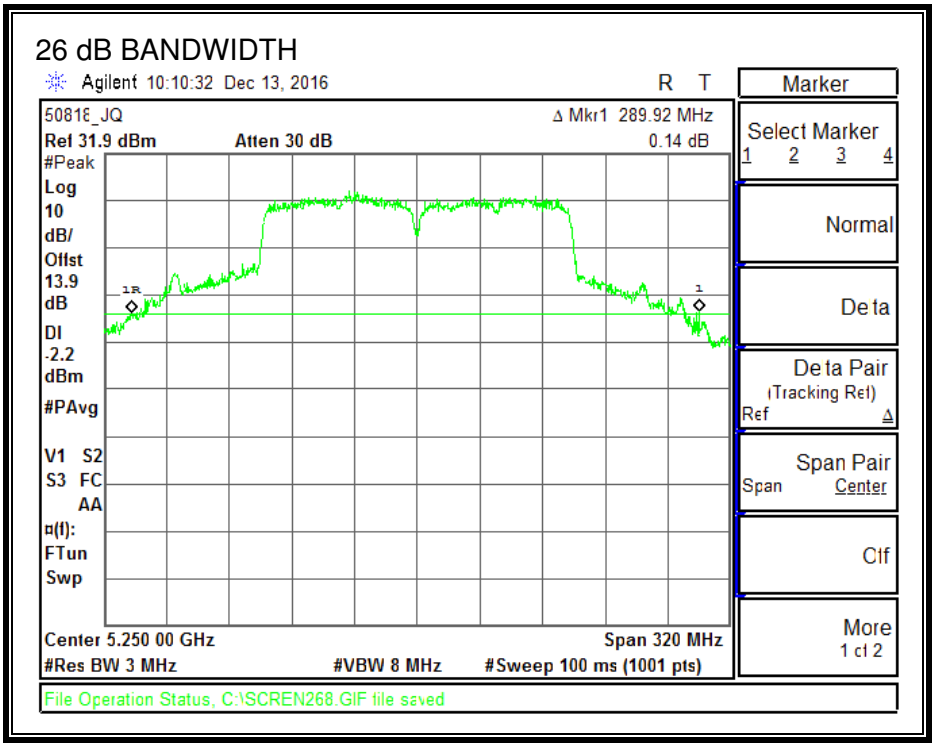
KDB 644545 D03 D)1)a); D)1)b)

RESULTS

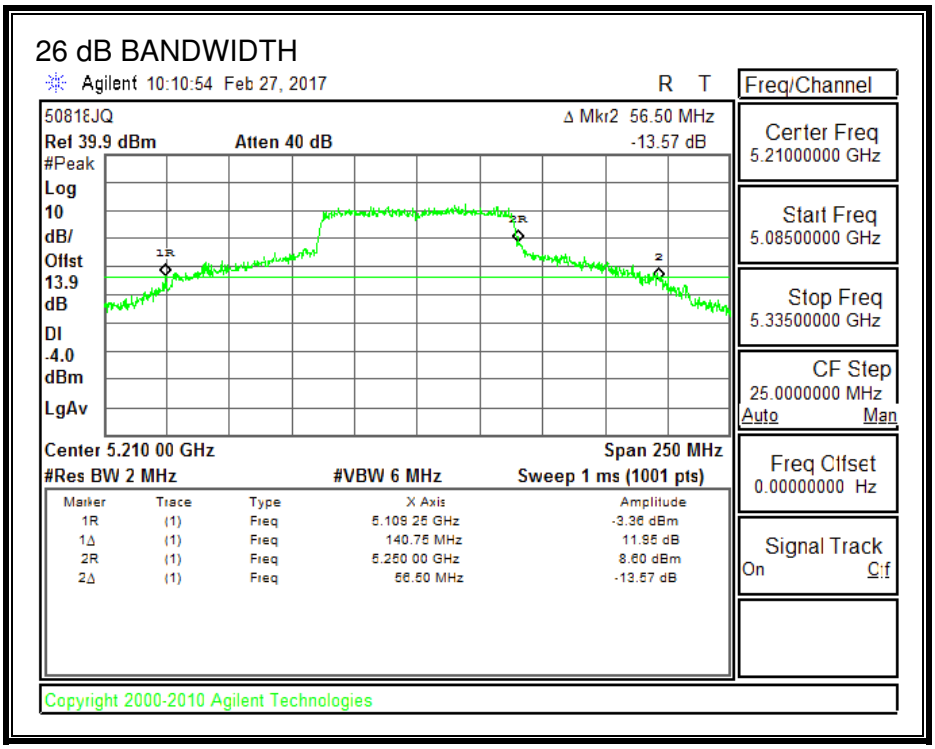
Channel	Frequency (MHz)	26 dB BW (MHz)
Mid	5250	289.92
42	5210	56.50
58	5290	158.00

26 dB BANDWIDTH

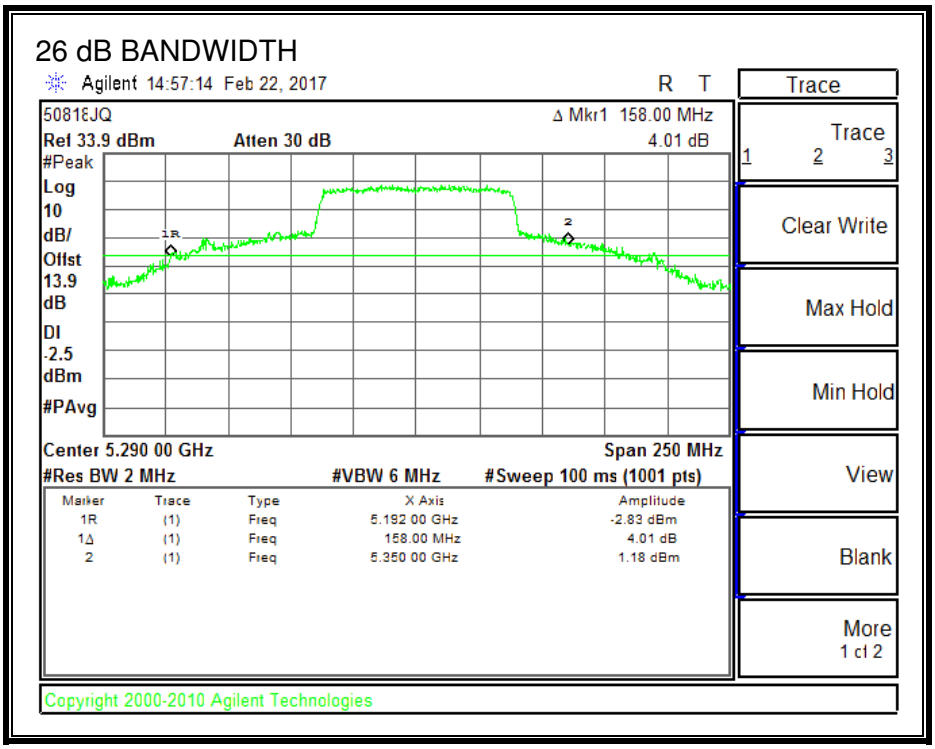
Mid Channel



Channel 42



Channel 58



8.5.2. OUTPUT POWER AND PSD

LIMITS

FCC §15.407 (a) (1)

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

FCC §15.407 (a) (2)

For the band 5.25–5.35 GHz, 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. In addition, the maximum 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 maximum conducted output 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.

DIRECTIONAL ANTENNA GAIN

For output power, the TX chains are uncorrelated and the antenna gain is the same for each chain. The directional gain is equal to the antenna gain.

Chain 0 & 1 Antenna Gain (dBi)	Chain 2 & 3 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
0.30	0.30	0.30

For PSD, the TX chains are correlated and the antenna gain is the same for each chain. The directional gain is:

Antenna Gain (dBi)	10 * Log (2 chains) (dB)	Correlated Chains Directional Gain (dBi)
0.30	3.01	3.31

RESULTS

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
Mid	5250	289.92	0.30	3.31	24.00	11.00
42	5210	56.50	0.30	3.31	24.00	11.00
58	5290	158.00	0.30	3.31	24.00	11.00

Duty Cycle CF (dB)	0.33	Included in Calculations of PSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Chain 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
42	5210	16.02	16.05	N/A	N/A	19.05	30.00	-10.95
58	5290	N/A	N/A	14.56	15.15	17.88	24.00	-6.12

PSD Results

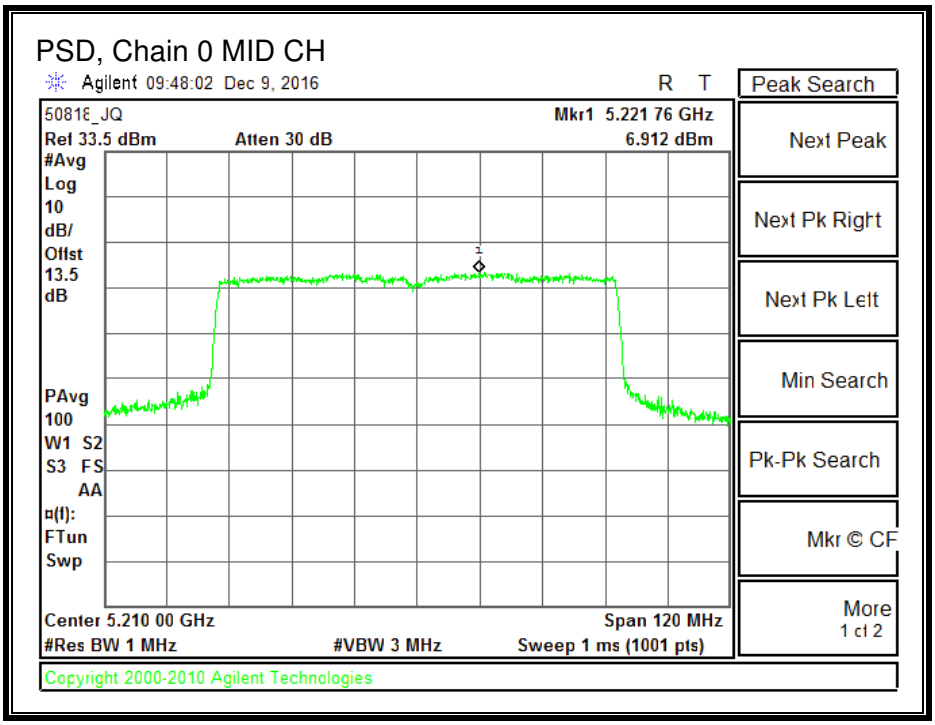
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Chain 3 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
42	5210	6.912	7.388	N/A	N/A	10.50	17.00	-6.50
58	5290	N/A	N/A	6.86	6.85	10.19	11.00	-0.81

Note:

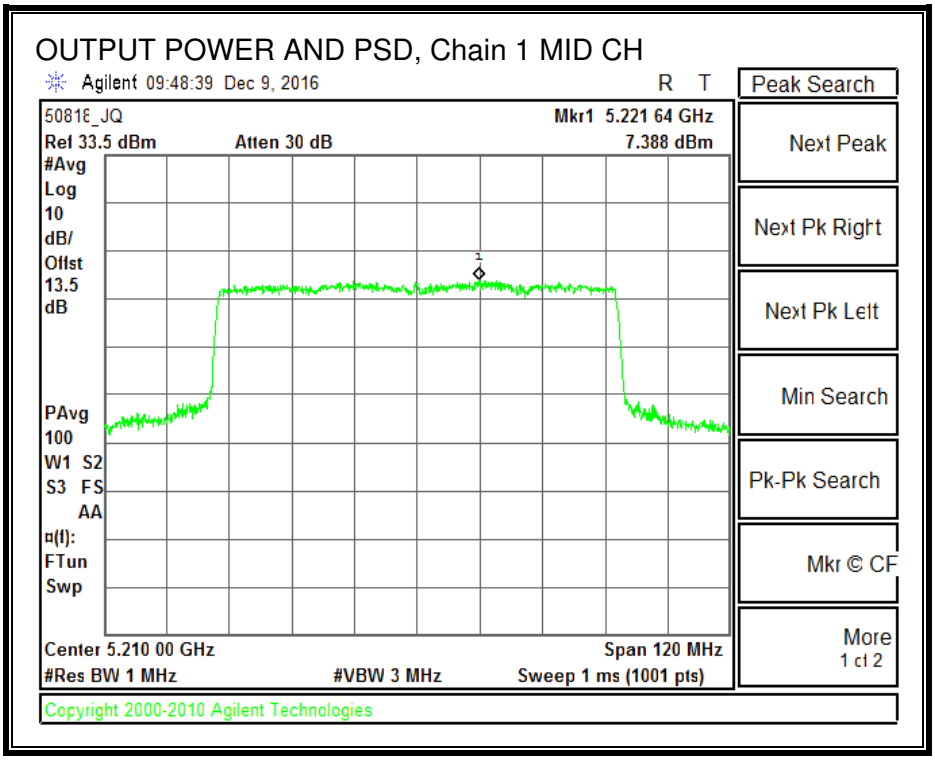
_The Output power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

_The 26dB bandwidth that falls inside the 5250-5350 MHz band is > 20MHz, therefore the power limit is 24dBm.

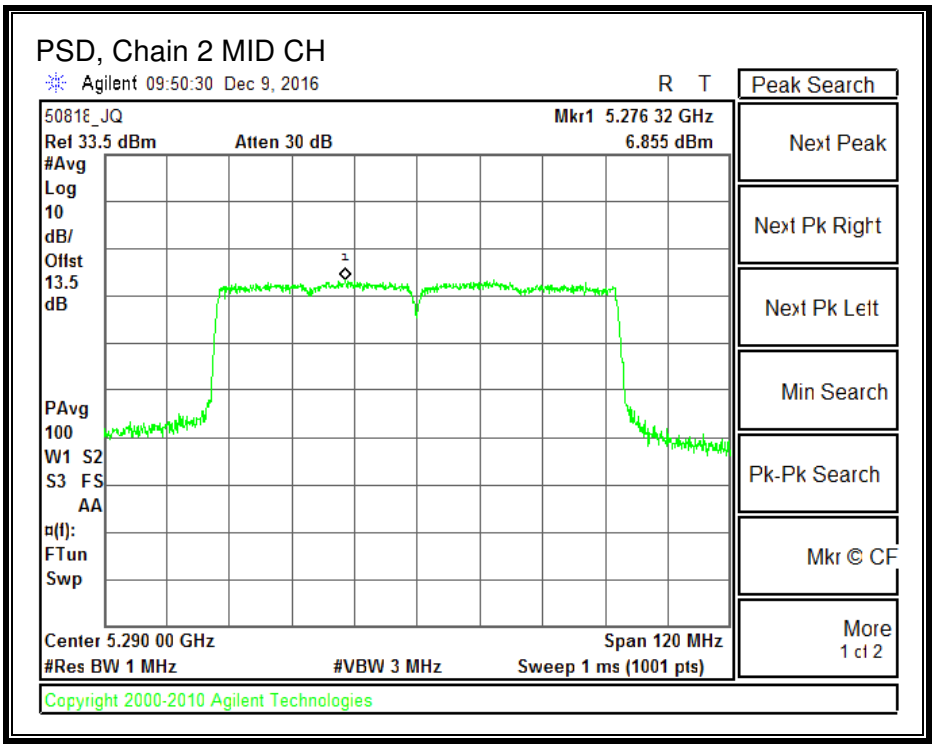
PSD, Chain 0



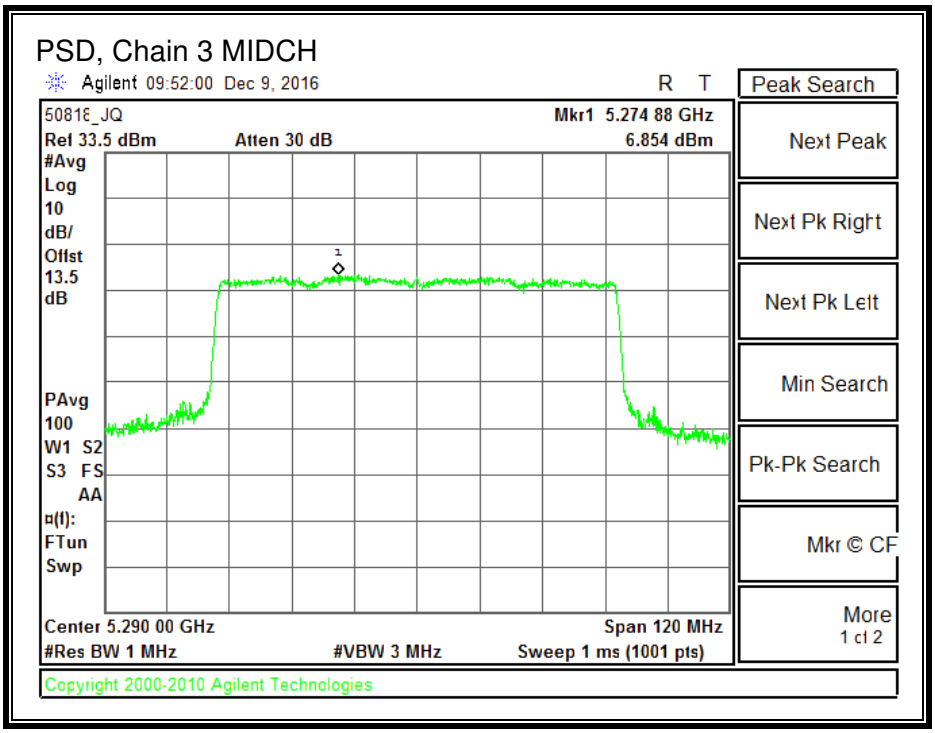
OUTPUT POWER AND PSD, Chain 1



PSD, Chain 2



PSD, Chain 3



8.6. 802.11n HT20 MODE IN THE 5.6 GHz BAND

8.6.1. 26 dB BANDWIDTH

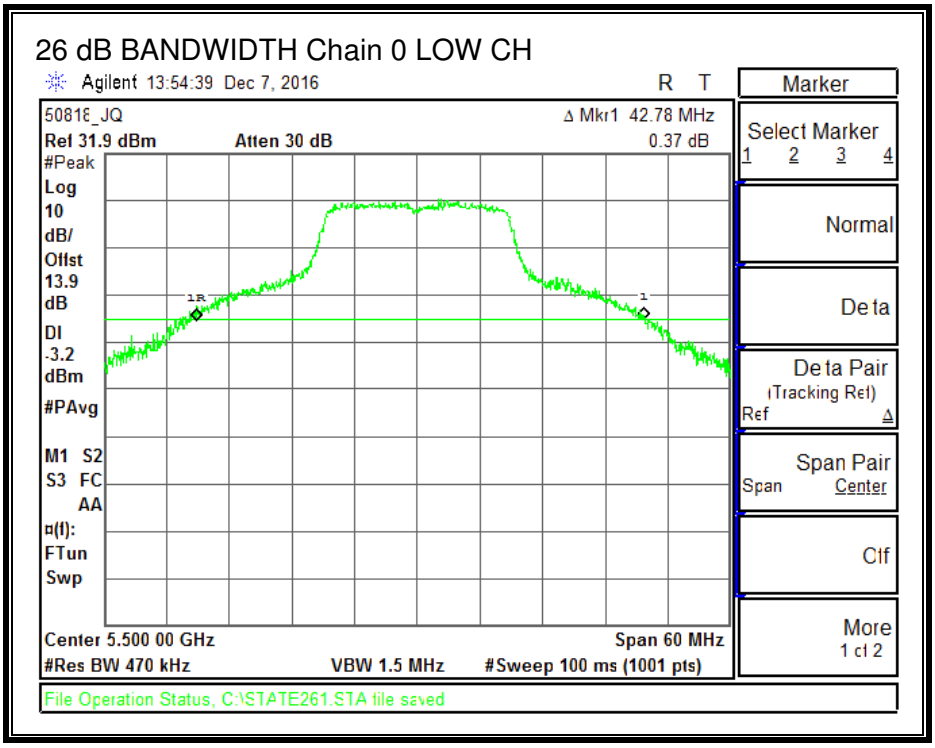
LIMITS

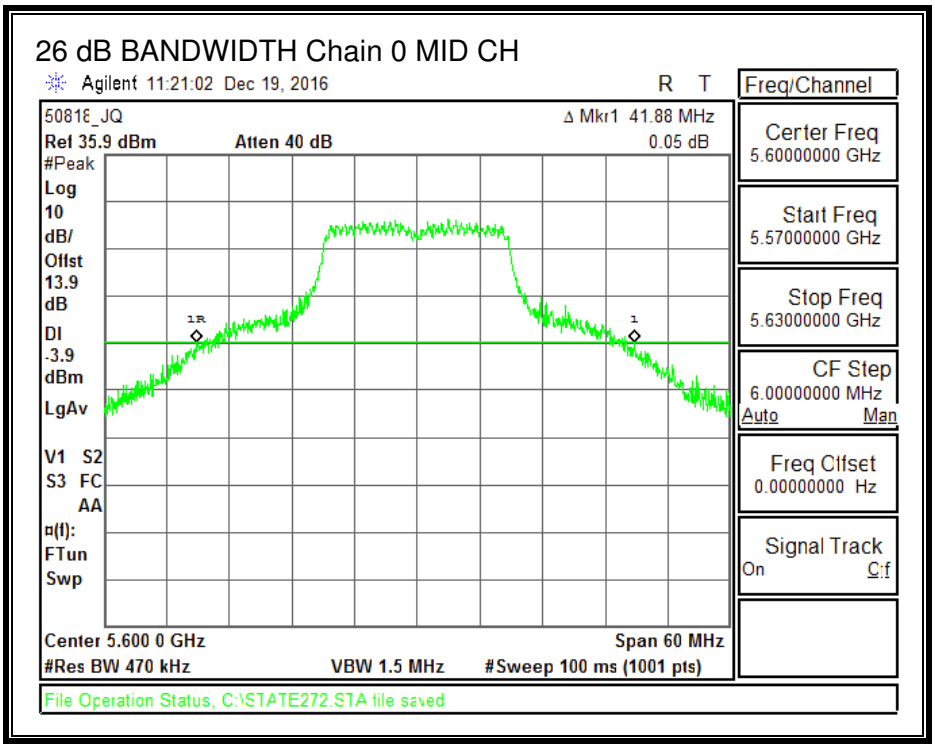
None; for reporting purposes only.

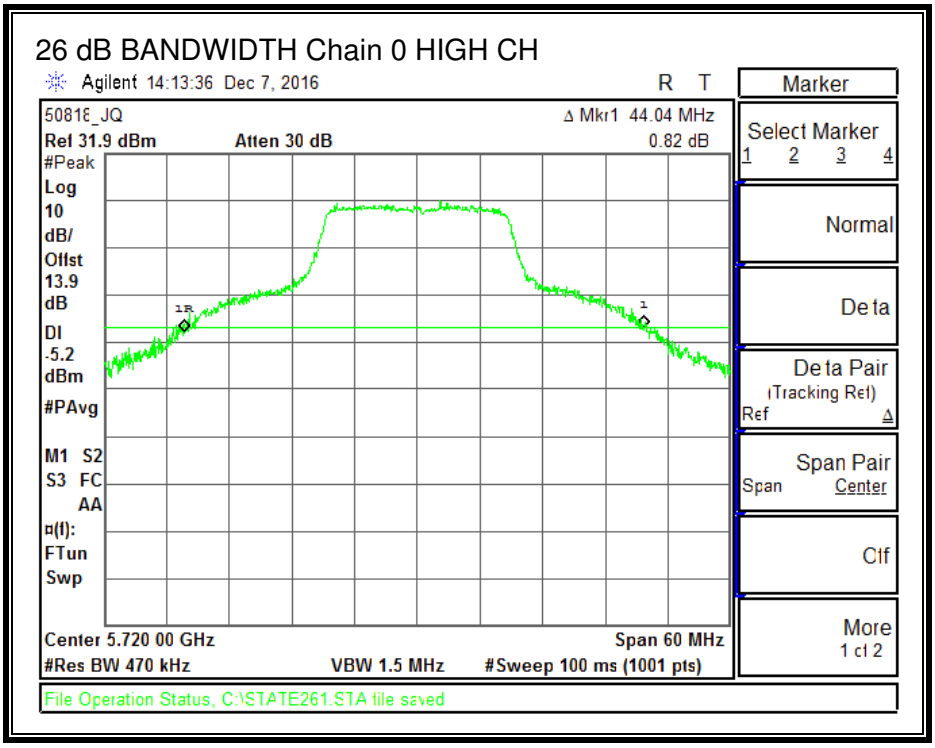
RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)	26 dB BW Chain 3 (MHz)
Low	5500	42.78	42.54	40.98	43.20
Mid	5600	41.88	45.00	42.12	43.20
High	5720	44.04	39.60	40.02	40.98

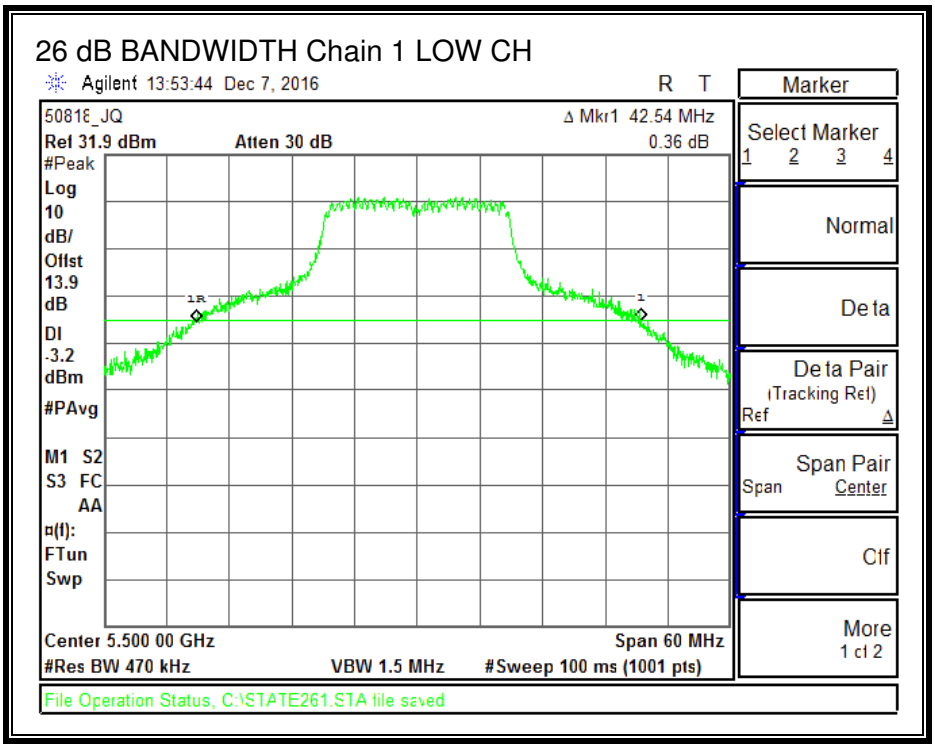
26 dB BANDWIDTH, Chain 0

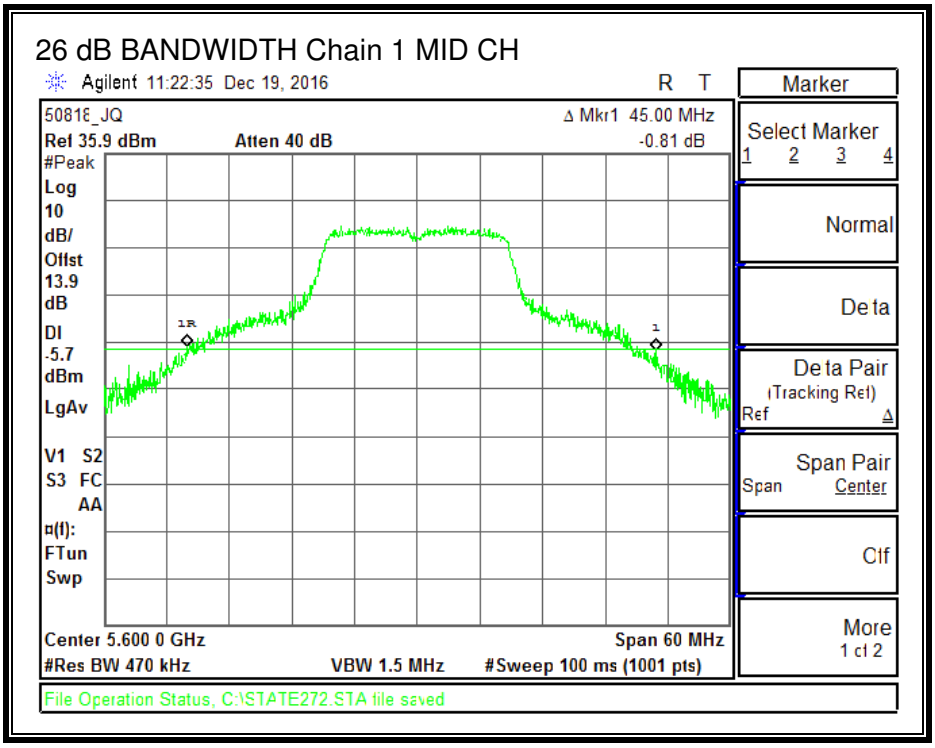


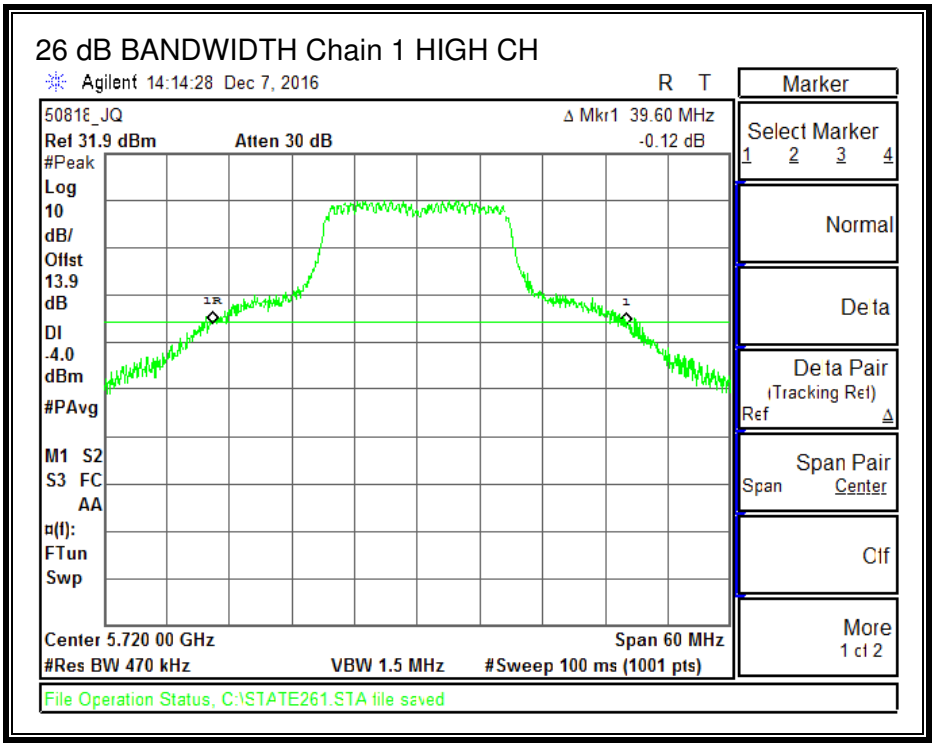




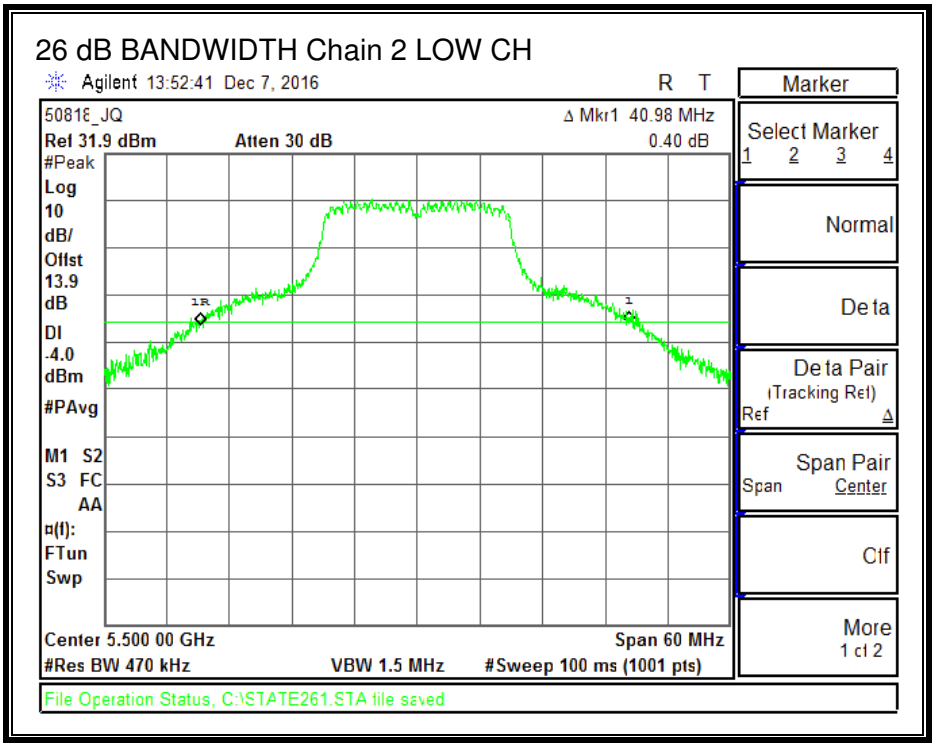
26 dB BANDWIDTH, Chain 1

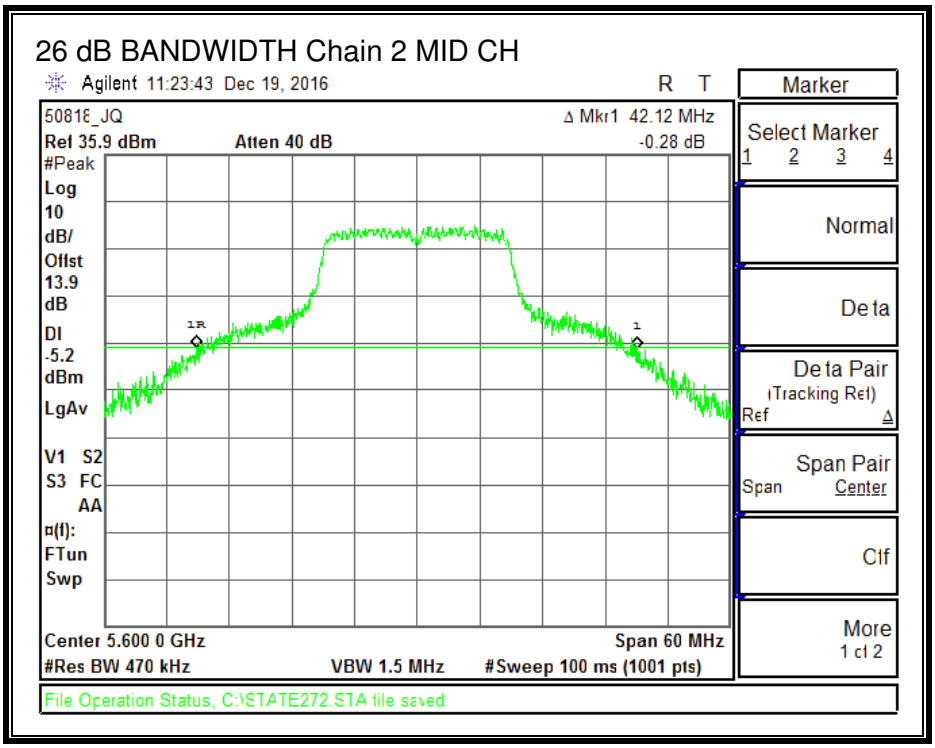


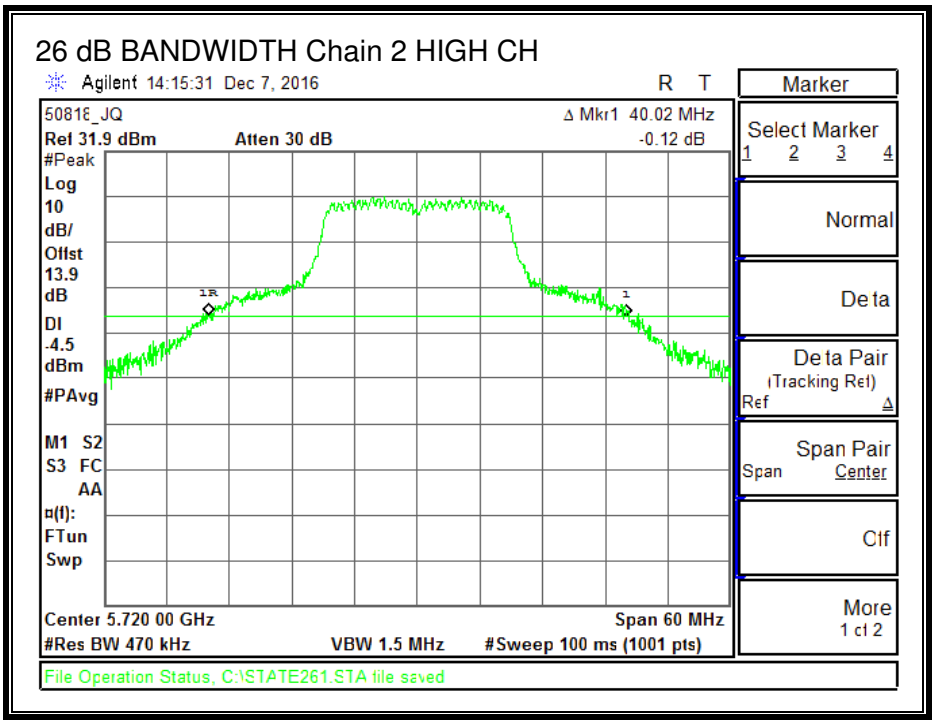




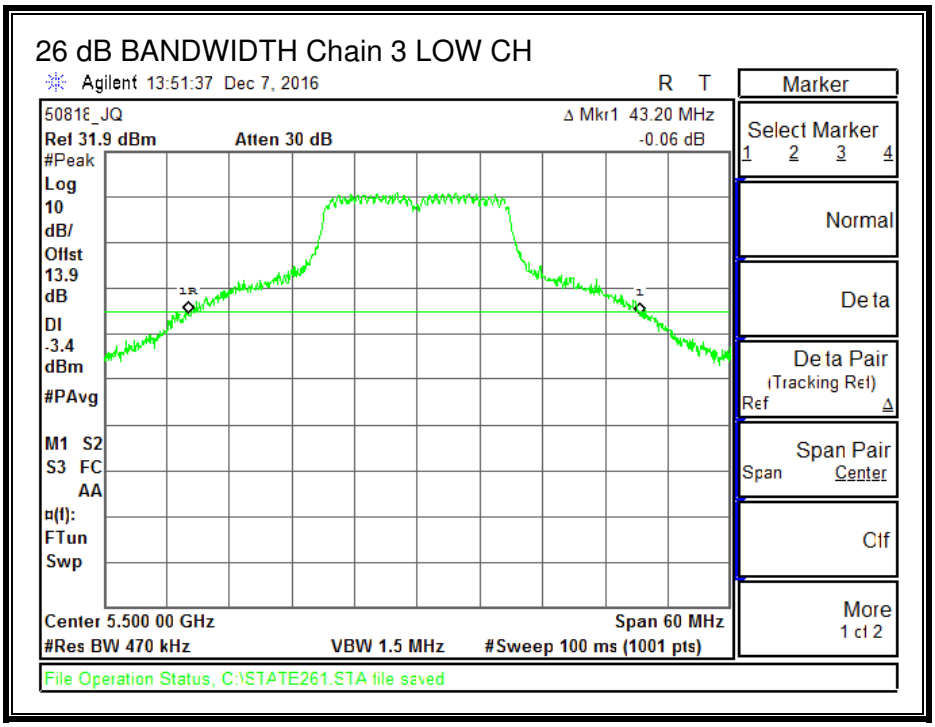
26 dB BANDWIDTH, Chain 2

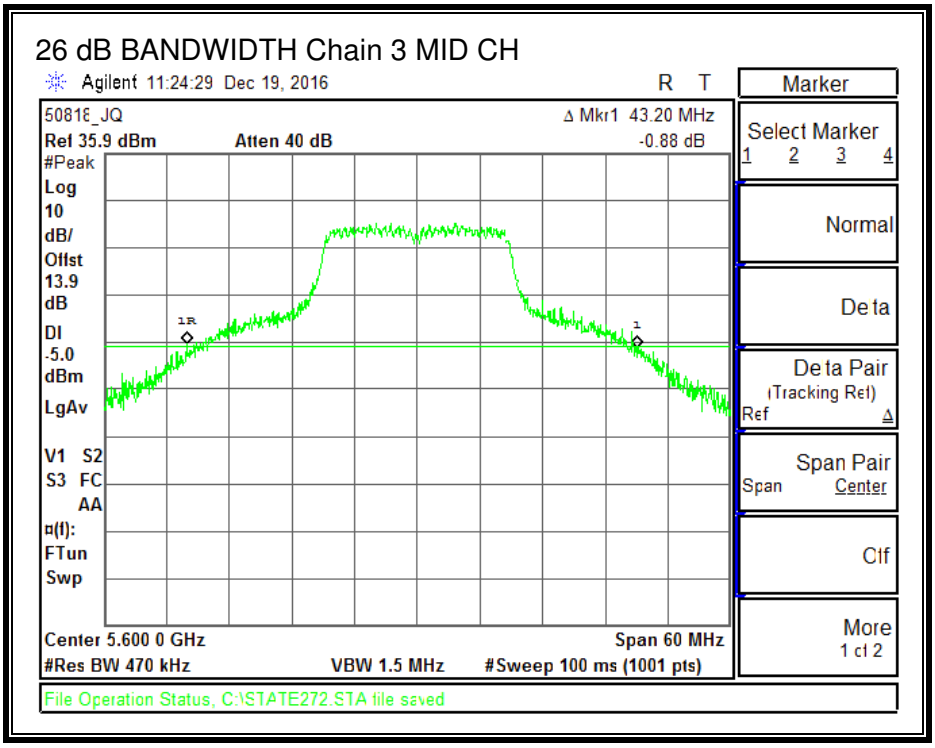


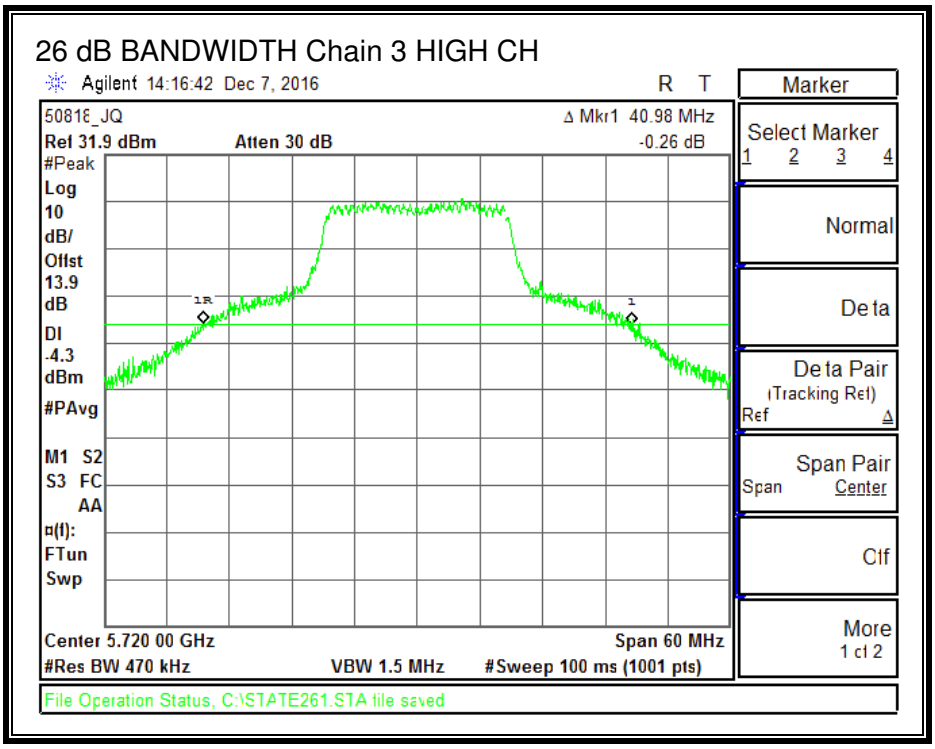




26 dB BANDWIDTH, Chain 3







8.6.2. OUTPUT POWER AND PSD

LIMITS

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, 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. In addition, the maximum 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 maximum conducted output 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.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is the same for each chain. The directional gain is:

Antenna Gain (dBi)	10 * Log (4 chains) (dB)	Correlated Chains Directional Gain (dBi)
0.30	6.02	6.32

RESULTS

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
Low	5500	40.98	6.32	6.32	23.68	10.68
Mid	5600	41.88	6.32	6.32	23.68	10.68
High	5720	39.60	6.32	6.32	23.68	10.68

Duty Cycle CF (dB)	0.00	Included in Calculations of PSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Chain 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	15.68	15.12	14.70	15.31	21.24	23.68	-2.44
Mid	5600	14.99	14.07	14.03	14.89	20.54	23.68	-3.14
High	5720	15.71	15.00	14.93	15.54	21.33	23.68	-2.35

PSD Results

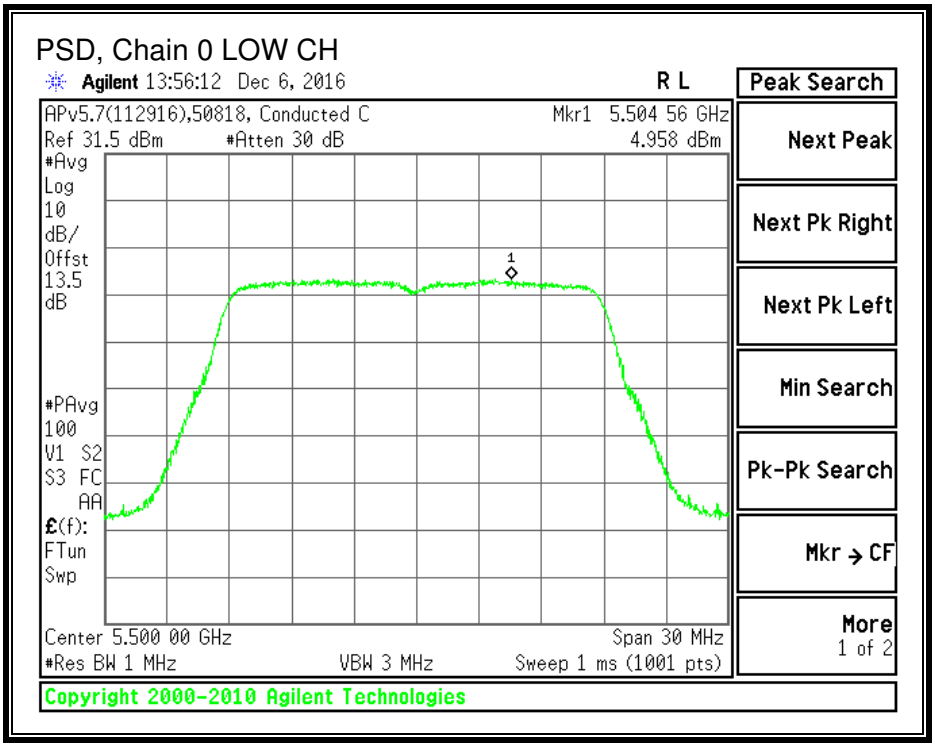
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Chain 3 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5500	4.96	4.31	4.03	4.58	10.50	10.68	-0.18
Mid	5600	4.26	4.67	4.19	4.15	10.34	10.68	-0.34
High	5720	4.75	4.05	3.54	4.23	10.19	10.68	-0.49

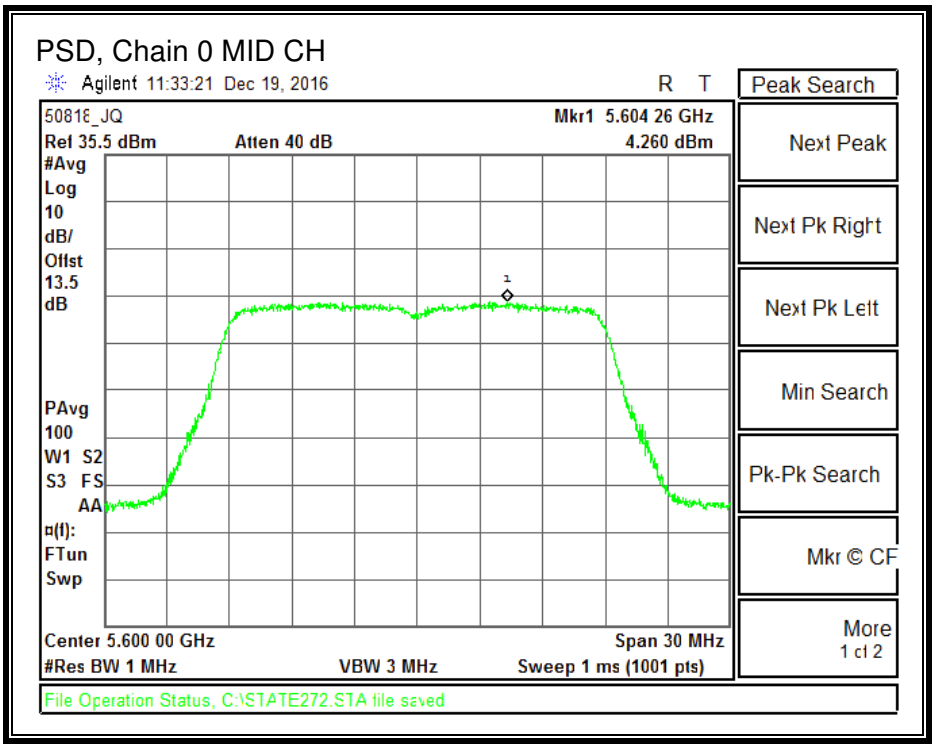
Note:

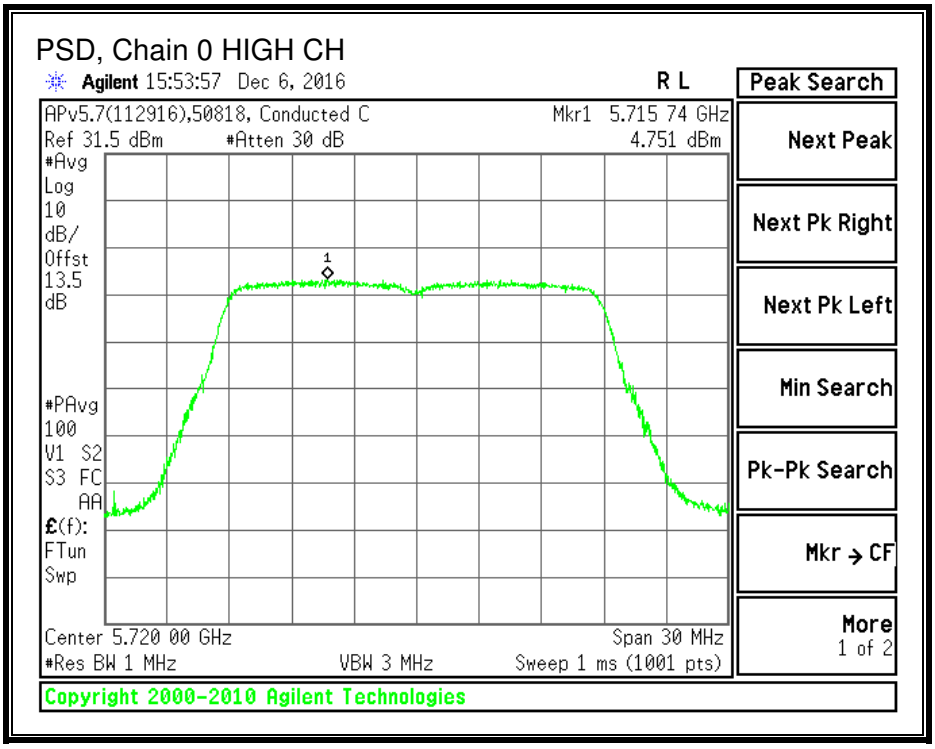
_The Output power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

_The CDD power was measured, the TXBF antenna array gain needs to be taken into account and this measurement used to define TXBF conducted power.

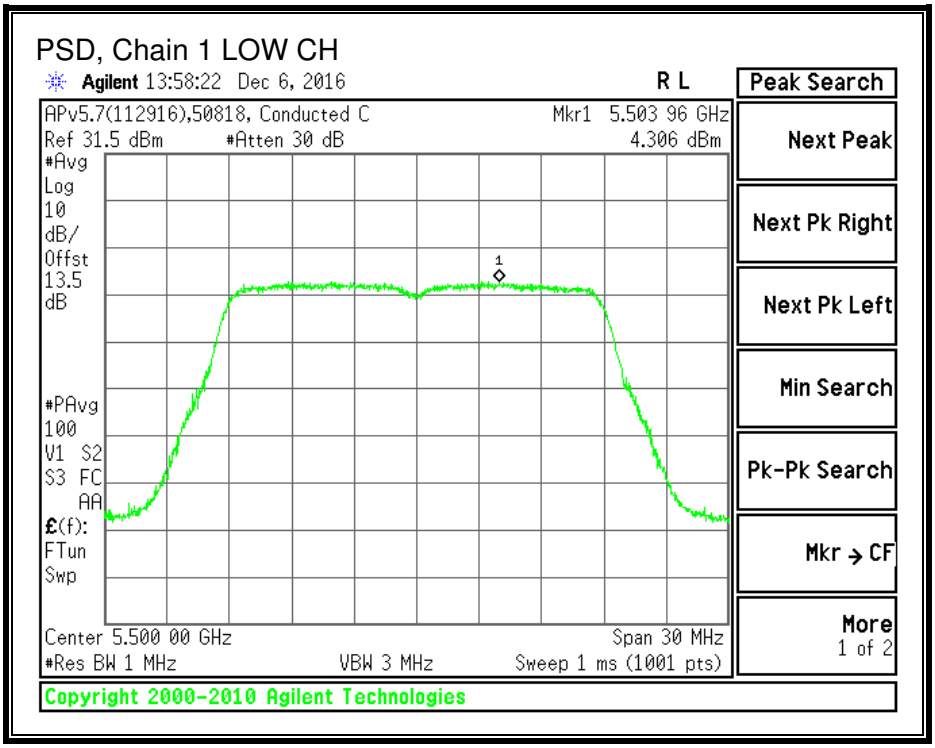
PSD, Chain 0



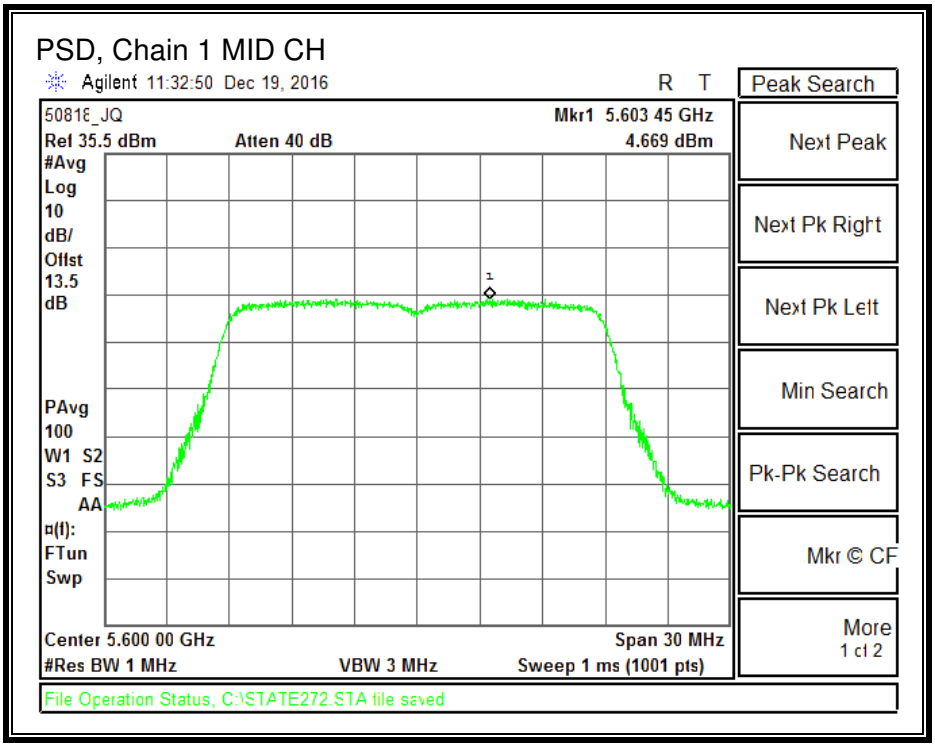




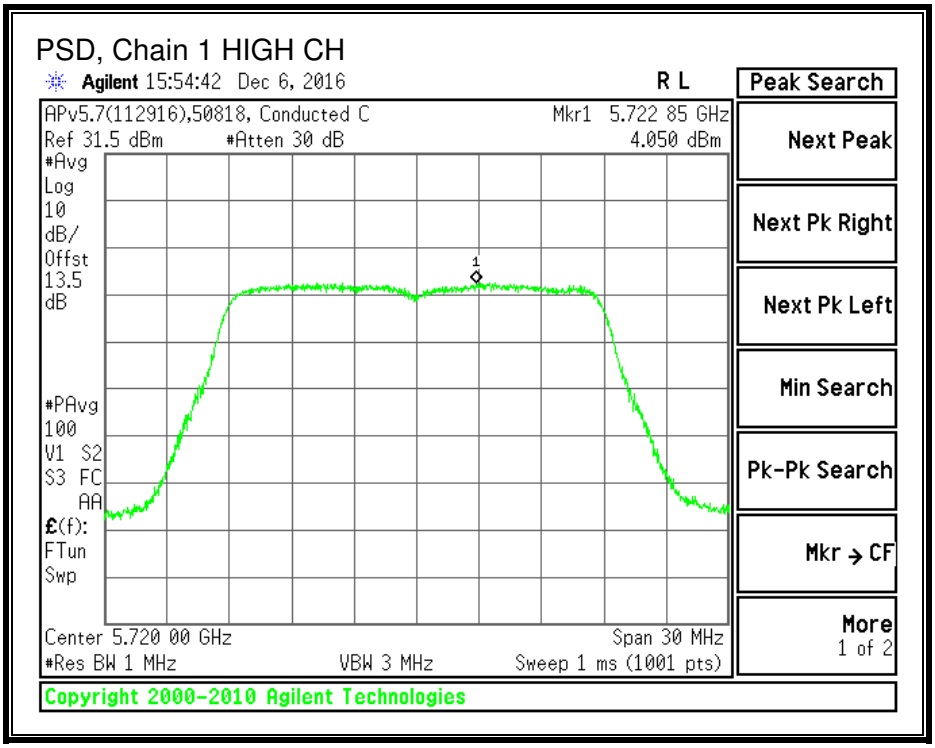
PSD, Chain 1



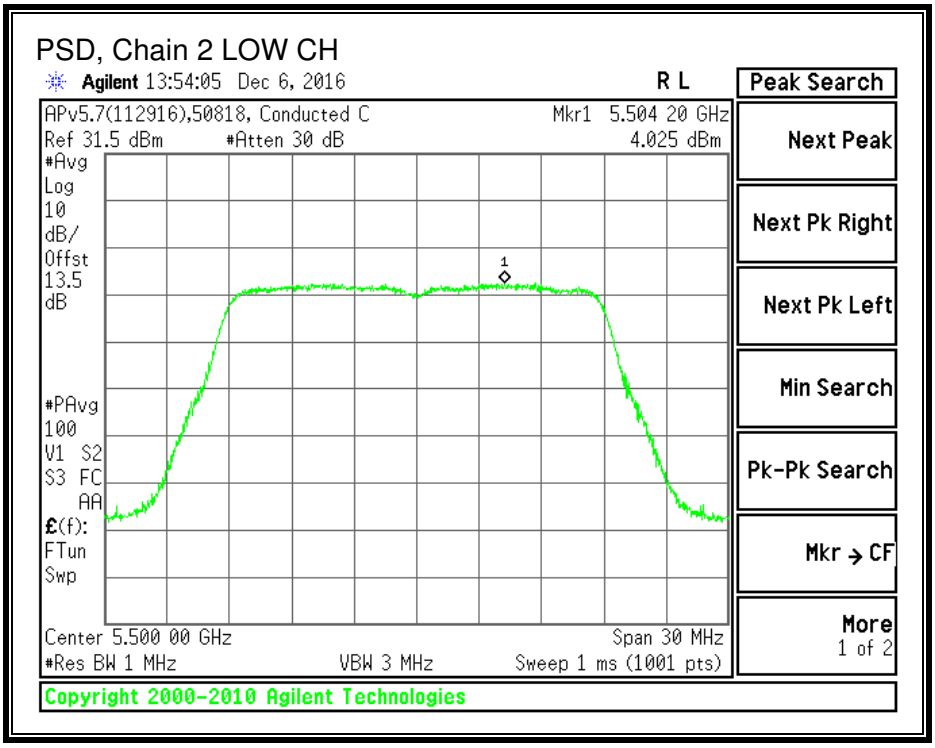
PSD, Chain 1 MID CH

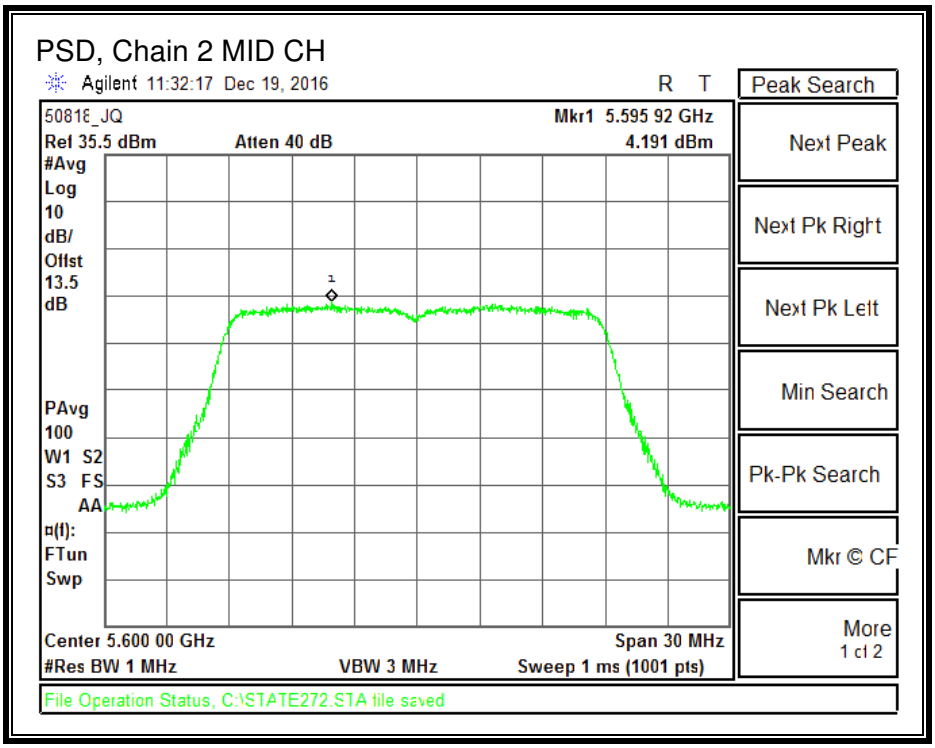


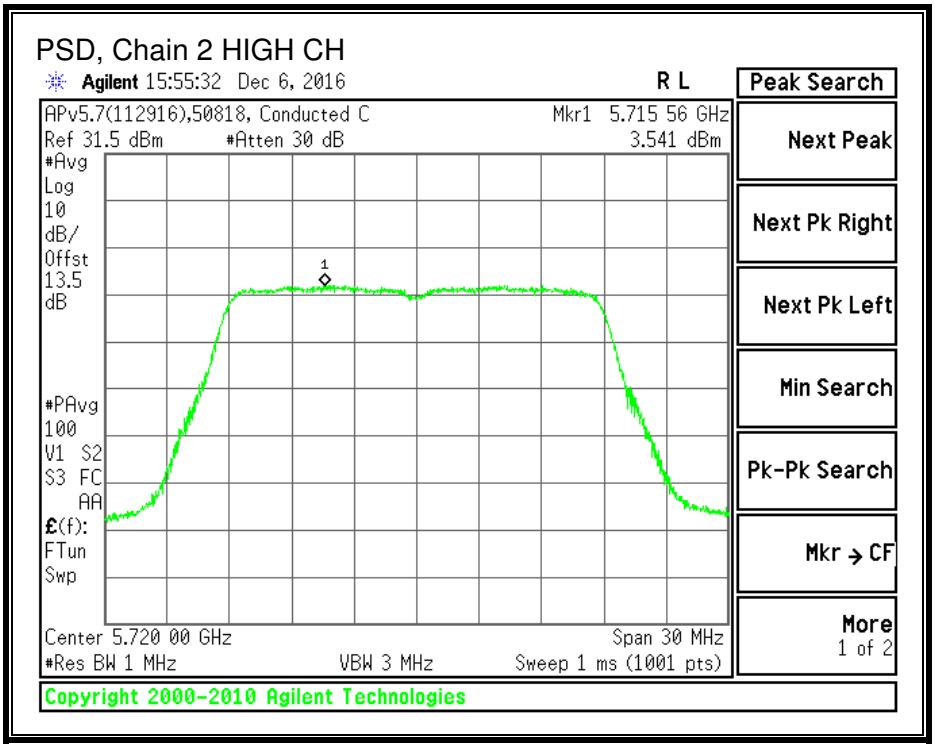
PSD, Chain 1 HIGH CH



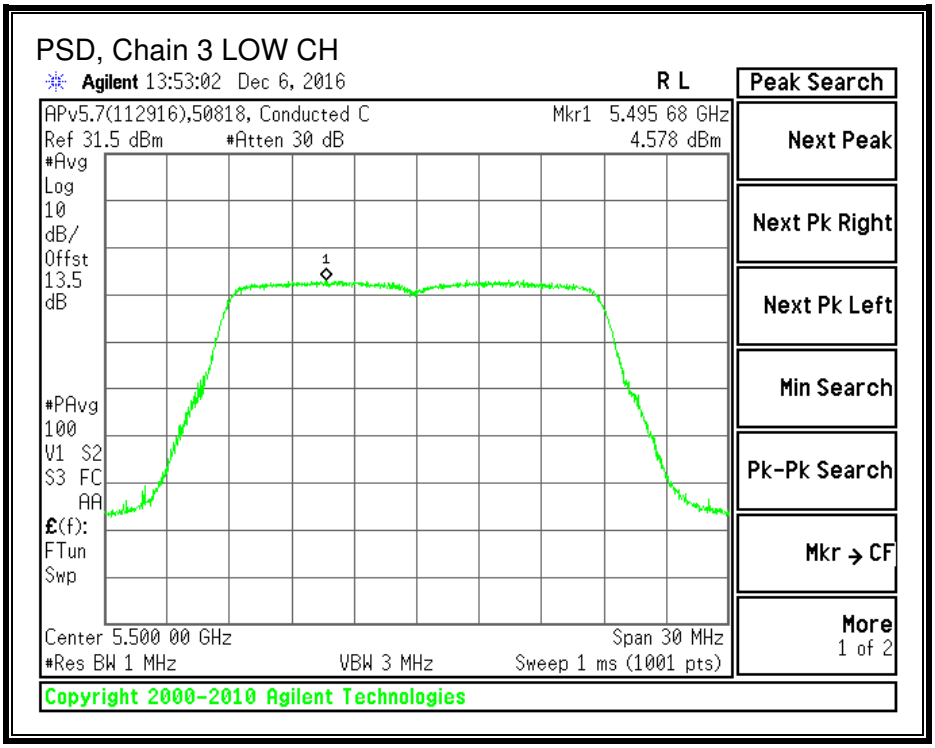
PSD, Chain 2



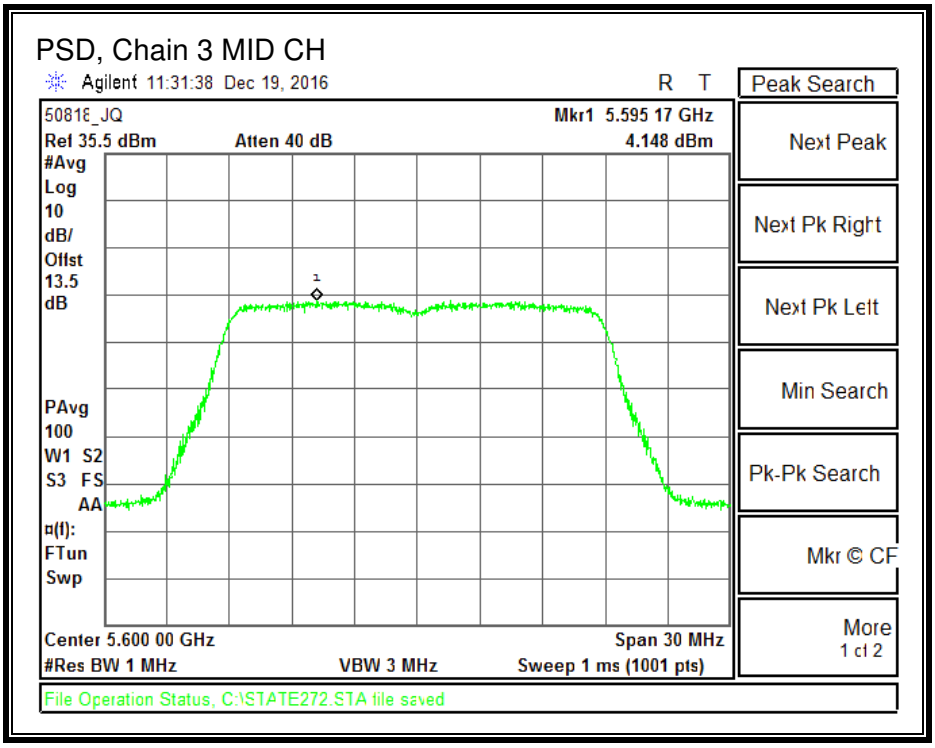




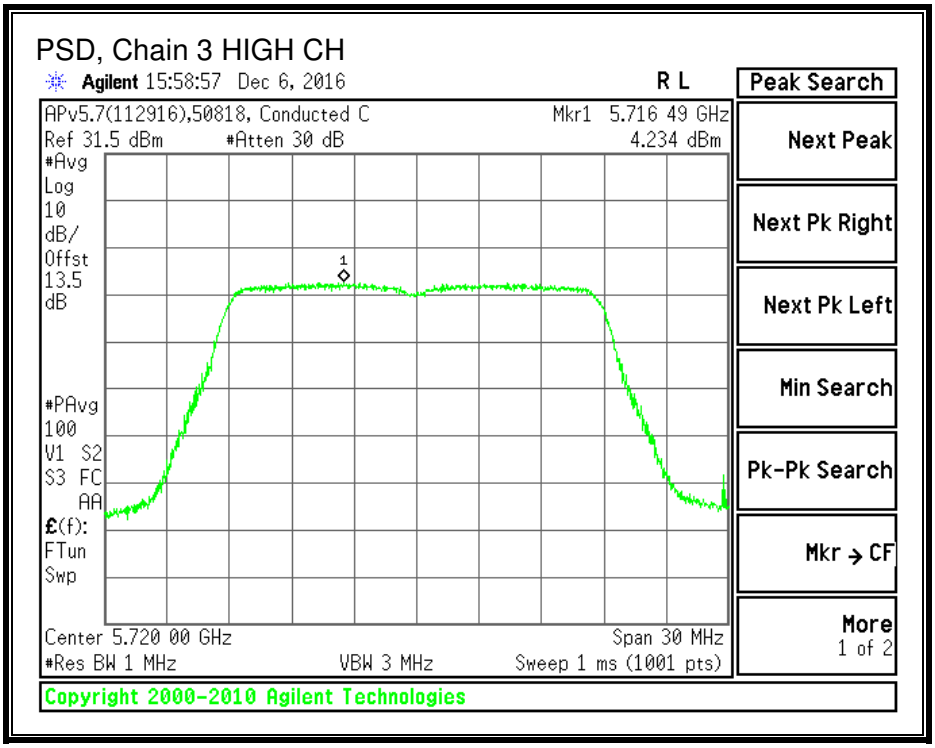
PSD, Chain 3



PSD, Chain 3 MID CH



PSD, Chain 3 HIGH CH



8.7. 802.11n HT40 MODE IN THE 5.6 GHz BAND

8.7.1. 26 dB BANDWIDTH

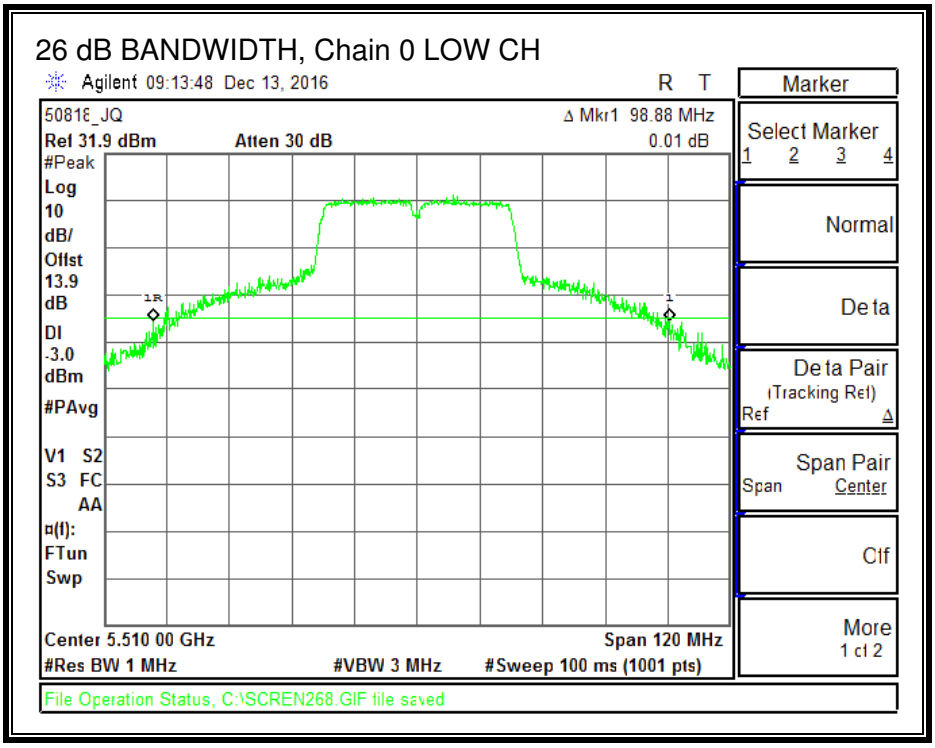
LIMITS

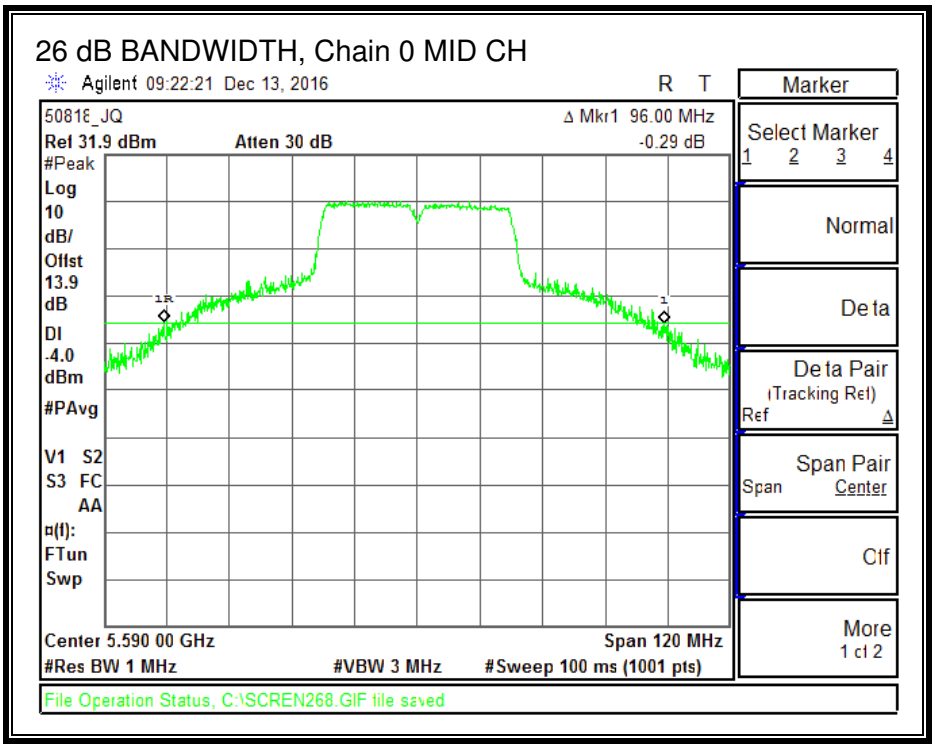
None; for reporting purposes only.

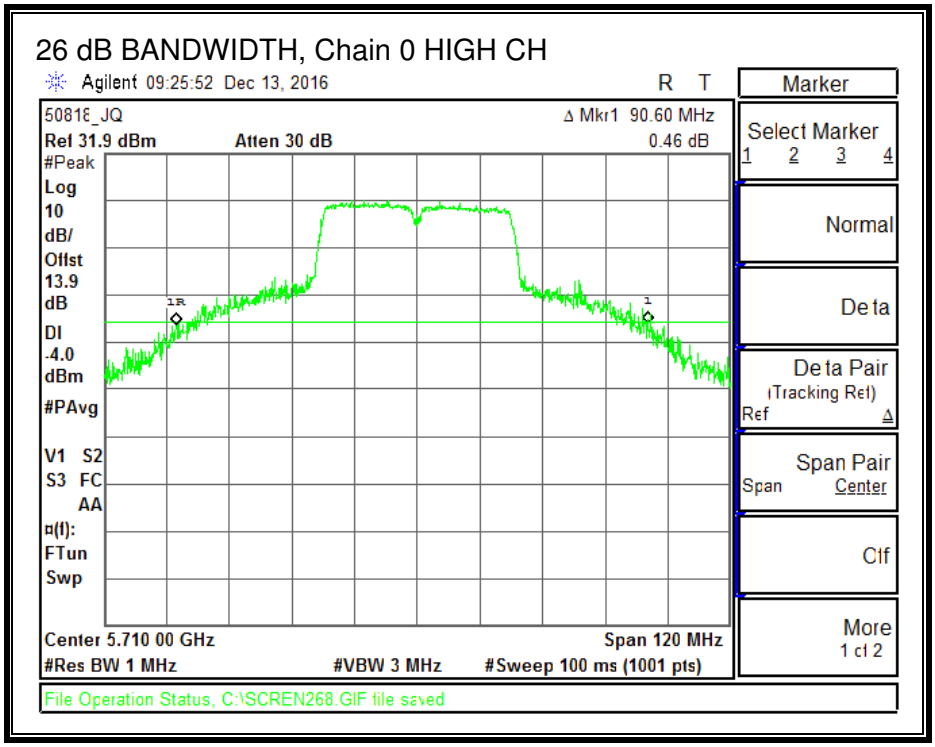
RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)	26 dB BW Chain 3 (MHz)
Low	5510	98.88	95.88	96.72	95.88
Mid	5590	96.00	92.40	90.84	95.88
High	5710	90.60	92.16	88.20	92.04

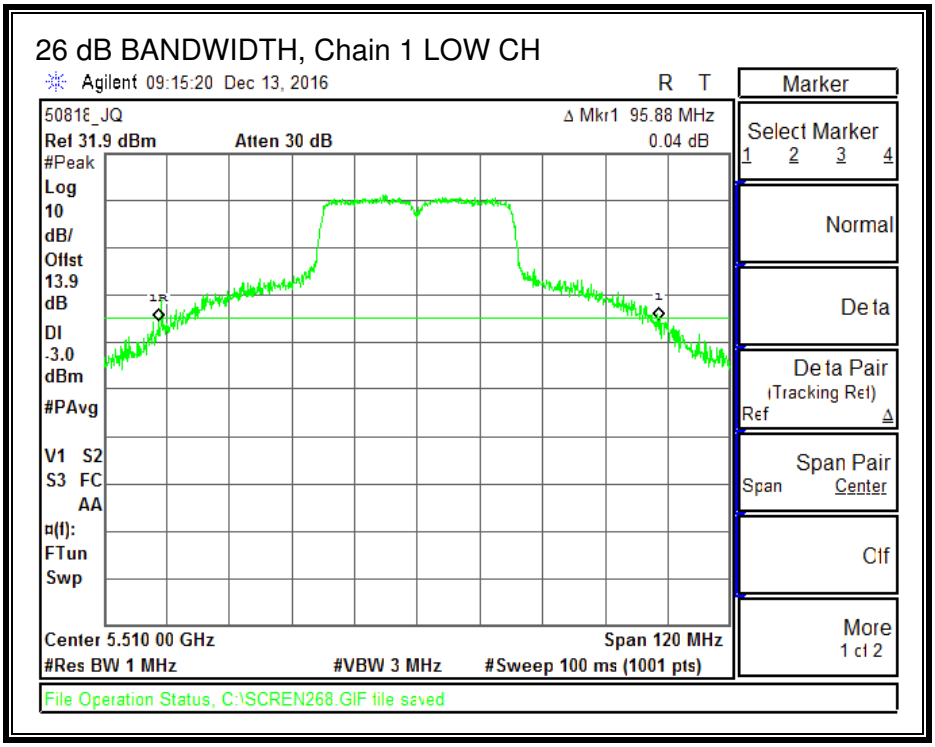
26 dB BANDWIDTH, Chain 0

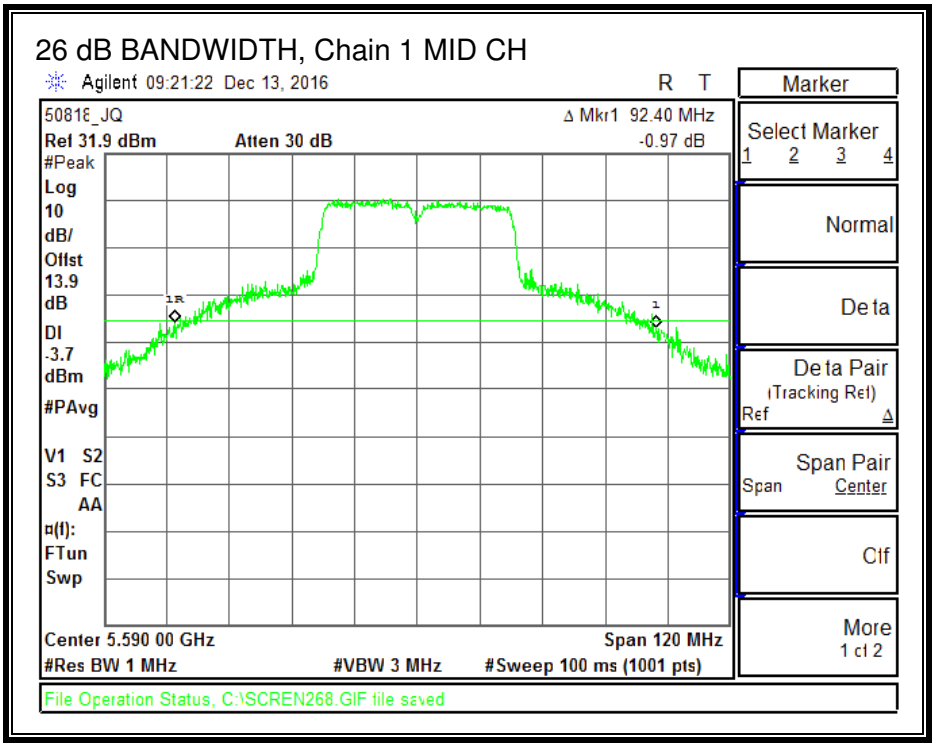


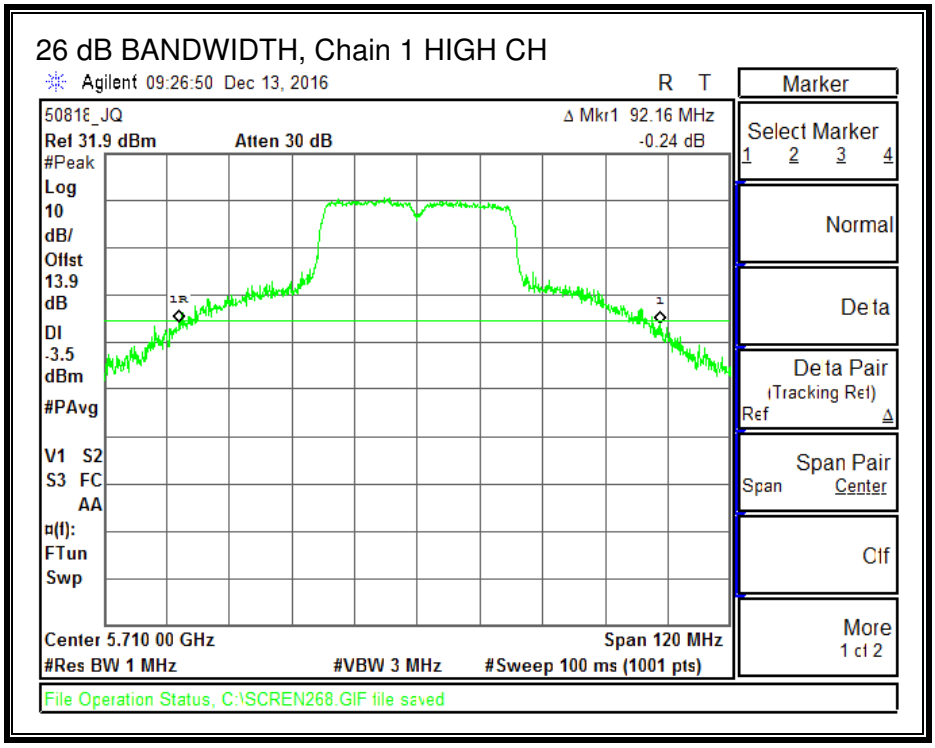




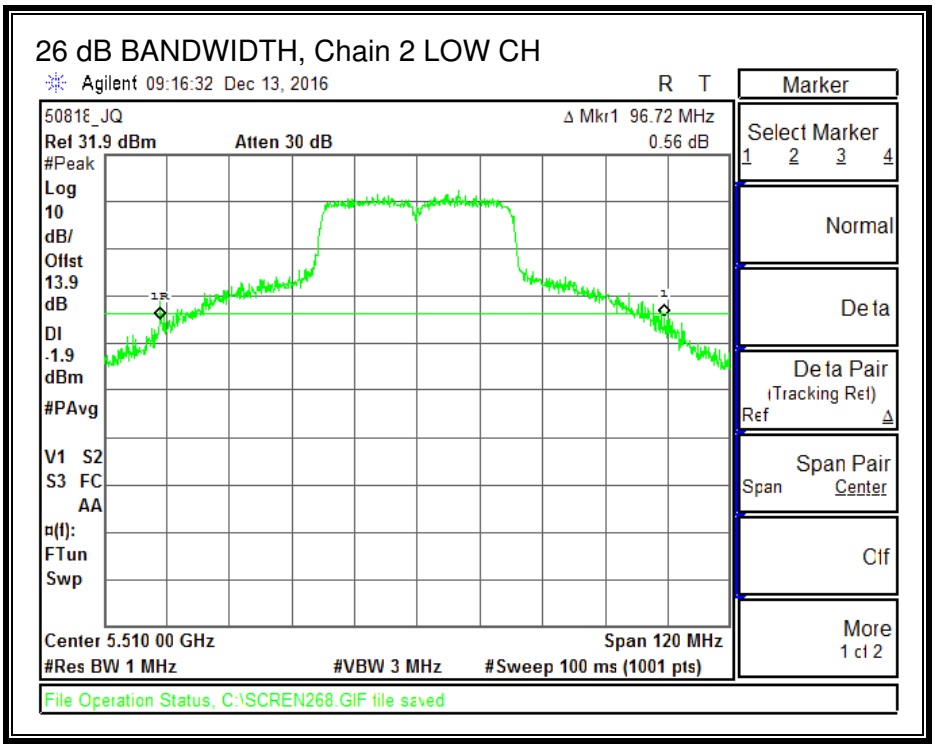
26 dB BANDWIDTH, Chain 1

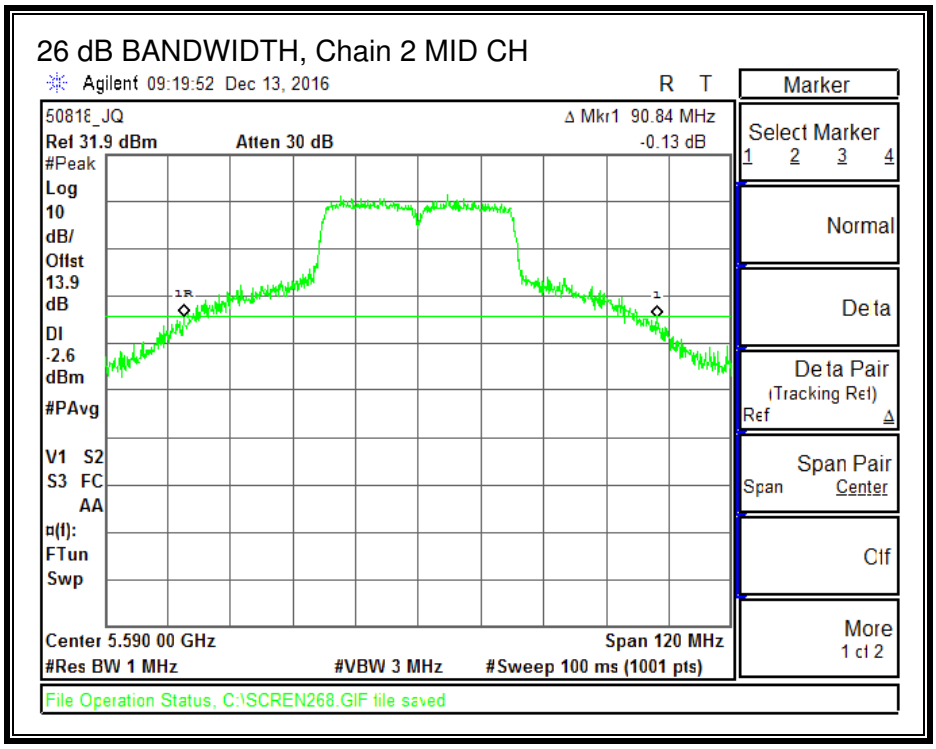


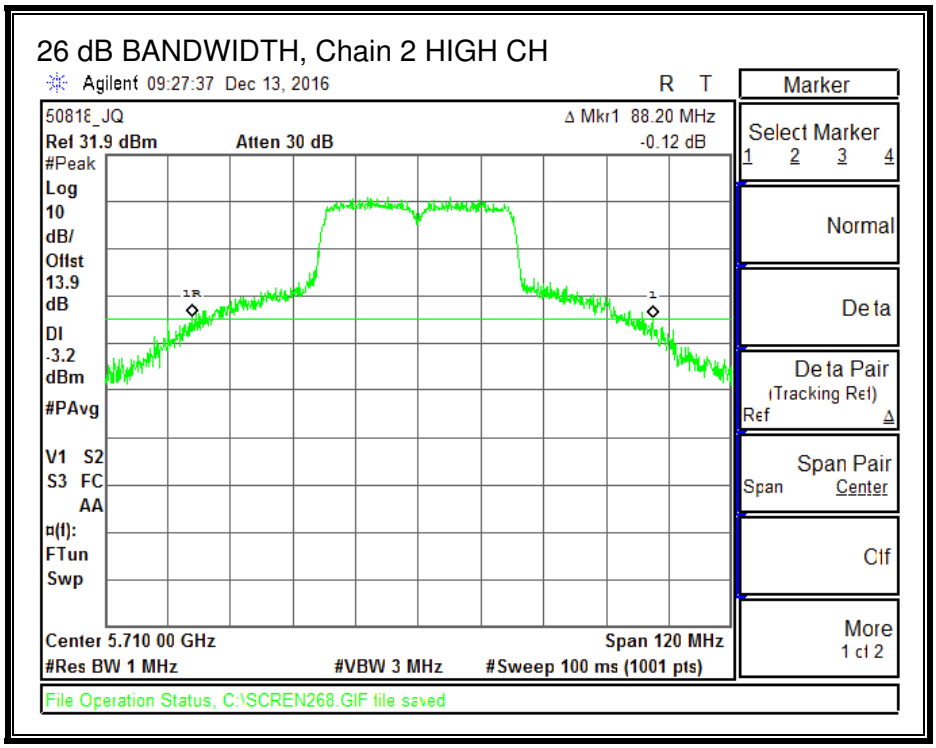




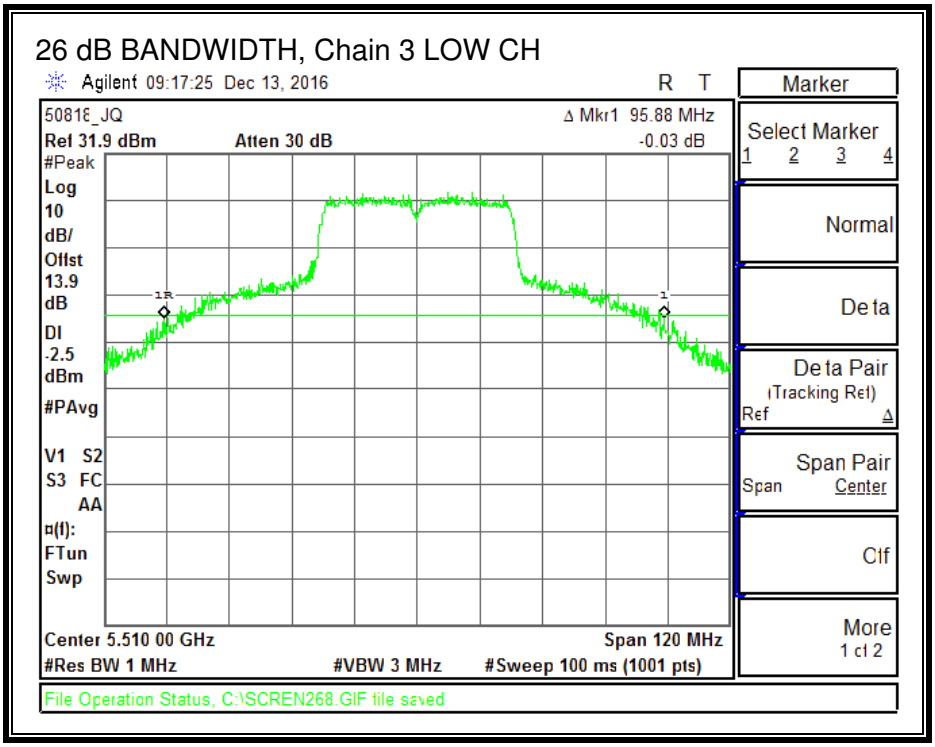
26 dB BANDWIDTH, Chain 2

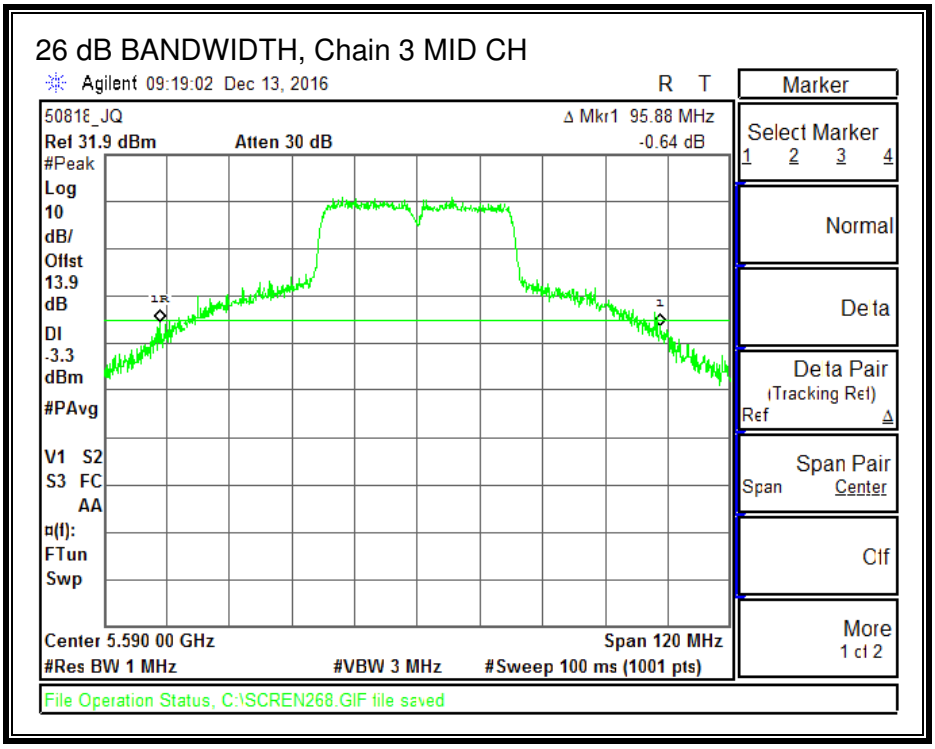


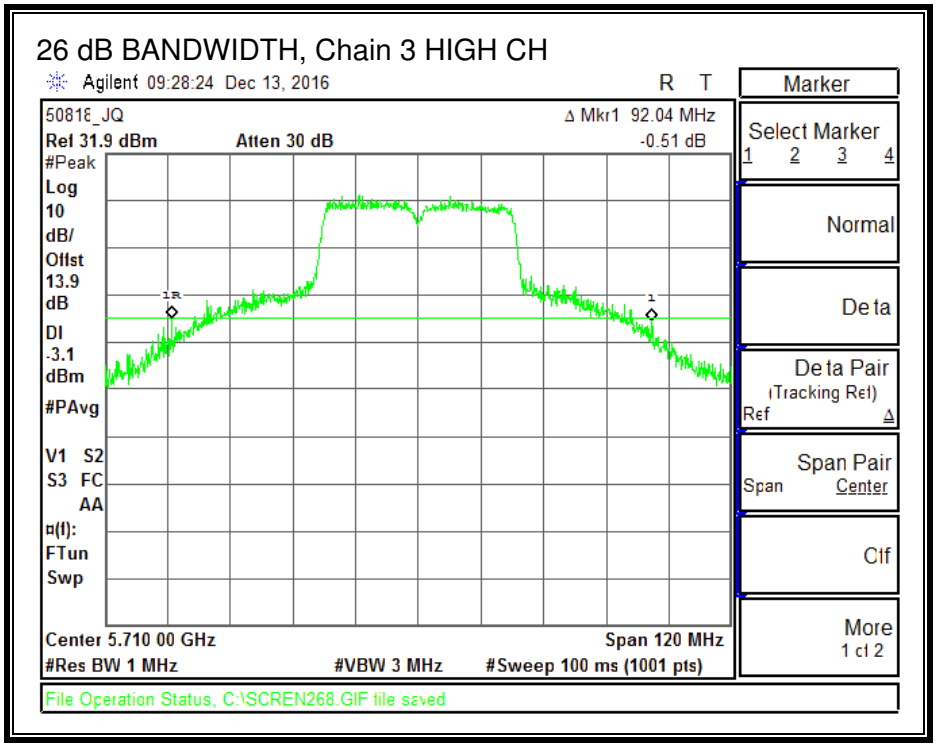




26 dB BANDWIDTH, Chain 3







8.7.2. OUTPUT POWER AND PSD

LIMITS

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, 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. In addition, the peak power spectral density shall not exceed 11 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output 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.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is the same for each chain. The directional gain is:

Antenna Gain (dBi)	10 * Log (4 chains) (dB)	Correlated Chains Directional Gain (dBi)
0.30	6.02	6.32

RESULTS

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
Low	5510	95.88	6.32	6.32	23.68	10.68
Mid	5590	90.84	6.32	6.32	23.68	10.68
High	5710	88.20	6.32	6.32	23.68	10.68

Duty Cycle CF (dB)	0.12	Included in Calculations of PSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Chain 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	15.13	15.36	15.33	15.75	21.42	23.68	-2.26
Mid	5590	15.07	15.10	14.94	15.32	21.13	23.68	-2.55
High	5710	17.08	17.15	17.05	16.94	23.08	23.68	-0.60

PSD Results

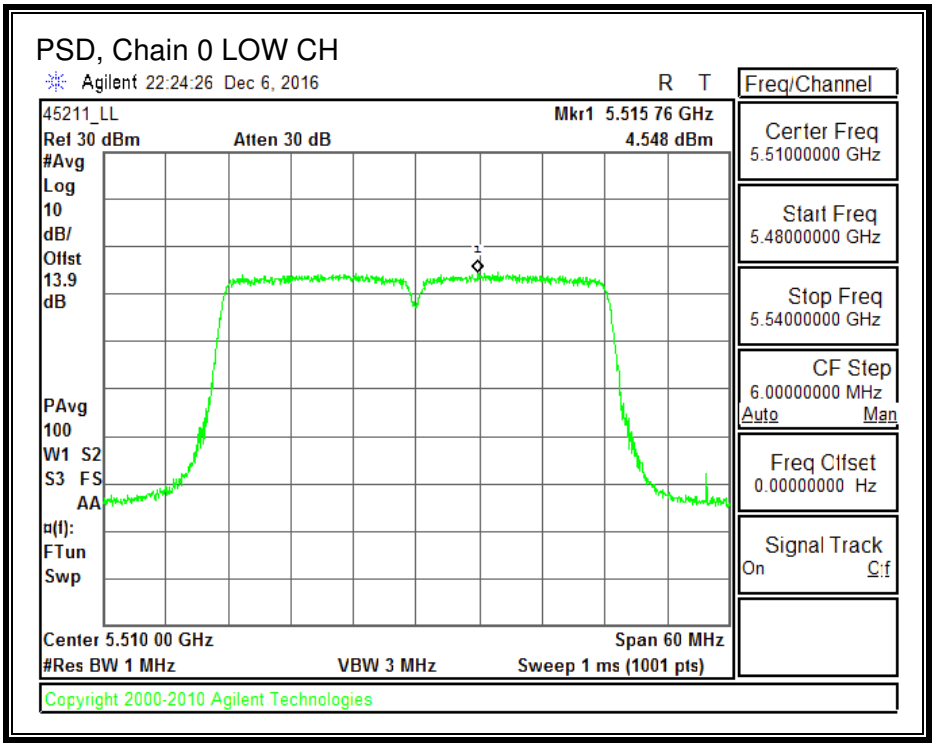
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Chain 3 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5510	4.55	4.39	4.37	4.55	10.60	10.68	-0.08
Mid	5590	4.32	4.31	3.98	3.85	10.26	10.68	-0.42
High	5710	4.31	4.26	3.89	4.30	10.33	10.68	-0.35

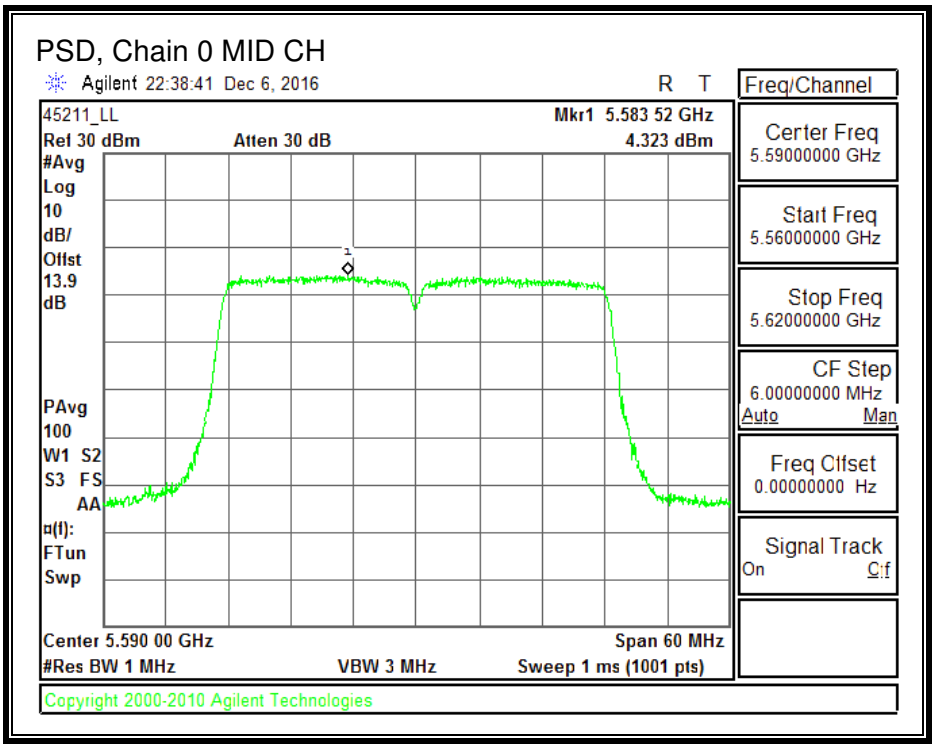
Note:

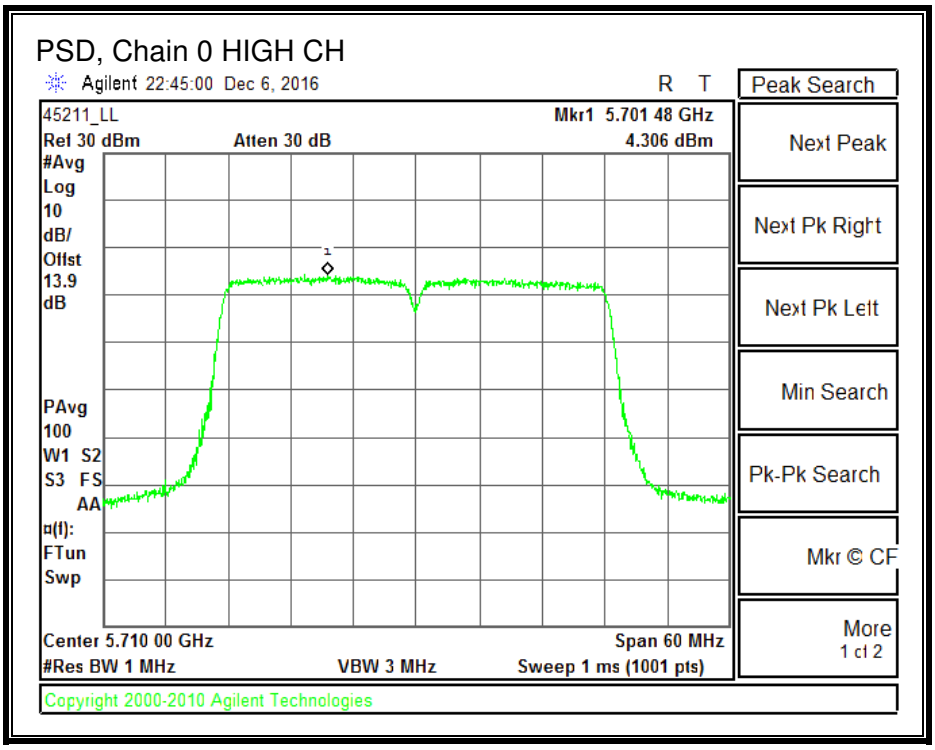
_The Output power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

_The CDD power was measured, the TXBF antenna array gain needs to be taken into account and this measurement used to define TXBF conducted power.

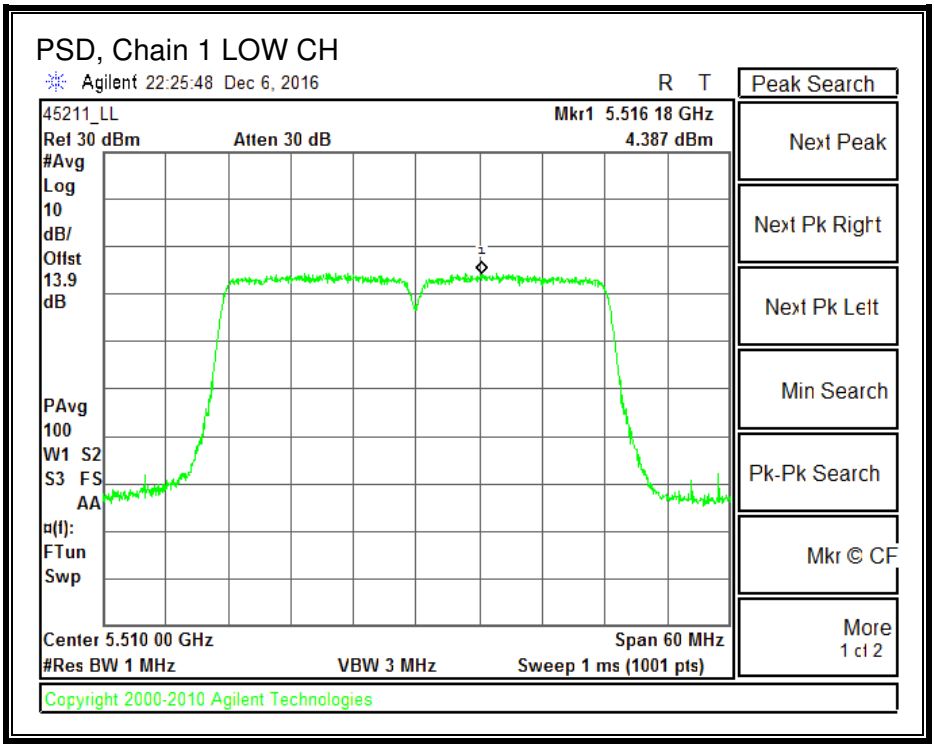
PSD, Chain 0



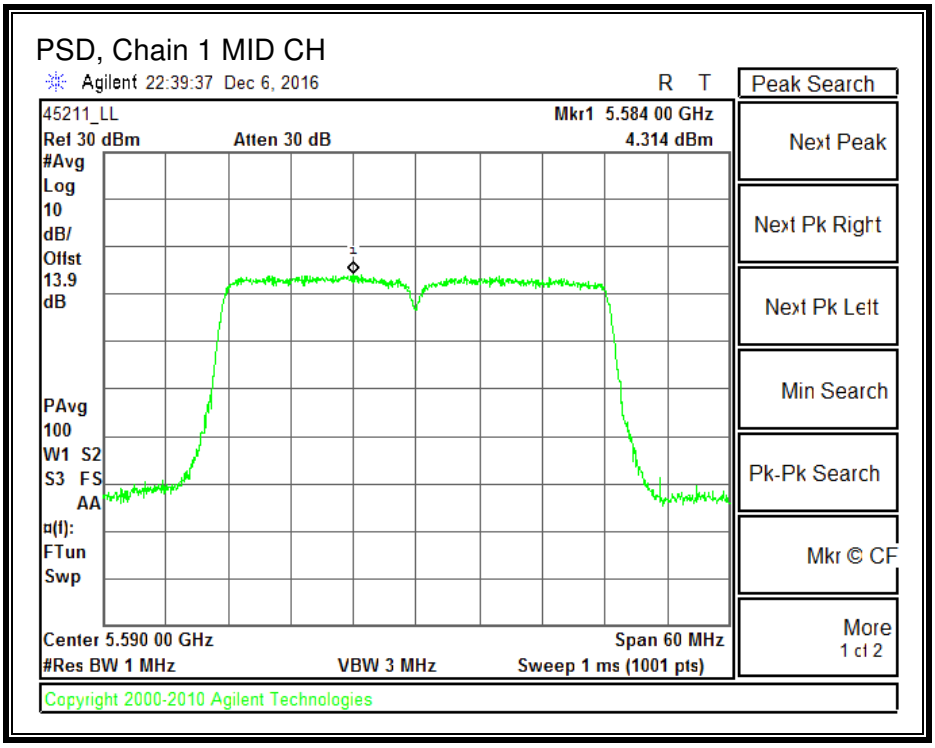




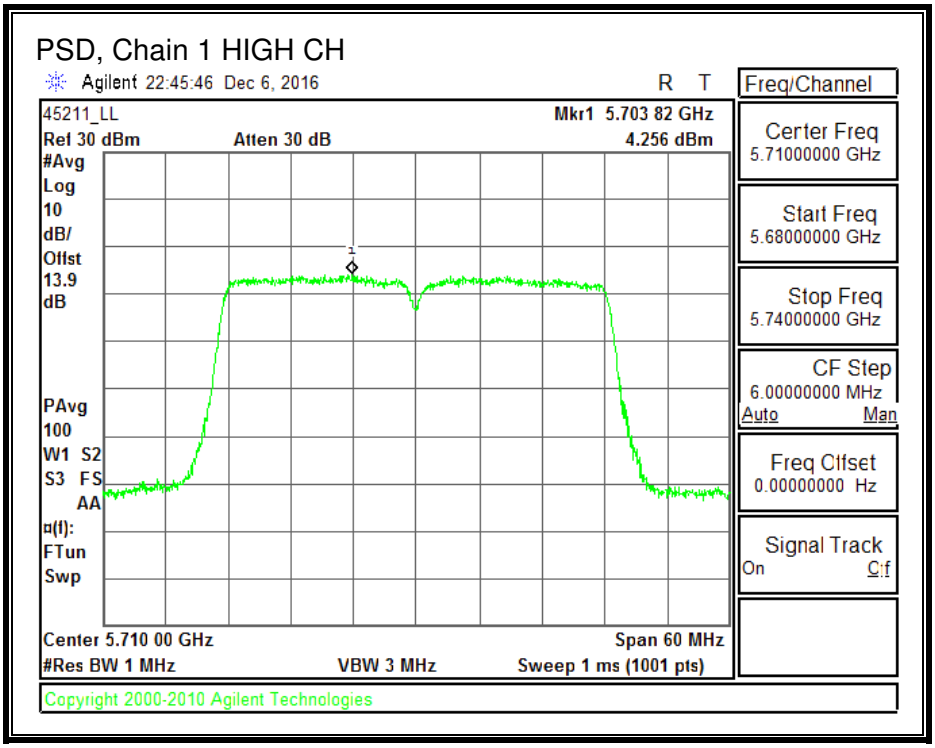
PSD, Chain 1



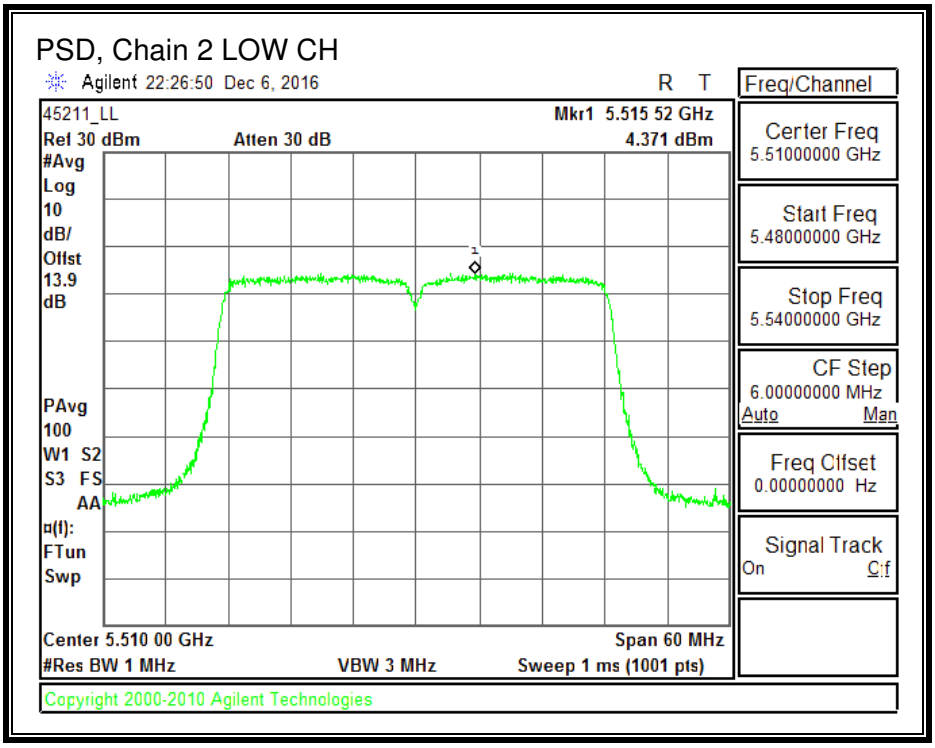
PSD, Chain 1 MID CH

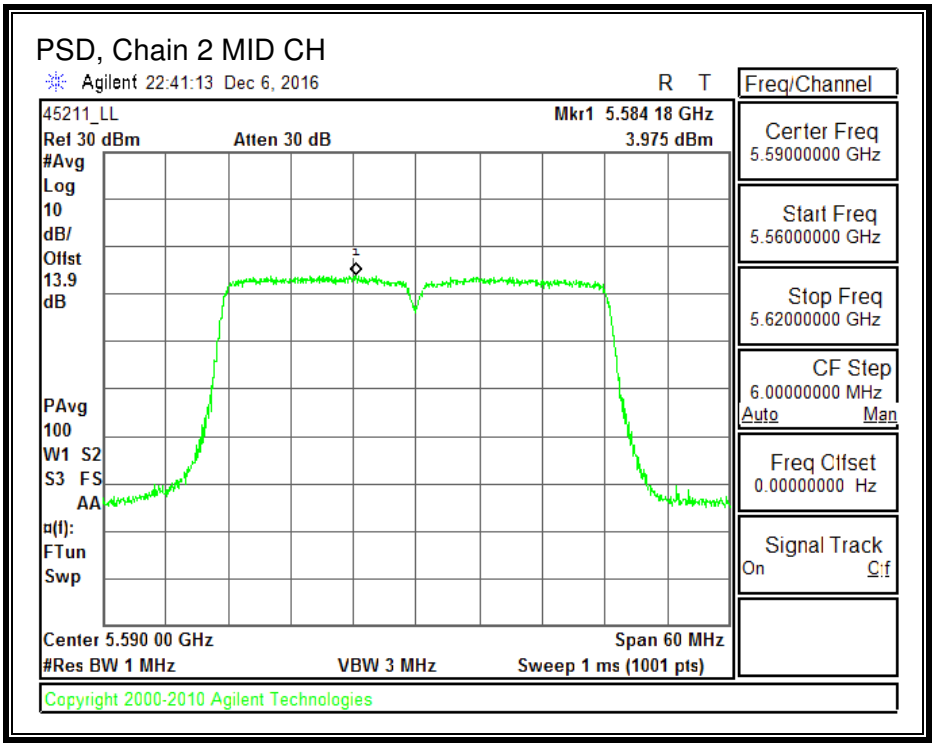


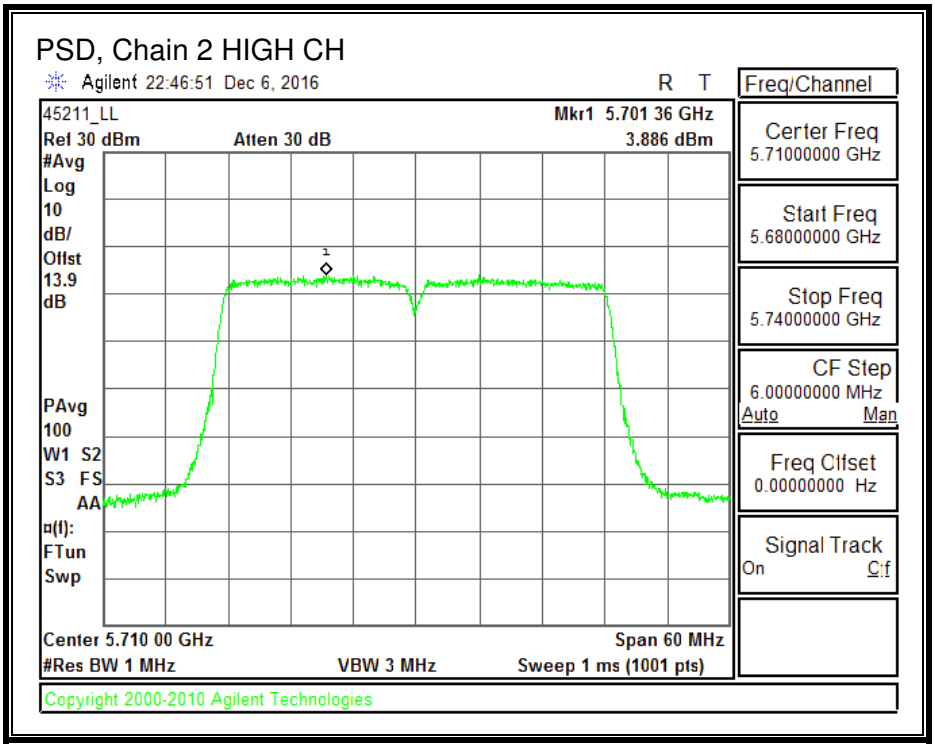
PSD, Chain 1 HIGH CH



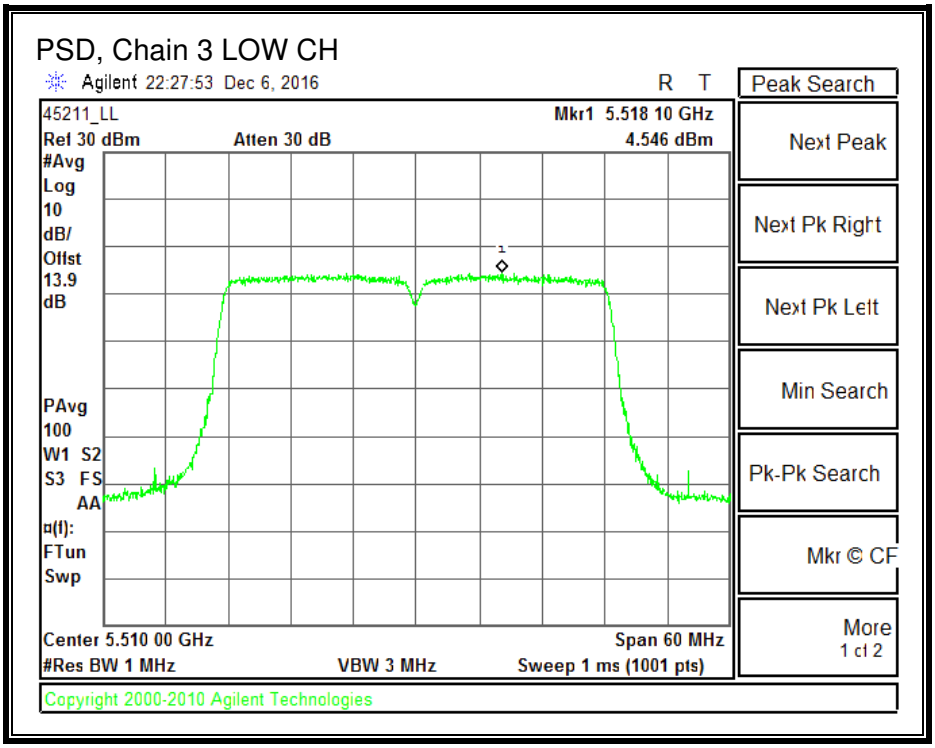
PSD, Chain 2



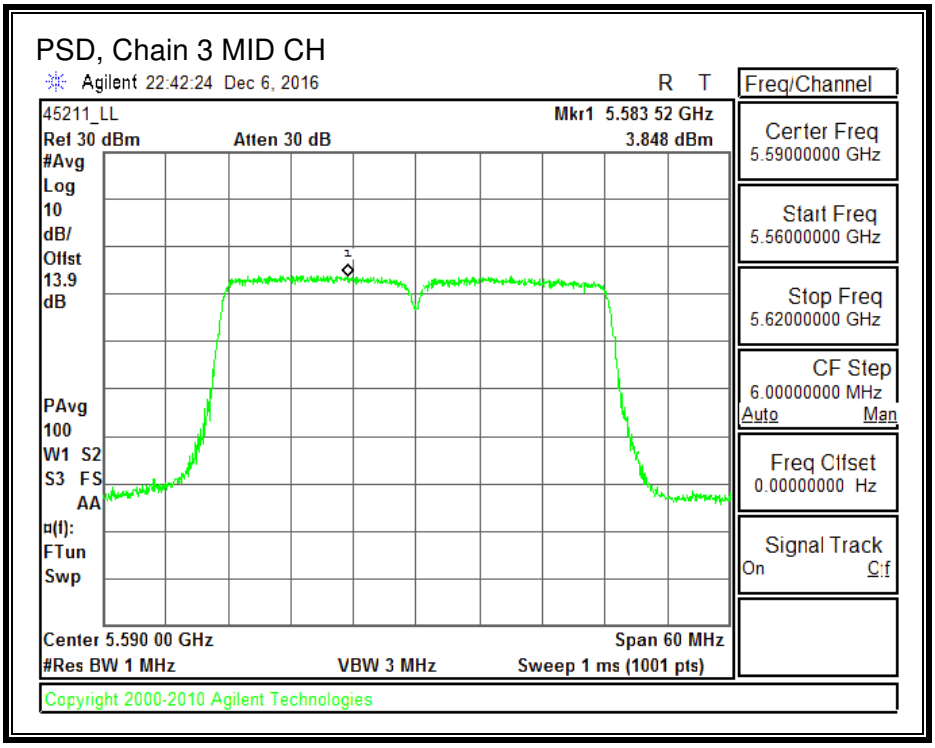




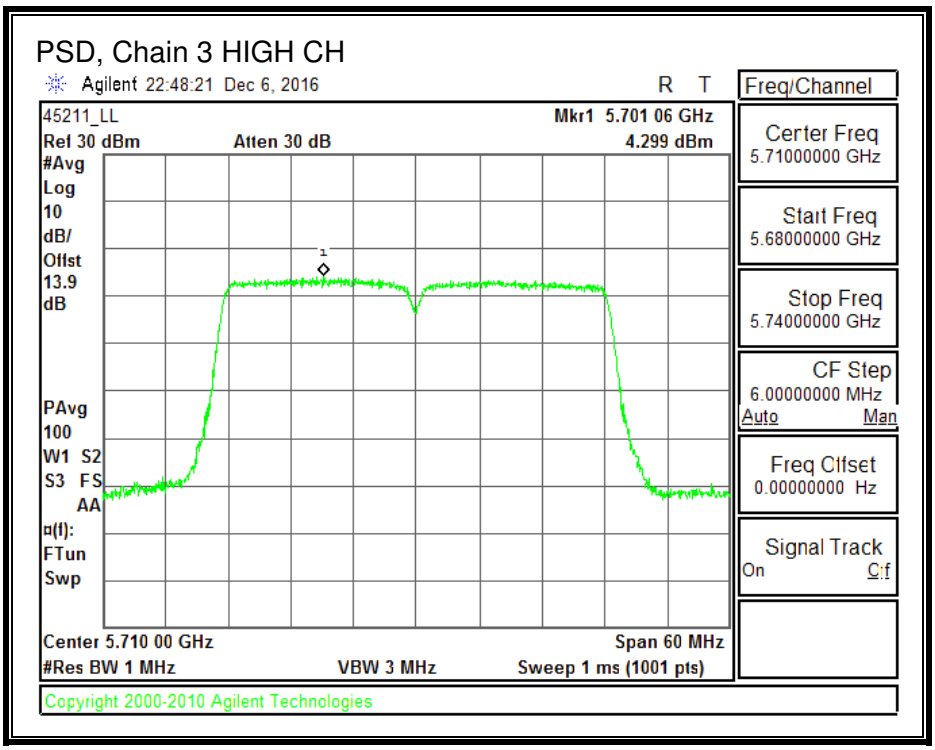
PSD, Chain 3



PSD, Chain 3 MID CH



PSD, Chain 3 HIGH CH



8.8. 802.11ac HT80 MODE IN THE 5.6 GHz BAND

8.8.1. 26 dB BANDWIDTH

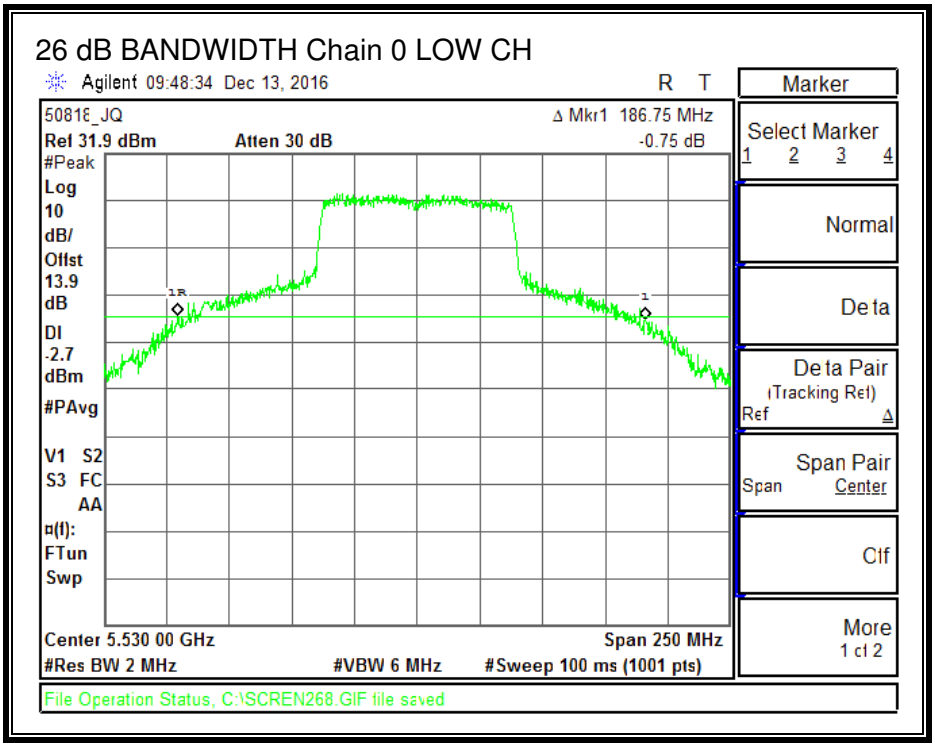
LIMITS

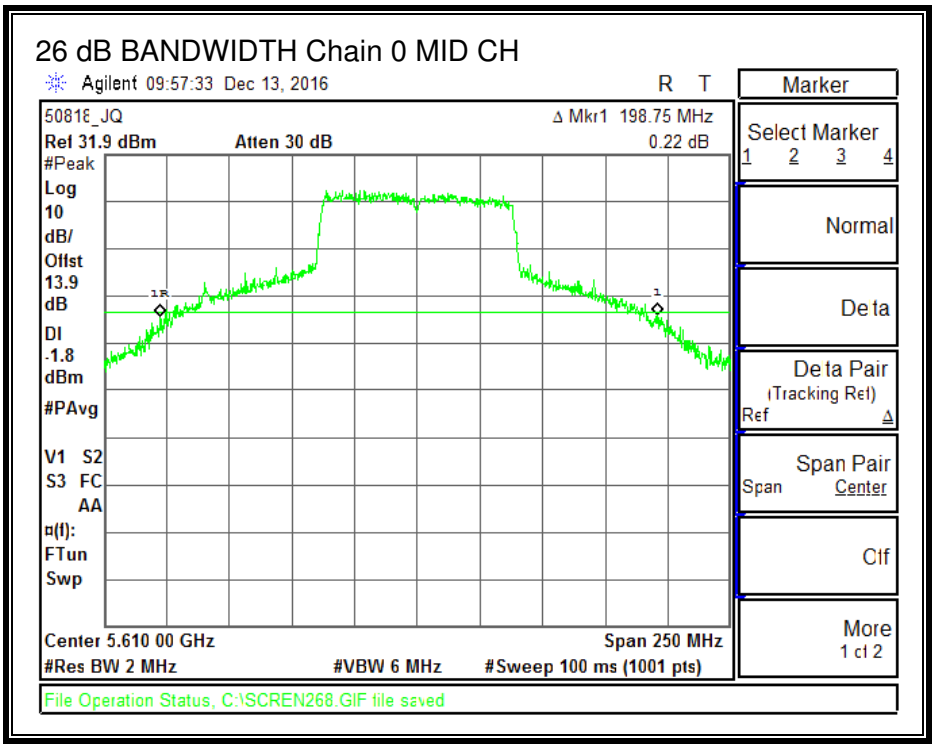
None; for reporting purposes only.

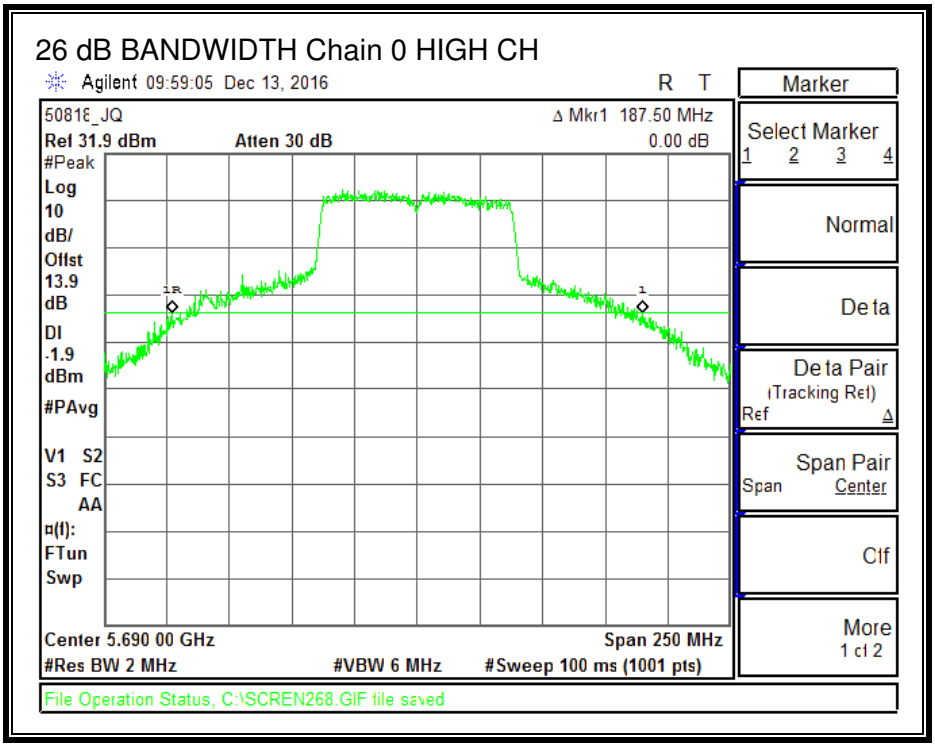
RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)	26 dB BW Chain 3 (MHz)
Low	5530	186.75	192.75	192.00	189.25
Mid	5610	198.75	198.25	199.00	199.25
High	5690	187.50	186.75	185.25	191.75

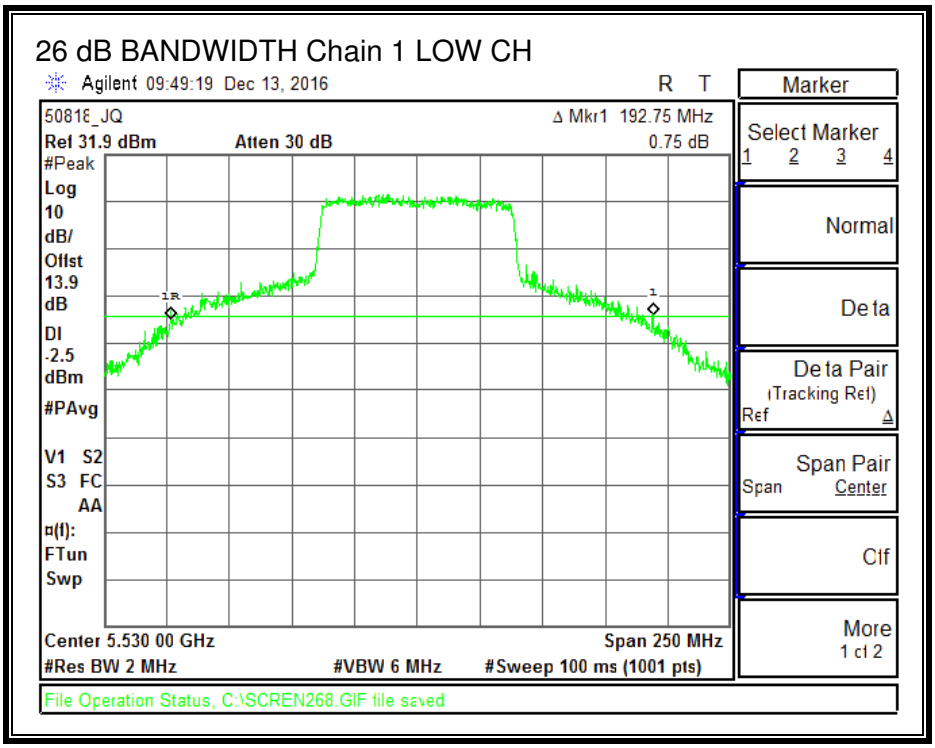
26 dB BANDWIDTH, Chain 0

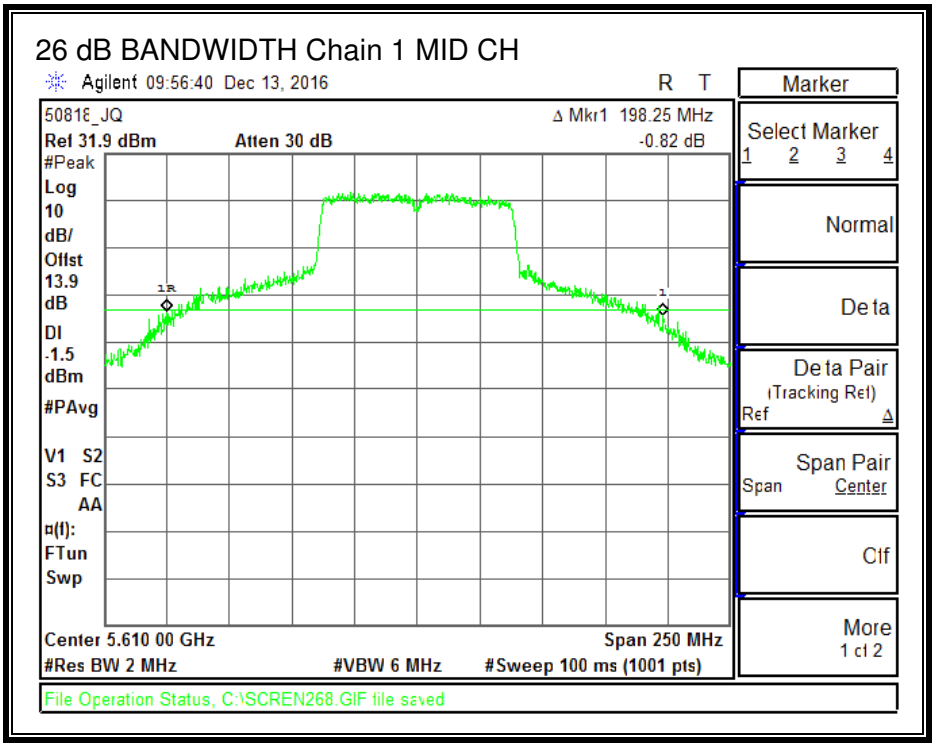


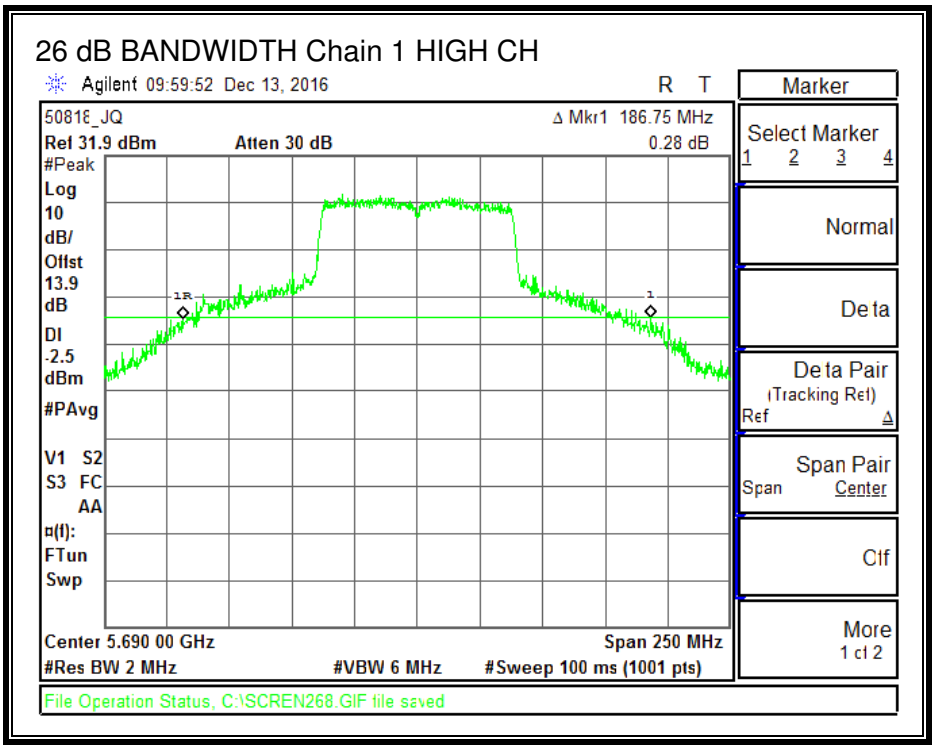




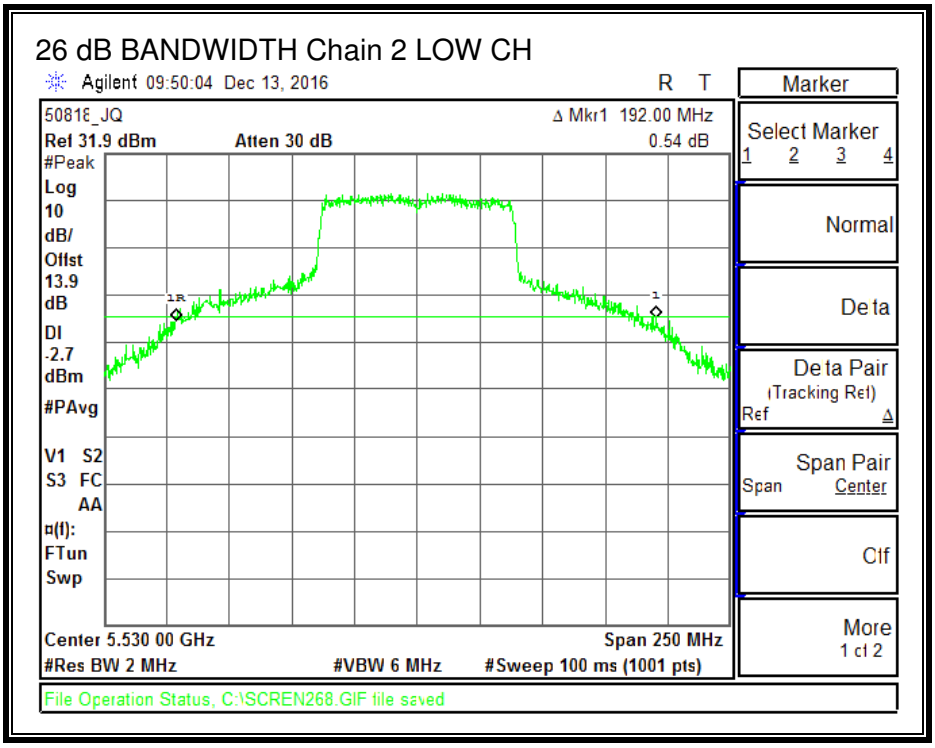
26 dB BANDWIDTH, Chain 1

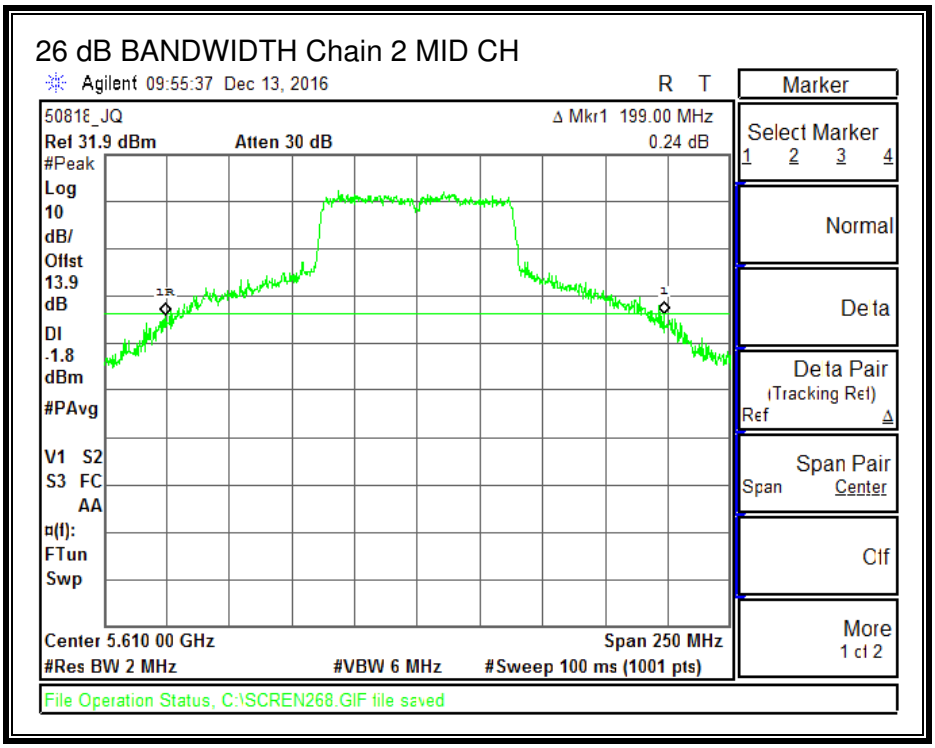


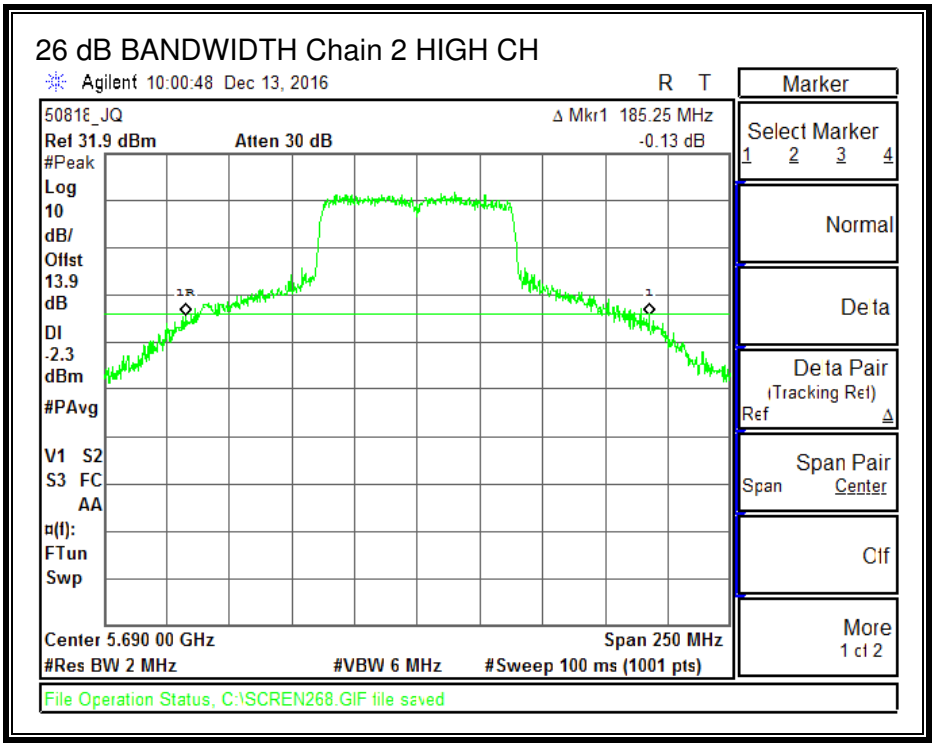




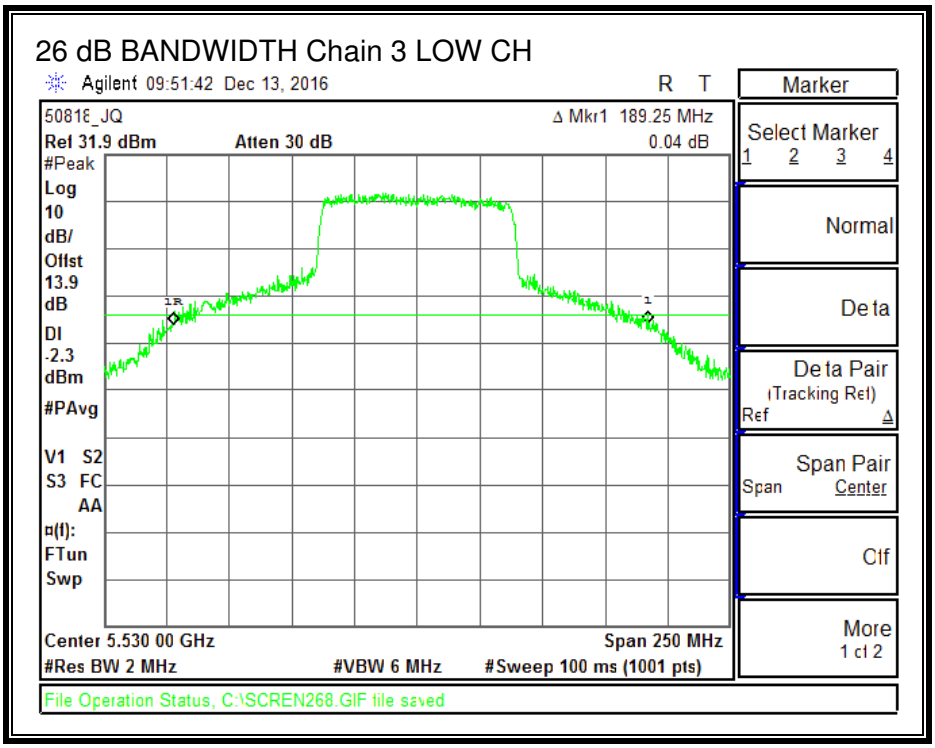
26 dB BANDWIDTH, Chain 2

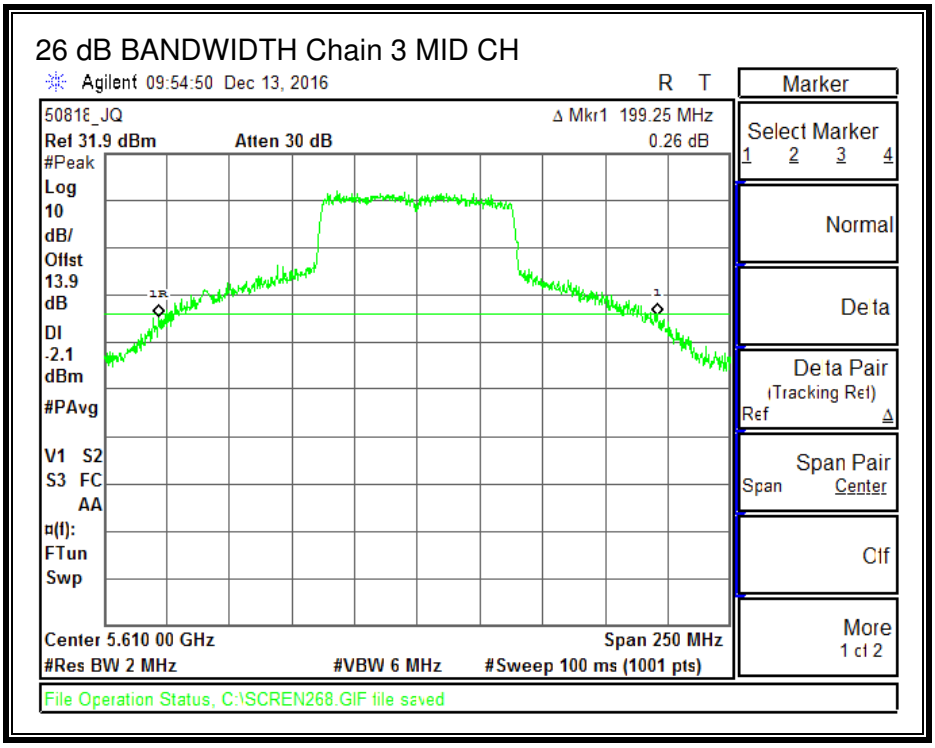


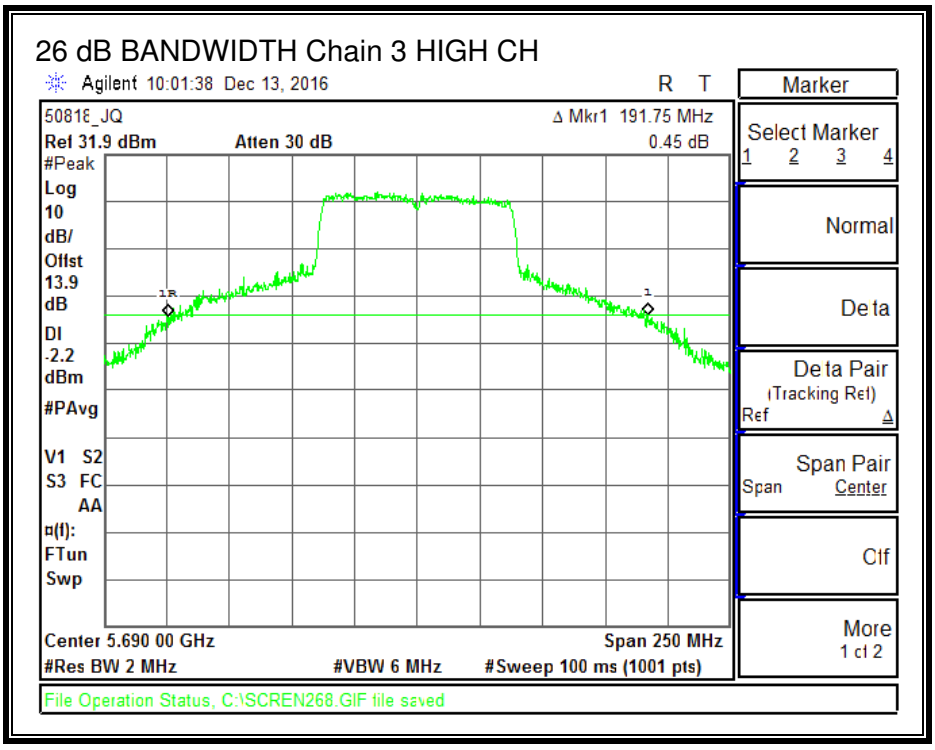




26 dB BANDWIDTH, Chain 3







8.8.2. OUTPUT POWER AND PSD

LIMITS

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, 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. In addition, the maximum 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 maximum conducted output 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.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is the same for each chain. The directional gain is:

Antenna Gain (dBi)	10 * Log (4 chains) (dB)	Correlated Chains Directional Gain (dBi)
0.30	6.02	6.32

RESULTS

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
Low	5530	186.75	6.32	6.32	23.68	10.68
Mid	5610	198.25	6.32	6.32	23.68	10.68
High	5690	185.25	6.32	6.32	23.68	10.68

Duty Cycle CF (dB)	0.18	Included in Calculations of PSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Chain 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5530	14.06	14.45	14.16	14.44	20.30	23.68	-3.38
Mid	5610	16.94	16.67	16.46	16.97	22.79	23.68	-0.89
High	5690	17.71	16.95	17.00	17.41	23.30	23.68	-0.38

PSD Results

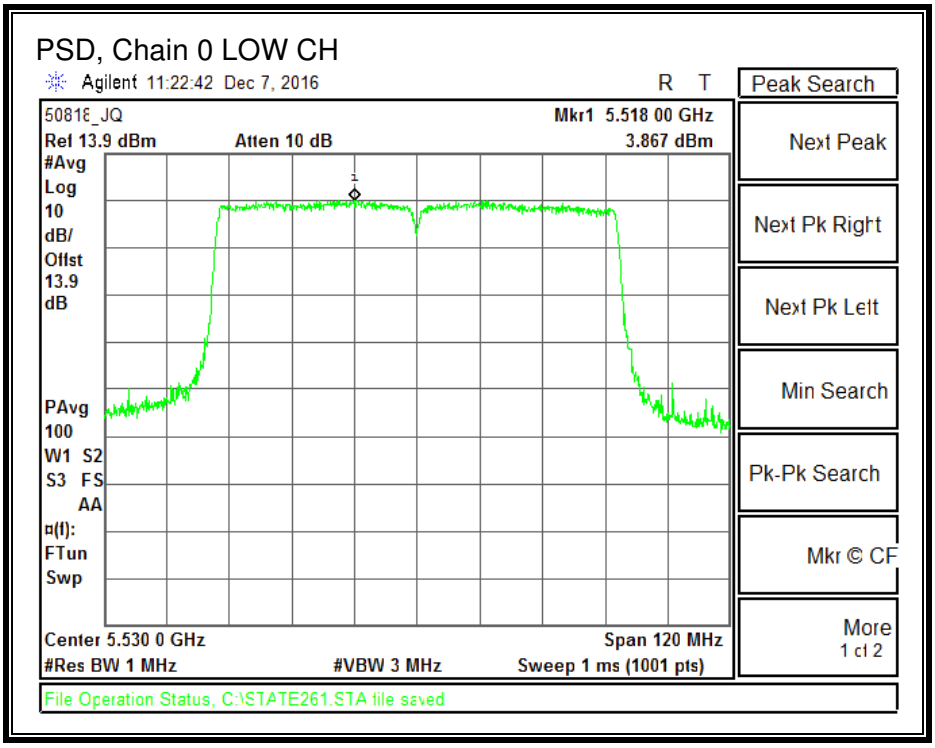
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Chain 3 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5530	3.87	4.44	3.78	4.27	10.30	10.68	-0.38
Mid	5610	4.53	4.33	4.25	4.41	10.58	10.68	-0.10
High	5690	4.30	4.36	3.84	4.35	10.42	10.68	-0.26

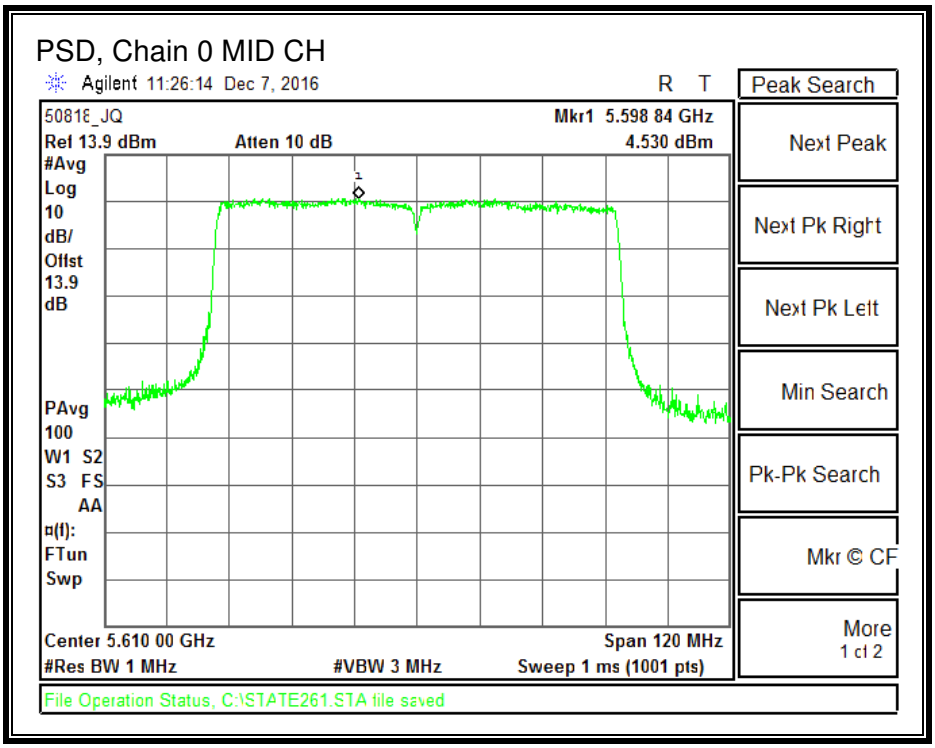
Note:

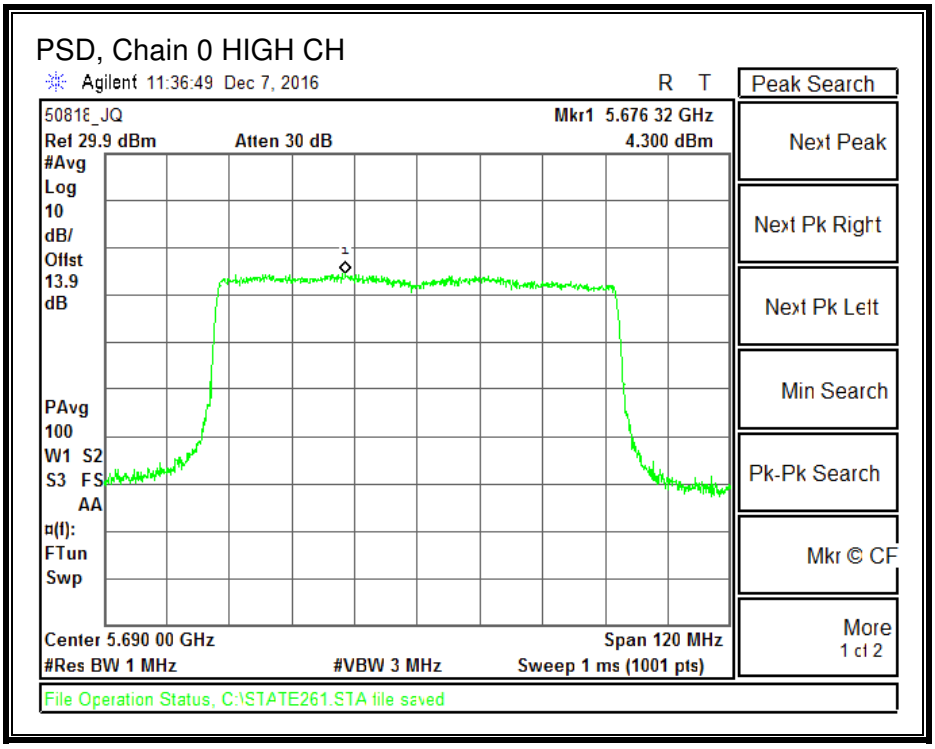
_The Output power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

_The CDD power was measured, the TXBF antenna array gain needs to be taken into account and this measurement used to define TXBF conducted power.

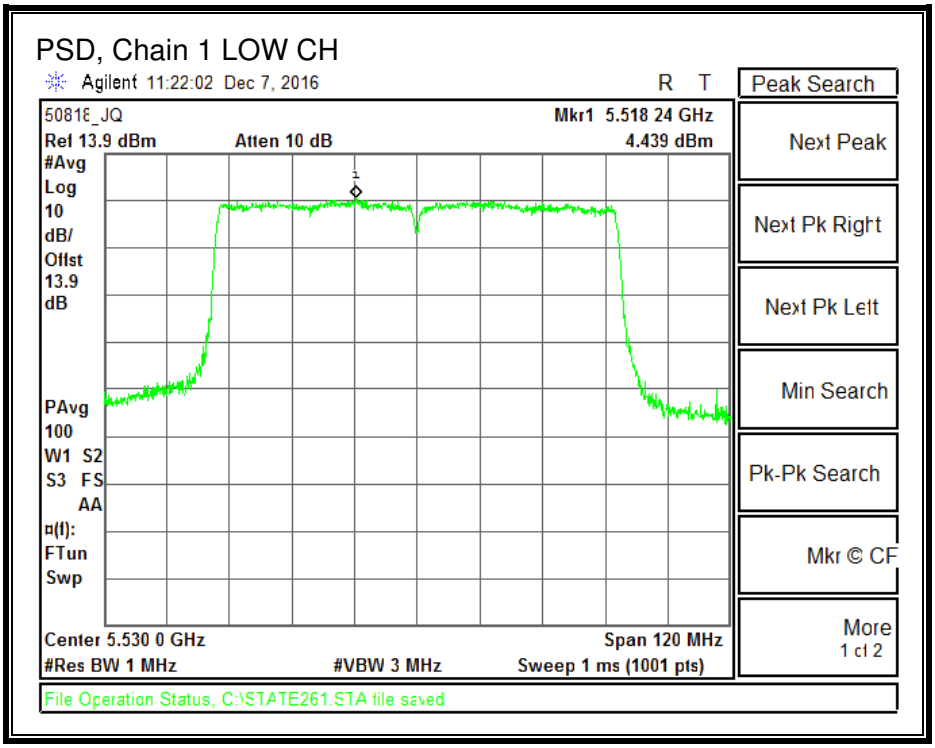
PSD, Chain 0

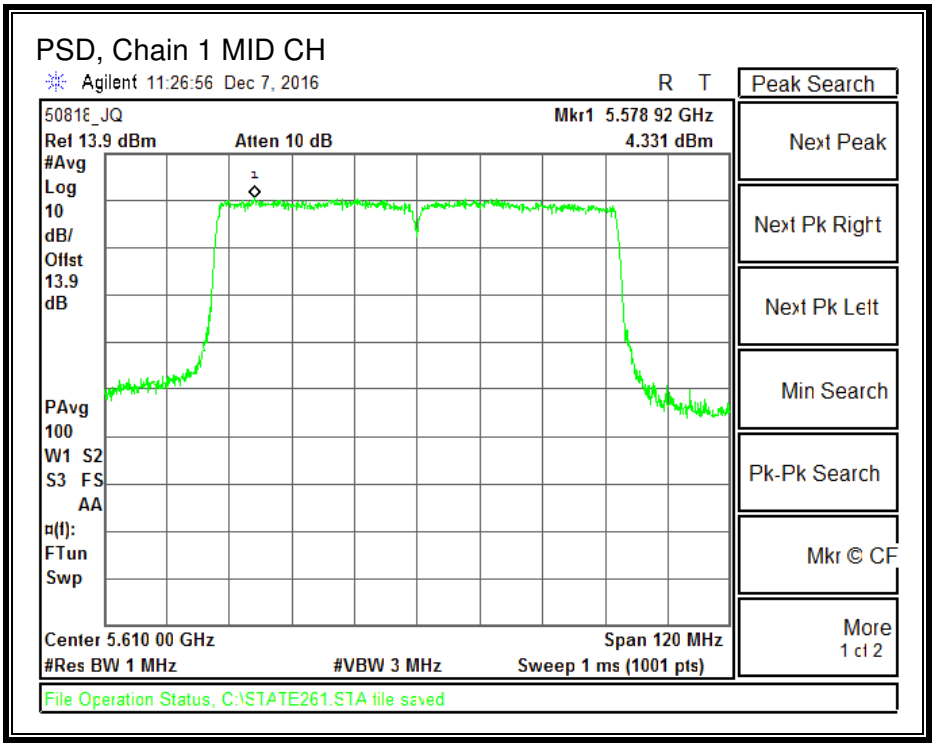


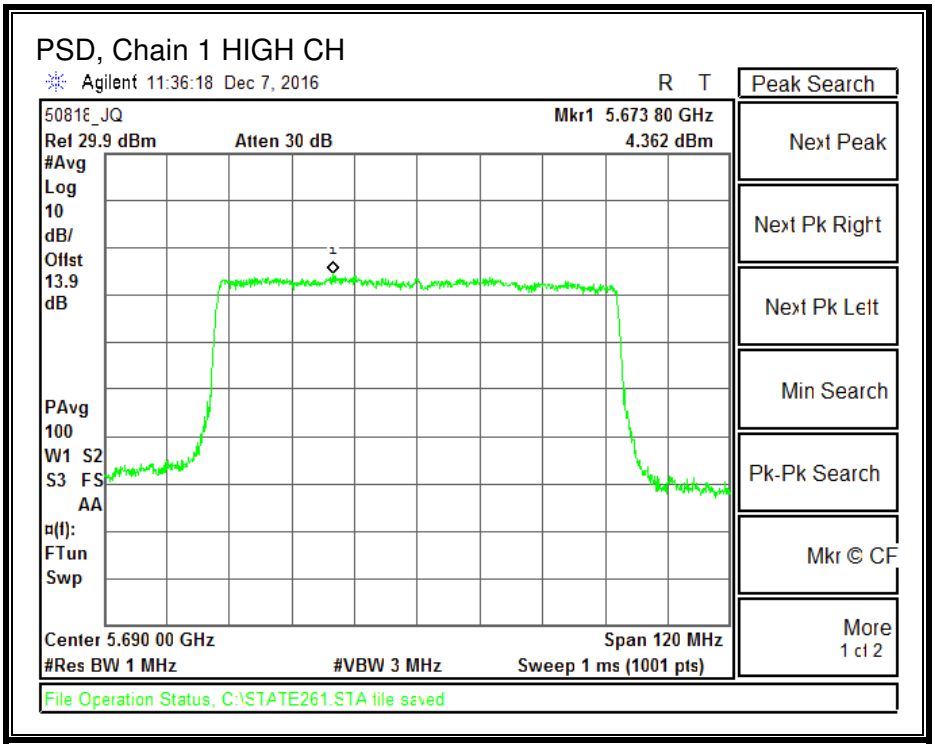




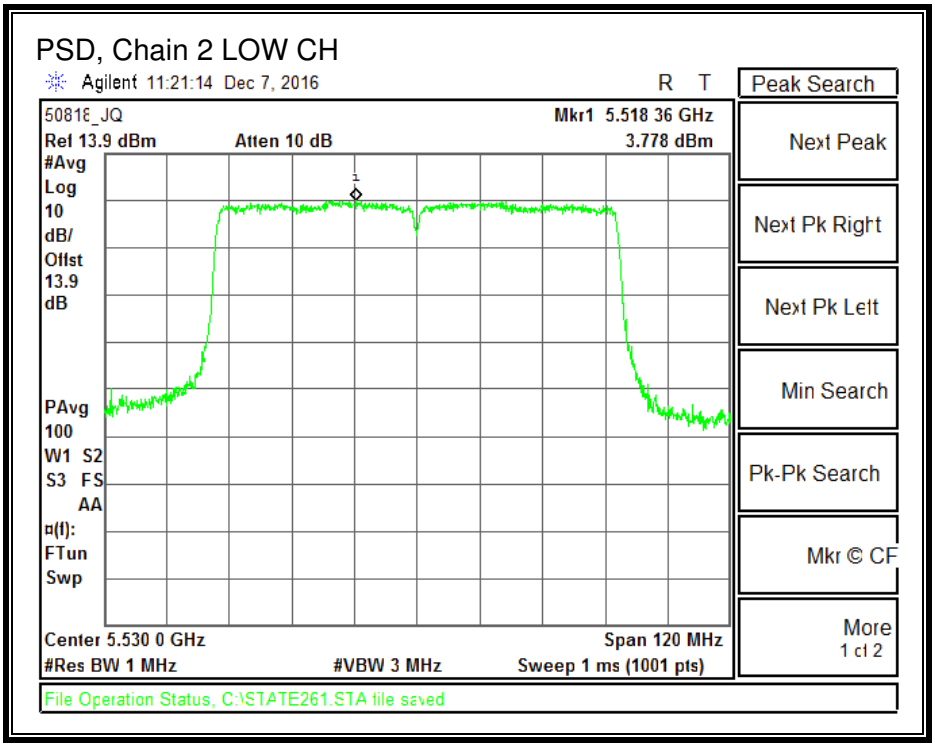
PSD, Chain 1

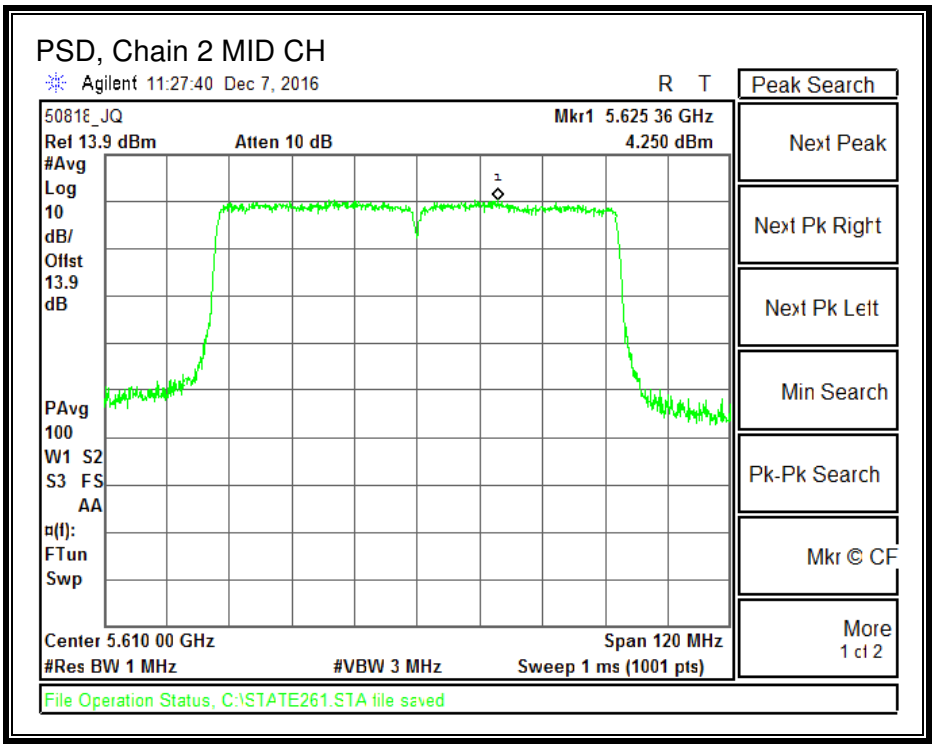


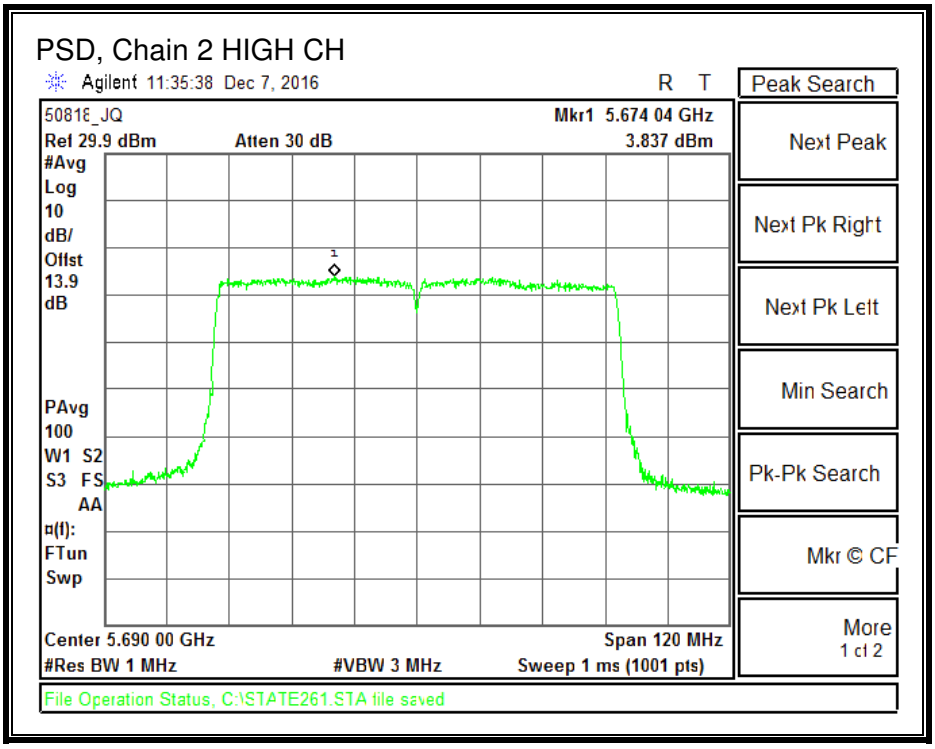




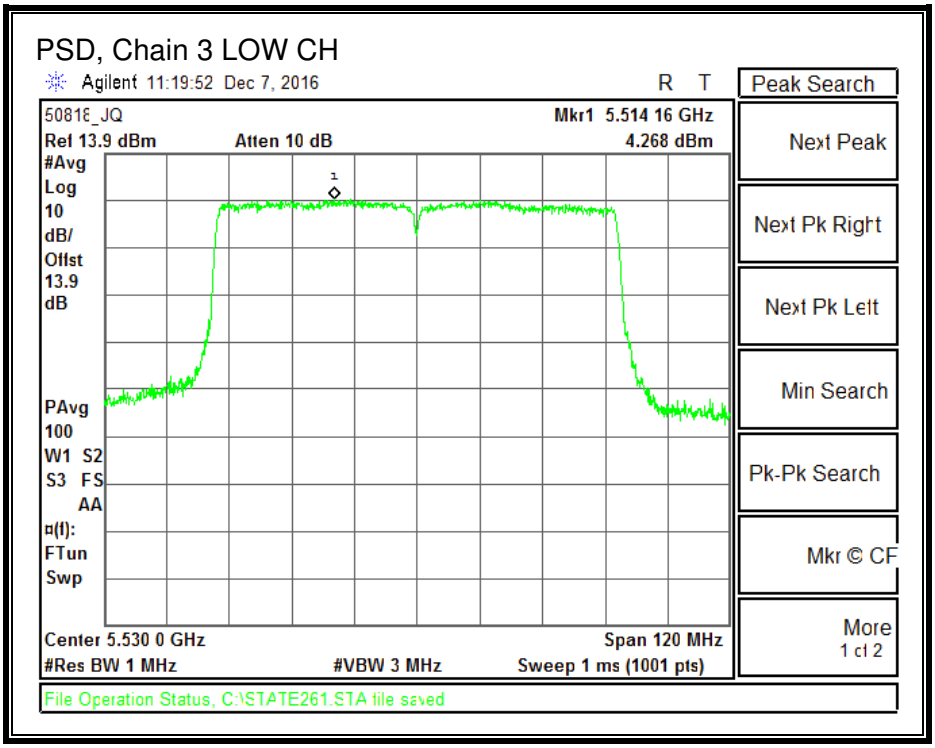
PSD, Chain 2

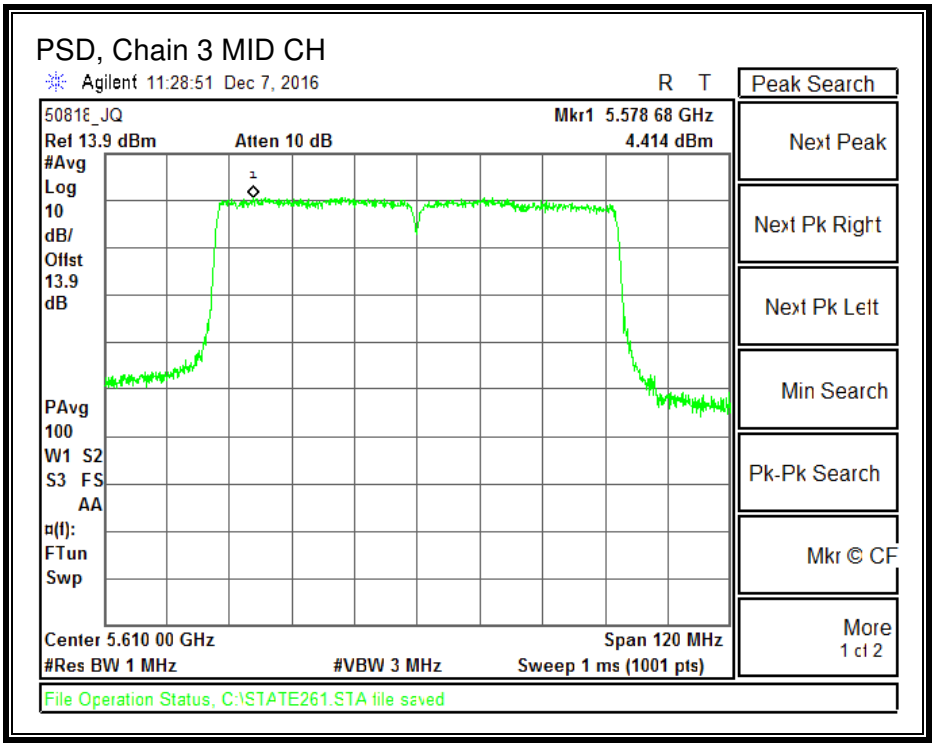


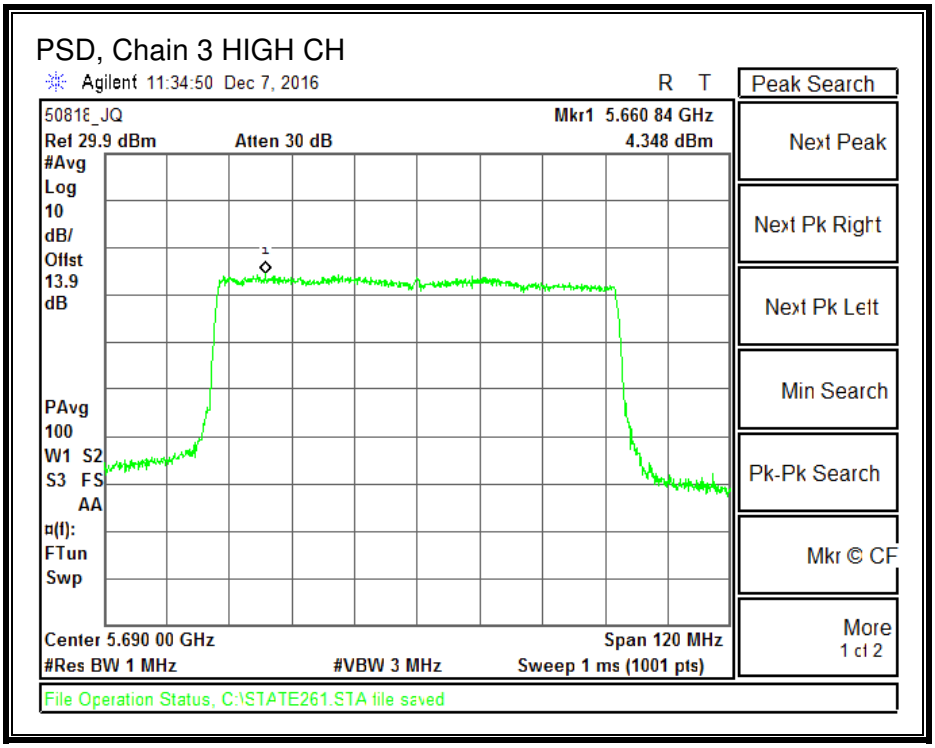




PSD, Chain 3







8.9. 802.11ac HT80+HT80 MODE IN THE 5.6 GHz BAND

8.9.1. 26 dB BANDWIDTH

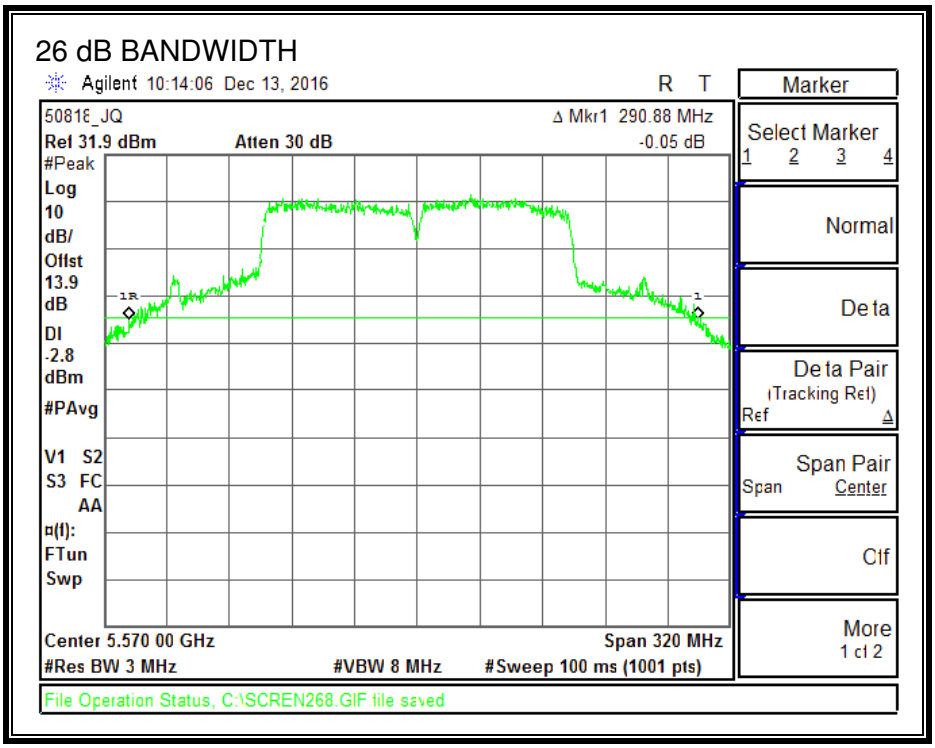
LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	26 dB BW (MHz)
CH114	5570	290.88

26 dB BANDWIDTH



8.9.2. OUTPUT POWER AND PSD

LIMITS

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, 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. In addition, the maximum 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 maximum conducted output 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.

DIRECTIONAL ANTENNA GAIN

For output power, the TX chains are uncorrelated and the antenna gain is the same for each chain. The directional gain is equal to the antenna gain.

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
0.30	0.30	0.30

For PSD, the TX chains are correlated and the antenna gain is the same for each chain. The directional gain is:

Antenna Gain (dBi)	10 * Log (2 chains) (dB)	Correlated Chains Directional Gain (dBi)
0.30	3.01	3.31

RESULTS

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
Mid	5570	290.88	0.30	3.31	24.00	11.00

Duty Cycle CF (dB)	0.33	Included in Calculations of PSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Chain 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
106	5530	16.98	17.11	N/A	N/A	20.06	24.00	-3.94
122	5610	N/A	N/A	17.31	17.43	20.38	24.00	-3.62

PSD Results

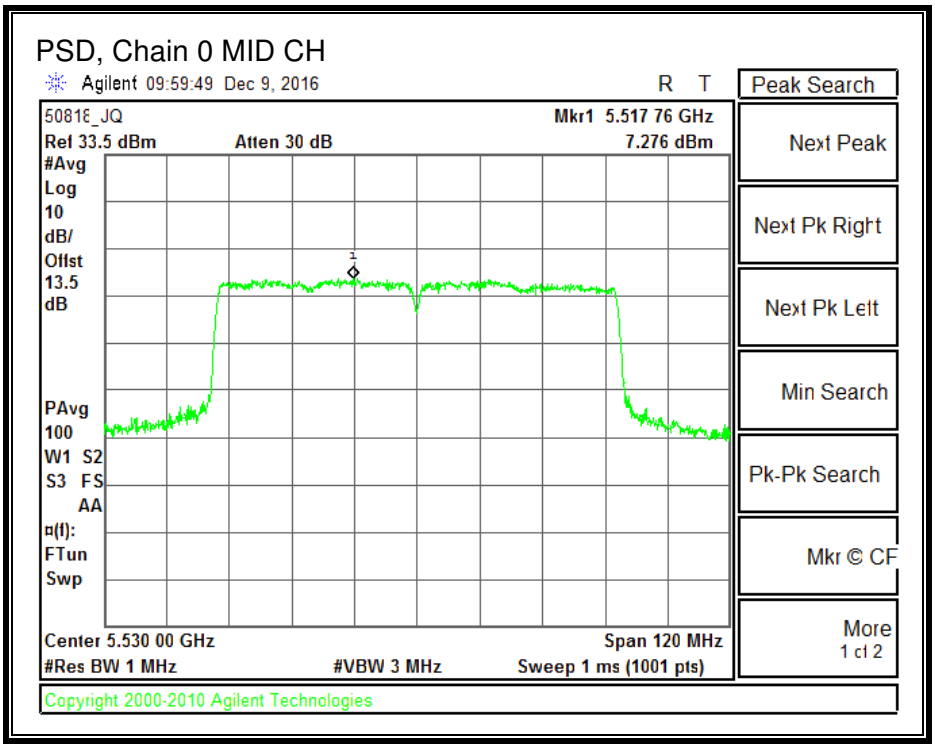
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Chain 3 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
106	5530	7.276	7.658	N/A	N/A	10.81	11.00	-0.19
122	5610	N/A	N/A	7.17	7.70	10.78	11.00	-0.22

Note:

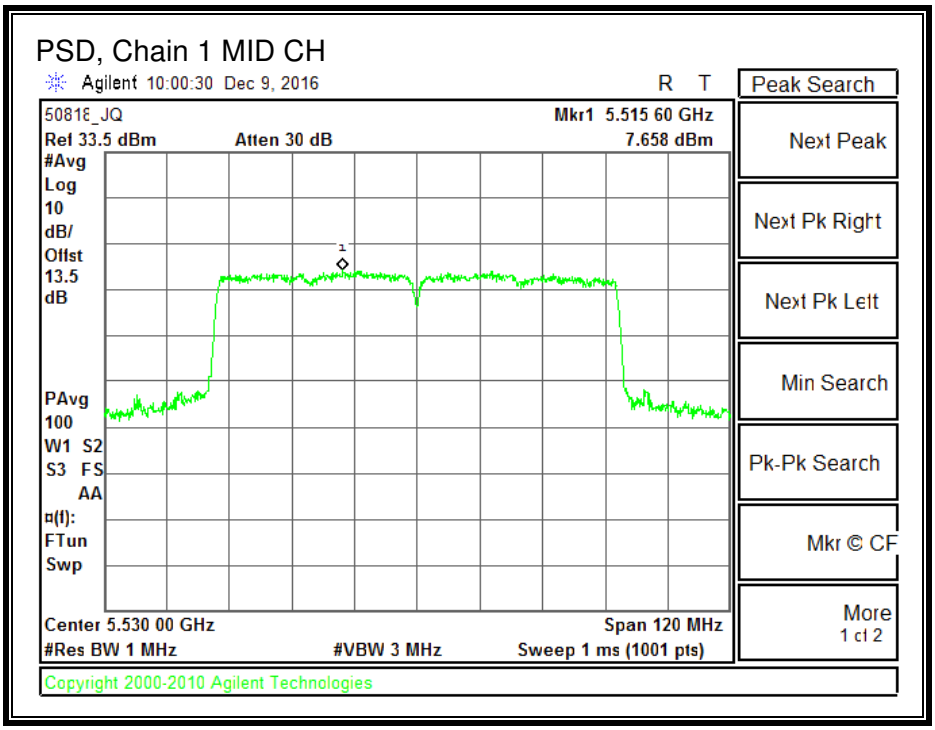
_The Output power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

_The PSD results represents the worst case in 802.11ac HT80+HT80 mode.

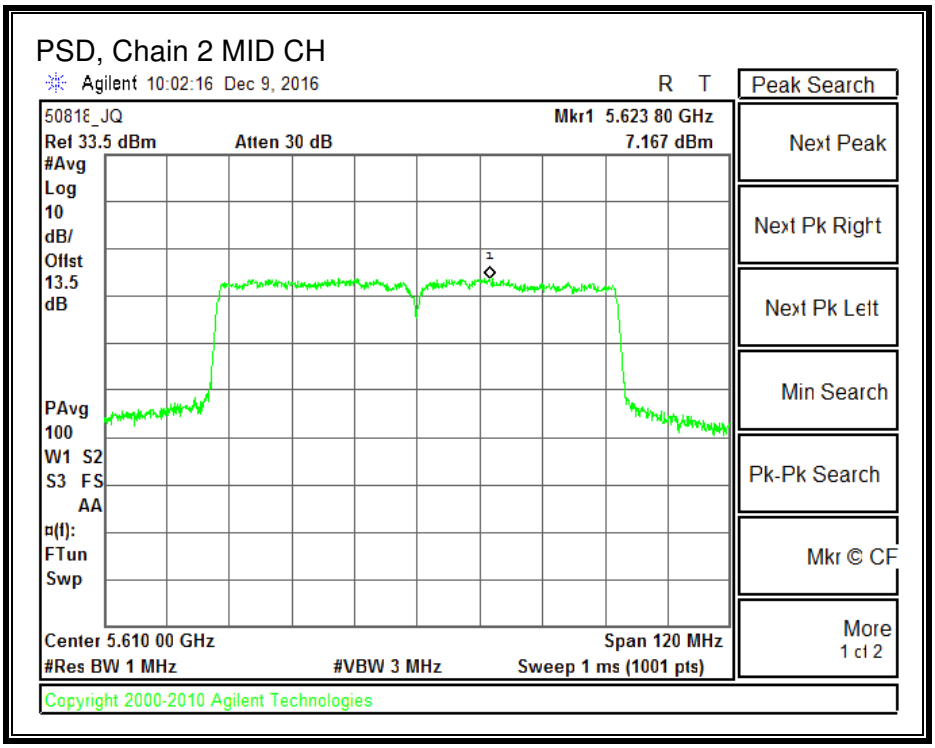
PSD, Chain 0



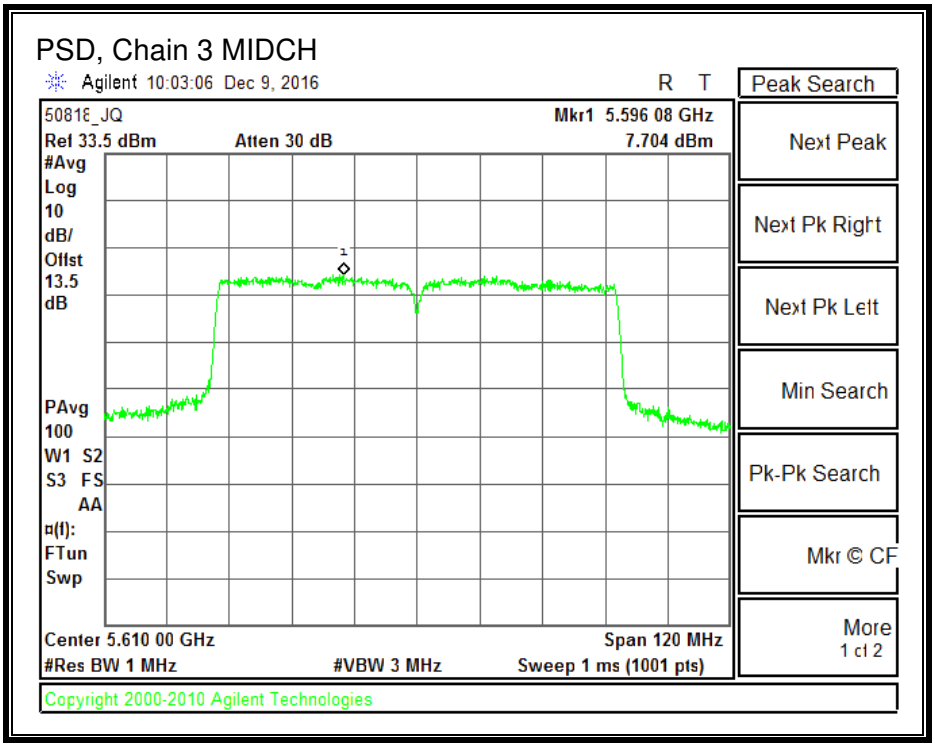
PSD, Chain 1



PSD, Chain 2



PSD, Chain 3



9. RADIATED TEST RESULTS

9.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
0.009 – 0.490	2400/F (kHz)	2400/F (kHz)
0.490 – 1.705	24000/F (kHz)	24000/F (kHz)
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 for below 1GHz measurements and 1.5 m above the ground plane for above 1GHz measurements. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10.

For measurements below 1 GHz the resolution bandwidth is set to 120 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements for the 30-1000 MHz range, 9 kHz for peak detection measurements or 9 kHz for quasi-peak detection measurements for the 0.15-30 MHz range and 200 Hz for peak detection measurements or 200 Hz for quasi-peak detection measurements for the 9 to 150 kHz range. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and as applicable for average measurements. For this evaluation, RMS Power Averaging was used and the resolution/video bandwidth settings were 1MHz/3MHz. Note: The pre-scan measurements above 1GHz the VBW is set to 30 kHz.

The spectrum from 9 kHz 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.

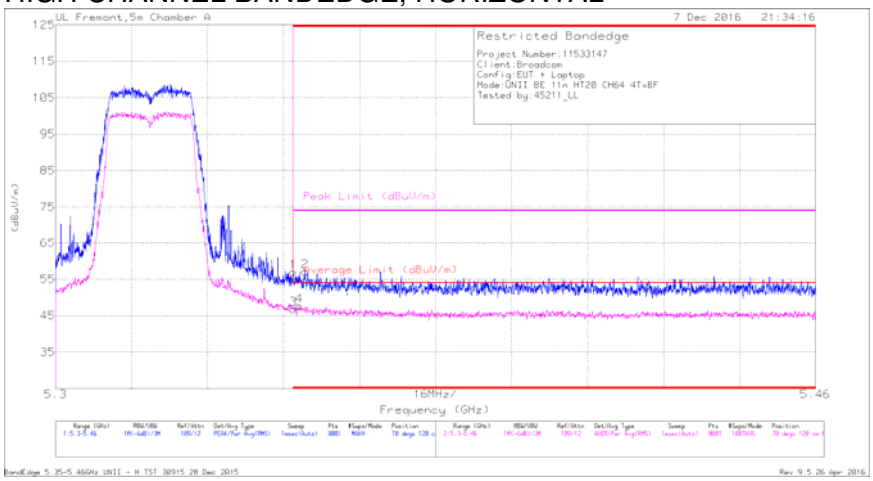
RESULTS

Compliance at band edges has been demonstrated via the Vertical polarity as the worst-case scenario.

9.2. TRANSMITTER ABOVE 1 GHz

9.2.1. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.3 GHz BAND AUTHORIZED BANDEDGE (HIGH CHANNEL)

HIGH CHANNEL BANDEDGE, HORIZONTAL

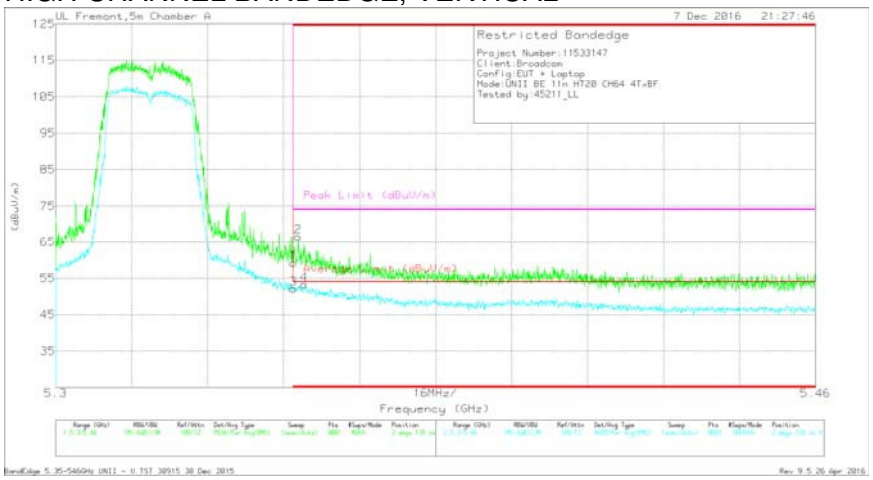


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	41.13	Pk	34.8	-18.9	0	57.03	-	-	74	-16.97	70	120	H
2	* 5.353	41.11	Pk	34.8	-18.8	0	57.11	-	-	74	-16.89	70	120	H
3	* 5.35	30.61	RMS	34.8	-18.9	.33	46.84	54	-7.16	-	-	70	120	H
4	* 5.351	31.45	RMS	34.8	-18.9	.33	47.68	54	-6.32	-	-	70	120	H

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

HIGH CHANNEL BANDEDGE, VERTICAL



Trace Markers

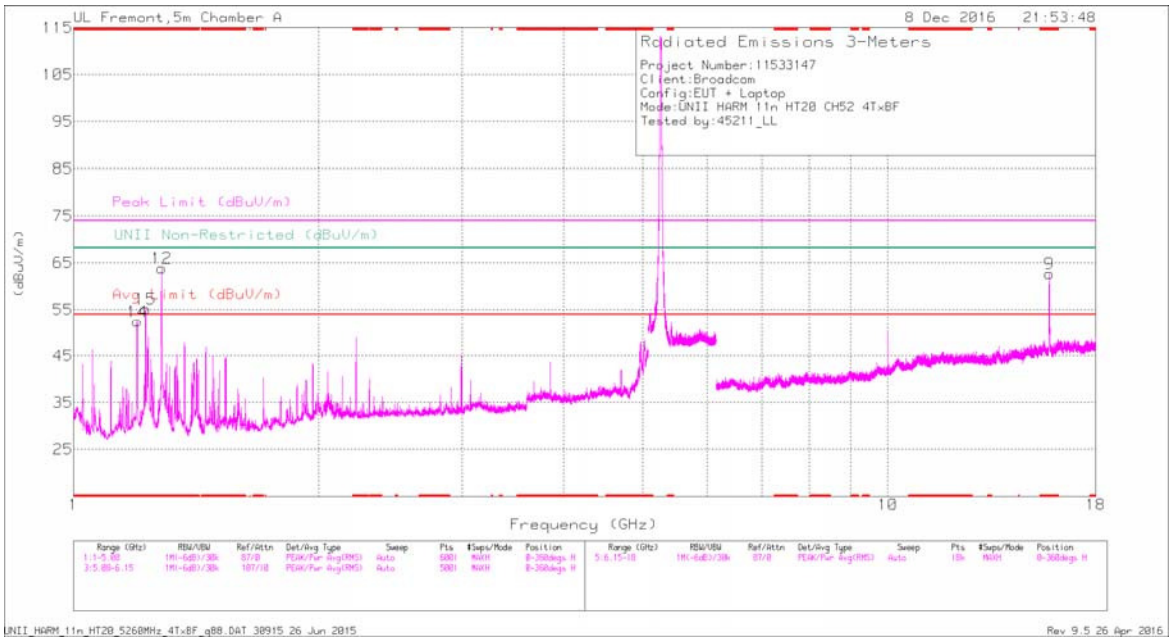
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	43.34	Pk	34.8	-18.9	0	59.24	-	-	74	-14.76	2	139	V
2	* 5.351	50.64	Pk	34.8	-18.9	0	66.54	-	-	74	-7.46	2	139	V
3	* 5.35	35.92	RMS	34.8	-18.9	.33	52.15	54	-1.85	-	-	2	139	V
4	* 5.352	36.96	RMS	34.8	-18.8	.33	53.29	54	-.71	-	-	2	139	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

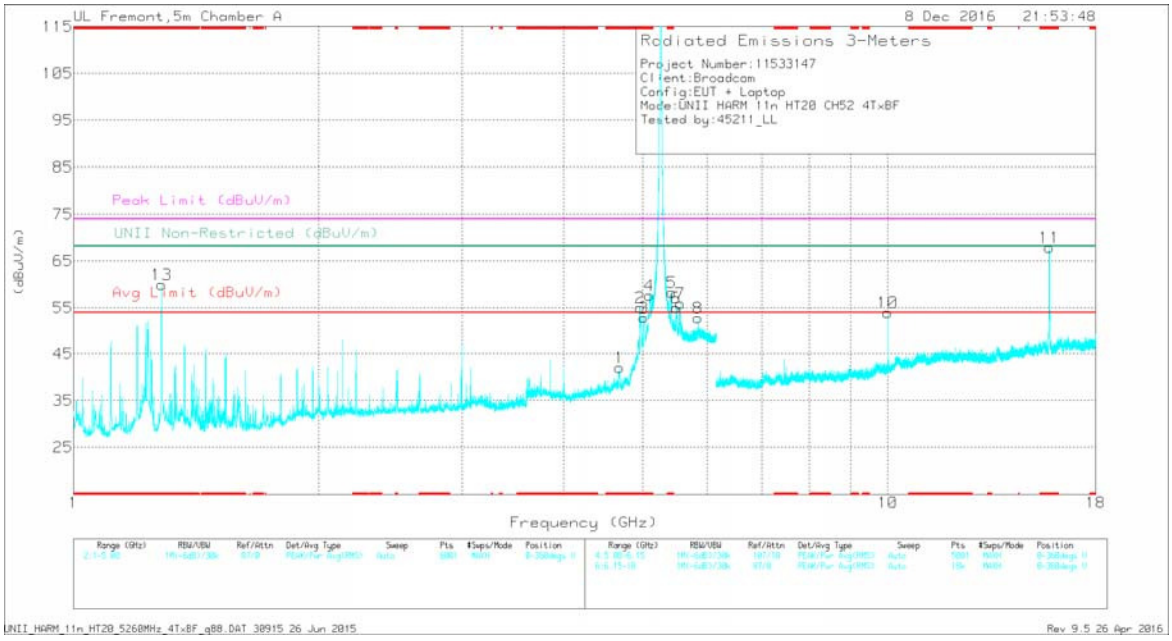
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL

LOW CHANNEL HORIZONTAL PLOT



LOW CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
12	**** 1.283	69.09	Pk	28.8	-34	0	63.89	-	-	74	-10.11	-	-	0-360	102	H
14	**** 1.197	58.51	Pk	28.3	-34.4	0	52.41	-	-	74	-21.59	-	-	0-360	102	H
15	**** 1.226	61.09	Pk	28.5	-34.4	0	55.19	-	-	74	-18.81	-	-	0-360	102	H
1	* 4.682	36.4	Pk	34.4	-28.7	0	42.1	-	-	74	-31.9	-	-	0-360	101	V
2	* 4.96	48.62	Pk	34.3	-27.9	0	55.02	-	-	74	-18.98	-	-	0-360	101	V
3	* 5.017	45.99	Pk	34.3	-27.4	0	52.89	-	-	74	-21.11	-	-	0-360	101	V
13	**** 1.283	65.15	Pk	28.8	-34	0	59.95	-	-	74	-14.05	-	-	0-360	199	V
4	* 5.098	41.87	Pk	34.3	-18.5	0	57.67	-	-	74	-16.33	-	-	0-360	101	V
5	* 5.425	42.25	Pk	34.8	-18.8	0	58.25	-	-	74	-15.75	-	-	0-360	199	V
9	* 15.788	42.29	Pk	40.4	-20	0	62.69	-	-	74	-11.31	-	-	0-360	199	H
11	* 15.785	47.64	Pk	40.4	-20.1	0	67.94	-	-	74	-6.06	-	-	0-360	199	V
6	5.497	39.02	Pk	34.8	-18.8	0	55.02	-	-	-	-	68.2	-13.18	0-360	199	V
7	5.56	40.4	Pk	34.7	-19.1	0	56	-	-	-	-	68.2	-12.2	0-360	199	V
8	5.844	36.48	Pk	35.1	-18.8	0	52.78	-	-	-	-	68.2	-15.42	0-360	199	V
10	10	38.24	Pk	37	-21.2	0	54.04	-	-	-	-	68.2	-14.16	0-360	199	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
**** - indicates emission generated by the supporting equipment
Pk - Peak detector

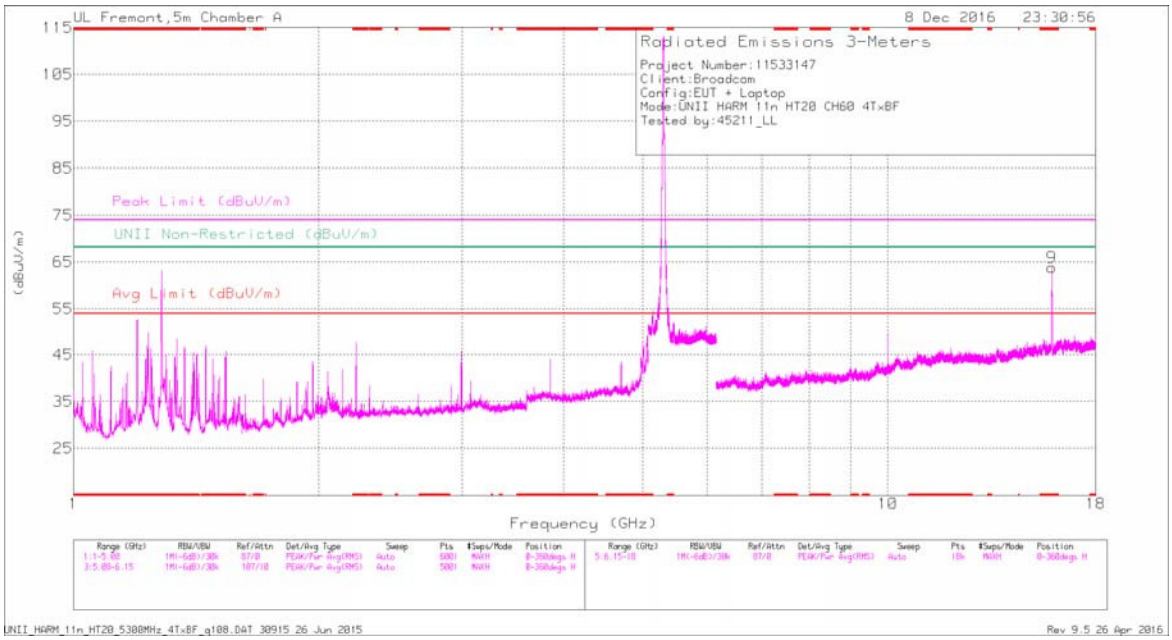
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.961	54.25	PK-U	34.3	-27.9	0	60.65	-	-	74	-13.35	-	-	223	112	V
* 4.96	45.29	ADR	34.3	-27.9	.33	52.02	54	-1.98	-	-	-	-	223	112	V
* 4.681	39.7	PK-U	34.4	-28.7	0	45.4	-	-	74	-28.6	-	-	223	102	V
* 4.683	29.2	ADR	34.4	-28.6	.33	35.33	54	-18.67	-	-	-	-	223	102	V
* 5.024	50.35	PK-U	34.3	-27.2	0	57.45	-	-	74	-16.55	-	-	226	102	V
* 5.024	41.78	ADR	34.3	-27.2	.33	49.21	54	-4.79	-	-	-	-	226	102	V
* 5.107	48.4	PK-U	34.3	-18.6	0	64.1	-	-	74	-9.9	-	-	271	123	V
* 5.108	37.84	ADR	34.3	-18.6	.33	53.87	54	-.13	-	-	-	-	271	123	V
* 5.418	45.26	PK-U	34.8	-18.9	0	61.16	-	-	74	-12.84	-	-	34	208	V
* 5.414	35.9	ADR	34.8	-18.8	.33	52.23	54	-1.77	-	-	-	-	34	208	V
* 15.776	36.88	PK-U	40.4	-20.3	0	56.98	-	-	74	-17.02	-	-	289	248	H
* 15.775	22.82	ADR	40.4	-20.4	.33	43.15	54	-10.85	-	-	-	-	289	248	H
* 15.773	48.88	PK-U	40.4	-20.4	0	68.88	-	-	74	-5.12	-	-	351	213	V
* 15.775	32.99	ADR	40.4	-20.4	.33	53.32	54	-.68	-	-	-	-	351	213	V
5.495	43.12	PK-U	34.8	-18.8	0	59.12	-	-	-	-	68.2	-9.08	347	243	V
5.56	42.93	PK-U	34.7	-19.1	0	58.53	-	-	-	-	68.2	-9.67	113	233	V
5.844	41.57	PK-U	35.1	-18.8	0	57.87	-	-	-	-	68.2	-10.33	111	220	V
10	42.57	PK-U	37	-21.2	0	58.37	-	-	-	-	68.2	-9.83	270	291	V

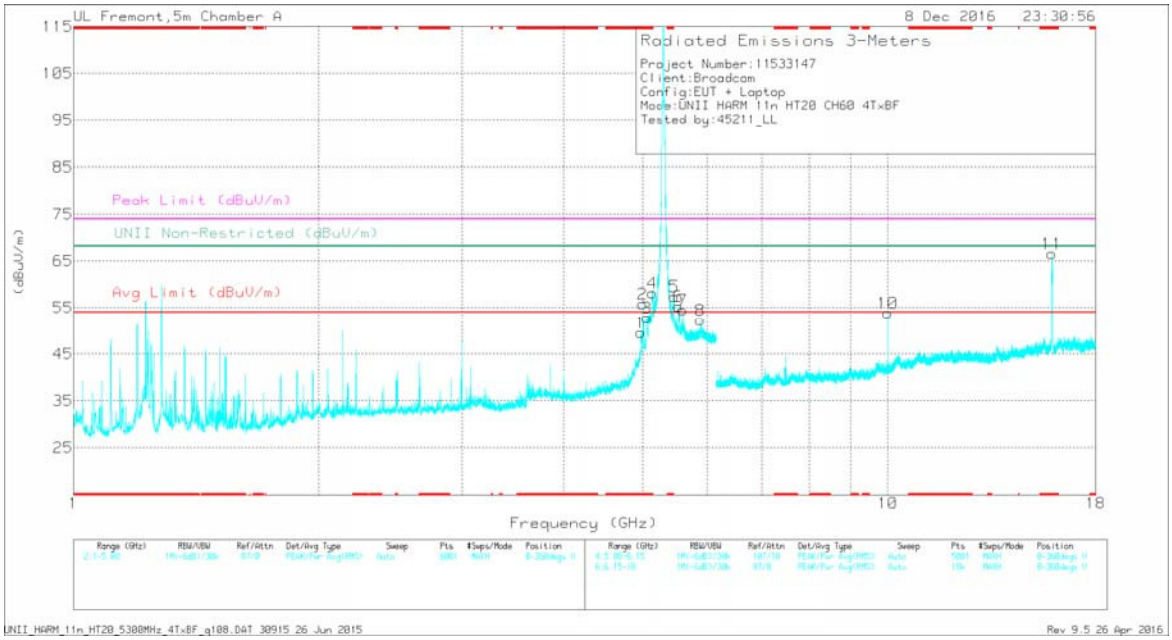
* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

MID CHANNEL

MID CHANNEL HORIZONTAL PLOT



MID CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.975	42.75	Pk	34.3	-27.4	0	49.65	-	-	74	-24.35	-	-	0-360	101	V
2	* 5	49.08	Pk	34.3	-27.5	0	55.88	-	-	74	-18.12	-	-	0-360	101	V
3	* 5.057	43.98	Pk	34.3	-25.4	0	52.88	-	-	74	-21.12	-	-	0-360	101	V
4	* 5.137	42.33	Pk	34.4	-18.6	0	58.13	-	-	74	-15.87	-	-	0-360	199	V
9	* 15.894	43.82	Pk	40.4	-20.4	0	63.82	-	-	74	-10.18	-	-	0-360	101	H
11	* 15.901	46.68	Pk	40.4	-20.5	0	66.58	-	-	74	-7.42	-	-	0-360	199	V
5	5.464	41.45	Pk	34.8	-18.8	0	57.45	-	-	-	-	68.2	-10.75	0-360	101	V
6	5.533	39.5	Pk	34.8	-19	0	55.3	-	-	-	-	68.2	-12.9	0-360	101	V
7	5.602	38.83	Pk	34.7	-19	0	54.53	-	-	-	-	68.2	-13.67	0-360	101	V
8	5.889	35.79	Pk	35.2	-18.7	0	52.29	-	-	-	-	68.2	-15.91	0-360	199	V
10	10	38.1	Pk	37	-21.2	0	53.9	-	-	-	-	68.2	-14.3	0-360	199	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
Pk - Peak detector

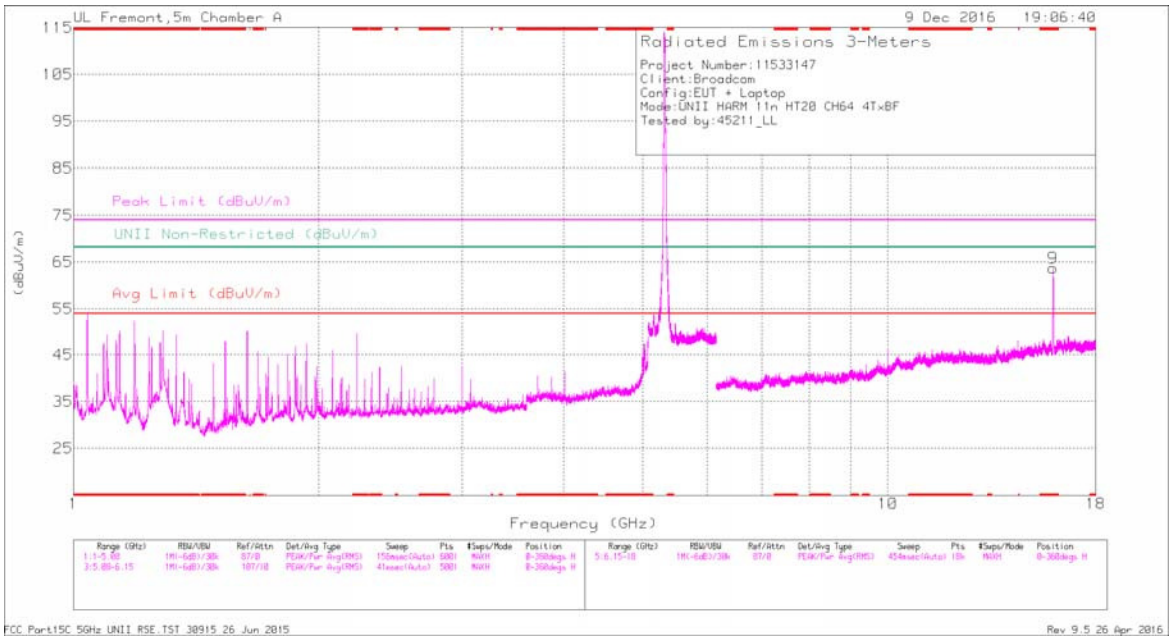
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.983	46.87	PK-U	34.3	-27.1	0	54.07	-	-	74	-19.93	-	-	141	101	V
* 4.976	36.81	ADR	34.3	-27.3	.33	44.14	54	-9.86	-	-	-	-	141	101	V
* 5.002	50.04	PK-U	34.3	-27.5	0	56.84	-	-	74	-17.16	-	-	116	102	V
* 5.002	41.43	ADR	34.3	-27.5	.33	48.56	54	-5.44	-	-	-	-	116	102	V
* 5.064	49.47	PK-U	34.3	-25.5	0	58.27	-	-	74	-15.73	-	-	333	101	V
* 5.063	40.13	ADR	34.3	-25.5	.33	49.26	54	-4.74	-	-	-	-	333	101	V
* 5.133	47.62	PK-U	34.4	-18.6	0	63.42	-	-	74	-10.58	-	-	175	213	V
* 5.136	37.19	ADR	34.4	-18.6	.33	53.32	54	-.68	-	-	-	-	175	213	V
* 15.906	33.87	PK-U	40.4	-20.5	0	53.77	-	-	74	-20.23	-	-	171	191	H
* 15.91	22.92	ADR	40.4	-20.6	.33	43.05	54	-10.95	-	-	-	-	171	191	H
* 15.902	46.27	PK-U	40.4	-20.5	0	66.17	-	-	74	-7.83	-	-	282	208	V
* 15.905	30.03	ADR	40.4	-20.5	.33	50.26	54	-3.74	-	-	-	-	282	208	V
5.462	43.28	PK-U	34.8	-18.8	0	59.28	-	-	-	-	68.2	-8.92	297	104	V
5.536	42.16	PK-U	34.8	-19.1	0	57.86	-	-	-	-	68.2	-10.34	353	106	V
5.603	43.41	PK-U	34.7	-19	0	59.11	-	-	-	-	68.2	-9.09	346	107	V
5.889	42.55	PK-U	35.2	-18.7	0	59.05	-	-	-	-	68.2	-9.15	19	217	V
10	43.14	PK-U	37	-21.2	0	58.94	-	-	-	-	68.2	-9.26	184	307	V

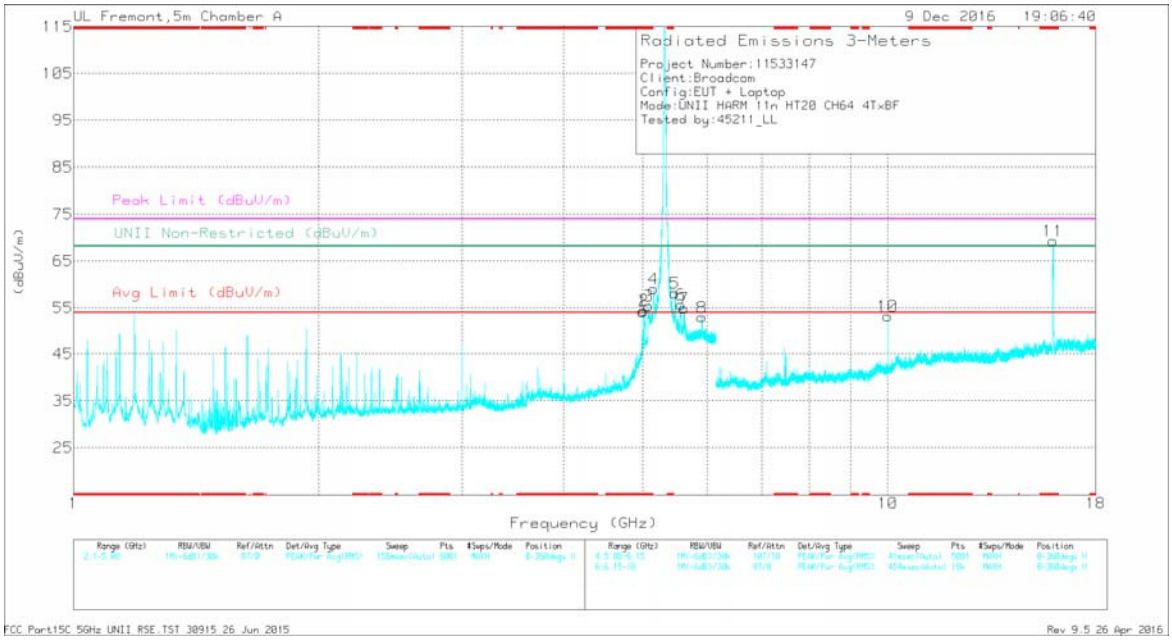
* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

HIGH CHANNEL

HIGH CHANNEL HORIZONTAL PLOT



HIGH CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5	47.41	Pk	34.3	-27.5	0	54.21	-	-	74	-19.79	-	-	0-360	199	V
2	* 5.017	47.56	Pk	34.3	-27.4	0	54.46	-	-	74	-19.54	-	-	0-360	101	V
3	* 5.086	39.67	Pk	34.3	-18.5	0	55.47	-	-	74	-18.53	-	-	0-360	101	V
9	* 15.964	43.73	Pk	40.5	-20.5	0	63.73	-	-	74	-10.27	-	-	0-360	199	H
11	* 15.966	49.36	Pk	40.5	-20.5	0	69.36	-	-	74	-4.64	-	-	0-360	199	V
4	5.159	43.21	Pk	34.5	-18.6	0	59.11	-	-	-	-	68.2	-9.09	0-360	101	V
5	5.476	42.12	Pk	34.8	-18.8	0	58.12	-	-	-	-	68.2	-10.08	0-360	101	V
6	5.567	39.94	Pk	34.7	-18.9	0	55.74	-	-	-	-	68.2	-12.46	0-360	101	V
7	5.622	39.27	Pk	34.7	-19	0	54.97	-	-	-	-	68.2	-13.23	0-360	199	V
8	5.911	36.35	Pk	35.2	-18.6	0	52.95	-	-	-	-	68.2	-15.25	0-360	199	V
10	10	37.37	Pk	37	-21.2	0	53.17	-	-	-	-	68.2	-15.03	0-360	199	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
Pk - Peak detector

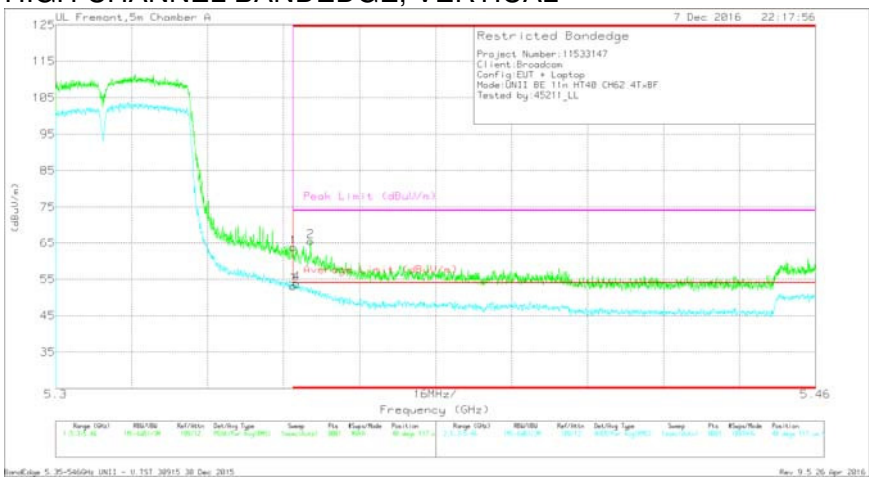
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.007	47.24	PK-U	34.3	-27.5	0	54.04	-	-	74	-19.96	-	-	133	101	V
* 5.003	36.74	ADR	34.3	-27.5	.33	43.87	54	-10.13	-	-	-	-	133	101	V
* 5.018	51.71	PK-U	34.3	-27.3	0	58.71	-	-	74	-15.29	-	-	131	103	V
* 5.018	43.84	ADR	34.3	-27.3	.33	51.17	54	-2.83	-	-	-	-	131	103	V
* 5.083	42.97	PK-U	34.3	-18.4	0	58.87	-	-	74	-15.13	-	-	138	102	V
* 5.085	33.79	ADR	34.3	-18.4	.33	50.02	54	-3.98	-	-	-	-	138	102	V
* 15.947	35.42	PK-U	40.5	-20.8	0	55.12	-	-	74	-18.88	-	-	174	159	H
* 15.955	22.94	ADR	40.5	-20.7	.33	43.07	54	-10.93	-	-	-	-	174	159	H
* 15.962	49.93	PK-U	40.5	-20.5	0	69.93	-	-	74	-4.07	-	-	260	171	V
* 15.963	33.07	ADR	40.5	-20.5	.33	53.4	54	-.6	-	-	-	-	260	171	V
5.157	47.36	PK-U	34.5	-18.6	0	63.26	-	-	-	-	68.2	-4.94	325	102	V
5.485	46.24	PK-U	34.8	-19	0	62.04	-	-	-	-	68.2	-6.16	289	101	V
5.555	43.15	PK-U	34.7	-19.1	0	58.75	-	-	-	-	68.2	-9.45	347	102	V
5.616	41.44	PK-U	34.7	-19	0	57.14	-	-	-	-	68.2	-11.06	11	204	V
5.911	41.41	PK-U	35.2	-18.6	0	58.01	-	-	-	-	68.2	-10.19	130	190	V
10	43.62	PK-U	37	-21.2	0	59.42	-	-	-	-	68.2	-8.78	184	290	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

9.2.2. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.3 GHz BAND AUTHORIZED BANDEDGE (HIGH CHANNEL)

HIGH CHANNEL BANDEDGE, VERTICAL



Trace Markers

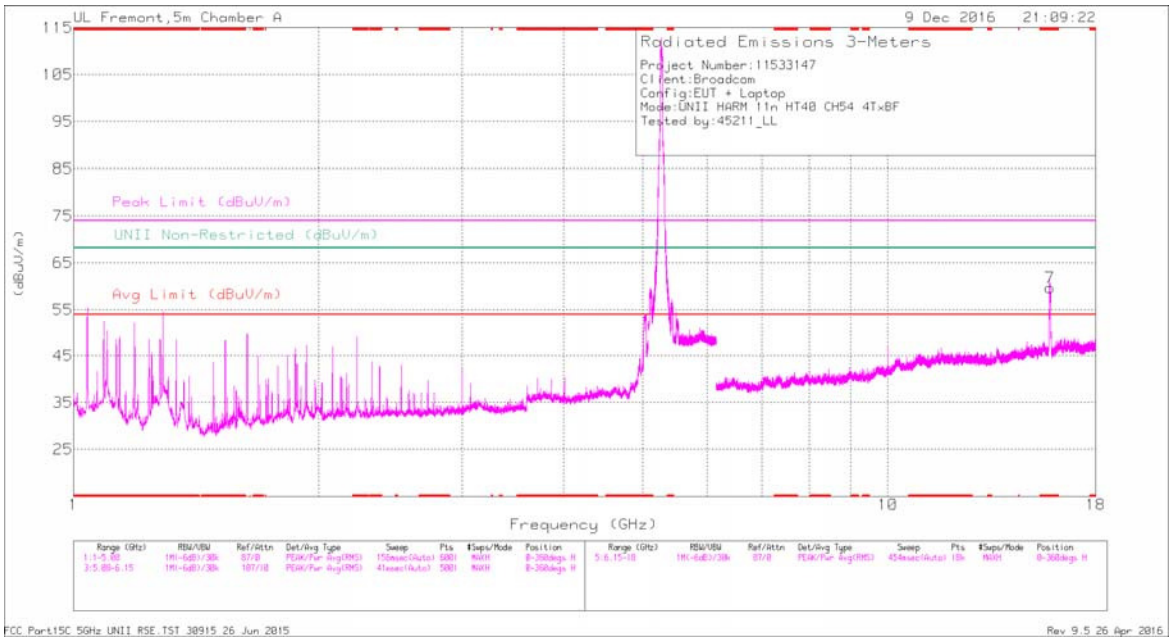
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	47.88	Pk	34.8	-18.9	0	63.78	-	-	74	-10.22	40	117	V
2	* 5.354	49.55	Pk	34.8	-18.8	0	65.55	-	-	74	-8.45	40	117	V
3	* 5.35	36.93	RMS	34.8	-18.9	.3	53.13	54	-.87	-	-	40	117	V
4	* 5.351	37.56	RMS	34.8	-18.9	.3	53.76	54	-.24	-	-	40	117	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

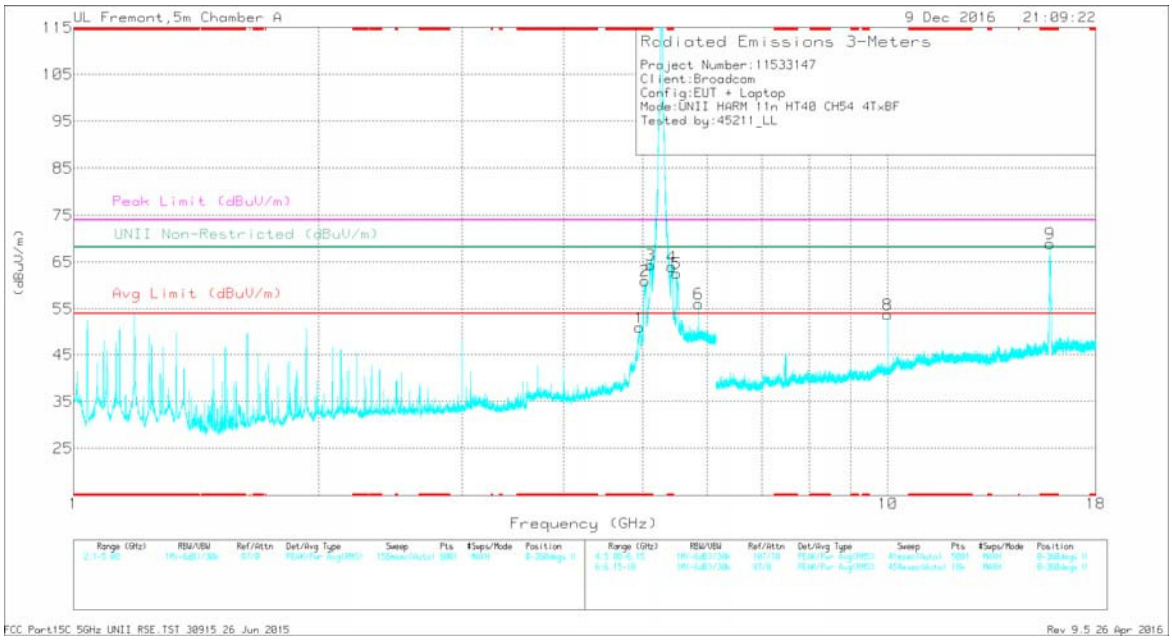
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL

LOW CHANNEL HORIZONTAL PLOT



LOW CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.954	44.64	Pk	34.3	-28	0	50.94	-	-	74	-23.06	-	-	0-360	101	V
2	* 5.032	53.76	Pk	34.3	-27	0	61.06	-	-	74	-12.94	-	-	0-360	101	V
3	* 5.109	48.68	Pk	34.3	-18.6	0	64.38	-	-	74	-9.62	-	-	0-360	199	V
4	* 5.431	48.03	Pk	34.8	-18.8	0	64.03	-	-	74	-9.97	-	-	0-360	101	V
7	* 15.807	39.07	Pk	40.4	-19.7	0	59.77	-	-	74	-14.23	-	-	0-360	199	H
9	* 15.812	48.03	Pk	40.4	-19.5	0	68.93	-	-	74	-5.07	-	-	0-360	199	V
5	5.505	46.63	Pk	34.8	-18.9	0	62.53	-	-	-	-	68.2	-5.67	0-360	101	V
6	5.856	39.66	Pk	35.1	-18.7	0	56.06	-	-	-	-	68.2	-12.14	0-360	101	V
8	10	37.93	Pk	37	-21.2	0	53.73	-	-	-	-	68.2	-14.47	0-360	199	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
Pk - Peak detector

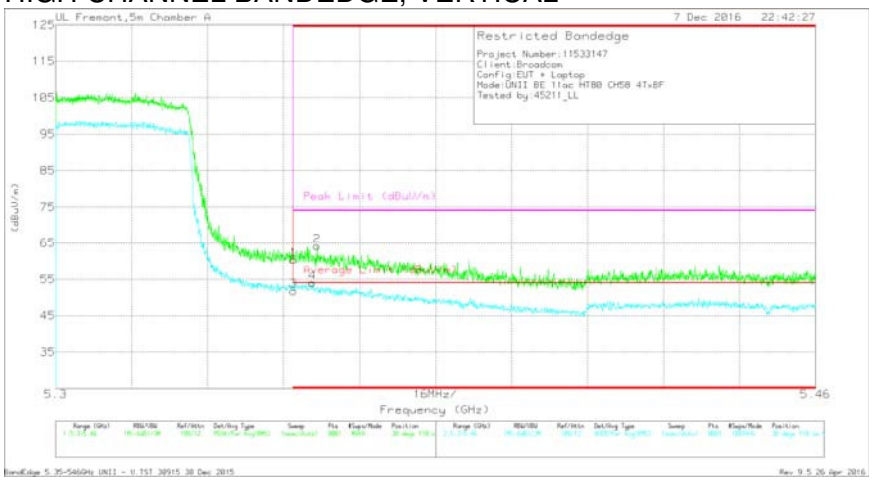
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.96	44.66	PK-U	34.3	-27.9	0	51.06	-	-	74	-22.94	-	-	149	101	V
* 4.955	35.43	ADR	34.3	-28	.3	42.03	54	-11.97			-	-	149	101	V
* 5.036	51.63	PK-U	34.3	-26.6	0	59.33			74	-14.67	-	-	330	102	V
* 5.035	43.27	ADR	34.3	-26.7	.3	51.17	54	-2.83			-	-	330	102	V
* 5.096	46.63	PK-U	34.3	-18.4	0	62.53	-	-	74	-11.47	-	-	353	118	V
* 5.096	37.85	ADR	34.3	-18.5	.3	53.95	54	-.05	-	-	-	-	353	118	V
* 5.418	45.69	PK-U	34.8	-18.9	0	61.59	-	-	74	-12.41	-	-	289	119	V
* 5.423	35.85	ADR	34.8	-18.8	.3	52.15	54	-1.85	-	-	-	-	289	119	V
* 15.801	31.86	PK-U	40.4	-19.8	0	52.46	-	-	74	-21.54	-	-	239	155	H
* 15.779	22.41	ADR	40.4	-20.3	.3	42.81	54	-11.19	-	-	-	-	239	155	H
* 15.828	32.34	PK-U	40.4	-19.7	0	53.04	-	-	74	-20.96	-	-	110	199	V
* 15.782	22.26	ADR	40.4	-20.2	.3	42.76	54	-11.24	-	-	-	-	110	199	V
5.495	43.09	PK-U	34.8	-18.8	0	59.09	-	-	-	-	68.2	-9.11	4	102	V
5.855	44.23	PK-U	35.1	-18.7	0	60.63	-	-	-	-	68.2	-7.57	270	256	V
10	42.97	PK-U	37	-21.2	0	58.77	-	-	-	-	68.2	-9.43	183	361	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

9.2.3. TX ABOVE 1 GHz 802.11ac HT80 MODE IN THE 5.3 GHz BAND AUTHORIZED BANDEDGE (HIGH CHANNEL)

HIGH CHANNEL BANDEDGE, VERTICAL



Trace Markers

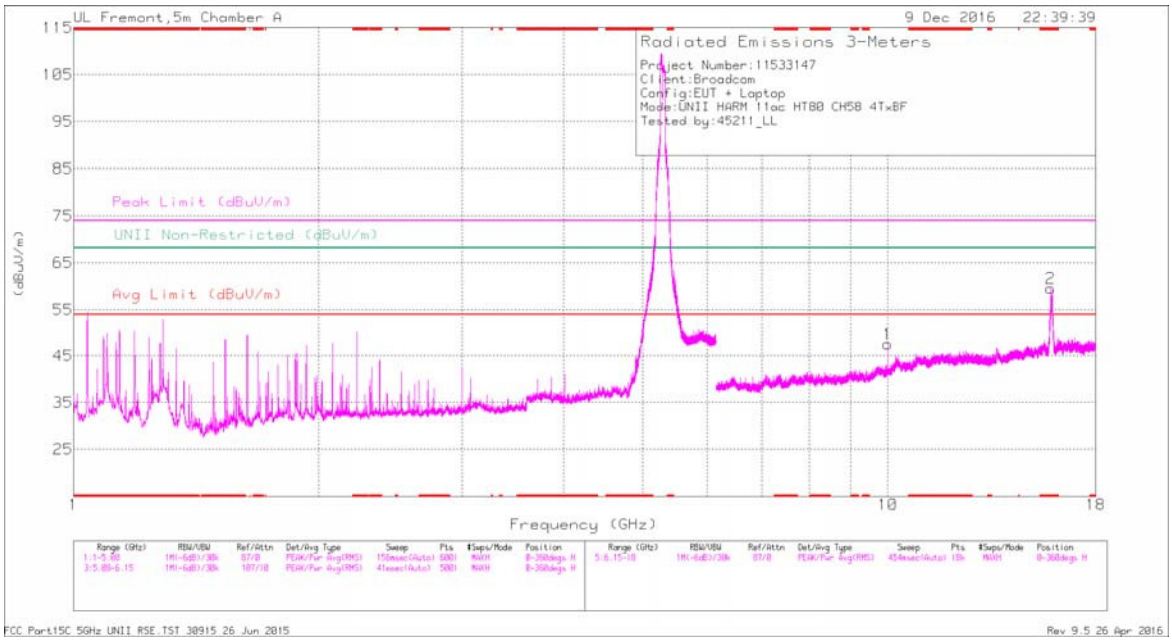
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	44.41	Pk	34.8	-18.9	0	60.31	-	-	74	-13.69	38	110	V
2	* 5.355	48.21	Pk	34.8	-18.8	0	64.21	-	-	74	-9.79	38	110	V
3	* 5.35	35.63	RMS	34.8	-18.9	.25	51.78	54	-2.22	-	-	38	110	V
4	* 5.354	37.72	RMS	34.8	-18.8	.25	53.97	54	-.03	-	-	38	110	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

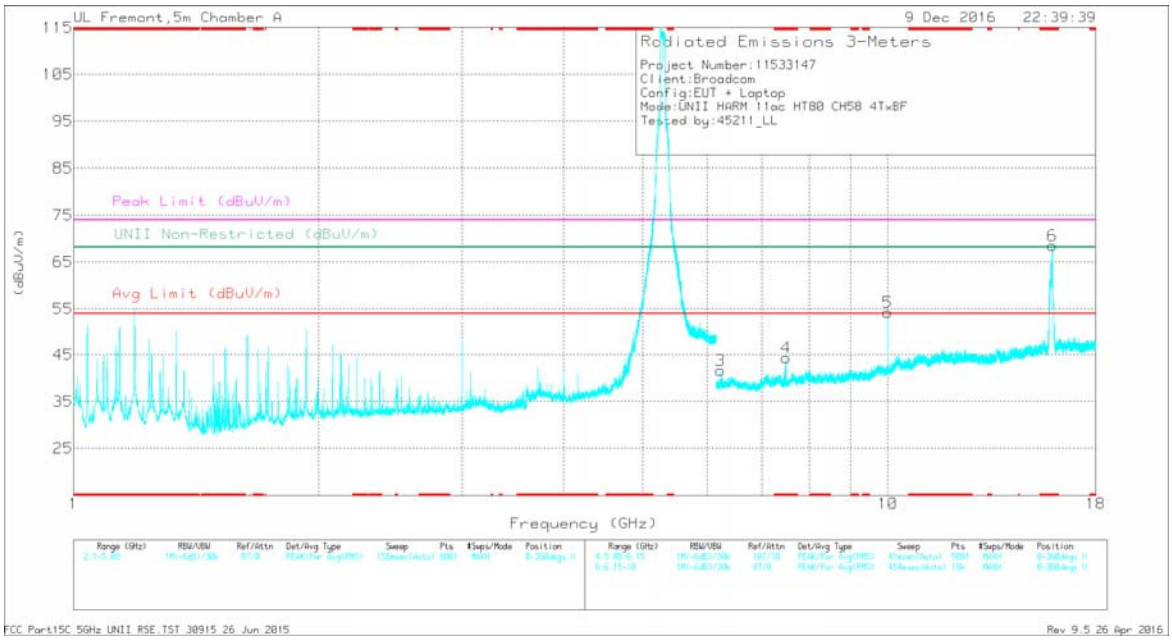
HARMONICS AND SPURIOUS EMISSIONS

HIGH CHANNEL

HIGH CHANNEL HORIZONTAL PLOT



HIGH CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 15.856	38.79	Pk	40.4	-19.6	0	59.59	-	-	74	-14.41	-	-	0-360	199	H
4	* 7.494	33.36	Pk	35.8	-24.8	0	44.36	-	-	74	-29.64	-	-	0-360	101	V
6	* 15.92	48.62	Pk	40.5	-20.6	0	68.52	-	-	74	-5.48	-	-	0-360	199	V
3	6.228	31.99	Pk	35.5	-25.8	0	41.69	-	-	-	-	68.2	-26.51	0-360	199	V
1	10	31.7	Pk	37	-21.2	0	47.5	-	-	-	-	68.2	-20.7	0-360	101	H
5	10	38.47	Pk	37	-21.2	0	54.27	-	-	-	-	68.2	-13.93	0-360	199	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
Pk - Peak detector

Radiated Emissions

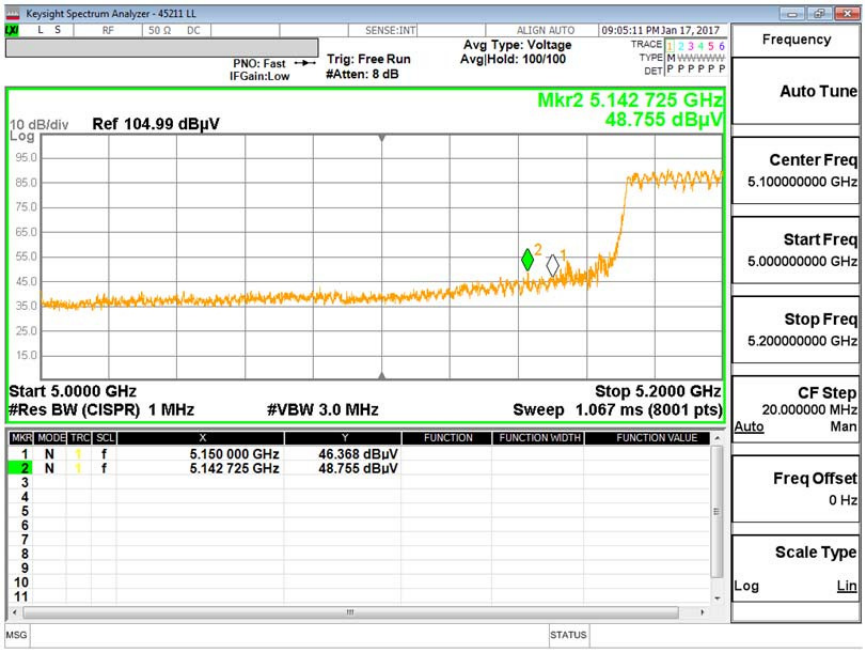
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 15.887	38.44	PK-U	40.4	-20.3	0	58.54	-	-	74	-15.46	-	-	179	193	H
* 15.852	26.35	ADR	40.4	-19.5	.25	47.5	54	-6.5	-	-	-	-	179	193	H
* 15.868	46.26	PK-U	40.4	-19.9	0	66.76	-	-	74	-7.24	-	-	265	205	V
* 15.87	33.02	ADR	40.4	-20	.25	53.67	54	-.33	-	-	-	-	265	205	V
* 7.5	34.53	PK-U	35.8	-24.7	0	45.63	-	-	74	-28.37	-	-	188	111	V
* 7.5	26.17	ADR	35.8	-24.7	.25	37.52	54	-16.48	-	-	-	-	188	111	V
6.228	35.54	PK-U	35.5	-25.9	0	45.14	-	-	-	-	68.2	-23.06	199	204	V
10	36.81	PK-U	37	-21.2	0	52.61	-	-	-	-	68.2	-15.59	173	102	H
10	43.91	PK-U	37	-21.2	0	59.71	-	-	-	-	68.2	-8.49	190	338	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

9.2.4. TX ABOVE 1 GHz 802.11ac HT80+HT80 MODE IN THE 5.2 & 5.3 GHz BAND

AUTHORIZED BANDEDGE (LOW CHANNEL)

LOW CHANNEL BANDEDGE, VERTICAL
PEAK



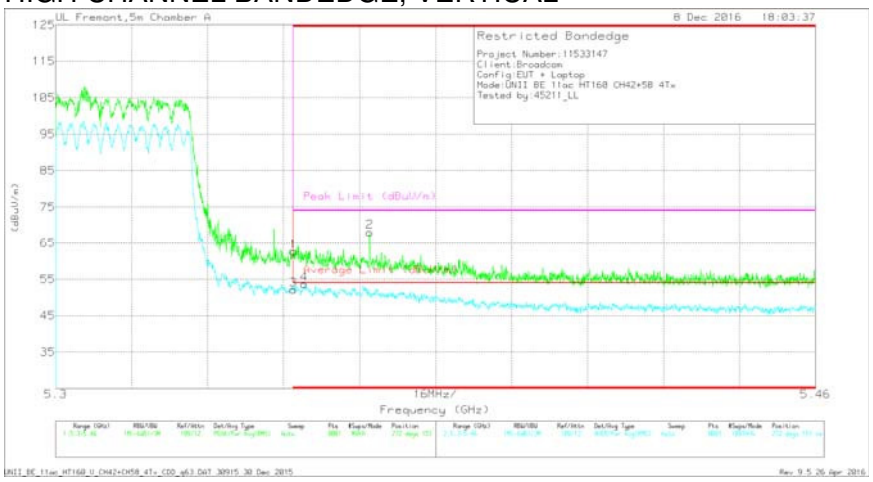
LOW CHANNEL BANDEDGE, VERTICAL AVERAGE

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.15	46.37	Pk	34.5	-18.7	0	62.17	-	-	74	-11.83	275	109	V
2	* 5.143	48.76	Pk	34.4	-18.6	0	64.56	-	-	74	-9.44	275	109	V
1	5.15	35.98	RMS	34.5	-18.7	.33	52.11	54	-1.89	-	-	275	109	V
2	* 5.142	37.27	RMS	34.4	-18.6	.33	53.4	54	-0.6	-	-	275	109	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HIGH CHANNEL BANDEDGE, VERTICAL



Trace Markers

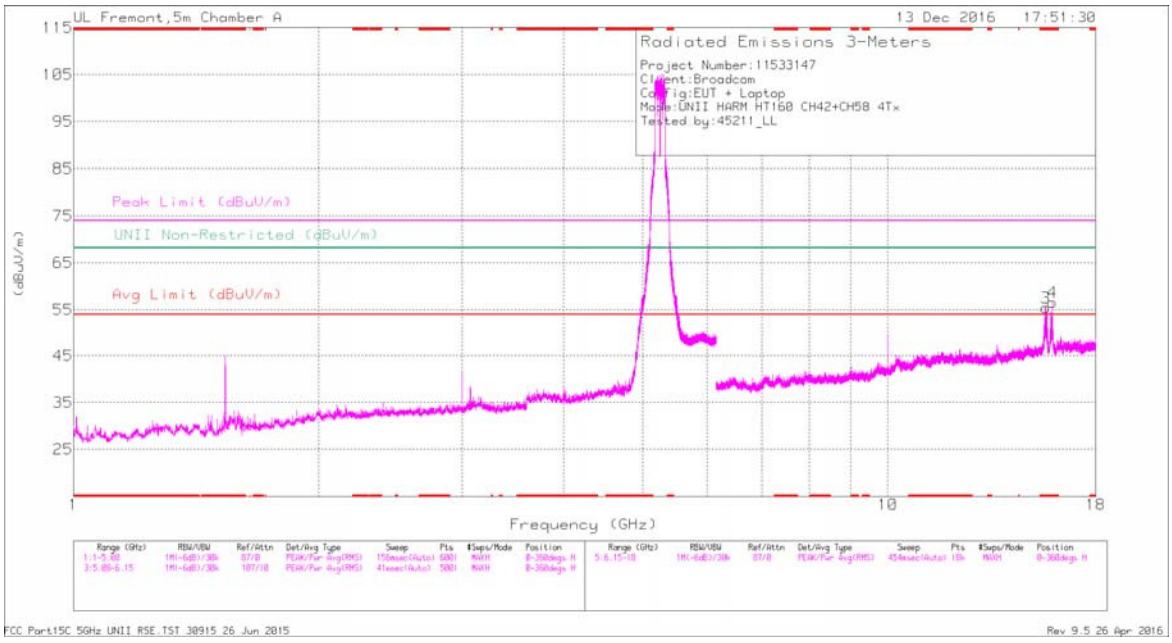
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	46.85	Pk	34.8	-18.9	0	62.75	-	-	74	-11.25	272	151	V
2	* 5.366	52.01	Pk	34.8	-18.7	0	68.11	-	-	74	-5.89	272	151	V
3	* 5.35	35.96	RMS	34.8	-18.9	.33	52.19	54	-1.81	-	-	272	151	V
4	* 5.352	37.3	RMS	34.8	-18.8	.33	53.63	54	-.37	-	-	272	151	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

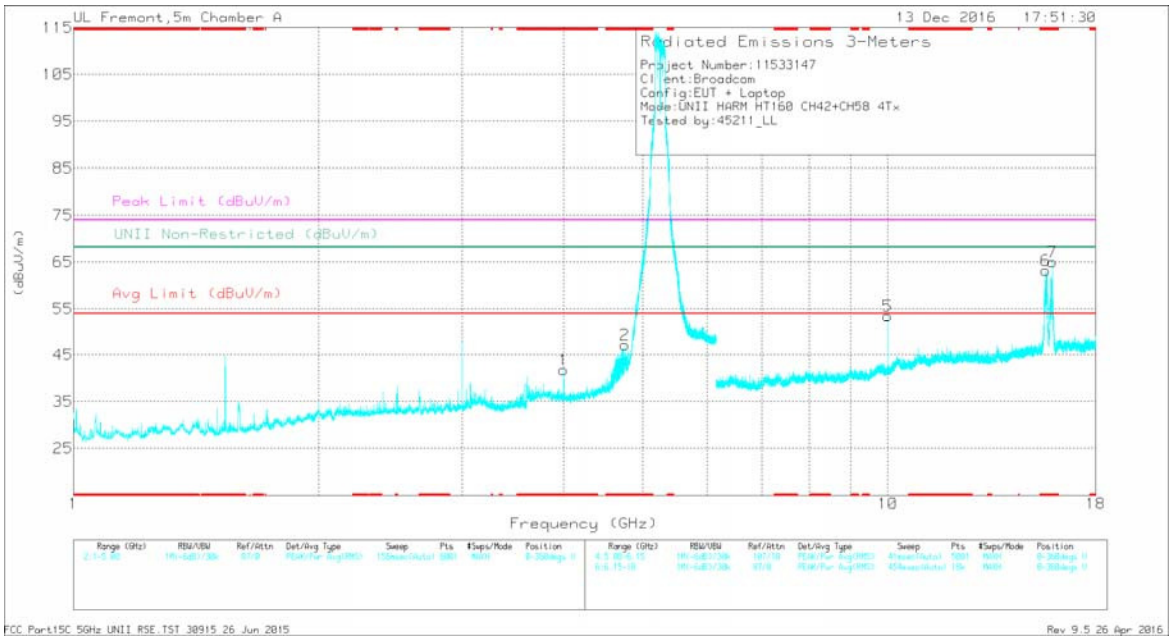
HARMONICS AND SPURIOUS EMISSIONS

CHANNEL 42+CHANNEL 58

HIGH CHANNEL HORIZONTAL PLOT



HIGH CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4	38.36	Pk	33.4	-29.9	0	41.86	-	-	74	-32.14	-	-	0-360	101	V
2	* 4.756	41.22	Pk	34.4	-28.5	0	47.12	-	-	74	-26.88	-	-	0-360	101	V
3	* 15.641	35.72	Pk	40.3	-20.6	0	55.42	-	-	74	-18.58	-	-	0-360	199	H
4	* 15.915	36.75	Pk	40.5	-20.6	0	56.65	-	-	74	-17.35	-	-	0-360	199	H
6	* 15.641	43.54	Pk	40.3	-20.6	0	63.24	-	-	74	-10.76	-	-	0-360	199	V
7	* 15.916	45.09	Pk	40.5	-20.6	0	64.99	-	-	74	-9.01	-	-	0-360	199	V
5	10	37.63	Pk	37	-21.2	0	53.43	-	-	-	-	68.2	-14.77	0-360	199	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
Pk - Peak detector

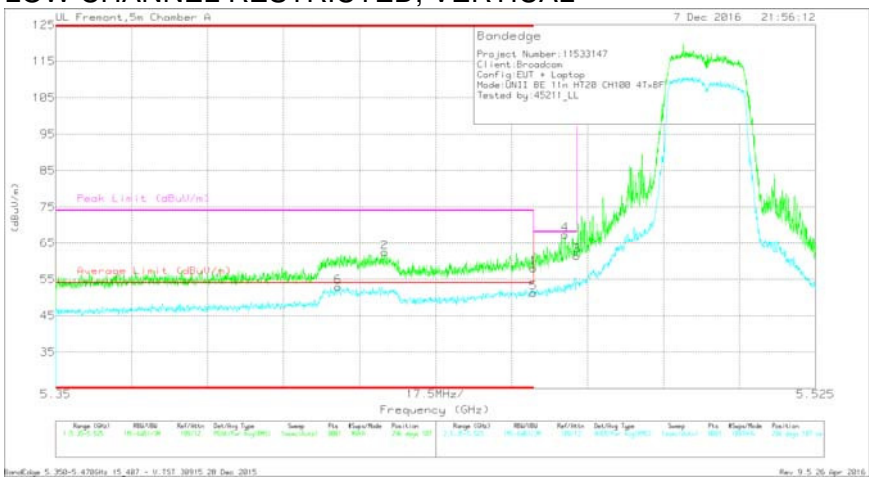
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4	42.66	PK-U	33.4	-29.9	0	46.16	-	-	74	-27.84	-	-	254	118	V
* 4	36.4	ADR	33.4	-29.9	.33	40.23	54	-13.77	-	-	-	-	254	118	V
* 4.755	44.59	PK-U	34.4	-28.5	0	50.49	-	-	74	-23.51	-	-	340	116	V
* 4.755	30.14	ADR	34.4	-28.5	.33	36.37	54	-17.63	-	-	-	-	340	116	V
* 15.677	39	PK-U	40.3	-20.8	0	58.5	-	-	74	-15.5	-	-	270	242	H
* 15.644	27.39	ADR	40.3	-20.6	.33	47.42	54	-6.58	-	-	-	-	270	242	H
* 15.916	38.53	PK-U	40.5	-20.6	0	58.43	-	-	74	-15.57	-	-	192	194	H
* 15.885	26.34	ADR	40.4	-20.3	.33	46.77	54	-7.23	-	-	-	-	192	194	H
* 15.677	47.88	PK-U	40.3	-20.8	0	67.38	-	-	74	-6.62	-	-	274	216	V
* 15.616	33.52	ADR	40.3	-20.2	.33	53.95	54	-.05	-	-	-	-	274	216	V
* 15.915	48.67	PK-U	40.5	-20.6	0	68.57	-	-	74	-5.43	-	-	217	345	V
* 15.915	33.51	ADR	40.5	-20.6	.33	53.74	54	-.26	-	-	-	-	217	345	V
10	44.18	PK-U	37	-21.2	0	59.98	-	-	-	-	68.2	-8.22	188	315	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

9.2.5. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.6 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

LOW CHANNEL RESTRICTED, VERTICAL



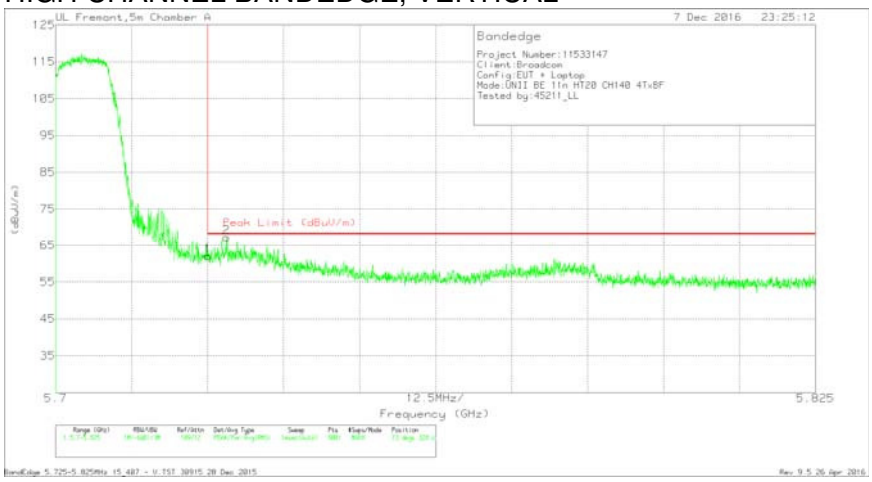
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.46	42.06	Pk	34.8	-18.9	0	57.96	-	-	74	-16.04	296	107	V
2	* 5.426	46.45	Pk	34.8	-18.8	0	62.45	-	-	74	-11.55	296	107	V
5	* 5.46	35.03	RMS	34.8	-18.9	.33	51.26	54	-2.74	-	-	296	107	V
6	* 5.415	36.55	RMS	34.8	-18.8	.33	52.88	54	-1.12	-	-	296	107	V
4	5.467	51.22	Pk	34.8	-18.6	0	67.42	-	-	68.2	-.78	296	107	V
3	5.47	45.36	Pk	34.8	-18.7	0	61.46	-	-	68.2	-6.74	296	107	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HIGH CHANNEL BANDEDGE, VERTICAL



Trace Markers

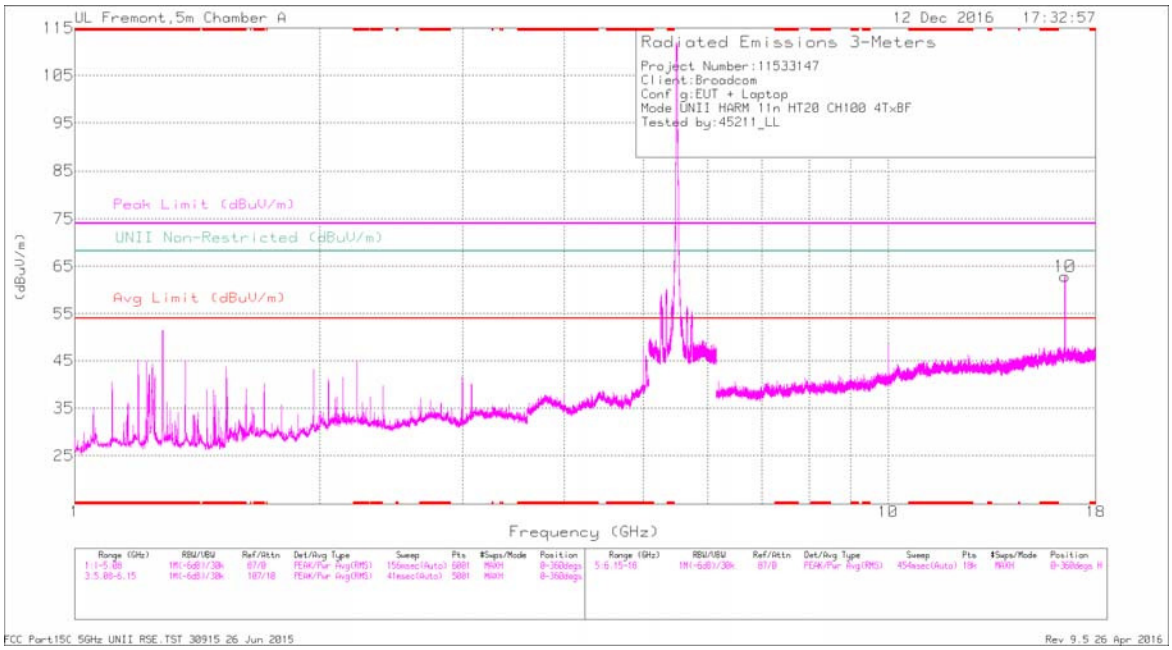
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	46.11	Pk	34.9	-19	62.01	68.2	-6.19	73	328	V
2	5.728	51.46	Pk	34.9	-19	67.36	68.2	-.84	73	328	V

Pk - Peak detector

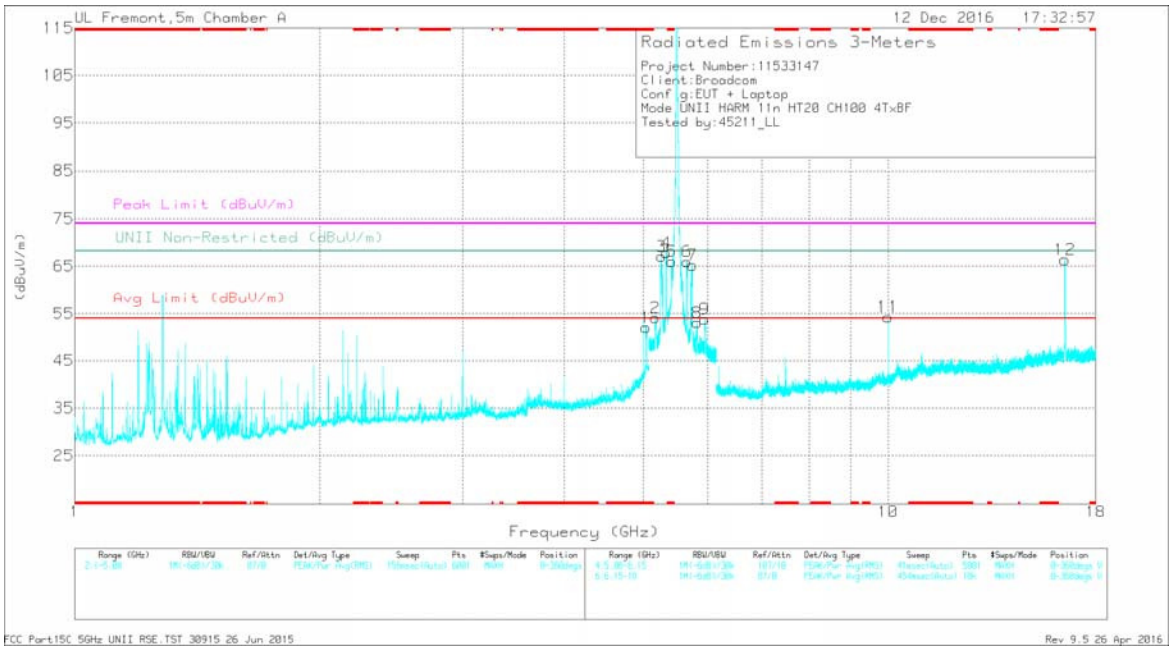
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL

LOW CHANNEL HORIZONTAL PLOT



LOW CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.039	44.25	Pk	34.3	-26.5	0	52.05	-	-	74	-21.95	-	-	0-360	199	V
5	** 5.421	50.1	Pk	34.8	-18.9	0	66	-	-	74	-8	-	-	0-360	101	V
2	5.179	38.27	Pk	34.6	-18.7	0	54.17	-	-	-	-	68.2	-14.03	0-360	101	V
3	5.263	51.24	Pk	34.7	-18.9	0	67.04	-	-	-	-	68.2	-1.16	0-360	101	V
4	5.341	51.92	Pk	34.8	-18.9	0	67.82	-	-	-	-	68.2	-.38	0-360	101	V
6	***5.664	50.18	Pk	34.8	-19	0	65.98	-	-	-	-	68.2	-2.22	0-360	199	V
7	5.746	49.23	Pk	34.9	-18.9	0	65.23	-	-	-	-	68.2	-2.97	0-360	199	V
8	5.825	36.79	Pk	35	-18.7	0	53.09	-	-	-	-	68.2	-15.11	0-360	199	V
9	5.953	37.26	Pk	35.2	-18.6	0	53.86	-	-	-	-	68.2	-14.34	0-360	199	V
11	10	38.52	Pk	37	-21.2	0	54.32	-	-	-	-	68.2	-13.88	0-360	199	V
10	16.496	42.07	Pk	41.2	-20.4	0	62.87	-	-	-	-	68.2	-5.33	0-360	199	H
12	16.498	45.67	Pk	41.2	-20.5	0	66.37	-	-	-	-	68.2	-1.83	0-360	199	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
** - indicates frequency covered in the radiated band edge tests
*** - indicates frequency in the operating band
Pk - Peak detector

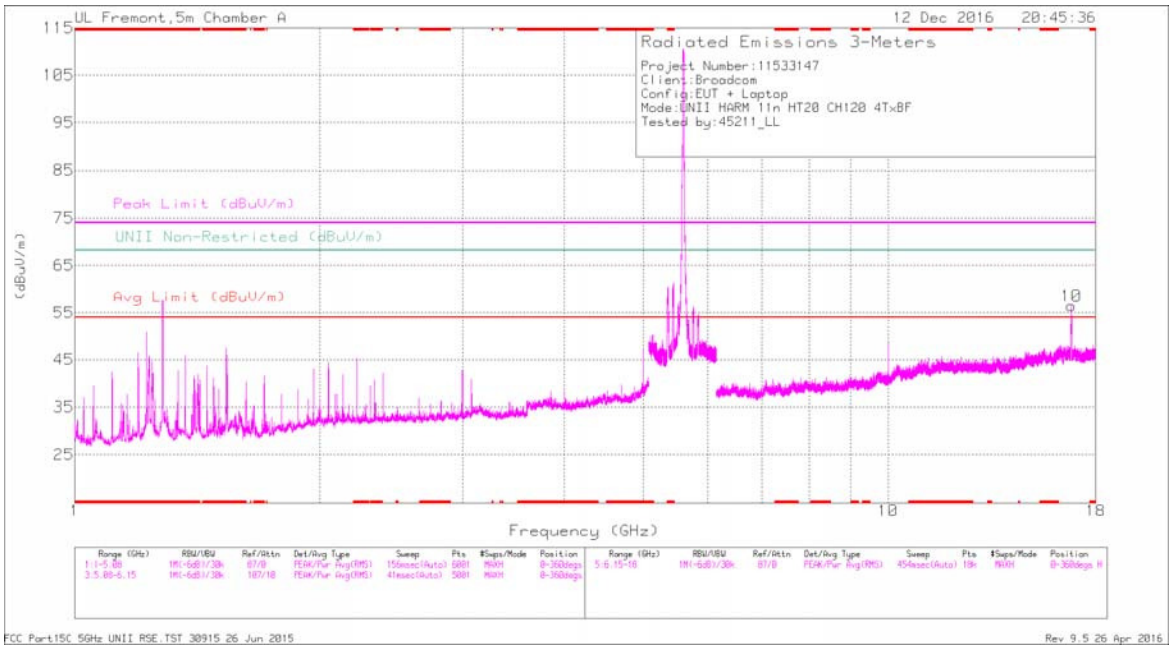
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.036	49.08	PK-U	34.3	-26.6	0	56.78	-	-	74	-17.22	-	-	0	200	V
* 5.038	39.45	ADR	34.3	-26.5	.33	47.58	54	-6.42	-	-	-	-	0	200	V
5.173	43.03	PK-U	34.5	-18.6	0	58.93	-	-	-	-	68.2	-9.27	360	101	V
5.265	51.38	PK-U	34.7	-18.9	0	67.18	-	-	-	-	68.2	-1.02	123	104	V
5.343	52.05	PK-U	34.8	-18.9	0	67.95	-	-	-	-	68.2	-.25	331	106	V
5.737	50.15	PK-U	34.9	-19	0	66.05	-	-	-	-	68.2	-2.15	18	182	V
5.824	40.12	PK-U	35	-18.8	0	56.32	-	-	-	-	68.2	-11.88	19	193	V
5.958	40.6	PK-U	35.2	-18.6	0	57.2	-	-	-	-	68.2	-11	313	218	V
10	42.66	PK-U	37	-21.2	0	58.46	-	-	-	-	68.2	-9.74	189	303	V
16.505	33.84	PK-U	41.2	-20.7	0	54.34	-	-	-	-	68.2	-13.86	207	114	H
16.506	34.42	PK-U	41.2	-20.8	0	54.82	-	-	-	-	68.2	-13.38	230	240	V

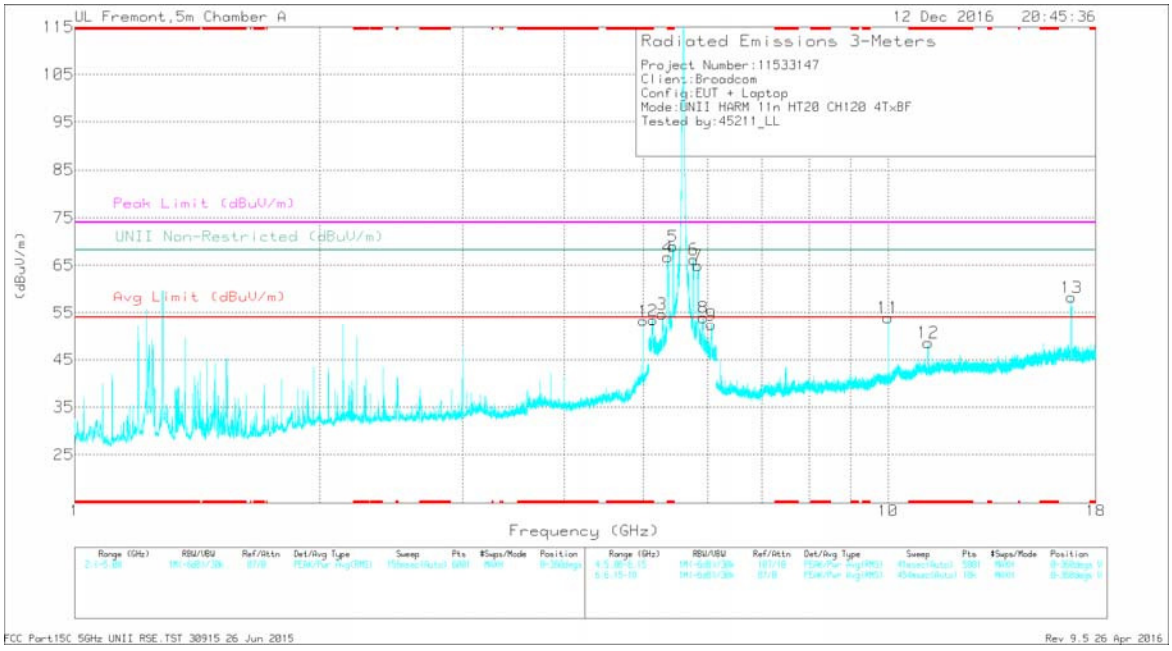
* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

MID CHANNEL

MID CHANNEL HORIZONTAL PLOT



MID CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5	46.47	Pk	34.3	-27.5	0	53.27	-	-	74	-20.73	-	-	0-360	199	V
2	* 5.138	37.57	Pk	34.4	-18.6	0	53.37	-	-	74	-20.63	-	-	0-360	101	V
4	* 5.362	50.68	Pk	34.8	-18.8	0	66.68	-	-	74	-7.32	-	-	0-360	101	V
5	* 5.444	52.96	Pk	34.8	-18.8	0	68.96	-	-	74	-5.04	-	-	0-360	101	V
12	* 11.201	30.58	Pk	38	-20	0	48.58	-	-	74	-25.42	-	-	0-360	199	V
3	5.278	38.7	Pk	34.7	-18.7	0	54.7	-	-	-	-	68.2	-13.5	0-360	101	V
6	5.765	50.21	Pk	34.9	-18.9	0	66.21	-	-	-	-	68.2	-1.99	0-360	199	V
7	5.836	48.61	Pk	35	-18.7	0	64.91	-	-	-	-	68.2	-3.29	0-360	199	V
8	5.927	37.48	Pk	35.2	-18.7	0	53.98	-	-	-	-	68.2	-14.22	0-360	199	V
9	6.067	35.29	Pk	35.4	-18.3	0	52.39	-	-	-	-	68.2	-15.81	0-360	199	V
11	10	38.13	Pk	37	-21.2	0	53.93	-	-	-	-	68.2	-14.27	0-360	199	V
10	16.798	35.85	Pk	41.6	-21	0	56.45	-	-	-	-	68.2	-11.75	0-360	101	H
13	16.808	37.72	Pk	41.6	-21.1	0	58.22	-	-	-	-	68.2	-9.98	0-360	101	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
Pk - Peak detector

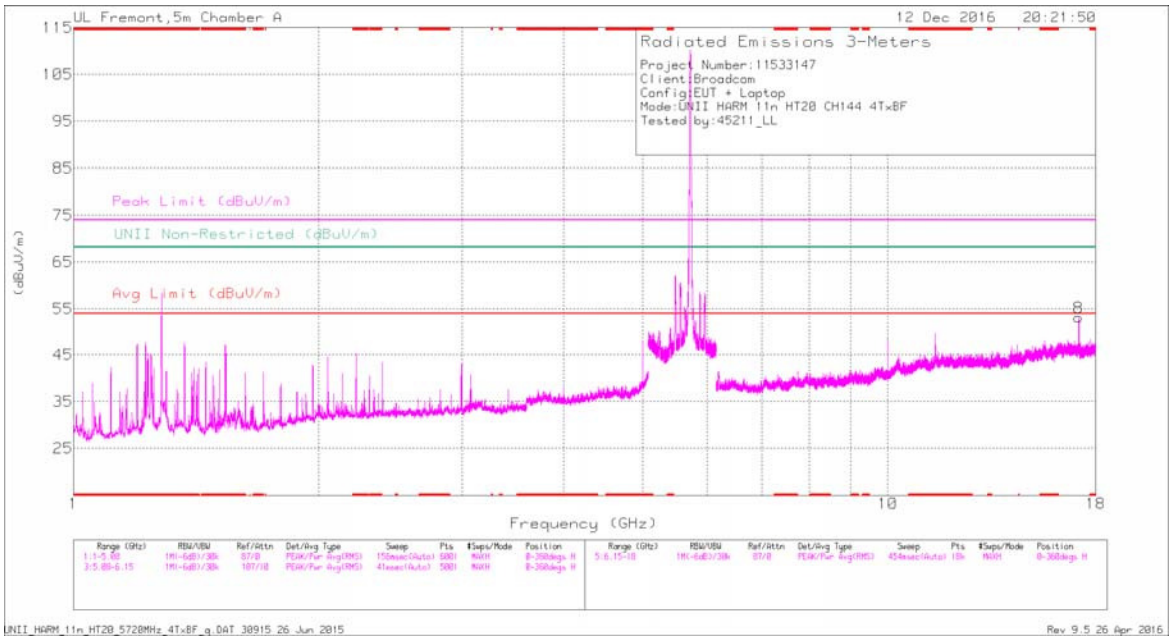
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5	48.69	PK-U	34.3	-27.5	0	55.49	-	-	74	-18.51	-	-	336	139	V
* 5	45.89	ADR	34.3	-27.5	.33	53.02	54	-.98	-	-	-	-	336	139	V
* 5.436	47.21	PK-U	34.8	-18.8	0	63.21	-	-	74	-10.79	-	-	157	367	V
* 5.444	37.18	ADR	34.8	-18.8	.33	53.51	54	-.49	-	-	-	-	157	367	V
* 5.437	44.82	PK-U	34.8	-18.8	0	60.82	-	-	74	-13.18	-	-	299	104	V
* 5.359	34.51	ADR	34.8	-18.8	.33	50.84	54	-3.16	-	-	-	-	299	104	V
* 5.362	46.86	PK-U	34.8	-18.8	0	62.86	-	-	74	-11.14	-	-	161	106	V
* 5.359	37.27	ADR	34.8	-18.8	.33	53.6	54	-.4	-	-	-	-	161	106	V
* 5.133	40.58	PK-U	34.4	-18.6	0	56.38	-	-	74	-17.62	-	-	45	115	V
* 5.133	31.36	ADR	34.4	-18.6	.33	47.49	54	-6.51	-	-	-	-	45	115	V
* 11.197	31.16	PK-U	37.9	-20	0	49.06	-	-	74	-24.94	-	-	184	201	V
* 11.196	21.63	ADR	37.9	-20	.33	39.86	54	-14.14	-	-	-	-	184	201	V
5.275	40.17	PK-U	34.7	-18.7	0	56.17	-	-	-	-	68.2	-12.03	6	145	V
5.752	44.24	PK-U	34.9	-18.9	0	60.24	-	-	-	-	68.2	-7.96	69	210	V
5.833	44.91	PK-U	35	-18.7	0	61.21	-	-	-	-	68.2	-6.99	19	188	V
5.912	39.22	PK-U	35.2	-18.6	0	55.82	-	-	-	-	68.2	-12.38	54	266	V
6.067	38.9	PK-U	35.4	-18.3	0	56	-	-	-	-	68.2	-12.2	156	190	V
10	42.93	PK-U	37	-21.2	0	58.73	-	-	-	-	68.2	-9.47	191	301	V
16.803	32.2	PK-U	41.6	-21.1	0	52.7	-	-	-	-	68.2	-15.5	320	218	H
16.816	33.13	PK-U	41.5	-21.2	0	53.43	-	-	-	-	68.2	-14.77	98	138	V

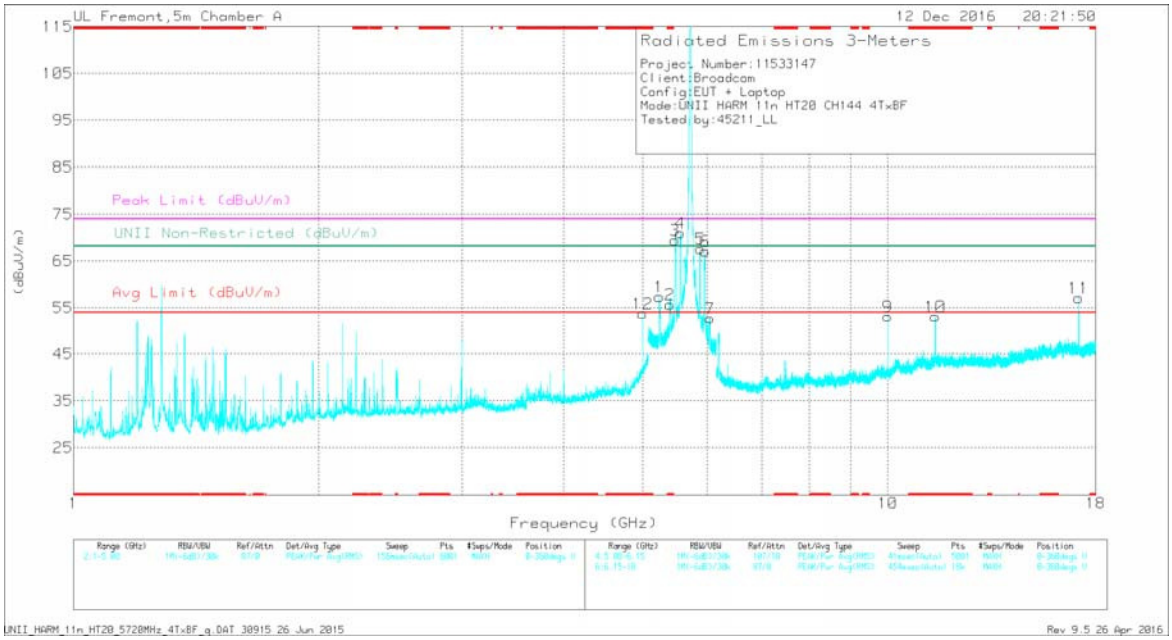
* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

HIGH CHANNEL

HIGH CHANNEL HORIZONTAL PLOT



HIGH CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
12	* 5	47.01	Pk	34.3	-27.5	0	53.81	-	-	74	-20.19	-	-	0-360	199	V
2	* 5.399	39.75	Pk	34.8	-18.8	0	55.75	-	-	74	-18.25	-	-	0-360	101	V
10	* 11.439	34.8	Pk	38.1	-19.8	0	53.1	-	-	74	-20.9	-	-	0-360	199	V
1	5.241	41.44	Pk	34.7	-18.8	0	57.34	-	-	-	-	68.2	-10.86	0-360	101	V
3	5.478***	53.34	Pk	34.8	-18.7	0	69.44	-	-	-	-	68.2	1.24	0-360	101	V
4	5.563***	55.18	Pk	34.7	-18.9	0	70.98	-	-	-	-	68.2	2.78	0-360	101	V
5	5.885	51.09	Pk	35.2	-18.6	0	67.69	-	-	-	-	68.2	-.51	0-360	199	V
6	5.966	50.47	Pk	35.2	-18.6	0	67.07	-	-	-	-	68.2	-1.13	0-360	101	V
7	6.045	35.65	Pk	35.3	-18.2	0	52.75	-	-	-	-	68.2	-15.45	0-360	199	V
9	10	37.27	Pk	37	-21.2	0	53.07	-	-	-	-	68.2	-15.13	0-360	199	V
11	17.154	36.67	Pk	41.1	-20.7	0	57.07	-	-	-	-	68.2	-11.13	0-360	199	V
8	17.155	32.75	Pk	41.1	-20.7	0	53.15	-	-	-	-	68.2	-15.05	0-360	199	H

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
*** - indicates frequency in the operating band
Pk - Peak detector

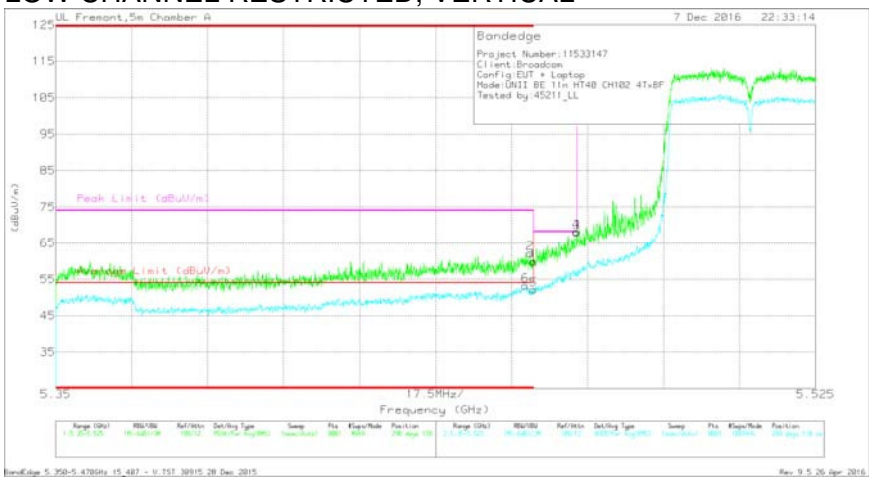
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5	47.64	PK-U	34.3	-27.5	0	54.44	-	-	74	-19.56	-	-	323	196	V
* 5	44.68	ADR	34.3	-27.5	.33	51.81	54	-2.19	-	-	-	-	323	196	V
* 5.394	32.31	ADR	34.8	-18.9	.33	48.54	54	-5.46	-	-	-	-	146	174	V
* 5.398	42.33	PK-U	34.8	-18.9	0	58.23	-	-	74	-15.77	-	-	146	174	V
* 11.435	34.81	PK-U	38.1	-19.8	0	53.11	-	-	74	-20.89	-	-	203	219	V
* 11.44	22.65	ADR	38.1	-19.8	.33	41.28	54	-12.72	-	-	-	-	203	219	V
5.246	43.73	PK-U	34.7	-18.8	0	59.63	-	-	-	-	68.2	-8.57	183	165	V
5.886	51.22	PK-U	35.2	-18.6	0	67.82	-	-	-	-	68.2	-.38	206	217	V
5.966	49.35	PK-U	35.2	-18.6	0	65.95	-	-	-	-	68.2	-2.25	268	247	V
6.043	39.16	PK-U	35.3	-18.3	0	56.16	-	-	-	-	68.2	-12.04	198	211	V
10	42.7	PK-U	37	-21.2	0	58.5	-	-	-	-	68.2	-9.7	187	310	V
17.136	32.09	PK-U	41.1	-20.3	0	52.89	-	-	-	-	68.2	-15.31	245	102	H
17.178	32.41	PK-U	41.1	-21	0	52.51	-	-	-	-	68.2	-15.69	284	223	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

9.2.6. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.6 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

LOW CHANNEL RESTRICTED, VERTICAL



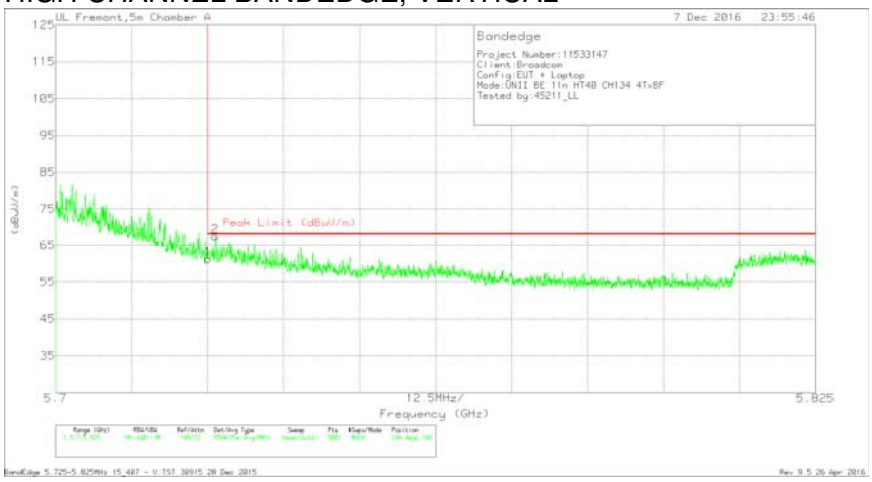
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.46	43.98	Pk	34.8	-18.9	0	59.88	-	-	74	-14.12	298	110	V
2	* 5.459	46.35	Pk	34.8	-18.9	0	62.25	-	-	74	-11.75	298	110	V
5	* 5.46	35.96	RMS	34.8	-18.9	.3	52.16	54	-1.84	-	-	298	110	V
6	* 5.458	37.07	RMS	34.8	-18.9	.3	53.27	54	-.73	-	-	298	110	V
3	5.47	51.94	Pk	34.8	-18.7	0	68.04	-	-	68.2	-.16	298	110	V
4	5.47	52.04	Pk	34.8	-18.7	0	68.14	-	-	68.2	-.06	298	110	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HIGH CHANNEL BANDEDGE, VERTICAL



Trace Markers

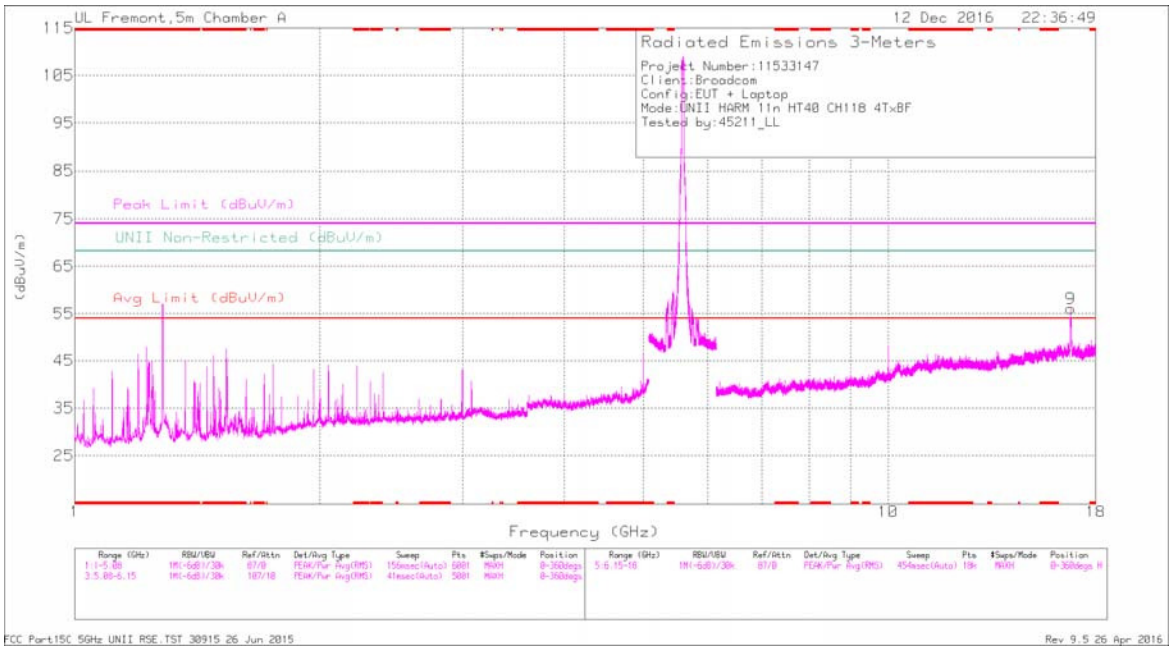
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	45.38	Pk	34.9	-19	61.28	68.2	-6.92	244	168	V
2	5.726	51.67	Pk	34.9	-19	67.57	68.2	-.63	244	168	V

Pk - Peak detector

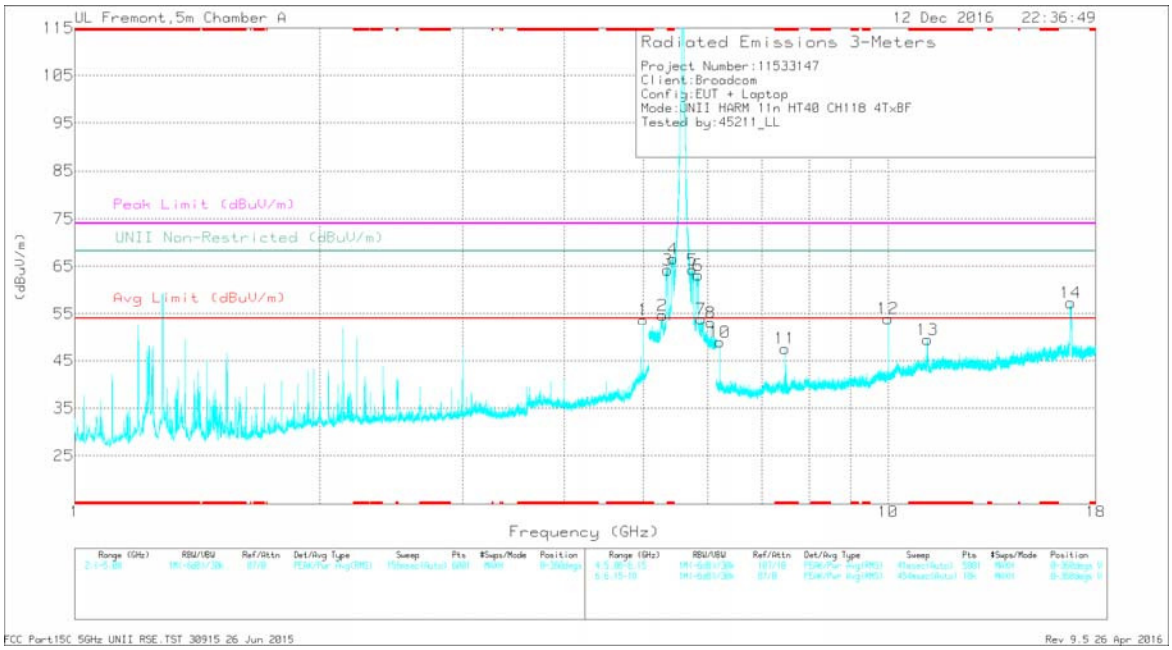
HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL

MID CHANNEL HORIZONTAL PLOT



MID CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5	46.89	Pk	34.3	-27.5	0	53.69	-	-	74	-20.31	-	-	0-360	199	V
3	* 5.356	48.2	Pk	34.8	-18.8	0	64.2	-	-	74	-9.8	-	-	0-360	101	V
4	* 5.439	50.43	Pk	34.8	-18.7	0	66.53	-	-	74	-7.47	-	-	0-360	101	V
11	* 7.467	36.57	Pk	35.8	-24.8	0	47.57	-	-	74	-26.43	-	-	0-360	101	V
13	* 11.181	31.67	Pk	37.9	-20.1	0	49.47	-	-	74	-24.53	-	-	0-360	199	V
2	5.279	38.66	Pk	34.7	-18.7	0	54.66	-	-	-	-	68.2	-13.54	0-360	101	V
5	5.745	48.26	Pk	34.9	-18.9	0	64.26	-	-	-	-	68.2	-3.94	0-360	199	V
6	5.844	46.92	Pk	35	-18.8	0	63.12	-	-	-	-	68.2	-5.08	0-360	199	V
7	5.893	37.41	Pk	35.2	-18.7	0	53.91	-	-	-	-	68.2	-14.29	0-360	199	V
8	6.056	36.05	Pk	35.4	-18.3	0	53.15	-	-	-	-	68.2	-15.05	0-360	199	V
10	6.211	39.53	Pk	35.5	-26.1	0	48.93	-	-	-	-	68.2	-19.27	0-360	199	V
12	10	38.16	Pk	37	-21.2	0	53.96	-	-	-	-	68.2	-14.24	0-360	199	V
9	16.762	35.38	Pk	41.6	-20.9	0	56.08	-	-	-	-	68.2	-12.12	0-360	199	H
14	16.762	36.6	Pk	41.6	-20.9	0	57.3	-	-	-	-	68.2	-10.9	0-360	199	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
Pk - Peak detector

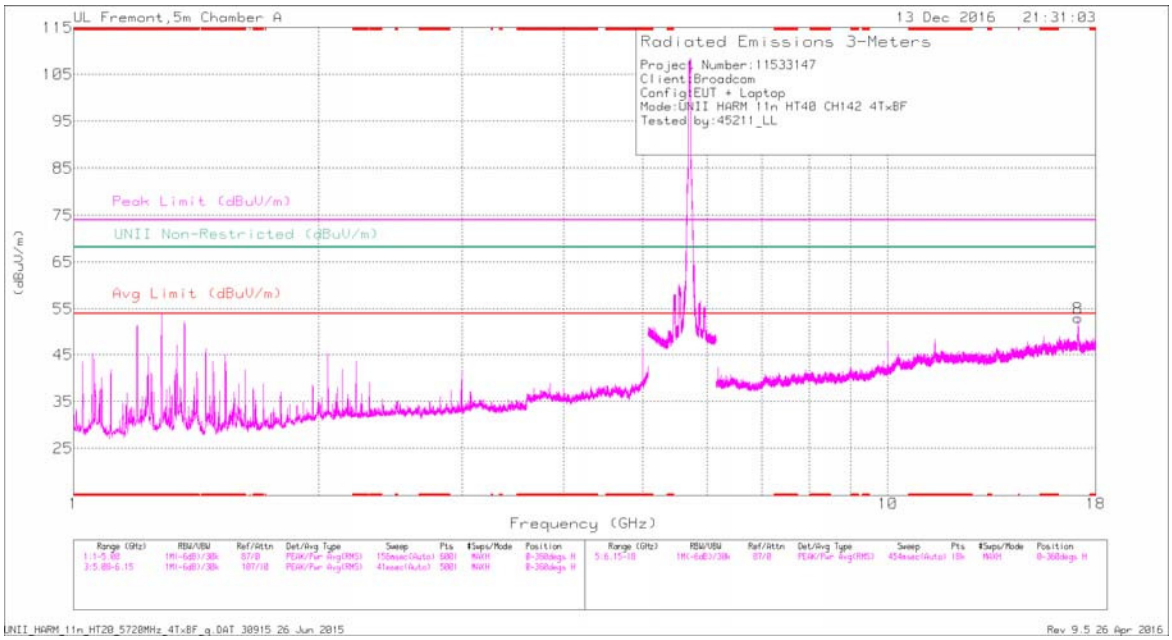
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5	48.19	PK-U	34.3	-27.5	0	54.99	-	-	74	-19.01	-	-	334	184	V
* 5	45.98	ADR	34.3	-27.5	.3	53.08	54	-.92	-	-	-	-	334	184	V
* 5.44	46.89	PK-U	34.8	-18.7	0	62.99	-	-	74	-11.01	-	-	151	102	V
* 5.441	37.32	ADR	34.8	-18.7	.3	53.72	54	-.28	-	-	-	-	151	102	V
* 5.36	45.32	PK-U	34.8	-18.8	0	61.32	-	-	74	-12.68	-	-	2	101	V
* 5.361	35.59	ADR	34.8	-18.8	.3	51.89	54	-2.11	-	-	-	-	2	101	V
* 7.467	38.94	PK-U	35.8	-24.8	0	49.94	-	-	74	-24.06	-	-	126	143	V
* 7.462	24.2	ADR	35.8	-24.8	.3	35.5	54	-18.5	-	-	-	-	126	143	V
5.276	39.32	PK-U	34.7	-18.7	0	55.32	-	-	-	-	68.2	-12.88	214	127	V
5.733	45.34	PK-U	34.9	-19	0	61.24	-	-	-	-	68.2	-6.96	62	199	V
5.845	42.94	PK-U	35.1	-18.8	0	59.24	-	-	-	-	68.2	-8.96	22	206	V
5.893	38.98	PK-U	35.2	-18.7	0	55.48	-	-	-	-	68.2	-12.72	215	120	V
6.056	42.6	PK-U	35.4	-18.3	0	59.7	-	-	-	-	68.2	-8.5	189	264	V
6.211	46.51	PK-U	35.5	-26.1	0	55.91	-	-	-	-	68.2	-12.29	136	188	V
10	42.94	PK-U	37	-21.2	0	58.74	-	-	-	-	68.2	-9.46	188	334	V
10	43.04	PK-U	37	-21.2	0	58.84	-	-	-	-	68.2	-9.36	188	334	V
16.756	33.32	PK-U	41.6	-21	0	53.92	-	-	-	-	68.2	-14.28	241	105	H
16.773	32	PK-U	41.6	-21	0	52.6	-	-	-	-	68.2	-15.6	352	117	V

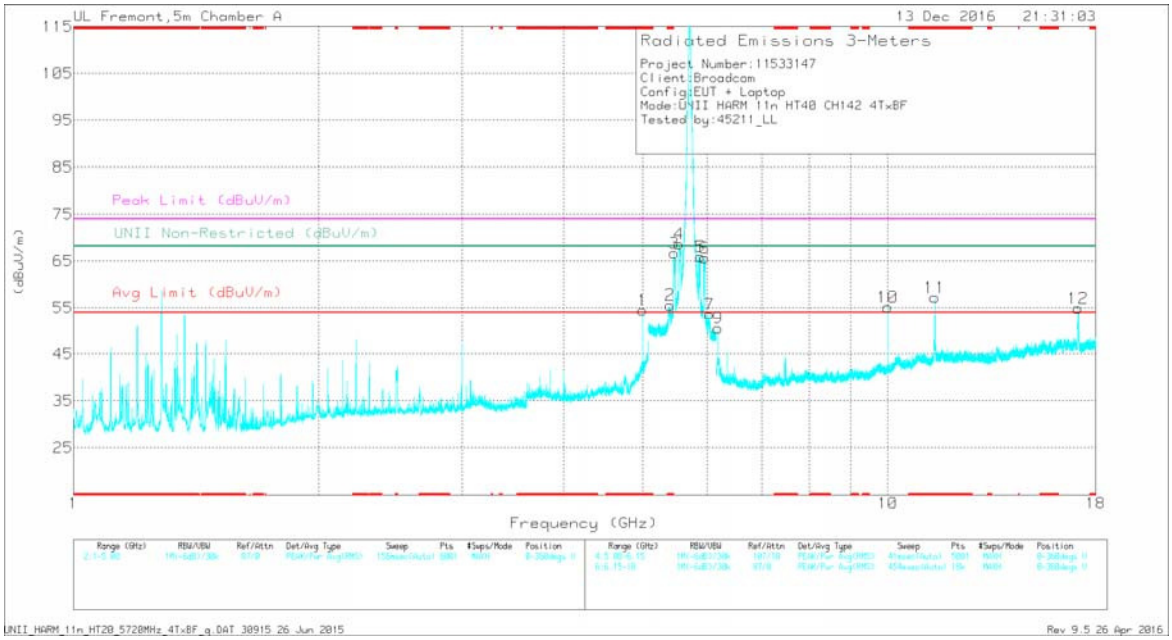
* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

HIGH CHANNEL

HIGH CHANNEL HORIZONTAL PLOT



HIGH CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5	47.7	Pk	34.3	-27.5	0	54.5	-	-	74	-19.5	-	-	0-360	199	V
2	* 5.398	39.73	Pk	34.8	-18.9	0	55.63	-	-	74	-18.37	-	-	0-360	199	V
11	* 11.42	38.9	Pk	38.1	-19.7	0	57.3	-	-	74	-16.7	-	-	0-360	101	V
3	5.465	50.65	Pk	34.8	-18.7	0	66.75	-	-	-	-	68.2	-1.45	0-360	199	V
4	5.545***	53.01	Pk	34.8	-19.1	0	68.71	-	-	-	-	68.2	.51	0-360	101	V
5	5.883	49.31	Pk	35.2	-18.5	0	66.01	-	-	-	-	68.2	-2.19	0-360	199	V
6	5.956	49.06	Pk	35.2	-18.6	0	65.66	-	-	-	-	68.2	-2.54	0-360	199	V
7	6.044	36.65	Pk	35.3	-18.3	0	53.65	-	-	-	-	68.2	-14.55	0-360	199	V
9	6.186	41.17	Pk	35.5	-26.1	0	50.57	-	-	-	-	68.2	-17.63	0-360	199	V
10	10	39.37	Pk	37	-21.2	0	55.17	-	-	-	-	68.2	-13.03	0-360	199	V
8	17.12	32.15	Pk	41.2	-20.4	0	52.95	-	-	-	-	68.2	-15.25	0-360	101	H
12	17.121	34.11	Pk	41.2	-20.4	0	54.91	-	-	-	-	68.2	-13.29	0-360	199	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
*** - indicates frequency in the operating band
Pk - Peak detector

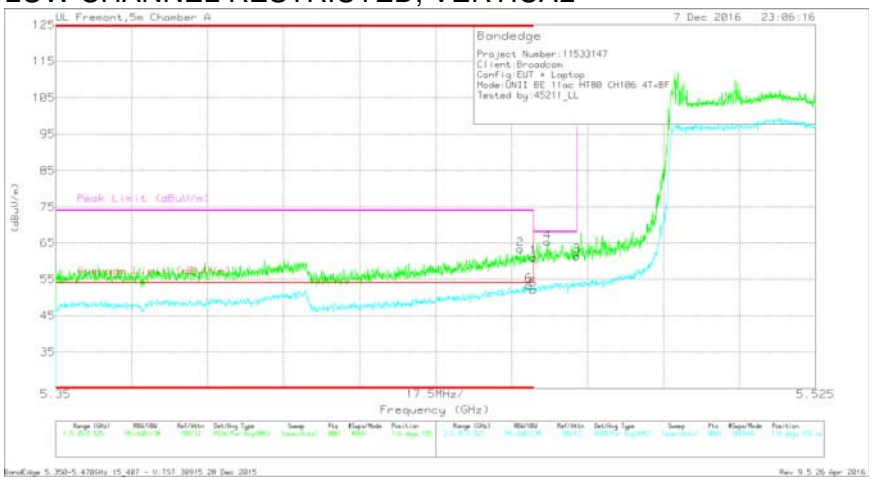
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5	48.99	PK-U	34.3	-27.5	0	55.79	-	-	74	-18.21	-	-	330	191	V
* 5	46.25	ADR	34.3	-27.5	.3	53.35	54	-.65	-	-	-	-	330	191	V
* 5.402	43.28	PK-U	34.8	-18.9	0	59.18	-	-	74	-14.82	-	-	148	104	V
* 5.404	32.79	ADR	34.8	-18.9	.3	48.99	54	-5.01	-	-	-	-	148	104	V
* 11.42	40.78	PK-U	38.1	-19.7	0	59.18	-	-	74	-14.82	-	-	76	352	V
* 11.42	24.33	ADR	38.1	-19.7	.3	43.03	54	-10.97	-	-	-	-	76	352	V
5.463	51.64	PK-U	34.8	-18.8	0	67.64	-	-	-	-	68.2	-.56	0	106	V
5.855	51.22	PK-U	35.1	-18.7	0	67.62	-	-	-	-	68.2	-.58	265	217	V
5.943	49.3	PK-U	35.2	-18.6	0	65.9	-	-	-	-	68.2	-2.3	206	217	V
6.014	39.28	PK-U	35.3	-18.4	0	56.18	-	-	-	-	68.2	-12.02	201	200	V
6.186	46.13	PK-U	35.5	-26.1	0	55.53	-	-	-	-	68.2	-12.67	259	189	V
10	43.05	PK-U	37	-21.2	0	58.85	-	-	-	-	68.2	-9.35	186	322	V
17.043	33.04	PK-U	41.3	-20.8	0	53.54	-	-	-	-	68.2	-14.66	111	379	H
17.089	32.51	PK-U	41.2	-20.5	0	53.21	-	-	-	-	68.2	-14.99	146	241	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

9.2.7. TX ABOVE 1 GHz 802.11ac HT80 MODE IN THE 5.6 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

LOW CHANNEL RESTRICTED, VERTICAL



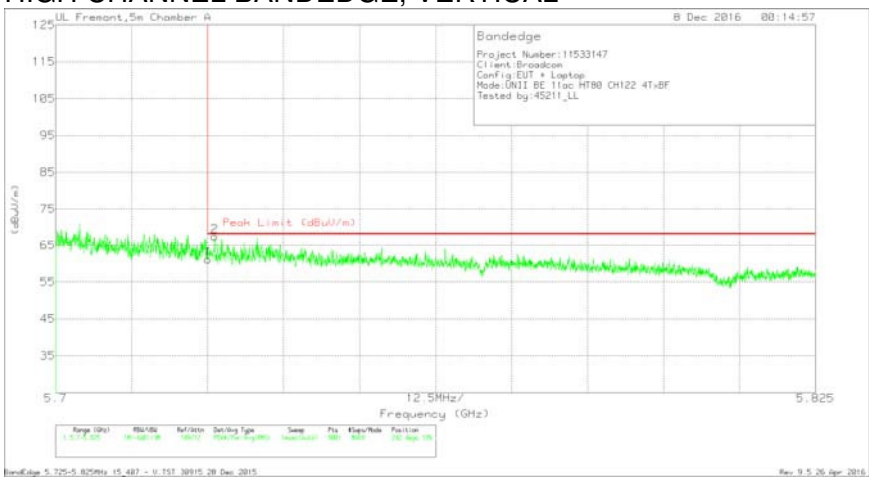
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.46	45.08	Pk	34.8	-18.9	0	60.98	-	-	74	-13.02	116	155	V
2	* 5.457	47.3	Pk	34.8	-18.8	0	63.3	-	-	74	-10.7	116	155	V
5	* 5.46	36.04	RMS	34.8	-18.9	.25	52.19	54	-1.81	-	-	116	155	V
6	* 5.459	37.07	RMS	34.8	-18.9	.25	53.22	54	-.78	-	-	116	155	V
4	5.463	49.32	Pk	34.8	-18.8	0	65.32	-	-	68.2	-2.88	116	155	V
3	5.47	45.3	Pk	34.8	-18.7	0	61.4	-	-	68.2	-6.8	116	155	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HIGH CHANNEL BANDEDGE, VERTICAL



Trace Markers

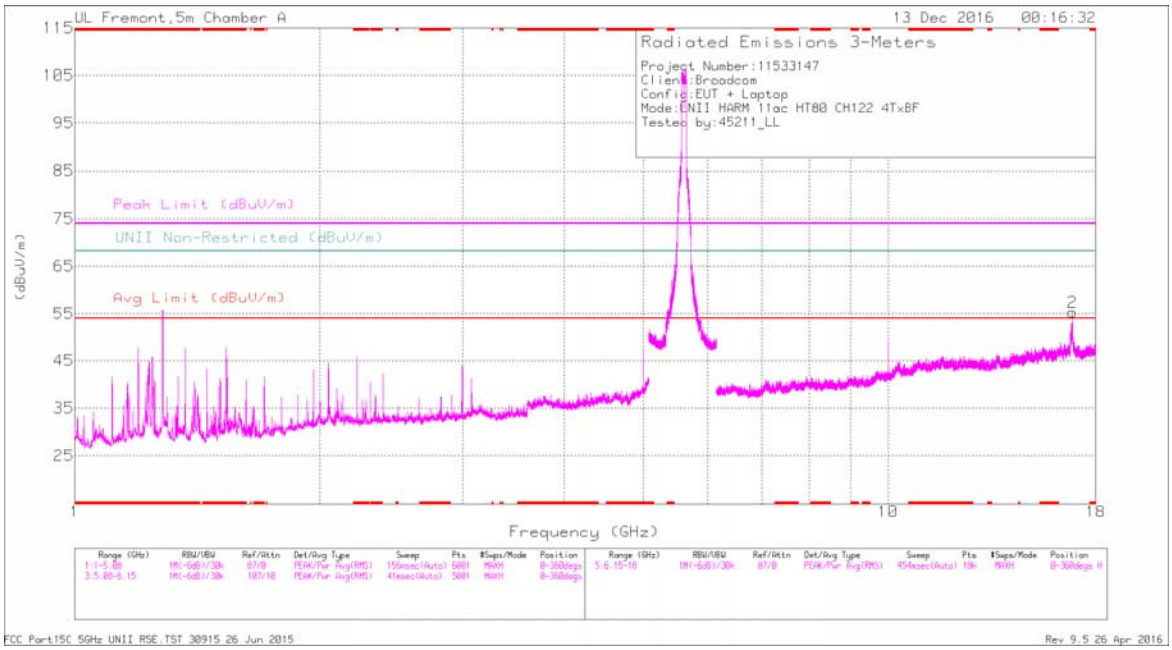
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	45.22	Pk	34.9	-19	61.12	68.2	-7.08	242	189	V
2	5.726	51.64	Pk	34.9	-19	67.54	68.2	-.66	242	189	V

Pk - Peak detector

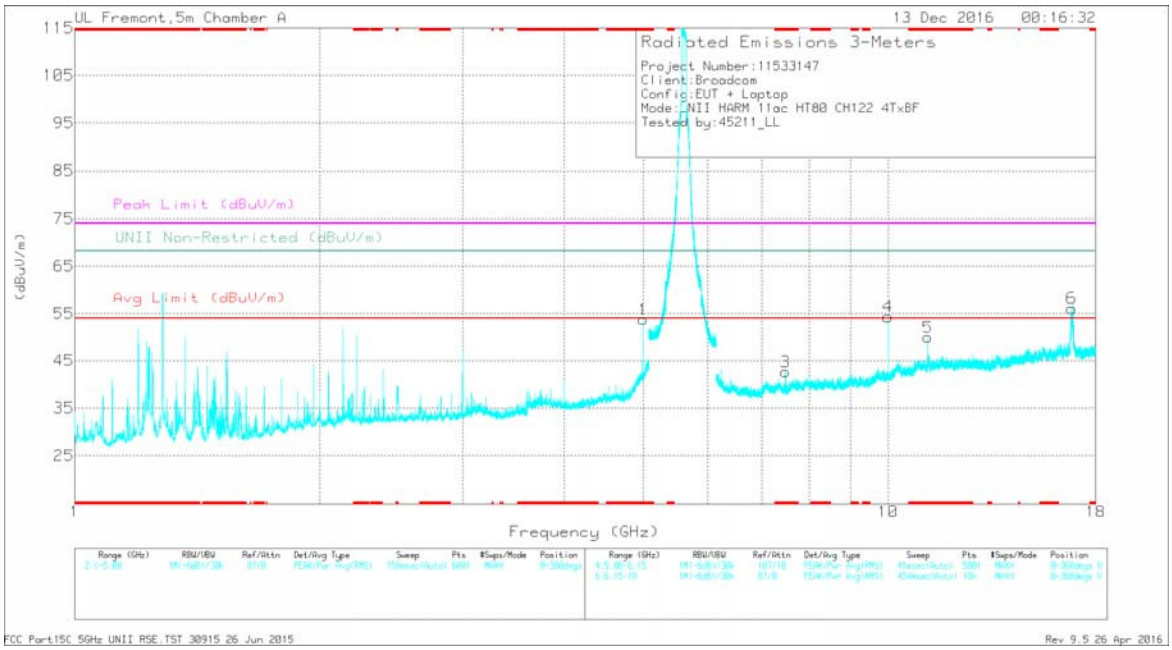
HARMONICS AND SPURIOUS EMISSIONS

HIGH CHANNEL

HIGH CHANNEL HORIZONTAL PLOT



HIGH CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5	46.94	Pk	34.3	-27.5	0	53.74	-	-	74	-20.26	-	-	0-360	199	V
3	* 7.481	31.53	Pk	35.8	-24.7	0	42.63	-	-	74	-31.37	-	-	0-360	101	V
5	* 11.194	32.01	Pk	37.9	-20	0	49.91	-	-	74	-24.09	-	-	0-360	199	V
4	10	38.56	Pk	37	-21.2	0	54.36	-	-	-	-	68.2	-13.84	0-360	199	V
6	16.812	35.73	Pk	41.6	-21.2	0	56.13	-	-	-	-	68.2	-12.07	0-360	199	V
2	16.863	35.01	Pk	41.5	-21.2	0	55.31	-	-	-	-	68.2	-12.89	0-360	199	H

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
Pk - Peak detector

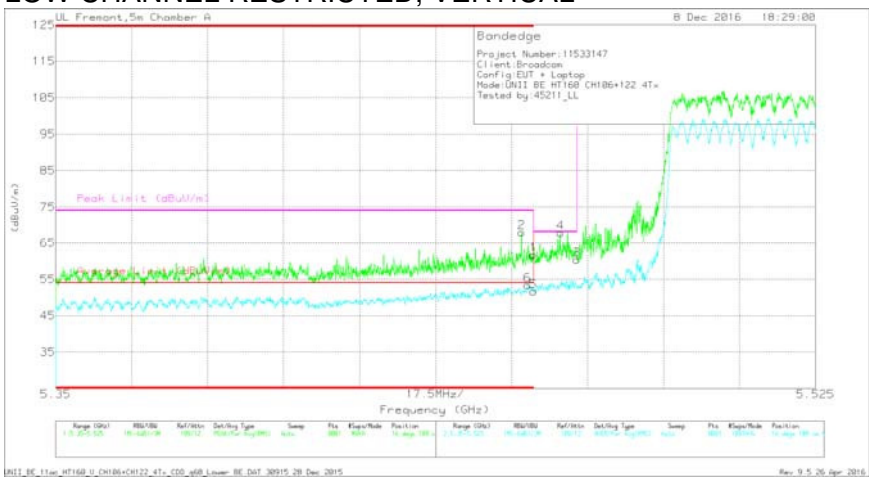
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5	48.47	PK-U	34.3	-27.5	0	55.27	-	-	74	-18.73	-	-	336	207	V
* 5	45.94	ADR	34.3	-27.5	.25	52.99	54	-1.01	-	-	-	-	336	207	V
* 7.48	39.06	PK-U	35.8	-24.7	0	50.16	-	-	74	-23.84	-	-	116	389	V
* 7.48	33.85	ADR	35.8	-24.7	.25	45.2	54	-8.8	-	-	-	-	116	389	V
* 11.204	32.47	PK-U	38	-19.9	0	50.57	-	-	74	-23.43	-	-	88	144	V
* 11.206	22.69	ADR	38	-19.9	.25	41.04	54	-12.96	-	-	-	-	88	144	V
10	44.87	PK-U	37	-21.2	0	60.67	-	-	-	-	68.2	-7.53	191	316	V
16.8	39.56	PK-U	41.6	-21	0	60.16	-	-	-	-	68.2	-8.04	359	102	H
16.804	42.21	PK-U	41.6	-21.1	0	62.71	-	-	-	-	68.2	-5.49	24	327	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

9.2.8. TX ABOVE 1 GHz 802.11ac HT80+HT80 MODE IN THE 5.6 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

LOW CHANNEL RESTRICTED, VERTICAL



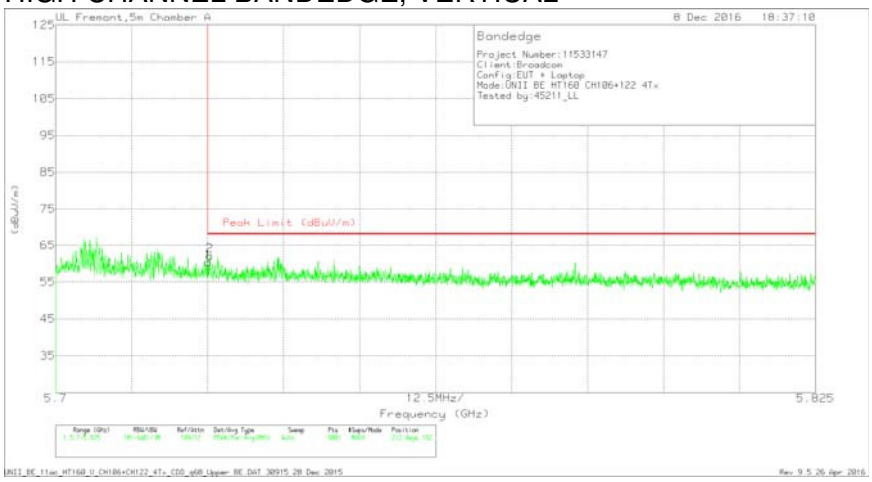
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.46	45.8	Pk	34.8	-18.9	0	61.7	-	-	74	-12.3	16	108	V
2	* 5.457	52.05	Pk	34.8	-18.8	0	68.05	-	-	74	-5.95	16	108	V
5	* 5.46	35.48	RMS	34.8	-18.9	.33	51.71	54	-2.29	-	-	16	108	V
6	* 5.459	37.21	RMS	34.8	-18.9	.33	53.44	54	-.56	-	-	16	108	V
4	5.466	51.8	Pk	34.8	-18.7	0	67.9	-	-	68.2	-.3	16	108	V
3	5.47	44.21	Pk	34.8	-18.7	0	60.31	-	-	68.2	-7.89	16	108	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HIGH CHANNEL BANDEDGE, VERTICAL



Trace Markers

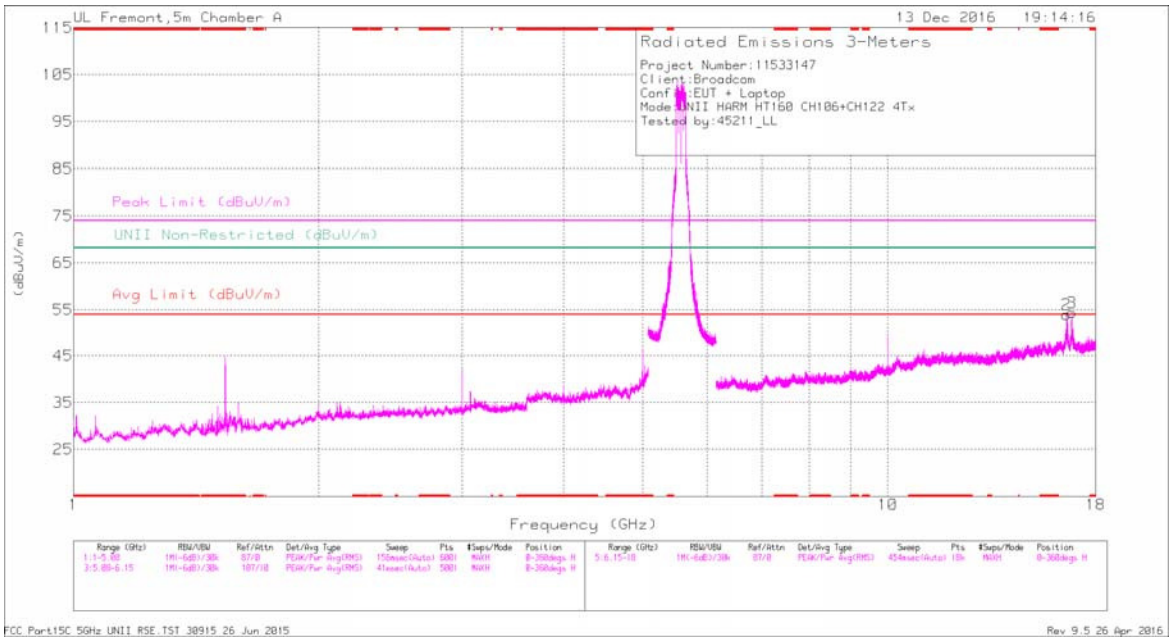
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	44.56	Pk	34.9	-19	60.46	68.2	-7.74	212	182	V
2	5.725	46.2	Pk	34.9	-19	62.1	68.2	-6.1	212	182	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
Pk - Peak detector

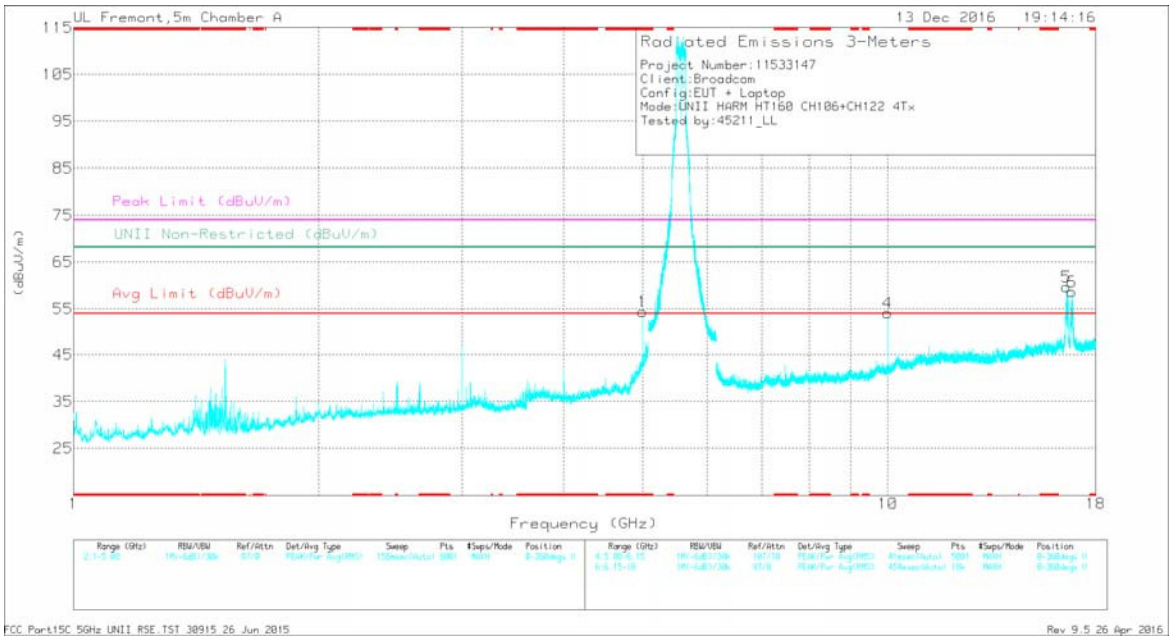
HARMONICS AND SPURIOUS EMISSIONS

CHANNEL 106+CHANNEL 122

HIGH CHANNEL HORIZONTAL PLOT



HIGH CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5	47.58	Pk	34.3	-27.5	0	54.38	-	-	74	-19.62	-	-	0-360	199	V
4	10	38.35	Pk	37	-21.2	0	54.15	-	-	-	-	68.2	-14.05	0-360	199	V
2	16.567	33.76	Pk	41.3	-21	0	54.06	-	-	-	-	68.2	-14.14	0-360	199	H
5	16.574	39.2	Pk	41.3	-20.8	0	59.7	-	-	-	-	68.2	-8.5	0-360	199	V
3	16.818	34.08	Pk	41.5	-21.2	0	54.38	-	-	-	-	68.2	-13.82	0-360	199	H
6	16.818	38.41	Pk	41.5	-21.2	0	58.71	-	-	-	-	68.2	-9.49	0-360	199	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
Pk - Peak detector

Radiated Emissions

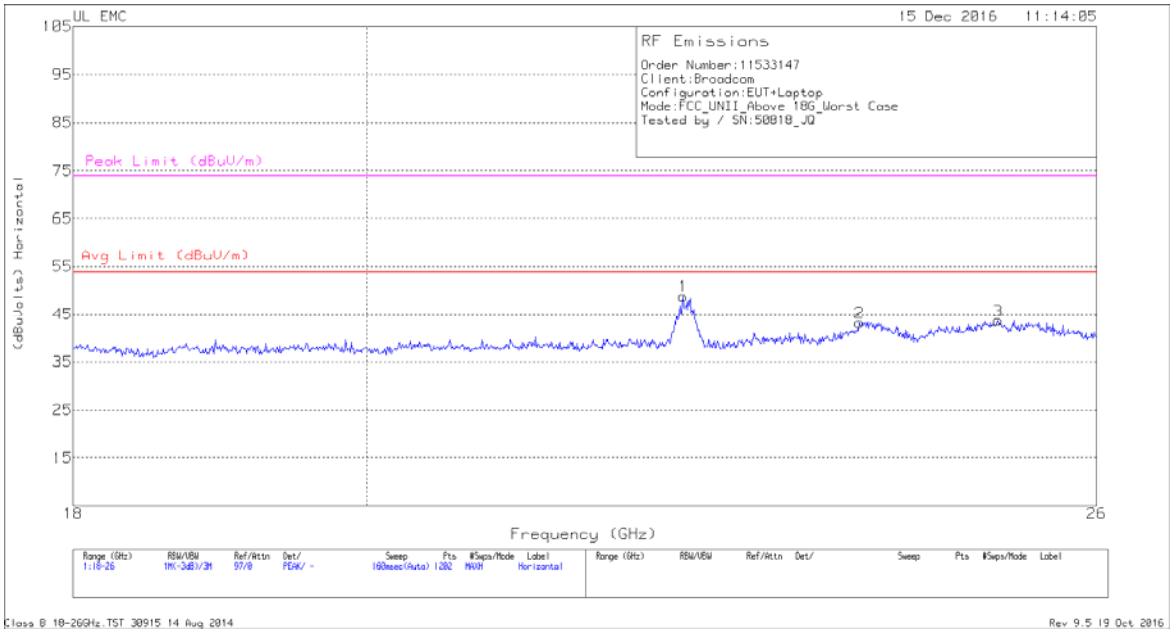
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5	49.86	PK-U	34.3	-27.5	0	56.66	-	-	74	-17.34	-	-	330	189	V
* 5	46.41	ADR	34.3	-27.5	.33	53.54	54	-.46	-	-	-	-	330	189	V
10	44.6	PK-U	37	-21.2	0	60.4	-	-	-	-	68.2	-7.8	189	293	V
16.574	44.52	PK-U	41.3	-20.9	0	64.92	-	-	-	-	68.2	-3.28	269	217	V
16.576	38.09	PK-U	41.4	-20.8	0	58.69	-	-	-	-	68.2	-9.51	252	331	H
16.636	36.67	PK-U	41.5	-20	0	58.17	-	-	-	-	68.2	-10.03	255	253	H
16.816	44.14	PK-U	41.6	-21.2	0	64.54	-	-	-	-	68.2	-3.66	264	254	V

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

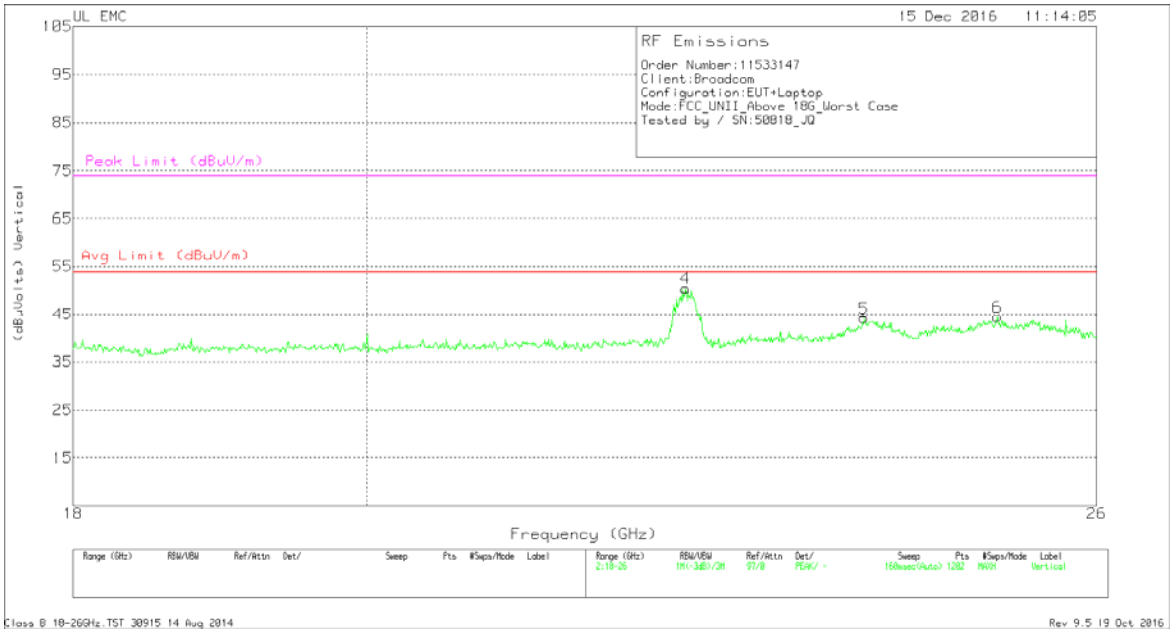
9.3. WORST-CASE ABOVE 18 GHz

SPURIOUS EMISSIONS 18 - 26 GHz (WORST-CASE CONFIGURATION)

HORIZONTAL PLOT



VERTICAL PLOT



DATA

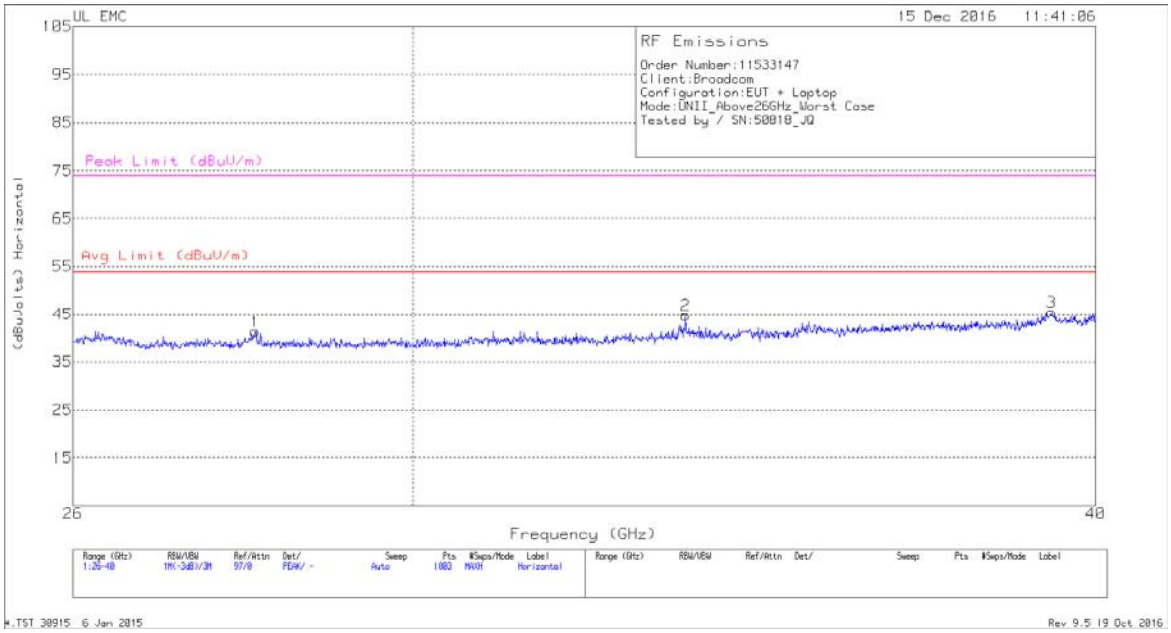
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T449 (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuVolts)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	22.41	50.03	Pk	33.5	-25.2	-9.5	48.83	54	-5.17	74	-25.17
2	23.875	42.87	Pk	33.9	-24.1	-9.5	43.17	54	-10.83	74	-30.83
3	25.094	43.37	Pk	34.3	-24.5	-9.5	43.67	54	-10.33	74	-30.33
4	22.43	51.4	Pk	33.5	-24.9	-9.5	50.5	54	-3.5	74	-23.5
5	23.915	43.57	Pk	34	-23.9	-9.5	44.17	54	-9.83	74	-29.83
6	25.087	44.2	Pk	34.3	-24.5	-9.5	44.5	54	-9.5	74	-29.5

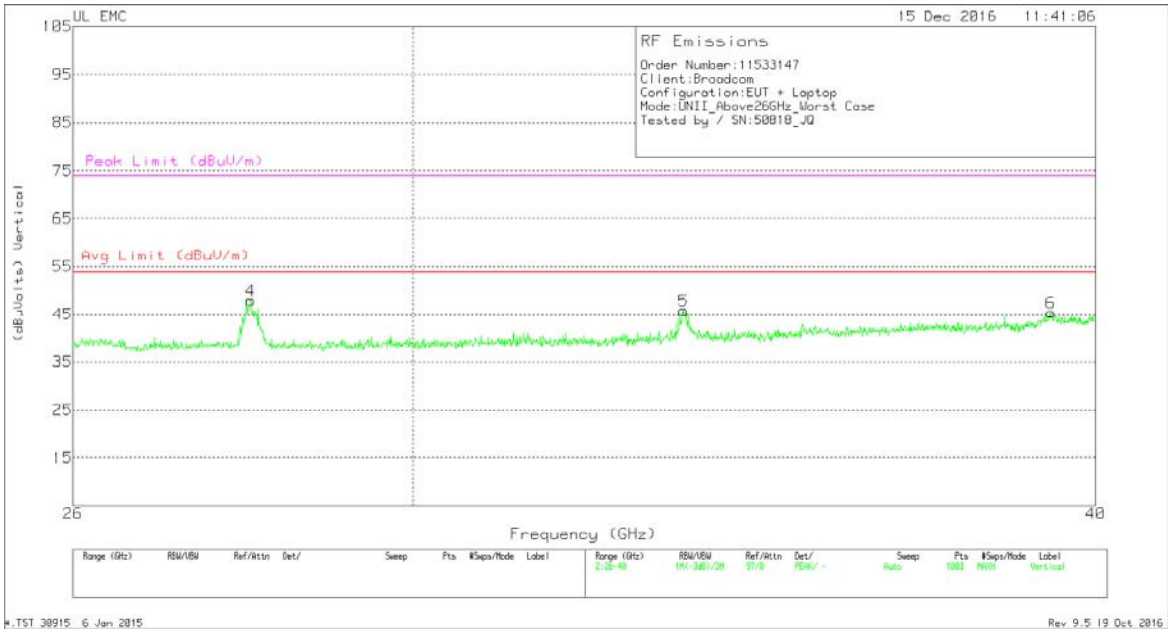
Pk - Peak detector

SPURIOUS EMISSIONS 26 - 40 GHz (WORST-CASE CONFIGURATION)

HORIZONTAL PLOT



VERTICAL PLOT



DATA
Trace Markers

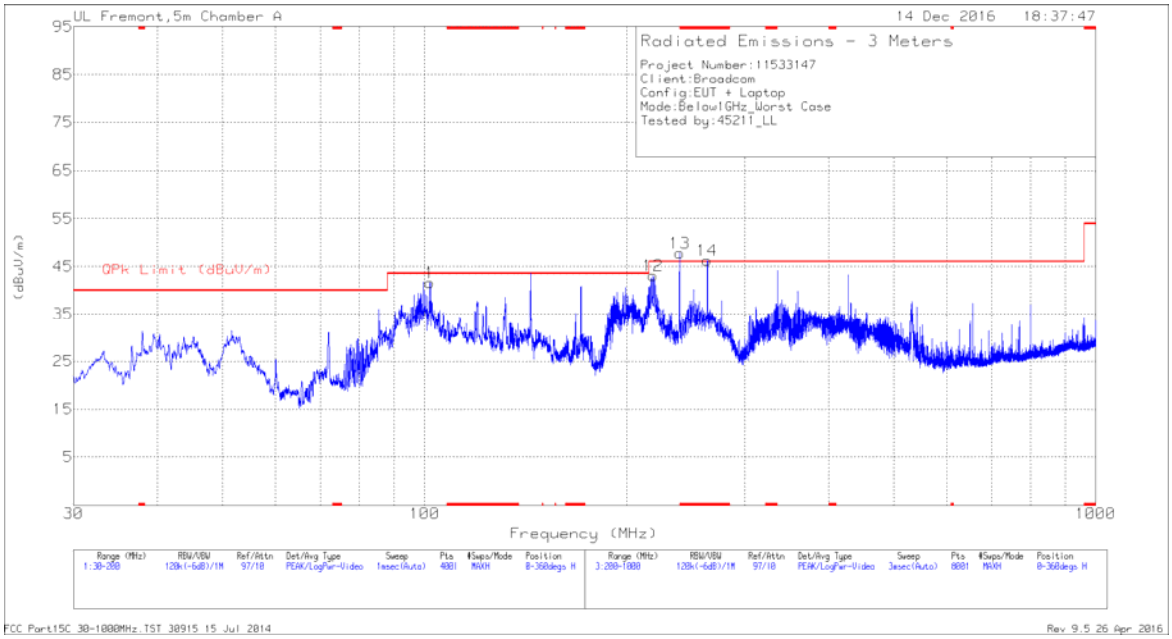
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T90 AF (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuVolts)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	28.074	47.13	Pk	35.8	-32.1	-9.5	41.33	54	-12.67	74	-32.67
2	33.653	50.63	Pk	36.9	-33.2	-9.5	44.83	54	-9.17	74	-29.17
3	39.262	48.8	Pk	38.6	-32.4	-9.5	45.5	54	-8.5	74	-28.5
4	28.02	53.9	Pk	35.8	-32.2	-9.5	48	54	-6	74	-26
5	33.629	51.73	Pk	37	-33.4	-9.5	45.83	54	-8.17	74	-28.17
6	39.254	48.63	Pk	38.6	-32.4	-9.5	45.33	54	-8.67	74	-28.67

Pk - Peak detector

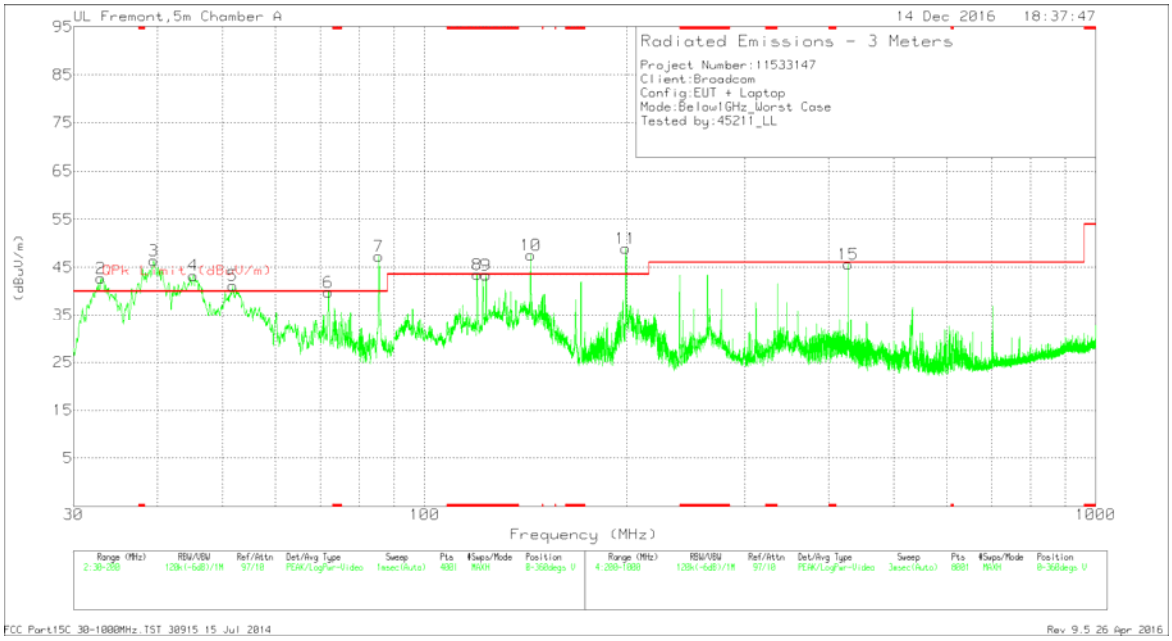
9.4. WORST-CASE BELOW 1 GHz

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

HORIZONTAL PLOT



VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T130 (dB/m)	Amp/Cbl (dB/m)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
8	** 119.7175	56.06	Pk	17.8	-30.4	43.46	43.52	-.06	0-360	100	V
9	** 123.5	55.92	Pk	17.9	-30.4	43.42	43.52	-.1	0-360	100	V
14	** 263.8	59.25	Pk	16.6	-29.6	46.25	--	--	0-360	100	H
2	**32.9325	50.07	Pk	23.9	-31.2	42.77	--	--	0-360	100	V
3	**39.4775	59.12	Pk	18.4	-31.1	46.42	--	--	0-360	100	V
4	**45.215	60.51	Pk	13.9	-31.1	43.31	--	--	0-360	100	V
5	**51.8025	60.91	Pk	11.3	-31	41.21	--	--	0-360	100	V
6	**71.9475	58.12	Pk	12.5	-30.8	39.82	40	-.18	0-360	100	V
7	**85.505	66.66	Pk	11.4	-30.7	47.36	--	--	0-360	100	V
1	101.91	57.43	Pk	14.7	-30.5	41.63	43.52	-1.89	0-360	400	H
10	**143.9425	60.99	Pk	16.9	-30.3	47.59	--	--	0-360	100	V
11	**199.49	62.11	Pk	16.7	-29.9	48.91	--	--	0-360	100	V
12	219.1	58.26	Pk	14.7	-29.8	43.16	46.02	-2.86	0-360	100	H
13	**239.9	61.91	Pk	15.6	-29.7	47.81	--	--	0-360	100	H
15	**427.5	54	Pk	20.6	-29	45.6	46.02	-.42	0-360	300	V

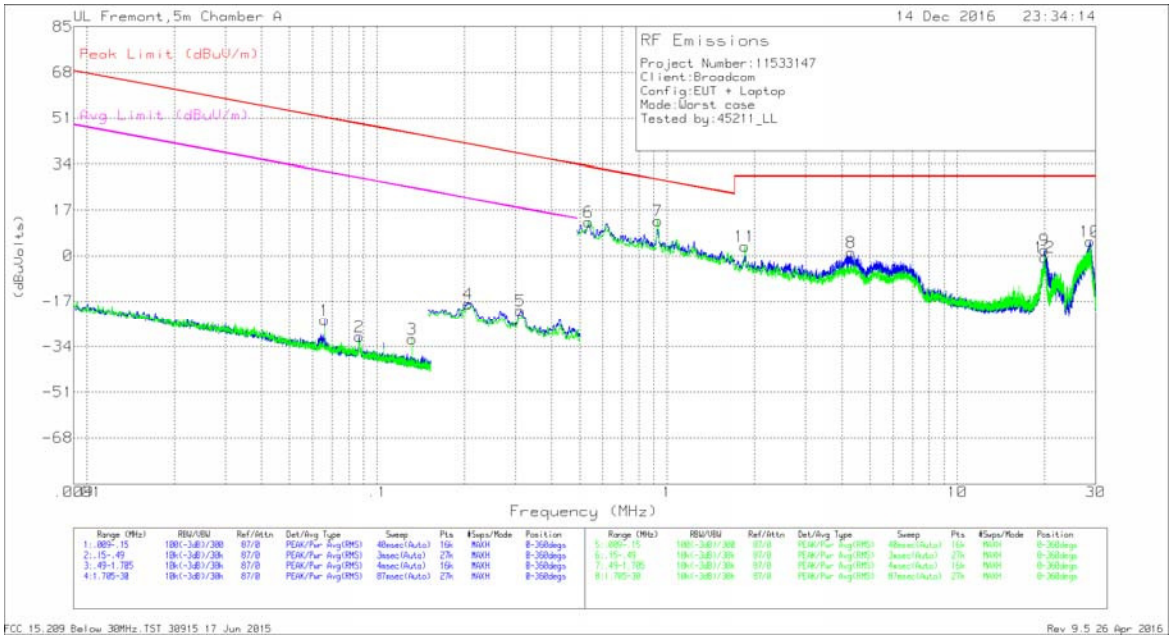
* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
** - indicates emission coming from support equipment, based on base line scan.
Pk - Peak detector

Radiated Emissions

Frequency (MHz)	Meter Reading (dBuV)	Det	AF T130 (dB/m)	Amp/Cbl (dB/m)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
101.8558	51.54	Qp	14.7	-30.5	35.74	43.52	-7.78	104	286	H
219.2315	49.16	Qp	14.7	-29.8	34.06	46.02	-11.96	77	108	H

* - indicates frequency in CFR15.205/IC8.10 RSS-Restricted Band
Qp - Quasi-Peak detector

SPURIOUS EMISSIONS BELOW 30 MHz (WORST-CASE CONFIGURATION)



Note: The anechoic chamber has been properly calibrated so that the measurement results correspond to what would be obtained from an open field sites.

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	.06599	44.92	Pk	11	.1	-80	-23.98	51.21	-75.19	31.21	-55.19	0-360
2	.08695	38.62	Pk	10.9	.1	-80	-30.38	48.82	-79.2	28.82	-59.2	0-360
3	.13222	37.86	Pk	10.8	.1	-80	-31.24	45.18	-76.42	25.18	-56.42	0-360
4	.20641	51.19	Pk	10.8	.1	-80	-17.91	41.31	-59.22	21.31	-39.22	0-360
5	.31273	48.69	Pk	10.7	.1	-80	-20.51	37.7	-58.21	17.7	-38.21	0-360

Pk - Peak detector

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Cbl (dB)	Dist Corr 30m	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
6	.53621	41.89	Pk	10.6	.1	-40	12.59	33.02	-20.43	-	-	0-360
7	.92856	42.22	Pk	10.7	.1	-40	13.02	28.25	-15.23	-	-	0-360
11	1.85486	32.42	Pk	10.8	.2	-40	3.42	29.54	-26.12	-	-	0-360
8	4.30718	29.96	Pk	10.9	.3	-40	1.16	29.54	-28.38	-	-	0-360
12	19.99155	28.73	Pk	10.1	.7	-40	-.47	29.54	-30.01	-	-	0-360
9	19.99994	31.41	Pk	10.1	.7	-40	2.21	29.54	-27.33	-	-	0-360
10	28.68576	36.12	Pk	8.3	.8	-40	5.22	29.54	-24.32	-	-	0-360

Pk - Peak detector

10. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

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 C63.10

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.

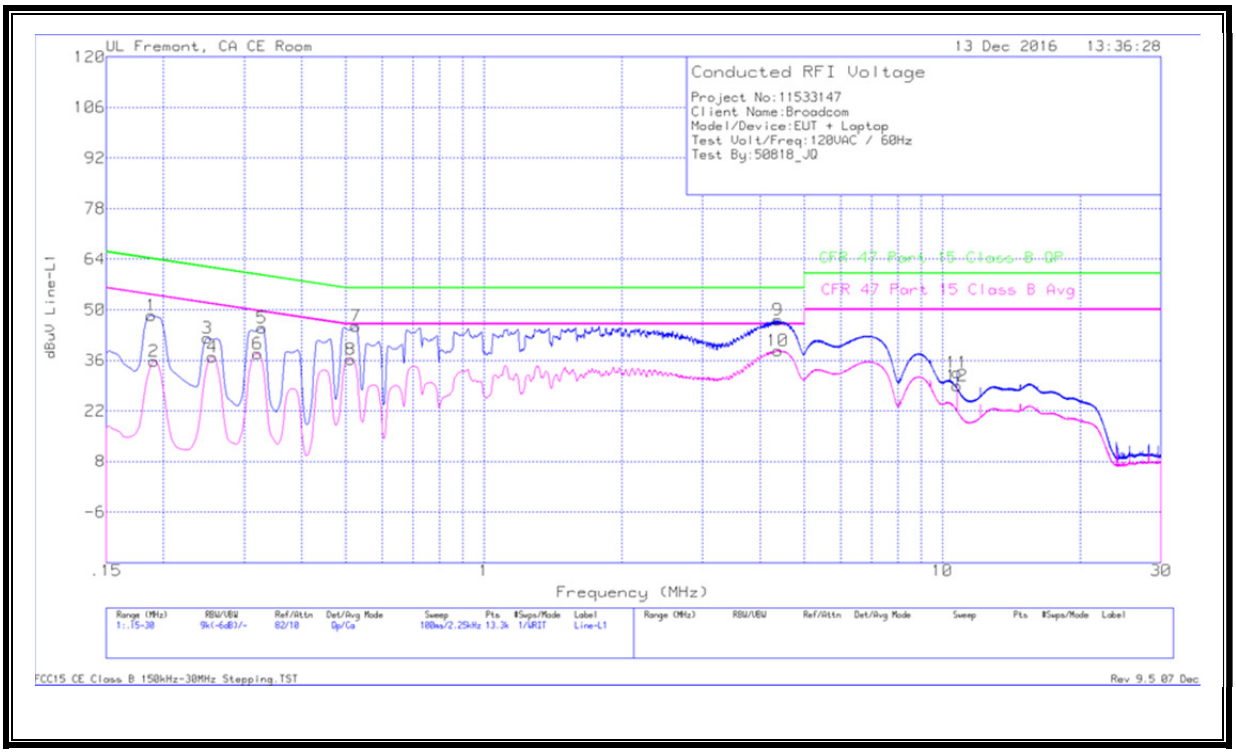
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

LINE 1 RESULTS

Trace Markers

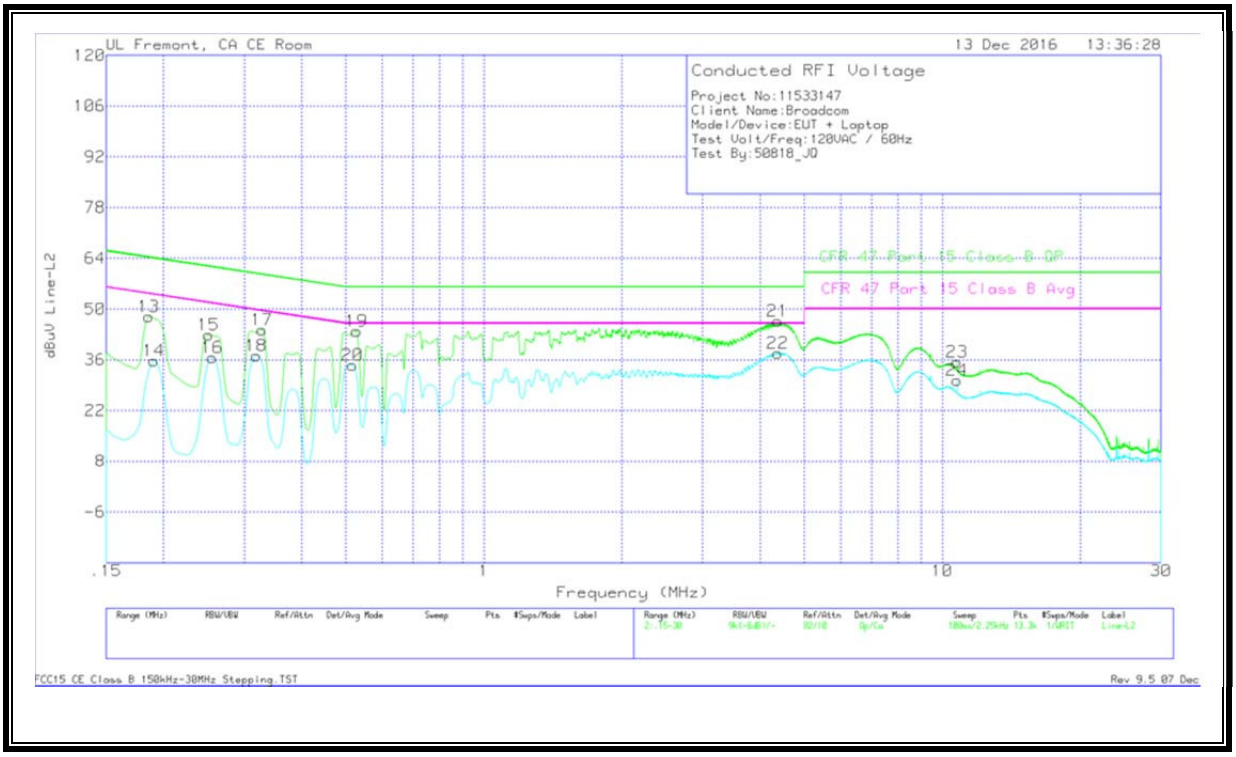


Range 1: Line-L1 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN L1	LC Cables 1&3	Limiter (dB)	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR)Margin (dB)
1	.18825	38.27	Qp	0	0	10.1	48.37	64.11	-15.74	-	-
2	.1905	25.66	Ca	0	0	10.1	35.76	-	-	54.01	-18.25
3	.249	32.03	Qp	0	0	10.1	42.13	61.79	-19.66	-	-
4	.25575	26.79	Ca	0	0	10.1	36.89	-	-	51.57	-14.68
5	.32775	34.92	Qp	0	0	10.1	45.02	59.51	-14.49	-	-
6	.321	27.71	Ca	0	0	10.1	37.81	-	-	49.68	-11.87
7	.52575	35.34	Qp	0	0	10.1	45.44	56	-10.56	-	-
8	.51225	26.1	Ca	0	0	10.1	36.2	-	-	46	-9.8
9	4.37213	36.95	Qp	0	.1	10.1	47.15	56	-8.85	-	-
10	4.371	28.54	Ca	0	.1	10.1	38.74	-	-	46	-7.26
11	10.7565	22.28	Qp	0	.2	10.2	32.68	60	-27.32	-	-
12	10.7565	18.64	Ca	0	.2	10.2	29.04	-	-	50	-20.96

Qp - Quasi-Peak detector
Ca - CISPR average detection

LINE 2 RESULTS

Trace Markers



Range 2: Line-L2 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN L2	LC Cables 2&3	Limiter (dB)	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR)Margin (dB)
13	.186	37.84	Qp	0	0	10.1	47.94	64.21	-16.27	-	-
14	.1905	25.72	Ca	0	0	10.1	35.82	-	-	54.01	-18.19
15	.25125	32.77	Qp	0	0	10.1	42.87	61.72	-18.85	-	-
16	.25575	26.47	Ca	0	0	10.1	36.57	-	-	51.57	-15
17	.32775	34.1	Qp	0	0	10.1	44.2	59.51	-15.31	-	-
18	.31875	27.07	Ca	0	0	10.1	37.17	-	-	49.74	-12.57
19	.528	33.86	Qp	0	0	10.1	43.96	56	-12.04	-	-
20	.51675	24.47	Ca	0	0	10.1	34.57	-	-	46	-11.43
21	4.37325	36.42	Qp	0	.1	10.1	46.62	56	-9.38	-	-
22	4.37325	27.69	Ca	0	.1	10.1	37.89	-	-	46	-8.11
23	10.761	25.03	Qp	0	.2	10.2	35.43	60	-24.57	-	-
24	10.761	19.9	Ca	0	.2	10.2	30.3	-	-	50	-19.7

Qp - Quasi-Peak detector
Ca - CISPR average detection