FCC 47 CFR PART 15 SUBPART E

CERTIFICATION TEST REPORT

FOR

CDMA/LTE PHABLET + BLUETOOTH, & DTS/UNII a/b/g/n

MODEL NUMBER: LG-LS770, LS770, LGLS770

FCC ID: ZNFLS770

REPORT NUMBER: 15I19834-E5 REVISION A

ISSUE DATE: FEBRUARY 20, 2015

Prepared for
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
---	02/11/15	Initial Issue	D. Coronia
A	02/20/15	Update antenna gain information page 9	D. Coronia

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS

COMPANY NAME:	LG ELECTRONICS MOBILECOMM U.S.A., INC
EUT DESCRIPTION:	CDMA/LTE PHABLET + BLUETOOTH, & DTS/UNII a/b/g/n
MODEL:	LG-LS770, LS770, LGLS770
SERIAL NUMBER:	804AA215 (RADIATED), 00431 (CONDUCTED)
DATE TESTED:	JANUARY 20-29 & FEBRUARY 11, 2015

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

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

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

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Tested By:

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WiSE LAB ENGINEER
UL VERIFICATION SERVICES INC

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15. DFS portion of FCC CFR 47 Part 2, FCC CFR 47 Part 15, FCC 06-96, FCC KDB 789033, KDB 905462 D02 and D03, ANSI C63.10-2009.

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

The EUT is a CDMA/LTE PHABLET + BLUETOOTH, & DTS/UNII a/b/g/n

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5180 - 5240	802.11n HT20	14.88	30.76
5260 - 5320	802.11n HT20	14.67	29.31
5500 - 5700	802.11n HT20	15.22	33.27
5745 - 5825	802.11n HT20	15.30	33.88
5190 - 5230	802.11n HT40	15.34	34.20
5270 - 5310	802.11n HT40	15.13	32.58
5510 - 5670	802.11n HT40	14.56	28.58
5755 - 5795	802.11n HT40	14.51	28.25
5180 - 5240	802.11a	14.82	30.34
5260 - 5320	802.11a	14.72	29.65
5500 - 5700	802.11a	15.24	33.42
5745 - 5825	802.11a	15.31	33.96

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an FPCB antenna, with a maximum gain of -5.60dBi.

5.4. WORST-CASE CONFIGURATION AND MODE

Radiated emission 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 it was determined that the X orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in the X orientation.

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

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

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
AC Adapter	LG	MCS-02WR	RA4Y1031433	N/A
Earphone	LG	N/A	N/A	N/A

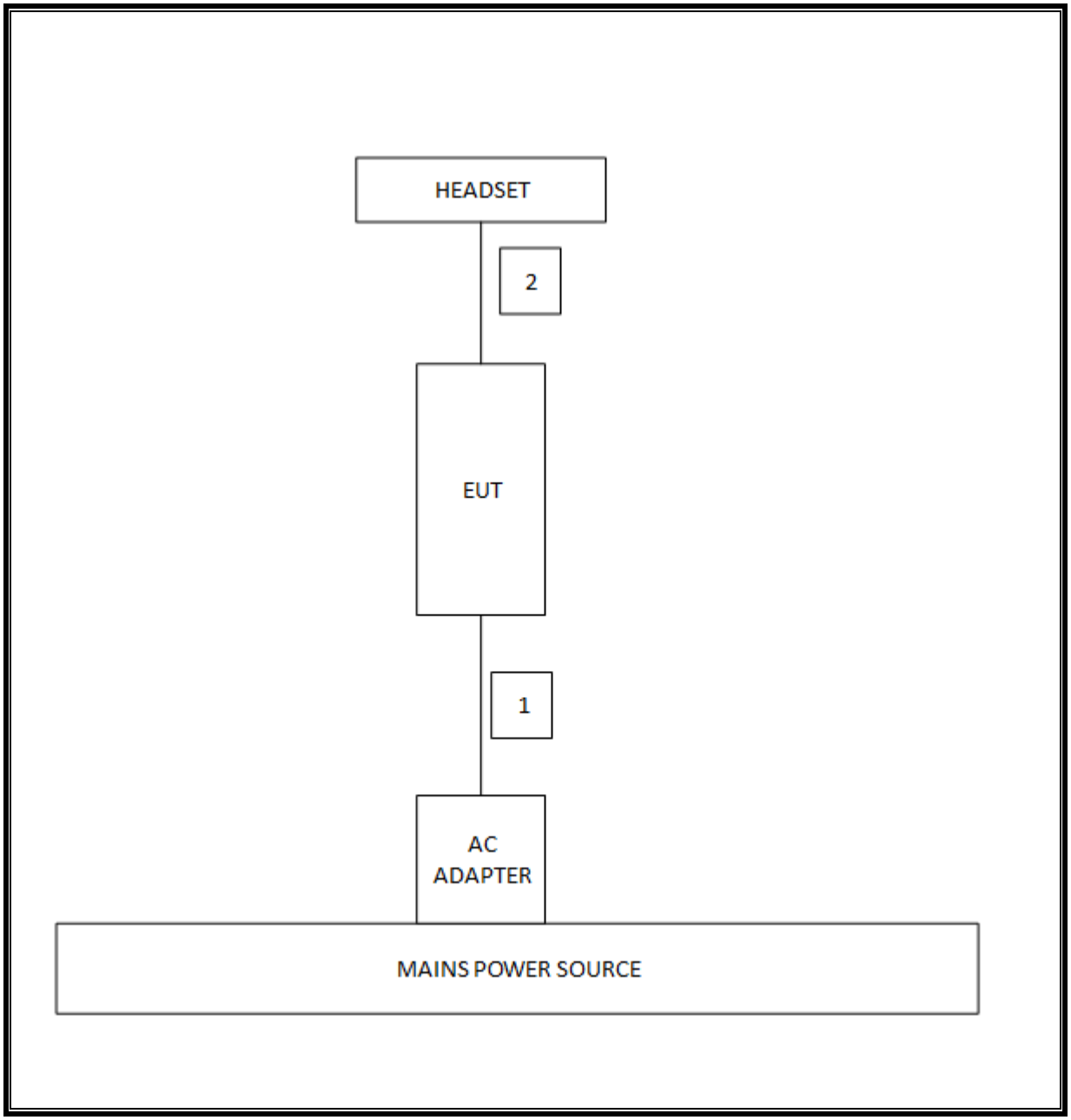
I/O CABLES

I/O Cable List						
Cable No	**Port**	**# of identical ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	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**
Antenna, Biconolog, 30MHz-1 GHz	Sunol Sciences	JB1	C01171	02/13/15
Antenna, Horn, 18GHz	EMCO	3115	C00783	10/25/15
Antenna, Horn, 26.5 GHz	ARA	MWH-1826/B	C00980	11/14/15
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00580	01/28/15
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01052	10/22/15
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01069	12/20/15
CBT Bluetooth Tester	R & S	CBT	None	07/12/15
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/15
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/15
LISN, 30 MHz	FCC	50/250-25-2	C00626	01/14/15
Reject Filter, 2.4GHz	Micro-Tronics	BRM50702	N02684	CNR
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/15
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/15

7. SUMMARY TABLE

FCC Part Section	Test Description	Test Limit	Test Condition	Test Result	Worst Case
15.247 (a)	Occupied Band width (26dB)	N/A	Conducted	Pass	43.98 MHz
15.407 (a)(1)	TX Cond. Power 5.15-2.25	<17dBm or 4+10Log(OBW)		Pass	15.34 dBm
15.407 (a)(2)	TX Cond. Power 5.25-5.35 & 5.47-5.725	<24dBm or 11+10Log(OBW)		Pass	15.24 dBm
15.407 (a)(3)	TX Cond. Power 5.725-5.825	< 30dBm or 17+10Log(OBW)		Pass	15.31 dBm
15.407 (a)(5)	PSD	<11dBm		Pass	4.08 dBm
15.207 (a)	AC Power Line conducted emissions	Section 10	Radiated	Pass	48.97 dBuV(AV)
15.407 (b) & 15.209	Radiated Spurious Emission	< 54dBuV/m		Pass	45.10 dBuV/m
15.407 (h)(2)	Dynamic Frequency Selection	N/A	Radiated / Condcuted	Pass	N/A

8. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS

LIMITS

None; for reporting purposes only.

PROCEDURE

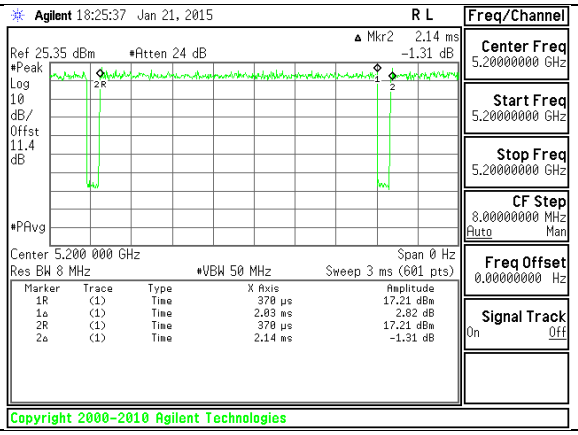
KDB 789033 Zero-Span Spectrum Analyzer Method.

RESULTS

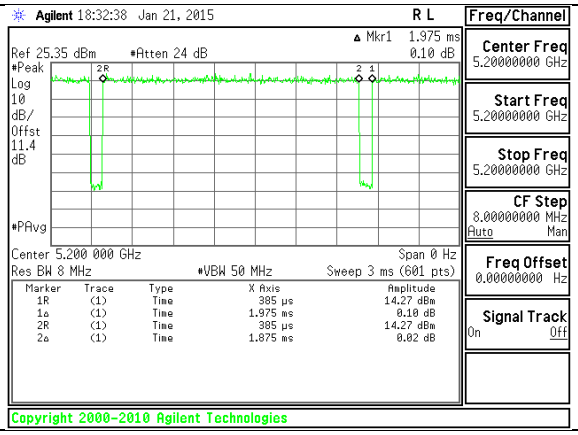
ON TIME AND DUTY CYCLE RESULT AND PLOTS

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	2.03	2.13	0.951	95.1%	0.22	0.493
802.11n HT20	1.88	2	0.949	94.9%	0.23	0.533
802.11n HT40	0.92	1	0.902	90.2%	0.45	1.092

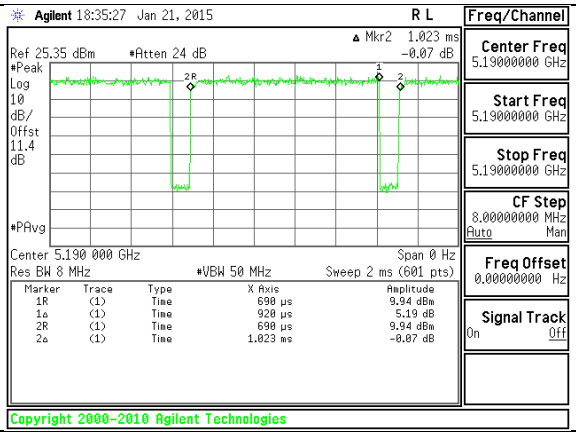
DUTY CYCLE 802.11a MODE



DUTY CYCLE 802.11n HT20 MODE



DUTY CYCLE 802.11n HT40 MODE



NOTE:

9. MEASUREMENT METHOD

789033 D02 General UNII Test Procedures New Rules v01

The Duty Cycle is less than 98% and consistent therefore KDB 789033 Method SA-2 is used for power and PPSD

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

10. ANTENNA PORT TEST RESULTS

10.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407

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

TEST PROCEDURE

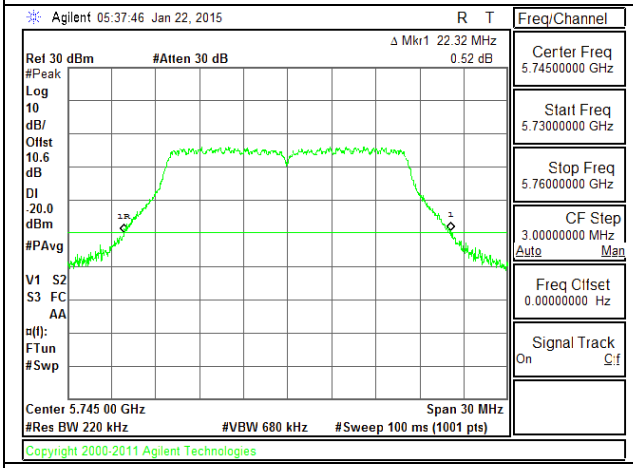
Reference to 789033 D02 General UNII Test Procedures New Rules v01: The transmitter output is connected to a spectrum analyzer with the RBW set to100KHz, the VBW >= 3 x RBW, peak detector and max hold.

RESULTS

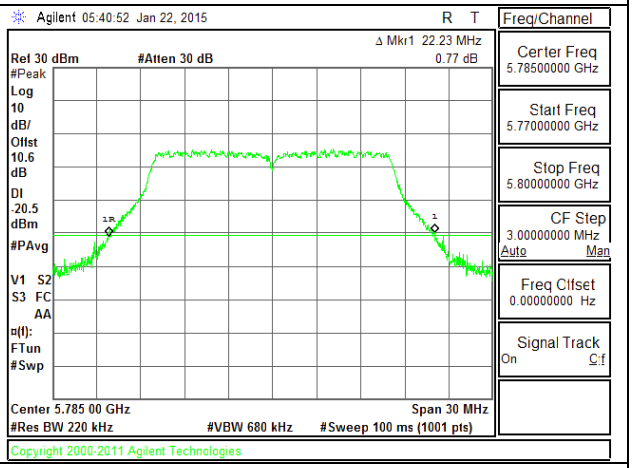
802.11a MODE IN THE 5.8 GHz BAND TEST RESULT TABLE

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5745	22.32
Mid	5785	22.23
High	5825	22.35
Worst		22.350

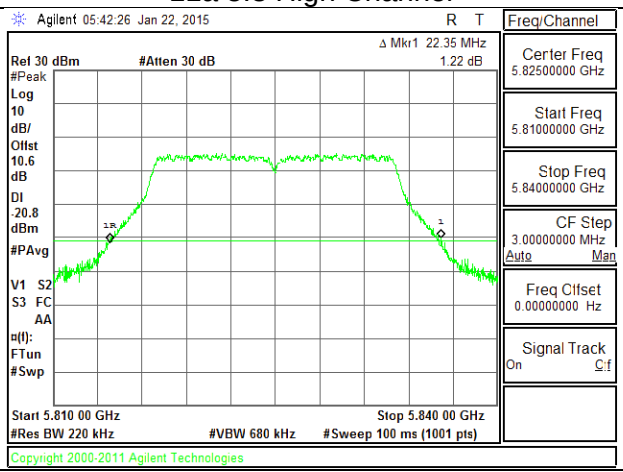
11a 5.8 Low Channel



11a 5.8 Mid Channel



11a 5.8 High Channel

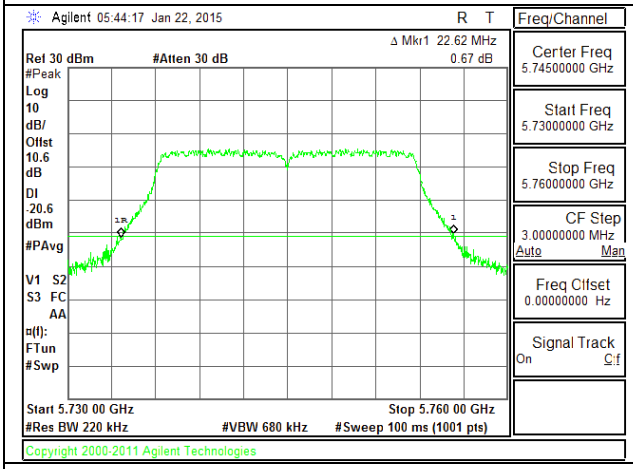


NOTE:

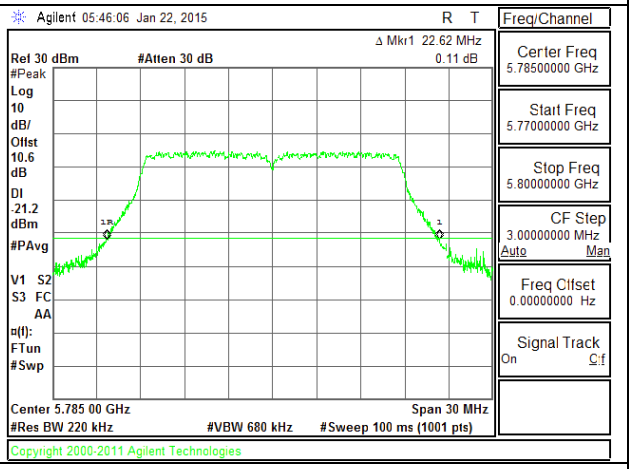
802.11n HT20 MODE IN THE 5.8 GHz BAND TEST RESULT TABLE

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5745	22.62
Mid	5785	22.62
High	5825	22.62
Worst		22.620

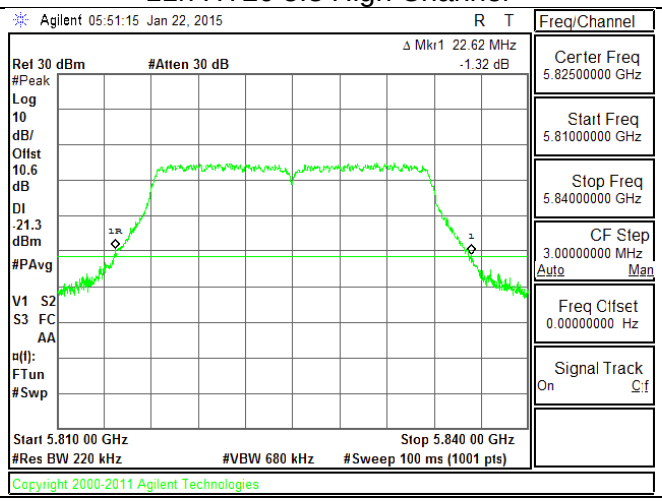
11n HT20 5.8 Low Channel



11n HT20 5.8 Mid Channel



11n HT20 5.8 High Channel

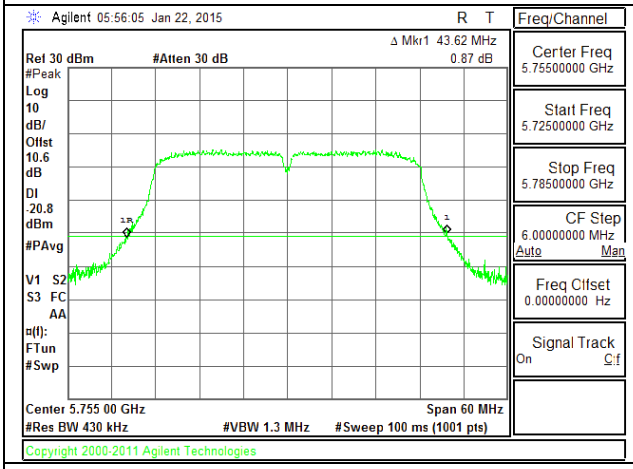


NOTE:

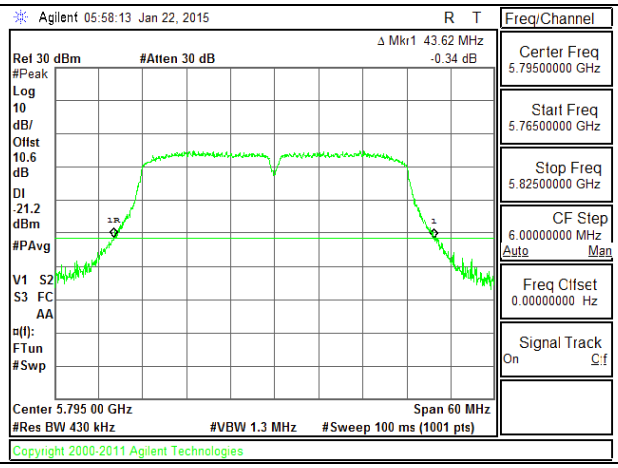
802.11n HT40 MODE IN THE 5.8 GHz BAND TEST RESULT TABLE

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5755	43.62
High	5795	43.62
Worst		43.62

11n HT40 5.8 Low Channel



11n HT40 5.8 Mid Channel



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NOTE:

10.2. 26 dB BANDWIDTH

LIMITS

None; for reporting purposes only.

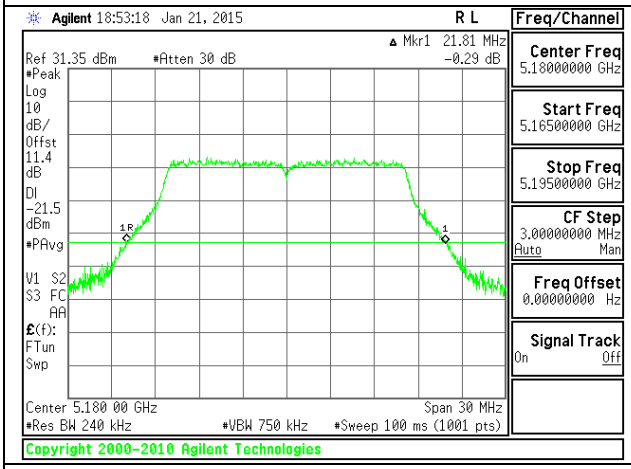
RESULTS

26 dB BANDWIDTH PLOTS AND TABLE

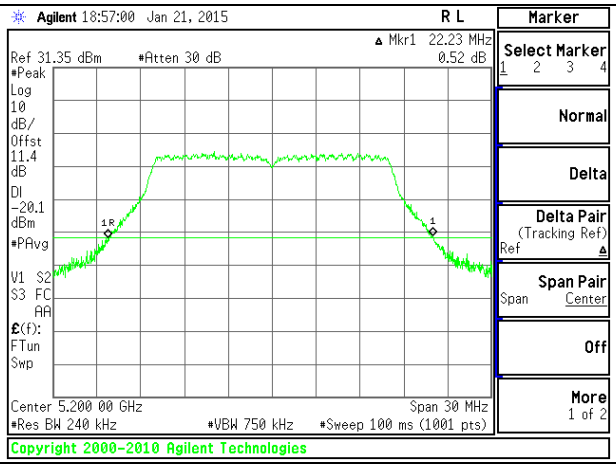
802.11a MODE IN THE 5.2 GHz BAND TEST RESULT TABLE

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5180	21.81
Mid	5200	22.23
High	5240	21.87
Worst		22.23

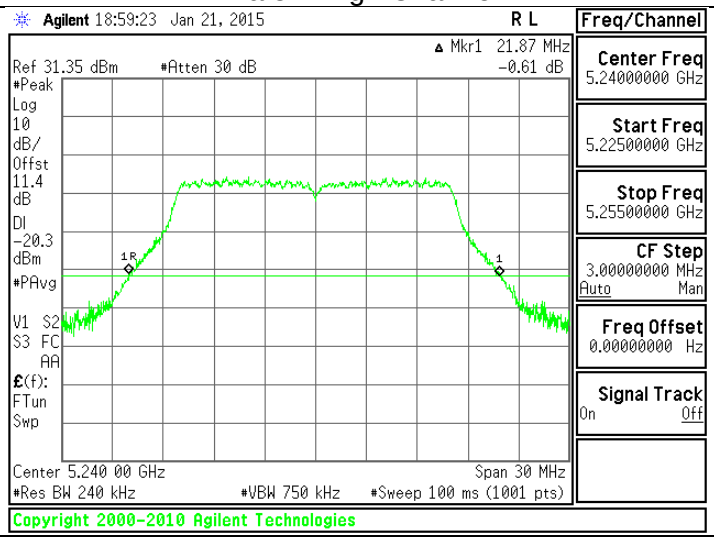
11a 5.2 Low Channel



11a 5.2 Mid Channel



11a 5.2 High Channel

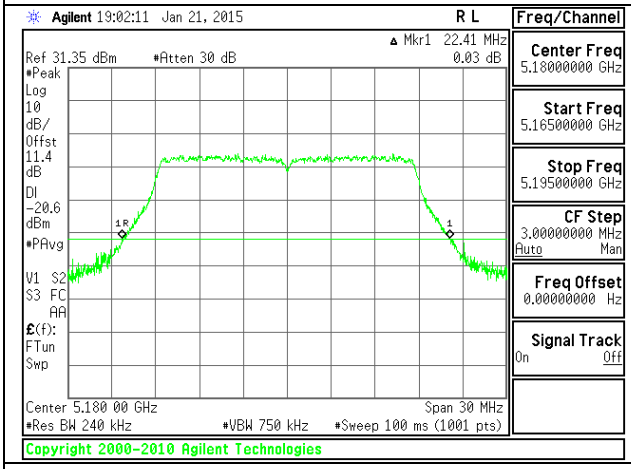


NOTE:

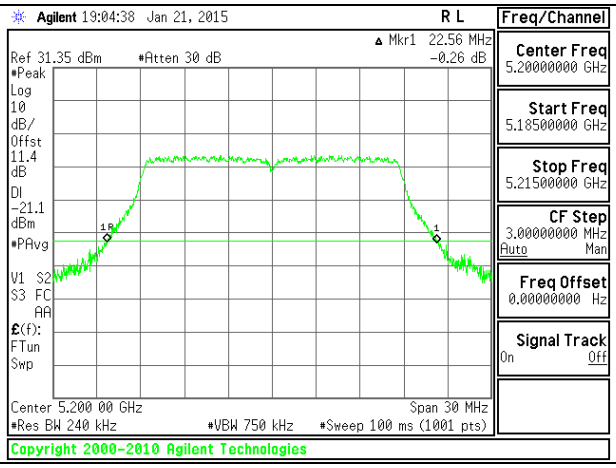
802.11n HT20 MODE IN THE 5.2 GHz BAND TEST RESULT TABLE

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5180	22.41
Mid	5200	22.56
High	5240	22.80
Worst		22.80

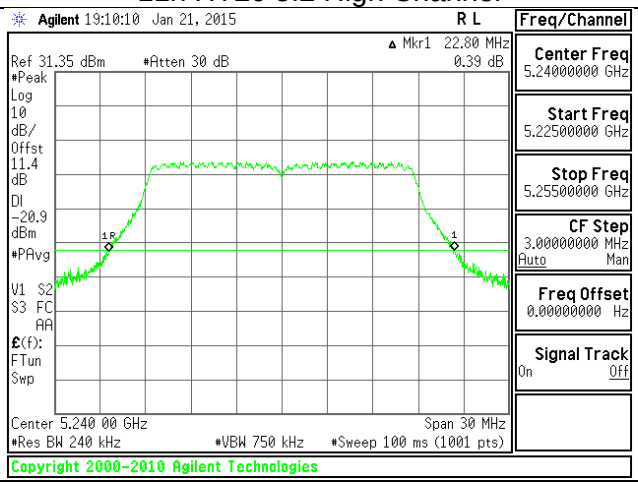
11n HT20 5.2 Low Channel



11n HT20 5.2 Mid Channel



11n HT20 5.2 High Channel

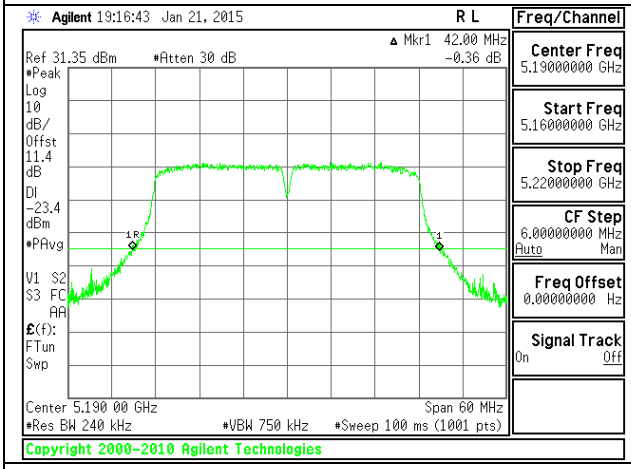


NOTE:

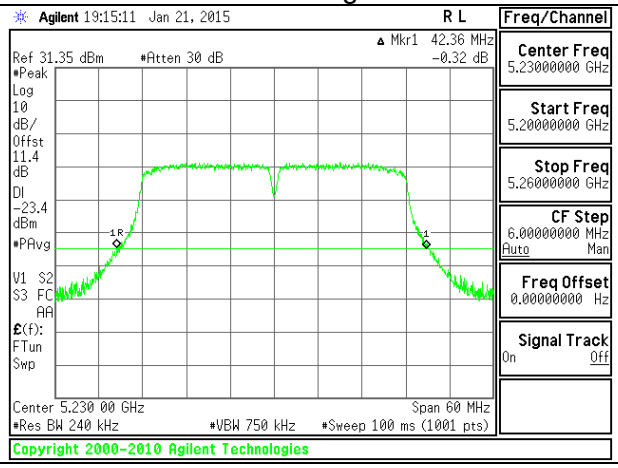
802.11n HT40 MODE IN THE 5.2 GHz BAND TEST RESULT TABLE

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5190	42.000
Mid	5230	42.360
Worst		42.360

11n HT40 5.2 Low Channel



11n HT40 5.2 High Channel



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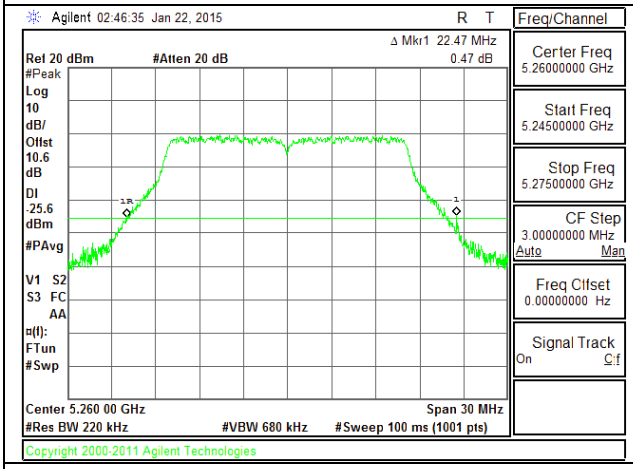
NOTE:

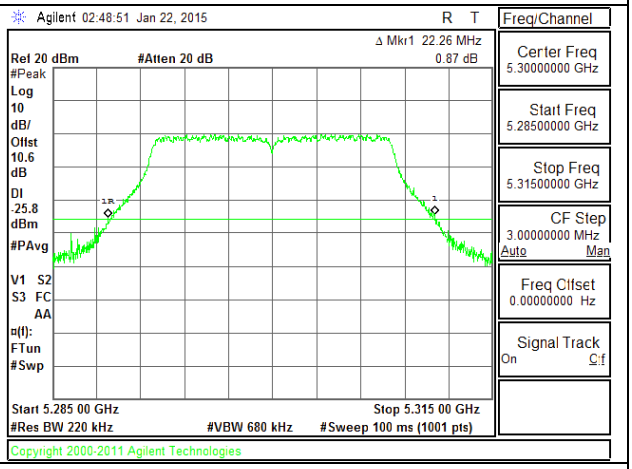
802.11a MODE IN THE 5.3 GHz BAND TEST RESULT TABLE

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5260	22.47
Mid	5300	22.26
High	5320	22.41
Worst		22.47

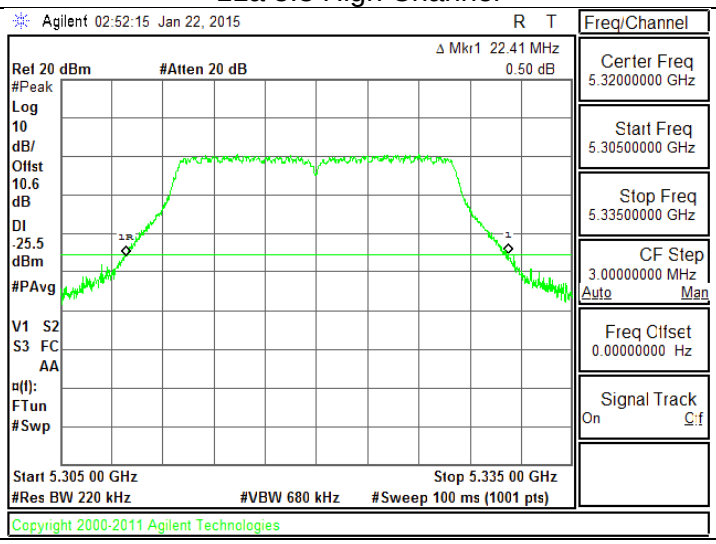
11a 5.3 Low Channel



11a 5.3 Mid Channel



11a 5.3 High Channel

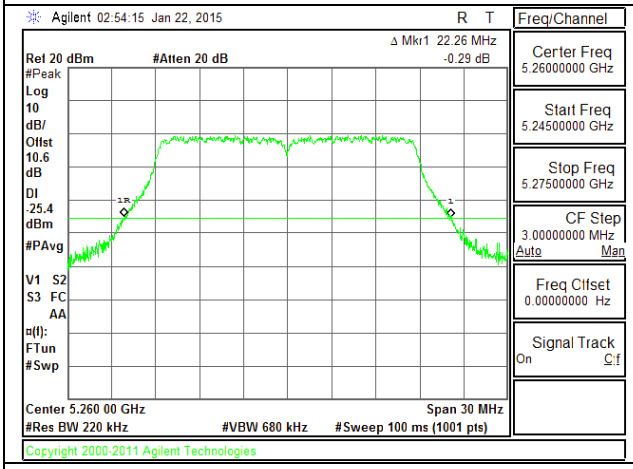


NOTE:

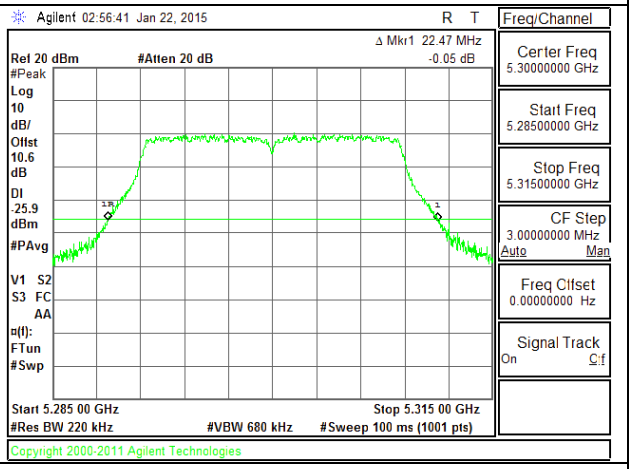
802.11n HT20 MODE IN THE 5.3 GHz BAND TEST RESULT TABLE

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5260	22.26
Mid	5300	22.47
High	5320	22.53
Worst		22.53

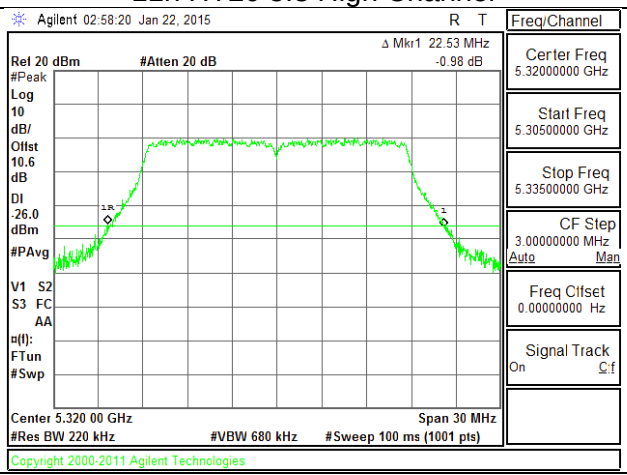
11n HT20 5.3 Low Channel



11n HT20 5.3 Mid Channel



11n HT20 5.3 High Channel

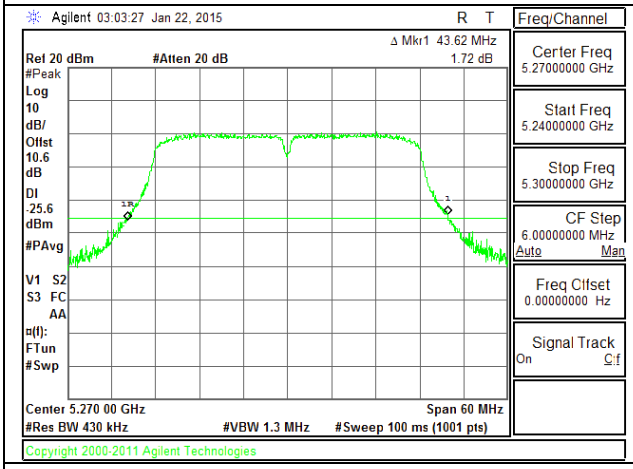


NOTE:

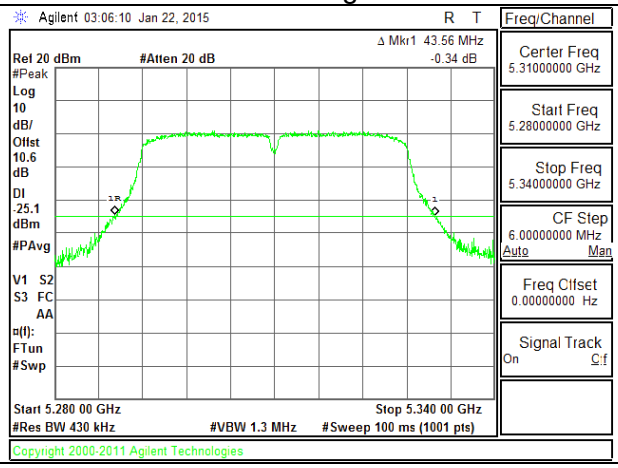
802.11n HT40 MODE IN THE 5.3 GHz BAND TEST RESULT TABLE

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5270	43.62
High	5310	43.56
Worst		43.6

11n HT40 5.3 Low Channel



11n HT20 5.3 High Channel



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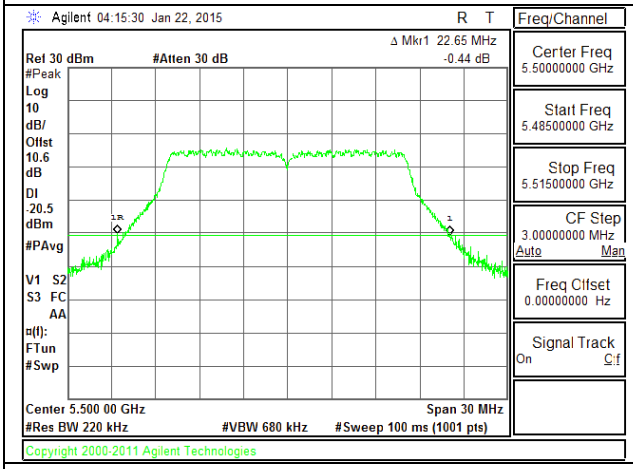
NOTE:

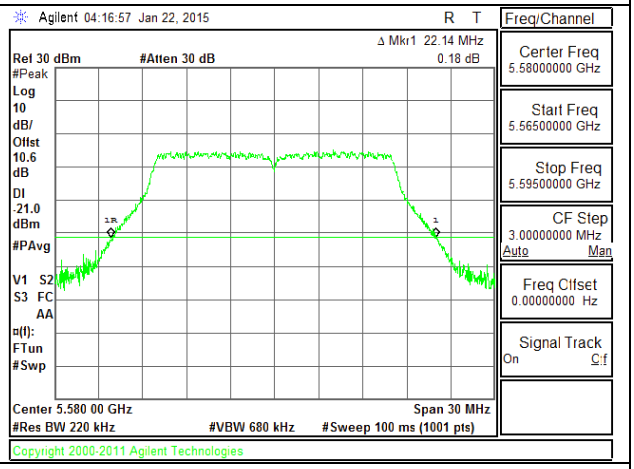
802.11a MODE IN THE 5.5 GHz BAND TEST RESULT TABLE

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5500	22.65
Mid	5580	22.14
High	5700	22.50
Worst		22.650

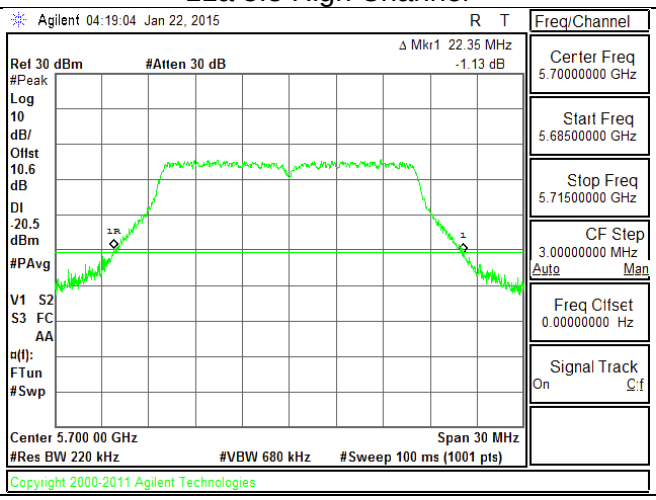
11a 5.5 Low Channel



11a 5.5 Mid Channel



11a 5.5 High Channel

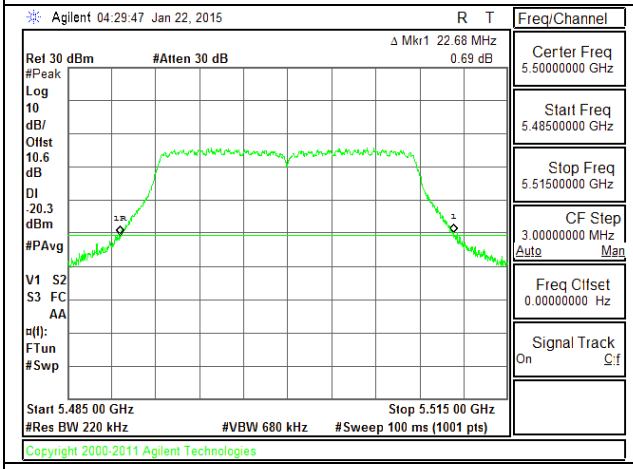


NOTE:

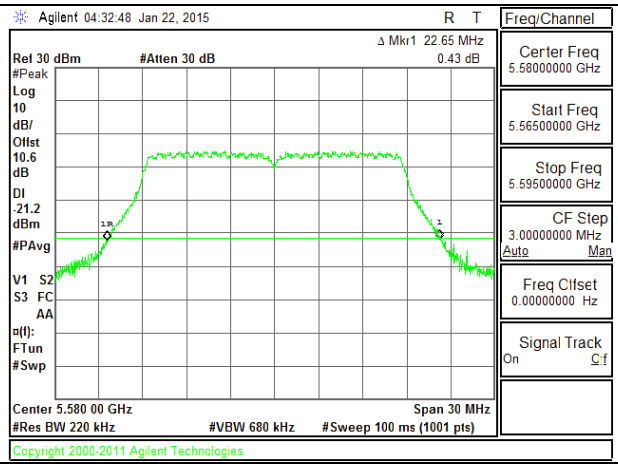
802.11n HT20 MODE IN THE 5.5 GHz BAND TEST RESULT TABLE

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5500	22.68
Mid	5580	22.65
High	5700	22.71
Worst		22.710

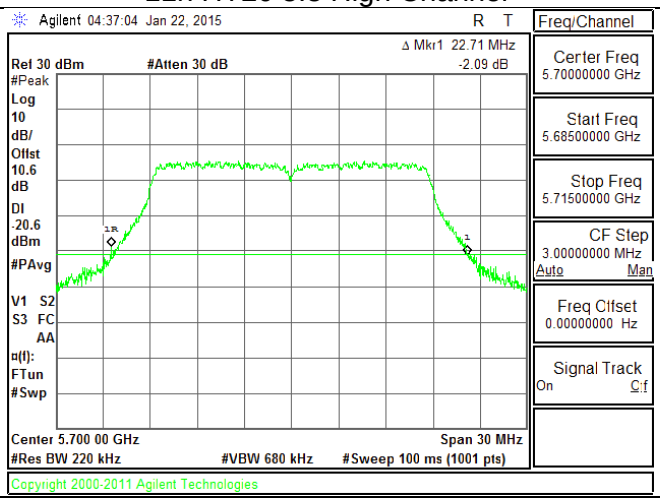
11n HT20 5.5 Low Channel



11n HT20 5.5 Mid Channel



11n HT20 5.5 High Channel

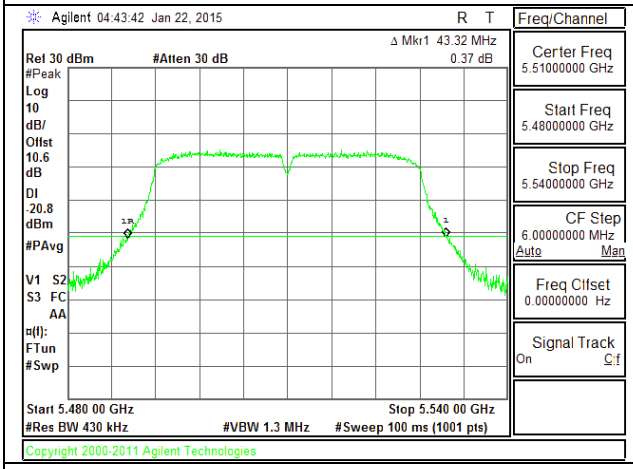


NOTE:

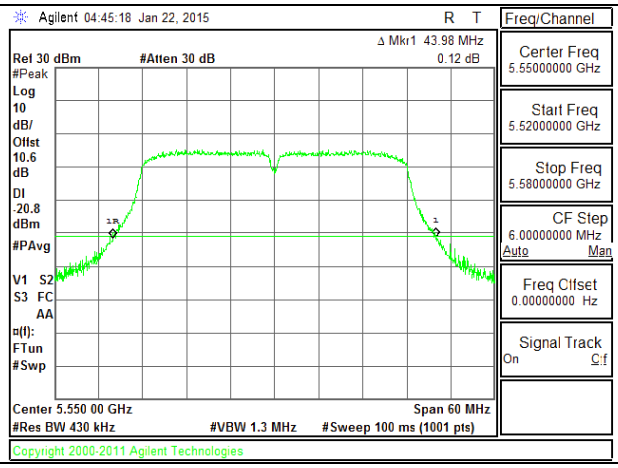
802.11n HT40 MODE IN THE 5.5 GHz BAND TEST RESULT TABLE

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5510	43.32
Mid	5550	43.98
High	5670	43.26
Worst		44.0

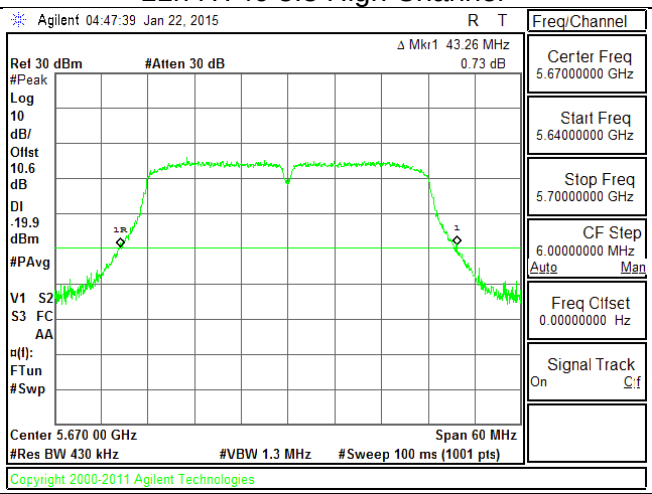
11n HT40 5.5 Low Channel



11n HT40 5.5 Mid Channel



11n HT40 5.5 High Channel



NOTE:

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% Bandwidth (MHz)
Low	5180	16.50
Mid	5200	16.45
High	5240	16.46
Worst		16.50

10.3.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5180	17.73
Mid	5200	17.64
High	5240	17.68
Worst		17.73

10.3.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5190	35.816
Mid	5230	36.076
Worst		36.076

10.3.1. 802.11a MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5260	16.47
Mid	5300	16.48
High	5320	16.48
Worst		16.48

10.3.1. 802.11n HT20 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5260	17.67
Mid	5300	17.66
High	5320	17.66
Worst		17.67

10.3.2. 802.11n HT40 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5270	35.94
High	5310	35.93
Worst		35.9

10.3.3. 802.11a MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5500	16.47
Mid	5580	16.48
High	5700	16.47
Worst		16.477

10.3.4. 802.11n HT20 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5500	17.67
Mid	5580	17.67
High	5700	17.67
Worst		17.672

10.3.5. 802.11n HT40 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5510	35.96
Mid	5550	35.97
High	5670	35.95
Worst		36.0

10.3.6. 802.11a MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	16.47
Mid	5785	16.49
High	5825	16.48
Worst		16.486

10.3.7. 802.11n HT20 MODE IN THE 5.8 GHz BAND

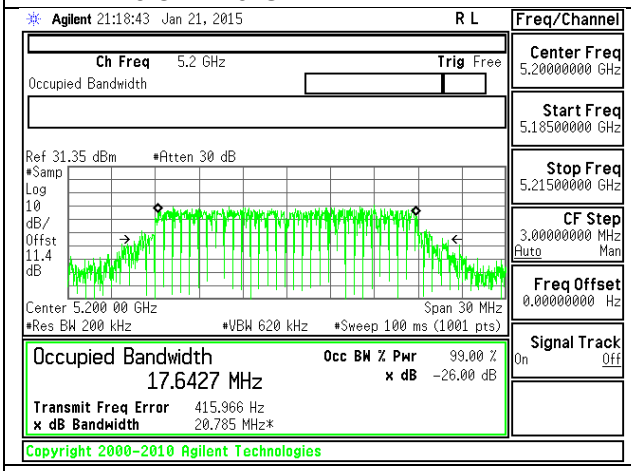
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	17.67
Mid	5785	17.67
High	5825	17.67
Worst		17.668

10.3.8. 802.11n HT40 MODE IN THE 5.8 GHz BAND

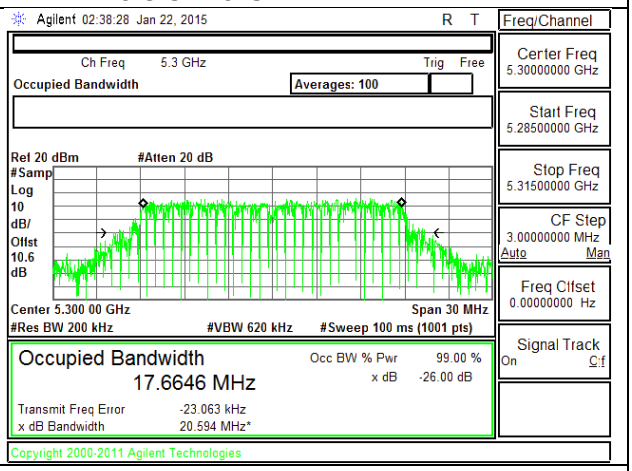
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5755	35.95
High	5795	35.95
Worst		36.0

10.3.9. 99% BANDWIDTH PLOTS

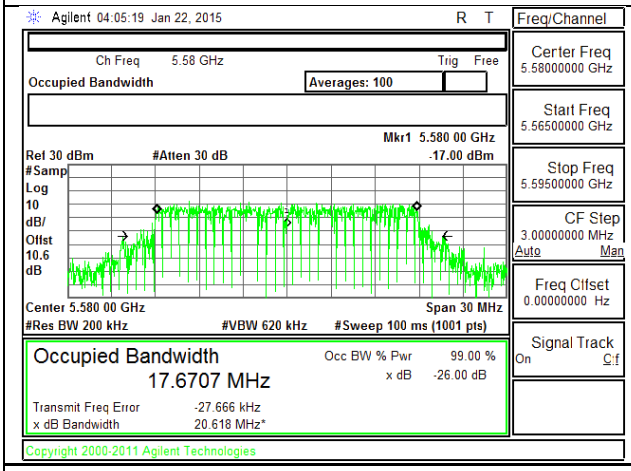
11n HT20 5.2 Mid Ch



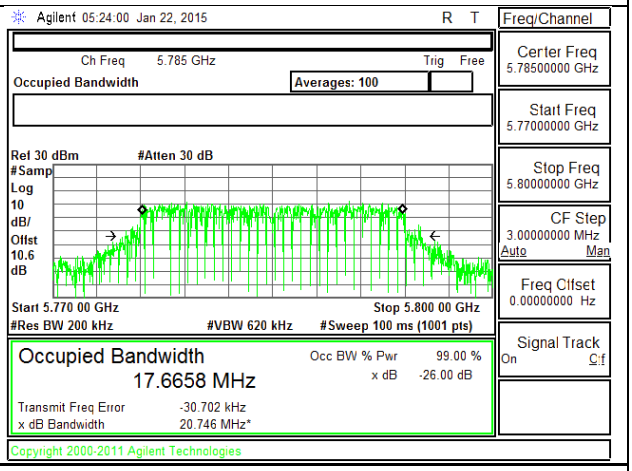
11n HT20 5.3 Mid Ch



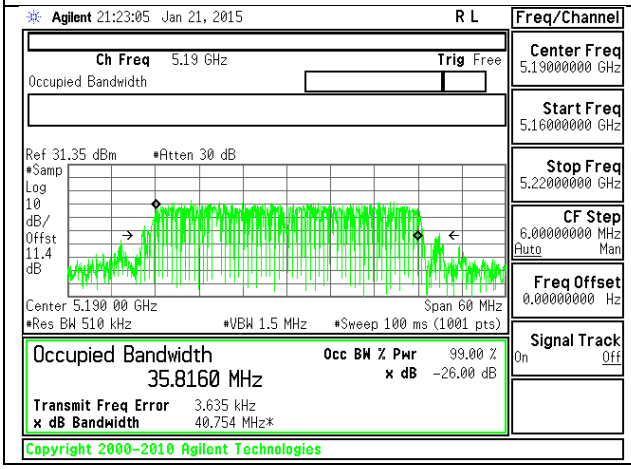
11n HT20 5.5 Mid Ch



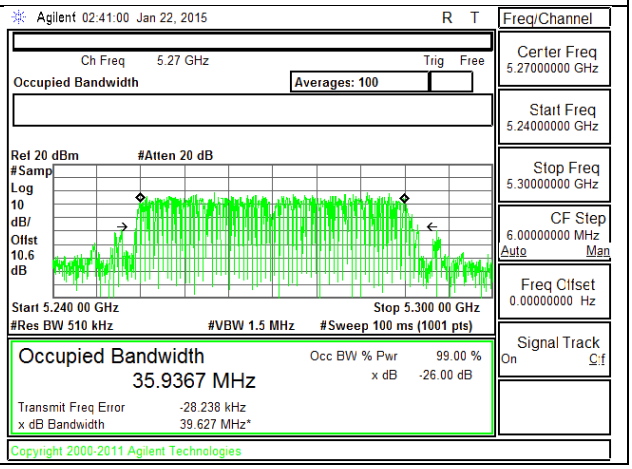
11n HT20 5.8 Mid Ch



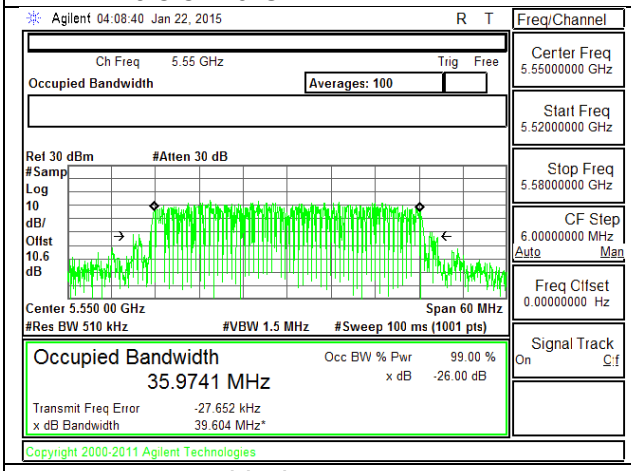
11n HT40 5.2 Low Ch



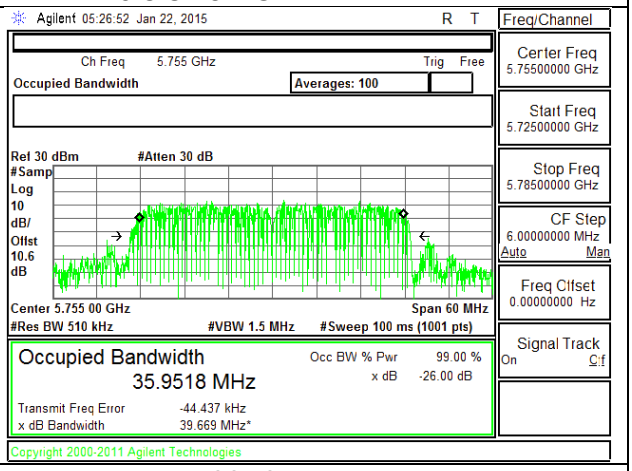
11n HT40 5.3 Low Ch



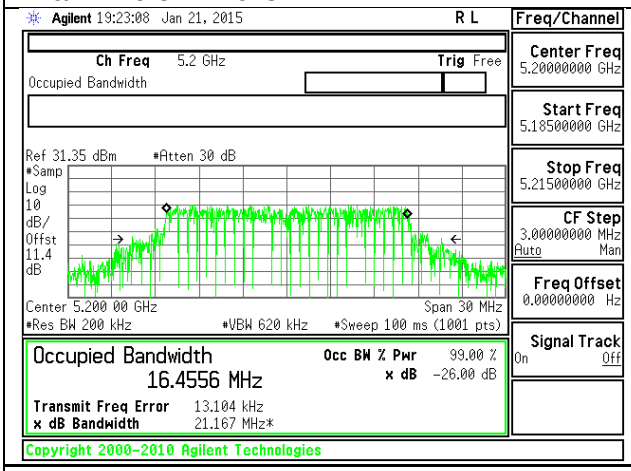
11n HT40 5.5 Mid Ch



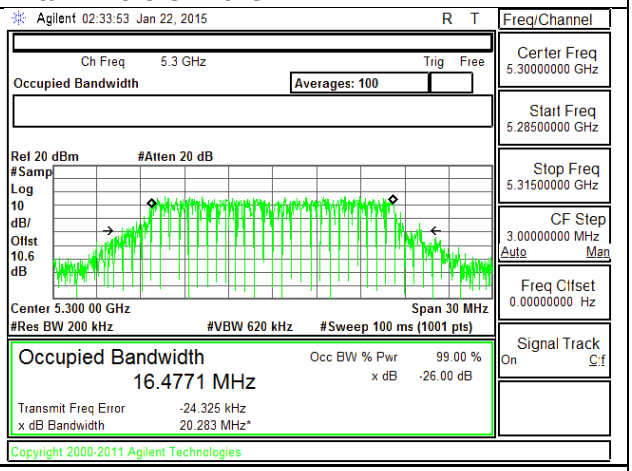
11n HT40 5.8 Low Ch



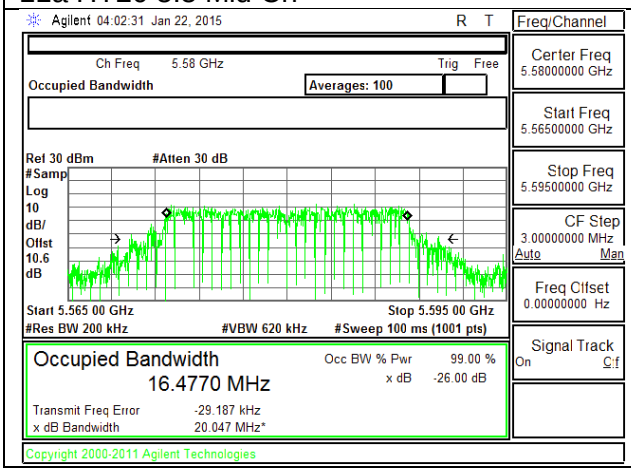
11a HT20 5.2 Mid Ch



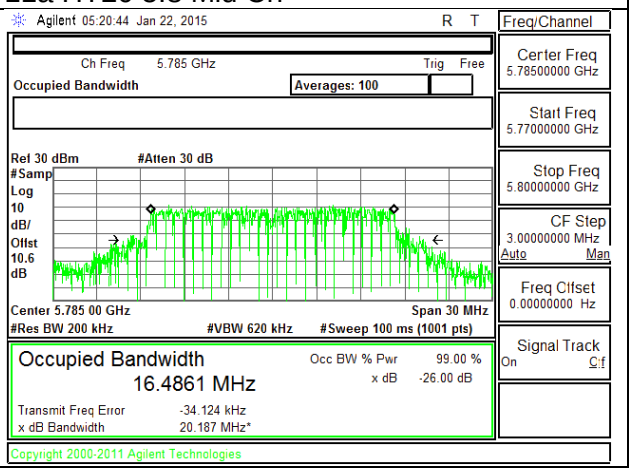
11a HT20 5.3 Mid Ch



11a HT20 5.5 Mid Ch



11a HT20 5.8 Mid 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

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5180	13.00
Mid	5200	13.10
High	5240	13.00
Worst		13.10

10.4.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5180	11.40
Mid	5200	11.30
High	5240	11.40
Worst		11.40

10.4.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5190	10.90
Mid	5230	11.00
Worst		11.00

10.4.4. 802.11a MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5260	13.10
Mid	5300	13.10
High	5320	12.90
Worst		13.10

10.4.5. 802.11n HT20 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5260	11.90
Mid	5300	10.90
High	5320	11.00
Worst		11.90

10.4.6. 802.11n HT40 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5270	10.90
High	5310	10.80
Worst		10.90

10.4.7. 802.11a MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5500	13.40
Mid	5580	13.20
High	5700	13.30
Worst		13.40

10.4.8. 802.11n HT20 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5500	11.70
Mid	5580	11.50
High	5700	11.40
Worst		11.70

10.4.9. 802.11n HT40 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5510	10.70
Mid	5550	10.70
High	5670	10.80
Worst		10.80

10.4.10. 802.11a MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5745	13.50
Mid	5785	13.30
High	5825	13.40
Worst		13.50

10.4.11. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5745	11.60
Mid	5785	11.40
High	5825	11.40
Worst		11.60

10.4.12. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5755	10.80
High	5795	10.70
Worst		10.80

10.5. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

DIRECTIONAL ANTENNA GAIN

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

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 (dBi)
Low	5180	21.81	16.503	5.30
Mid	5200	22.23	16.45	5.30
High	5240	21.87	16.46	5.30

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	22.18	16.88	16.88	11.00	10.00	10.00
Mid	5200	24.00	22.16	16.86	16.86	11.00	10.00	10.00
High	5240	24.00	22.16	16.86	16.86	11.00	10.00	10.00

Duty Cycle CF (dB)	0.23	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	14.52	14.75	16.88	-2.12
Mid	5200	14.53	14.76	16.86	-2.10
High	5240	14.59	14.82	16.86	-2.04

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5180	3.20	3.43	10.00	-6.57
Mid	5200	3.15	3.38	10.00	-6.62
High	5240	3.31	3.54	10.00	-6.46

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 (dBi)
Low	5180	22.41	17.731	5.3
Mid	5200	22.56	17.642	5.3
High	5240	22.8	17.6771	5.3

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	22.49	17.19	17.19	11.00	10.00	10.00
Mid	5200	24.00	22.47	17.17	17.17	11.00	10.00	10.00
High	5240	24.00	22.47	17.17	17.17	11.00	10.00	10.00

Duty Cycle CF (dB)	0.23	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	14.60	14.83	17.19	-2.36
Mid	5200	14.53	14.76	17.17	-2.41
High	5240	14.65	14.88	17.17	-2.29

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5180	2.95	3.18	10.00	-6.82
Mid	5200	2.91	3.14	10.00	-6.86
High	5240	3.14	3.37	10.00	-6.63

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 (dBi)
Low	5190	42.00	35.82	5.30
Mid	5230	42.36	36.08	5.30

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	23.00	23.00	11.00	10.00	10.00
Mid	5230	24.00	23.00	17.70	17.70	11.00	10.00	10.00
Duty Cycle CF (dB)		0.46	Included in Calculations of Corr'd Power & PPSD					

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5190	14.88	15.34	23.00	-7.66
Mid	5230	14.87	15.33	17.70	-2.37

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5190	0.50	0.96	10.00	-9.04
Mid	5230	0.40	0.86	10.00	-9.14

10.5.4. 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 (dBi)
Low	5260	22.47	16.474	5.30
Mid	5300	22.26	16.477	5.30
High	5320	22.41	16.475	5.30

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	23.17	29.17	23.17	11.00	11.00	11.00
Mid	5300	24.00	23.17	29.17	23.17	11.00	11.00	11.00
High	5320	24.00	23.17	29.17	23.17	11.00	11.00	11.00

Duty Cycle CF (dB)	0.23	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	14.49	14.72	23.17	-8.45
Mid	5300	14.30	14.53	23.17	-8.64
High	5320	14.31	14.54	23.17	-8.62

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5260	3.31	3.54	11.00	-7.46
Mid	5300	3.07	3.30	11.00	-7.70
High	5320	3.28	3.51	11.00	-7.49

10.5.5. 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 (dBi)
Low	5260	22.26	17.67	5.30
Mid	5300	22.47	17.66	5.30
High	5320	22.53	17.66	5.30

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	23.47	29.47	23.47	11.00	11.00	11.00
Mid	5300	24.00	23.47	29.47	23.47	11.00	11.00	11.00
High	5320	24.00	23.47	29.47	23.47	11.00	11.00	11.00

Duty Cycle CF (dB)	0.23	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	14.44	14.67	23.47	-8.81
Mid	5300	14.39	14.62	23.47	-8.86
High	5320	14.22	14.45	23.47	-9.02

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5260	2.81	3.04	11.00	-7.96
Mid	5300	2.76	2.99	11.00	-8.01
High	5320	2.69	2.92	11.00	-8.08

10.5.6. 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 (dBi)
Low	5270	43.62	35.94	5.30
High	5310	43.56	35.93	5.30

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)	0.46	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5270	14.47	14.93	24.00	-9.07
High	5310	14.67	15.13	24.00	-8.87

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5270	0.08	0.54	11.00	-10.46
High	5310	0.30	0.76	11.00	-10.24

10.5.7. 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 (dBi)
Low	5500	22.65	16.47	5.30
Mid	5580	22.14	16.48	5.30
High	5700	22.50	16.47	5.30

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	23.17	29.17	23.17	11.00	11.00	11.00
Mid	5580	24.00	23.17	29.17	23.17	11.00	11.00	11.00
High	5700	24.00	23.17	29.17	23.17	11.00	11.00	11.00

Duty Cycle CF (dB)	0.23	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	14.86	15.09	23.17	-8.08
Mid	5580	14.49	14.72	23.17	-8.45
High	5700	15.01	15.24	23.17	-7.92

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5500	3.53	3.76	11.00	-7.24
Mid	5580	3.16	3.39	11.00	-7.61
High	5700	3.85	4.08	11.00	-6.92

10.5.8. 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 (dBi)
Low	5500	22.68	17.67	5.30
Mid	5580	22.65	17.67	5.30
High	5700	22.71	17.67	5.30

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	23.47	29.47	23.47	11.00	11.00	11.00
Mid	5580	24.00	23.47	29.47	23.47	11.00	11.00	11.00
High	5700	24.00	23.47	29.47	23.47	11.00	11.00	11.00

Duty Cycle CF (dB)	0.23	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	14.74	14.97	23.47	-8.50
Mid	5580	14.39	14.62	23.47	-8.85
High	5700	14.99	15.22	23.47	-8.25

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5500	3.08	3.31	11.00	-7.69
Mid	5580	2.82	3.05	11.00	-7.95
High	5700	3.56	3.79	11.00	-7.21

10.5.9. 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 (dBi)
Low	5510	43.32	35.96	5.30
Mid	5550	43.98	35.97	5.30
High	5670	43.23	35.95	5.30

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)	0.46	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	13.423	13.88	24.00	-10.12
Mid	5550	14.104	14.56	24.00	-9.44
High	5670	14.039	14.50	24.00	-9.50

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5510	-1.150	-0.69	11.00	-11.69
Mid	5550	-0.420	0.04	11.00	-10.96
High	5670	-0.330	0.13	11.00	-10.87

10.5.10. 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 (dBi)
Low	5745	22.32	16.47	5.30
Mid	5785	22.23	16.49	5.30
High	5825	22.35	16.48	5.30

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	29.17	35.17	29.17	17.00	17.00	17.00
Mid	5785	30.00	29.17	35.17	29.17	17.00	17.00	17.00
High	5825	30.00	29.17	35.17	29.17	17.00	17.00	17.00

Duty Cycle CF (dB)	0.23	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	15.08	15.31	29.17	-13.85
Mid	5785	14.56	14.79	29.17	-14.38
High	5825	14.53	14.76	29.17	-14.41

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5745	1.65	1.88	17.00	-15.12
Mid	5785	1.04	1.27	17.00	-15.73
High	5825	0.89	1.12	17.00	-15.88

10.5.11. 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 (dBi)
Low	5745	22.62	17.67	5.30
Mid	5785	22.62	17.67	5.30
High	5825	23.62	17.67	5.30

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	29.47	35.47	29.47	17.00	17.00	17.00
Mid	5785	30.00	29.47	35.47	29.47	17.00	17.00	17.00
High	5825	30.00	29.47	35.47	29.47	17.00	17.00	17.00

Duty Cycle CF (dB)	0.23	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	15.07	15.30	29.47	-14.18
Mid	5785	14.48	14.71	29.47	-14.76
High	5825	14.52	14.75	29.47	-14.72

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5745	1.26	1.49	17.00	-15.51
Mid	5785	0.69	0.92	17.00	-16.08
High	5825	0.97	1.20	17.00	-15.80

10.5.12. 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 (dBi)
Low	5755	43.62.	35.95	5.30
High	5795	43.62	35.95	5.30

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	17.00	17.00	17.00
High	5795	30.00	30.00	36.00	30.00	17.00	17.00	17.00

Duty Cycle CF (dB)	0.46	Included in Calculations of Corr'd Power & PPSD

Output Power Results

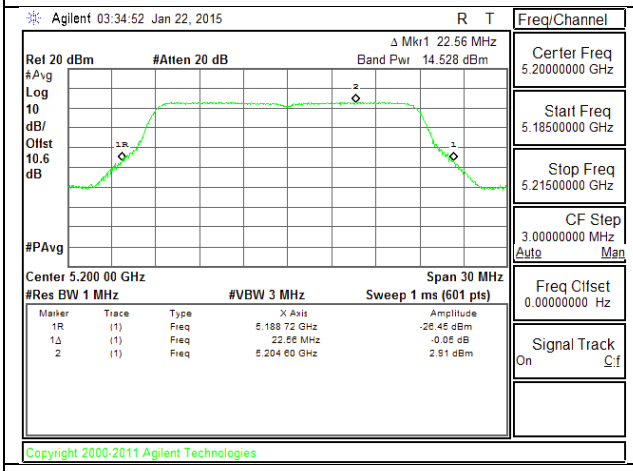
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	14.05	14.51	30.00	-15.49
High	5795	13.72	14.18	30.00	-15.82

PPSD Results

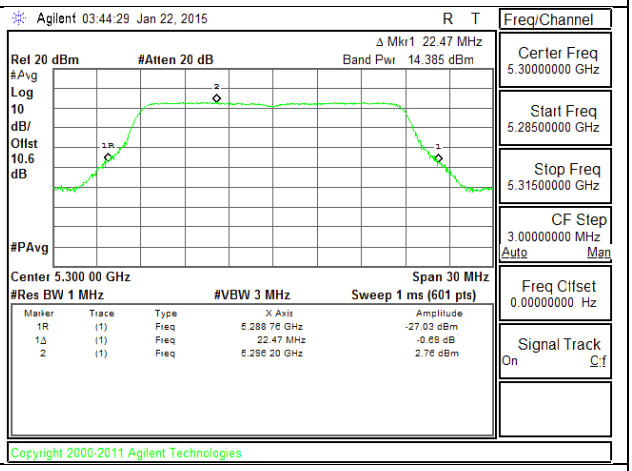
Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5755	-2.74	-2.28	17.00	-19.28
High	5795	-2.98	-2.52	17.00	-19.52

10.5.13. OUTPUT POWER AND PPSD PLOTS, Chain 0

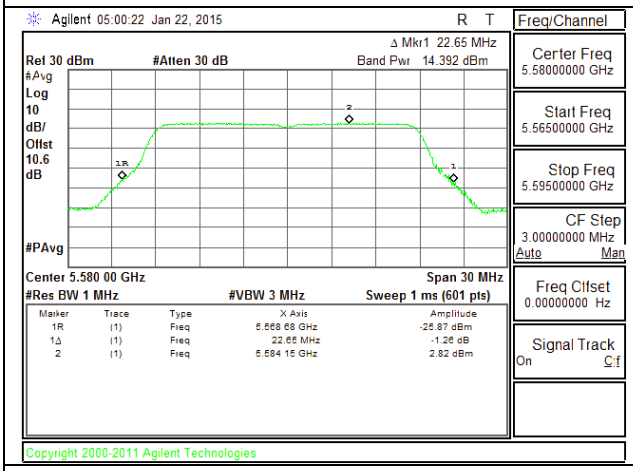
11n HT20 5.2 Mid Ch



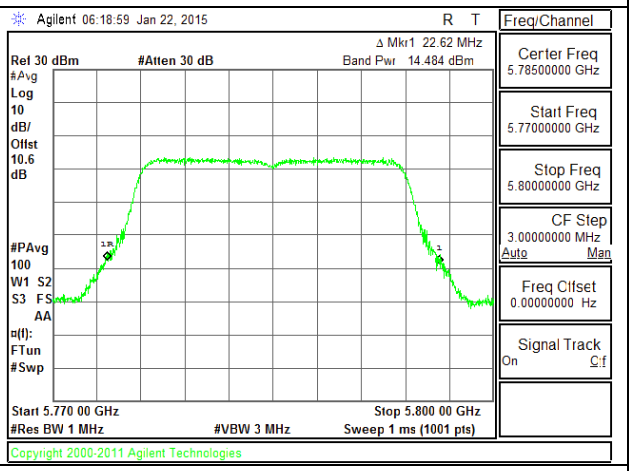
11n HT20 5.3 Mid Ch



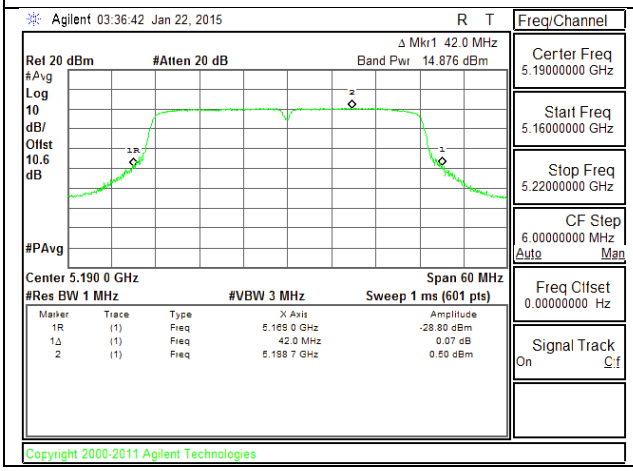
11n HT20 5.5 Mid Ch



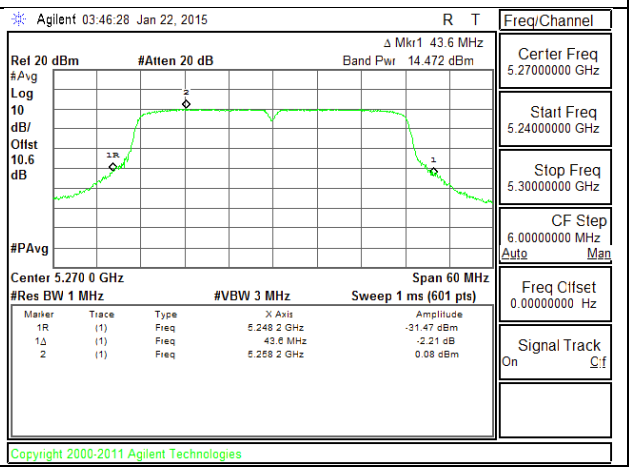
11n HT20 5.8 Mid Ch



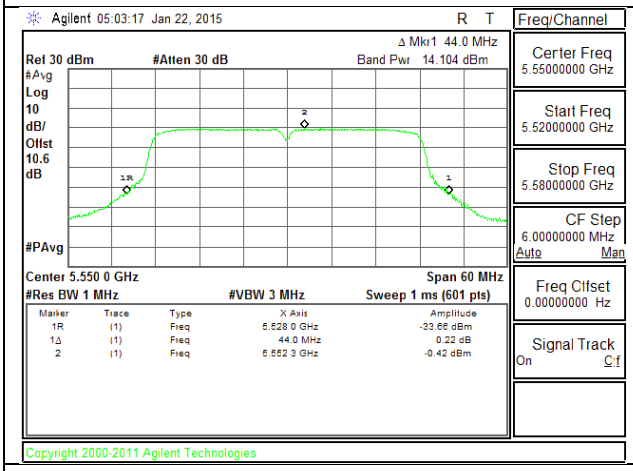
11n HT40 5.2 Low Ch



11n HT40 5.3 Low Ch



11n HT40 5.5 Mid Ch



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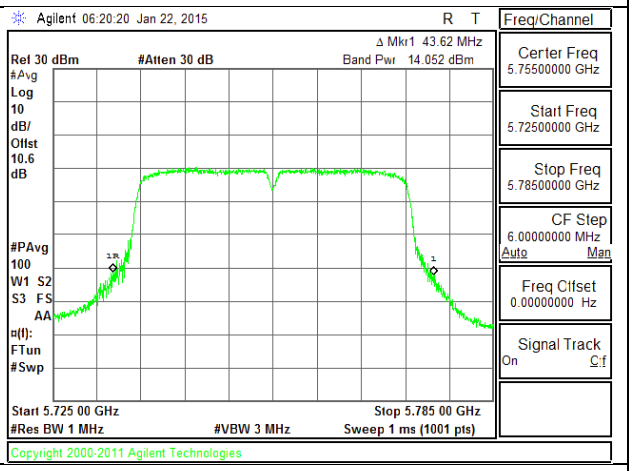
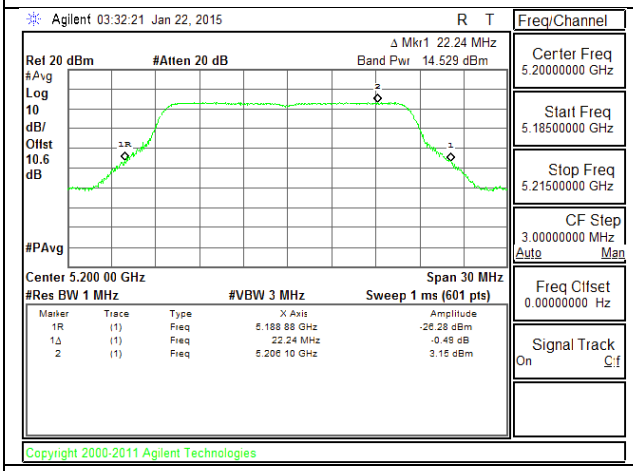
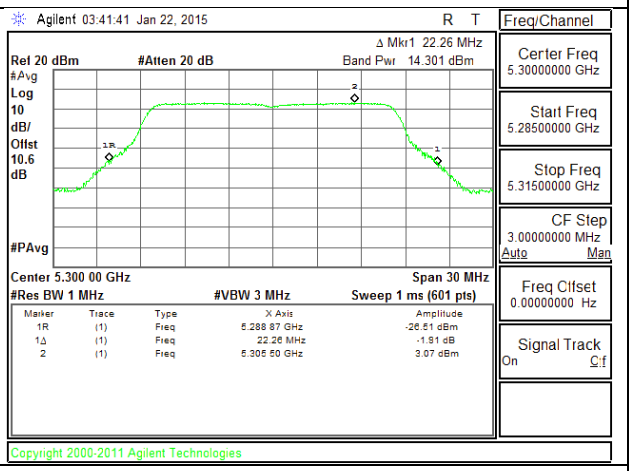


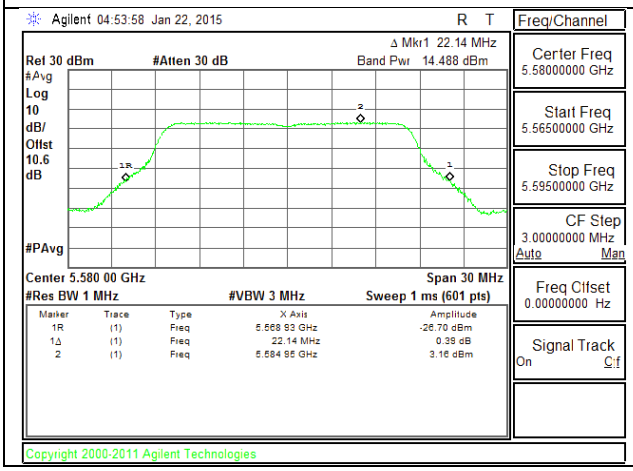
11a HT20 5.2 Mid Ch



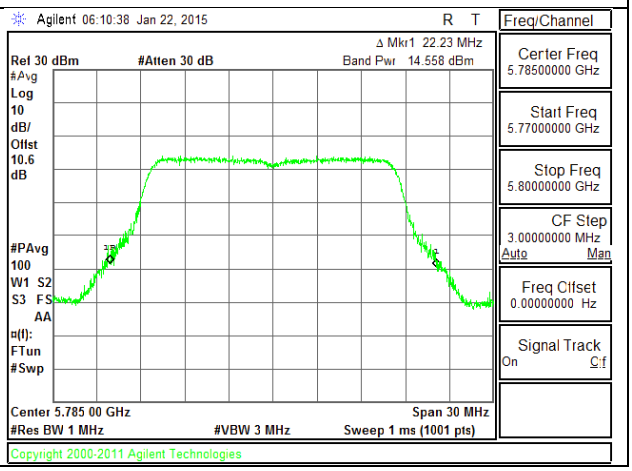
11a HT20 5.3 Mid Ch



11a HT20 5.5 Mid Ch



11a HT20 5.8 Mid Ch



11. TRANSMITTER ABOVE 1 GHz

LIMITS

FCC §15.205 and §15.209

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

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters.

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 1GHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

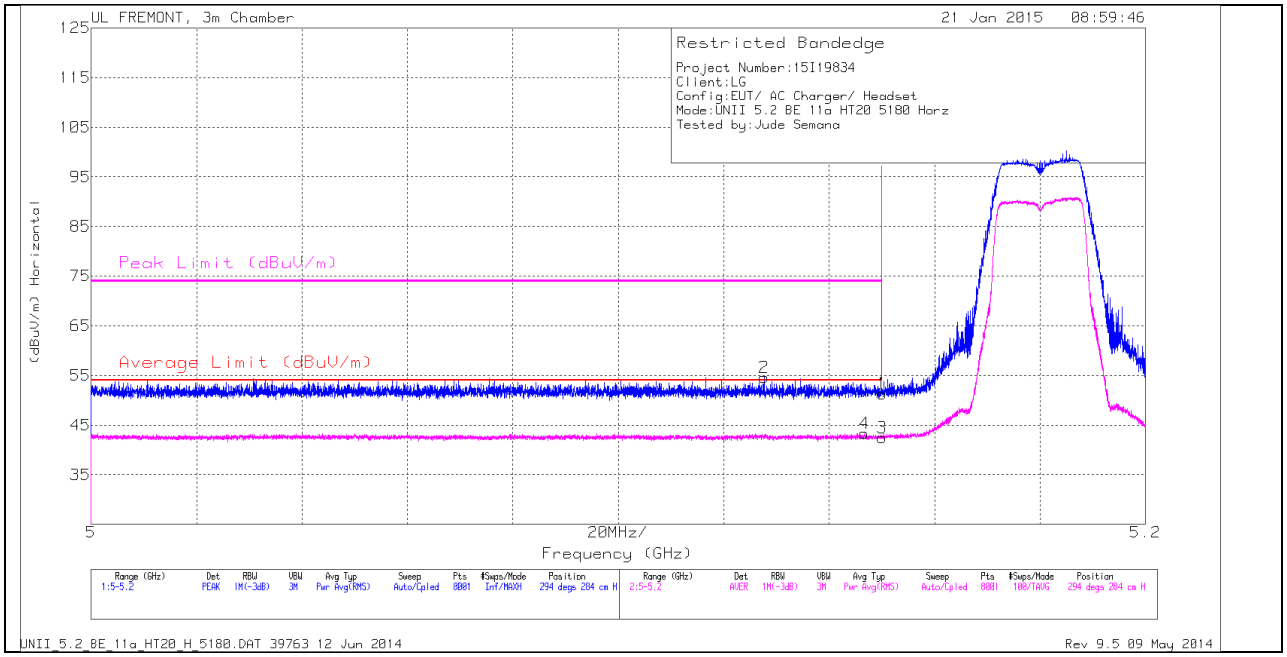
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

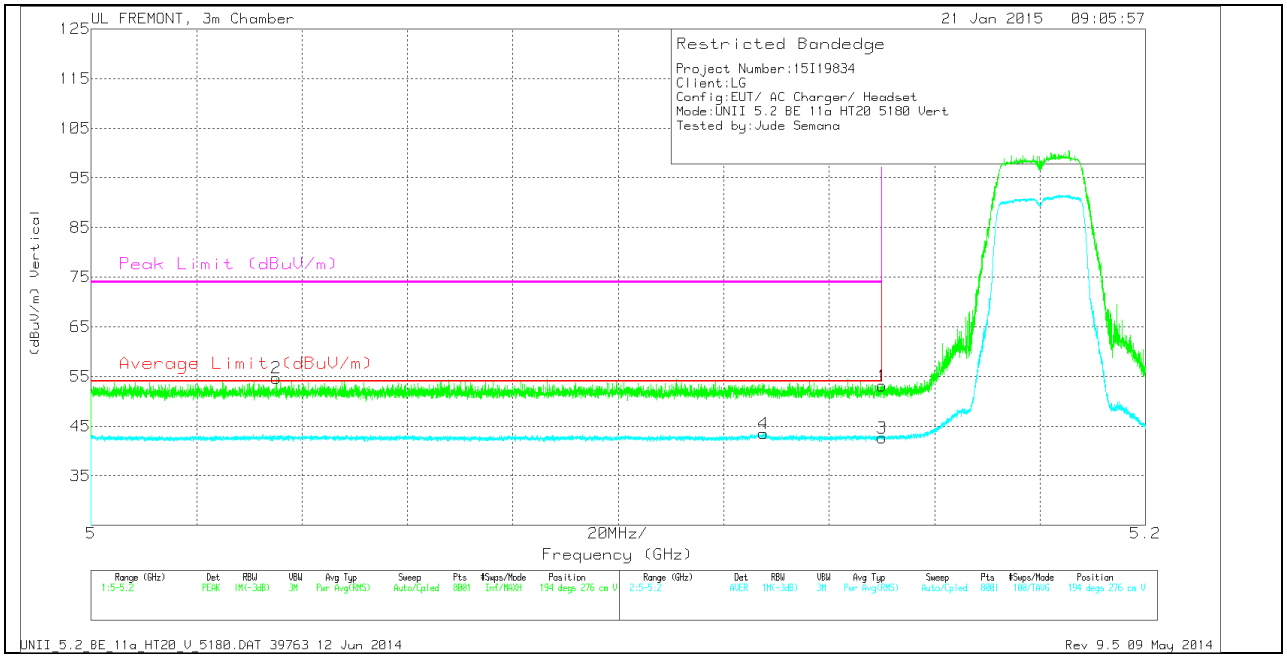
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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	5.128	41.9	PK	34.2	-21.5	0	54.6	-	-	74	-19.4	294	284	H
4	5.147	30.44	RMS	34.2	-21.6	.3	43.34	54	-10.66	-	-	294	284	H
1	5.15	38.72	PK	34.2	-21.6	0	51.32	-	-	74	-22.68	294	284	H
3	5.15	29.61	RMS	34.2	-21.6	.3	42.51	54	-11.49	-	-	294	284	H

VERTICAL PEAK AND AVERAGE PLOT

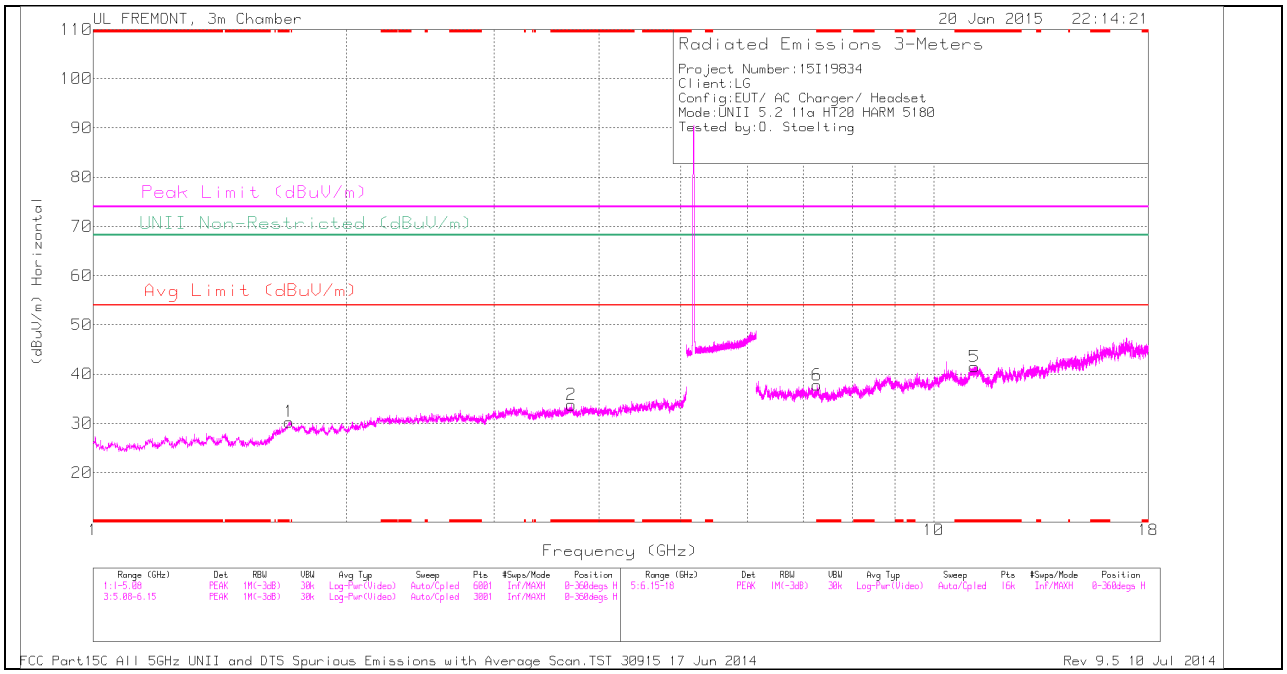


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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	5.035	42.17	PK	34	-21.5	0	54.67	-	-	74	-19.33	194	276	V
4	5.128	30.58	RMS	34.2	-21.5	.3	43.58	54	-10.42	-	-	194	276	V
1	5.15	40.53	PK	34.2	-21.6	0	53.13	-	-	74	-20.87	194	276	V
3	5.15	29.77	RMS	34.2	-21.6	.3	42.67	54	-11.33	-	-	194	276	V

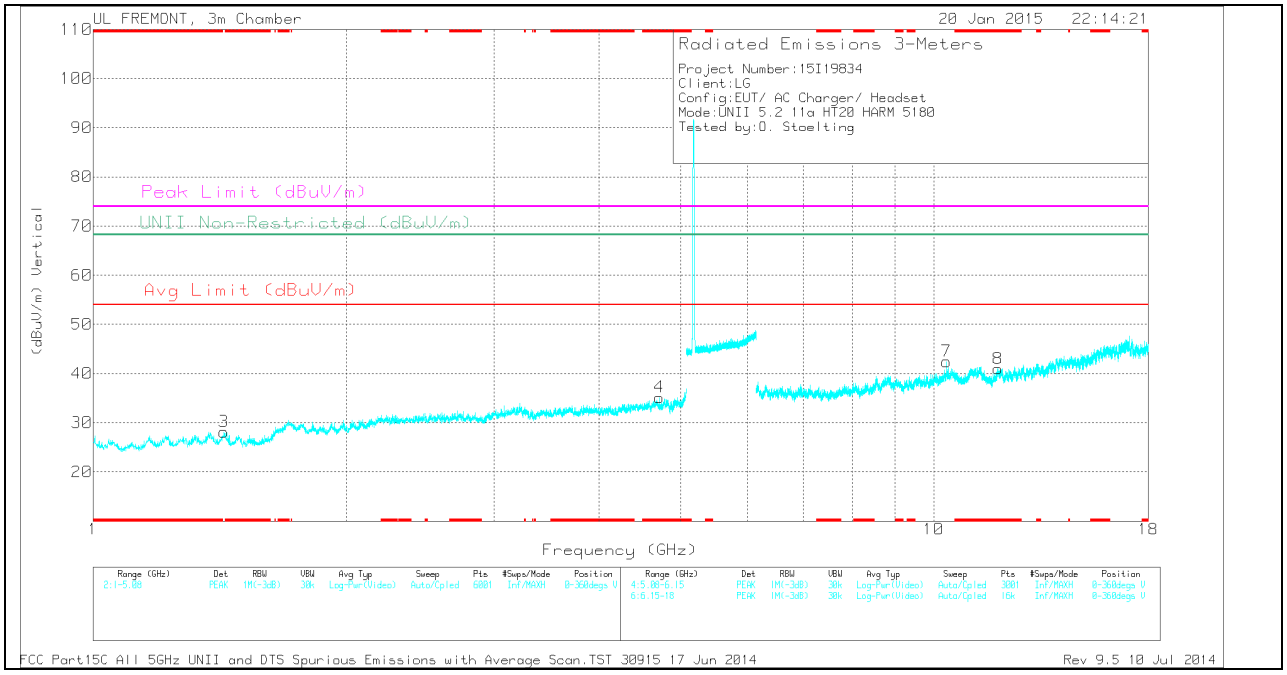
HARMONICS AND SPURIOUS EMISSIONS

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

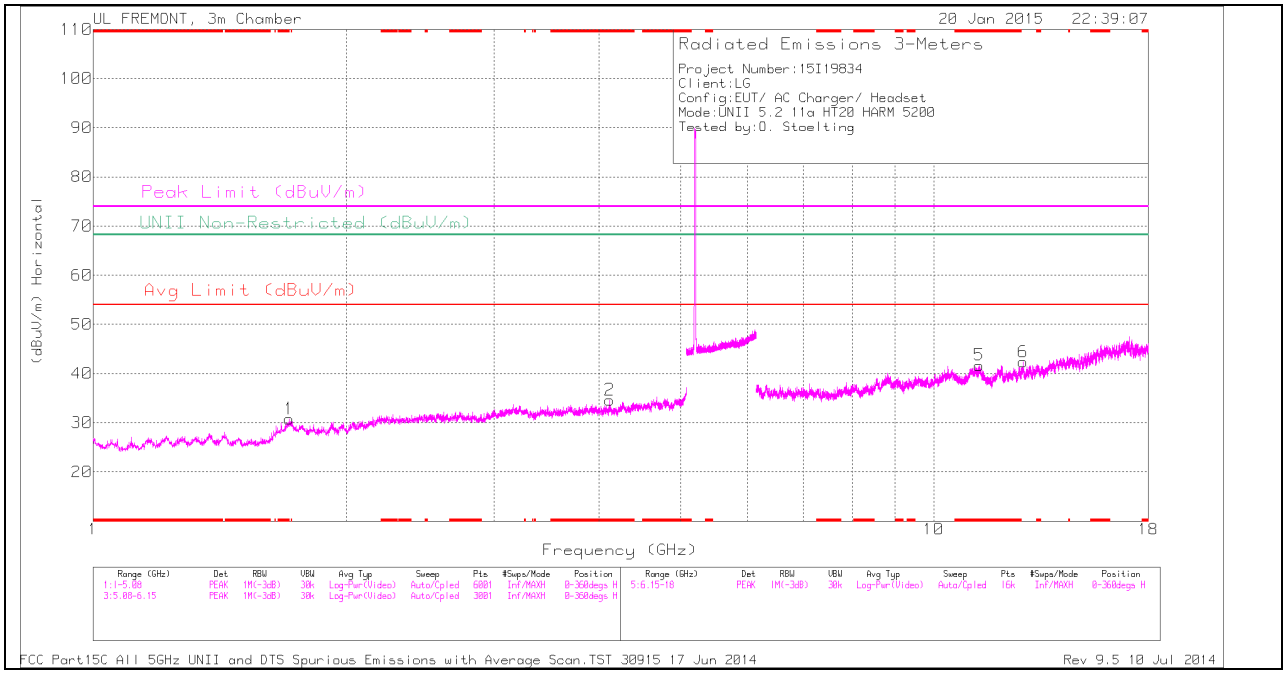
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 3.708	31.68	PK	32.9	-30.8	0	33.78	-	-	74	-40.22	-	-	0-360	200	H
4	* 4.715	32.07	PK	33.9	-30.8	0	35.17	-	-	74	-38.83	-	-	0-360	200	V
5	* 11.181	29	PK	38.3	-25.8	0	41.5	-	-	74	-32.5	-	-	0-360	100	H
6	* 7.268	31.49	PK	35.6	-29.3	0	37.79	-	-	74	-36.21	-	-	0-360	100	H
8	* 11.921	28.77	PK	38.4	-26.2	0	40.97	-	-	74	-33.03	-	-	0-360	200	V
3	1.431	32.55	PK	28.2	-32.6	0	28.15	-	-	-	-	68.2	-40.05	0-360	200	V
1	1.711	31.81	PK	30.6	-32.1	0	30.31	-	-	-	-	68.2	-37.89	0-360	100	H
7	10.359	29.96	PK	37.9	-25.4	0	42.46	-	-	-	-	68.2	-25.74	0-360	200	V

PK - Peak detector

RADIATED EMISSIONS

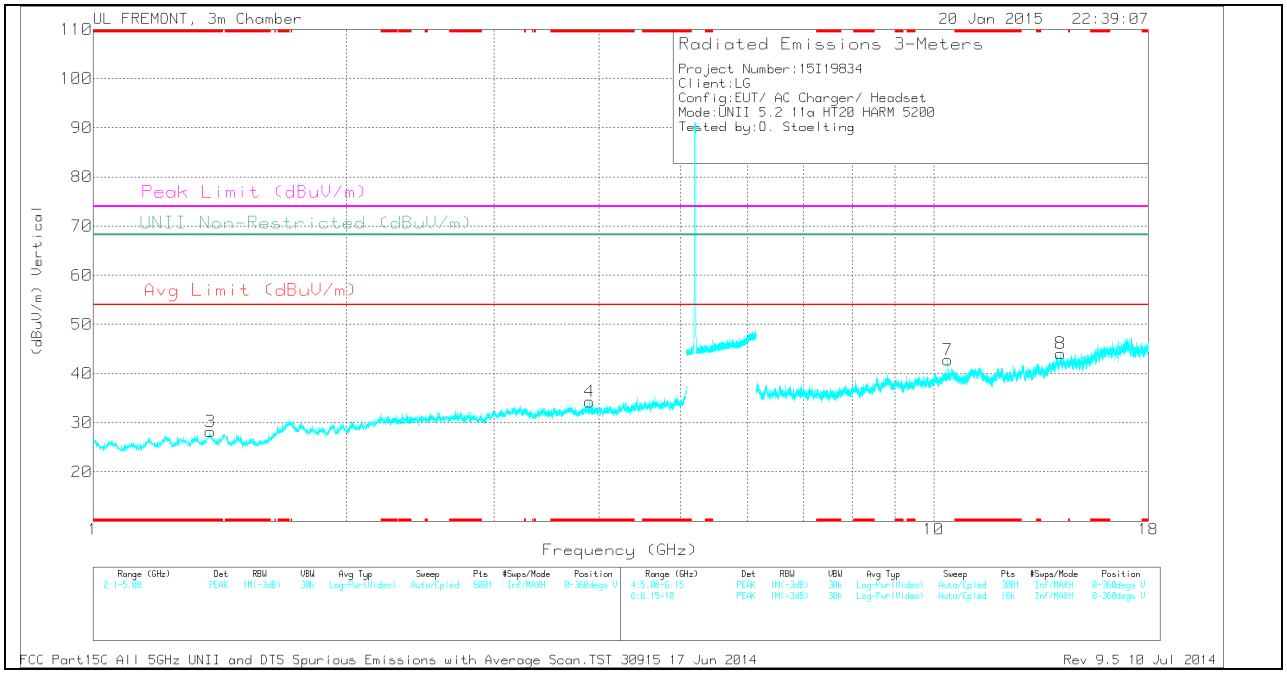
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 11.181	37.13	PK1	38.3	-25.8	0	49.63	-	-	74	-24.37	-	-	0	177	H
* 11.183	25.03	AD1	38.3	-25.8	.24	37.77	54	-16.23	-	-	-	-	0	177	H
* 11.921	38.69	PK1	38.4	-26.2	0	50.89	-	-	74	-23.11	-	-	206	151	V
* 11.919	25.97	AD1	38.4	-26.2	.24	38.41	54	-15.59	-	-	-	-	206	151	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

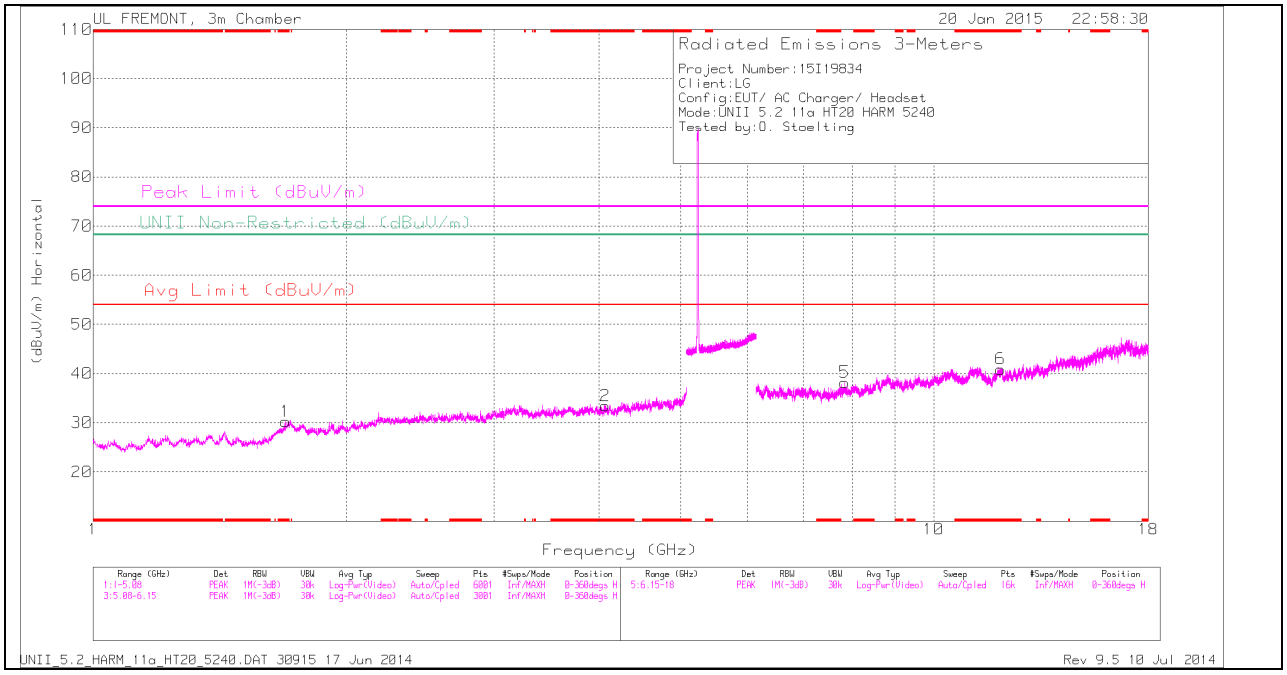
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.116	32.32	PK	33.2	-30.9	0	34.62	-	-	74	-39.38	-	-	0-360	200	H
3	* 1.379	32.8	PK	28.4	-33	0	28.2	-	-	74	-45.8	-	-	0-360	100	V
4	* 3.897	31.99	PK	33.1	-30.8	0	34.29	-	-	74	-39.71	-	-	0-360	200	V
5	* 11.327	28.88	PK	38.2	-25.4	0	41.68	-	-	74	-32.32	-	-	0-360	100	H
1	1.712	32.28	PK	30.6	-32.1	0	30.78	-	-	-	-	68.2	-37.42	0-360	200	H
7	10.399	30.55	PK	38	-25.8	0	42.75	-	-	-	-	68.2	-25.45	0-360	100	V
6	12.776	29.5	PK	38.8	-25.9	0	42.4	-	-	-	-	68.2	-25.8	0-360	200	H
8	14.154	31.87	PK	39.7	-27.5	0	44.07	-	-	-	-	68.2	-24.13	0-360	100	V

PK - Peak detector

RADIATED EMISSIONS

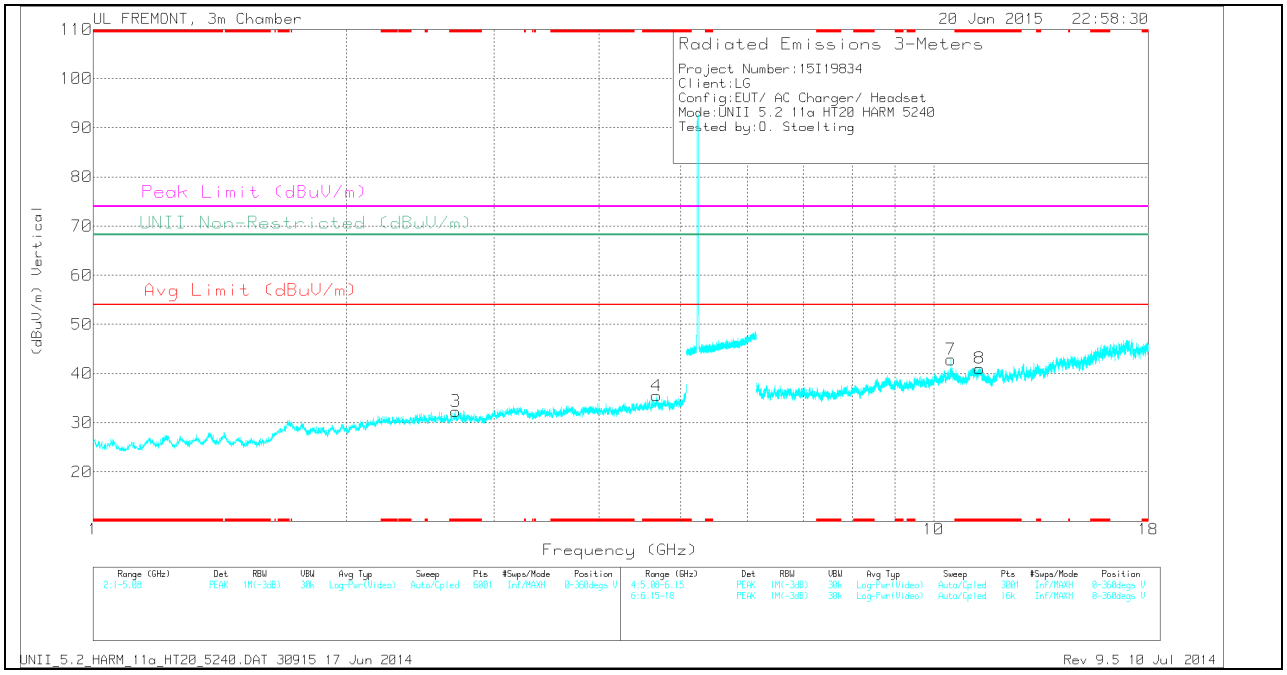
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 11.328	37.67	PK1	38.2	-25.4	0	50.47	-	-	74	-23.53	-	-	204	174	H
* 11.329	25.26	AD1	38.2	-25.4	.24	38.3	54	-15.7	-	-	-	-	204	174	H

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 T711 (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	* 1.695	31.92	PK	30.5	-32.2	0	30.22	-	-	74	-43.78	-	-	0-360	200	H
2	* 4.065	31.41	PK	33.2	-31.2	0	33.41	-	-	74	-40.59	-	-	0-360	200	H
3	* 2.7	32.01	PK	32.4	-32.1	0	32.31	-	-	74	-41.69	-	-	0-360	100	V
4	* 4.68	32.09	PK	33.8	-30.4	0	35.49	-	-	74	-38.51	-	-	0-360	200	V
6	* 12.017	28.52	PK	38.5	-26.1	0	40.92	-	-	74	-33.08	-	-	0-360	100	H
8	* 11.338	28.35	PK	38.2	-25.5	0	41.05	-	-	74	-32.95	-	-	0-360	100	V
5	7.836	30.19	PK	35.8	-27.8	0	38.19	-	-	-	-	68.2	-30.01	0-360	200	H
7	10.48	30.45	PK	38.1	-25.7	0	42.85	-	-	-	-	68.2	-25.35	0-360	200	V

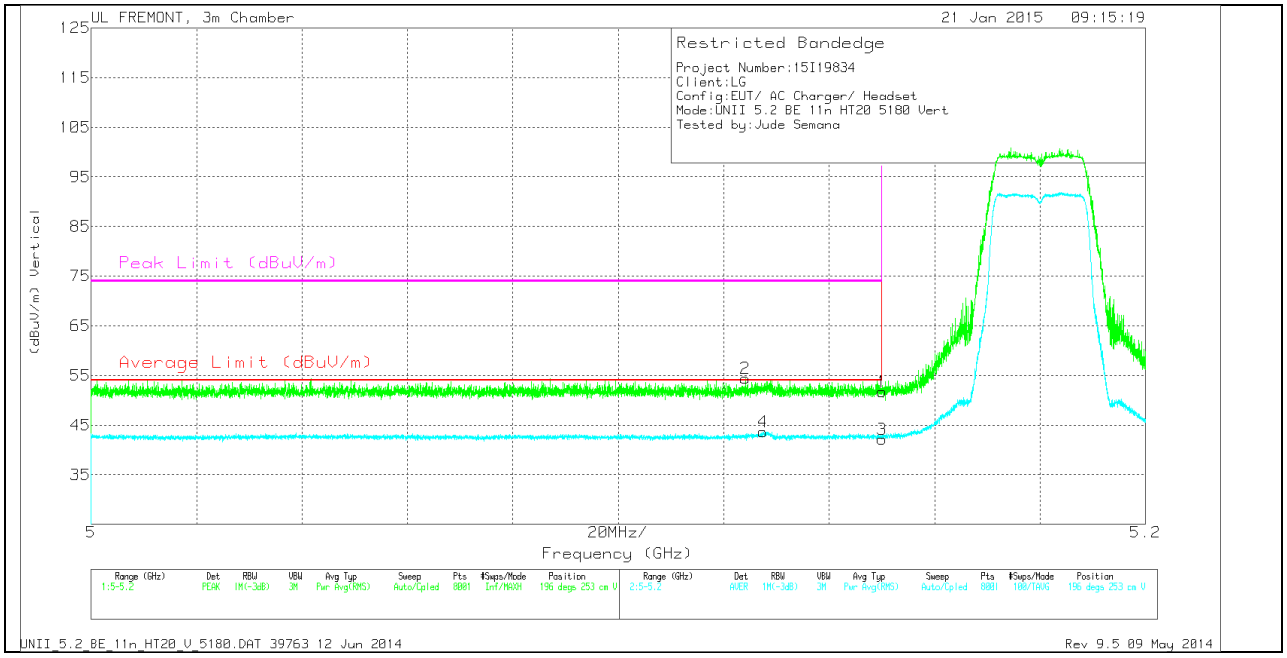
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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
* 11.34	37.12	PK1	38.2	-25.5	0	49.82	-	-	74	-24.18	-	-	202	238	V
* 11.34	25.18	AD1	38.2	-25.5	.24	38.12	54	-15.88	-	-	-	-	202	238	V
* 12.018	37.18	PK1	38.5	-26.1	0	49.58	-	-	74	-24.42	-	-	15	130	V
* 12.019	25.2	AD1	38.5	-26.1	.24	37.84	54	-16.16	-	-	-	-	15	130	V

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

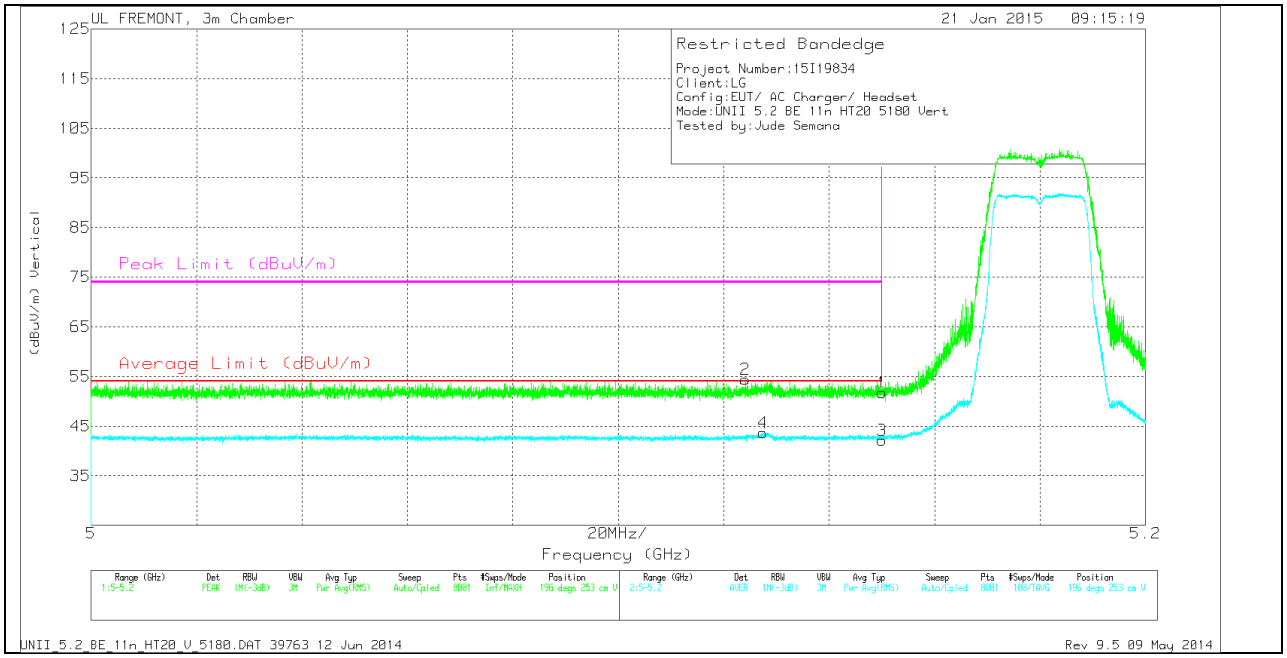
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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	5.124	41.82	PK	34.2	-21.6	0	54.42	-	-	74	-19.58	196	253	V
4	5.127	30.64	RMS	34.2	-21.5	.3	43.64	54	-10.36	-	-	196	253	V
1	5.15	39.11	PK	34.2	-21.6	0	51.71	-	-	74	-22.29	196	253	V
3	5.15	29.24	RMS	34.2	-21.6	.3	42.14	54	-11.86	-	-	196	253	V

VERTICAL PEAK AND AVERAGE PLOT

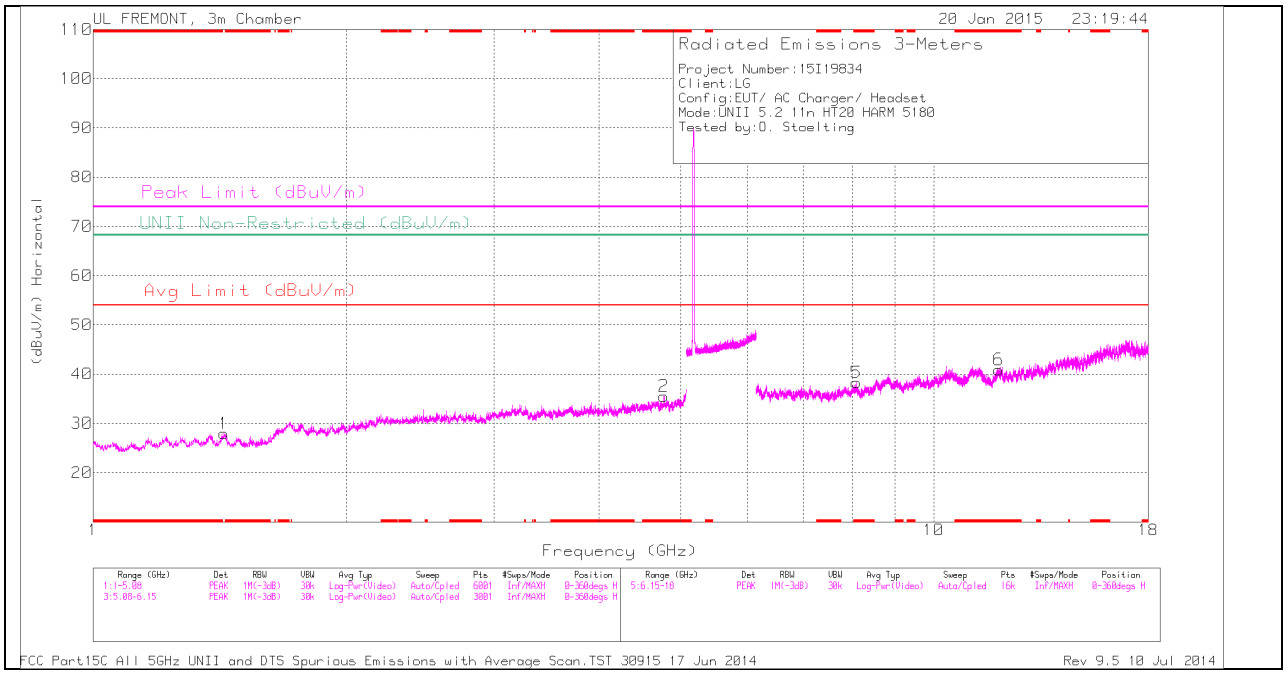


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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	5.124	41.82	PK	34.2	-21.6	0	54.42	-	-	74	-19.58	196	253	V
4	5.127	30.64	RMS	34.2	-21.5	.3	43.64	54	-10.36	-	-	196	253	V
1	5.15	39.11	PK	34.2	-21.6	0	51.71	-	-	74	-22.29	196	253	V
3	5.15	29.24	RMS	34.2	-21.6	.3	42.14	54	-11.86	-	-	196	253	V

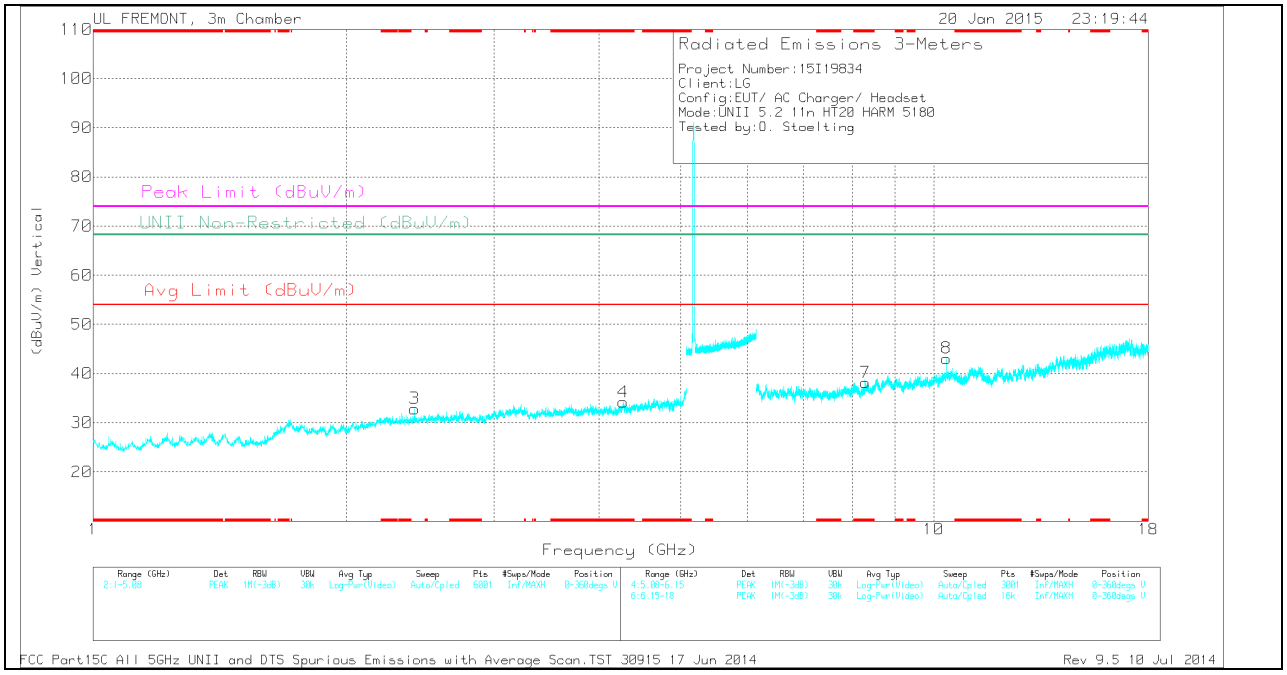
HARMONICS AND SPURIOUS EMISSIONS

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

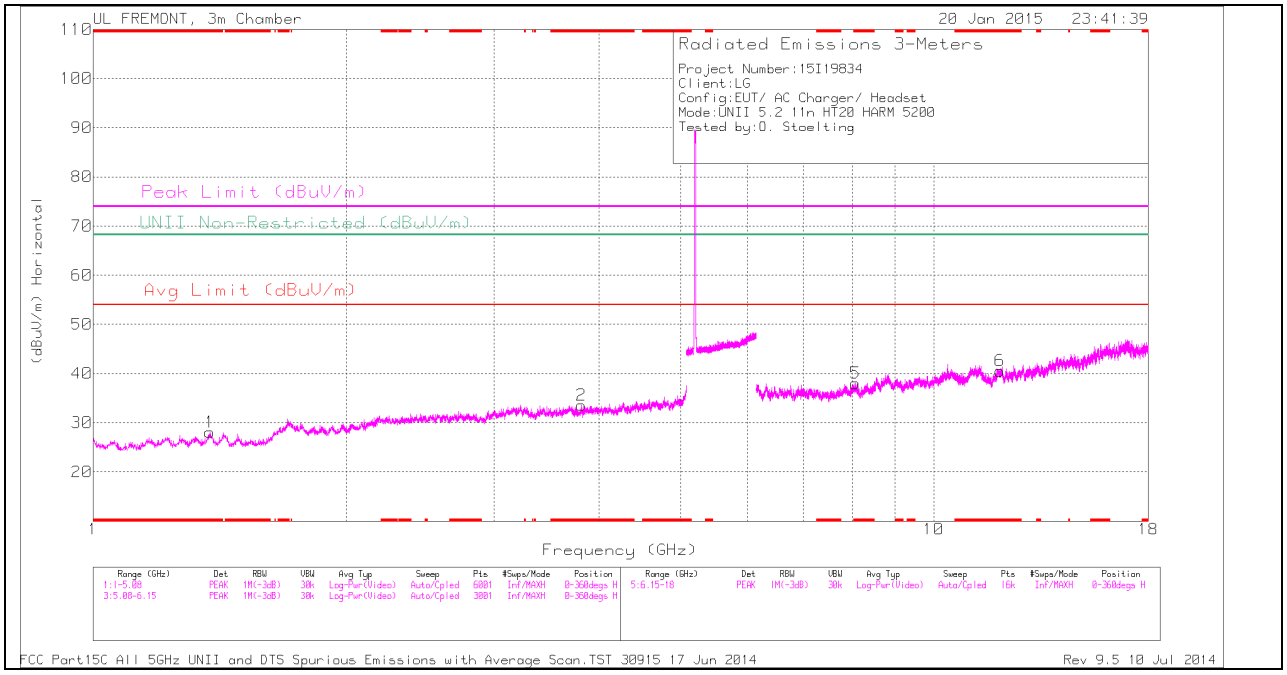
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.775	31.81	PK	33.9	-30.2	0	35.51	-	-	74	-38.49	-	-	0-360	200	H
4	* 4.272	31.09	PK	33.4	-30.3	0	34.19	-	-	74	-39.81	-	-	0-360	100	V
5	* 8.092	29.67	PK	36	-27.4	0	38.27	-	-	74	-35.73	-	-	0-360	100	H
6	* 11.949	28.89	PK	38.4	-26.4	0	40.89	-	-	74	-33.11	-	-	0-360	100	H
7	* 8.292	29.04	PK	36.1	-27	0	38.14	-	-	74	-35.86	-	-	0-360	100	V
1	1.431	32.32	PK	28.2	-32.6	0	27.92	-	-	-	-	68.2	-40.28	0-360	200	H
3	2.412	33.47	PK	32.1	-32.7	0	32.87	-	-	-	-	68.2	-35.33	0-360	100	V
8	10.359	30.59	PK	37.9	-25.4	0	43.09	-	-	-	-	68.2	-25.11	0-360	200	V

PK - Peak detector

RADIATED EMISSIONS

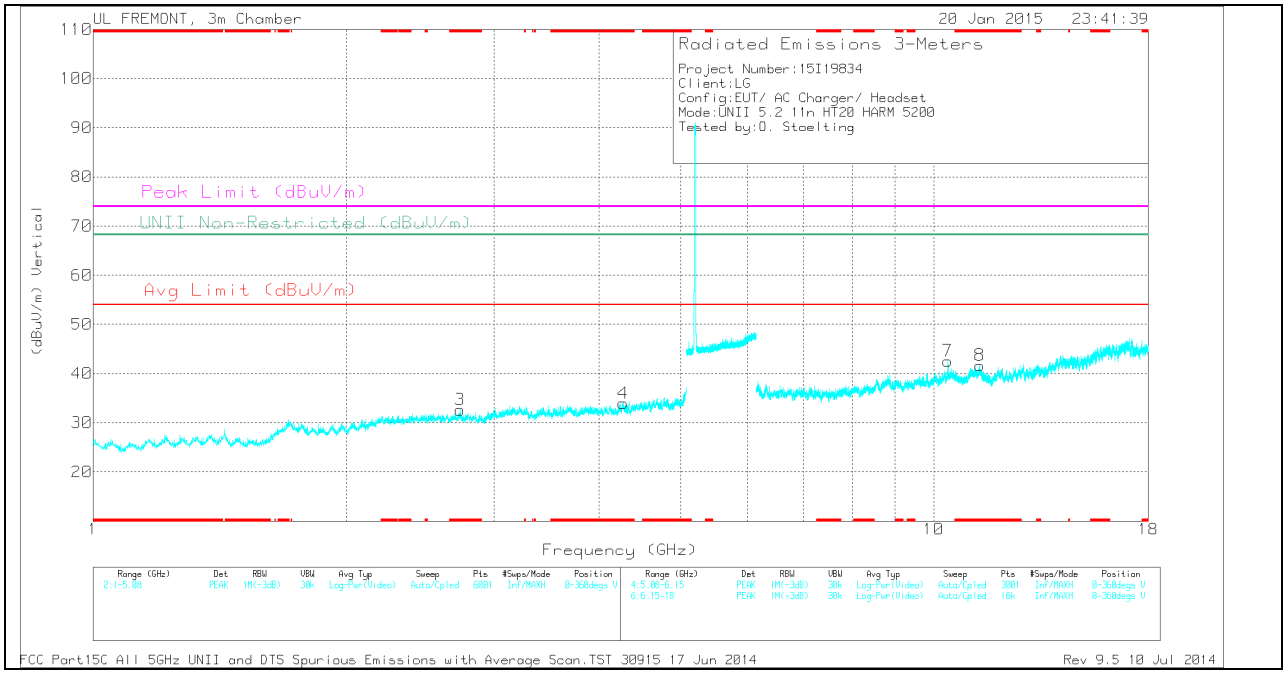
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 11.947	37.82	PK1	38.4	-26.4	0	49.82	-	-	74	-24.18	-	-	288	203	H
* 11.947	25.86	AD1	38.4	-26.4	.25	38.11	54	-15.89	-	-	-	-	288	203	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.

MID CHANNEL DATA

TRACE MARKERS

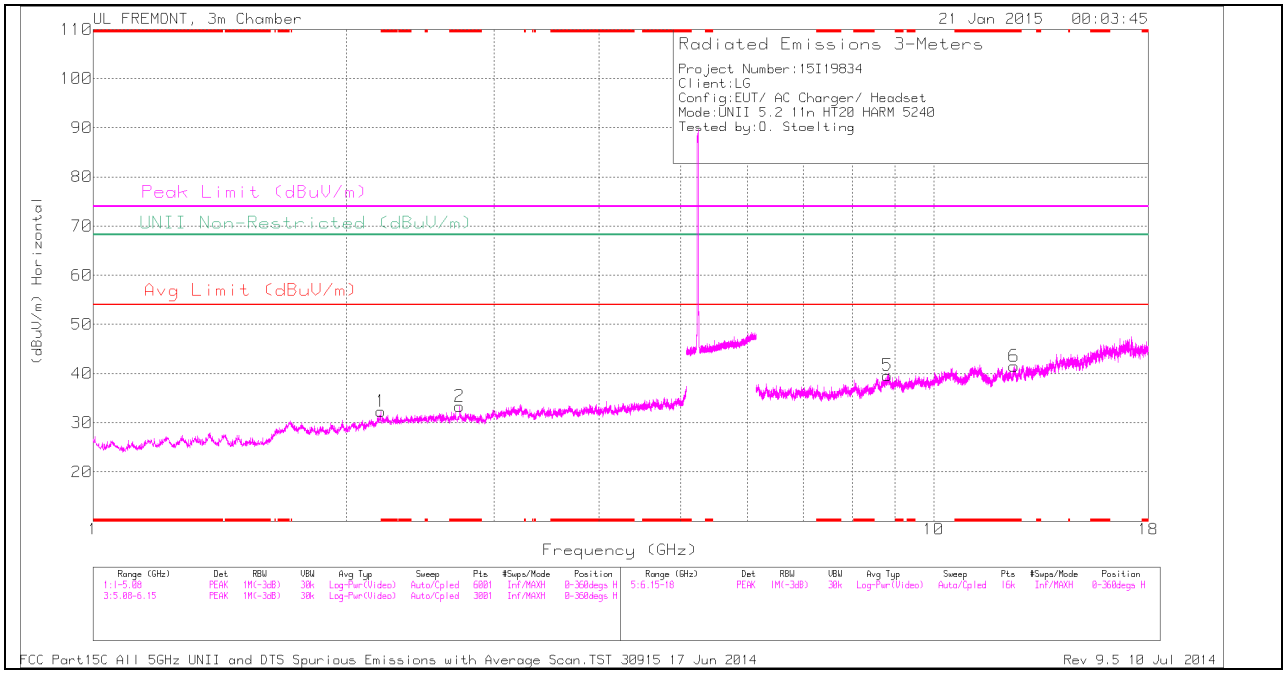
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.377	32.69	PK	28.4	-33	0	28.09	-	-	74	-45.91	-	-	0-360	100	H
2	* 3.81	32.14	PK	32.9	-31.5	0	33.54	-	-	74	-40.46	-	-	0-360	100	H
3	* 2.735	32.43	PK	32.4	-32.2	0	32.63	-	-	74	-41.37	-	-	0-360	200	V
4	* 4.272	30.85	PK	33.4	-30.3	0	33.95	-	-	74	-40.05	-	-	0-360	100	V
5	* 8.071	29.19	PK	36	-27.2	0	37.99	-	-	74	-36.01	-	-	0-360	200	H
6	* 11.984	28.34	PK	38.5	-26.3	0	40.54	-	-	74	-33.46	-	-	0-360	100	H
8	* 11.354	29.17	PK	38.2	-25.7	0	41.67	-	-	74	-32.33	-	-	0-360	200	V
7	10.399	30.33	PK	38	-25.8	0	42.53	-	-	-	-	68.2	-25.67	0-360	200	V

PK - Peak detector

RADIATED EMISSIONS

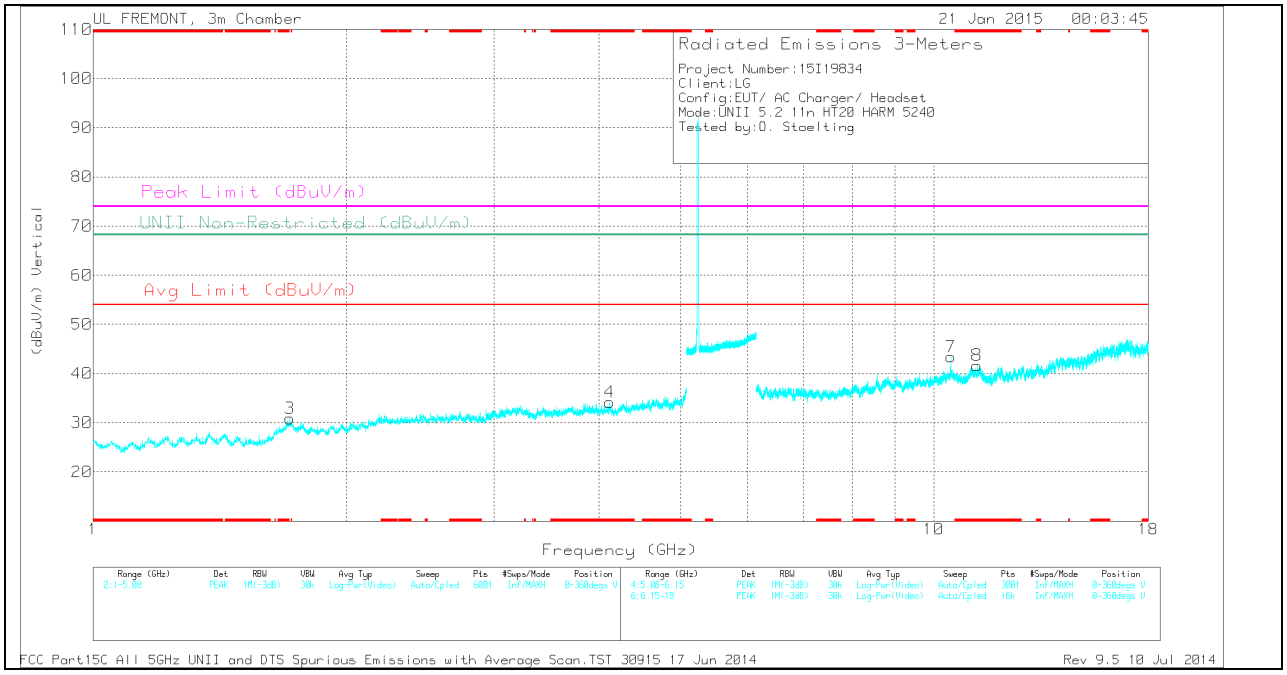
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 11.986	36.99	PK1	38.5	-26.3	0	49.19	-	-	74	-24.81	-	-	187	246	H
* 11.985	25.34	AD1	38.5	-26.3	.25	37.79	54	-16.21	-	-	-	-	187	246	H
* 11.355	37.86	PK1	38.2	-25.7	0	50.36	-	-	74	-23.64	-	-	83	192	V
* 11.356	25.69	AD1	38.2	-25.7	.25	38.44	54	-15.56	-	-	-	-	83	192	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 T711 (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	* 2.73	33.15	PK	32.4	-32.2	0	33.35	-	-	74	-40.65	-	-	0-360	200	H
4	* 4.115	31.77	PK	33.2	-30.8	0	34.17	-	-	74	-39.83	-	-	0-360	200	V
6	* 12.463	29.21	PK	38.7	-26.4	0	41.51	-	-	74	-32.49	-	-	0-360	200	H
8	* 11.26	29.05	PK	38.3	-25.7	0	41.65	-	-	74	-32.35	-	-	0-360	200	V
3	1.715	32.35	PK	30.6	-32.1	0	30.85	-	-	-	-	68.2	-37.35	0-360	200	V
1	2.199	32.92	PK	32	-32.6	0	32.32	-	-	-	-	68.2	-35.88	0-360	100	H
5	8.815	28.53	PK	36.6	-25.5	0	39.63	-	-	-	-	68.2	-28.57	0-360	100	H
7	10.479	31.02	PK	38.1	-25.7	0	43.42	-	-	-	-	68.2	-24.78	0-360	200	V

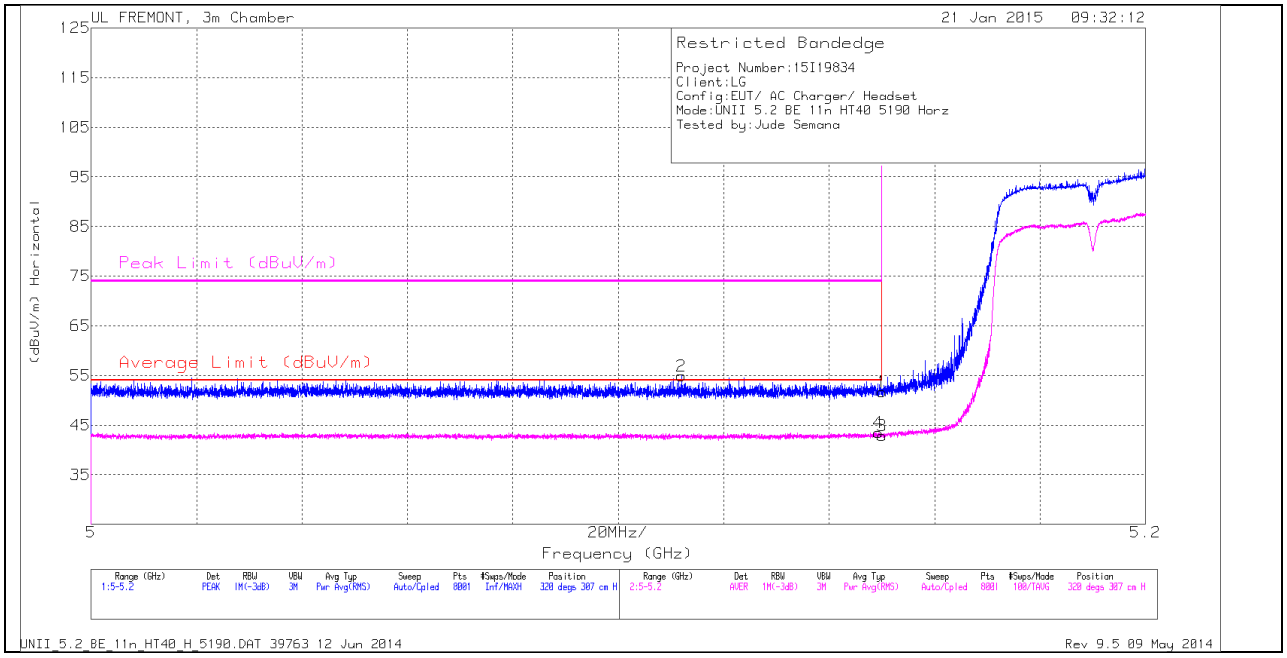
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 12.461	38.5	PK1	38.7	-26.4	0	50.8	-	-	74	-23.2	-	-	209	212	H
* 12.464	26.25	AD1	38.7	-26.4	.25	38.8	54	-15.2	-	-	-	-	209	212	H
* 11.262	36.67	PK1	38.3	-25.7	0	49.27	-	-	74	-24.73	-	-	70	125	V
* 11.262	24.75	AD1	38.3	-25.7	.25	37.6	54	-16.4	-	-	-	-	70	125	V

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

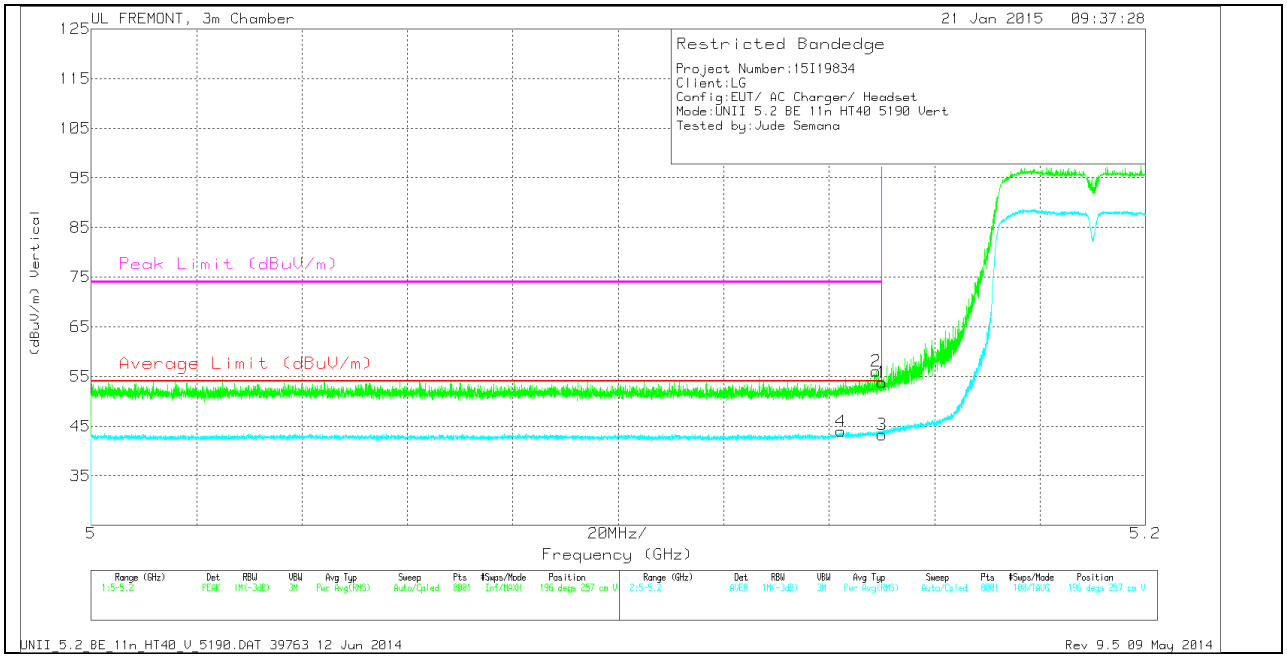
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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	5.112	42.39	PK	34.1	-21.6	0	54.89	-	-	74	-19.11	320	307	H
4	5.149	30.34	RMS	34.2	-21.6	.5	43.44	54	-10.56	-	-	320	307	H
1	5.15	39.09	PK	34.2	-21.6	0	51.69	-	-	74	-22.31	320	307	H
3	5.15	29.73	RMS	34.2	-21.6	.5	42.83	54	-11.17	-	-	320	307	H

VERTICAL PEAK AND AVERAGE PLOT

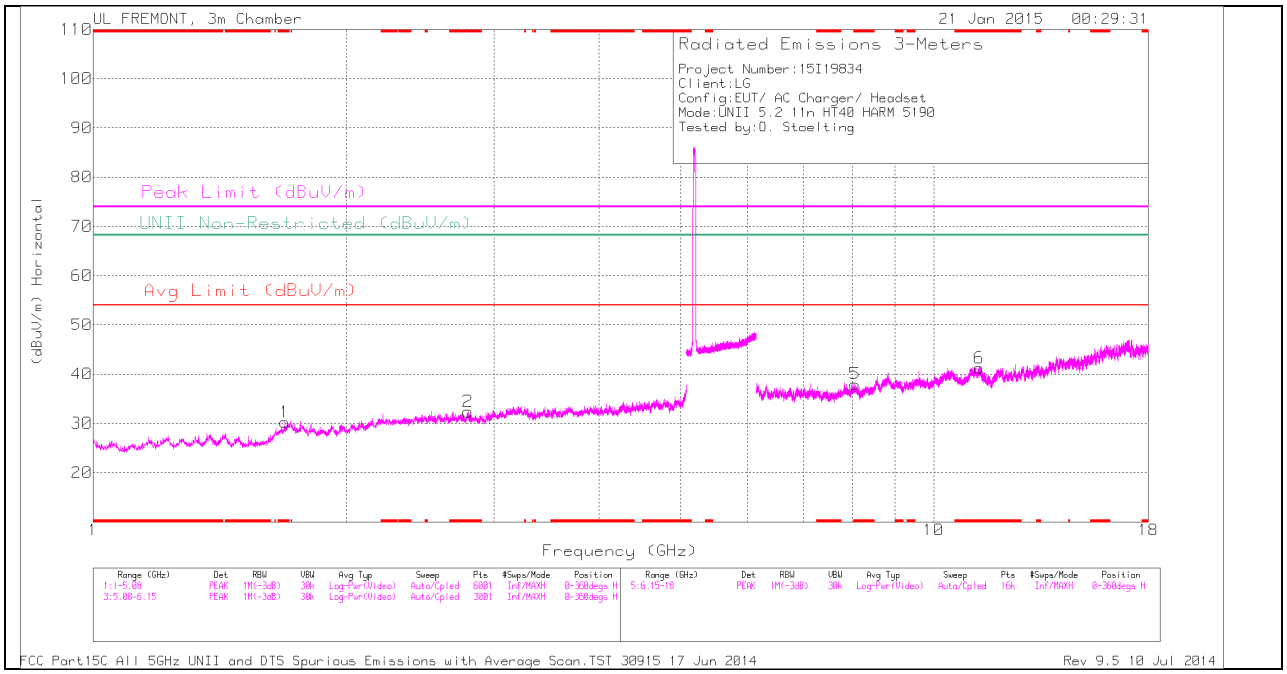


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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
4	5.142	30.89	RMS	34.2	-21.6	.5	43.99	54	-10.01	-	-	196	257	V
2	5.149	43.45	PK	34.2	-21.6	0	56.05	-	-	74	-17.95	196	257	V
1	5.15	41.21	PK	34.2	-21.6	0	53.81	-	-	74	-20.19	196	257	V
3	5.15	30.16	RMS	34.2	-21.6	.5	43.26	54	-10.74	-	-	196	257	V

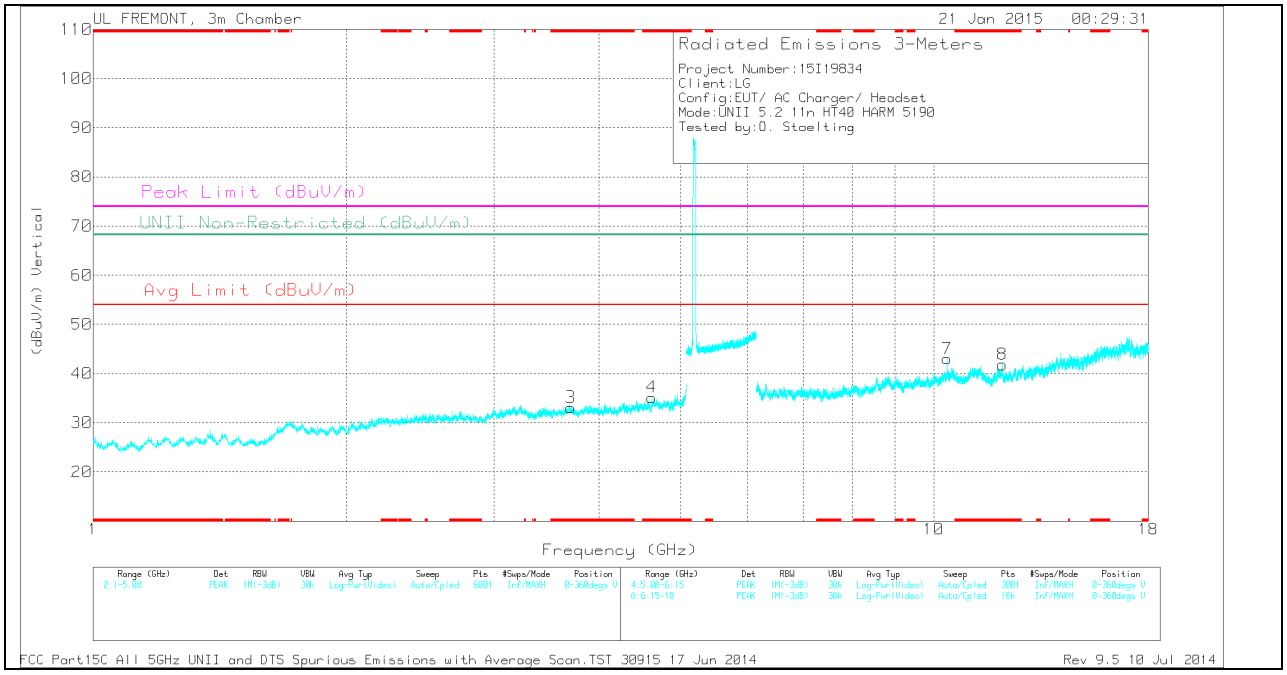
HARMONICS AND SPURIOUS EMISSIONS

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

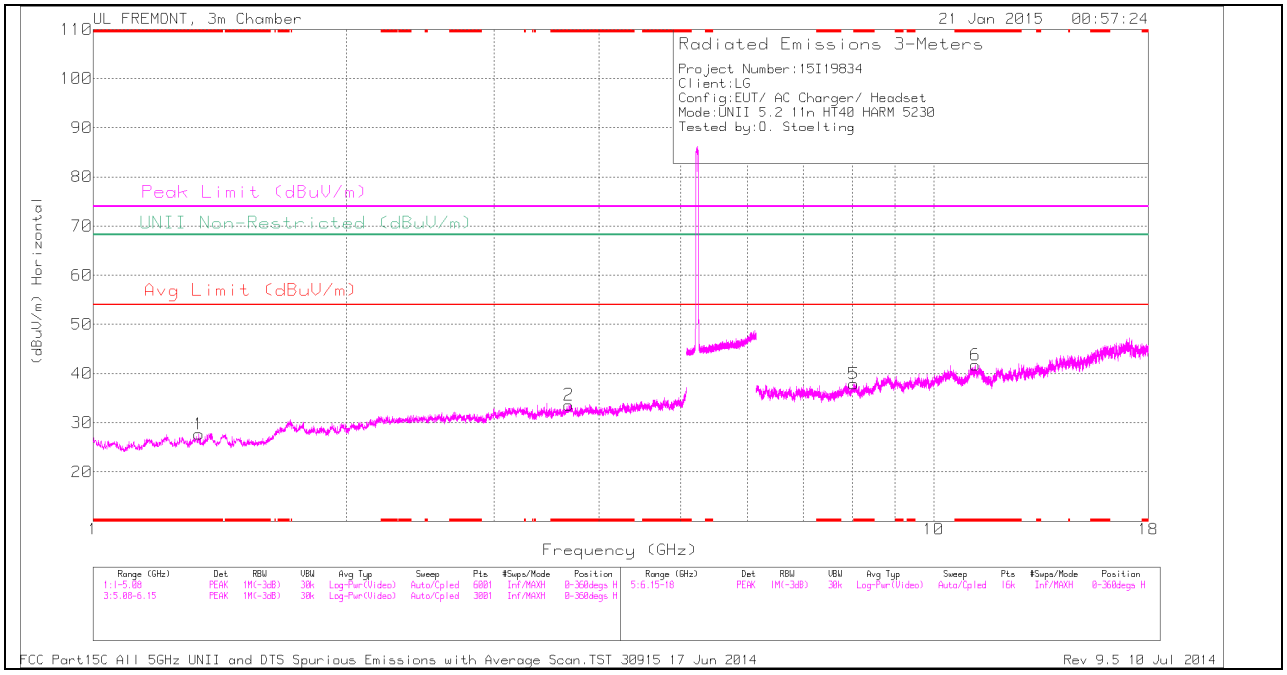
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.69	32.12	PK	30.4	-32.3	0	30.22	-	-	74	-43.78	-	-	0-360	100	H
2	* 2.792	32.38	PK	32.4	-32.4	0	32.38	-	-	74	-41.62	-	-	0-360	200	H
3	* 3.699	30.88	PK	32.9	-30.7	0	33.08	-	-	74	-40.92	-	-	0-360	200	V
4	* 4.622	31.86	PK	33.5	-30.2	0	35.16	-	-	74	-38.84	-	-	0-360	100	V
5	* 8.061	29.28	PK	36	-27.3	0	37.98	-	-	74	-36.02	-	-	0-360	200	H
6	* 11.331	28.52	PK	38.2	-25.5	0	41.22	-	-	74	-32.78	-	-	0-360	200	H
8	* 12.069	29.73	PK	38.5	-26.4	0	41.83	-	-	74	-32.17	-	-	0-360	200	V
7	10.379	30.62	PK	38	-25.6	0	43.02	-	-	-	-	68.2	-25.18	0-360	200	V

PK - Peak detector

RADIATED EMISSIONS

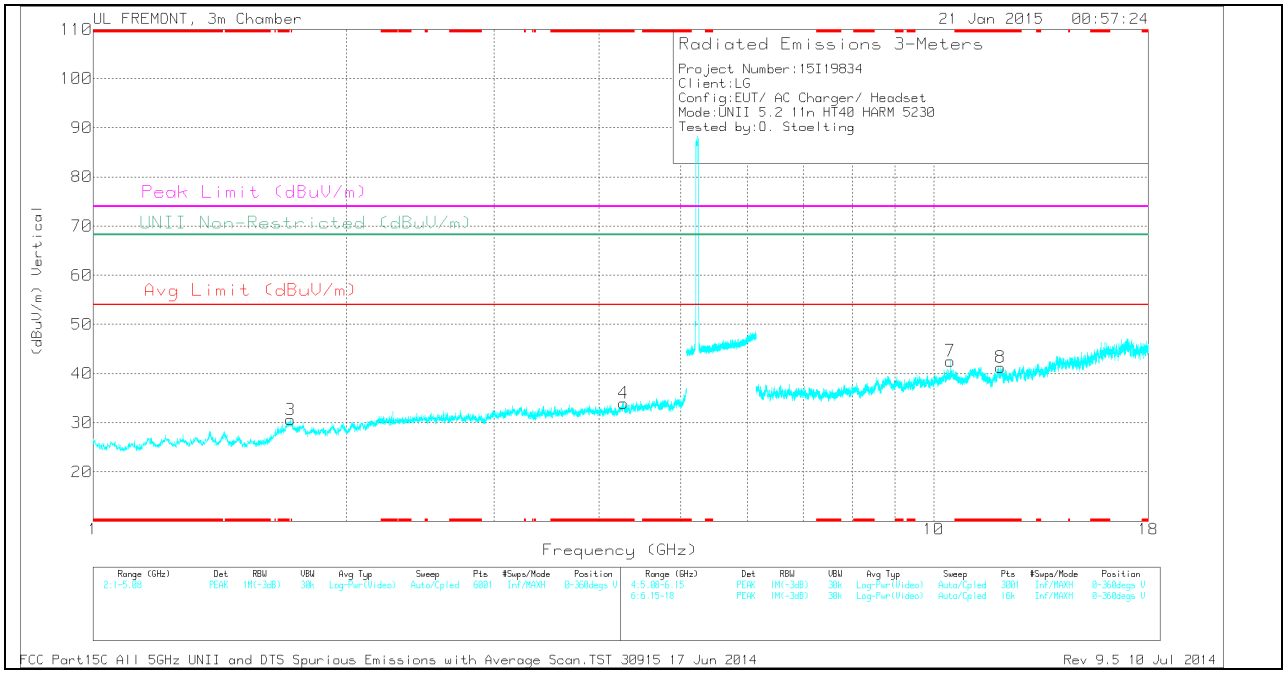
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 11.333	37.07	PK1	38.2	-25.5	0	49.77	-	-	74	-24.23	-	-	271	247	H
* 11.333	25.37	AD1	38.2	-25.5	.51	38.58	54	-15.42	-	-	-	-	271	247	H
* 12.07	38.41	PK1	38.5	-26.4	0	50.51	-	-	74	-23.49	-	-	158	132	V
* 12.071	25.78	AD1	38.5	-26.4	.51	38.39	54	-15.61	-	-	-	-	158	132	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 T711 (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	* 1.337	32.77	PK	28.4	-33.5	0	27.67	-	-	74	-46.33	-	-	0-360	200	H
2	* 3.683	31.2	PK	32.9	-30.5	0	33.6	-	-	74	-40.4	-	-	0-360	100	H
4	* 4.278	30.97	PK	33.4	-30.4	0	33.97	-	-	74	-40.03	-	-	0-360	200	V
5	* 8.034	29.71	PK	36	-27.8	0	37.91	-	-	74	-36.09	-	-	0-360	100	H
6	* 11.209	29.35	PK	38.3	-25.9	0	41.75	-	-	74	-32.25	-	-	0-360	200	H
8	* 12.017	28.88	PK	38.5	-26.1	0	41.28	-	-	74	-32.72	-	-	0-360	200	V
3	1.717	32.02	PK	30.6	-32	0	30.62	-	-	-	-	68.2	-37.58	0-360	200	V
7	10.459	30.13	PK	38.1	-25.7	0	42.53	-	-	-	-	68.2	-25.67	0-360	200	V

PK - Peak detector

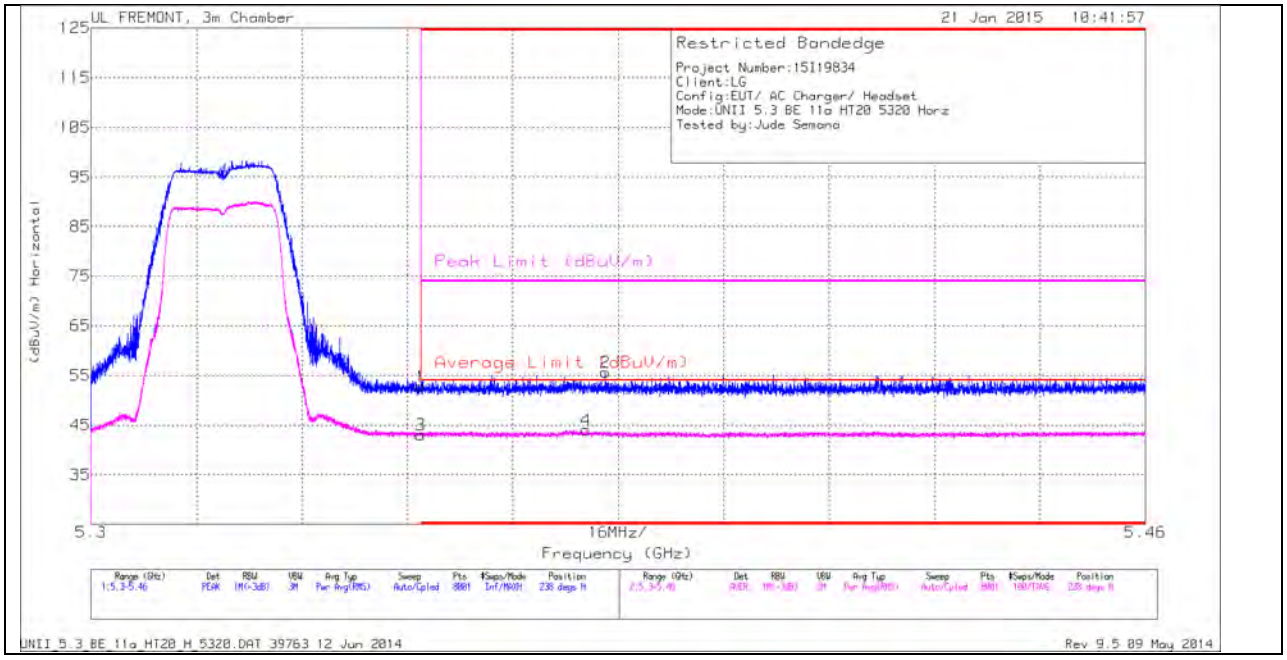
RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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
* 11.21	38.18	PK1	38.3	-25.9	0	50.58	-	-	74	-23.42	-	-	91	391	H
* 11.211	25.35	AD1	38.3	-25.9	.51	38.26	54	-15.74	-	-	-	-	91	391	H
* 12.018	37.18	PK1	38.5	-26.1	0	49.58	-	-	74	-24.42	-	-	15	130	V
* 12.019	25.2	AD1	38.5	-26.1	.51	38.11	54	-15.89	-	-	-	-	15	130	V

11.2. 5.3 GHz

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

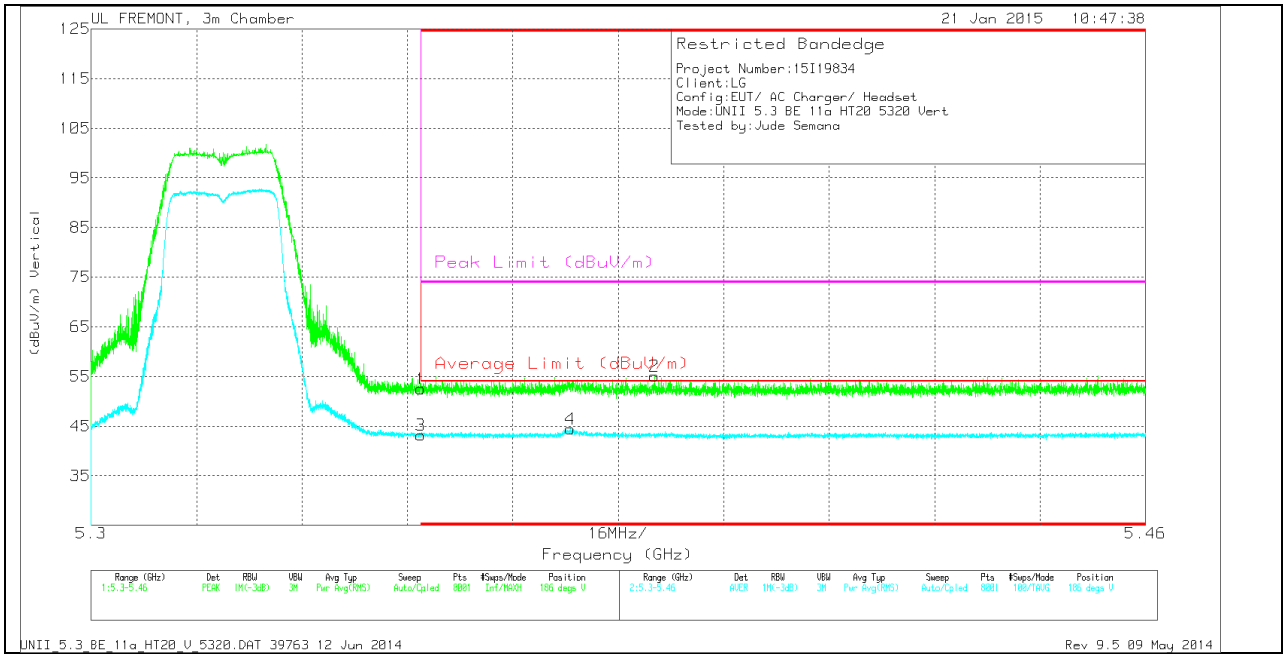
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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	* 5.35	39.81	PK	34.3	-21.4	0	52.71	-	-	74	-21.29	238	110	H
2	* 5.378	42.59	PK	34.3	-21.3	0	55.59	-	-	74	-18.41	238	110	H
3	* 5.35	29.83	RMS	34.3	-21.4	.3	43.03	54	-10.97	-	-	238	110	H
4	* 5.375	30.84	RMS	34.3	-21.4	.3	44.04	54	-9.96	-	-	238	110	H

VERTICAL PEAK AND AVERAGE PLOT

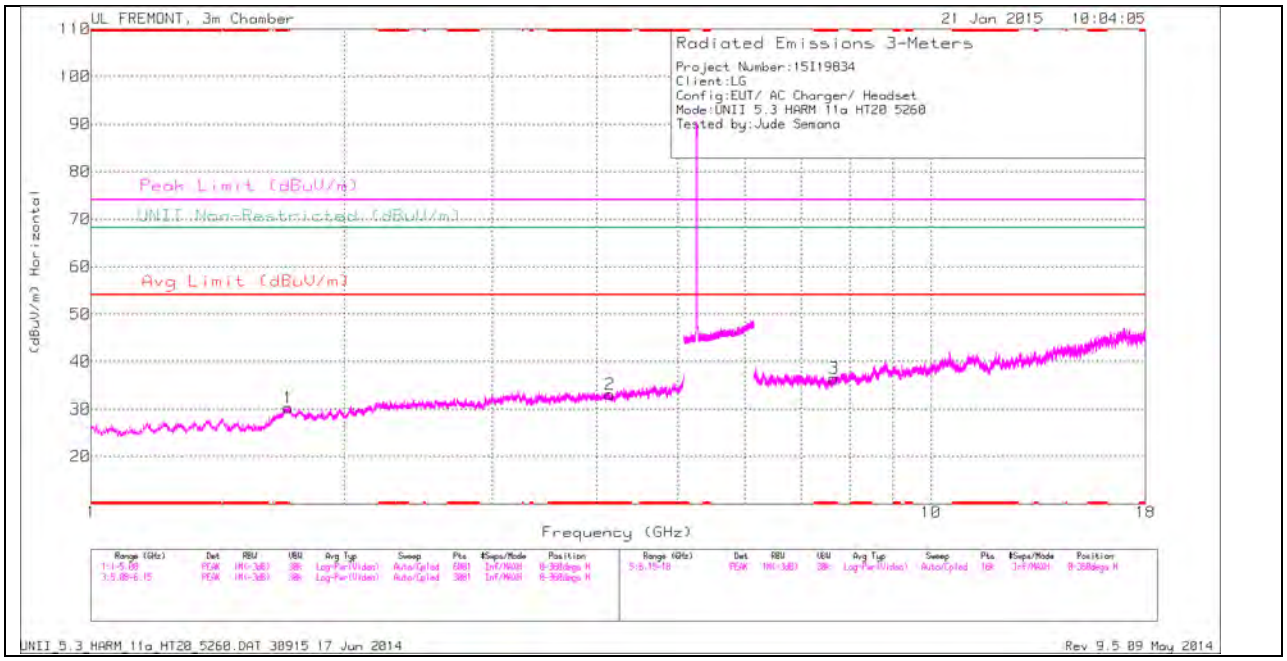


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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	39.62	PK	34.3	-21.4	0	52.52	-	-	74	-21.48	186	201	V
3	* 5.35	29.98	RMS	34.3	-21.4	.3	43.18	54	-10.82	-	-	186	201	V
4	* 5.373	31.28	RMS	34.3	-21.4	.3	44.48	54	-9.52	-	-	186	201	V
2	* 5.385	42.18	PK	34.3	-21.4	0	55.08	-	-	74	-18.92	186	201	V

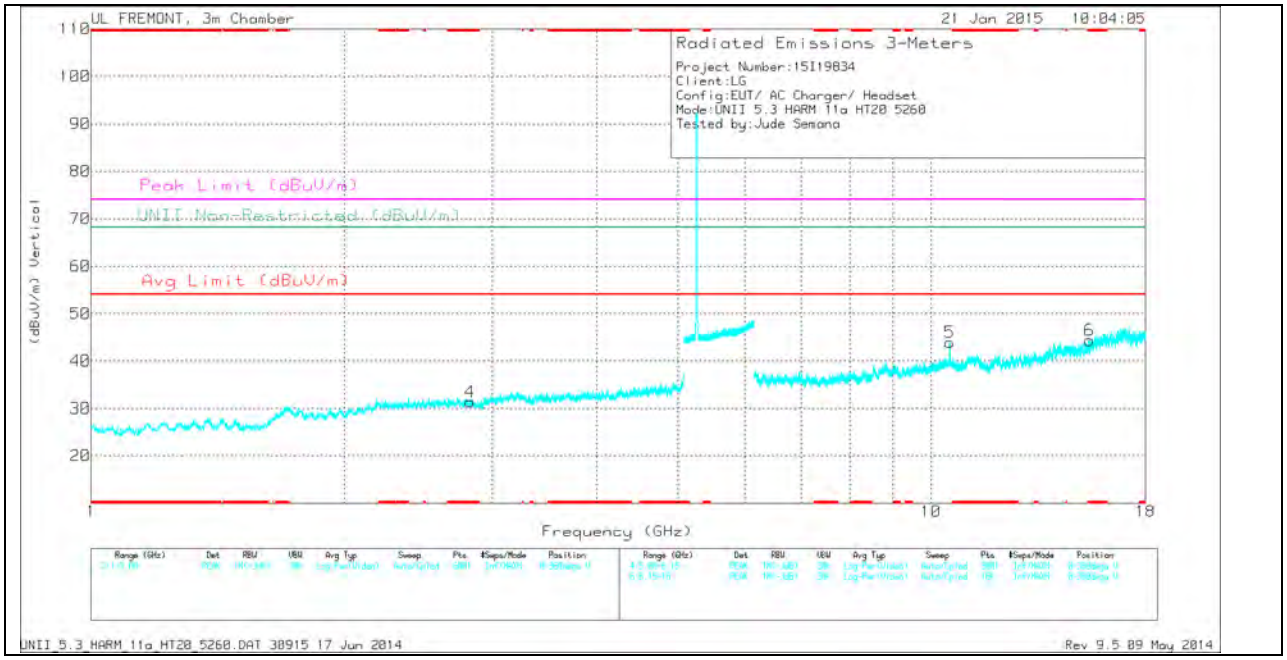
HARMONICS AND SPURIOUS EMISSIONS

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

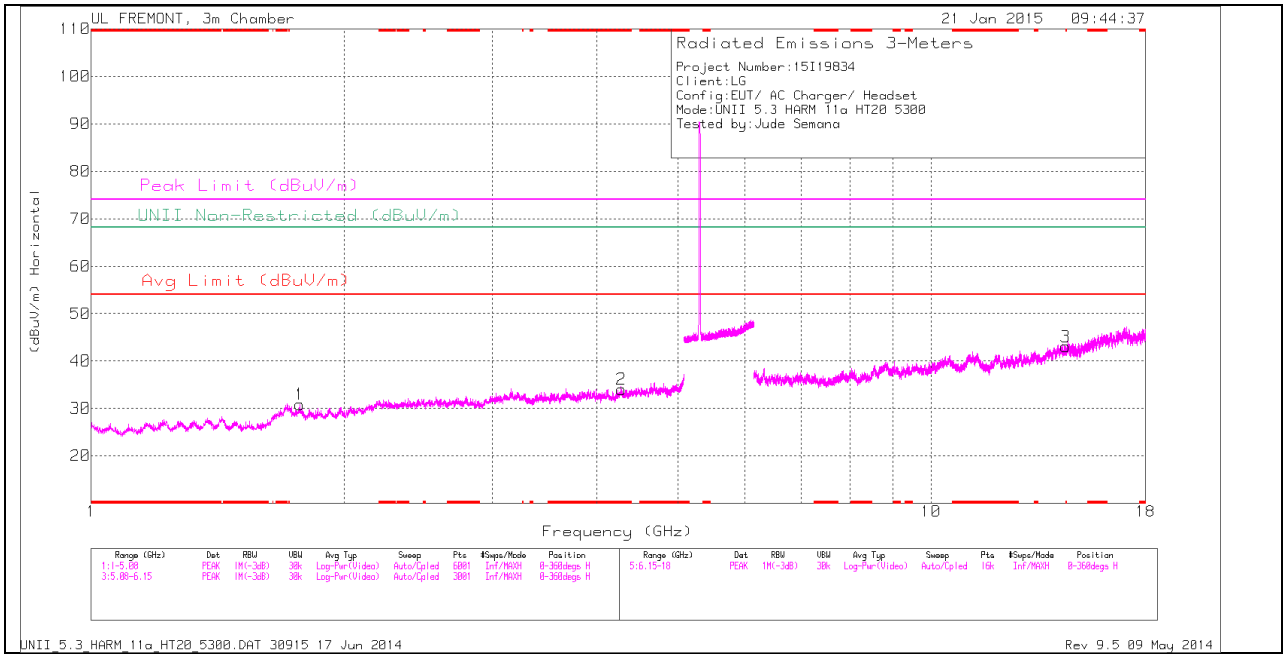
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.147	30.99	PK	33.3	-31.2	0	33.09	-	-	74	-40.91	-	-	0-360	100	H
4	* 2.825	31.62	PK	32.2	-32.4	0	31.42	-	-	74	-42.58	-	-	0-360	200	V
3	* 7.665	29.52	PK	35.7	-28.7	0	36.52	-	-	74	-37.48	-	-	0-360	100	H
6	* 15.434	30.24	PK	40.7	-26.6	0	44.34	-	-	74	-29.66	-	-	0-360	200	V
1	1.715	31.63	PK	30.6	-32	0	30.23	-	-	-	-	68.2	-37.97	0-360	100	H
5	10.52	30.83	PK	38.1	-25	0	43.93	-	-	-	-	68.2	-24.27	0-360	200	V

PK - Peak detector

RADIATED EMISSIONS

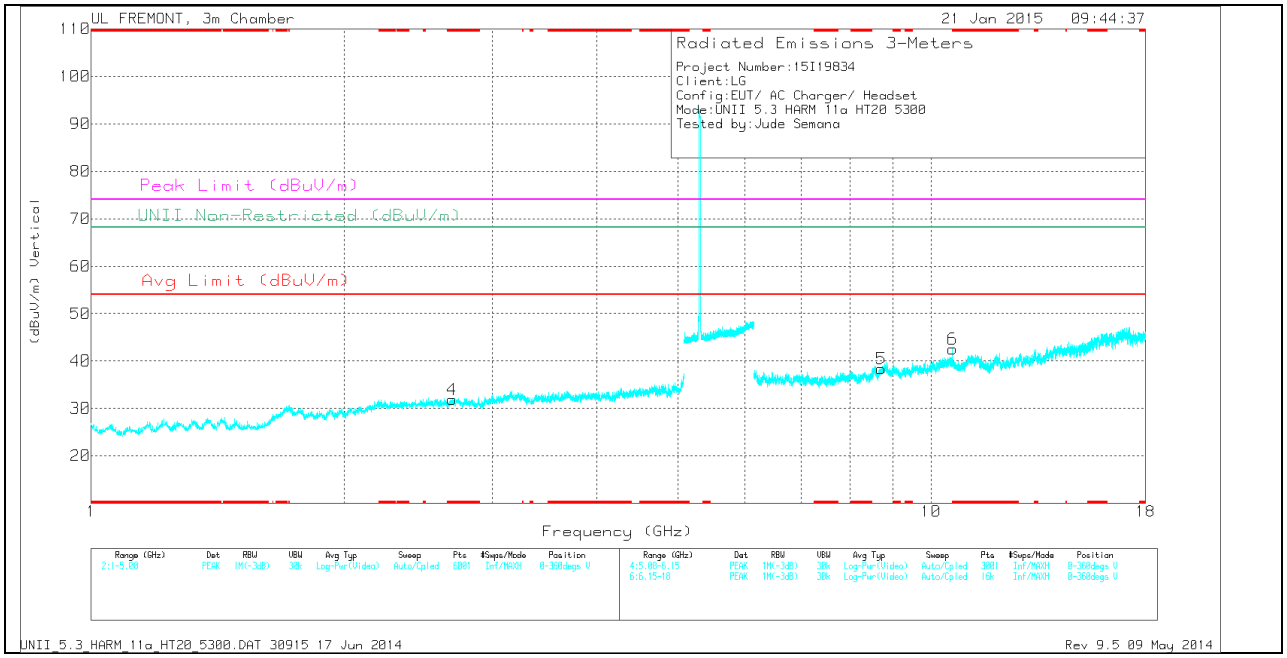
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
10.52	39.16	PK1	38.1	-25	0	52.26	-	-	-	-	68.2	-15.94	234	251	V
10.52	27.96	AD1	38.1	-25	.3	41.36	-	-	-	-	-	-	234	251	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

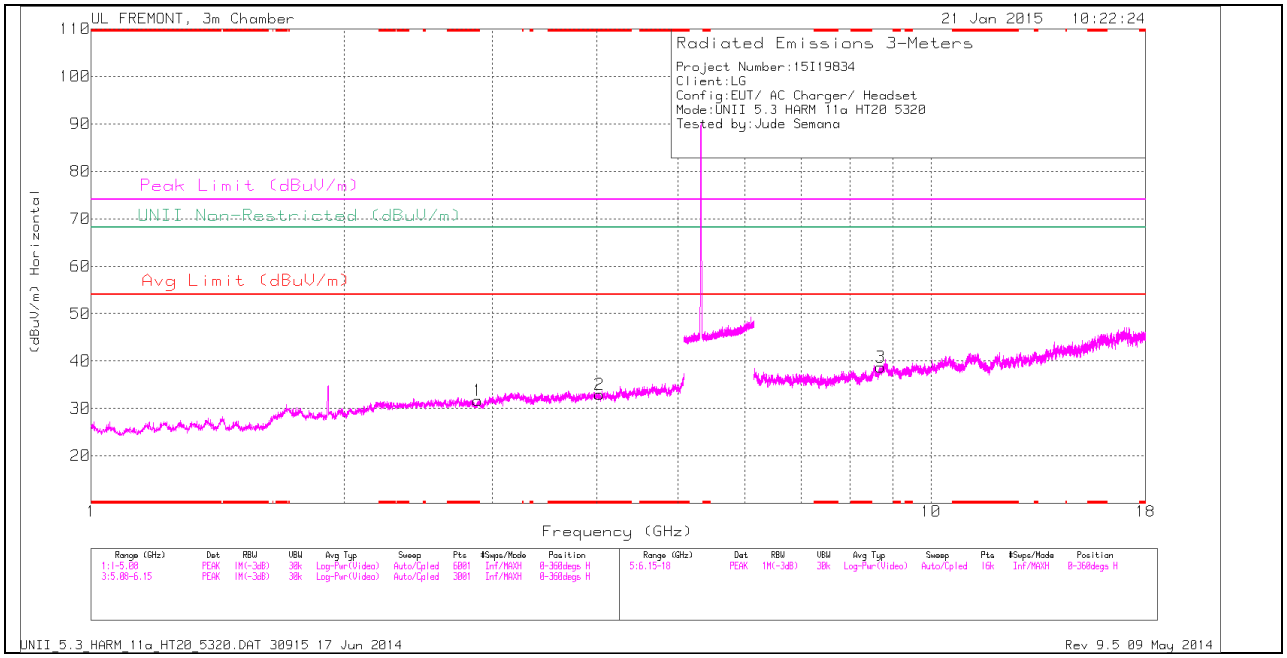
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.28	31.03	PK	33.4	-30.4	0	34.03	-	-	74	-39.97	-	-	0-360	200	H
4	* 2.691	31.81	PK	32.4	-32.3	0	31.91	-	-	74	-42.09	-	-	0-360	100	V
6	* 10.6	29.74	PK	38.1	-25.3	0	42.54	-	-	74	-31.46	-	-	0-360	100	V
1	1.772	32.85	PK	30.4	-32.4	0	30.85	-	-	-	-	68.2	-37.35	0-360	100	H
5	8.717	29.66	PK	36.5	-27.8	0	38.36	-	-	-	-	68.2	-29.84	0-360	200	V
3	14.46	30.35	PK	40	-27.3	0	43.05	-	-	-	-	68.2	-25.15	0-360	200	H

PK - Peak detector

RADIATED EMISSIONS

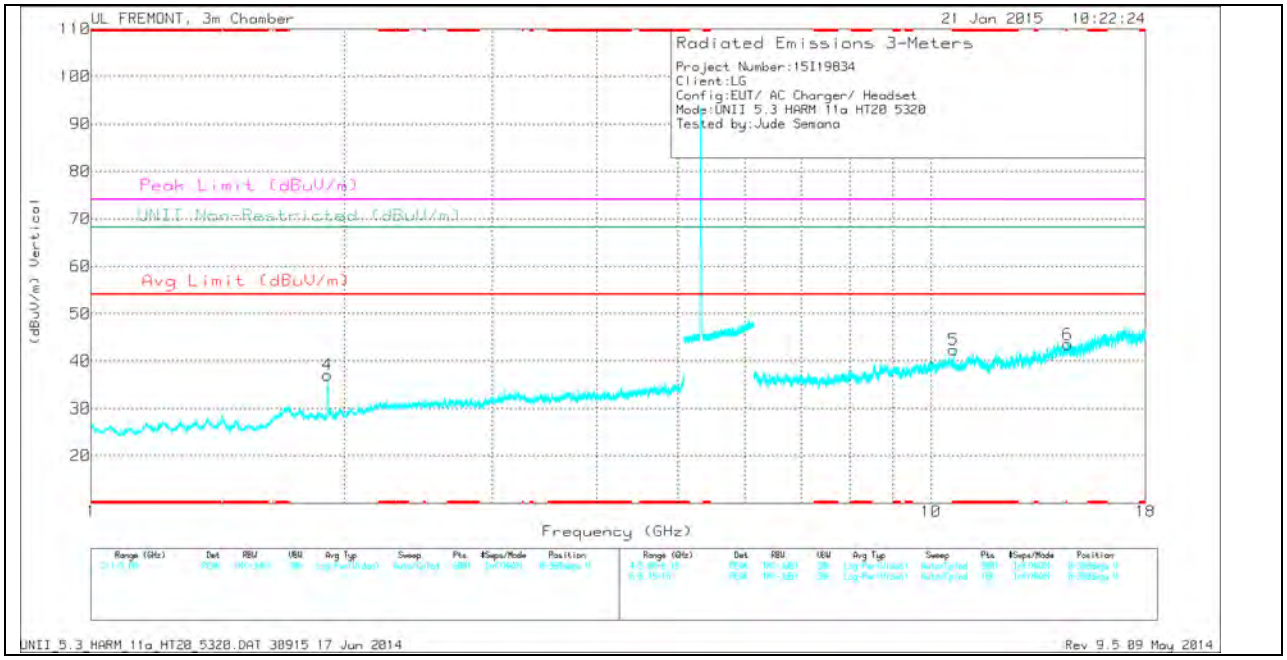
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 10.6	39.13	PK1	38.1	-25.3	0	51.93	-	-	74	-22.07	-	-	229	237	V
* 10.6	28.92	AD1	38.1	-25.3	.3	42.02	54	-11.98	-	-	-	-	229	237	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 T711 (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	* 2.888	31.88	PK	31.9	-32.1	0	31.68	-	-	74	-42.32	-	-	0-360	200	H
2	* 4.029	31.25	PK	33.2	-31.5	0	32.95	-	-	74	-41.05	-	-	0-360	100	H
5	* 10.639	29.4	PK	38.1	-25.1	0	42.4	-	-	74	-31.6	-	-	0-360	100	V
4	1.911	39.64	PK	30.2	-32.8	0	37.04	-	-	-	-	68.2	-31.16	0-360	100	V
3	8.707	30.25	PK	36.5	-28	0	38.75	-	-	-	-	68.2	-29.45	0-360	100	H
6	14.541	30.73	PK	40.1	-27.3	0	43.53	-	-	-	-	68.2	-24.67	0-360	200	V

PK - Peak detector

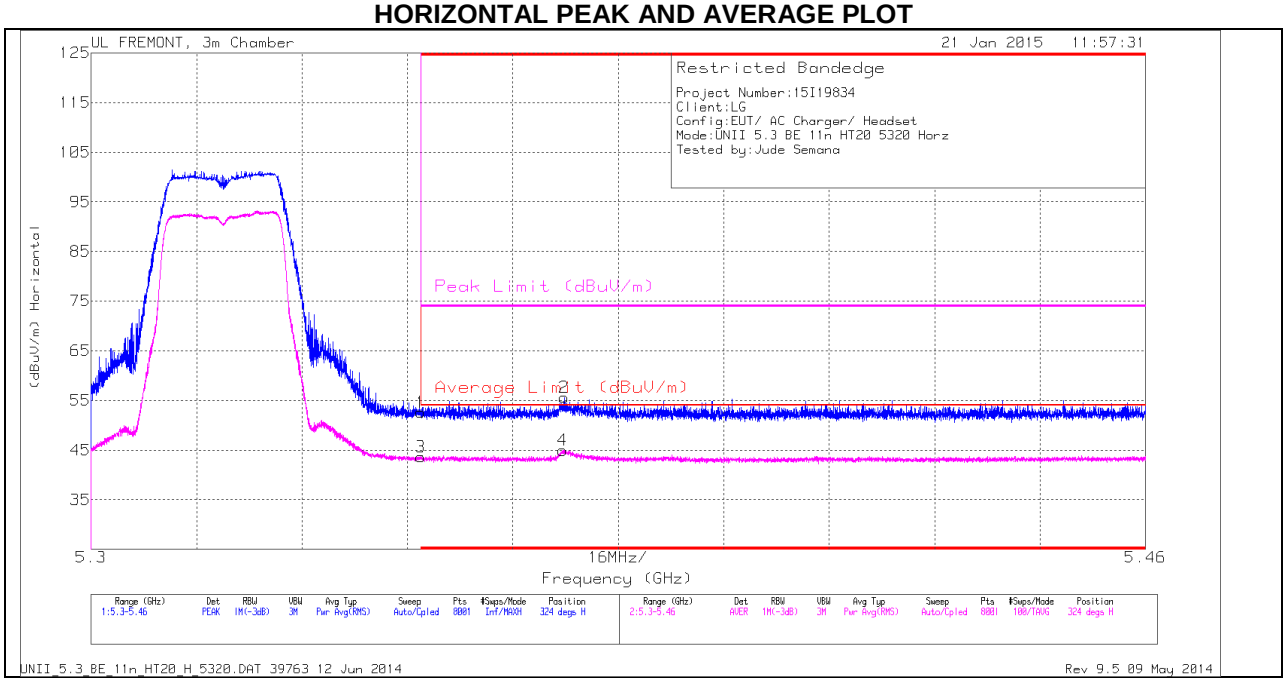
RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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
10.52	39.16	PK1	38.1	-25	0	52.26	-	-	-	-	68.2	-15.94	234	251	V
10.52	27.96	AD1	38.1	-25	.3	41.36	-	-	-	-	-	-	234	251	V

11.2.2. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.3 GHz BAND

AUTHORIZED BANDEDGE (HIGH CHANNEL)

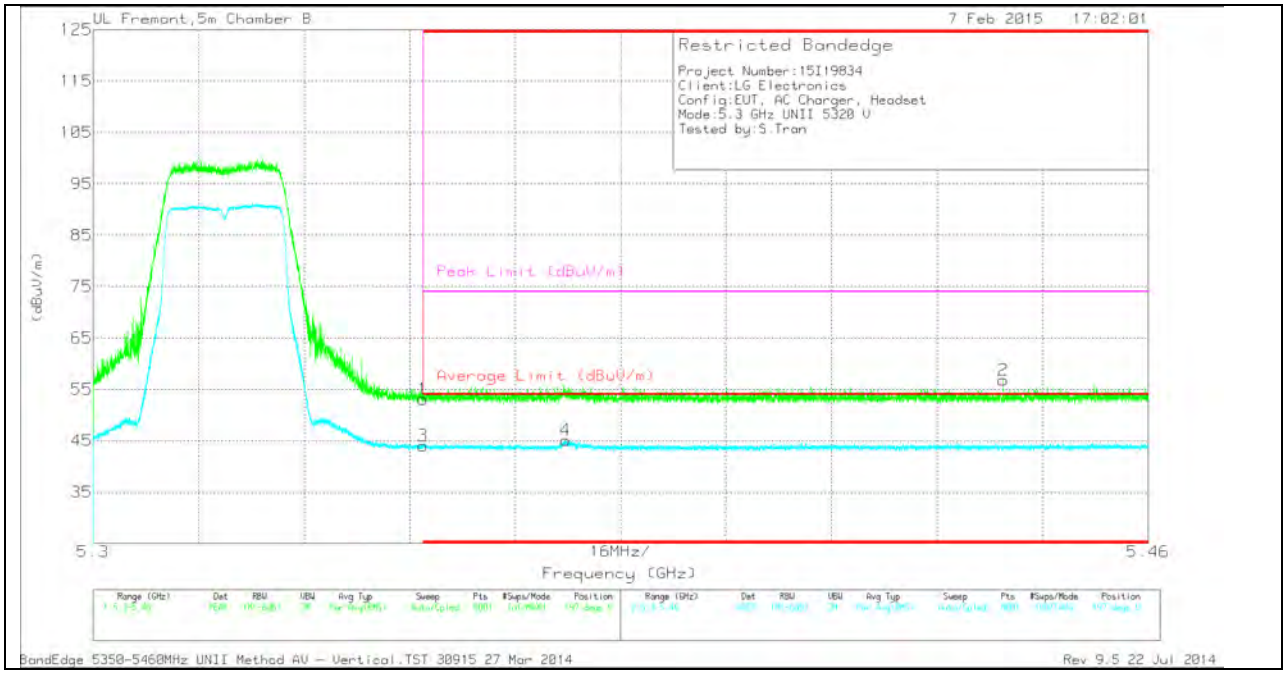
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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	39.73	PK	34.3	-21.4	0	52.63	-	-	74	-21.37	324	271	H
2	* 5.372	42.83	PK	34.3	-21.5	0	55.63	-	-	74	-18.37	324	271	H
3	* 5.35	30.41	RMS	34.3	-21.4	.3	43.61	54	-10.39	-	-	324	271	H
4	* 5.372	31.86	RMS	34.3	-21.5	.3	44.96	54	-9.04	-	-	324	271	H

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency(GHz)	MeterReading(dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	CorrectedReading(dBuV/m)	Average Limit (dBuV/m)	Margin(dB)	Peak Limit (dBuV/m)	PK Margin(dB)	Azimuth(Degs)	Height(cm)	Polarity
1	* 5.35	38.69	PK	34.5	-20.1	0	53.09	-	-	74	-20.91	197	294	V
2	* 5.438	42.48	PK	34.5	-20.2	0	56.78	-	-	74	-17.22	197	294	V
3	* 5.35	29.38	RMS	34.5	-20.1	.23	44.01	54	-9.99	-	-	197	294	V
4	* 5.372	30.37	RMS	34.5	-20	.23	45.1	54	-8.9	-	-	197	294	V

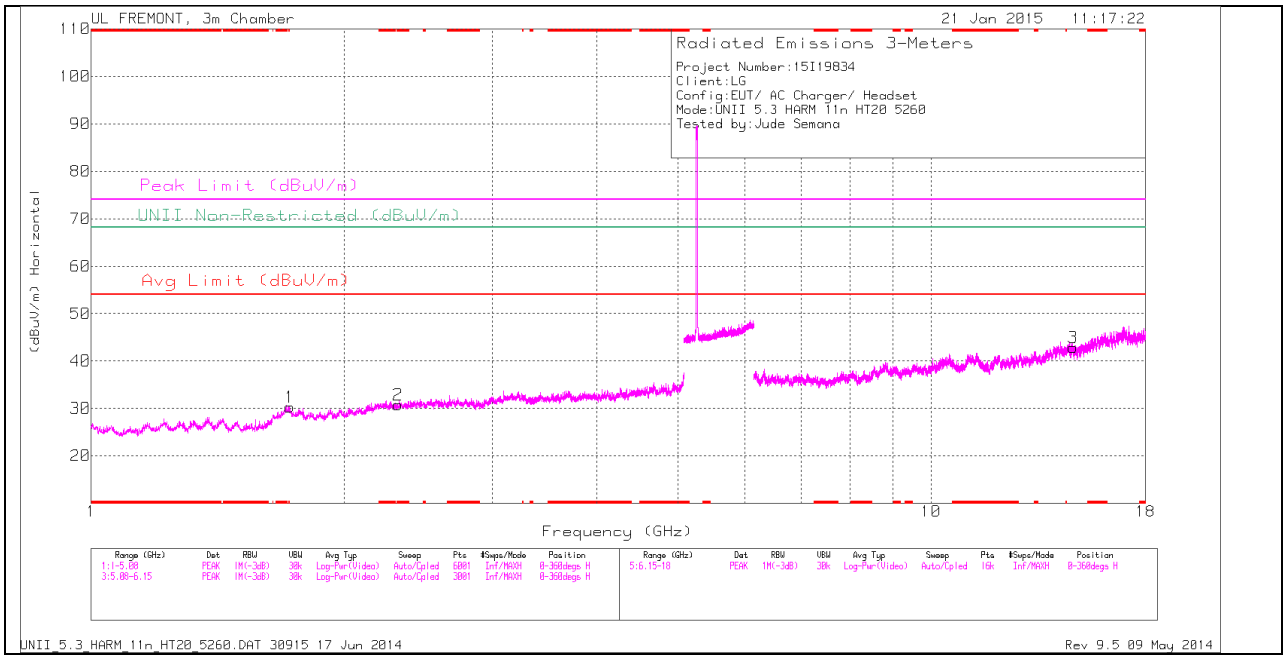
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection

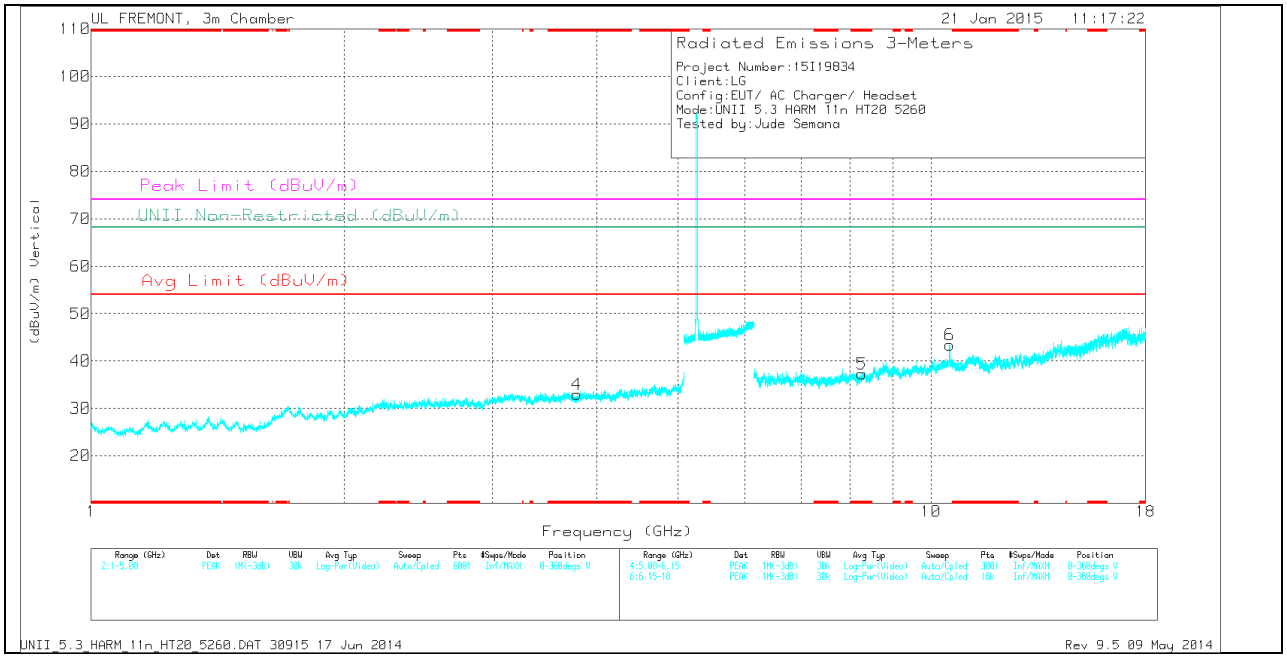
HARMONICS AND SPURIOUS EMISSIONS

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

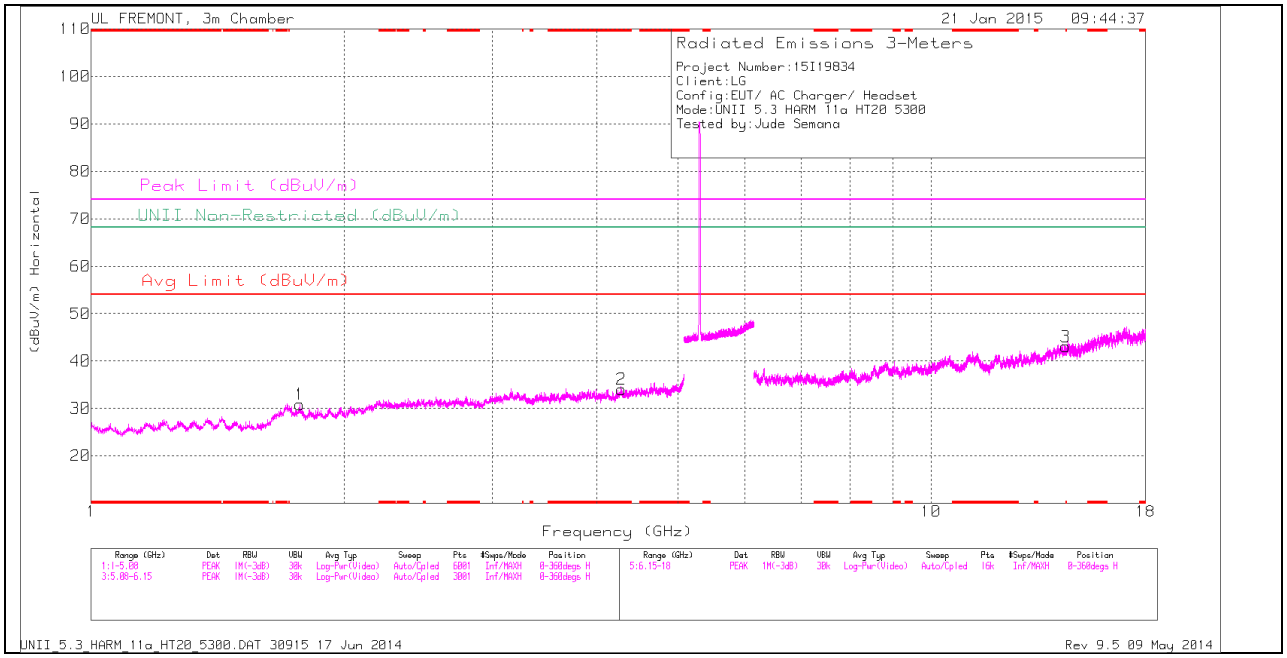
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.147	30.99	PK	33.3	-31.2	0	33.09	-	-	74	-40.91	-	-	0-360	100	H
4	* 2.825	31.62	PK	32.2	-32.4	0	31.42	-	-	74	-42.58	-	-	0-360	200	V
3	* 7.665	29.52	PK	35.7	-28.7	0	36.52	-	-	74	-37.48	-	-	0-360	100	H
6	* 15.434	30.24	PK	40.7	-26.6	0	44.34	-	-	74	-29.66	-	-	0-360	200	V
1	1.715	31.63	PK	30.6	-32	0	30.23	-	-	-	-	68.2	-37.97	0-360	100	H
5	10.52	30.83	PK	38.1	-25	0	43.93	-	-	-	-	68.2	-24.27	0-360	200	V

PK - Peak detector

RADIATED EMISSIONS

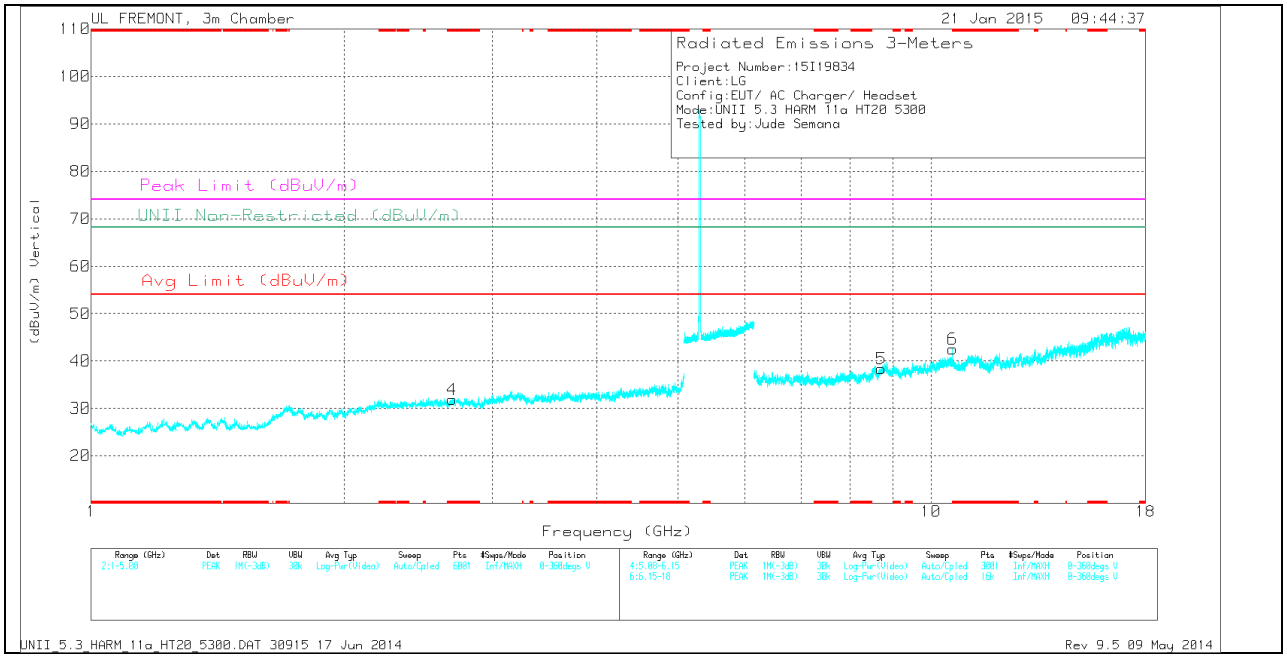
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
10.52	39.16	PK1	38.1	-25	0	52.26	-	-	-	-	68.2	-15.94	234	251	V
10.52	27.96	AD1	38.1	-25	.3	41.36	-	-	-	-	-	-	234	251	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

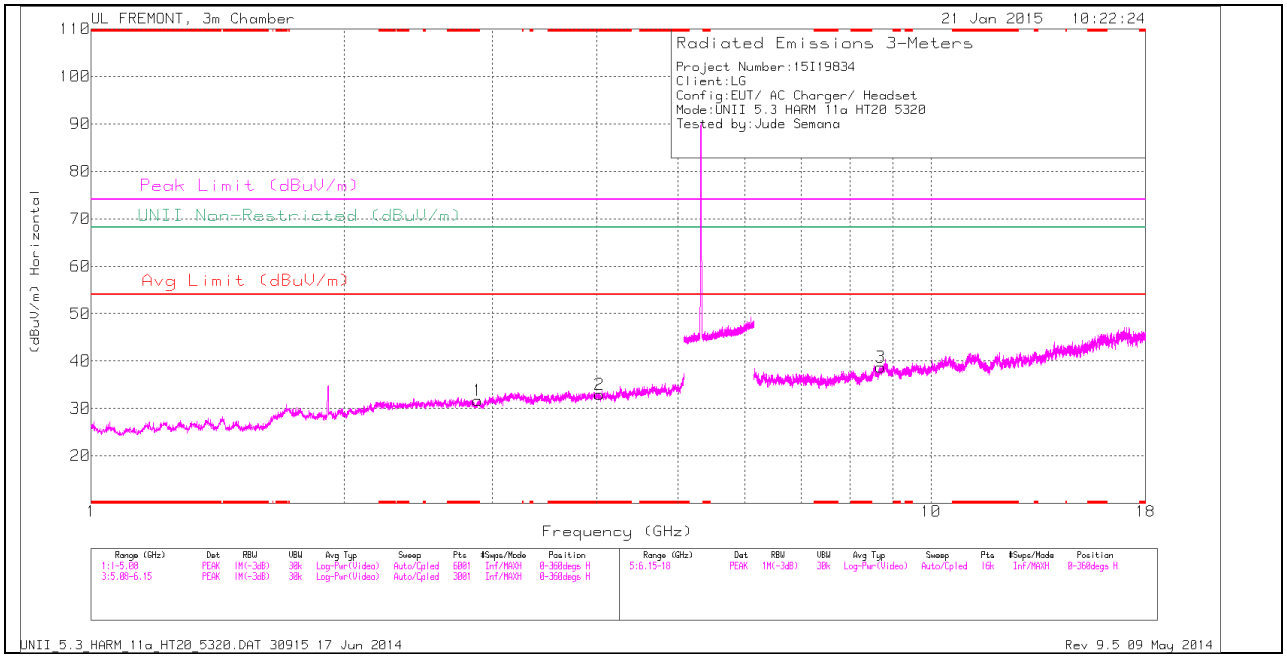
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.28	31.03	PK	33.4	-30.4	0	34.03	-	-	74	-39.97	-	-	0-360	200	H
4	* 2.691	31.81	PK	32.4	-32.3	0	31.91	-	-	74	-42.09	-	-	0-360	100	V
6	* 10.6	29.74	PK	38.1	-25.3	0	42.54	-	-	74	-31.46	-	-	0-360	100	V
1	1.772	32.85	PK	30.4	-32.4	0	30.85	-	-	-	-	68.2	-37.35	0-360	100	H
5	8.717	29.66	PK	36.5	-27.8	0	38.36	-	-	-	-	68.2	-29.84	0-360	200	V
3	14.46	30.35	PK	40	-27.3	0	43.05	-	-	-	-	68.2	-25.15	0-360	200	H

PK - Peak detector

RADIATED EMISSIONS

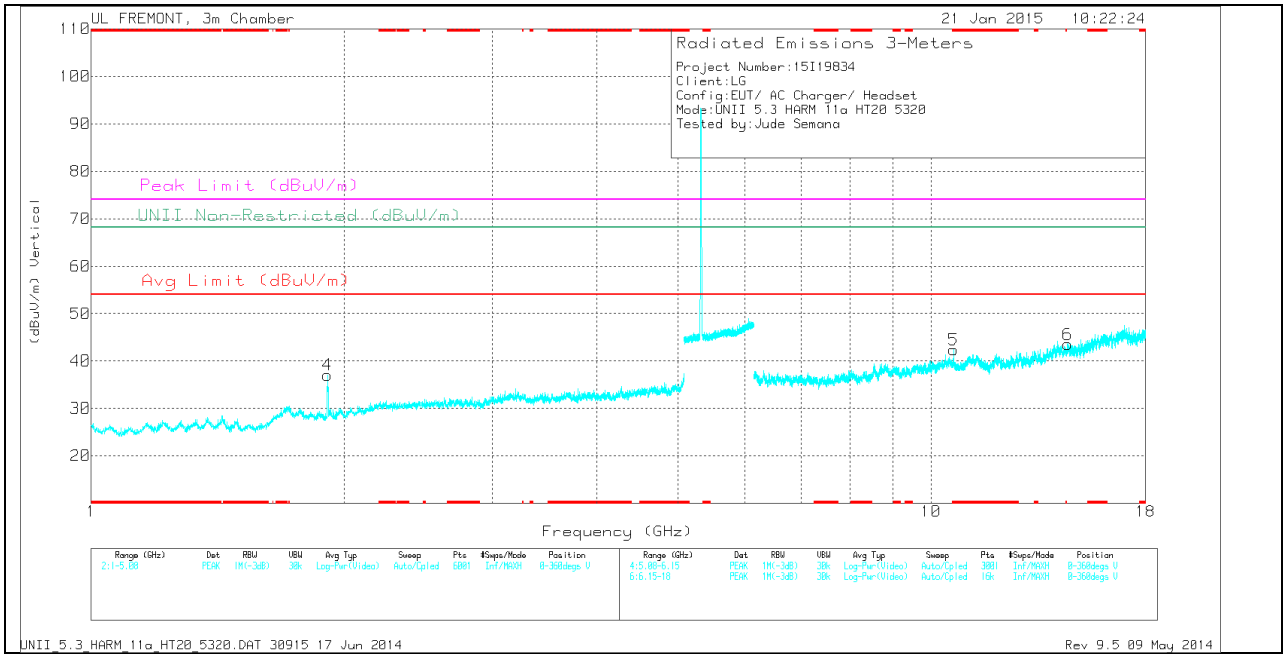
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 10.6	39.13	PK1	38.1	-25.3	0	51.93	-	-	74	-22.07	-	-	229	237	V
* 10.6	28.92	AD1	38.1	-25.3	.3	42.02	54	-11.98	-	-	-	-	229	237	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 T711 (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	* 2.888	31.88	PK	31.9	-32.1	0	31.68	-	-	74	-42.32	-	-	0-360	200	H
2	* 4.029	31.25	PK	33.2	-31.5	0	32.95	-	-	74	-41.05	-	-	0-360	100	H
5	* 10.639	29.4	PK	38.1	-25.1	0	42.4	-	-	74	-31.6	-	-	0-360	100	V
4	1.911	39.64	PK	30.2	-32.8	0	37.04	-	-	-	-	68.2	-31.16	0-360	100	V
3	8.707	30.25	PK	36.5	-28	0	38.75	-	-	-	-	68.2	-29.45	0-360	100	H
6	14.541	30.73	PK	40.1	-27.3	0	43.53	-	-	-	-	68.2	-24.67	0-360	200	V

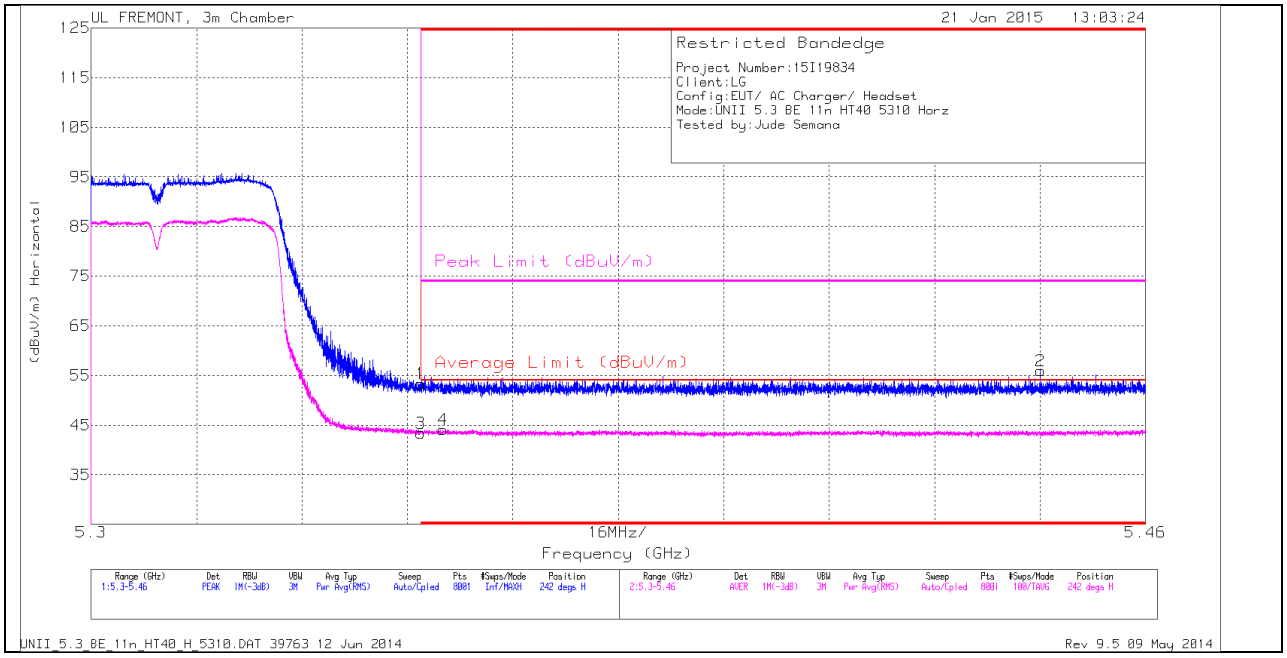
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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
10.52	39.16	PK1	38.1	-25	0	52.26	-	-	-	-	68.2	-15.94	234	251	V
10.52	27.96	AD1	38.1	-25	.3	41.36	-	-	-	-	-	-	234	251	V

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

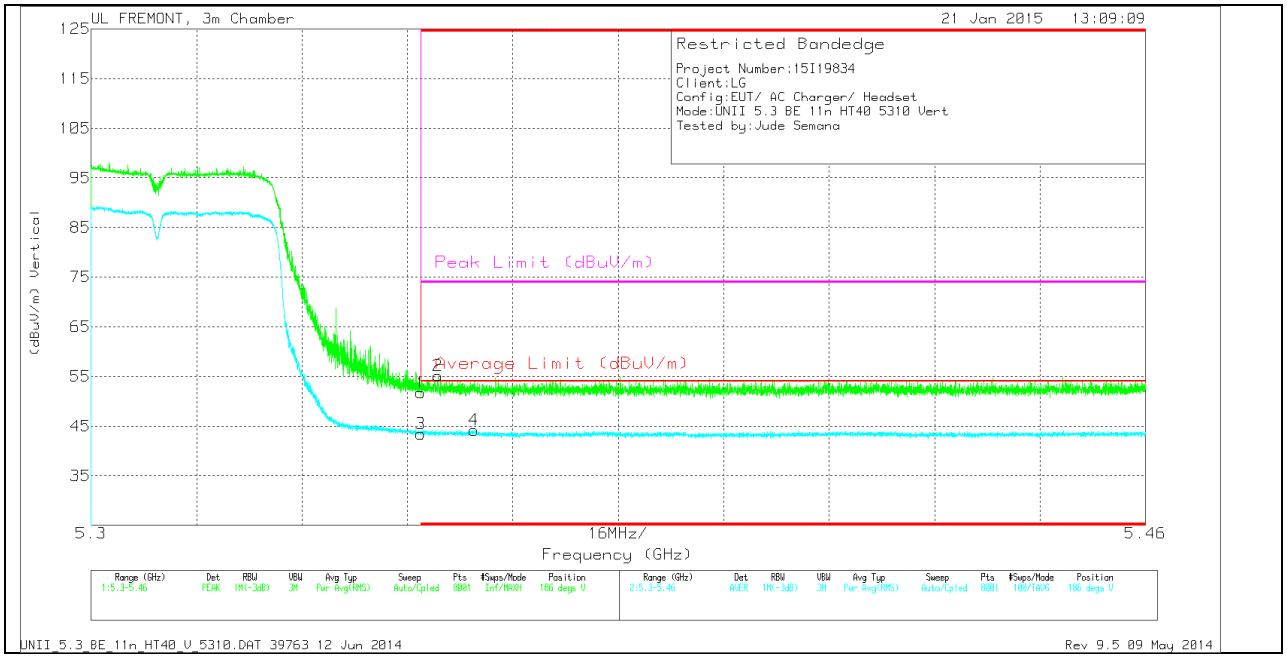
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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	40.45	PK	34.3	-21.4	0	53.35	-	-	74	-20.65	242	157	H
2	* 5.444	42.96	PK	34.5	-21.5	0	55.96	-	-	74	-18.04	242	157	H
3	* 5.35	29.99	RMS	34.3	-21.4	.5	43.39	54	-10.61	-	-	242	157	H
4	* 5.353	30.65	RMS	34.3	-21.4	.5	44.05	54	-9.95	-	-	242	157	H

VERTICAL PEAK AND AVERAGE PLOT

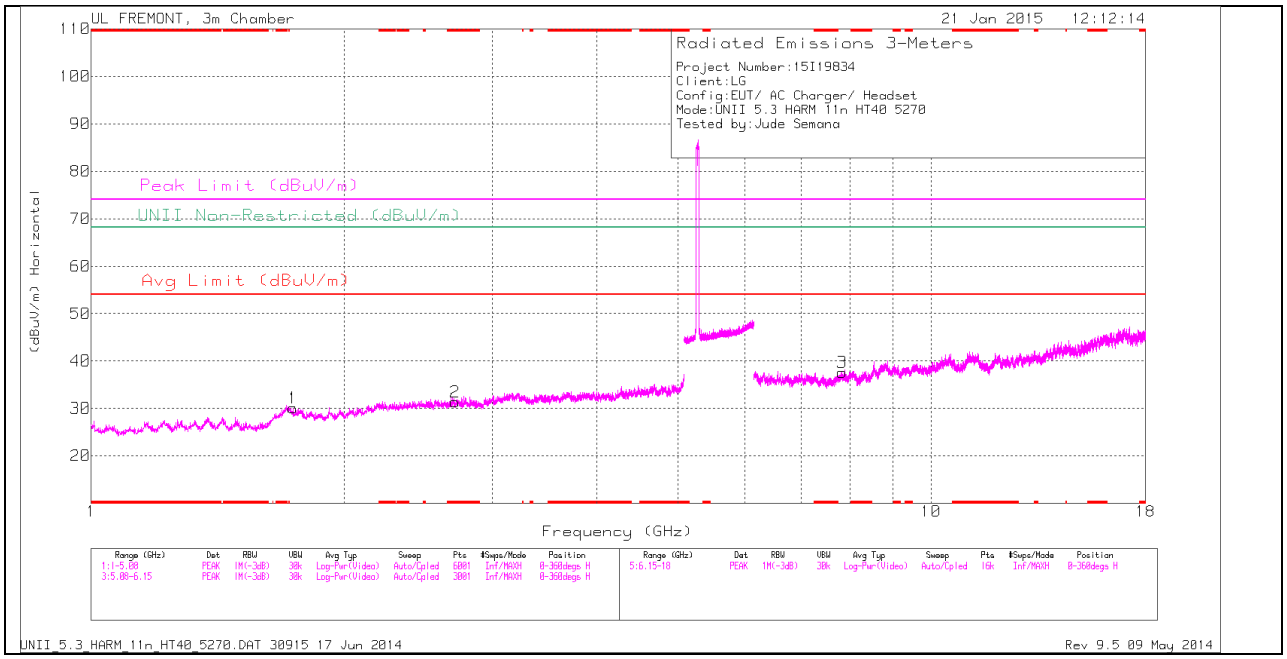


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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	* 5.35	38.8	PK	34.3	-21.4	0	51.7	-	-	74	-22.3	186	226	V
3	* 5.35	30.02	RMS	34.3	-21.4	.5	43.42	54	-10.58	-	-	186	226	V
2	* 5.353	42.26	PK	34.3	-21.4	0	55.16	-	-	74	-18.84	186	226	V
4	* 5.358	30.89	RMS	34.3	-21.5	.5	44.19	54	-9.81	-	-	186	226	V

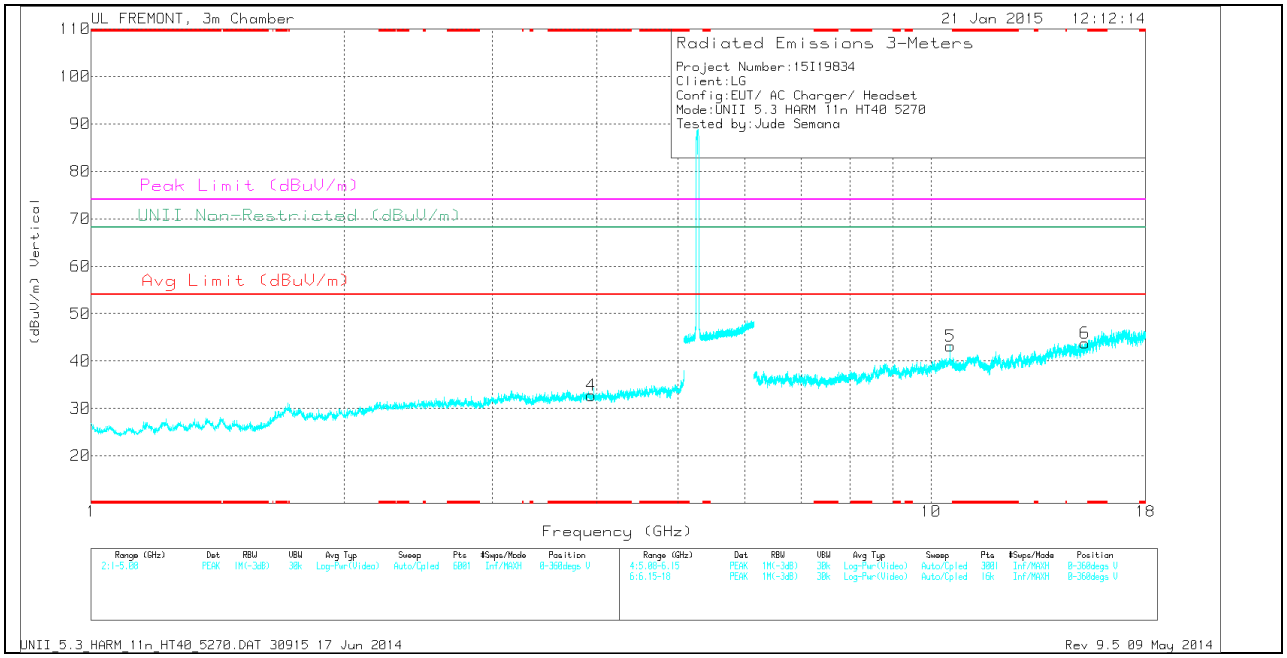
HARMONICS AND SPURIOUS EMISSIONS

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

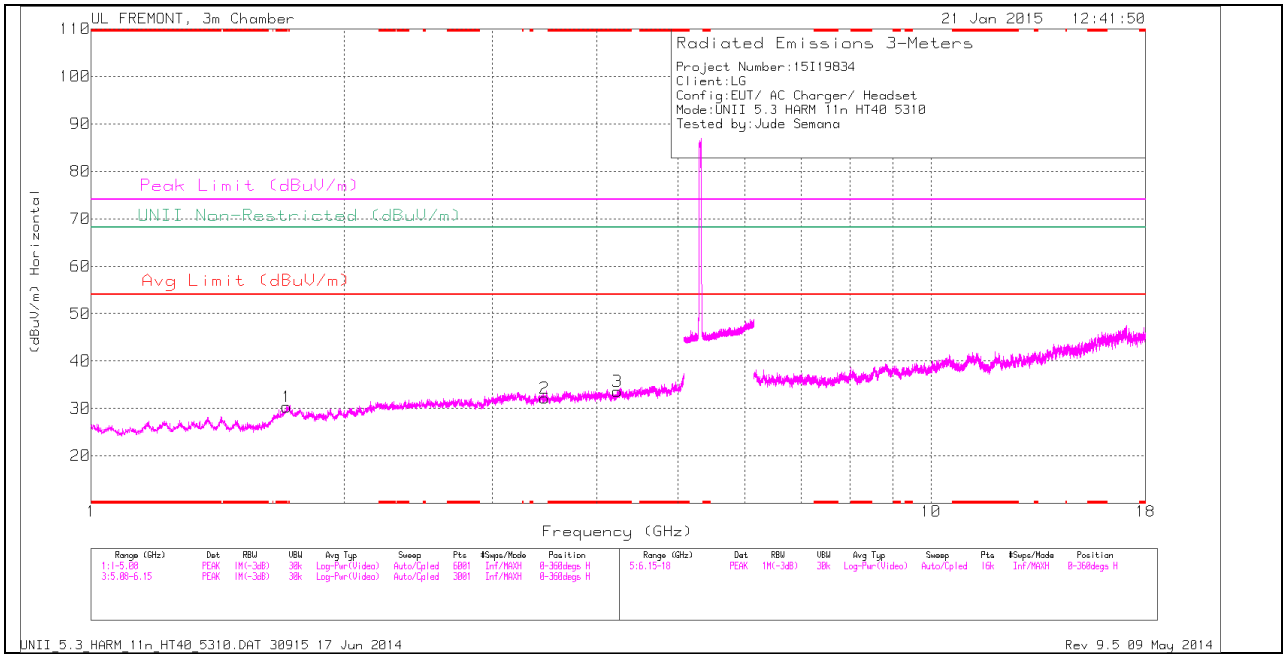
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.711	31.18	PK	32.4	-32.2	0	31.38	-	-	74	-42.62	-	-	0-360	200	H
4	* 3.938	31.04	PK	33.1	-31.4	0	32.74	-	-	74	-41.26	-	-	0-360	200	V
1	1.739	31.88	PK	30.5	-32.3	0	30.08	-	-	-	-	68.2	-38.12	0-360	200	H
3	7.834	29.64	PK	35.8	-27.8	0	37.64	-	-	-	-	68.2	-30.56	0-360	200	H
5	10.54	30.48	PK	38.1	-25.4	0	43.18	-	-	-	-	68.2	-25.02	0-360	200	V
6	15.247	30.07	PK	40.2	-26.5	0	43.77	-	-	-	-	68.2	-24.43	0-360	100	V

PK - Peak detector

RADIATED EMISSIONS

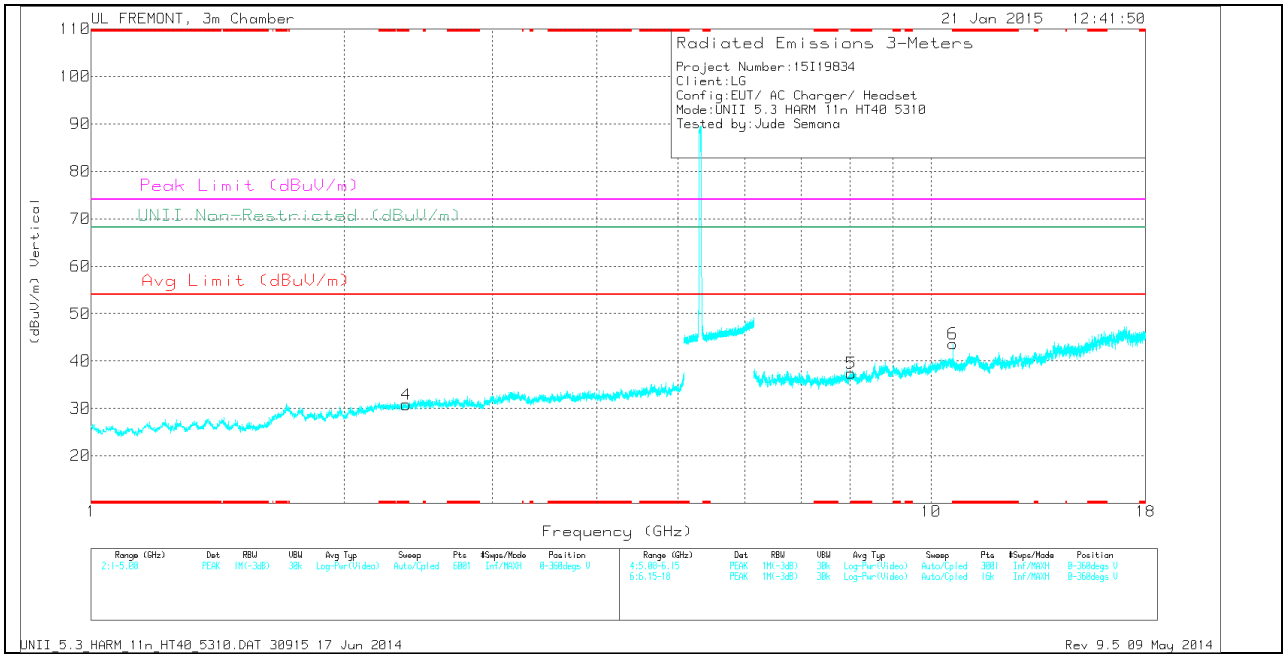
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
10.54	37.24	PK1	38.1	-25.4	0	49.94	-	-	-	-	68.2	-18.26	232	205	V
10.54	27.4	AD1	38.1	-25.4	.5	40.6	-	-	-	-	-	-	232	205	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 T711 (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	* 1.709	31.75	PK	30.7	-32.1	0	30.35	-	-	74	-43.65	-	-	0-360	100	H
3	* 4.229	31.58	PK	33.3	-31.3	0	33.58	-	-	74	-40.42	-	-	0-360	100	H
4	* 2.371	31.32	PK	32.1	-32.6	0	30.82	-	-	74	-43.18	-	-	0-360	100	V
5	* 8.03	29.1	PK	36	-27.7	0	37.4	-	-	74	-36.6	-	-	0-360	200	V
6	* 10.619	30.63	PK	38.1	-25.1	0	43.63	-	-	74	-30.37	-	-	0-360	100	V
2	3.465	30.45	PK	32.9	-31.2	0	32.15	-	-	-	-	68.2	-36.05	0-360	100	H

PK - Peak detector

RADIATED EMISSIONS

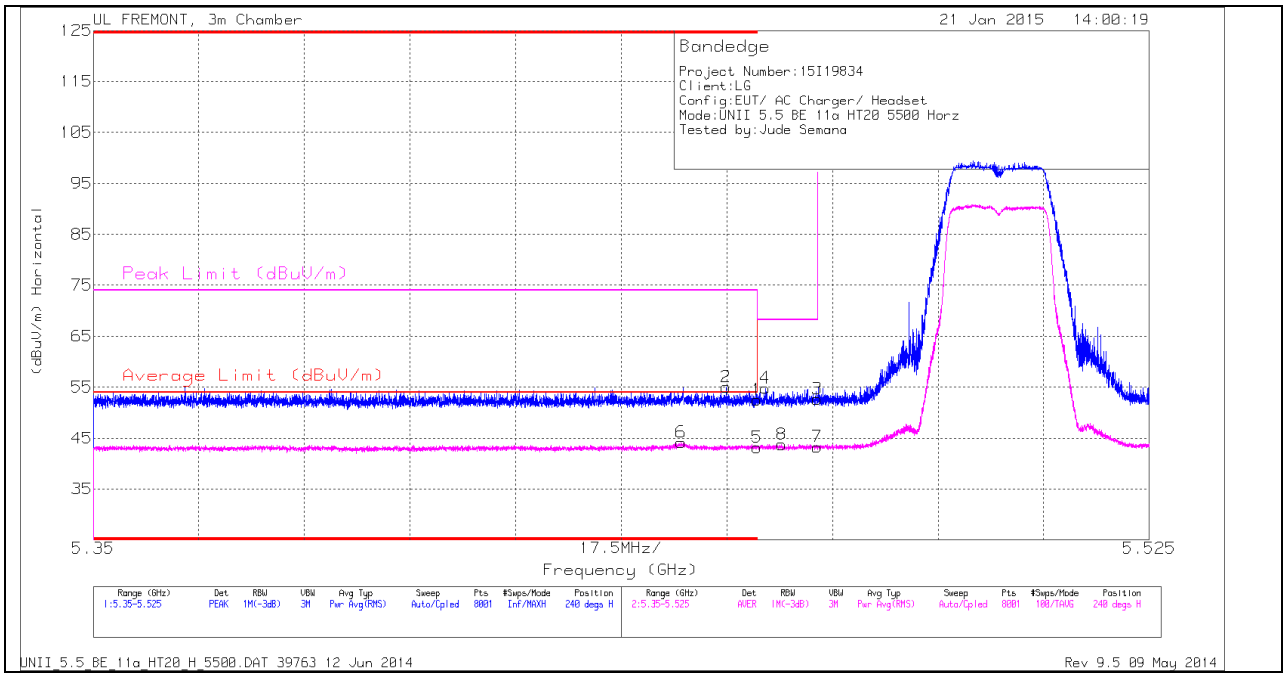
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 10.62	39.1	PK1	38.1	-25	0	52.2	-	-	74	-21.8	-	-	231	155	V
* 10.62	30.43	AD1	38.1	-25	.5	44.03	54	-9.97	-	-	-	-	231	155	V

11.3. 5.5-5.6 GHz

11.3.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.5 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

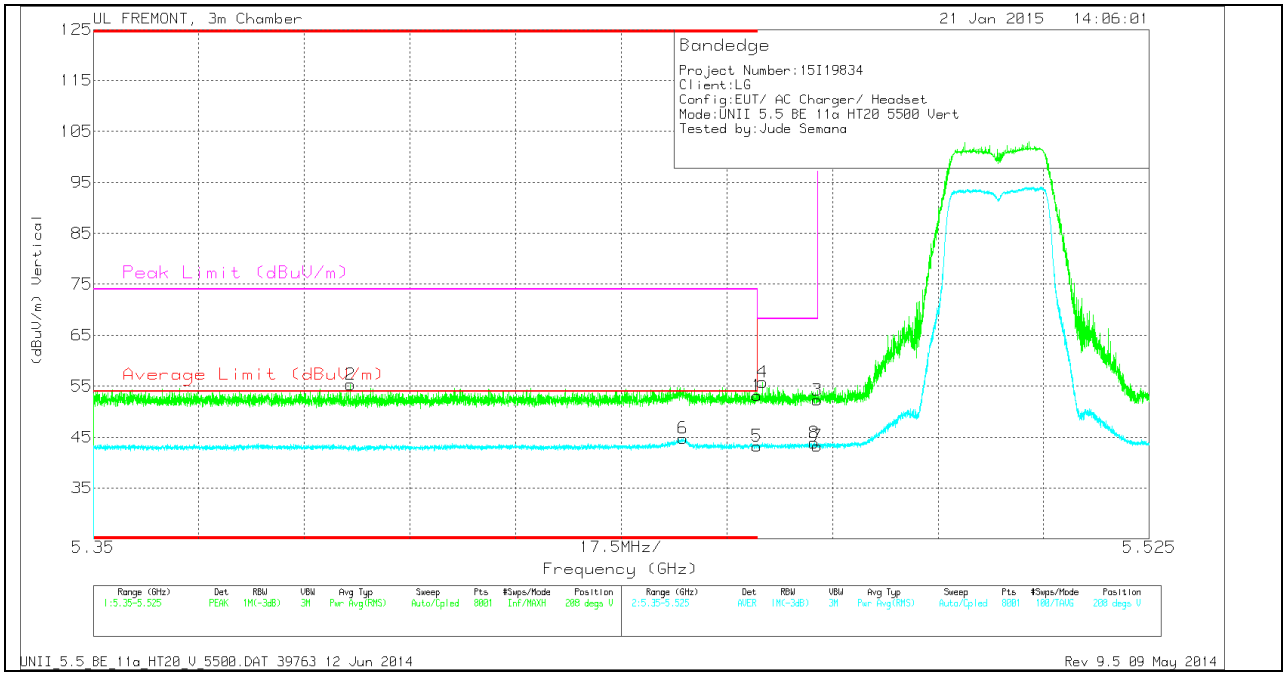
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6	* 5.447	30.84	RMS	34.5	-21.4	.2	44.14	54	-9.86	-	-	240	225	H
2	* 5.455	41.95	PK	34.5	-21.4	0	55.05	-	-	74	-18.95	240	225	H
1	* 5.46	39.41	PK	34.5	-21.4	0	52.51	-	-	74	-21.49	240	225	H
5	* 5.46	29.88	RMS	34.5	-21.4	.2	43.18	54	-10.82	-	-	240	225	H
4	5.461	41.7	PK	34.5	-21.4	0	54.8	-	-	68.2	-13.4	240	225	H
8	5.464	30.45	RMS	34.5	-21.4	.2	43.75	-	-	-	-	240	225	H
3	5.47	39.49	PK	34.5	-21.3	0	52.69	-	-	68.2	-15.51	240	225	H
7	5.47	29.85	RMS	34.5	-21.3	.2	43.25	-	-	-	-	240	225	H

VERTICAL PEAK AND AVERAGE PLOT

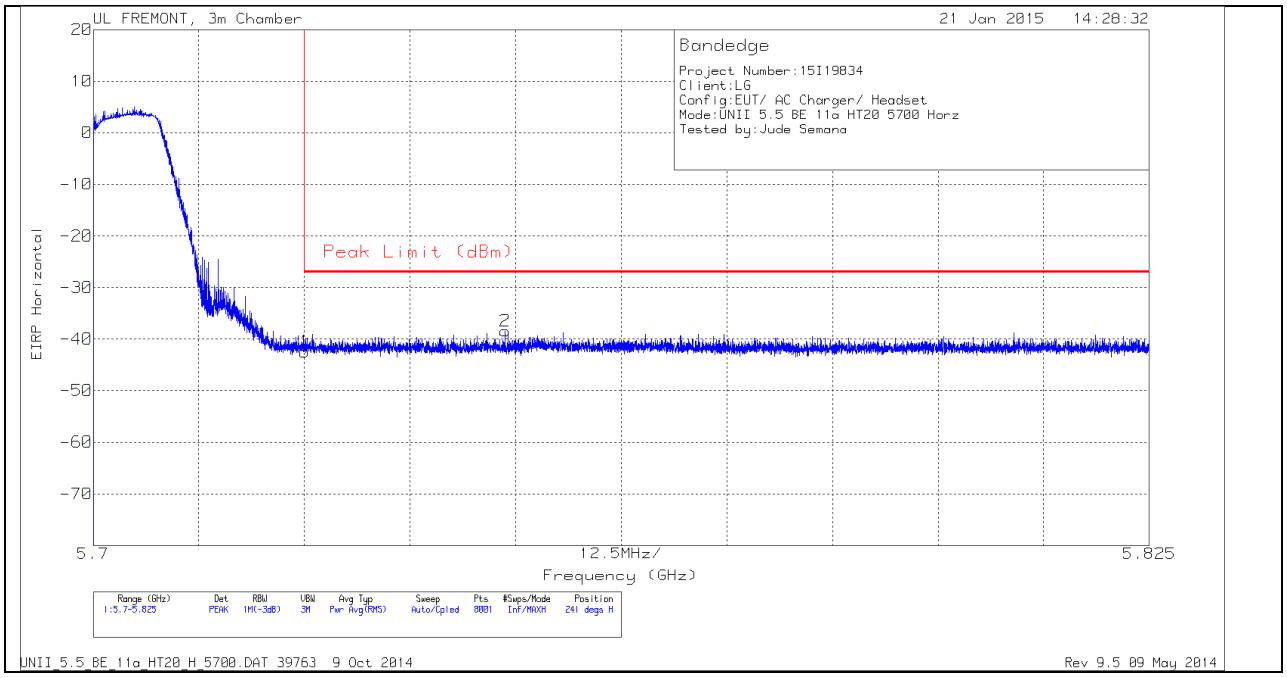


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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	* 5.393	42.44	PK	34.3	-21.4	0	55.34	-	-	74	-18.66	208	249	V
6	* 5.448	31.44	RMS	34.5	-21.4	.2	44.74	54	-9.26	-	-	208	249	V
1	* 5.46	40.06	PK	34.5	-21.4	0	53.16	-	-	74	-20.84	208	249	V
5	* 5.46	29.91	RMS	34.5	-21.4	.2	43.21	54	-10.79	-	-	208	249	V
4	5.461	42.7	PK	34.5	-21.4	0	55.8	-	-	68.2	-12.4	208	249	V
8	5.469	30.47	RMS	34.5	-21.3	.2	43.87	-	-	-	-	208	249	V
3	5.47	39.06	PK	34.5	-21.3	0	52.26	-	-	68.2	-15.94	208	249	V
7	5.47	29.84	RMS	34.5	-21.3	.2	43.24	-	-	-	-	208	249	V

AUTHORIZED BANDEDGE (HIGH CHANNEL)

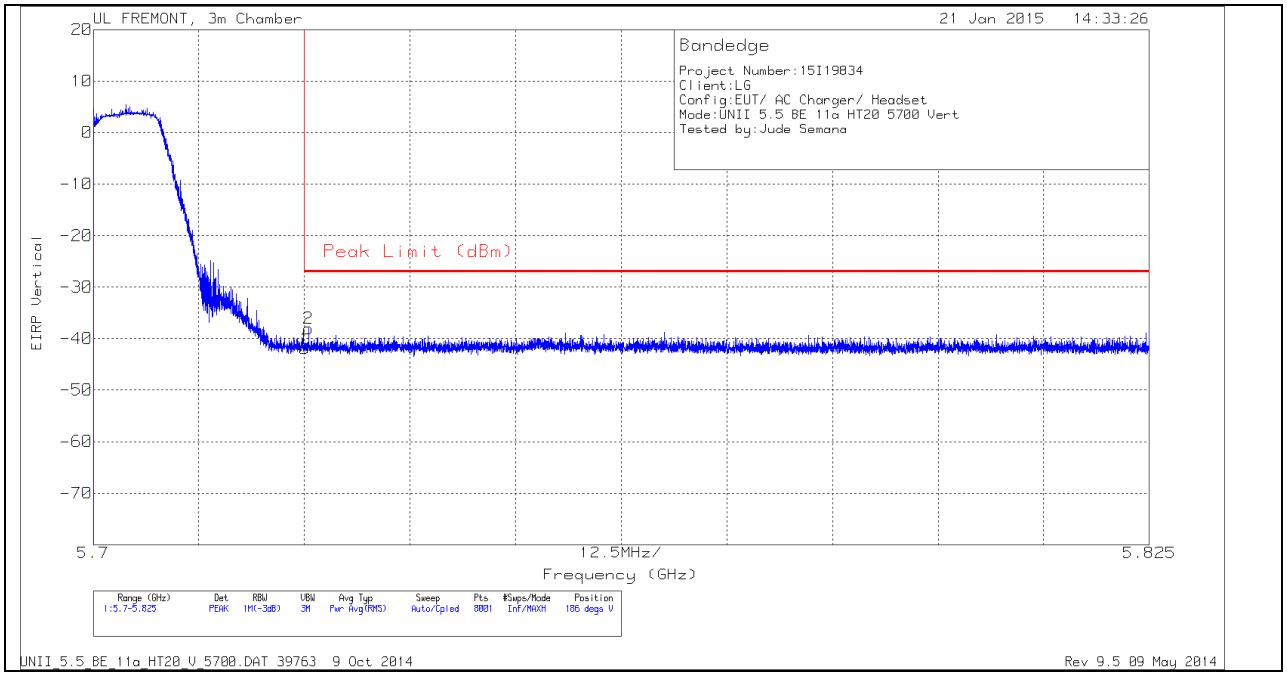
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	-68.35	PK	35.2	-21.1	11.8	0	-42.45	-27	-15.45	241	100	H
2	5.749	-64.34	PK	35.3	-21.2	11.8	0	-38.44	-27	-11.44	241	100	H

VERTICAL PEAK AND AVERAGE PLOT

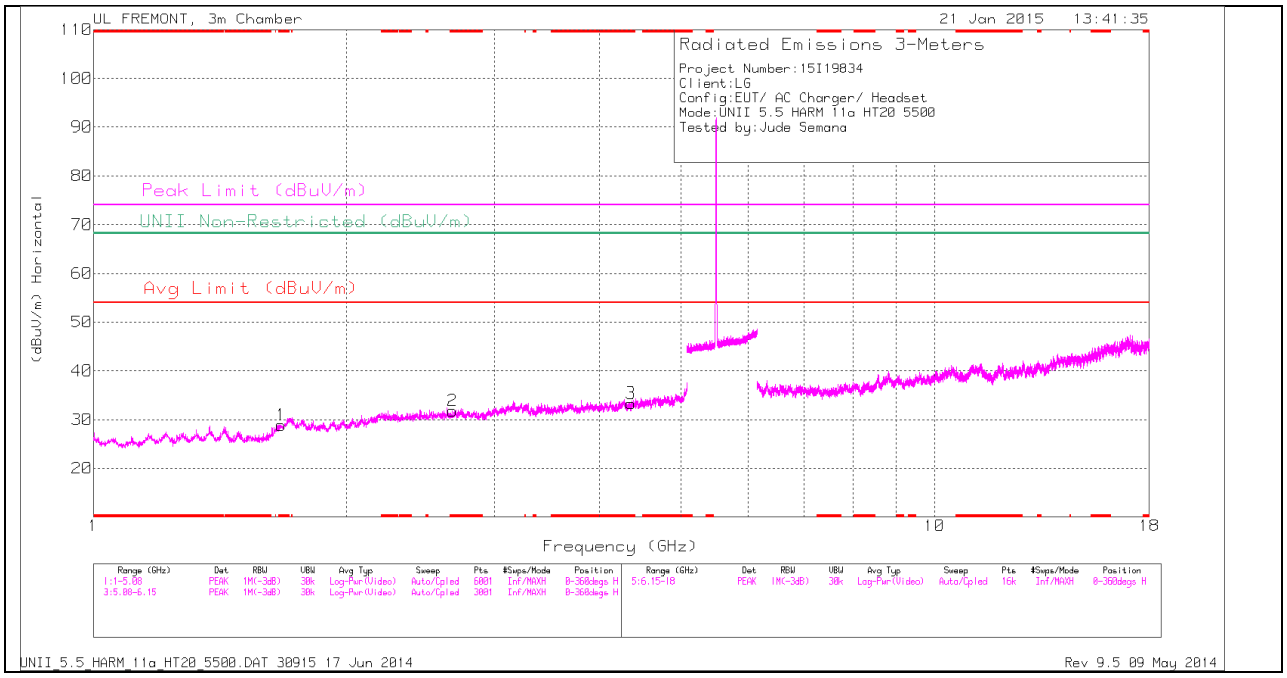


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	-67.85	PK	35.2	-21.1	11.8	0	-41.95	-27	-14.95	186	258	V
2	5.725	-63.96	PK	35.2	-21.1	11.8	0	-38.06	-27	-11.06	186	258	V

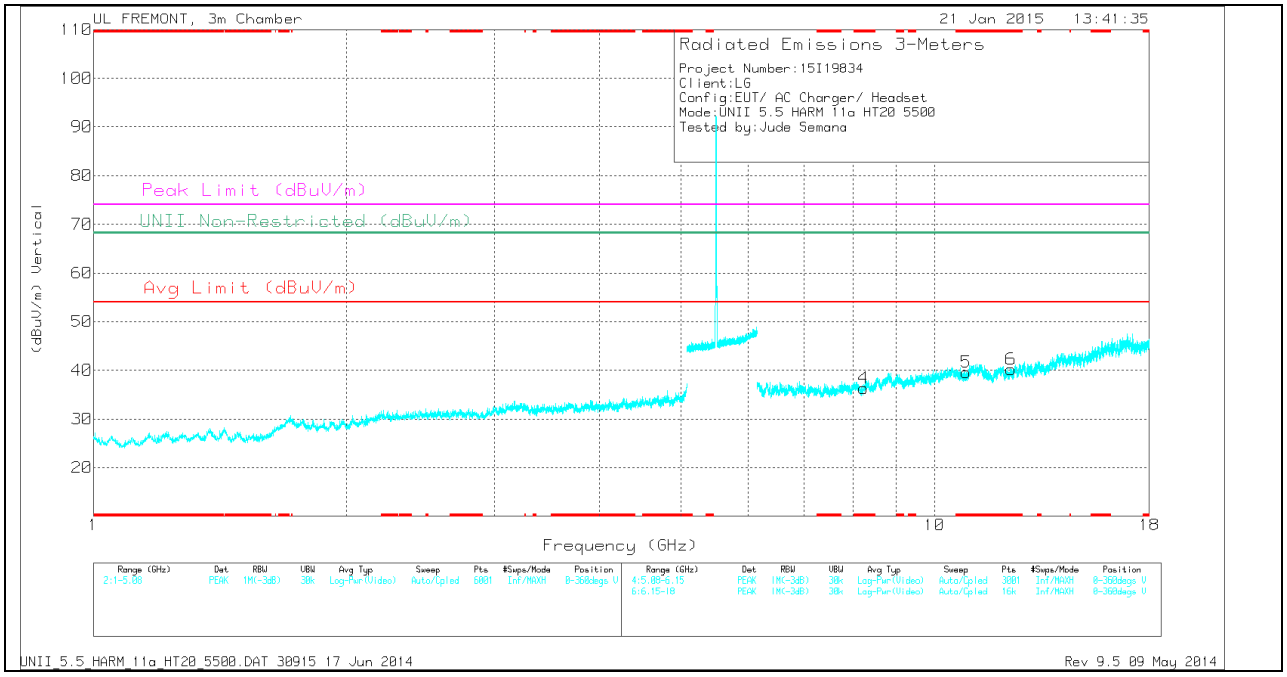
HARMONICS AND SPURIOUS EMISSIONS

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

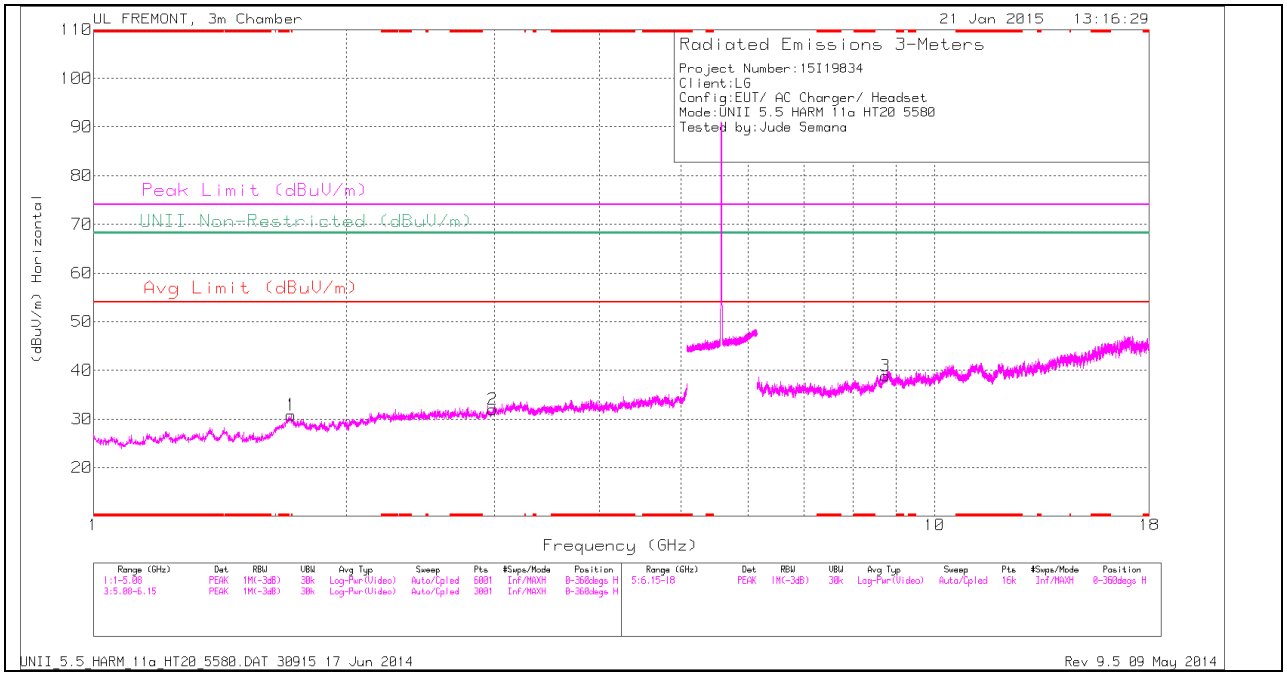
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.673	31.45	PK	29.9	-32.5	0	28.85	-	-	74	-45.15	-	-	0-360	100	H
5	* 10.904	27.02	PK	38.2	-25.6	0	39.62	-	-	74	-34.38	-	-	0-360	200	V
6	* 12.329	28.2	PK	38.6	-26.6	0	40.2	-	-	74	-33.8	-	-	0-360	200	V
2	* 2.673	31.7	PK	32.4	-32.3	0	31.8	-	-	74	-42.2	-	-	0-360	200	H
3	* 4.359	30.7	PK	33.5	-30.9	0	33.3	-	-	74	-40.7	-	-	0-360	100	H
4	* 8.236	28.85	PK	36.1	-28.6	0	36.35	-	-	74	-37.65	-	-	0-360	100	V

PK - Peak detector

RADIATED EMISSIONS

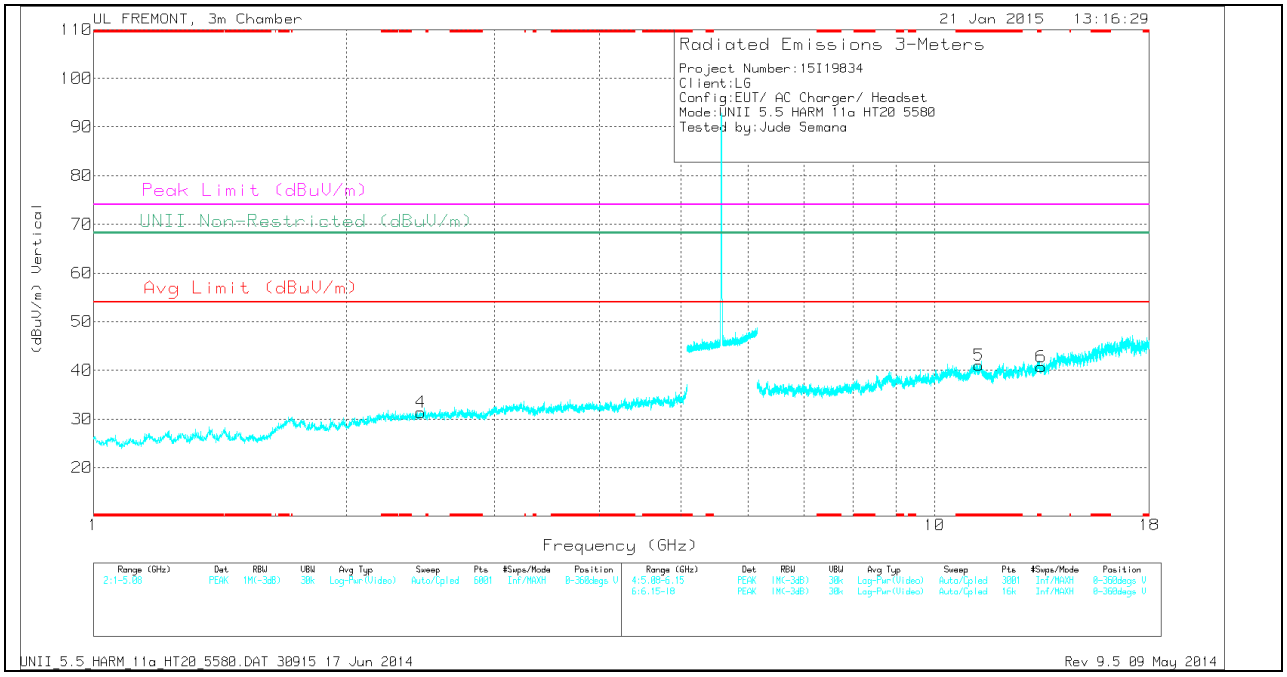
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 10.62	39.1	PK1	38.1	-25	0	52.2	-	-	74	-21.8	-	-	231	155	V
* 10.62	30.43	AD1	38.1	-25	.2	43.73	54	-10.27	-	-	-	-	231	155	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

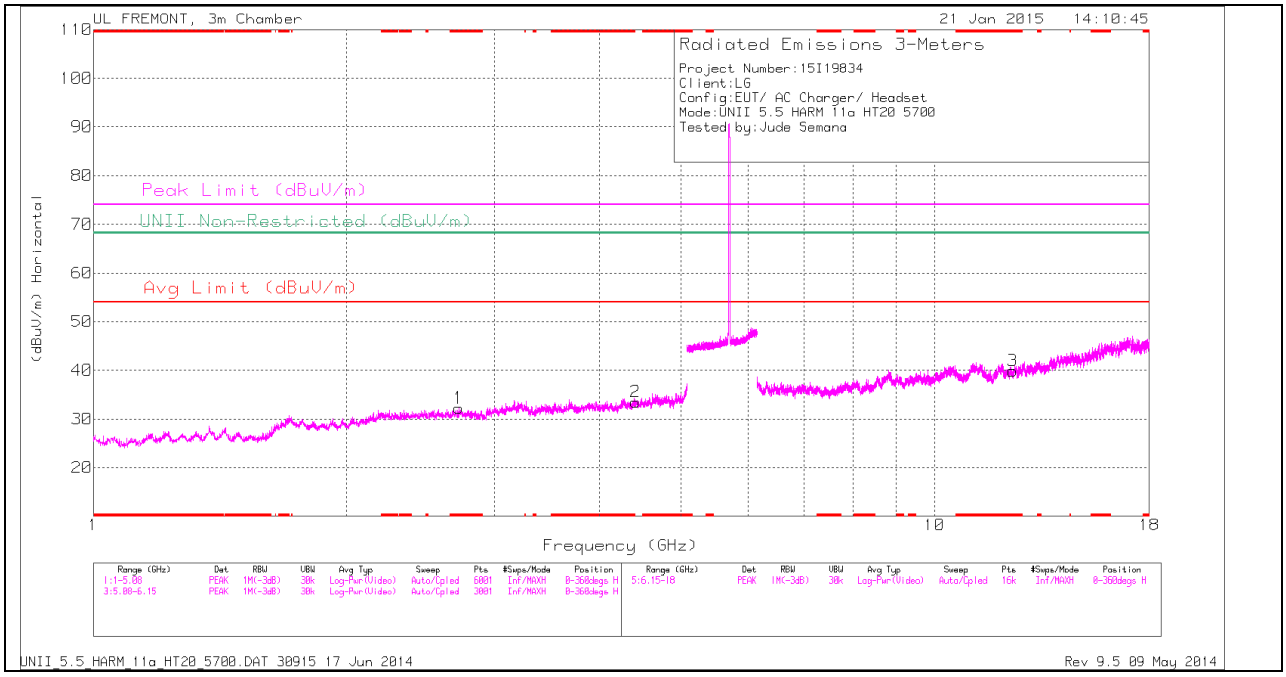
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.72	32.22	PK	30.6	-32	0	30.82	-	-	74	-43.18	-	-	0-360	100	H
5	* 11.296	28.45	PK	38.3	-25.7	0	41.05	-	-	74	-32.95	-	-	0-360	200	V
6	* 13.391	29.42	PK	38.9	-27.6	0	40.72	-	-	74	-33.28	-	-	0-360	100	V
4	2.451	31.79	PK	32.1	-32.5	0	31.39	-	-	-	-	68.2	-36.81	0-360	200	V
2	2.985	31.06	PK	32.6	-31.7	0	31.96	-	-	-	-	68.2	-36.24	0-360	100	H
3	8.746	28.97	PK	36.5	-26.6	0	38.87	-	-	-	-	68.2	-29.33	0-360	100	H

PK - Peak detector

RADIATED EMISSIONS

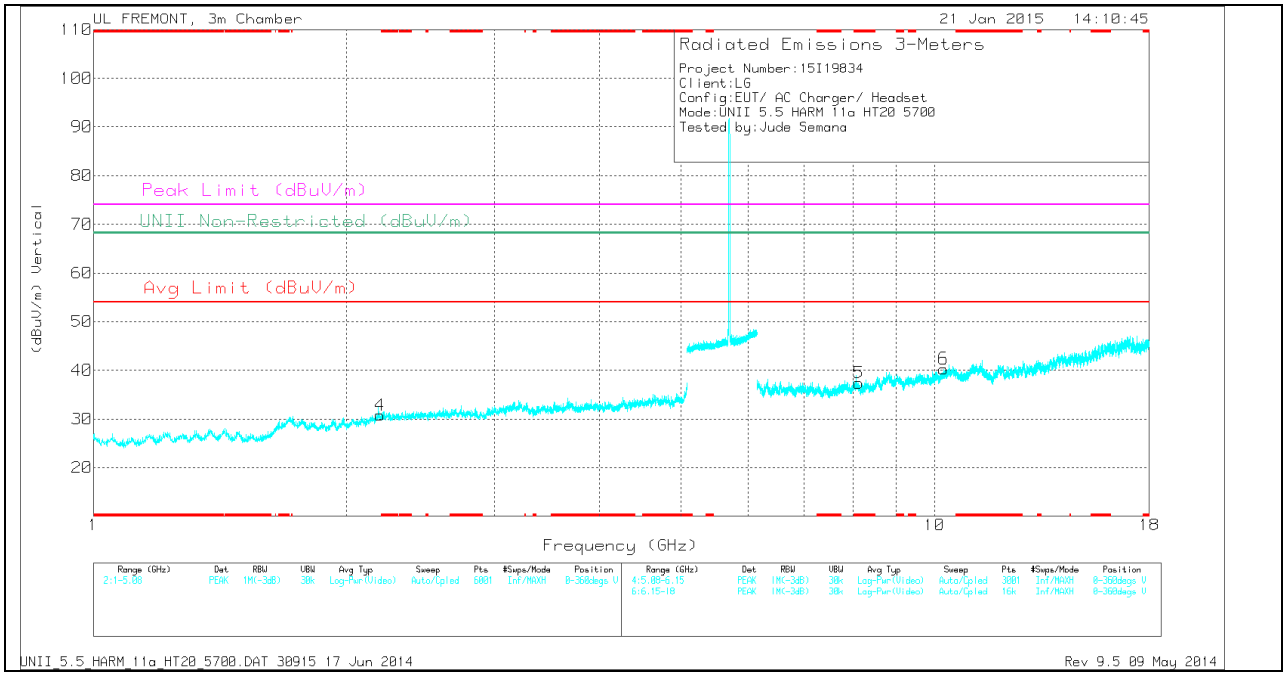
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 10.62	39.1	PK1	38.1	-25	0	52.2	-	-	74	-21.8	-	-	231	155	V
* 10.62	30.43	AD1	38.1	-25	.2	43.73	54	-10.27	-	-	-	-	231	155	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 T711 (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	* 2.72	32.03	PK	32.4	-32.2	0	32.23	-	-	74	-41.77	-	-	0-360	200	H
3	* 12.39	28.1	PK	38.6	-26.8	0	39.9	-	-	74	-34.1	-	-	0-360	100	H
5	* 8.127	28.84	PK	36.1	-27.5	0	37.44	-	-	74	-36.56	-	-	0-360	100	V
4	2.193	31.39	PK	32	-32.6	0	30.79	-	-	-	-	68.2	-37.41	0-360	200	V
2	4.414	30.79	PK	33.5	-30.8	0	33.49	-	-	-	-	68.2	-34.71	0-360	200	H
6	10.251	27.88	PK	37.8	-25.4	0	40.28	-	-	-	-	68.2	-27.92	0-360	100	V

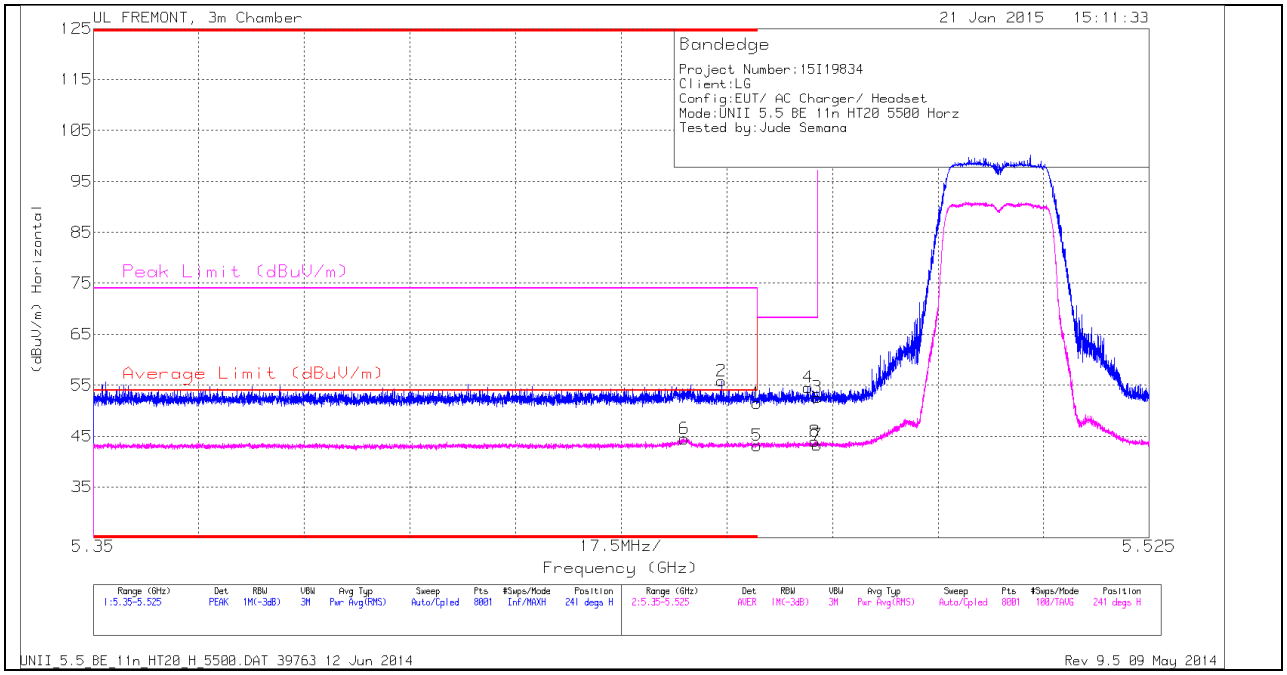
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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
* 10.62	39.1	PK1	38.1	-25	0	52.2	-	-	74	-21.8	-	-	231	155	V
* 10.62	30.43	AD1	38.1	-25	.2	43.73	54	-10.27	-	-	-	-	231	155	V

11.3.2. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.5 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

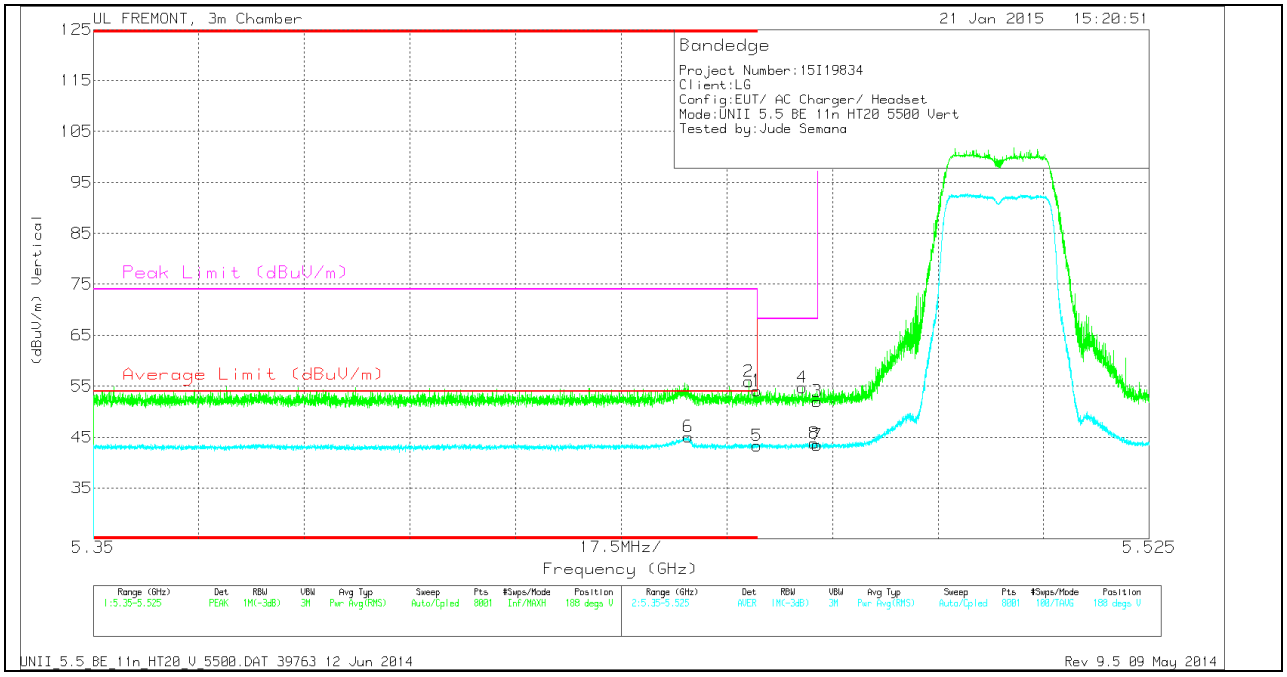
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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	* 5.46	38.36	PK	34.5	-21.4	0	51.46	-	-	74	-22.54	241	100	H
2	* 5.454	42.72	PK	34.5	-21.4	0	55.82	-	-	74	-18.18	241	100	H
5	* 5.46	29.86	RMS	34.5	-21.4	.2	43.16	54	-10.84	-	-	241	100	H
6	* 5.448	31.19	RMS	34.5	-21.4	.2	44.49	54	-9.51	-	-	241	100	H
4	5.468	41.35	PK	34.5	-21.3	0	54.55	-	-	68.2	-13.65	241	100	H
3	5.47	39.38	PK	34.5	-21.3	0	52.58	-	-	68.2	-15.62	241	100	H
7	5.47	29.84	RMS	34.5	-21.3	.2	43.24	-	-	-	-	241	100	H
8	5.47	30.52	RMS	34.5	-21.3	.2	43.92	-	-	-	-	241	100	H

VERTICAL PEAK AND AVERAGE PLOT

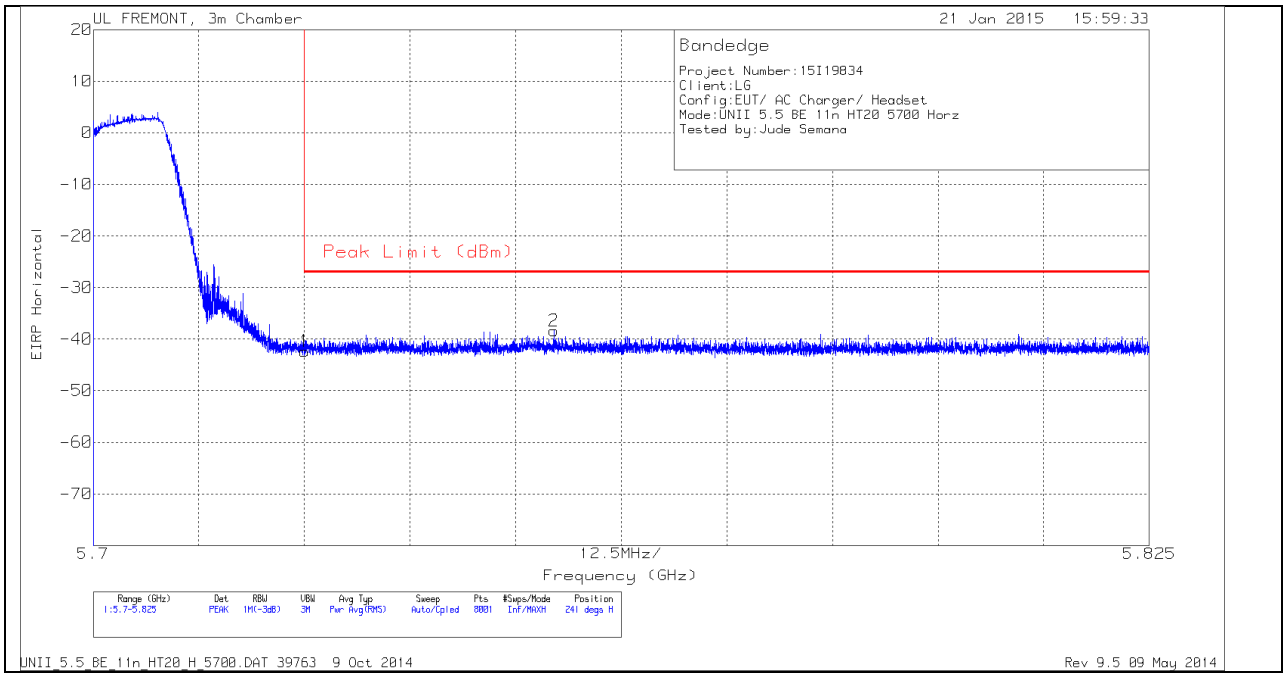


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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	* 5.46	40.99	PK	34.5	-21.4	0	54.09	-	-	74	-19.91	188	209	V
2	* 5.459	42.8	PK	34.5	-21.4	0	55.9	-	-	74	-18.1	188	209	V
5	* 5.46	29.98	RMS	34.5	-21.4	.2	43.28	54	-10.72	-	-	188	209	V
6	* 5.449	31.71	RMS	34.5	-21.4	.2	45.01	54	-8.99	-	-	188	209	V
4	5.468	41.51	PK	34.5	-21.3	0	54.71	-	-	68.2	-13.49	188	209	V
8	5.469	30.38	RMS	34.5	-21.3	.2	43.78	-	-	-	-	188	209	V
3	5.47	38.8	PK	34.5	-21.3	0	52	-	-	68.2	-16.2	188	209	V
7	5.47	30.05	RMS	34.5	-21.3	.2	43.45	-	-	-	-	188	209	V

AUTHORIZED BANDEDGE (HIGH CHANNEL)

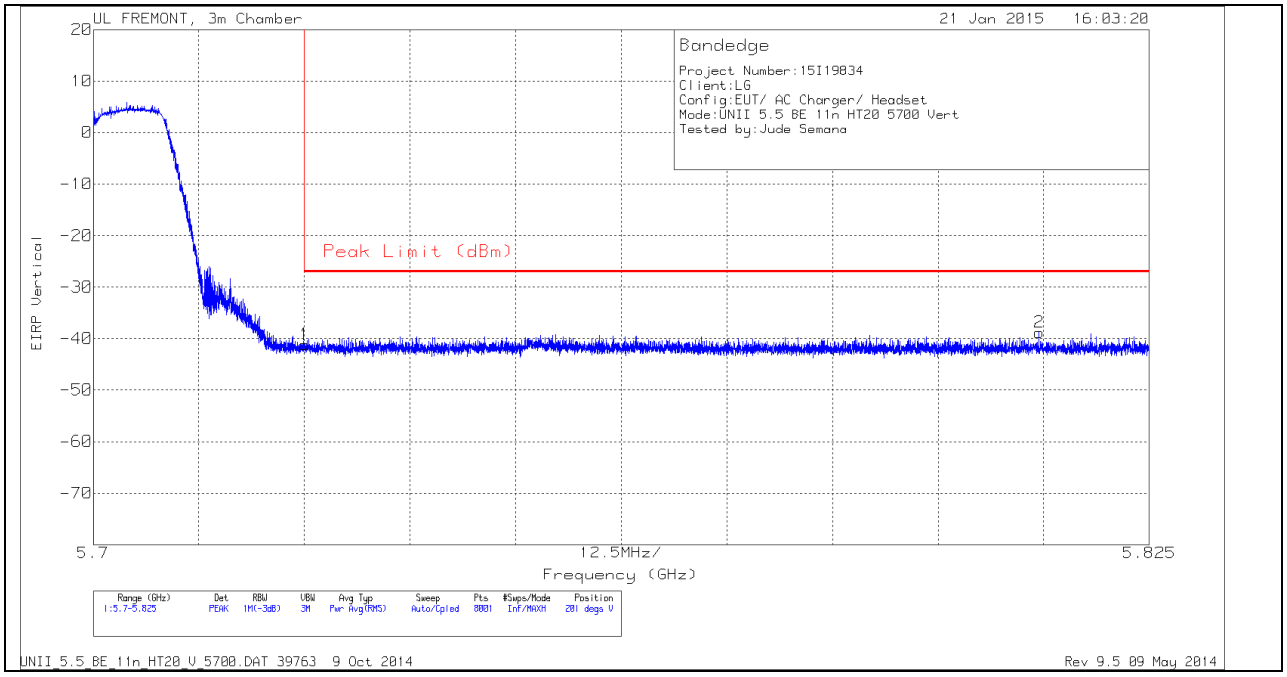
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	-68.28	PK	35.2	-21.1	11.8	0	-42.38	-27	-15.38	241	155	H
2	5.755	-64.4	PK	35.3	-21.1	11.8	0	-38.4	-27	-11.4	241	155	H

VERTICAL PEAK AND AVERAGE PLOT

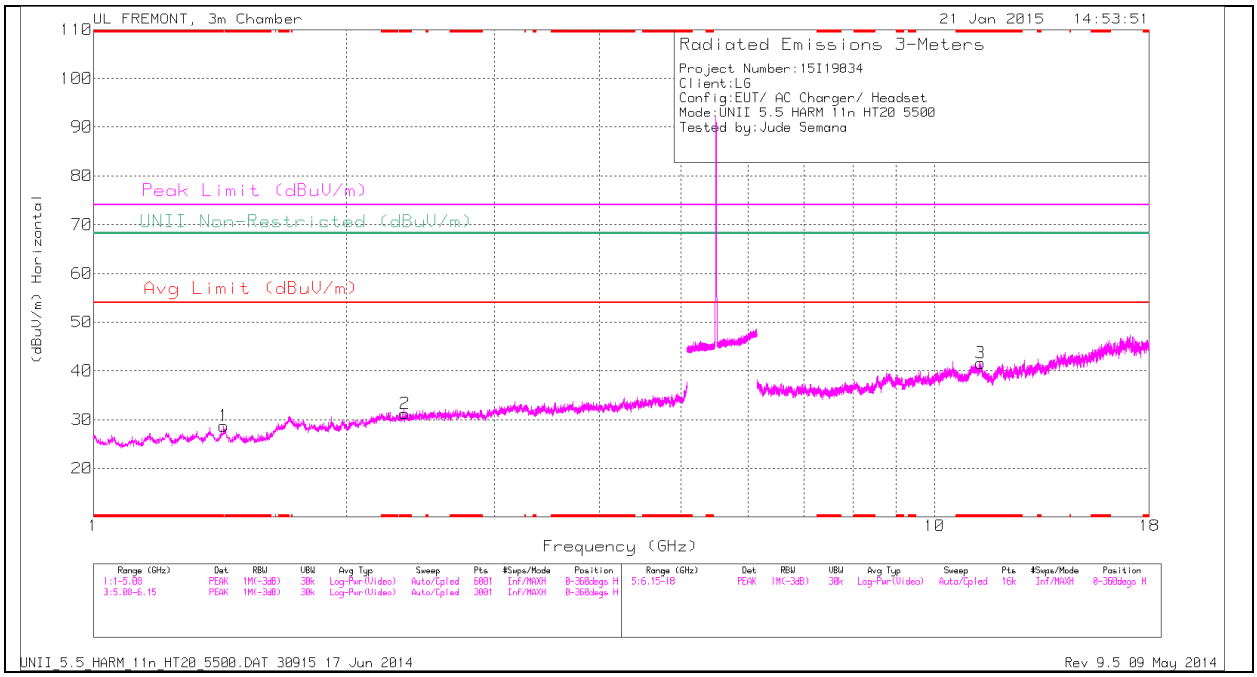


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	-67.1	PK	35.2	-21.1	11.8	0	-41.2	-27	-14.2	201	200	V
2	5.812	-64.71	PK	35.4	-21.3	11.8	0	-38.81	-27	-11.81	201	200	V

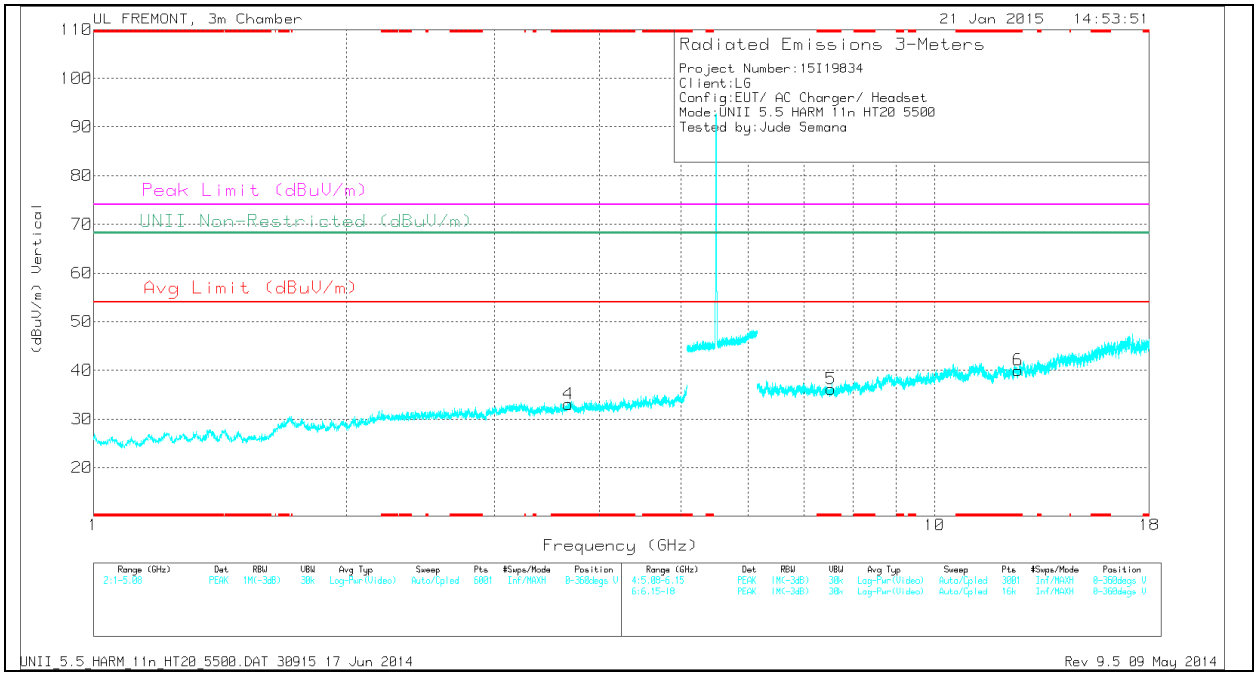
HARMONICS AND SPURIOUS EMISSIONS

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

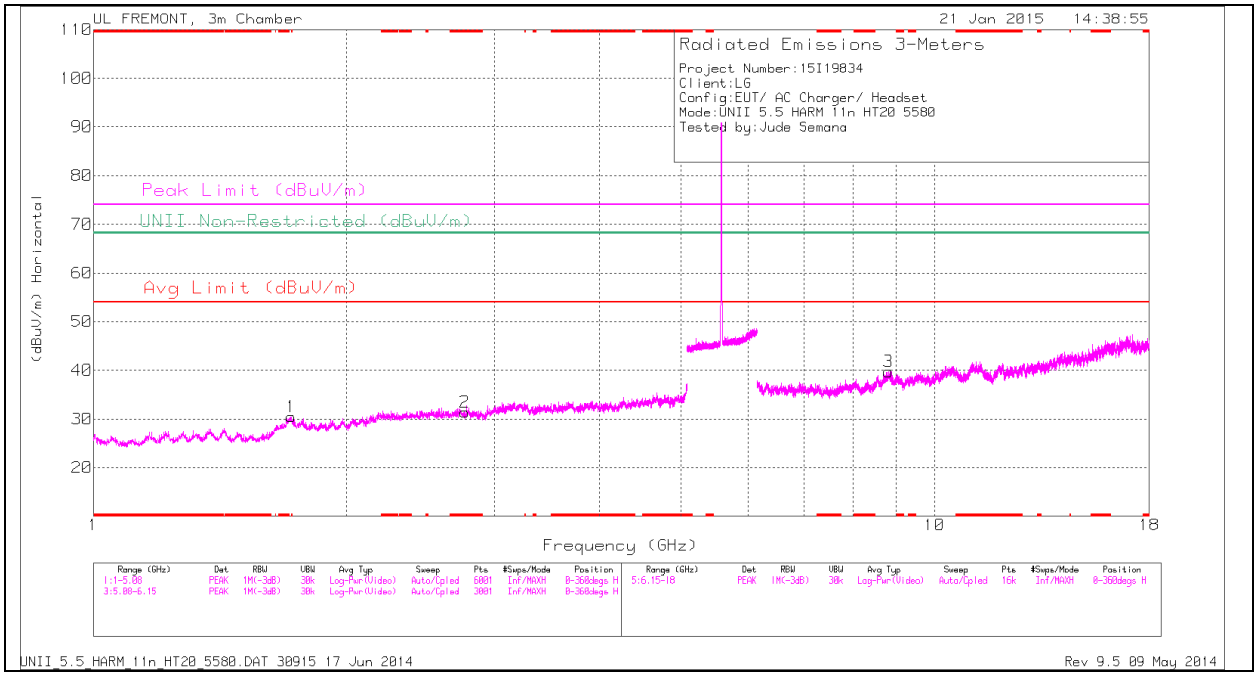
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.348	31.94	PK	32	-32.7	0	31.24	-	-	74	-42.76	-	-	0-360	200	H
4	* 3.672	30.67	PK	33	-30.6	0	33.07	-	-	74	-40.93	-	-	0-360	100	V
3	* 11.349	28.98	PK	38.2	-25.6	0	41.58	-	-	74	-32.42	-	-	0-360	100	H
5	* 7.531	29.58	PK	35.5	-28.9	0	36.18	-	-	74	-37.82	-	-	0-360	100	V
6	* 12.565	27.91	PK	38.8	-26.7	0	40.01	-	-	74	-33.99	-	-	0-360	200	V
1	1.429	33.09	PK	28.2	-32.6	0	28.69	-	-	-	-	68.2	-39.51	0-360	100	H

PK - Peak detector

RADIATED EMISSIONS

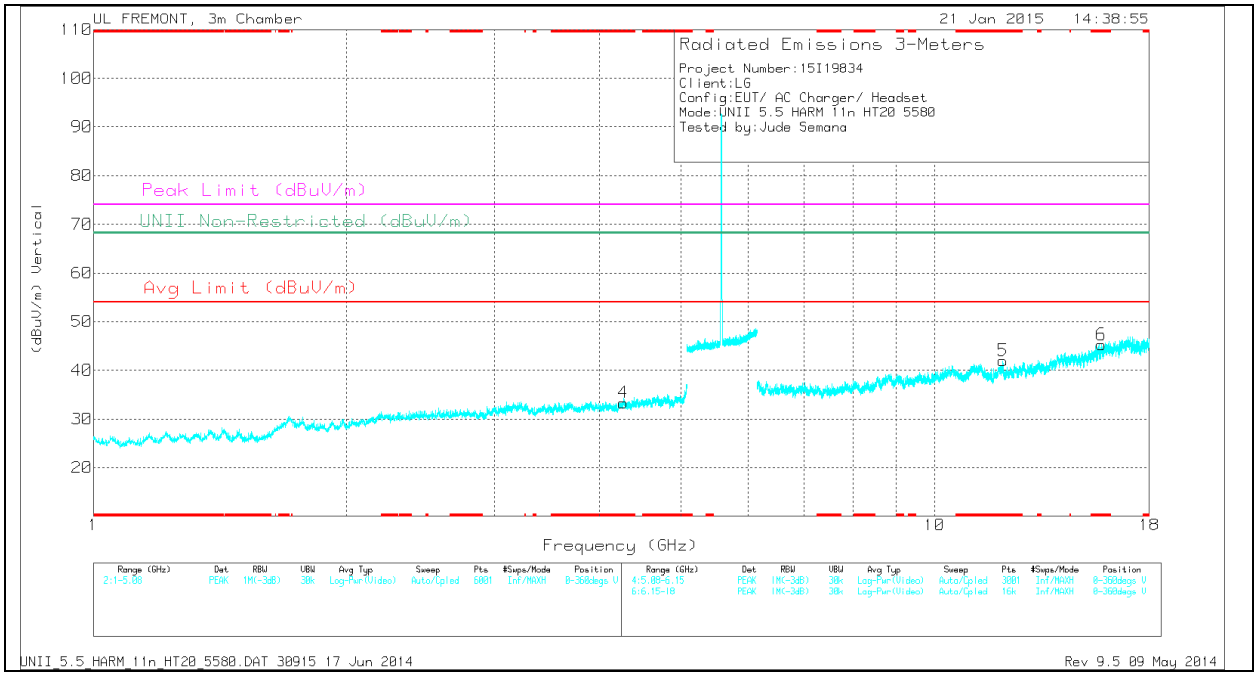
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 10.62	39.1	PK1	38.1	-25	0	52.2	-	-	74	-21.8	-	-	231	155	V
* 10.62	30.43	AD1	38.1	-25	.2	43.73	54	-10.27	-	-	-	-	231	155	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

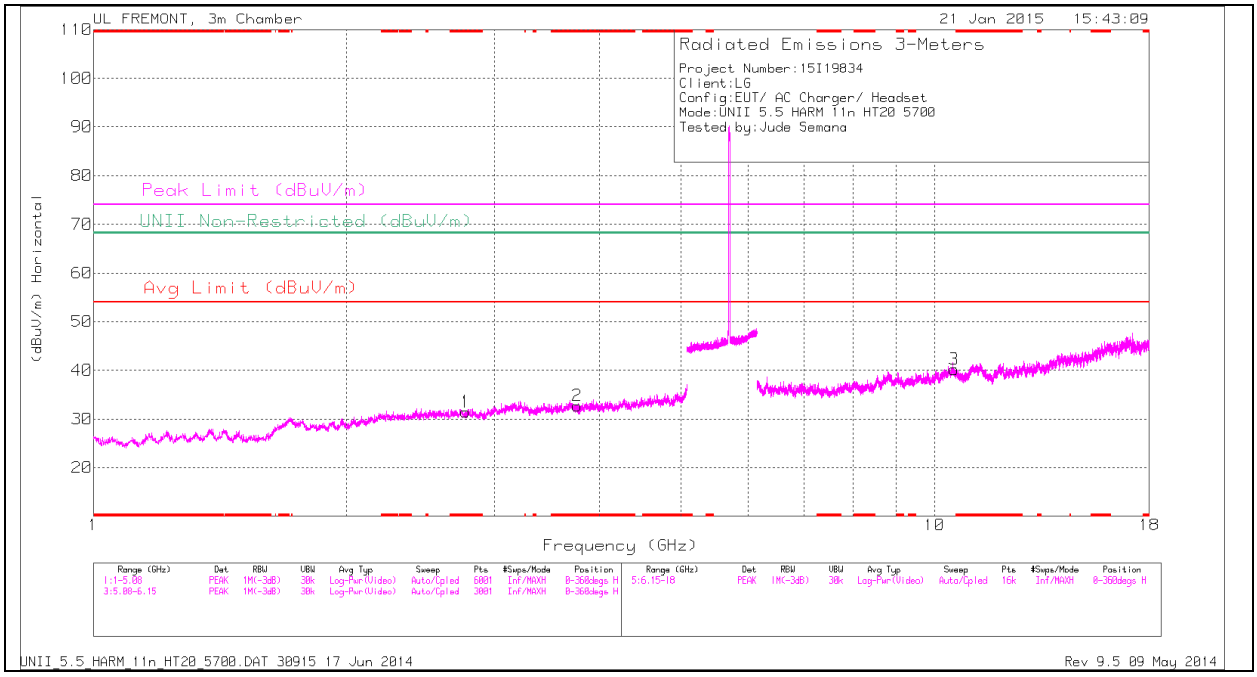
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.72	31.87	PK	30.6	-32	0	30.47	-	-	74	-43.53	-	-	0-360	100	H
5	* 12.058	29.79	PK	38.5	-26.3	0	41.99	-	-	74	-32.01	-	-	0-360	100	V
6	* 15.796	30.18	PK	41.7	-26.6	0	45.28	-	-	74	-28.72	-	-	0-360	200	V
2	* 2.766	31.21	PK	32.4	-32.2	0	31.41	-	-	74	-42.59	-	-	0-360	100	H
4	* 4.265	30.33	PK	33.4	-30.4	0	33.33	-	-	74	-40.67	-	-	0-360	200	V
3	8.818	28.72	PK	36.6	-25.6	0	39.72	-	-	-	-	68.2	-28.48	0-360	200	H

PK - Peak detector

RADIATED EMISSIONS

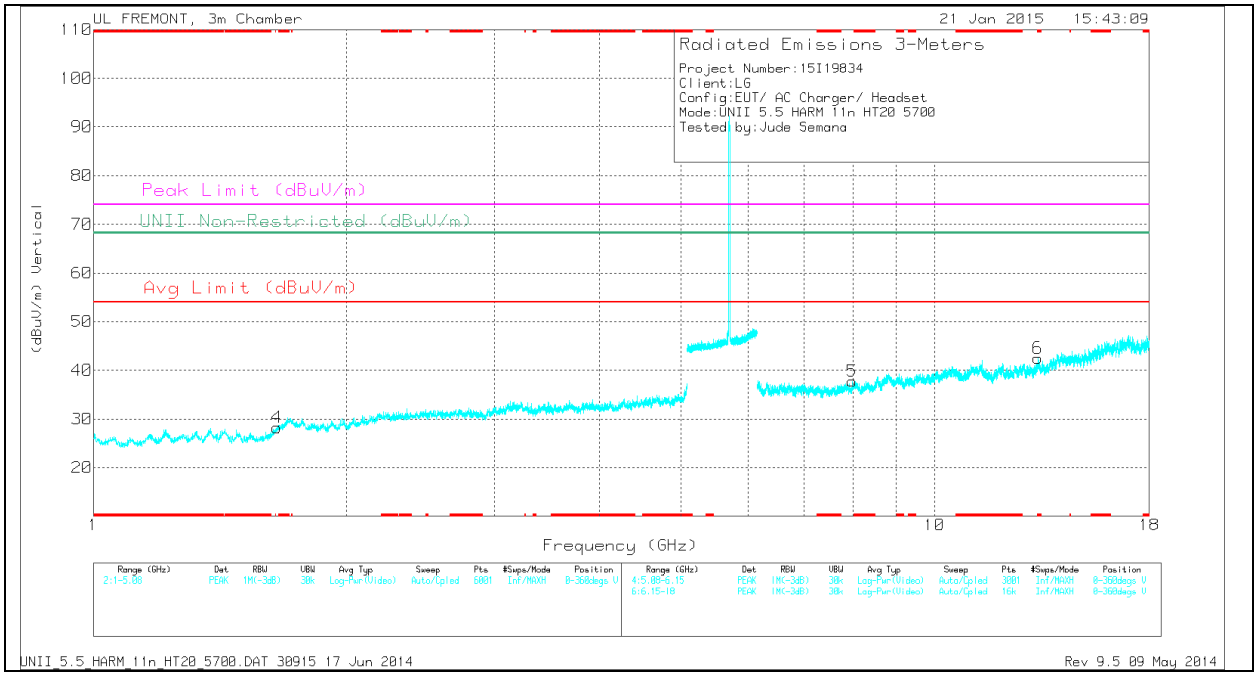
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 10.62	39.1	PK1	38.1	-25	0	52.2	-	-	74	-21.8	-	-	231	155	V
* 10.62	30.43	AD1	38.1	-25	.2	43.73	54	-10.27	-	-	-	-	231	155	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 T711 (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	* 2.773	31.25	PK	32.4	-32.2	0	31.45	-	-	74	-42.55	-	-	0-360	200	H
2	* 3.761	31.61	PK	32.9	-31.8	0	32.71	-	-	74	-41.29	-	-	0-360	200	H
6	* 13.268	29.78	PK	38.8	-26.1	0	42.48	-	-	74	-31.52	-	-	0-360	100	V
4	1.654	31.57	PK	29.3	-32.6	0	28.27	-	-	-	-	68.2	-39.93	0-360	100	V
5	7.987	30.39	PK	35.9	-28.5	0	37.79	-	-	-	-	68.2	-30.41	0-360	100	V
3	10.553	27.49	PK	38.1	-25.4	0	40.19	-	-	-	-	68.2	-28.01	0-360	200	H

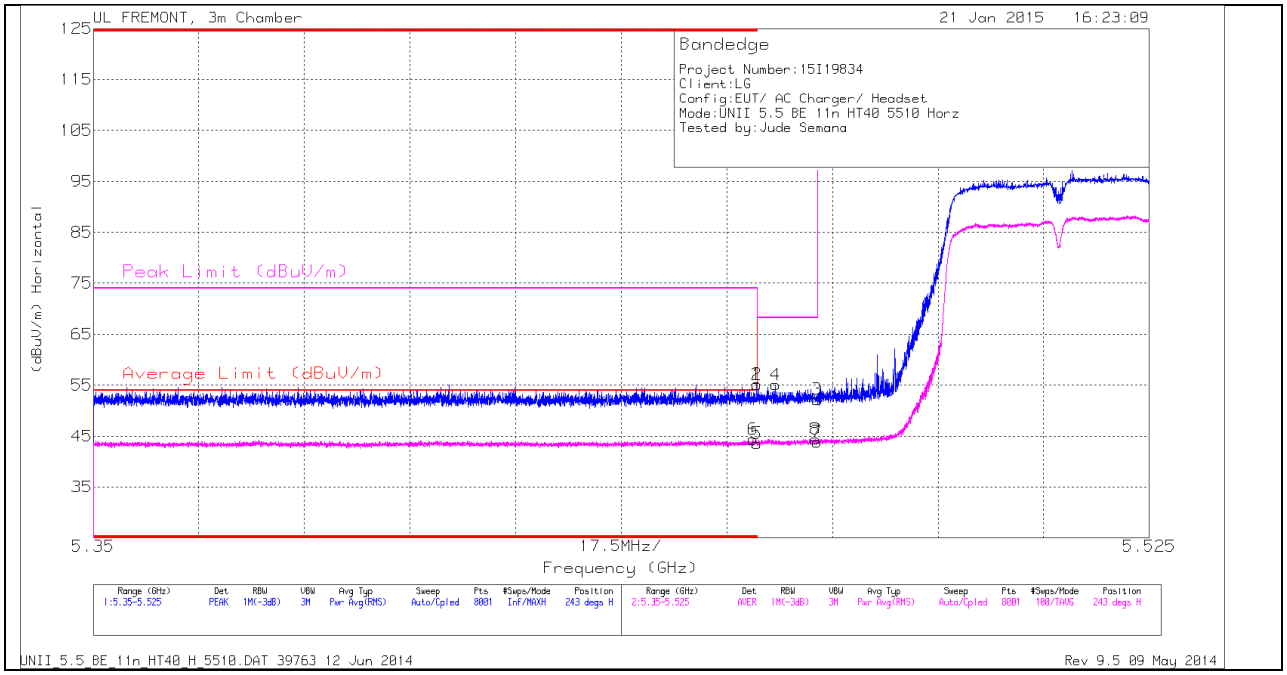
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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
* 10.62	39.1	PK1	38.1	-25	0	52.2	-	-	74	-21.8	-	-	231	155	V
* 10.62	30.43	AD1	38.1	-25	.2	43.73	54	-10.27	-	-	-	-	231	155	V

11.3.3. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.5 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

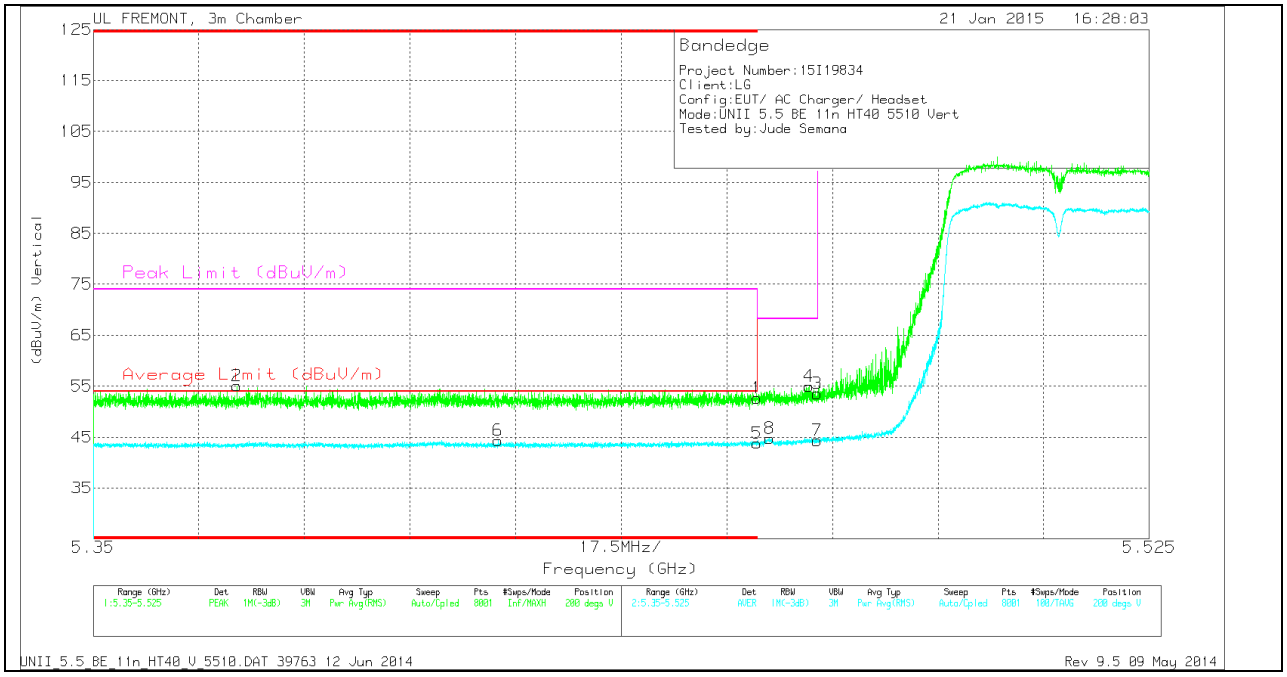
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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	* 5.46	42.05	PK	34.5	-21.4	0	55.15	-	-	74	-18.85	243	117	H
2	* 5.46	42.01	PK	34.5	-21.4	0	55.11	-	-	74	-18.89	243	117	H
5	* 5.46	29.82	RMS	34.5	-21.4	.6	43.52	54	-10.48	-	-	243	117	H
6	* 5.459	30.65	RMS	34.5	-21.4	.6	44.35	54	-9.65	-	-	243	117	H
4	5.463	41.98	PK	34.5	-21.4	0	55.08	-	-	68.2	-13.12	243	117	H
3	5.47	38.98	PK	34.5	-21.3	0	52.18	-	-	68.2	-16.02	243	117	H
7	5.47	30.09	RMS	34.5	-21.3	.6	43.89	-	-	-	-	243	117	H
8	5.47	30.59	RMS	34.5	-21.3	.6	44.39	-	-	-	-	243	117	H

VERTICAL PEAK AND AVERAGE PLOT

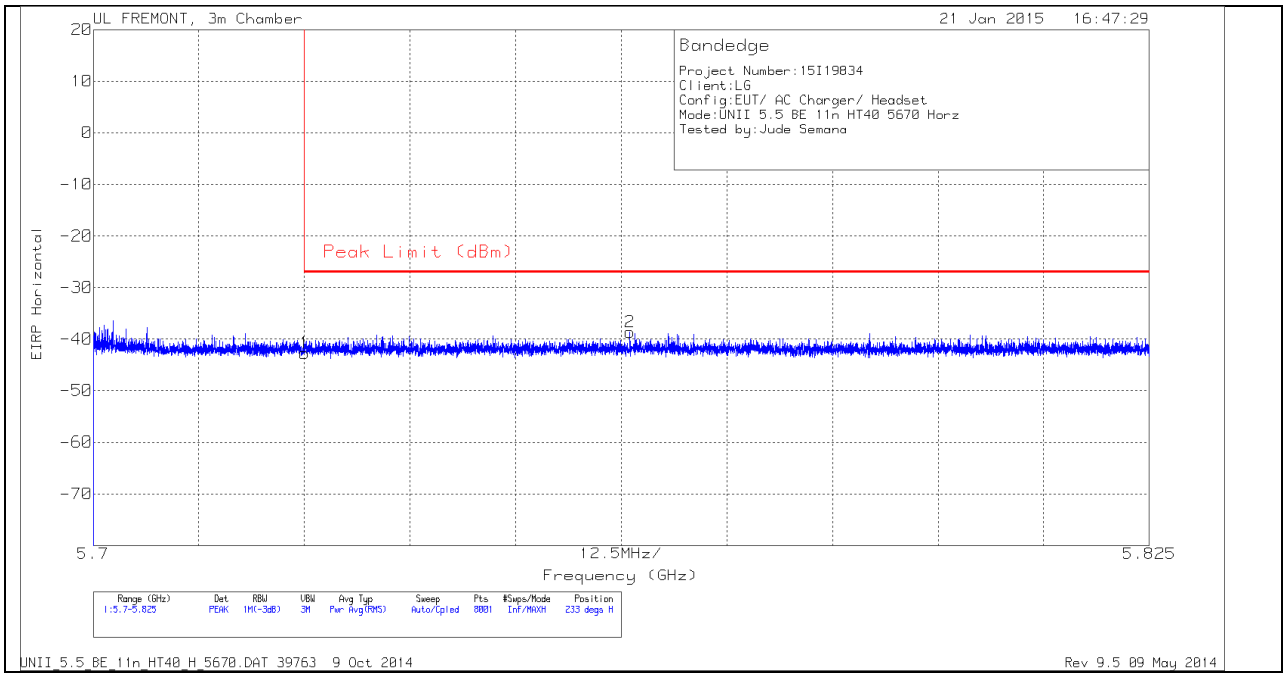


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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
2	* 5.374	42.18	PK	34.3	-21.4	0	55.08	-	-	74	-18.92	200	231	V
6	* 5.417	30.69	RMS	34.4	-21.4	.6	44.29	54	-9.71	-	-	200	231	V
1	* 5.46	39.57	PK	34.5	-21.4	0	52.67	-	-	74	-21.33	200	231	V
5	* 5.46	30.1	RMS	34.5	-21.4	.6	43.8	54	-10.2	-	-	200	231	V
8	5.462	31.02	RMS	34.5	-21.4	.6	44.72	-	-	-	-	200	231	V
4	5.469	41.77	PK	34.5	-21.3	0	54.97	-	-	68.2	-13.23	200	231	V
3	5.47	40.34	PK	34.5	-21.3	0	53.54	-	-	68.2	-14.66	200	231	V
7	5.47	30.51	RMS	34.5	-21.3	.6	44.31	-	-	-	-	200	231	V

AUTHORIZED BANDEDGE (HIGH CHANNEL)

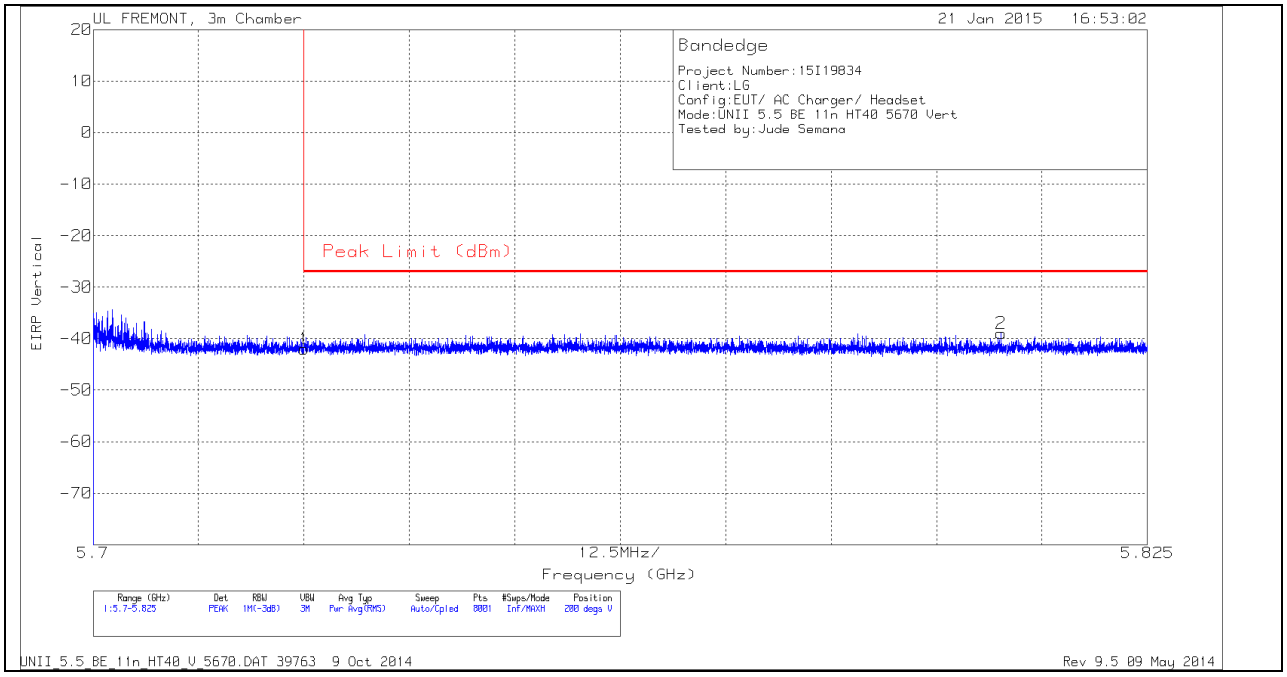
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	-68.64	PK	35.2	-21.1	11.8	0	-42.74	-27	-15.74	233	111	H
2	5.764	-64.53	PK	35.3	-21.2	11.8	0	-38.63	-27	-11.63	233	111	H

VERTICAL PEAK AND AVERAGE PLOT

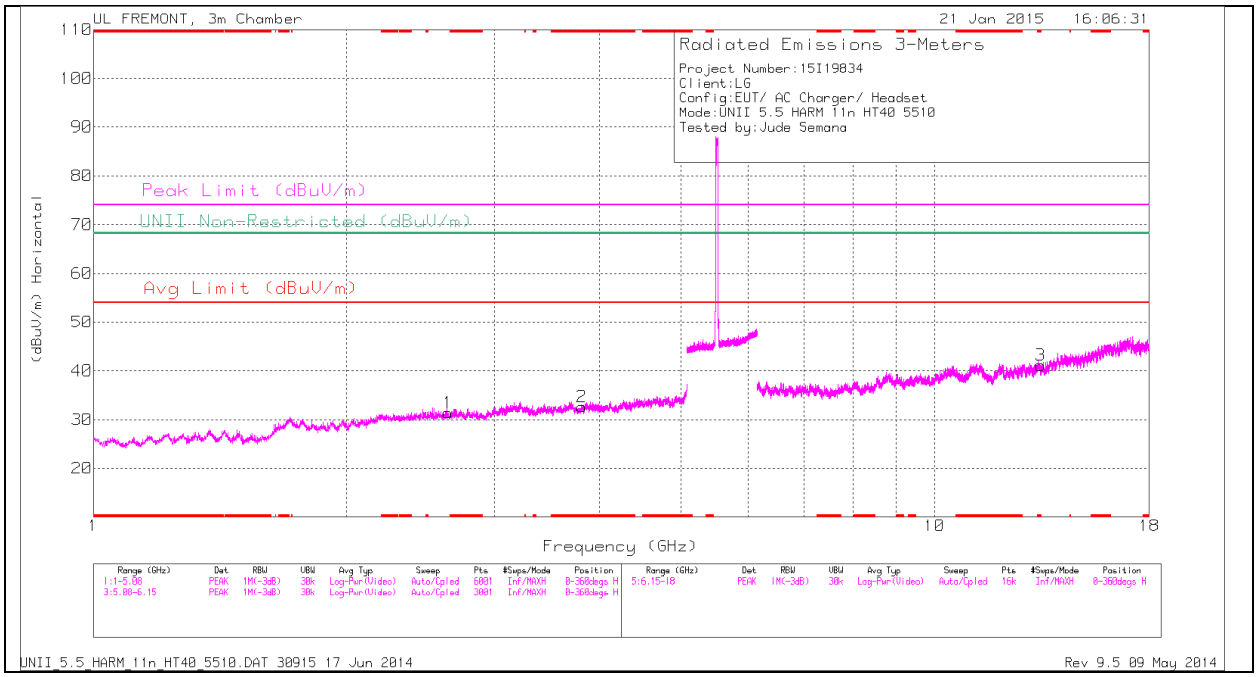


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	-67.88	PK	35.2	-21.1	11.8	0	-41.98	-27	-14.98	200	260	V
2	5.808	-64.89	PK	35.4	-21.3	11.8	0	-38.99	-27	-11.99	200	260	V

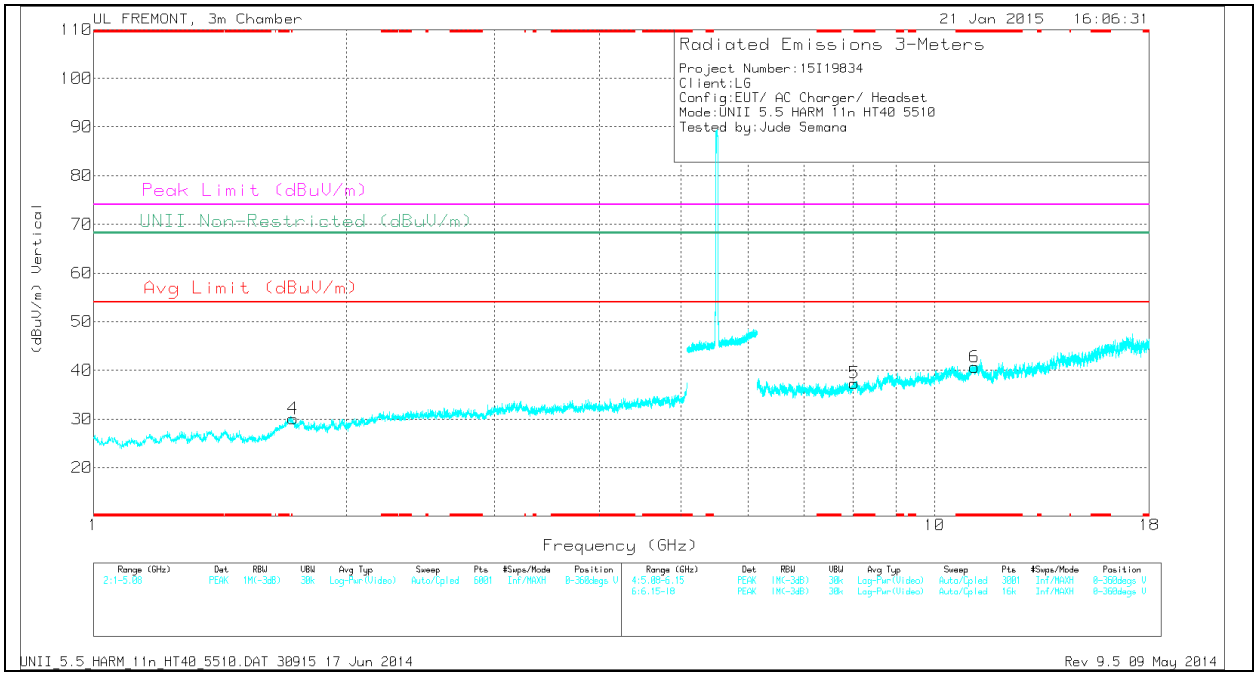
HARMONICS AND SPURIOUS EMISSIONS

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

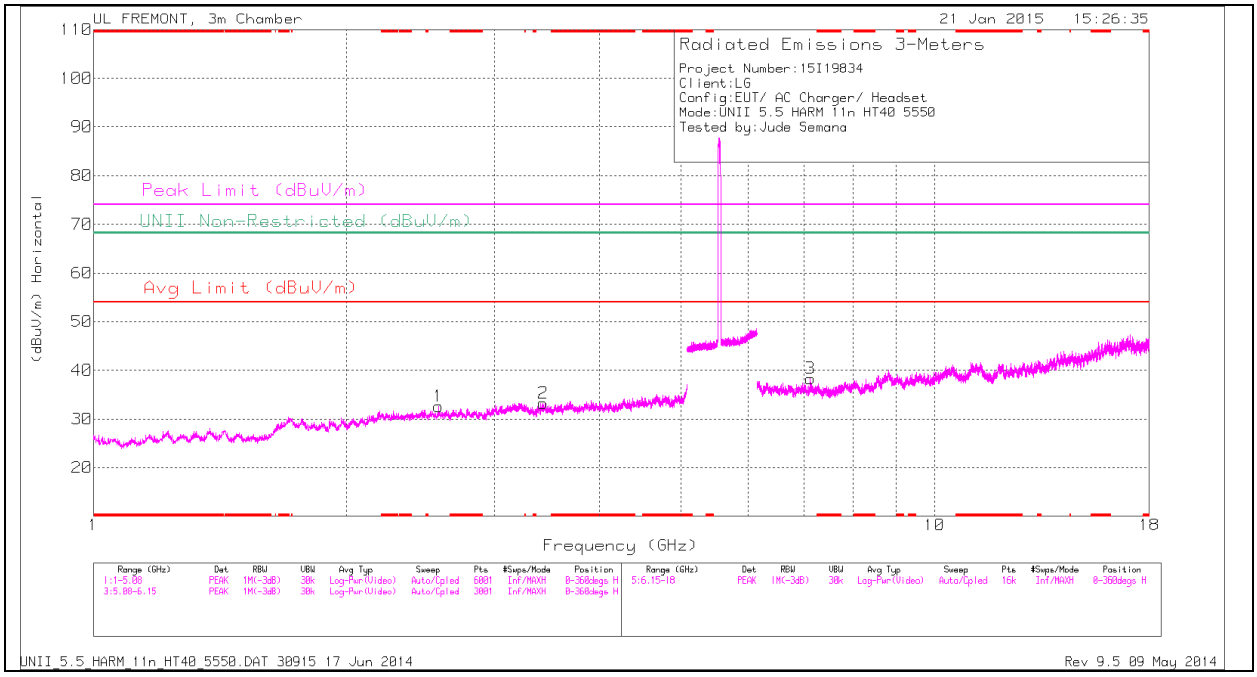
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 3.811	31.25	PK	32.9	-31.5	0	32.65	-	-	74	-41.35	-	-	0-360	100	H
3	* 13.368	29.75	PK	38.9	-27.5	0	41.15	-	-	74	-32.85	-	-	0-360	100	H
5	* 8.028	29.07	PK	36	-27.7	0	37.37	-	-	74	-36.63	-	-	0-360	200	V
6	* 11.161	28.19	PK	38.3	-25.8	0	40.69	-	-	74	-33.31	-	-	0-360	100	V
4	1.728	31.56	PK	30.6	-32.1	0	30.06	-	-	-	-	68.2	-38.14	0-360	200	V
1	2.64	31.52	PK	32.3	-32.4	0	31.42	-	-	-	-	68.2	-36.78	0-360	200	H

PK - Peak detector

RADIATED EMISSIONS

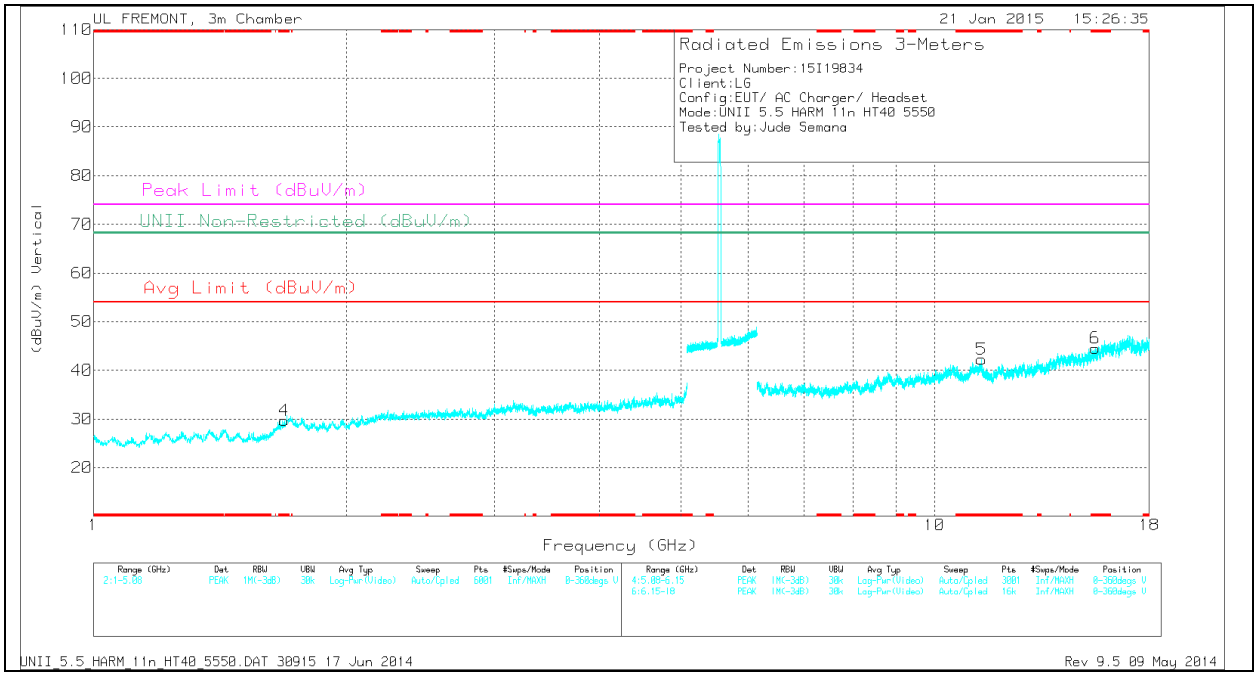
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 10.62	39.1	PK1	38.1	-25	0	52.2	-	-	74	-21.8	-	-	231	155	V
* 10.62	30.43	AD1	38.1	-25	.6	44.13	54	-9.87	-	-	-	-	231	155	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

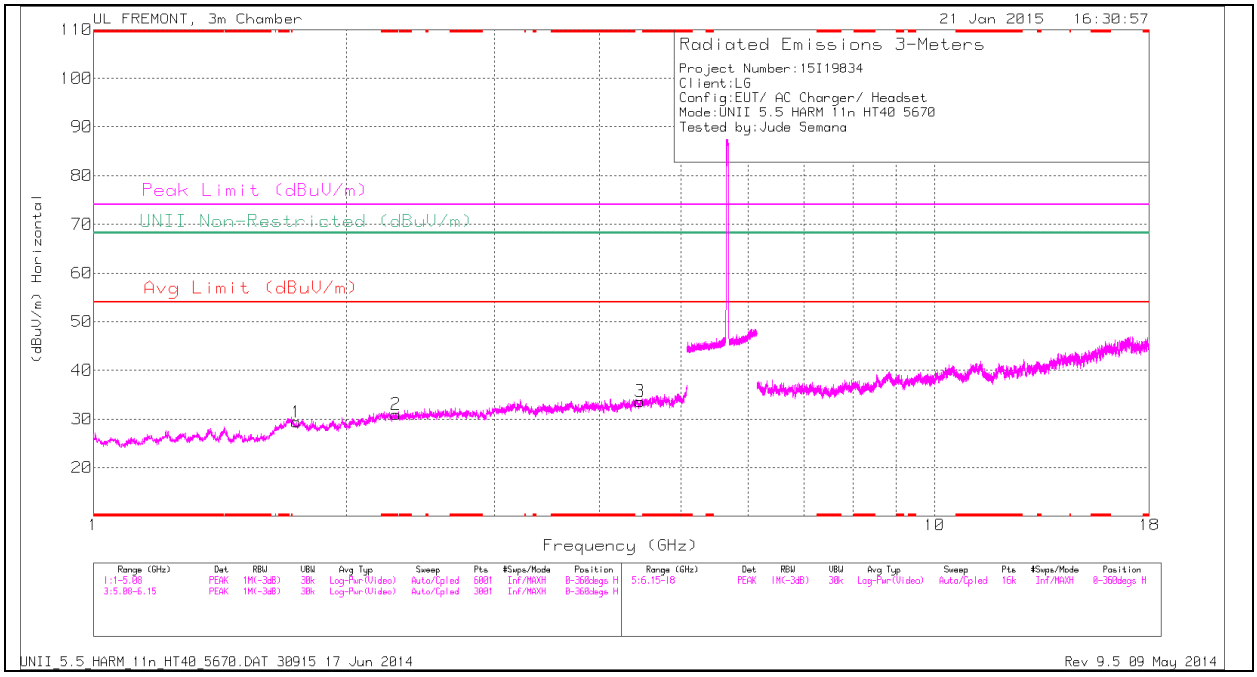
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	* 1.687	31.69	PK	30.3	-32.3	0	29.69	-	-	74	-44.31	-	-	0-360	200	V
5	* 11.375	30.17	PK	38.2	-26.1	0	42.27	-	-	74	-31.73	-	-	0-360	200	V
6	* 15.524	30.52	PK	41	-27	0	44.52	-	-	74	-29.48	-	-	0-360	200	V
1	2.573	32.63	PK	32.3	-32.3	0	32.63	-	-	-	-	68.2	-35.57	0-360	200	H
2	3.426	31.94	PK	32.8	-31.5	0	33.24	-	-	-	-	68.2	-34.96	0-360	200	H
3	7.119	31.6	PK	35.6	-28.9	0	38.3	-	-	-	-	68.2	-29.9	0-360	100	H

PK - Peak detector

RADIATED EMISSIONS

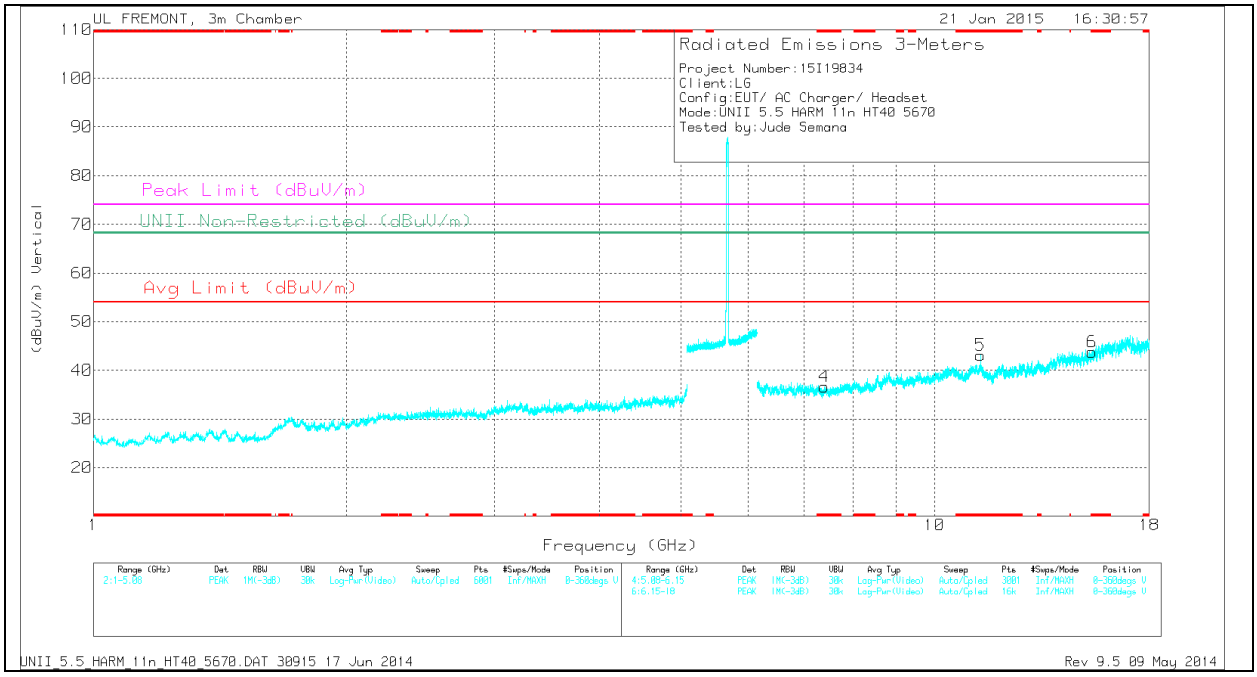
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 10.62	39.1	PK1	38.1	-25	0	52.2	-	-	74	-21.8	-	-	231	155	V
* 10.62	30.43	AD1	38.1	-25	.6	44.13	54	-9.87	-	-	-	-	231	155	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 T711 (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	* 2.289	31.47	PK	31.9	-32.4	0	30.97	-	-	74	-43.03	-	-	0-360	100	H
4	* 7.396	29.66	PK	35.6	-28.6	0	36.66	-	-	74	-37.34	-	-	0-360	200	V
5	* 11.34	30.39	PK	38.2	-25.5	0	43.09	-	-	74	-30.91	-	-	0-360	100	V
6	* 15.388	30.15	PK	40.6	-27	0	43.75	-	-	74	-30.25	-	-	0-360	200	V
1	1.745	31.19	PK	30.5	-32.3	0	29.39	-	-	-	-	68.2	-38.81	0-360	100	H
3	4.467	30.81	PK	33.6	-30.8	0	33.61	-	-	-	-	68.2	-34.59	0-360	200	H

PK - Peak detector

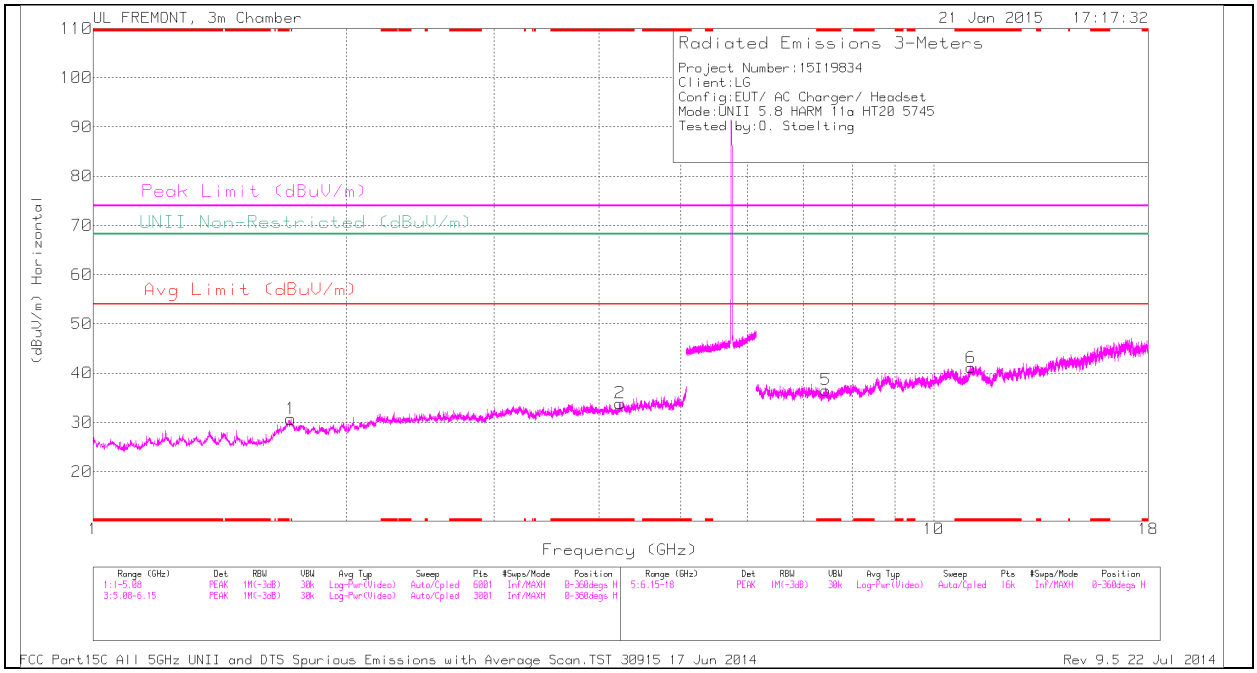
RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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
* 10.62	39.1	PK1	38.1	-25	0	52.2	-	-	74	-21.8	-	-	231	155	V
* 10.62	30.43	AD1	38.1	-25	.6	44.13	54	-9.87	-	-	-	-	231	155	V

11.4. 5.8 GHz

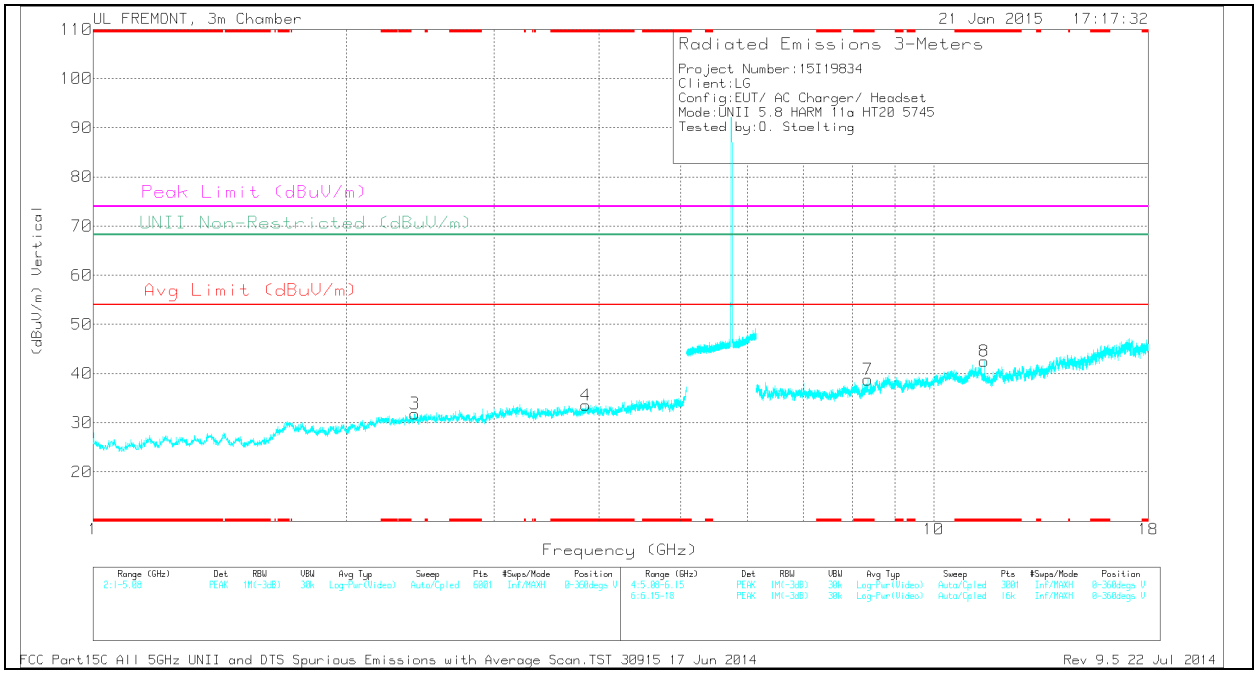
11.4.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.8 GHz BAND HARMONICS AND SPURIOUS EMISSIONS

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

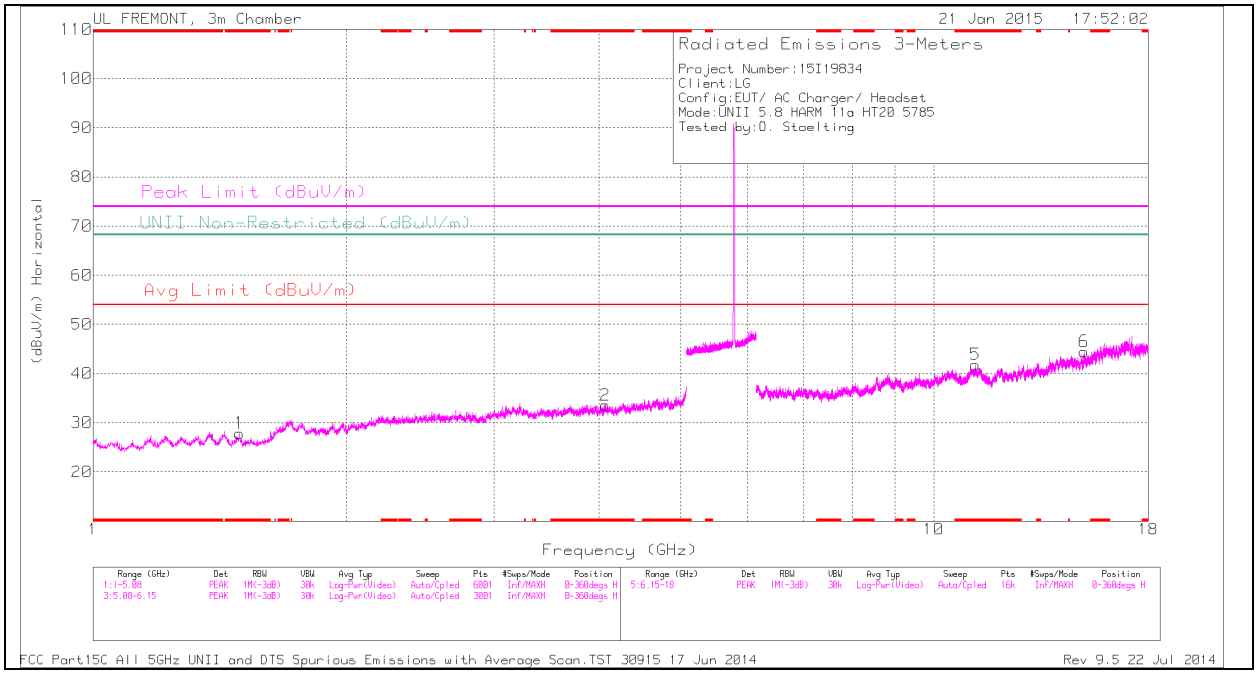
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.235	31.79	PK	33.4	-31.3	0	33.89	-	-	74	-40.11	-	-	0-360	200	H
4	* 3.855	31.25	PK	33	-30.7	0	33.55	-	-	74	-40.45	-	-	0-360	200	V
5	* 7.442	29.77	PK	35.5	-28.7	0	36.57	-	-	74	-37.43	-	-	0-360	100	H
6	* 11.082	27.99	PK	38.4	-25.3	0	41.09	-	-	74	-32.91	-	-	0-360	100	H
7	* 8.352	29.47	PK	36.1	-26.8	0	38.77	-	-	74	-35.23	-	-	0-360	200	V
8	* 11.49	30.39	PK	38.1	-26	0	42.49	-	-	74	-31.51	-	-	0-360	100	V
1	1.719	32.12	PK	30.6	-32	0	30.72	-	-	-	-	68.2	-37.48	0-360	200	H
3	2.414	32.42	PK	32.1	-32.7	0	31.82	-	-	-	-	68.2	-36.38	0-360	200	V

PK - Peak detector

RADIATED EMISSIONS

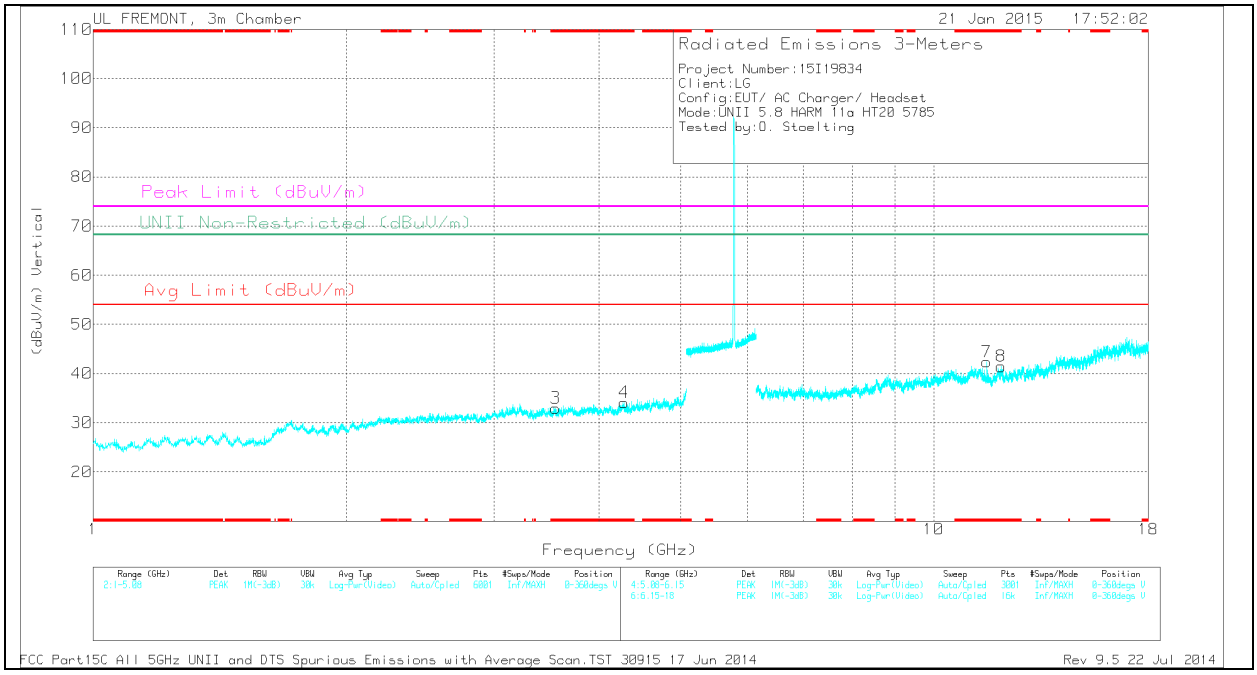
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 11.083	37.38	PK1	38.4	-25.3	0	50.48	-	-	74	-23.52	-	-	111	164	H
* 11.084	24.95	AD1	38.4	-25.3	.24	38.29	54	-15.71	-	-	-	-	111	164	H
* 11.49	39.24	PK1	38.1	-26	0	51.34	-	-	74	-22.66	-	-	1	349	V
* 11.49	31.04	AD1	38.1	-26	.24	43.38	54	-10.62	-	-	-	-	1	349	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

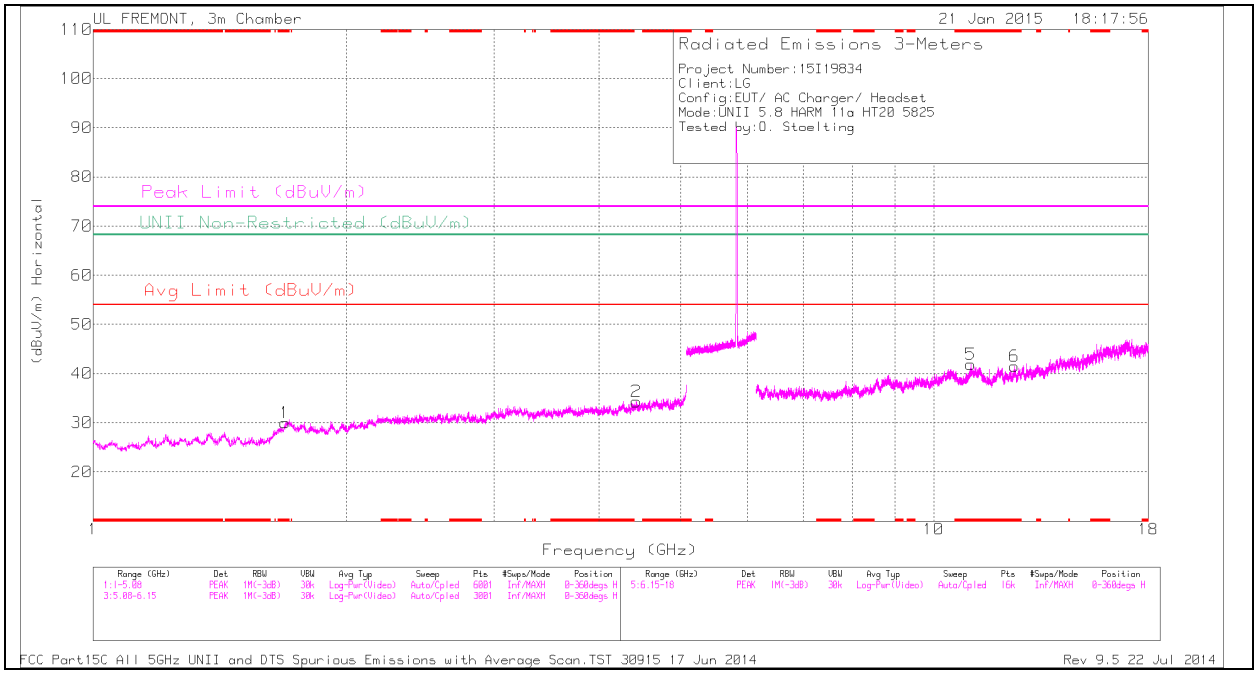
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.494	32.96	PK	27.7	-32.8	0	27.86	-	-	74	-46.14	-	-	0-360	100	H
2	* 4.07	31.64	PK	33.2	-31.3	0	33.54	-	-	74	-40.46	-	-	0-360	100	H
3	* 3.549	31.77	PK	33.1	-31.9	0	32.97	-	-	74	-41.03	-	-	0-360	100	V
4	* 4.28	31.1	PK	33.4	-30.4	0	34.1	-	-	74	-39.9	-	-	0-360	200	V
5	* 11.204	29.41	PK	38.3	-25.9	0	41.81	-	-	74	-32.19	-	-	0-360	200	H
7	* 11.57	30.4	PK	38.1	-26.1	0	42.4	-	-	74	-31.6	-	-	0-360	100	V
8	* 12.036	29.15	PK	38.5	-26.2	0	41.45	-	-	74	-32.55	-	-	0-360	100	V
6	15.09	30.95	PK	40	-26.5	0	44.45	-	-	-	-	68.2	-23.75	0-360	200	H

PK - Peak detector

RADIATED EMISSIONS

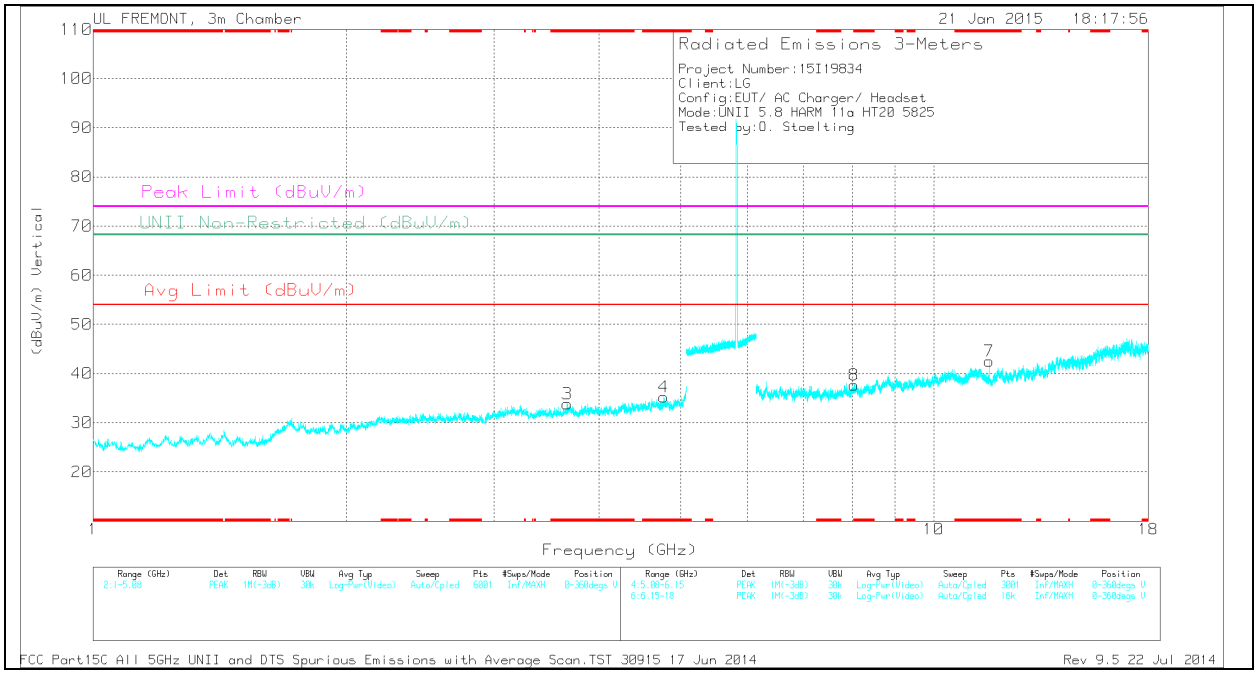
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 11.204	37.17	PK1	38.3	-25.9	0	49.57	-	-	74	-24.43	-	-	273	247	H
* 11.206	25.34	AD1	38.3	-25.9	.24	37.98	54	-16.02	-	-	-	-	273	247	H
* 11.57	38.5	PK1	38.1	-26.1	0	50.5	-	-	74	-23.5	-	-	195	162	V
* 11.57	29.7	AD1	38.1	-26.1	.24	41.94	54	-12.06	-	-	-	-	195	162	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 T711 (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	* 1.692	31.8	PK	30.5	-32.3	0	30	-	-	74	-44	-	-	0-360	200	H
3	* 3.665	31.63	PK	33	-30.8	0	33.83	-	-	74	-40.17	-	-	0-360	100	V
4	* 4.771	31.53	PK	33.9	-30.2	0	35.23	-	-	74	-38.77	-	-	0-360	200	V
5	* 11.067	28.47	PK	38.3	-24.9	0	41.87	-	-	74	-32.13	-	-	0-360	100	H
6	* 12.466	29.3	PK	38.7	-26.5	0	41.5	-	-	74	-32.5	-	-	0-360	200	H
7	* 11.65	30.49	PK	38.2	-26.2	0	42.49	-	-	74	-31.51	-	-	0-360	200	V
8	* 8.041	29.35	PK	36	-27.7	0	37.65	-	-	74	-36.35	-	-	0-360	200	V
2	4.429	31.1	PK	33.6	-30.4	0	34.3	-	-	-	-	68.2	-33.9	0-360	100	H

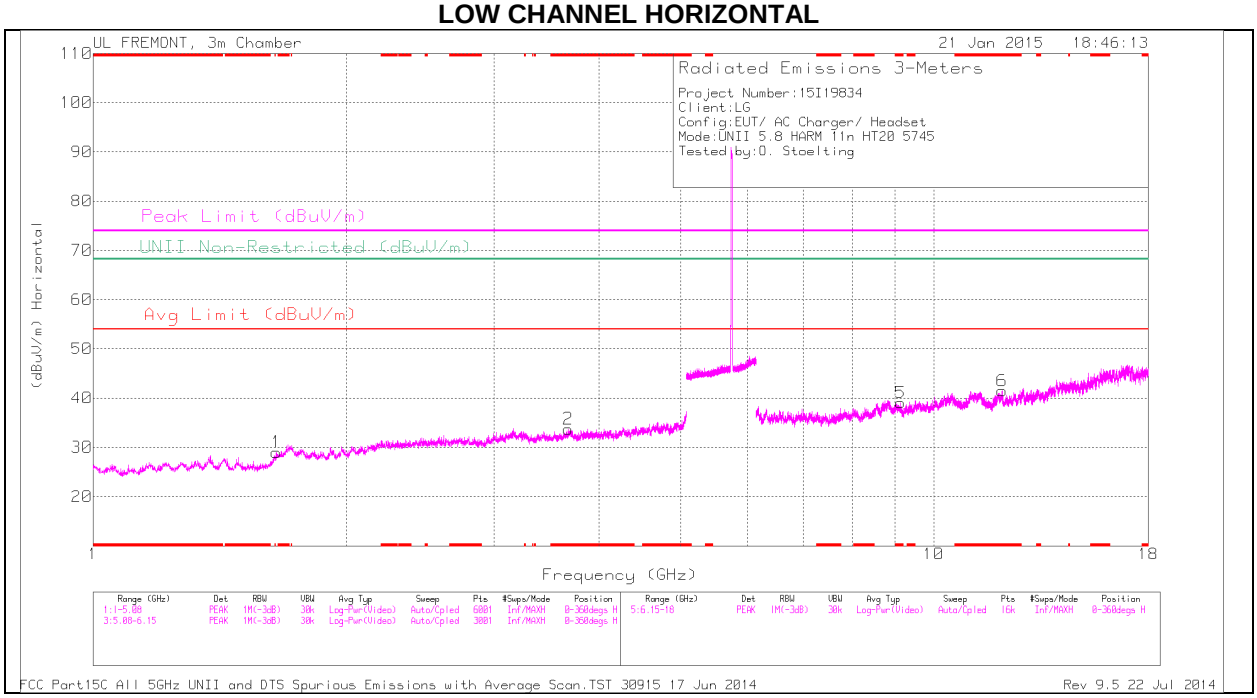
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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
* 11.067	36.48	PK1	38.3	-24.9	0	49.88	-	-	74	-24.12	-	-	81	309	H
* 11.065	24.61	AD1	38.3	-25	.24	38.15	54	-15.85	-	-	-	-	81	309	H
* 12.466	38.17	PK1	38.7	-26.5	0	50.37	-	-	74	-23.63	-	-	171	253	H
* 12.467	26.16	AD1	38.7	-26.5	.24	38.6	54	-15.4	-	-	-	-	171	253	H
* 11.65	40.11	PK1	38.2	-26.2	0	52.11	-	-	74	-21.89	-	-	196	200	V
* 11.65	31.77	AD1	38.2	-26.2	.24	44.01	54	-9.99	-	-	-	-	196	200	V

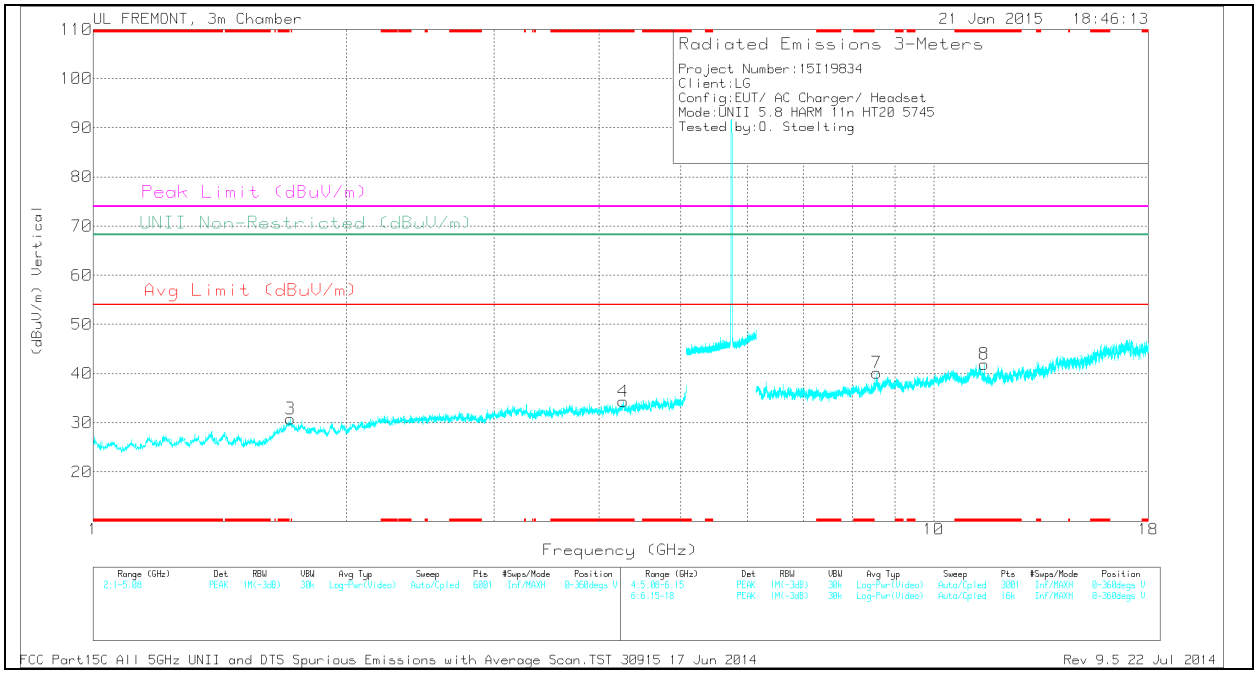
11.4.2. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.8 GHz BAND HARMONICS AND SPURIOUS EMISSIONS

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

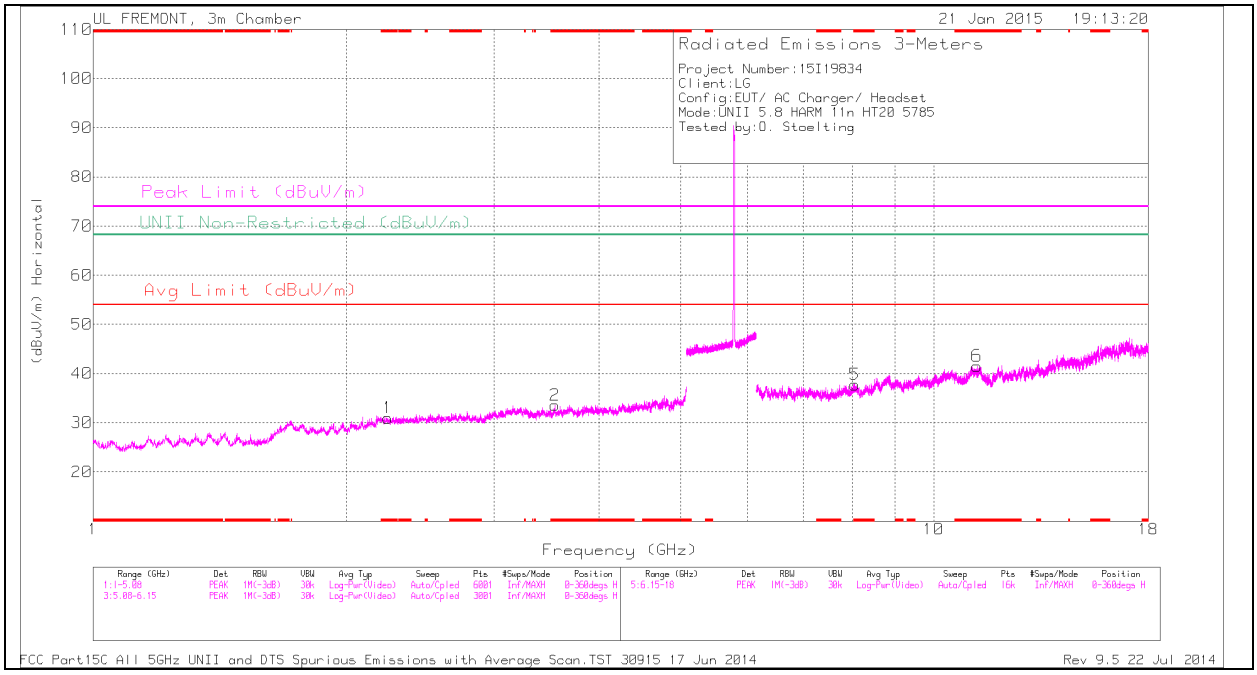
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 3.675	31.22	PK	33	-30.5	0	33.72	-	-	74	-40.28	-	-	0-360	200	H
4	* 4.273	31.24	PK	33.4	-30.3	0	34.34	-	-	74	-39.66	-	-	0-360	200	V
5	* 9.133	28.76	PK	36.7	-26.4	0	39.06	-	-	74	-34.94	-	-	0-360	200	H
6	* 12.061	29.39	PK	38.5	-26.4	0	41.49	-	-	74	-32.51	-	-	0-360	200	H
8	* 11.49	29.82	PK	38.1	-26	0	41.92	-	-	74	-32.08	-	-	0-360	100	V
1	1.652	32.39	PK	29.3	-32.7	0	28.99	-	-	-	-	68.2	-39.21	0-360	200	H
3	1.717	32.2	PK	30.6	-32	0	30.8	-	-	-	-	68.2	-37.4	0-360	100	V
7	8.552	29.86	PK	36.3	-26	0	40.16	-	-	-	-	68.2	-28.04	0-360	100	V

PK - Peak detector

RADIATED EMISSIONS

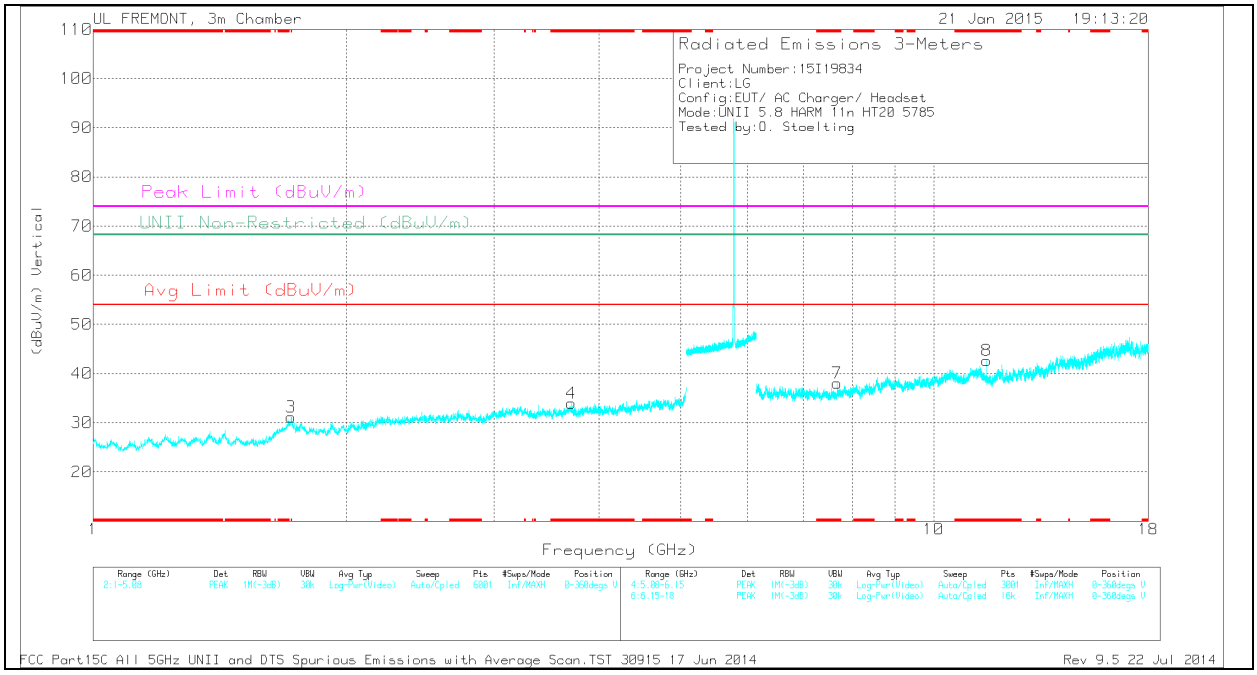
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 12.063	37.27	PK1	38.5	-26.4	0	49.37	-	-	74	-24.63	-	-	247	178	H
* 12.063	25.58	AD1	38.5	-26.4	.23	37.91	54	-16.09	-	-	-	-	247	178	H
* 11.49	38.66	PK1	38.1	-26	0	50.76	-	-	74	-23.24	-	-	190	214	V
* 11.49	29.16	AD1	38.1	-26	.23	41.49	54	-12.51	-	-	-	-	190	214	V
8.551	38.29	PK1	36.3	-26	0	48.59	-	-	-	-	68.2	-19.61	355	202	V
8.552	25.94	AD1	36.3	-26.1	.23	36.37	-	-	-	-	-	-	355	202	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

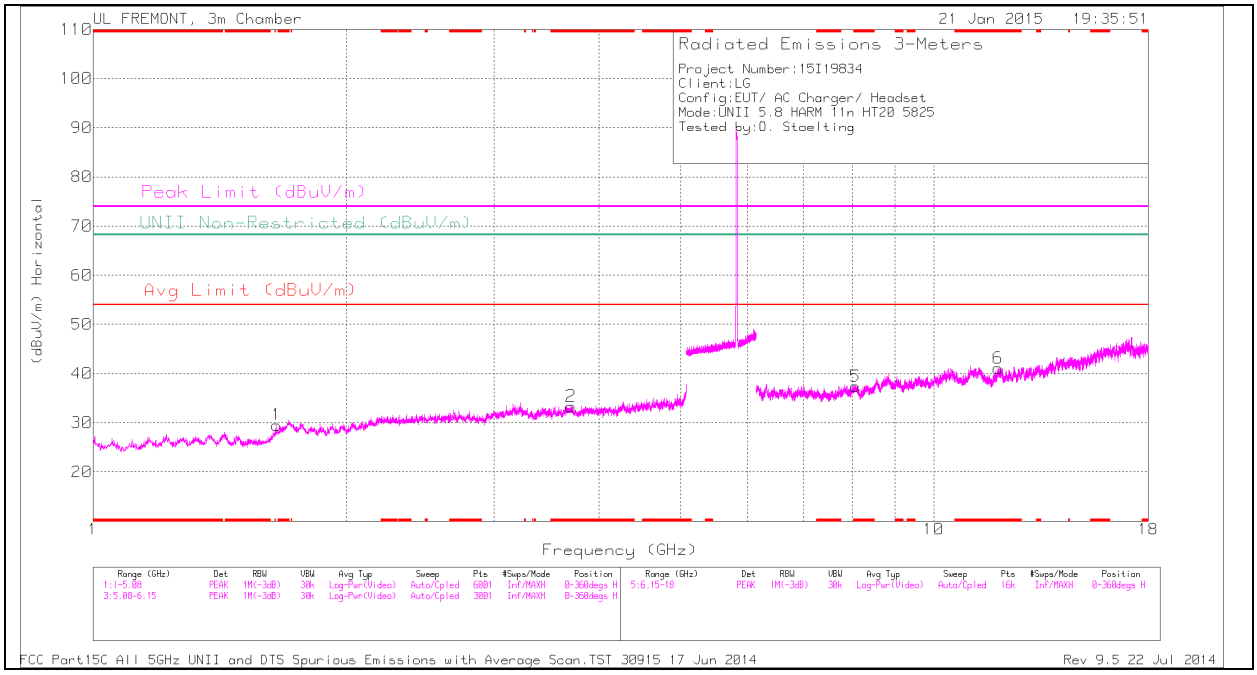
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.242	31.36	PK	32	-32.4	0	30.96	-	-	74	-43.04	-	-	0-360	200	H
2	* 3.545	32.57	PK	33	-32	0	33.57	-	-	74	-40.43	-	-	0-360	200	H
3	* 1.72	32.51	PK	30.6	-32	0	31.11	-	-	74	-42.89	-	-	0-360	100	V
4	* 3.704	31.84	PK	32.9	-30.8	0	33.94	-	-	74	-40.06	-	-	0-360	100	V
5	* 8.051	29.24	PK	36	-27.5	0	37.74	-	-	74	-36.26	-	-	0-360	100	H
6	* 11.259	28.94	PK	38.3	-25.7	0	41.54	-	-	74	-32.46	-	-	0-360	100	H
7	* 7.678	31.13	PK	35.7	-28.8	0	38.03	-	-	74	-35.97	-	-	0-360	100	V
8	* 11.57	30.63	PK	38.1	-26.1	0	42.63	-	-	74	-31.37	-	-	0-360	100	V

PK - Peak detector

RADIATED EMISSIONS

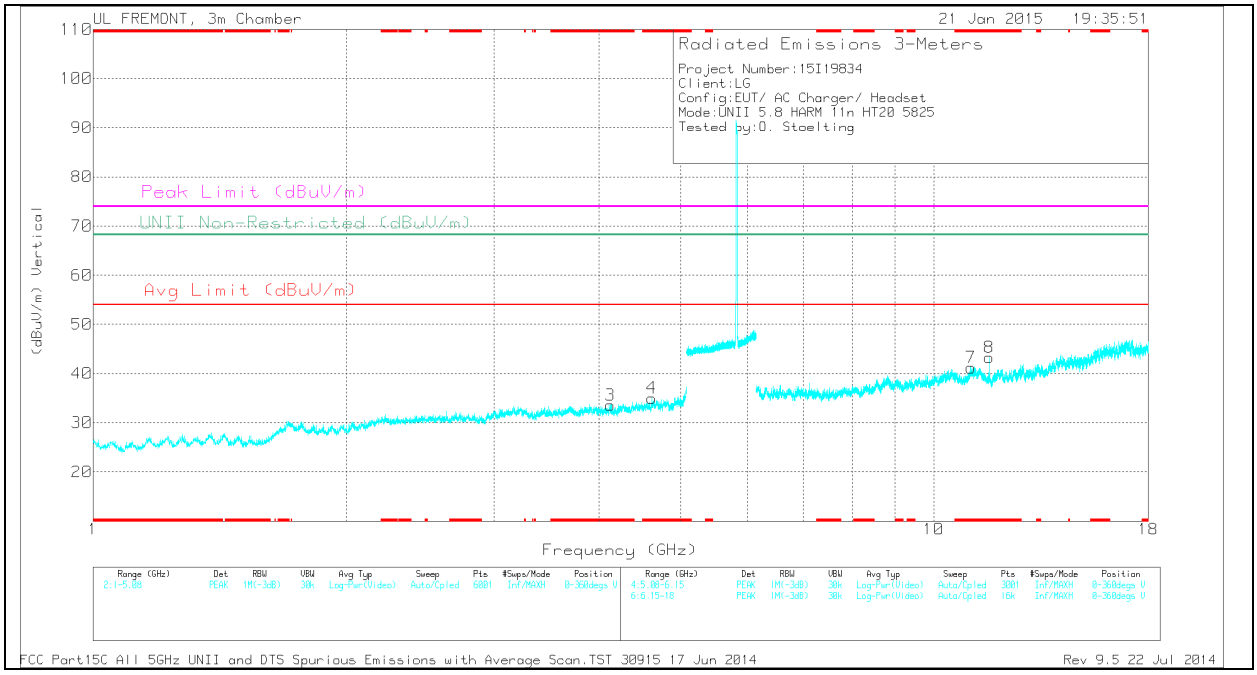
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 11.259	36.29	PK1	38.3	-25.7	0	48.89	-	-	74	-25.11	-	-	123	205	H
* 11.261	24.54	AD1	38.3	-25.7	.23	37.37	54	-16.63	-	-	-	-	123	205	H
* 11.57	38.96	PK1	38.1	-26.1	0	50.96	-	-	74	-23.04	-	-	194	212	V
* 11.57	30.08	AD1	38.1	-26.1	.23	42.31	54	-11.69	-	-	-	-	194	212	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 T711 (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	* 3.704	31.24	PK	32.9	-30.8	0	33.34	-	-	74	-40.66	-	-	0-360	200	H
3	* 4.124	31.38	PK	33.2	-31	0	33.58	-	-	74	-40.42	-	-	0-360	200	V
4	* 4.621	31.83	PK	33.5	-30.3	0	35.03	-	-	74	-38.97	-	-	0-360	200	V
5	* 8.069	28.6	PK	36	-27.2	0	37.4	-	-	74	-36.6	-	-	0-360	100	H
6	* 11.93	28.86	PK	38.4	-26.2	0	41.06	-	-	74	-32.94	-	-	0-360	100	H
7	* 11.076	27.9	PK	38.4	-25.1	0	41.2	-	-	74	-32.8	-	-	0-360	100	V
8	* 11.65	31.25	PK	38.2	-26.2	0	43.25	-	-	74	-30.75	-	-	0-360	200	V
1	1.654	32.84	PK	29.3	-32.6	0	29.54	-	-	-	-	68.2	-38.66	0-360	200	H

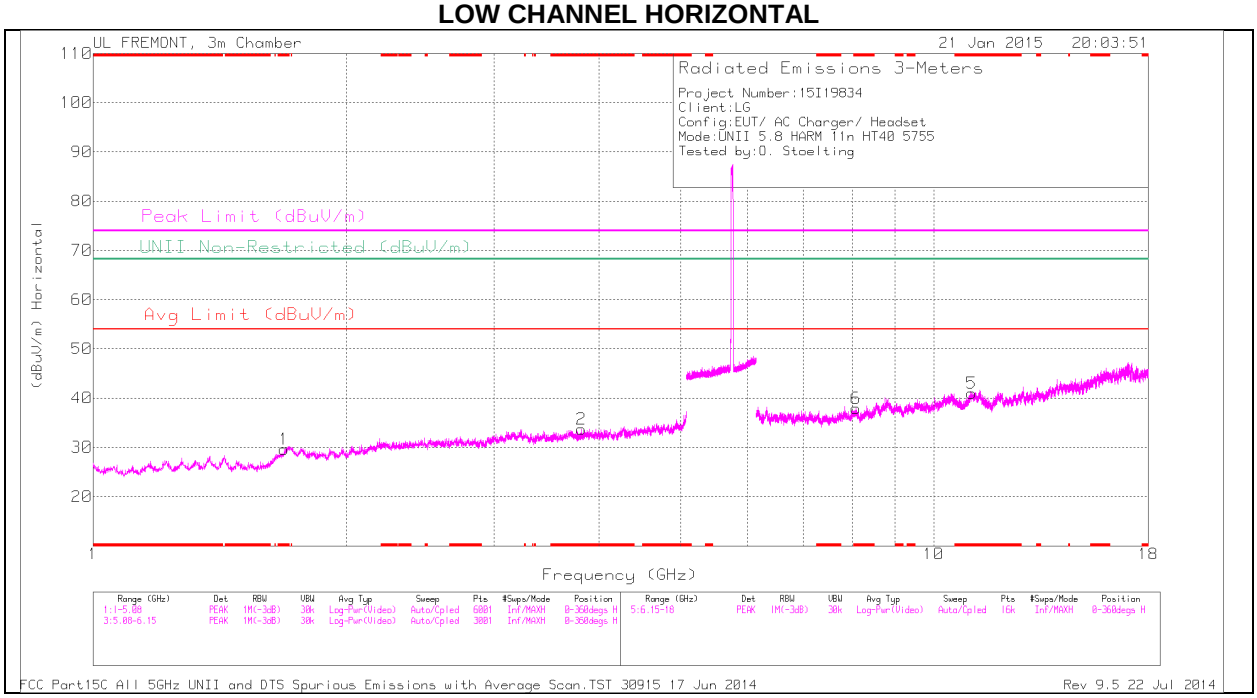
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (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
* 11.931	37.93	PK1	38.4	-26.3	0	50.03	-	-	74	-23.97	-	-	228	202	H
* 11.929	26.05	AD1	38.4	-26.2	.23	38.48	54	-15.52	-	-	-	-	228	202	H
* 11.65	40.11	PK1	38.2	-26.2	0	52.11	-	-	74	-21.89	-	-	192	209	V
* 11.65	31.35	AD1	38.2	-26.2	.23	43.58	54	-10.42	-	-	-	-	192	209	V
* 11.078	37.2	PK1	38.4	-25.2	0	50.4	-	-	74	-23.6	-	-	355	328	V
* 11.078	24.82	AD1	38.4	-25.2	.23	38.25	54	-15.75	-	-	-	-	355	328	V

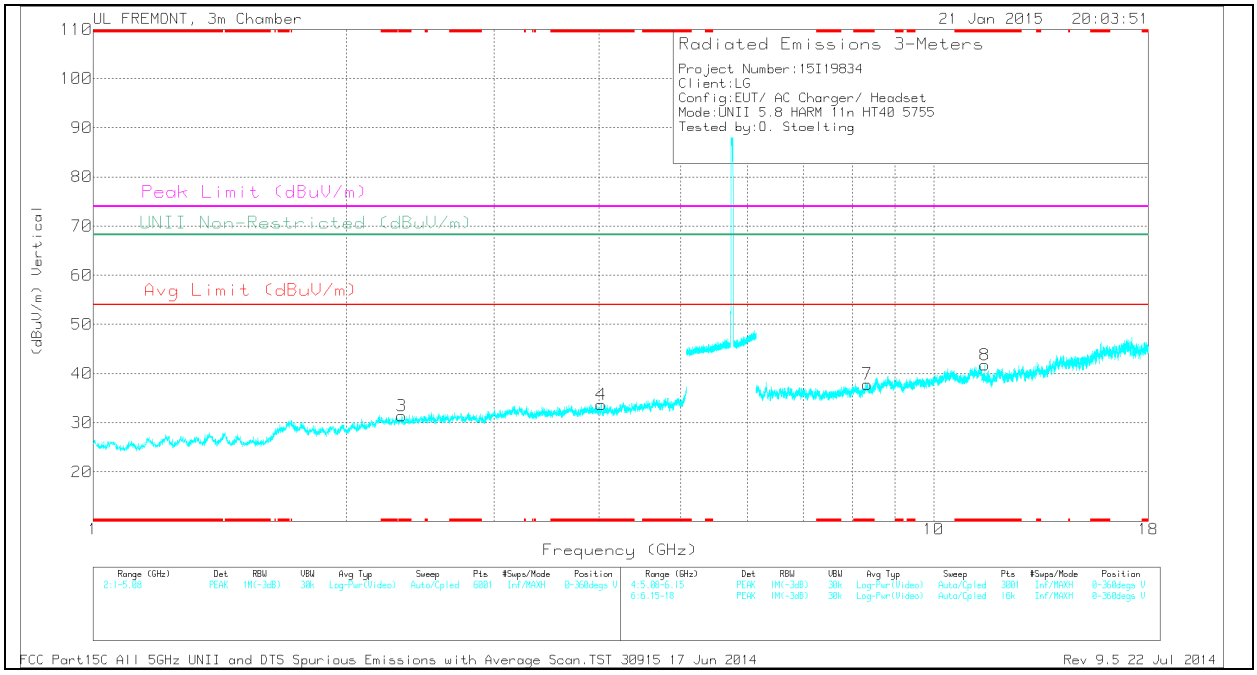
11.4.3. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.8 GHz BAND HARMONICS AND SPURIOUS EMISSIONS

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

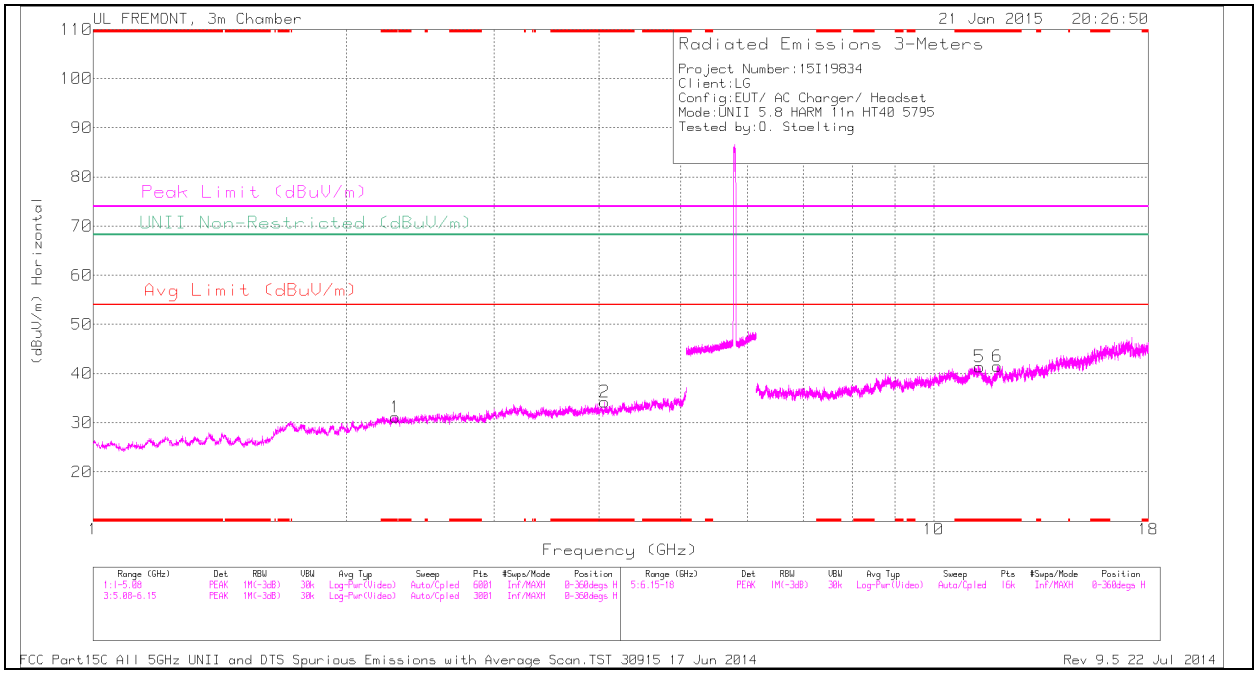
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.689	31.51	PK	30.4	-32.3	0	29.61	-	-	74	-44.39	-	-	0-360	200	H
2	* 3.81	32.27	PK	32.9	-31.5	0	33.67	-	-	74	-40.33	-	-	0-360	100	H
3	* 2.33	31.97	PK	31.9	-32.5	0	31.37	-	-	74	-42.63	-	-	0-360	200	V
4	* 4.022	32.01	PK	33.2	-31.5	0	33.71	-	-	74	-40.29	-	-	0-360	200	V
5	* 11.088	28.08	PK	38.4	-25.5	0	40.98	-	-	74	-33.02	-	-	0-360	100	H
6	* 8.082	29.28	PK	36	-27.4	0	37.88	-	-	74	-36.12	-	-	0-360	100	H
7	* 8.335	28.11	PK	36.1	-26.4	0	37.81	-	-	74	-36.19	-	-	0-360	100	V
8	* 11.51	29.86	PK	38.1	-26.2	0	41.76	-	-	74	-32.24	-	-	0-360	100	V

PK - Peak detector

RADIATED EMISSIONS

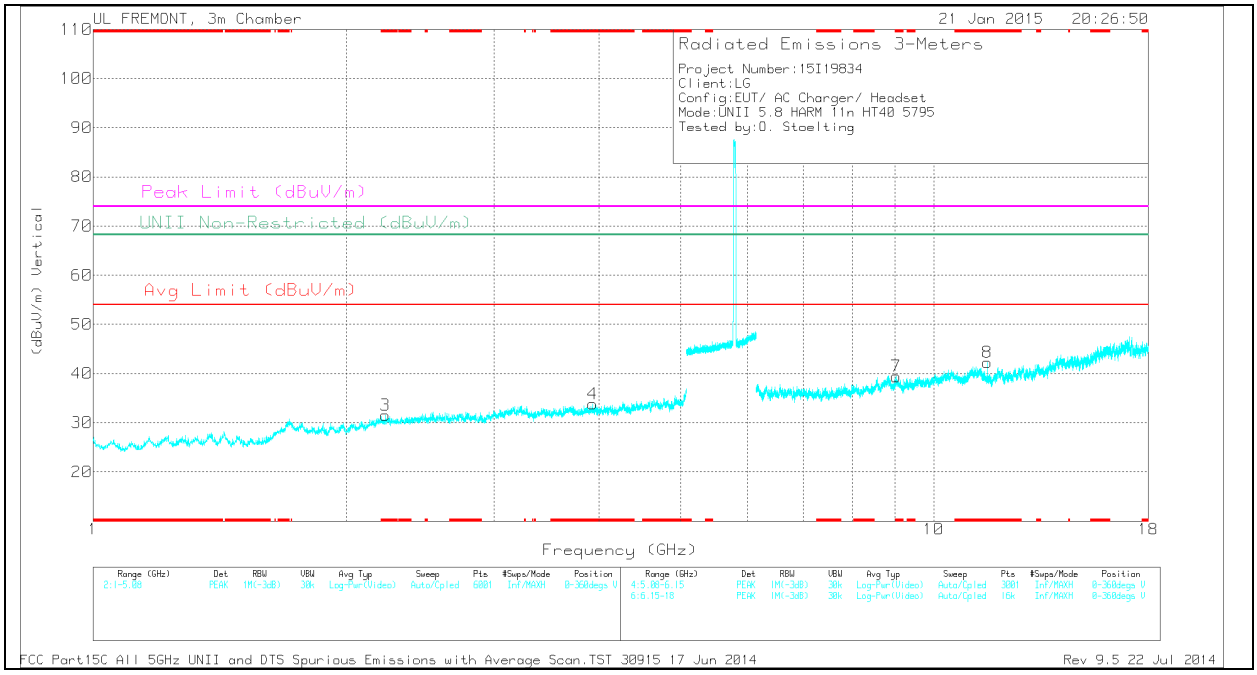
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 11.089	37.02	PK1	38.4	-25.5	0	49.92	-	-	74	-24.08	-	-	137	235	H
* 11.086	25.07	AD1	38.4	-25.4	.46	38.53	54	-15.47	-	-	-	-	137	235	H
* 11.51	38.72	PK1	38.1	-26.2	0	50.62	-	-	74	-23.38	-	-	195	168	V
* 11.51	29.62	AD1	38.1	-26.2	.46	41.98	54	-12.02	-	-	-	-	195	168	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 T711 (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	* 2.289	31.63	PK	31.9	-32.4	0	31.13	-	-	74	-42.87	-	-	0-360	100	H
2	* 4.061	32.13	PK	33.2	-31.1	0	34.23	-	-	74	-39.77	-	-	0-360	100	H
3	* 2.226	31.84	PK	32	-32.3	0	31.54	-	-	74	-42.46	-	-	0-360	200	V
4	* 3.928	32.04	PK	33.1	-31.3	0	33.84	-	-	74	-40.16	-	-	0-360	100	V
5	* 11.336	28.68	PK	38.2	-25.5	0	41.38	-	-	74	-32.62	-	-	0-360	100	H
6	* 11.914	29.38	PK	38.4	-26.3	0	41.48	-	-	74	-32.52	-	-	0-360	100	H
7	* 9.027	28.31	PK	36.6	-25.5	0	39.41	-	-	74	-34.59	-	-	0-360	100	V
8	* 11.59	30.05	PK	38.1	-25.9	0	42.25	-	-	74	-31.75	-	-	0-360	200	V

PK - Peak detector

RADIATED EMISSIONS

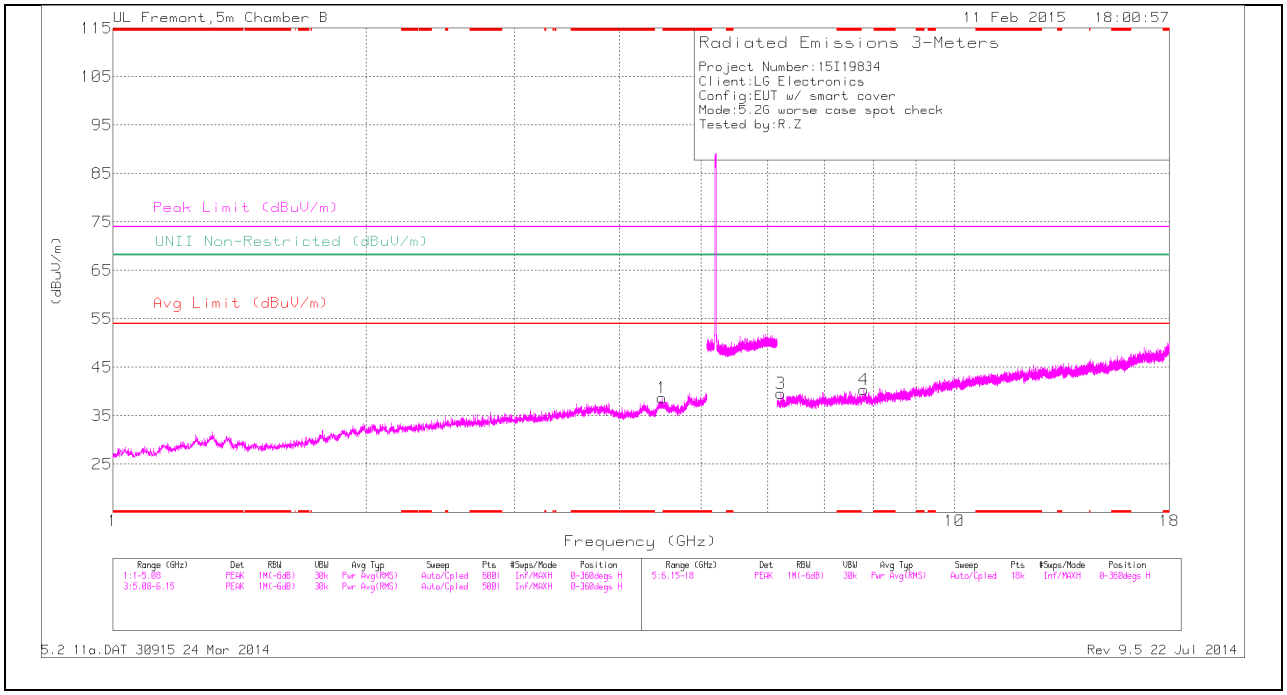
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T711 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 11.915	38.01	PK1	38.4	-26.2	0	50.21	-	-	74	-23.79	-	-	326	161	H
* 11.916	25.81	AD1	38.4	-26.2	.46	38.47	54	-15.53	-	-	-	-	326	161	H
* 11.337	36.71	PK1	38.2	-25.5	0	49.41	-	-	74	-24.59	-	-	42	146	H
* 11.338	25.13	AD1	38.2	-25.5	.46	38.29	54	-15.71	-	-	-	-	42	146	H
* 11.59	39.04	PK1	38.1	-25.9	0	51.24	-	-	74	-22.76	-	-	192	180	V
* 11.59	30.33	AD1	38.1	-25.9	.46	42.99	54	-11.01	-	-	-	-	192	180	V

11.5. ADDITIONAL TESTS (Phone with Smart Case and Stylus Pen)

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

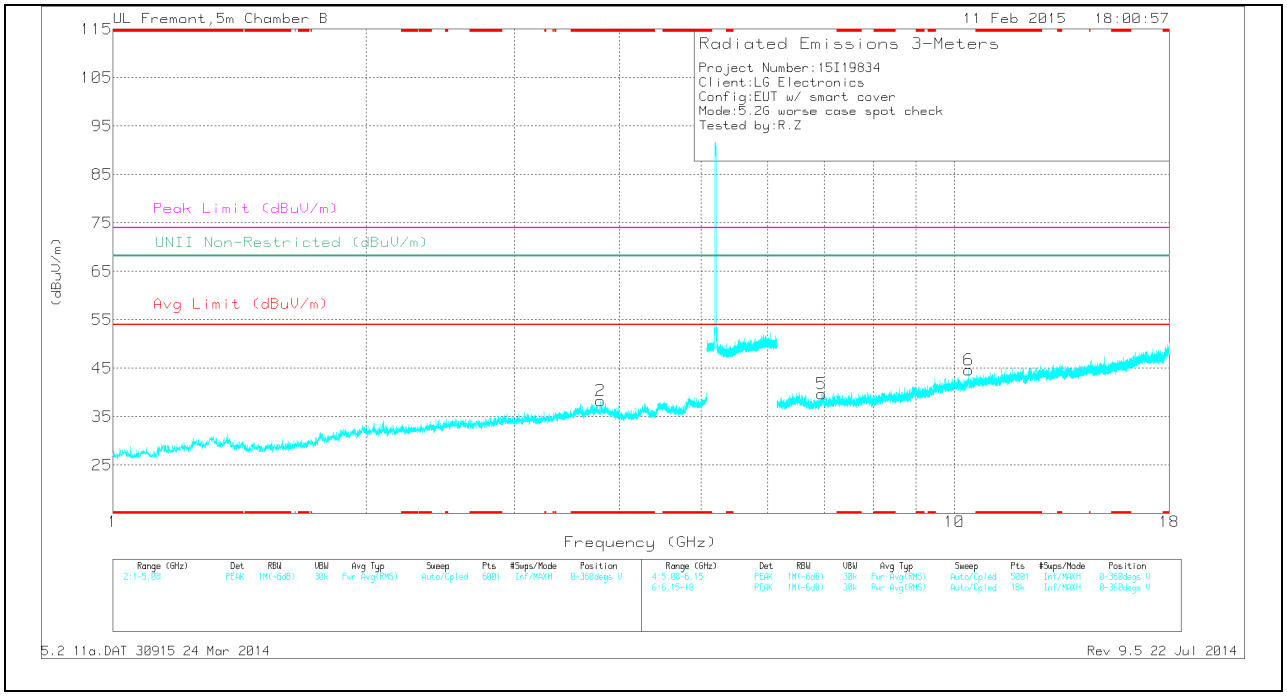
HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; 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 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

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
2	* 3.795	33.17	PK	34.4	-29.3	38.27	-	-	74	-35.73	-	-	0-360	201	V
1	4.495	31.83	PK	34	-27.2	38.63	-	-	-	-	68.2	-29.57	0-360	100	H
3	6.221	30.66	PK	35.5	-26.6	39.56	-	-	-	-	68.2	-28.64	0-360	201	H
5	6.957	29.87	PK	35.5	-25.7	39.67	-	-	-	-	68.2	-28.53	0-360	101	V
4	7.803	29.53	PK	35.7	-24.9	40.33	-	-	-	-	68.2	-27.87	0-360	201	H
6	10.399	29.21	PK	37.4	-21.9	44.71	-	-	-	-	68.2	-23.49	0-360	201	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DCCF	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
* 3.794	39.57	PK1	34.4	-29.3	-	44.67	-	-	74	-29.33	-	-	261	101	V
* 3.795	28.04	AD1	34.4	-29.3	0.24	33.38	54	-20.62	-	-	-	-	261	101	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak

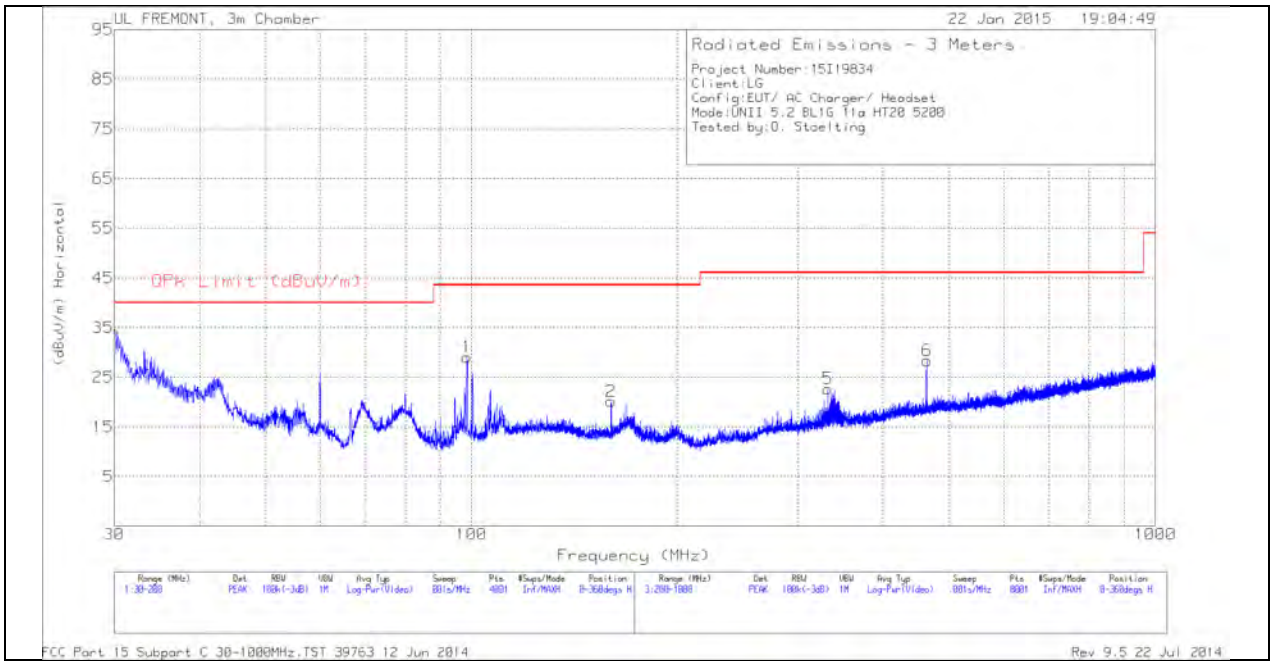
AD1 - KDB789033 Method: AD Primary Power Average

PK2 - KDB558074 Method: Maximum Peak

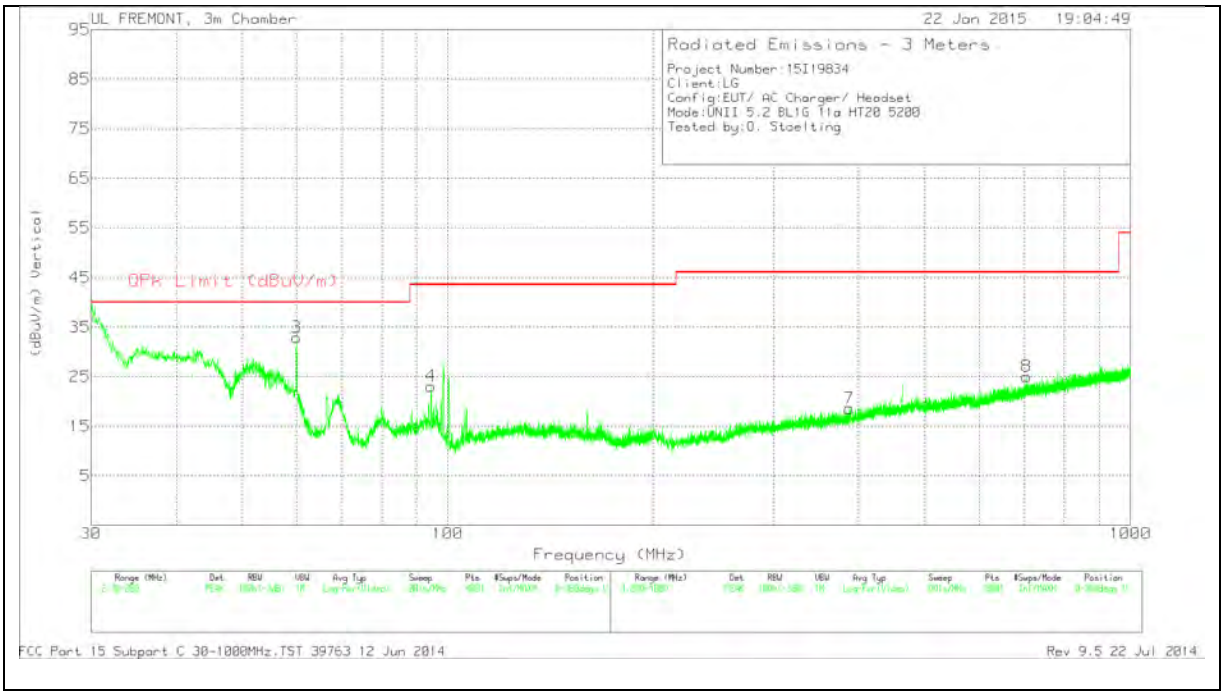
MAv1 - KDB558074 Option 1 Maximum RMS Average

12. WORST-CASE BELOW 1 GHz (in the 5.3 GHz Band)

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



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



Below 1G Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T185 (dB/m)	Amp/Cbl (dB/m)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	60.005	52.94	PK	7.1	-27.1	32.94	40	-7.06	0-360	100	V
4	94.4725	41.48	PK	8.5	-26.9	23.08	43.52	-20.44	0-360	100	V
1	98.4675	46.38	PK	9.5	-26.8	29.08	43.52	-14.44	0-360	300	H
2	160.0075	34.24	PK	12.1	-26.2	20.14	43.52	-23.38	0-360	200	H
5	332	33.89	PK	14	-25.2	22.69	46.02	-23.33	0-360	100	H
7	387.4	29	PK	15.1	-25.5	18.6	46.02	-27.42	0-360	200	V
6	463.7	37.06	PK	17.1	-25.8	28.36	46.02	-17.66	0-360	200	H
8	704.6	29.98	PK	20.3	-25.2	25.08	46.02	-20.94	0-360	100	V

13. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

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

* Decreases with the logarithm of the frequency.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.4.

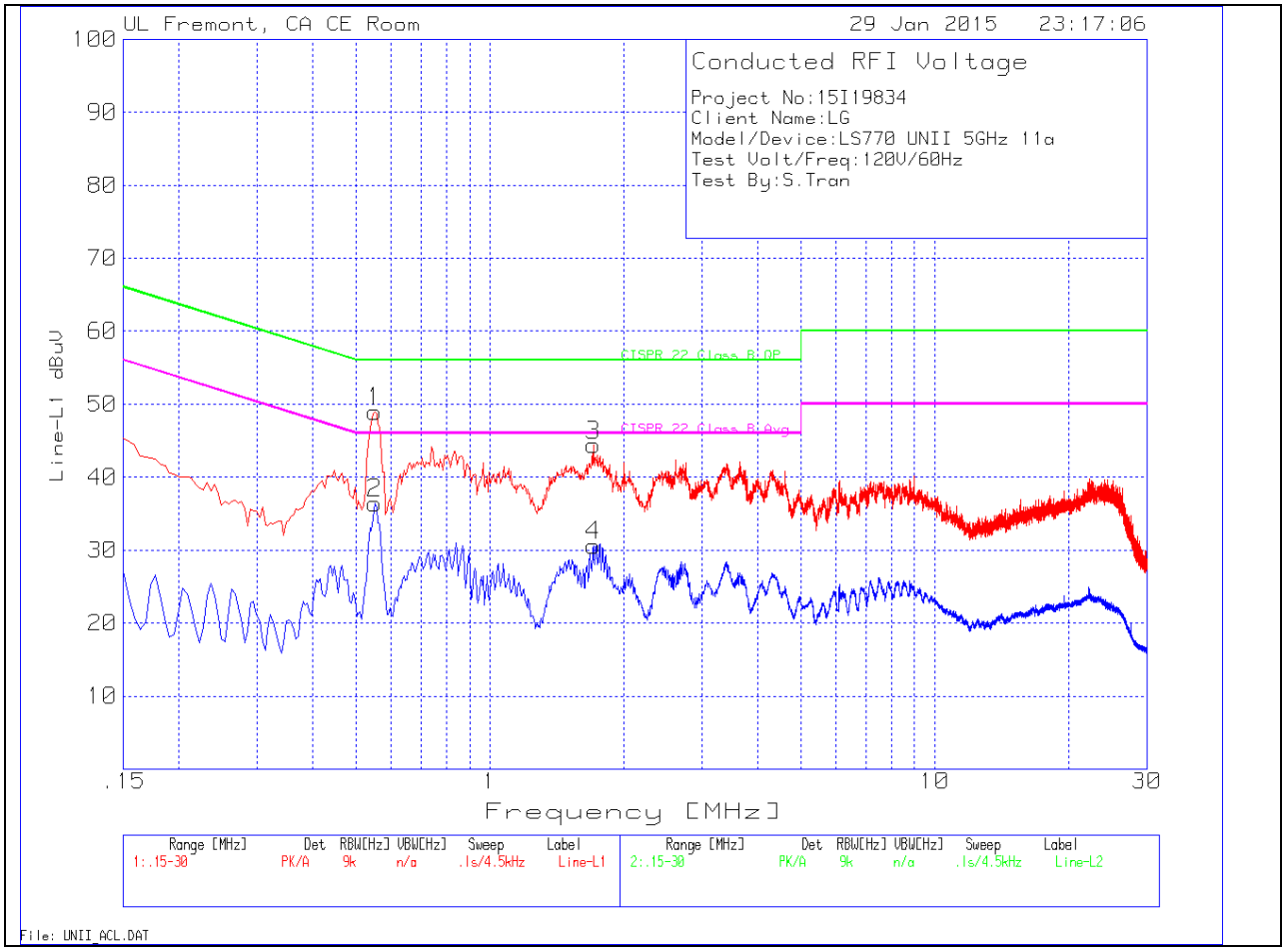
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

6 WORST EMISSIONS

LINE 1 PLOT



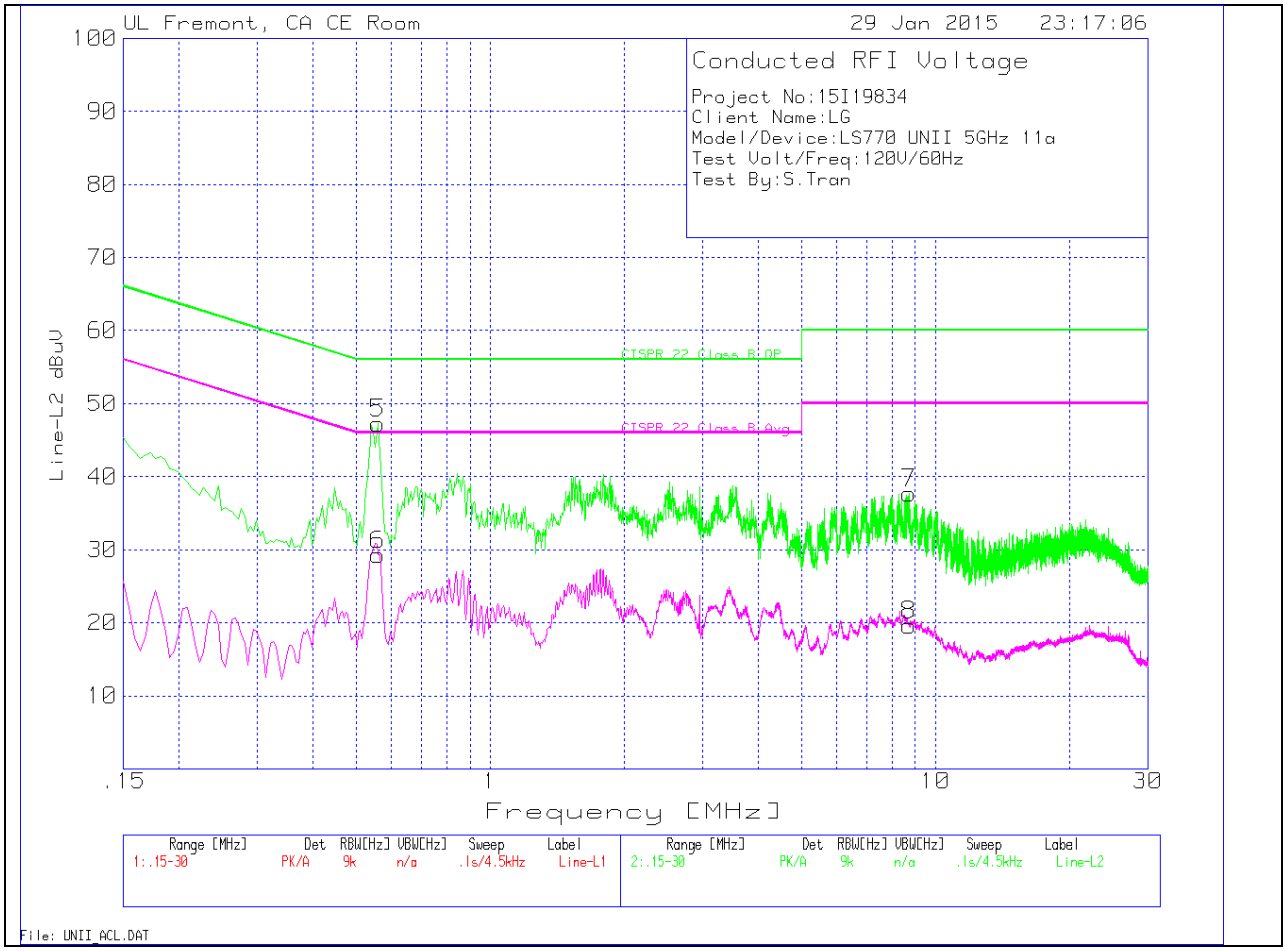
LINE 1 RESULTS

Line-L1 .15 - 30MHz

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L1 (dB)	LC Cables 1&3 (dB)	Corrected Reading dBuV	CISPR 22 Class B QP	Margin to Limit (dB)	CISPR 22 Class B Avg	Margin to Limit (dB)
1	.5505	48.67	PK	.3	0	48.97	56	-7.03	-	-
2	.5505	36.18	Av	.3	0	36.48	-	-	46	-9.52
3	1.707	44.07	PK	.2	.1	44.37	56	-11.63	-	-
4	1.707	30.36	Av	.2	.1	30.66	-	-	46	-15.34

LINE 2 PLOT



LINE 2 RESULTS

Line-L2 .15 - 30MHz

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L2 (dB)	LC Cables 2&3 (dB)	Corrected Reading dBuV	CISPR 22 Class B QP	Margin to Limit (dB)	CISPR 22 Class B Avg	Margin to Limit (dB)
5	.5595	46.93	PK	.3	0	47.23	56	-8.77	-	-
6	.5595	28.97	Av	.3	0	29.27	-	-	46	-16.73
7	8.7225	37.38	PK	.2	.1	37.68	60	-22.32	-	-
8	8.7225	19.36	Av	.2	.1	19.66	-	-	50	-30.34

PK - Peak detector

Av - average detection

14. DYNAMIC FREQUENCY SELECTION

14.1. OVERVIEW

14.1.1. LIMITS

INDUSTRY CANADA

IC RSS-210 is closely harmonized with FCC Part 15 DFS rules. The deviations are as follows:

RSS-210 Issue 8 A9.3

Note: For the band 5600–5650 MHz, no operation is permitted.

Until further notice, devices subject to this annex shall not be capable of transmitting in the band 5600–5650 MHz. This restriction is for the protection of Environment Canada weather radars operating in this band.

FCC

§15.407 (h), FCC KDB 905462 D02 “COMPLIANCE MEASUREMENT PROCEDURES FOR UNLICENSED-NATIONAL INFORMATION INFRASTRUCTURE DEVICES OPERATING IN THE 5250-5350 MHz AND 5470-5725 MHz BANDS INCORPORATING DYNAMIC FREQUENCY SELECTION” and KDB 905462 D03 “U-NII CLIENT DEVICES WITHOUT RADAR DETECTION CAPABILITY”.

Table 1: Applicability of DFS requirements prior to use of a channel

Requirement	Operational Mode		
	Master	Client (without radar detection)	Client (with radar detection)
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
U-NII Detection Bandwidth	Yes	Not required	Yes

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode		
	Master	Client **(without DFS)**	Client **(with DFS)**
DFS Detection Threshold	Yes	Not required	Yes
Channel Closing Transmission Time	Yes	Yes	Yes
Channel Move Time	Yes	Yes	Yes
U-NII Detection Bandwidth	Yes	Not required	Yes

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar DFS	Client (without DFS)
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required

Note: Frequencies selected for statistical performance check (Section 7.8.4) should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in all 20 MHz channel blocks and a null frequencies between the bonded 20 MHz channel blocks.

Table 3: Interference Threshold values, Master or Client incorporating In-Service Monitoring

Maximum Transmit Power	Value (see notes)
E.I.R.P. ≥ 200 milliwatt	-64 dBm
E.I.R.P. < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
E.I.R.P. < 200 milliwatt that do not meet power spectral density requirement	-64 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna **Note 2:** Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response. **Note 3:** E.I.R.P. is based on the highest antenna gain. For MIMO devices refer to KDB publication 662911 D01.	

Table 4: DFS Response requirement values

Parameter	Value
Non-occupancy period	30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds (See Note 1)
Channel Closing Transmission Time	200 milliseconds + approx. 60 milliseconds over remaining 10 second period. (See Notes 1 and 2)
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth.

	(See Note 3)

Note 1: *Channel Move Time* and the *Channel Closing Transmission Time* should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.
Note 2: The *Channel Closing Transmission Time* is comprised of 200 milliseconds starting at the beginning of the *Channel Move Time* plus any additional intermittent control signals required to facilitate a *Channel* move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.
Note 3: During the *U-NII Detection Bandwidth* detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

Table 5 – Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (usec)	PRI (usec)	Pulses	Minimum Percentage of Successful Detection	Minimum Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in table 5a	Roundup: $\{(1/360) \times (19 \times 10^6 \text{ PRI}_{usec})\}$	60%	30
		Test B: 15 unique PRI values randomly selected within the range of 518-3066 usec. With a minimum increment of 1 usec, excluding PRI values selected in Test A			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120

Note 1: Short Pulse Radar Type 0 should be used for the *Detection Bandwidth* test, *Channel Move Time*, and *Channel Closing Time* tests.

Table 6 – Long Pulse Radar Test Signal

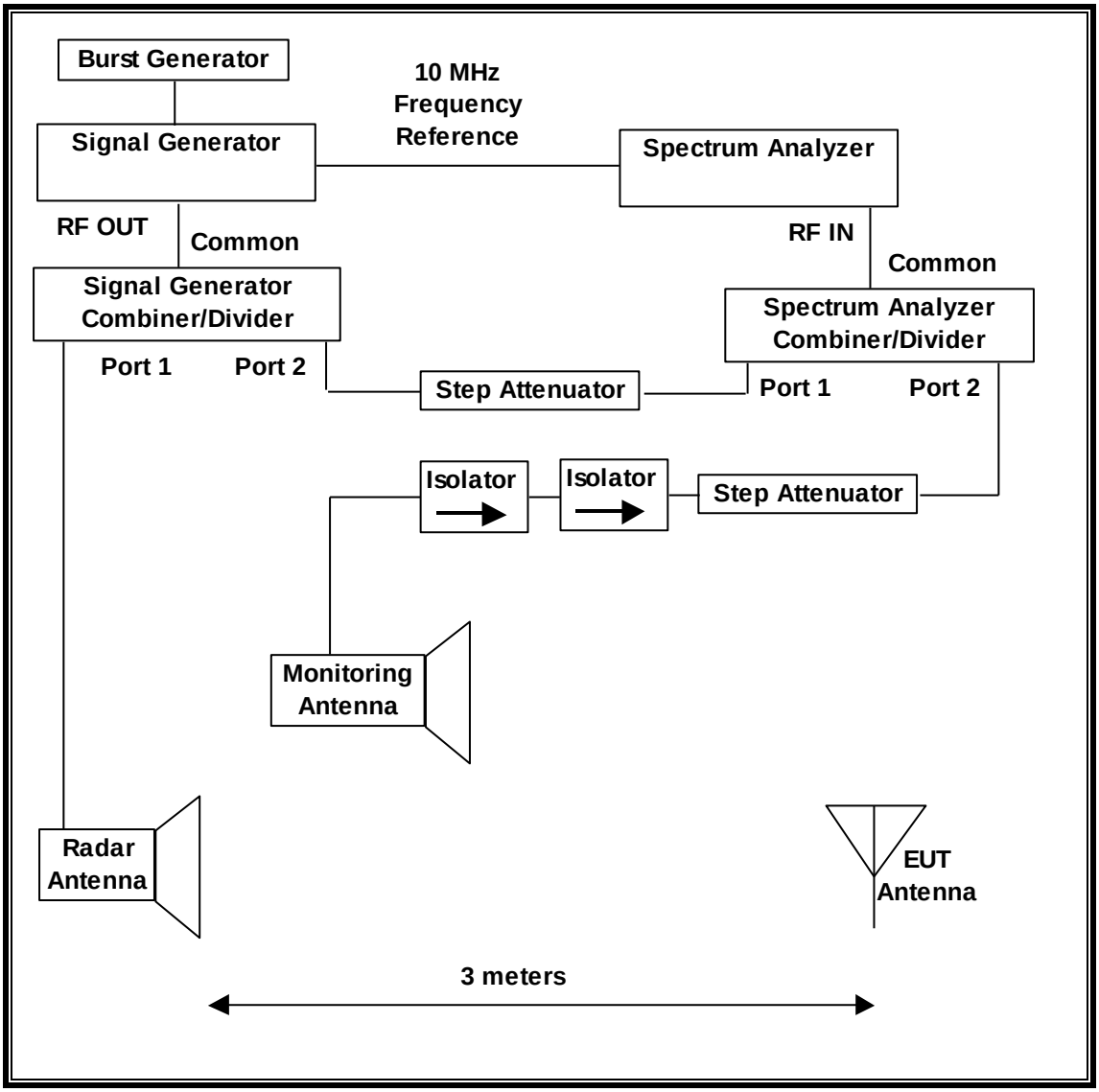
Radar Waveform Type	Pulse Width (µsec)	Chirp Width (MHz)	PRI (µsec)	Pulses per Burst	Number of Bursts	Minimum Percentage of Successful Detection	Minimum Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

Table 7 – Frequency Hopping Radar Test Signal

Radar Waveform Type	Pulse Width (µsec)	PRI (µsec)	Pulses per Hop	Hopping Rate (kHz)	Hopping Sequence Length (msec)	Minimum Percentage of Successful Detection	Minimum Trials
6	1	333	9	0.333	300	70%	30

14.1.2. TEST AND MEASUREMENT SYSTEM

RADIATED METHOD SYSTEM BLOCK DIAGRAM



SYSTEM OVERVIEW

The short pulse and long pulse signal generating system utilizes the NTIA software. The Vector Signal Generator has been validated by the NTIA. The hopping signal generating system utilizes the CCS simulated hopping method and system, which has been validated by the DoD, FCC and NTIA. The software selects waveform parameters from within the bounds of the signal type on a random basis using uniform distribution.

The short pulse types 1, 2, 3 and 4, and the long pulse type 5 parameters are randomized at run-time.

The hopping type 6 pulse parameters are fixed while the hopping sequence is based on the August 2005 NTIA Hopping Frequency List. The initial starting point randomized at run-time and each subsequent starting point is incremented by 475. Each frequency in the 100-length segment is compared to the boundaries of the EUT Detection Bandwidth and the software creates a hopping burst pattern in accordance with Section 7.4.1.3 Method #2 Simulated Frequency Hopping Radar Waveform Generating Subsystem of KDB 905462 D02. The frequency of the signal generator is incremented in 1 MHz steps from F_L to F_H for each successive trial. This incremental sequence is repeated as required to generate a minimum of 30 total trials and to maintain a uniform frequency distribution over the entire Detection Bandwidth.

The signal monitoring equipment consists of a spectrum analyzer. The aggregate ON time is calculated by multiplying the number of bins above a threshold during a particular observation period by the dwell time per bin, with the analyzer set to peak detection and max hold.

SYSTEM CALIBRATION

A 50-ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected to a horn antenna via a coaxial cable, with the reference level offset set to (horn antenna gain – coaxial cable loss). The signal generator is set to CW mode. The amplitude of the signal generator is adjusted to yield a level of –64 dBm as measured on the spectrum analyzer.

Without changing any of the instrument settings, the spectrum analyzer is reconnected to the Common port of the Spectrum Analyzer Combiner/Divider. The Reference Level Offset of the spectrum analyzer is adjusted so that the displayed amplitude of the signal is –64 dBm.

The spectrum analyzer displays the level of the signal generator as received at the antenna ports of the Master Device. The interference detection threshold may be varied from the calibrated value of –64 dBm and the spectrum analyzer will still indicate the level as received by the Master Device.

ADJUSTMENT OF DISPLAYED TRAFFIC LEVEL

A link is established between the Master and Slave and the distance between the units is adjusted as needed to provide a suitable received level at the Master and Slave devices. The video test file is streamed to generate WLAN traffic. The monitoring antenna is adjusted so that the WLAN traffic level, as displayed on the spectrum analyzer, is at lower amplitude than the radar detection threshold.

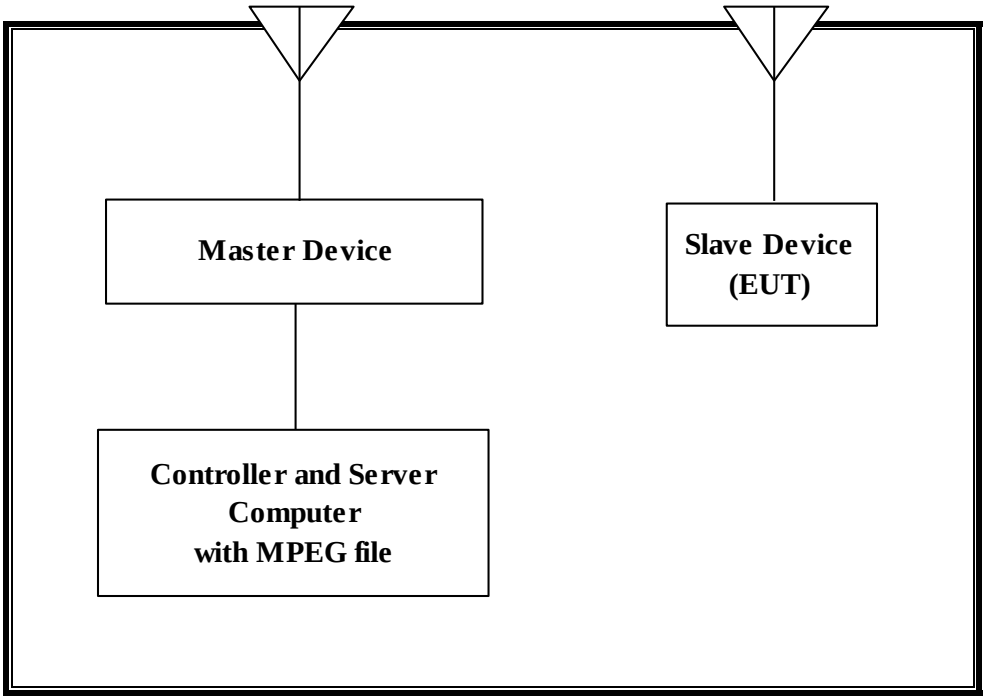
TEST AND MEASUREMENT EQUIPMENT

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

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
802.11ac Access Point (Master Device 1)	Cisco	AIR-CAP3702E-A-K9	FTX181570A6	LDK102087
P.O.E. Injector (Master 1)	Phihong	POE30U-560(G)	PHI170102N2	DoC
Notebook PC (Controller/Server)	Lenovo	Type 20B7-S0A200	PF-02JN9J 14/06	DoC
AC Adapter (Controller/Server PC)	Lenovo	ADLX65NLC2A	11S45N0259Z1ZS974594A9	DoC

14.1.3. SETUP OF EUT

RADIATED METHOD EUT TEST SETUP



SUPPORT EQUIPMENT

The following support equipment was utilized for the DFS tests documented in this report:

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
802.11ac Access Point (Master Device 1)	Cisco	AIR-CAP3702E-A-K9	FTX181570A6	LDK102087
P.O.E. Injector (Master 1)	Phihong	POE30U-560(G)	PHI170102N2	DoC
Notebook PC (Controller/Server)	Lenovo	Type 20B7-S0A200	PF-02JN9J 14/06	DoC
AC Adapter (Controller/Server PC)	Lenovo	ADLX65NLC2A	11S45N0259Z1ZS974594A9	DoC

14.1.4. DESCRIPTION OF EUT

For FCC the EUT operates over the 5250-5350 MHz and 5470-5725 MHz ranges.

For IC the EUT operates over the 5250-5350 MHz and 5470-5725 MHz ranges, excluding the 5600-5650 MHz range.

The The EUT is a Slave Device without Radar Detection.

The highest power level within these bands is 15.34dBm EIRP in the 5250-5350 MHz band and 15.24 dBm EIRP in the 5470-5725 MHz band.

The only antenna assembly utilized with the EUT has a gain of 5.3 dBi.

The rated output power of the Master unit is > 23dBm (EIRP). Therefore the required interference threshold level is –64 dBm. After correction for procedural adjustments, the required radiated threshold at the antenna port is –64 + 1 = -63 dBm.

The calibrated radiated DFS Detection Threshold level is set to –64 dBm. The tested level is lower than the required level hence it provides a margin to the limit.

The EUT uses one transmitter/receiver chain connected to an antenna to perform radiated tests.

WLAN traffic that meets or exceeds the minimum required loading was generated by transferring a data stream from the controller/server PC to the EUT using iPerf version 2.0.5 software package.

TPC is not required since the maximum EIRP is less than 500 mW (27 dBm).

The EUT utilizes the 802.11a/n architecture. Two nominal channel bandwidths are implemented: 20 MHz and 40 MHz.

The software installed in the access point is 12.4(25d)JA1.

UNIFORM CHANNEL SPREADING

This requirement is not applicable to Slave radio devices.

OVERVIEW OF MASTER DEVICE WITH RESPECT TO §15.407 (h) REQUIREMENTS

The Master Device is a Cisco Access Point, FCC ID: LDK102061. The minimum antenna gain for the Master Device is 3.5 dBi.

The rated output power of the Master unit is > 23dBm (EIRP). Therefore the required interference threshold level is –64 dBm. After correction for procedural adjustments, the required radiated threshold at the antenna port is –64 + 1 = -63 dBm.

The calibrated radiated DFS Detection Threshold level is set to –64 dBm. The tested level is lower than the required level hence it provides a margin to the limit.

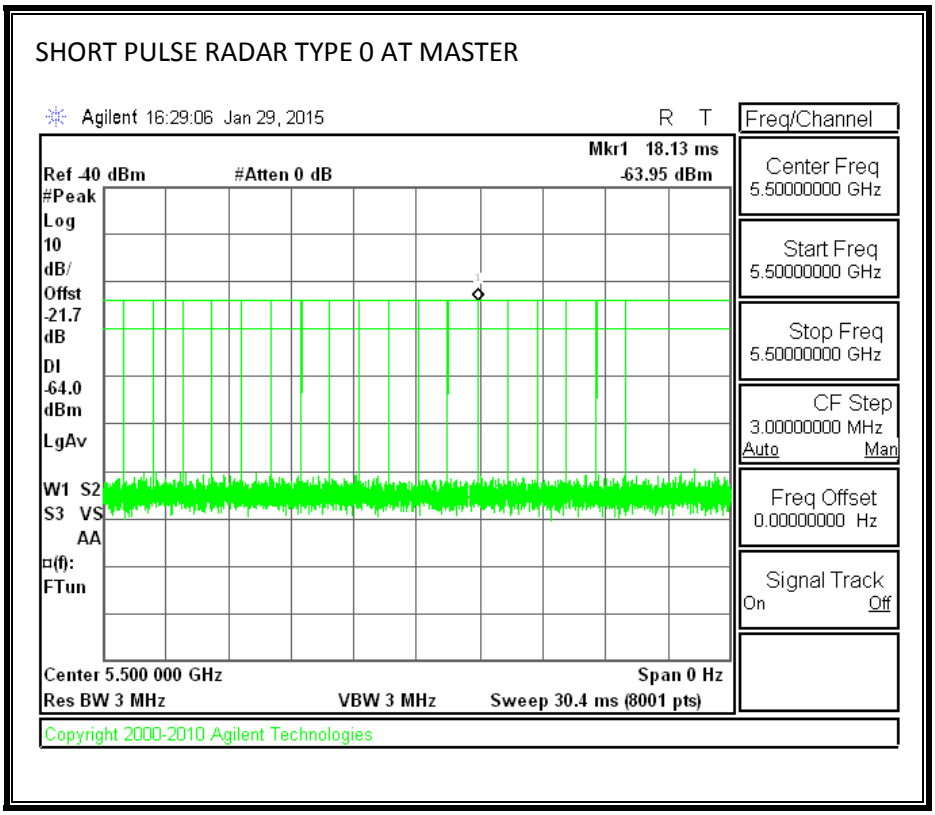
14.2. RESULTS FOR 20 MHz BANDWIDTH

14.2.1. TEST CHANNEL

All tests were performed at a channel center frequency of 5500MHz.

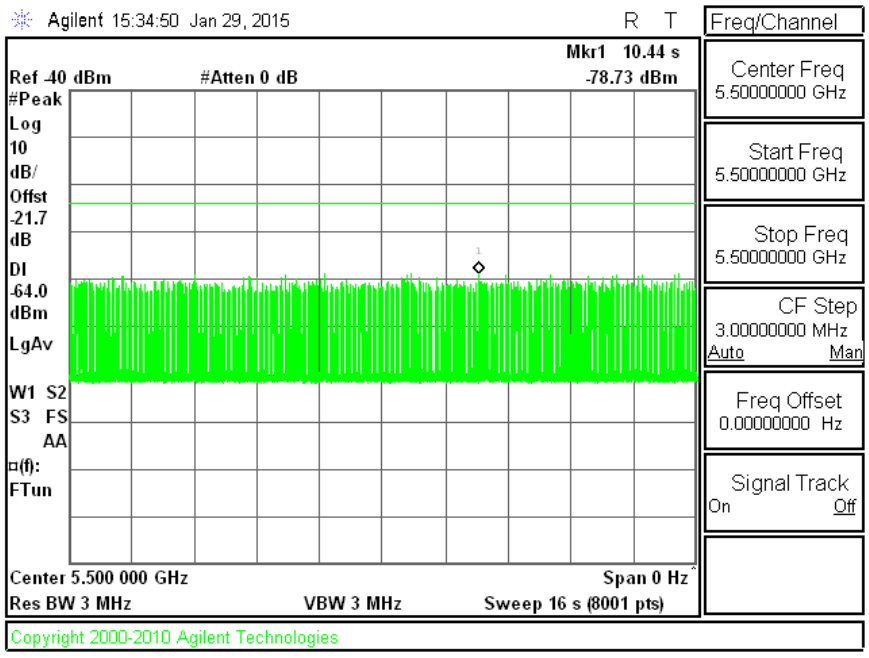
14.2.2. RADAR WAVEFORM AND TRAFFIC

RADAR WAVEFORM



TRAFFIC

SLAVE TRAFFIC



14.2.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

14.2.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time =
(Number of analyzer bins showing transmission) * (dwell time per bin)

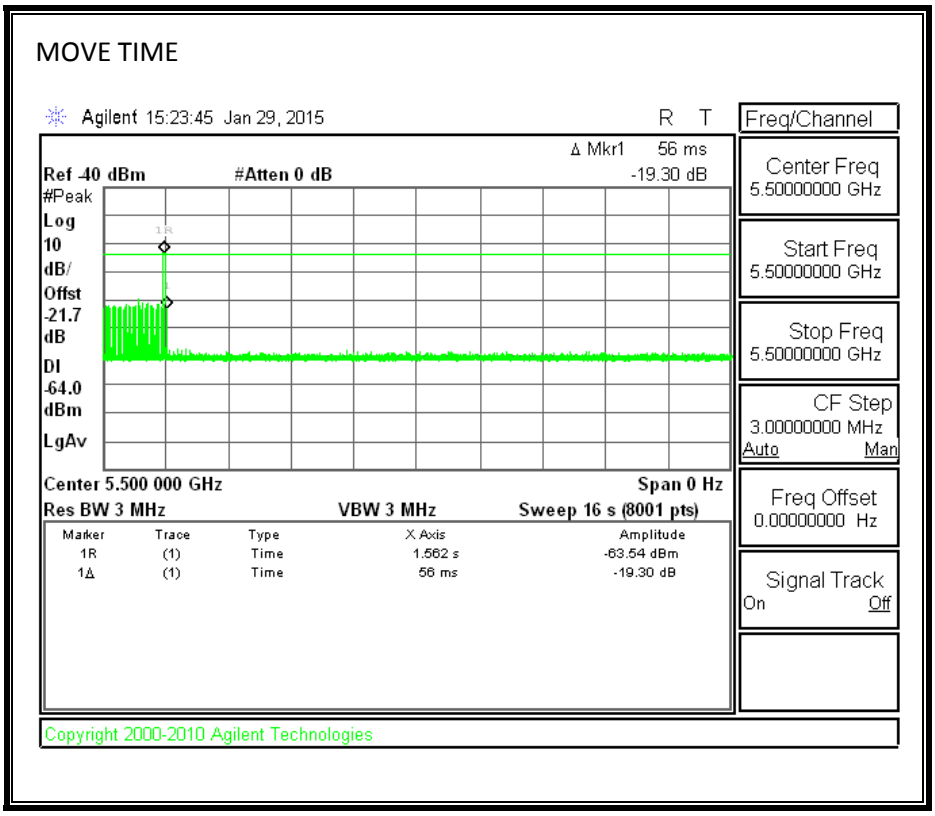
The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

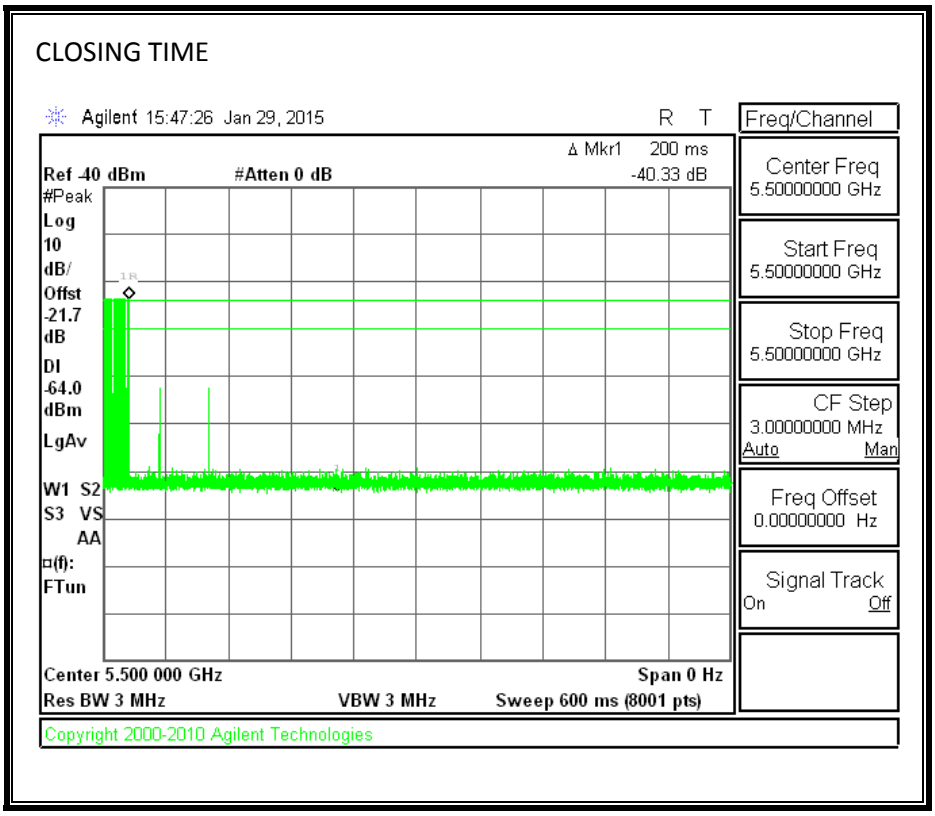
Channel Move Time (sec)	Limit (sec)
0.056	10

Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
0.0	60

MOVE TIME



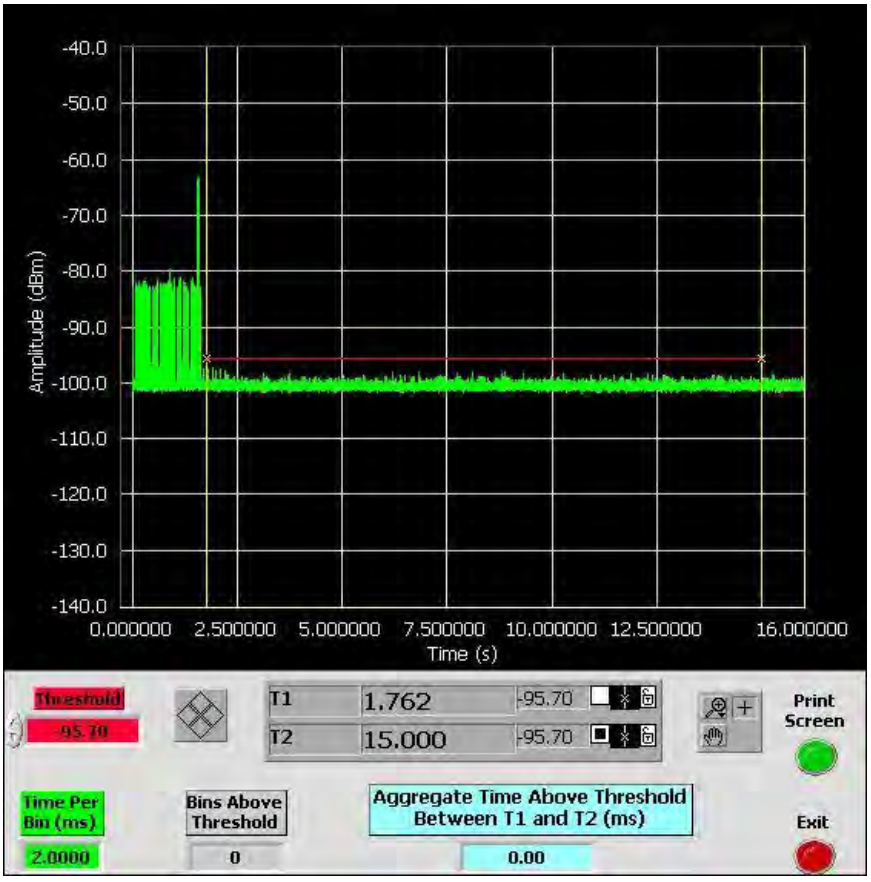
CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the aggregate monitoring period.

AGGREGATE CLOSING TIME



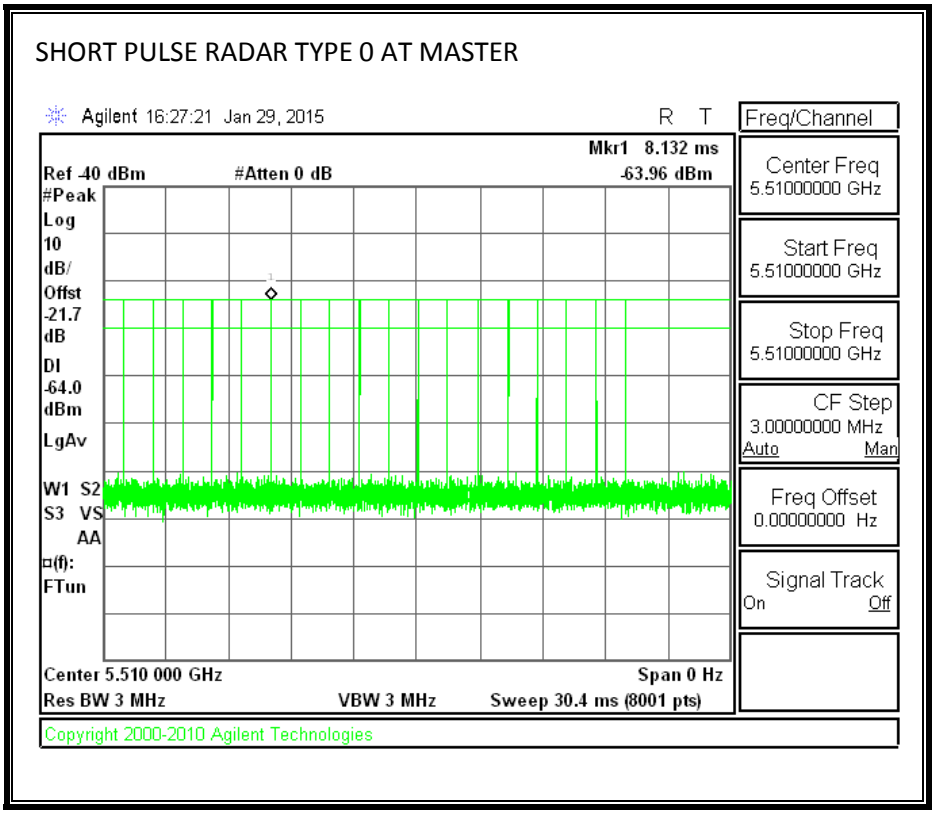
14.3. RESULTS FOR 40 MHz BANDWIDTH

14.3.1. TEST CHANNEL

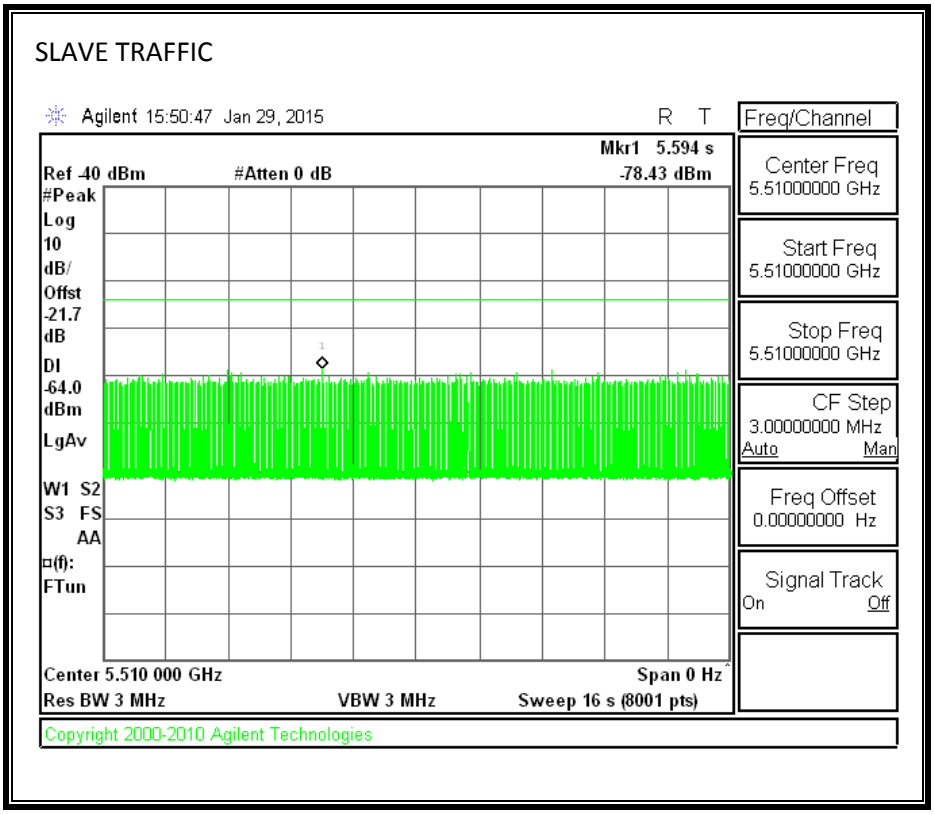
All tests were performed at a channel center frequency of 5510MHz.

14.3.2. RADAR WAVEFORM AND TRAFFIC

RADAR WAVEFORM



TRAFFIC



14.3.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

14.3.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time =
(Number of analyzer bins showing transmission) * (dwell time per bin)

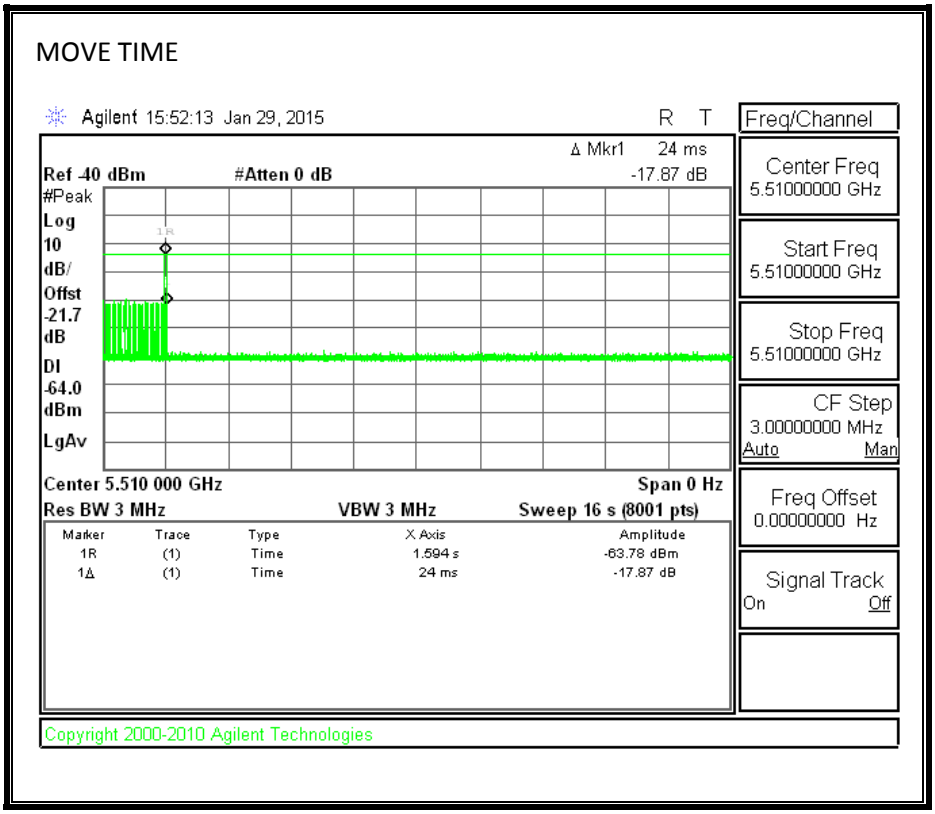
The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

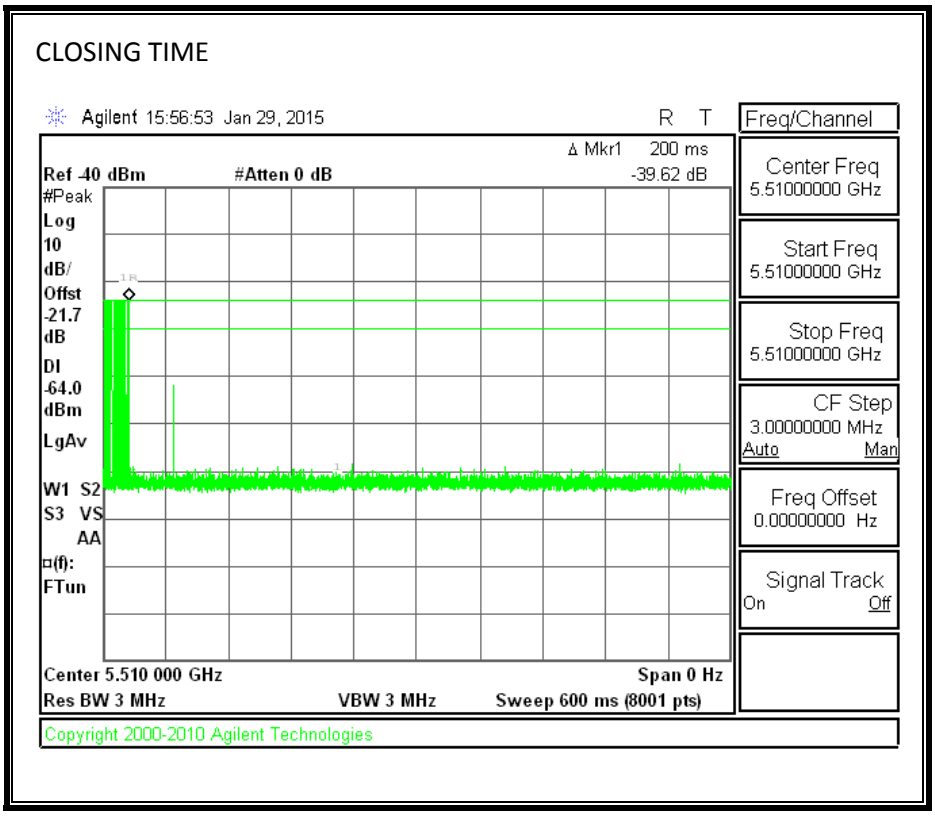
Channel Move Time (sec)	Limit (sec)
0.024	10

Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
0.0	60

MOVE TIME



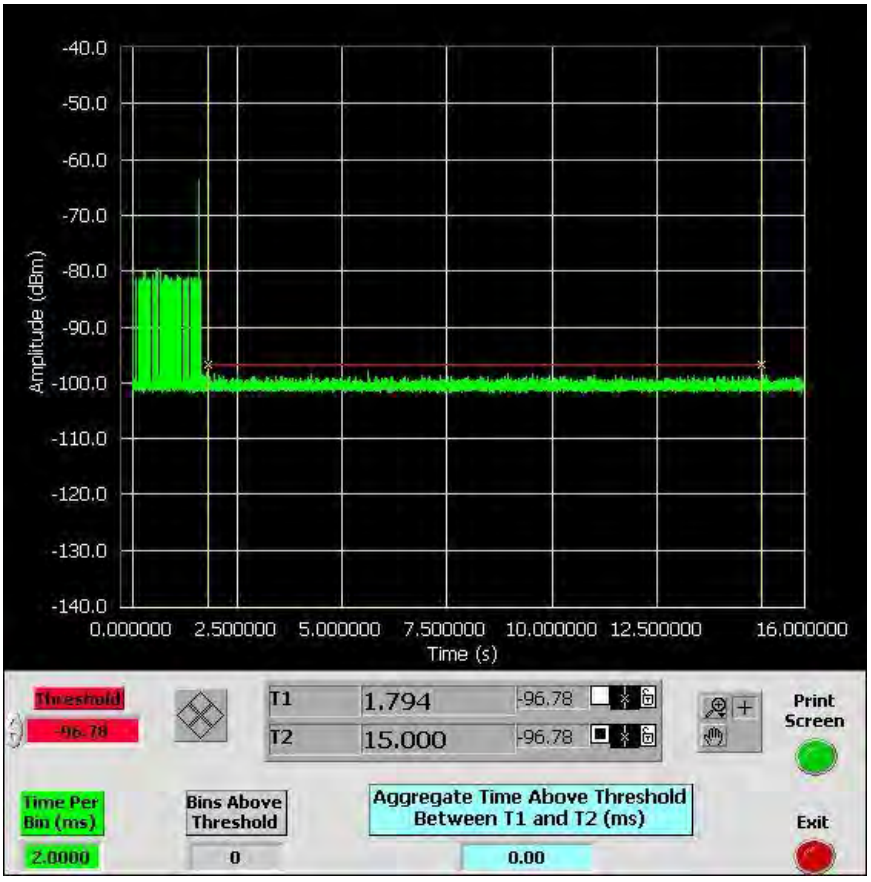
CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the aggregate monitoring period.

AGGREGATE CLOSING TIME



14.3.5. 10-MINUTE BEACON MONITORING PERIOD

RESULTS

No EUT transmissions were observed on the test channel during the 10-minute observation time.

10-MINUTE BEACON MONITORING PERIOD