FCC 47 CFR PART 15 SUBPART E

C2PC CERTIFICATION TEST REPORT

FOR

GSM/CDMA/WCDMA/LTE Phone + Bluetooth & DTS/UNII a/b/g/n/ac + NFC

MODEL NUMBER: LG-VS985, VS985, LGVS985, AS985, LG-AS985 & LGAS985

FCC ID: ZNFVS985

REPORT NUMBER: 16I22794-E1V3

ISSUE DATE: 4/21/2016

Prepared for
LG ELECTRONICS MOBILECOMM U.S.A., INC
1000 SYLVAN AVENUE
ENGLEWOOD CLIFFS,
NEW JERSEY, 07632, U.S.A

Prepared by
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Revision History

Rev.	Issue Date	Revisions	Revised By
V1	4/18/2016	Initial Issue	D. CORONIA
V2	4/19/2016	Updated Section 6 & 7	D. CORONIA
V3	4/21/2016	Updated KDB reference on page 11	D. CORONIA

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: LG ELECTRONICS MOBILECOMM U.S.A., INC

EUT DESCRIPTION: GSM/CDMA/WCDMA/LTE Phone + Bluetooth & DTS/UNII a/b/g/n/ac +NFC

MODEL: LG-VS985, VS985, LGVS985, AS985, LG-AS985 & LGAS985

SERIAL NUMBER: 1856175 (Conducted), 1873209 (Radiated)

DATE TESTED: FEBRUARY 4-10, 2016

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

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

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

Approved & Released For
UL Verification Services Inc. By:

DAN CORONIA
WiSE PROJECT LEAD
CONSUMER TECHNOLOGY DIVISION
UL VERIFICATION SERVICES INC

Tested By:

GLENN ESCANO
WiSE LAB ENGINEER
CONSUMER TECHNOLOGY DIVISION
UL VERIFICATION SERVICES INC

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2. TEST METHODOLOGY

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

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	☐ Chamber D
☒ Chamber B	☐ Chamber E
☒ Chamber C	☐ Chamber F
	☐ Chamber G
	☐ Chamber H

The above test sites and facilities are covered under FCC Test Firm Registration # 208313.

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

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

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

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

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

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

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

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4.3. MEASUREMENT UNCERTAINTY

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

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

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

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5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a GSM/CDMA/WCDMA/LTE Phone + Bluetooth & DTS/UNII a/b/g/n/ac + NFC.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

Frequency Range (MHz)	Mode	Total Output Power (dBm)	Output Power (mW)
5745 - 5825	802.11a	11.4	13.77
5745 - 5825	802.11n_HT20	10.2	10.47
5755 - 5795	802.11n HT40	9.7	9.33
5775	802.11ac HT80	9.6	9.12

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an FPCB antenna, with a maximum gain of 0.44 dBi.

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
802.11ac HT80mode: MCS0

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5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
AC Adapter	LG Electronics	MCS-04WT2	TA350000050	N/A
Earphone	LG Electronics	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.

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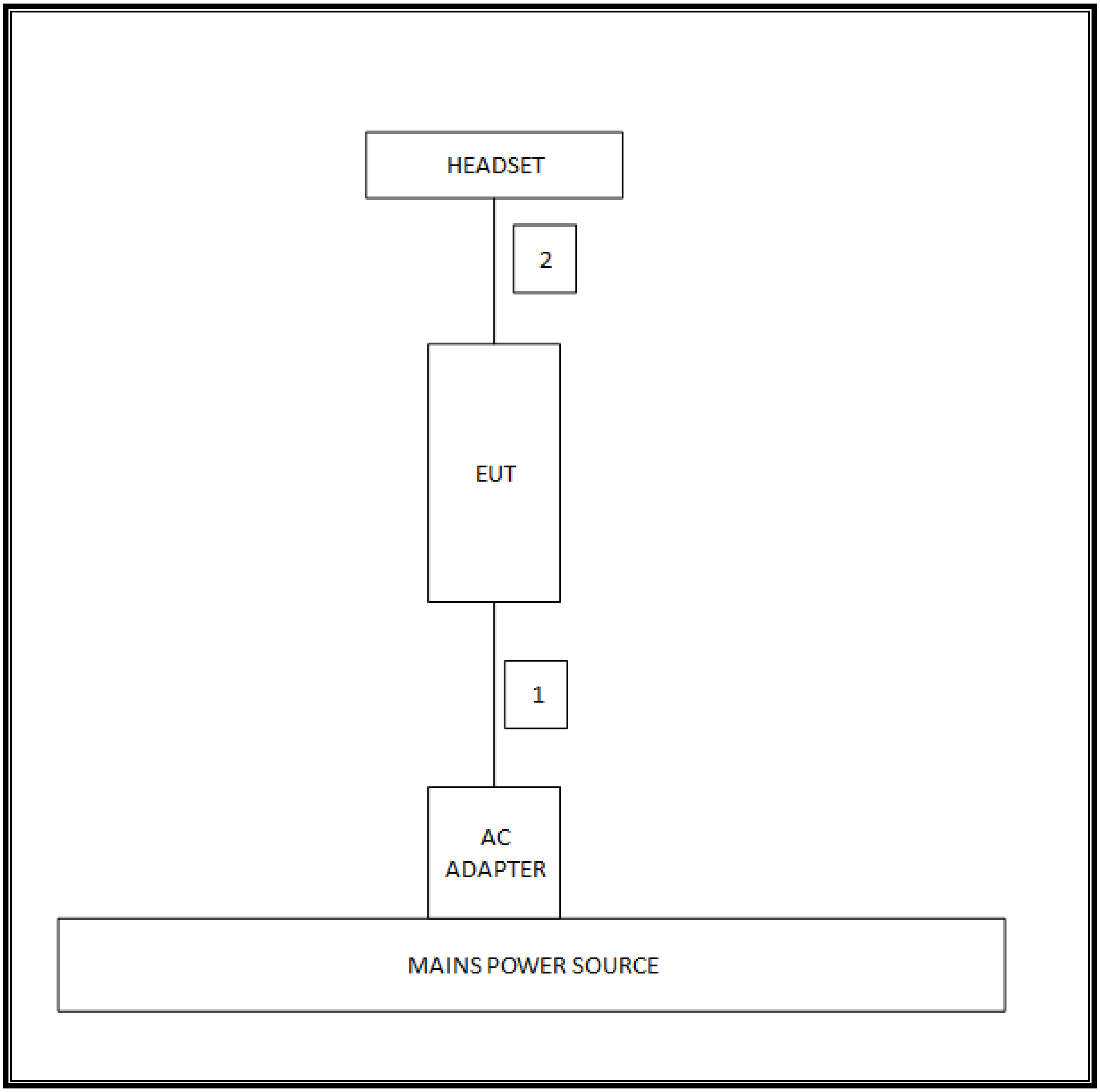
SETUP DIAGRAM FOR TESTS



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6. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment List				
Description	**Manufacturer**	**Model**	**T Number**	**Cal Due**
Antenna, Biconolog, 30MHz-1 GHz	Sunol Sciences	JB1	130	09/01/16
Antenna, Biconolog, 30MHz-1 GHz	Sunol Sciences	JB1	477	06/10/16
Antenna, Horn, 18GHz	EMCO	3115	59	11/18/16
Antenna, Horn, 18GHz	ETS Lindgren	3117	345	03/03/16
Antenna, Horn, 18GHz	ETS Lindgren	3117	136	03/03/16
Antenna, Horn, 18GHz	ETS Lindgren	3117	863	04/10/16
Antenna, Horn, 26.5 GHz	ARA	MWH-1826/B	447	05/12/16
Antenna, Horn, 26.5 GHz to 40GHz	ARA	MWH-2640/B	446	5/12/2016
RF Preamplifier, 1GHz - 18GHz	Miteq	NSP4000-SP2	88	04/07/16
RF Preamplifier, 1GHz - 26.5GHz	HP	8449B	404	06/29/16
RF Amplifier, 26 – 40GHz	Miteq	NSP4000-SP2	88	04/7/2017
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	123	10/22/16
Spectrum Analyzer, PXA, 3 Hz to 44 GHz	Keysight	N9030A	906	03/03/16
Spectrum Analyzer, PXA, 3 Hz to 44 GHz	Keysight	N9030A	907	06/11/16
EMI Test Receiver, 9 KHz to 7 GHz	R&S	ECSI7	284	09/10/16
Peak Power Meter	Agilent / HP	N1914A	254	06/08/16
Peak / Average Power Sensor	Keysight	E9327A	117	03/09/16
LISN, 30 MHz	Solar	8012-50-R-24-BNC	28	7/28/2016
Reject Filter, 2.4GHz	Micro-Tronics	BRM50702	160	CNR
Low Pass Filter 5GHz	Micro-Tronics	LPS17541	417	05/04/16
High Pass Filter 6GHz	Micro-Tronics	HPS17542	893	04/25/16
High Pass Filter 3GHz	Micro-Tronics	HPS17543	898	04/25/16

Test Software List			
Description	**Manufacturer**	**Model**	**Version**
Radiated Software	UL	UL EMC	Ver 9.5, June 24, 2015
Conducted Software	UL	UL EMC	Ver 9.5, May 26, 2015
CLT Software	UL	UL RF	Ver 1.0, Feb 2, 2015
Antenna Port Software	UL	UL RF	Ver 3.7, Nov 12, 2015

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7. SUMMARY TABLE

C2PC REASON:

The purpose of this C2PC is to upgrade the device described under section 5.4 of this report to the new rules per KDB 789033 D02 v01r02.

For UNII-1, UNII-2 and UNII-2C bands, we have reviewed the original test report (report no. 14U17502-5B) and are hereby attesting that all the current technical requirements are still met and all applicable test procedures remain the same. Therefore, the original test report is still applicable and no additional testing is done.

FCC Part Section	RSS Section(s)	Test Description	Test Limit	Test Condition	Test Result
15.407	RSS-247 6.2.4	6dB Band width (5.8GHz)	500KHz	Conducted	Pass
15.407(a)(3)	RSS-247 6.2.4	TX Cond. Power 5.725-5.825	<30dBm		Pass
15.407(a)(5)	RSS-247 6.2.4	PSD (5.8GHz)	30dBm per 500kHz		Pass
15.407 (b), 15.209	RSS-GEN 8.9/7	Radiated Spurious Emission	< 54dBuV/m	Radiated	Pass

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8. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS

LIMITS

None; for reporting purposes only.

PROCEDURE

KDB 789033 Zero-Span Spectrum Analyzer Method.

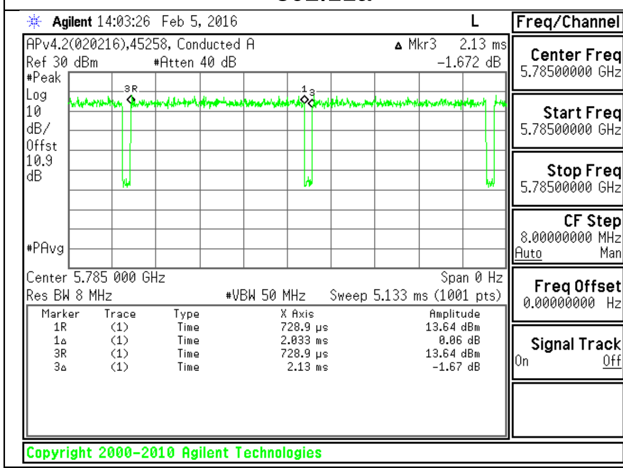
ON TIME AND DUTY CYCLE RESULTS

ON TIME AND DUTY CYCLE RESULTS

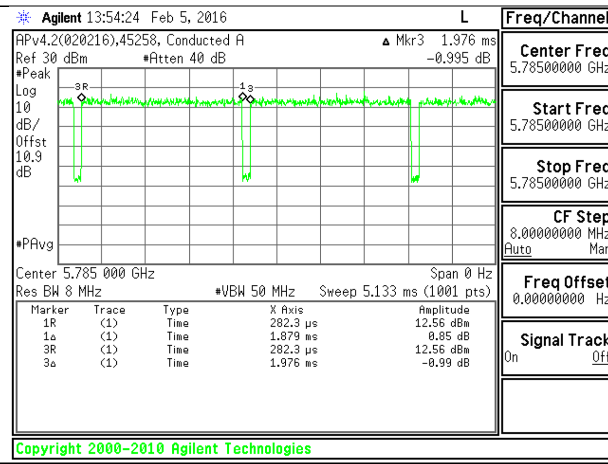
Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.03	2.13	0.954	95.4%	0.20	0.492
802.11n HT20	1.88	1.98	0.951	95.1%	0.22	0.532
802.11n HT40	0.92	1.02	0.898	89.8%	0.47	1.090
802.11ac_HT80	0.25	0.35	0.713	71.3%	1.47	4.032

DUTY CYCLE PLOTS

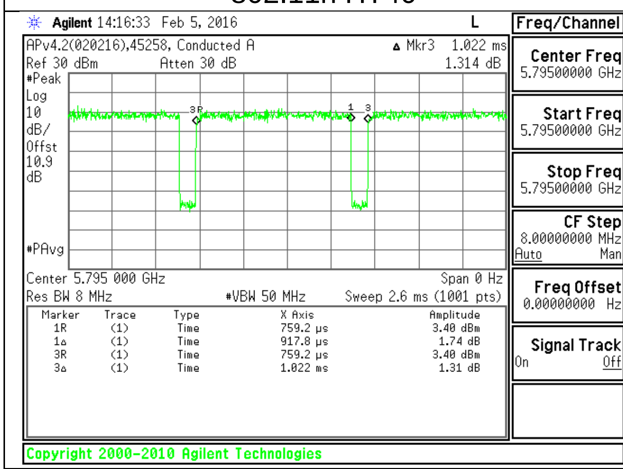
802.11a



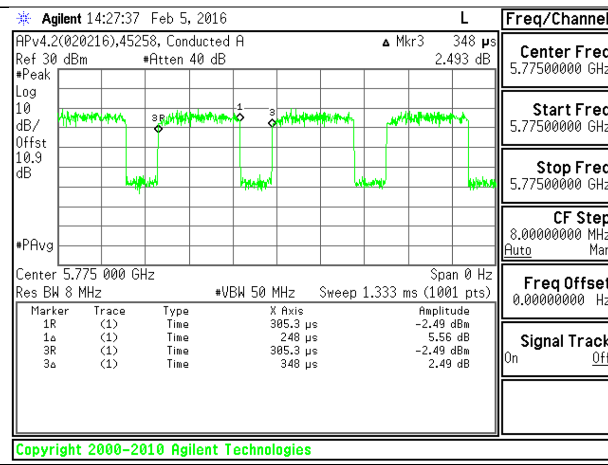
802.11n HT20



802.11n HT40



802.11ac HT80



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9. MEASUREMENT METHOD

On Time and Duty Cycle: KDB 789033 D02 v01r02, Section B.

6 dB Emission BW: KDB 789033 D02 v01r02, Section C.2.

99% Occupied BW: KDB 789033 D02 v01r02, Section D.

Conducted Output Power: KDB 789033 D02 v01r02, Section E.3.b (Method PM-G), and KDB 662911 D01 v02r01.

Power Spectral Density: KDB 789033 D02 v01r02, Section F, and KDB 662911 D01 v02r01.

Unwanted emissions in restricted bands: KDB 789033 D02 v01r02, Sections G.2, G.3, G.4, G.5, and G.6.

Unwanted emissions in non-restricted bands: KDB 789033 D02 v01r02, Sections G.2, G.3, G.4, and G.5.

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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.

RESULTS

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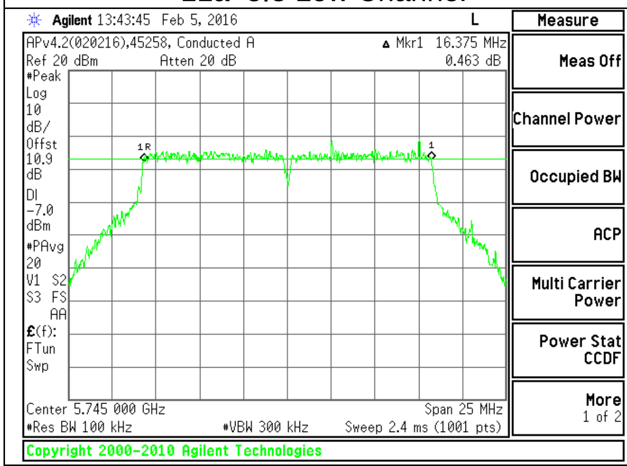
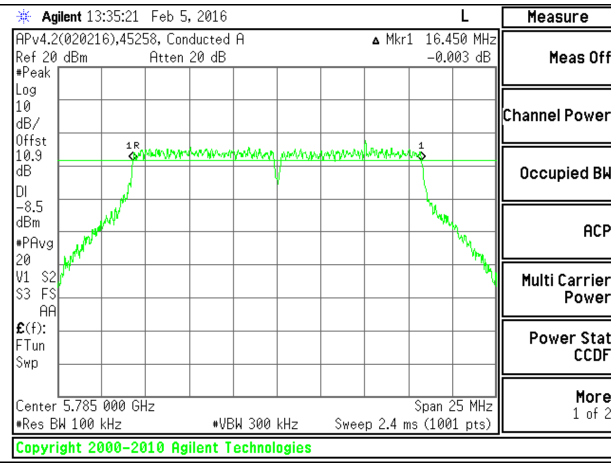
802.11a MODE IN THE 5.8 GHz BAND TEST RESULT TABLE

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	16.375	0.5
Mid	5785	16.450	0.5
High	5825	16.375	0.5

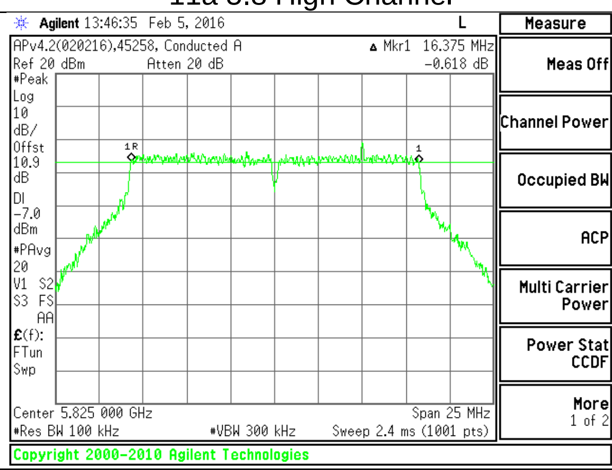
11a 5.8 Low Channel



11a 5.8 Mid Channel



11a 5.8 High Channel



NOTE:

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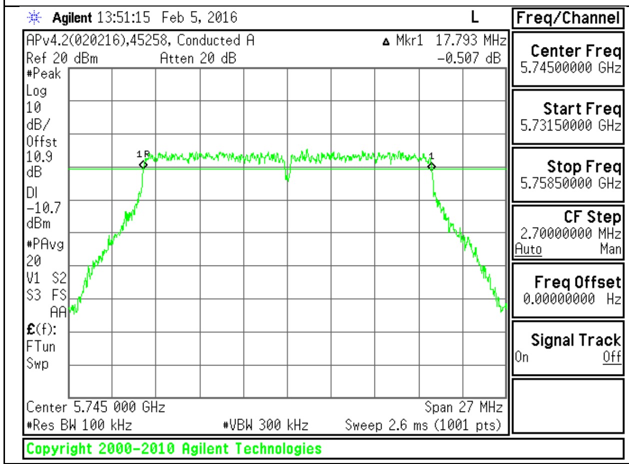
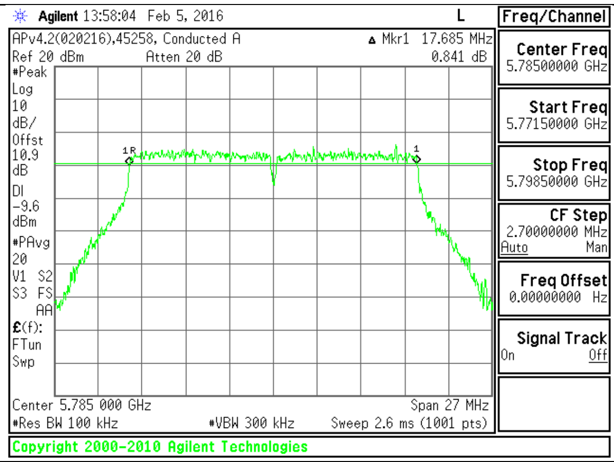
802.11n HT20 MODE IN THE 5.8 GHz BAND TEST RESULT TABLE

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	17.793	0.5
Mid	5785	17.685	0.5
High	5825	17.577	0.5

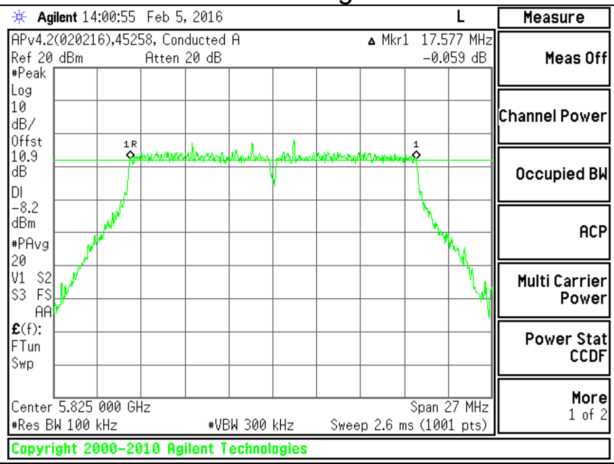
11n HT20 5.8 Low Channel



11n HT20 5.8 Mid Channel



11n HT20 5.8 High Channel



NOTE:

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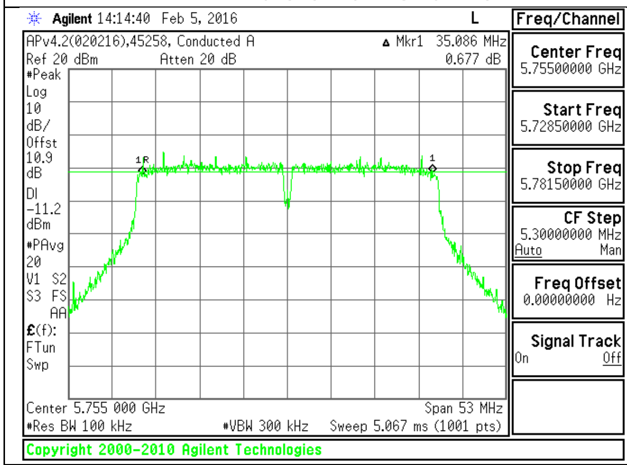
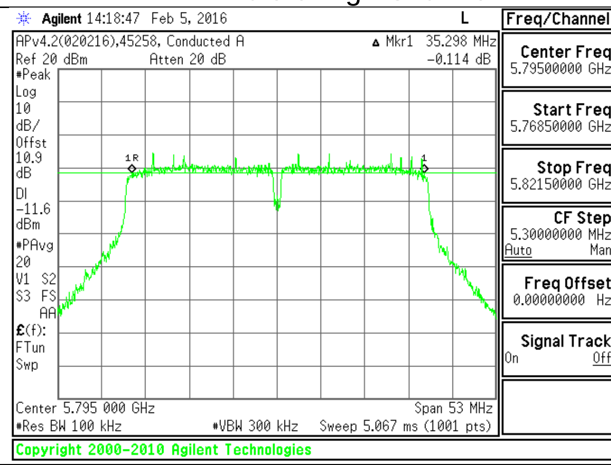
802.11n HT40 MODE IN THE 5.8 GHz BAND TEST RESULT TABLE

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5755	35.086	0.5
High	5795	35.298	0.5

11n HT40 5.8 Low Channel



11n HT40 5.8 High Channel



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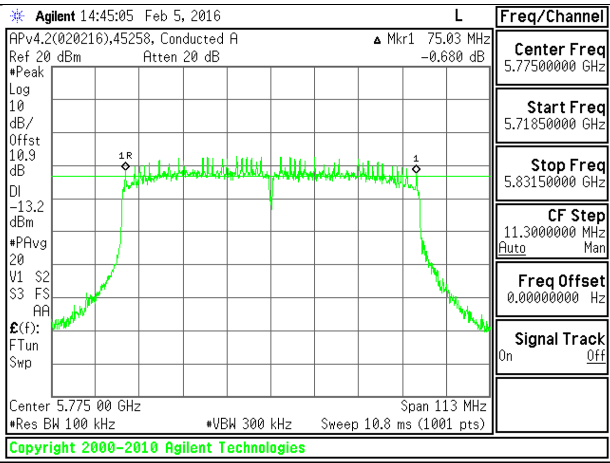
802.11ac HT80 MODE IN THE 5.8 GHz BAND TEST RESULT TABLE

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Mid	5775	75.030	0.5

11ac HT80 5.8 Mid Channel



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10.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

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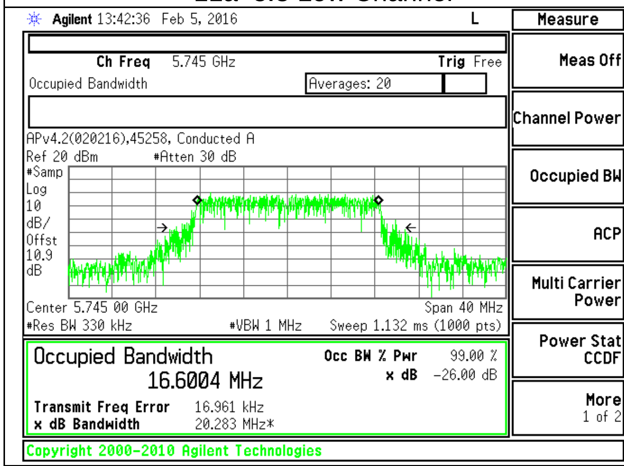
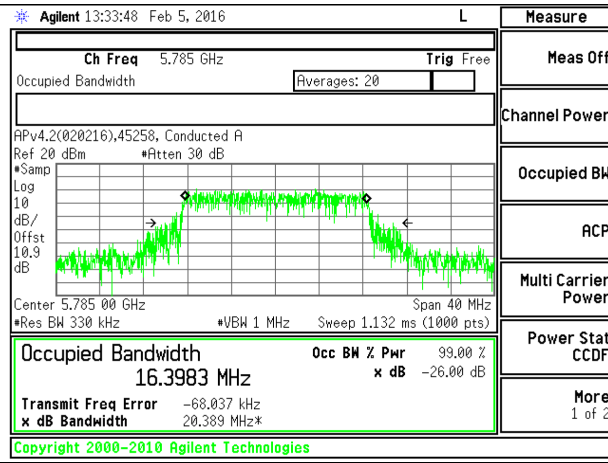
802.11a MODE IN THE 5.8 GHz BAND TEST RESULT TABLE

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	16.60
Mid	5785	16.40
High	5825	16.42

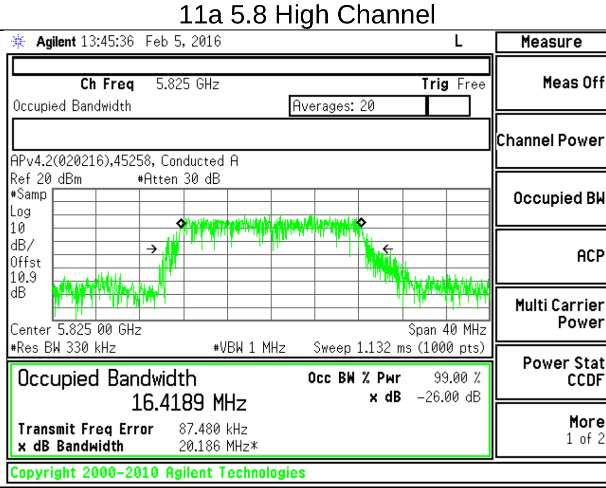
11a 5.8 Low Channel



11a 5.8 Mid Channel



11a 5.8 High Channel



NOTE:

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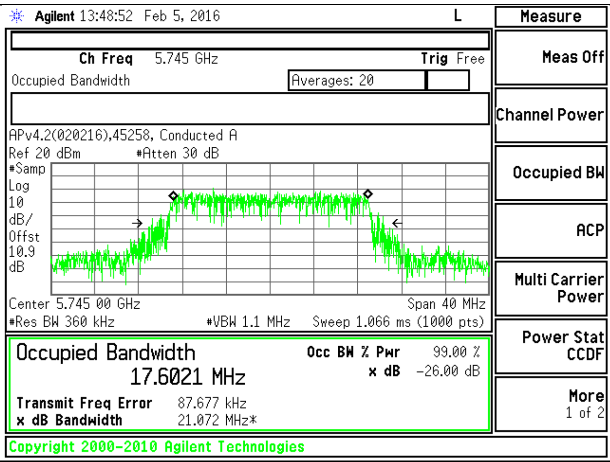
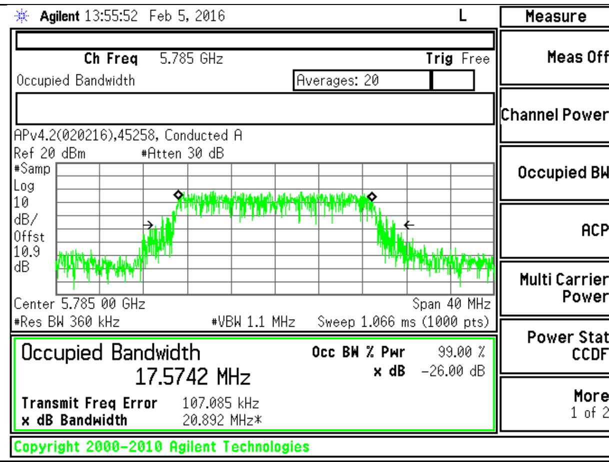
802.11n HT20 MODE IN THE 5.8 GHz BAND TEST RESULT TABLE

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	17.60
Mid	5785	17.57
High	5825	17.39

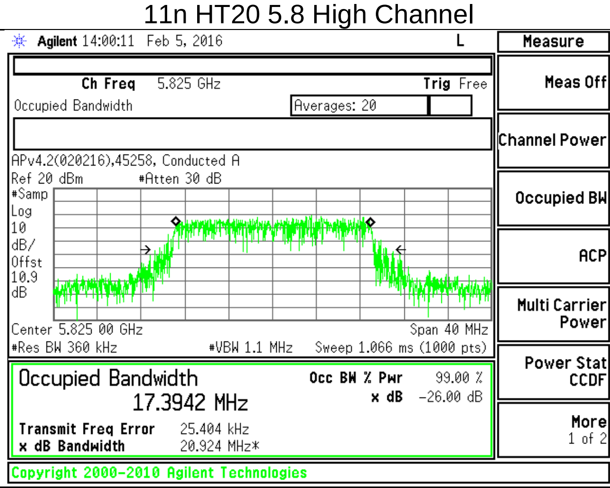
11n HT20 5.8 Low Channel



11n HT20 5.8 Mid Channel



11n HT20 5.8 High Channel



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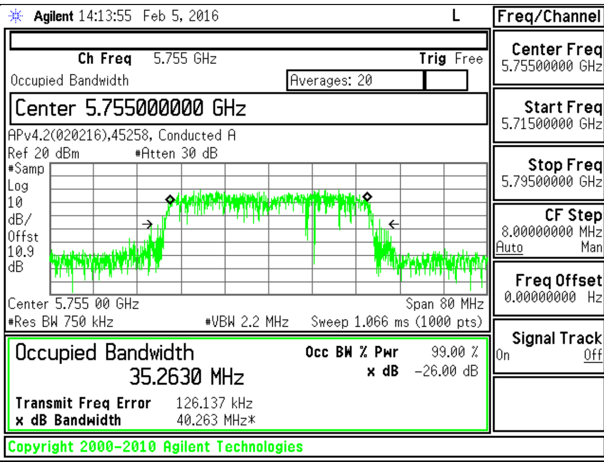
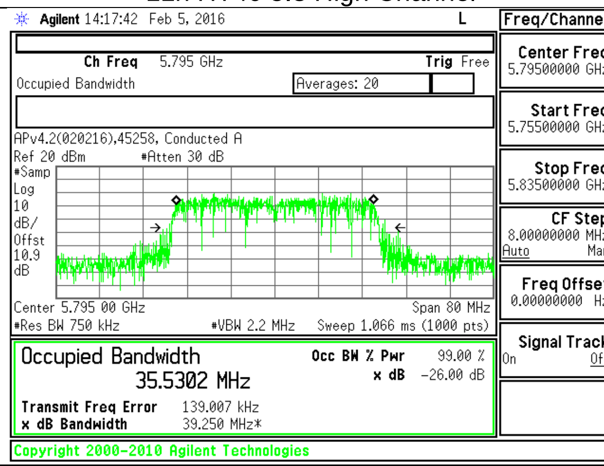
802.11n HT40 MODE IN THE 5.8 GHz BAND TEST RESULT TABLE

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5755	35.26
High	5795	35.53

11n HT40 5.8 Low Channel



11n HT40 5.8 High Channel



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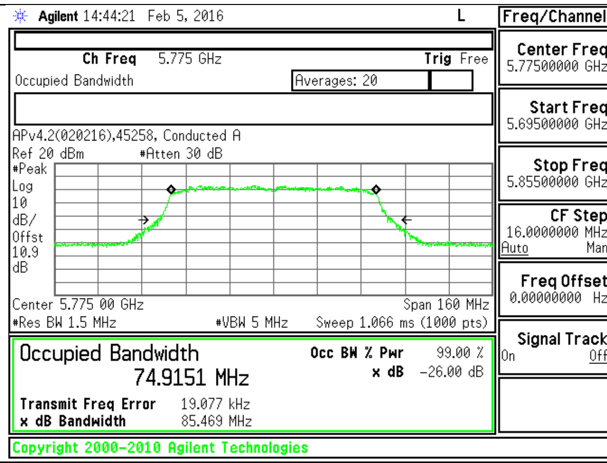
802.11ac HT80 MODE IN THE 5.8 GHz BAND TEST RESULT TABLE

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Mid	5775	74.9151

11ac HT80 5.8 Mid Channel



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10.3. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

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

RESULTS

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10.3.1. 802.11a MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	Power (dBm)
Low	5745	11.39
Mid	5785	11.20
High	5825	11.30

10.3.2. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	Power (dBm)
Low	5745	10.20
Mid	5785	10.00
High	5825	10.10

10.3.3. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	Power (dBm)
Low	5755	9.70
High	5795	9.60

10.3.1. 802.11ac HT80 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	Power (dBm)
Mid	5775	9.60

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

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10.4. MAXIMUM POWER SPECTRAL DENSITY (PSD)

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

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

RESULTS

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10.4.1. 802.11a MODE IN THE 5.8 GHz BAND

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5745	0.44	30.00
Mid	5785	0.44	30.00
High	5825	0.44	30.00

Duty Cycle CF (dB)	0.20	Included in Calculations of Corr'd PSD

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5745	-3.43	-3.23	30.00	-33.23
Mid	5785	-3.60	-3.40	30.00	-33.40
High	5825	-3.71	-3.51	30.00	-33.51

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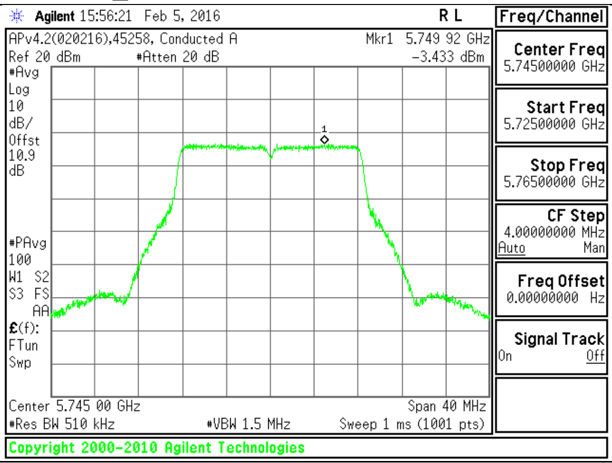
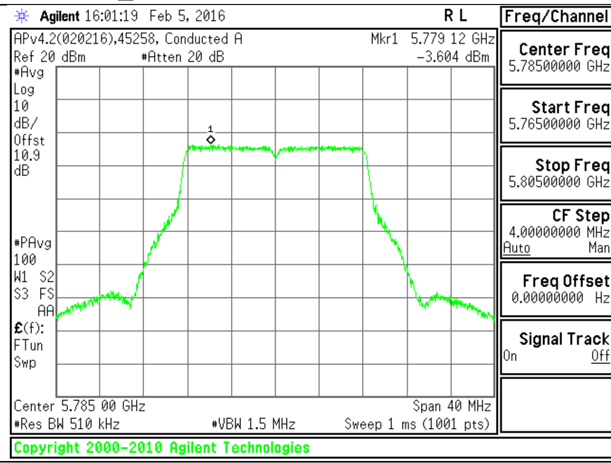
PSD PLOT

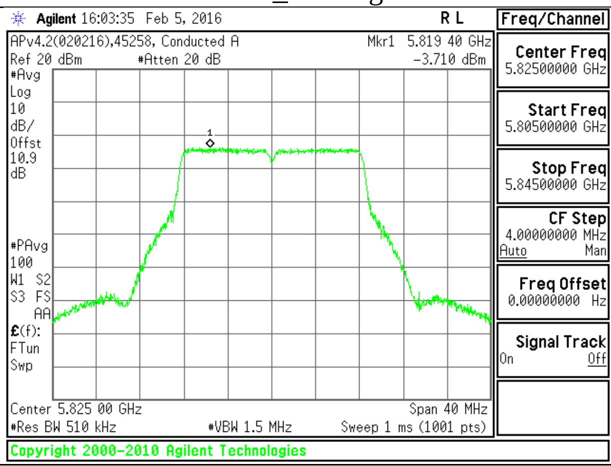
PSD 11a _ 5.8 Low Ch.



PSD 11a _ 5.8 Mid Ch.



PSD 11a_ 5.8 High Ch.



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10.4.2. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC/IC Power Limit (dBm)	FCC/IC PSD Limit (dBm)
Low	5745	0.44	30.00	30.00
Mid	5785	0.44	30.00	30.00
High	5825	0.44	30.00	30.00

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

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5745	-4.77	-4.55	30.00	-34.55
Mid	5785	-5.08	-4.86	30.00	-34.86
High	5825	-5.02	-4.80	30.00	-34.80

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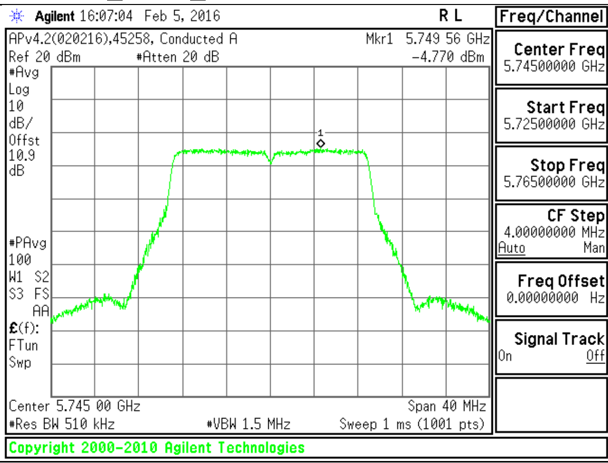
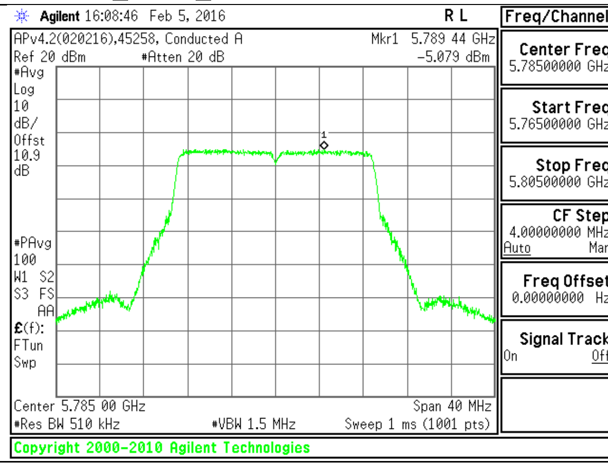
PSD PLOT

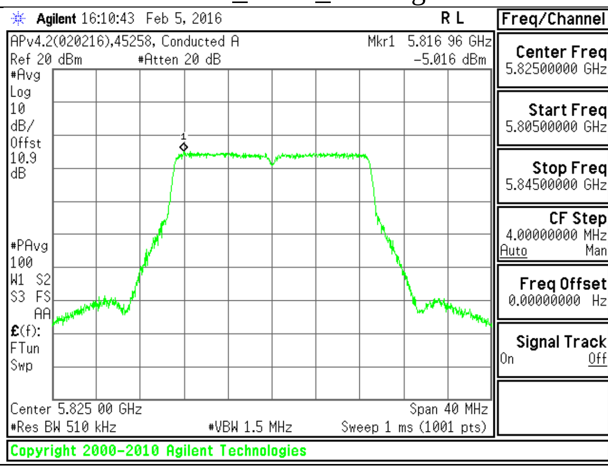
PSD 11n_HT20_ 5.8 Low Ch.



PSD 11n_HT20_ 5.8 Mid Ch.



PSD 11n_HT20_ 5.8 High Ch.



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10.4.3. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC/IC Power Limit (dBm)	FCC/IC PSD Limit (dBm)
Low	5755	0.44	30.00	30.00
High	5795	0.44	30.00	30.00

Duty Cycle CF (dB)	0.47	Included in Calculations of Corr'd PSD

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5755	-8.06	-7.59	30.00	-37.59
High	5795	-8.47	-8.00	30.00	-38.00

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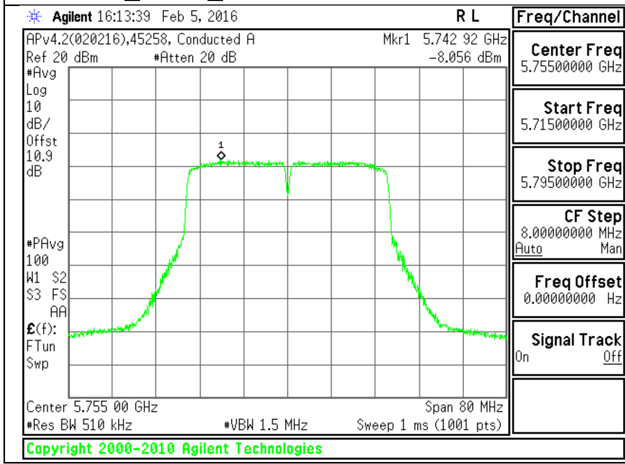
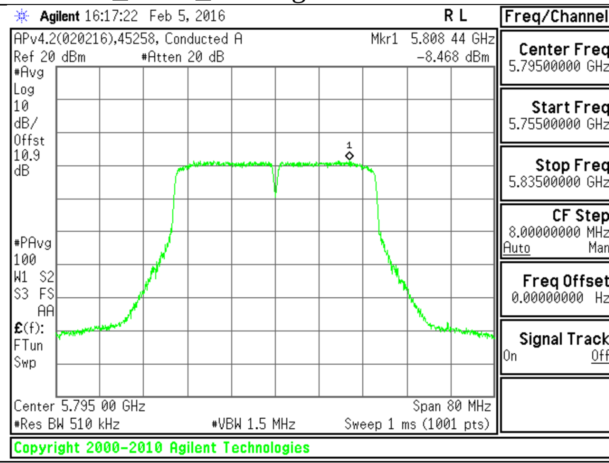
PSD PLOT

PSD 11n_HT40_ 5.8 Low Ch.	PSD 11n_HT40_ 5.8 High Ch.
	

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10.4.4. 802.11ac HT80 MODE IN THE 5.8 GHz BAND

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC/IC Power Limit (dBm)	FCC/IC PSD Limit (dBm)
Mid	5775	0.44	30.00	30.00

Duty Cycle CF (dB)	1.47	Included in Calculations of Corr'd PSD

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Mid	5775	-11.27	-9.80	30.00	-39.80

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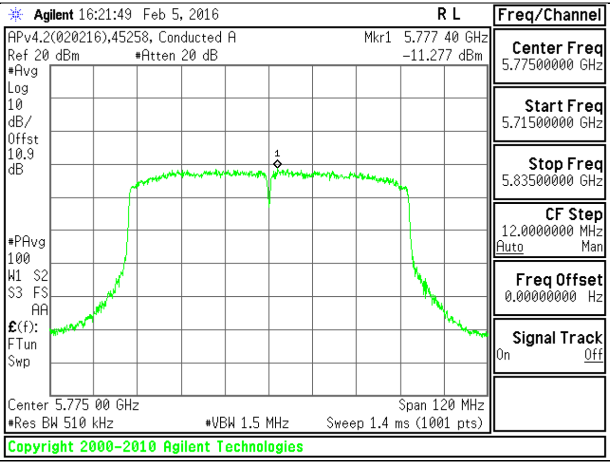
PSD PLOT

PSD 11ac_HT80_ 5.8 Mid Ch.


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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.

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

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

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

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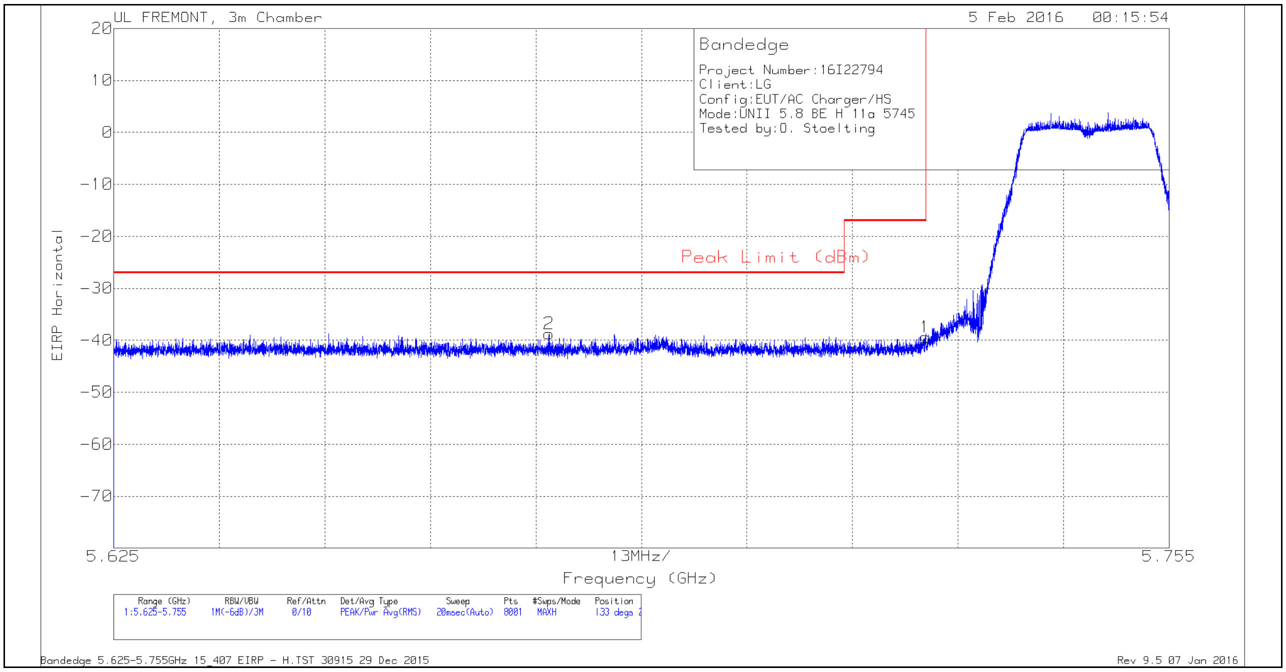
11.1. 5.8 GHz

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

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK PLOT



HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T119 (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
2	5.679	-65.43	Pk	34.7	-19.8	11.8	0	-38.73	-27	-11.73	133	275	H
1	5.725	-66.2	Pk	34.8	-19.8	11.8	0	-39.4	-17	-22.4	133	275	H

Pk - Peak detector

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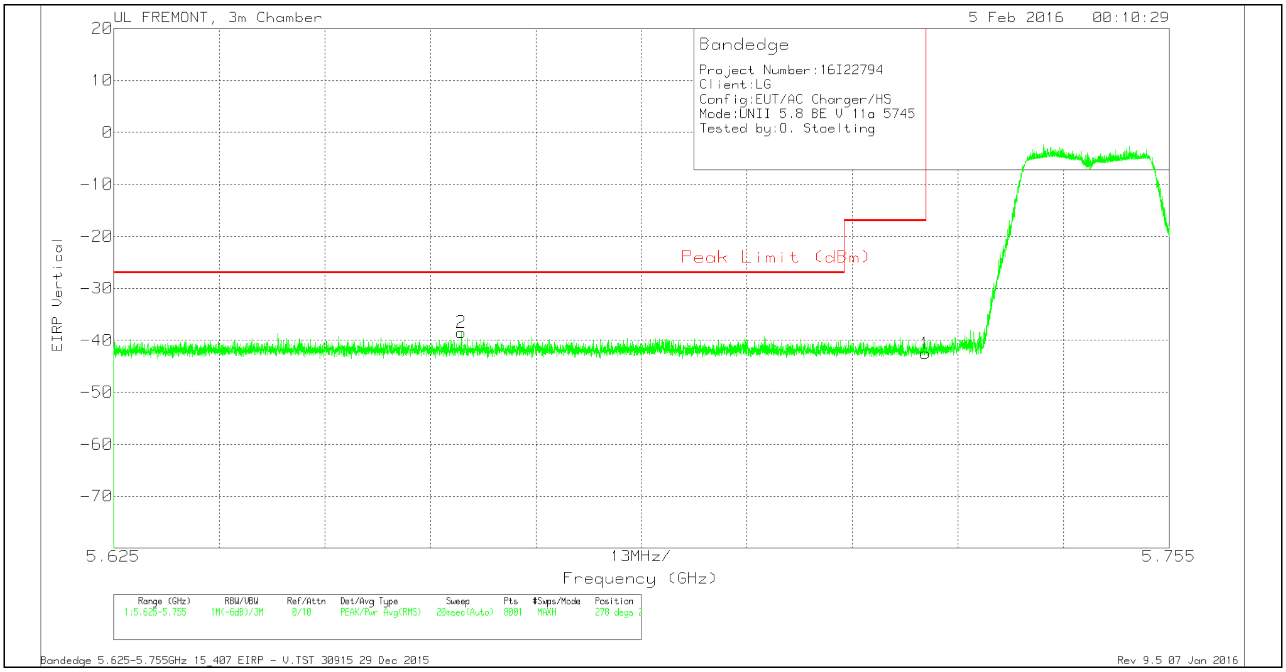
VERTICAL PEAK PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T119 (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
2	5.668	-65.3	Pk	34.7	-19.7	11.8	0	-38.5	-27	-11.5	278	276	V
1	5.725	-69.34	Pk	34.8	-19.8	11.8	0	-42.54	-17	-25.54	278	276	V

Pk - Peak detector

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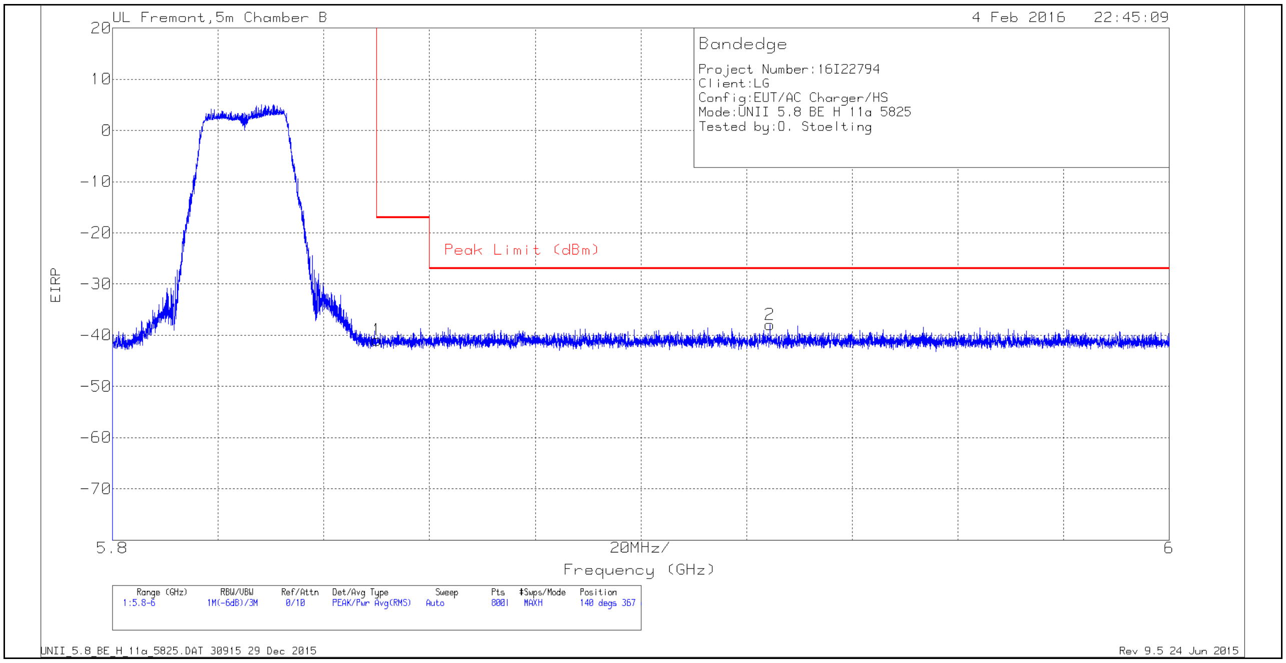
RESTRICTED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK PLOT



HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T119 (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	5.85	-67.84	Pk	34.9	-19.8	11.8	0	-40.94	-17	-23.94	140	367	H
2	5.924	-65.29	Pk	35	-19.5	11.8	0	-37.99	-27	-10.99	140	367	H

Pk - Peak detector

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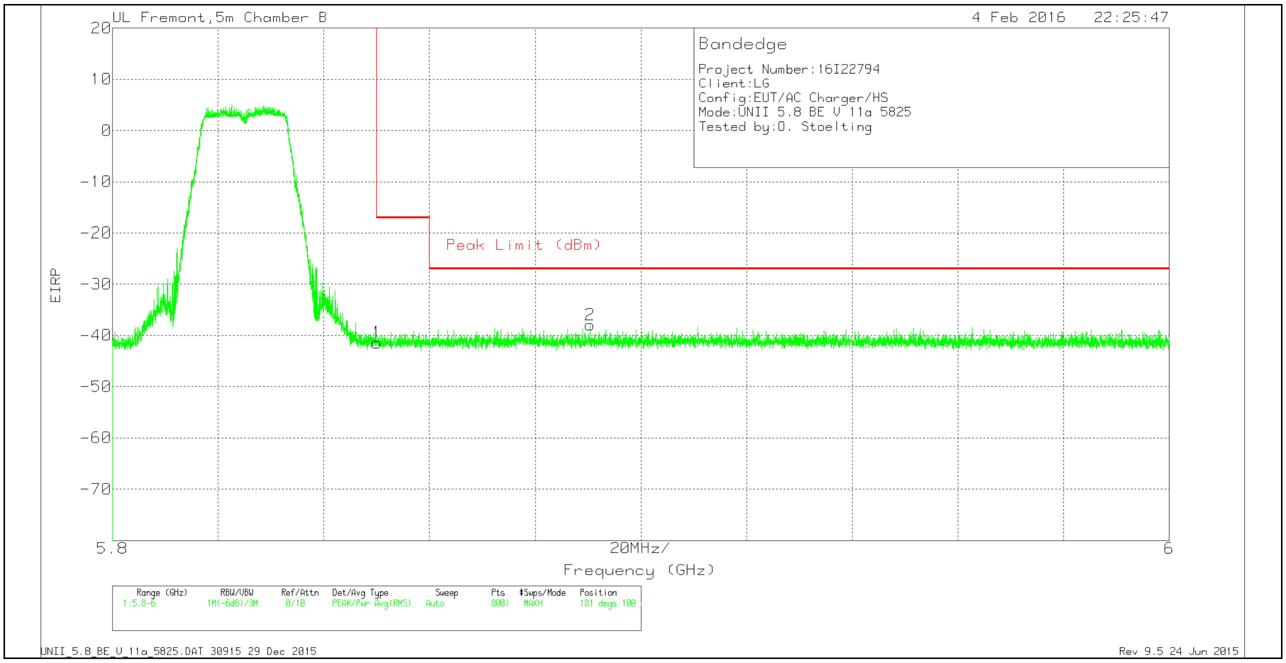
VERTICAL PEAK PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T119 (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	5.85	-68.33	Pk	34.9	-19.8	11.8	0	-41.43	-17	-24.43	181	100	V
2	5.89	-65.11	Pk	35	-19.6	11.8	0	-37.91	-27	-10.91	181	100	V

Pk - Peak detector

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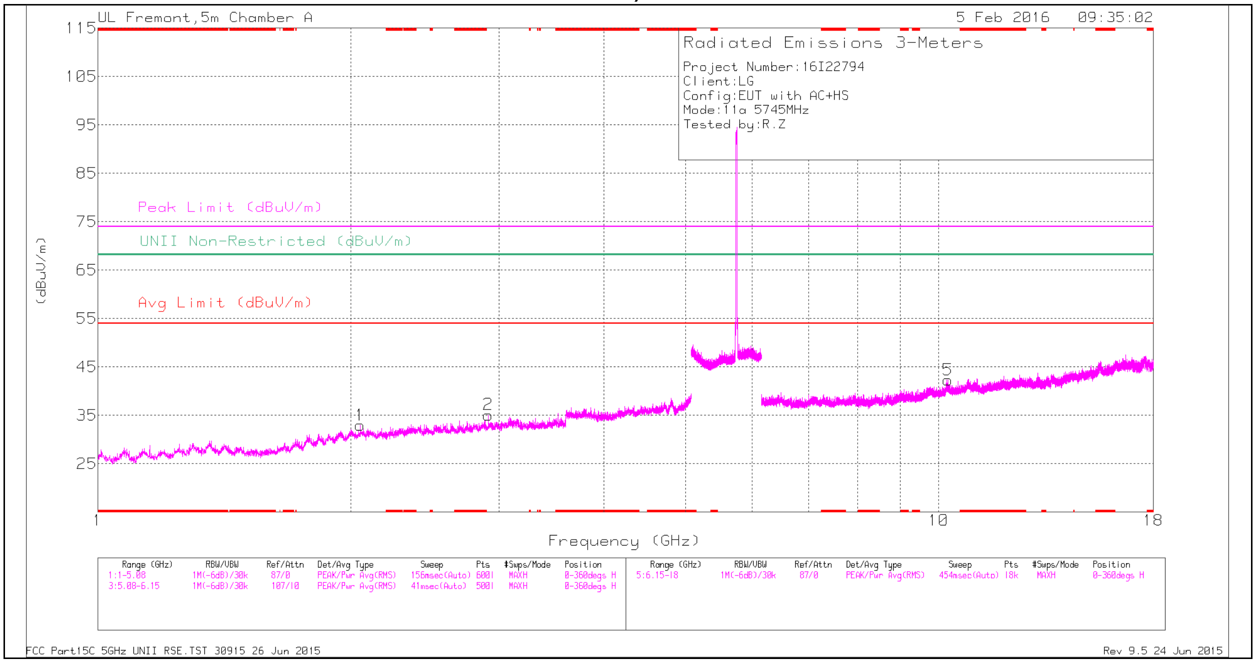
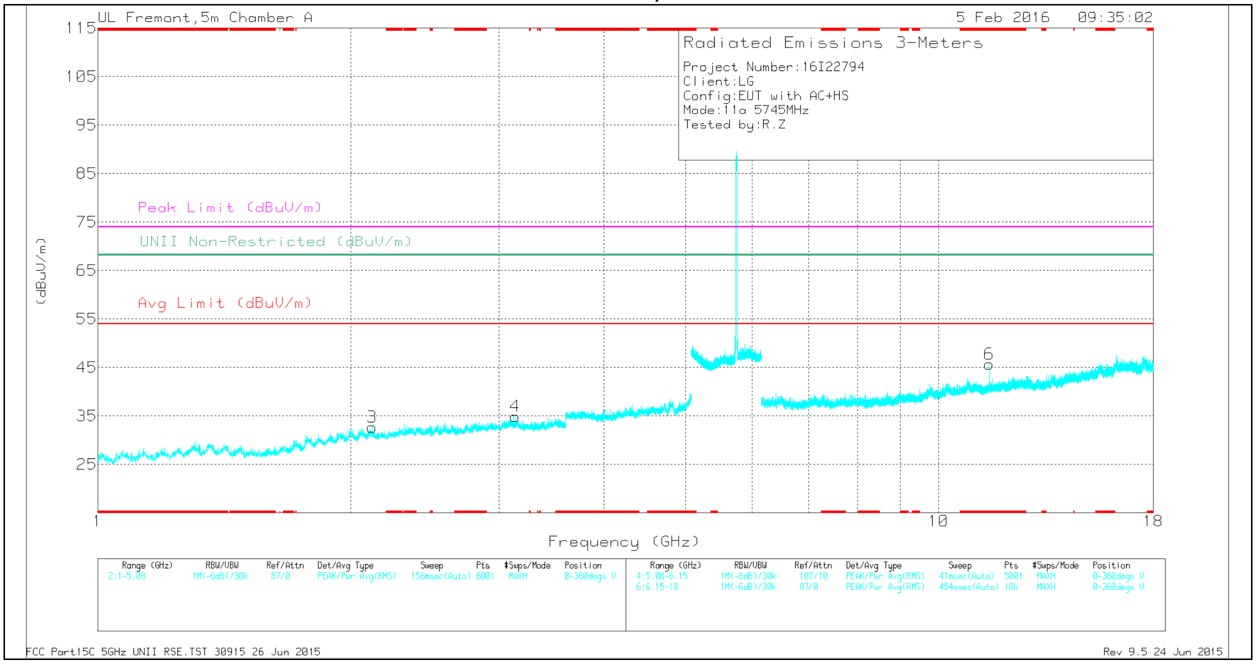
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, HORIZONTAL



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.

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LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6	* 11.489	30.31	Pk	38	-22.6	0	45.71	-	-	74	-28.29	-	-	0-360	100	V
1	2.052	35.95	Pk	31.3	-34.3	0	32.95	-	-	-	-	68.2	-35.25	0-360	201	H
3	2.119	35.66	Pk	31.4	-34.4	0	32.66	-	-	-	-	68.2	-35.54	0-360	200	V
2	2.911	35.92	Pk	32.7	-33.5	0	35.12	-	-	-	-	68.2	-33.08	0-360	100	H
4	3.137	34.63	Pk	32.8	-32.5	0	34.93	-	-	-	-	68.2	-33.27	0-360	200	V
5	10.258	27.58	Pk	37.3	-22.5	0	42.38	-	-	-	-	68.2	-25.82	0-360	201	H

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 11.49	34.38	PK-U	38	-22.6	0	49.78	-	-	74	-24.22	-	-	359	100	V
* 11.49	23.71	ADR	38	-22.6	.2	39.31	54	-14.69	-	-	-	-	359	100	V
2.051	43.45	PK-U	31.3	-34.3	0	40.45	-	-	-	-	68.2	-27.75	359	202	H
2.117	43.78	PK-U	31.4	-34.4	0	40.78	-	-	-	-	68.2	-27.42	359	201	V
2.911	42.2	PK-U	32.7	-33.5	0	41.4	-	-	-	-	68.2	-26.8	359	100	H
3.136	41.9	PK-U	32.8	-32.5	0	42.2	-	-	-	-	68.2	-26	359	201	V
10.26	34.15	PK-U	37.3	-22.5	0	48.95	-	-	-	-	68.2	-19.25	359	201	H

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

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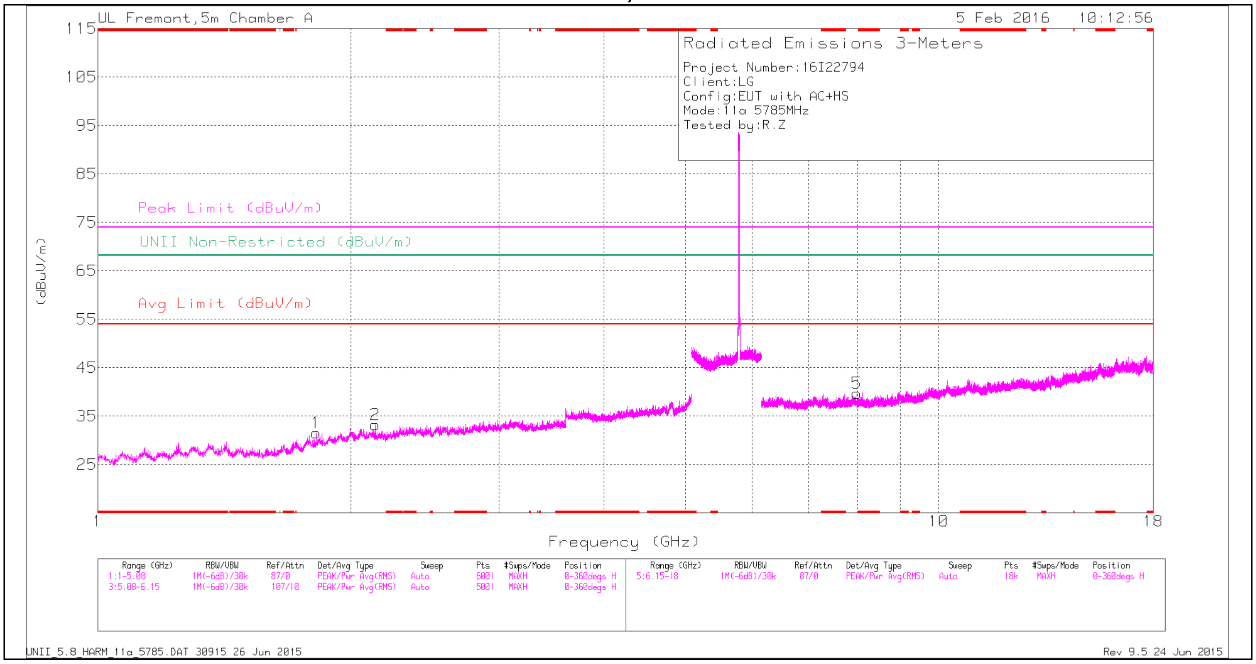
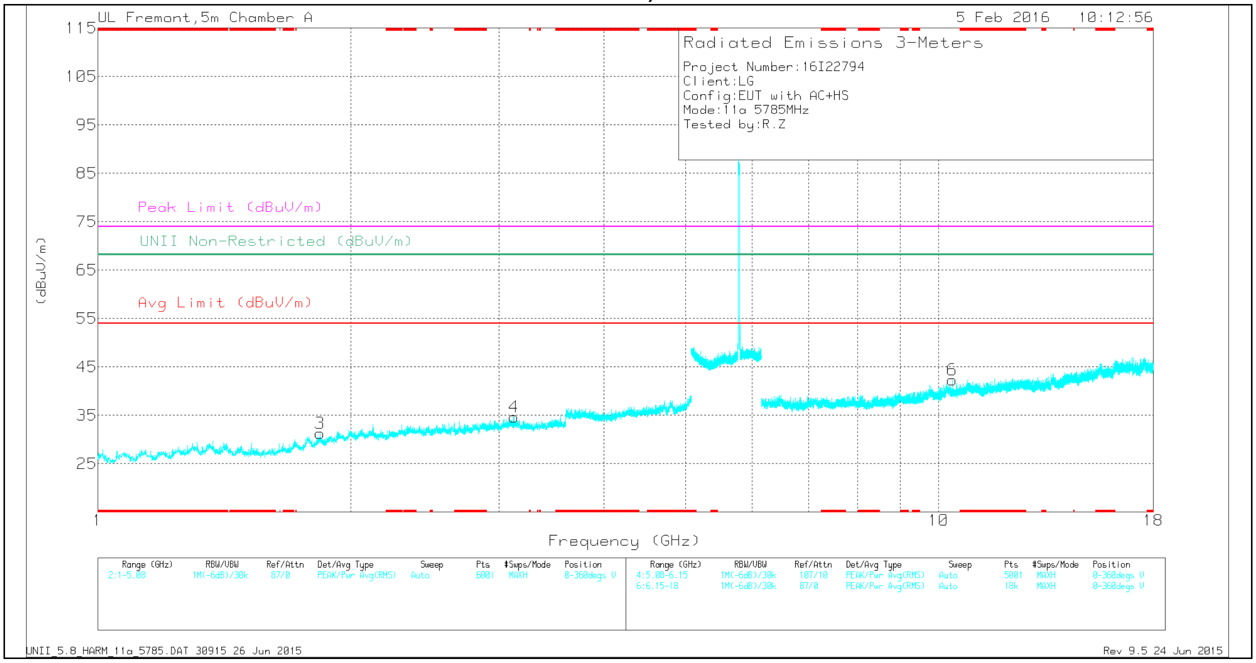
MID CHANNEL, HORIZONTAL



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.

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MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.819	36.56	Pk	30.1	-35.1	31.56	-	-	-	-	68.2	-36.64	0-360	201	H
3	1.839	36.13	Pk	30.3	-35.1	31.33	-	-	-	-	68.2	-36.87	0-360	100	V
2	2.136	36.25	Pk	31.4	-34.4	33.25	-	-	-	-	68.2	-34.95	0-360	201	H
4	3.124	34.09	Pk	32.9	-32.3	34.69	-	-	-	-	68.2	-33.51	0-360	100	V
5	7.989	29.94	Pk	35.7	-25.9	39.74	-	-	-	-	68.2	-28.46	0-360	100	H
6	10.386	28.15	Pk	37.4	-23.2	42.35	-	-	-	-	68.2	-25.85	0-360	200	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.82	43.95	PK-U	30.1	-35.1	38.95	-	-	-	-	68.2	-29.25	360	202	H
1.839	43.86	PK-U	30.3	-35.1	39.06	-	-	-	-	68.2	-29.14	360	100	V
2.134	43.01	PK-U	31.4	-34.4	40.01	-	-	-	-	68.2	-28.19	360	202	H
3.125	41.75	PK-U	32.9	-32.3	42.35	-	-	-	-	68.2	-25.85	360	100	V
7.99	36.47	PK-U	35.7	-25.9	46.27	-	-	-	-	68.2	-21.93	360	100	H
10.385	34.24	PK-U	37.4	-23.2	48.44	-	-	-	-	68.2	-19.76	360	201	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

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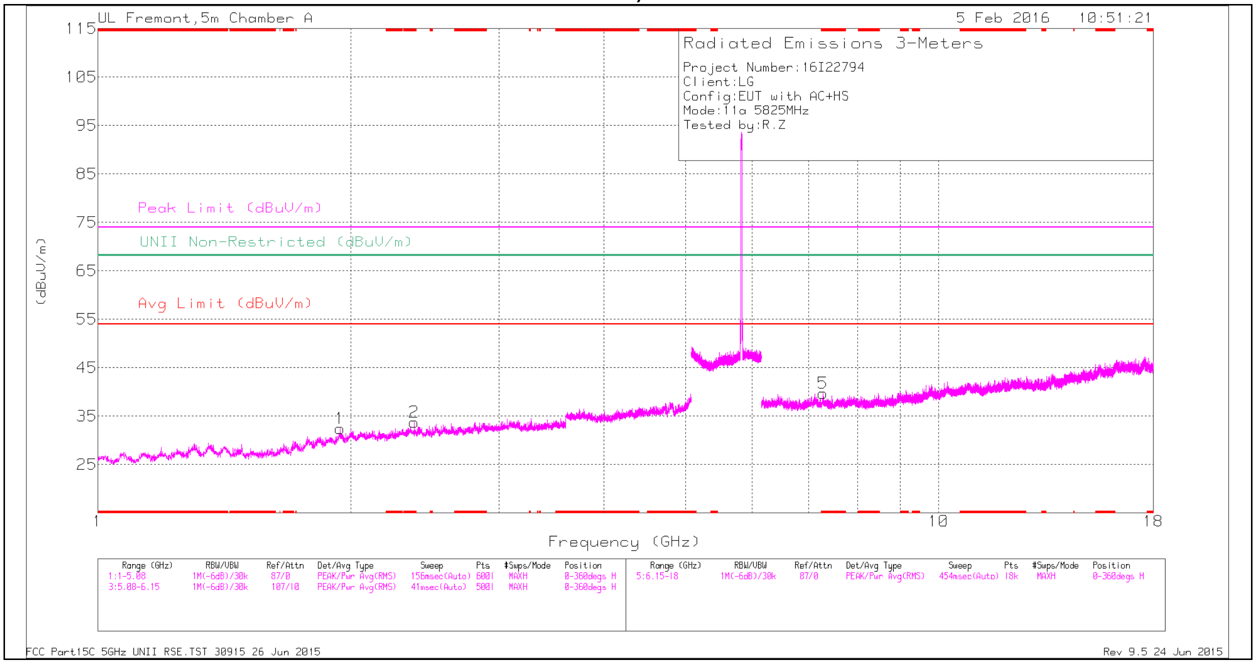
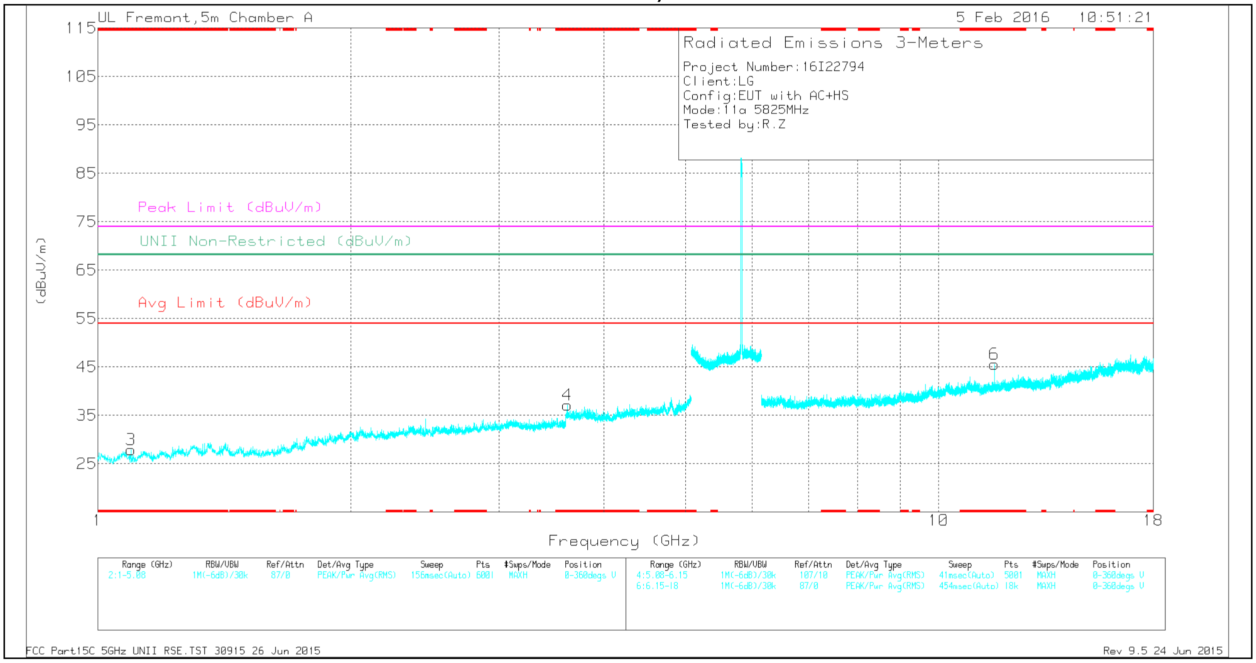
HIGH CHANNEL, HORIZONTAL



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.

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HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.379	35.72	Pk	31.9	-33.9	0	33.72	-	-	74	-40.28	-	-	0-360	201	H
3	* 1.095	36.26	Pk	27.2	-35.5	0	27.96	-	-	74	-46.04	-	-	0-360	200	V
4	* 3.619	36.6	Pk	33.1	-32.6	0	37.1	-	-	74	-36.9	-	-	0-360	100	V
5	* 7.281	30.56	Pk	35.5	-26.3	0	39.76	-	-	74	-34.24	-	-	0-360	201	H
6	* 11.65	29.83	Pk	38.2	-22.4	0	45.63	-	-	74	-28.37	-	-	0-360	100	V
1	1.942	36.41	Pk	30.9	-34.9	0	32.41	-	-	-	-	68.2	-35.79	0-360	201	H

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.38	42.33	PK-U	31.9	-33.9	0	40.33	-	-	74	-33.67	-	-	360	202	H
* 2.378	31.03	ADR	31.9	-33.9	.2	29.23	54	-24.77	-	-	-	-	360	202	H
* 1.097	43.63	PK-U	27.2	-35.5	0	35.33	-	-	74	-38.67	-	-	360	202	V
* 1.095	31.82	ADR	27.2	-35.5	.2	23.72	54	-30.28	-	-	-	-	360	202	V
* 3.618	42.6	PK-U	33.1	-32.6	0	43.1	-	-	74	-30.9	-	-	360	100	V
* 3.618	31.14	ADR	33.1	-32.6	.2	31.84	54	-22.16	-	-	-	-	360	100	V
* 7.283	37.15	PK-U	35.5	-26.2	0	46.45	-	-	74	-27.55	-	-	360	202	H
* 7.283	26.46	ADR	35.5	-26.2	.2	35.96	54	-18.04	-	-	-	-	360	202	H
* 11.65	33.84	PK-U	38.2	-22.4	0	49.64	-	-	74	-24.36	-	-	360	100	V
* 11.65	23.14	ADR	38.2	-22.4	.2	39.14	54	-14.86	-	-	-	-	360	100	V
1.941	43.86	PK-U	30.9	-34.9	0	39.86	-	-	-	-	68.2	-28.34	360	202	H

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

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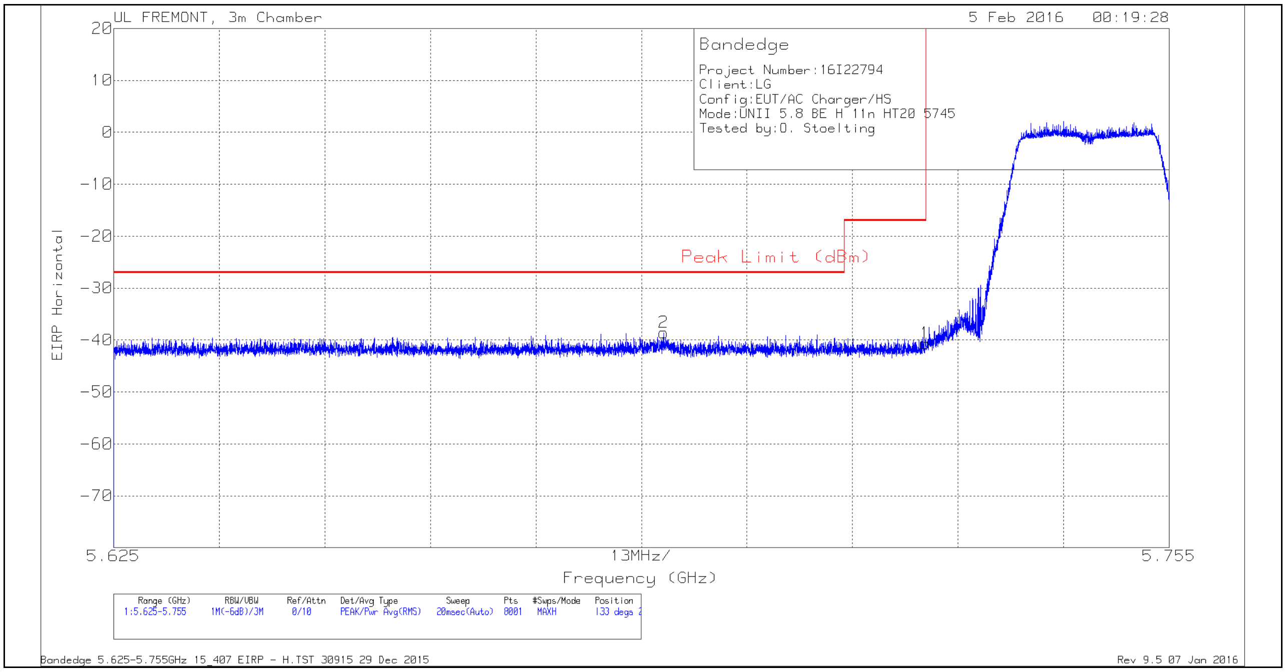
11.1.2. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.8 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK PLOT



HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T119 (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
2	5.693	-65.27	Pk	34.7	-19.8	11.8	0	-38.57	-27	-11.57	133	275	H
1	5.725	-67.43	Pk	34.8	-19.8	11.8	0	-40.63	-17	-23.63	133	275	H

Pk - Peak detector

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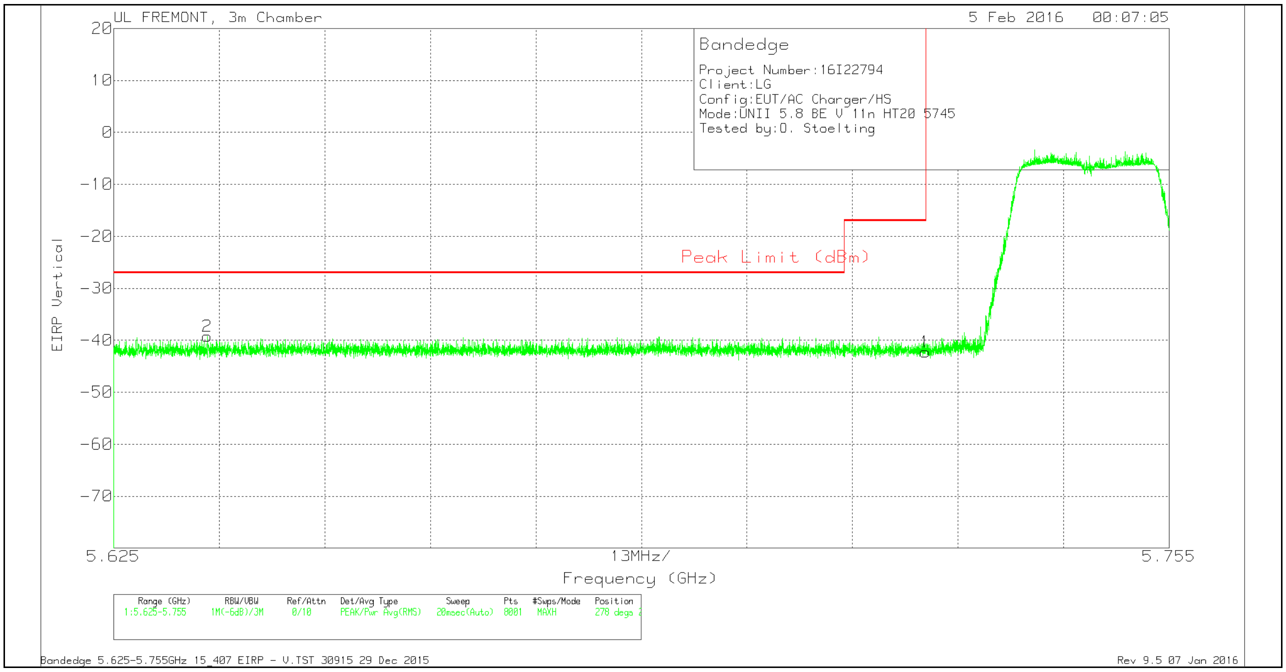
VERTICAL PEAK PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T119 (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
2	5.637	-66.03	Pk	34.7	-19.7	11.8	0	-39.23	-27	-12.23	278	276	V
1	5.725	-69.08	Pk	34.8	-19.8	11.8	0	-42.28	-17	-25.28	278	276	V

Pk - Peak detector

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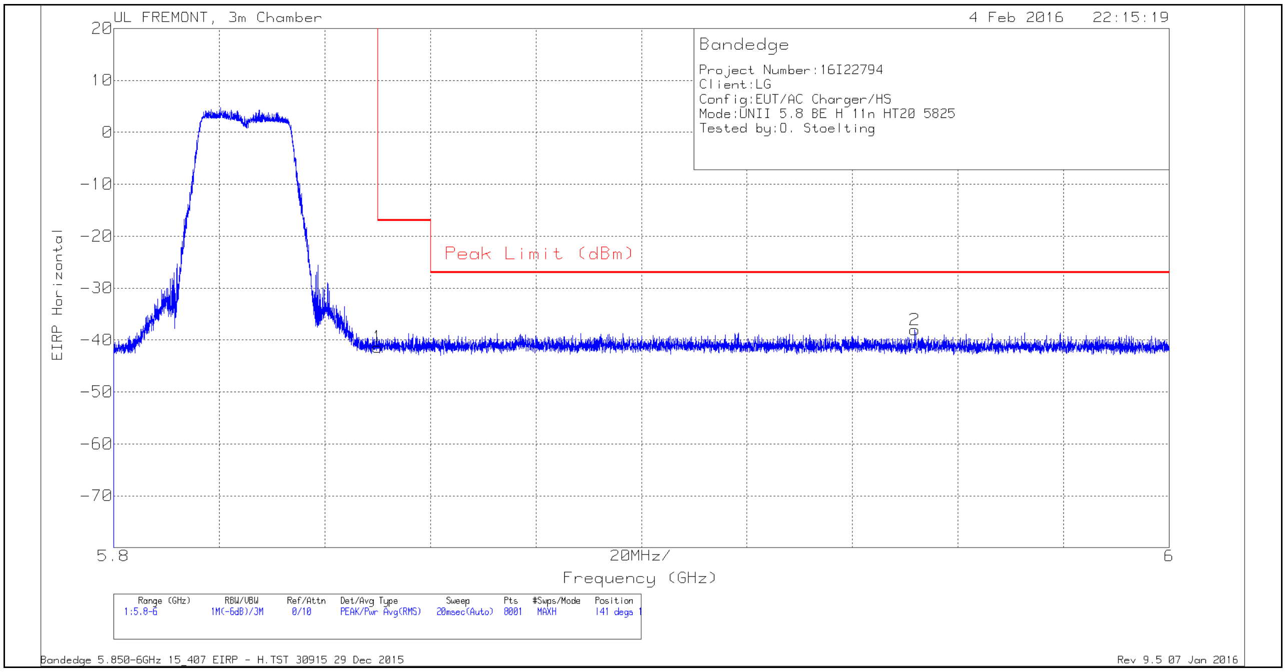
RESTRICTED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK PLOT



HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T119 (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	5.85	-68.26	Pk	34.9	-19.8	11.8	0	-41.36	-17	-24.36	141	100	H
2	5.952	-65.44	Pk	35.1	-19.5	11.8	0	-38.04	-27	-11.04	141	100	H

Pk - Peak detector

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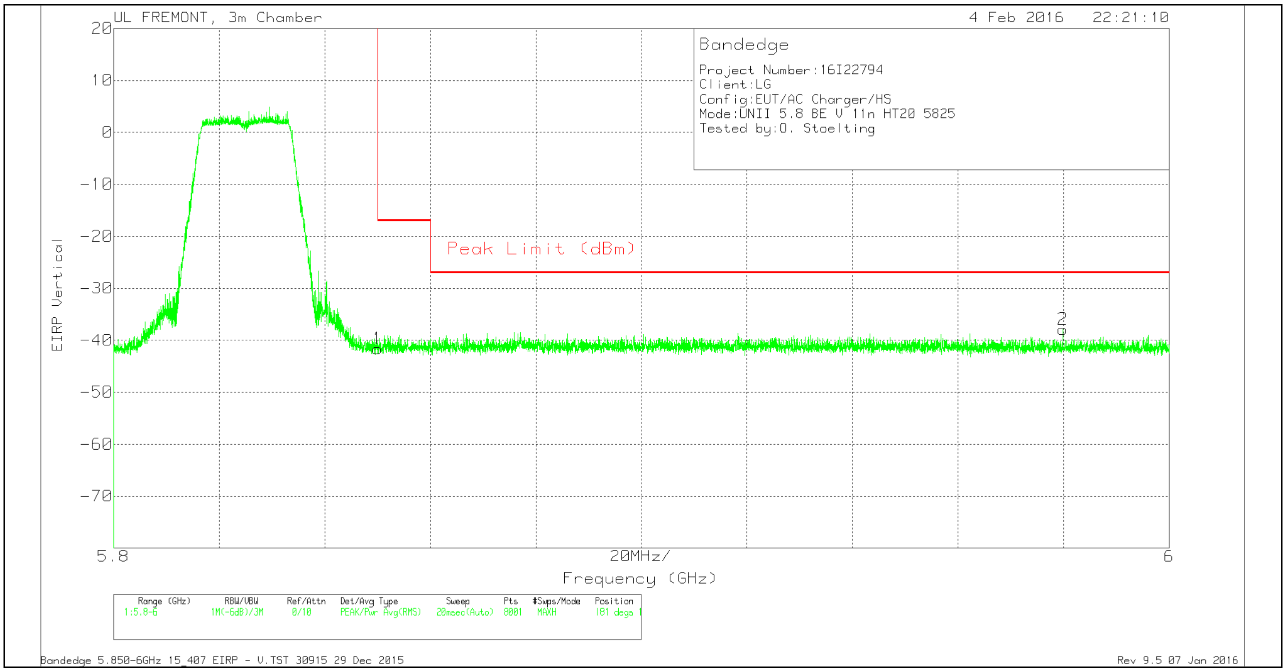
VERTICAL PEAK PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T119 (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	5.85	-68.52	Pk	34.9	-19.8	11.8	0	-41.62	-17	-24.62	181	100	V
2	5.98	-65.49	Pk	35.2	-19.4	11.8	0	-37.89	-27	-10.89	181	100	V

Pk - Peak detector

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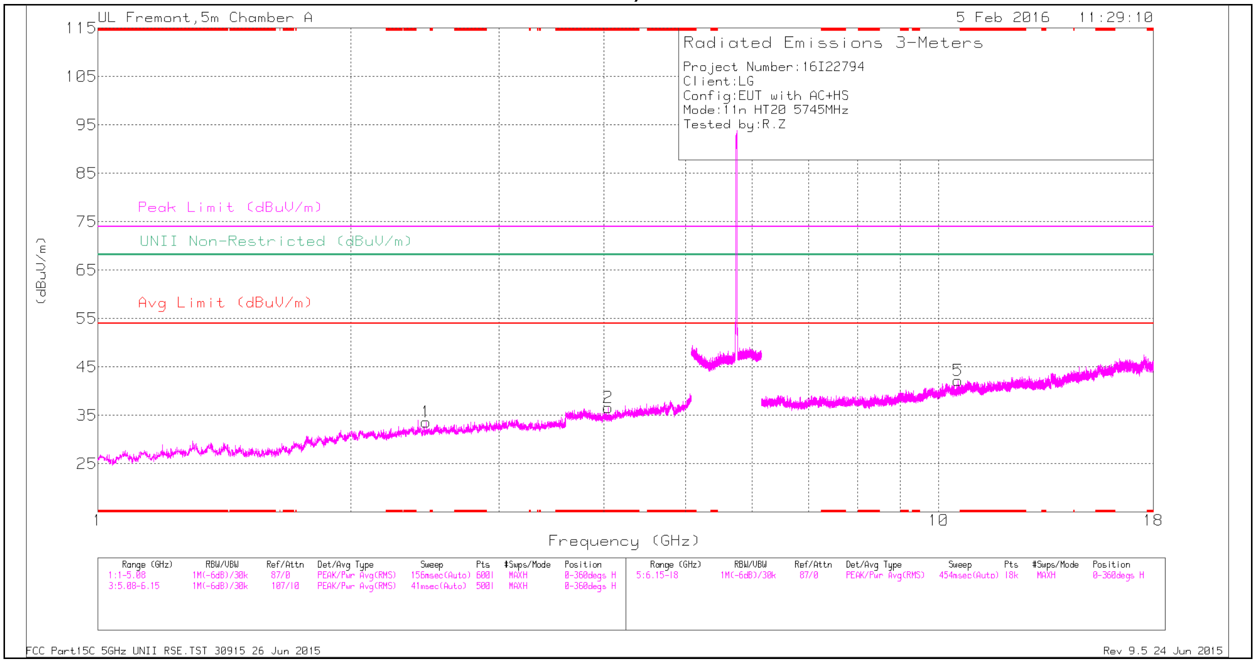
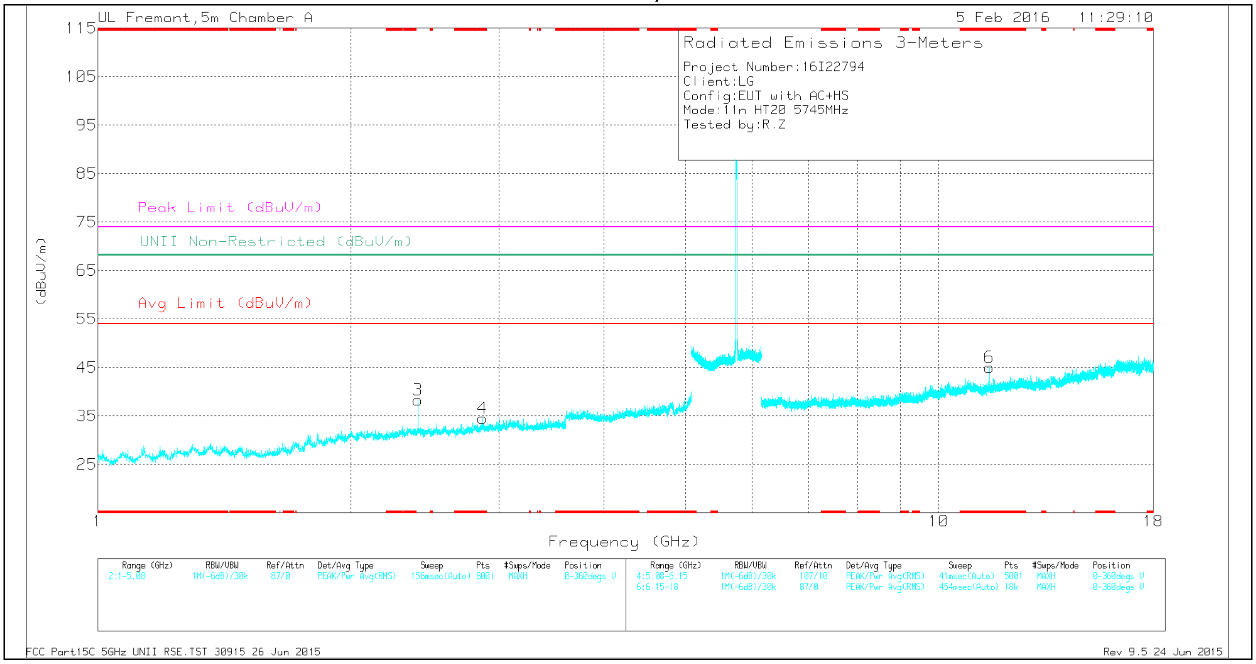
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, HORIZONTAL



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.

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LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.044	34.78	Pk	33.3	-31.5	0	36.58	-	-	74	-37.42	-	-	0-360	201	H
4	* 2.868	35.22	Pk	32.6	-33.3	0	34.52	-	-	74	-39.48	-	-	0-360	200	V
6	* 11.489	29.68	Pk	38	-22.6	0	45.08	-	-	74	-28.92	-	-	0-360	100	V
3	2.404	40.45	Pk	32	-34.2	0	38.25	-	-	-	-	68.2	-29.95	0-360	200	V
1	2.458	36.17	Pk	32	-34.5	0	33.67	-	-	-	-	68.2	-34.53	0-360	201	H
5	10.534	27.54	Pk	37.6	-23	0	42.14	-	-	-	-	68.2	-26.06	0-360	100	H

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.043	41.09	PK-U	33.3	-31.5	0	42.89	-	-	74	-31.11	-	-	360	202	H
* 4.045	30.22	ADR	33.3	-31.5	.22	32.24	54	-21.76	-	-	-	-	360	202	H
* 2.868	42.49	PK-U	32.6	-33.3	0	41.79	-	-	74	-32.21	-	-	360	202	V
* 2.866	30.95	ADR	32.6	-33.3	.22	30.47	54	-23.53	-	-	-	-	360	202	V
* 11.49	34.02	PK-U	38	-22.6	0	49.42	-	-	74	-24.58	-	-	360	100	V
* 11.49	23.56	ADR	38	-22.6	.22	39.18	54	-14.82	-	-	-	-	360	100	V
2.404	43.39	PK-U	32	-34.2	0	41.19	-	-	-	-	68.2	-27.01	360	202	V
2.46	43.65	PK-U	32	-34.5	0	41.15	-	-	-	-	68.2	-27.05	360	202	H
10.534	34.32	PK-U	37.6	-23	0	48.92	-	-	-	-	68.2	-19.28	360	100	H

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

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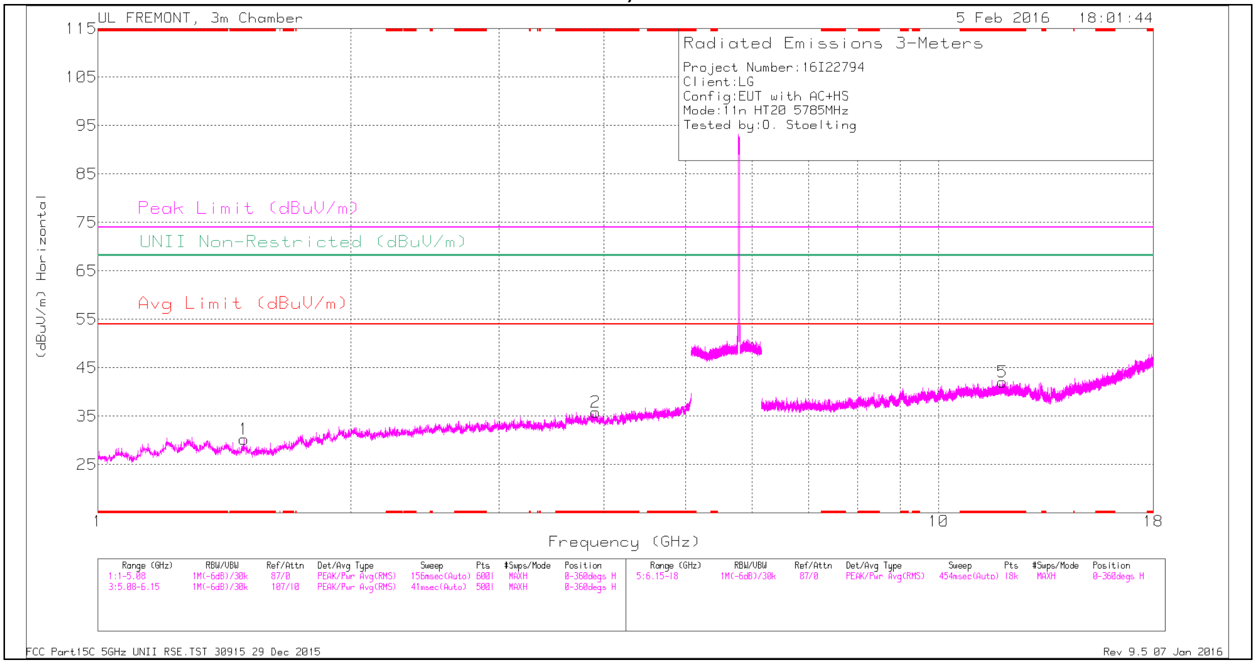
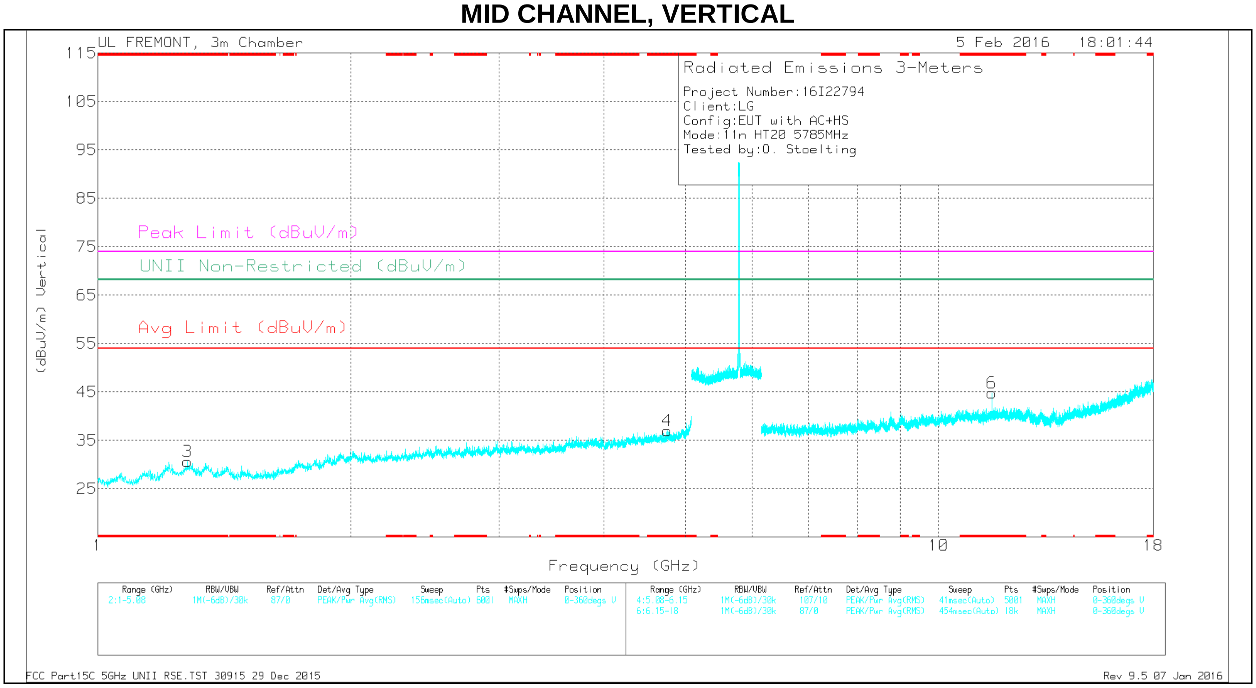
MID CHANNEL, HORIZONTAL



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.

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MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.492	34.39	Pk	28.1	-32.3	0	30.19	-	-	74	-43.81	-	-	0-360	100	H
2	* 3.908	32.89	Pk	33.2	-30.2	0	35.89	-	-	74	-38.11	-	-	0-360	200	H
3	* 1.279	34.04	Pk	29.7	-33.1	0	30.64	-	-	74	-43.36	-	-	0-360	200	V
4	* 4.752	32.74	Pk	34	-29.7	0	37.04	-	-	74	-36.96	-	-	0-360	100	V
5	* 11.913	26.61	Pk	39.1	-23.6	0	42.11	-	-	74	-31.89	-	-	0-360	200	H
6	* 11.57	29.5	Pk	38.6	-23.3	0	44.8	-	-	74	-29.2	-	-	0-360	100	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.491	39.78	PK-U	28.1	-32.3	0	35.58	-	-	74	-38.42	-	-	113	310	H
* 1.493	27.84	ADR	28.1	-32.3	.22	23.86	54	-30.14	-	-	-	-	113	310	H
* 3.907	39.41	PK-U	33.2	-30.2	0	42.41	-	-	74	-31.59	-	-	304	304	H
* 3.908	27.53	ADR	33.2	-30.2	.22	30.75	54	-23.25	-	-	-	-	304	304	H
* 1.278	40.66	PK-U	29.7	-33.1	0	37.26	-	-	74	-36.74	-	-	55	321	V
* 1.277	28.4	ADR	29.7	-33.1	.22	25.22	54	-28.78	-	-	-	-	55	321	V
* 4.754	38.48	PK-U	34	-29.7	0	42.78	-	-	74	-31.22	-	-	130	282	V
* 4.754	26.79	ADR	34	-29.6	.22	31.41	54	-22.59	-	-	-	-	130	282	V
* 11.913	32.5	PK-U	39.1	-23.6	0	48	-	-	74	-26	-	-	198	366	H
* 11.912	20.72	ADR	39.1	-23.6	.22	36.44	54	-17.56	-	-	-	-	198	366	H
* 11.57	35.63	PK-U	38.6	-23.3	0	50.93	-	-	74	-23.07	-	-	318	106	V
* 11.57	27.54	ADR	38.6	-23.3	.22	43.06	54	-10.94	-	-	-	-	318	106	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

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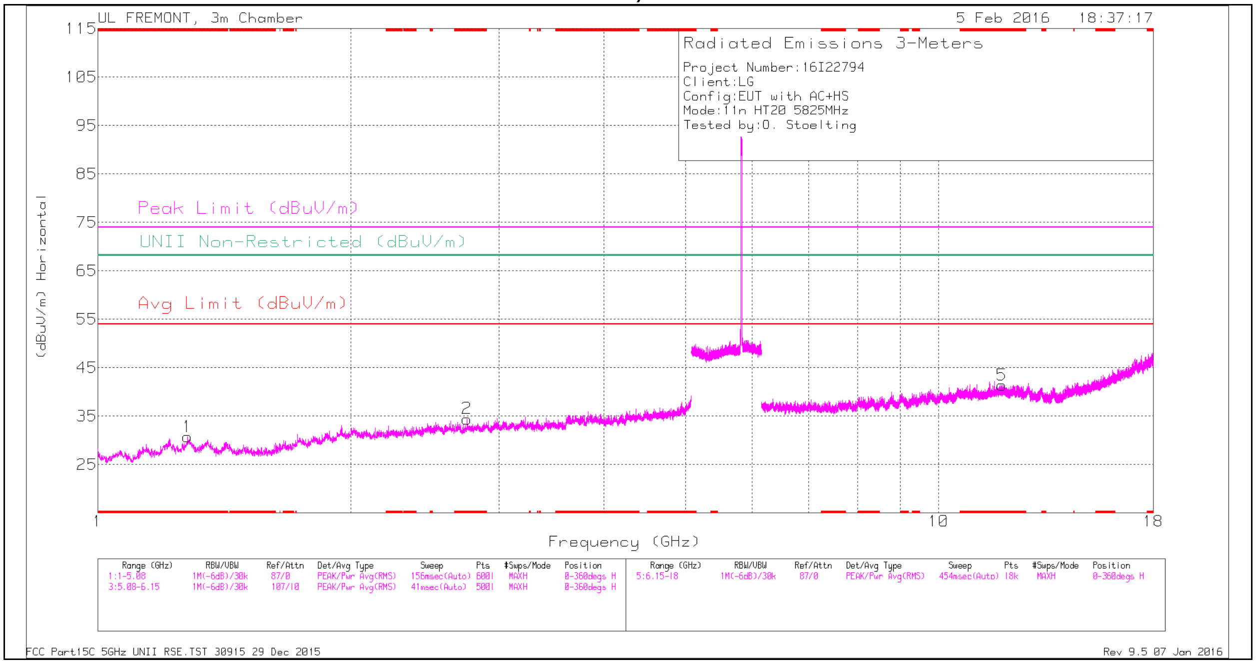
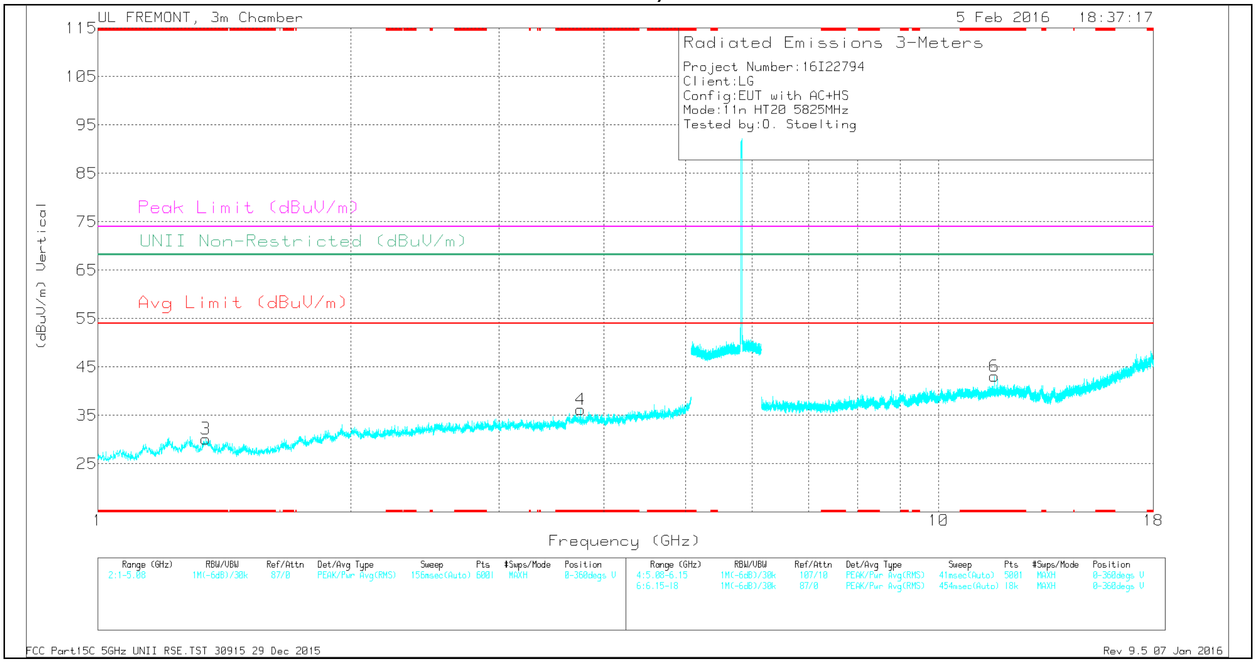
HIGH CHANNEL, HORIZONTAL



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.

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HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.278	34.13	Pk	29.7	-33.1	0	30.73	-	-	74	-43.27	-	-	0-360	100	H
2	* 2.748	33.37	Pk	32.4	-31.3	0	34.47	-	-	74	-39.53	-	-	0-360	200	H
3	* 1.345	33.78	Pk	29.3	-32.9	0	30.18	-	-	74	-43.82	-	-	0-360	100	V
4	* 3.748	33.48	Pk	33.1	-30.4	0	36.18	-	-	74	-37.82	-	-	0-360	200	V
5	* 11.895	26.06	Pk	39.1	-23.7	0	41.46	-	-	74	-32.54	-	-	0-360	200	H
6	* 11.65	28.03	Pk	38.7	-23.6	0	43.13	-	-	74	-30.87	-	-	0-360	100	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.277	40.34	PK-U	29.7	-33	0	37.04	-	-	74	-36.96	-	-	169	292	H
* 1.278	28.24	ADR	29.7	-33.1	.22	25.06	54	-28.94	-	-	-	-	169	292	H
* 2.749	38.6	PK-U	32.4	-31.2	0	39.8	-	-	74	-34.2	-	-	232	358	H
* 2.746	27.02	ADR	32.4	-31.3	.22	28.36	54	-25.64	-	-	-	-	232	358	H
* 1.346	40.23	PK-U	29.3	-32.8	0	36.73	-	-	74	-37.27	-	-	176	101	V
* 1.344	28.17	ADR	29.3	-32.9	.22	24.79	54	-29.21	-	-	-	-	176	101	V
* 3.748	39.66	PK-U	33.1	-30.5	0	42.26	-	-	74	-31.74	-	-	269	131	V
* 3.75	27.33	ADR	33.1	-30.5	.22	30.15	54	-23.85	-	-	-	-	269	131	V
* 11.894	32.29	PK-U	39.1	-23.7	0	47.69	-	-	74	-26.31	-	-	103	313	H
* 11.894	20.23	ADR	39.1	-23.7	.22	35.85	54	-18.15	-	-	-	-	103	313	H
* 11.65	34.27	PK-U	38.7	-23.6	0	49.37	-	-	74	-24.63	-	-	327	105	V
* 11.65	25.78	ADR	38.7	-23.6	.22	41.1	54	-12.9	-	-	-	-	327	105	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

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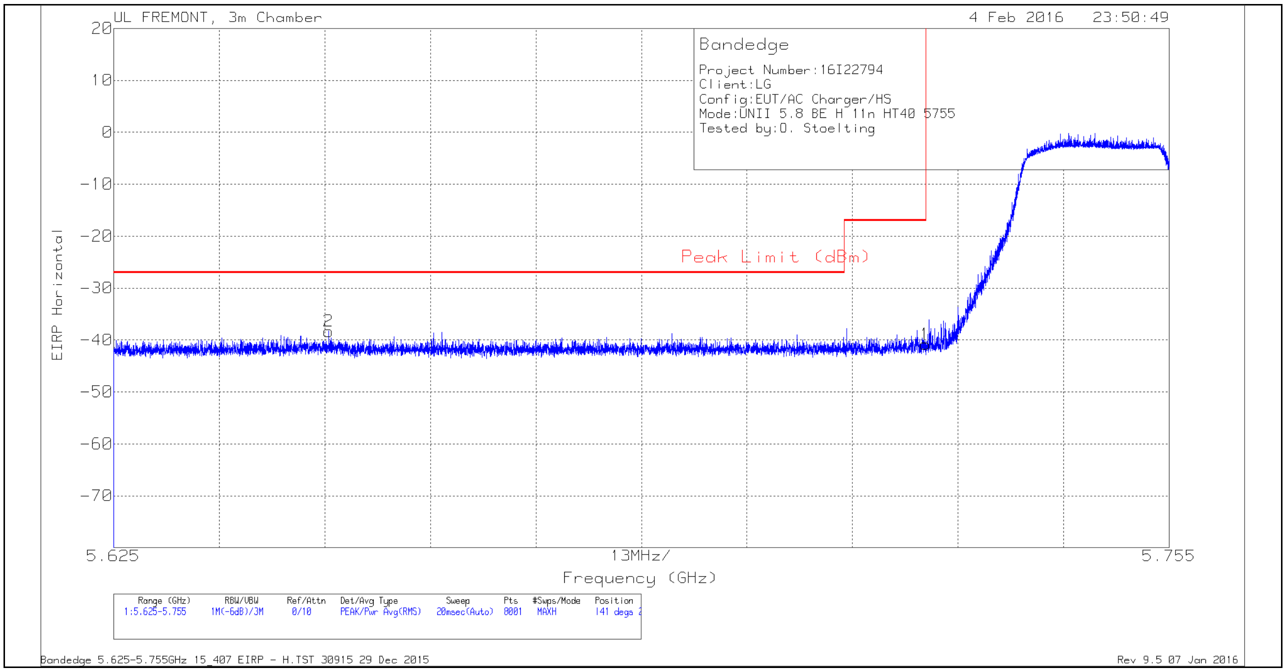
11.1.3. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.8 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK PLOT



HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T119 (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
2	5.651	-65.12	Pk	34.7	-19.7	11.8	0	-38.32	-27	-11.32	141	275	H
1	5.725	-67.62	Pk	34.8	-19.8	11.8	0	-40.82	-17	-23.82	141	275	H

Pk - Peak detector

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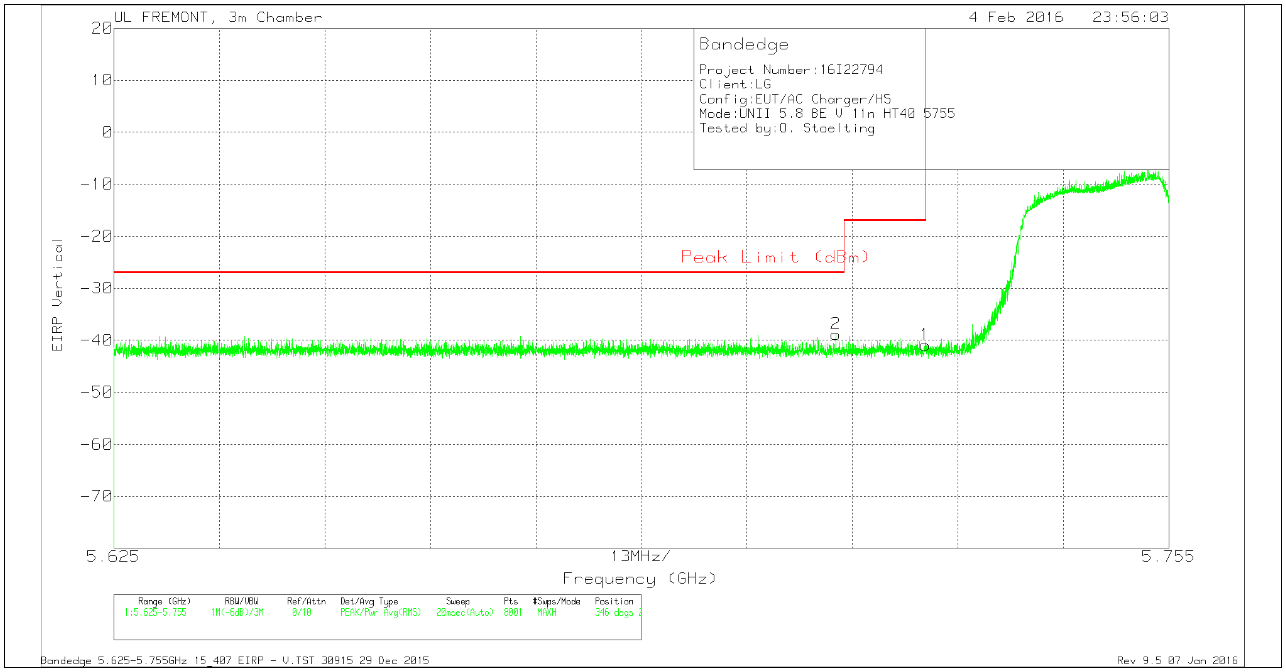
VERTICAL PEAK PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T119 (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
2	5.714	-65.62	Pk	34.8	-19.8	11.8	0	-38.82	-27	-11.82	346	283	V
1	5.725	-67.67	Pk	34.8	-19.8	11.8	0	-40.87	-17	-23.87	346	283	V

Pk - Peak detector

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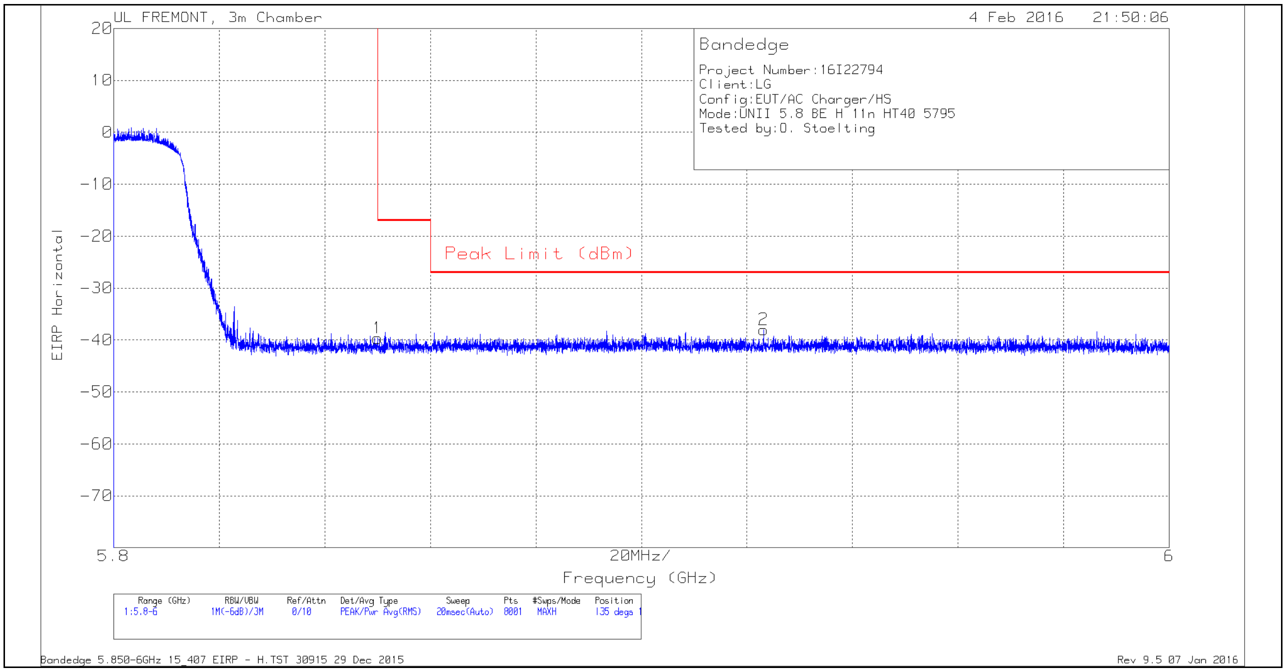
RESTRICTED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK PLOT



HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T119 (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	5.85	-66.55	Pk	34.9	-19.8	11.8	0	-39.65	-17	-22.65	135	188	H
2	5.923	-65.29	Pk	35	-19.5	11.8	0	-37.99	-27	-10.99	135	188	H

Pk - Peak detector

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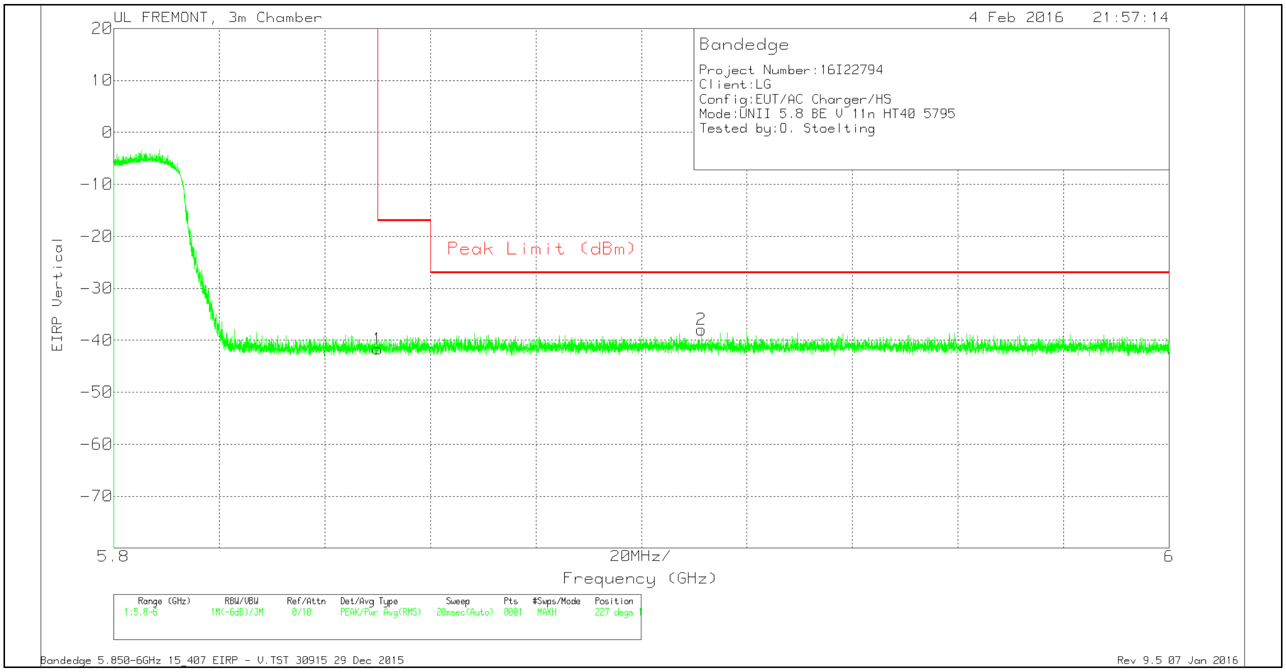
VERTICAL PEAK PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T119 (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	5.85	-68.57	Pk	34.9	-19.8	11.8	0	-41.67	-17	-24.67	227	100	V
2	5.911	-65.15	Pk	35	-19.6	11.8	0	-37.95	-27	-10.95	227	100	V

Pk - Peak detector

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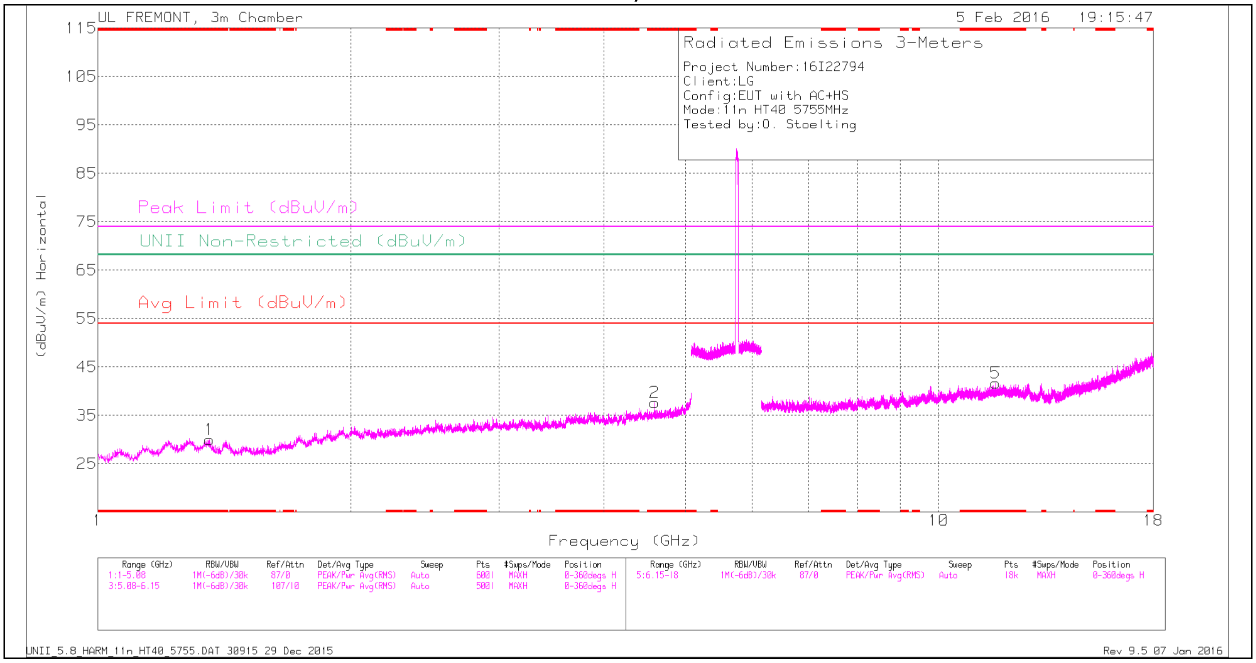
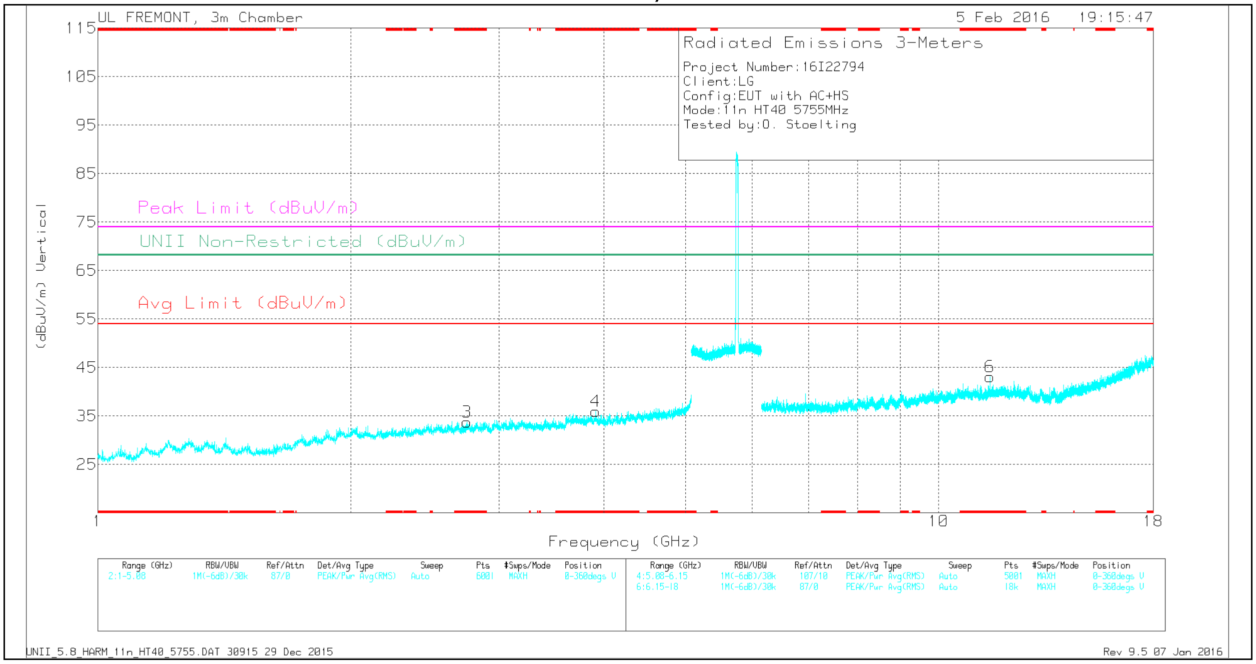
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, HORIZONTAL



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.

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LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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	* 1.358	33.39	Pk	29.2	-32.6	0	29.99	-	-	74	-44.01	-	-	0-360	200	H
2	* 4.594	32.88	Pk	33.9	-29.1	0	37.68	-	-	74	-36.32	-	-	0-360	100	H
3	* 2.747	32.67	Pk	32.4	-31.3	0	33.77	-	-	74	-40.23	-	-	0-360	200	V
4	* 3.91	33.06	Pk	33.2	-30.3	0	35.96	-	-	74	-38.04	-	-	0-360	200	V
5	* 11.692	26.28	Pk	38.8	-23.4	0	41.68	-	-	74	-32.32	-	-	0-360	100	H
6	* 11.509	28.32	Pk	38.4	-23.6	0	43.12	-	-	74	-30.88	-	-	0-360	100	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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
* 1.358	40.48	PK-U	29.1	-32.6	0	36.98	-	-	74	-37.02	-	-	32	264	H
* 1.357	27.83	ADR	29.2	-32.6	.47	24.9	54	-29.1	-	-	-	-	32	264	H
* 4.594	37.63	PK-U	33.9	-29.2	0	42.33	-	-	74	-31.67	-	-	151	114	H
* 4.592	26.17	ADR	33.9	-29.2	.47	31.34	54	-22.66	-	-	-	-	151	114	H
* 2.747	39.13	PK-U	32.4	-31.3	0	40.23	-	-	74	-33.77	-	-	154	367	V
* 2.746	27.01	ADR	32.4	-31.3	.47	28.58	54	-25.42	-	-	-	-	154	367	V
* 3.909	38.77	PK-U	33.2	-30.2	0	41.77	-	-	74	-32.23	-	-	158	362	V
* 3.91	27.23	ADR	33.2	-30.3	.47	30.6	54	-23.4	-	-	-	-	158	362	V
* 11.69	32.62	PK-U	38.8	-23.4	0	48.02	-	-	74	-25.98	-	-	44	333	H
* 11.691	20.31	ADR	38.8	-23.4	.47	36.18	54	-17.82	-	-	-	-	44	333	H
* 11.51	33.96	PK-U	38.4	-23.6	0	48.76	-	-	74	-25.24	-	-	322	110	V
* 11.51	26.48	ADR	38.4	-23.6	.47	41.75	54	-12.25	-	-	-	-	322	110	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

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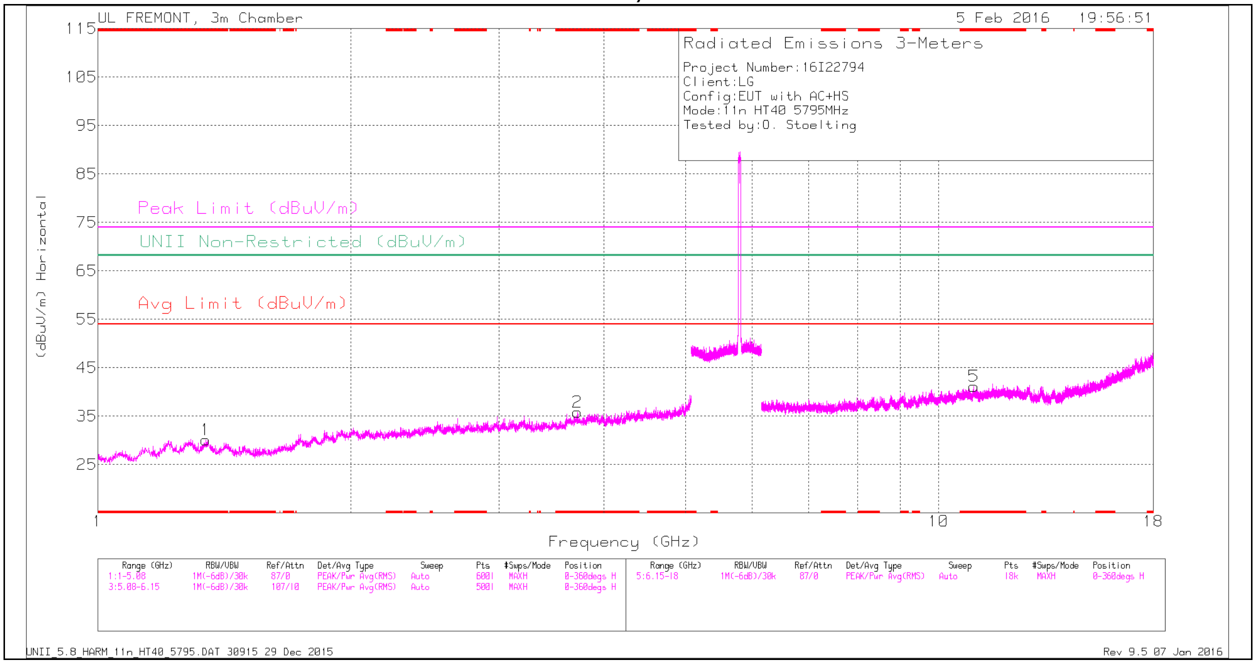
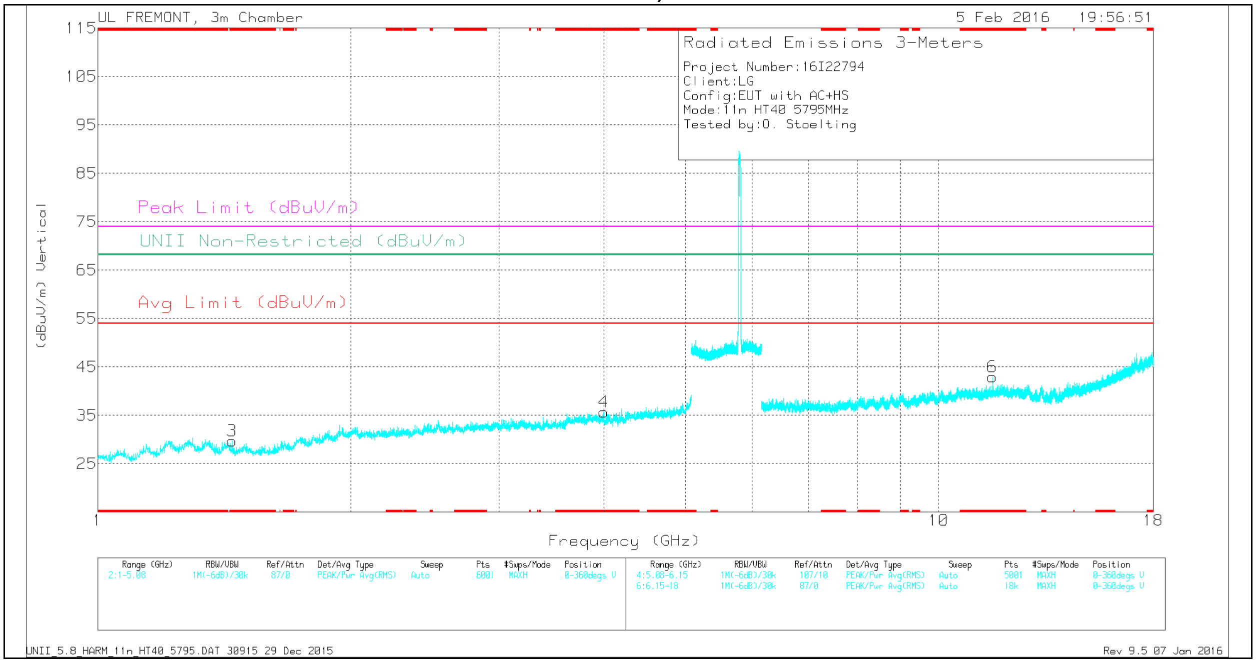
HIGH CHANNEL, HORIZONTAL



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.

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HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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	* 1.345	33.72	Pk	29.3	-32.9	0	30.12	-	-	74	-43.88	-	-	0-360	100	H
2	* 3.716	32.48	Pk	33	-29.6	0	35.88	-	-	74	-38.12	-	-	0-360	200	H
3	* 1.444	33.33	Pk	28.4	-32	0	29.73	-	-	74	-44.27	-	-	0-360	200	V
4	* 3.994	33.25	Pk	33.2	-30.7	0	35.75	-	-	74	-38.25	-	-	0-360	200	V
5	* 11.014	25.92	Pk	37.9	-22.7	0	41.12	-	-	74	-32.88	-	-	0-360	100	H
6	* 11.59	27.57	Pk	38.6	-23.2	0	42.97	-	-	74	-31.03	-	-	0-360	100	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.345	40.1	PK-U	29.3	-32.9	0	36.5	-	-	74	-37.5	-	-	11	358	H
* 1.346	28.19	ADR	29.3	-32.9	.47	25.06	54	-28.94	-	-	-	-	11	358	H
* 3.716	39.06	PK-U	33	-29.6	0	42.46	-	-	74	-31.54	-	-	82	347	H
* 3.718	26.79	ADR	33	-29.6	.47	30.66	54	-23.34	-	-	-	-	82	347	H
* 1.443	38.72	PK-U	28.4	-32	0	35.12	-	-	74	-38.88	-	-	241	343	V
* 1.443	26.97	ADR	28.4	-32	.47	23.84	54	-30.16	-	-	-	-	241	343	V
* 3.994	39.42	PK-U	33.2	-30.7	0	41.92	-	-	74	-32.08	-	-	65	182	V
* 3.994	27.3	ADR	33.2	-30.7	.47	30.27	54	-23.73	-	-	-	-	65	182	V
* 11.015	32.52	PK-U	37.9	-22.7	0	47.72	-	-	74	-26.28	-	-	163	344	H
* 11.015	20.91	ADR	37.9	-22.7	.47	36.58	54	-17.42	-	-	-	-	163	344	H
* 11.59	34.36	PK-U	38.6	-23.2	0	49.76	-	-	74	-24.24	-	-	316	102	V
* 11.59	26.71	ADR	38.6	-23.2	.47	42.58	54	-11.42	-	-	-	-	316	102	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

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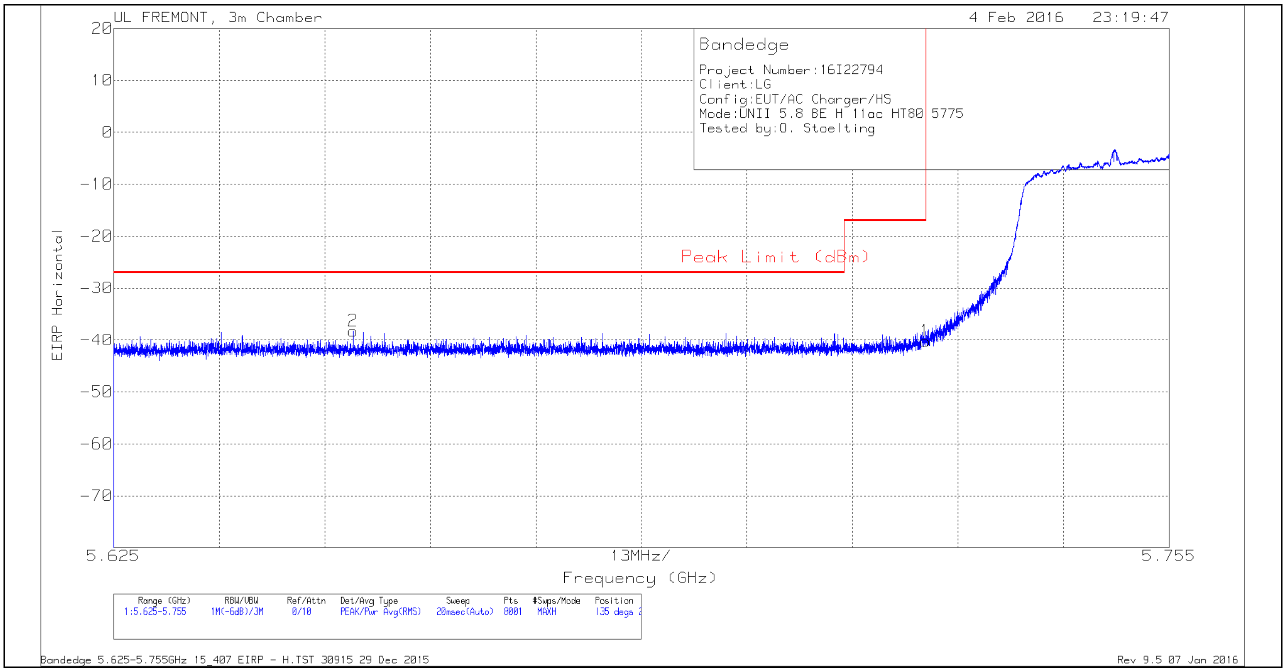
11.1.1. TX ABOVE 1 GHz 802.11ac HT80 MODE IN THE 5.8 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK PLOT



HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T119 (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
2	5.655	-64.93	Pk	34.7	-19.8	11.8	0	-38.23	-27	-11.23	135	268	H
1	5.725	-66.95	Pk	34.8	-19.8	11.8	0	-40.15	-17	-23.15	135	268	H

Pk - Peak detector

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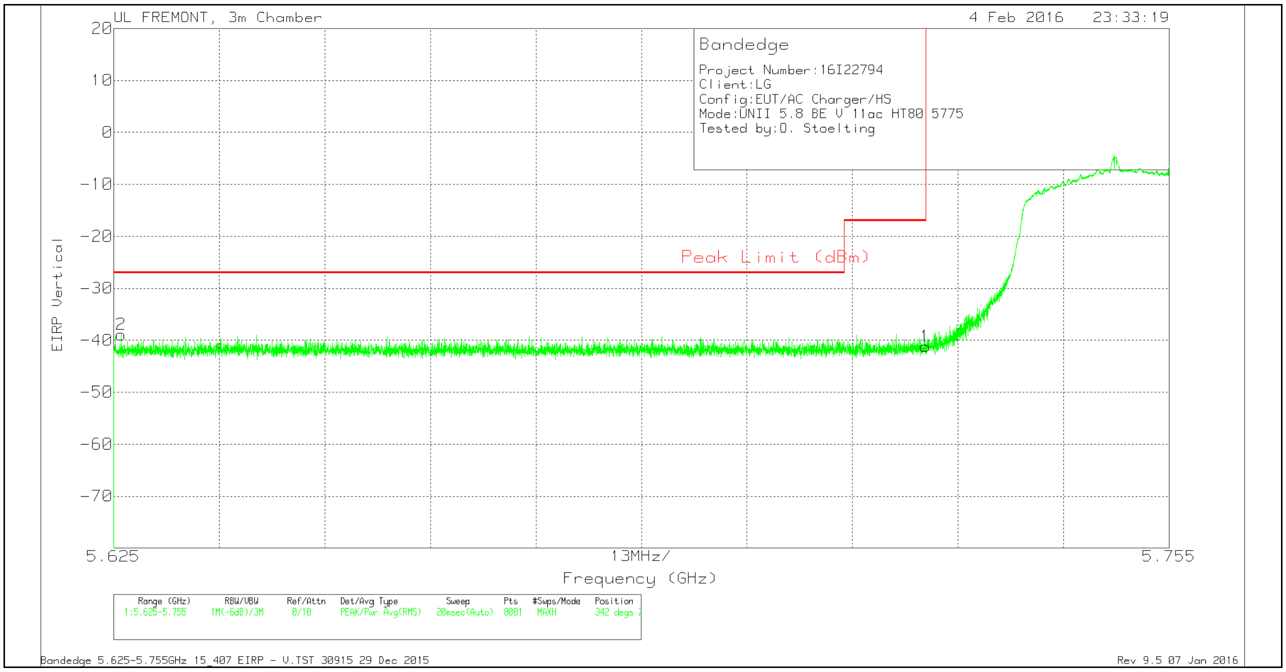
VERTICAL PEAK PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T119 (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
2	5.626	-65.73	Pk	34.7	-19.7	11.8	0	-38.93	-27	-11.93	342	288	V
1	5.725	-68	Pk	34.8	-19.8	11.8	0	-41.2	-17	-24.2	342	288	V

Pk - Peak detector

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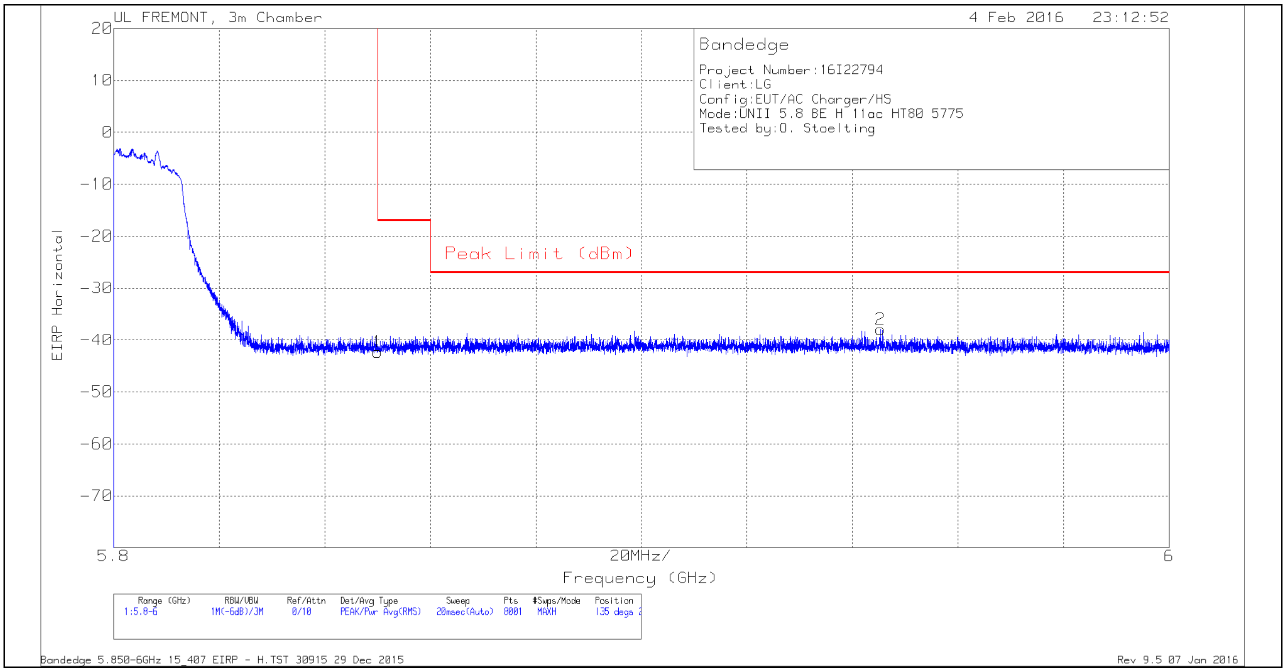
RESTRICTED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK PLOT



HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T119 (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	5.85	-69.2	Pk	34.9	-19.8	11.8	0	-42.3	-17	-25.3	135	274	H
2	5.945	-65.45	Pk	35.1	-19.4	11.8	0	-37.95	-27	-10.95	135	274	H

Pk - Peak detector

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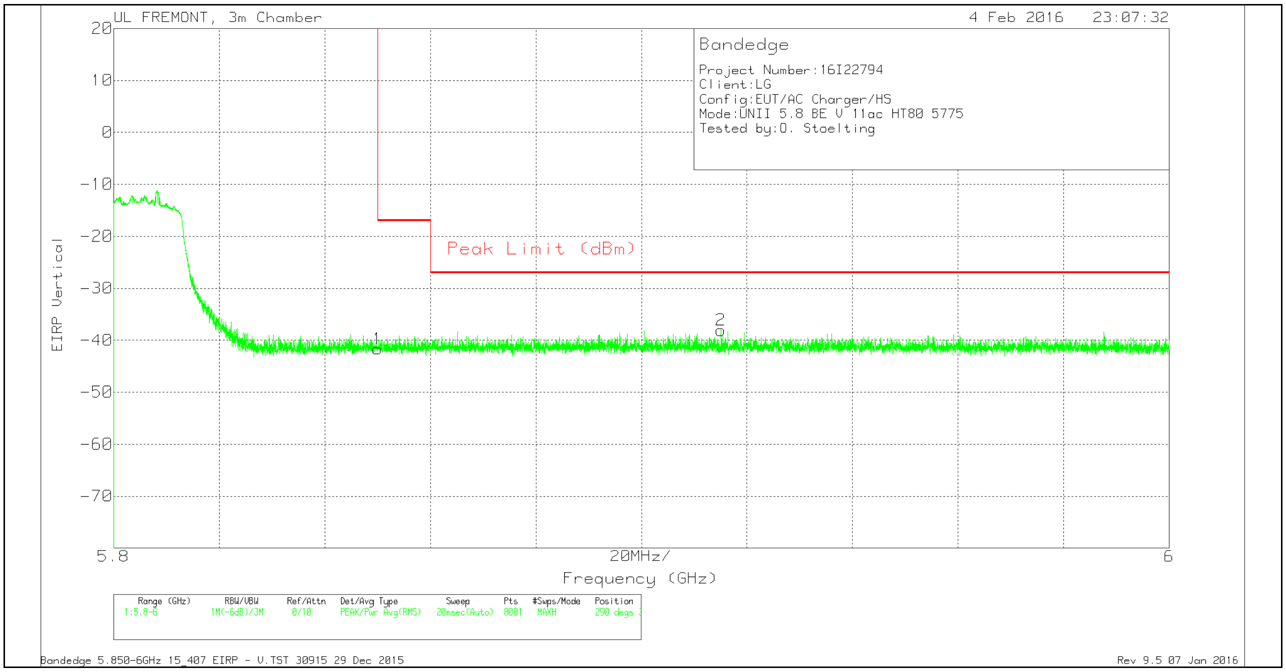
VERTICAL PEAK PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T119 (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	5.85	-68.55	Pk	34.9	-19.8	11.8	0	-41.65	-17	-24.65	290	370	V
2	5.915	-65.37	Pk	35	-19.5	11.8	0	-38.07	-27	-11.07	290	370	V

Pk - Peak detector

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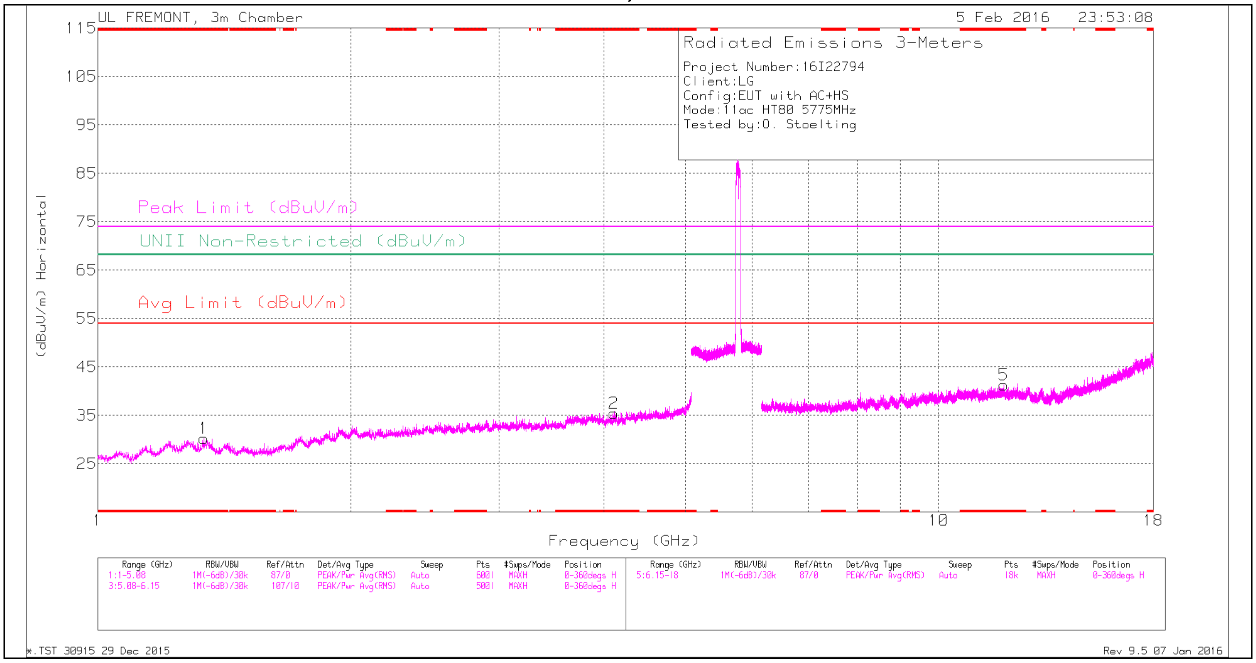
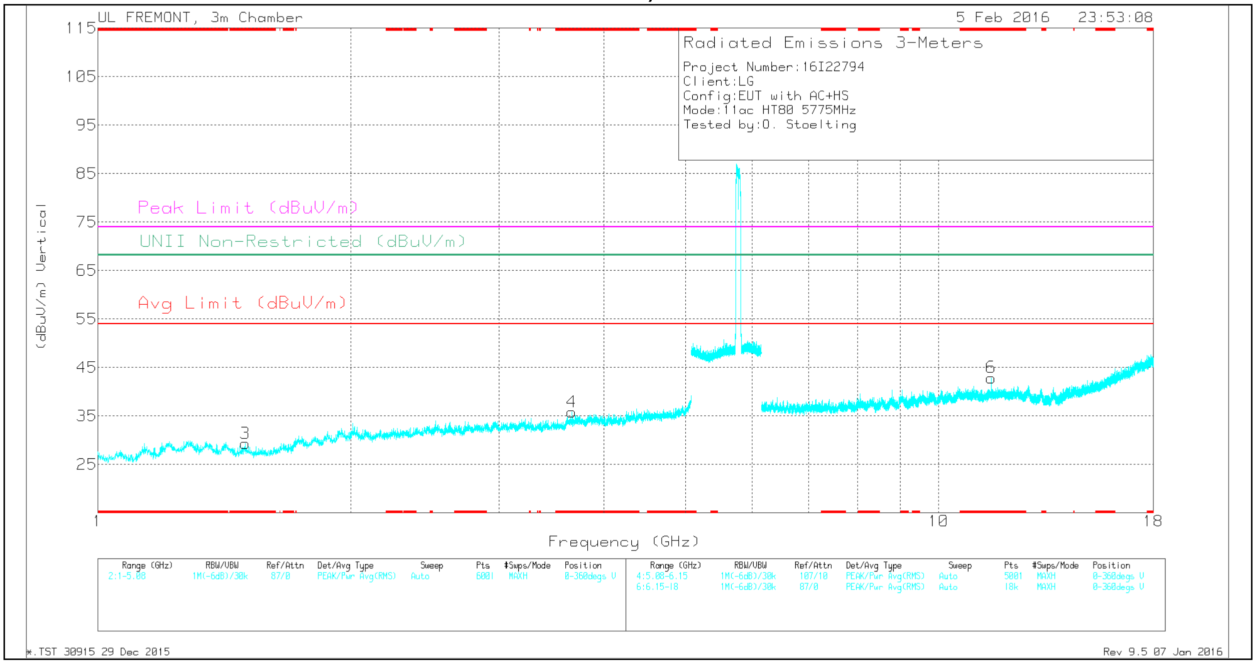
HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL, HORIZONTAL



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.

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MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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	* 1.336	33.8	Pk	29.4	-32.9	0	30.3	-	-	74	-43.7	-	-	0-360	200	H
2	* 4.108	31.87	Pk	33.3	-29.7	0	35.47	-	-	74	-38.53	-	-	0-360	200	H
3	* 1.498	33.57	Pk	28.1	-32.3	0	29.37	-	-	74	-44.63	-	-	0-360	100	V
4	* 3.661	32.75	Pk	32.9	-29.8	0	35.85	-	-	74	-38.15	-	-	0-360	200	V
5	* 11.957	25.61	Pk	39.1	-23.4	0	41.31	-	-	74	-32.69	-	-	0-360	200	H
6	* 11.549	27.81	Pk	38.5	-23.4	0	42.91	-	-	74	-31.09	-	-	0-360	100	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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
* 1.334	39.4	PK-U	29.5	-32.9	0	36	-	-	74	-38	-	-	192	201	H
* 1.337	27.51	ADR	29.4	-32.9	1.47	25.48	54	-28.52	-	-	-	-	192	201	H
* 4.106	38.08	PK-U	33.3	-29.8	0	41.58	-	-	74	-32.42	-	-	281	353	H
* 4.108	26.37	ADR	33.3	-29.7	1.47	31.44	54	-22.56	-	-	-	-	281	353	H
* 1.497	39.97	PK-U	28.1	-32.3	0	35.77	-	-	74	-38.23	-	-	349	298	V
* 1.496	27.75	ADR	28.1	-32.3	1.47	25.02	54	-28.98	-	-	-	-	349	298	V
* 3.66	38.31	PK-U	32.9	-29.8	0	41.41	-	-	74	-32.59	-	-	110	263	V
* 3.661	26.48	ADR	32.9	-29.8	1.47	31.05	54	-22.95	-	-	-	-	110	263	V
* 11.959	30.53	PK-U	39.1	-23.4	0	46.23	-	-	74	-27.77	-	-	316	357	H
* 11.958	19.32	ADR	39.1	-23.4	1.47	36.49	54	-17.51	-	-	-	-	316	357	H
* 11.55	33.9	PK-U	38.5	-23.4	0	49	-	-	74	-25	-	-	313	120	V
* 11.55	26.06	ADR	38.5	-23.4	1.47	42.63	54	-11.37	-	-	-	-	313	120	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

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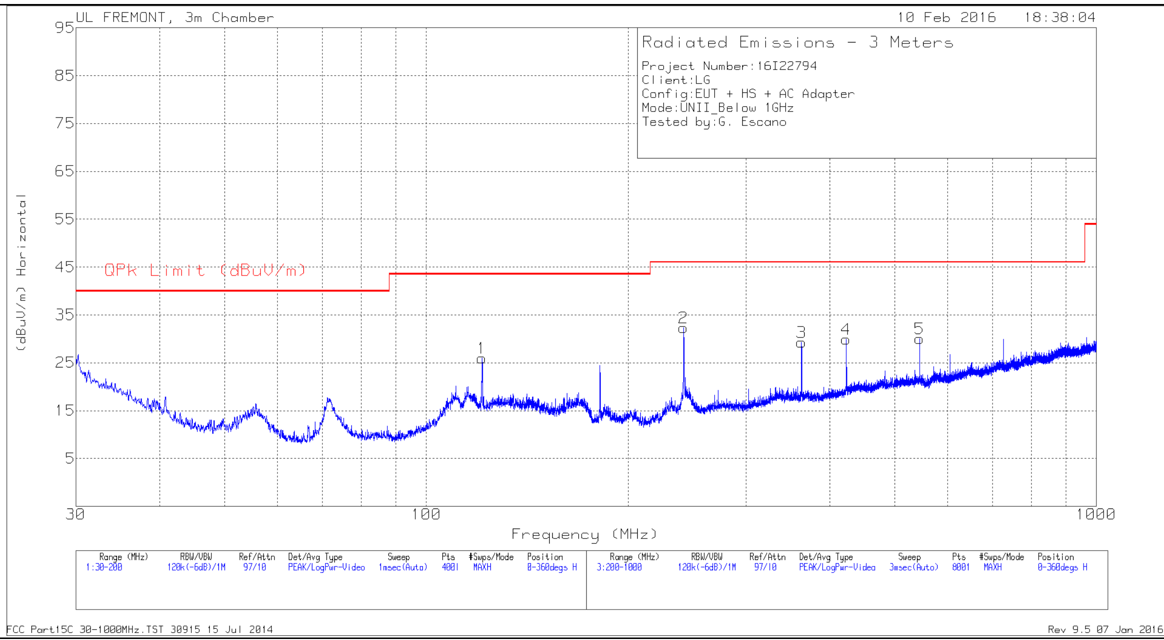
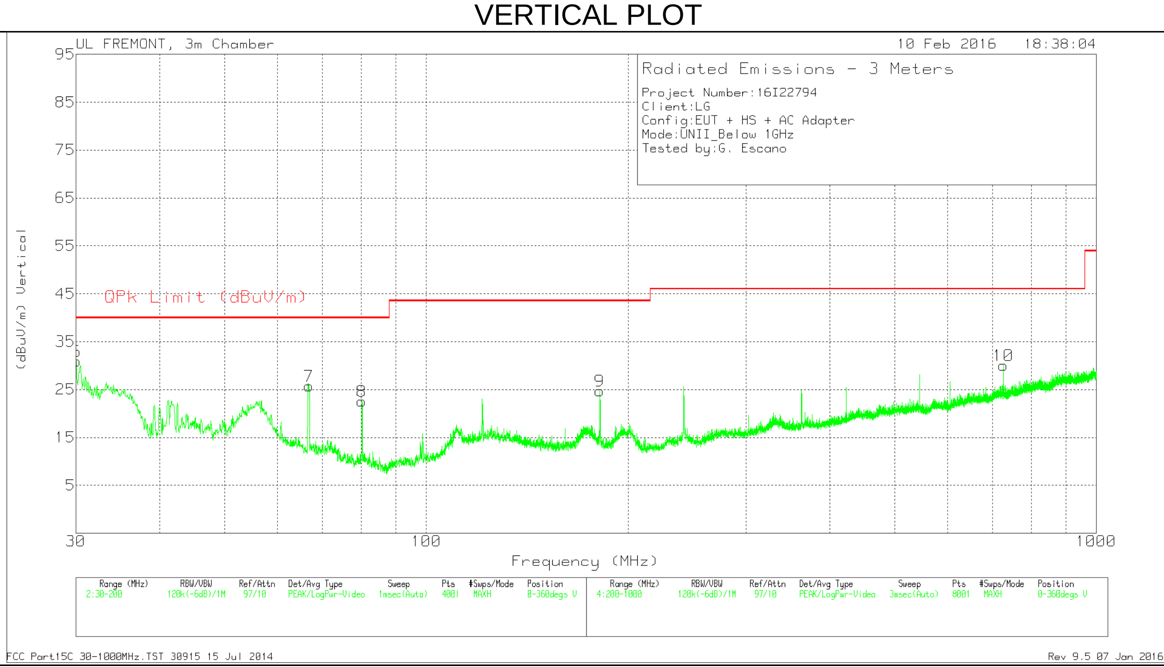
12. WORST-CASE BELOW 1 GHz

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

HORIZONTAL PLOT



VERTICAL PLOT



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Below 1G Data

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T185 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6	30.0425	36.41	Pk	21.8	-27.3	30.91	40	-9.09	0-360	100	V
7	66.7625	44.25	Pk	8.2	-26.7	25.75	40	-14.25	0-360	100	V
8	80.1925	41.18	Pk	8	-26.6	22.58	40	-17.42	0-360	100	V
1	121.1625	38.24	Pk	13.8	-26.1	25.94	43.52	-17.58	0-360	200	H
9	181.5975	39.06	Pk	11	-25.4	24.66	43.52	-18.86	0-360	100	V
2	242.2	45.53	Pk	11.5	-24.7	32.33	46.02	-13.69	0-360	100	H
3	363.1	39.03	Pk	14.8	-24.6	29.23	46.02	-16.79	0-360	100	H
4	423.6	38.79	Pk	16	-24.9	29.89	46.02	-16.13	0-360	100	H
5	544.5	37.07	Pk	18	-25	30.07	46.02	-15.95	0-360	200	H
10	725.9	33.95	Pk	20.1	-24	30.05	46.02	-15.97	0-360	100	V

Pk - Peak detector

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