FCC 47 CFR PART 15 SUBPART E

C2PC CERTIFICATION TEST REPORT

FOR

Satellite Receiver

MODEL NUMBER: ID:058

FCC ID: DKNX34

REPORT NUMBER: 16U22748-E1V2

ISSUE DATE: 3/25/2016

Prepared for
Echostar Technologies LLC
94 Inverness Terrace East
Englewood, CO 80112

Prepared by
UL VERIFICATION SERVICES INC.
47173 BENICIA STREET
FREMONT, CA 94538, U.S.A.
TEL: (510) 771-1000
FAX: (510) 661-0888

NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	3/1/2016	Initial Issue	C. Vergonio
V2	3/25/16	Updated EUT Description and updated Section 8 and Section 5.6.	C. Vergonio

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Echostar Technologies LLC
94 Inverness Terrace East
Englewood, CO 80112

EUT DESCRIPTION: Satellite Receiver

MODEL: ID:058

SERIAL NUMBER: R5ZXDX00422J(Radiated)
BCM7425Y T B2(Conducted)

DATE TESTED: FEBRUARY 24 -29, 2016

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, any agency of the Federal Government, or any agency of any government.

Approved & Released For
UL Verification Services Inc. By:

CHARLES VERGONIO
WiSE ENGINEER
UL Verification Services Inc.

Tested By:

JONATHAN HSU
WiSE LAB 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, and 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.

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0.

Chambers A through H are covered under Industry Canada company address code 2324B with site numbers 2324B -1 through 2324B-8, respectively.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

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

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)

36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 9KHz to 30 MHz	2.14 dB
Radiated Disturbance, 30 to 1000 MHz	4.98 dB
Radiated Disturbance,1000 to 6000 MHz	3.86 dB
Radiated Disturbance,6000 to 18000 MHz	4.23 dB
Radiated Disturbance,18000 to 26000 MHz	5.30 dB
Radiated Disturbance,26000 to 40000 MHz	5.23 dB

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a Satellite Receiver.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

Frequency Range (MHz)	Mode	Power, Chain 0 (dBm)	Power, Chain 1 (dBm)	Output Power (dBm)	Output Power (mW)
5.8 GHz band, 1TX					
5745-5825	802.11a	12.67	N/A	12.67	18.49
5745-5825	802.11n HT20	17.03	N/A	17.03	50.47
5755-5795	802.11n HT40	17.13	N/A	17.13	51.64
5.8 GHz band, 2TX					
5745-5825	802.11a CDD	14.78	14.18	17.50	56.24
5745-5825	802.11n HT20 CDD	16.65	17.86	20.31	107.33
5755-5795	802.11n HT40 CDD	16.36	16.29	19.34	85.81

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

Frequency (MHz)	Antenna Gain (J0) dBi	Antenna Gain (J1) dBi
5745-5825	3.2	1.8

5.4. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was Broadcom, rev. 5.102 RC98.37

The EUT driver software installed during testing was Broadcom, rev. 5.102.98.37 (WLTEST)

The test utility software used during testing was Broadcom MTool, rev 2.0.1.1

5.5. DESCRIPTION OF CLASS II PERMISSIVE CHANGE

Please refer to Echostar Technologies L.L.C Class II Change Description Letter for details.

5.6. WORST-CASE CONFIGURATION AND MODE

The EUT can only be setup in desktop orientation; therefore, all radiated testing was performed with the EUT in desktop orientation.

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.

For SISO mode, the conducted & radiated testing were only performed with the highest antenna gain chain, J0.

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

802.11a mode: 6 Mbps
802.11n HT20mode: MCS0
802.11n HT40mode: MCS0

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

5.7. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
Laptop	HP	EliteBook 8470	CNU342CP2Y	N/A
Laptop AC adapter	HP	PPP009L-E	WCNXA0C3U5IA7F	N/A
Router	Netgear	WNR1000	28C2035S0B654	N/A
Router AC adapter	Netgear	T012LF1209	N/A	N/A

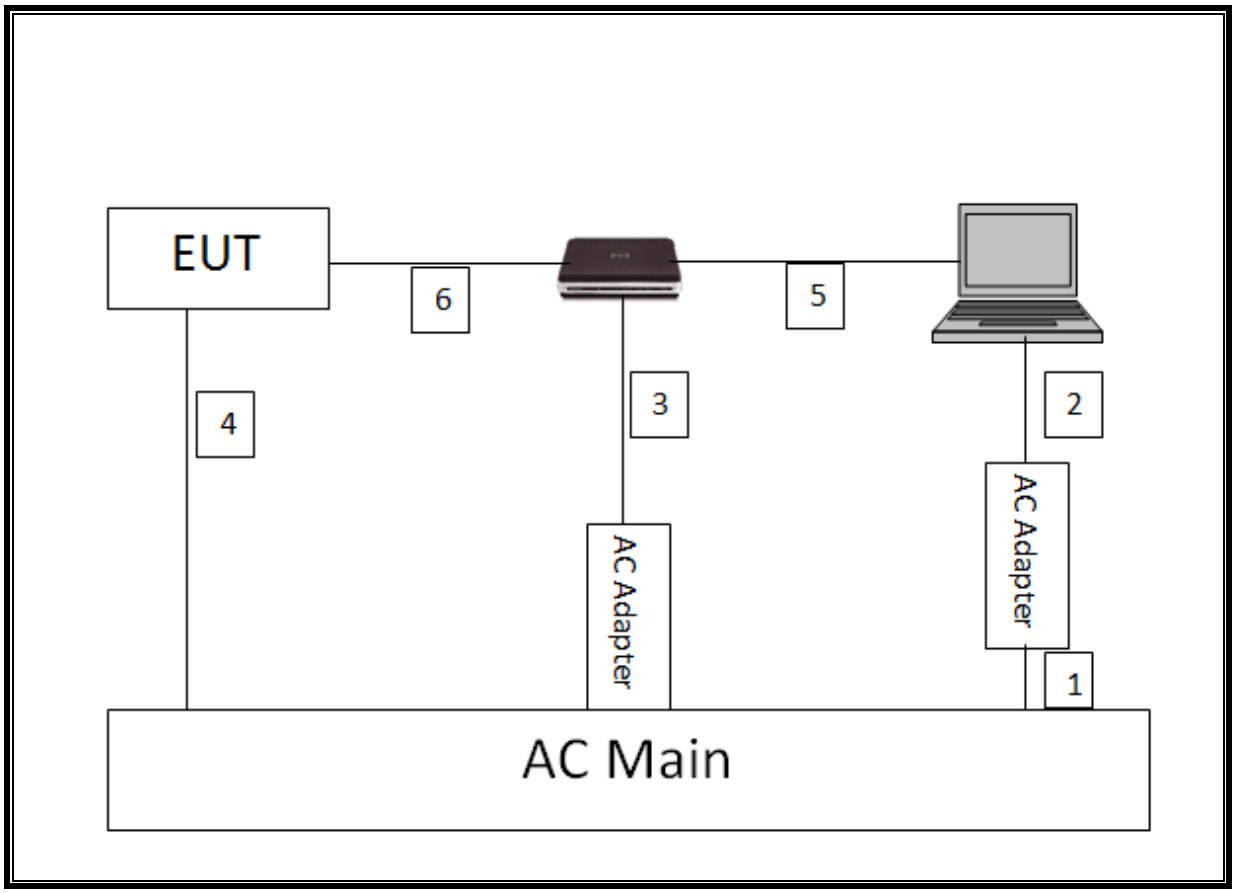
I/O CABLES

I/O Cable List						
Cable No	**Port**	**# of identical ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	AC	1	US115V	Un-shielded	1.8	N/A
2	DC	1	19.5VDC	Un-shielded	1.8	N/A
3	DC	1	12VDC	Un-shielded	1.8	N/A
4	AC	1	US115V	Un-shielded	1.8	N/A
5	LAN	1	RJ45	Un-shielded	2	N/A
6	LAN	1	RJ45	Un-shielded	2	N/A

TEST SETUP

The EUT was tested stand alone and the communication was established via RJ45 cable between EUT and support laptop. Test software exercised the radio.

SETUP DIAGRAM FOR TESTS



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	130	09/01/15	09/01/16
Horn Antenna 1-18GHz	ETS	3117	344	02/22/16	02/22/17
Horn Antenna 18-26.5GHz	ARA	MWH-1826	447	05/12/15	05/12/16
Horn Antenna 26.5- 40GHz	ARA	MWH-2640/B	90	07/28/15	07/28/16
Preamp 10kHz-1000MHz	Sonoma	310	300	11/05/15	11/05/16
Preamp 1-8GHz	Miteq	AMF-4D-01000800-30-29P	782	12/17/15	12/17/16
Preamp 1-18GHz	Miteq	AFS42-00101800-25-2-42	493	07/23/15	07/23/16
Preamp 1-26.5GHz	Agilent	8449B	404	04/13/15	04/13/16
Amplifier, 26-40GHz	Miteq	NSP4000-SP2	88	04/07/15	04/07/16
Spectrum Analyzer 3kHz - 44GHz	Keysight	E4440A	119	07/22/15	07/22/16
Spectrum Analyzer 3kHz - 44GHz	Keysight	N9030A	908	05/26/15	05/26/16
Spectrum Analyzer 3kHz - 44GHz	Keysight	N9030A	907	01/06/16	01/06/17
Spectrum Analyzer 9kHz - 40GHz	HP	8564E	106	08/14/15	08/14/16
3GHz HPF	Micro-Tronics	HPM17543	487	01/26/16	01/27/17
EMI Test Receiver	Rohde & Schwarz	ESR	1436	12/19/15	12/19/16
Power Meter	Keysight	N1911A	1264	07/01/15	07/01/16
Power Sensor	Keysight	N1921A	750	09/17/15	09/17/16
LISN for Conducted Emission CISPR-16	Fischer	FCC-LISN-50/250-25-2-01-C	1310	09/16/15	09/16/16

Test Software List			
Description	Manufacturer	Model	Version
Radiated Software	UL	UL EMC	Version 9.5, 06/24/15
Conducted Software	UL	UL EMC	Version 9.5, 05/26/15
Antenna Port Software	UL	UL RF	Version 4.2, 02/02/16

7. SUMMARY TABLE

FCC Part Section	RSS Section	Test Description	Test Limit	Test Condition	Test Result
§15.407 (a)	RSS-247	Occupied Band width (26dB)	N/A	Conducted	N/A
§15.407	RSS-247 6.2.4	6dB Band width (5.8Ghz)	>500KHz		Pass
§15.407 (a)(1)	RSS-247 6.2	TX Cond. Power5.15-5.25	<24dBm (FCC) / <23 dBm or <10+10Log(99% BW) (IC)		N/A
§15.407 (a)(2)	RSS-247 6.2	TX Cond. Power 5.25-5.35 & 5.47-5.725	<24dBm or <11+10log (OBW) (FCC) / <24 dBm or <11+10Log(99% BW) (IC)		N/A
§15.407 (a)(3)	RSS-247 6.2.4	TX Cond. Power 5.725-5.850	<30dBm		Pass
§15.407 (a)(1)	RSS-247 6.2	PSD (5.15-5.25)	<11dBm/MHz (FCC) <10dBm/MHz EIRP (IC)		N/A
§15.407 (a)(2)	RSS-247 6.2	PSD (5.3,5.5GHz)	<11dBm/MHz		N/A
§15.407 (a)(3)	RSS-247 6.2.4	PSD (5.8GHz)	<30dBm per 500kHz		Pass
§15.207 (a)	RSS-GEN 8.8	AC Power Line conducted emissions	Section 10		Pass
§15.407 (b) & 15.209	RSS-GEN 8.9/7	Radiated Spurious Emission	<54dBuV/m	Radiated	Pass

8. MEASUREMENT METHODS

On Time and Duty Cycle: KDB 789033 D02 v01r01, Section B.

6 dB Emission BW: KDB 789033 D02 v01r01, Section C and KDB 662911 D01 v02r01.

26 dB Emission BW: KDB 789033 D02 v01r01, Section C and KDB 662911 D01 v02r01.

99% Occupied BW: KDB 789033 D02 v01r01, Section D and KDB 662911 D01 v02r01.

Conducted Output Power: KDB 789033 D02 v01r01, Section E.3.b (Method PM-G), and KDB 662911 D01 v02r01.

Power Spectral Density: KDB 789033 D02 v01r01, Section F, and KDB 662911 D01 v02r01.

Unwanted emissions in restricted bands: KDB 789033 D02 v01r01, Sections G.3, G.4, G.5, and G.6 and KDB 662911 D01 v02r01.

Unwanted emissions in non-restricted bands: KDB 789033 D02 v01r01, Sections G.3, G.4, and G.5 and KDB 662911 D01 v02r01.

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

9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

PROCEDURE

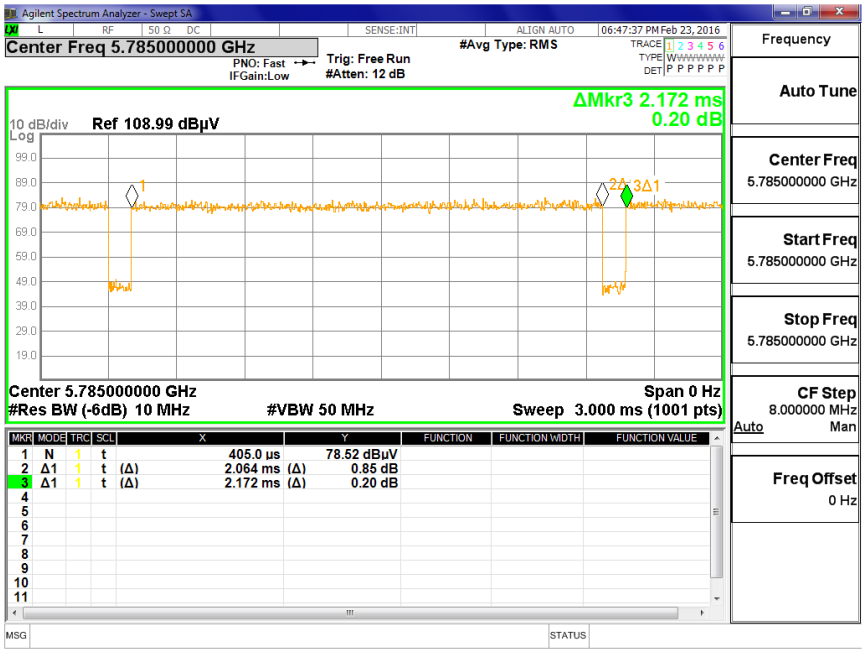
KDB 789033 Zero-Span Spectrum Analyzer Method.

ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
802.11a	2.064	2.172	0.950	95.03%	0.22	0.484
802.11n HT20	1.908	2.007	0.951	95.07%	0.22	0.524
802.11n HT40	0.930	1.029	0.904	90.38%	0.44	1.075

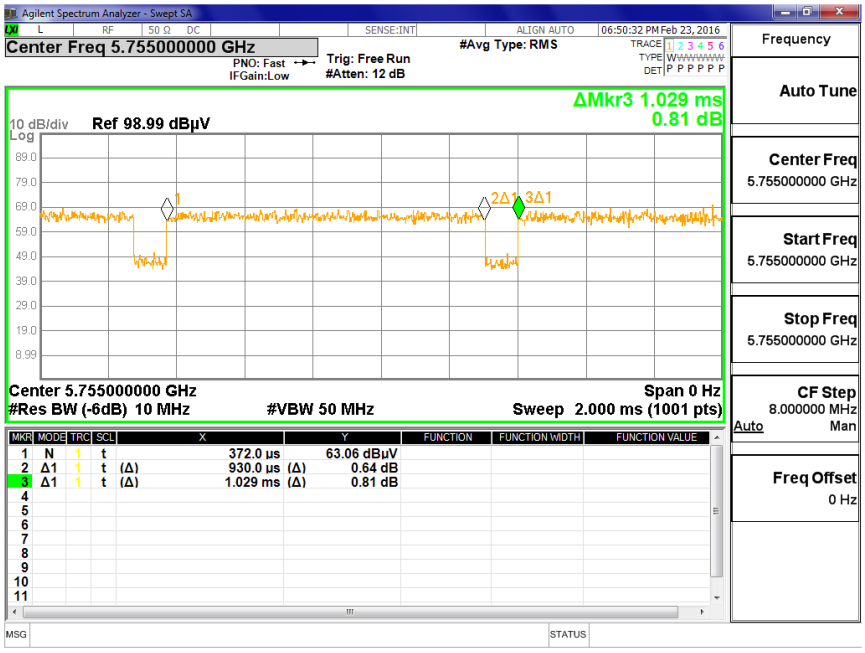
DUTY CYCLE PLOTS

DUTY CYCLE 802.11a



DUTY CYCLE 802.11n

DUTY CYCLE 802.11n HT40



9.2. 802.11a SISO MODE IN THE 5.8 GHz BAND

9.2.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

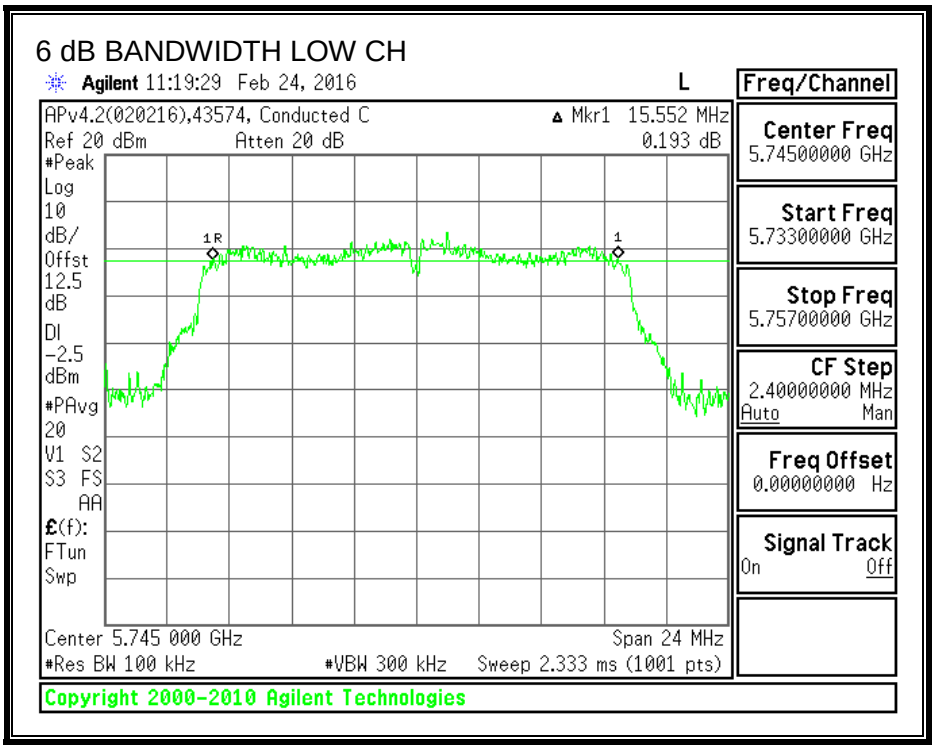
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

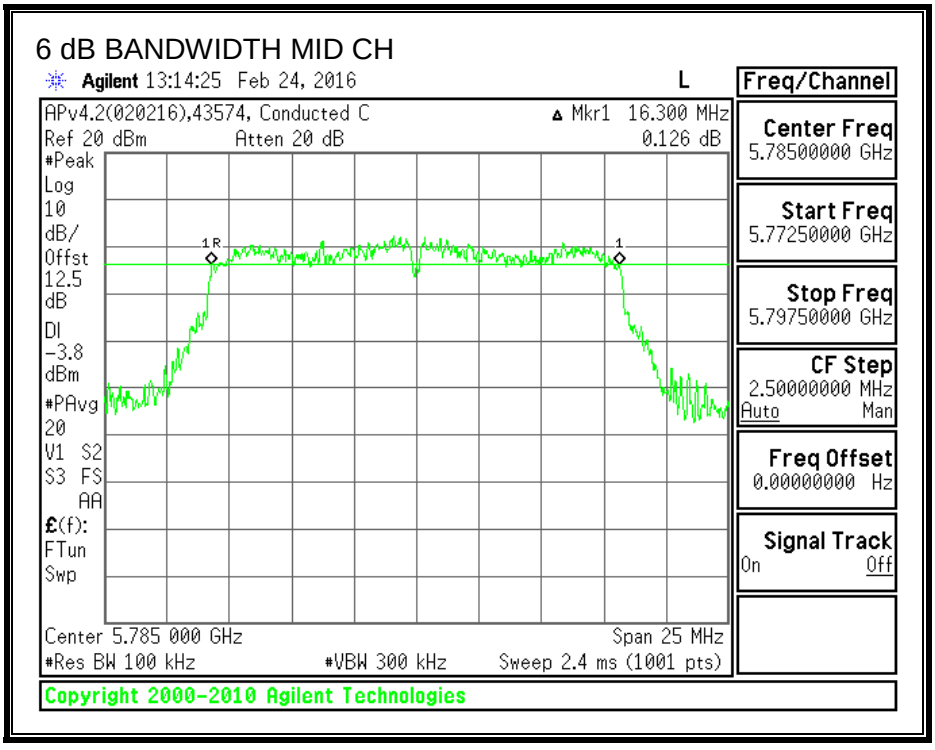
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	15.5520	0.5
Mid	5785	16.3000	0.5
High	5825	15.5520	0.5

6 dB BANDWIDTH

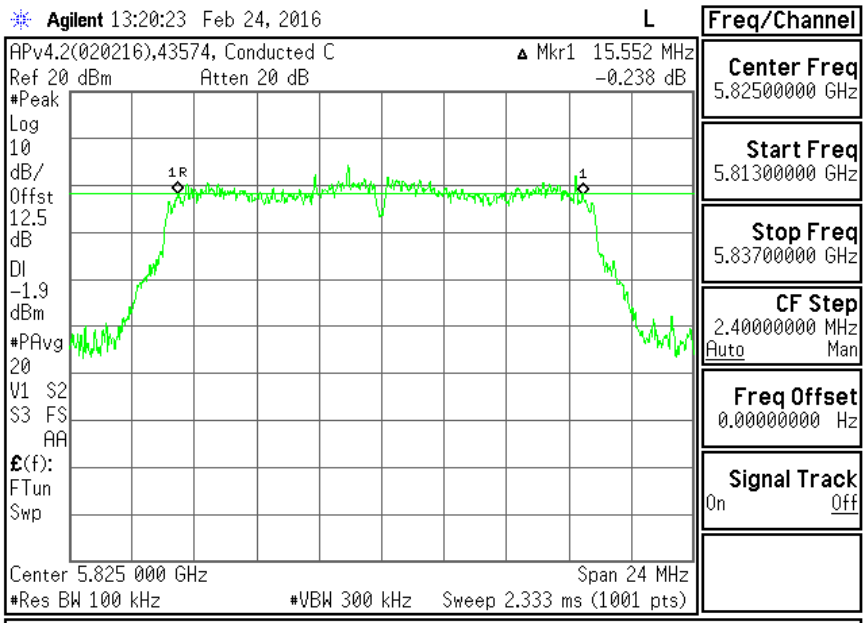
6 dB BANDWIDTH LOW CH



6 dB BANDWIDTH MID CH



6 dB BANDWIDTH HIGH CH



9.2.2. 99% BANDWIDTH

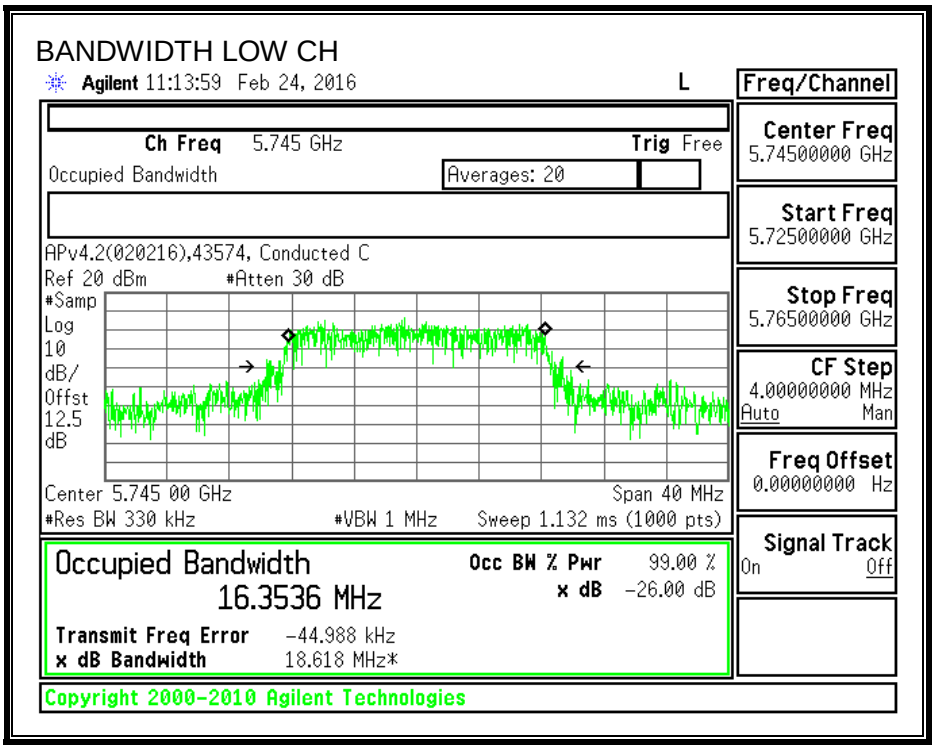
LIMITS

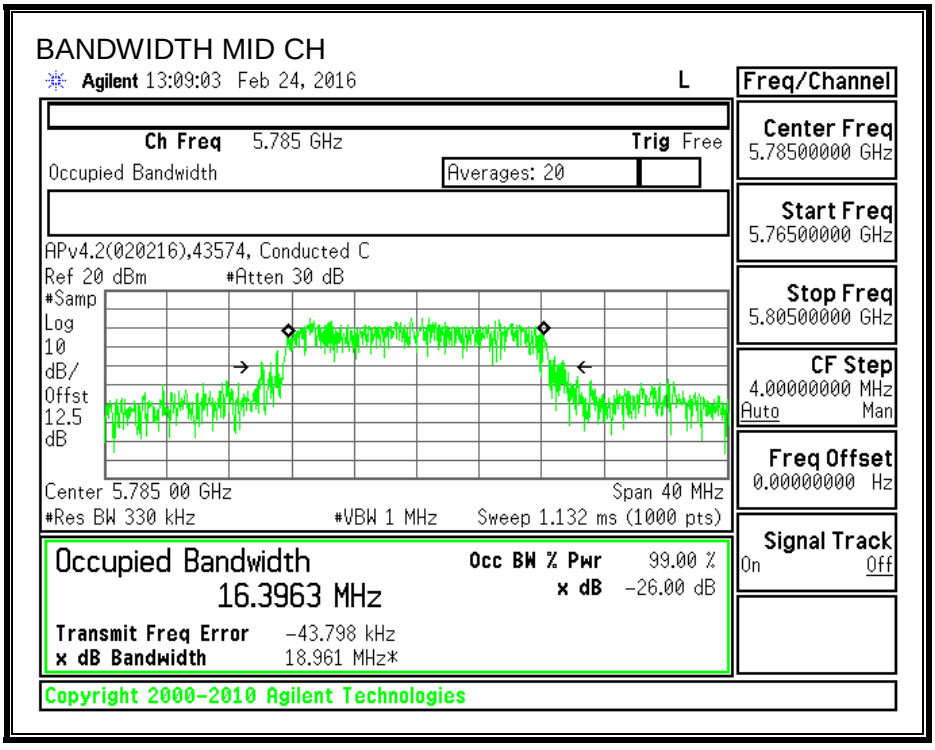
None; for reporting purposes only.

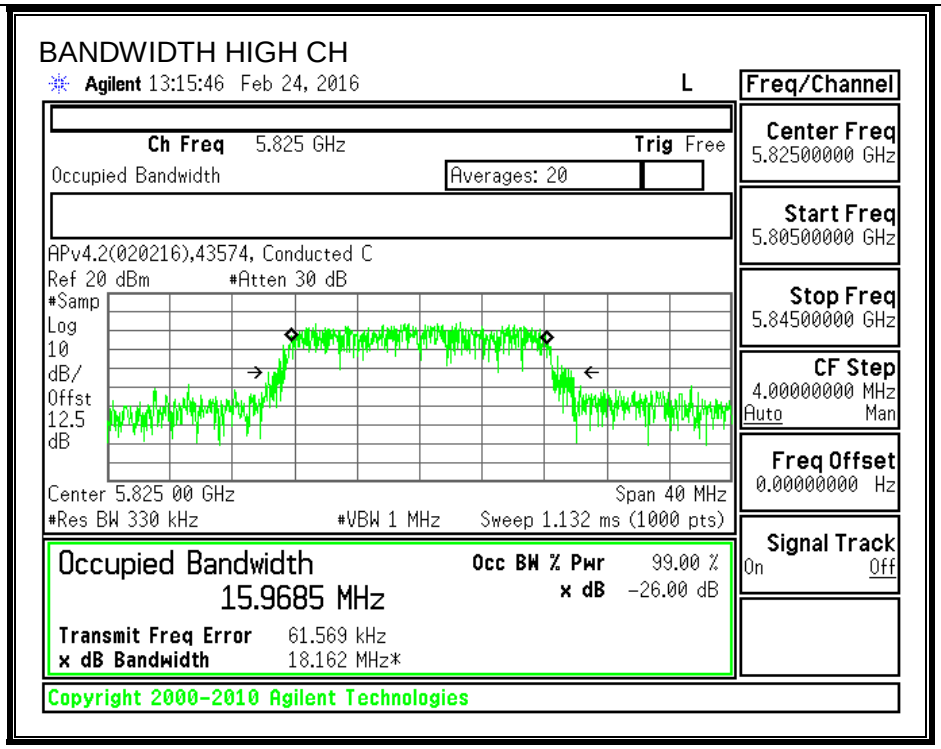
RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	16.3536
Mid	5785	16.3963
High	5825	15.9685

99% BANDWIDTH







9.2.3. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz 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.

DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Power Limit (dBm)
Low	5745	3.20	30.00
Mid	5785	3.20	30.00
High	5825	3.20	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	12.62	12.62	30.00	-17.38
Mid	5785	12.51	12.51	30.00	-17.49
High	5825	12.67	12.67	30.00	-17.33

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

9.2.4. Maximum Power Spectral Density (PSD)

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz 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.

DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

RESULTS

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5745	3.20	30.00
Mid	5785	3.20	30.00
High	5825	3.20	30.00

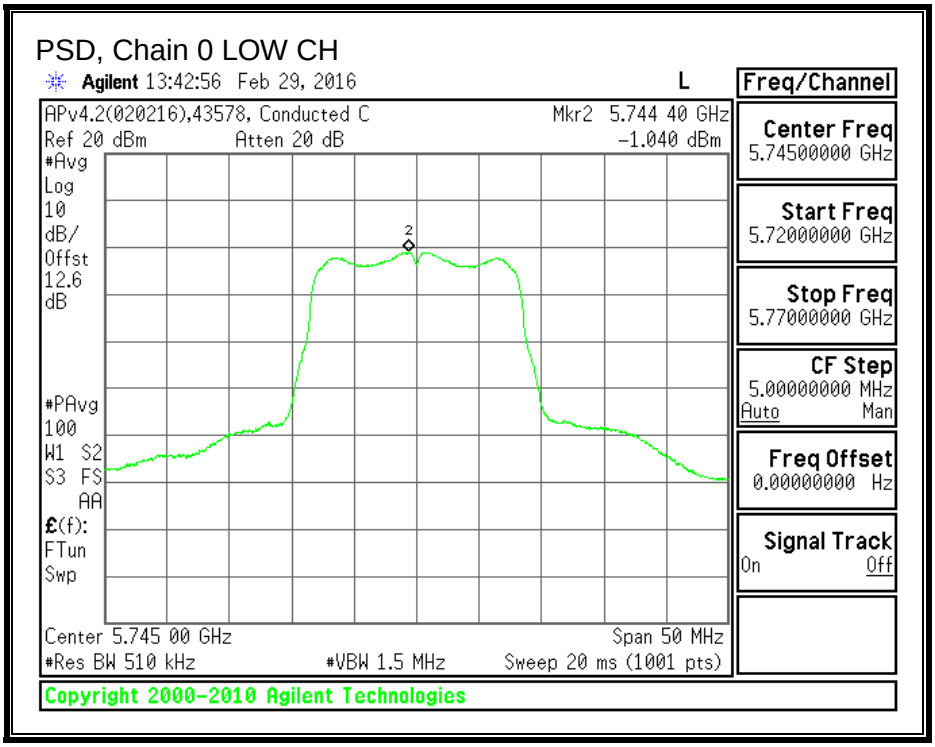
Duty Cycle CF (dB)	0.22	Included in Calculations of Corr'd PSD

PSD Results

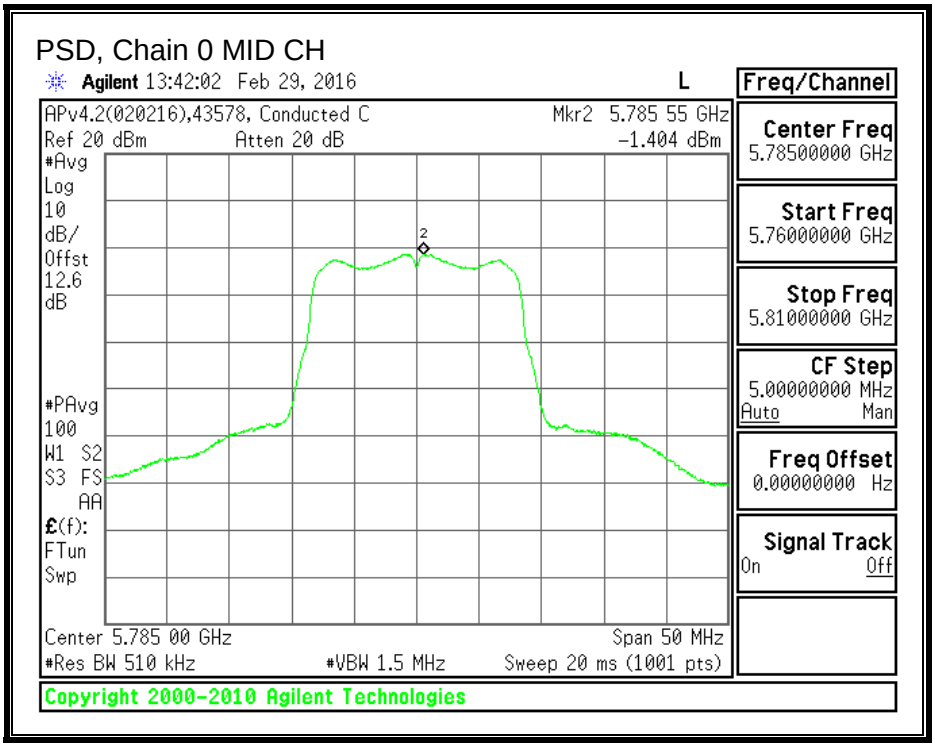
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5745	-1.040	-0.820	30.00	-30.82
Mid	5785	-1.404	-1.184	30.00	-31.18
High	5825	-0.379	-0.159	30.00	-30.16

PSD, Chain 0

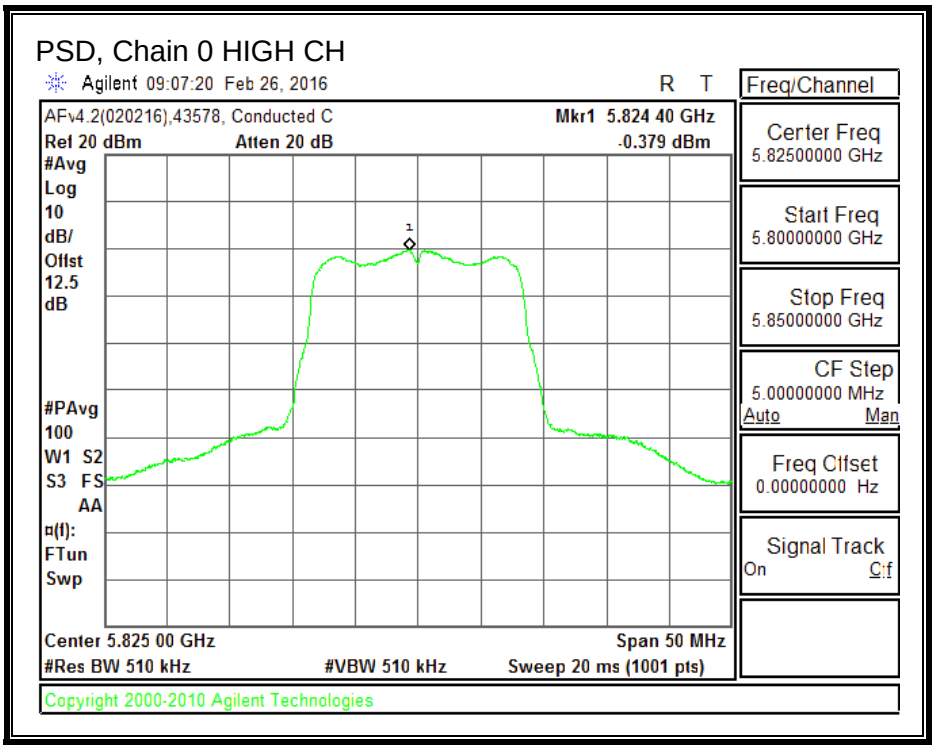
PSD, Chain 0 LOW CH



PSD, Chain 0 MID CH



PSD, Chain 0 HIGH CH



9.3. 802.11a CDD 2TX MODE IN THE 5.8 GHz BAND

9.3.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

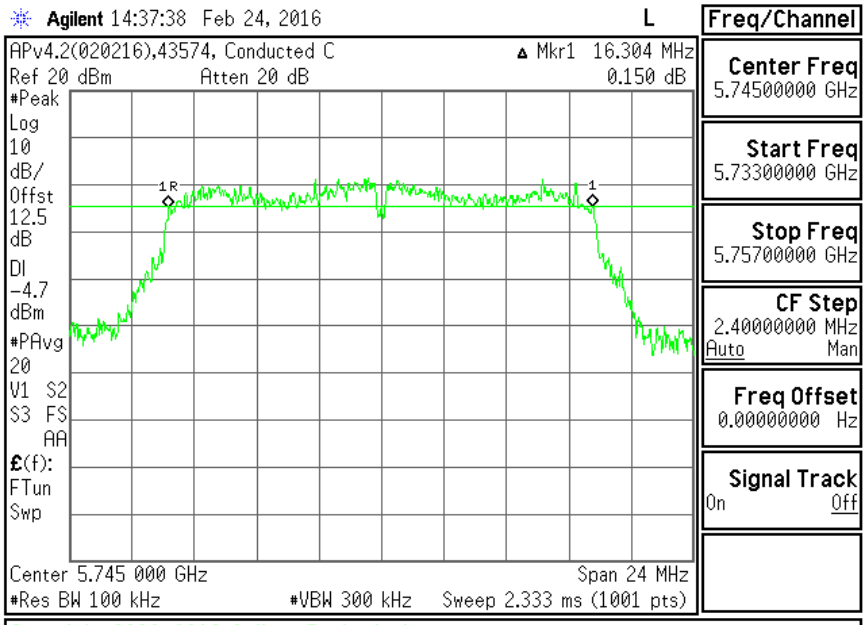
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

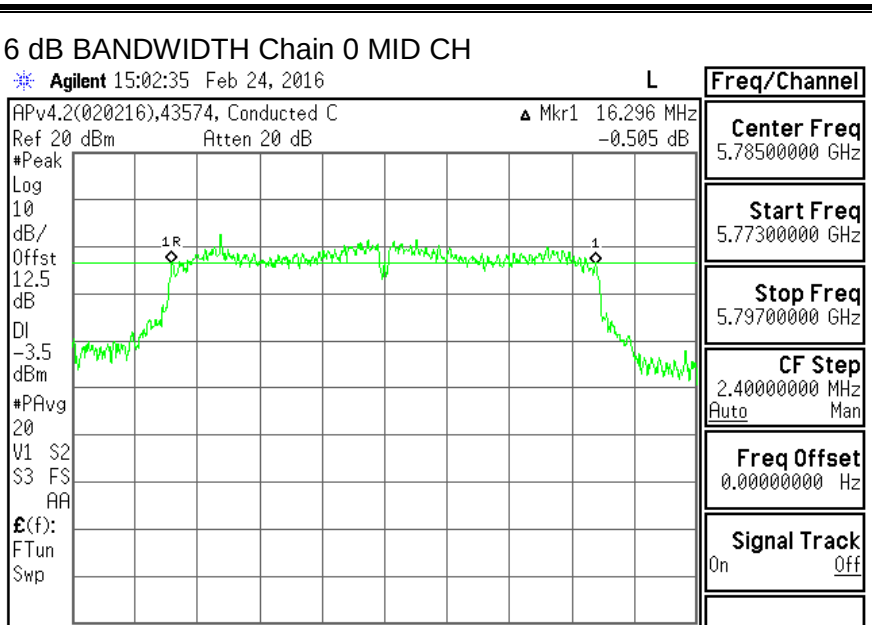
Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Low	5745	16.3040	16.3000	0.5
Mid	5785	16.2960	16.0800	0.5
High	5825	15.9920	16.0080	0.5

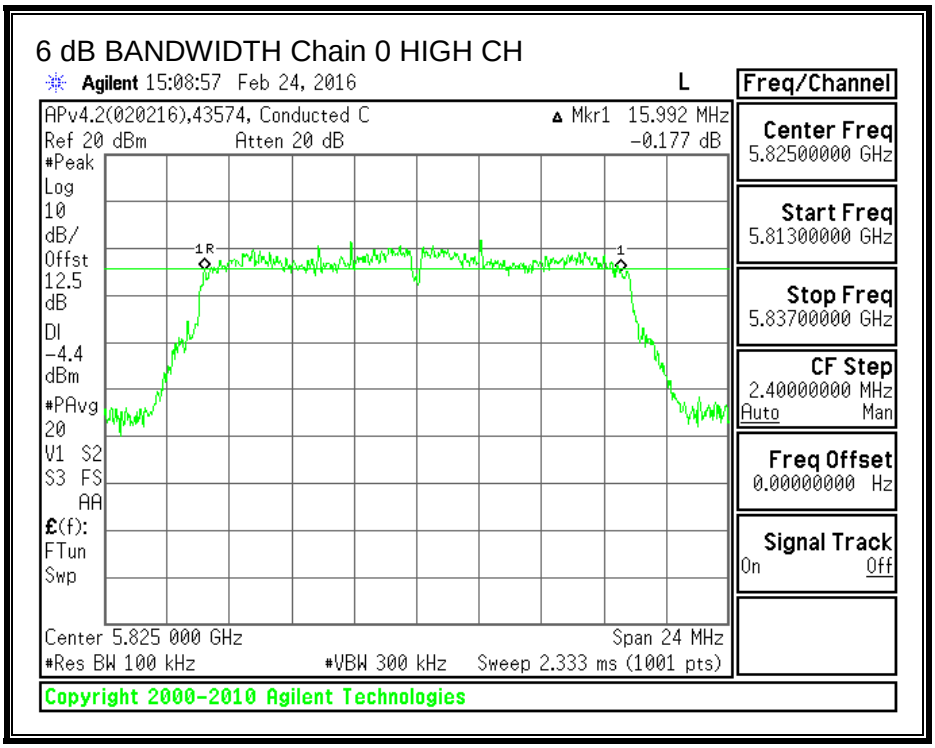
6 dB BANDWIDTH, Chain 0

6 dB BANDWIDTH Chain 0 LOW CH

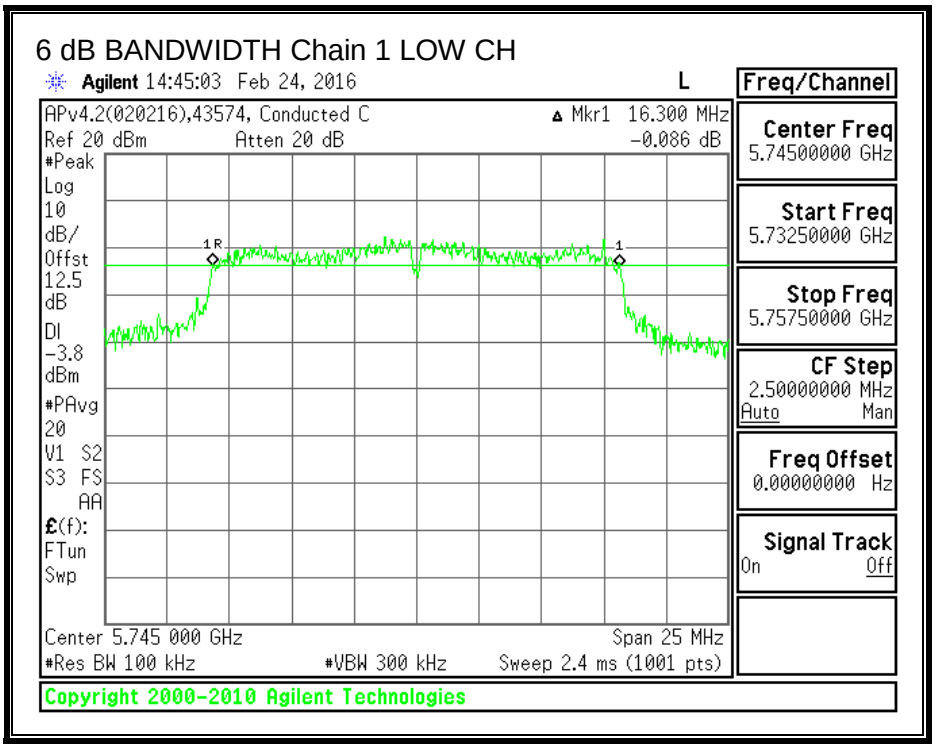


6 dB BANDWIDTH Chain 0 MID CH

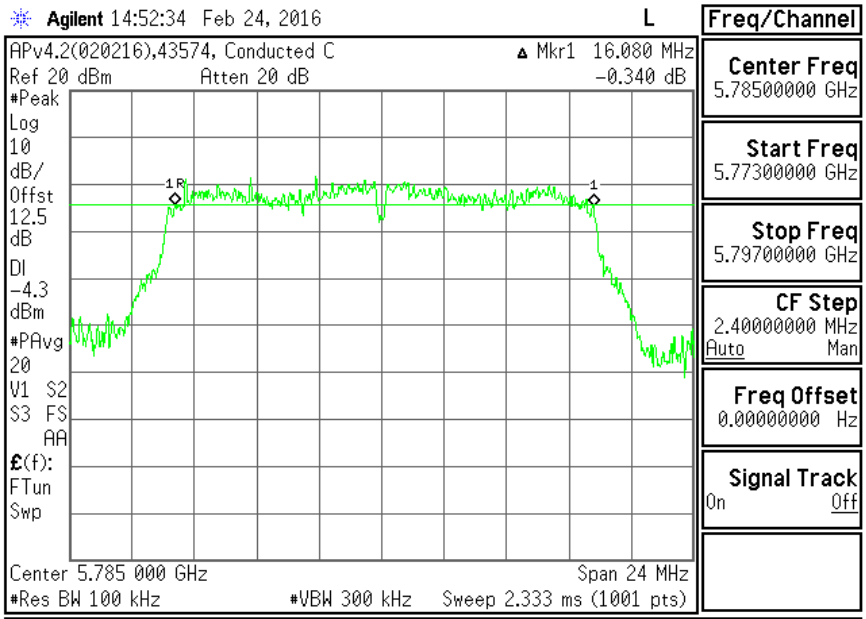




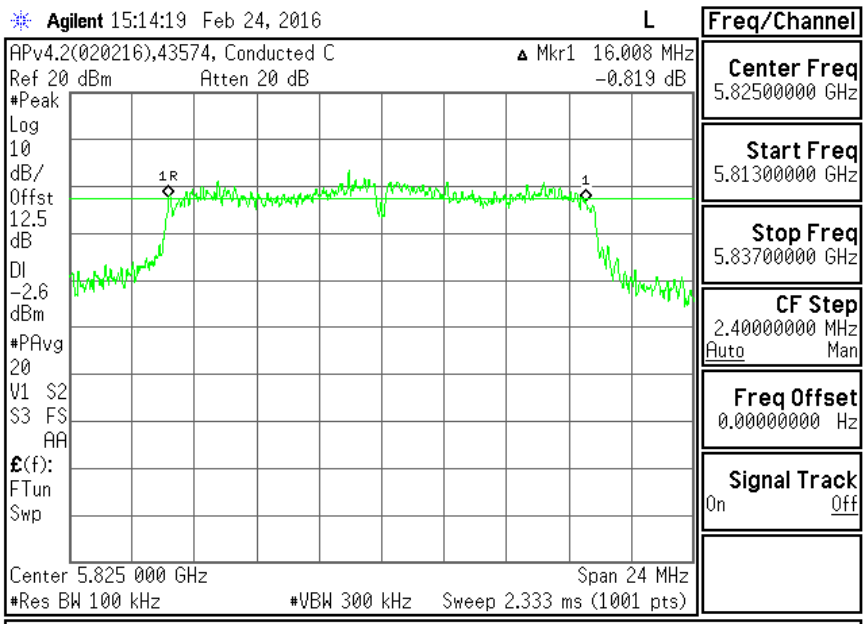
6 dB BANDWIDTH, Chain 1



6 dB BANDWIDTH Chain 1 MID CH



6 dB BANDWIDTH Chain 1 HIGH CH



9.3.2. 99% BANDWIDTH

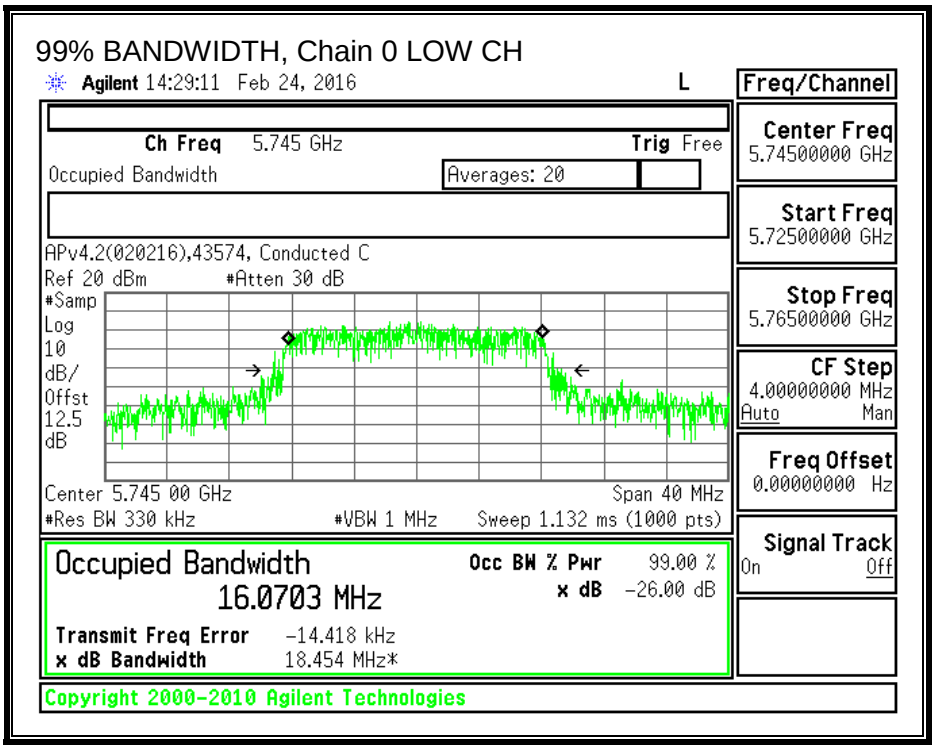
LIMITS

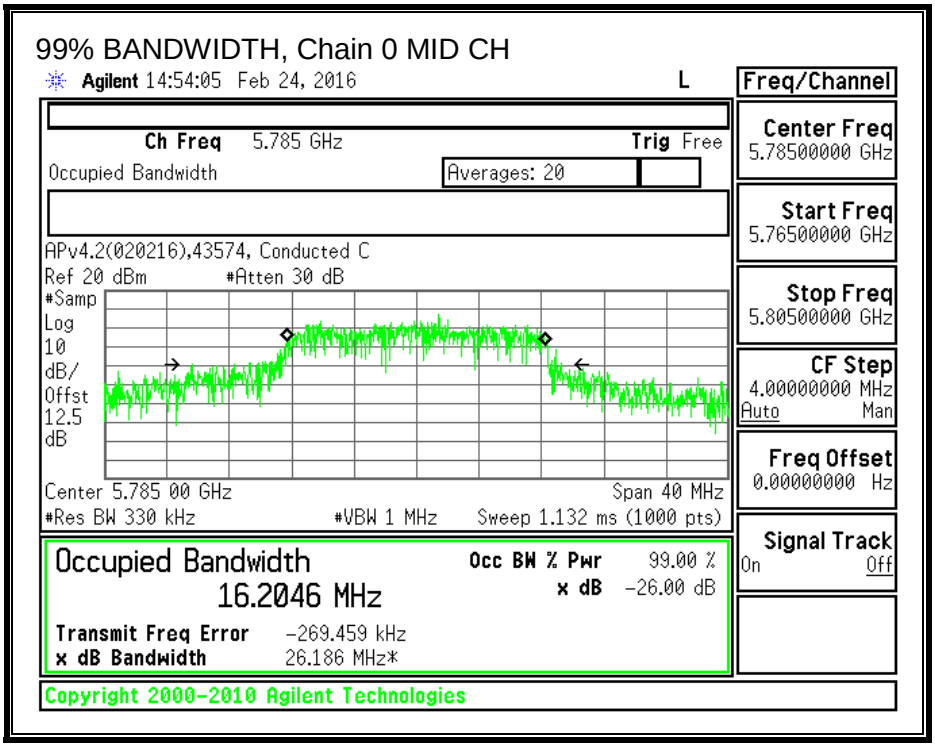
None; for reporting purposes only.

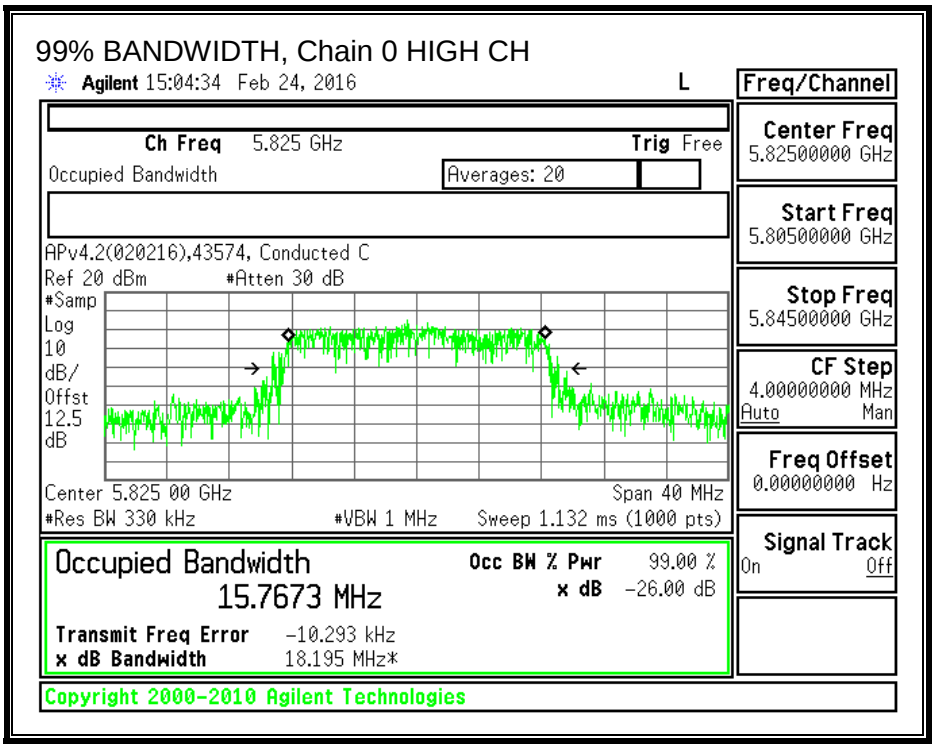
RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5745	16.0703	18.6454
Mid	5785	16.2046	16.2751
High	5825	15.7673	17.0592

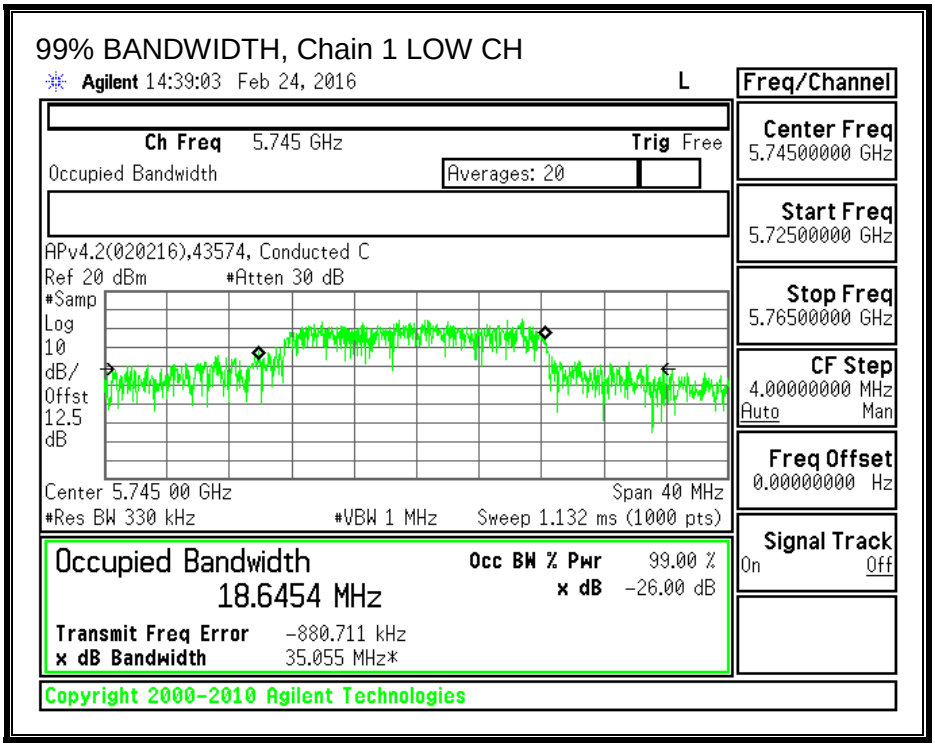
99% BANDWIDTH, Chain 0

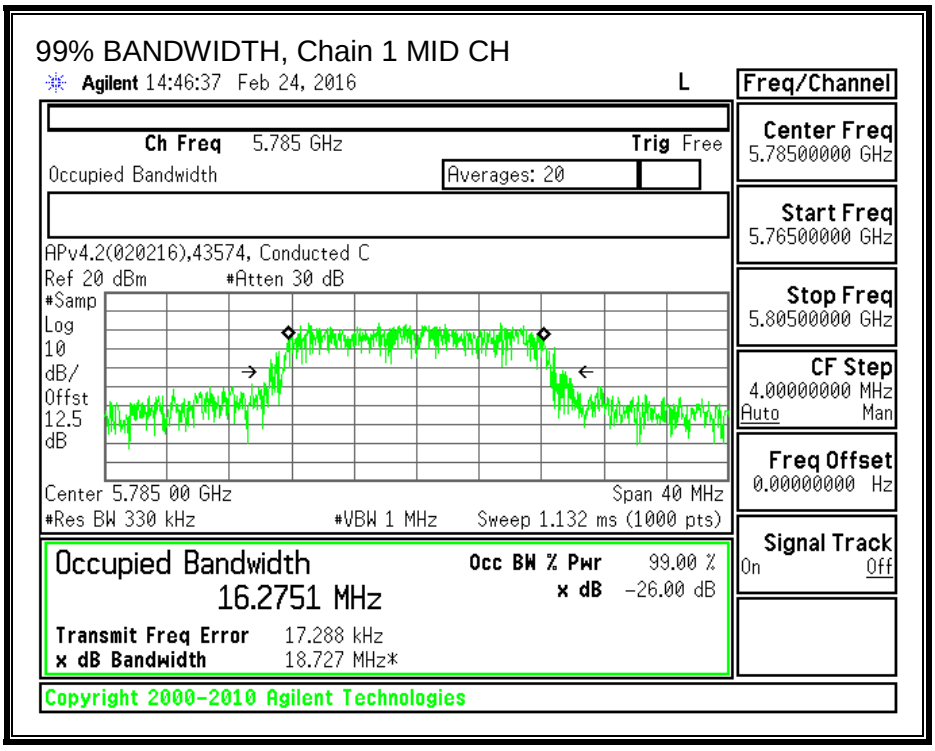


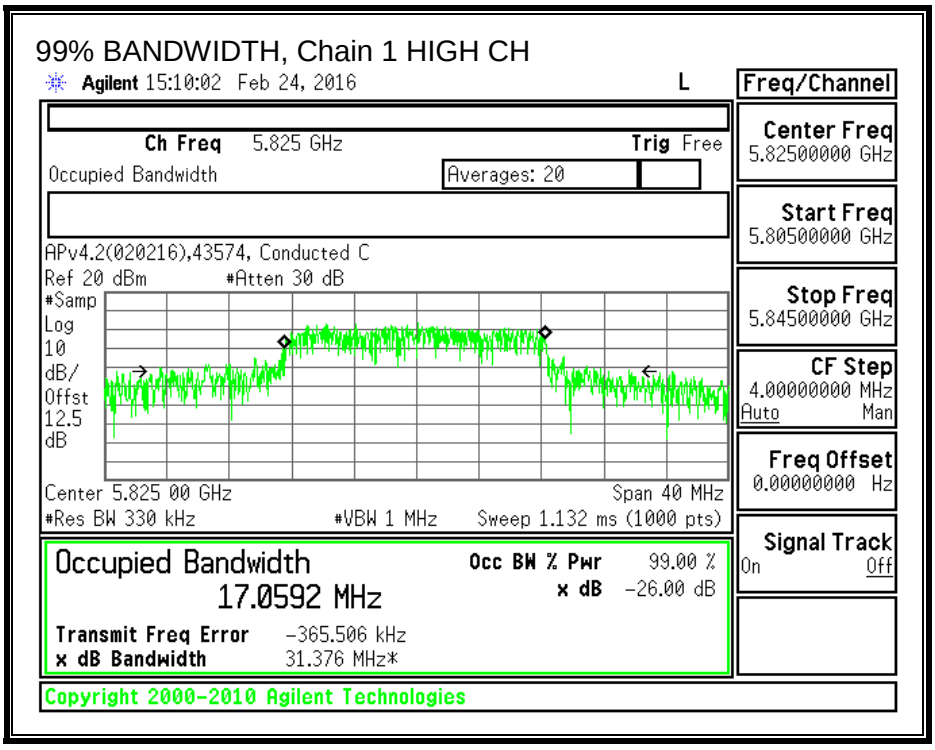




99% BANDWIDTH, Chain 1







9.3.3. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz 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.

DIRECTIONAL ANTENNA GAIN

The TX chains are uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
3.20	1.80	2.56

RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Power Limit (dBm)
Low	5745	2.56	30.00
Mid	5785	2.56	30.00
High	5825	2.56	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	14.78	14.18	17.50	30.00	-12.50
Mid	5785	13.85	14.54	17.22	30.00	-12.78
High	5825	14.21	13.76	17.00	30.00	-13.00

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

9.3.4. Maximum Power Spectral Density (PSD)

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz 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.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
3.20	1.80	5.54

RESULTS

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5745	5.54	30.00
Mid	5785	5.54	30.00
High	5825	5.54	30.00

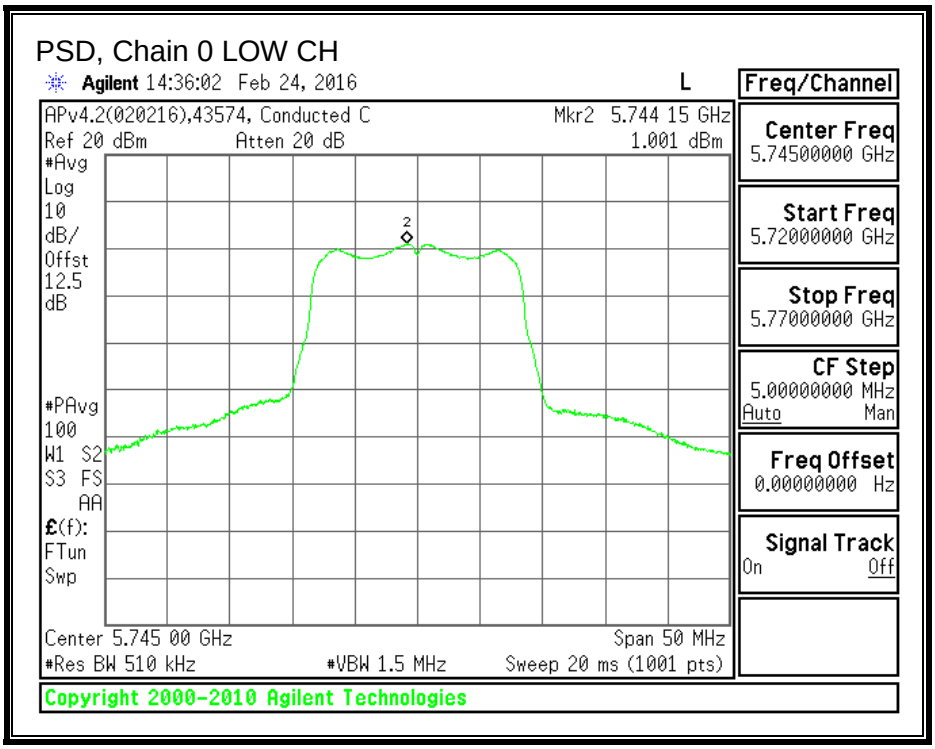
Duty Cycle CF (dB)	0.22	Included in Calculations of Corr'd PSD

PSD Results

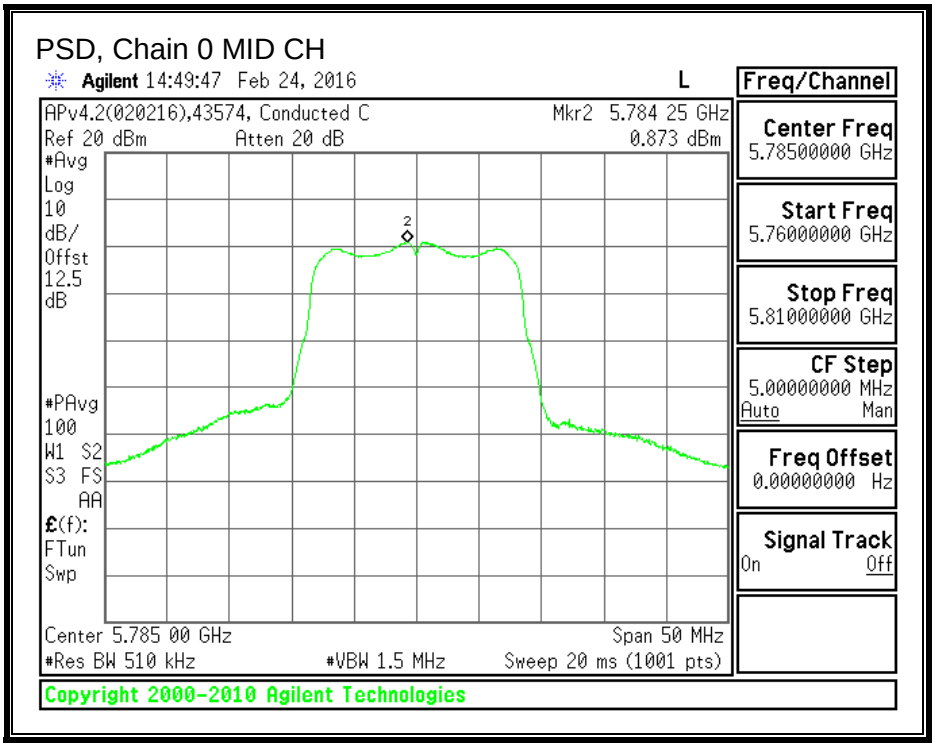
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5745	1.001	1.757	4.63	30.00	-25.37
Mid	5785	0.873	1.483	4.42	30.00	-25.58
High	5825	0.839	1.427	4.37	30.00	-25.63

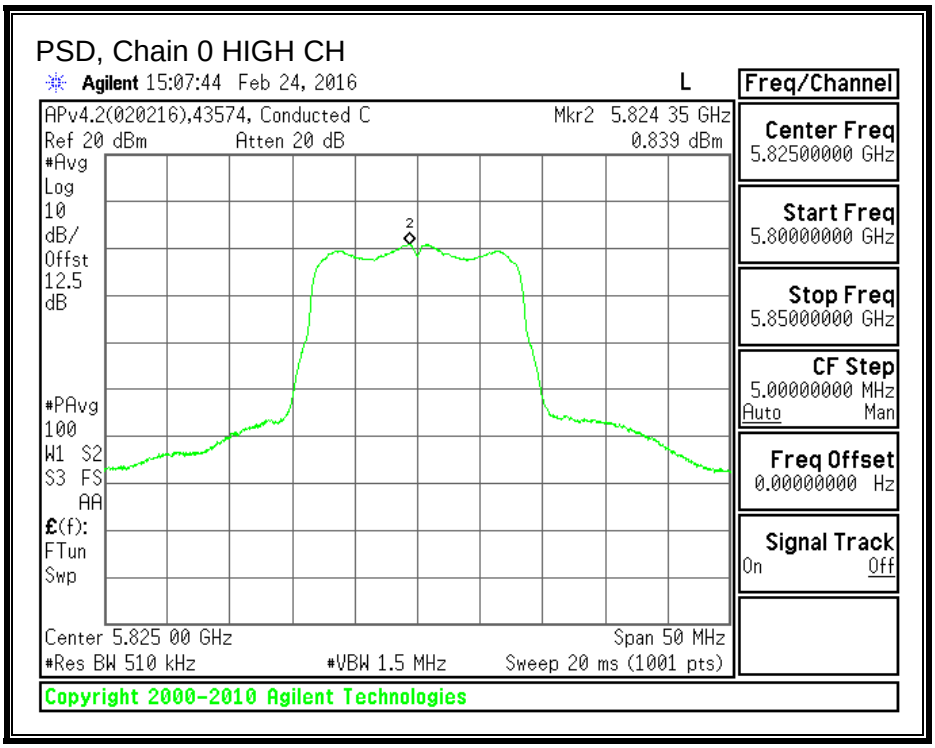
PSD, Chain 0

PSD, Chain 0 LOW CH

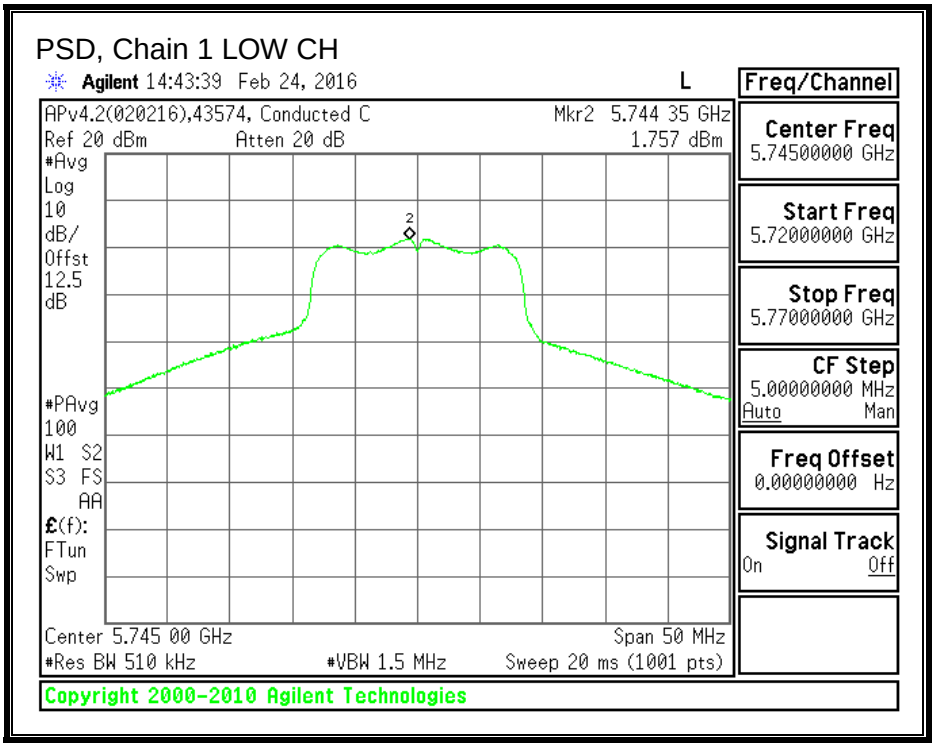


PSD, Chain 0 MID CH

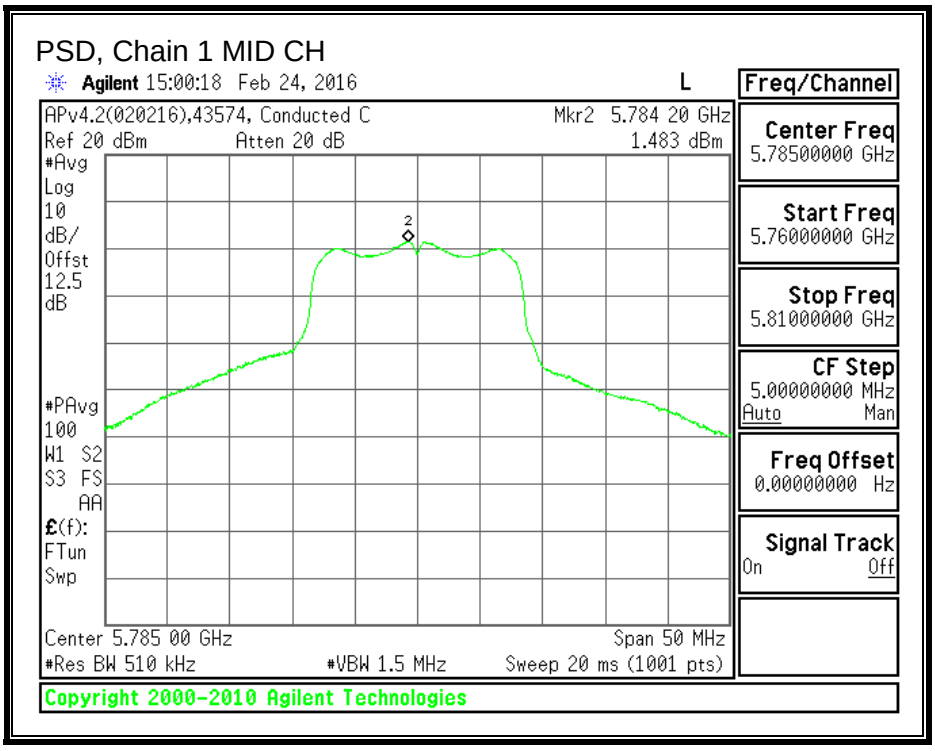




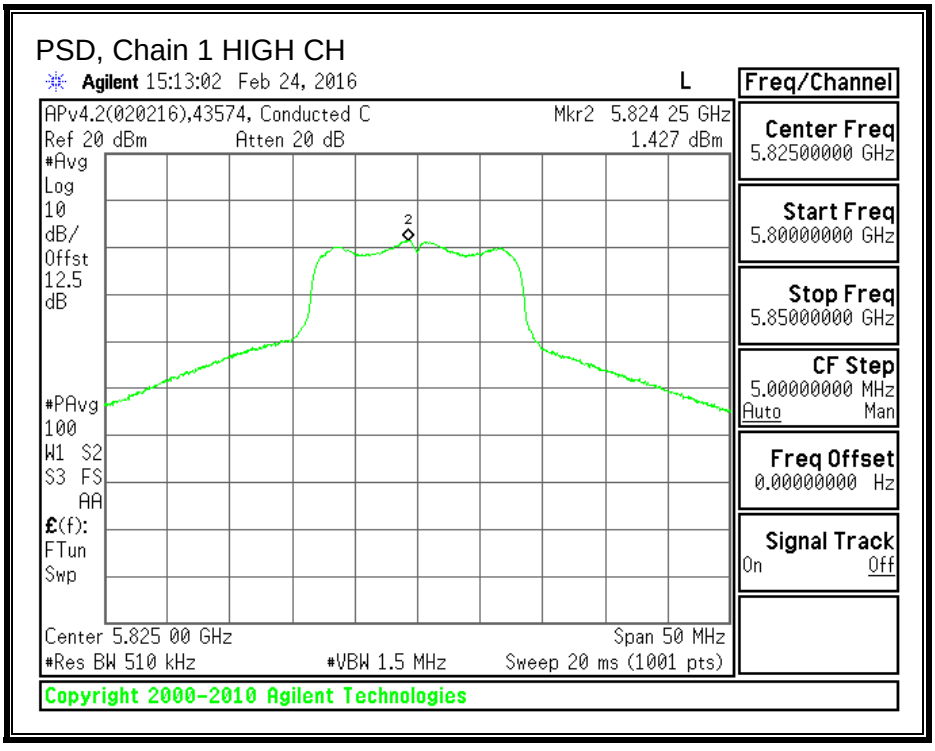
PSD, Chain 1



PSD, Chain 1 MID CH



PSD, Chain 1 HIGH CH



9.4. 802.11n HT20 SISO MODE IN THE 5.8 GHz BAND

9.4.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

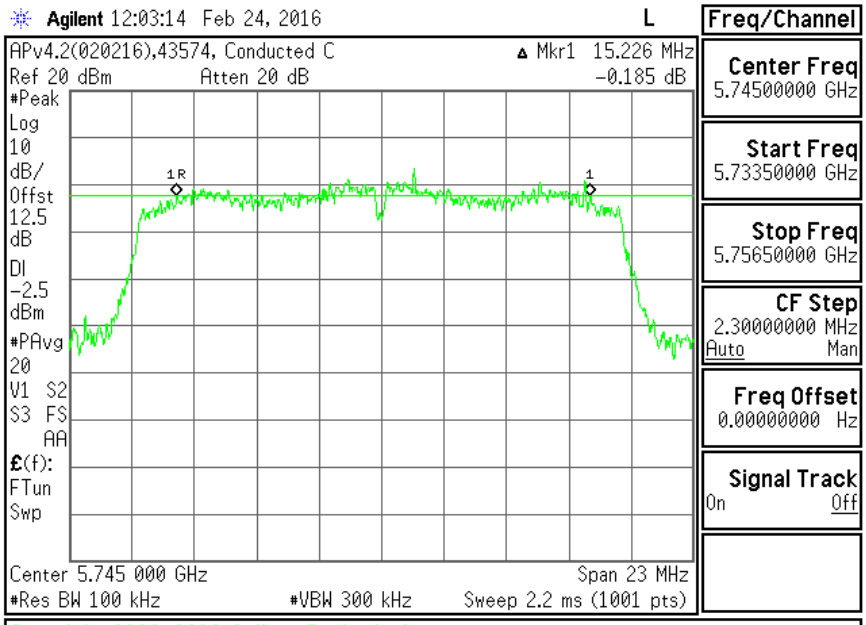
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

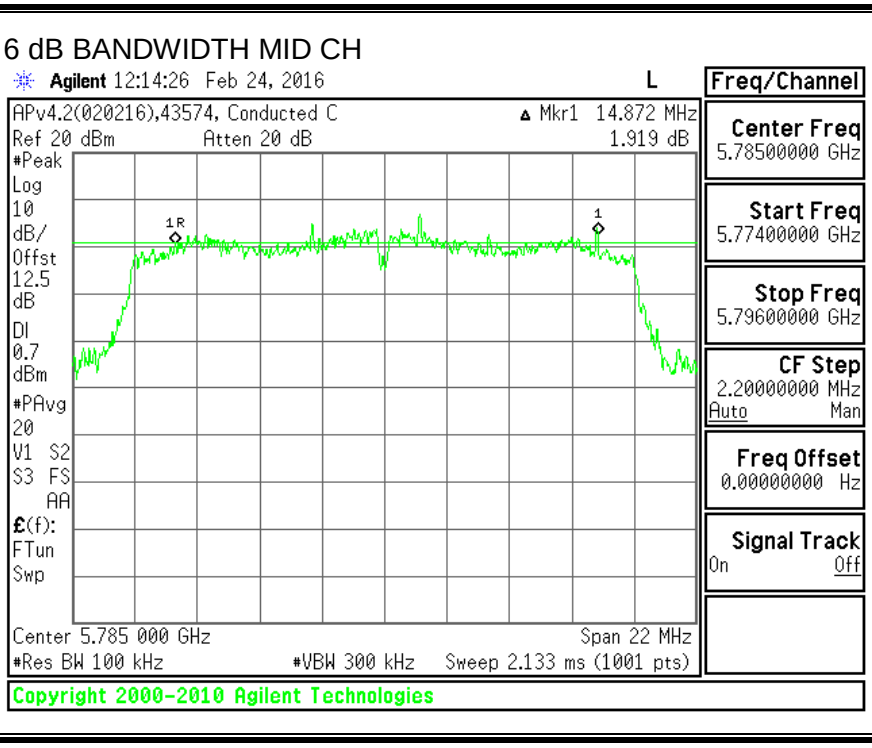
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	15.2260	0.5
Mid	5785	14.8720	0.5
High	5825	14.5860	0.5

6 dB BANDWIDTH

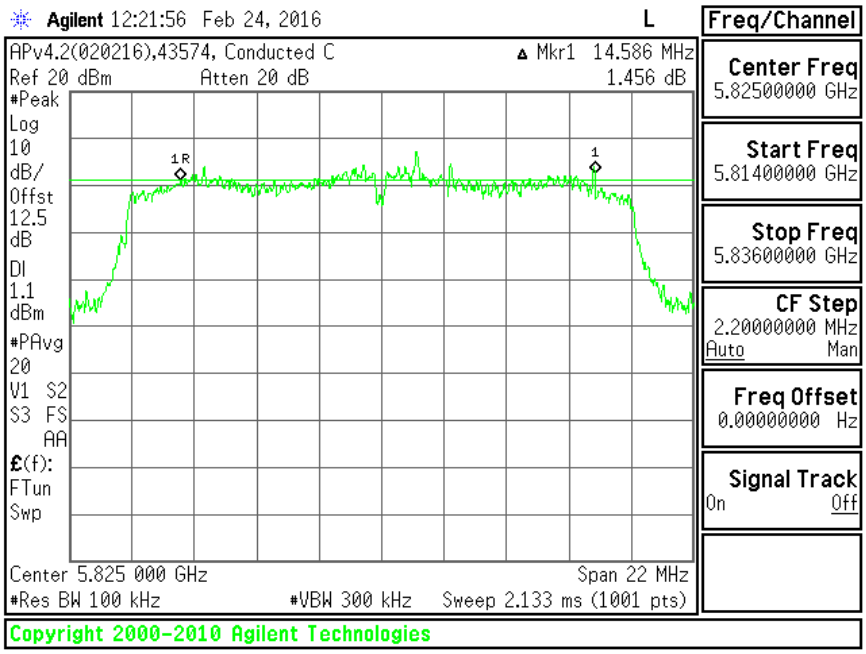
6 dB BANDWIDTH LOW CH



6 dB BANDWIDTH MID CH



6 dB BANDWIDTH HIGH CH



9.4.2. 99% BANDWIDTH

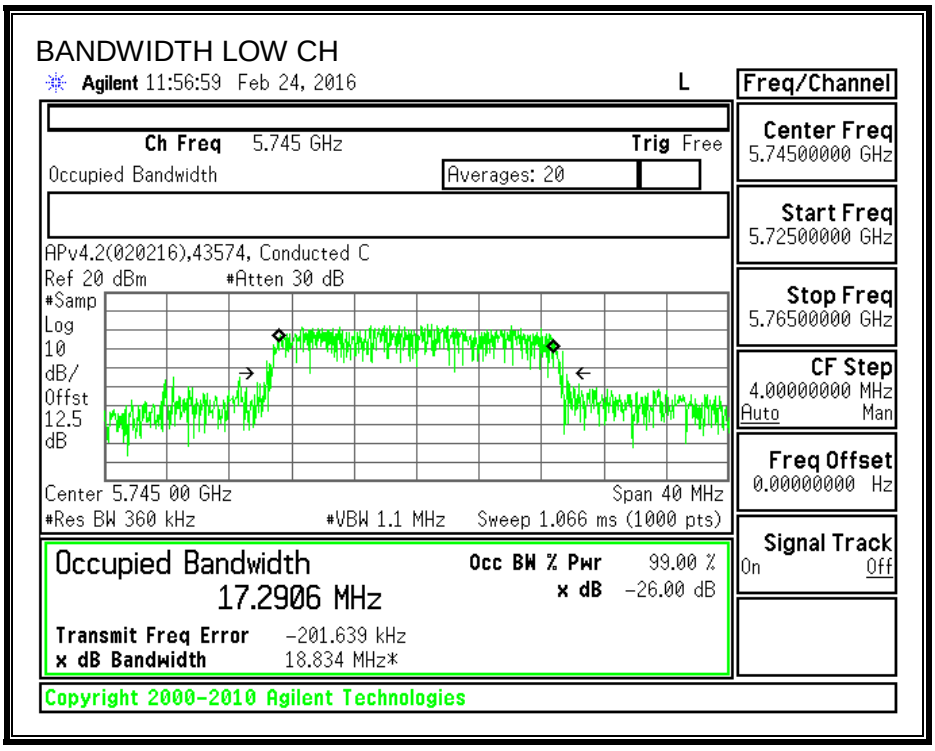
LIMITS

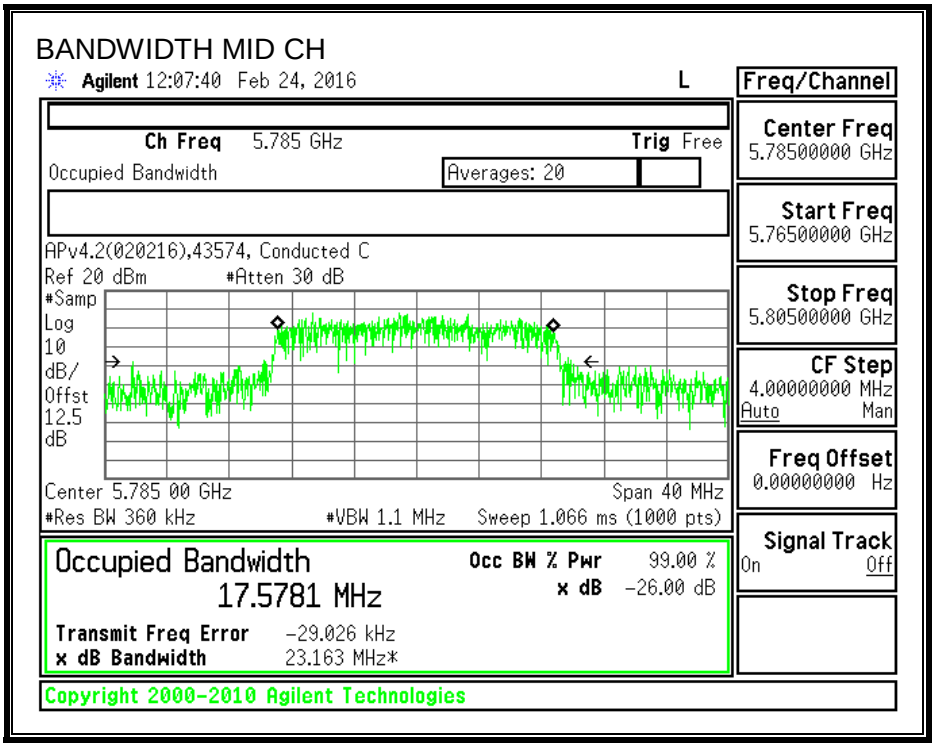
None; for reporting purposes only.

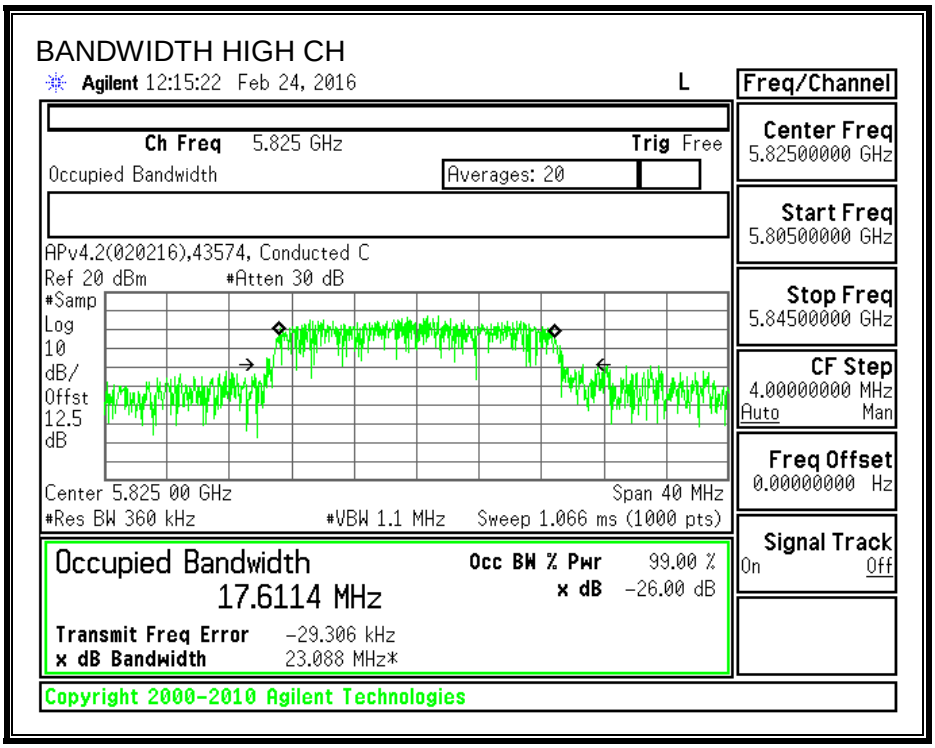
RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	17.2906
Mid	5785	17.5781
High	5825	17.6114

99% BANDWIDTH







9.4.3. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz 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.

DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Power Limit (dBm)
Low	5745	3.20	30.00
Mid	5785	3.20	30.00
High	5825	3.20	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	14.15	14.15	30.00	-15.85
Mid	5785	17.03	17.03	30.00	-12.97
High	5825	16.72	16.72	30.00	-13.28

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

9.4.4. Maximum Power Spectral Density (PSD)

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz 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.

DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

RESULTS

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5745	3.20	30.00
Mid	5785	3.20	30.00
High	5825	3.20	30.00

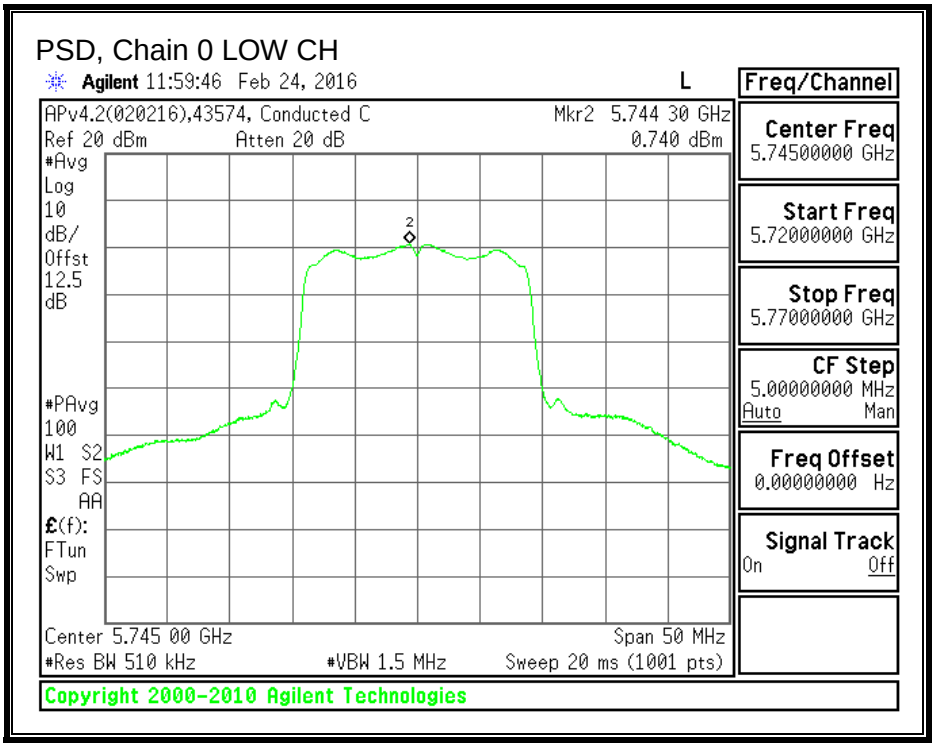
Duty Cycle CF (dB)	0.22	**Included in Calculations of Corr'd PSD**

PSD Results

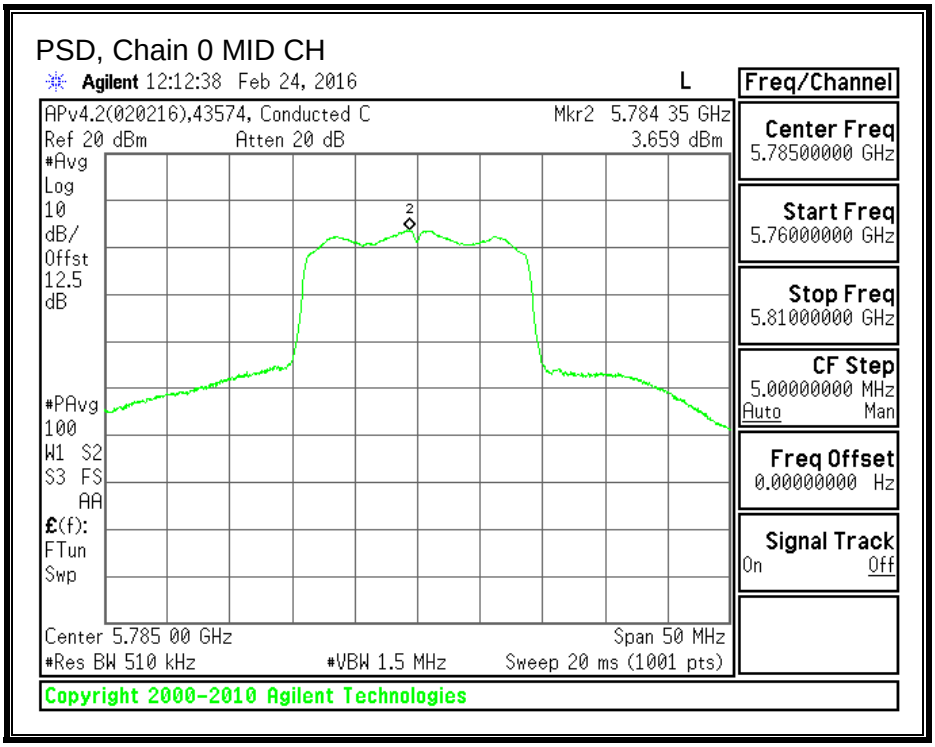
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5745	0.740	0.960	30.00	-29.04
Mid	5785	3.659	3.879	30.00	-26.12
High	5825	3.565	3.785	30.00	-26.22

PSD, Chain 0

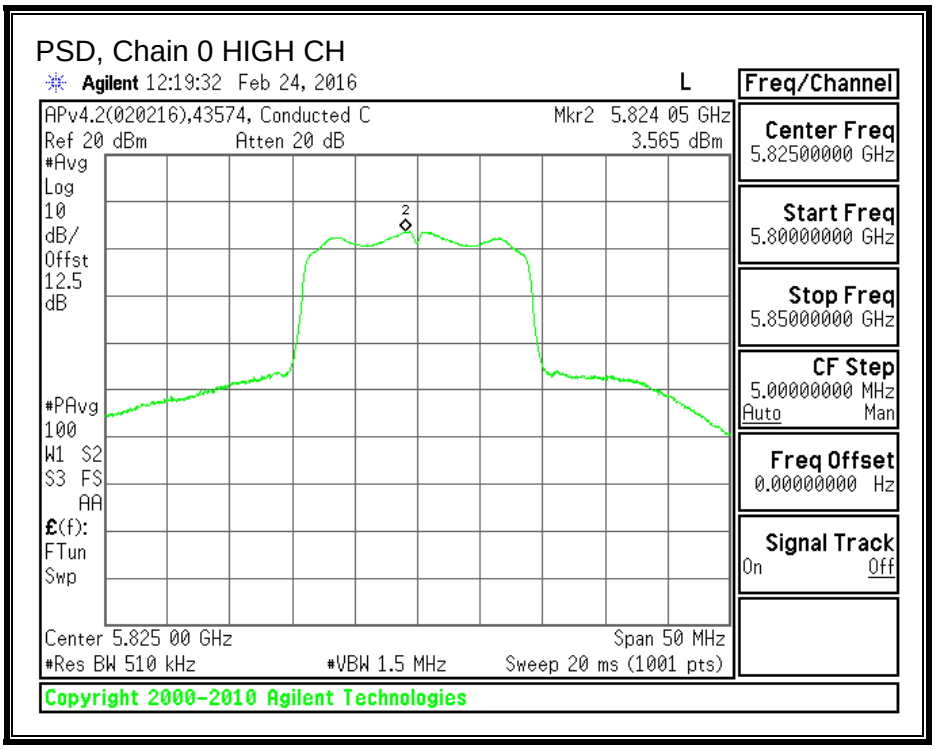
PSD, Chain 0 LOW CH



PSD, Chain 0 MID CH



PSD, Chain 0 HIGH CH



9.5. 802.11n HT20 CDD 2TX MODE IN THE 5.8 GHz BAND

9.5.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

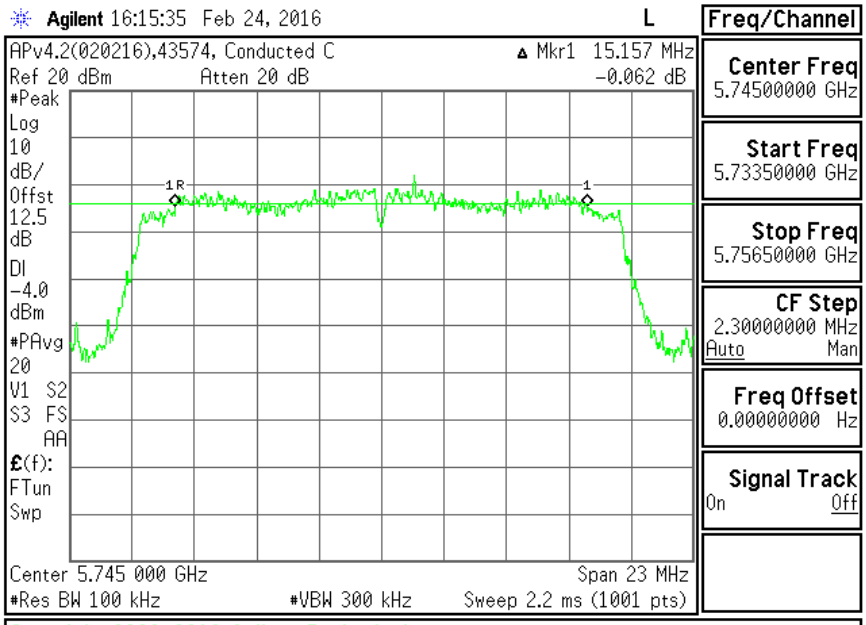
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

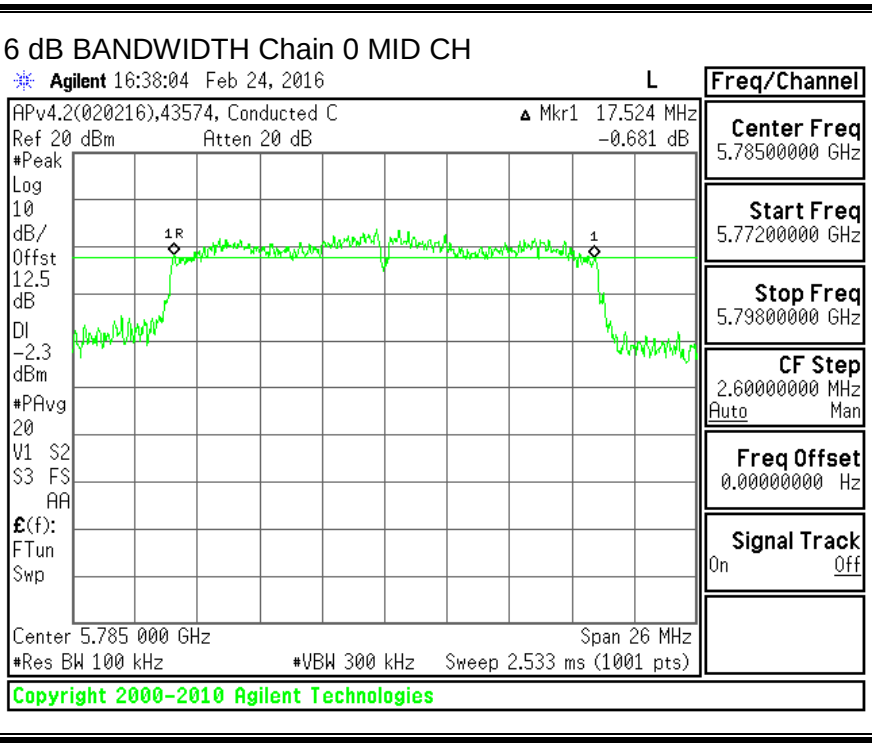
Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Low	5745	15.1570	17.5500	0.5
Mid	5785	17.5240	16.6500	0.5
High	5825	15.7920	15.8160	0.5

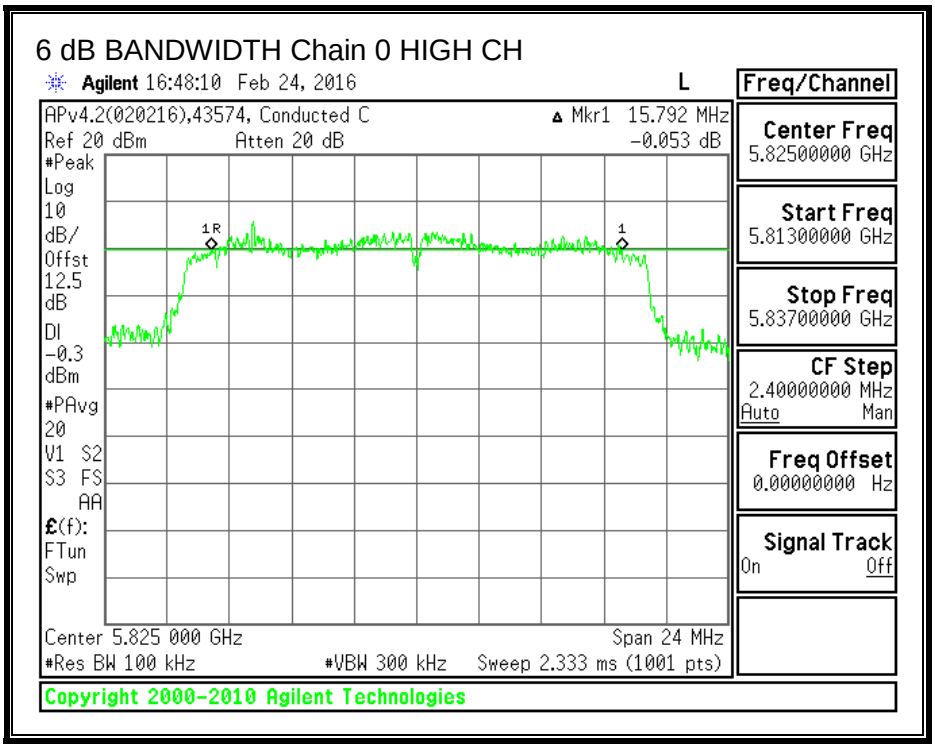
6 dB BANDWIDTH, Chain 0

6 dB BANDWIDTH Chain 0 LOW CH

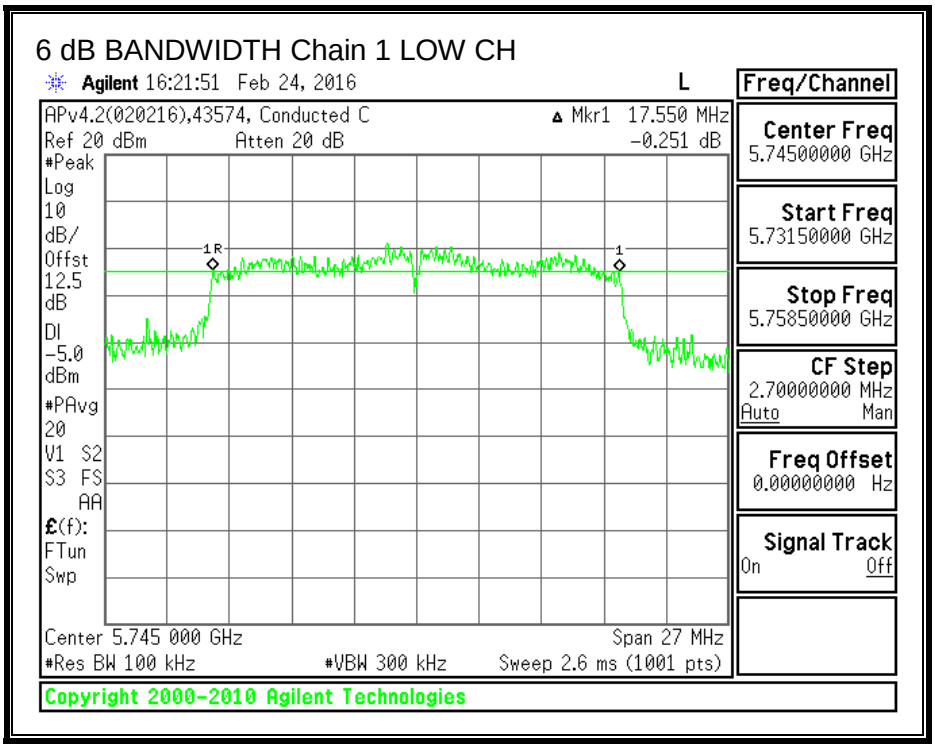


6 dB BANDWIDTH Chain 0 MID CH

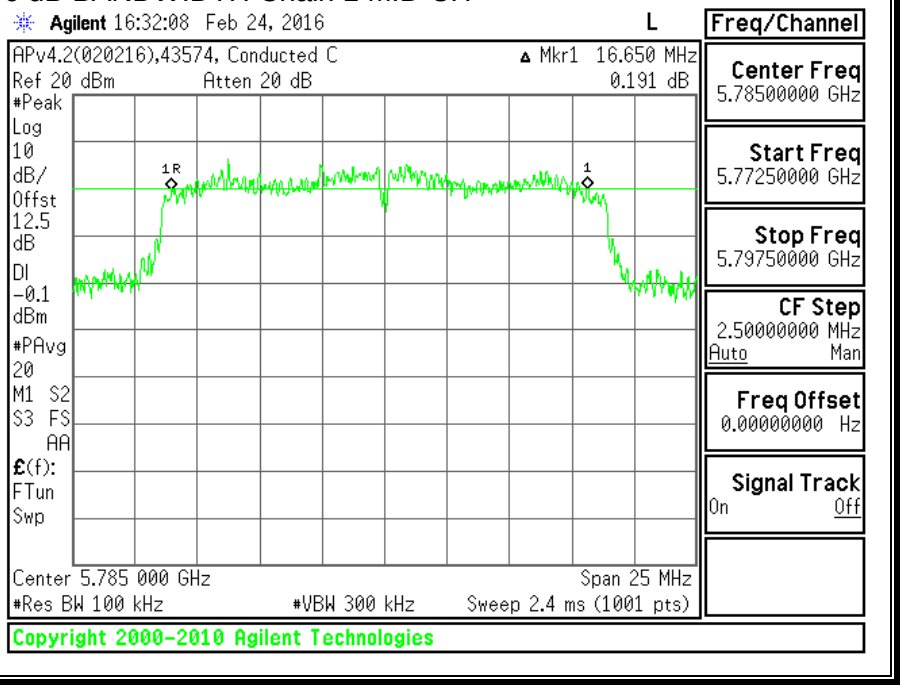




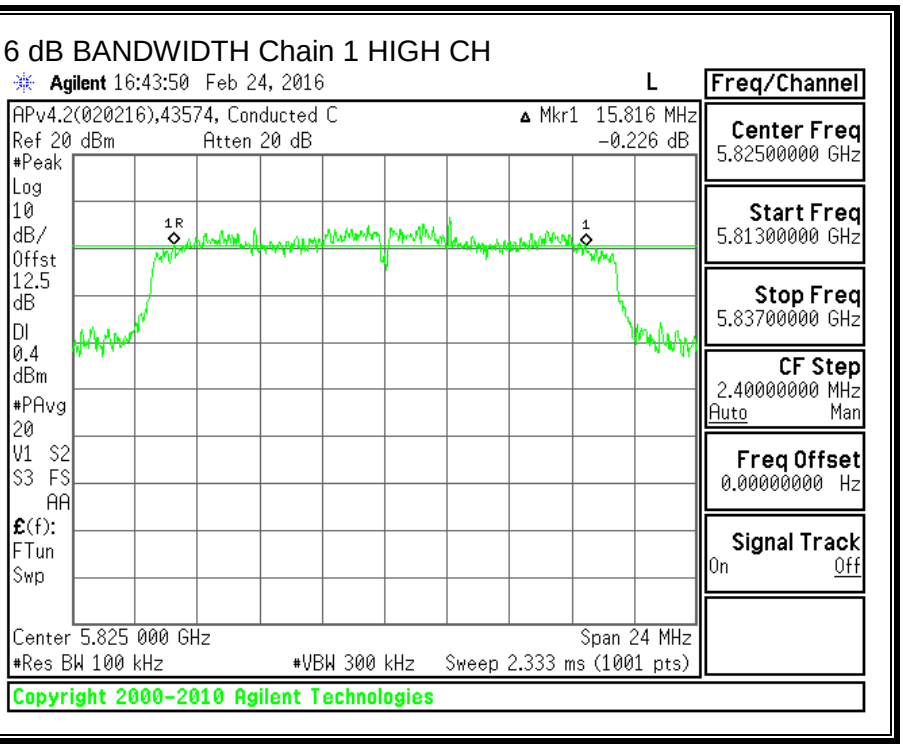
6 dB BANDWIDTH, Chain 1



6 dB BANDWIDTH Chain 1 MID CH



6 dB BANDWIDTH Chain 1 HIGH CH



9.5.2. 99% BANDWIDTH

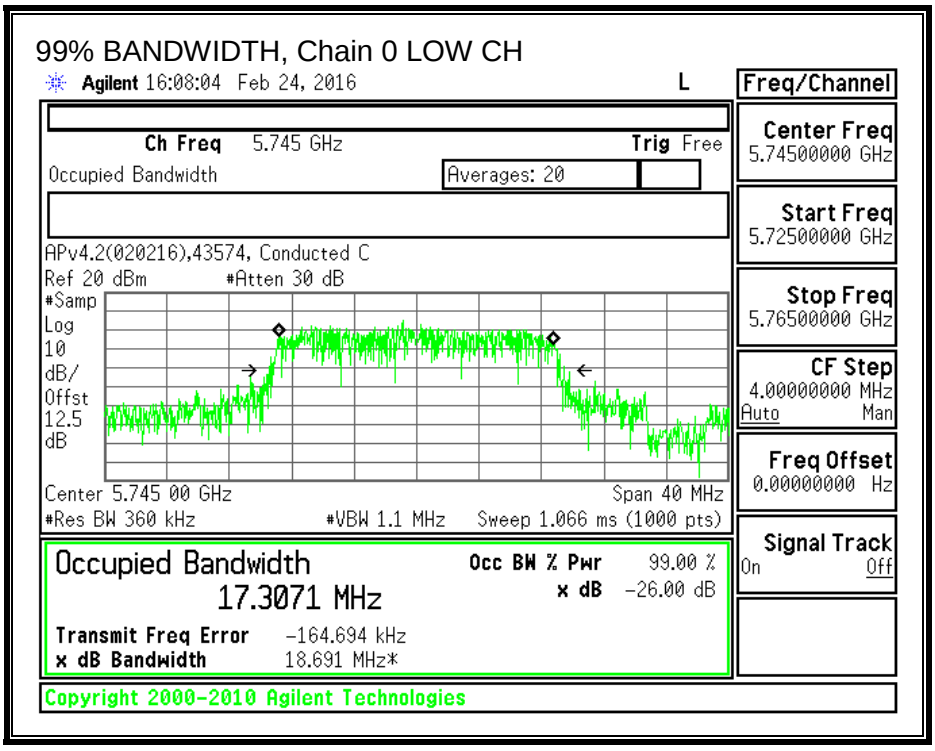
LIMITS

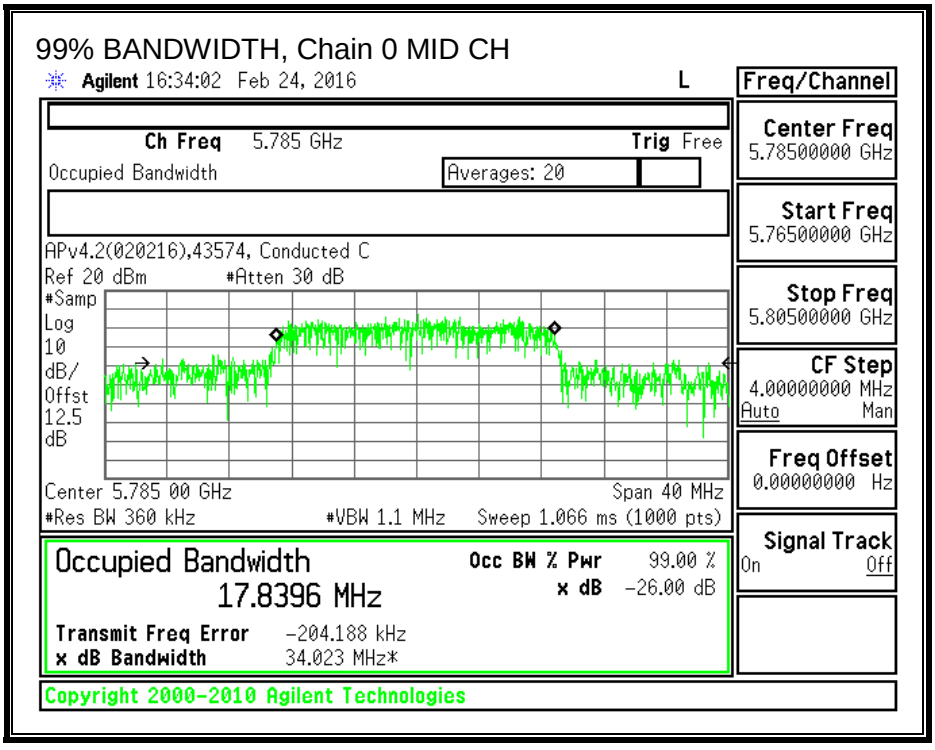
None; for reporting purposes only.

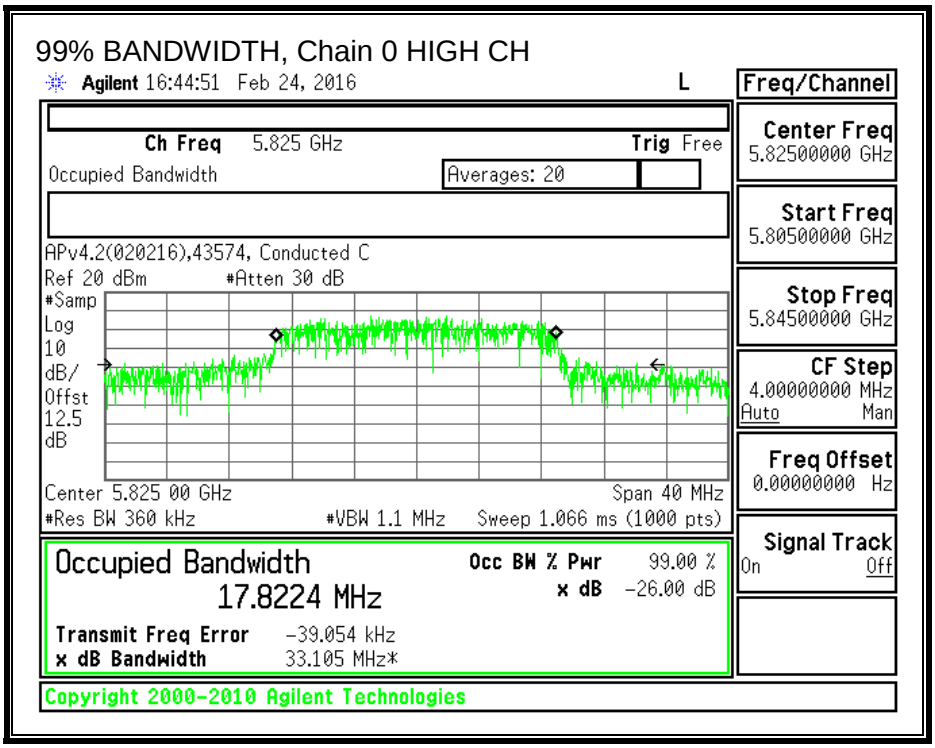
RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5745	17.3071	18.6085
Mid	5785	17.8396	17.6591
High	5825	17.8224	17.6436

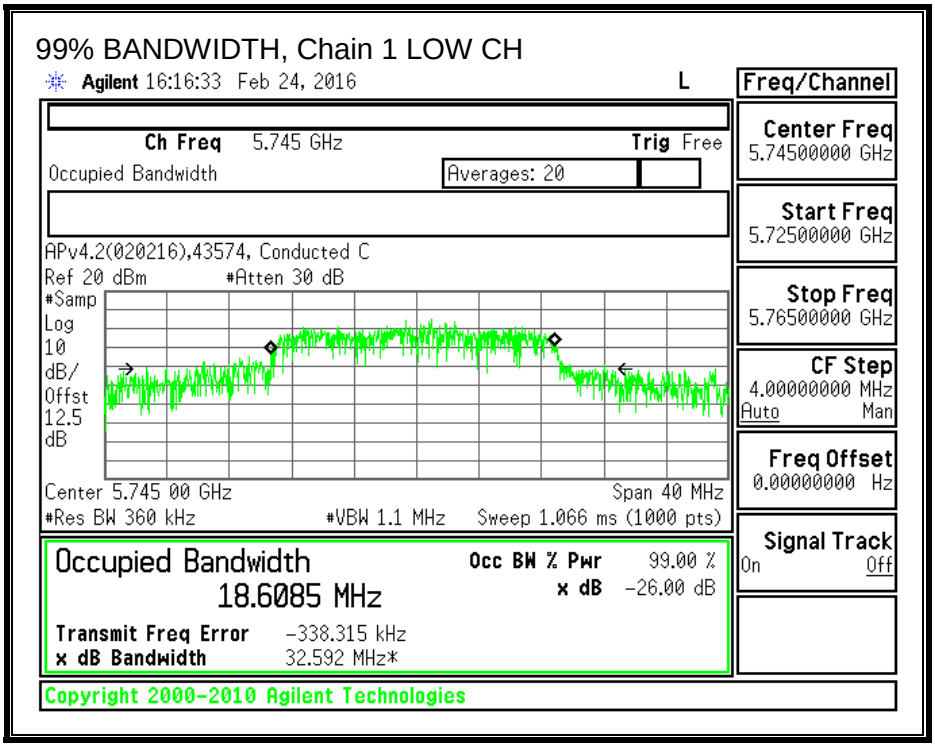
99% BANDWIDTH, Chain 0



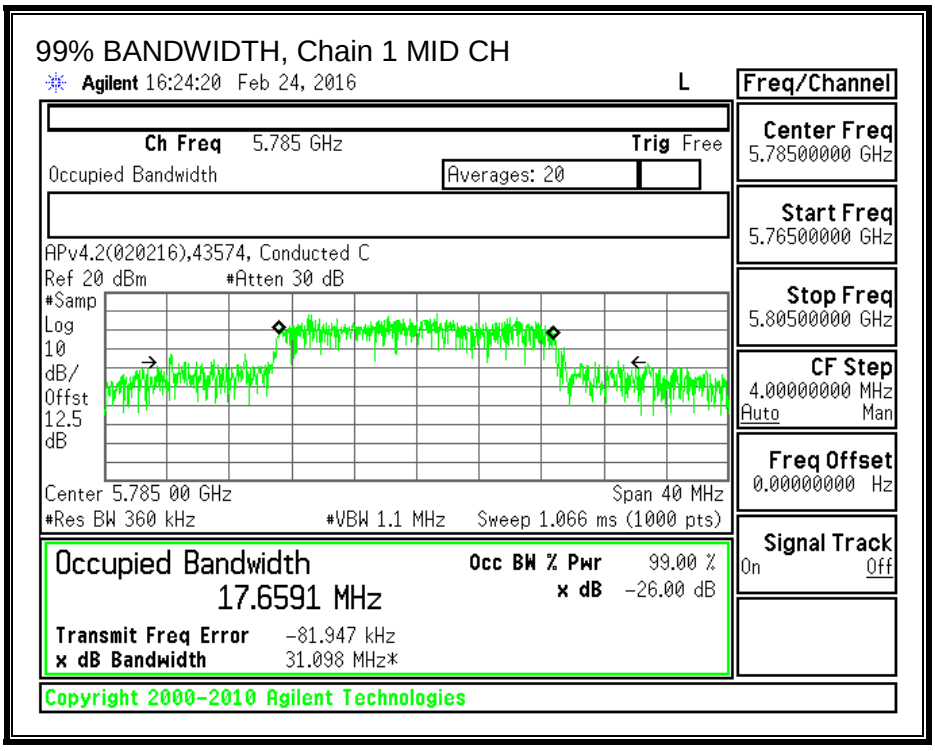




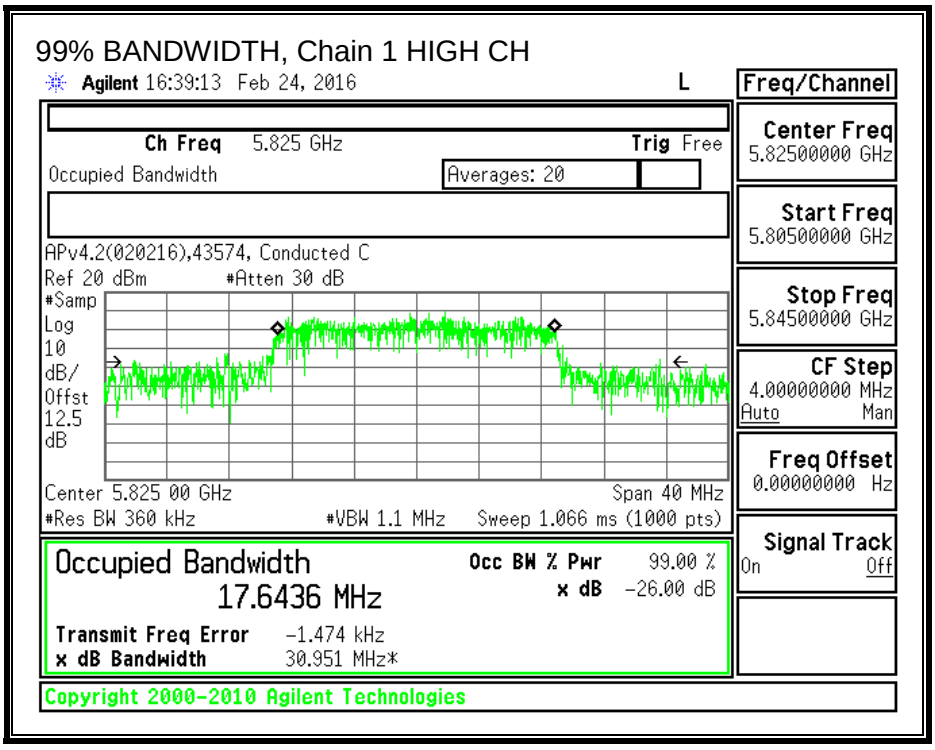
99% BANDWIDTH, Chain 1



99% BANDWIDTH, Chain 1 MID CH



99% BANDWIDTH, Chain 1 HIGH CH



9.5.3. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz 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.

DIRECTIONAL ANTENNA GAIN

The TX chains are uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
3.20	1.80	2.56

RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Power Limit (dBm)
Low	5745	2.56	30.00
Mid	5785	2.56	30.00
High	5825	2.56	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	13.67	13.03	16.37	30.00	-13.63
Mid	5785	15.57	18.06	20.00	30.00	-10.00
High	5825	16.65	17.86	20.31	30.00	-9.69

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

9.5.4. Maximum Power Spectral Density (PSD)

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz 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.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
3.20	1.80	5.54

RESULTS

Antenna Gain and Limits

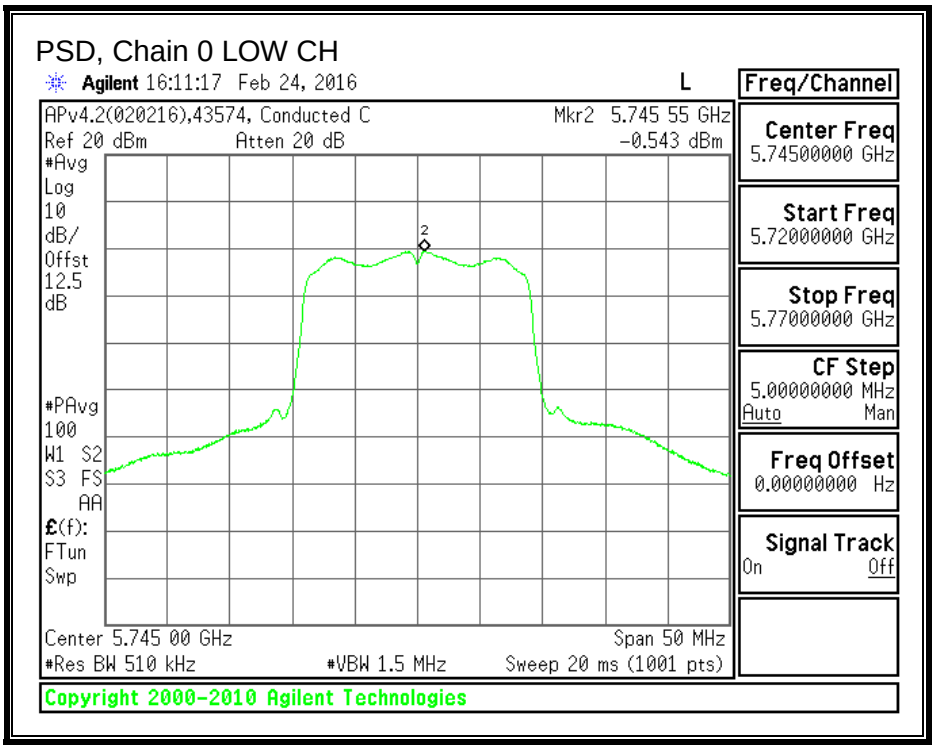
Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5745	5.54	30.00
Mid	5785	5.54	30.00
High	5825	5.54	30.00

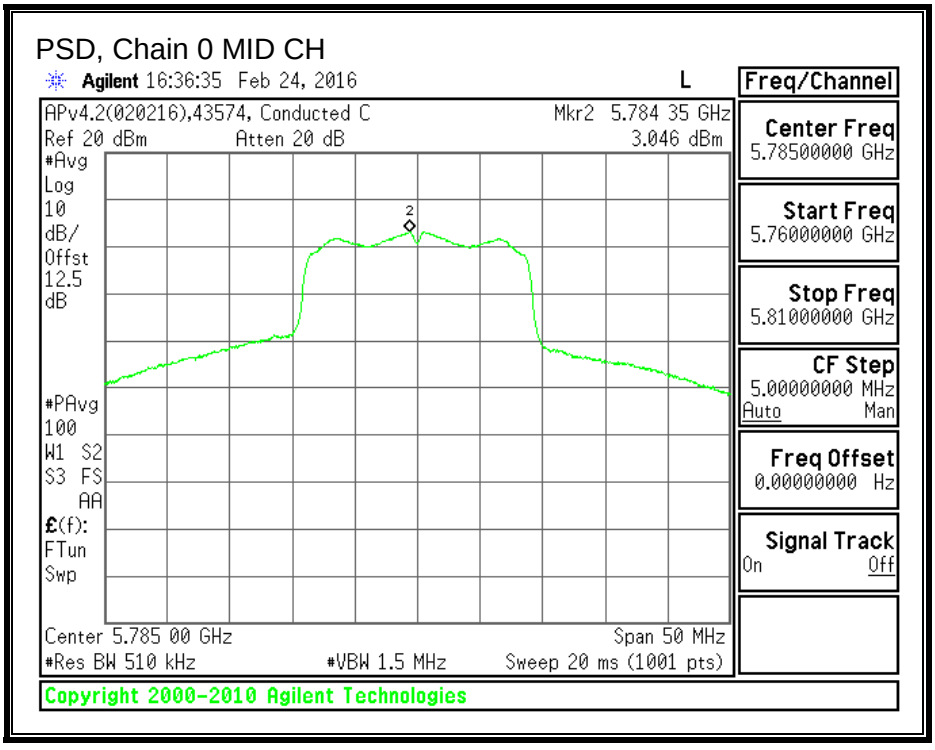
Duty Cycle CF (dB)	0.22	Included in Calculations of Corr'd PSD

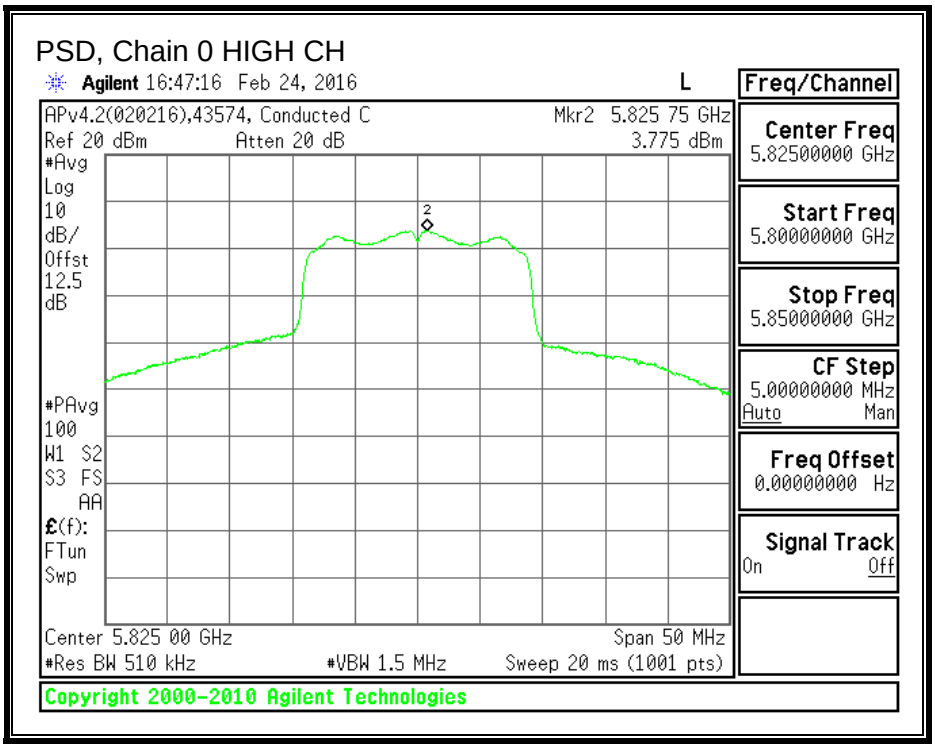
PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5745	-0.543	-0.375	2.77	30.00	-27.23
Mid	5785	3.046	4.449	7.03	30.00	-22.97
High	5825	3.775	4.397	7.33	30.00	-22.67

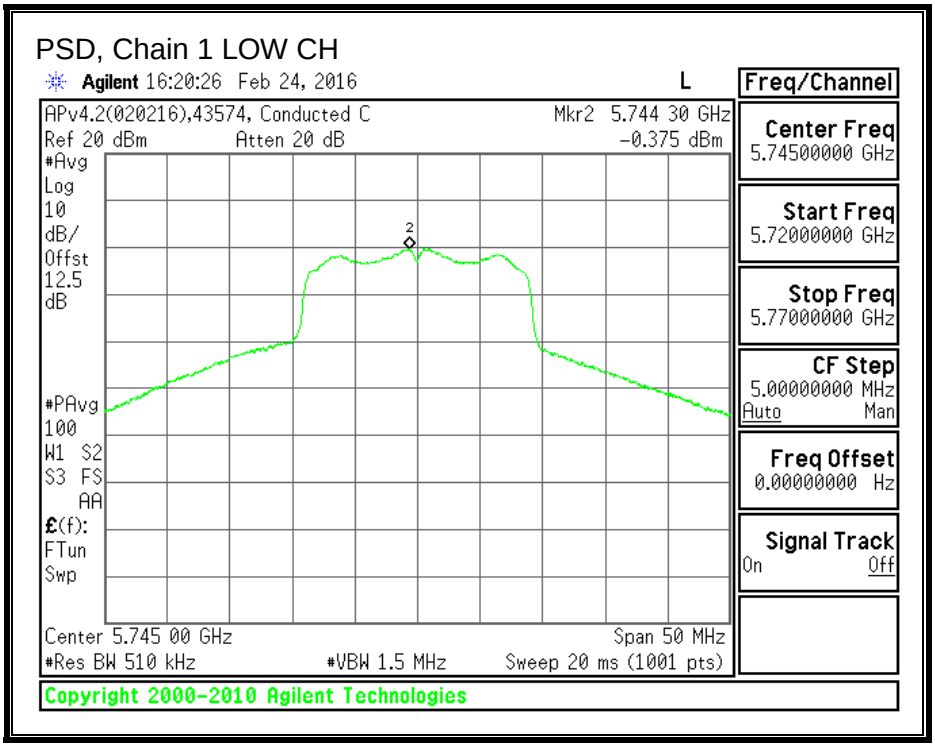
PSD, Chain 0



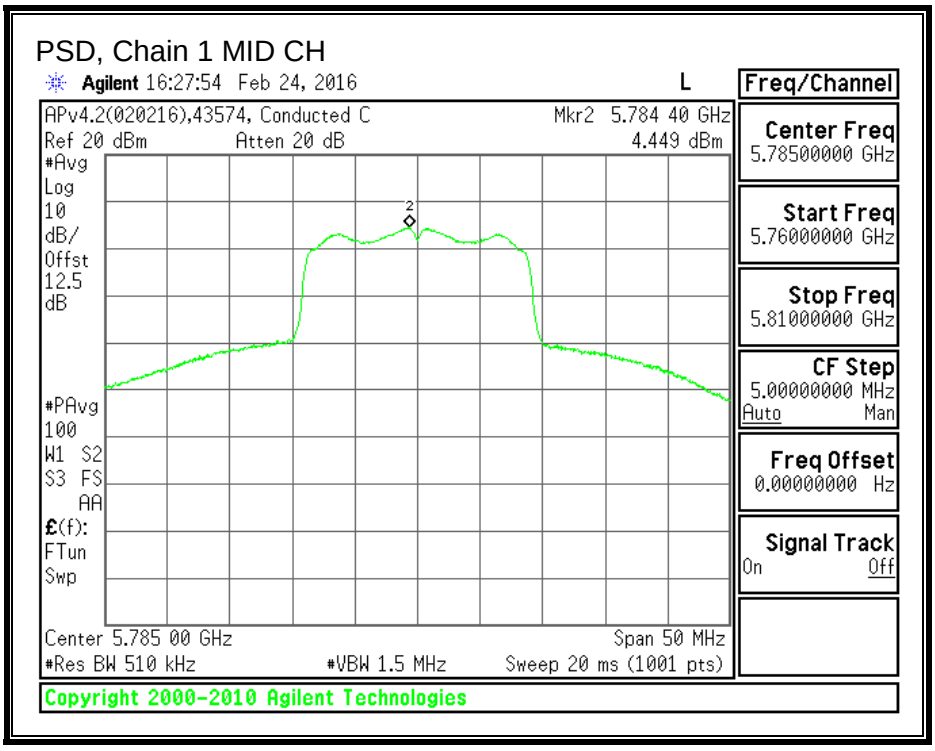




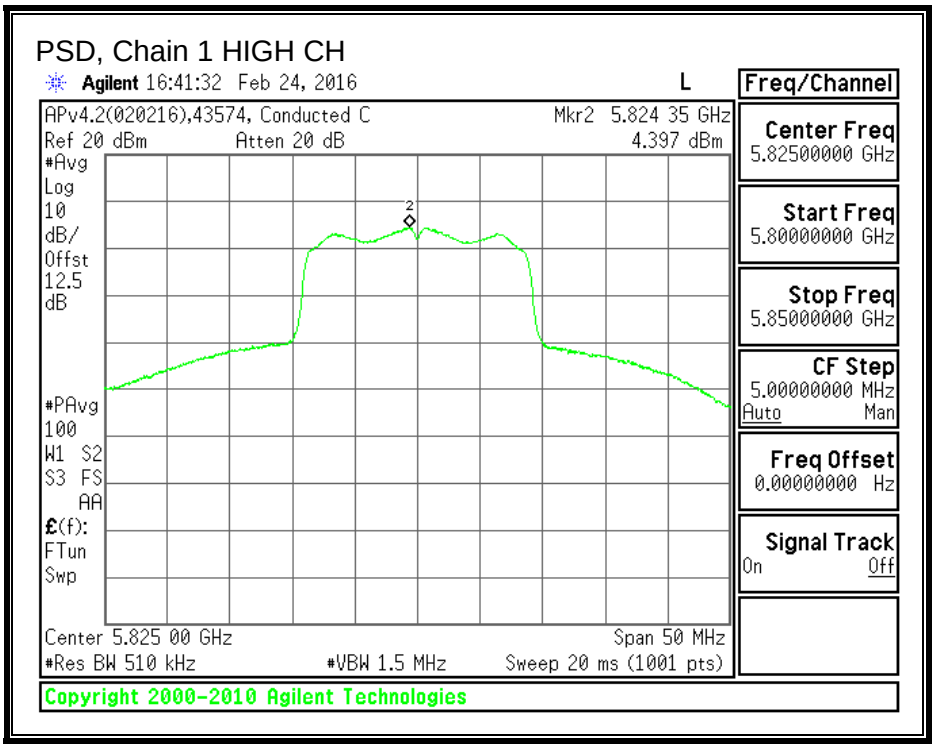
PSD, Chain 1



PSD, Chain 1 MID CH



PSD, Chain 1 HIGH CH



9.6. 802.11n HT40 SISO MODE IN THE 5.8 GHz BAND

9.6.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

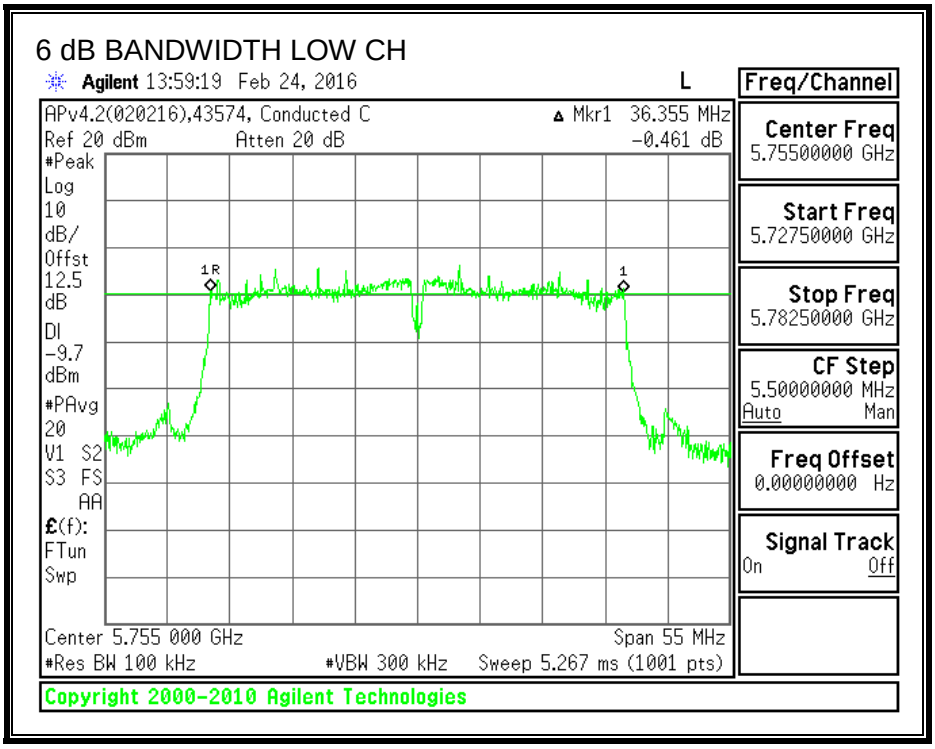
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

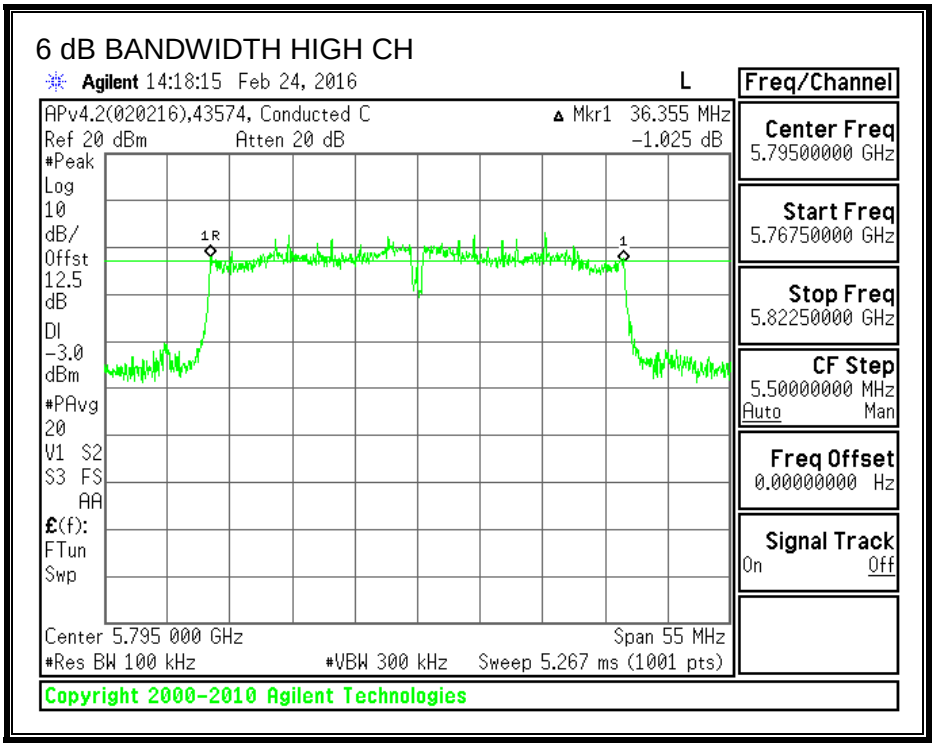
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5755	36.3550	0.5
High	5795	36.3550	0.5

6 dB BANDWIDTH

6 dB BANDWIDTH LOW CH



6 dB BANDWIDTH HIGH CH



9.6.2. 99% BANDWIDTH

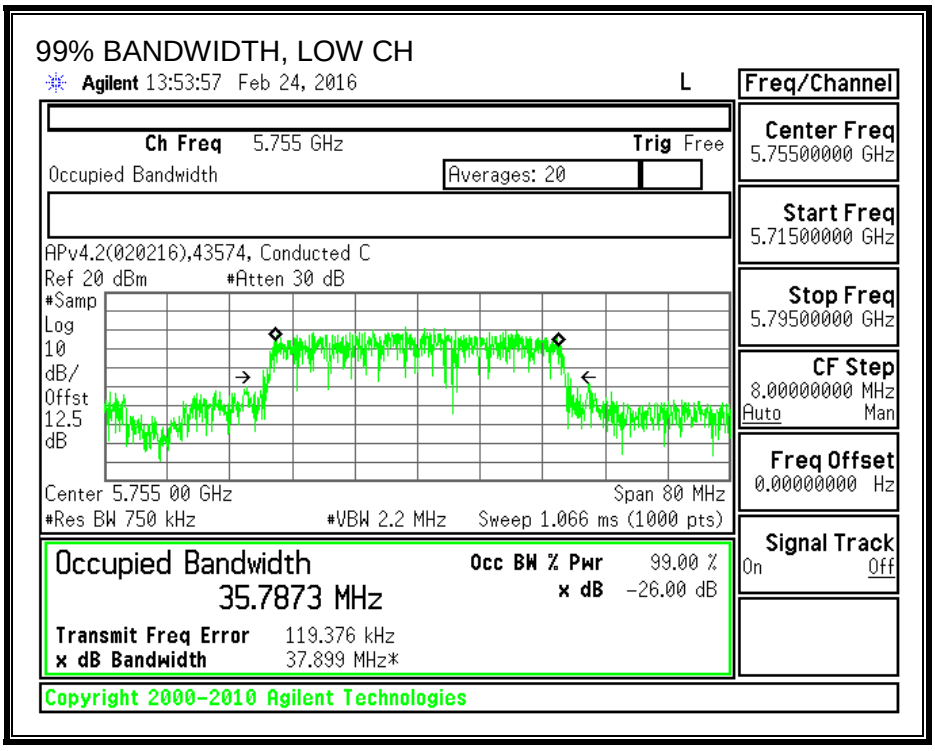
LIMITS

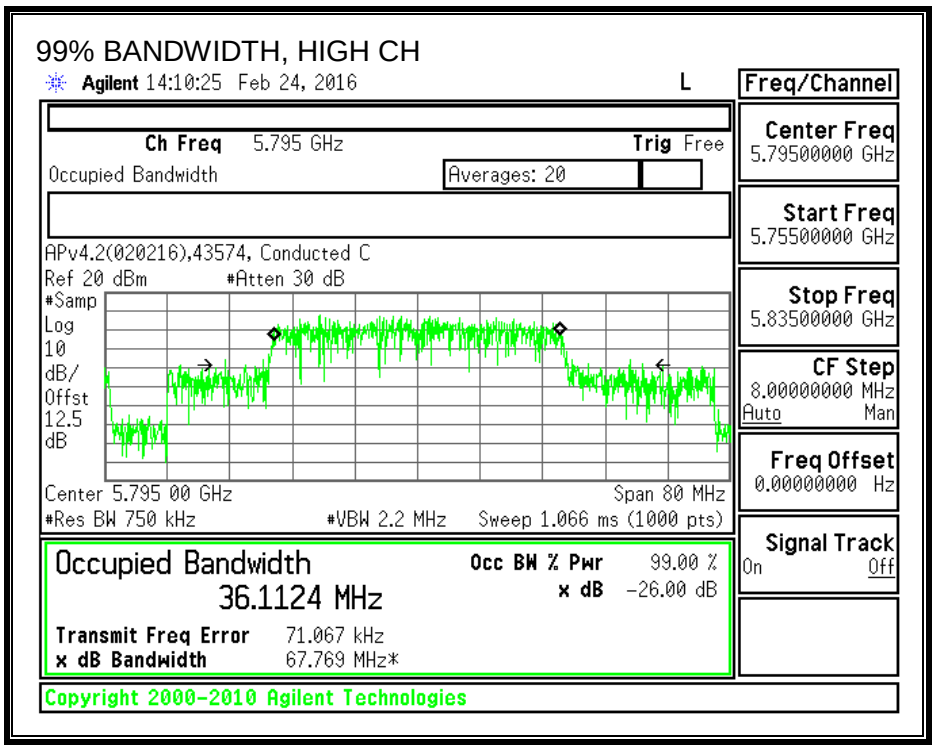
None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5755	35.7873
High	5795	36.1124

99% BANDWIDTH





9.6.3. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz 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.

DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Low	5755	3.20	30.00
High	5795	3.20	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	10.72	10.72	30.00	-19.28
High	5795	17.13	17.13	30.00	-12.87

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

9.6.4. Maximum Power Spectral Density (PSD)

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz 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.

DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

RESULTS

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5755	3.20	30.00
High	5795	3.20	30.00

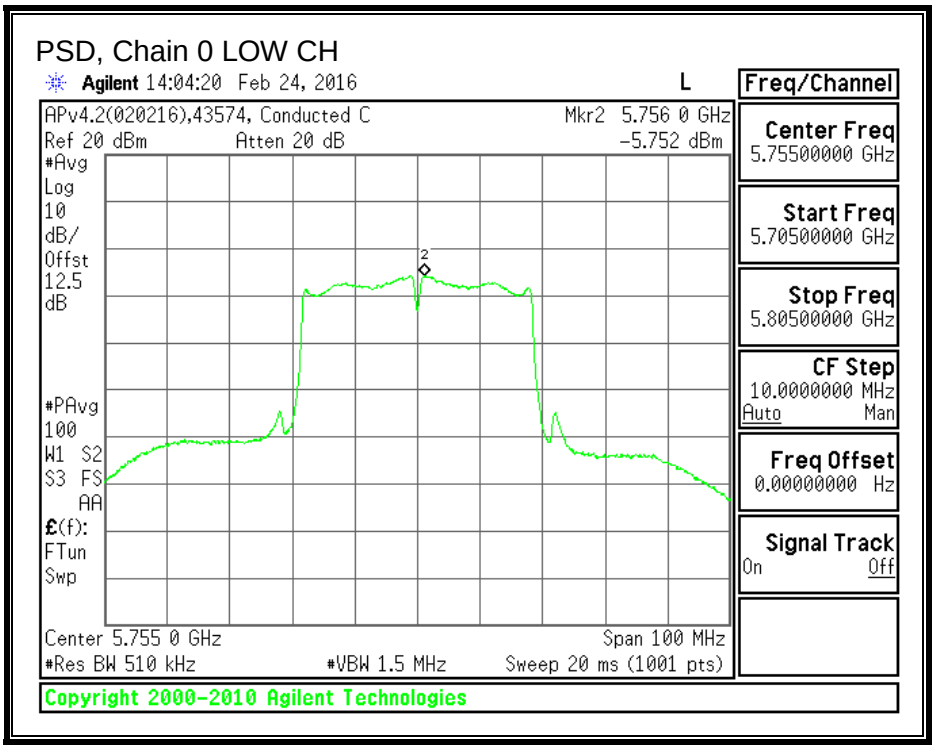
Duty Cycle CF (dB)	0.44	Included in Calculations of Corr'd PSD

PSD Results

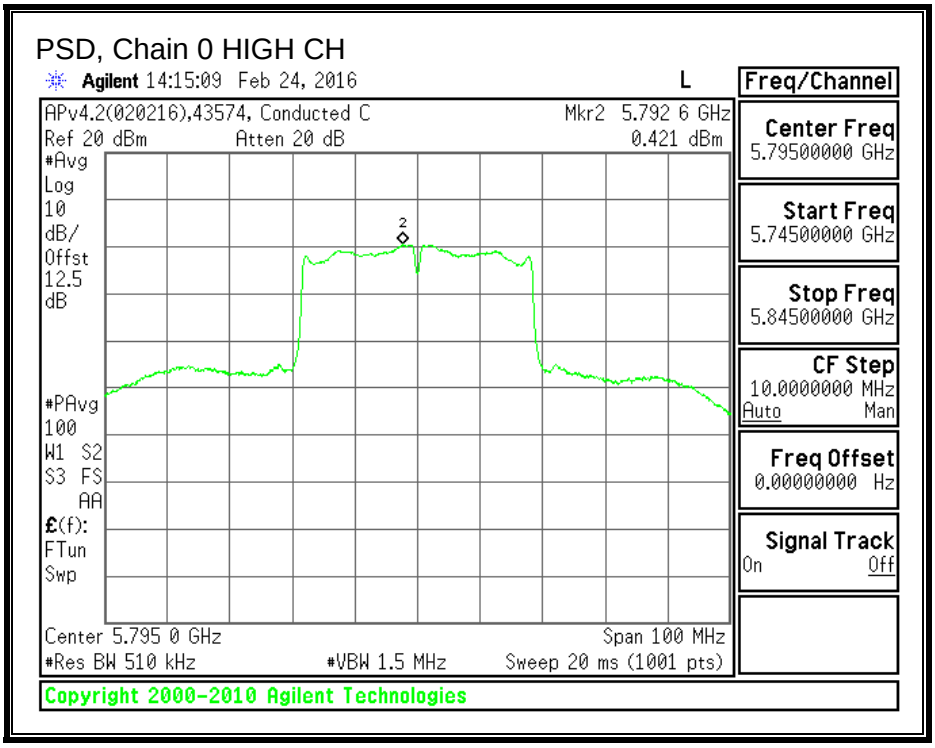
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5755	-5.752	-5.31	30.00	-35.31
High	5795	0.421	0.86	30.00	-29.14

PSD, Chain 0

PSD, Chain 0 LOW CH



PSD, Chain 0 HIGH CH



9.7. 802.11n HT40 CDD 2TX MODE IN THE 5.8 GHz BAND

9.7.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

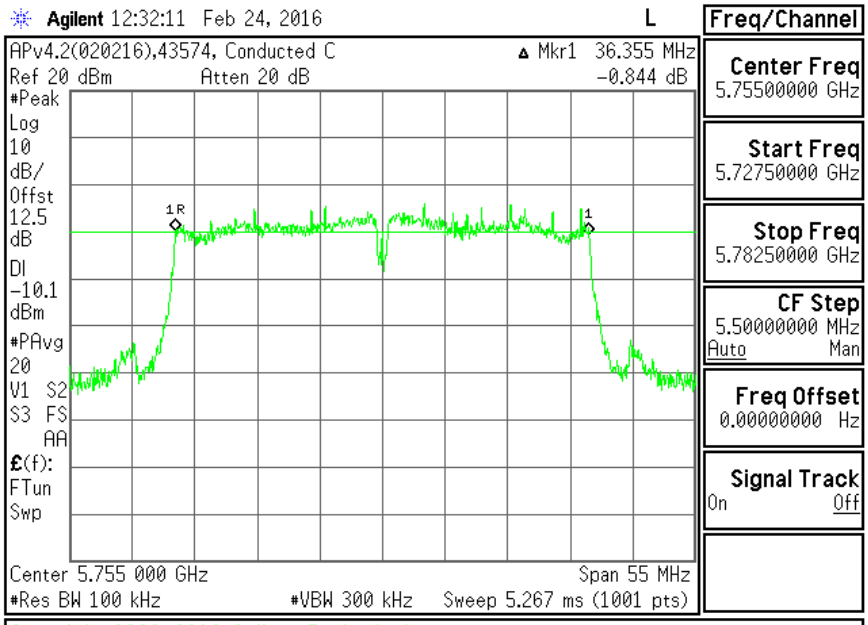
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

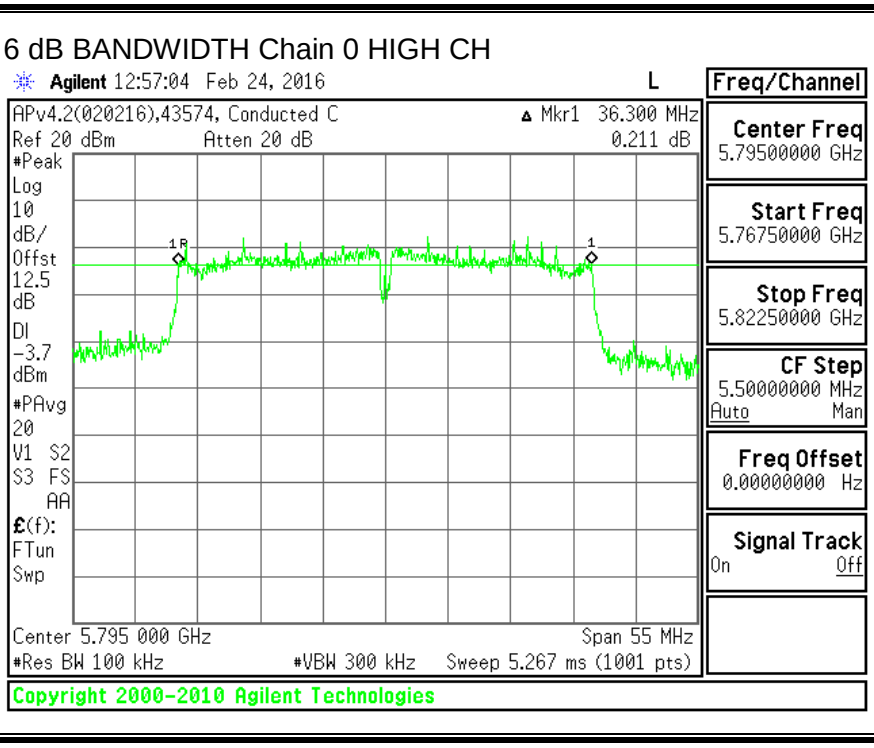
Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Low	5755	36.3550	36.3000	0.5
High	5795	36.3000	36.3550	0.5

6 dB BANDWIDTH, Chain 0

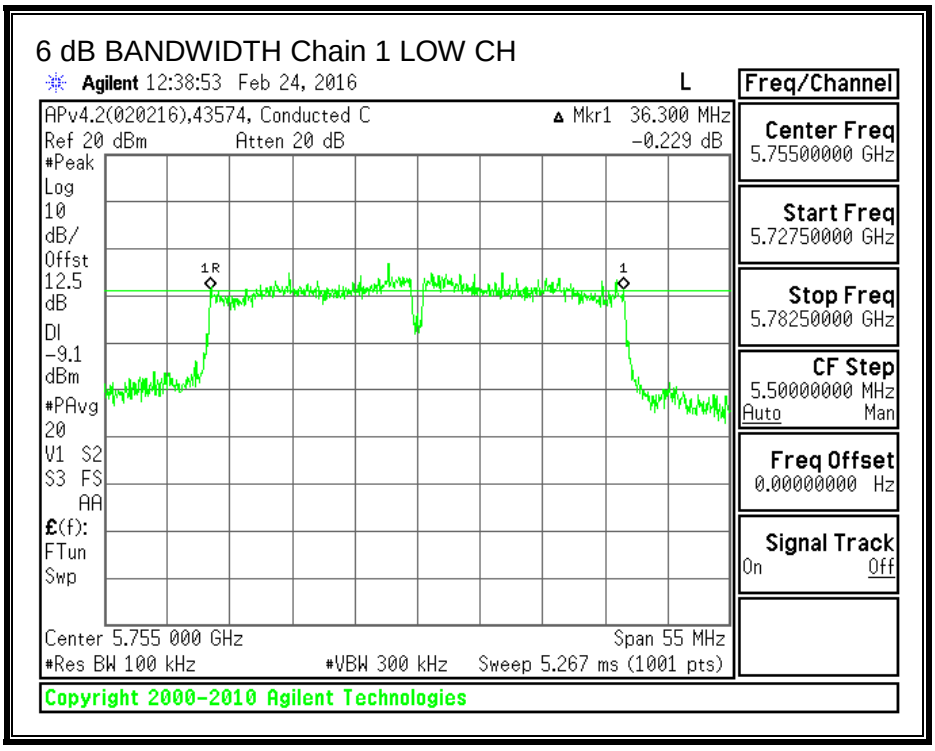
6 dB BANDWIDTH Chain 0 LOW CH

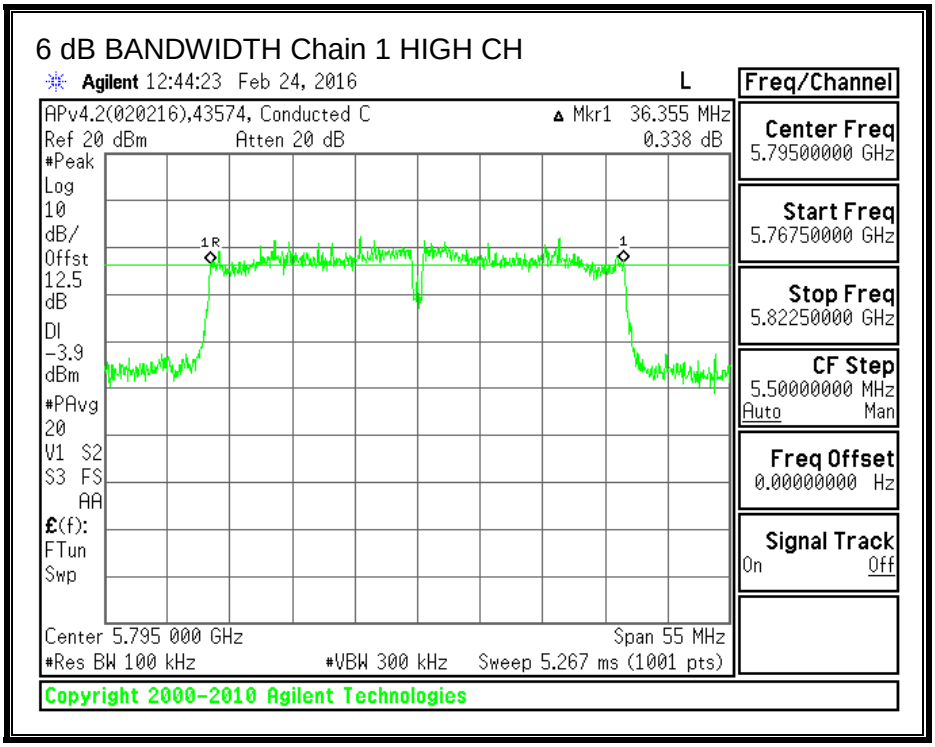


6 dB BANDWIDTH Chain 0 HIGH CH



6 dB BANDWIDTH, Chain 1





9.7.2. 99% BANDWIDTH

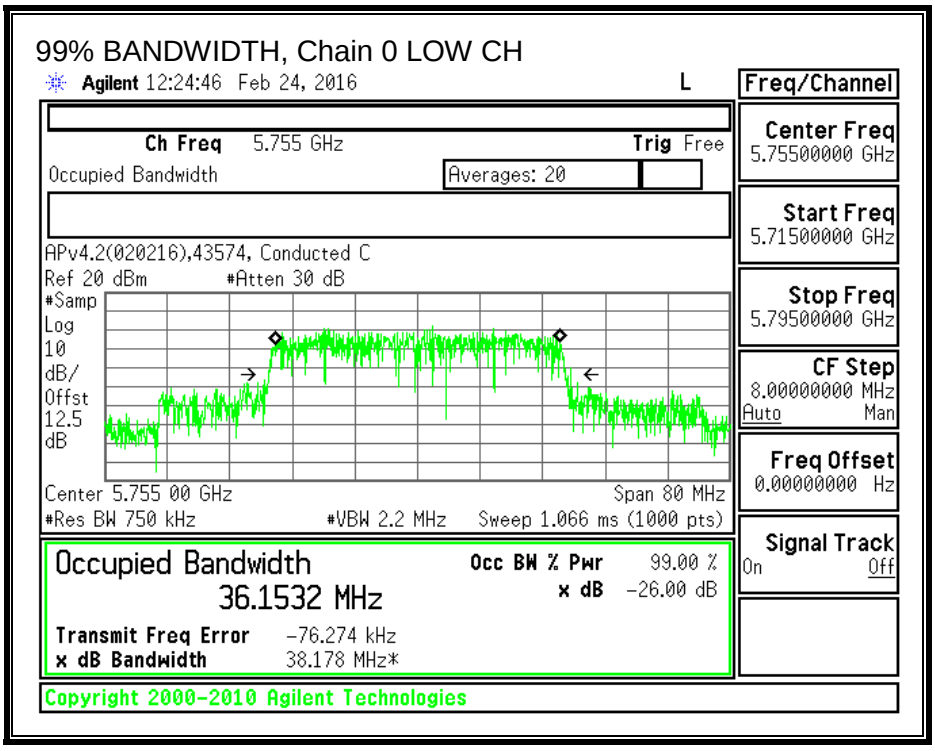
LIMITS

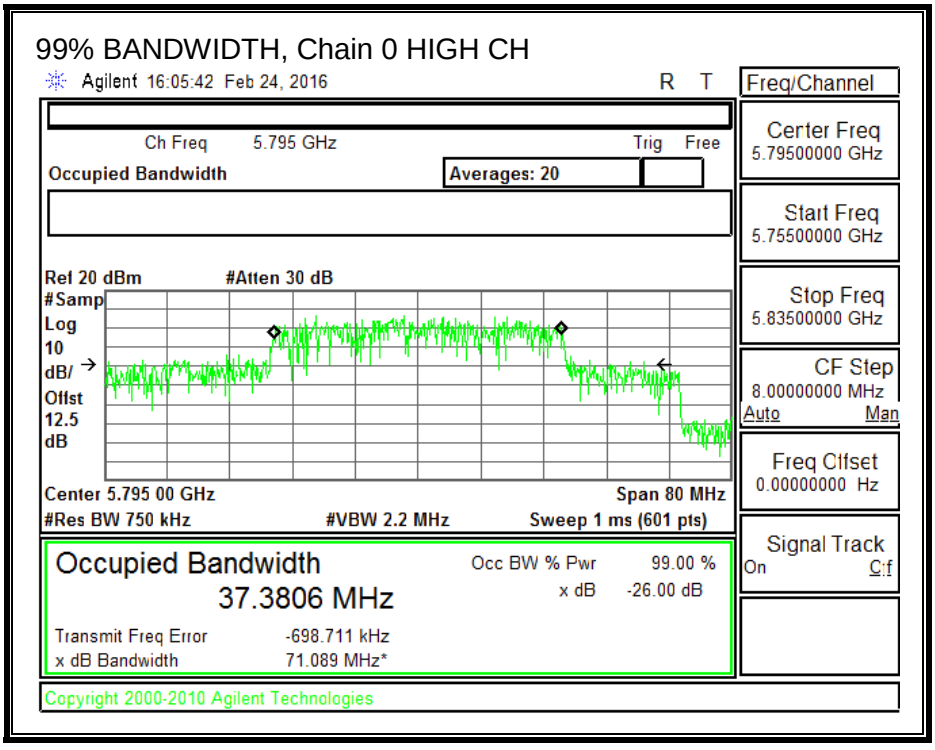
None; for reporting purposes only.

RESULTS

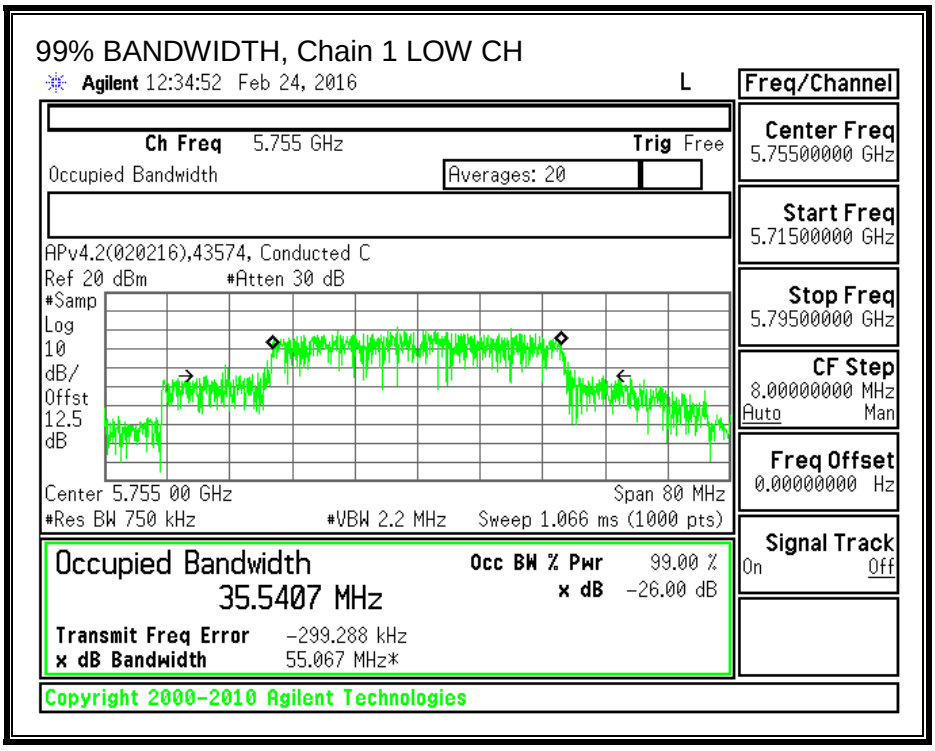
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5755	36.1532	35.5407
High	5795	37.3806	36.8208

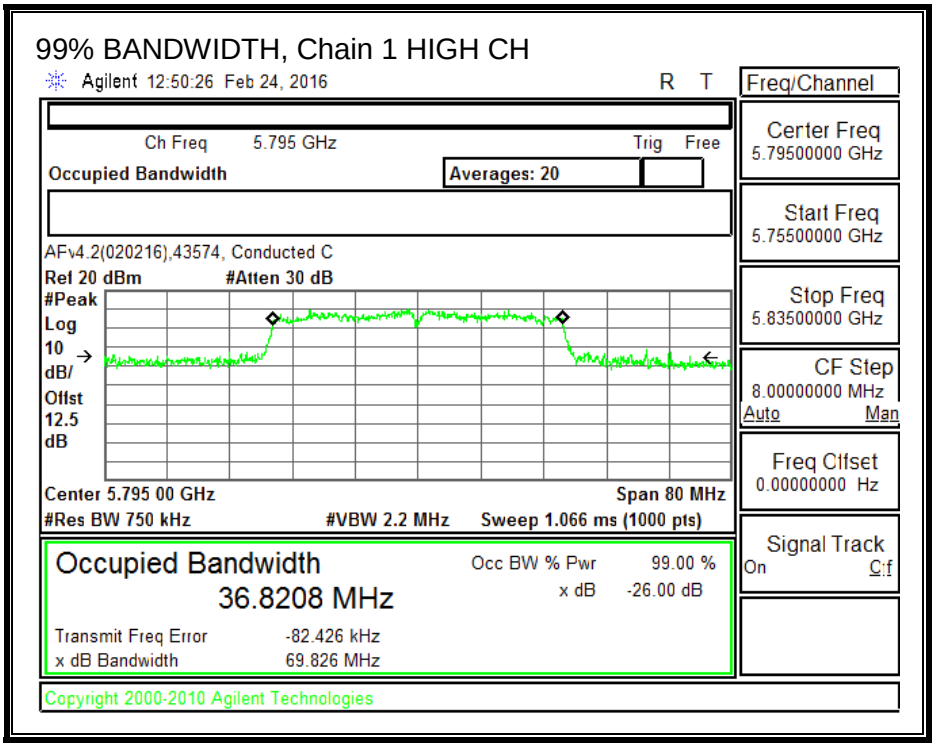
99% BANDWIDTH, Chain 0





99% BANDWIDTH, Chain 1





9.7.3. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz 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.

DIRECTIONAL ANTENNA GAIN

The TX chains are uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
3.20	1.80	2.56

RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Low	5755	2.56	30.00
High	5795	2.56	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	10.54	10.10	13.34	30.00	-16.66
High	5795	16.36	16.29	19.34	30.00	-10.66

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

9.7.4. Maximum Power Spectral Density (PSD)

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz 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.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
3.20	1.80	5.54

RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5755	5.54	30.00
High	5795	5.54	30.00

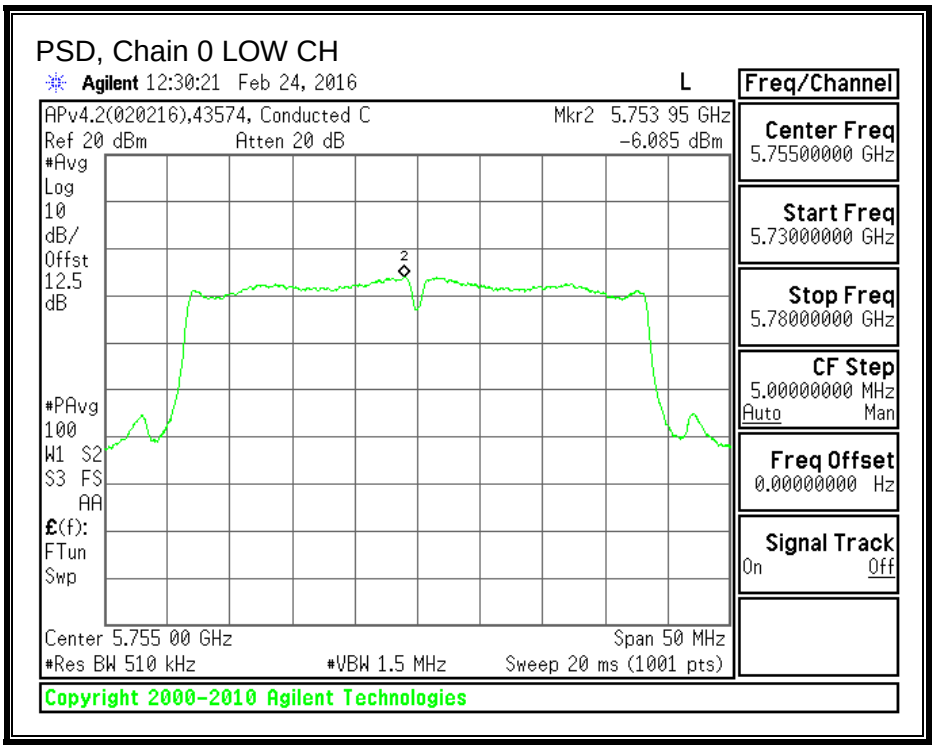
Duty Cycle CF (dB)	0.44	Included in Calculations of Corr'd PSD

PSD Results

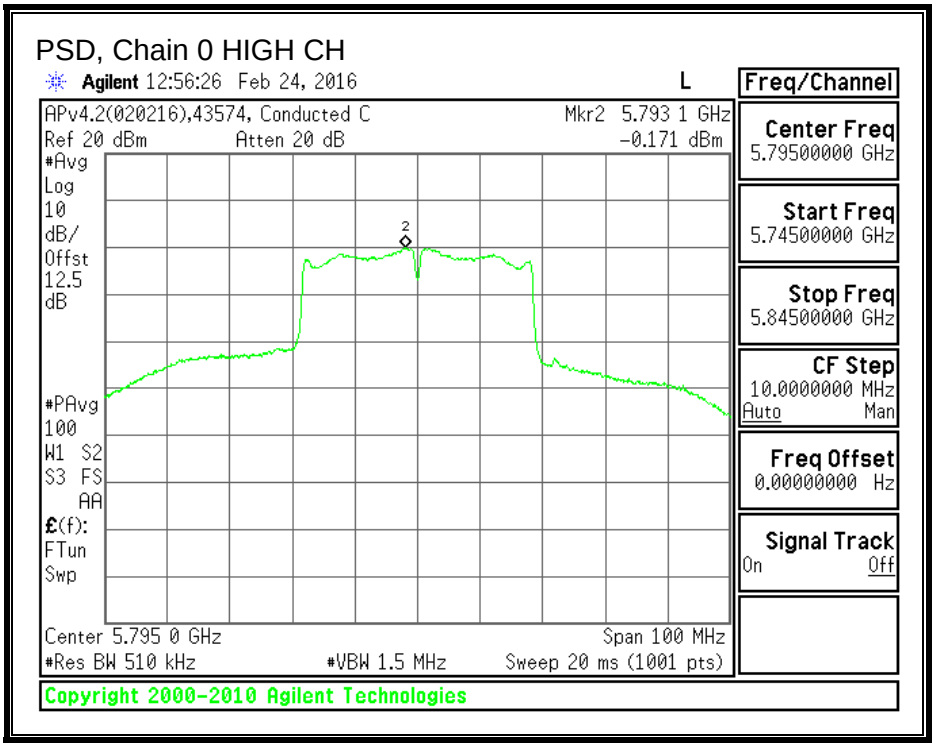
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5755	-6.085	-6.550	-2.86	30.00	-32.86
High	5795	-0.171	-0.246	3.24	30.00	-26.76

PSD, Chain 0

PSD, Chain 0 LOW CH

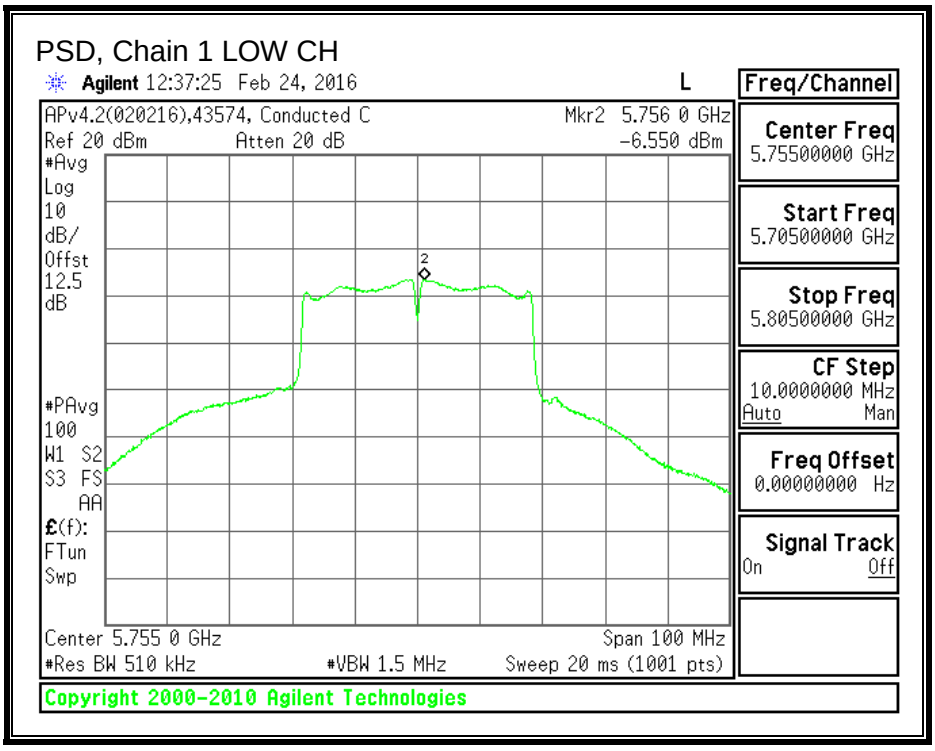


PSD, Chain 0 HIGH CH

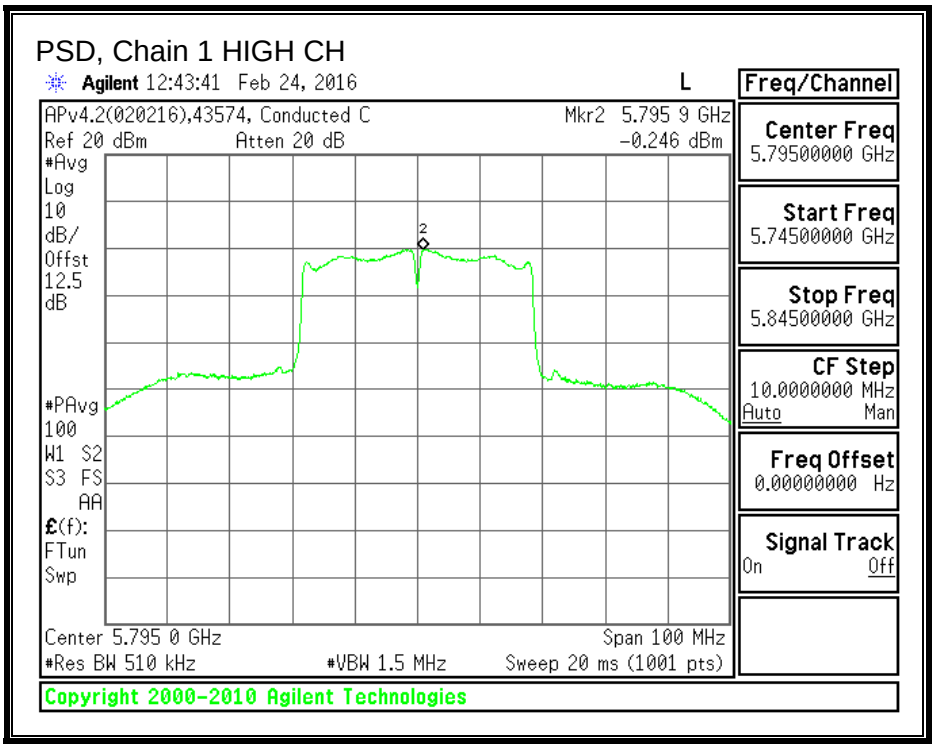


PSD, Chain 1

PSD, Chain 1 LOW CH



PSD, Chain 1 HIGH CH



10. RADIATED TEST RESULTS

10.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

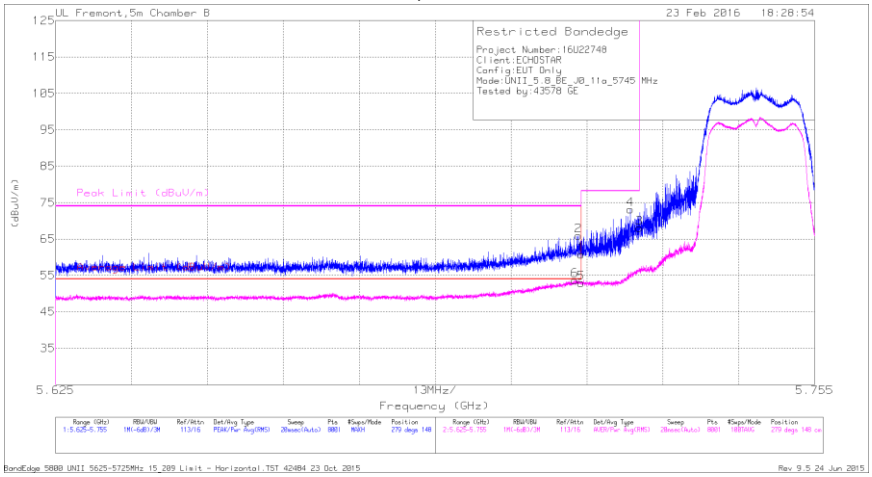
Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

NOTE: for below 1 GHz emission scan, the RJ45 cable was unplugged from the router end after the RF transmission started; and the EUT was stayed on transmit mode during the scan.

10.2. TX ABOVE 1 GHz 802.11a SISO MODE IN THE 5.8 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

LOW CHANNEL RESTRICTED, HORIZONTAL

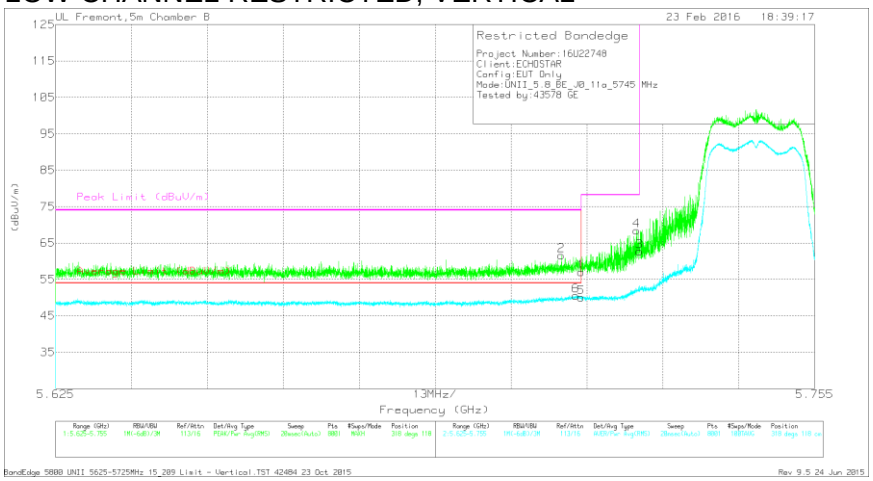


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
6	5.714	39.27	RMS	35	-20.8	.22	53.69	54	-.31	-	-	279	148	H
1	5.715	46.75	Pk	35	-21	0	60.75	-	-	74	-13.25	279	148	H
2	5.715	51.8	Pk	35	-20.9	0	65.9	-	-	74	-8.1	279	148	H
5	5.715	38.63	RMS	35	-21	.22	52.85	54	-1.15	-	-	279	148	H
4	5.723	59.29	Pk	35	-21.1	0	73.19	-	-	78.2	-5.01	279	148	H
3	5.725	53.81	Pk	35	-20.8	0	68.01	-	-	78.2	-10.19	279	148	H

Pk - Peak detector
RMS - RMS detection

LOW CHANNEL RESTRICTED, VERTICAL



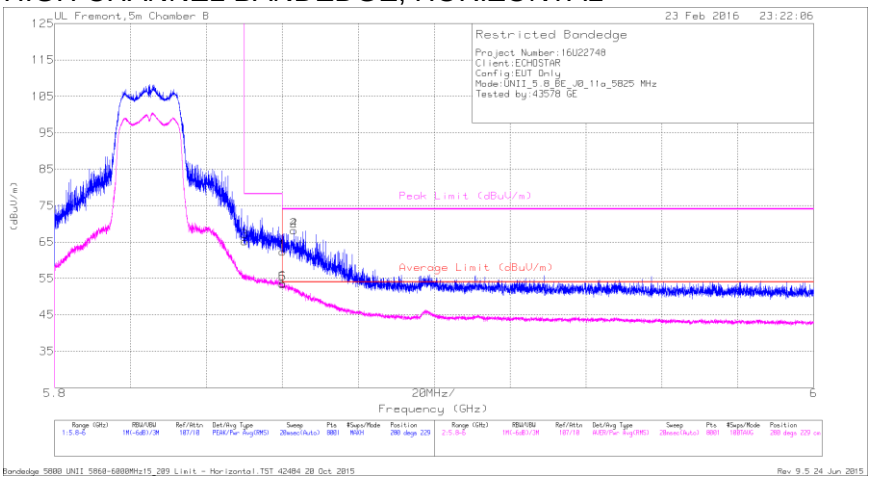
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
2	5.712	47.82	Pk	35	-21.2	0	61.62	-	-	74	-12.38	318	118	V
6	5.714	36.16	RMS	35	-20.8	.22	50.58	54	-3.42	-	-	318	118	V
1	5.715	43.02	Pk	35	-21	0	57.02	-	-	74	-16.98	318	118	V
5	5.715	35.82	RMS	35	-21	.22	50.04	54	-3.96	-	-	318	118	V
3	5.725	48.53	Pk	35	-20.8	0	62.73	-	-	78.2	-15.47	318	118	V
4	5.725	54.29	Pk	35	-20.9	0	68.39	-	-	78.2	-9.81	318	118	V

Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

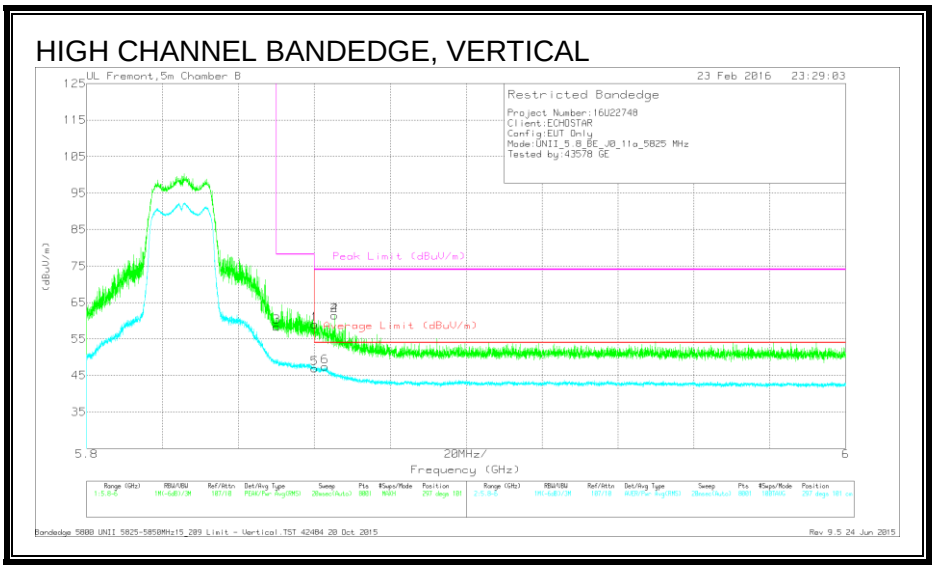
HIGH CHANNEL BANDEDGE, HORIZONTAL



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
3	5.85	50.7	Pk	35.4	-20.9	0	65.2	-	-	78.2	-13	280	229	H
1	5.86	47.88	Pk	35.4	-20.9	0	62.38	-	-	74	-11.62	280	229	H
5	5.86	38.64	RMS	35.4	-20.9	.22	53.36	54	-.64	-	-	280	229	H
6	5.86	38.9	RMS	35.4	-20.9	.22	53.62	54	-.38	-	-	280	229	H
2	5.863	53.5	Pk	35.4	-20.7	0	68.2	-	-	74	-5.8	280	229	H
4	5.863	53.5	Pk	35.4	-20.7	0	68.2	-	-	74	-5.8	280	229	H

Pk - Peak detector
RMS - RMS detection



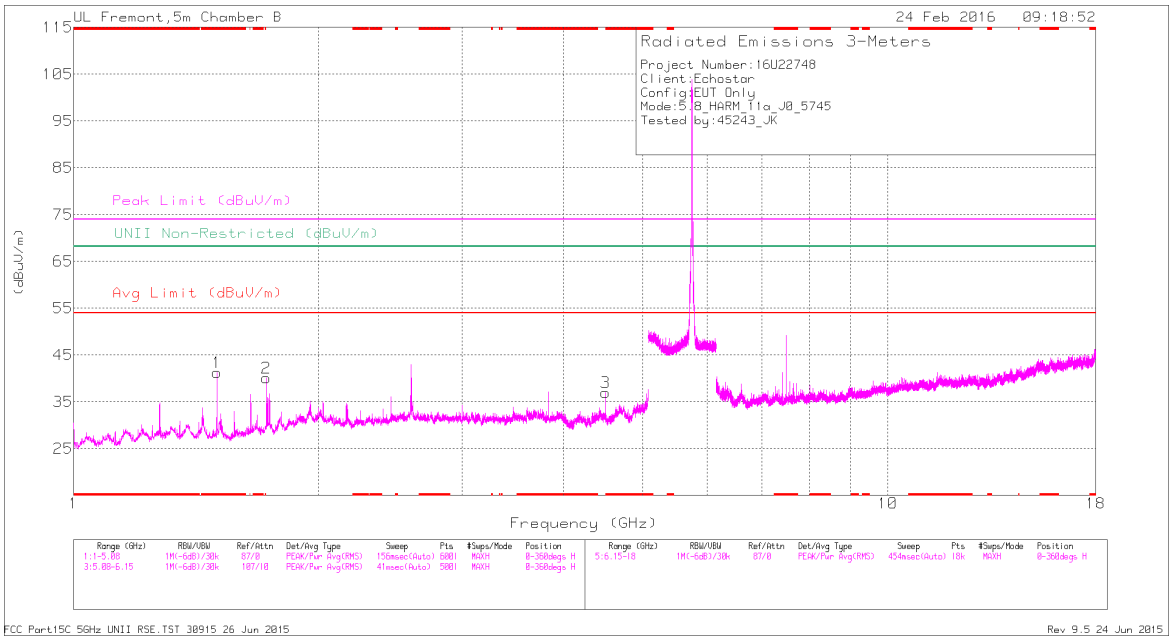
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
3	5.85	43.83	Pk	35.4	-20.9	0	58.33	-	-	78.2	-19.87	297	101	V
1	5.86	44.54	Pk	35.4	-20.9	0	59.04	-	-	74	-14.96	297	101	V
5	5.86	32.2	RMS	35.4	-20.9	.22	46.92	54	-7.08	-	-	297	101	V
6	5.863	32.41	RMS	35.4	-20.6	.22	47.43	54	-6.57	-	-	297	101	V
2	5.865	46.99	Pk	35.4	-20.9	0	61.49	-	-	74	-12.51	297	101	V
4	5.865	46.99	Pk	35.4	-20.9	0	61.49	-	-	74	-12.51	297	101	V

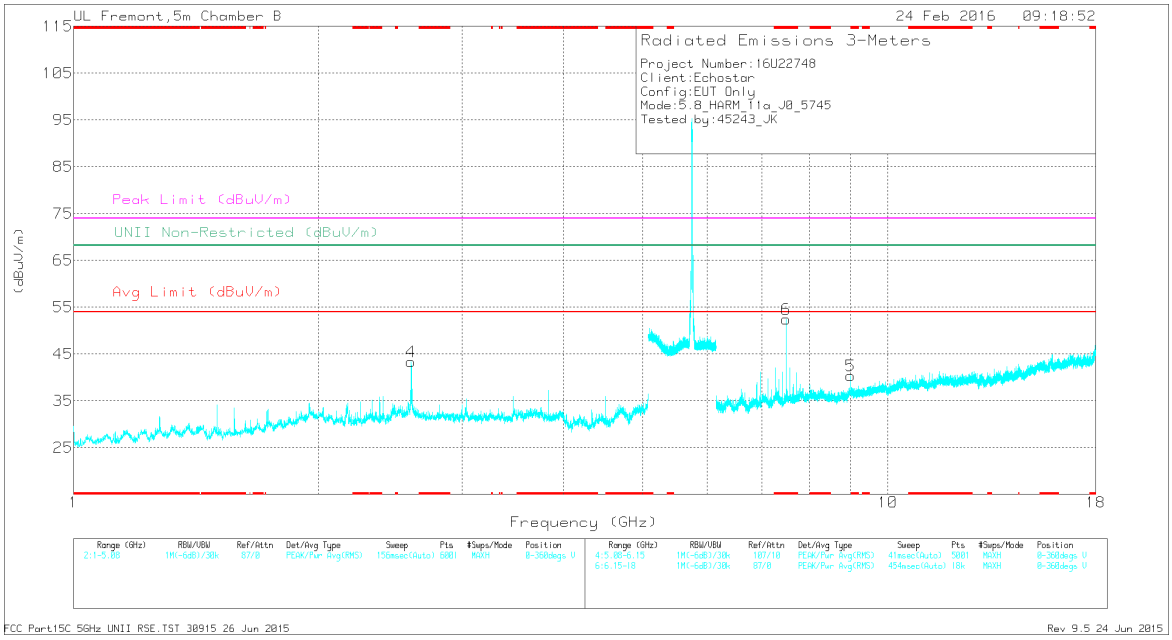
Pk - Peak detector
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL PLOT



LOW CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (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	* 1.5	48.16	Pk	28.6	-35.5	41.26	-	-	74	-32.74	-	-	0-360	101	H
6	* 7.5	46.13	Pk	35.3	-29	52.43	-	-	74	-21.57	-	-	0-360	101	V
2	1.725	44.62	Pk	30	-34.5	40.12	-	-	-	-	68.2	-28.08	0-360	101	H
4	2.598	44.03	Pk	32.8	-33.5	43.33	-	-	-	-	68.2	-24.87	0-360	200	V
3	4.5	34.86	Pk	34	-31.9	36.96	-	-	-	-	68.2	-31.24	0-360	101	H
5	9	31.55	Pk	36.1	-27.3	40.35	-	-	-	-	68.2	-27.85	0-360	101	V

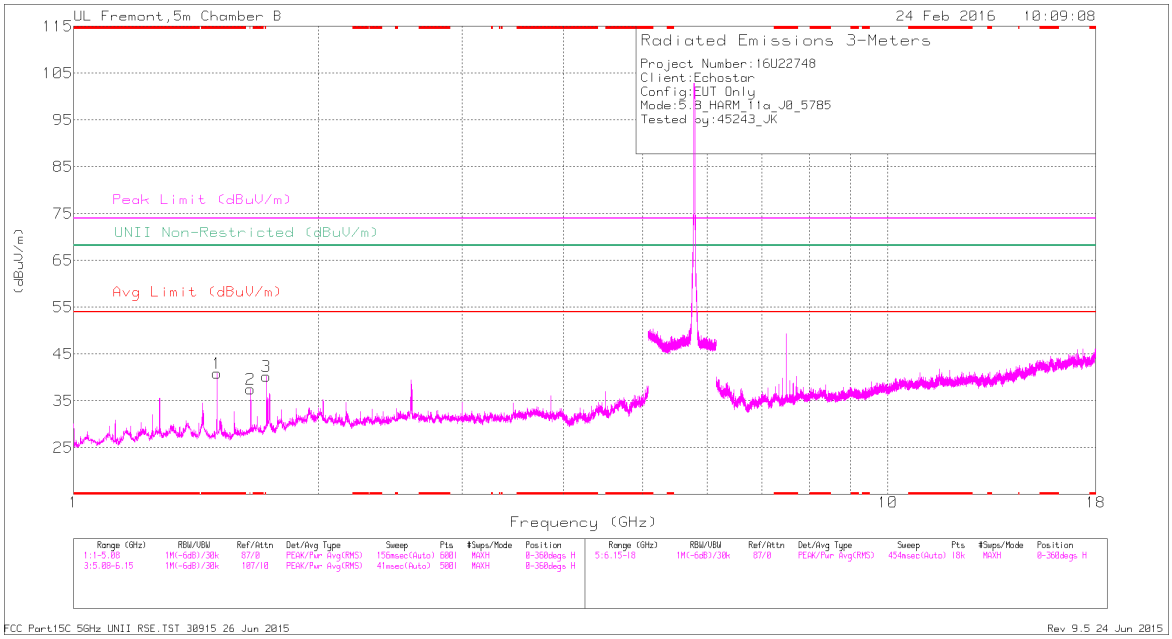
* - indicates frequency in CFR15.205/IC8.10 Restricted Band
Pk - Peak detector

Radiated Emissions

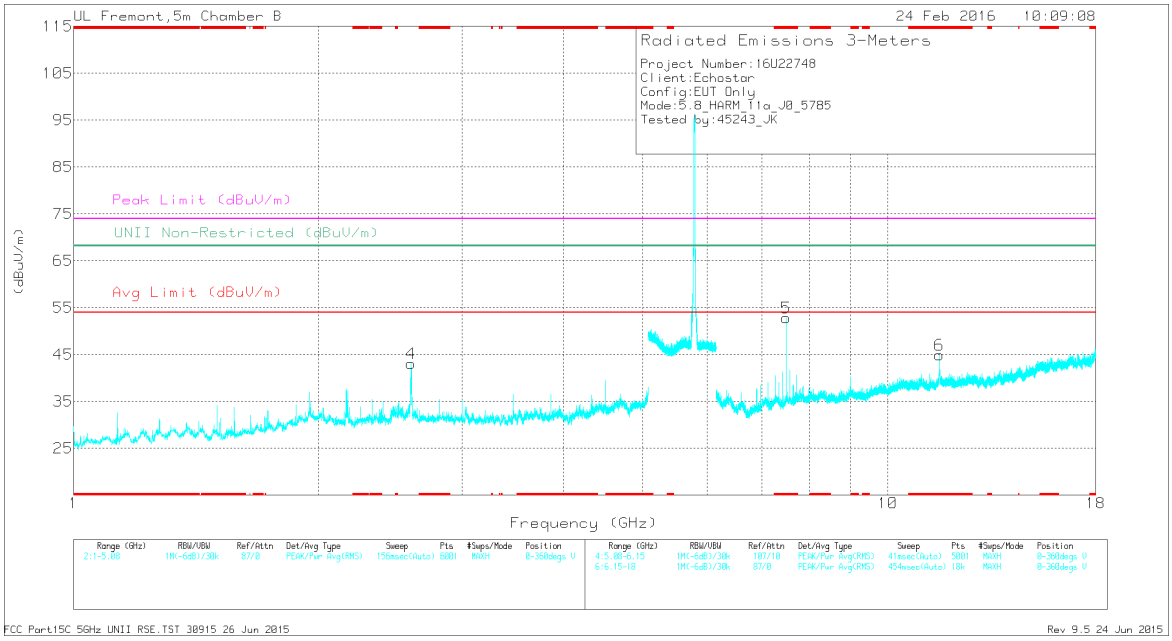
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.5	51.79	PK-U	28.6	-35.5	0	44.89	-	-	74	-29.11	-	-	120	118	H
* 1.5	46.97	ADR	28.6	-35.5	.22	40.29	54	-13.71	-	-	-	-	120	118	H
* 7.5	45.82	PK-U	35.3	-29	0	52.12	-	-	74	-21.88	-	-	210	215	V
* 7.5	42.01	ADR	35.3	-29	.22	48.53	54	-5.47	-	-	-	-	210	215	V
1.725	49.24	PK-U	30	-34.5	0	44.74	-	-	-	-	68.2	-23.46	114	131	H
2.598	53.43	PK-U	32.8	-33.5	0	52.73	-	-	-	-	68.2	-15.47	178	212	V
4.5	43.84	PK-U	34	-31.9	0	45.94	-	-	-	-	68.2	-22.26	140	364	H
9	40.75	PK-U	36.1	-27.3	0	49.55	-	-	-	-	68.2	-18.65	189	141	V

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

MID CHANNEL HORIZONTAL PLOT



MID CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (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	* 1.5	47.81	Pk	28.6	-35.5	40.91	-	-	74	-33.09	-	-	0-360	101	H
5	* 7.5	46.58	Pk	35.3	-29	52.88	-	-	74	-21.12	-	-	0-360	101	V
6	* 11.569	31.14	Pk	38.4	-24.6	44.94	-	-	74	-29.06	-	-	0-360	199	V
2	1.65	42.89	Pk	29.3	-34.7	37.49	-	-	-	-	68.2	-30.71	0-360	101	H
3	1.725	44.77	Pk	30	-34.5	40.27	-	-	-	-	68.2	-27.93	0-360	101	H
4	2.598	43.81	Pk	32.8	-33.5	43.11	-	-	-	-	68.2	-25.09	0-360	199	V

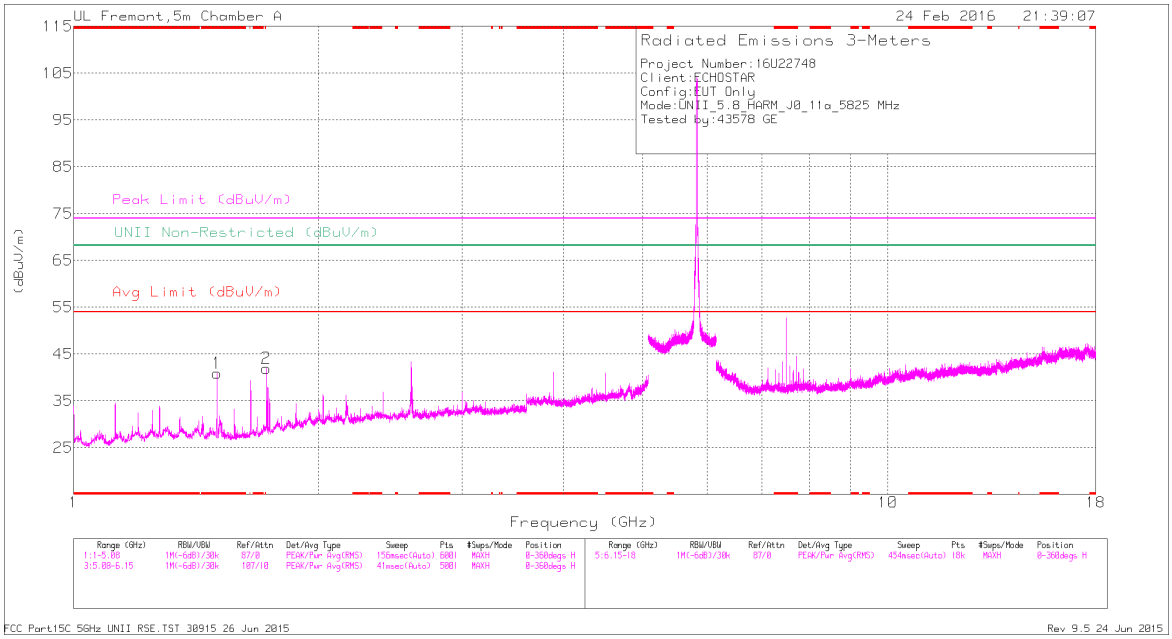
* - indicates frequency in CFR15.205/IC8.10 Restricted Band
Pk - Peak detector

Radiated Emissions

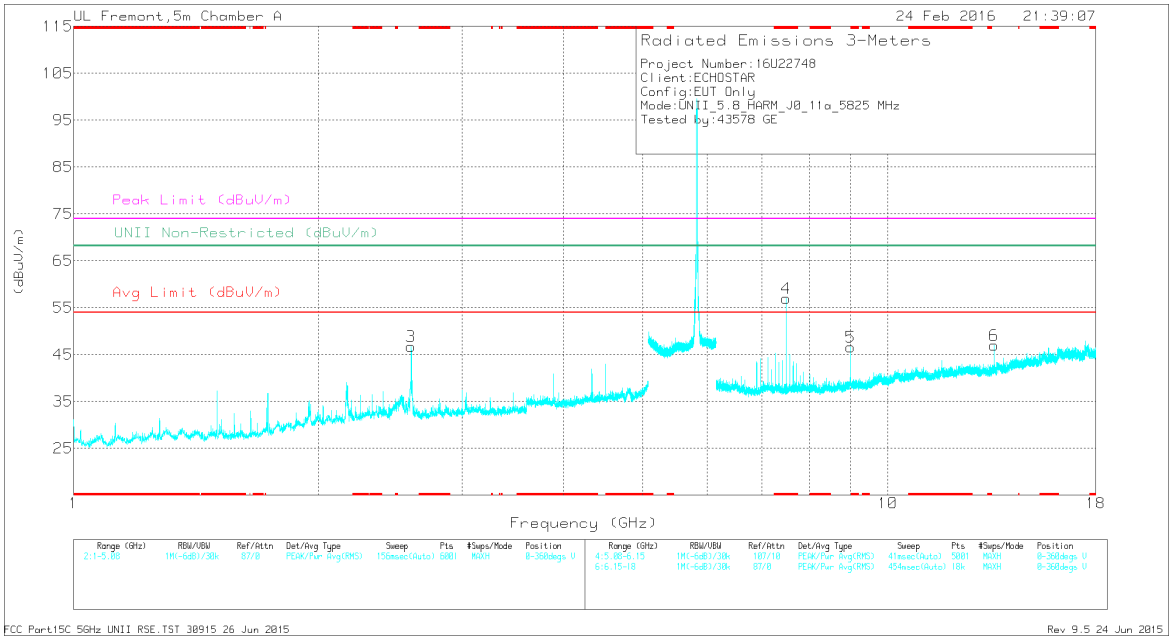
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.5	48.89	PK-U	28.6	-35.5	0	41.99	-	-	74	-32.01	-	-	126	118	H
* 1.5	42.53	ADR	28.6	-35.5	.22	35.85	54	-18.15	-	-	-	-	126	118	H
* 7.5	49.33	PK-U	35.3	-29	0	55.63	-	-	74	-18.37	-	-	213	101	H
* 7.5	32.97	ADR	35.3	-29	.22	39.49	54	-14.51	-	-	-	-	213	101	H
* 11.571	45.67	PK-U	38.4	-24.6	0	59.47	-	-	74	-14.53	-	-	206	227	V
* 11.57	30.3	ADR	38.4	-24.6	.22	44.32	54	-9.68	-	-	-	-	206	227	V
1.65	48.35	PK-U	29.3	-34.7	0	42.95	-	-	-	-	68.2	-25.25	121	127	H
1.725	45.93	PK-U	30	-34.5	0	41.43	-	-	-	-	68.2	-26.77	332	152	H
2.598	54.7	PK-U	32.8	-33.5	0	54	-	-	-	-	68.2	-14.2	178	205	V

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

HIGH CHANNEL HORIZONTAL PLOT



HIGH CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (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	* 1.5	48.36	Pk	28.1	-35.5	0	40.96	-	-	74	-33.04	-	-	0-360	201	H
4	* 7.5	47.85	Pk	35.5	-26.4	0	56.95	-	-	74	-17.05	-	-	0-360	100	V
2	1.725	47.5	Pk	29	-34.5	0	42	-	-	-	-	68.2	-26.2	0-360	100	H
3	2.598	48.3	Pk	32.3	-33.9	0	46.7	-	-	-	-	68.2	-21.5	0-360	100	V
5	9	35.02	Pk	36.1	-24.5	0	46.62	-	-	-	-	68.2	-21.58	0-360	100	V
6	13.5	30.11	Pk	39.1	-22.2	0	47.01	-	-	-	-	68.2	-21.19	0-360	100	V

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

Radiated Emissions

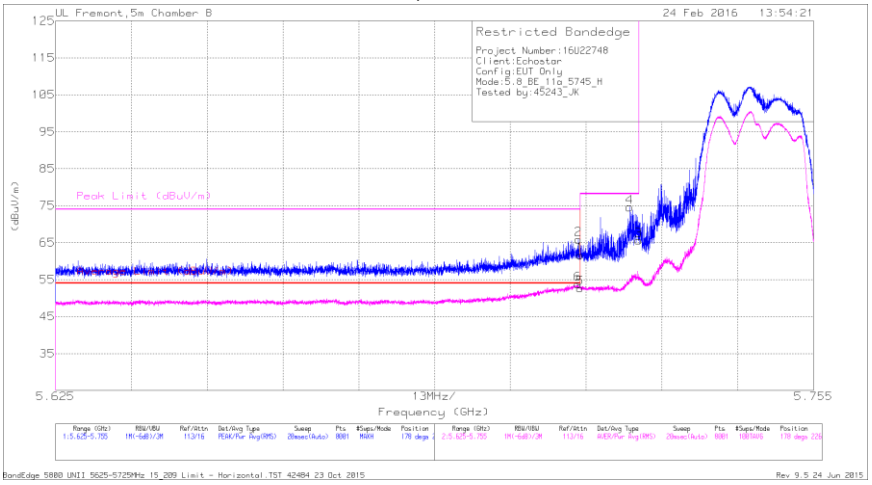
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.5	52.44	PK-U	28.1	-35.5	0	45.04	-	-	74	-28.96	-	-	290	106	H
* 1.5	47.2	ADR	28.1	-35.5	.22	40.02	54	-13.98	-	-	-	-	290	106	H
* 7.5	48.1	PK-U	35.5	-26.4	0	57.2	-	-	74	-16.8	-	-	22	172	V
* 7.5	44.52	ADR	35.5	-26.4	.22	53.84	54	-.16	-	-	-	-	22	172	V
1.725	50.7	PK-U	29	-34.5	0	45.2	-	-	-	-	68.2	-23	287	117	H
2.598	56.69	PK-U	32.3	-33.9	0	55.09	-	-	-	-	68.2	-13.11	18	112	V
9	39.98	PK-U	36.1	-24.5	0	51.58	-	-	-	-	68.2	-16.62	354	128	V
13.5	35.74	PK-U	39.1	-22.3	0	52.54	-	-	-	-	68.2	-15.66	339	106	V

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

10.3. TX ABOVE 1 GHz 802.11a CDD 2TX MODE IN THE 5.8 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

LOW CHANNEL RESTRICTED, HORIZONTAL

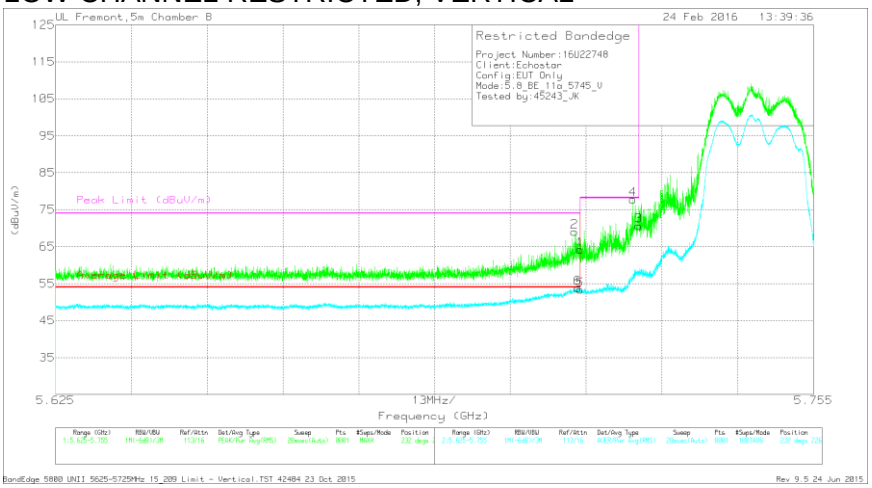


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	5.715	47.59	Pk	35	-21	0	61.59	-	-	74	-12.41	178	226	H
2	5.715	51.8	Pk	35	-20.9	0	65.9	-	-	74	-8.1	178	226	H
5	5.715	38.47	RMS	35	-21	.22	52.69	54	-1.31	-	-	178	226	H
6	5.715	39.48	RMS	35	-20.9	.22	53.8	54	-.2	-	-	178	226	H
4	5.723	60.69	Pk	35	-21.1	0	74.59	-	-	78.2	-3.61	178	226	H
3	5.725	51.44	Pk	35	-20.8	0	65.64	-	-	78.2	-12.56	178	226	H

Pk - Peak detector
RMS - RMS detection

LOW CHANNEL RESTRICTED, VERTICAL



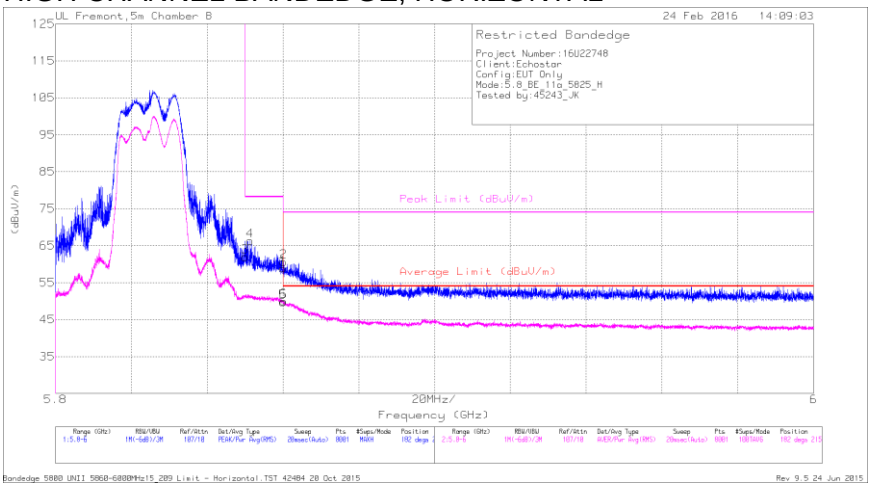
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
2	5.714	54.87	Pk	35	-20.8	0	69.07	-	-	74	-4.93	232	226	V
1	5.715	50.21	Pk	35	-21	0	64.21	-	-	74	-9.79	232	226	V
5	5.715	39.17	RMS	35	-21	.22	53.39	54	-.61	-	-	232	226	V
6	5.715	39.49	RMS	35	-20.9	.22	53.81	54	-.19	-	-	232	226	V
4	5.724	63.77	Pk	35	-21	0	77.77	-	-	78.2	-.43	232	226	V
3	5.725	56.46	Pk	35	-20.8	0	70.66	-	-	78.2	-7.54	232	226	V

Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HIGH CHANNEL BANDEDGE, HORIZONTAL

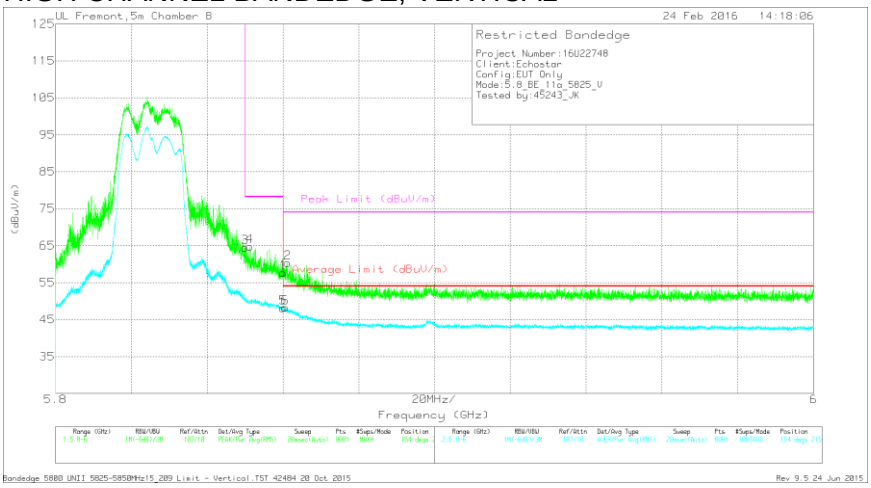


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
3	5.85	47.5	Pk	35.4	-20.9	0	62	-	-	78.2	-16.2	182	215	H
4	5.851	51.59	Pk	35.4	-20.7	0	66.29	-	-	78.2	-11.91	182	215	H
1	5.86	44.41	Pk	35.4	-20.9	0	58.91	-	-	74	-15.09	182	215	H
2	5.86	46.24	Pk	35.4	-21	0	60.64	-	-	74	-13.36	182	215	H
5	5.86	35.02	RMS	35.4	-20.9	.22	49.74	54	-4.26	-	-	182	215	H
6	5.86	35.37	RMS	35.4	-21	.22	49.99	54	-4.01	-	-	182	215	H

Pk - Peak detector
RMS - RMS detection

HIGH CHANNEL BANDEDGE, VERTICAL



Trace Markers

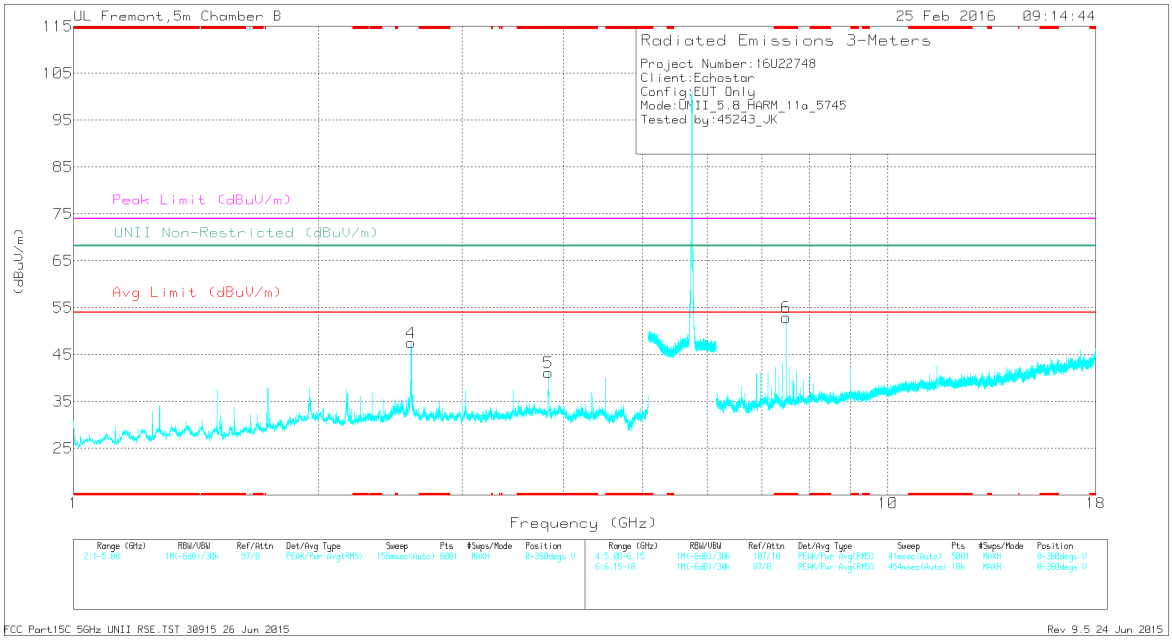
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	5.85	50.05	Pk	35.4	-20.9	0	64.55	-	-	78.2	-13.65	154	215	V
4	5.851	50.19	Pk	35.4	-20.8	0	64.79	-	-	78.2	-13.41	154	215	V
1	5.86	43.18	Pk	35.4	-20.9	0	57.68	-	-	74	-16.32	154	215	V
5	5.86	33.46	RMS	35.4	-20.9	.22	48.18	54	-5.82	-	-	154	215	V
2	5.861	45.86	Pk	35.4	-20.9	0	60.36	-	-	74	-13.64	154	215	V
6	5.861	33.6	RMS	35.4	-21	.22	48.22	54	-5.78	-	-	154	215	V

Pk - Peak detector
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL PLOT

LOW CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	* 1.5	50.05	Pk	28.6	-35.5	0	43.15	-	-	74	-30.85	-	-	0-360	199	H
5	* 3.829	40.71	Pk	33.4	-33	0	41.11	-	-	74	-32.89	-	-	0-360	101	V
6	* 7.5	46.61	Pk	35.3	-29	0	52.91	-	-	74	-21.09	-	-	0-360	199	V
2	1.725	45.97	Pk	30	-34.5	0	41.47	-	-	-	-	68.2	-26.73	0-360	100	H
3	2.025	40.15	Pk	32.2	-34	0	38.35	-	-	-	-	68.2	-29.85	0-360	100	H
4	2.598	48.18	Pk	32.8	-33.5	0	47.48	-	-	-	-	68.2	-20.72	0-360	101	V

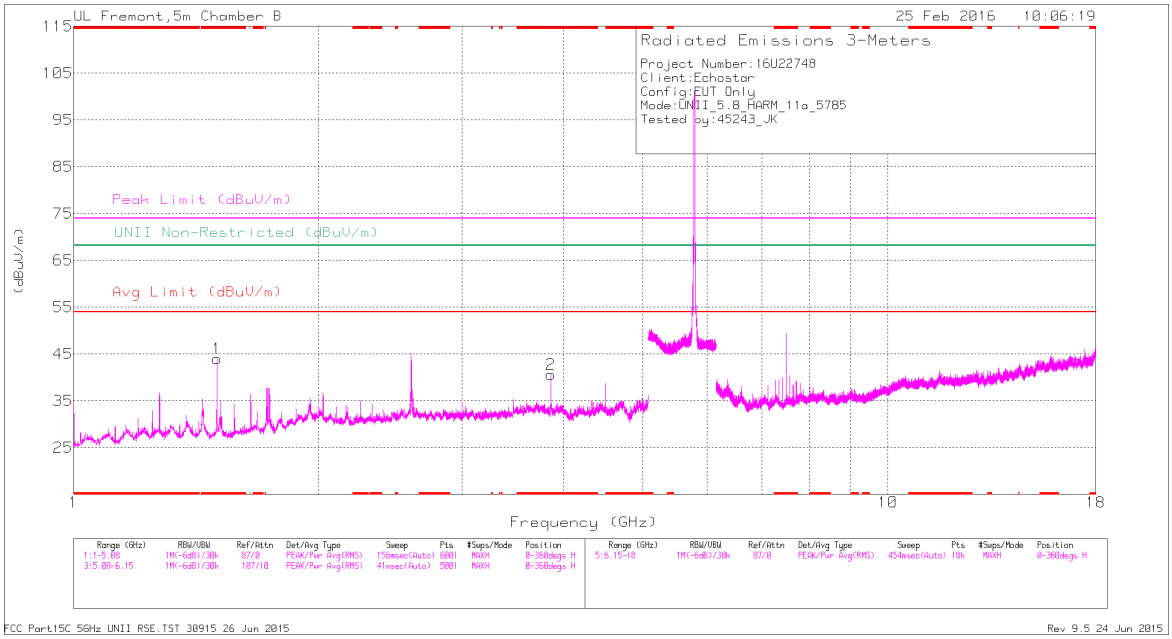
* - indicates frequency in CFR15.205/IC8.10 Restricted Band
Pk - Peak detector

Radiated Emissions

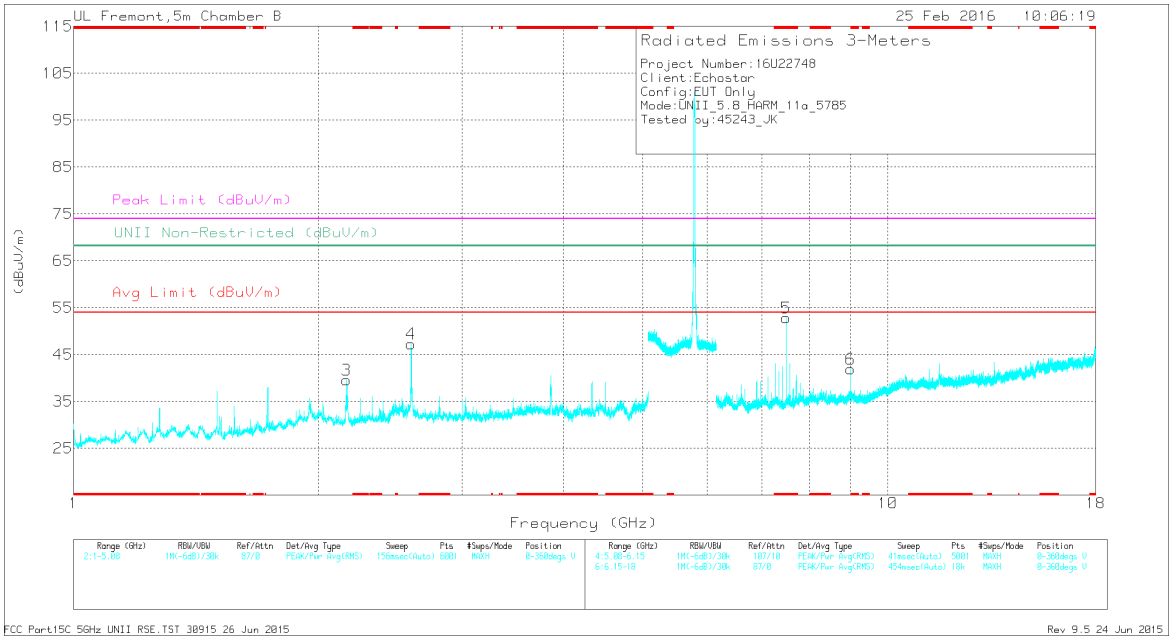
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.5	54.69	PK-U	28.6	-35.5	0	47.79	-	-	74	-26.21	-	-	123	111	H
* 1.5	49.92	ADR	28.6	-35.5	.22	43.24	54	-10.76	-	-	-	-	123	111	H
* 3.83	48.22	PK-U	33.4	-33	0	48.62	-	-	74	-25.38	-	-	203	148	V
* 3.83	39.29	ADR	33.4	-33	.22	39.91	54	-14.09	-	-	-	-	203	148	V
* 7.5	47.23	PK-U	35.3	-29	0	53.53	-	-	74	-20.47	-	-	354	141	V
* 7.5	43.93	ADR	35.3	-29	.22	50.45	54	-3.55	-	-	-	-	354	141	V
1.725	49.59	PK-U	30	-34.5	0	45.09	-	-	-	-	68.2	-23.11	119	162	H
2.025	45.77	PK-U	32.2	-34	0	43.97	-	-	-	-	68.2	-24.23	118	152	H
2.598	56.9	PK-U	32.8	-33.5	0	56.2	-	-	-	-	68.2	-12	195	149	V

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

MID CHANNEL HORIZONTAL PLOT



MID CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	* 1.5	50.89	Pk	28.6	-35.5	0	43.99	-	-	74	-30.01	-	-	0-360	101	H
2	* 3.857	40.16	Pk	33.4	-32.9	0	40.66	-	-	74	-33.34	-	-	0-360	199	H
5	* 7.5	46.5	Pk	35.3	-29	0	52.8	-	-	74	-21.2	-	-	0-360	199	V
3	2.165	43.03	Pk	31.3	-34.7	0	39.63	-	-	-	-	68.2	-28.57	0-360	102	V
4	2.598	48.02	Pk	32.8	-33.5	0	47.32	-	-	-	-	68.2	-20.88	0-360	102	V
6	9	33.16	Pk	36.1	-27.3	0	41.96	-	-	-	-	68.2	-26.24	0-360	101	V

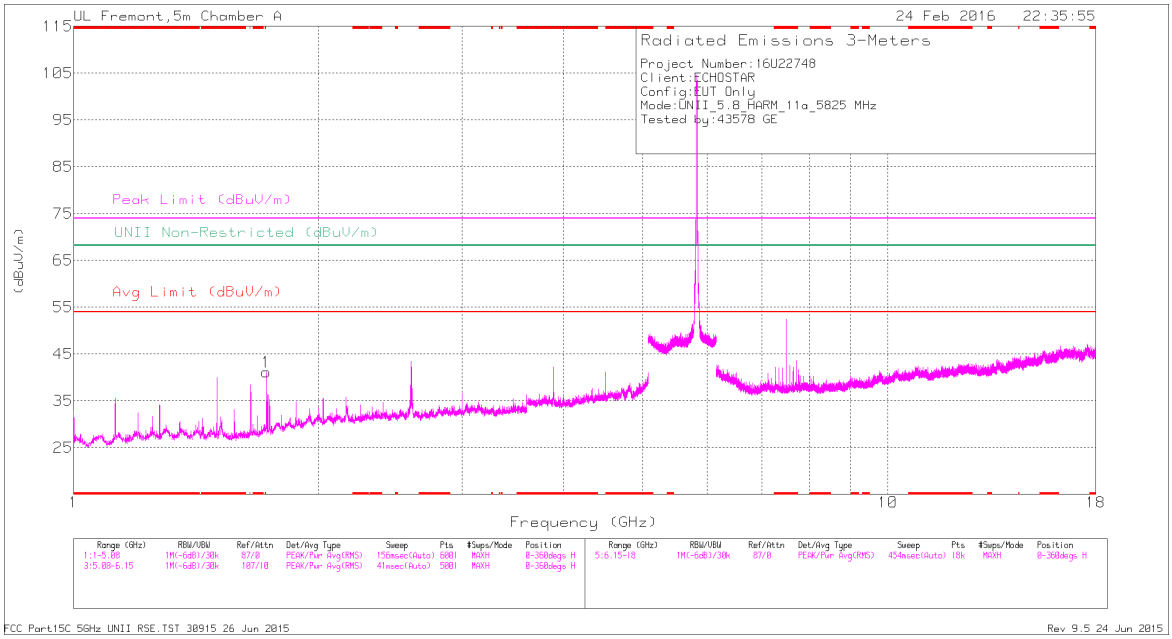
* - indicates frequency in CFR15.205/IC8.10 Restricted Band
Pk - Peak detector

Radiated Emissions

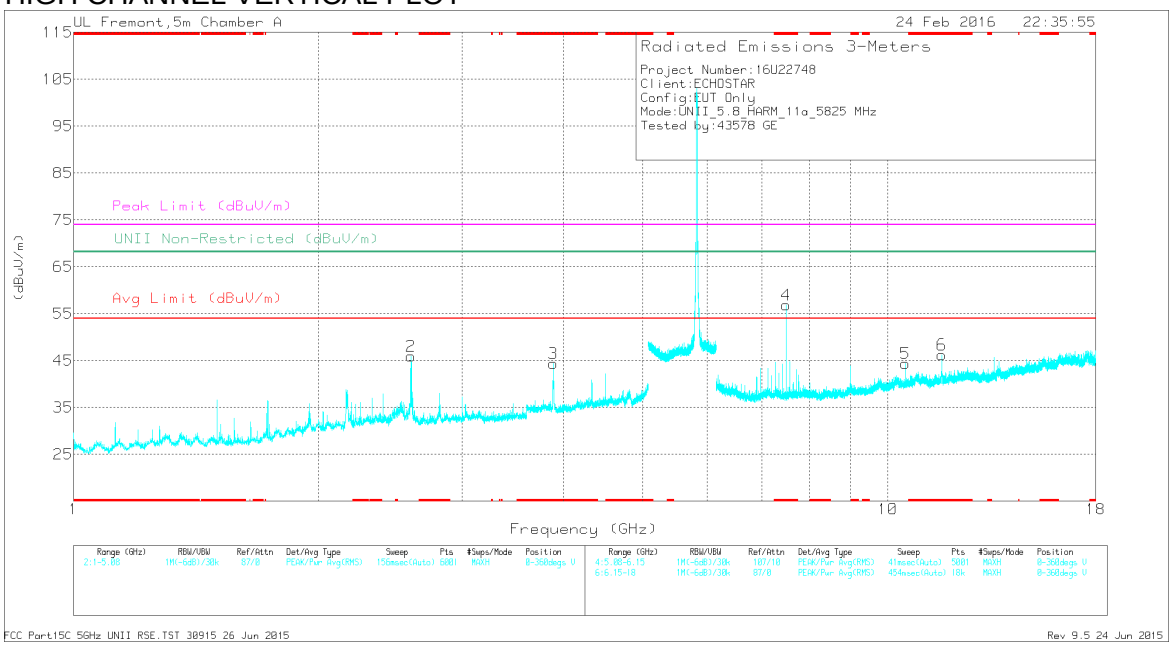
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.5	54.63	PK-U	28.6	-35.5	0	47.73	-	-	74	-26.27	-	-	122	113	H
* 1.5	49.1	ADR	28.6	-35.5	.22	42.42	54	-11.58	-	-	-	-	122	113	H
* 3.857	47.31	PK-U	33.4	-32.9	0	47.81	-	-	74	-26.19	-	-	227	230	H
* 3.857	40.32	ADR	33.4	-32.9	.22	41.04	54	-12.96	-	-	-	-	227	230	H
* 7.5	48.02	PK-U	35.3	-29	0	54.32	-	-	74	-19.68	-	-	159	225	V
* 7.5	46.06	ADR	35.3	-29	.22	52.58	54	-1.42	-	-	-	-	159	225	V
2.165	50.57	PK-U	31.3	-34.7	0	47.17	-	-	-	-	68.2	-21.03	189	206	V
2.598	56.36	PK-U	32.8	-33.5	0	55.66	-	-	-	-	68.2	-12.54	196	121	V
9	40.11	PK-U	36.1	-27.3	0	48.91	-	-	-	-	68.2	-19.29	185	144	V

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

HIGH CHANNEL HORIZONTAL PLOT



HIGH CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (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
3	* 3.883	43.17	Pk	33.5	-32.3	0	44.37	-	-	74	-29.63	-	-	0-360	200	V
4	* 7.5	47.78	Pk	35.5	-26.4	0	56.88	-	-	74	-17.12	-	-	0-360	100	V
6	* 11.643	30.48	Pk	38.2	-22.4	0	46.28	-	-	74	-27.72	-	-	0-360	200	V
1	1.725	46.7	Pk	29	-34.5	0	41.2	-	-	-	-	68.2	-27	0-360	201	H
2	2.598	47.58	Pk	32.3	-33.9	0	45.98	-	-	-	-	68.2	-22.22	0-360	100	V
5	10.5	30.22	Pk	37.5	-23.3	0	44.42	-	-	-	-	68.2	-23.78	0-360	100	V

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

Radiated Emissions

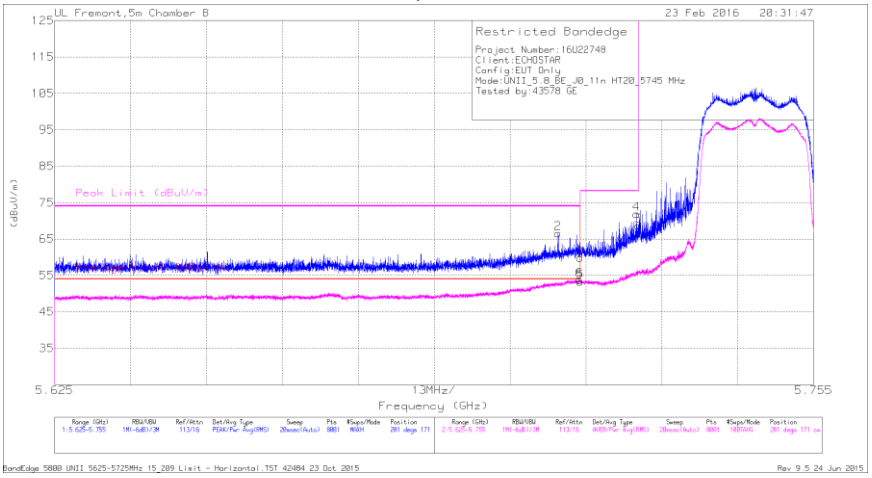
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 3.883	49.99	PK-U	33.5	-32.3	0	51.19	-	-	74	-22.81	-	-	15	260	V
* 3.883	41.4	ADR	33.5	-32.3	.22	42.82	54	-11.18	-	-	-	-	15	260	V
* 7.5	46.2	PK-U	35.5	-26.4	0	55.3	-	-	74	-18.7	-	-	17	207	V
* 7.5	42.92	ADR	35.5	-26.4	.22	52.24	54	-1.76	-	-	-	-	17	207	V
* 11.644	42.93	PK-U	38.2	-22.4	0	58.73	-	-	74	-15.27	-	-	10	223	V
* 11.649	27.7	ADR	38.2	-22.4	.22	43.72	54	-10.28	-	-	-	-	10	223	V
1.725	49.67	PK-U	29	-34.5	0	44.17	-	-	-	-	68.2	-24.03	280	266	H
2.598	57.49	PK-U	32.3	-33.9	0	55.89	-	-	-	-	68.2	-12.31	21	116	V
10.5	37.03	PK-U	37.5	-23.3	0	51.23	-	-	-	-	68.2	-16.97	188	114	V

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

10.4. TX ABOVE 1 GHz 802.11n HT20 SISO MODE IN THE 5.8 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

LOW CHANNEL RESTRICTED, HORIZONTAL

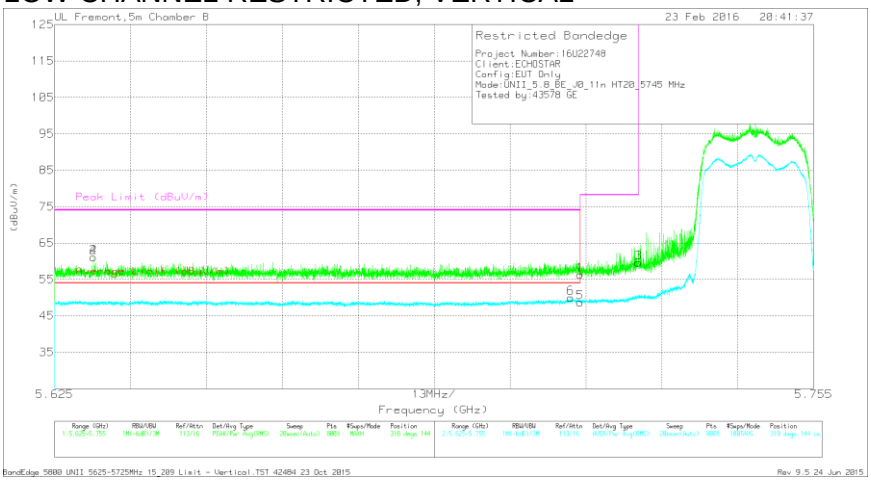


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
2	5.711	52.73	Pk	35	-21.2	0	66.53	-	-	74	-7.47	281	171	H
1	5.715	45.81	Pk	35	-21	0	59.81	-	-	74	-14.19	281	171	H
5	5.715	39.08	RMS	35	-21	.22	53.3	54	-.7	-	-	281	171	H
6	5.715	39.6	RMS	35	-21	.22	53.82	54	-.18	-	-	281	171	H
3	5.725	54.49	Pk	35	-20.8	0	68.69	-	-	78.2	-9.51	281	171	H
4	5.725	57.78	Pk	35	-20.9	0	71.88	-	-	78.2	-6.32	281	171	H

Pk - Peak detector
RMS - RMS detection

LOW CHANNEL RESTRICTED, VERTICAL



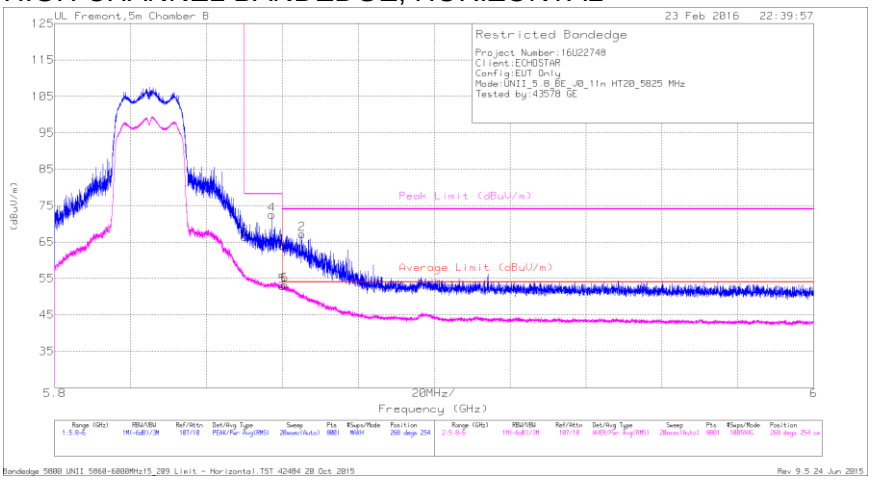
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
2	5.632	47.08	Pk	34.8	-20.8	0	61.08	-	-	74	-12.92	318	144	V
4	5.632	47.08	Pk	34.8	-20.8	0	61.08	-	-	74	-12.92	318	144	V
6	5.713	35.64	RMS	35	-20.9	.22	49.96	54	-4.04	-	-	318	144	V
1	5.715	42.25	Pk	35	-21	0	56.25	-	-	74	-17.75	318	144	V
5	5.715	34.48	RMS	35	-21	.22	48.7	54	-5.3	-	-	318	144	V
3	5.725	45.39	Pk	35	-20.8	0	59.59	-	-	78.2	-18.61	318	144	V

Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HIGH CHANNEL BANDEDGE, HORIZONTAL

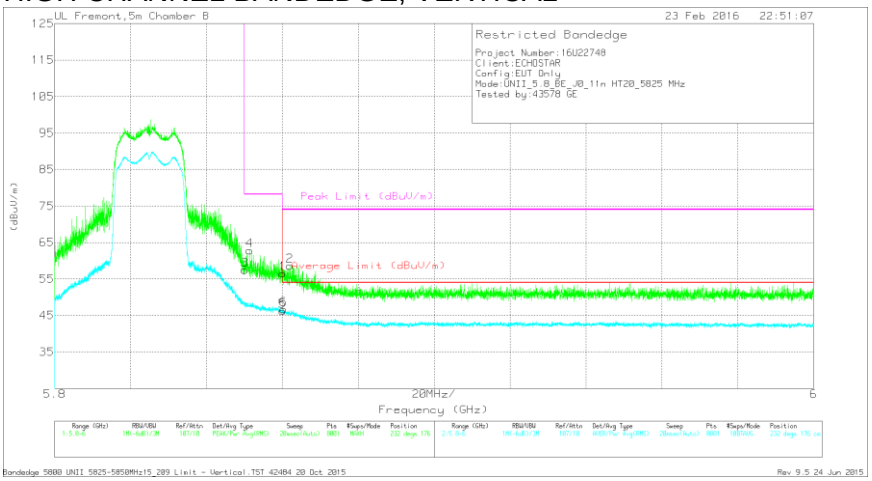


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
3	5.85	51.96	Pk	35.4	-20.9	0	66.46	-	-	78.2	-11.74	268	254	H
4	5.857	57.91	Pk	35.4	-20.8	0	72.51	-	-	78.2	-5.69	268	254	H
1	5.86	49.43	Pk	35.4	-20.9	0	63.93	-	-	74	-10.07	268	254	H
5	5.86	38.01	RMS	35.4	-20.9	.22	52.73	54	-1.27	-	-	268	254	H
6	5.861	38.47	RMS	35.4	-21	.22	53.09	54	-.91	-	-	268	254	H
2	5.865	52.67	Pk	35.4	-20.9	0	67.17	-	-	74	-6.83	268	254	H

Pk - Peak detector
RMS - RMS detection

HIGH CHANNEL BANDEDGE, VERTICAL



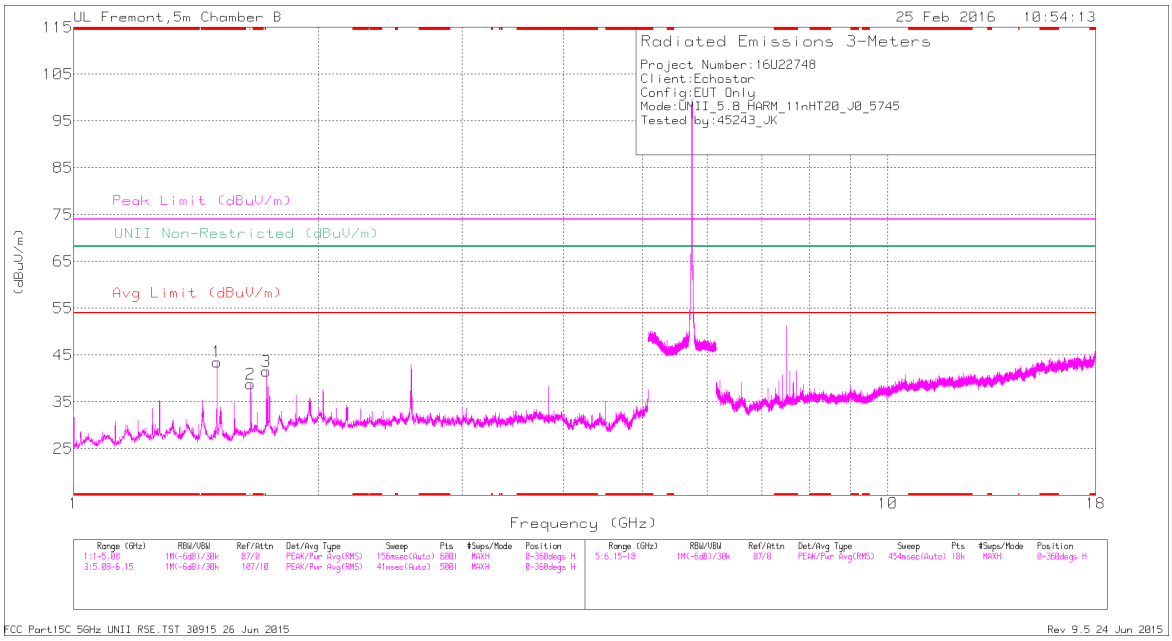
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
3	5.85	43.01	Pk	35.4	-20.9	0	57.51	-	-	78.2	-20.69	232	176	V
4	5.851	48.16	Pk	35.4	-20.7	0	62.86	-	-	78.2	-15.34	232	176	V
1	5.86	42.01	Pk	35.4	-20.9	0	56.51	-	-	74	-17.49	232	176	V
5	5.86	31.42	RMS	35.4	-20.9	.22	46.14	54	-7.86	-	-	232	176	V
6	5.86	32.1	RMS	35.4	-21	.22	46.72	54	-7.28	-	-	232	176	V
2	5.862	44.01	Pk	35.4	-20.8	0	58.61	-	-	74	-15.39	232	176	V

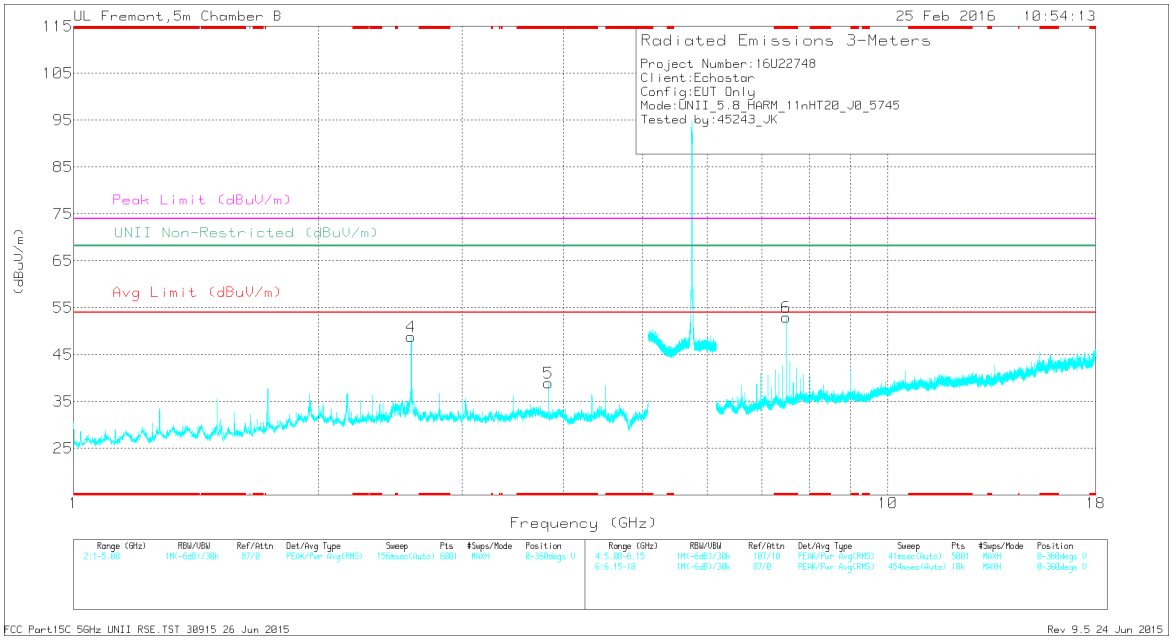
Pk - Peak detector
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL PLOT



LOW CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	* 1.5	50.46	Pk	28.6	-35.5	0	43.56	-	-	74	-30.44	-	-	0-360	101	H
5	* 3.83	38.51	Pk	33.4	-33	0	38.91	-	-	74	-35.09	-	-	0-360	101	V
6	* 7.5	46.7	Pk	35.3	-29	0	53	-	-	74	-21	-	-	0-360	101	V
2	1.65	44.17	Pk	29.3	-34.7	0	38.77	-	-	-	-	68.2	-29.43	0-360	200	H
3	1.725	46.09	Pk	30	-34.5	0	41.59	-	-	-	-	68.2	-26.61	0-360	200	H
4	2.598	49.57	Pk	32.8	-33.5	0	48.87	-	-	-	-	68.2	-19.33	0-360	101	V

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

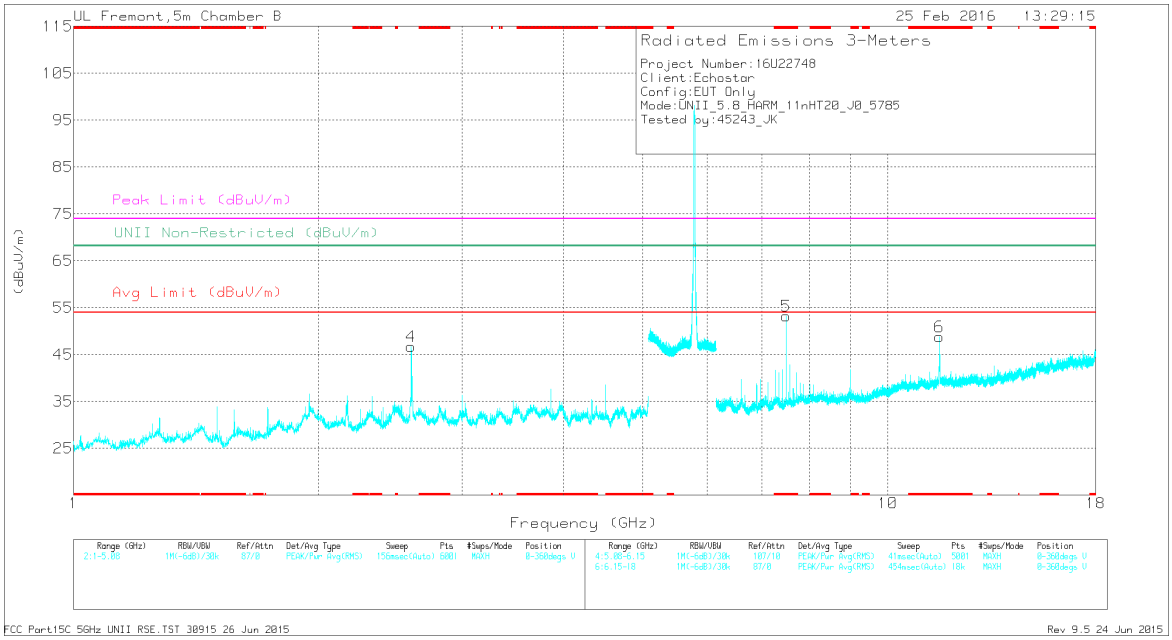
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	54.31	PK-U	28.6	-35.5	0	47.41	-	-	74	-26.59	-	-	124	107	H
* 1.5	49.41	ADR	28.6	-35.5	.22	42.73	54	-11.27	-	-	-	-	124	107	H
* 3.83	40.83	PK-U	33.4	-33	0	41.23	-	-	74	-32.77	-	-	197	154	V
* 3.83	32.13	ADR	33.4	-33	.22	32.75	54	-21.25	-	-	-	-	197	154	V
* 7.5	46.78	PK-U	35.3	-29	0	53.08	-	-	74	-20.92	-	-	142	106	V
* 7.5	43.14	ADR	35.3	-29	.22	49.66	54	-4.34	-	-	-	-	142	106	V
1.65	49.13	PK-U	29.3	-34.7	0	43.73	-	-	-	-	68.2	-24.47	119	167	H
1.725	50.13	PK-U	30	-34.5	0	45.63	-	-	-	-	68.2	-22.57	120	146	H
2.598	56.41	PK-U	32.8	-33.5	0	55.71	-	-	-	-	68.2	-12.49	196	118	V

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

MID CHANNEL HORIZONTAL PLOT

MID CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	* 1.5	49.42	Pk	28.6	-35.5	0	42.52	-	-	74	-31.48	-	-	0-360	101	H
3	* 3.857	37.88	Pk	33.4	-32.9	0	38.38	-	-	74	-35.62	-	-	0-360	101	H
5	* 7.5	46.88	Pk	35.3	-29	0	53.18	-	-	74	-20.82	-	-	0-360	199	V
6	* 11.569	35.04	Pk	38.4	-24.6	0	48.84	-	-	74	-25.16	-	-	0-360	199	V
2	1.725	43.58	Pk	30	-34.5	0	39.08	-	-	-	-	68.2	-29.12	0-360	101	H
4	2.598	47.49	Pk	32.8	-33.5	0	46.79	-	-	-	-	68.2	-21.41	0-360	101	V

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

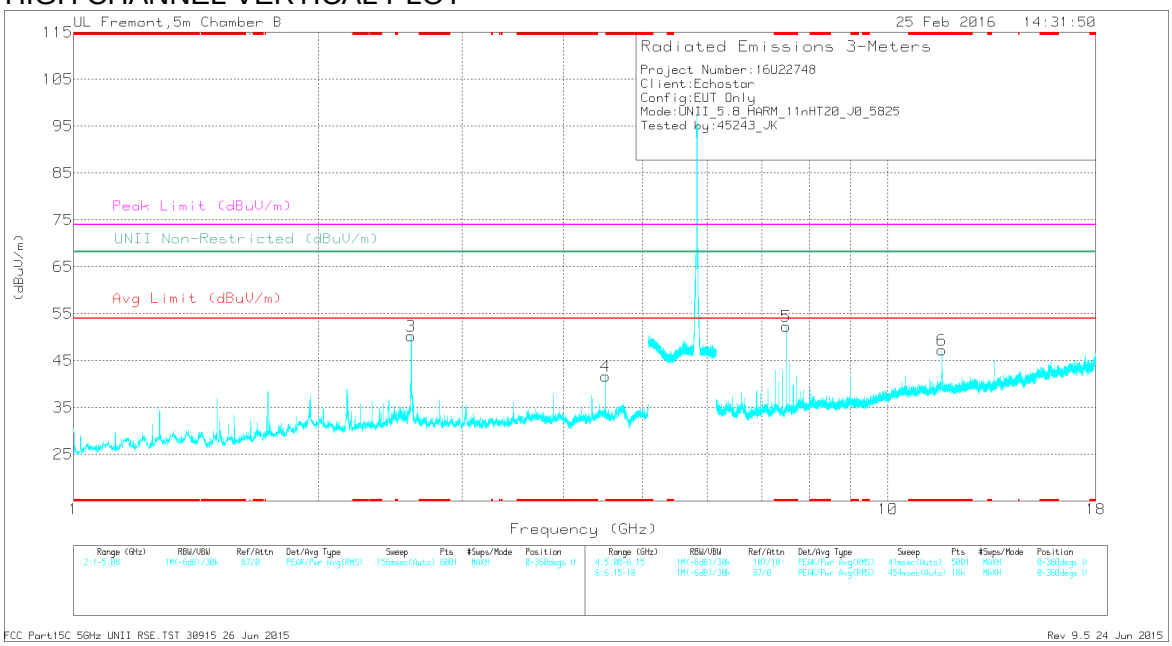
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	54.48	PK-U	28.6	-35.5	0	47.58	-	-	74	-26.42	-	-	127	116	H
* 1.5	49.67	ADR	28.6	-35.5	.22	42.99	54	-11.01	-	-	-	-	127	116	H
* 3.857	44.7	PK-U	33.4	-32.9	0	45.2	-	-	74	-28.8	-	-	201	136	H
* 3.857	36.93	ADR	33.4	-32.9	.22	37.65	54	-16.35	-	-	-	-	201	136	H
* 7.5	49.21	PK-U	35.3	-29	0	55.51	-	-	74	-18.49	-	-	214	103	V
* 7.5	46.28	ADR	35.3	-29	.22	52.8	54	-1.2	-	-	-	-	214	103	V
* 11.569	45.53	PK-U	38.4	-24.6	0	59.33	-	-	74	-14.67	-	-	201	225	V
* 11.57	30.24	ADR	38.4	-24.6	.22	44.26	54	-9.74	-	-	-	-	201	225	V
1.725	50.16	PK-U	30	-34.5	0	45.66	-	-	-	-	68.2	-22.54	123	149	H
1.725	50.38	PK-U	30	-34.5	0	45.88	-	-	-	-	68.2	-22.32	123	149	H
2.598	56.12	PK-U	32.8	-33.5	0	55.42	-	-	-	-	68.2	-12.78	193	140	V

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

HIGH CHANNEL HORIZONTAL PLOT

HIGH CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	* 1.5	50.1	Pk	28.6	-35.5	0	43.2	-	-	74	-30.8	-	-	0-360	199	H
5	* 7.5	46.03	Pk	35.3	-29	0	52.33	-	-	74	-21.67	-	-	0-360	101	V
6	* 11.643	33.43	Pk	38.5	-24.7	0	47.23	-	-	74	-26.77	-	-	0-360	199	V
2	1.725	46.01	Pk	30	-34.5	0	41.51	-	-	-	-	68.2	-26.69	0-360	101	H
3	2.598	50.9	Pk	32.8	-33.5	0	50.2	-	-	-	-	68.2	-18	0-360	101	V
4	4.5	39.63	Pk	34	-31.9	0	41.73	-	-	-	-	68.2	-26.47	0-360	101	V

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

Radiated Emissions

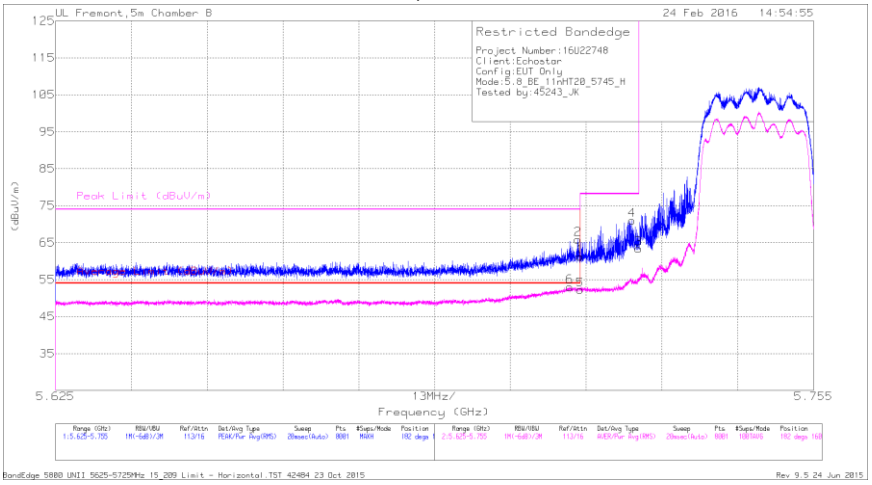
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.5	54.18	PK-U	28.6	-35.5	0	47.28	-	-	74	-26.72	-	-	123	150	H
* 1.5	49.22	ADR	28.6	-35.5	.22	42.54	54	-11.46	-	-	-	-	123	150	H
* 7.5	49.04	PK-U	35.3	-29	0	55.34	-	-	74	-18.66	-	-	213	103	V
* 7.5	46.13	ADR	35.3	-29	.22	52.65	54	-1.35	-	-	-	-	213	103	V
* 11.645	43.75	PK-U	38.5	-24.7	0	57.55	-	-	74	-16.45	-	-	206	194	V
* 11.645	28.44	ADR	38.5	-24.7	.22	42.46	54	-11.54	-	-	-	-	206	194	V
1.725	49.56	PK-U	30	-34.5	0	45.06	-	-	-	-	68.2	-23.14	107	103	H
2.598	56.86	PK-U	32.8	-33.5	0	56.16	-	-	-	-	68.2	-12.04	195	107	V
4.5	42.2	PK-U	34	-31.9	0	44.3	-	-	-	-	68.2	-23.9	152	141	V

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

10.5. TX ABOVE 1 GHz 802.11n HT20 CDD 2TX MODE IN THE 5.8 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

LOW CHANNEL RESTRICTED, HORIZONTAL

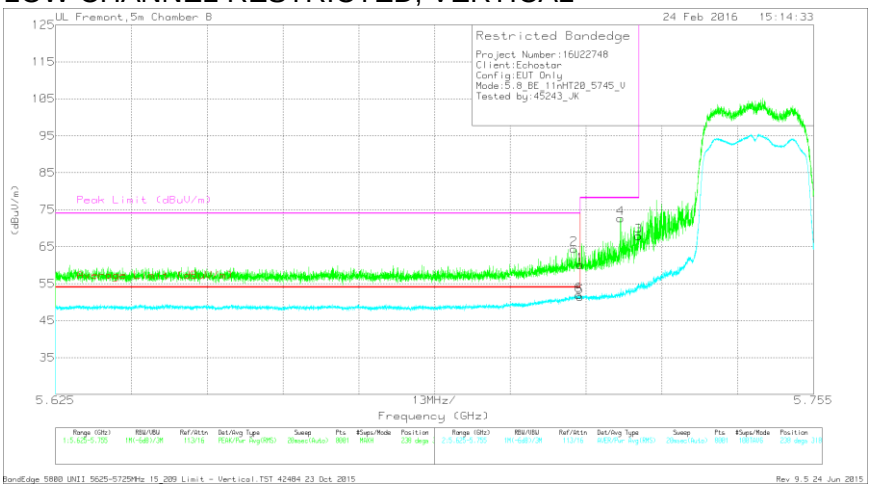


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
6	5.713	38.84	RMS	35	-21	.22	53.06	54	-.94	-	-	182	160	H
1	5.715	47.23	Pk	35	-21	0	61.23	-	-	74	-12.77	182	160	H
2	5.715	51.8	Pk	35	-20.9	0	65.9	-	-	74	-8.1	182	160	H
5	5.715	38.07	RMS	35	-21	.22	52.29	54	-1.71	-	-	182	160	H
4	5.724	57.13	Pk	35	-21.1	0	71.03	-	-	78.2	-7.17	182	160	H
3	5.725	49.2	Pk	35	-20.8	0	63.4	-	-	78.2	-14.8	182	160	H

Pk - Peak detector
RMS - RMS detection

LOW CHANNEL RESTRICTED, VERTICAL



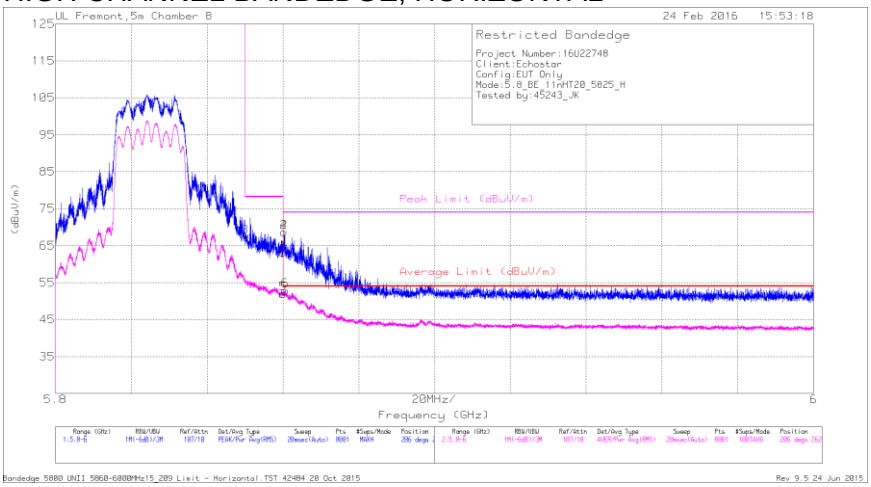
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
2	5.714	50.21	Pk	35	-20.8	0	64.41	-	-	74	-9.59	238	318	V
1	5.715	46.11	Pk	35	-21	0	60.11	-	-	74	-13.89	238	318	V
5	5.715	37.2	RMS	35	-21	.22	51.42	54	-2.58	-	-	238	318	V
6	5.715	37.56	RMS	35	-20.9	.22	51.88	54	-2.12	-	-	238	318	V
4	5.722	58.85	Pk	35	-21.2	0	72.65	-	-	78.2	-5.55	238	318	V
3	5.725	53.67	Pk	35	-20.8	0	67.87	-	-	78.2	-10.33	238	318	V

Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HIGH CHANNEL BANDEDGE, HORIZONTAL

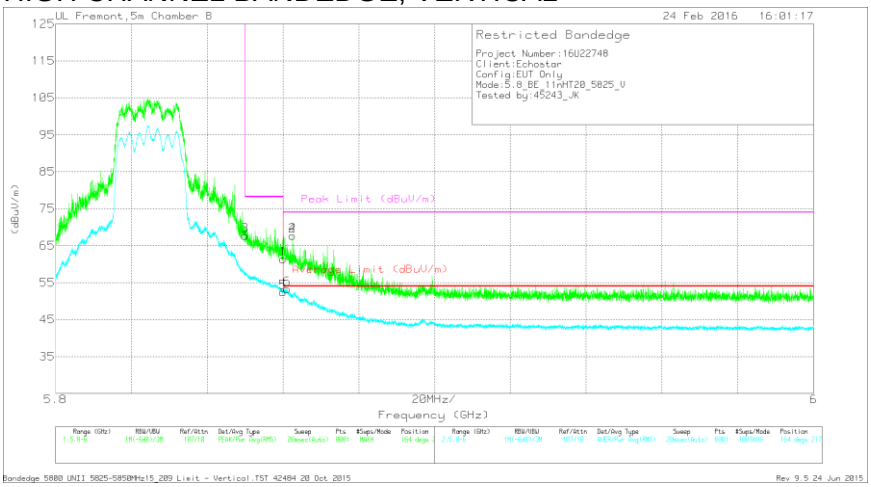


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
3	5.85	52.92	Pk	35.4	-20.9	0	67.42	-	-	78.2	-10.78	206	262	H
1	5.86	48.62	Pk	35.4	-20.9	0	63.12	-	-	74	-10.88	206	262	H
2	5.86	54.25	Pk	35.4	-21	0	68.65	-	-	74	-5.35	206	262	H
4	5.86	54.25	Pk	35.4	-21	0	68.65	-	-	74	-5.35	206	262	H
5	5.86	37.28	RMS	35.4	-20.9	.22	52	54	-2	-	-	206	262	H
6	5.861	38.23	RMS	35.4	-21	.22	52.85	54	-1.15	-	-	206	262	H

Pk - Peak detector
RMS - RMS detection

HIGH CHANNEL BANDEDGE, VERTICAL



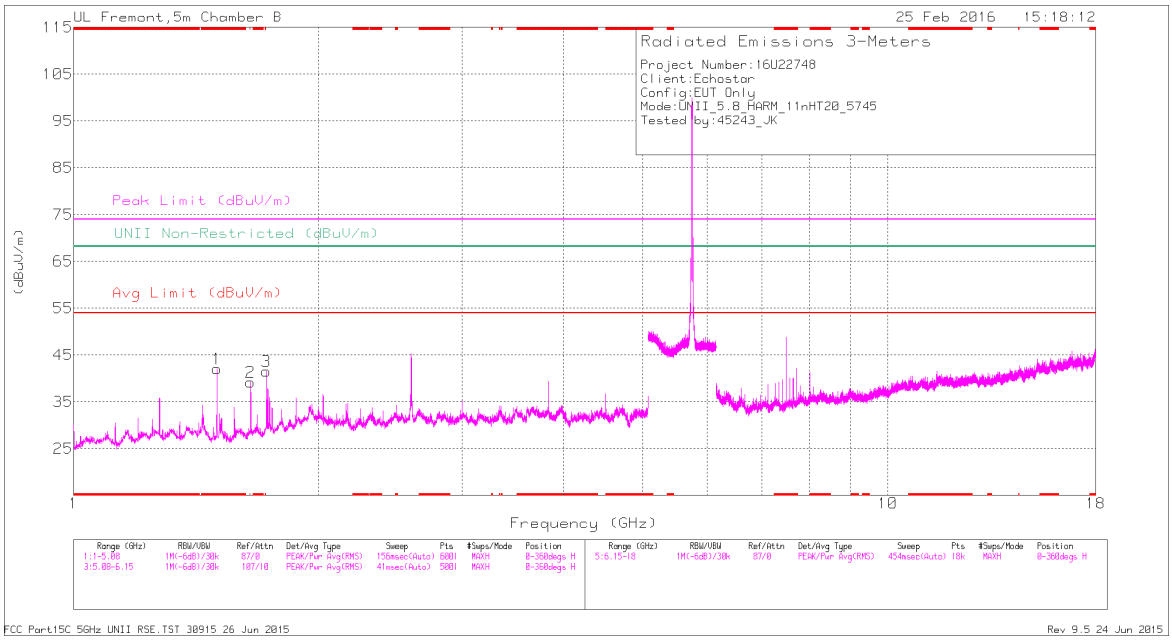
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
3	5.85	53.25	Pk	35.4	-20.9	0	67.75	-	-	78.2	-10.45	164	217	V
1	5.86	46.9	Pk	35.4	-20.9	0	61.4	-	-	74	-12.6	164	217	V
5	5.86	37.7	RMS	35.4	-20.9	.22	52.42	54	-1.58	-	-	164	217	V
6	5.861	38.58	RMS	35.4	-20.9	.22	53.3	54	-.7	-	-	164	217	V
2	5.863	53	Pk	35.4	-20.7	0	67.7	-	-	74	-6.3	164	217	V
4	5.863	53	Pk	35.4	-20.7	0	67.7	-	-	74	-6.3	164	217	V

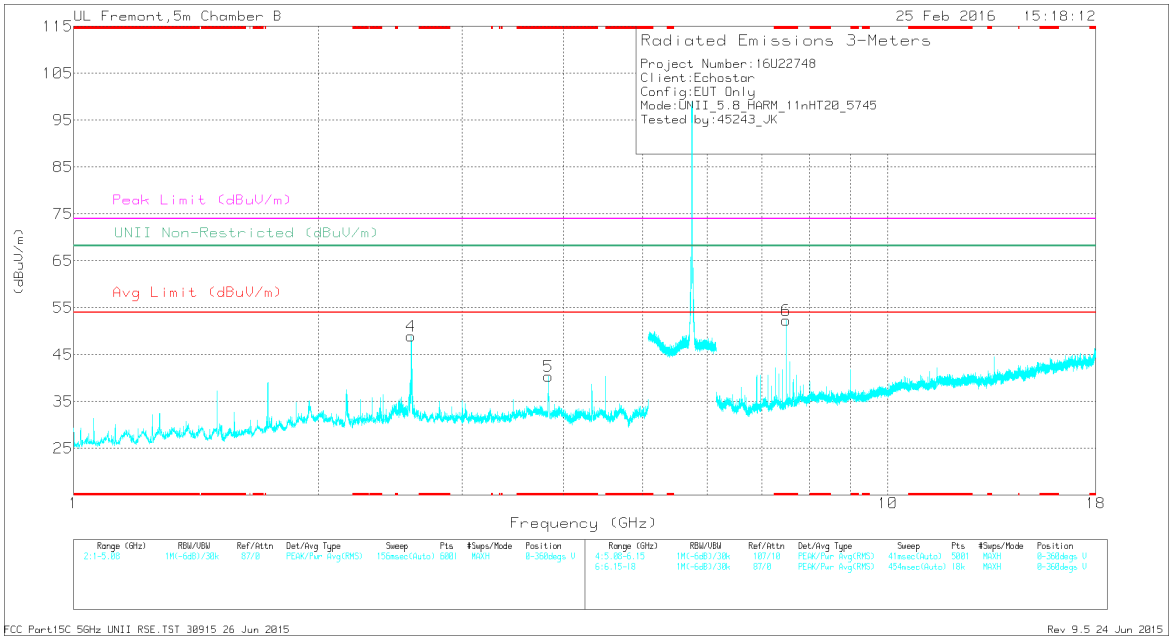
Pk - Peak detector
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL PLOT



LOW CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	* 1.5	49.02	Pk	28.6	-35.5	0	42.12	-	-	74	-31.88	-	-	0-360	200	H
5	* 3.83	39.92	Pk	33.4	-33	0	40.32	-	-	74	-33.68	-	-	0-360	101	V
6	* 7.5	45.98	Pk	35.3	-29	0	52.28	-	-	74	-21.72	-	-	0-360	101	V
2	1.65	44.6	Pk	29.3	-34.7	0	39.2	-	-	-	-	68.2	-29	0-360	200	H
3	1.725	46.07	Pk	30	-34.5	0	41.57	-	-	-	-	68.2	-26.63	0-360	200	H
4	2.598	49.69	Pk	32.8	-33.5	0	48.99	-	-	-	-	68.2	-19.21	0-360	101	V

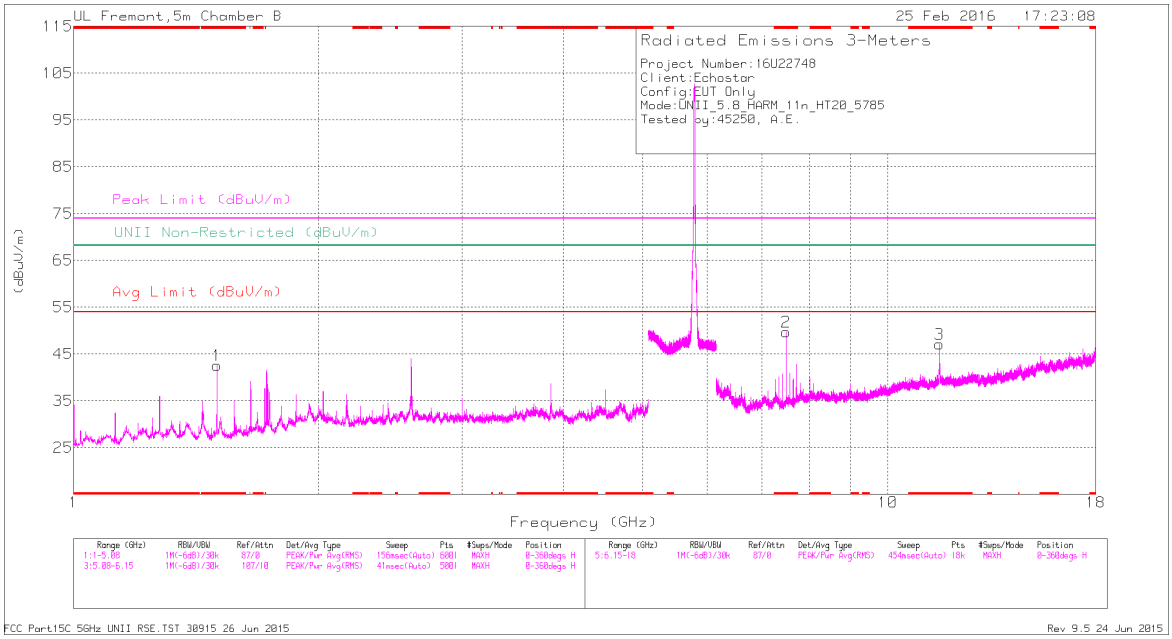
* - indicates frequency in CFR15.205/IC8.10 Restricted Band
Pk - Peak detector

Radiated Emissions

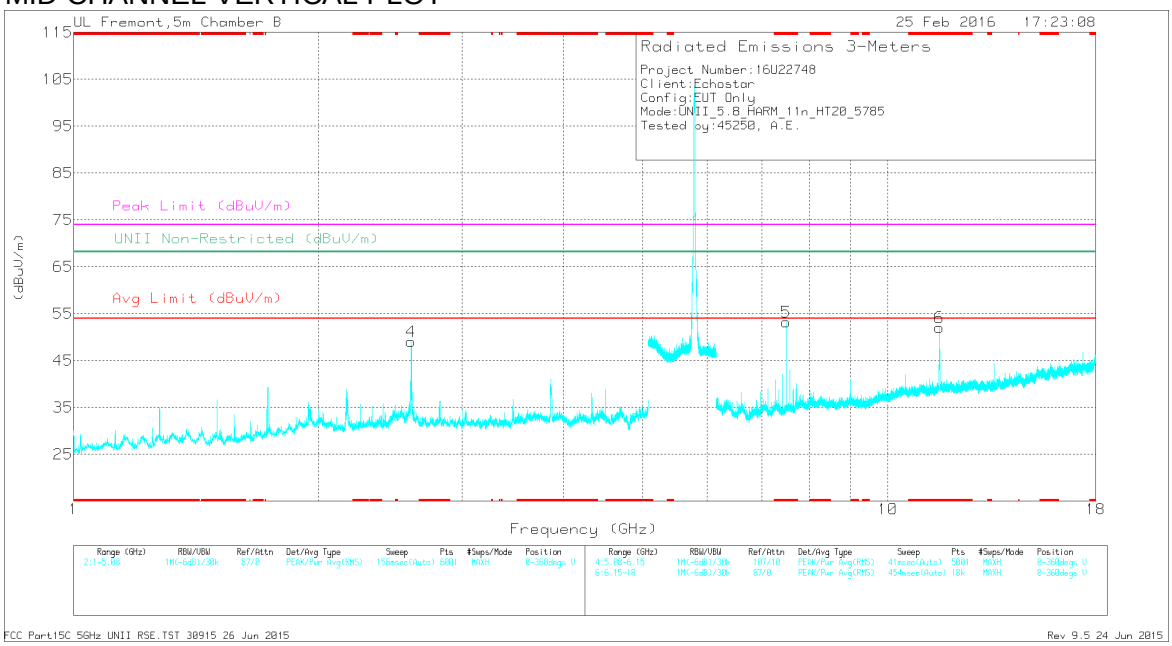
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.5	54.48	PK-U	28.6	-35.5	0	47.58	-	-	74	-26.42	-	-	126	157	H
* 1.5	48.68	ADR	28.6	-35.5	.22	42	54	-12	-	-	-	-	126	157	H
* 3.83	48.11	PK-U	33.4	-33	0	48.51	-	-	74	-25.49	-	-	205	151	V
* 3.83	39.7	ADR	33.4	-33	.22	40.32	54	-13.68	-	-	-	-	205	151	V
* 7.5	49.19	PK-U	35.3	-29	0	55.49	-	-	74	-18.51	-	-	211	118	V
* 7.5	46.64	ADR	35.3	-29	.22	53.16	54	-.84	-	-	-	-	211	118	V
1.65	49.33	PK-U	29.3	-34.7	0	43.93	-	-	-	-	68.2	-24.27	122	148	H
1.725	49.94	PK-U	30	-34.5	0	45.44	-	-	-	-	68.2	-22.76	116	198	H
2.598	56.5	PK-U	32.8	-33.5	0	55.8	-	-	-	-	68.2	-12.4	197	129	V

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

MID CHANNEL HORIZONTAL PLOT



MID CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	* 1.5	49.45	Pk	28.6	-35.5	0	42.55	-	-	74	-31.45	-	-	0-360	200	H
2	* 7.5	43.43	Pk	35.3	-29	0	49.73	-	-	74	-24.27	-	-	0-360	101	H
3	* 11.572	33.29	Pk	38.4	-24.6	0	47.09	-	-	74	-26.91	-	-	0-360	101	H
5	* 7.5	46.93	Pk	35.3	-29	0	53.23	-	-	74	-20.77	-	-	0-360	101	V
6	* 11.572	38.26	Pk	38.4	-24.6	0	52.06	-	-	74	-21.94	-	-	0-360	200	V
4	2.598	49.79	Pk	32.8	-33.5	0	49.09	-	-	-	-	68.2	-19.11	0-360	101	V

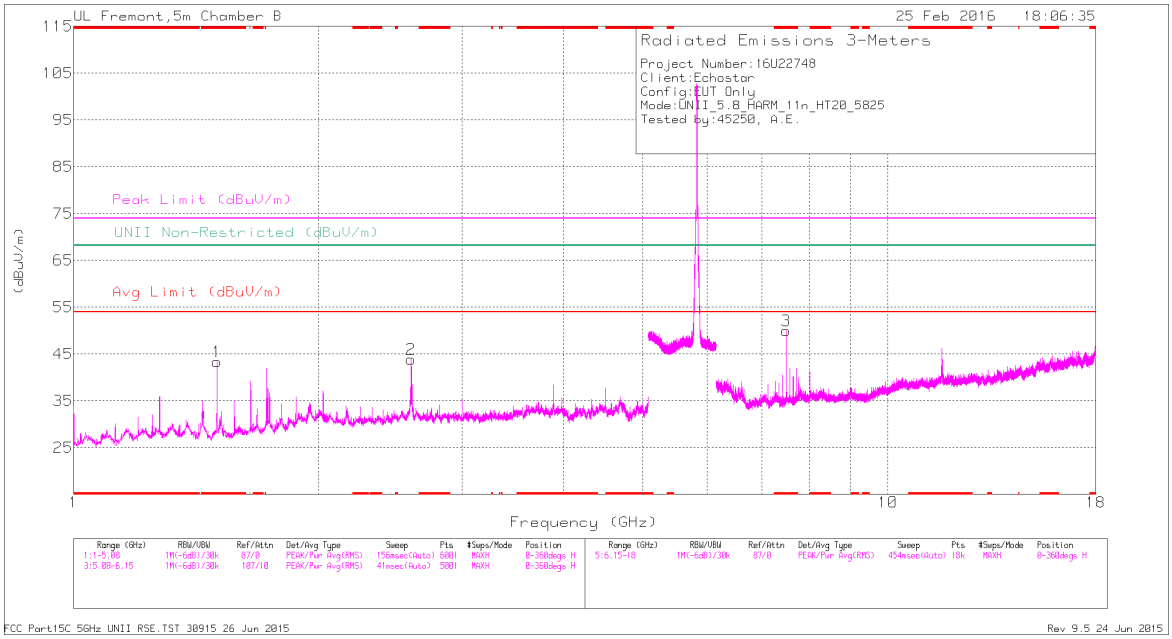
* - indicates frequency in CFR15.205/IC8.10 Restricted Band
Pk - Peak detector

Radiated Emissions

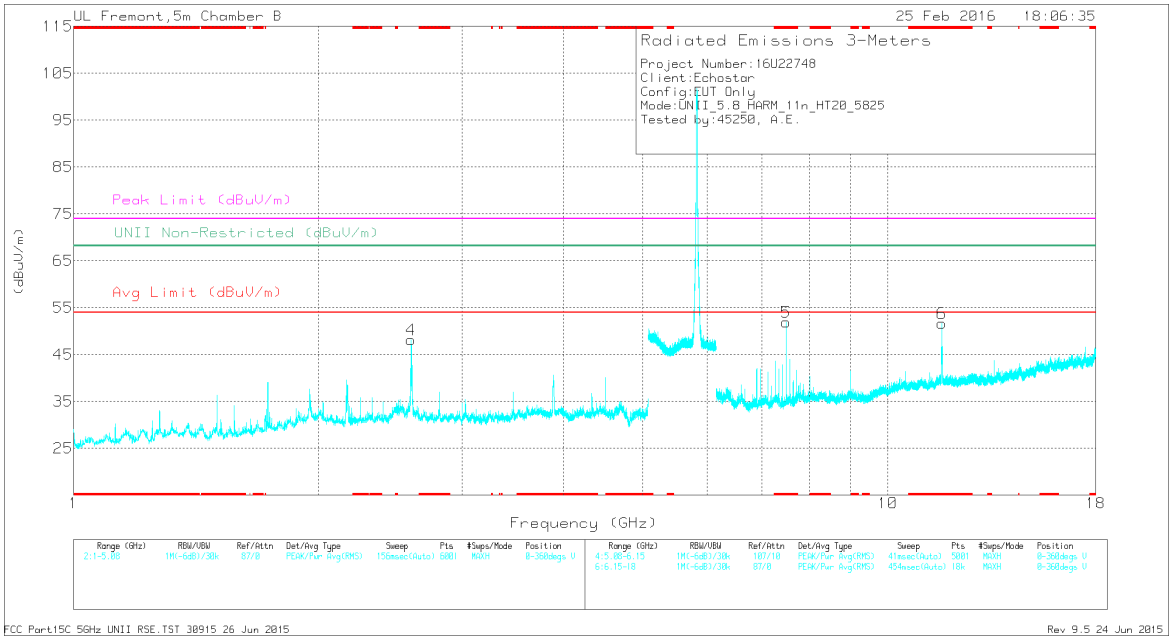
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.5	53.83	PK-U	28.6	-35.5	0	46.93	-	-	74	-27.07	-	-	123	152	H
* 1.5	48.32	ADR	28.6	-35.5	.22	41.64	54	-12.36	-	-	-	-	123	152	H
* 7.5	42.31	PK-U	35.3	-29	0	48.61	-	-	74	-25.39	-	-	226	134	H
* 7.5	37.66	ADR	35.3	-29	.22	44.18	54	-9.82	-	-	-	-	226	134	H
* 11.572	45.26	PK-U	38.4	-24.6	0	59.06	-	-	74	-14.94	-	-	216	224	H
* 11.572	30.3	ADR	38.4	-24.6	.22	44.32	54	-9.68	-	-	-	-	216	224	H
* 7.5	47.33	PK-U	35.3	-29	0	53.63	-	-	74	-20.37	-	-	210	111	V
* 7.5	43.86	ADR	35.3	-29	.22	50.38	54	-3.62	-	-	-	-	210	111	V
* 11.572	47.19	PK-U	38.4	-24.6	0	60.99	-	-	74	-13.01	-	-	196	233	V
* 11.572	33.71	ADR	38.4	-24.6	.22	47.73	54	-6.27	-	-	-	-	196	233	V
2.598	56.28	PK-U	32.8	-33.5	0	55.58	-	-	-	-	68.2	-12.62	194	141	V

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

HIGH CHANNEL HORIZONTAL PLOT



HIGH CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	* 1.5	50.29	Pk	28.6	-35.5	0	43.39	-	-	74	-30.61	-	-	0-360	101	H
3	* 7.5	43.66	Pk	35.3	-29	0	49.96	-	-	74	-24.04	-	-	0-360	101	H
5	* 7.5	45.68	Pk	35.3	-29	0	51.98	-	-	74	-22.02	-	-	0-360	200	V
6	* 11.649	37.94	Pk	38.5	-24.8	0	51.64	-	-	74	-22.36	-	-	0-360	200	V
2	2.598	44.63	Pk	32.8	-33.5	0	43.93	-	-	-	-	68.2	-24.27	0-360	101	H
4	2.598	48.92	Pk	32.8	-33.5	0	48.22	-	-	-	-	68.2	-19.98	0-360	101	V

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

Radiated Emissions

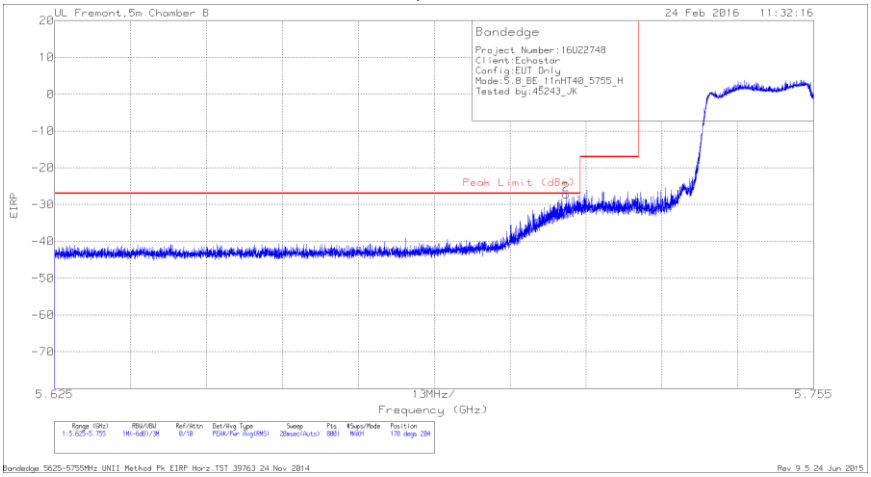
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.5	54.13	PK-U	28.6	-35.5	0	47.23	-	-	74	-26.77	-	-	125	114	H
* 1.5	48.41	ADR	28.6	-35.5	.22	41.73	54	-12.27	-	-	-	-	125	114	H
* 7.5	44.92	PK-U	35.3	-29	0	51.22	-	-	74	-22.78	-	-	227	201	H
* 7.5	40.65	ADR	35.3	-29	.22	47.17	54	-6.83	-	-	-	-	227	201	H
* 7.5	47.78	PK-U	35.3	-29	0	54.08	-	-	74	-19.92	-	-	158	199	V
* 7.5	44.77	ADR	35.3	-29	.22	51.29	54	-2.71	-	-	-	-	158	199	V
* 11.65	45.23	PK-U	38.5	-24.8	0	58.93	-	-	74	-15.07	-	-	206	253	V
* 11.649	32.82	ADR	38.5	-24.8	.22	46.74	54	-7.26	-	-	-	-	206	253	V
2.598	57.53	PK-U	32.8	-33.5	0	56.83	-	-	-	-	68.2	-11.37	197	120	V

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

10.6. TX ABOVE 1 GHz 802.11n HT40 SISO MODE IN THE 5.8 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

LOW CHANNEL RESTRICTED, HORIZONTAL

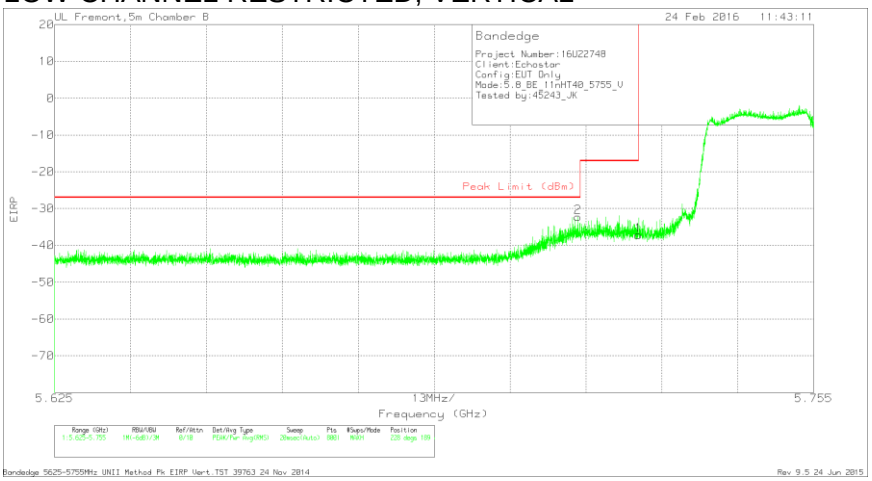


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.713	-52.93	Pk	35	-21.1	11.8	-27.23	-27	-.23	178	204	H
1	5.725	-57.25	Pk	35	-20.8	11.8	-31.25	-17	-14.25	178	204	H

Pk - Peak detector

LOW CHANNEL RESTRICTED, VERTICAL



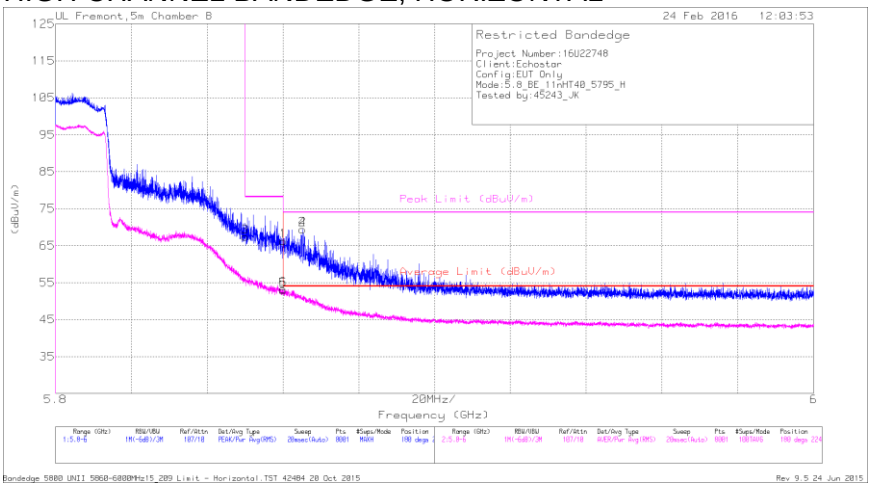
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.715	-58.2	Pk	35	-20.9	11.8	-32.3	-27	-5.3	228	189	V
1	5.725	-63.23	Pk	35	-20.8	11.8	-37.23	-17	-20.23	228	189	V

Pk - Peak detector

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HIGH CHANNEL BANDEDGE, HORIZONTAL

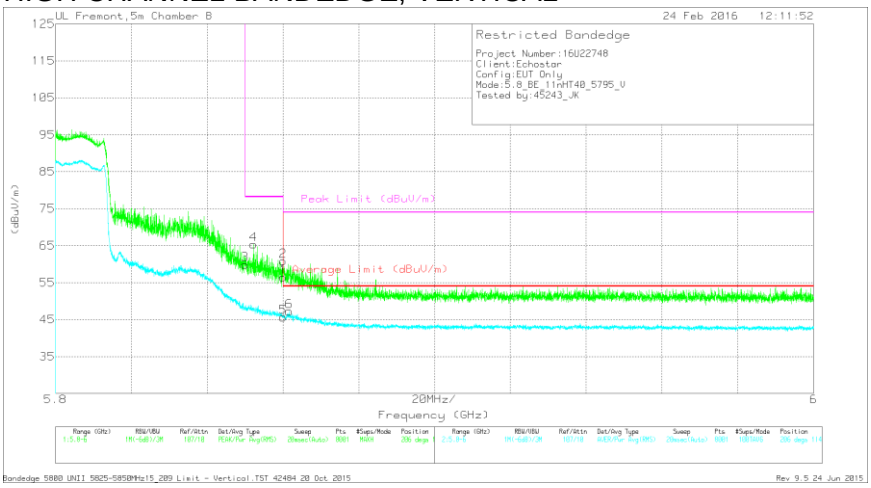


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
3	5.85	52.92	Pk	35.4	-20.9	0	67.42	-	-	78.2	-10.78	180	224	H
1	5.86	51.75	Pk	35.4	-20.9	0	66.25	-	-	74	-7.75	180	224	H
5	5.86	37.98	RMS	35.4	-20.9	.44	52.92	54	-1.08	-	-	180	224	H
6	5.86	38.33	RMS	35.4	-20.9	.44	53.27	54	-.73	-	-	180	224	H
2	5.865	54.92	Pk	35.4	-20.9	0	69.42	-	-	74	-4.58	180	224	H
4	5.865	54.92	Pk	35.4	-20.9	0	69.42	-	-	74	-4.58	180	224	H

Pk - Peak detector
RMS - RMS detection

HIGH CHANNEL BANDEDGE, VERTICAL



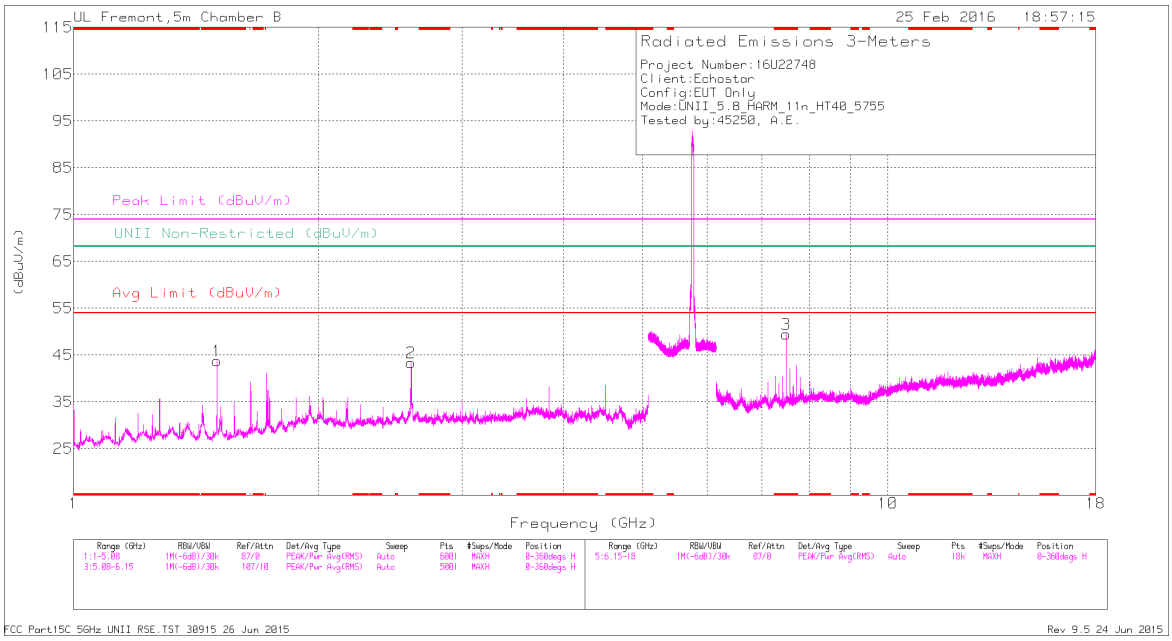
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
3	5.85	45.42	Pk	35.4	-20.9	0	59.92	-	-	78.2	-18.28	206	114	V
4	5.852	50.63	Pk	35.4	-20.7	0	65.33	-	-	78.2	-12.87	206	114	V
1	5.86	42	Pk	35.4	-20.9	0	56.5	-	-	74	-17.5	206	114	V
2	5.86	46.35	Pk	35.4	-20.9	0	60.85	-	-	74	-13.15	206	114	V
5	5.86	30.7	RMS	35.4	-20.9	.44	45.64	54	-8.36	-	-	206	114	V
6	5.862	32.18	RMS	35.4	-20.8	.44	47.22	54	-6.78	-	-	206	114	V

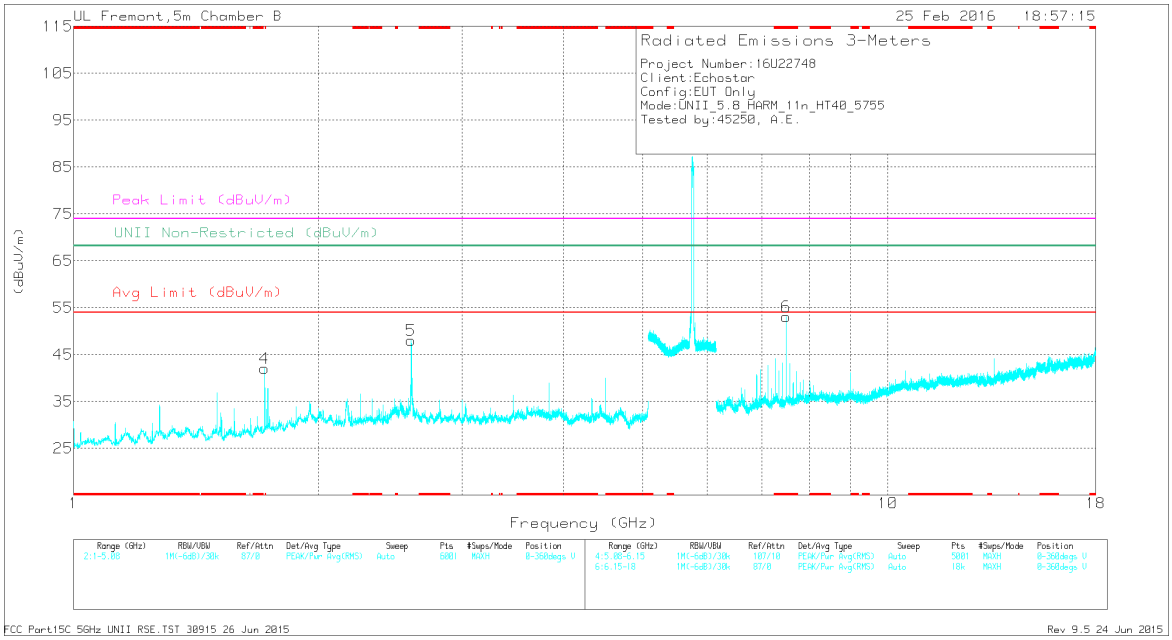
Pk - Peak detector
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL PLOT



LOW CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	* 1.5	50.65	Pk	28.6	-35.5	0	43.75	-	-	74	-30.25	-	-	0-360	200	H
3	* 7.5	43.2	Pk	35.3	-29	0	49.5	-	-	74	-24.5	-	-	0-360	200	H
6	* 7.5	46.82	Pk	35.3	-29	0	53.12	-	-	74	-20.88	-	-	0-360	200	V
4	1.717	46.62	Pk	29.9	-34.5	0	42.02	-	-	-	-	68.2	-26.18	0-360	101	V
2	2.597	44.07	Pk	32.8	-33.5	0	43.37	-	-	-	-	68.2	-24.83	0-360	200	H
5	2.598	48.74	Pk	32.8	-33.5	0	48.04	-	-	-	-	68.2	-20.16	0-360	101	V

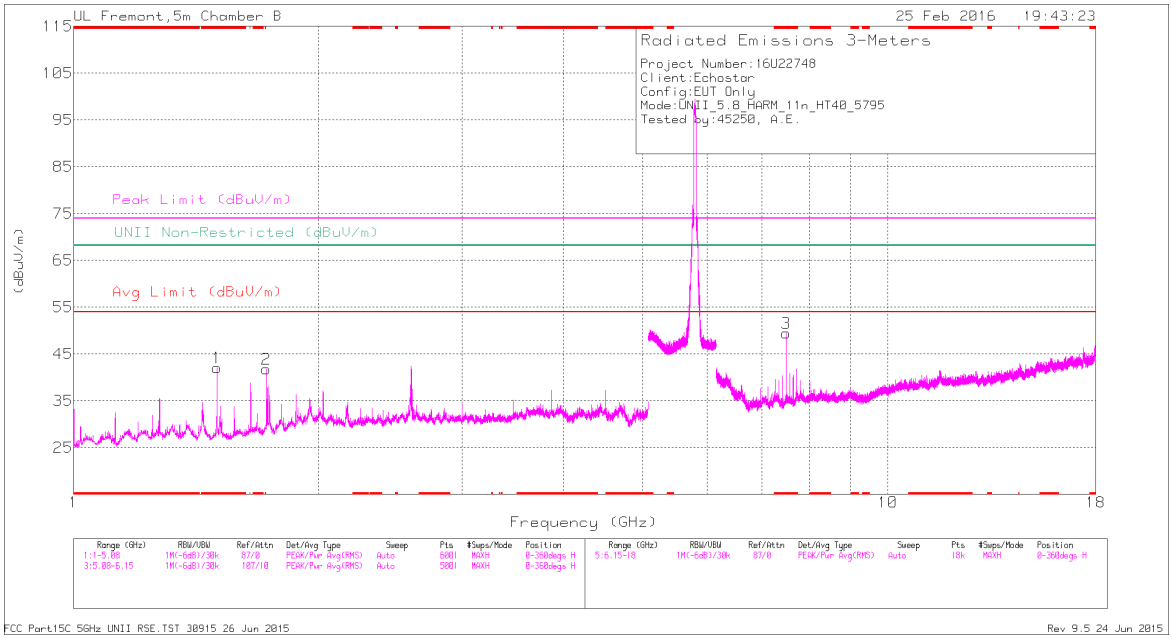
* - indicates frequency in CFR15.205/IC8.10 Restricted Band
Pk - Peak detector

Radiated Emissions

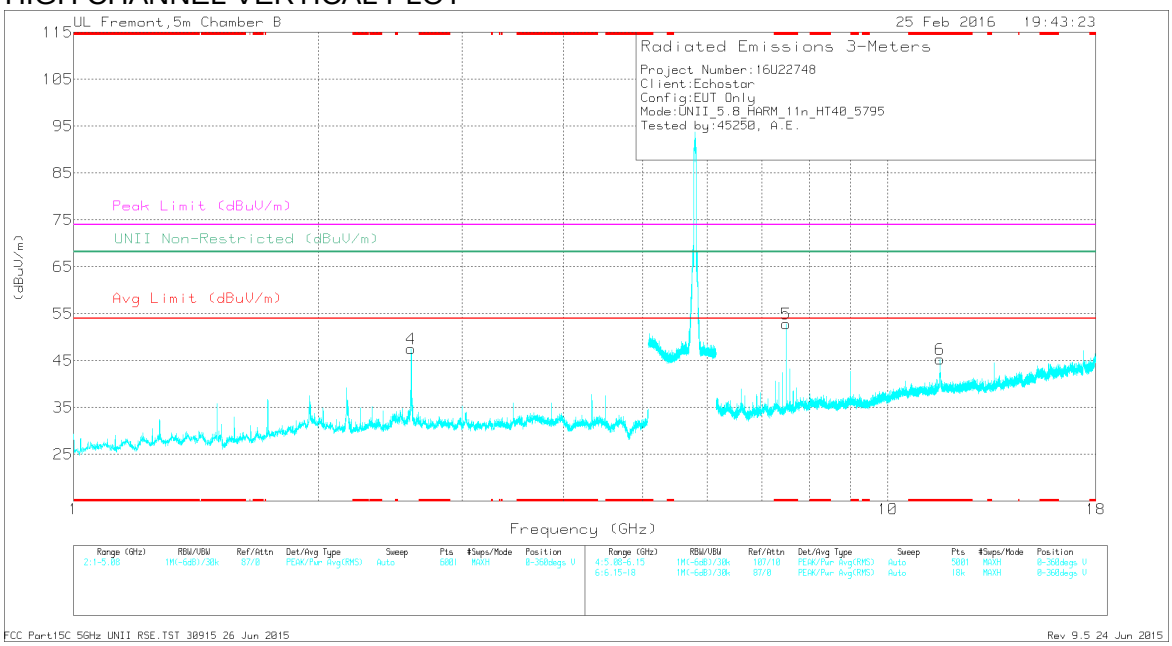
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.5	53.9	PK-U	28.6	-35.5	0	47	-	-	74	-27	-	-	122	116	H
* 1.5	49.4	ADR	28.6	-35.5	.44	42.94	54	-11.06	-	-	-	-	122	116	H
* 7.5	43.01	PK-U	35.3	-29	0	49.31	-	-	74	-24.69	-	-	183	355	H
* 7.5	39.09	ADR	35.3	-29	.44	45.83	54	-8.17	-	-	-	-	183	355	H
* 7.5	48.43	PK-U	35.3	-29	0	54.73	-	-	74	-19.27	-	-	216	199	V
* 7.5	45.01	ADR	35.3	-29	.44	51.75	54	-2.25	-	-	-	-	216	199	V
1.718	30.67	ADR	29.9	-34.5	.44	26.51	-	-	-	-	-	-	346	319	V
1.719	50.13	PK-U	29.9	-34.5	0	45.53	-	-	-	-	68.2	-22.67	346	319	V
2.598	53.6	PK-U	32.8	-33.5	0	52.9	-	-	-	-	68.2	-15.3	170	200	H
2.598	56.95	PK-U	32.8	-33.5	0	56.25	-	-	-	-	68.2	-11.95	195	127	V

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

HIGH CHANNEL HORIZONTAL PLOT



HIGH CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	* 1.5	48.99	Pk	28.6	-35.5	0	42.09	-	-	74	-31.91	-	-	0-360	199	H
3	* 7.5	43.17	Pk	35.3	-29	0	49.47	-	-	74	-24.53	-	-	0-360	199	H
5	* 7.5	46.5	Pk	35.3	-29	0	52.8	-	-	74	-21.2	-	-	0-360	101	V
6	* 11.589	31.63	Pk	38.4	-24.7	0	45.33	-	-	74	-28.67	-	-	0-360	199	V
2	1.725	46.34	Pk	30	-34.5	0	41.84	-	-	-	-	68.2	-26.36	0-360	199	H
4	2.598	48.27	Pk	32.8	-33.5	0	47.57	-	-	-	-	68.2	-20.63	0-360	101	V

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

Radiated Emissions

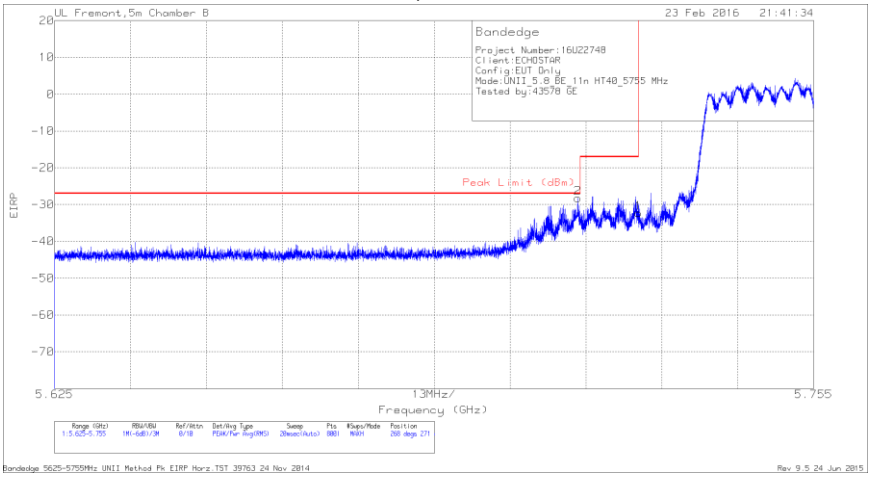
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.5	54.06	PK-U	28.6	-35.5	0	47.16	-	-	74	-26.84	-	-	121	115	H
* 1.5	50.25	ADR	28.6	-35.5	.44	43.79	54	-10.21	-	-	-	-	121	115	H
* 7.5	45.96	PK-U	35.3	-29	0	52.26	-	-	74	-21.74	-	-	185	367	H
* 7.5	42.33	ADR	35.3	-29	.44	49.07	54	-4.93	-	-	-	-	185	367	H
* 7.5	49.15	PK-U	35.3	-29	0	55.45	-	-	74	-18.55	-	-	3	132	V
* 7.5	46.43	ADR	35.3	-29	.44	53.17	54	-.83	-	-	-	-	3	132	V
* 11.59	41.22	PK-U	38.4	-24.7	0	54.92	-	-	74	-19.08	-	-	210	200	V
* 11.589	27.9	ADR	38.4	-24.7	.44	42.04	54	-11.96	-	-	-	-	210	200	V
1.725	50.43	PK-U	30	-34.5	0	45.93	-	-	-	-	68.2	-22.27	122	161	H
2.598	56.62	PK-U	32.8	-33.5	0	55.92	-	-	-	-	68.2	-12.28	196	134	V

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

10.7. TX ABOVE 1 GHz 802.11n HT40 CDD 2TX MODE IN THE 5.8 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

LOW CHANNEL RESTRICTED, HORIZONTAL

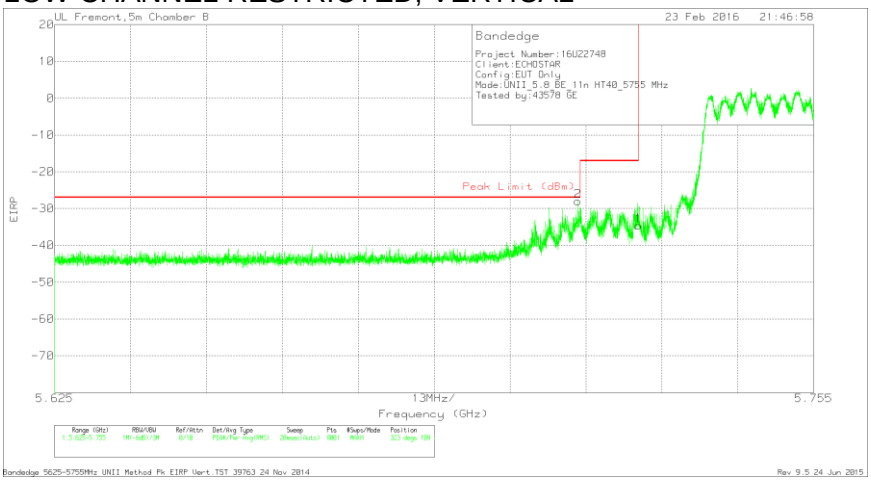


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.715	-54.15	Pk	35	-20.9	11.8	-28.25	-27	-1.25	268	271	H
1	5.725	-58.27	Pk	35	-20.8	11.8	-32.27	-17	-15.27	268	271	H

Pk - Peak detector

LOW CHANNEL RESTRICTED, VERTICAL



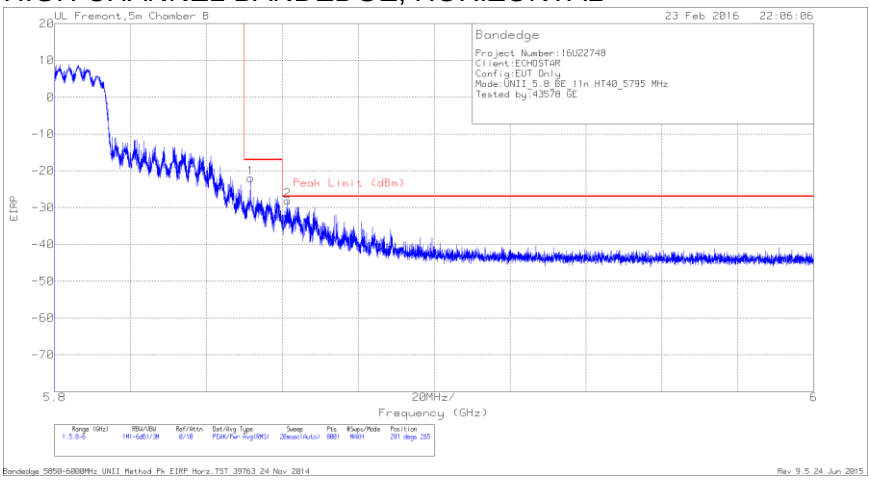
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.715	-53.9	Pk	35	-20.9	11.8	-28	-27	-1	323	109	V
1	5.725	-60.63	Pk	35	-20.8	11.8	-34.63	-17	-17.63	323	109	V

Pk - Peak detector

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HIGH CHANNEL BANDEDGE, HORIZONTAL

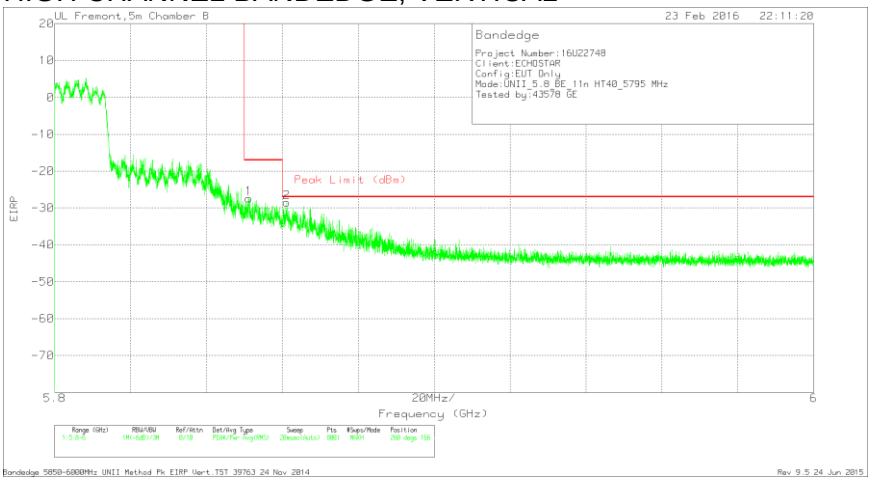


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.852	-48.52	Pk	35.4	-20.7	11.8	-22.02	-17	-5.02	281	265	H
2	5.861	-54.41	Pk	35.4	-20.9	11.8	-28.11	-27	-1.11	281	265	H

Pk - Peak detector

HIGH CHANNEL BANDEDGE, VERTICAL



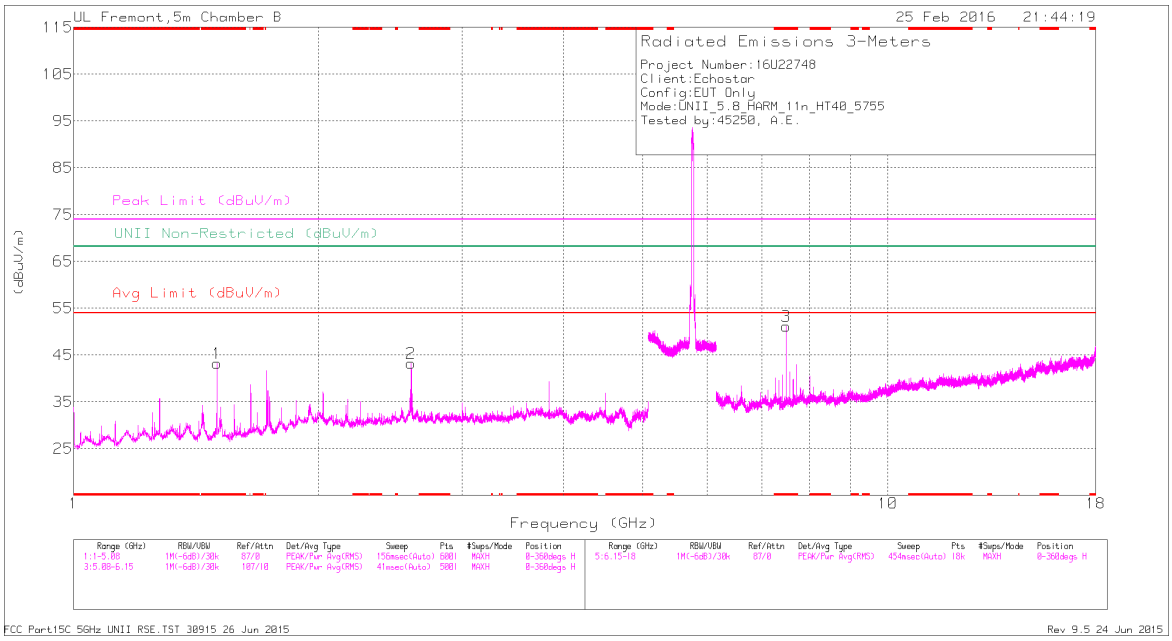
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.851	-53.79	Pk	35.4	-20.8	11.8	-27.39	-17	-10.39	260	166	V
2	5.861	-54.8	Pk	35.4	-20.9	11.8	-28.5	-27	-1.5	260	166	V

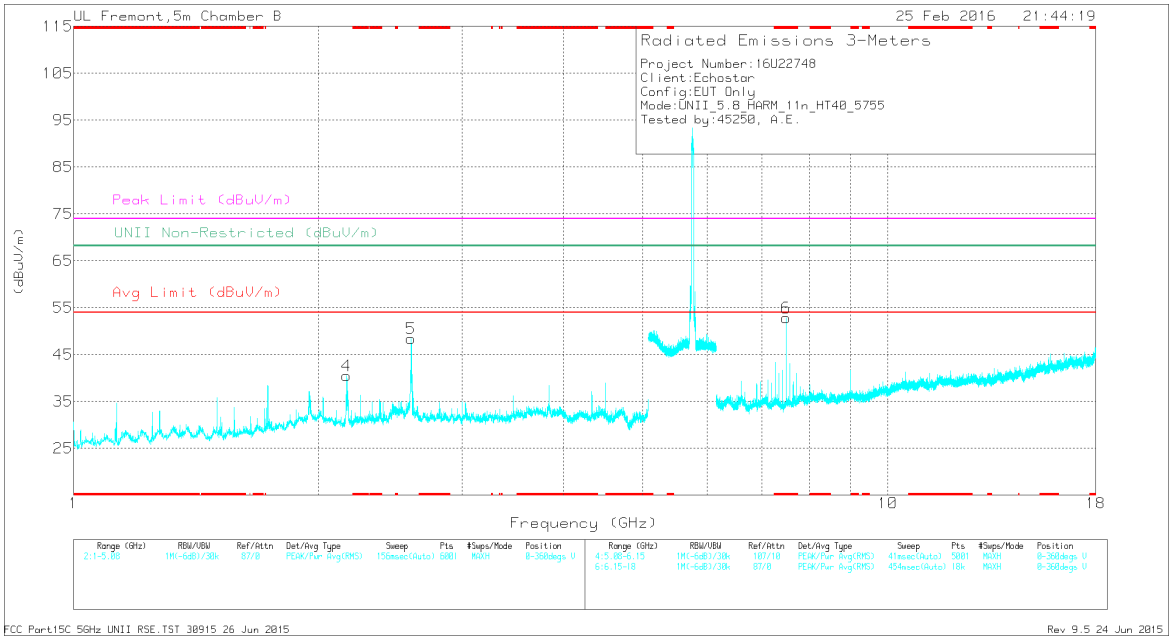
Pk - Peak detector

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL PLOT



LOW CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	* 1.5	50.18	Pk	28.6	-35.5	0	43.28	-	-	74	-30.72	-	-	0-360	101	H
3	* 7.5	44.9	Pk	35.3	-29	0	51.2	-	-	74	-22.8	-	-	0-360	101	H
6	* 7.5	46.54	Pk	35.3	-29	0	52.84	-	-	74	-21.16	-	-	0-360	101	V
4	2.165	43.85	Pk	31.3	-34.7	0	40.45	-	-	-	-	68.2	-27.75	0-360	199	V
2	2.598	43.93	Pk	32.8	-33.5	0	43.23	-	-	-	-	68.2	-24.97	0-360	101	H
5	2.598	49.16	Pk	32.8	-33.5	0	48.46	-	-	-	-	68.2	-19.74	0-360	101	V

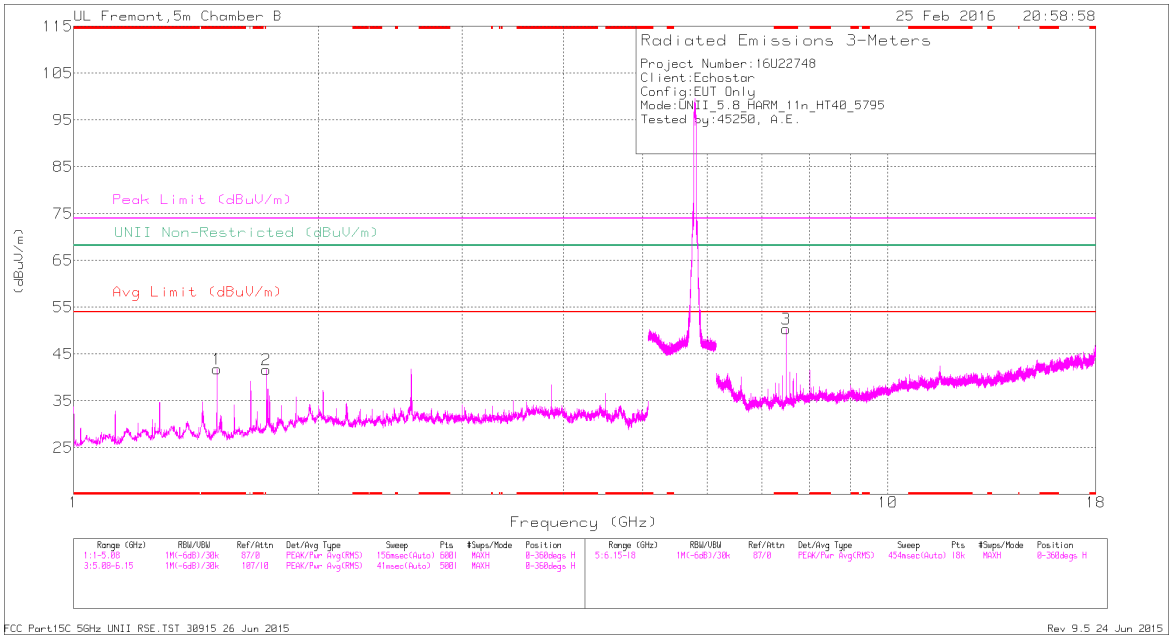
* - indicates frequency in CFR15.205/IC8.10 Restricted Band
Pk - Peak detector

Radiated Emissions

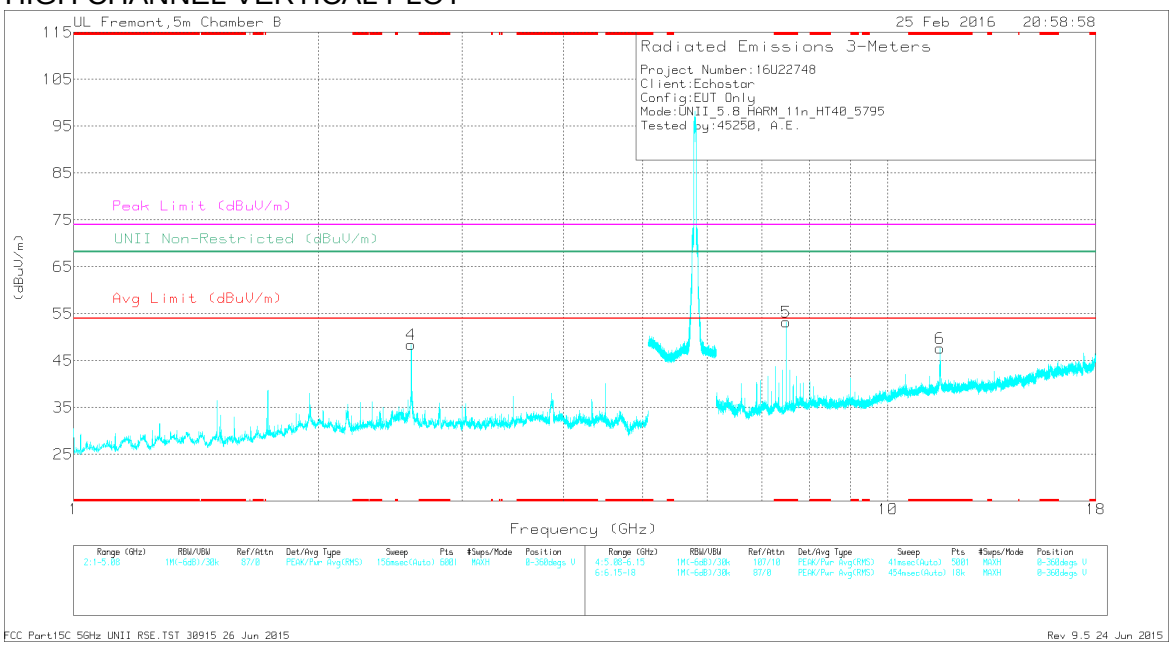
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.5	53.35	PK-U	28.6	-35.5	0	46.45	-	-	74	-27.55	-	-	119	140	H
* 1.5	47.42	ADR	28.6	-35.5	.44	40.96	54	-13.04	-	-	-	-	119	140	H
* 7.5	44.34	PK-U	35.3	-29	0	50.64	-	-	74	-23.36	-	-	202	200	H
* 7.5	39.18	ADR	35.3	-29	.44	45.92	54	-8.08	-	-	-	-	202	200	H
* 7.5	47.31	PK-U	35.3	-29	0	53.61	-	-	74	-20.39	-	-	209	215	V
* 7.5	44.47	ADR	35.3	-29	.44	51.21	54	-2.79	-	-	-	-	209	215	V
2.167	49.2	PK-U	31.3	-34.7	0	45.8	-	-	-	-	68.2	-22.4	193	314	V
2.598	54.72	PK-U	32.8	-33.5	0	54.02	-	-	-	-	68.2	-14.18	169	141	H
2.598	56.88	PK-U	32.8	-33.5	0	56.18	-	-	-	-	68.2	-12.02	197	102	V

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

HIGH CHANNEL HORIZONTAL PLOT



HIGH CHANNEL VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	* 1.5	48.72	Pk	28.6	-35.5	0	41.82	-	-	74	-32.18	-	-	0-360	199	H
3	* 7.5	44.09	Pk	35.3	-29	0	50.39	-	-	74	-23.61	-	-	0-360	101	H
5	* 7.5	46.99	Pk	35.3	-29	0	53.29	-	-	74	-20.71	-	-	0-360	101	V
6	* 11.584	33.82	Pk	38.4	-24.6	0	47.62	-	-	74	-26.38	-	-	0-360	199	V
2	1.725	46.23	Pk	30	-34.5	0	41.73	-	-	-	-	68.2	-26.47	0-360	199	H
4	2.598	49.07	Pk	32.8	-33.5	0	48.37	-	-	-	-	68.2	-19.83	0-360	101	V

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

Radiated Emissions

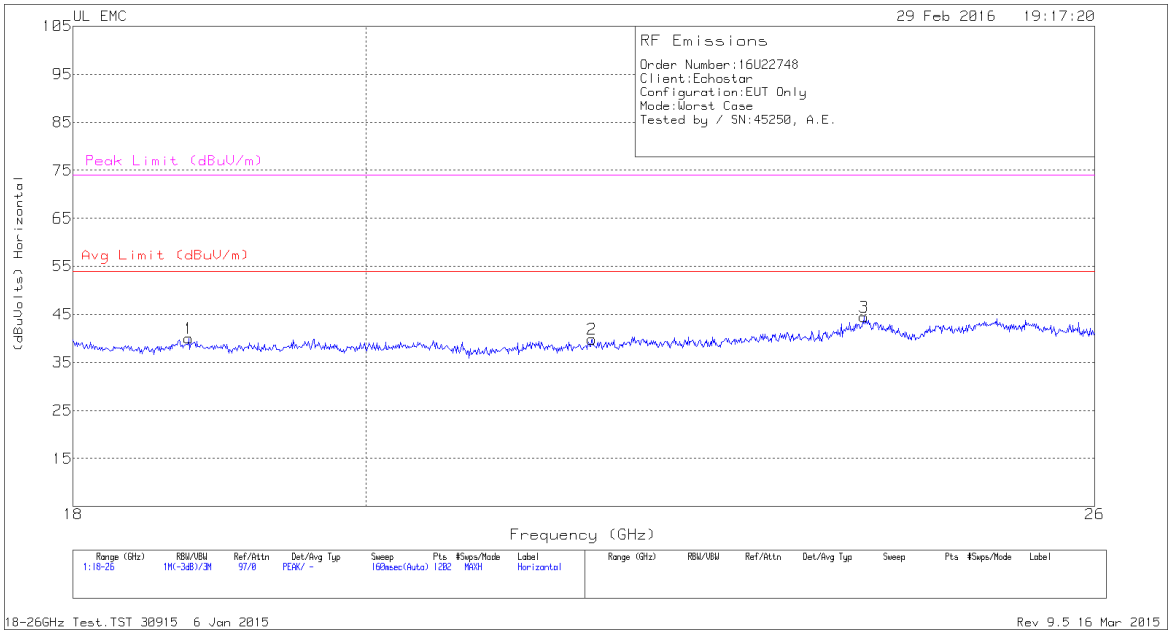
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.5	54.12	PK-U	28.6	-35.5	0	47.22	-	-	74	-26.78	-	-	128	110	H
* 1.5	49.22	ADR	28.6	-35.5	.44	42.76	54	-11.24	-	-	-	-	128	110	H
* 7.5	47.17	PK-U	35.3	-29	0	53.47	-	-	74	-20.53	-	-	229	202	H
* 7.5	43.06	ADR	35.3	-29	.44	49.8	54	-4.2	-	-	-	-	229	202	H
* 7.5	47.7	PK-U	35.3	-29	0	54	-	-	74	-20	-	-	209	217	V
* 7.5	44.55	ADR	35.3	-29	.44	51.29	54	-2.71	-	-	-	-	209	217	V
* 11.585	40.67	PK-U	38.4	-24.6	0	54.47	-	-	74	-19.53	-	-	197	249	V
* 11.585	28.84	ADR	38.4	-24.6	.44	43.08	54	-10.92	-	-	-	-	197	249	V
1.725	49.65	PK-U	30	-34.5	0	45.15	-	-	-	-	68.2	-23.05	119	197	H
2.598	54.75	PK-U	32.8	-33.5	0	54.05	-	-	-	-	68.2	-14.15	189	142	V

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

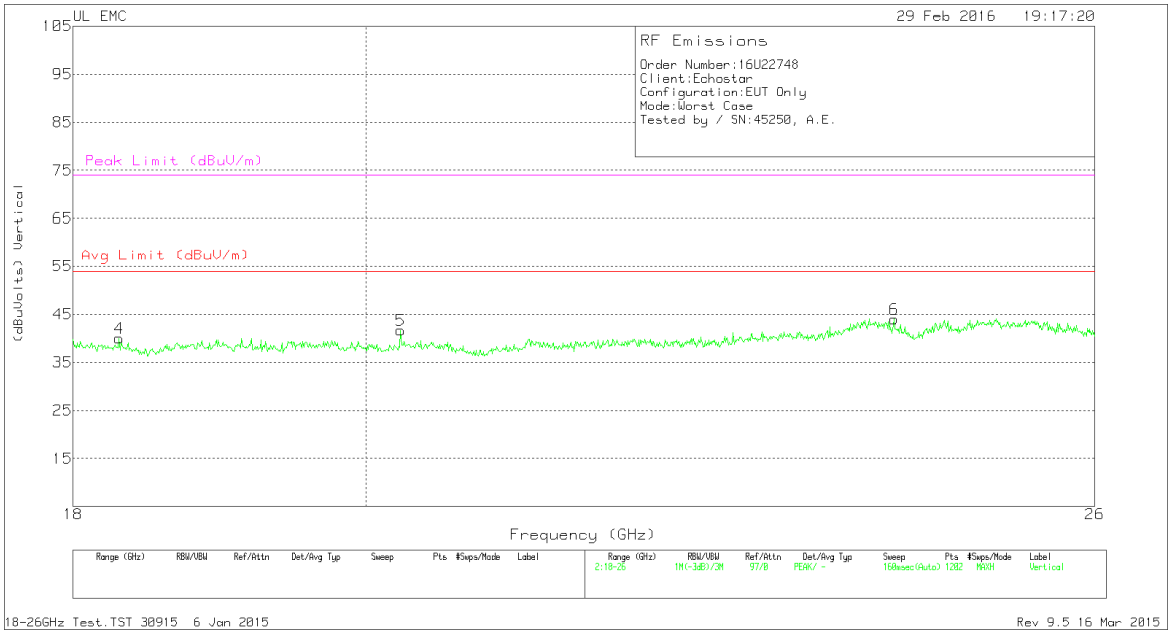
10.8. WORST-CASE ABOVE 18GHz

SPURIOUS EMISSIONS 18 – 26GHz

HORIZONTAL



VERTICAL



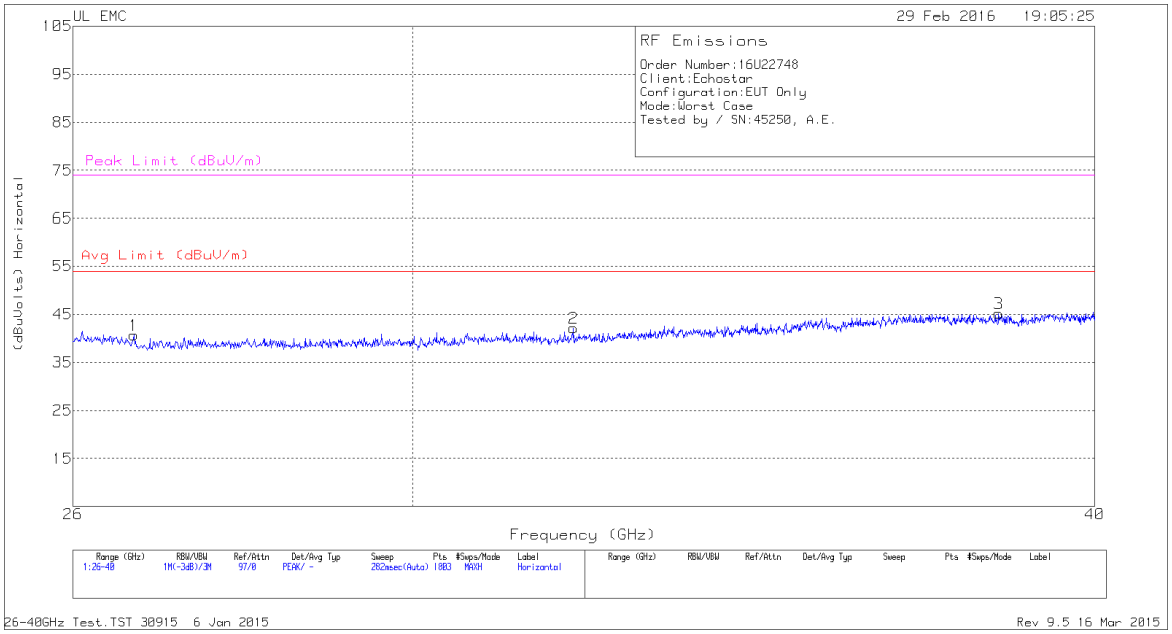
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T447 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	18.77	42.10	Pk	32.3	-24.9	-9.5	40	54	-14	74	-34
2	21.70	40.93	Pk	33.0	-24.6	-9.5	39.83	54	-14.17	74	-34.17
3	23.93	44.30	Pk	33.7	-24.0	-9.5	44.5	54	-9.5	74	-29.5
4	18.30	42.40	Pk	32.3	-25.2	-9.5	40	54	-14	74	-34
5	20.25	43.77	Pk	32.6	-25.2	-9.5	41.67	54	-12.33	74	-32.33
6	24.19	43.80	Pk	33.8	-24.1	-9.5	44	54	-10	74	-30

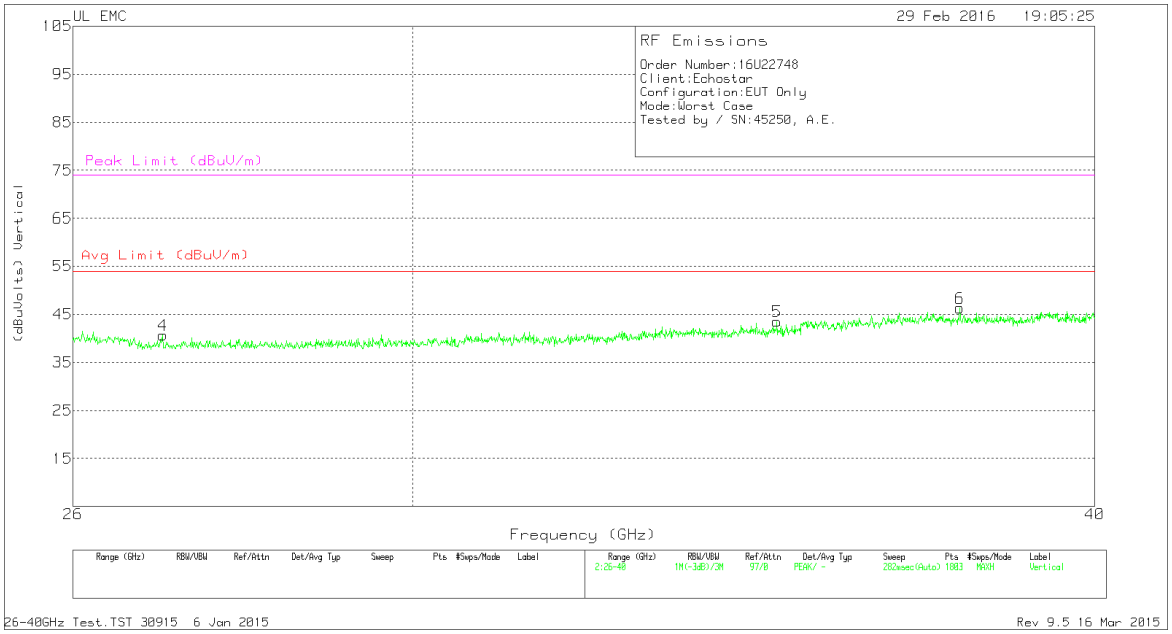
Pk - Peak detector

SPURIOUS EMISSIONS 26 – 40GHz

HORIZONTAL



VERTICAL



Trace Markers

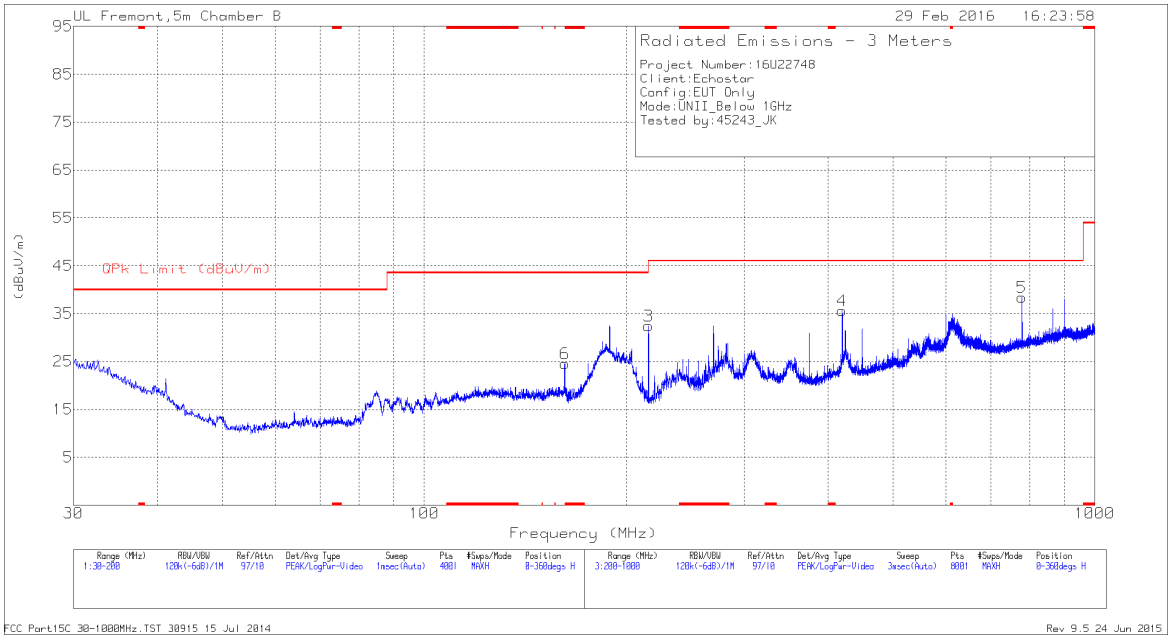
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T90 AF (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuVolts)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	26.676	45.07	Pk	35.3	-30.2	-9.5	40.67	54	-13.33	74	-33.33
2	32.107	48.37	Pk	36.3	-33	-9.5	42.17	54	-11.83	74	-31.83
3	38.407	49.67	Pk	37.1	-32.1	-9.5	45.17	54	-8.83	74	-28.83
4	27.002	45.67	Pk	35.5	-31	-9.5	40.67	54	-13.33	74	-33.33
5	34.981	49.10	Pk	37.2	-33.3	-9.5	43.50	54	-10.50	74	-30.50
6	37.786	51.43	Pk	37.0	-32.6	-9.5	46.33	54	-7.67	74	-27.67

PK - Peak detector

10.9. WORST-CASE BELOW 1 GHz

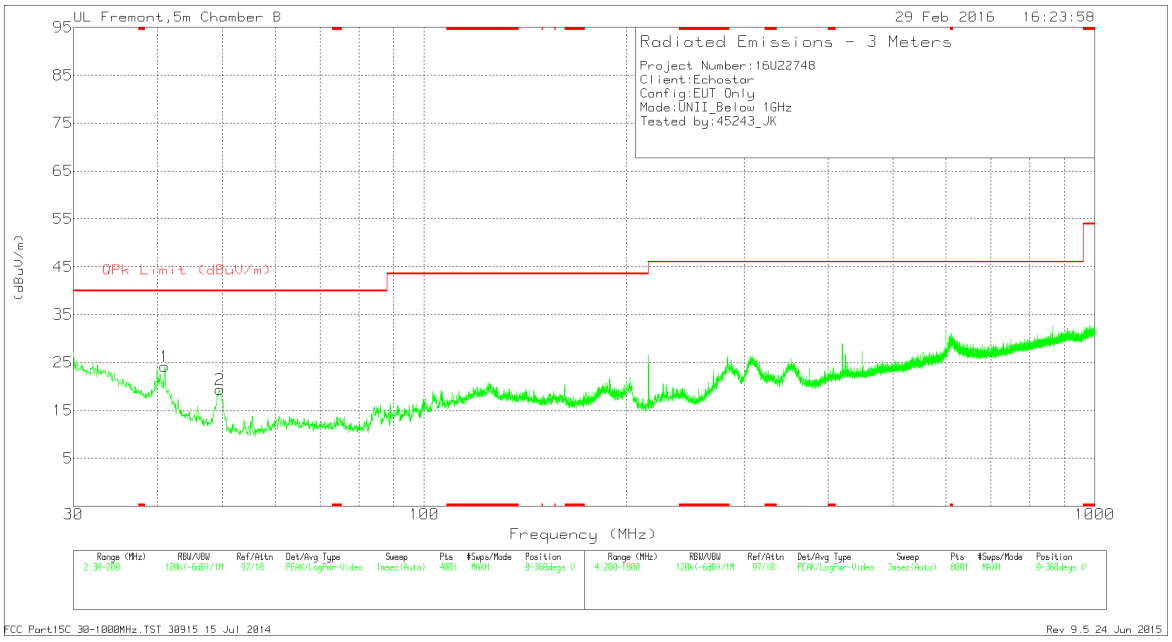
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

HORIZONTAL PLOT



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

VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T130 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	41.05	35.75	Pk	17.2	-28.8	24.15	40	-15.85	0-360	101	V
2	49.5925	36.26	Pk	11.7	-28.6	19.36	40	-20.64	0-360	101	V
6	162.005	35.95	Pk	16	-27.4	24.55	43.52	-18.97	0-360	199	H
3	216	44.85	Pk	14.5	-26.9	32.45	43.52	-11.07	0-360	199	H
4	420	41.73	Pk	20.2	-26.3	35.63	46.02	-10.39	0-360	101	H
5	779	38.15	Pk	25.1	-24.8	38.45	46.02	-7.57	0-360	299	H

Pk - Peak detector

11. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

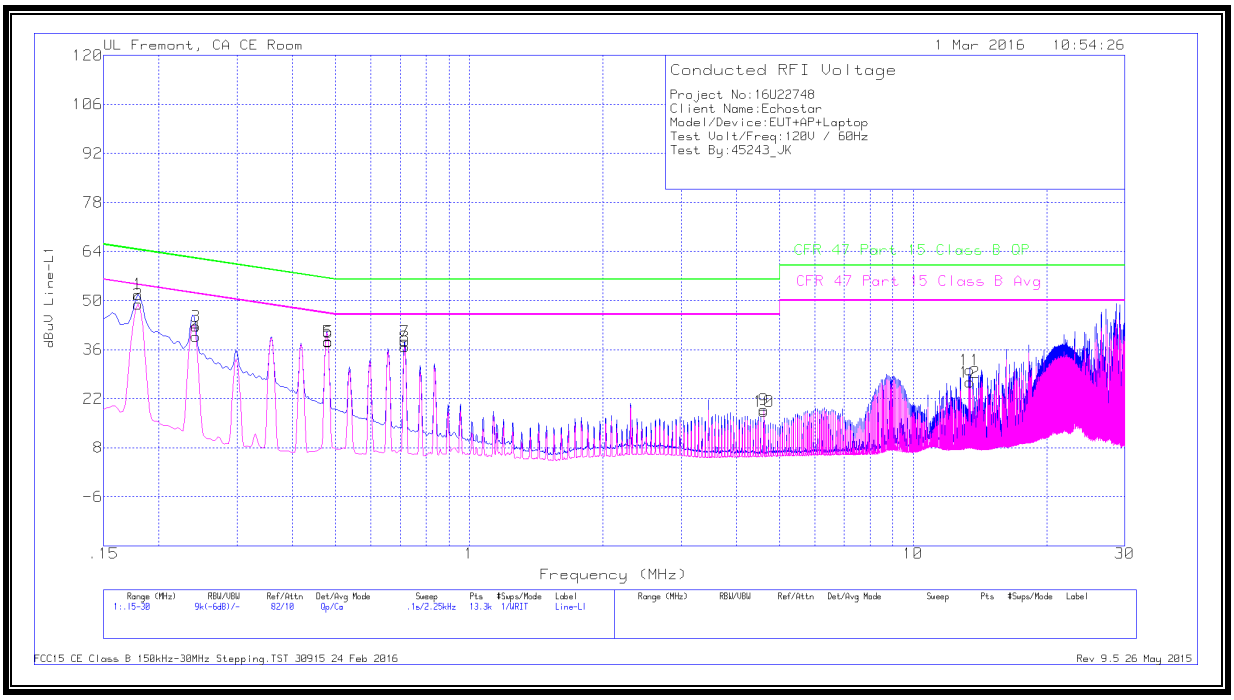
RSS-Gen 8.8

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.

RESULTS

LINE 1 RESULTS



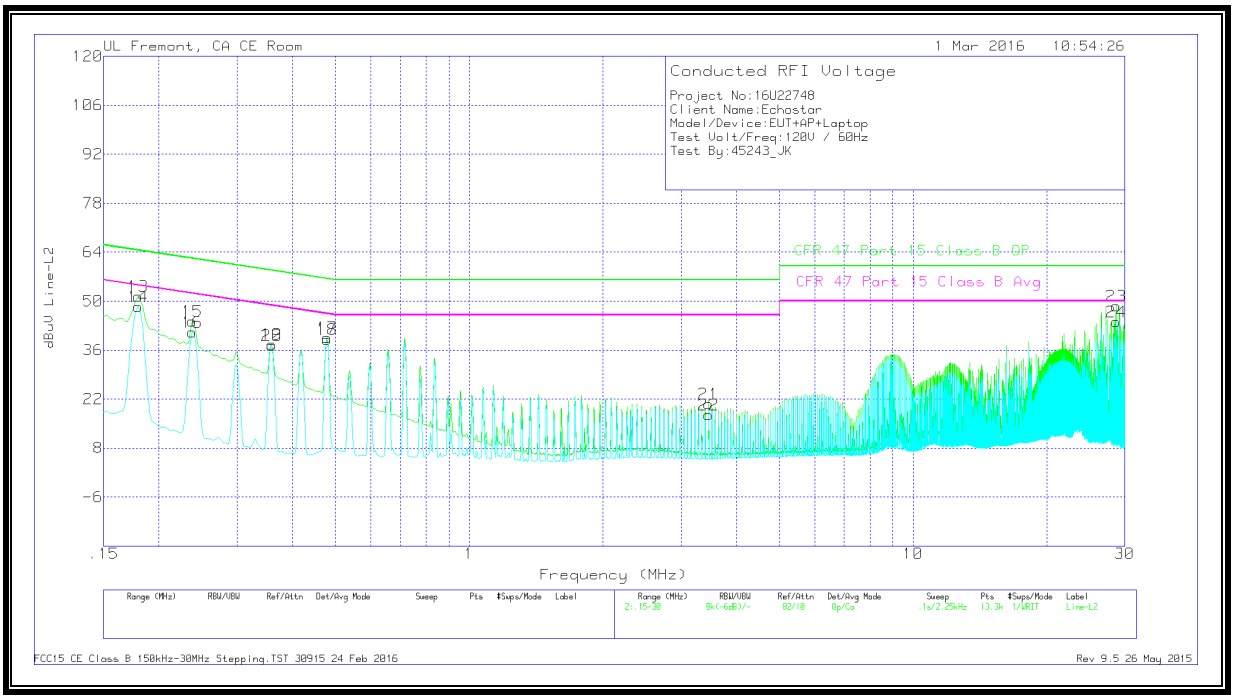
Range 1: Line-L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T1310 IL 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	.17925	41.72	Qp	0	0	10.1	51.82	64.52	-12.7	-	-
2	.17925	38.85	Ca	0	0	10.1	48.95	-	-	54.52	-5.57
3	.24225	32.58	Qp	0	0	10.1	42.68	62.02	-19.34	-	-
4	.24225	29.7	Ca	0	0	10.1	39.8	-	-	52.02	-12.22
5	.48075	28.25	Qp	0	0	10.1	38.35	56.33	-17.98	-	-
6	.48075	28	Ca	0	0	10.1	38.1	-	-	46.33	-8.23
7	.717	28.28	Qp	0	0	10.1	38.38	56	-17.62	-	-
8	.717	26.69	Ca	0	0	10.1	36.79	-	-	46	-9.21
9	4.61625	8.61	Qp	0	.1	10.1	18.81	56	-37.19	-	-
10	4.61625	8.22	Ca	0	.1	10.1	18.42	-	-	46	-27.58
11	13.4205	19.73	Qp	.1	.2	10.2	30.23	60	-29.77	-	-
12	13.4205	16.28	Ca	.1	.2	10.2	26.78	-	-	50	-23.22

Qp - Quasi-Peak detector

Ca - CISPR average detection

LINE 2 RESULTS



Range 2: Line-L2 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T1310 IL 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	.17925	41.32	Qp	0	0	10.1	51.42	64.52	-13.1	-	-
14	.17925	38.39	Ca	0	0	10.1	48.49	-	-	54.52	-6.03
15	.23775	34.22	Qp	0	0	10.1	44.32	62.17	-17.85	-	-
16	.23775	31.1	Ca	0	0	10.1	41.2	-	-	52.17	-10.97
17	.4785	29.43	Qp	0	0	10.1	39.53	56.37	-16.84	-	-
18	.4785	29	Ca	0	0	10.1	39.1	-	-	46.37	-7.27
19	.35925	27.52	Qp	0	0	10.1	37.62	58.75	-21.13	-	-
20	.35925	27.17	Ca	0	0	10.1	37.27	-	-	48.75	-11.48
21	3.46425	10.46	Qp	0	.1	10.1	20.66	56	-35.34	-	-
22	3.46425	7.27	Ca	0	.1	10.1	17.47	-	-	46	-28.53
23	28.68675	37.76	Qp	.1	.3	10.4	48.56	60	-11.44	-	-
24	28.68675	33.3	Ca	.1	.3	10.4	44.1	-	-	50	-5.9

Qp - Quasi-Peak detector

Ca - CISPR average detection