FCC 47 CFR PART 15 SUBPART E
INDUSTRY CANADA RSS-247 ISSUE 1

C2PC CERTIFICATION TEST REPORT

FOR

CDMA/GSM/WCDMA/LTE PHONE + BLUETOOTH, DTS/UNII a/b/g/n/ac & NFC

MODEL NUMBER: LG-H790, LGH790, H790

FCC ID: ZNFH790
IC ID: 2703C-H790

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME:	LG ELECTRONICS MOBILECOMM U.S.A., INC.
EUT DESCRIPTION:	CDMA/GSM/WCDMA/LTE PHONE + BLUETOOTH, DTS/UNII a/b/g/n/ac & NFC
MODEL:	LG-H790, LGH790, H790
SERIAL NUMBER:	Radiated: 21SDQ; Conducted: 21SE0, 21SE2
DATE TESTED:	AUGUST 21-28, 2015

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart E	Pass
INDUSTRY CANADA RSS-247Issue 1	Pass
INDUSTRY CANADA RSS-GEN Issue 4	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.

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10-2009 for IC and ANSI C63.10-2013 for FCC, RSS-GEN Issue 4, RSS-247 Issue 1.

Deviation from ANSI C63.10-2009:
Radiated spurious emission above 1GHz was performed with the EUT elevated at 1.5m instead of 0.8m. 1.5m is the required height in ANSI C63.10:2013 as referenced by RSS GEN issue 4.

3. FACILITIES AND ACCREDITATION

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(IC: 2324B-1)	☐ Chamber D(IC: 2324B-4)
☒ Chamber B(IC: 2324B-2)	☐ Chamber E(IC: 2324B-5)
☒ Chamber C(IC: 2324B-3)	☐ Chamber F(IC: 2324B-6)
	☐ Chamber G(IC: 2324B-7)
	☐ Chamber H(IC: 2324B-8)

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

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

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

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

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

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

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 30 to 18000 MHz	4.94 dB

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

This EUT is a CDMA/GSM/WCDMA/LTE PHONE + BLUETOOTH, DTS/UNII a/b/g/n/ac & NFC.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum total conducted output power as follows:

Frequency Range (MHz)	Mode	Total Output Power (dBm)	Total Output Power (mW)
5180 - 5240	802.11n HT20	17.11	51.40
5260 - 5320	802.11n HT20	17.47	55.85
5500 - 5720	802.11n HT20	17.12	51.52
5745 - 5825	802.11n HT20	17.97	62.66
5190 - 5230	802.11n HT40	14.82	30.34
5270 - 5310	802.11n HT40	15.23	33.34
5510 - 5710	802.11n HT40	15.42	34.83
5755 - 5795	802.11n HT40	15.2	33.11
5180 - 5240	802.11a	17.96	62.52
5260 - 5320	802.11a	18.32	67.92
5500 - 5720	802.11a	18.38	68.87
5745 - 5825	802.11a	17.97	62.66
5210 - 5210	802.11ac HT80	13.88	24.43
5290 - 5290	802.11ac HT80	14.27	26.73
5530 - 5690	802.11ac HT80	14.22	26.42
5775 - 5775	802.11ac HT80	14.08	25.59

5.1. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a PIF (Planar Inverted) antenna; please refer to section 10.5 for antenna gain information.

5.2. WORST-CASE CONFIGURATION AND MODE

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

The fundamental of the EUT was investigated in three orthogonal orientations X, Y, Z, and it was determined that the Z orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in the Z orientation.

SISO and MIMO modes:
Radiated band edge and harmonics spurious emission preliminary investigation showed that MIMO was worst case mode, therefore only MIMO was tested for these modes.

Based on the baseline scan, the worst-case data rates were:

802.11a mode: 6 Mbps
802.11n HT20mode: MCS0
802.11n HT40mode: MCS0
802.11ac VHT80mode: MCS0

5.3. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
AC Adapter	LG	MCS-N04WP	-	N/A
Earphone	LG	-	-	N/A

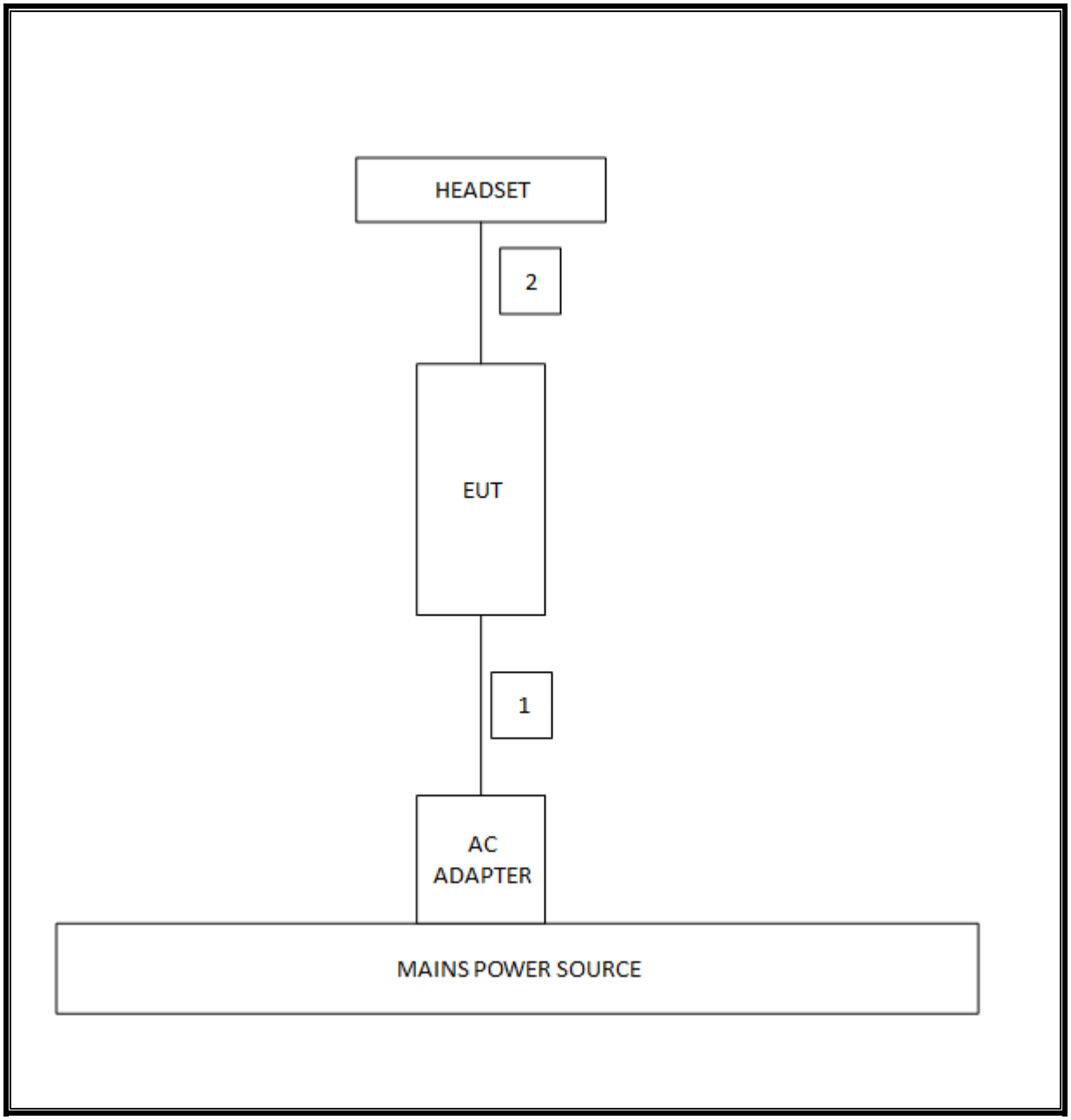
I/O CABLES

I/O Cable List						
Cable No	**Port**	**# of identical ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	DC Power	1	Mini-USB	Shielded	1.2m	N/A
2	Audio	1	Mini-Jack	Unshielded	1.0m	N/A

TEST SETUP

The EUT is setup as a stand-alone device.

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**	**Asset**	**Cal Due**
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01069	12/20/15
Spectrum Analyzer,9KHz-40GHz	HP	8564E	C00986	04/01/16
EMI Test Receiver, 9 kHz-7 GHz	R & S	ESCI 7	1000741	08/13/16
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	08/18/16
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/15
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/15
Antenna, Horn, 1-18 GHz	ETS	3117	C01022	02/21/16
Antenna, Horn,18- 26 GHz	ARA	MWH-1826/B	C00946	11/12/15
Antenna, Horn, 26-40 GHz	ARA	MWH-2640	C00891	06/28/16
Antenna, Bilog, 30MHz-1 GHz	Sunol Sciences	JB1	T243	03/06/16
RF Preamplifier, 100KHz -> 1300MHz	HP	TBD	C00825	06/01/16
RF Preamplifier, 1GHz - 18GHz	Miteq	NSP4000-SP2	924343	03/23/16
RF Preamplifier, 1GHz - 26.5GHz	HP	8449B	T404	06/29/16
AC Power Supply, 2,500VA 45-500Hz	Elgar-Ametek	CW2501M	F00013	CNR
RF Preamplifier, 1GHz - 40GHz	Miteq	NSP4000-SP2	C00990	08/20/16
Attenuator / Switch driver	HP	11713A	F00204	CNR
Low Pass Filter 3GHz	Micro-Tronics	LPS17541	F00219	05/23/16
High Pass Filter 5GHz	Micro-Tronics	HPS17542	F00222	05/22/16
High Pass Filter 6GHz	Micro-Tronics	HPM17543	F00224	05/22/16
Radiated Software	UL	UL EMC	Ver 9.5, July 24, 2014	
Conducted Software	UL	UL EMC	Ver 9.5, May 17 2012	
CLT Software	UL	UL RF	Ver 1.0, Feb 2 2015	
Antenna Port Software	UL	UL RF	Ver 2.1.1.1, Jan 20 2015	

7. SUMMARY TABLE

C2PC reason: Please see LG-H790 change note for details.

FCC Part Section	RSS Section	Test Description	Test Limit	Test Condition	Test Result	Worst Case
15.407 (a)	RSS-247	Occupied Band width (26dB)	N/A	Conducted	Pass	83.54 MHz
15.407	RSS-247 6.2.4	6dB Band width (5.8Ghz)	500KHz		Pass	14.21 MHz
15.407 (a)(1)	RSS-247 6.2	TX Cond. Power, 5.15-5.25	<24dBm (FCC)/ <23dBm or 10+10Log(OBW) (IC)		Pass	17.96 dBm
15.407 (a)(2)	RSS-247 6.2	TX Cond. Power, 5.25-5.35 & 5.47-5.725	<24dBm or 11+10Log(OBW)		Pass	18.38 dBm
15.407 (a)(3)	RSS-247 6.2.4	TX Cond. Power 5.725-5.825	< 30dBm		Pass	17.97 dBm
15.407 (a)(1)	RSS-247 6.2	PSD (5.2GHz)	<11dBm (FCC)/ <10dBm(IC)		Pass	6.92 dBm
15.407 (a)(5)	RSS-247 6.2	PSD (5.3,5.5GHz)	<11dBm		Pass	7.27 dBm
15.407 (a)(5)	RSS-247 6.2.4	PSD (5.8GHz)	30dBm per 500kHz		Pass	4.20 dBm
15.207 (a)	RSS-GEN 8.8	AC Power Line conducted emissions	Section 10	Radiated	Pass	See Original
15.407 (b) & 15.209	RSS-GEN 8.9/7	Radiated Spurious Emission	< 54dBuV/m		Pass	41.94 dBuV/m
15.407 (h)(2)	RSS-247 6.3	Dynamic Frequency Selection	N/A	Radiated / Conducted	Pass	N/A

8. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS

LIMITS

None; for reporting purposes only.

PROCEDURE

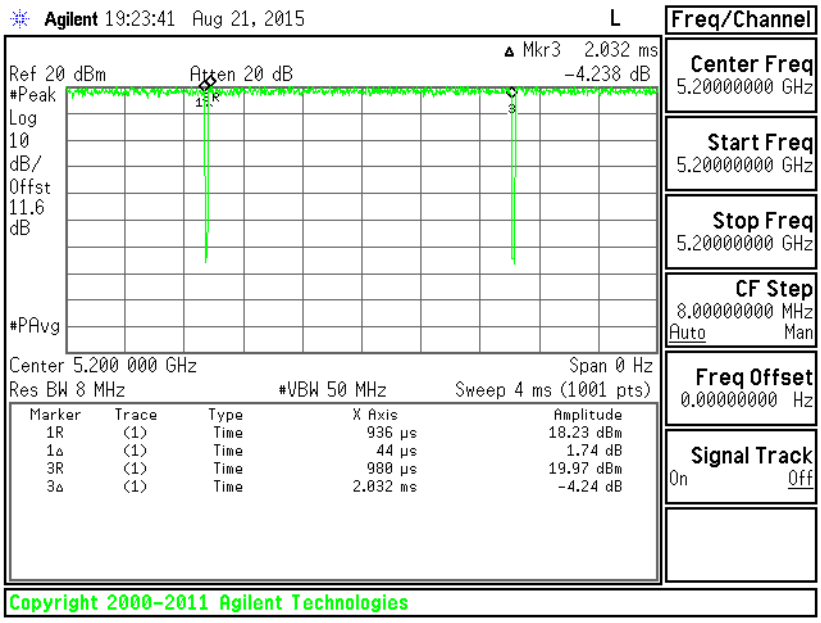
KDB 789033 Zero-Span Spectrum Analyzer Method.

8.1. ON TIME AND DUTY CYCLE RESULTS

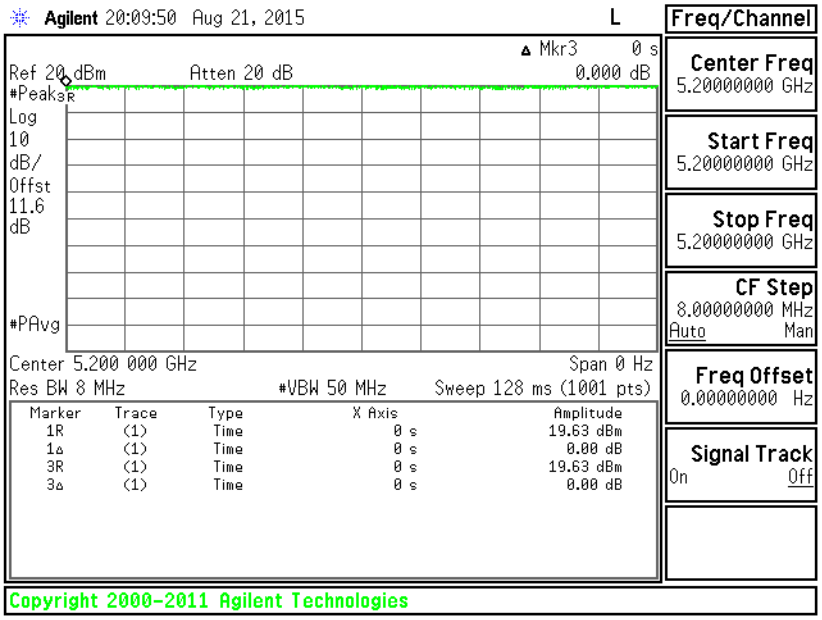
Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.032	2.076	0.979	97.9%	0.09	0.492
802.11ac HT80	1.172	1.196	0.980	98.0%	0.09	0.853
802.11n HT20	2.000	2.000	1.000	100.0%	0.00	0.010
802.11n HT40	2.464	2.508	0.982	98.2%	0.00	0.010

8.1. DUTY CYCLE PLOTS

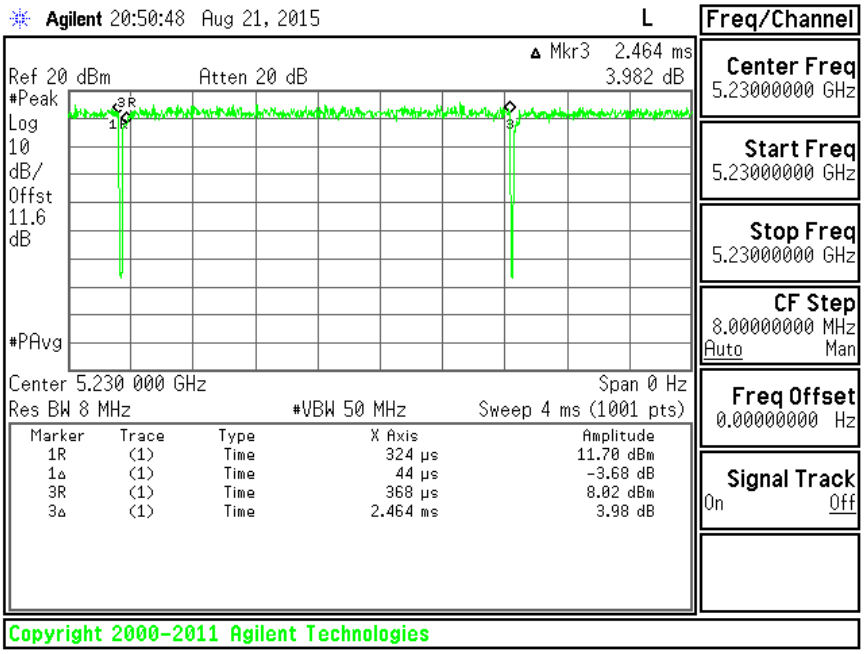
DUTY CYCLE 802.11a CDD MODE



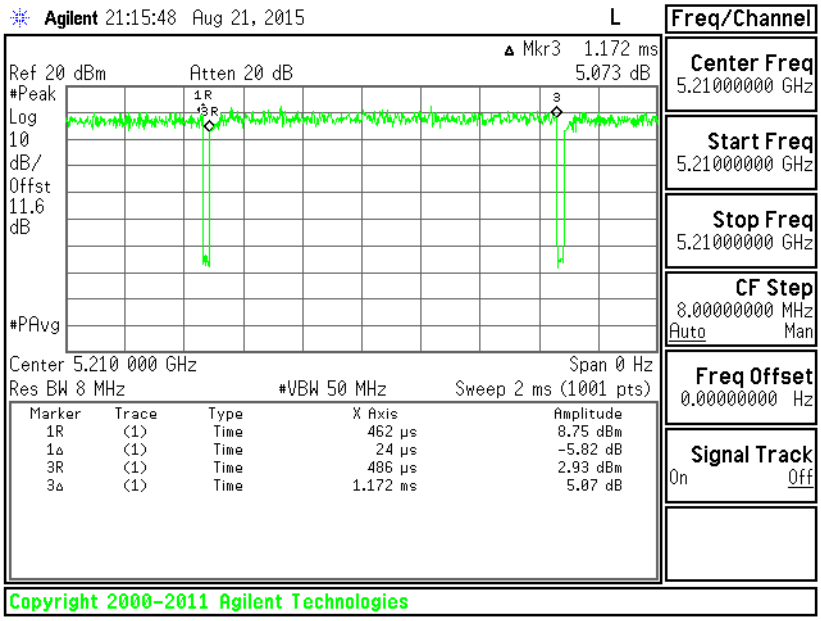
DUTY CYCLE 802.11n HT20 CDD MODE



DUTY CYCLE 802.11n HT40 CDD MODE



DUTY CYCLE 802.11ac HT80 CDD MODE



9. MEASUREMENT METHOD

789033 D02 General UNII Test Procedures New Rules v01

The Duty Cycle is ≥98% and consistent; therefore KDB 789033 Method SA-1 is used for power and PPSD.

The Duty Cycle is less than 98% and consistent, KDB 789033 Method SA-2 with Power RMS Averaging and duty cycle correction is used.

10. ANTENNA PORT TEST RESULTS

10.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407

RSS-247 6.2.4

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

TEST PROCEDURE

Reference to 789033 D02 General UNII Test Procedures New Rules v01: The transmitter output is connected to a spectrum analyzer with the RBW set to100KHz, the VBW >= 3 x RBW, peak detector and max hold.

RESULTS

10.1.1. 802.11a MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth CHAIN 0(MHz)	6 dB Bandwidth CHAIN 1(MHz)	Minimum Limit (MHz)
Low	5745	14.212	16.300	0.5
Mid	5785	16.250	14.564	0.5
High	5825	15.552	15.180	0.5
Worst		14.212	14.564	

10.1.2. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth CHAIN 0(MHz)	6 dB Bandwidth CHAIN 1(MHz)	Minimum Limit (MHz)
Low	5745	17.004	17.316	0.5
Mid	5785	17.316	16.325	0.5
High	5825	16.978	17.550	0.5
Worst		16.978	16.325	

10.1.3. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth CHAIN 0(MHz)	6 dB Bandwidth CHAIN 1(MHz)	Minimum Limit (MHz)
Low	5755	31.968	34.927	0.5
High	5795	32.100	35.298	0.5
Worst		31.968	34.927	0.5

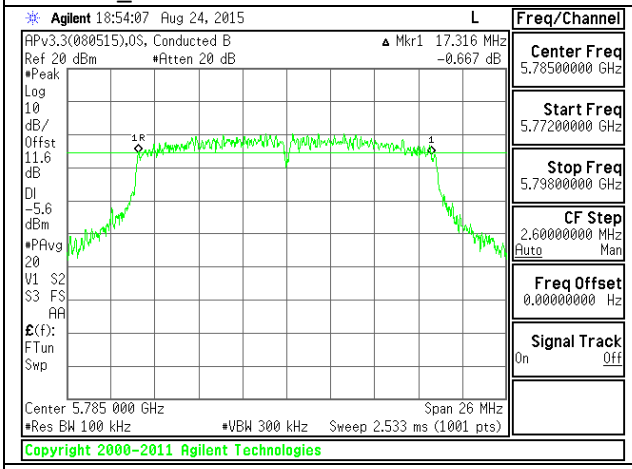
10.1.4. 802.11ac HT80 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth CHAIN 0(MHz)	6 dB Bandwidth CHAIN 1(MHz)	Minimum Limit (MHz)
Low	5775	71.388	66.963	0.5

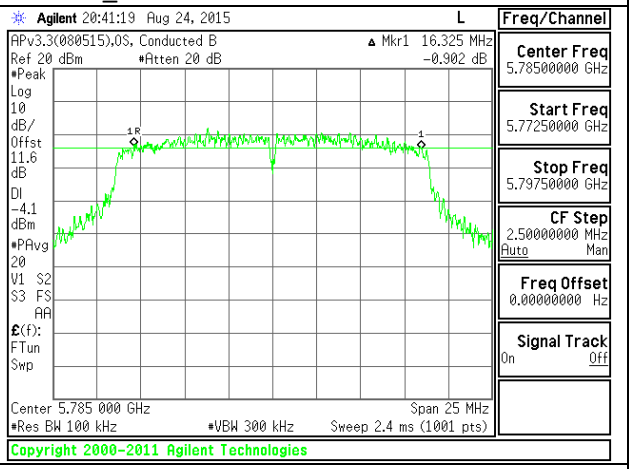
10.1.5. 6 dB BANDWIDTH MID CH PLOTS

CHAIN 0 CHAIN 1

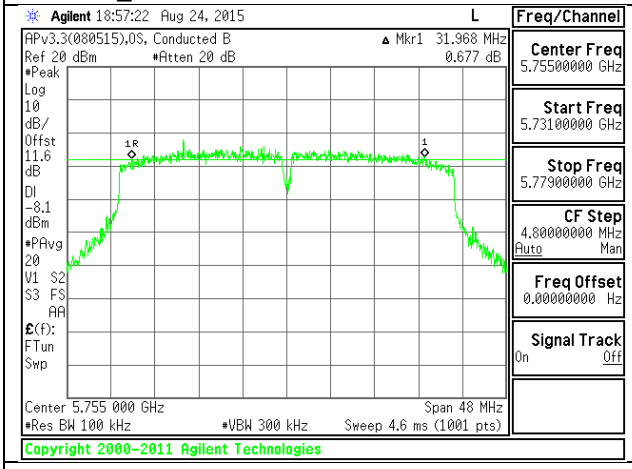
6dB 11n_HT20 5.8 Chain 1 Mid Ch



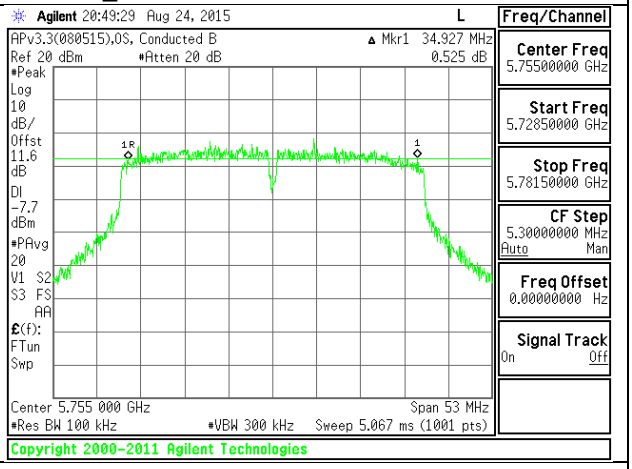
6dB 11n_HT20 5.8 Chain 1 Mid Ch



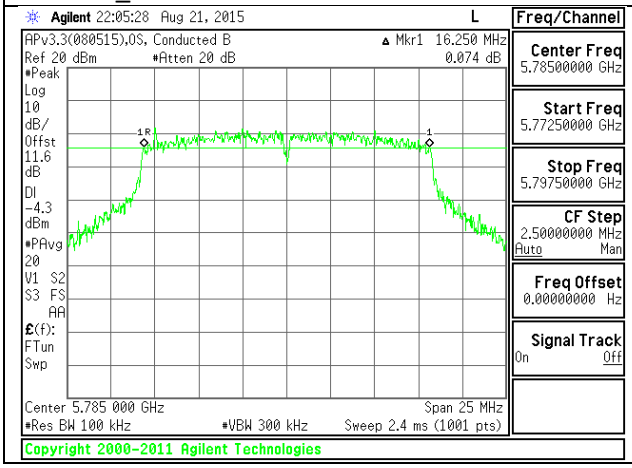
6dB 11n_HT40 5.8 Chain 1 Low Ch



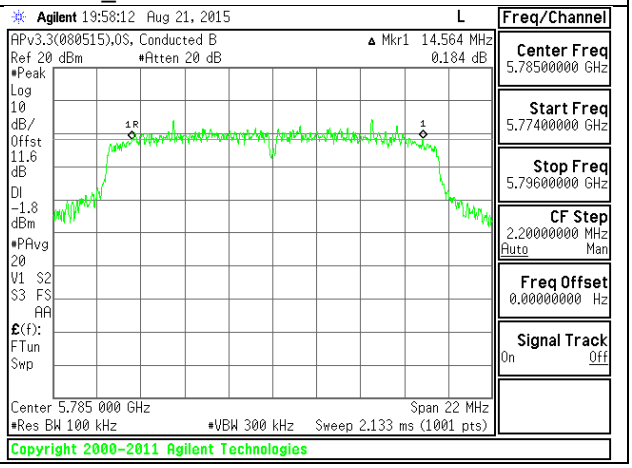
6dB 11n_HT40 5.8 Chain 1 Low Ch



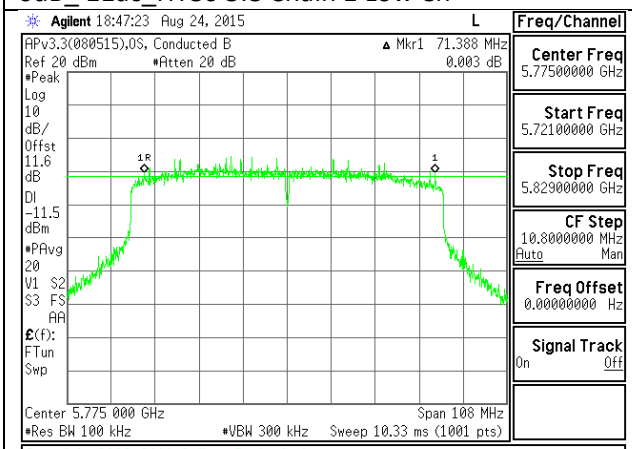
6dB 11a_ 5.8 Chain 1 Mid Ch



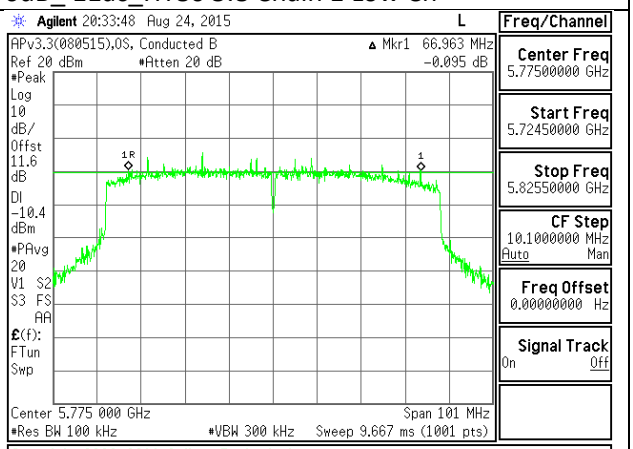
6dB 11a_ 5.8 Chain 1 Mid Ch



6dB_ 11ac_HT80 5.8 Chain 1 Low Ch



6dB_ 11ac_HT80 5.8 Chain 1 Low Ch



10.2. 26 dB BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

10.2.1. 802.11a MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5180	20.398	20.026
Mid	5200	20.305	19.920
High	5240	20.274	19.410

10.2.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5180	20.896	20.491
Mid	5200	20.736	20.491
High	5240	20.460	20.305

10.2.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5190	40.858	40.321
High	5230	39.840	41.230

10.2.4. 802.11ac HT80 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5210	83.125	82.460

10.2.5. 802.11a MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5260	20.615	20.429
Mid	5300	20.057	19.890
High	5320	20.460	20.181

10.2.6. 802.11n HT20 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5260	20.553	20.429
Mid	5300	20.522	20.274
High	5320	20.553	20.274

10.2.7. 802.11n HT40 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5270	41.168	40.626
High	5310	41.044	40.260

10.2.8. 802.11ac HT80 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5290	83.000	82.212

10.2.9. 802.11a MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5500	20.522	20.119
Mid	5580	20.305	21.120
High	5700	20.429	20.491
144	5720	20.305	21.681

10.2.10. 802.11n HT20 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5500	20.864	20.615
Mid	5580	20.150	20.336
High	5700	21.312	21.216
144	5720	20.398	20.615

10.2.11. 802.11n HT40 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5510	41.769	40.672
Mid	5550	41.168	40.382
High	5670	41.044	40.636
High	5710	41.454	40.982

10.2.12. 802.11ac HT80 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5530	83.000	83.125
138	5690	83.250	83.538

10.2.13. 802.11a MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5745	20.274	21.516
Mid	5785	21.216	20.398
High	5825	20.491	21.780

10.2.14. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5745	20.646	21.088
Mid	5785	20.646	21.351
High	5825	20.704	21.351

10.2.15. 802.11n HT40 MODE IN THE 5.8 GHz BAND

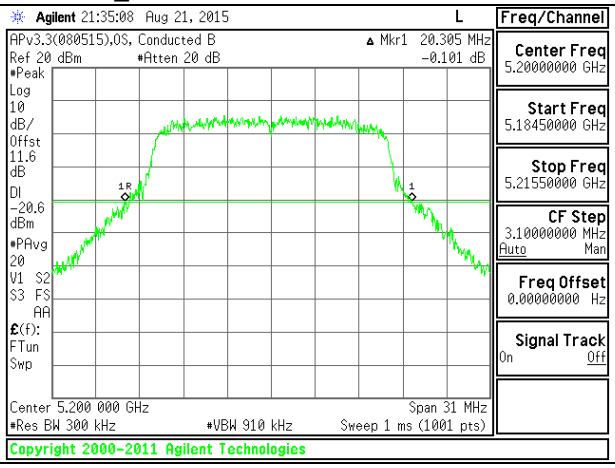
Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5755	41.292	41.706
High	5795	41.832	40.900

10.2.16. 802.11ac HT80 MODE IN THE 5.8 GHz BAND

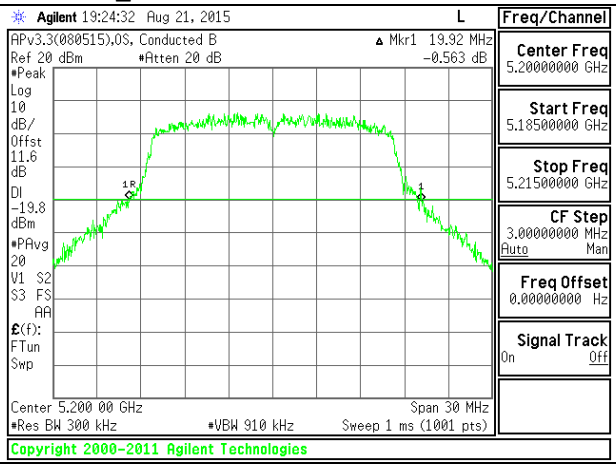
Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5775	82.088	83.125

10.2.1. 26 dB BANDWIDTH PLOTS

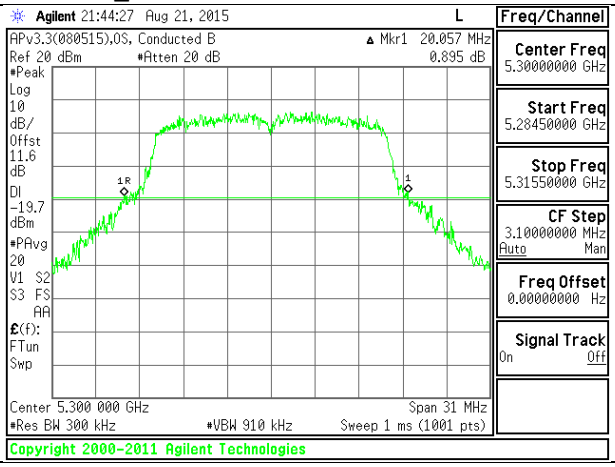
26dB 11a_ 5.2 Chain 0 Mid Ch



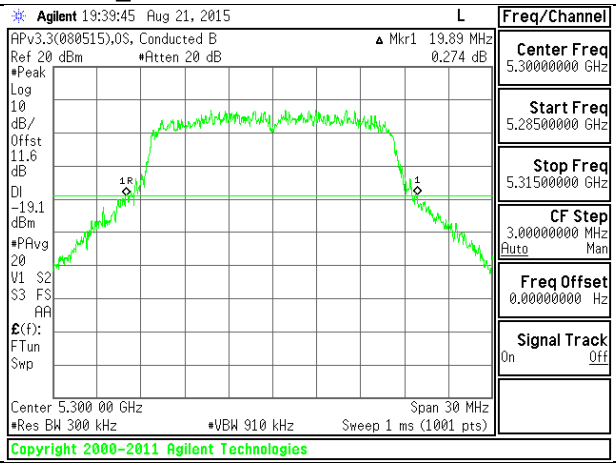
26dB 11a_ 5.2 Chain 1 Mid Ch



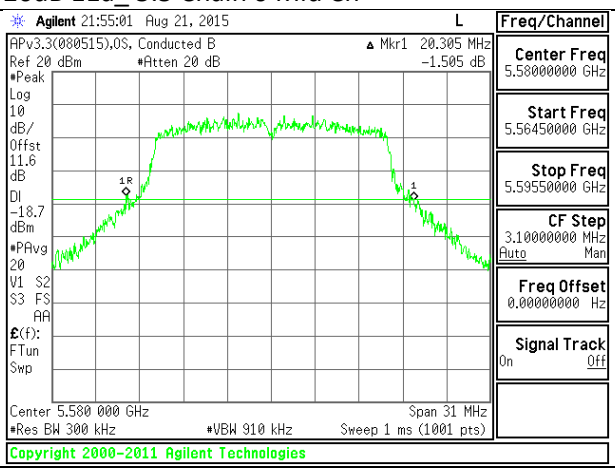
26dB 11a_ 5.3 Chain 0 Mid Ch



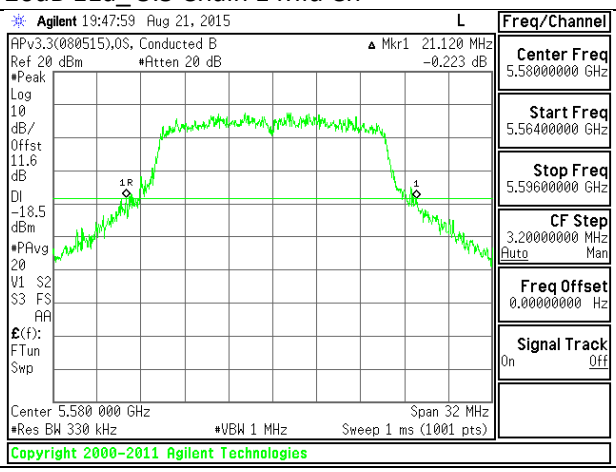
26dB 11a_ 5.3 Chain 1 Mid Ch



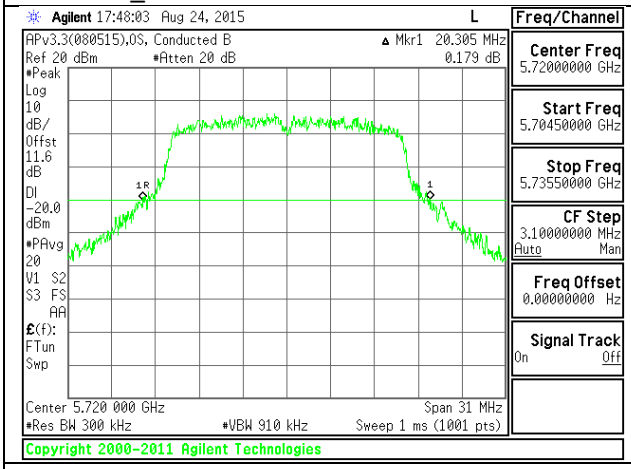
26dB 11a_ 5.5 Chain 0 Mid Ch



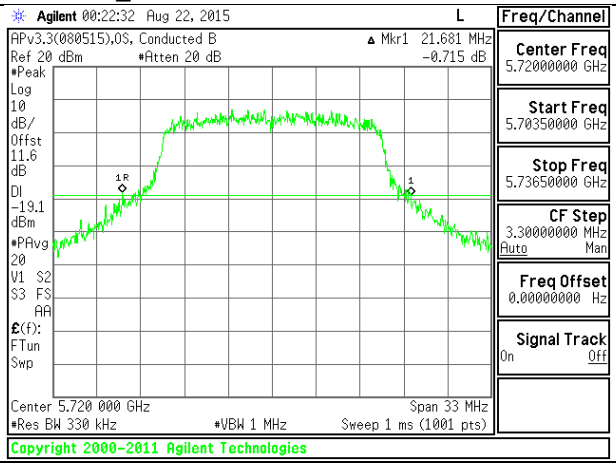
26dB 11a_ 5.5 Chain 1 Mid Ch



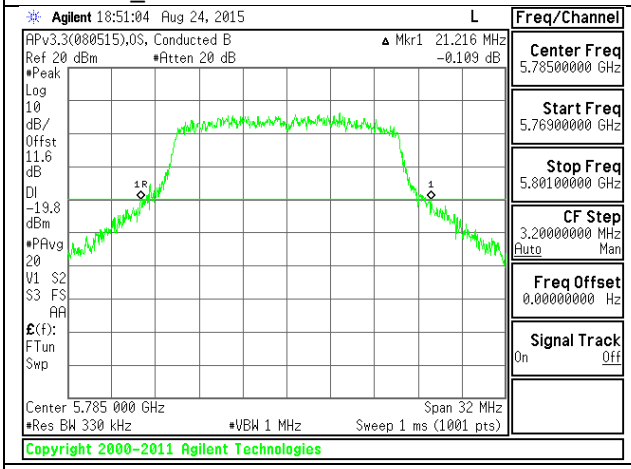
26dB 11a_ 5.5 Chain 0 Ch144



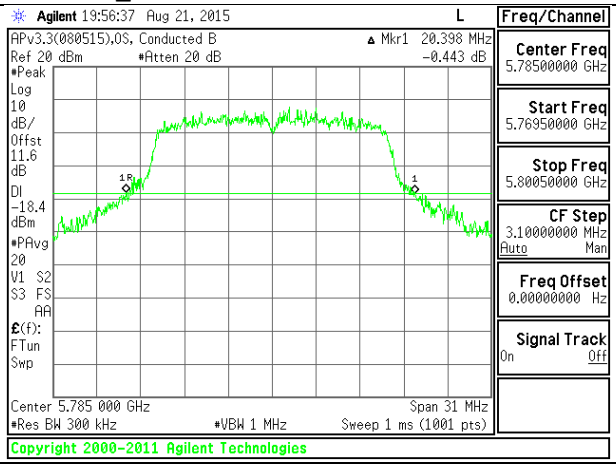
26dB 11a_ 5.8 Chain 1 CH144



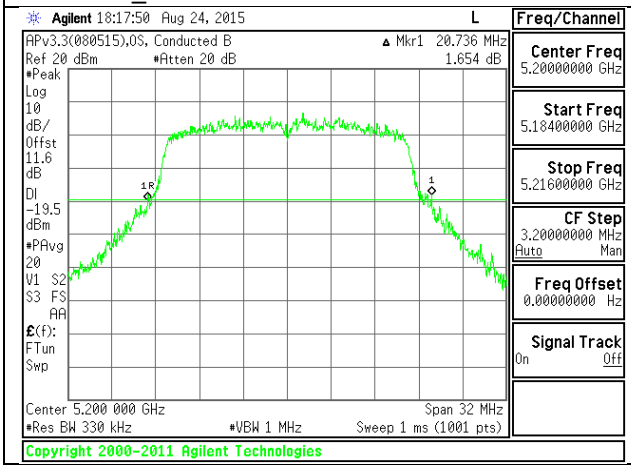
26dB 11a_ 5.8 Chain 0 Mid Ch



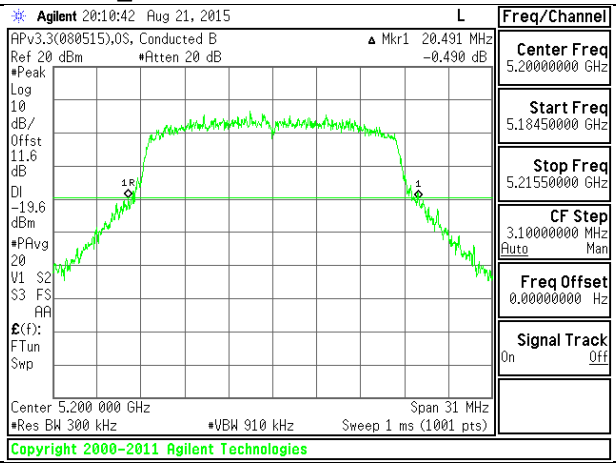
26dB 11a_ 5.8 Chain 1 Mid Ch



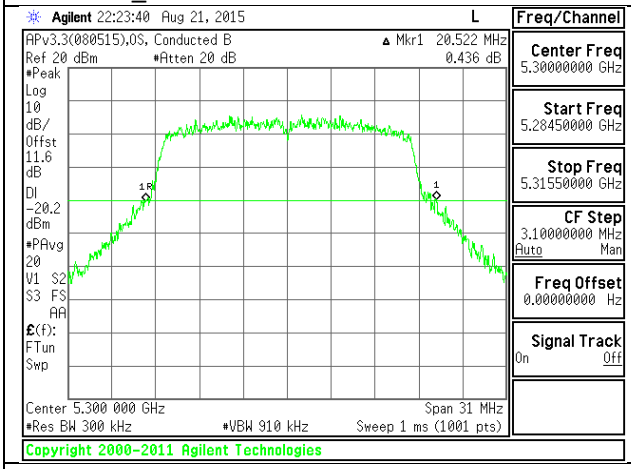
26dB 11n_HT20 5.2 Chain 0 Mid Ch



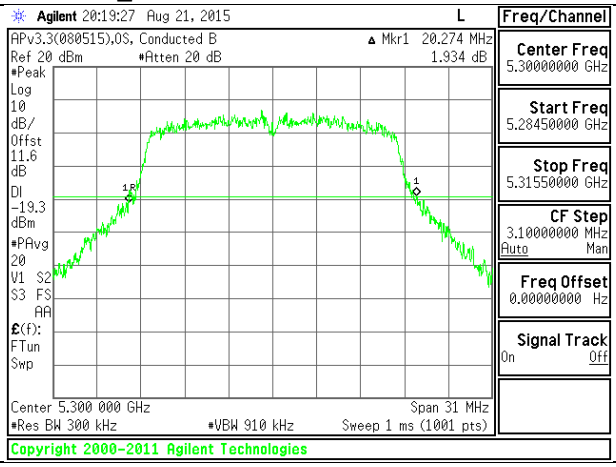
26dB 11n_HT20 5.2 Chain 1 Mid Ch



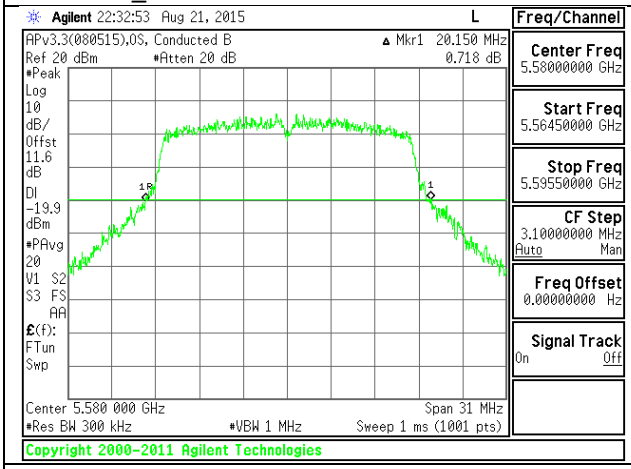
26dB 11n_HT20 5.3 Chain 1 Mid Ch



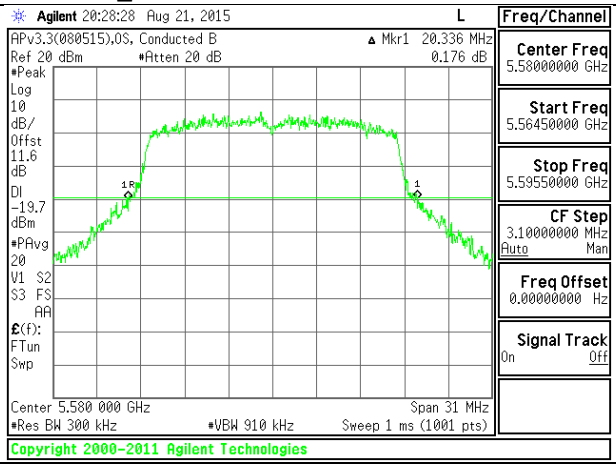
26dB 11n_HT20 5.3 Chain 1 Mid Ch



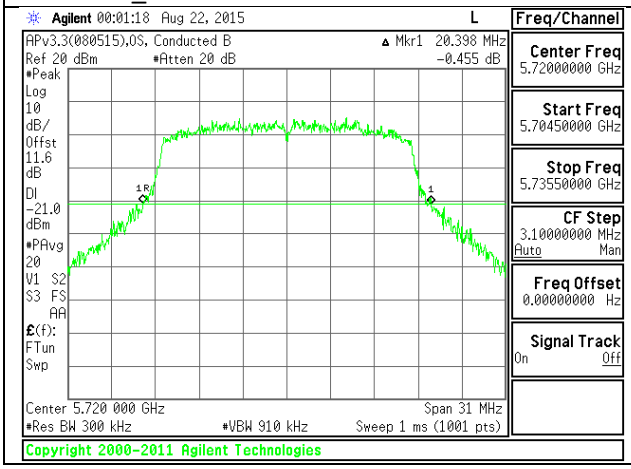
26dB 11n_HT20 5.5 Chain 0 Mid Ch



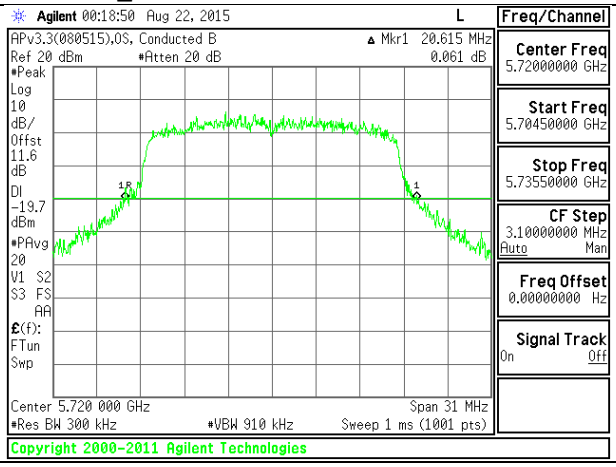
26dB 11n_HT20 5.5 Chain 1 Mid Ch



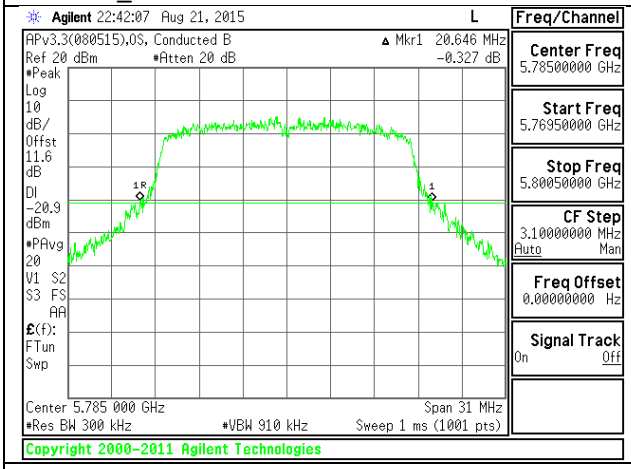
26dB 11n_HT20 5.5 Chain 0 Ch 144



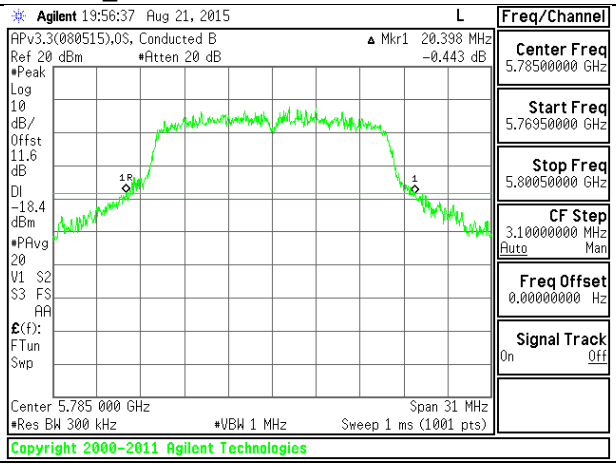
26dB 11n_HT20 5.5 Chain 1 Ch 144



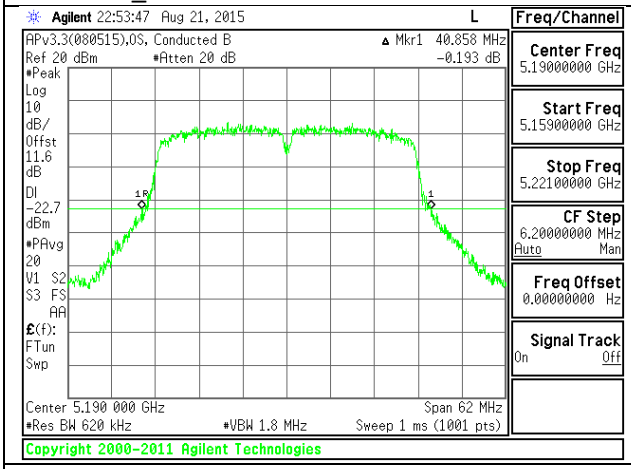
6dB 11n_HT20 5.8 Chain 0 Mid Ch



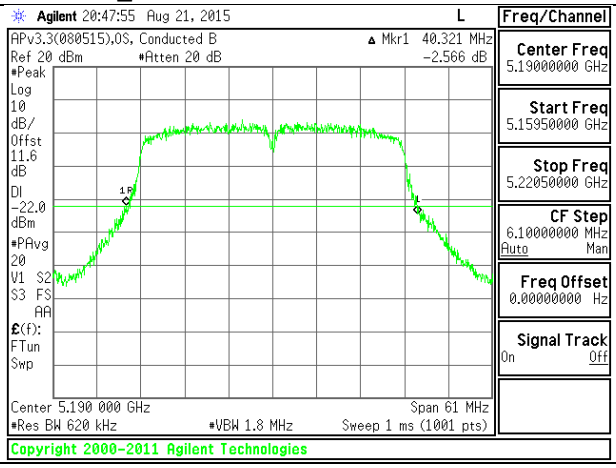
6dB 11n_HT20 5.8 Chain 1 Low Ch



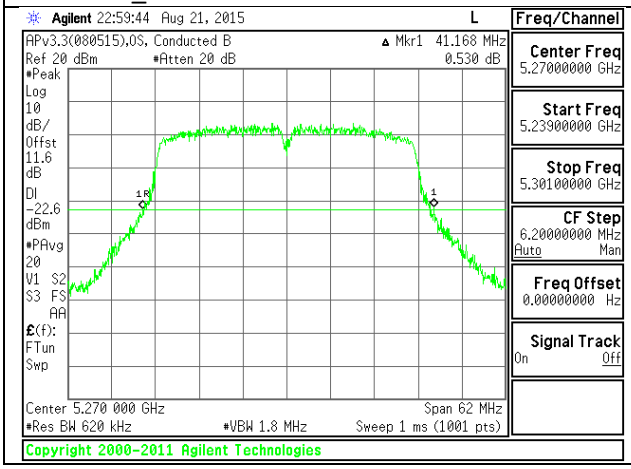
26dB 11n_HT40 5.2 Chain 0 Low Ch



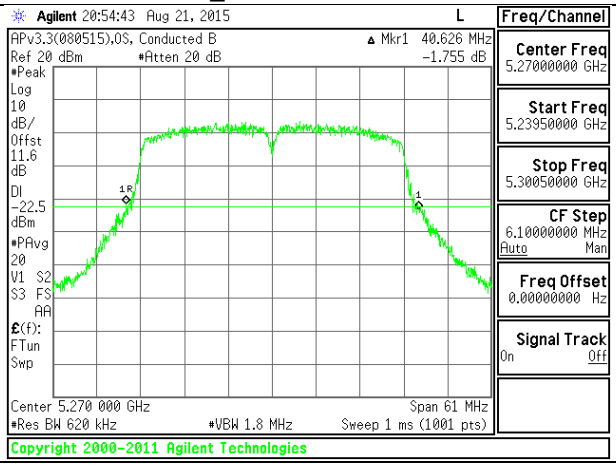
26dB 11n_HT40 5.2 Chain 1 Low Ch



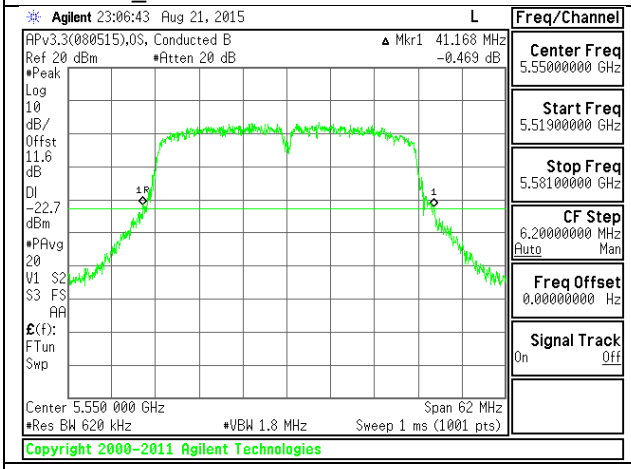
26dB 11n_HT40 5.3 Chain 1 Low Ch



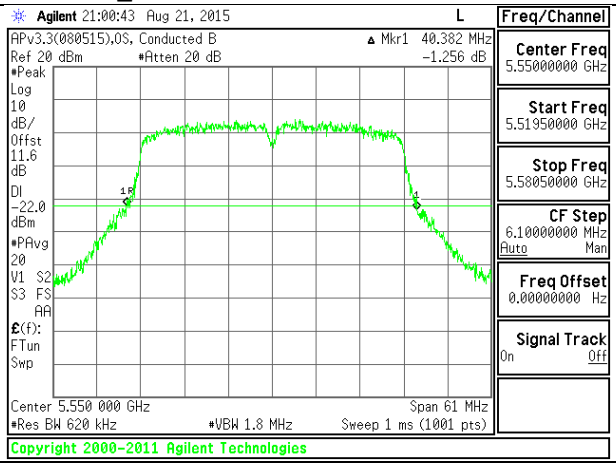
26dB 11n_HT40 5.3 Chain 1 Low Ch



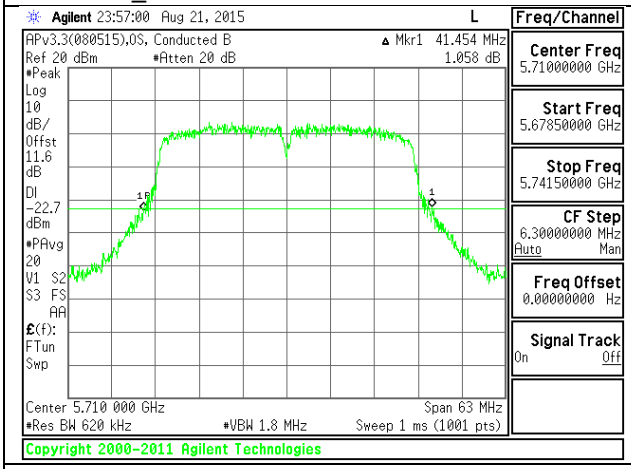
26dB 11n_HT40 5.5 Chain 0 Mid Ch



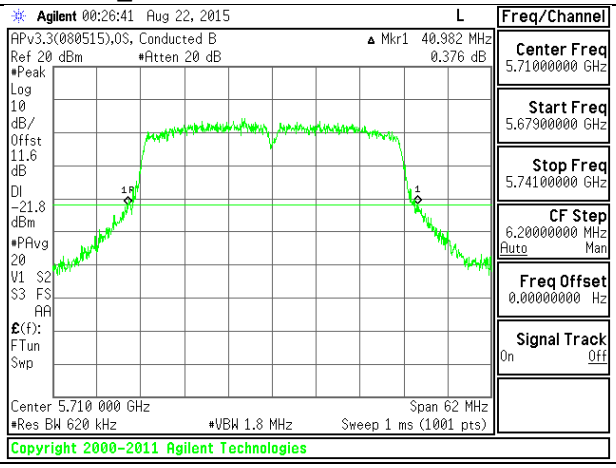
26dB 11n_HT40 5.5 Chain 1 Mid Ch



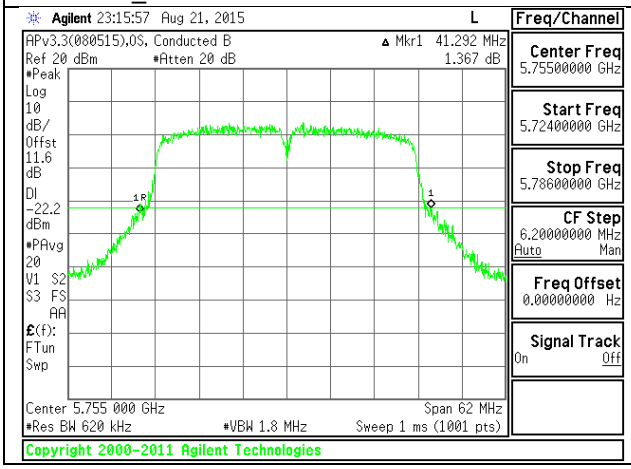
26dB 11n_HT40 5.5 Chain 0 CH142



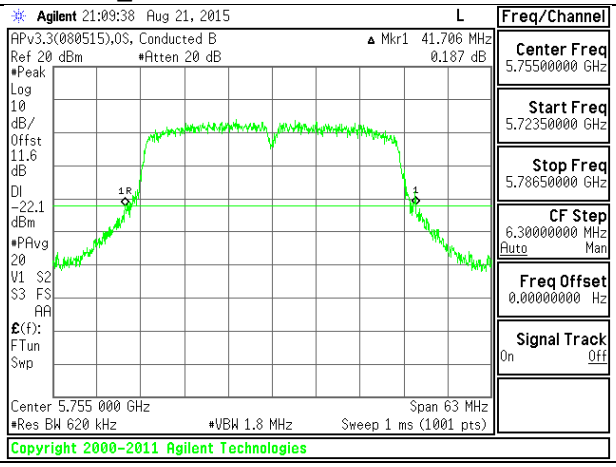
26dB 11n_HT40 5.5 Chain 1 Ch142



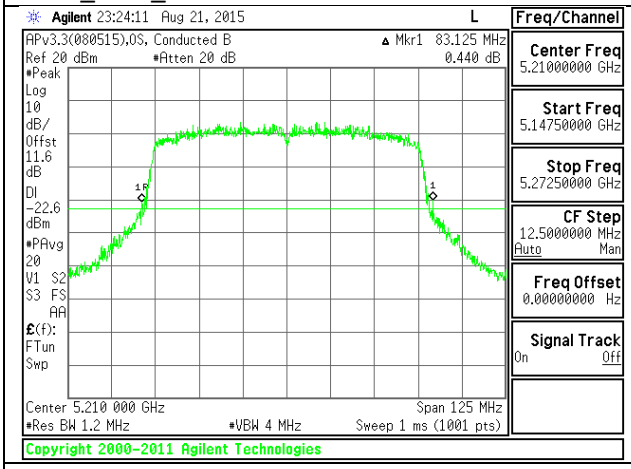
26dB 11n_HT40 5.8 Chain 0 Low Ch



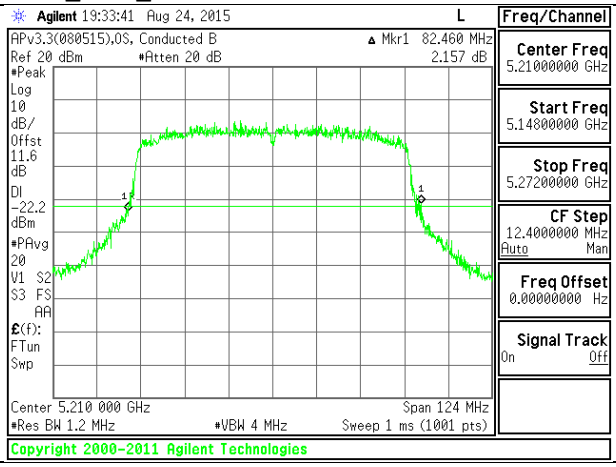
26dB 11n_HT40 5.8 Chain 1 Low Ch



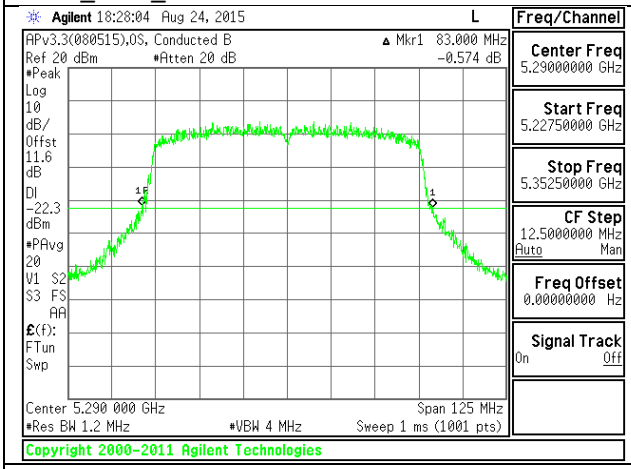
26dB_11ac_HT80 5.2 Chain 0 Low Ch



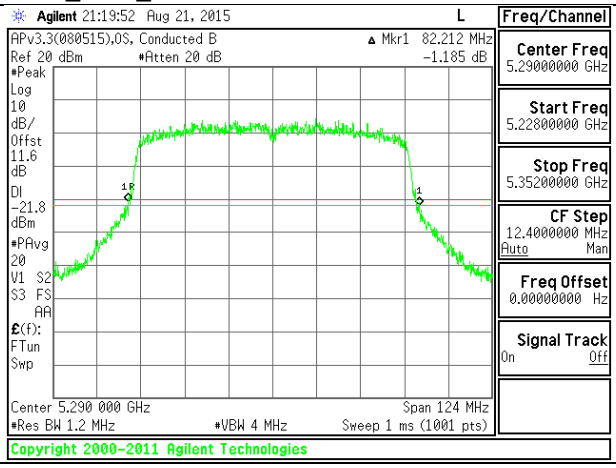
26dB_11ac_HT80 5.2 Chain 1 Low Ch



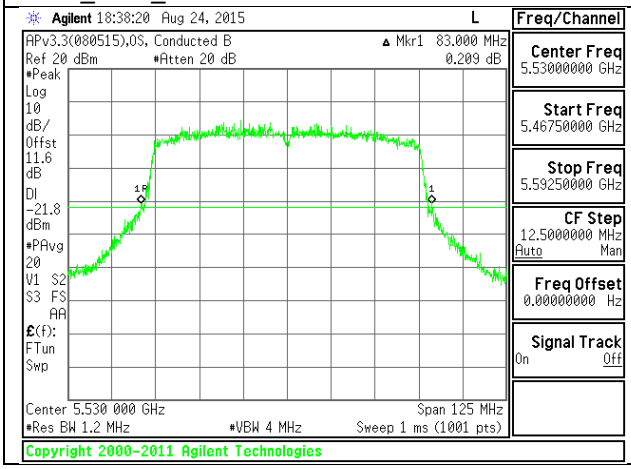
26dB_11ac_HT80 5.3 Chain 0 Low Ch



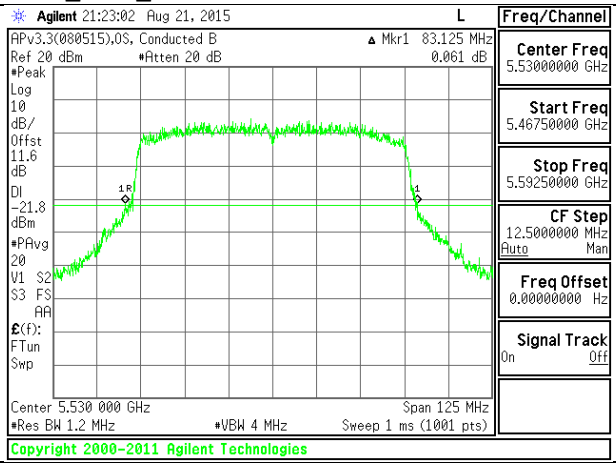
26dB_11ac_HT80 5.3 Chain 1 Low Ch



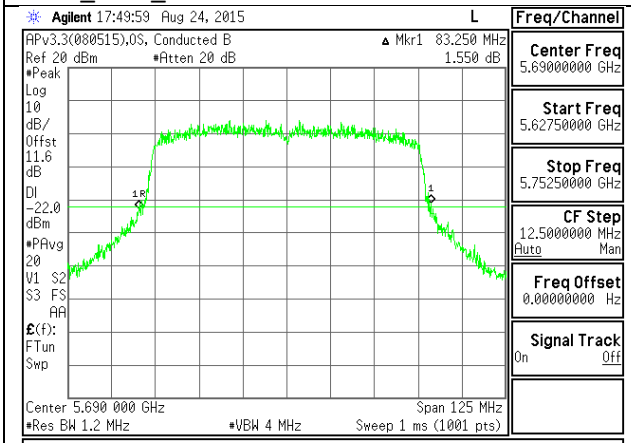
26dB_11ac_HT80 5.5 Chain 0 Low Ch



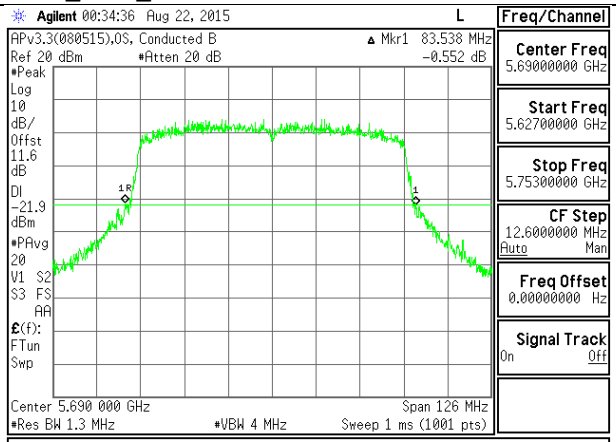
26dB_11ac_HT80 5.5 Chain 1 Low Ch



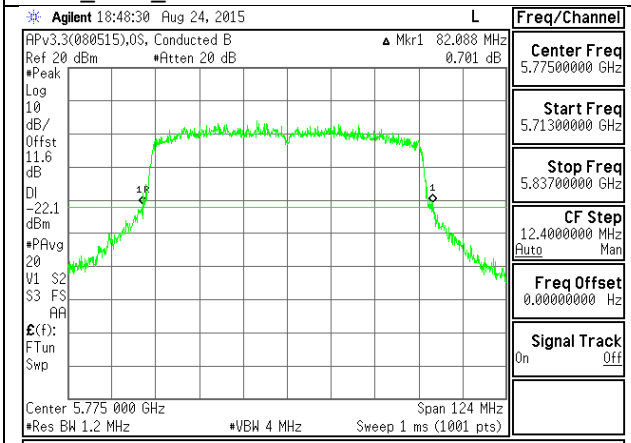
26dB_11ac_HT80 5.5 Chain 0 Ch138



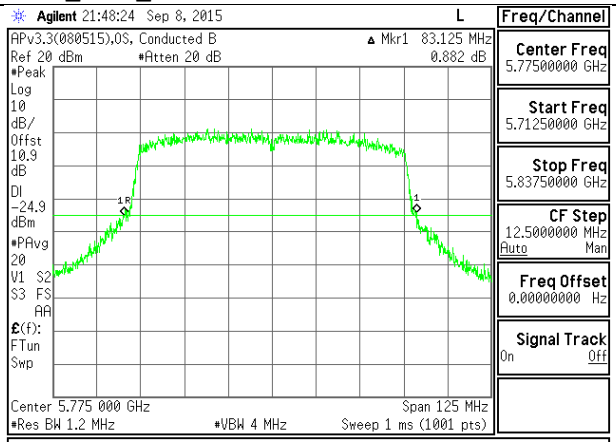
26dB_11ac_HT80 5.5 Chain 1 Ch138



26dB_11ac_HT80 5.8 Chain 0 Low Ch



26dB_11ac_HT80 5.8 Chain 1 Low Ch



10.3. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

10.3.1. 802.11a MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5180	16.3518	16.3119
Mid	5200	16.3119	16.3169
High	5240	16.3215	16.3190

10.3.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5180	17.4447	17.5370
Mid	5200	17.4844	17.4723
High	5240	17.5061	17.4559

10.3.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5190	35.8810	35.8788
High	5230	35.8935	35.9226

10.3.4. 802.11ac HT80 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5210	74.8663	74.9953

10.3.5. 802.11a MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5260	16.3244	16.3194
Mid	5300	16.3426	16.3351
High	5320	16.3328	16.3097

10.3.6. 802.11n HT20 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5260	17.4778	17.4799
Mid	5300	17.4538	17.4744
High	5320	17.4893	17.4794

10.3.7. 802.11n HT40 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5270	35.9015	35.8449
High	5310	35.8990	35.8780

10.3.8. 802.11ac HT80 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5290	75.0527	74.9437

10.3.9. 802.11a MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5500	16.3323	16.3486
Mid	5580	16.3642	16.3271
High	5700	16.3466	16.3539
144	5720	16.3253	16.3181

10.3.10. 802.11n HT20 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5500	17.5011	17.5120
Mid	5580	17.4844	17.4958
High	5700	17.5074	17.4614
144	5720	17.4977	17.5270

10.3.11. 802.11n HT40 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5510	35.9203	35.8813
Mid	5550	35.8869	35.8723
High	5670	35.9075	35.8743
142	5710	35.8624	35.8990

10.3.12. 802.11ac HT80 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5530	74.9969	75.0106
138	5690	75.0257	75.0577

10.3.13. 802.11a MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5745	16.3450	16.3604
Mid	5785	16.3462	16.3680
High	5825	16.3585	16.3798

10.3.14. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5745	17.5075	17.5081
Mid	5785	17.5199	17.4987
High	5825	17.5177	17.5466

10.3.15. 802.11n HT40 MODE IN THE 5.8 GHz BAND

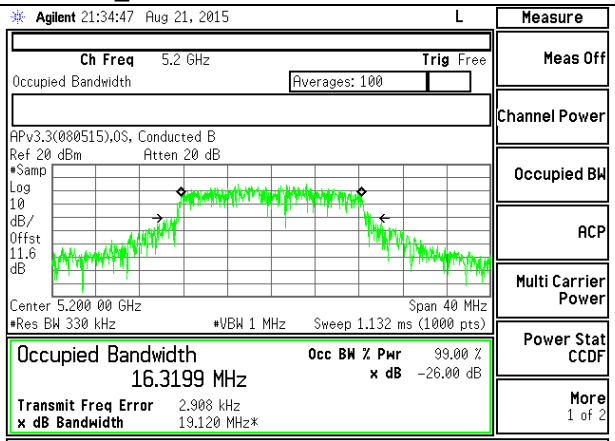
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5755	35.9009	35.9228
High	5795	35.8927	35.9049

10.3.16. 802.11ac HT80 MODE IN THE 5.8 GHz BAND

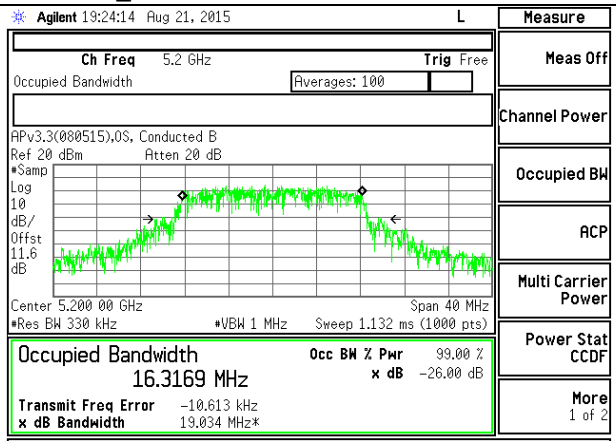
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5775	74.9707	75.0025

10.3.1. 99% BANDWIDTH PLOTS

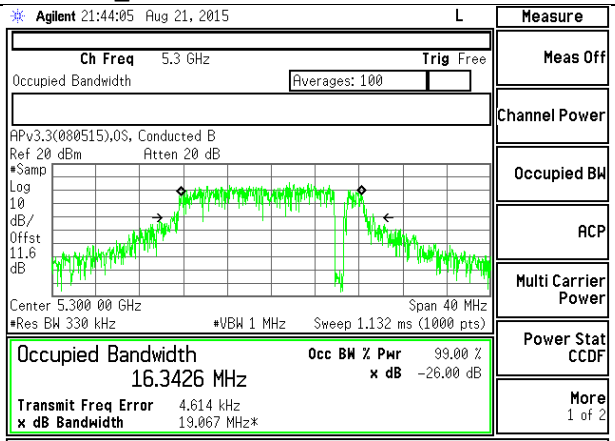
OBW 11a_ 5.2 Chain 0 Mid Ch



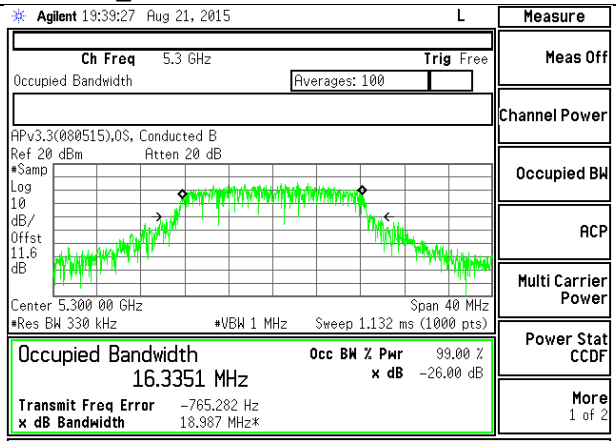
OBW 11a_ 5.2 Chain 1 Mid Ch



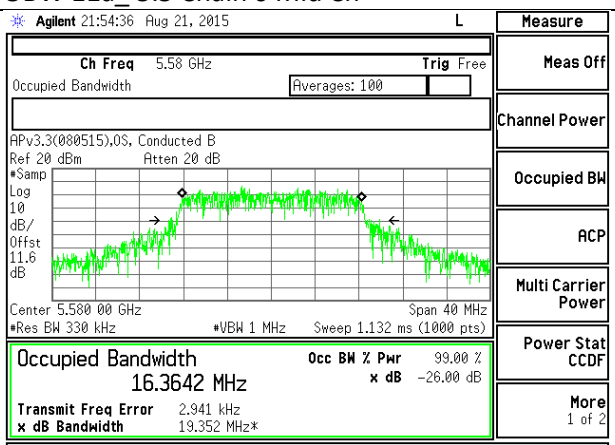
OBW 11a_ 5.3 Chain 0 Mid Ch



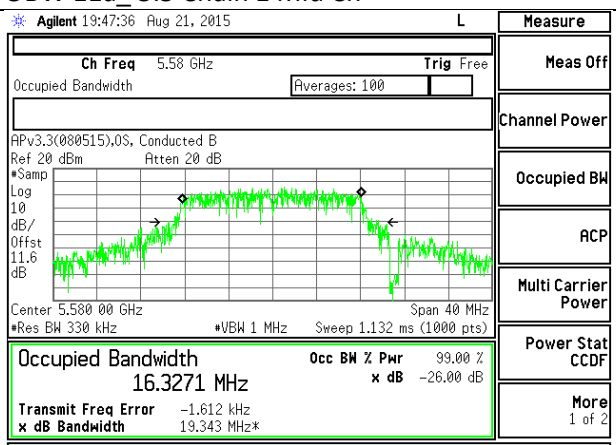
OBW 11a_ 5.3 Chain 1 Mid Ch



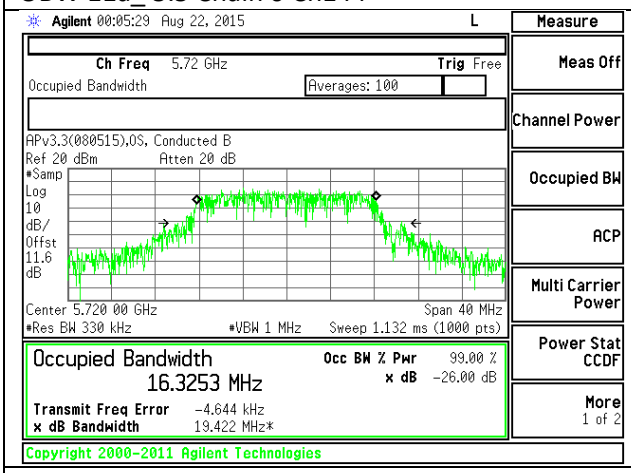
OBW 11a_ 5.5 Chain 0 Mid Ch



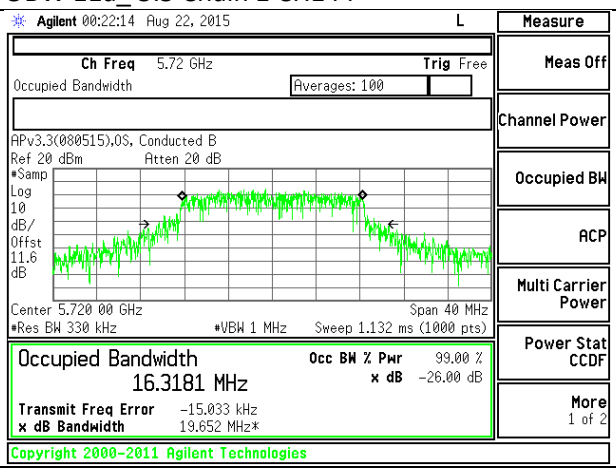
OBW 11a_ 5.5 Chain 1 Mid Ch



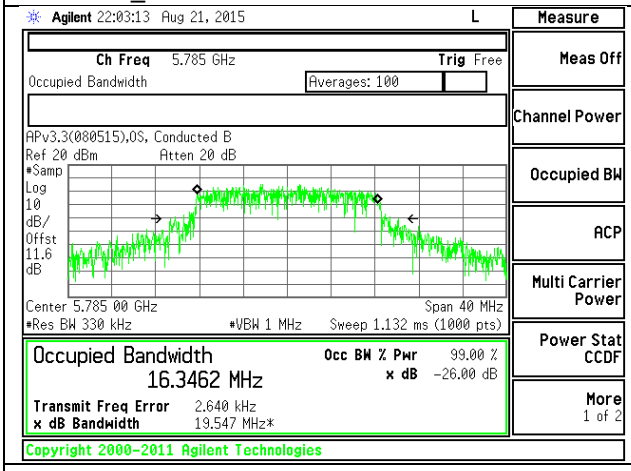
OBW 11a_ 5.5 Chain 0 Ch144



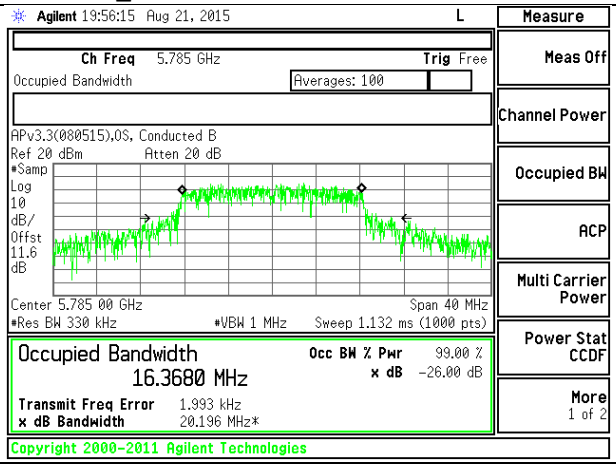
OBW 11a_ 5.5 Chain 1 CH144



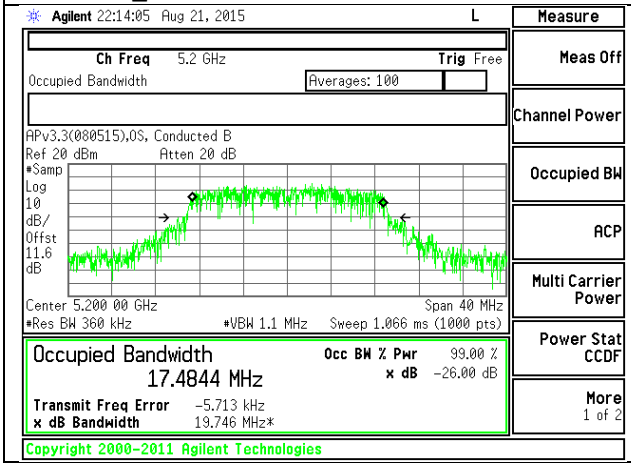
OBW 11a_ 5.8 Chain 0 Mid Ch



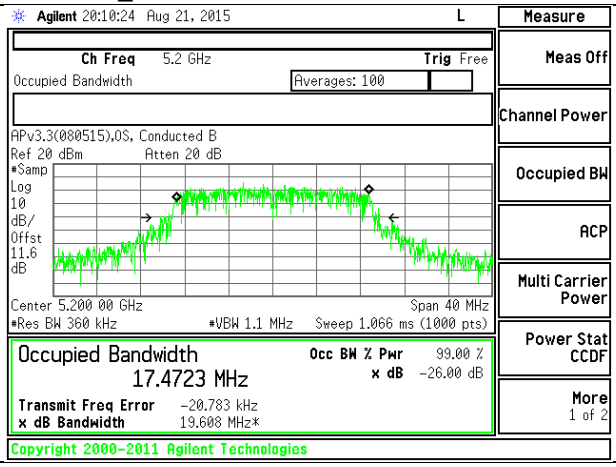
OBW 11a_ 5.8 Chain 1 Mid Ch



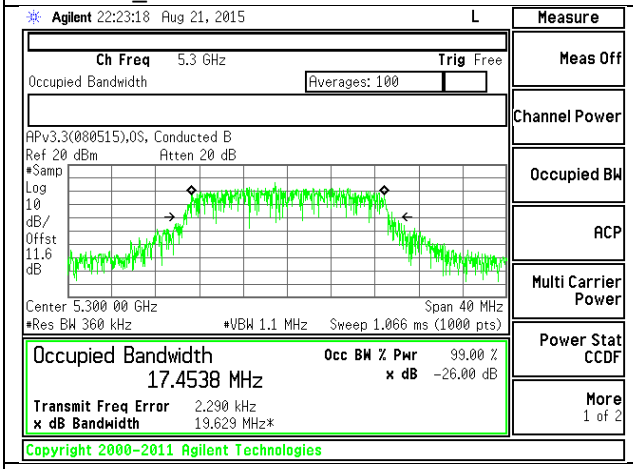
OBW 11n_HT20 5.2 Chain 0 Mid Ch



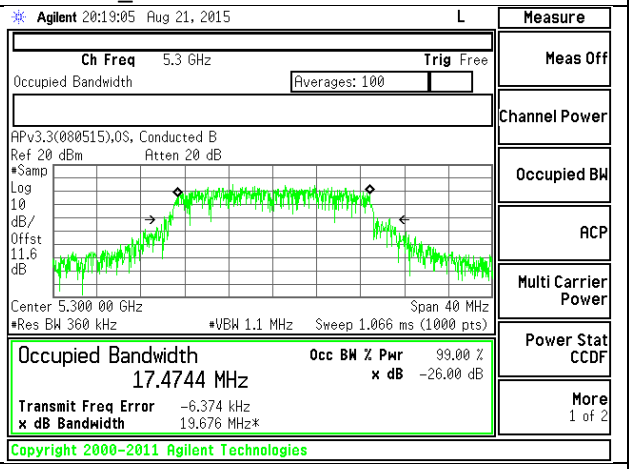
OBW 11n_HT20 5.2 Chain 1 Mid Ch



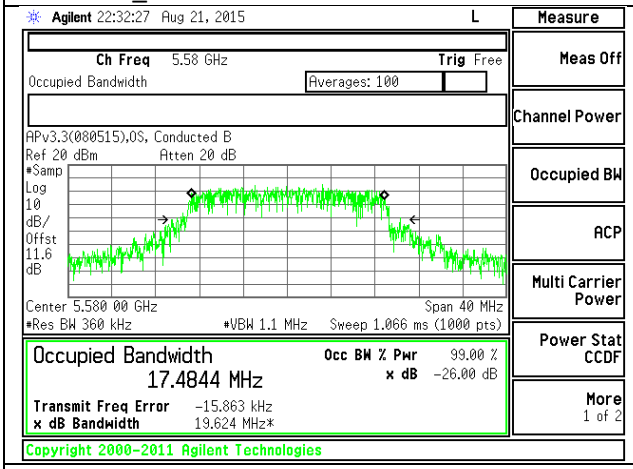
OBW 11n_HT20 5.3 Chain 0 Mid Ch



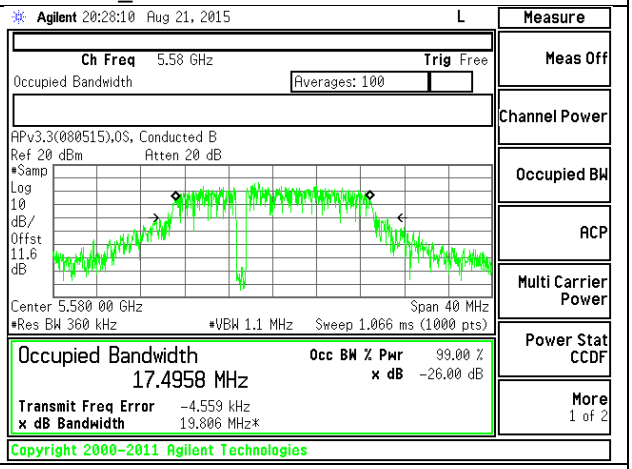
OBW 11n_HT20 5.3 Chain 1 Mid Ch



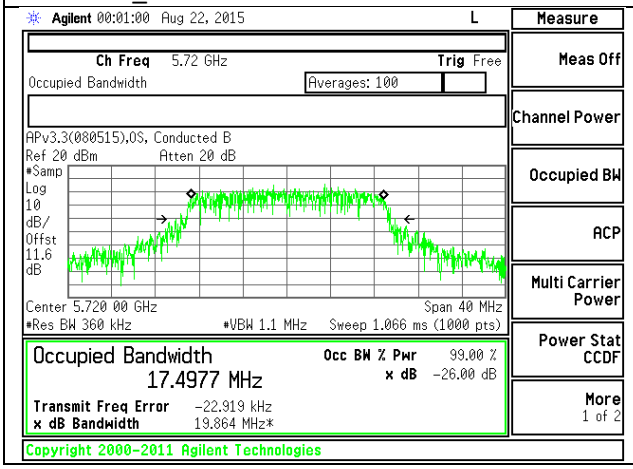
OBW 11n_HT20 5.5 Chain 0 Mid Ch



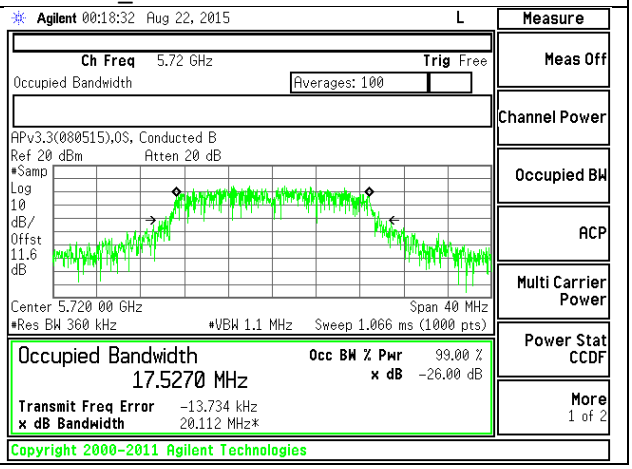
OBW 11n_HT20 5.5 Chain 1 Mid Ch



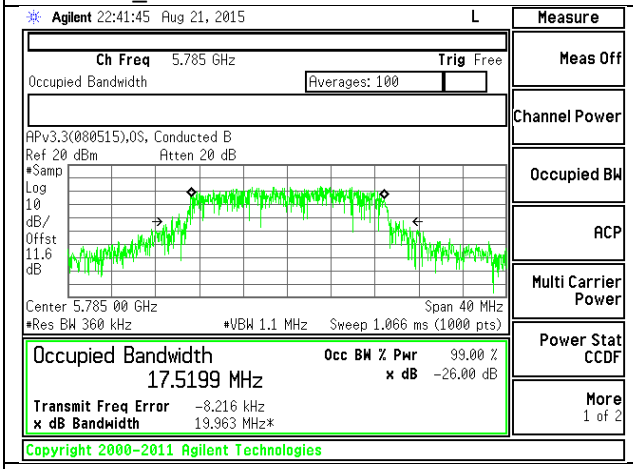
OBW 11n_HT20 5.5 Chain 0 Ch 144



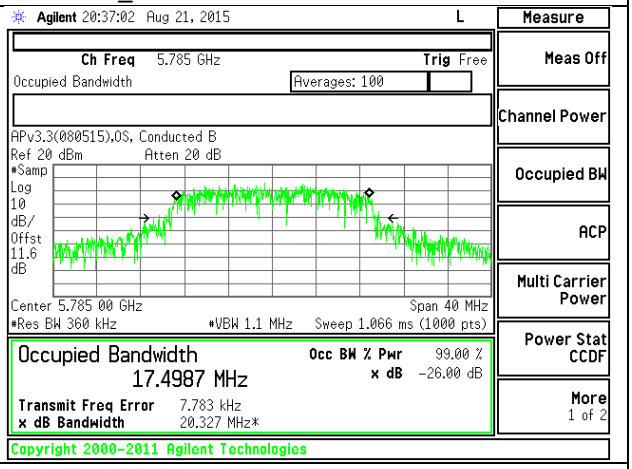
OBW 11n_HT20 5.5 Chain 1 Ch 144



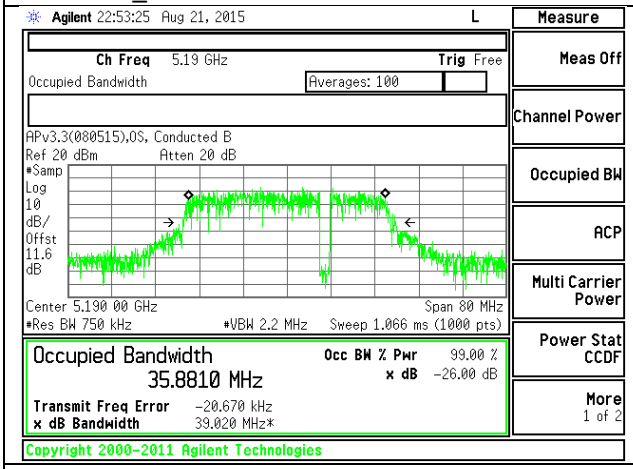
OBW 11n_HT20 5.8 Chain 0 Mid Ch



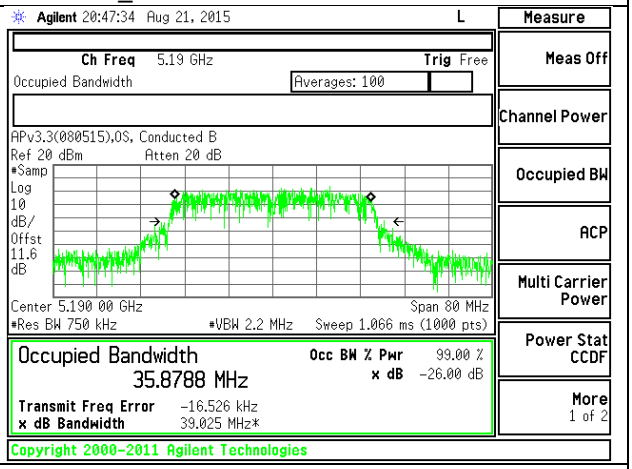
OBW 11n_HT20 5.8 Chain 1 Low Ch



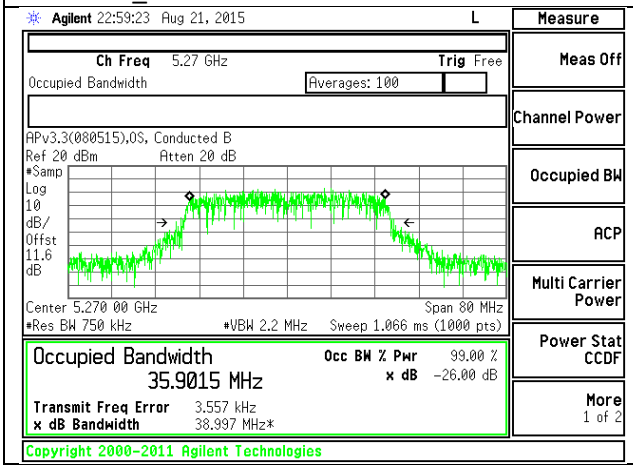
OBW 11n_HT40 5.2 Chain 0 Low Ch



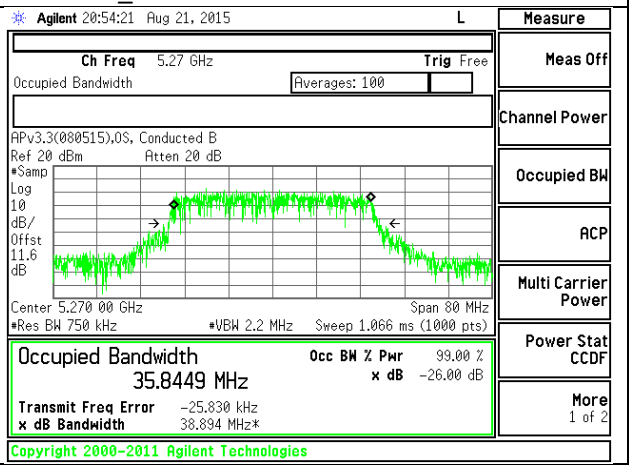
OBW 11n_HT40 5.2 Chain 1 Low Ch



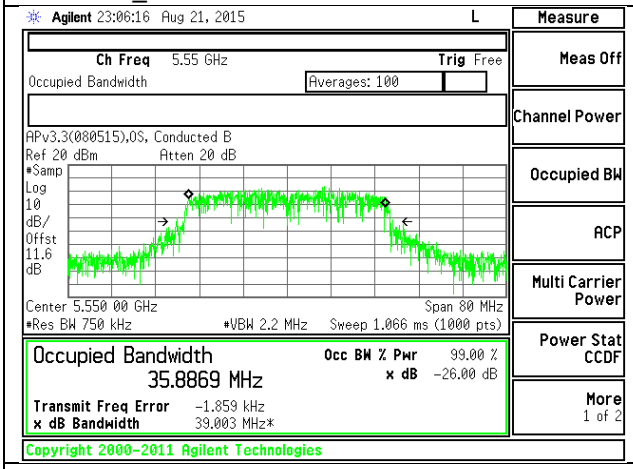
OBW 11n_HT40 5.3 Chain 0 Low Ch



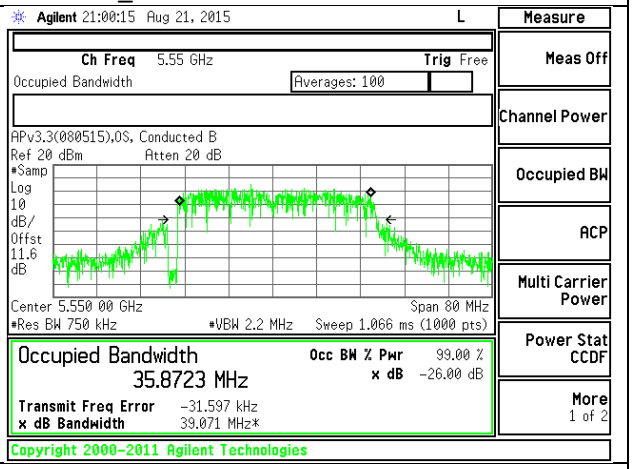
OBW 11n_HT40 5.3 Chain 1 Mid Ch



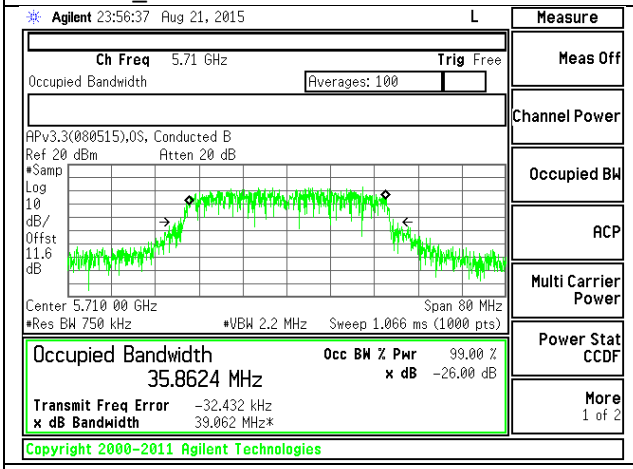
OBW 11n_HT40 5.5 Chain 0 Mid Ch



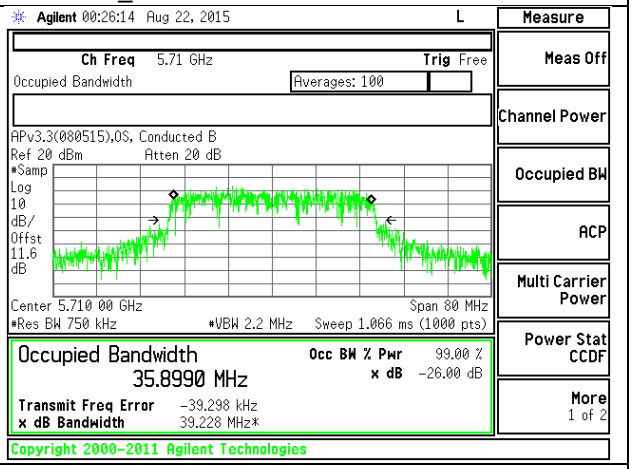
OBW 11n_HT40 5.5 Chain 1 Low Ch



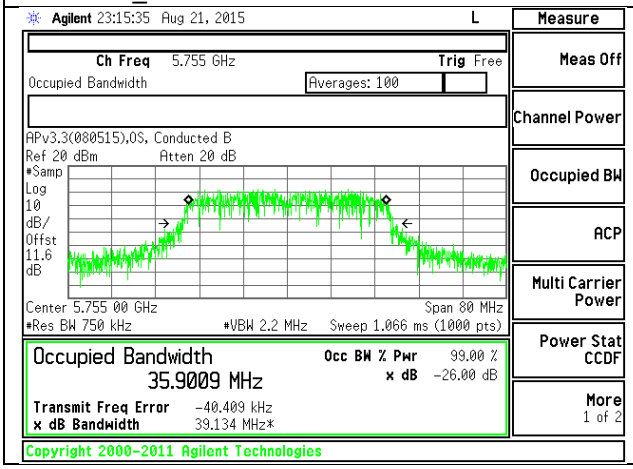
OBW 11n_HT40 5.5 Chain 0 Ch142



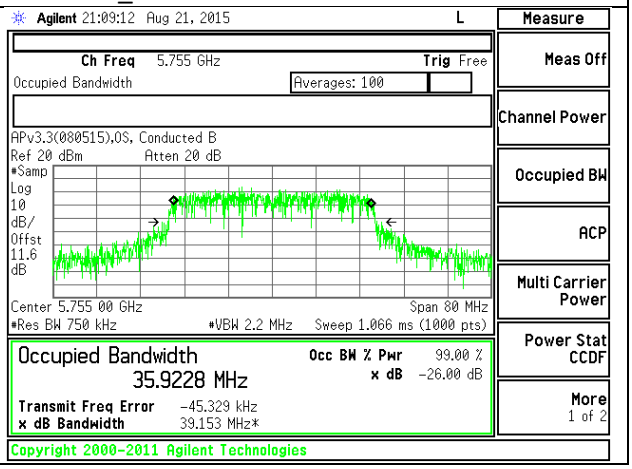
OBW 11n_HT40 5.5 Chain 1 Ch142



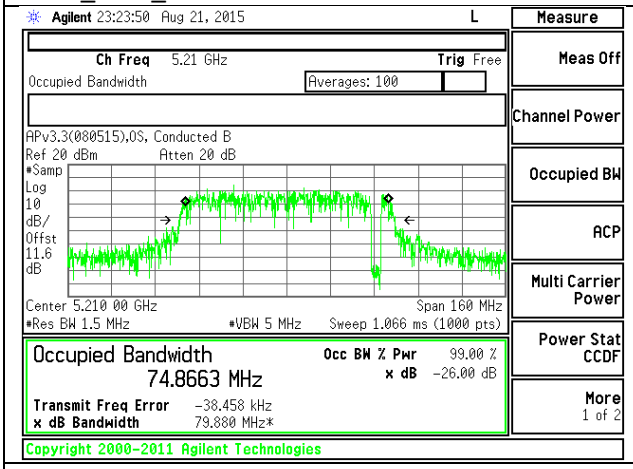
OBW 11n_HT40 5.8 Chain 0 Mid Ch



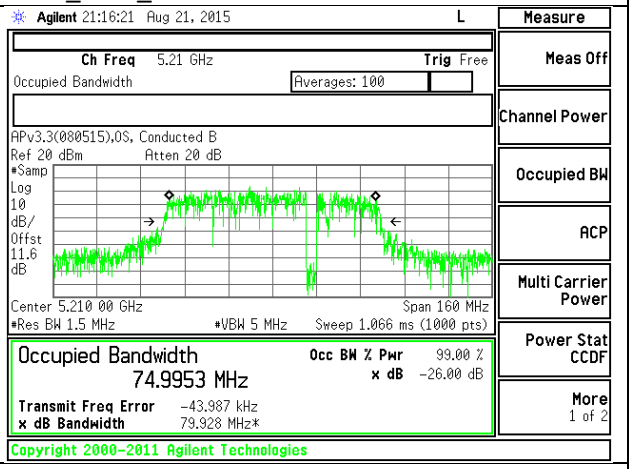
OBW 11n_HT40 5.8 Chain 1 Low Ch



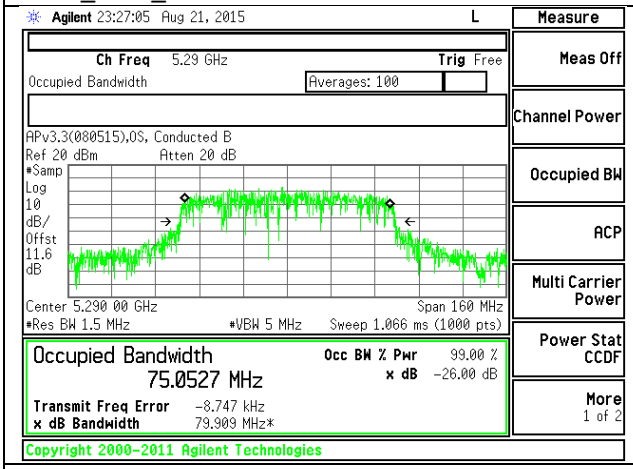
OBW_11ac_HT80 5.2 Chain 0 Low Ch



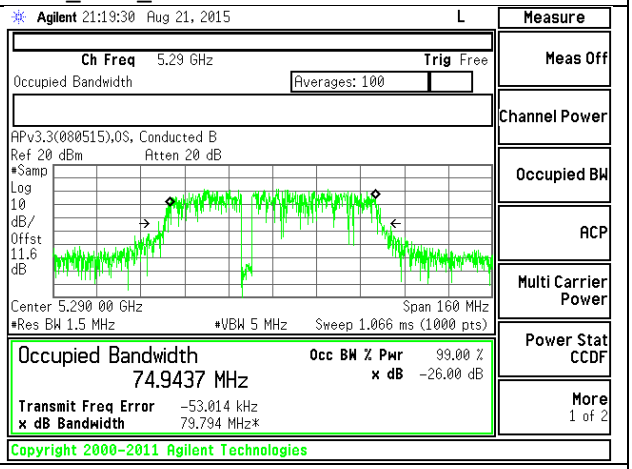
OBW_11ac_HT80 5.2 Chain 1 Low Ch



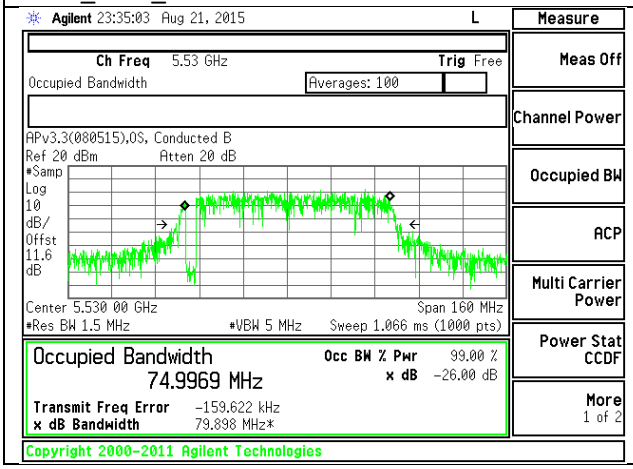
OBW_11ac_HT80 5.3 Chain 0 Low Ch



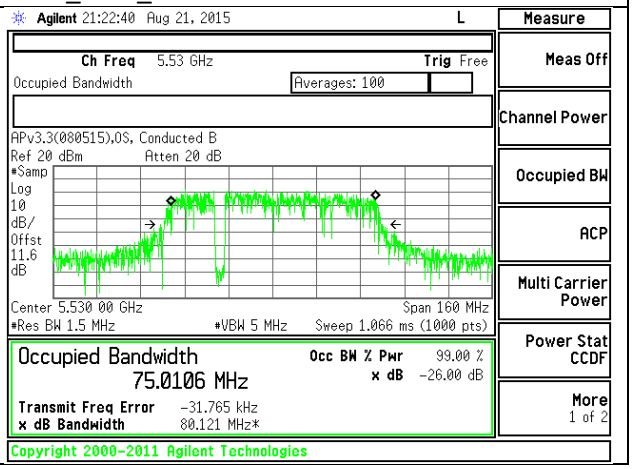
OBW_11ac_HT80 5.3 Chain 1 Low Ch



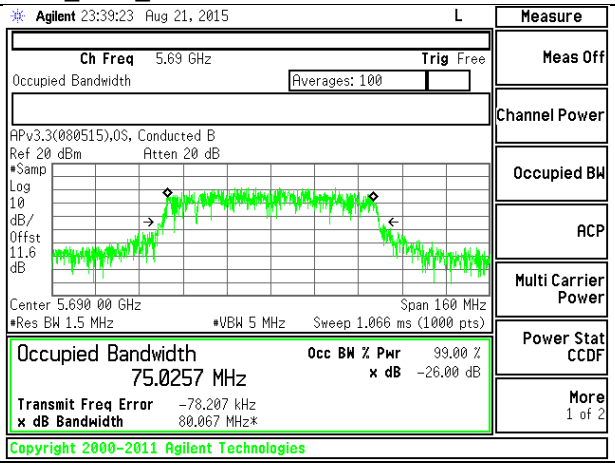
OBW_11ac_HT80 5.5 Chain 0 Low Ch



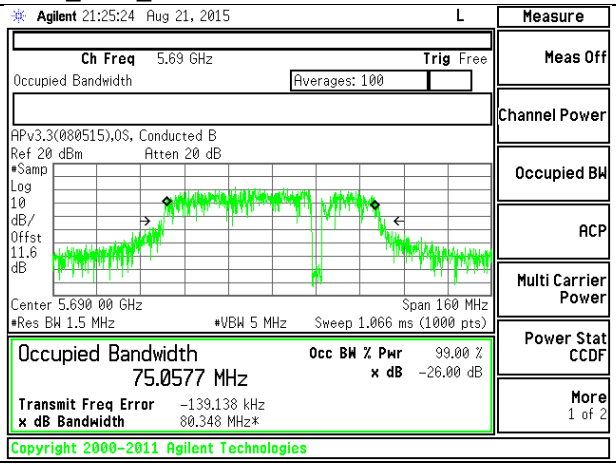
OBW_11ac_HT80 5.8 Chain 1 Low Ch



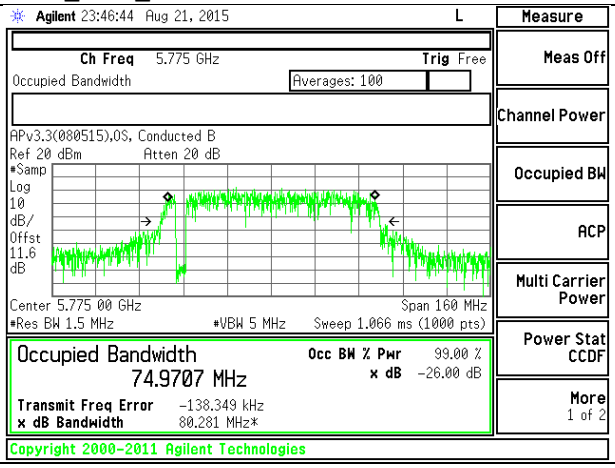
OBW_11ac_HT80 5.5 Chain 0 Ch138



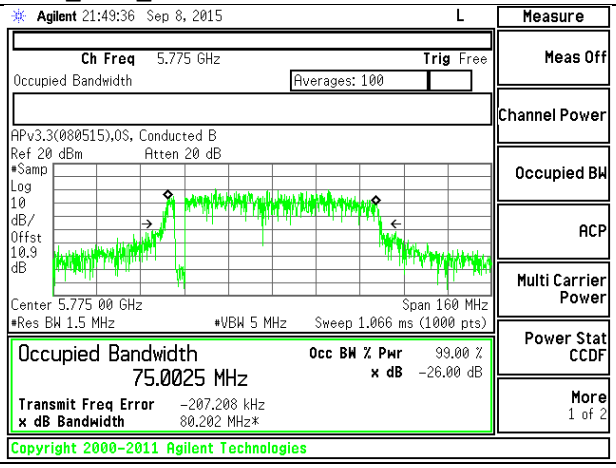
OBW_11ac_HT80 5.8 Chain 1 Ch138



OBW_11ac_HT80 5.8 Chain 0 Low Ch



OBW_11ac_HT80 5.8 Chain 1 Low Ch



10.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 11 dB (including 10 dB pad and 1 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

RESULTS

10.4.1. 802.11a MODE IN THE 5.2 GHz BAND

Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5180	14.70	14.70	17.71
Mid	5200	14.70	14.70	17.71
High	5240	14.90	14.50	17.71

10.4.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5180	13.30	13.20	16.26
Mid	5200	13.30	13.20	16.26
High	5240	13.40	13.20	16.31

10.4.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5190	11.00	11.20	14.11
High	5230	11.20	11.00	14.11

10.4.4. 802.11ac HT80 MODE IN THE 5.2 GHz BAND

Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5210	10.20	10.20	13.21

10.4.5. 802.11a MODE IN THE 5.3 GHz BAND

Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5260	14.80	14.50	17.66
Mid	5300	14.80	14.80	17.81
High	5320	14.80	14.80	17.81

10.4.6. 802.11n HT20 MODE IN THE 5.3 GHz BAND

Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5260	13.30	13.00	16.16
Mid	5300	13.30	13.30	16.31
High	5320	13.30	13.20	16.26

10.4.7. 802.11n HT40 MODE IN THE 5.3 GHz BAND

Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5270	11.00	10.50	13.77
High	5310	11.00	11.00	14.01

10.4.8. 802.11ac HT80 MODE IN THE 5.3 GHz BAND

Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5290	10.10	10.00	13.06

10.4.9. 802.11a MODE IN THE 5.5 GHz BAND

Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5500	14.80	14.90	17.86
Mid	5580	14.80	14.80	17.81
High	5700	14.70	14.50	17.61

10.4.10. 802.11n HT20 MODE IN THE 5.5 GHz BAND

Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5500	13.50	13.40	16.46
Mid	5580	13.30	13.30	16.31
High	5700	13.20	13.10	16.16

10.4.11. 802.11n HT40 MODE IN THE 5.5 GHz BAND

Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5510	11.20	11.20	14.21
Mid	5550	11.10	11.30	14.21
High	5670	11.00	11.50	14.27

10.4.12. 802.11ac HT80 MODE IN THE 5.5 GHz BAND

Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5530	10.20	10.00	13.11

10.4.13. 802.11a MODE IN THE 5.8 GHz BAND

Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5745	14.40	14.50	17.46
Mid	5785	14.50	14.90	17.71
High	5825	14.50	14.90	17.71

10.4.14. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5745	13.00	13.00	16.01
Mid	5785	13.00	13.30	16.16
High	5825	13.00	13.30	16.16

10.4.15. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5755	11.20	11.20	14.21
High	5795	11.20	11.00	14.11

10.4.16. 802.11ac HT80 MODE IN THE 5.8 GHz BAND

Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5775	10.10	10.00	13.06

10.5. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RSS-247

Band 5150-5250 MHz:

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10B, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

Band 5250-5350 MHz:

The maximum conducted output power shall not exceed 250 mW or 11 + 10 log10B, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log10B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

Bands 5470-5600 MHz and 5650-5725 MHz:

The maximum conducted output power shall not exceed 250 mW or 11 + 10 log10B, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log10B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

Band 5725-5850 MHz:

The maximum conducted output power shall not exceed 1 W. The 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 power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed point-to-point operations exclude the use of point-to-multipointFootnote3 systems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

DIRECTIONAL ANTENNA GAIN

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

5180-5240

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
-1.34	-2.52	-1.89

5260-5320

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
-0.16	-2.22	-1.07

5500-5700

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
-0.17	1.06	0.49

5745-5825

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
0.18	0.03	0.11

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

5180-5240

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
-1.34	-2.52	1.10

5260-5300

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
-0.16	-2.22	1.88

5550-5700

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
-0.17	1.06	3.48

5745-5825

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
0.18	0.03	3.12

RESULTS

10.5.1. 802.11a MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5180	20.03	16.3119	-1.89	1.10
Mid	5200	19.92	16.3119	-1.89	1.10
High	5240	19.40	16.3190	-1.89	1.10

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC EIRP Limit (dBm)	Max IC Power (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC eirp PSD Limit (dBm)	PPSD Limit (dBm)
Low	5180	24.00	22.13	24.02	24.00	11.00	10.00	8.90
Mid	5200	23.99	22.13	24.02	23.99	11.00	10.00	8.90
High	5240	23.88	22.13	24.02	23.88	11.00	10.00	8.90

Duty Cycle CF (dB)	0.09	Included in Calculations of Corr'd Power & PPSD

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	5180	14.77	14.95	17.96	24.00	-6.04
Mid	5200	14.72	14.90	17.91	23.99	-6.08
High	5240	14.94	14.77	17.96	23.88	-5.92

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5180	3.742	3.884	6.91	8.90	-1.99
Mid	5200	3.638	3.869	6.86	8.90	-2.04
High	5240	3.893	3.755	6.92	8.90	-1.98

10.5.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5180	20.49	17.4447	-1.89	1.10
Mid	5200	20.49	17.4723	-1.89	1.10
High	5240	20.31	17.4559	-1.89	1.10

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC EIRP Limit (dBm)	Max IC Power (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC eirp PSD Limit (dBm)	PPSD Limit (dBm)
Low	5180	24.00	22.42	24.31	24.00	11.00	10.00	8.90
Mid	5200	24.00	22.42	24.31	24.00	11.00	10.00	8.90
High	5240	24.00	22.42	24.31	24.00	11.00	10.00	8.90

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

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	5180	13.93	14.26	17.11	24.00	-6.89
Mid	5200	13.92	14.07	17.01	24.00	-6.99
High	5240	14.16	14.01	17.10	24.00	-6.90

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5180	2.638	2.990	5.83	8.90	-3.07
Mid	5200	2.624	2.803	5.72	8.90	-3.18
High	5240	2.933	2.751	5.85	8.90	-3.05

10.5.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5190	40.32	35.8878	-1.89	1.10
High	5230	39.84	35.8935	-1.89	1.10

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC EIRP Limit (dBm)	Max IC Power (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC eirp PSD Limit (dBm)	PPSD Limit (dBm)
Low	5190	24.00	23.00	24.89	24.00	11.00	10.00	8.90
High	5230	24.00	23.00	24.89	24.00	11.00	10.00	8.90

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

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	5190	11.65	11.97	14.82	24.00	-9.18
High	5230	11.90	11.69	14.81	24.00	-9.19

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5190	-2.938	-2.550	0.27	8.90	-8.63
High	5230	-2.658	-2.876	0.24	8.90	-8.66

10.5.4. 802.11ac HT80 MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5210	82.46	74.8663	-1.89	1.10

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC EIRP Limit (dBm)	Max IC Power (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC eirp PSD Limit (dBm)	PPSD Limit (dBm)
Low	5210	24.00	23.00	24.89	24.00	11.00	10.00	8.90

Duty Cycle CF (dB)	0.09	Included in Calculations of Corr'd Power & PPSD

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	5210	10.89	10.66	13.88	24.00	-10.12

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5210	-6.704	-6.971	-3.74	8.90	-12.64

10.5.5. 802.11a MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5260	20.43	16.3194	-1.87	1.88
Mid	5300	19.89	16.3351	-1.87	1.88
High	5320	20.18	16.3097	-1.87	1.88

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5260	24.00	23.13	29.13	23.13	11.00	11.00	11.00
Mid	5300	23.99	23.13	29.13	23.13	11.00	11.00	11.00
High	5320	24.00	23.12	29.12	23.12	11.00	11.00	11.00

Duty Cycle CF (dB)	0.09	Included in Calculations of Corr'd Power & PPSD

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	5260	15.02	14.82	18.02	23.13	-5.11
Mid	5300	15.08	15.33	18.31	23.13	-4.82
High	5320	15.11	15.32	18.32	23.12	-4.81

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5260	3.935	3.834	6.99	11.00	-4.01
Mid	5300	4.015	4.249	7.23	11.00	-3.77
High	5320	3.997	4.247	7.22	11.00	-3.78

10.5.6. 802.11n HT20 MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5260	20.43	17.4778	-1.87	1.88
Mid	5300	20.27	17.4538	-1.87	1.88
High	5320	20.27	17.4794	-1.87	1.88

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5260	24.00	23.42	29.42	23.42	11.00	11.00	11.00
Mid	5300	24.00	23.42	29.42	23.42	11.00	11.00	11.00
High	5320	24.00	23.43	29.43	23.43	11.00	11.00	11.00

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

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	5260	14.27	14.08	17.19	23.42	-6.24
Mid	5300	14.26	14.66	17.47	23.42	-5.94
High	5320	14.32	12.12	16.37	23.43	-7.06

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5260	3.037	2.814	5.94	11.00	-5.06
Mid	5300	2.969	3.421	6.21	11.00	-4.79
High	5320	3.037	0.850	5.09	11.00	-5.91

10.5.7. 802.11n HT40 MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5270	40.63	35.8449	-1.87	1.88
High	5310	40.26	35.8780	-1.87	1.88

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5270	24.00	24.00	30.00	24.00	11.00	11.00	11.00
High	5310	24.00	24.00	30.00	24.00	11.00	11.00	11.00

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

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	5270	11.95	11.74	14.86	24.00	-9.14
High	5310	11.99	12.43	15.23	24.00	-8.77

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5270	-2.632	-2.783	0.30	11.00	-10.70
High	5310	-2.588	-2.139	0.65	11.00	-10.35

10.5.8. 802.11ac HT80 MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5290	82.21	74.9437	-1.87	1.88

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5290	24.00	24.00	30.00	24.00	11.00	11.00	11.00

Duty Cycle CF (dB)	0.09	Included in Calculations of Corr'd Power & PPSD

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	5290	11.00	11.34	14.27	24.00	-9.73

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5290	-6.584	-6.303	-3.34	11.00	-14.34

10.5.9. 802.11a MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5500	20.12	16.3323	0.49	3.40
Mid	5580	20.31	16.3271	0.49	3.40
High	5700	20.43	16.3466	0.49	3.40

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5500	24.00	23.13	29.13	23.13	11.00	11.00	11.00
Mid	5580	24.00	23.13	29.13	23.13	11.00	11.00	11.00
High	5700	24.00	23.13	29.13	23.13	11.00	11.00	11.00

Duty Cycle CF (dB)	0.09	Included in Calculations of Corr'd Power & PPSD

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	5500	15.19	15.37	18.38	23.13	-4.75
Mid	5580	15.07	15.34	18.31	23.13	-4.82
High	5700	14.73	14.74	17.84	23.13	-5.30

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5500	4.088	4.254	7.27	11.00	-3.73
Mid	5580	3.968	4.221	7.20	11.00	-3.80
High	5700	3.610	3.643	6.73	11.00	-4.27

10.5.10. 802.11n HT20 MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5500	20.62	17.5011	0.49	3.40
Mid	5580	20.15	17.4844	0.49	3.40
High	5700	21.22	17.4614	0.49	3.40

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5500	24.00	23.43	29.43	23.43	11.00	11.00	11.00
Mid	5580	24.00	23.43	29.43	23.43	11.00	11.00	11.00
High	5700	24.00	23.42	29.42	23.42	11.00	11.00	11.00

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

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	5500	14.40	14.65	17.54	23.43	-5.89
Mid	5580	14.25	14.73	17.51	23.43	-5.92
High	5700	13.95	13.96	16.97	23.42	-6.46

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5500	3.128	3.370	6.26	11.00	-4.74
Mid	5580	3.023	3.474	6.26	11.00	-4.74
High	5700	2.699	2.728	5.72	11.00	-5.28

10.5.11. 802.11n HT40 MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5510	40.67	35.8813	0.49	3.40
Mid	5550	40.38	35.8723	0.49	3.40
High	5670	40.64	35.8743	0.49	3.40

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5510	24.00	24.00	30.00	24.00	11.00	11.00	11.00
Mid	5550	24.00	24.00	30.00	24.00	11.00	11.00	11.00
High	5670	24.00	24.00	30.00	24.00	11.00	11.00	11.00

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

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	5510	12.12	12.35	15.25	24.00	-8.75
Mid	5550	12.04	12.42	15.24	24.00	-8.76
High	5670	12.40	12.41	15.42	24.00	-8.58

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5510	-2.421	-2.146	0.73	11.00	-10.27
Mid	5550	-2.521	-2.150	0.68	11.00	-10.32
High	5670	-2.047	-2.074	0.95	11.00	-10.05

10.5.12. 802.11ac HT80 MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5530	83.00	74.9969	0.49	3.40

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5530	24.00	24.00	30.00	24.00	11.00	11.00	11.00

Duty Cycle CF (dB)	0.09	Included in Calculations of Corr'd Power & PPSD

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	5530	11.06	11.18	14.22	24.00	-9.78

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5530	-6.517	-6.398	-3.36	11.00	-14.36

10.5.13. 802.11a MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5745	20.27	16.3450	0.11	3.12
Mid	5785	20.40	16.3462	0.11	3.12
High	5825	20.49	16.3585	0.11	3.12

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5745	30.00	29.13	35.13	29.13	30.00	17.00	17.00
Mid	5785	30.00	29.13	35.13	29.13	30.00	17.00	17.00
High	5825	30.00	29.14	35.14	29.14	30.00	17.00	17.00

Duty Cycle CF (dB)	0.09	Included in Calculations of Corr'd Power & PPSD

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	14.62	14.89	17.86	29.13	-11.28
Mid	5785	14.52	15.10	17.92	29.13	-11.21
High	5825	14.60	15.13	17.97	29.14	-11.16

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5745	0.815	1.086	4.05	17.00	-12.95
Mid	5785	0.740	1.307	4.13	17.00	-12.87
High	5825	0.829	1.358	4.20	17.00	-12.80

10.5.14. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5745	20.65	17.5075	0.11	3.12
Mid	5785	20.65	17.4897	0.11	3.12
High	5825	20.70	17.5177	0.11	3.12

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5745	30.00	29.43	35.43	29.43	30.00	17.00	17.00
Mid	5785	30.00	29.43	35.43	29.43	30.00	17.00	17.00
High	5825	30.00	29.43	35.43	29.43	30.00	17.00	17.00

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

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	13.96	14.13	17.06	29.43	-12.38
Mid	5785	13.79	14.38	17.11	29.43	-12.32
High	5825	13.77	14.43	17.12	29.43	-12.31

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5745	-0.047	-0.048	2.96	17.00	-14.04
Mid	5785	-0.268	0.353	3.06	17.00	-13.94
High	5825	-0.242	0.409	3.11	17.00	-13.89

10.5.15. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5755	41.3	35.9009	0.11	3.12
High	5795	40.9	35.8927	0.11	3.12

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5755	30.00	30.00	36.00	30.00	30.00	17.00	17.00
High	5795	30.00	30.00	36.00	30.00	30.00	17.00	17.00

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

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	12.06	12.31	15.20	30.00	-14.80
High	5795	11.20	11.07	14.15	30.00	-15.85

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5755	-5.124	-4.840	-1.97	17.00	-18.97
High	5795	-6.110	-6.240	-3.16	17.00	-20.16

10.5.16. 802.11ac HT80 MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5775	82.09	74.9707	0.11	3.12

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5775	30.00	30.00	36.00	30.00	30.00	17.00	17.00

Duty Cycle CF (dB)	0.09	Included in Calculations of Corr'd Power & PPSD

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	5775	10.90	11.05	14.08	30.00	-15.92

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5775	-9.244	-9.064	-6.05	17.00	-23.05

10.5.17. 802.11a MODE STRADDLE CHANNEL 144 RESULTS

UNII-2C BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
144	5720	15.30	13.1600	0.11	3.12

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
144	5720	22.85	22.19	28.19	22.19	11.00	11.00	11.00

Duty Cycle CF (dB)	0.09	Included in Calculations of Corr'd Power & PPSD

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)
144	5720	13.74	13.90	16.92	22.19	-5.27

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
144	5720	3.369	3.549	6.56	11.00	-4.44

UNII-3 BAND

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
144	5720	0.11	3.12

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
144	5720	30.00	30.00	30.00	30.00	30.00	30.00

Duty Cycle CF (dB)	0.09	Included in Calculations of Corr'd Power & PPSD

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)
144	5720	6.48	6.64	9.66	30.00	-20.34

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
144	5720	-0.155	0.065	3.06	30.00	-26.94

10.5.18. 802.11n HT20 MODE STRADDLE CHANNEL 144 RESULTS

UNII-2C BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
144	5720	15.20	13.75	0.11	3.12

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
144	5720	22.82	22.38	28.38	22.38	11.00	11.00	11.00

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

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)
144	5720	12.97	13.11	16.05	22.38	-6.33

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
144	5720	2.490	2.667	5.59	11.00	-5.41

UNII-3 BAND

Channel	Frequency (MHz)	Directio Gain for Power (dBi)	Directio Gain for PPSD (dBi)
144	5720	0.11	3.12

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
144	5720	30.00	30.00	30.00	30.00	30.00	30.00

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

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)
144	5720	6.06	6.20	9.14	30.00	-20.86

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
144	5720	-1.046	-0.957	2.01	30.00	-27.99

10.5.1. 802.11n HT40 MODE STRADDLE CHANNEL 142 RESULTS

UNII-2C BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
144	5710	35.49	32.93	0.11	3.12

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
144	5710	24.00	24.00	30.00	24.00	11.00	11.00	11.00

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

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)
144	5710	11.74	11.98	14.87	24.00	-9.13

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
144	5710	-2.536	-2.317	0.59	11.00	-10.41

UNII-3 BAND

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
142	5710	0.11	3.12

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
142	5710	30.00	30.00	30.00	30.00	30.00	30.00

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

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)
142	5710	-0.56	-0.30	2.58	30.00	-27.42

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
142	5710	-7.260	-7.185	-4.21	30.00	-34.21

10.5.1. 802.11ac HT80 MODE STRADDLE CHANNEL 138 RESULTS

UNII-2C BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
138	5690	76.10	72.50	0.11	3.12

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
138	5690	24.00	24.00	30.00	24.00	11.00	11.00	11.00

Duty Cycle CF (dB)	0.09	Included in Calculations of Corr'd Power & PPSD

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)
138	5690	11.07	11.01	14.14	24.00	-9.86

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
138	5690	-6.160	-6.266	-3.11	11.00	-14.11

UNII-3 BAND

Channel	Frequency (MHz)	Directio Gain for Power (dBi)	Directio Gain for PPSD (dBi)
138	5690	0.11	3.12

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
138	5690	30.00	30.00	30.00	30.00	30.00	30.00

Duty Cycle CF (dB)	0.09	Included in Calculations of Corr'd Power & PPSD

Output Power Results

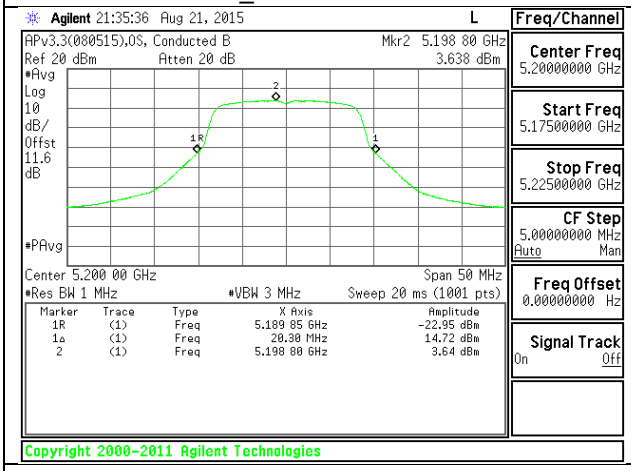
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
138	5690	-5.73	-5.81	-2.67	30.00	-32.67

PPSD Results

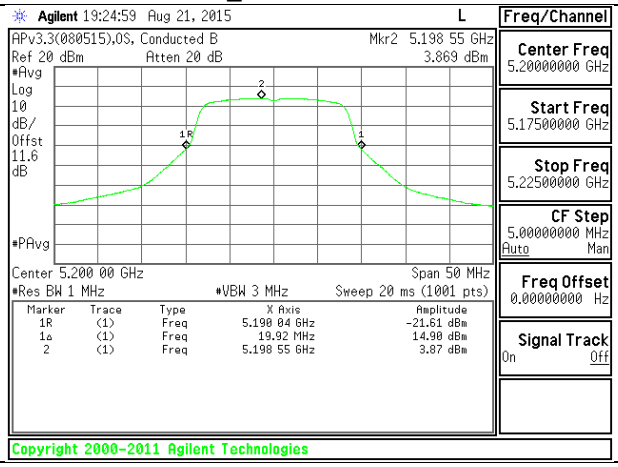
Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
138	5690	-12.711	-13.044	-9.77	30.00	-39.77

10.5.2. OUTPUT POWER AND PPSD PLOTS

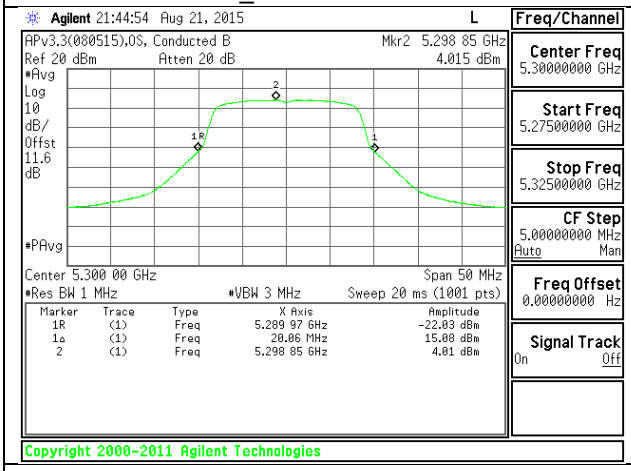
POWER & PSD 11a_ 5.2 Chain 0 Mid Ch



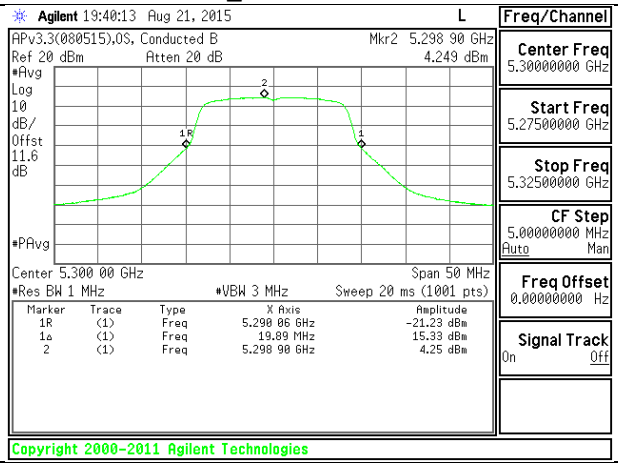
POWER & PSD 11a_ 5.2 Chain 1 Mid Ch



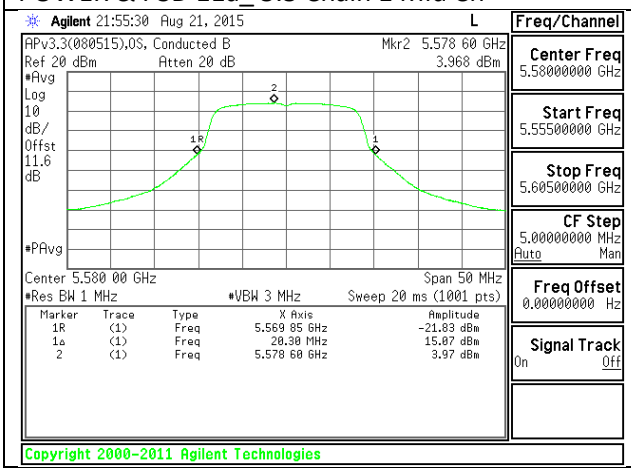
POWER & PSD 11a_ 5.3 Chain 0 Mid Ch



POWER & PSD 11a_ 5.3 Chain 1 Mid Ch



POWER & PSD 11a_ 5.5 Chain 1 Mid Ch



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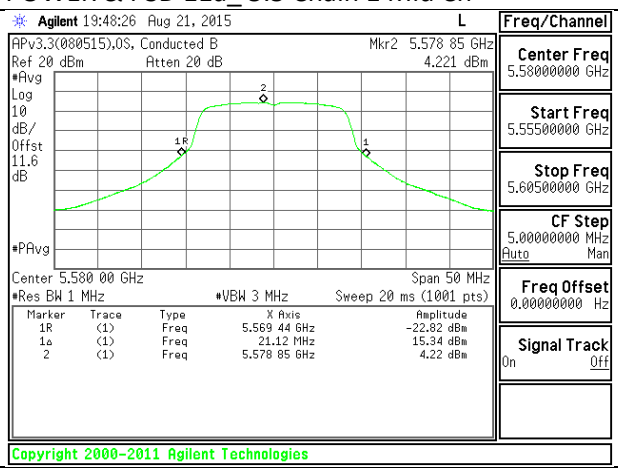
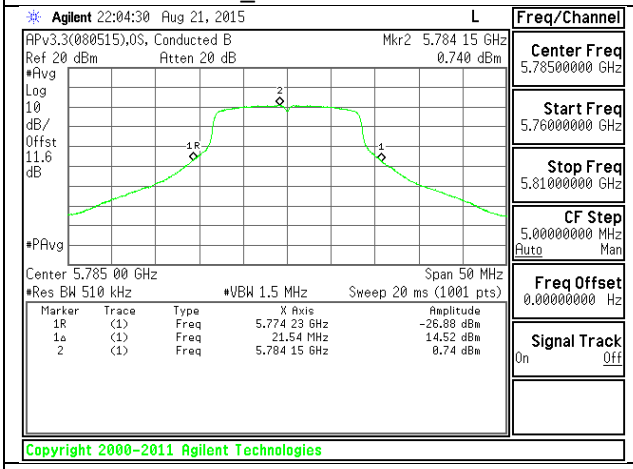
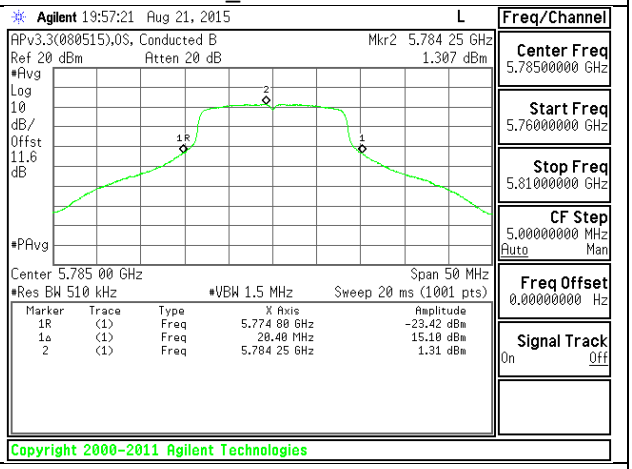


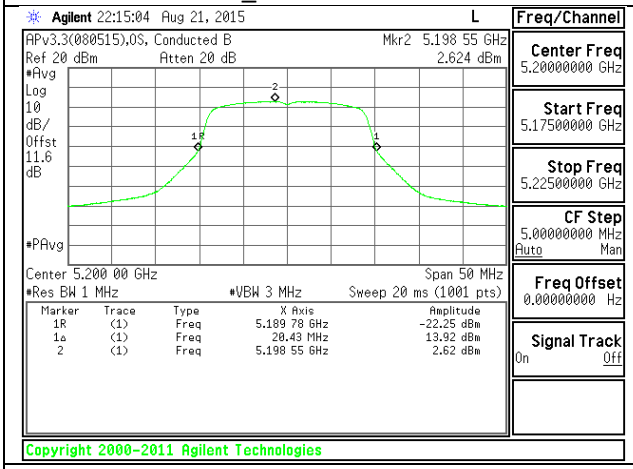
POWER & PSD 11a_ 5.8 Chain 0 Mid Ch



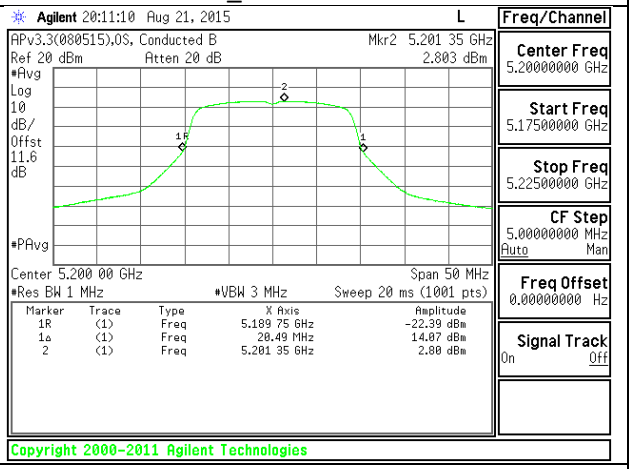
POWER & PSD 11a_ 5.8 Chain 1 Mid Ch



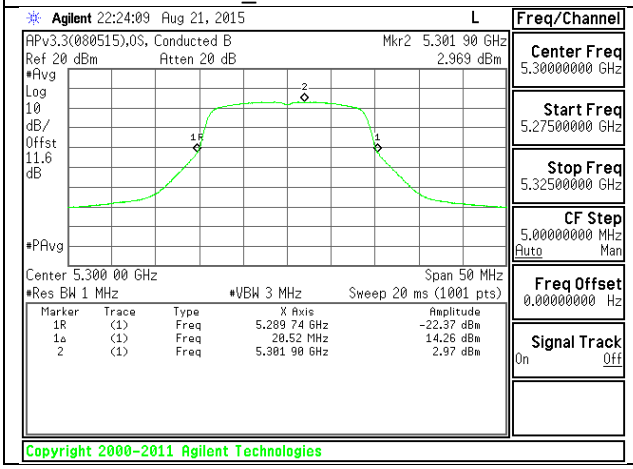
POWER & PSD 11n_HT20 5.2 Chain 0 Mid Ch



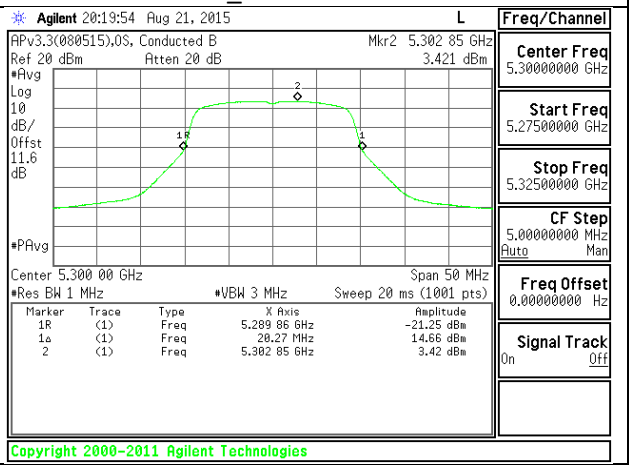
POWER & PSD 11n_HT20 5.2 Chain 1 Mid Ch



POWER & PSD 11n_HT20 5.3 Chain 0 Mid Ch



POWER & PSD 11n_HT20 5.3 Chain 1 Mid Ch



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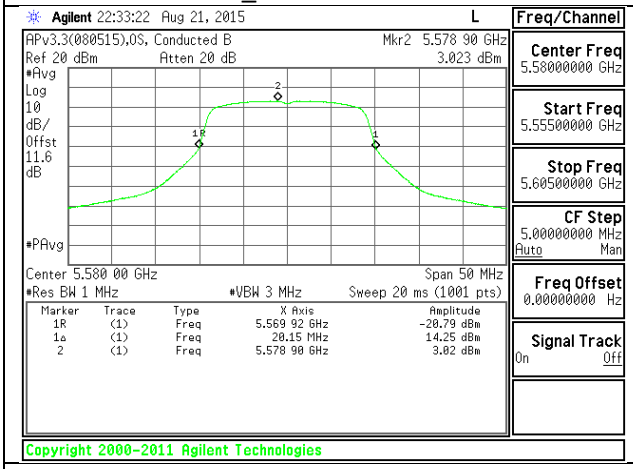
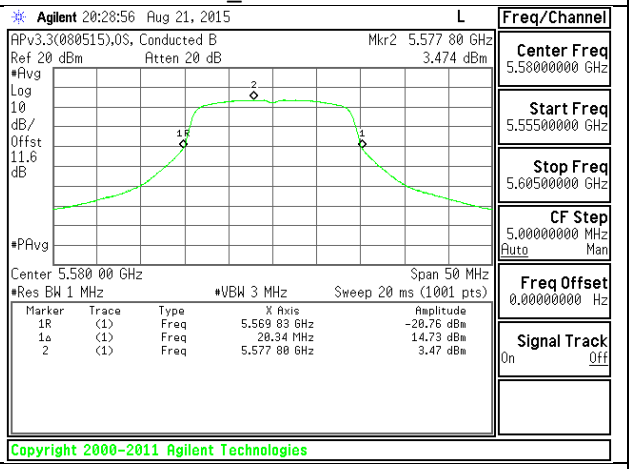
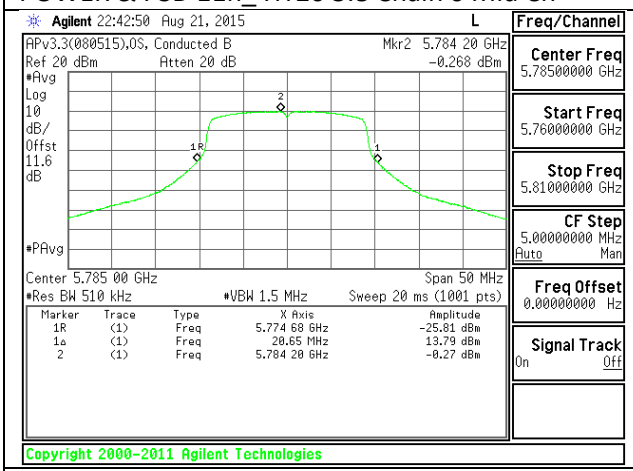


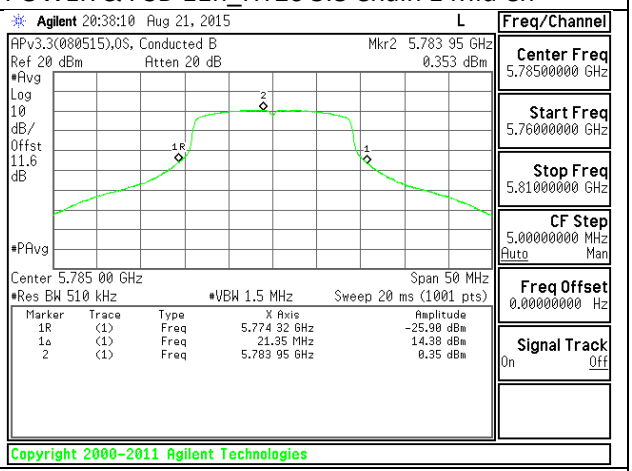
POWER & PSD 11n_HT20 5.5 Chain 1 Mid Ch



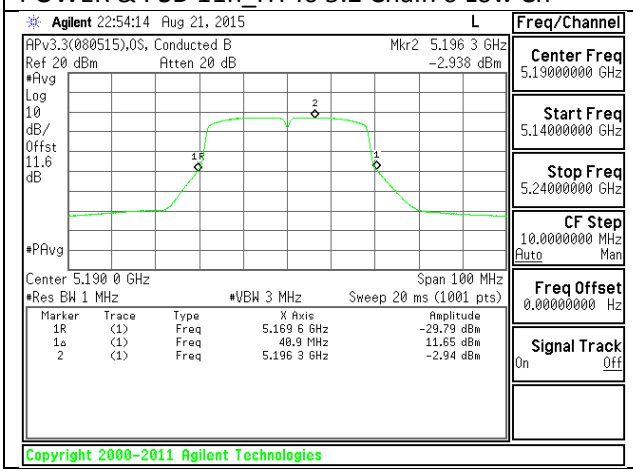
POWER & PSD 11n_ HT20 5.8 Chain 0 Mid Ch



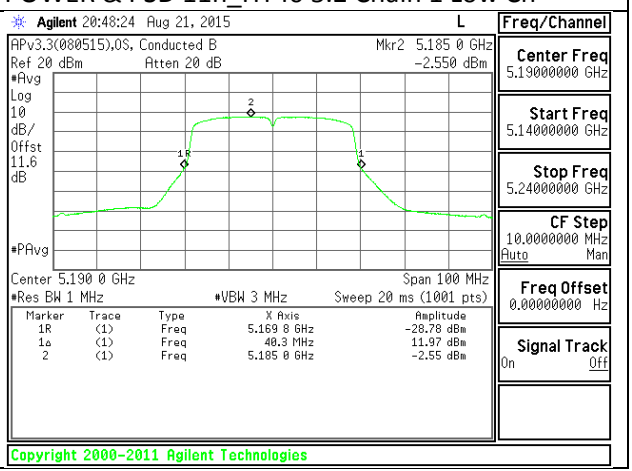
POWER & PSD 11n_HT20 5.8 Chain 1 Mid Ch



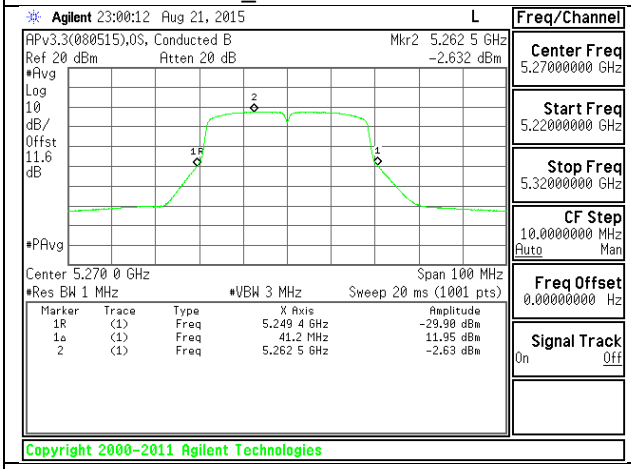
POWER & PSD 11n_HT40 5.2 Chain 0 Low Ch



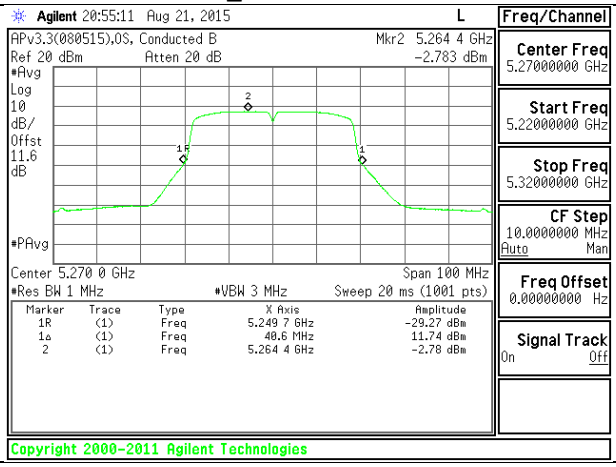
POWER & PSD 11n_HT40 5.2 Chain 1 Low Ch



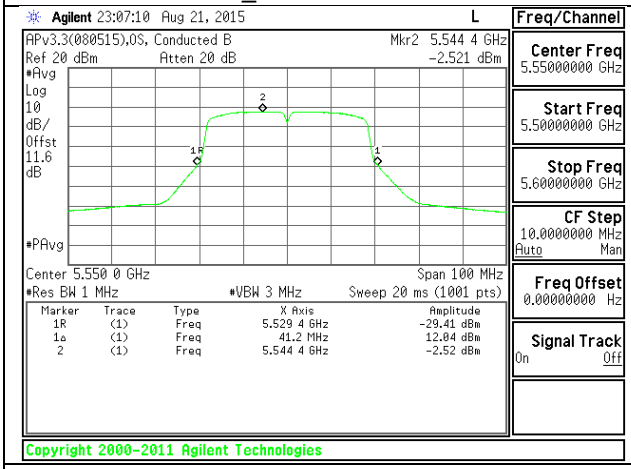
POWER & PSD 11n_HT40 5.3 Chain 0 Low Ch



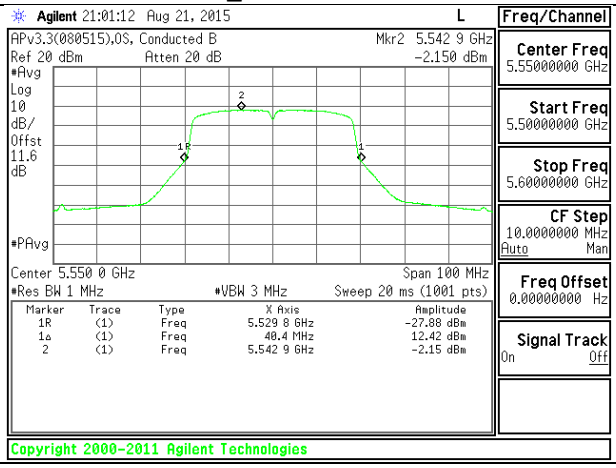
POWER & PSD 11n_HT40 5.3 Chain 1 Low Ch



POWER & PSD 11n_ 5.5 Chain 0 Mid Ch



POWER & PSD 11n_ 5.5 Chain 1 Mid Ch



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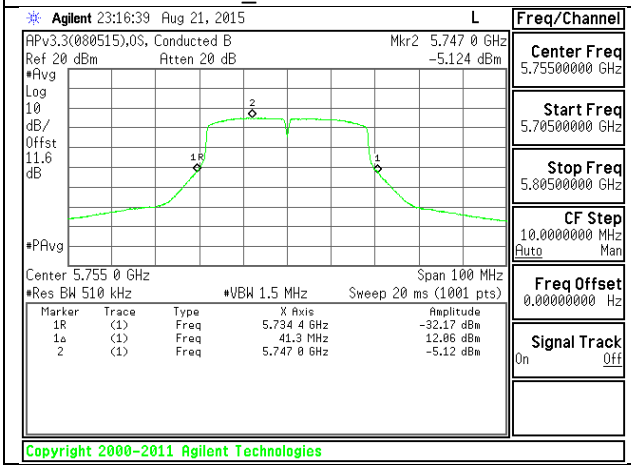

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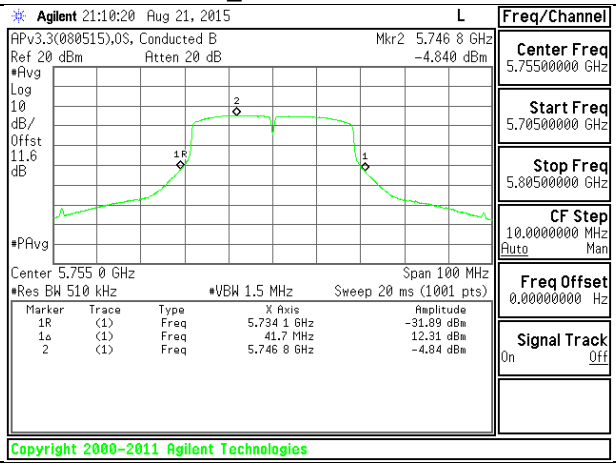
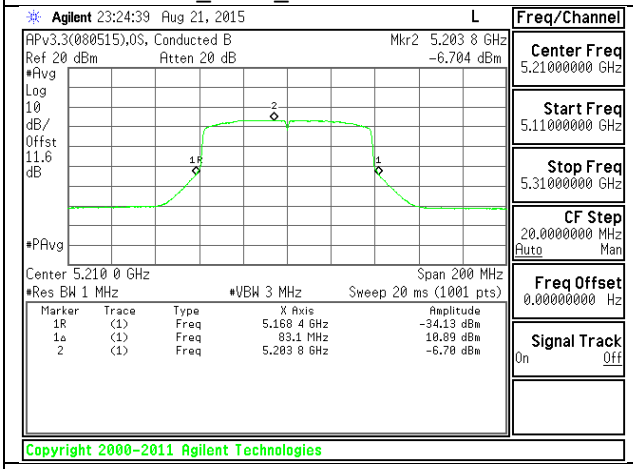


POWER & PSD _ 11ac_HT80 5.2 Chain 0 Low Ch



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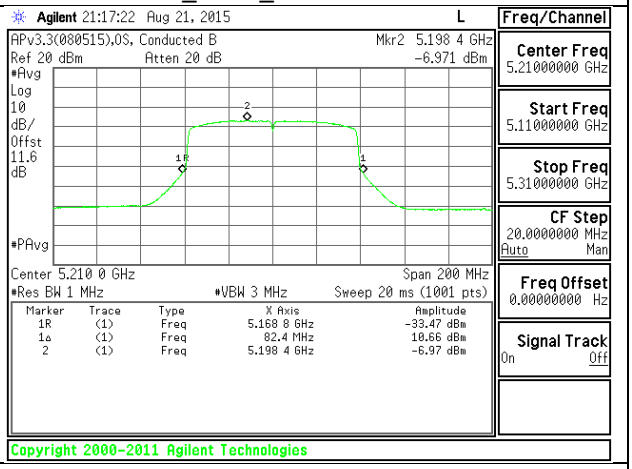
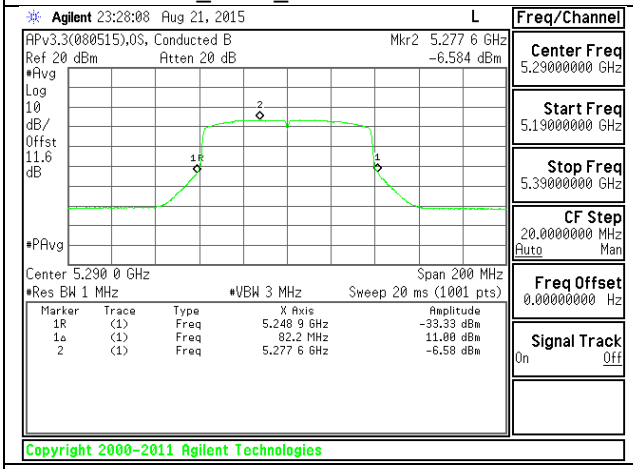


POWER & PSD _ 11ac_HT80 5.3 Chain 0 Low Ch



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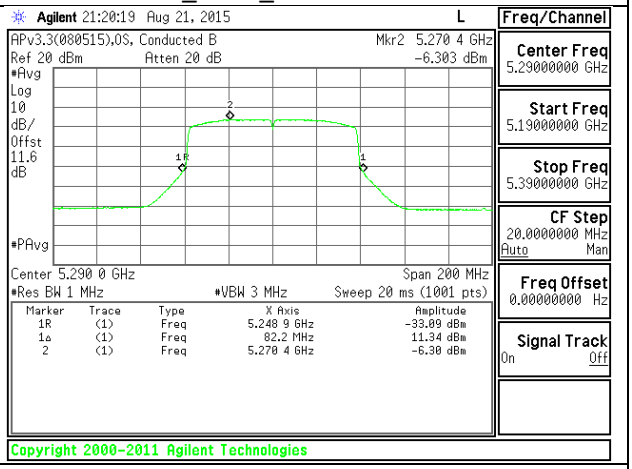

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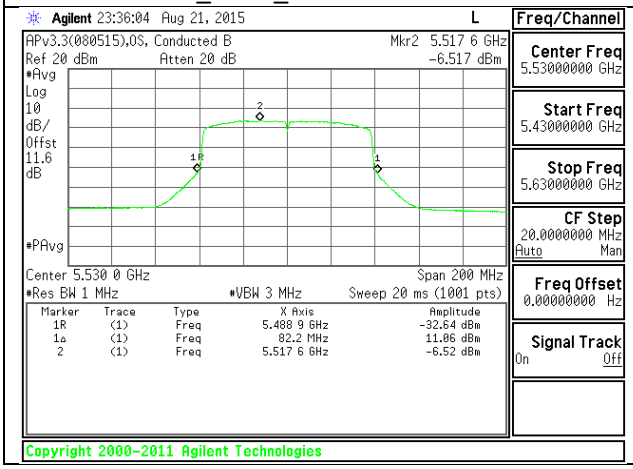
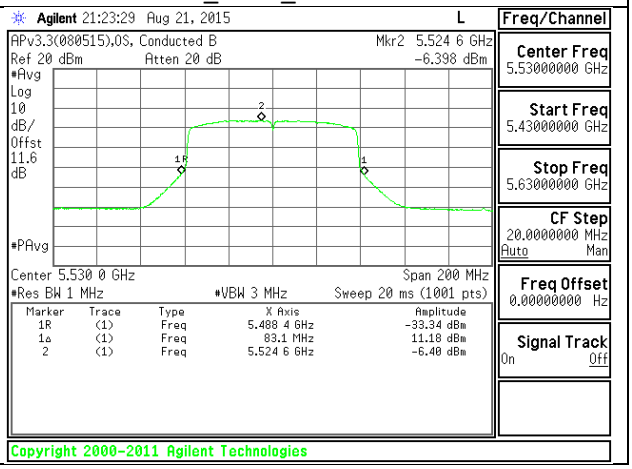
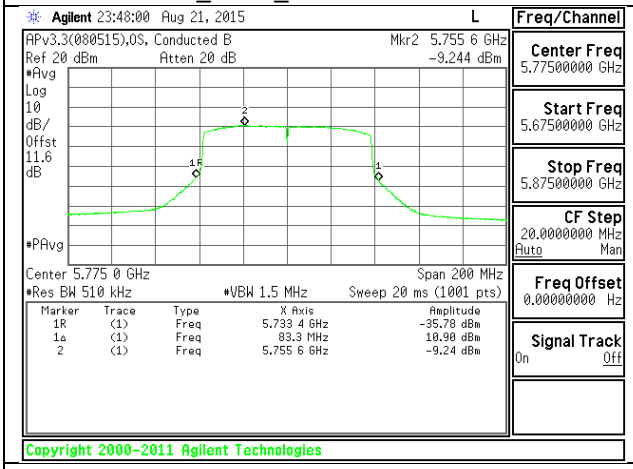


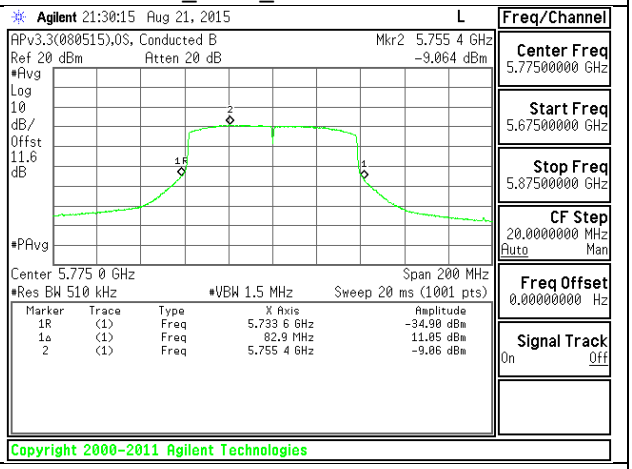
P POWER & PSD _ 11ac_HT80 5.5 Chain 1 Low Ch



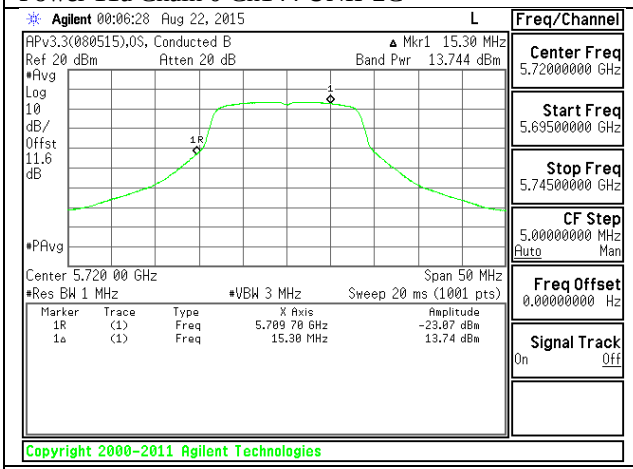
POWER & PSD _ 11ac_HT80 5.8 Chain 0 Low Ch



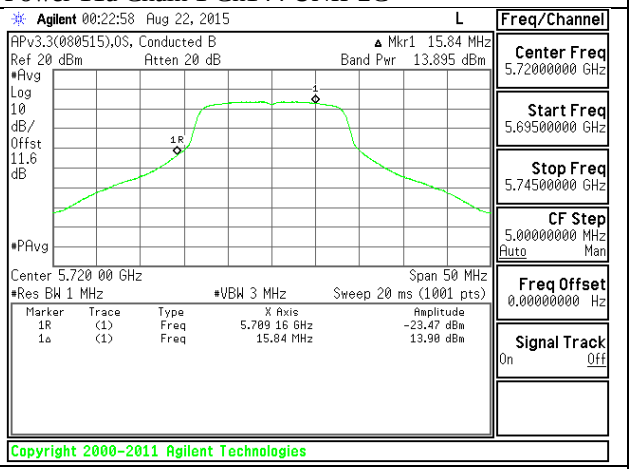
POWER & PSD _ 11ac_HT80 5.8 Chain 1 Low Ch



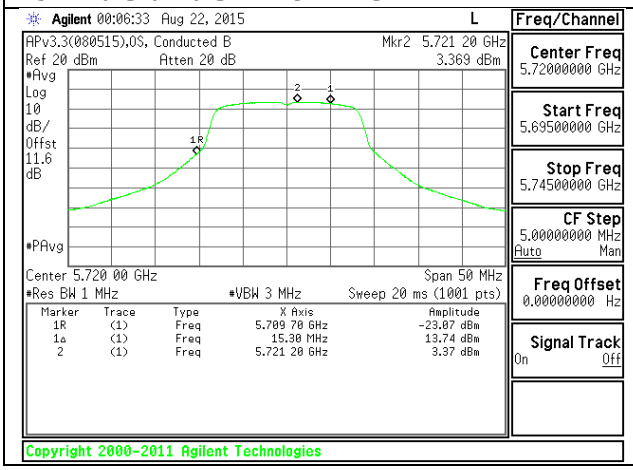
Power 11a Chain 0 Ch144 UNII-2C



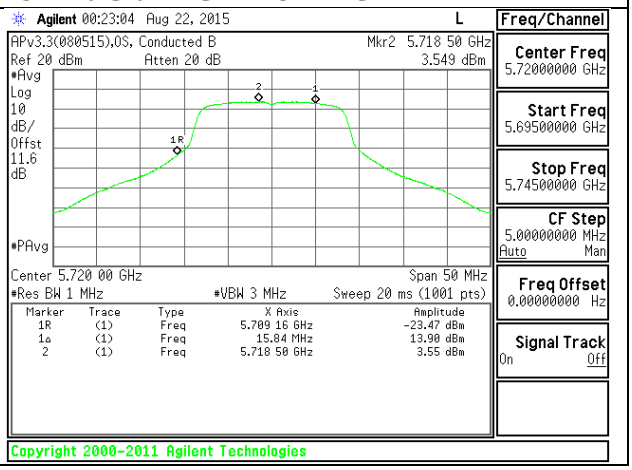
Power 11a Chain 1 Ch144 UNII-2C



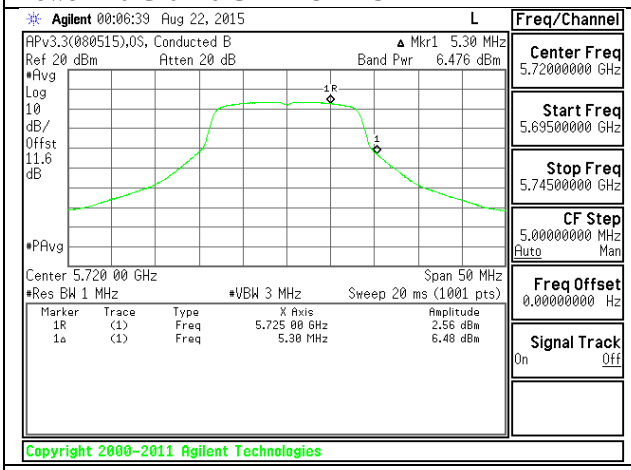
PSD 11a Chain 0 Ch144 UNII-2C



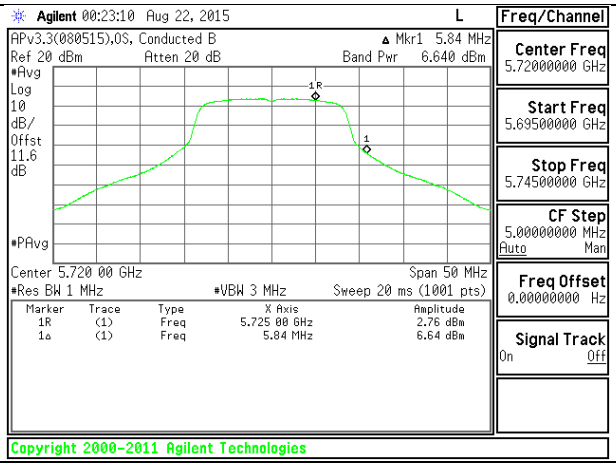
PSD 11a Chain 1 Ch144 UNII-2C



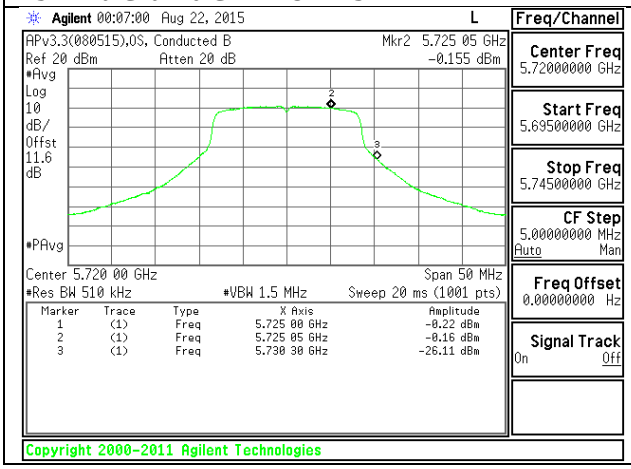
Power 11a Chain 0 Ch144 UNII-3



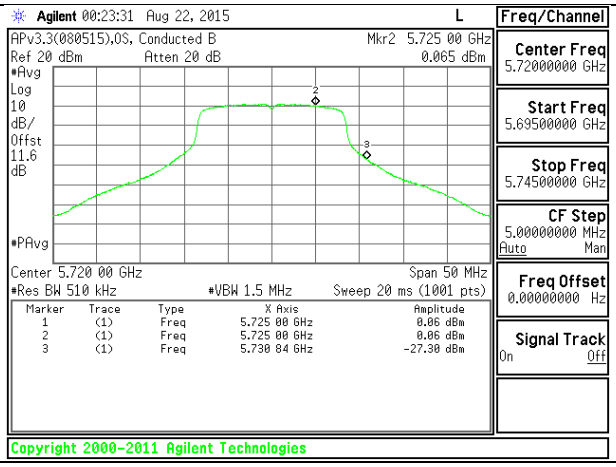
Power 11a Chain 1 Ch144 UNII-3



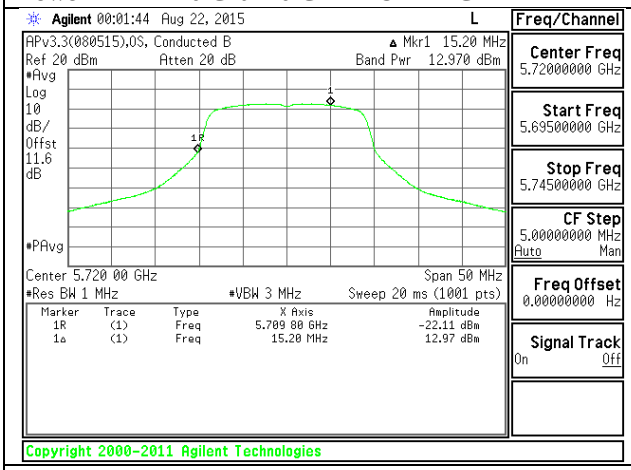
PSD 11a Chain 0 Ch144 UNII-3



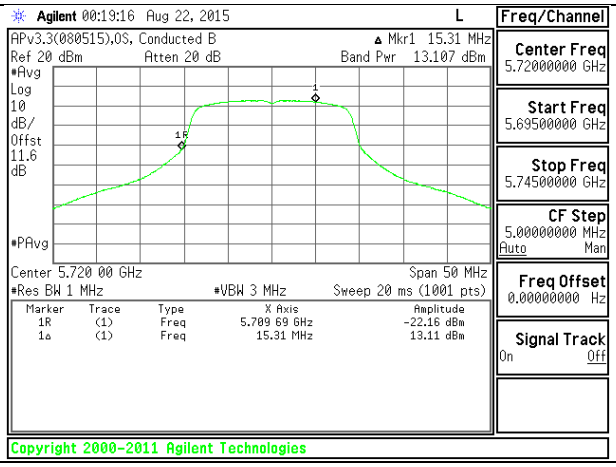
PSD 11a Chain 1 Ch144 UNII-3



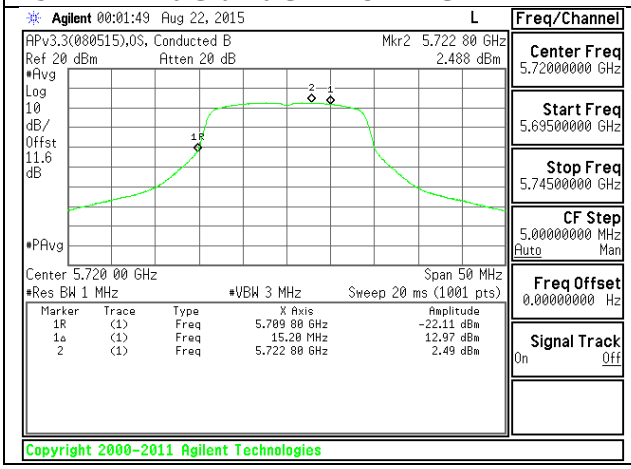
Power 11n HT20 Chain 0 Ch144 UNII-2C



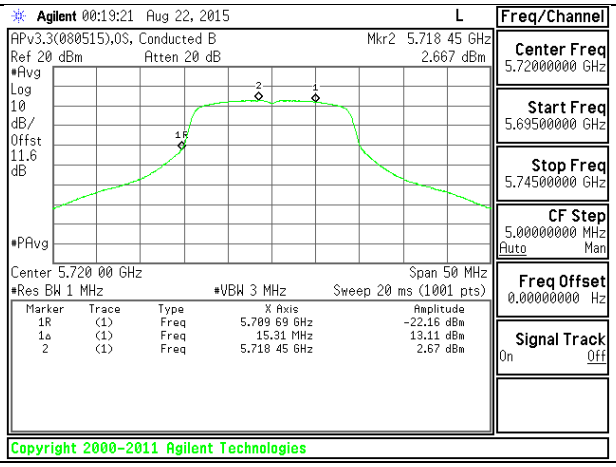
Power 11n HT20 Chain 1 Ch144 UNII-2C



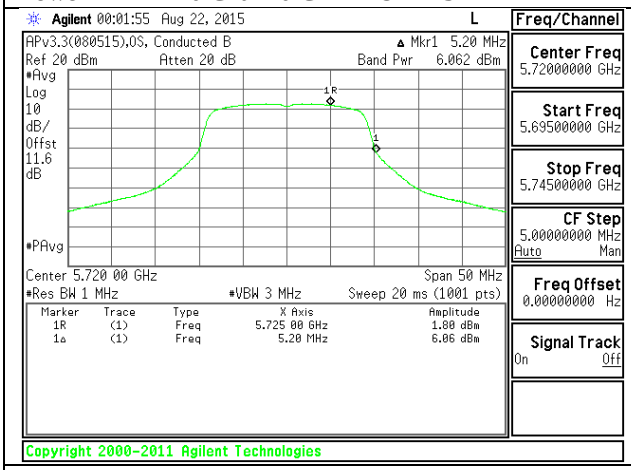
PSD 11n HT20 Chain 0 Ch144 UNII-2C



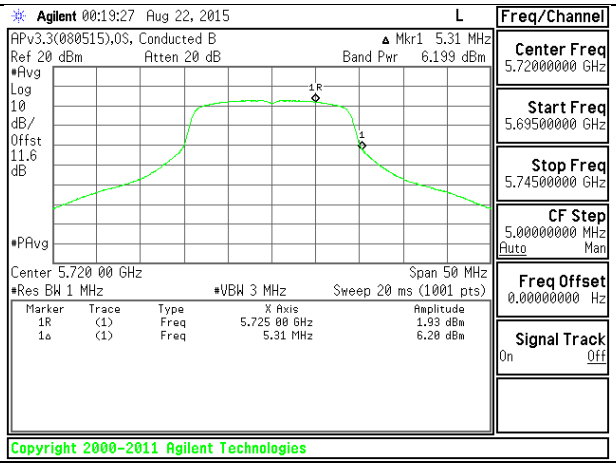
PSD 11n HT20 Chain 1 Ch144 UNII-2C



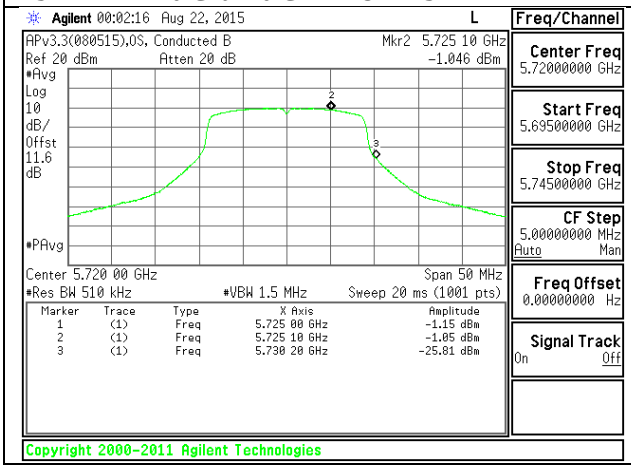
Power 11n HT20 Chain 0 Ch144 UNII-3



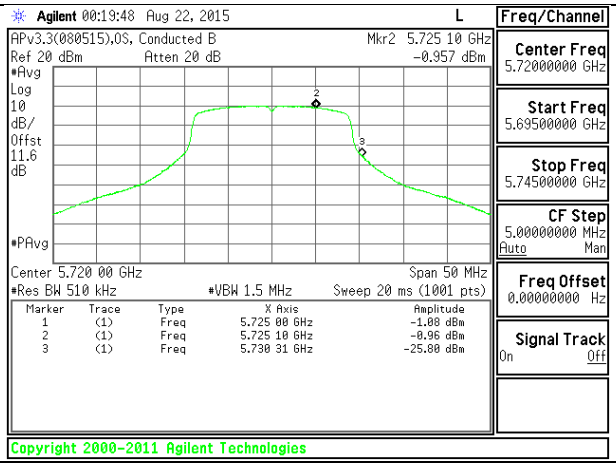
Power 11n HT20 Chain 1 Ch144 UNII-3



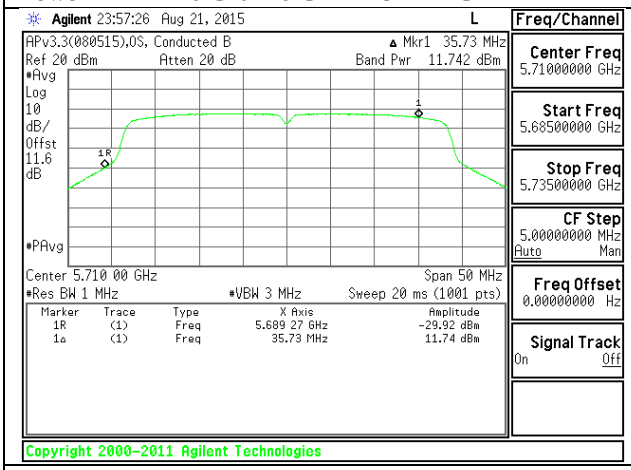
PSD 11n HT20 Chain 0 Ch144 UNII-3



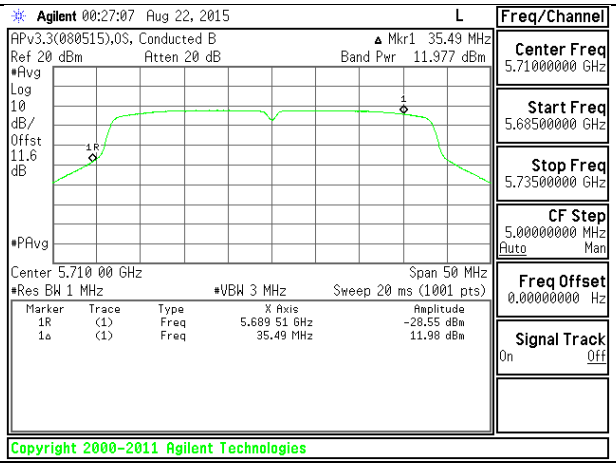
PSD 11n HT20 Chain 1 Ch144 UNII-3



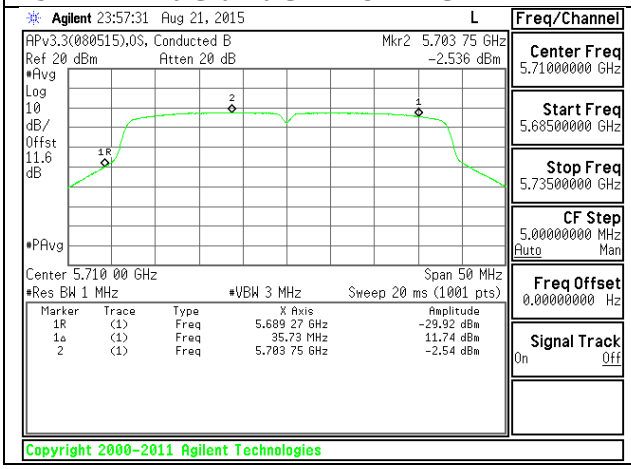
Power 11n HT40 Chain 0 Ch142 UNII-2C



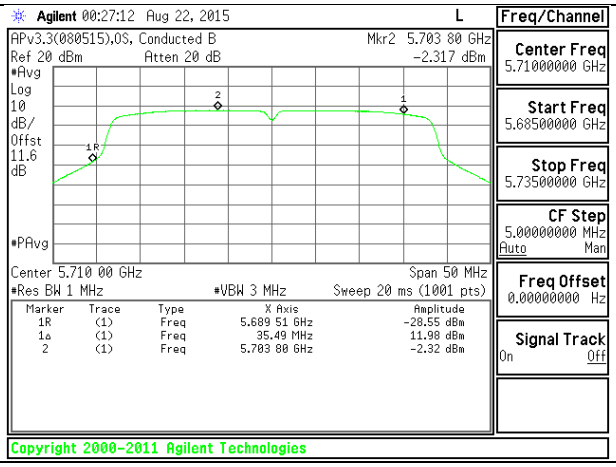
Power 11n HT40 Chain 1 Ch142 UNII-2C



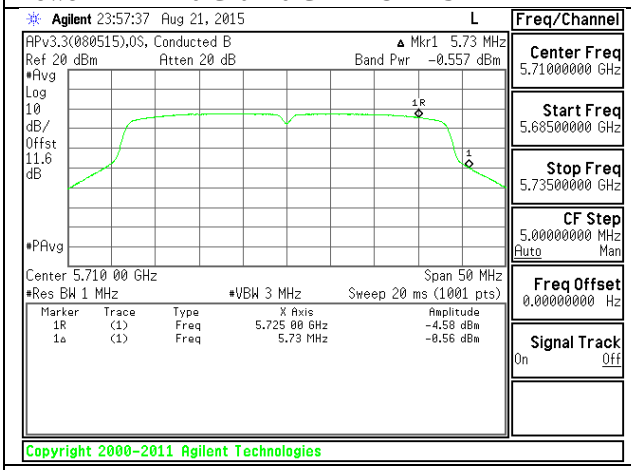
PSD 11n HT40 Chain 0 Ch142 UNII-2C



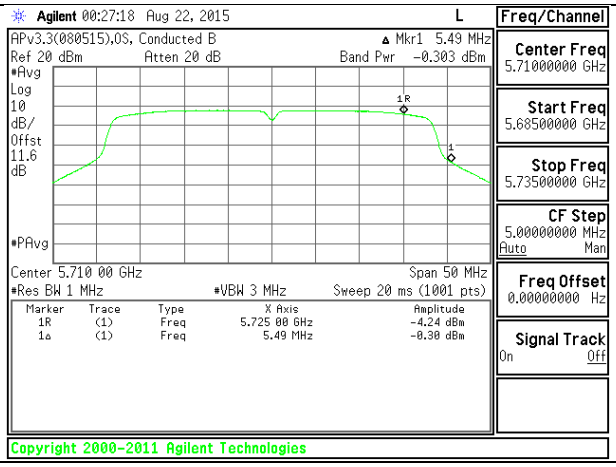
PSD 11n HT40 Chain 1 Ch142 UNII-2C



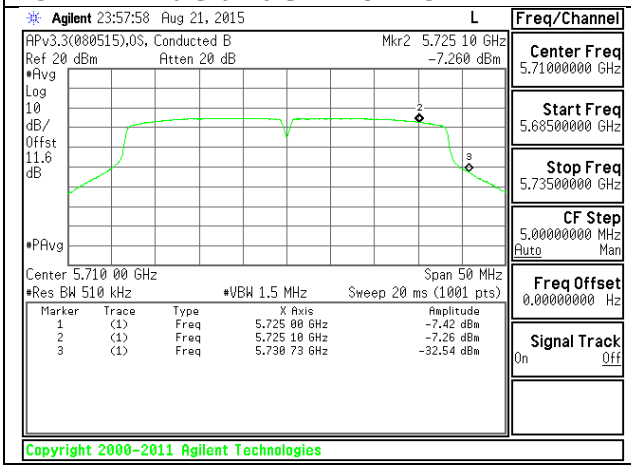
Power 11n HT40 Chain 0 Ch142 UNII-3



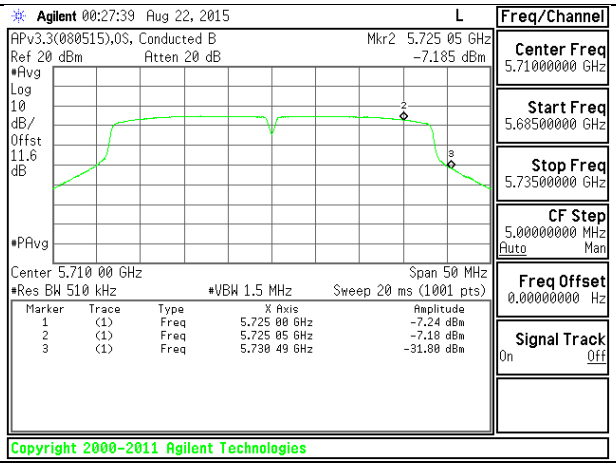
Power 11n HT40 Chain 1 Ch142 UNII-3



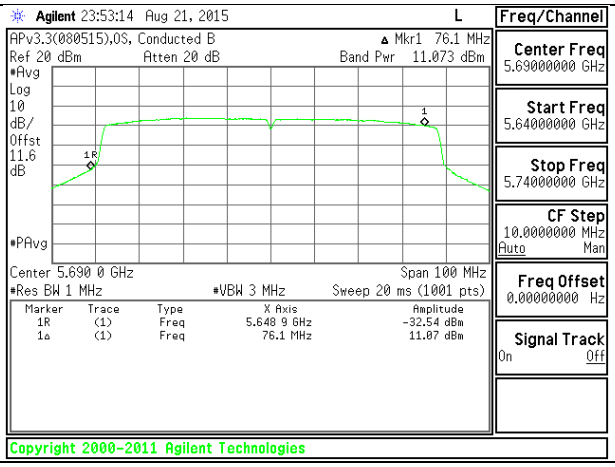
PSD 11n HT40 Chain 0 Ch142 UNII-3



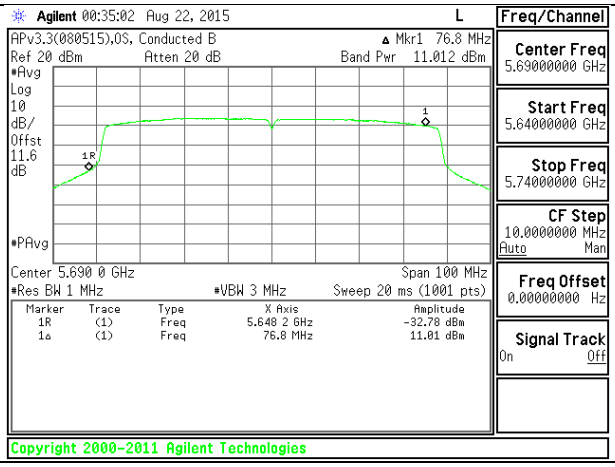
PSD 11n HT40 Chain 1 Ch142 UNII-3



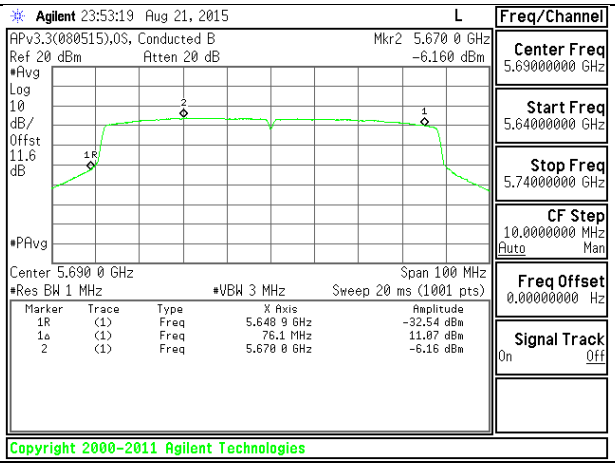
Power 11ac HT80 Chain 0 Ch138 UNII-2C



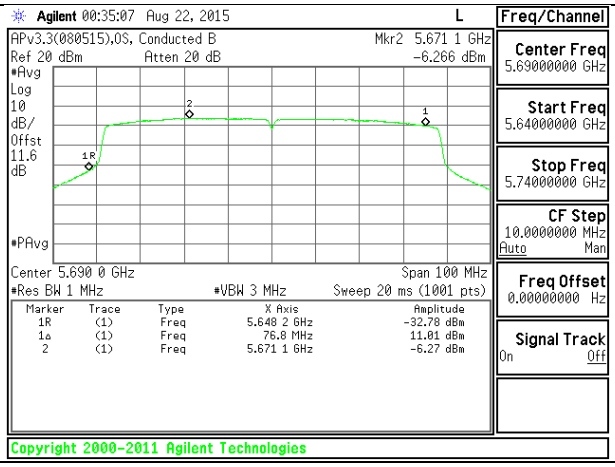
Power 11n HT40 Chain 1 Ch138 UNII-2C



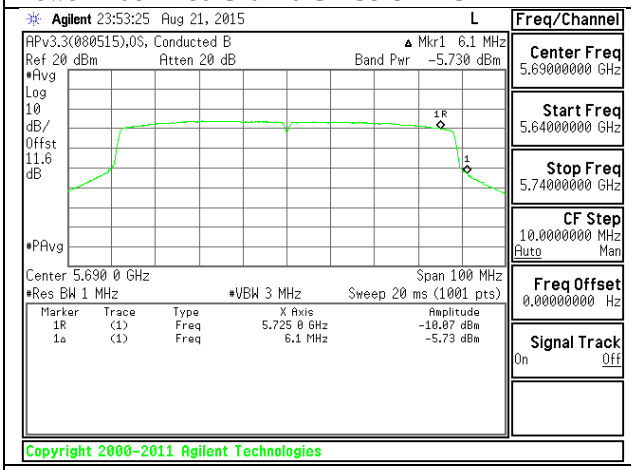
PSD 11ac HT80 Chain 0 Ch138 UNII-2C



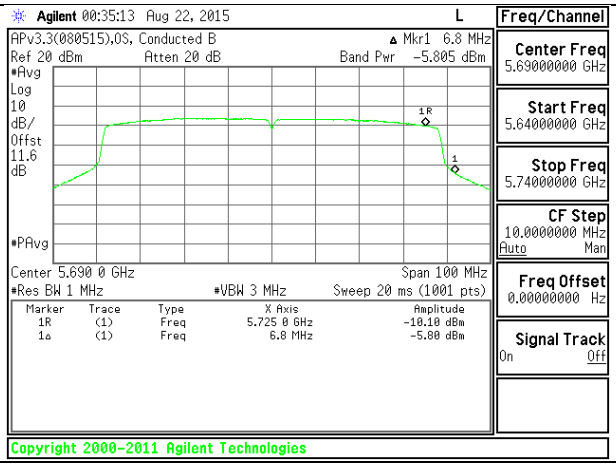
PSD 11n HT40 Chain 1 Ch138 UNII-2C



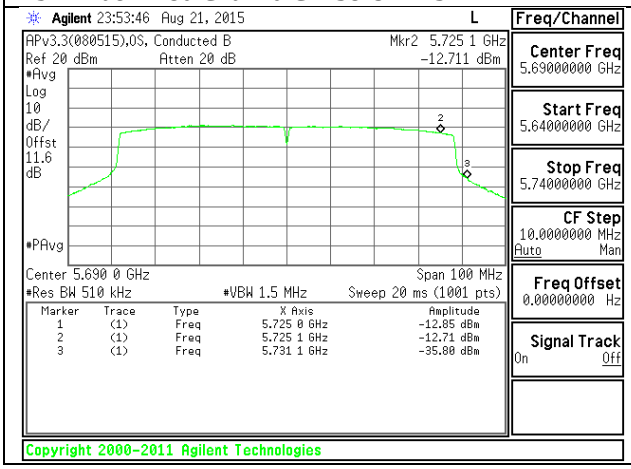
Power 11ac HT80 Chain 0 Ch138 UNII-3



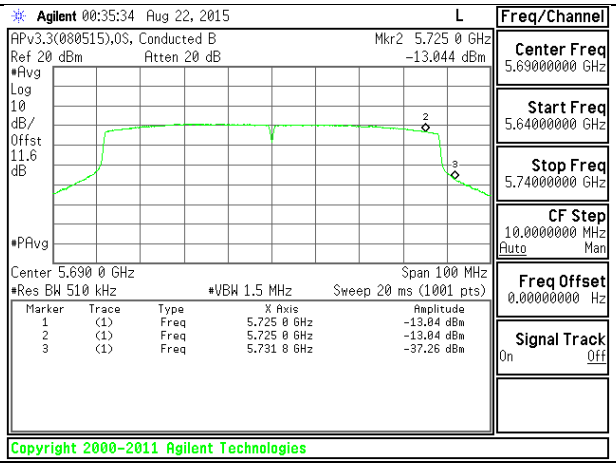
Power 11n HT40 Chain 1 Ch138 UNII-3



PSD 11ac HT80 Chain 0 Ch138 UNII-3



PSD 11n HT40 Chain 1 Ch138 UNII-3



11. TRANSMITTER ABOVE 1 GHz

LIMITS

FCC §15.205 and §15.209
RSS-GEN 8.9

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

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for below 1GHz and 150 cm for above 1GHz. The antenna to EUT distance is 3 meters.

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

Reference to KDB 789033 UNII part H) 6) d) Method VB:

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and add duty cycle factor to the reading offset for average measurements.

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

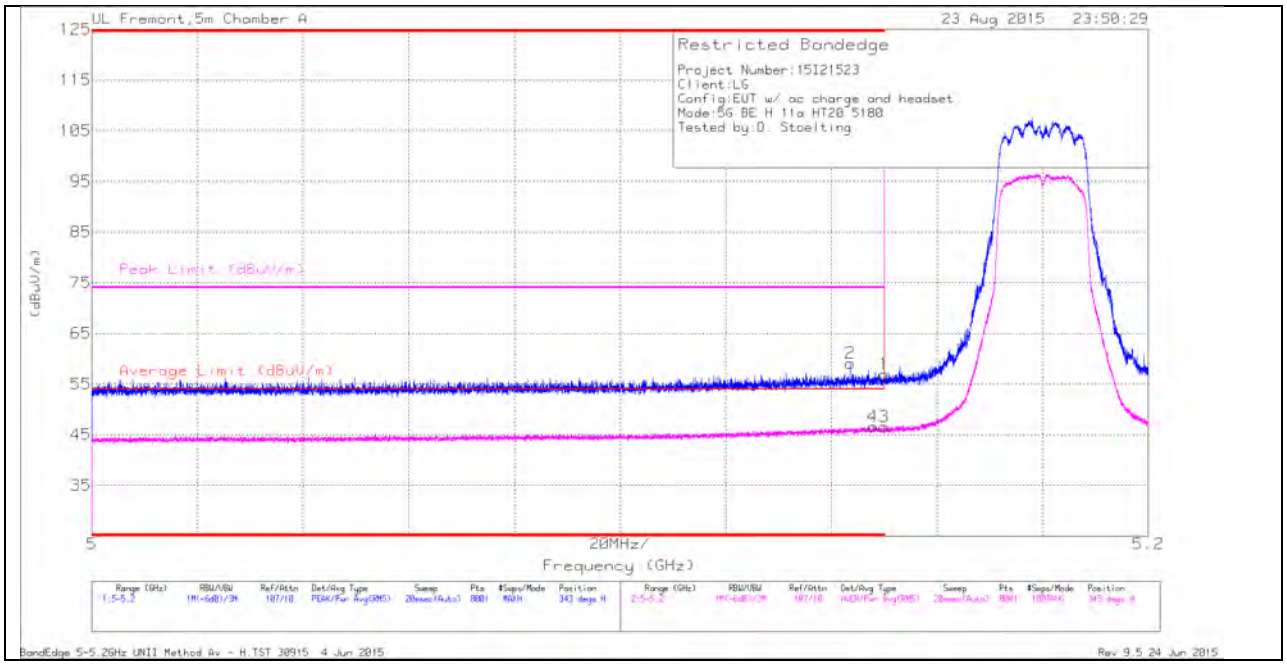
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

11.1. 5.2 GHz

11.1.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.2 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

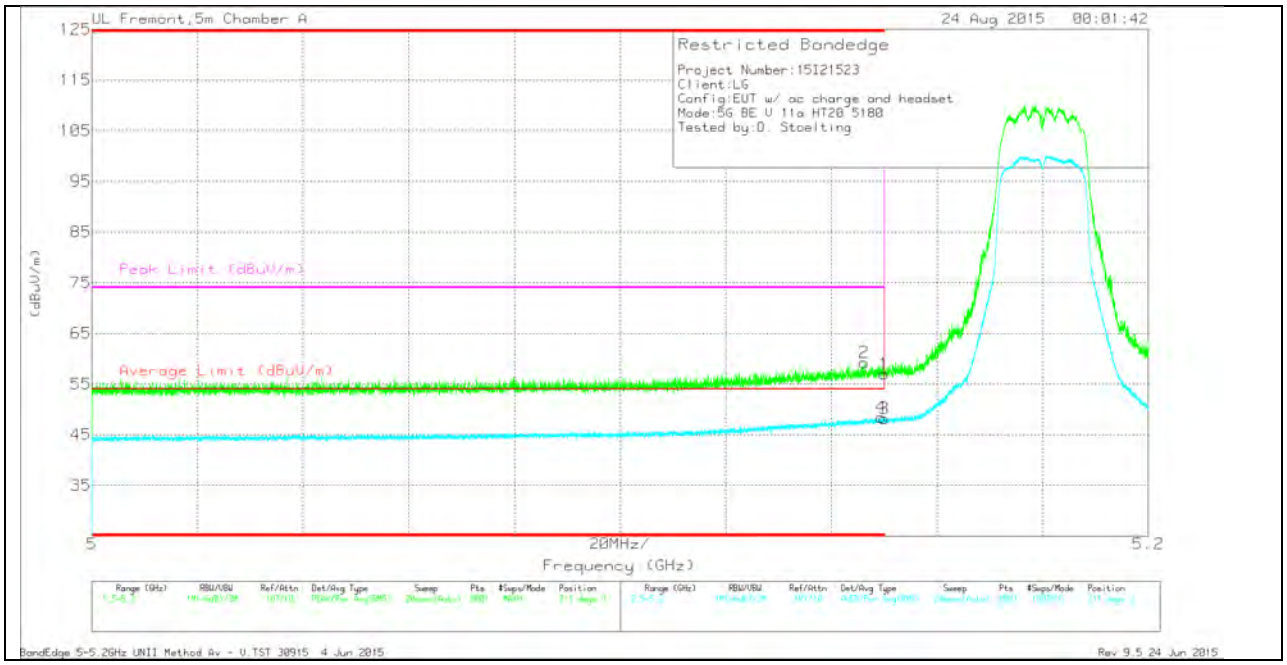
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	43.43	Pk	34.2	-20.7	0	56.93	-	-	74	-17.07	343	100	H
2	* 5.144	45.55	Pk	34.2	-20.7	0	59.05	-	-	74	-14.95	343	100	H
3	* 5.15	32.92	RMS	34.2	-20.7	.09	46.51	54	-7.49	-	-	343	100	H
4	* 5.148	33.03	RMS	34.2	-20.7	.09	46.62	54	-7.38	-	-	343	100	H

VERTICAL PEAK AND AVERAGE PLOT

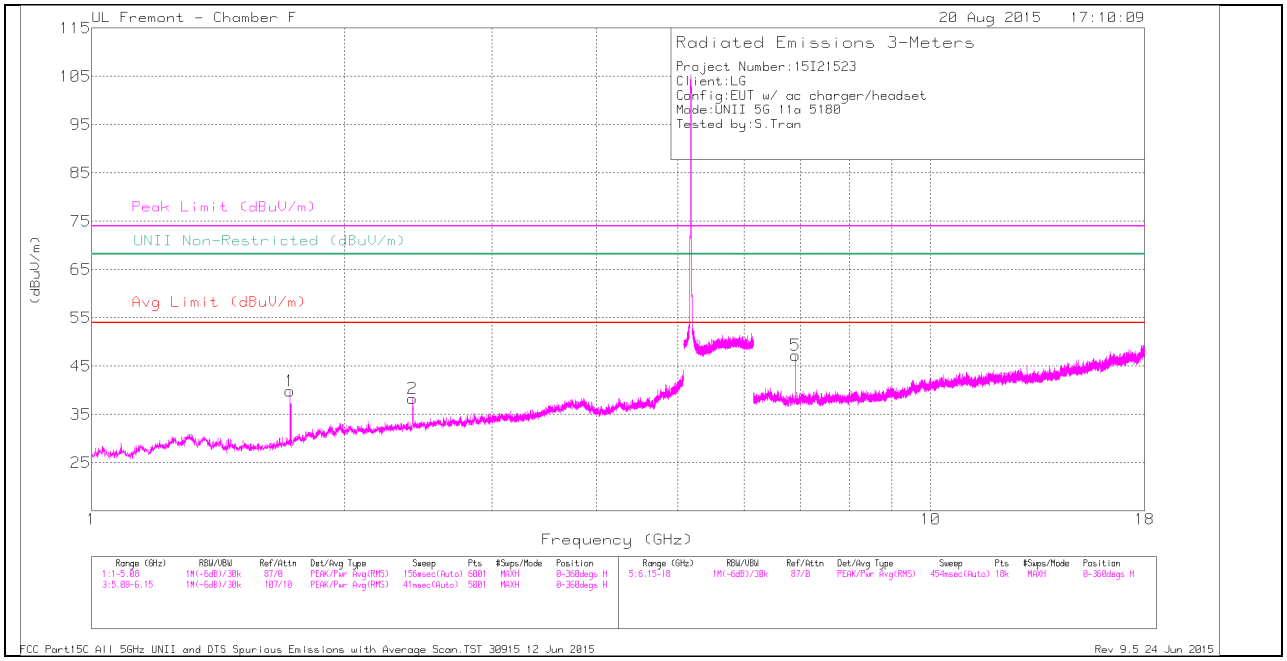


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (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	* 5.146	45.72	Pk	34.2	-20.7	0	59.22	-	-	74	-14.78	211	100	V
4	* 5.149	34.81	RMS	34.2	-20.7	.09	48.4	54	-5.6	-	-	211	100	V
1	* 5.15	43.49	Pk	34.2	-20.7	0	56.99	-	-	74	-17.01	211	100	V
3	* 5.15	34.63	RMS	34.2	-20.7	.09	48.22	54	-5.78	-	-	211	100	V

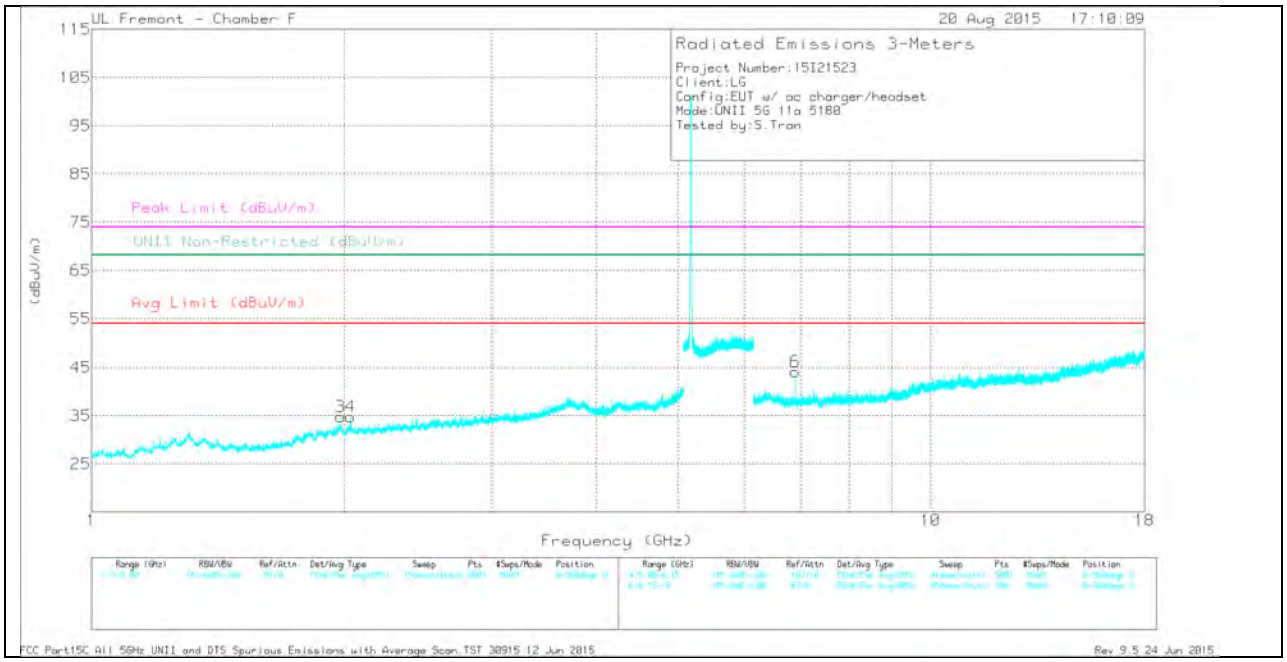
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

TRACE MARKERS

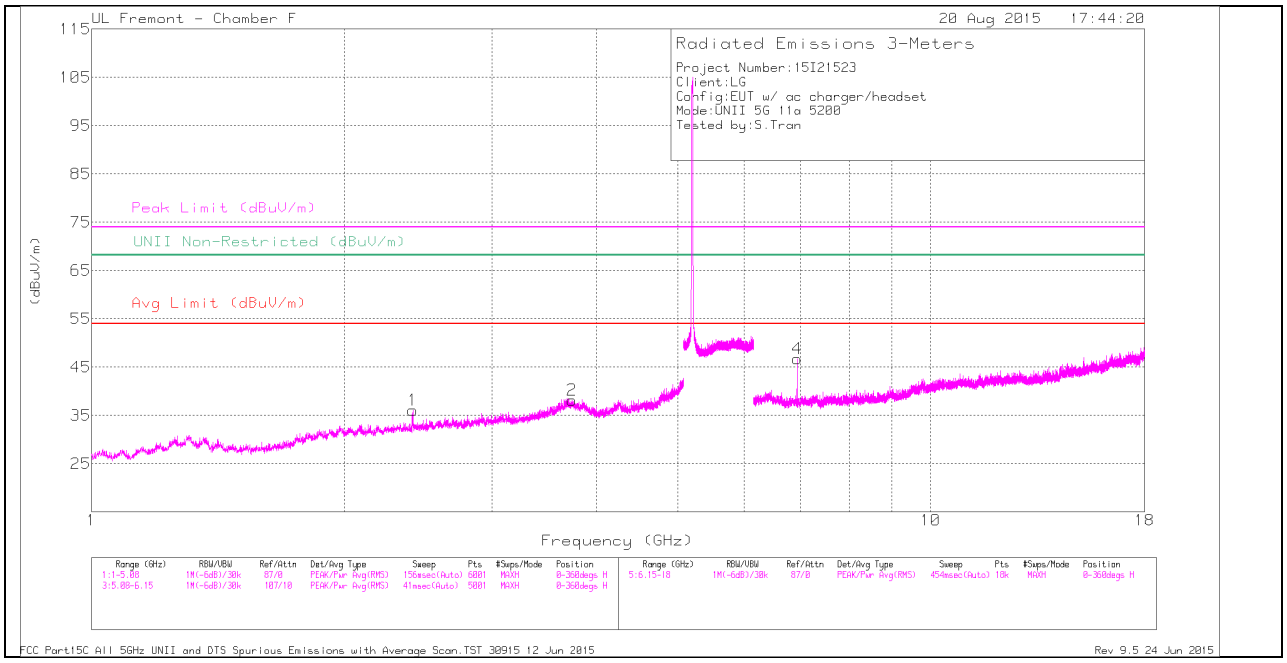
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.724	42.21	Pk	29.2	-31.5	39.91	-	-	-	-	68.2	-28.29	0-360	201	H
2	2.414	37.06	Pk	31.9	-30.7	38.26	-	-	-	-	68.2	-29.94	0-360	201	H
3	1.98	34.31	Pk	31.5	-31	34.81	-	-	-	-	68.2	-33.39	0-360	200	V
4	2.037	34.23	Pk	31.6	-31	34.83	-	-	-	-	68.2	-33.37	0-360	200	V
5	6.906	38.38	Pk	35.6	-26.7	47.28	-	-	-	-	68.2	-20.92	0-360	100	H
6	6.906	35.23	Pk	35.6	-26.7	44.13	-	-	-	-	68.2	-24.07	0-360	200	V

PK - Peak detector

RADIATED EMISSIONS

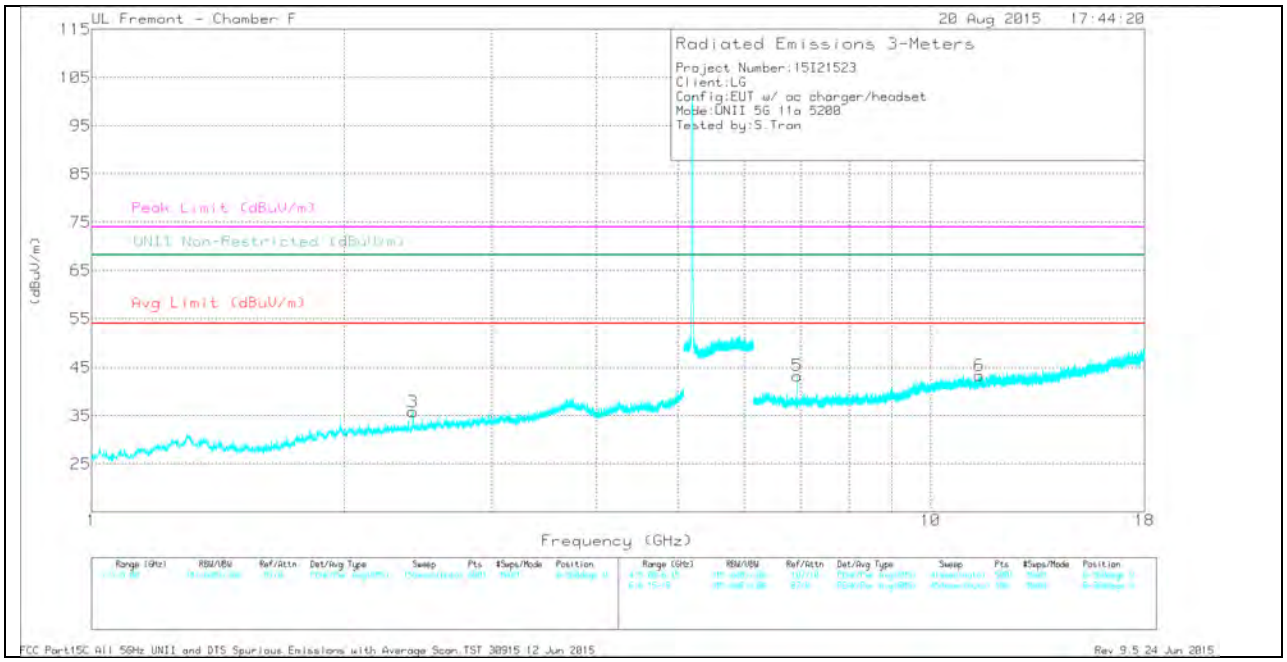
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl /Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.723	40.56	PK-U	29.2	-31.5	0	38.26	-	-	-	-	68.2	-29.94	360	202	H
1.723	28.81	ADR	29.2	-31.5	0.09	26.6	-	-	-	-	-	-	360	202	H
2.415	41.68	PK-U	32	-30.7	0	42.98	-	-	-	-	68.2	-25.22	360	202	H
2.414	29.22	ADR	31.9	-30.7	0.09	30.51	-	-	-	-	-	-	360	202	H
1.98	41.67	PK-U	31.5	-31	0	42.17	-	-	-	-	68.2	-26.03	360	202	V
1.98	31.86	ADR	31.5	-31	0.09	32.45	-	-	-	-	-	-	360	202	V
2.037	40.79	PK-U	31.6	-31	0	41.39	-	-	-	-	68.2	-26.81	360	202	V
2.036	29.22	ADR	31.6	-31	0.09	29.91	-	-	-	-	-	-	360	202	V
6.907	41.75	PK-U	35.6	-26.6	0	50.75	-	-	-	-	68.2	-17.45	360	101	H
6.907	36.19	ADR	35.6	-26.6	0.09	45.28	-	-	-	-	-	-	360	101	H
6.906	38.11	PK-U	35.6	-26.7	0	47.01	-	-	-	-	68.2	-21.19	360	201	V
6.907	27.79	ADR	35.6	-26.6	0.09	36.88	-	-	-	-	-	-	360	201	V

MID CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

TRACE MARKERS

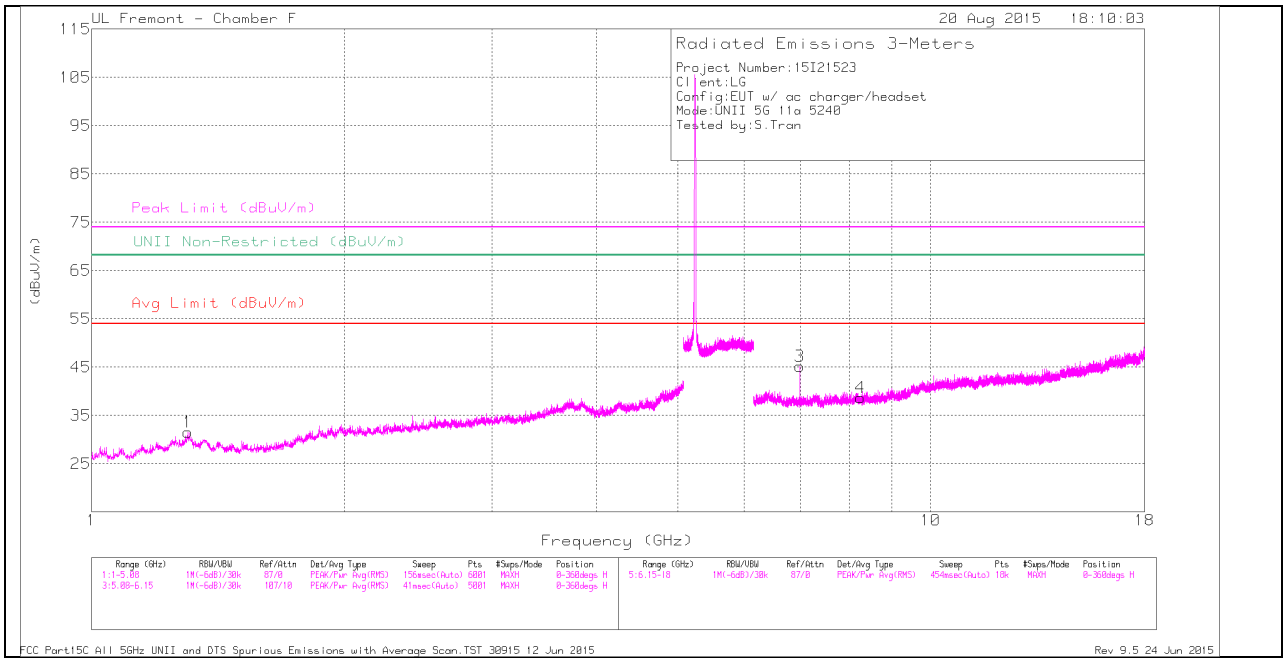
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.415	34.75	Pk	32	-30.7	36.05	-	-	-	-	68.2	-32.15	0-360	201	H
2	* 3.739	32.9	Pk	34.5	-29.2	38.2	-	-	74	-35.8	-	-	0-360	100	H
3	2.415	34.48	Pk	32	-30.7	35.78	-	-	-	-	68.2	-32.42	0-360	101	V
4	6.933	37.59	Pk	35.6	-26.5	46.69	-	-	-	-	68.2	-21.51	0-360	100	H
5	6.933	34.2	Pk	35.6	-26.5	43.3	-	-	-	-	68.2	-24.9	0-360	200	V
6	* 11.447	26.85	Pk	38.5	-22	43.35	-	-	74	-30.65	-	-	0-360	101	V

PK - Peak detector

RADIATED EMISSIONS

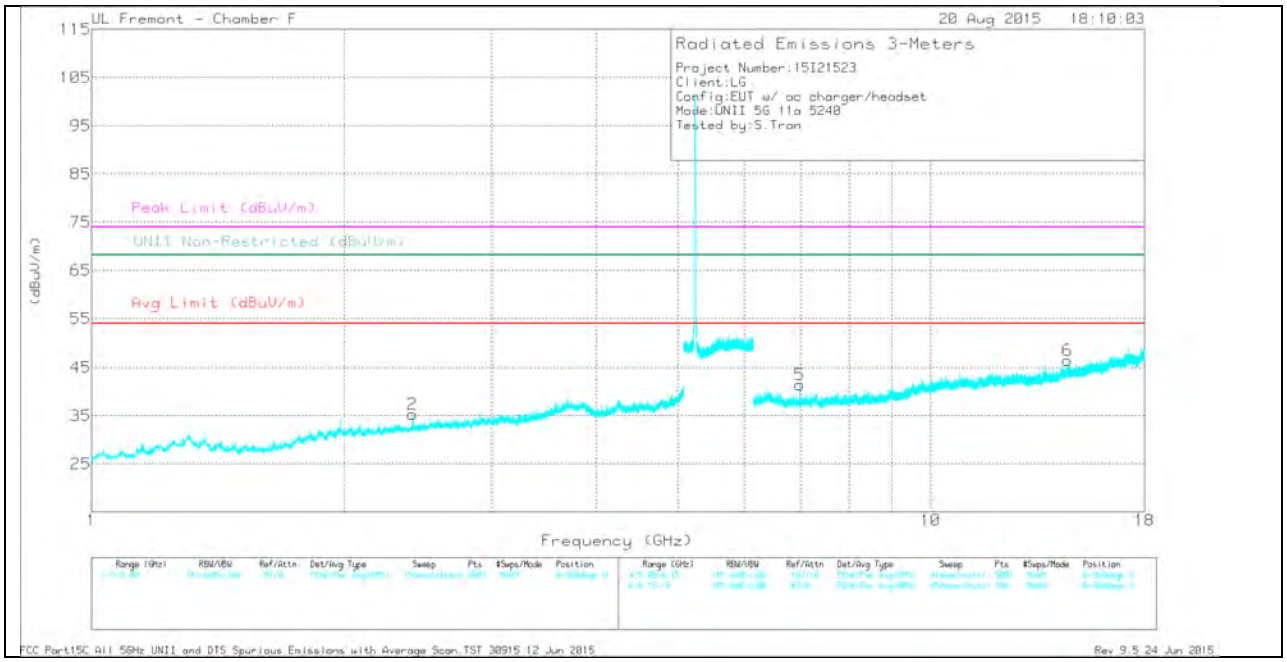
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2.414	41.21	PK-U	32	-30.7	0	42.51	-	-	-	-	68.2	-25.69	360	202	H
2.415	28.96	ADR	32	-30.7	0.09	30.35	-	-	-	-	-	-	360	202	H
* 3.74	38.59	PK-U	34.5	-29.2	0	43.89	-	-	74	-30.11	-	-	360	101	H
* 3.739	27.71	ADR	34.5	-29.2	0.09	33.1	54	-20.9	-	-	-	-	360	101	H
2.414	43.51	PK-U	31.9	-30.7	0	44.71	-	-	-	-	68.2	-23.49	360	101	V
2.413	29.24	ADR	31.9	-30.7	0.09	30.53	-	-	-	-	-	-	360	101	V
6.933	40.83	PK-U	35.6	-26.5	0	49.93	-	-	-	-	68.2	-18.27	360	101	H
6.933	35.04	ADR	35.6	-26.5	0.09	44.23	-	-	-	-	-	-	360	101	H
* 11.446	34.09	PK-U	38.5	-22	0	50.59	-	-	74	-23.41	-	-	208	101	V
* 11.447	23.1	ADR	38.5	-22	0.09	39.69	54	-14.31	-	-	-	-	208	101	V

HIGH CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (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	* 1.302	33.09	Pk	30	-31.5	31.59	-	-	74	-42.41	-	-	0-360	101	H
2	2.414	34.13	Pk	31.9	-30.7	35.33	-	-	-	-	68.2	-32.87	0-360	200	V
3	6.987	35.97	Pk	35.6	-26.4	45.17	-	-	-	-	68.2	-23.03	0-360	100	H
4	* 8.25	27.92	Pk	35.8	-25	38.72	-	-	74	-35.28	-	-	0-360	100	H
5	6.987	32.22	Pk	35.6	-26.4	41.42	-	-	-	-	68.2	-26.78	0-360	200	V
6	14.578	29.69	Pk	40.1	-23.3	46.49	-	-	-	-	68.2	-21.71	0-360	101	V

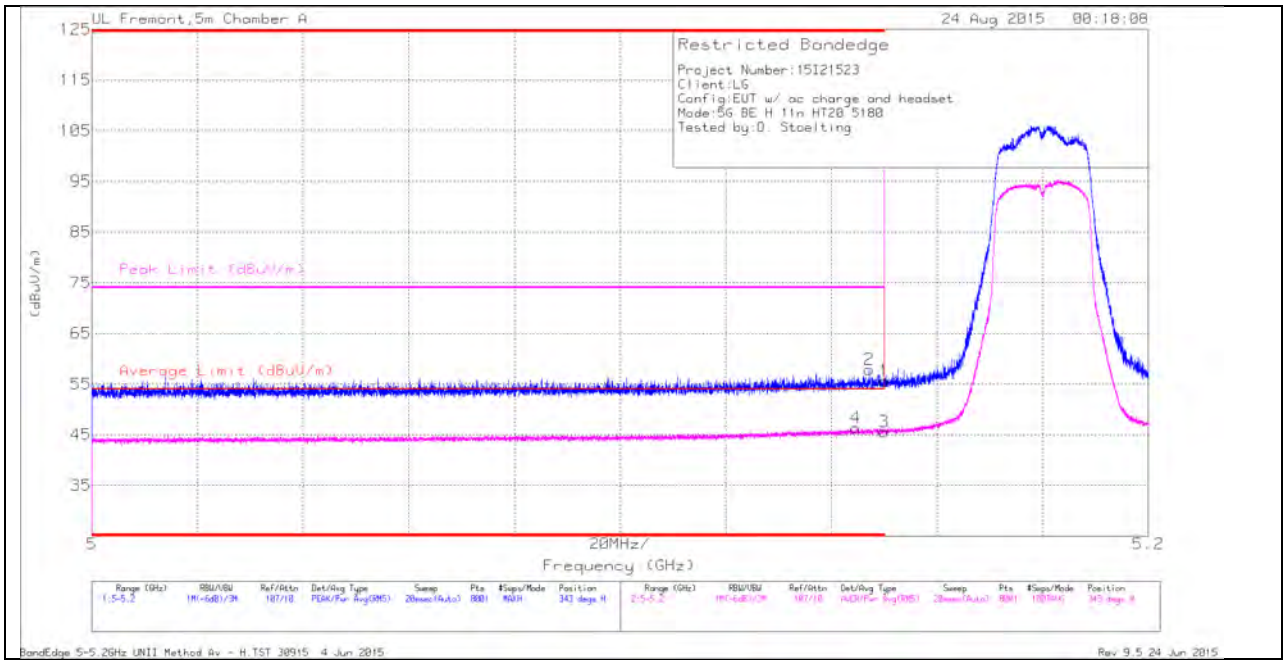
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (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
* 1.303	41.3	PK-U	30	-31.4	0	39.9	-	-	74	-34.1	-	-	360	100	H
* 1.3	29.52	ADR	30.1	-31.5	0.09	28.21	54	-25.79	-	-	-	-	360	100	H
2.414	43.35	PK-U	31.9	-30.7	0	44.55	-	-	-	-	68.2	-23.65	360	201	V
2.414	29.24	ADR	31.9	-30.7	0.09	30.53	-	-	-	-	-	-	360	201	V
6.987	40.36	PK-U	35.6	-26.4	0	49.56	-	-	-	-	68.2	-18.64	360	100	H
6.987	33.47	ADR	35.6	-26.4	0.09	42.76	-	-	-	-	-	-	360	100	H
* 8.25	35.82	PK-U	35.8	-25	0	46.62	-	-	74	-27.38	-	-	360	100	H
* 8.248	24.74	ADR	35.8	-25	0.09	35.63	54	-18.37	-	-	-	-	360	100	H
6.987	37.53	PK-U	35.6	-26.4	0	46.73	-	-	-	-	68.2	-21.47	360	201	V
6.987	27.63	ADR	35.6	-26.4	0.09	36.92	-	-	-	-	-	-	360	201	V
14.578	35.87	PK-U	40.1	-23.3	0	52.67	-	-	-	-	68.2	-15.53	360	101	V
14.577	25.26	ADR	40.1	-23.3	0.09	42.15	-	-	-	-	-	-	360	101	V

11.1.2. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.2 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

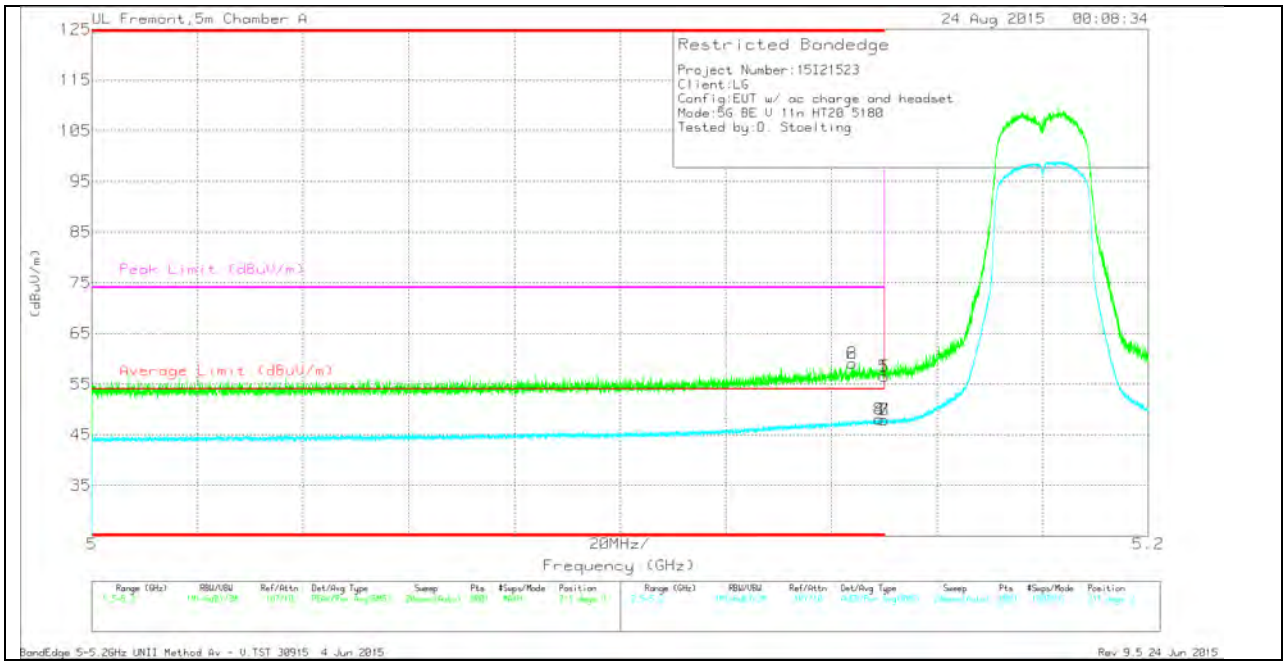
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (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
4	* 5.145	32.85	RMS	34.2	-20.7	0	46.35	54	-7.65	-	-	343	104	H
2	* 5.147	44.32	Pk	34.2	-20.7	0	57.82	-	-	74	-16.18	343	104	H
1	* 5.15	42.1	Pk	34.2	-20.7	0	55.6	-	-	74	-18.4	343	104	H
3	* 5.15	32.02	RMS	34.2	-20.7	0	45.52	54	-8.48	-	-	343	104	H

VERTICAL PEAK AND AVERAGE PLOT

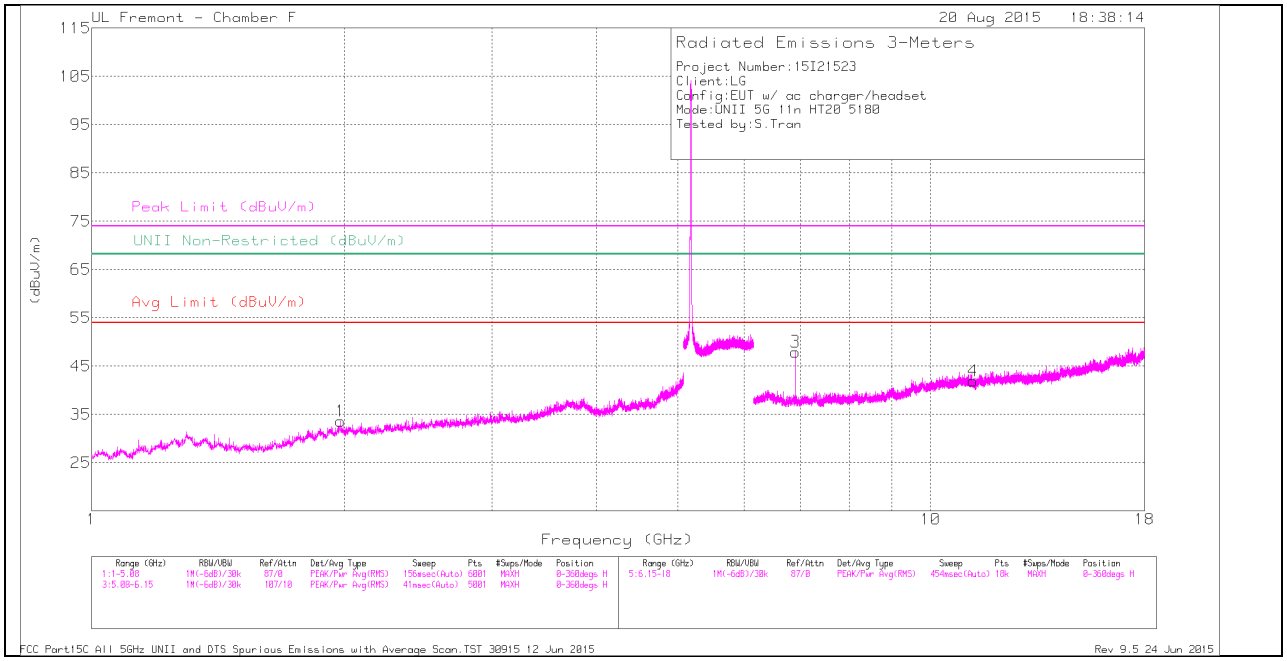


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (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	* 5.144	45.66	Pk	34.2	-20.7	0	59.16	-	-	74	-14.84	211	100	V
6	* 5.144	45.66	Pk	34.2	-20.7	0	59.16	-	-	74	-14.84	211	100	V
4	* 5.149	34.55	RMS	34.2	-20.7	0	48.05	54	-5.95	-	-	211	100	V
8	* 5.149	34.55	RMS	34.2	-20.7	0	48.05	54	-5.95	-	-	211	100	V
1	* 5.15	43.01	Pk	34.2	-20.7	0	56.51	-	-	74	-17.49	211	100	V
5	* 5.15	43.01	Pk	34.2	-20.7	0	56.51	-	-	74	-17.49	211	100	V
3	* 5.15	34.47	RMS	34.2	-20.7	0	47.97	54	-6.03	-	-	211	100	V
7	* 5.15	34.47	RMS	34.2	-20.7	0	47.97	54	-6.03	-	-	211	100	V

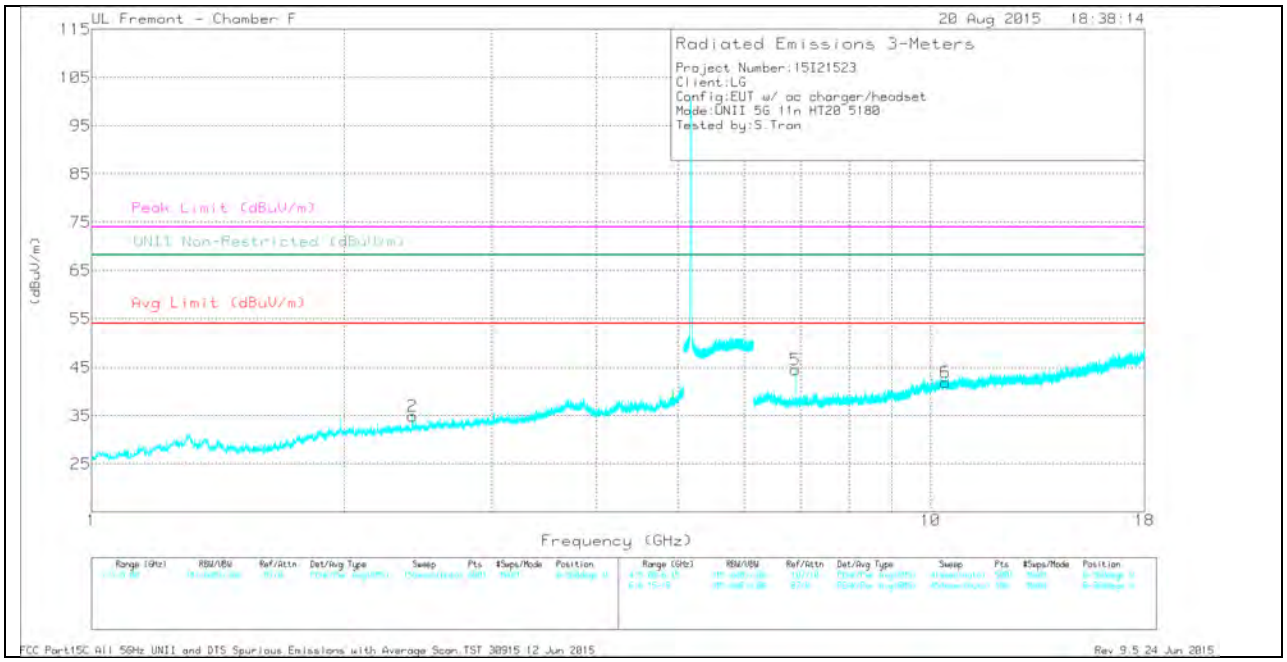
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

TRACE MARKERS

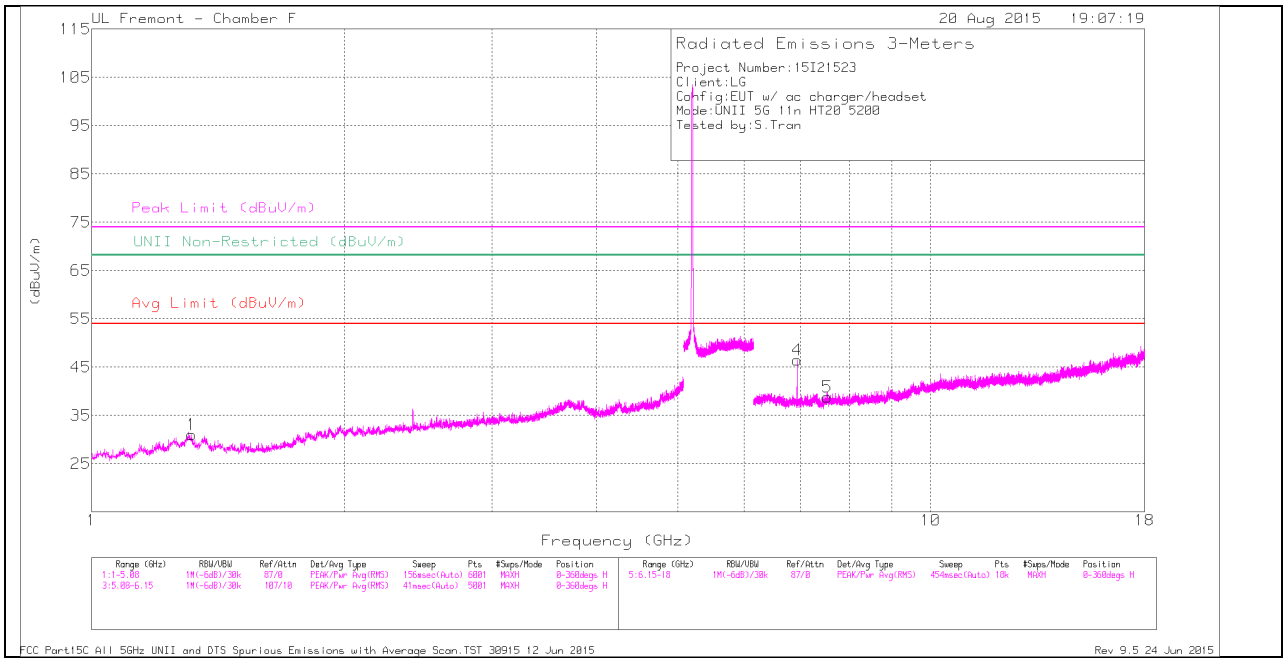
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.98	33.12	Pk	31.5	-31	33.62	-	-	-	-	68.2	-34.58	0-360	201	H
2	2.414	33.59	Pk	32	-30.7	34.89	-	-	-	-	68.2	-33.31	0-360	101	V
3	6.906	39.07	Pk	35.6	-26.7	47.97	-	-	-	-	68.2	-20.23	0-360	100	H
4	* 11.241	26.03	Pk	38.2	-22.3	41.93	-	-	74	-32.07	-	-	0-360	100	H
5	6.906	35.63	Pk	35.6	-26.7	44.53	-	-	-	-	68.2	-23.67	0-360	200	V
6	10.424	25.64	Pk	37.4	-21.1	41.94	-	-	-	-	68.2	-26.26	0-360	200	V

PK - Peak detector

RADIATED EMISSIONS

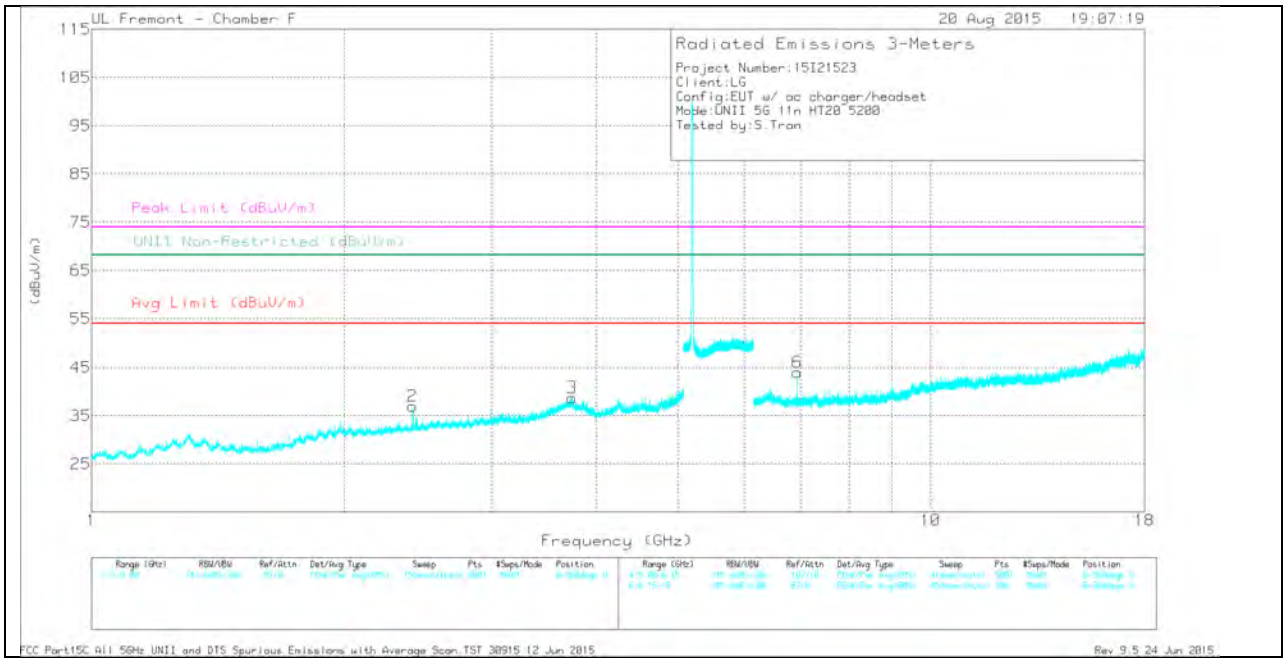
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.98	41.16	PK-U	31.5	-31	41.66	-	-	-	-	68.2	-26.54	360	202	H
1.98	29.96	ADR	31.5	-31	30.46	-	-	-	-	-	-	360	202	H
2.414	42.62	PK-U	31.9	-30.7	43.82	-	-	-	-	68.2	-24.38	360	101	V
2.416	28.96	ADR	32	-30.7	30.26	-	-	-	-	-	-	360	101	V
6.907	41.82	PK-U	35.6	-26.6	50.82	-	-	-	-	68.2	-17.38	360	101	H
6.907	36.39	ADR	35.6	-26.6	45.39	-	-	-	-	-	-	360	101	H
* 11.241	34.67	PK-U	38.2	-22.3	50.57	-	-	74	-23.43	-	-	360	101	H
* 11.243	23.04	ADR	38.2	-22.3	38.94	54	-15.06	-	-	-	-	360	101	H
6.907	38.36	PK-U	35.6	-26.6	47.36	-	-	-	-	68.2	-20.84	360	201	V
6.907	28.06	ADR	35.6	-26.6	37.06	-	-	-	-	-	-	360	201	V
10.425	33.54	PK-U	37.4	-21.1	49.84	-	-	-	-	68.2	-18.36	360	201	V
10.425	22.86	ADR	37.4	-21.1	39.16	-	-	-	-	-	-	360	201	V

MID CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

TRACE MARKERS

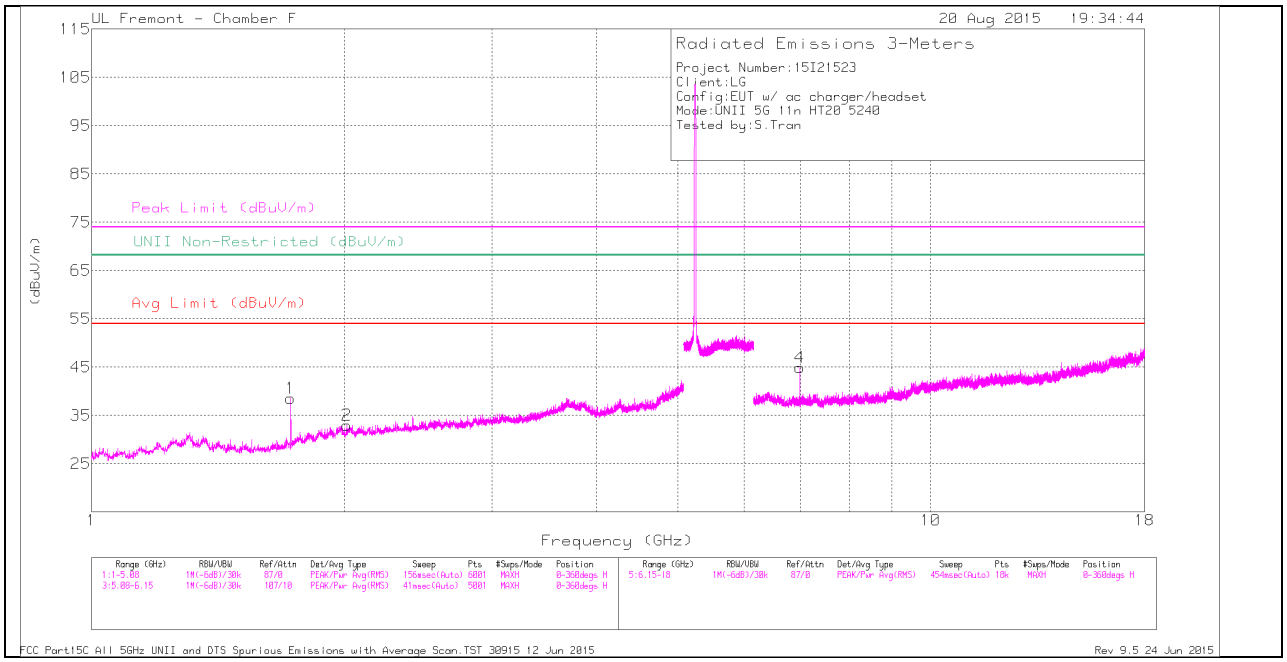
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.317	32.53	Pk	29.9	-31.4	31.03	-	-	74	-42.97	-	-	0-360	101	H
2	2.414	35.7	Pk	32	-30.7	37	-	-	-	-	68.2	-31.2	0-360	200	V
3	* 3.737	33.45	Pk	34.5	-29.2	38.75	-	-	74	-35.25	-	-	0-360	200	V
4	6.933	37.42	Pk	35.6	-26.5	46.52	-	-	-	-	68.2	-21.68	0-360	100	H
5	* 7.533	28.13	Pk	35.7	-25	38.83	-	-	74	-35.17	-	-	0-360	100	H
6	6.933	34.87	Pk	35.6	-26.5	43.97	-	-	-	-	68.2	-24.23	0-360	200	V

PK - Peak detector

RADIATED EMISSIONS

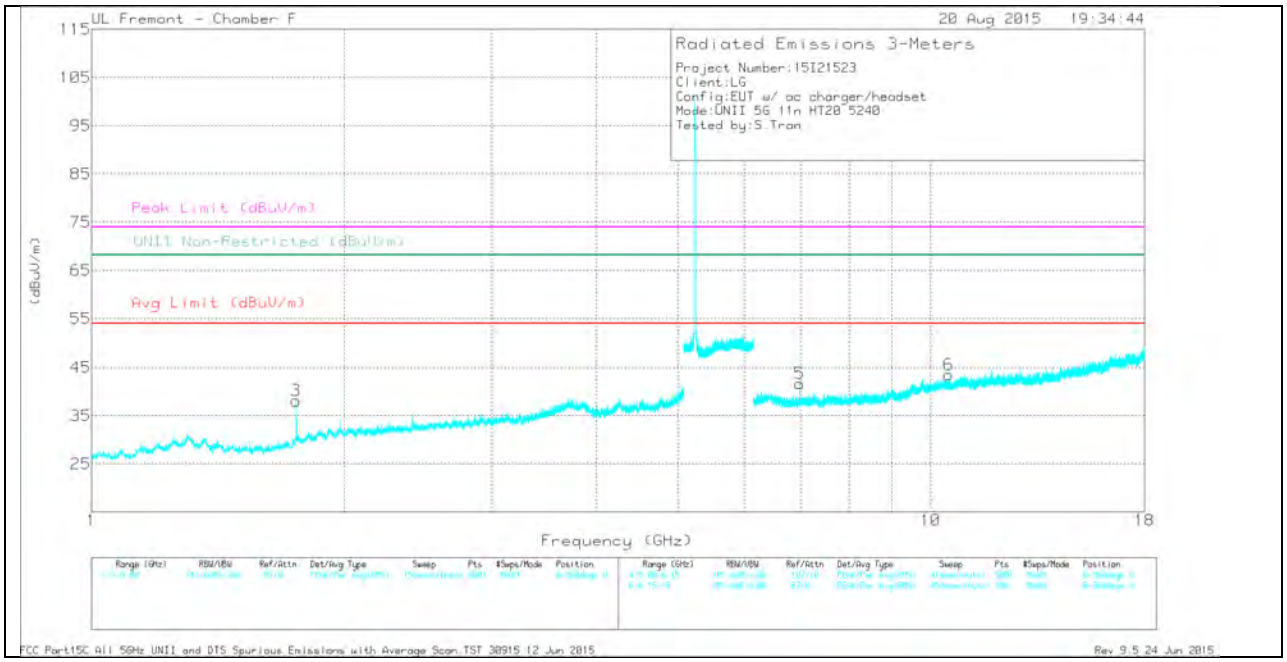
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.316	41.22	PK-U	29.9	-31.4	39.72	-	-	74	-34.28	-	-	360	100	H
* 1.316	28.96	ADR	29.9	-31.4	27.46	54	-26.54	-	-	-	-	360	100	H
2.413	43.51	PK-U	31.9	-30.7	44.71	-	-	-	-	68.2	-23.49	360	201	V
2.413	29.13	ADR	31.9	-30.7	30.33	-	-	-	-	-	-	360	201	V
* 3.738	38.84	PK-U	34.5	-29.2	44.14	-	-	74	-29.86	-	-	360	201	V
* 3.736	27.59	ADR	34.5	-29.2	32.89	54	-21.11	-	-	-	-	360	201	V
6.933	41.08	PK-U	35.6	-26.5	50.18	-	-	-	-	68.2	-18.02	360	100	H
6.933	35.28	ADR	35.6	-26.5	44.38	-	-	-	-	-	-	360	100	H
* 7.534	36.32	PK-U	35.7	-25	47.02	-	-	74	-26.98	-	-	360	100	H
* 7.534	25.1	ADR	35.7	-25	35.8	54	-18.2	-	-	-	-	360	100	H
6.932	37.48	PK-U	35.6	-26.4	46.68	-	-	-	-	68.2	-21.52	360	201	V
6.933	27.72	ADR	35.6	-26.5	36.82	-	-	-	-	-	-	360	201	V

HIGH CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (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	1.727	40.76	Pk	29.2	-31.4	38.56	-	-	-	-	68.2	-29.64	0-360	101	H
2	2.016	32.27	Pk	31.6	-30.9	32.97	-	-	-	-	68.2	-35.23	0-360	101	H
3	1.753	39.71	Pk	29.6	-31.2	38.11	-	-	-	-	68.2	-30.09	0-360	101	V
4	6.987	35.73	Pk	35.6	-26.4	44.93	-	-	-	-	68.2	-23.27	0-360	100	H
5	6.987	32.45	Pk	35.6	-26.4	41.65	-	-	-	-	68.2	-26.55	0-360	200	V
6	10.511	27.69	Pk	37.6	-21.8	43.49	-	-	-	-	68.2	-24.71	0-360	101	V

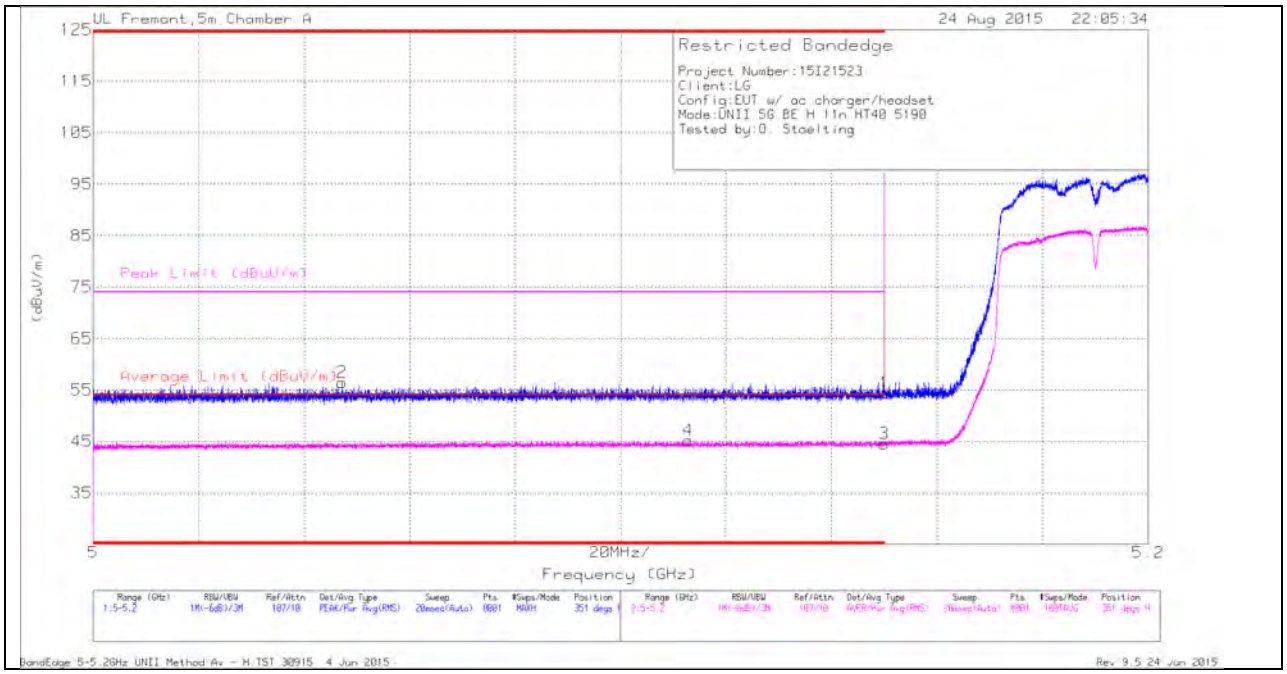
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (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
1.728	41.09	PK-U	29.2	-31.4	38.89	-	-	-	-	68.2	-29.31	360	100	H
1.727	28.62	ADR	29.2	-31.4	26.42	-	-	-	-	-	-	360	100	H
2.016	40.83	PK-U	31.6	-30.9	41.53	-	-	-	-	68.2	-26.67	360	100	H
2.016	28.52	ADR	31.6	-30.9	29.22	-	-	-	-	-	-	360	100	H
1.753	40.74	PK-U	29.6	-31.2	39.14	-	-	-	-	68.2	-29.06	360	100	V
1.755	29.23	ADR	29.6	-31.1	27.73	-	-	-	-	-	-	360	100	V
6.987	40.43	PK-U	35.6	-26.4	49.63	-	-	-	-	68.2	-18.57	360	100	H
6.987	33.58	ADR	35.6	-26.4	42.78	-	-	-	-	-	-	360	100	H
10.512	34.34	PK-U	37.6	-21.8	50.14	-	-	-	-	68.2	-18.06	360	101	V
10.512	23.04	ADR	37.6	-21.8	38.84	-	-	-	-	-	-	360	101	V
6.987	37.14	PK-U	35.6	-26.4	46.34	-	-	-	-	68.2	-21.86	360	201	V
6.987	27.92	ADR	35.6	-26.4	37.12	-	-	-	-	-	-	360	201	V

11.1.3. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.2 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

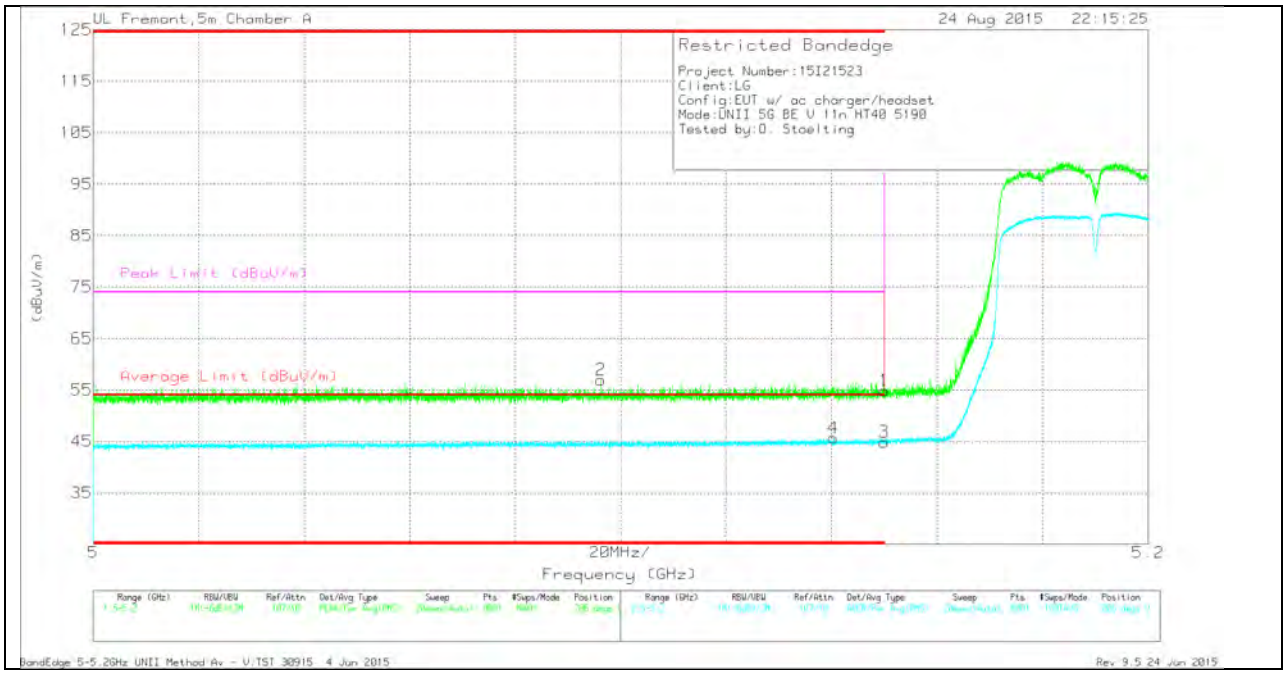
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	40.89	Pk	34.2	-20.7	0	54.39	-	-	74	-19.61	351	149	H
2	* 5.047	43.35	Pk	34	-20.9	0	56.45	-	-	74	-17.55	351	149	H
3	* 5.15	31.04	RMS	34.2	-20.7	0	44.54	54	-9.46	-	-	351	149	H
4	* 5.113	31.85	RMS	34.1	-20.8	0	45.15	54	-8.85	-	-	351	149	H

VERTICAL PEAK AND AVERAGE PLOT

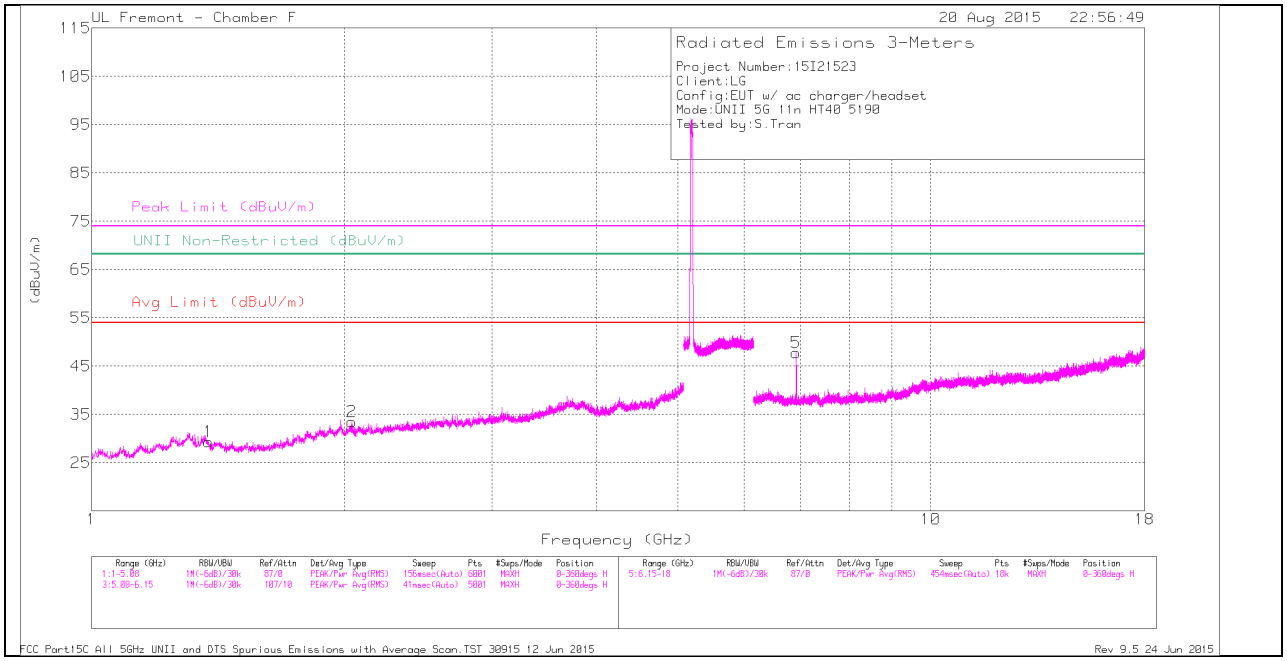


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	41.37	Pk	34.2	-20.7	0	54.87	-	-	74	-19.13	206	103	V
2	* 5.096	43.64	Pk	34.1	-20.8	0	56.94	-	-	74	-17.06	206	103	V
3	* 5.15	31.38	RMS	34.2	-20.7	0	44.88	54	-9.12	-	-	206	103	V
4	* 5.14	32.17	RMS	34.2	-20.7	0	45.67	54	-8.33	-	-	206	103	V

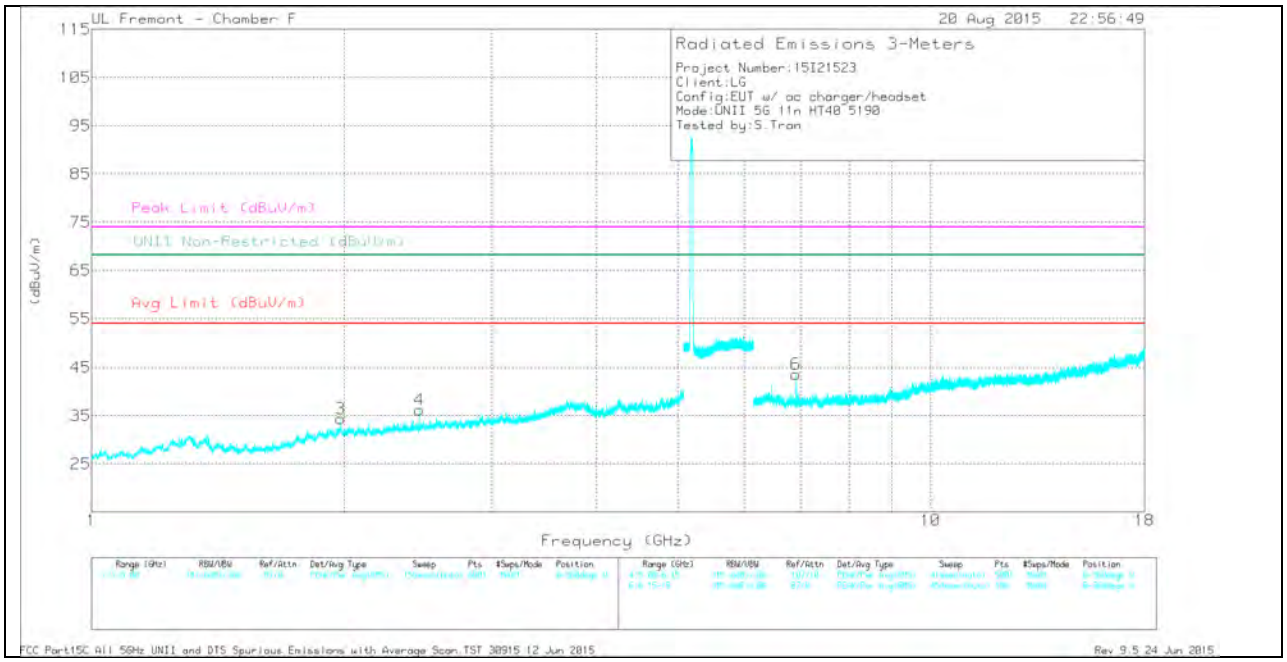
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

TRACE MARKERS

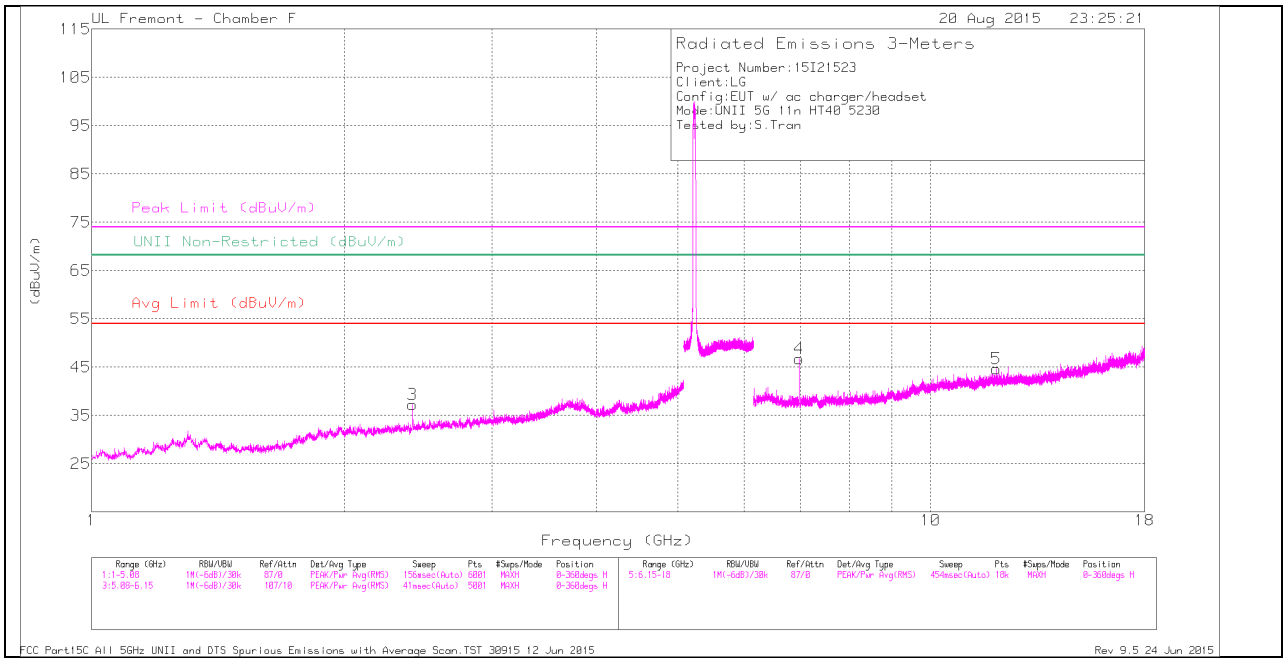
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.379	31.61	Pk	29.3	-31.6	29.31	-	-	74	-44.69	-	-	0-360	100	H
2	2.043	32.9	Pk	31.6	-31	33.5	-	-	-	-	68.2	-34.7	0-360	201	H
3	1.98	33.9	Pk	31.5	-31	34.4	-	-	-	-	68.2	-33.8	0-360	200	V
4	2.458	34.57	Pk	32.1	-30.5	36.17	-	-	-	-	68.2	-32.03	0-360	200	V
5	6.92	38.63	Pk	35.6	-26.4	47.83	-	-	-	-	68.2	-20.37	0-360	100	H
6	6.92	34.46	Pk	35.6	-26.4	43.66	-	-	-	-	68.2	-24.54	0-360	200	V

PK - Peak detector

RADIATED EMISSIONS

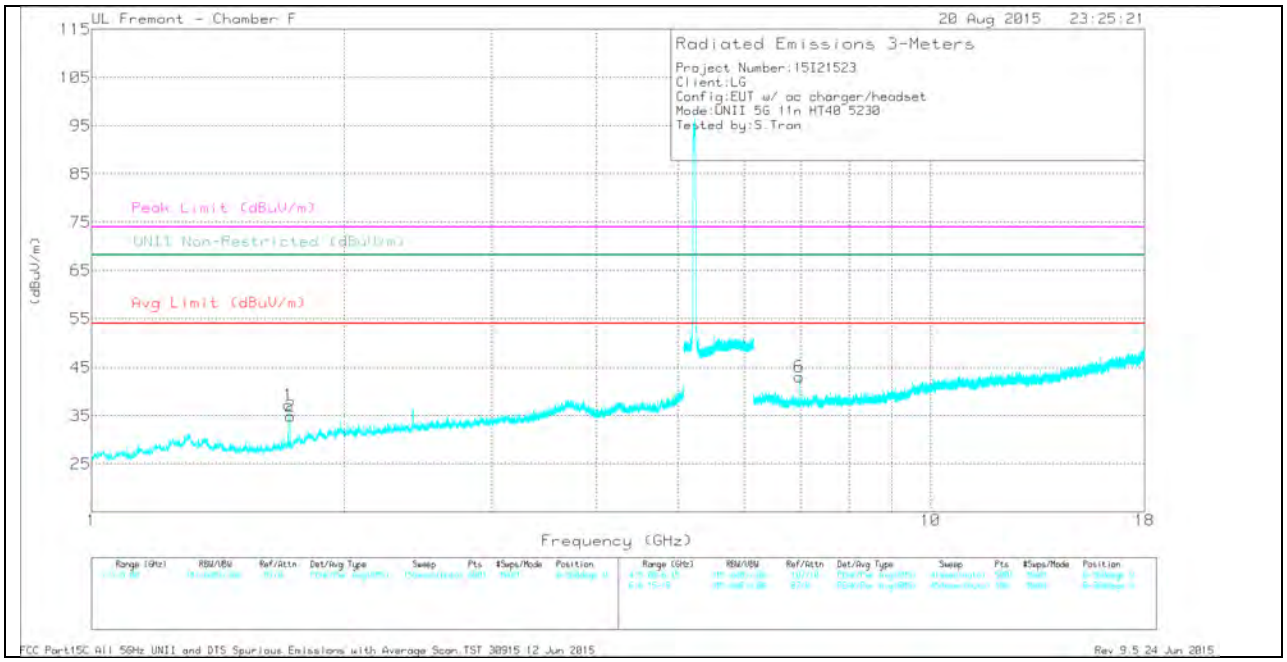
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.377	40.46	PK-U	29.3	-31.5	38.26	-	-	74	-35.74	-	-	360	100	H
* 1.378	28.88	ADR	29.3	-31.6	26.58	54	-27.42	-	-	-	-	360	100	H
2.043	40.4	PK-U	31.6	-31	41	-	-	-	-	68.2	-27.2	360	202	H
2.041	28.82	ADR	31.6	-31	29.42	-	-	-	-	-	-	360	202	H
1.98	41.58	PK-U	31.5	-31	42.08	-	-	-	-	68.2	-26.12	360	202	V
1.98	31.68	ADR	31.5	-31	32.18	-	-	-	-	-	-	360	202	V
2.458	39.77	PK-U	32.1	-30.5	41.37	-	-	-	-	68.2	-26.83	360	202	V
2.457	28.49	ADR	32.1	-30.5	30.09	-	-	-	-	-	-	360	202	V
6.92	42.47	PK-U	35.6	-26.4	51.67	-	-	-	-	68.2	-16.53	41	100	H
6.92	37.71	ADR	35.6	-26.4	46.91	-	-	-	-	-	-	41	100	H
6.92	38.08	PK-U	35.6	-26.4	47.28	-	-	-	-	68.2	-20.92	41	201	V
6.92	28.63	ADR	35.6	-26.4	37.83	-	-	-	-	-	-	41	201	V

MID CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (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
3	2.413	36.05	Pk	31.9	-30.7	37.25	-	-	-	-	68.2	-30.95	0-360	101	H
1	1.717	39.65	Pk	29.1	-31.5	37.25	-	-	-	-	68.2	-30.95	0-360	101	V
2	1.726	37.11	Pk	29.2	-31.4	34.91	-	-	-	-	68.2	-33.29	0-360	101	V
4	6.974	37.39	Pk	35.6	-26.2	46.79	-	-	-	-	68.2	-21.41	0-360	100	H
5	* 11.982	28.44	Pk	39.1	-22.9	44.64	-	-	74	-29.36	-	-	0-360	100	H
6	6.974	33.73	Pk	35.6	-26.2	43.13	-	-	-	-	68.2	-25.07	0-360	200	V

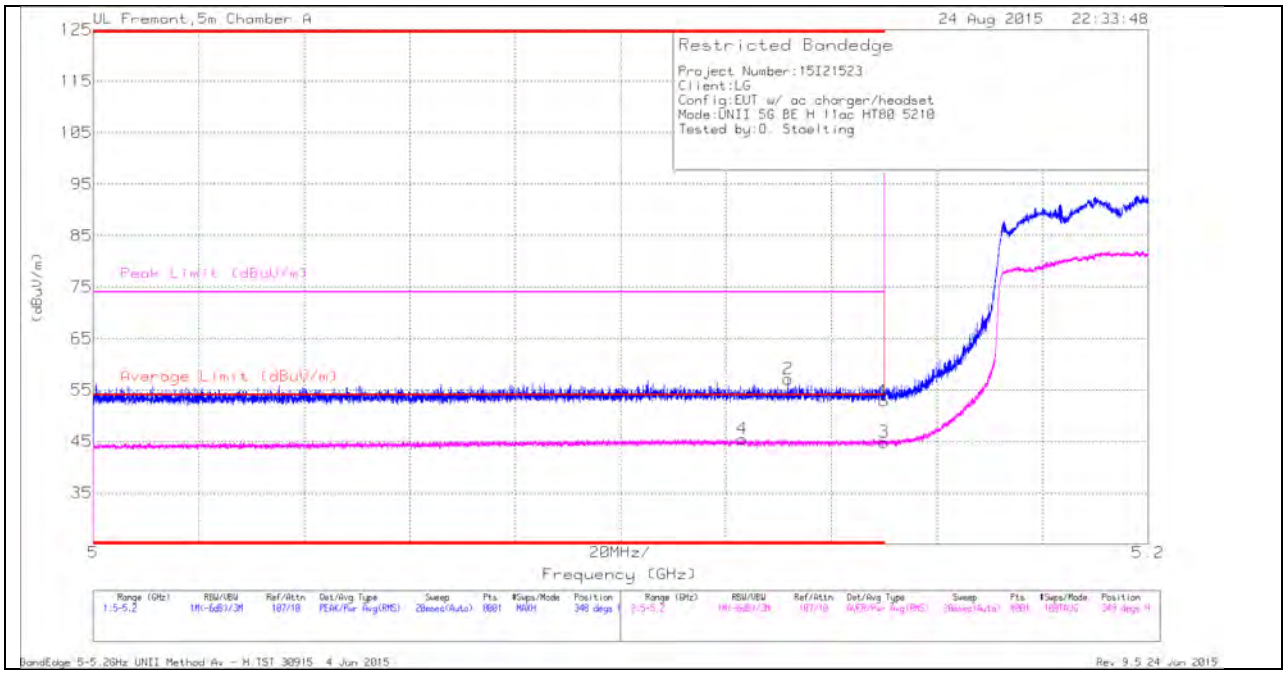
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (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
2.413	41.44	PK-U	31.9	-30.7	42.64	-	-	-	-	68.2	-25.56	0	100	H
2.413	28.89	ADR	31.9	-30.7	30.09	-	-	-	-	-	-	0	100	H
1.715	40.63	PK-U	29.1	-31.5	38.23	-	-	-	-	68.2	-29.97	0	100	V
1.716	29.14	ADR	29.1	-31.5	26.74	-	-	-	-	-	-	0	100	V
1.726	40.16	PK-U	29.2	-31.4	37.96	-	-	-	-	68.2	-30.24	0	100	V
1.727	28.65	ADR	29.2	-31.4	26.45	-	-	-	-	-	-	0	100	V
6.973	40.53	PK-U	35.6	-26.2	49.93	-	-	-	-	68.2	-18.27	0	100	H
6.973	34.73	ADR	35.6	-26.2	44.13	-	-	-	-	-	-	0	100	H
* 11.983	34.91	PK-U	39.1	-22.9	51.11	-	-	74	-22.89	-	-	0	100	H
* 11.98	23.81	ADR	39.1	-22.9	40.01	54	-13.99	-	-	-	-	0	100	H
6.973	38.48	PK-U	35.6	-26.2	47.88	-	-	-	-	68.2	-20.32	0	201	V
6.973	27.12	ADR	35.6	-26.2	36.52	-	-	-	-	-	-	0	201	V

11.1.4. TX ABOVE 1 GHz 802.11ac HT80 MODE IN THE 5.2 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

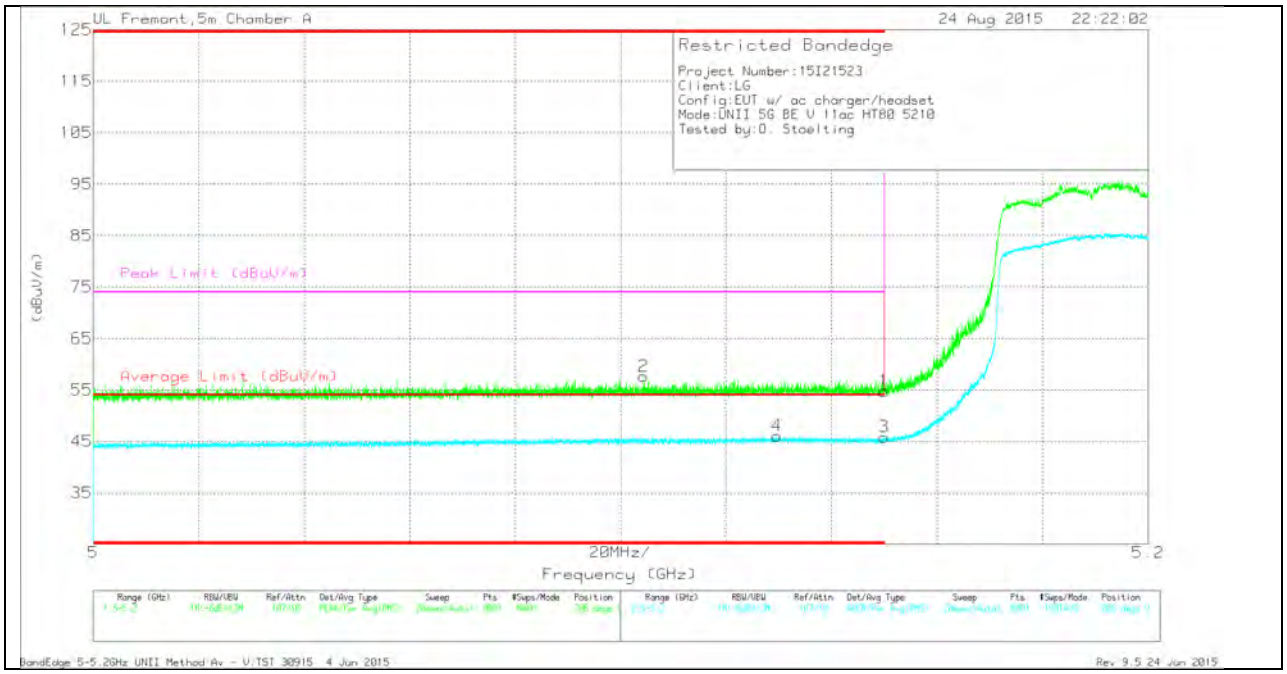
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	39.36	Pk	34.2	-20.7	0	52.86	-	-	74	-21.14	348	133	H
2	* 5.132	43.72	Pk	34.2	-20.8	0	57.12	-	-	74	-16.88	348	133	H
3	* 5.15	31.29	RMS	34.2	-20.7	.09	44.88	54	-9.12	-	-	348	133	H
4	* 5.123	32.1	RMS	34.1	-20.8	.09	45.49	54	-8.51	-	-	348	133	H

VERTICAL PEAK AND AVERAGE PLOT

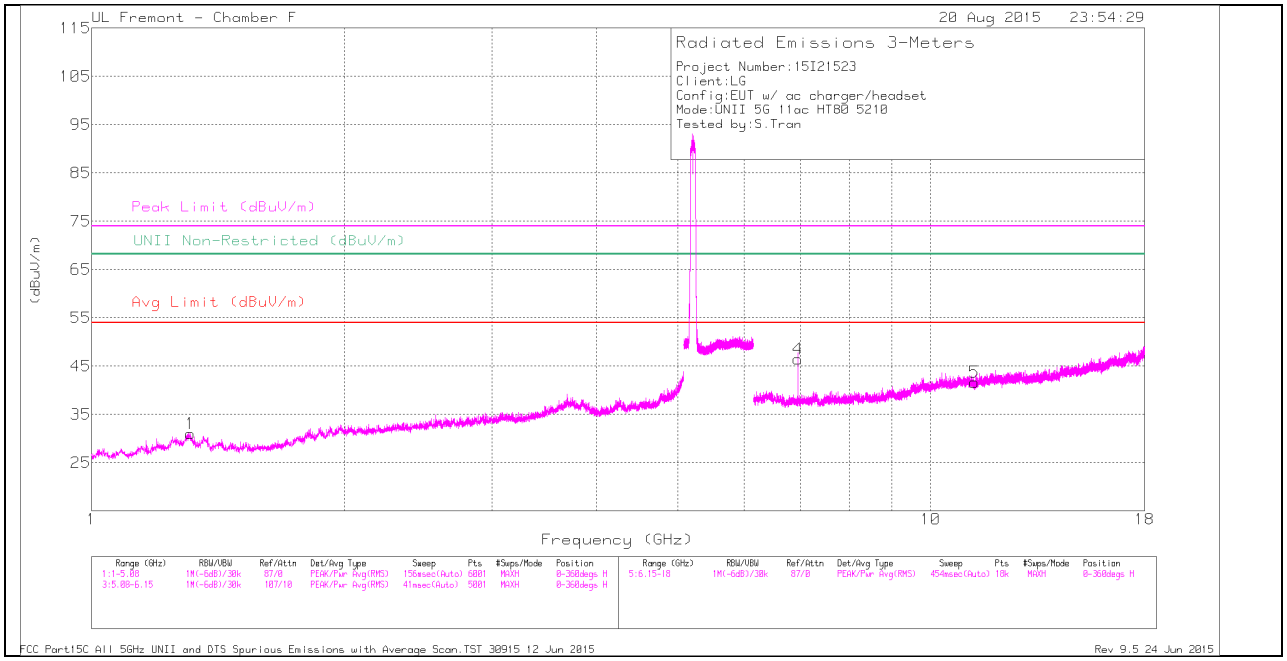


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	41.3	Pk	34.2	-20.7	0	54.8	-	-	74	-19.2	206	103	V
2	* 5.104	44.35	Pk	34.1	-20.8	0	57.65	-	-	74	-16.35	206	103	V
3	* 5.15	32.27	RMS	34.2	-20.7	.09	45.86	54	-8.14	-	-	206	103	V
4	* 5.13	32.58	RMS	34.2	-20.8	.09	46.07	54	-7.93	-	-	206	103	V

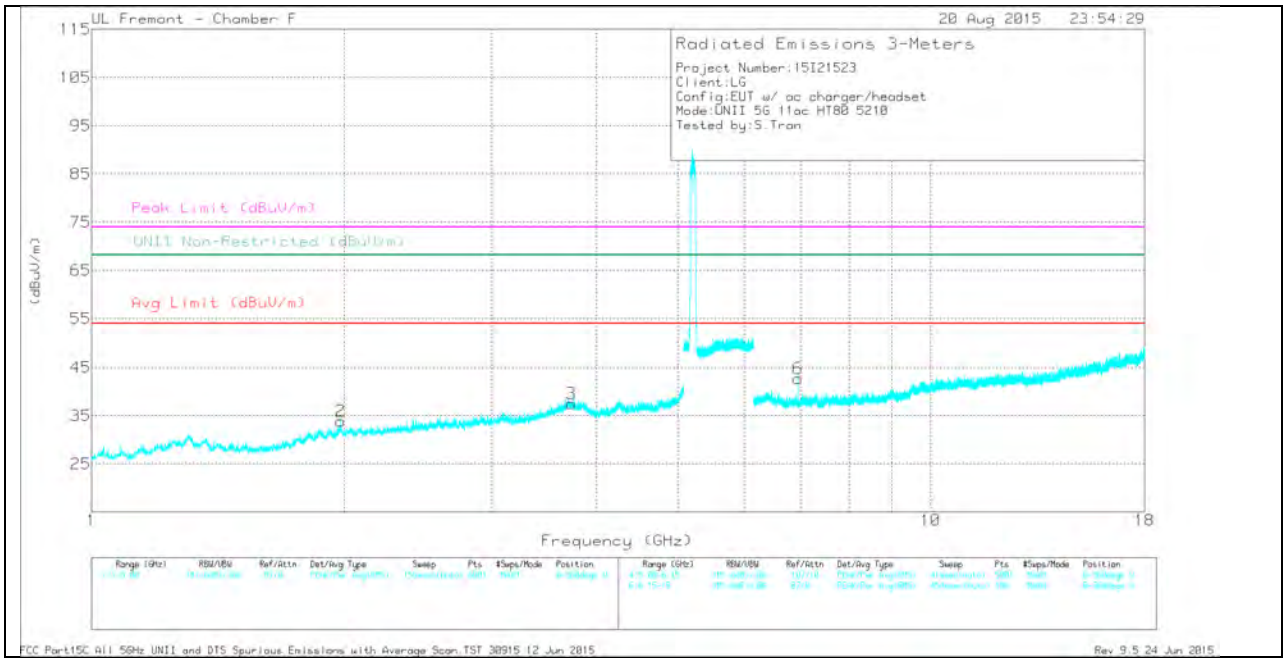
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (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	* 1.311	32.47	Pk	30	-31.4	0	31.07	-	-	74	-42.93	-	-	0-360	100	H
2	1.981	33.33	Pk	31.5	-30.9	0	33.93	-	-	-	-	68.2	-34.27	0-360	200	V
3	* 3.73	32.17	Pk	34.5	-29.2	0	37.47	-	-	74	-36.53	-	-	0-360	101	V
4	6.947	37.43	Pk	35.6	-26.5	0	46.53	-	-	-	-	68.2	-21.67	0-360	101	H
5	* 11.279	25.83	Pk	38.3	-22.4	0	41.73	-	-	74	-32.27	-	-	0-360	201	H
6	6.947	33.64	Pk	35.6	-26.5	0	42.74	-	-	-	-	68.2	-25.46	0-360	200	V

PK - Peak detector

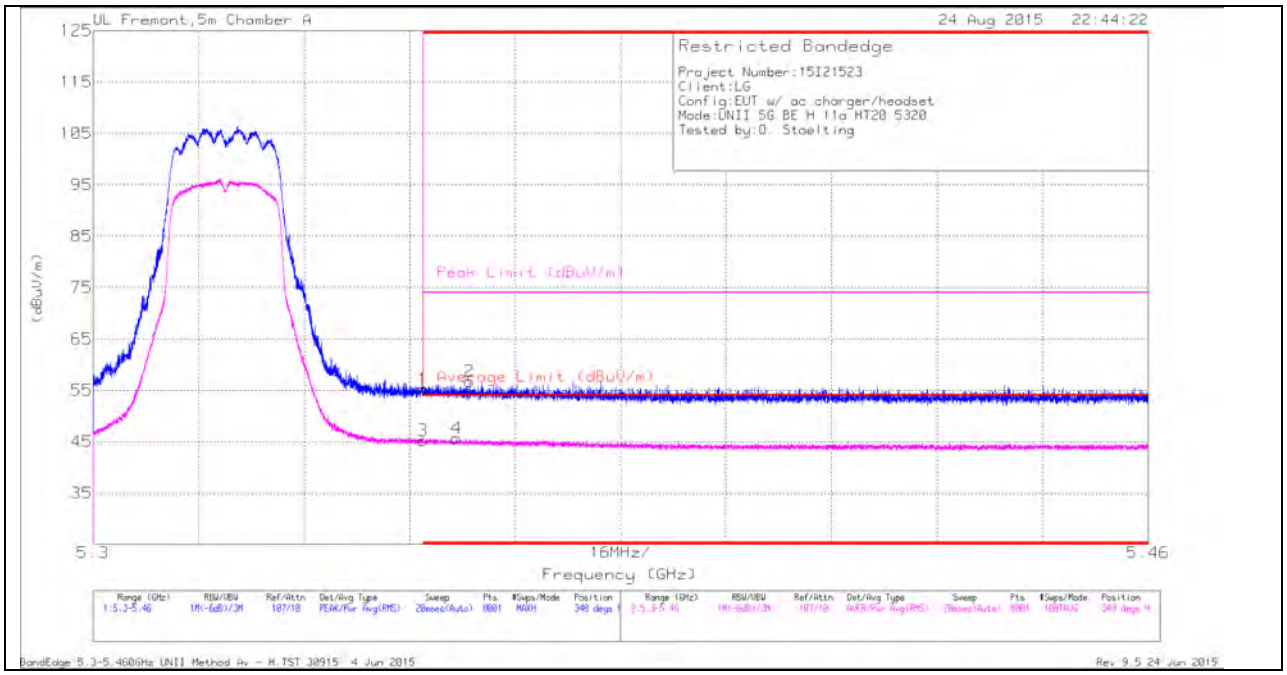
RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (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
* 1.309	41.18	PK-U	30	-31.4	0	39.78	-	-	74	-34.22	-	-	0	100	H
* 1.311	29.52	ADR	29.9	-31.4	.09	28.11	54	-25.89	-	-	-	-	0	100	H
1.98	42.17	PK-U	31.5	-31	0	42.67	-	-	-	-	68.2	-25.53	0	202	V
1.98	31.94	ADR	31.5	-31	.09	32.53	-	-	-	-	-	-	0	202	V
* 3.731	38.42	PK-U	34.5	-29.2	0	43.72	-	-	74	-30.28	-	-	0	101	V
* 3.731	27.71	ADR	34.5	-29.2	.09	33.1	54	-20.9	-	-	-	-	0	101	V
6.947	41.77	PK-U	35.6	-26.5	0	50.87	-	-	-	-	68.2	-17.33	0	101	H
6.947	35.63	ADR	35.6	-26.5	.09	44.82	-	-	-	-	-	-	0	101	H
* 11.278	33.9	PK-U	38.3	-22.4	0	49.8	-	-	74	-24.2	-	-	0	202	H
* 11.279	23.17	ADR	38.3	-22.4	.09	39.16	54	-14.84	-	-	-	-	0	202	H
6.946	37.68	PK-U	35.6	-26.5	0	46.78	-	-	-	-	68.2	-21.42	0	202	V
6.947	27.69	ADR	35.6	-26.5	.09	36.88	-	-	-	-	-	-	0	202	V

11.1. 5.3 GHz

11.1.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.3 GHz BAND AUTHORIZED BANDEDGE (HIGH CHANNEL)

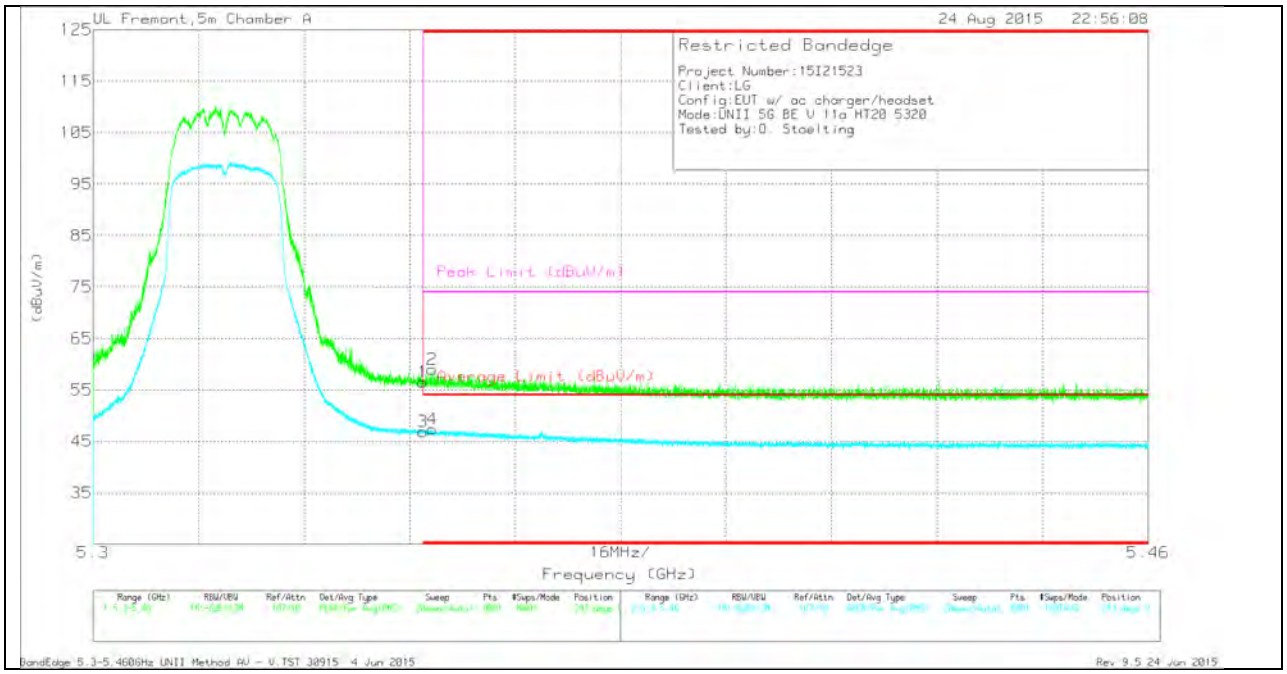
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	40.77	Pk	34.6	-20.2	0	55.17	-	-	74	-18.83	348	142	H
3	* 5.35	30.73	RMS	34.6	-20.2	.09	45.22	54	-8.78	-	-	348	142	H
4	* 5.355	31.07	RMS	34.6	-20.1	.09	45.66	54	-8.34	-	-	348	142	H
2	* 5.357	42.26	Pk	34.6	-20.1	0	56.76	-	-	74	-17.24	348	142	H

VERTICAL PEAK AND AVERAGE PLOT

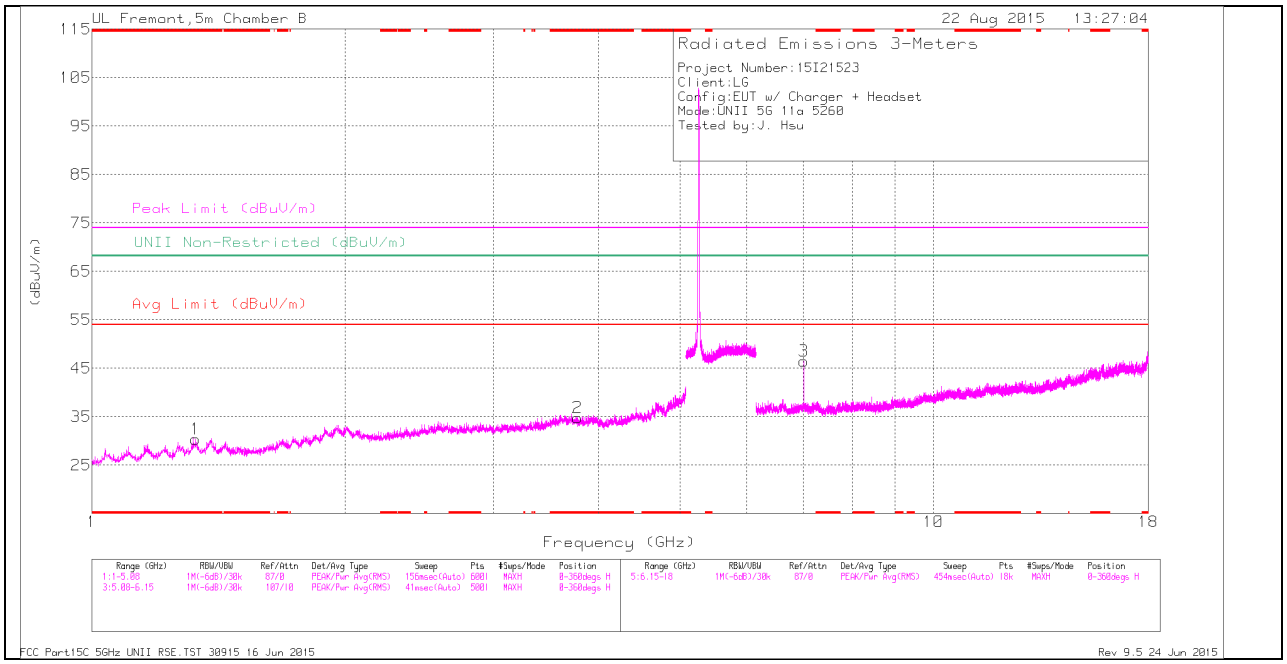


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	42.16	Pk	34.6	-20.2	0	56.56	-	-	74	-17.44	243	103	V
2	* 5.351	44.57	Pk	34.6	-20.2	0	58.97	-	-	74	-15.03	243	103	V
3	* 5.35	32.4	RMS	34.6	-20.2	.09	46.89	54	-7.11	-	-	243	103	V
4	* 5.351	32.91	RMS	34.6	-20.2	.09	47.4	54	-6.6	-	-	243	103	V

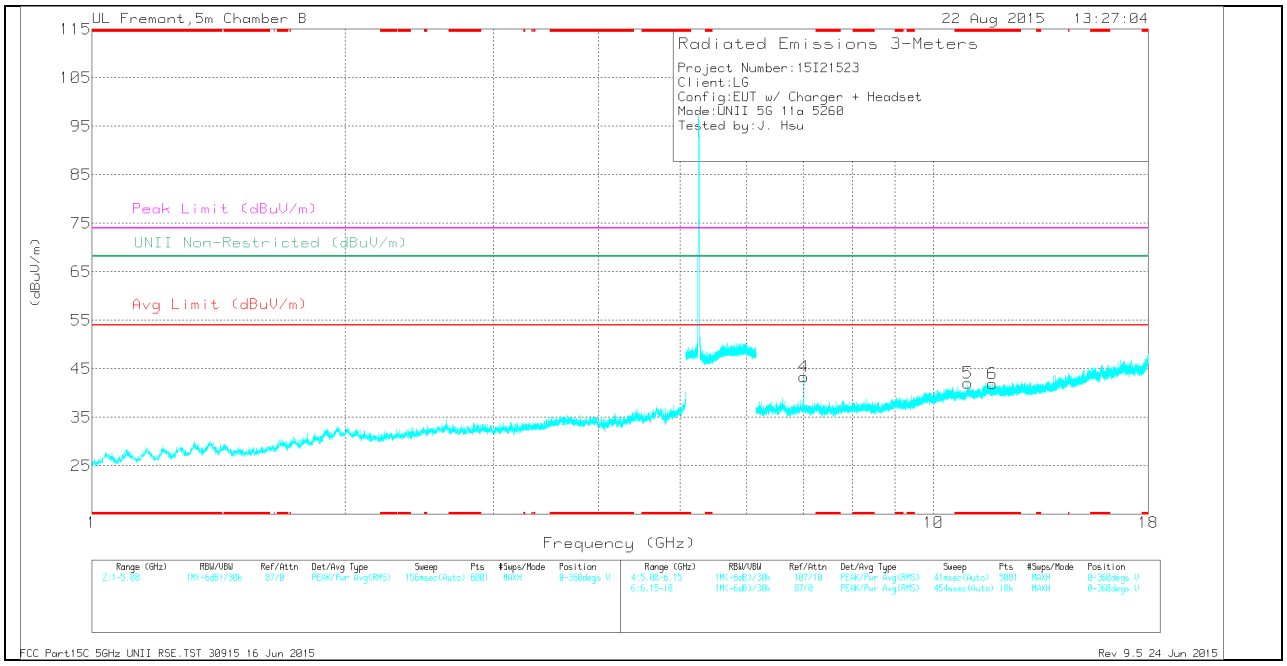
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

TRACE MARKERS

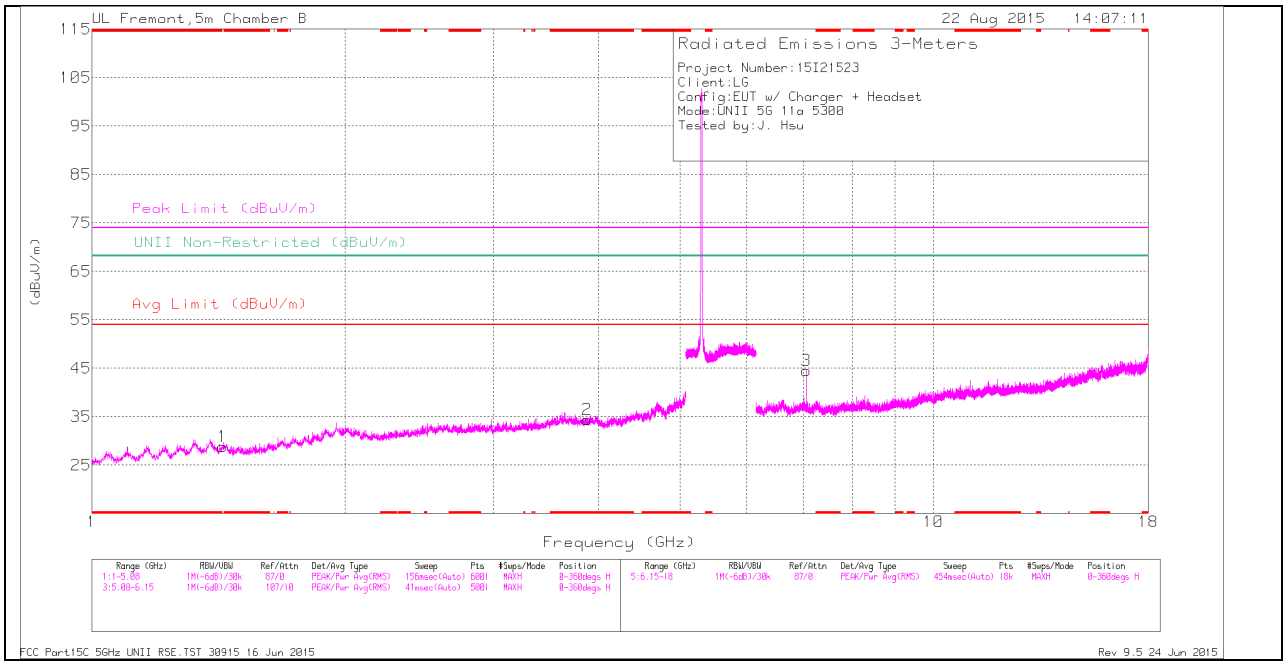
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.328	36.18	Pk	29.4	-35.2	30.38	-	-	74	-43.62	-	-	0-360	102	H
2	* 3.774	34.07	Pk	33.4	-32.7	34.77	-	-	74	-39.23	-	-	0-360	102	H
5	* 10.994	28.91	Pk	37.7	-24.6	42.01	-	-	74	-31.99	-	-	0-360	101	V
6	* 11.747	28.73	Pk	38.5	-25.3	41.93	-	-	74	-32.07	-	-	0-360	199	V
4	7.013	37.04	Pk	36	-29.7	43.34	-	-	-	-	68.2	-24.86	0-360	101	V
3	7.014	40.2	Pk	36	-29.7	46.5	-	-	-	-	68.2	-21.7	0-360	101	H

PK - Peak detector

RADIATED EMISSIONS

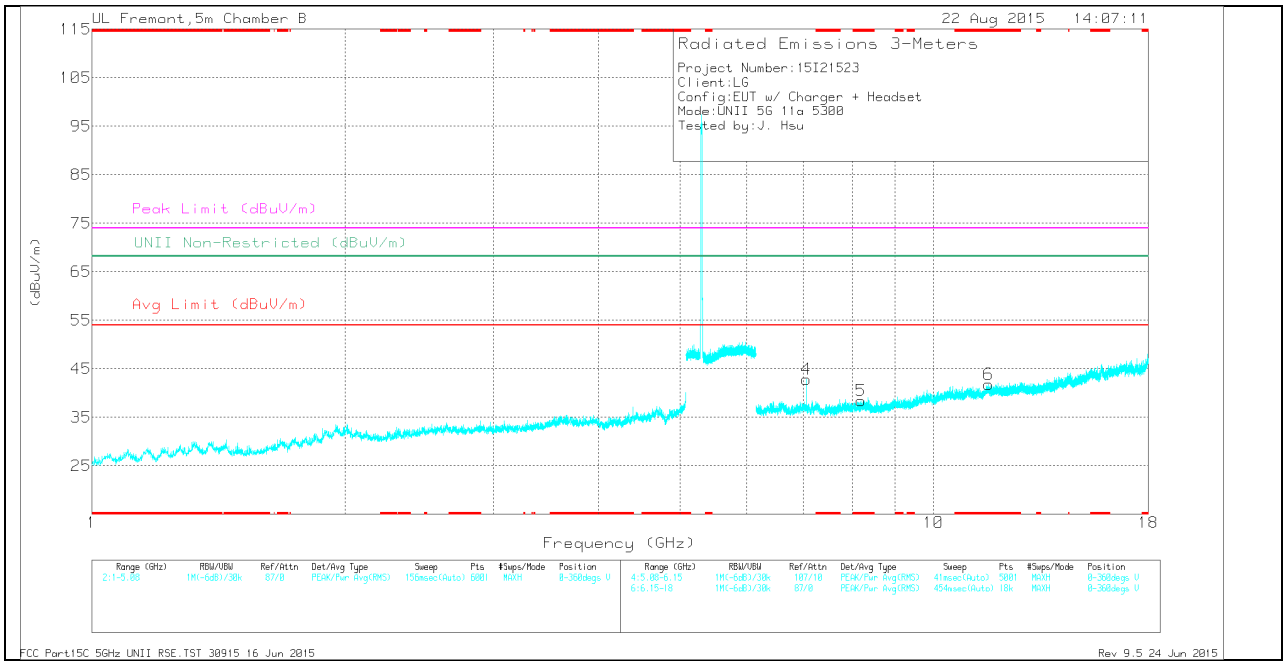
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.327	43.89	PK-U	29.4	-35.2	0	38.09	-	-	74	-35.91	-	-	1	101	H
* 1.327	32.51	ADR	29.4	-35.2	0.09	26.8	54	-27.2	-	-	-	-	1	101	H
* 3.776	41.96	PK-U	33.4	-32.7	0	42.66	-	-	74	-31.34	-	-	1	101	H
* 3.776	30.5	ADR	33.4	-32.7	0.09	31.29	54	-22.71	-	-	-	-	1	101	H
* 10.994	35.89	PK-U	37.7	-24.6	0	48.99	-	-	74	-25.01	-	-	334	110	H
* 10.993	24.83	ADR	37.7	-24.6	0.09	38.02	54	-15.98	-	-	-	-	334	110	H
* 11.746	35.36	PK-U	38.5	-25.3	0	48.56	-	-	74	-25.44	-	-	334	110	H
* 11.746	24.77	ADR	38.5	-25.3	0.09	38.06	54	-15.94	-	-	-	-	334	110	H
7.013	44.97	PK-U	36	-29.7	0	51.27	-	-	-	-	68.2	-16.93	331	107	H
7.013	39.55	ADR	36	-29.7	0.09	45.94	-	-	-	-	-	-	331	107	H
7.013	39.25	ADR	36	-29.7	0.09	45.64	-	-	-	-	-	-	334	110	H
7.014	44.47	PK-U	36	-29.7	0	50.77	-	-	-	-	68.2	-17.43	334	110	H

MID CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.