FCC 47 CFR PART 15 SUBPART E

CERTIFICATION TEST REPORT

FOR

BT + ZIGBEE and WLAN DTS/UNII a/b/g/n MIMO

MODEL NUMBER: ID:082

FCC ID: DKN1018

REPORT NUMBER: 15U20805-E3, Revision A

ISSUE DATE: September 3, 2015

Prepared for
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
-	08/10/15	Initial Issue	P. ZHANG
A	9/3/15	Fixed Page Numbering to Separate Power Tables from Set-up Photos; Updated Antenna information	P. ZHANG

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Echostar Technologies LLC

EUT DESCRIPTION: BT+ZIGBEE+WLAN DTS/UNII a/b/g/n MIMO

MODEL: ID: 082

SERIAL NUMBER: 208117-02-095 (Conducted) ; 208117-02-117 (Radiated)

DATE TESTED: JULY 23 – AUGUST 10, 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.

Approved & Released

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10-2009 for FCC.

ANSI C63.10-2009 Deviation

Radiated spurious emission above 1GHz EUT height is 1.5m not 0.8m.

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 BLUETOOTH, ZIGBEE and DTS/UNII a/b/g/n MIMO Satellite setup box.

5.2. MAXIMUM OUTPUT POWER

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

Frequency Range (MHz)	Mode	Total Output Power (dBm)	Total Output Power (mW)
5180 - 5240	802.11a	14.61	28.91
5745 - 5825	802.11a	16.52	44.87
5180 - 5240	802.11n HT20	14.57	28.64
5745 - 5825	802.11n HT20	19.18	82.79
5190 - 5230	802.11n HT40	10.94	12.42
5755 - 5795	802.11n HT40	12.05	16.03

The transmitter has average conducted output power as follows:

SISO

Band (GHz)	Mode	Mode	Ch #	Freq. (MHz)	Avg Pwr C1 (dBm)
5.2 (UNII-1)	802.11a	6 Mbps	36	5180	14.4
			40	5200	14.3
			44	5220	14.3
			48	5240	14.2
	802.11n (HT20)	MSCO	36	5180	13.6
			40	5200	13.8
			44	5220	13.9
			48	5240	13.5
	802.11n (HT40)	MSCO	38	5190	9.7
			46	5230	9.8
5.8 (UNII-3)	802.11a	6 Mbps	149	5745	14
			153	5765	17.2
			157	5785	17.2
			161	5805	17
			165	5825	14.1
	802.11n (HT20)	MCS0	149	5745	13
			153	5745	16.6
			157	5785	16.6
			161	5805	16.5
			165	5825	13
	802.11n (HT40)	MCS0	151	5755	9.1
			159	5795	8.9

MIMO

Band (GHz)	Mode	Mode	Ch #	Freq. (MHz)	Avg Pwr C0 (dBm)	Avg Pwr C1 (dBm)
5.2 (UNII-1)	802.11n (HT20)	MSCO	36	5180	12.3	12.1
			40	5200	12.3	12
			44	5220	12.3	11.9
			48	5240	12.2	11.9
	802.11n (HT40)	MSCO	38	5190	8.3	8.2
			46	5230	8.2	8.2
5.8 (UNII-3)	802.11n (HT20)	MCS0	149	5745	13.2	13.1
			153	5765	13.2	13.3
			157	5785	16.5	16.8
			161	5805	16.5	16.8
			165	5825	13.2	13.3
	802.11n (HT40)	MSCO	151	5755	9.2	9.2
			159	5795	8.7	9.1

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes two Printed antennas, with maximum gain of 2.4 dBi and 3.9dBi.

List of test reduction and modes covering other modes:

Authorized Frequency Band (Antenna port & Radiated Testing)	
Mode	**Covered by**
802.11a legacy 1TX	
802.11HT20 1TX	
802.11HT20 2TX STBC	802.11n HT20 2TX CDD
802.11n HT40 1TX	
802.11n HT40 2TX STBC	802.11n HT40 2TX CDD

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.

For SISO mode, chain 1 was the worst case determined during pre-scan. So all radiated and conducted measurement based on chain 1.

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**
Laptop	HP	Elitebook 8570W	N/A	N/A
Router	NETGEAR	N150	N/A	N/A

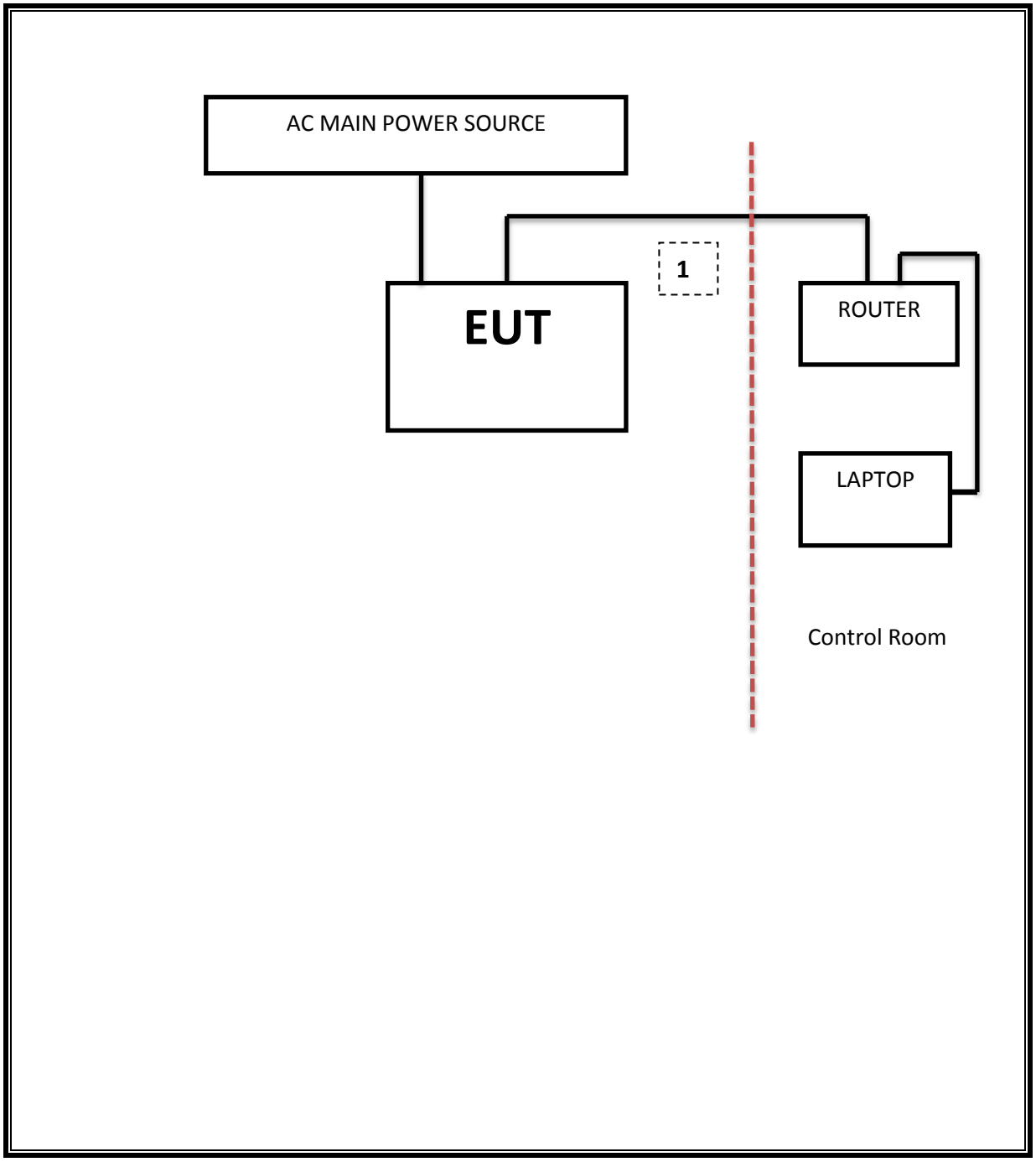
I/O CABLES

I/O Cable List						
Cable No	**Port**	**# of identical ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	ethernet	1	RJ-45	un-shielded	5	N/A
2						N/A

TEST SETUP

The EUT is setup as a stand-alone device.

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

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

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

7. SUMMARY TABLE

FCC Part Section	RSS Section	Test Description	Test Limit	Test Condition	Test Result	Worst Case
15.407 (a)	RSS-247	Occupied Band width (26dB)	N/A	Conducted	Pass	39.96MHz
15.407	RSS-247 6.2.4	6dB Band width (5.8Ghz)	500KHz		Pass	15.33 MHz
15.407 (a)(2)	RSS-247 6.2	TX Cond. Power5.15-2.25, 5.25-5.35 & 5.47-5.725	<24dBm or 11+10Log(OBW)		Pass	15.39dBm
15.407 (a)(3)	RSS-247 6.2.4	TX Cond. Power 5.725-5.825	< 30dBm or 17+10Log(OBW)		Pass	19.89 dBm
15.407 (a)(5)	RSS-247 6.2	PSD (5.2,5.3,5.5GHz)	<11dBm		Pass	4.72dBm
15.407 (a)(5)	RSS-247 6.2.4	PSD (5.8GHz)	30dBm per 500kHz			7.15dBm
15.207 (a)	RSS-GEN 8.8	AC Power Line conducted emissions	Section 10	Radiated	Pass	53.78dBuV
15.407 (b) & 15.209	RSS-GEN 8.9/7	Radiated Spurious Emission	< 54dBuV/m		Pass	53.5dBuV/m
15.407 (h)(2)	RSS-247 6.3	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

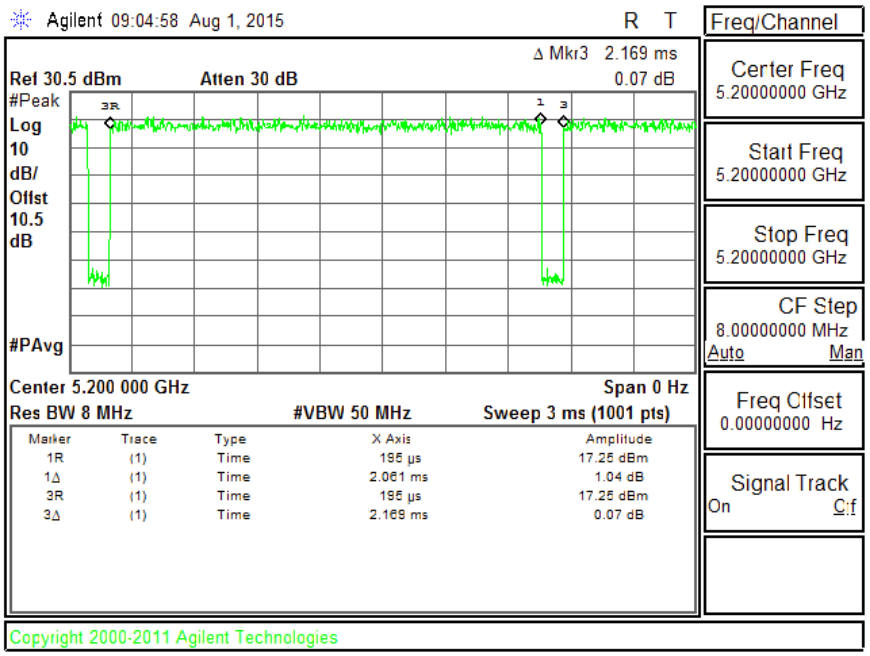
KDB 789033 Zero-Span Spectrum Analyzer Method.

8.1. ON TIME AND DUTY CYCLE RESULTS

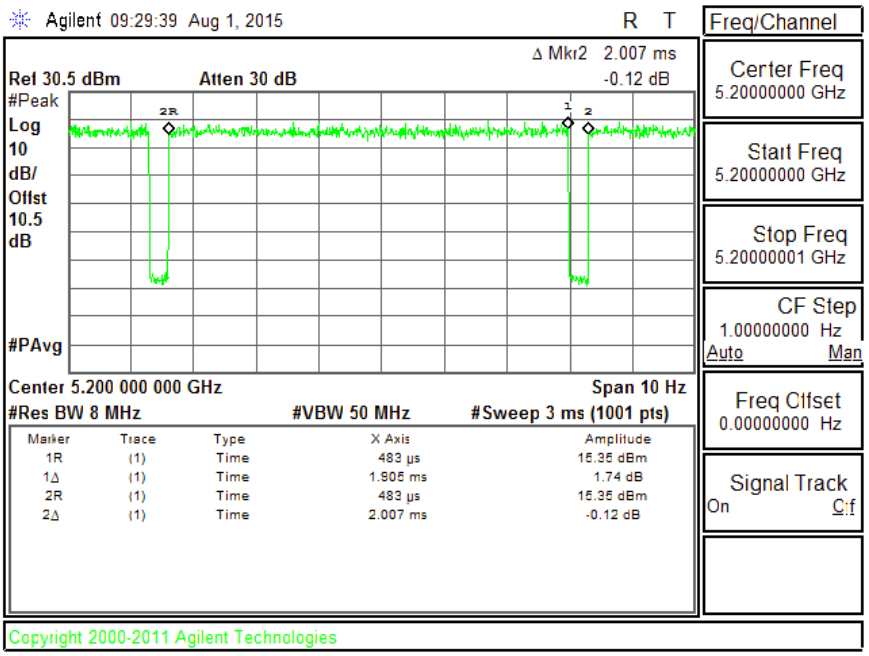
Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.06	2.17	0.950	95.0%	0.22	0.485
802.11n HT20	1.91	2	0.949	94.9%	0.23	0.525
802.11n HT40	0.92	1	0.893	89.3%	0.49	1.087

8.2. DUTY CYCLE PLOTS

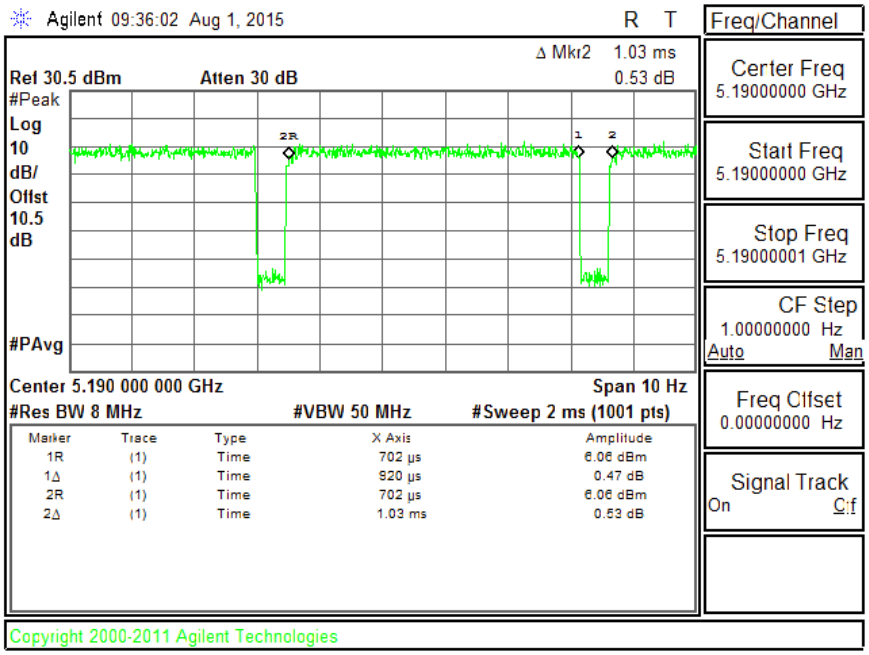
DUTY CYCLE 802.11a MODE



DUTY CYCLE 802.11n HT20 MODE



DUTY CYCLE 802.11n HT40 MODE



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 SISO

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

10.1.1. 802.11a MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	15.330	0.5
Mid	5785	15.510	0.5
High	5825	15.450	0.5
Worst		15.510	

10.1.2. 802.11n HT20 MODE IN THE 5.8 GHz BAND

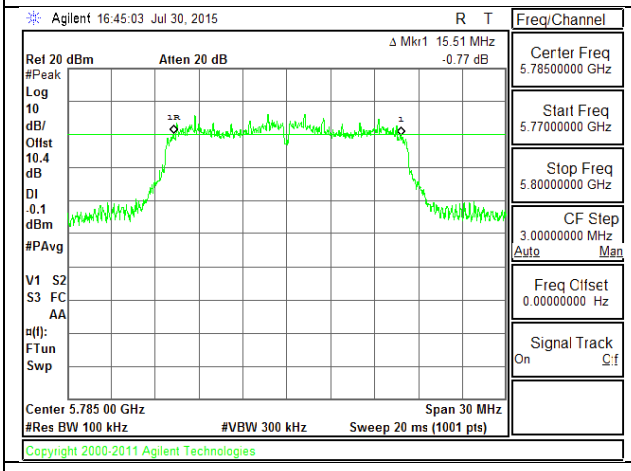
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	15.750	0.5
Mid	5785	15.510	0.5
High	5825	15.660	0.5
Worst		15.750	

10.1.3. 802.11n HT40 MODE IN THE 5.8 GHz BAND

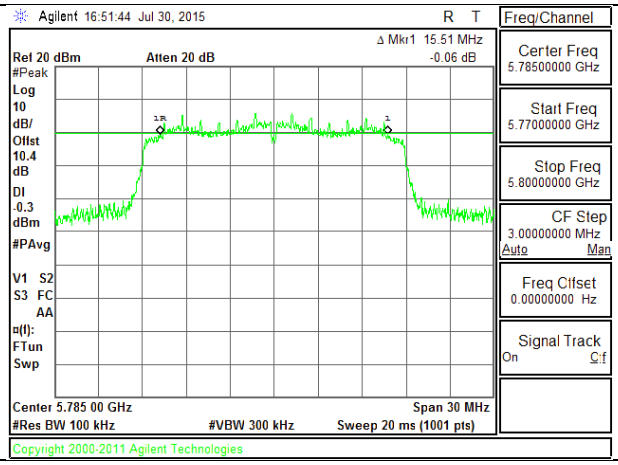
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5755	36.300	0.5
High	5795	36.000	0.5
Worst		36.300	

10.1.4. 6 dB BANDWIDTH MID CH PLOTS

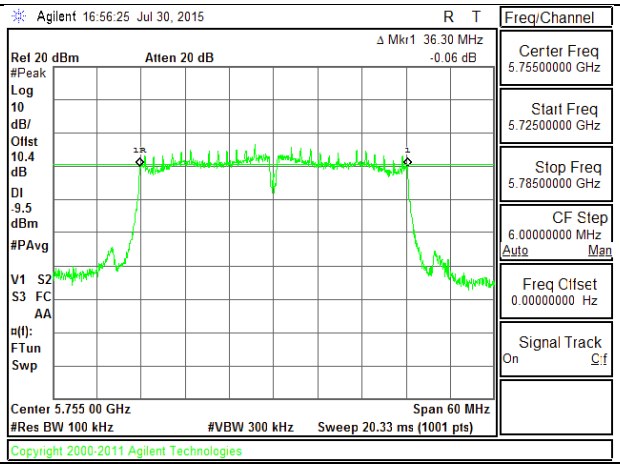
11a 5.8 Mid Ch



11n HT20 5.8 Mid Ch



11n HT40 5.8 Mid Ch



10.2. 26 dB BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

10.2.1. 802.11a MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5180	22.27
Mid	5200	27.00
High	5240	24.41
Worst		27.00

10.2.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5180	19.77
Mid	5200	19.92
High	5240	21.12
Worst		21.12

10.2.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	26dB Bandwidth (MHz)
Low	5190	39.90
Mid	5230	39.96
Worst		39.96

10.2.4. 802.11a MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5745	21.81
Mid	5785	33.70
High	5825	20.97
Worst		33.70

10.2.5. 802.11n HT20 MODE IN THE 5.8 GHz BAND

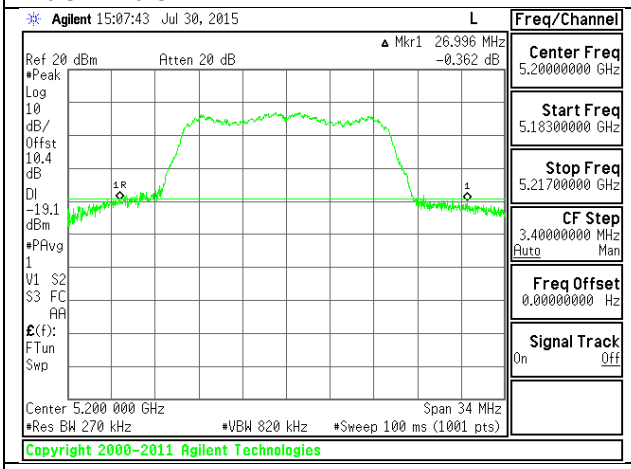
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5745	19.65
Mid	5785	31.30
High	5825	19.68
Worst		31.30

10.2.6. 802.11n HT40 MODE IN THE 5.8 GHz BAND

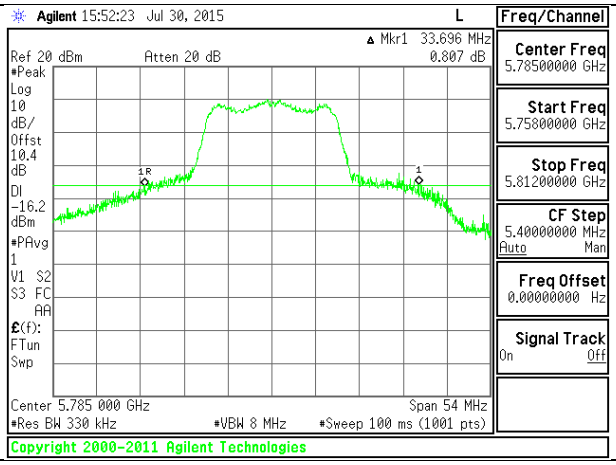
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5755	39.65
High	5795	39.78
Worst		39.78

10.2.7. 26 dB BANDWIDTH PLOTS

11a 5.2 Mid Ch



11a 5.8 Mid Ch



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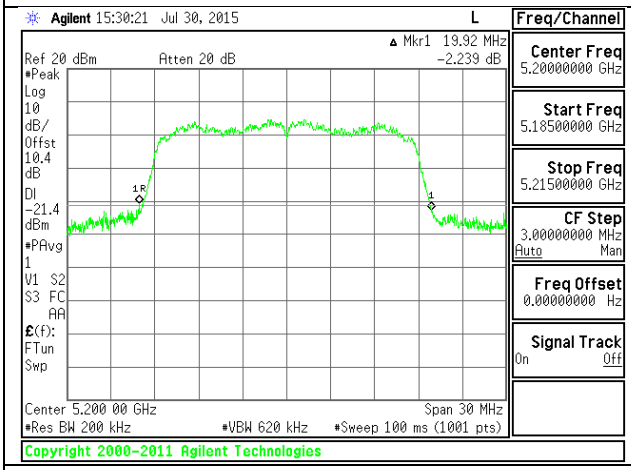

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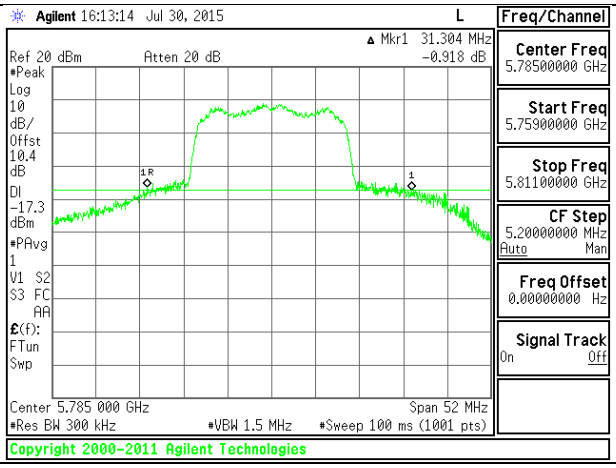
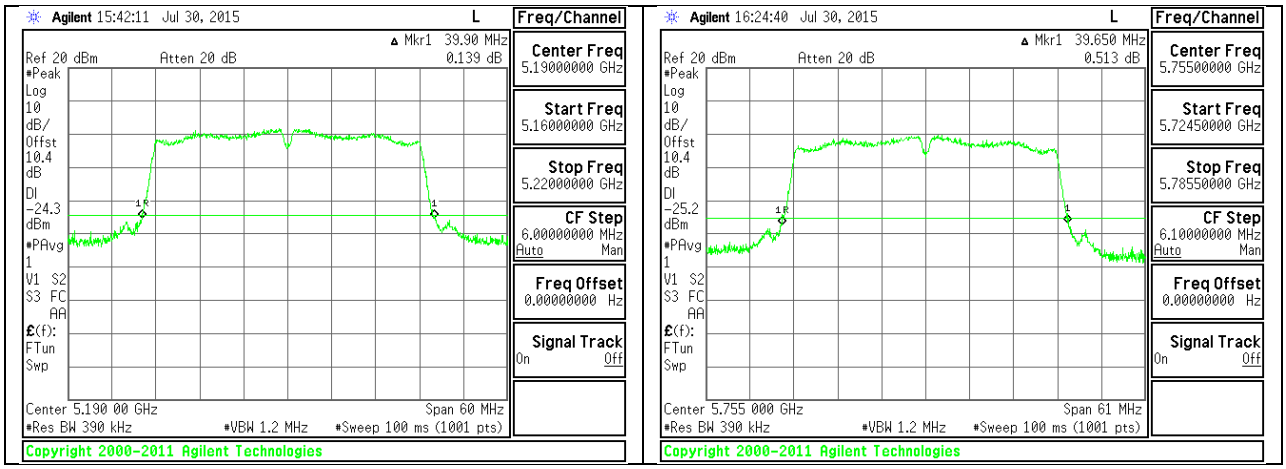


11n HT40 5.2 Mid Ch

11n HT40 5.8 Mid Ch



10.3. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

10.3.1. 802.11a MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5180	16.273
Mid	5200	16.125
High	5240	16.233
Worst		16.273

10.3.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5180	17.481
Mid	5200	17.401
High	5240	17.495
Worst		17.495

10.3.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5190	35.498
Mid	5230	35.738
Worst		35.738

10.3.4. 802.11a MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	16.087
Mid	5785	16.184
High	5825	16.304
Worst		16.304

10.3.5. 802.11n HT20 MODE IN THE 5.8 GHz BAND

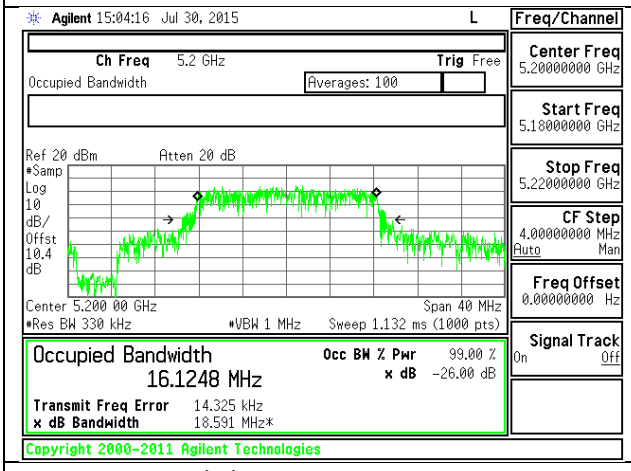
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	17.327
Mid	5785	17.243
High	5825	17.234
Worst		17.327

10.3.6. 802.11n HT40 MODE IN THE 5.8 GHz BAND

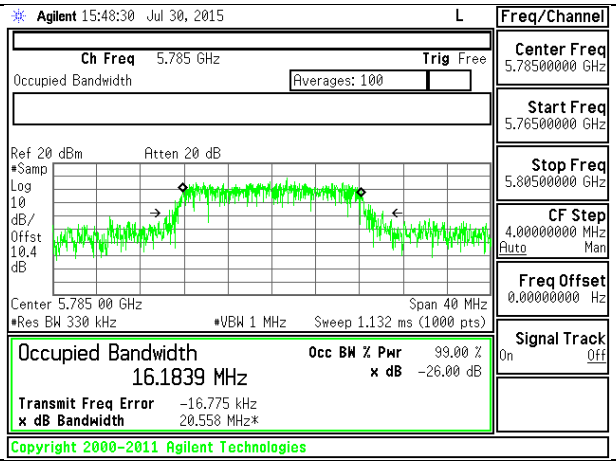
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5755	35.303
High	5795	35.640
Worst		35.640

10.3.7. 99% BANDWIDTH PLOTS

11a 5.2 Mid Ch



11a 5.8 Mid Ch



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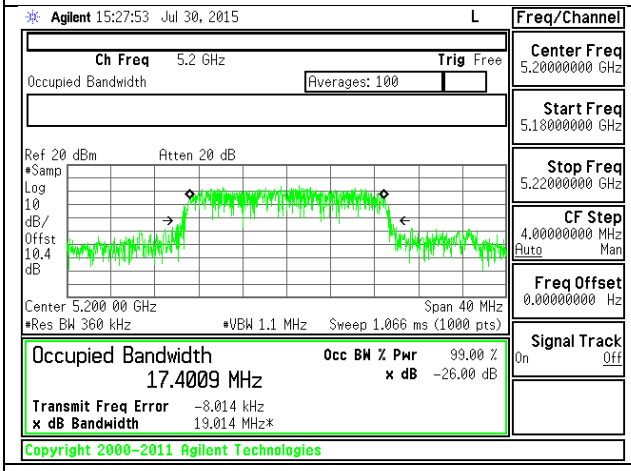
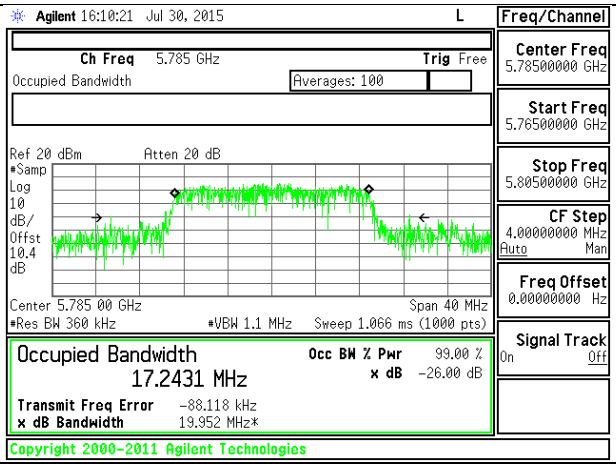
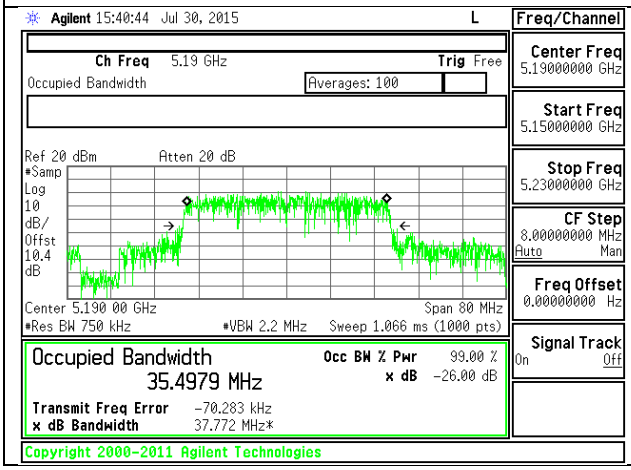


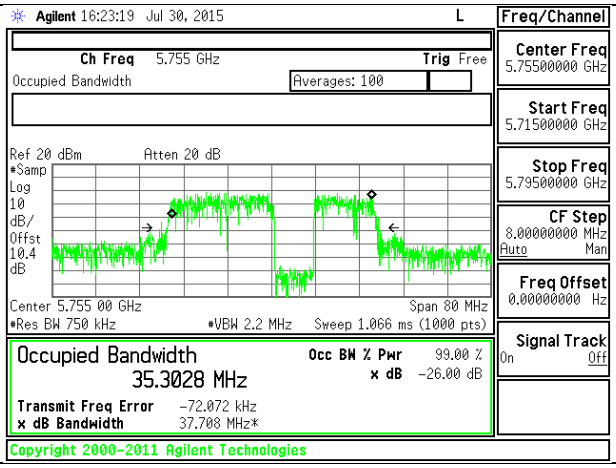
11n HT20 5.8 Mid Ch



11n HT40 5.2 Mid Ch



11n HT40 5.8 Mid Ch



10.4. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1) (2) (3)

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 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 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.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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.

DIRECTIONAL ANTENNA GAIN

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

RESULTS

10.4.1. 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	22.27	16.273	4.00
Mid	5200	27.00	16.125	4.00
High	5240	24.41	16.233	4.00

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	22.11	18.11	24.00	11.00	10.00	11.00
Mid	5200	24.00	22.07	18.07	24.00	11.00	10.00	11.00
High	5240	24.00	22.10	18.10	24.00	11.00	10.00	11.00

Duty Cycle CF (dB)	0.22	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	14.400	14.62	24.00	-9.38
Mid	5200	14.300	14.52	24.00	-9.48
High	5240	14.200	14.42	24.00	-9.58

PPSD Results

Channel	Frequency (MHz)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5180	3.856	4.08	11.00	-6.92
Mid	5200	3.883	4.10	11.00	-6.90
High	5240	3.964	4.18	11.00	-6.82

10.4.2. 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	19.77	17.481	4.00
Mid	5200	19.92	17.401	4.00
High	5240	21.12	17.495	4.00

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	22.43	18.43	24.00	11.00	10.00	11.00
Mid	5200	24.00	22.41	18.41	24.00	11.00	10.00	11.00
High	5240	24.00	22.43	18.43	24.00	11.00	10.00	11.00

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

Output Power Results

Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	13.600	13.83	24.00	-10.17
Mid	5200	13.800	14.03	24.00	-9.97
High	5240	13.500	13.73	24.00	-10.27

PPSD Results

Channel	Frequency (MHz)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5180	3.904	4.13	11.00	-6.87
Mid	5200	3.692	3.92	11.00	-7.08
High	5240	3.648	3.88	11.00	-7.12

10.4.3. 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	39.30	35.50	4.00
High	5230	39.40	35.74	4.00

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	5190	24.00	23.00	23.00	24.00	11.00	10.00	11.00
High	5230	24.00	23.00	23.00	24.00	11.00	10.00	11.00

Duty Cycle CF (dB)	0.49	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5190	9.70	10.19	24.00	-13.81
High	5230	9.80	10.29	24.00	-13.71

PPSD Results

Channel	Frequency (MHz)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5190	-3.71	-3.22	11.00	-14.22
High	5230	-3.84	-3.35	11.00	-14.35

10.4.4. 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	21.81	16.087	4.00
Mid	5785	33.70	16.184	4.00
High	5825	20.97	16.304	4.00

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	29.06	35.06	30.00	30.00	17.00	30.00
Mid	5785	30.00	29.09	35.09	30.00	30.00	17.00	30.00
High	5825	30.00	29.12	35.12	30.00	30.00	17.00	30.00

Duty Cycle CF (dB)	0.22	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	14.00	14.22	30.00	-15.78
Mid	5785	17.20	17.42	30.00	-12.58
High	5825	14.10	14.32	30.00	-15.68

PPSD Results

Channel	Frequency (MHz)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5745	1.28	1.50	30.00	-28.50
Mid	5785	4.23	4.45	30.00	-25.55
High	5825	0.95	1.17	30.00	-28.83

10.4.5. 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	19.65	17.327	4.00
Mid	5785	31.30	17.243	4.00
High	5825	19.68	17.234	4.00

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	29.93	29.39	35.39	30.00	30.00	17.00	30.00
Mid	5785	30.00	29.37	35.37	30.00	30.00	17.00	30.00
High	5825	29.94	29.36	35.36	30.00	30.00	17.00	30.00

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

Output Power Results

Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	13.00	13.23	30.00	-16.77
Mid	5785	16.60	16.83	30.00	-13.17
High	5825	13.00	13.23	30.00	-16.77

PPSD Results

Channel	Frequency (MHz)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5745	0.22	0.45	30.00	-29.55
Mid	5785	3.54	3.77	30.00	-26.24
High	5825	-0.37	-0.14	30.00	-30.14

10.4.6. 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	39.65	35.303	4.00
High	5795	39.78	35.640	4.00

Limits

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

Duty Cycle CF (dB)	0.49	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	9.10	9.59	30.00	-20.41
High	5795	8.90	9.39	30.00	-20.61

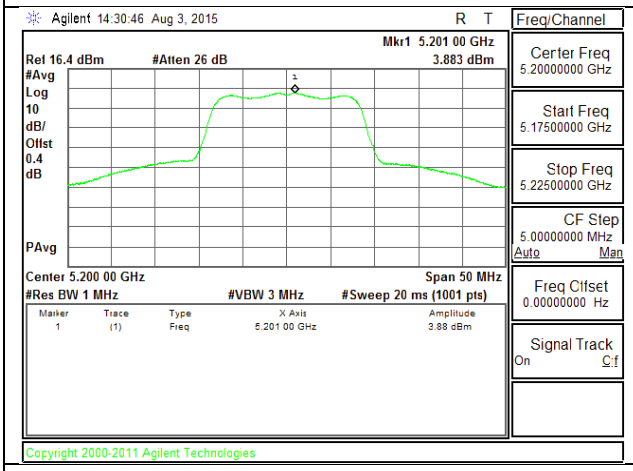
PPSD Results

Channel	Frequency (MHz)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5755	-7.17	-6.68	30.00	-36.68
High	5795	-7.97	-7.48	30.00	-37.48

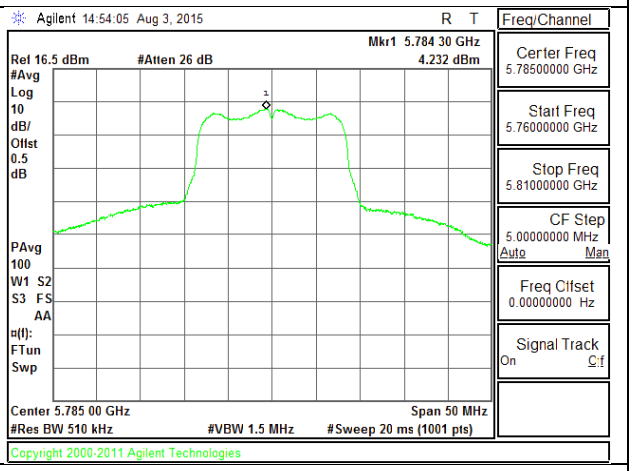
10.4.7. OUTPUT POWER AND PPSD PLOTS, Chain 1

PSD

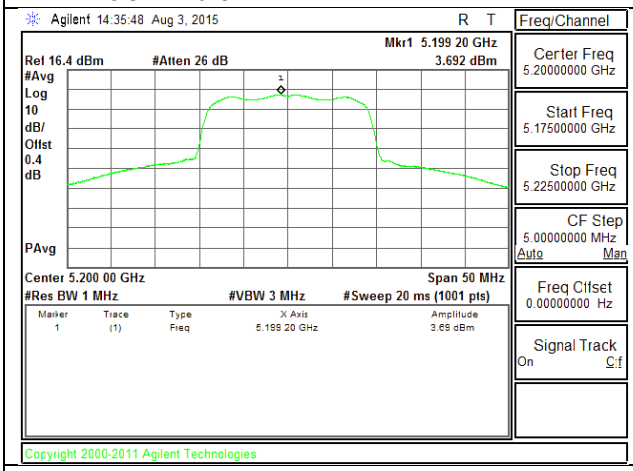
11a 5.2 Mid Ch



11a 5.8 Mid Ch



11n HT20 5.2 Mid Ch



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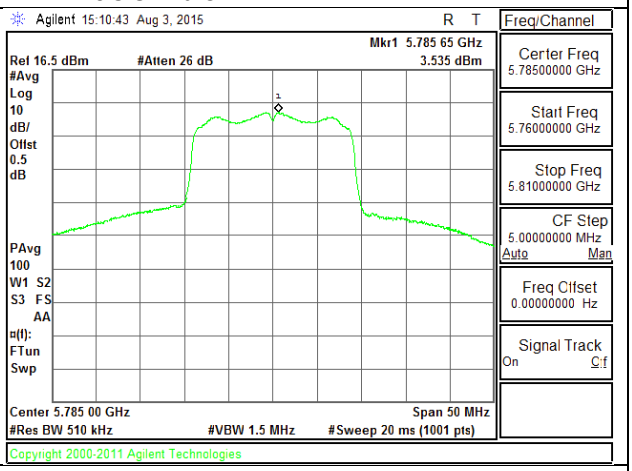

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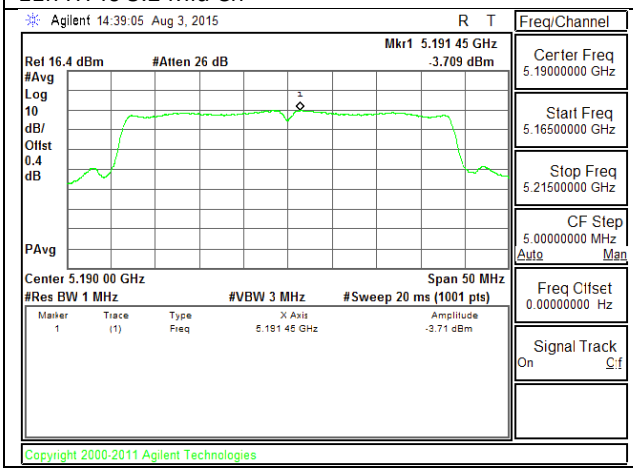

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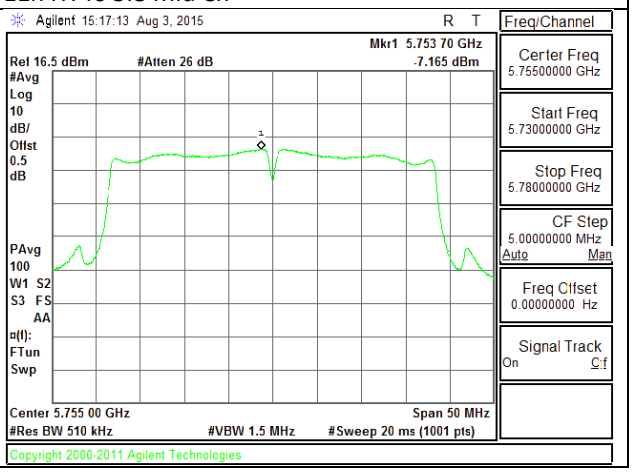


11. ANTENNA PORT TEST RESULTS MIMO

11.1. 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

11.1.1. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth CHAIN 0(MHz)	6 dB Bandwidth CHAIN 1(MHz)	Minimum Limit (MHz)
Low	5745	15.66	17.46	0.5
Mid	5785	15.48	17.13	0.5
High	5825	15.87	17.49	0.5
Worst		15.48	17.13	

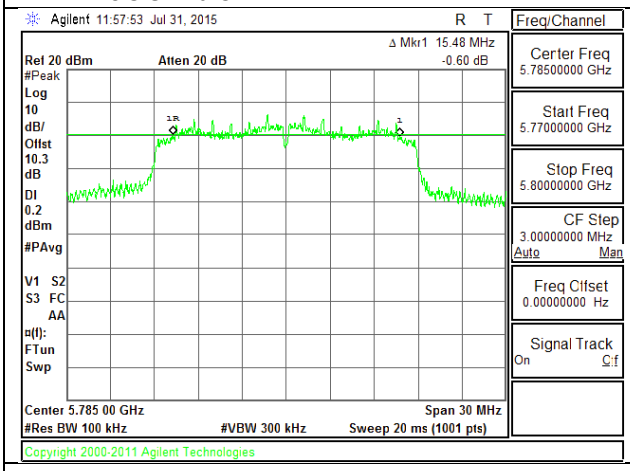
11.1.2. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth CHAIN 0(MHz)	6 dB Bandwidth CHAIN 1(MHz)	Minimum Limit (MHz)
Low	5755	36.30	36.25	0.5
High	5795	36.30	36.25	0.5
Worst		36.30	36.25	0.5

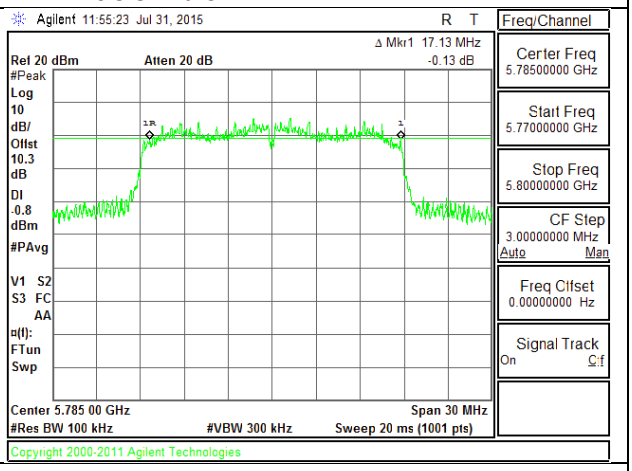
11.1.3. 6 dB BANDWIDTH MID CH PLOTS

CHAIN 0 CHAIN 1

11n HT20 5.8 Mid Ch



11n HT20 5.8 Mid Ch



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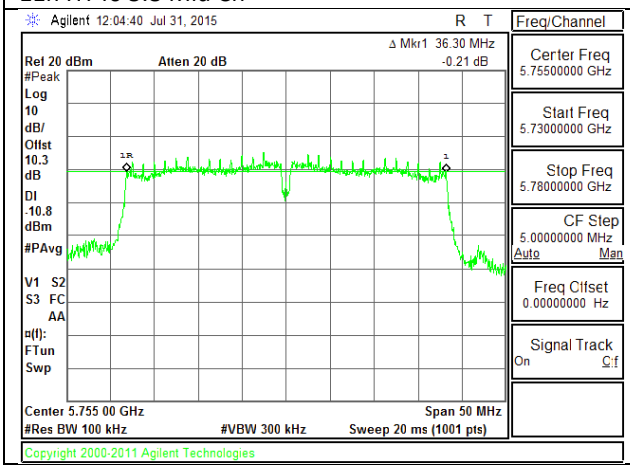

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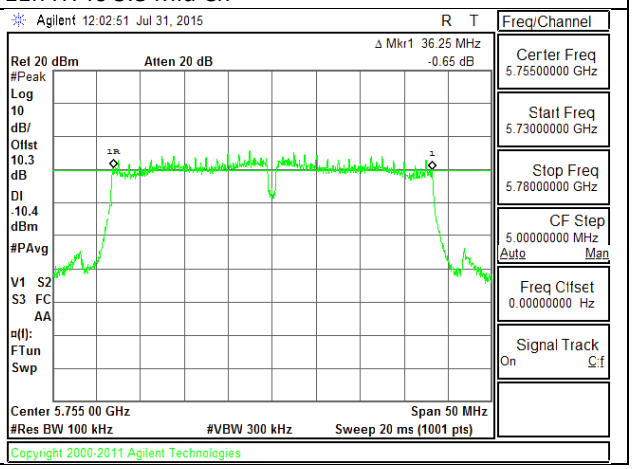


11.2. 26 dB BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

11.2.1. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5180	19.9	21.1
Mid	5200	21.1	21.3
High	5240	21.3	21.1

11.2.2. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5190	39.2	39.5
High	5230	39.3	39.4

11.2.1. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5745	19.7	20.5
Mid	5785	22.7	19.6
High	5825	19.7	20.6

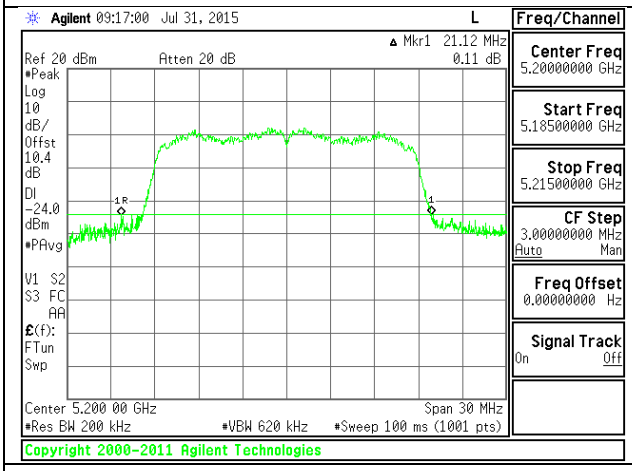
11.2.2. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5755	39.7	39.5
High	5795	39.4	39.3

11.2.1. 26 dB BANDWIDTH PLOTS

CHAIN 0 CHAIN 1

11n HT20 5.2 Mid Ch



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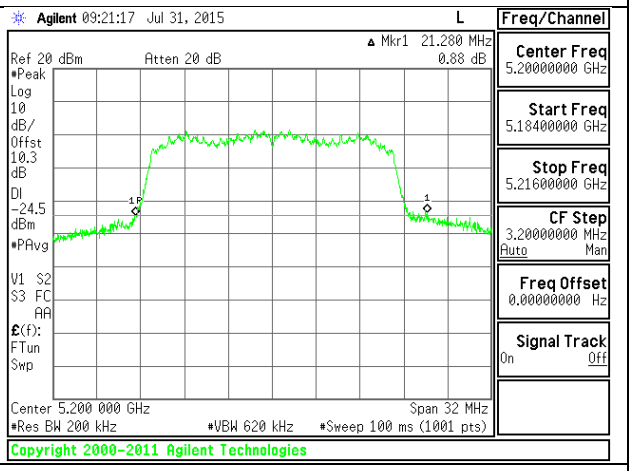

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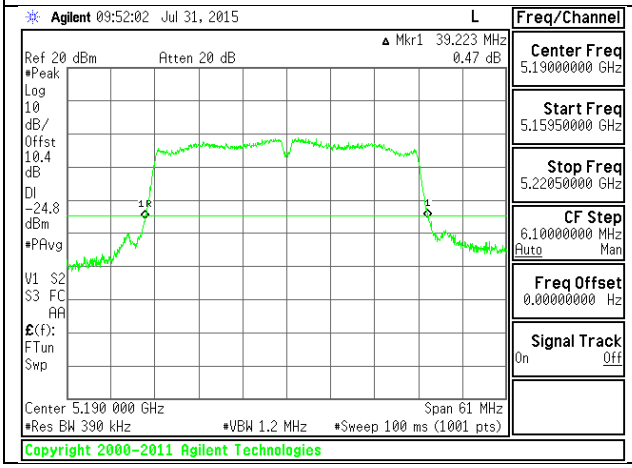

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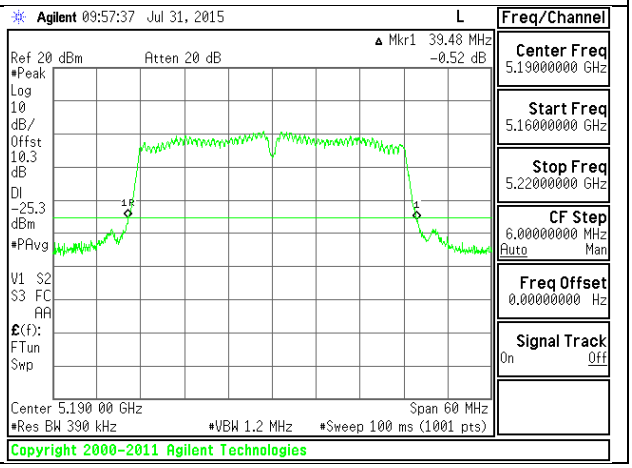
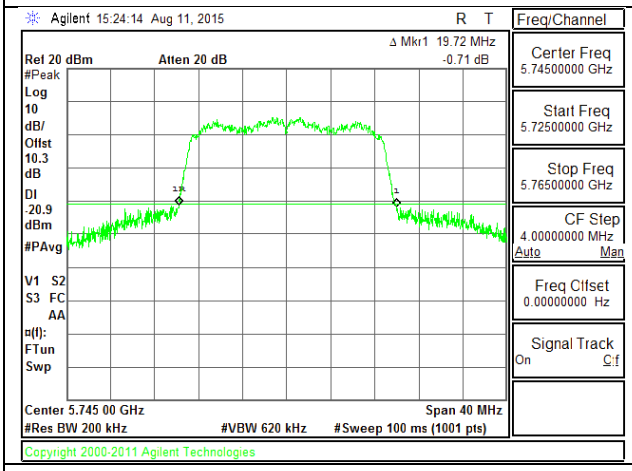


CHAIN 0

11n HT20 5.8 Mid Ch



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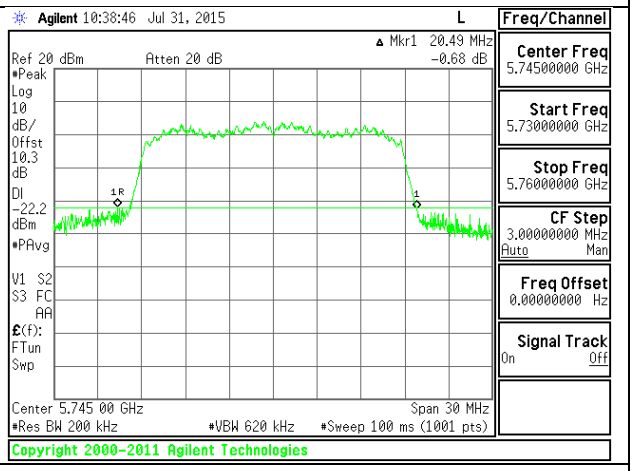

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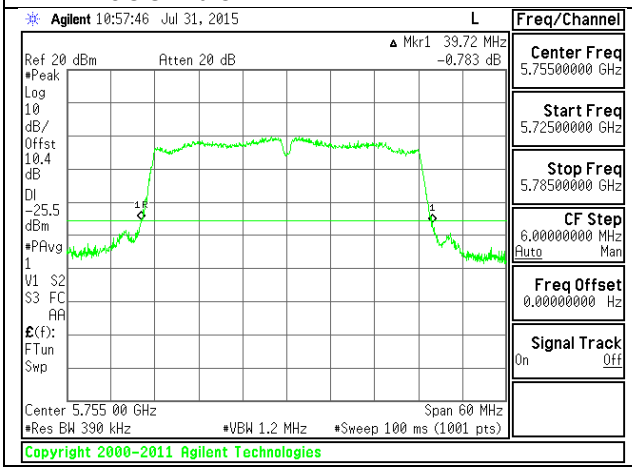
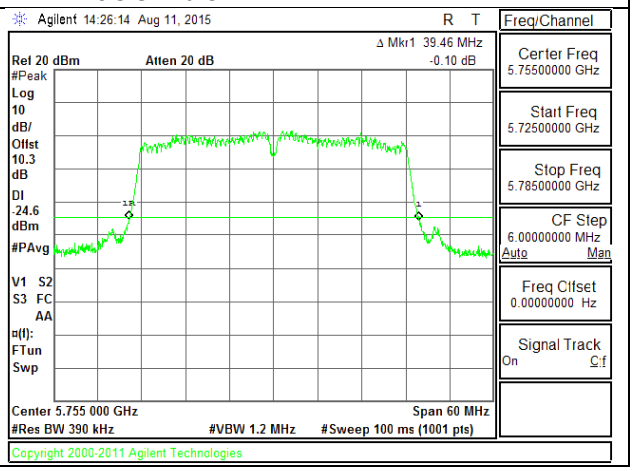


11n HT40 5.8 Mid Ch



11.3. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

11.3.1. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5180	17.2	17.5
Mid	5200	17.4	17.5
High	5240	17.3	17.2

11.3.2. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5190	35.4	35.8
High	5230	35.7	35.9

11.3.1. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5745	17.8	17.4
Mid	5785	17.4	17.9
High	5825	17.7	17.1

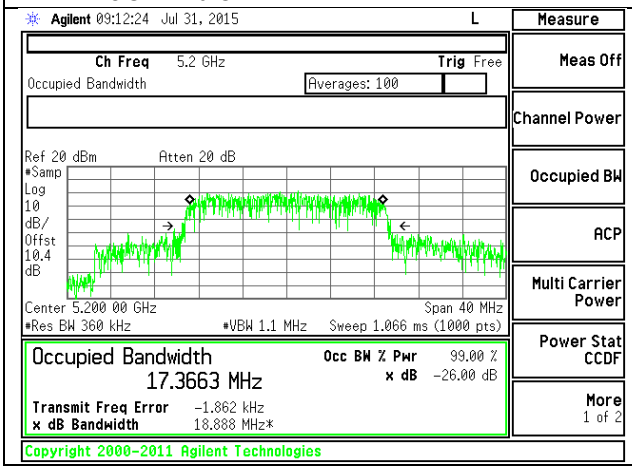
11.3.2. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5755	35.7	36.1
High	5795	35.6	35.8

11.3.1. 99% BANDWIDTH PLOTS

CHAIN 0 CHAIN 1

11n HT20 5.2 Mid Ch



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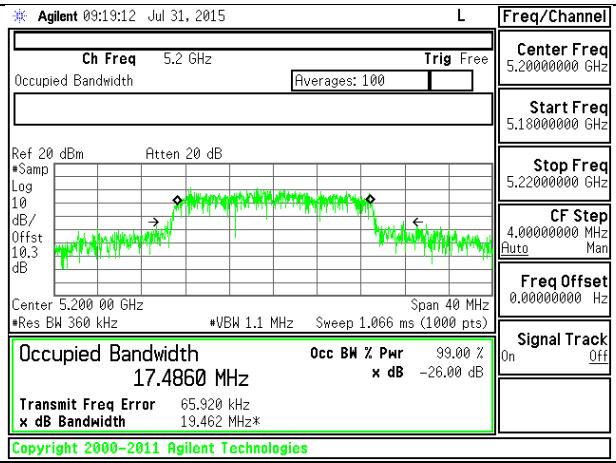

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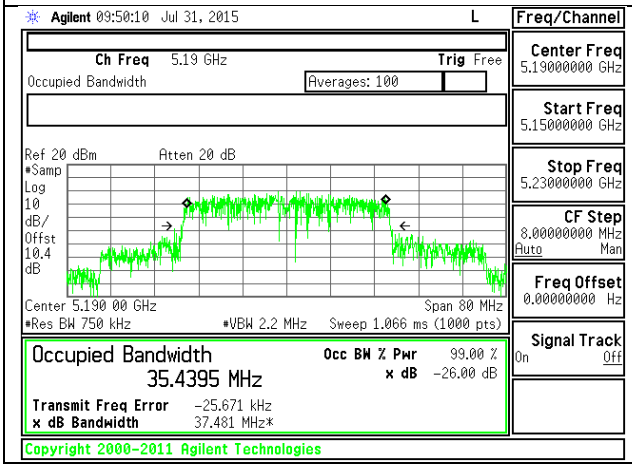
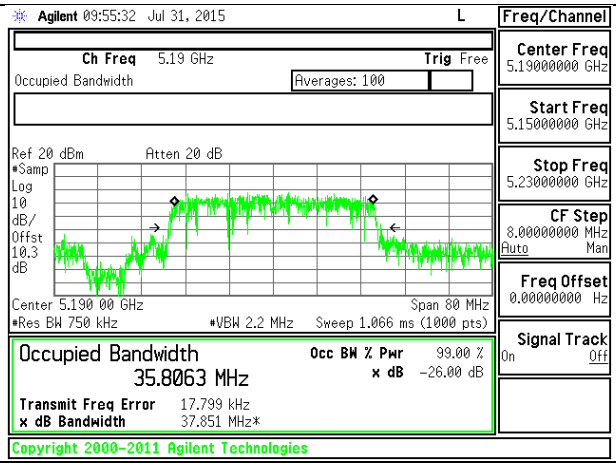
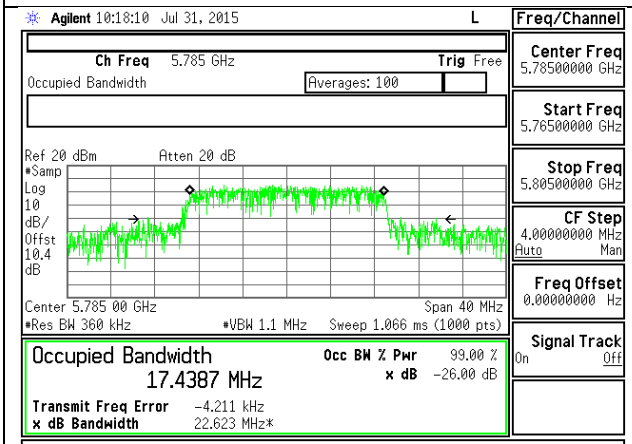


11n HT40 5.2 Mid Ch

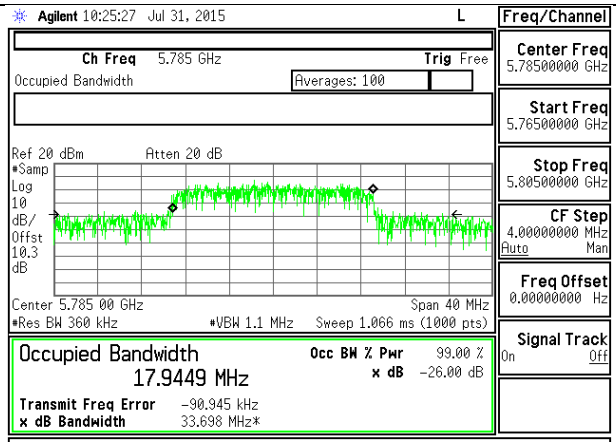


CHAIN 0 CHAIN 1

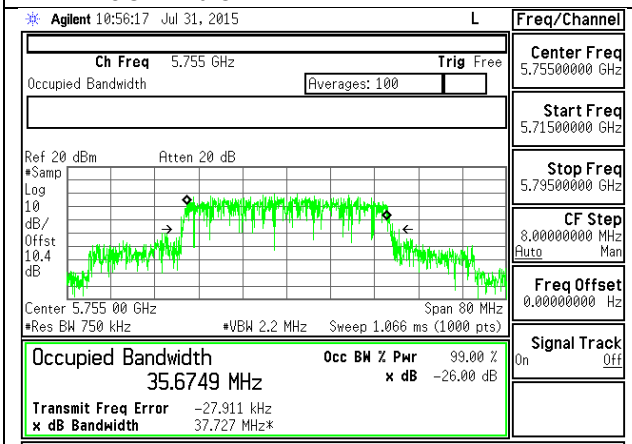
11n HT20 5.2 Mid Ch



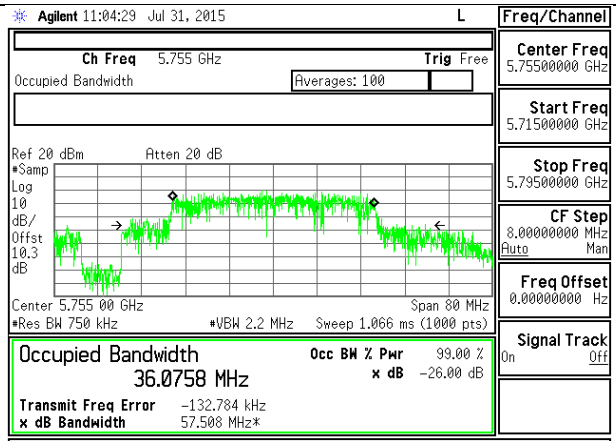
11n HT20 5.2 Mid Ch



11n HT40 5.2 Mid Ch



11n HT40 5.2 Mid Ch



11.4. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1) (2) (3)

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 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 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.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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.

DIRECTIONAL ANTENNA GAIN

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

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
2.40	3.90	3.21

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

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
2.40	3.90	6.21

11.4.1. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5180	19.90	17.2344	3.21	6.21
Mid	5200	21.10	17.3663	3.21	6.21
High	5240	21.10	17.2476	3.21	6.21

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	22.36	24.00	24.00	10.79	10.00	10.00
Mid	5200	24.00	22.40	24.00	24.00	10.79	10.00	10.00
High	5240	24.00	22.37	24.00	24.00	10.79	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)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	12.30	12.10	15.44	24.00	-8.56
Mid	5200	12.30	12.00	15.39	24.00	-8.61
High	5240	12.20	11.90	15.29	24.00	-8.71

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5180	1.74	1.15	4.70	10.00	-5.30
Mid	5200	1.37	1.14	4.50	10.00	-5.50
High	5240	1.80	1.13	4.72	10.00	-5.28

11.4.2. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5190	39.20	35.8063	3.21	6.21
High	5230	39.30	35.9349	3.21	6.21

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC EIRP Limit (dBm)	Max IC Power (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC eirp PSD Limit (dBm)	PPSD Limit (dBm)
Low	5190	24.00	23.00	24.00	24.00	10.79	10.00	10.00
High	5230	24.00	23.00	24.00	24.00	10.79	10.00	10.00

Duty Cycle CF (dB)	0.49	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5190	8.30	8.20	11.75	24.00	-12.25
High	5230	8.20	8.20	11.70	24.00	-12.30

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5190	-5.54	-5.81	-2.17	10.00	-12.17
High	5230	-5.47	-5.53	-2.00	10.00	-12.00

11.4.3. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5745	20.50	17.3547	3.21	6.21
Mid	5785	37.00	17.4387	3.21	6.21
High	5825	20.60	17.0720	3.21	6.21

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	30.00	30.00	30.00	29.79	17.00	28.99
Mid	5785	30.00	30.00	30.00	30.00	29.79	17.00	28.99
High	5825	30.00	30.00	30.00	30.00	29.79	17.00	28.99

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)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	13.20	13.10	16.39	30.00	-13.61
Mid	5785	16.50	16.80	19.89	30.00	-10.11
High	5825	13.20	13.30	16.49	30.00	-13.51

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5745	0.34	0.61	3.72	28.99	-25.27
Mid	5785	3.74	4.07	7.15	28.99	-21.84
High	5825	0.44	0.92	3.92	28.99	-25.07

11.4.4. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5755	39.7	36.0758	3.21	6.21
High	5795	39.4	35.6485	3.21	6.21

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	30.00	30.00	29.79	17.00	28.99
High	5795	30.00	30.00	30.00	30.00	29.79	17.00	28.99

Duty Cycle CF (dB)	0.49	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	9.20	9.20	12.70	30.00	-17.30
High	5795	8.70	9.10	12.40	30.00	-17.60

PPSD Results

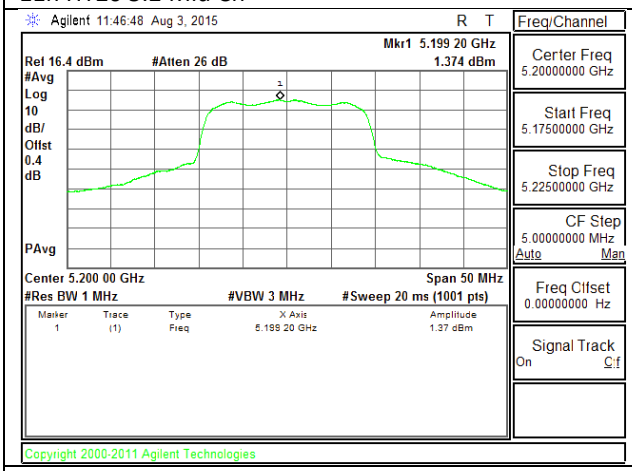
Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5755	-6.96	-7.36	-3.66	28.99	-32.65
High	5795	-7.10	-6.79	-3.44	28.99	-32.43

11.4.5. OUTPUT POWER AND PPSD PLOTS

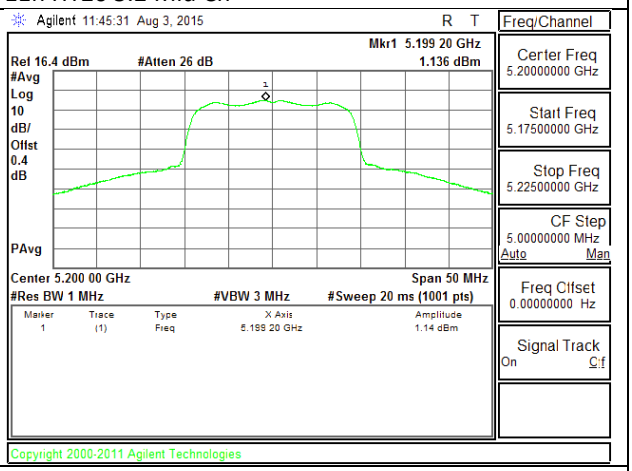
PSD PLOTS

CHAIN 0 CHAIN 1

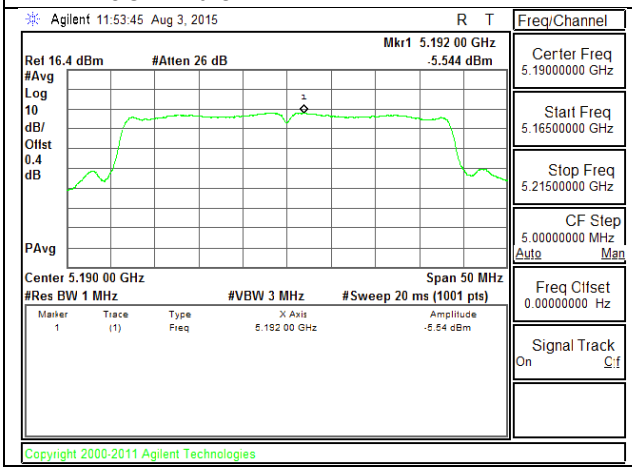
11n HT20 5.2 Mid Ch



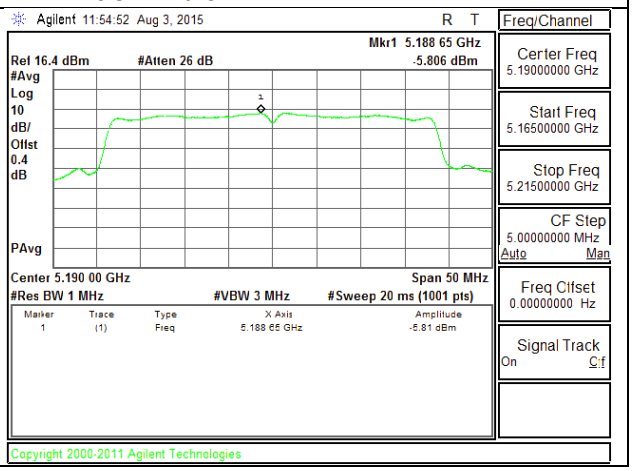
11n HT20 5.2 Mid Ch



11n HT40 5.2 Mid Ch

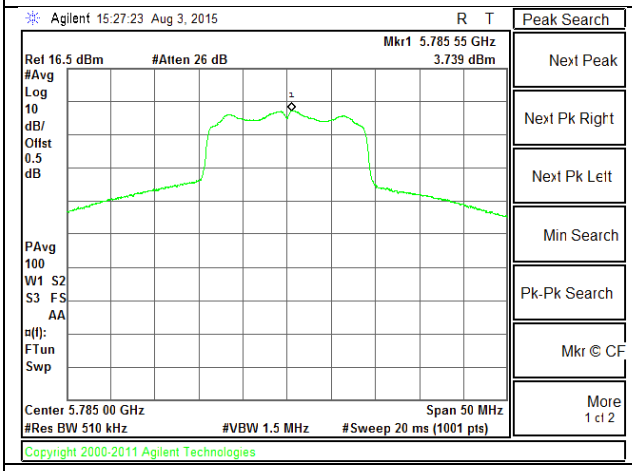


11n HT40 5.2 Mid Ch

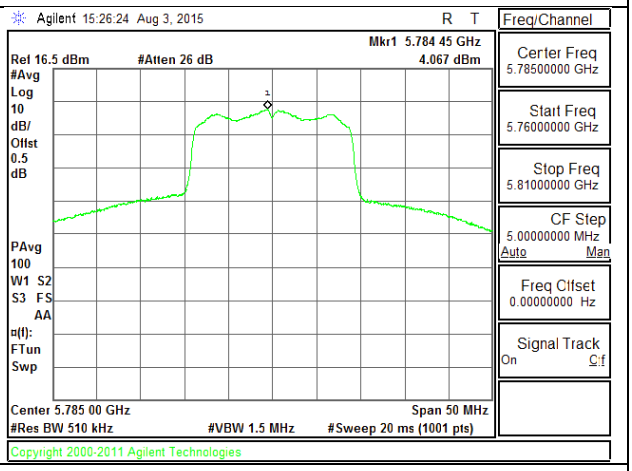


CHAIN 0 CHAIN 1

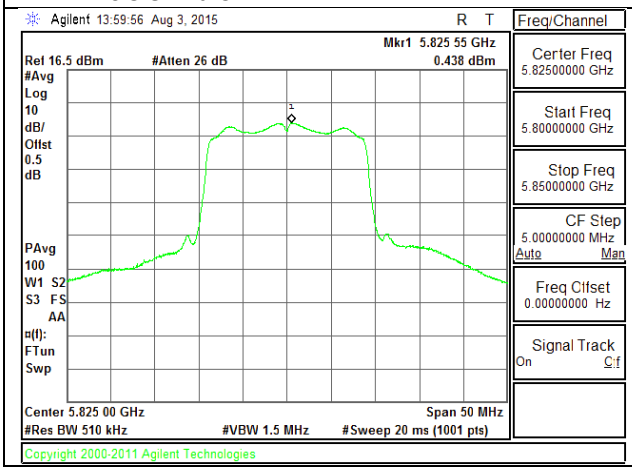
11n HT20 5.8 Mid Ch



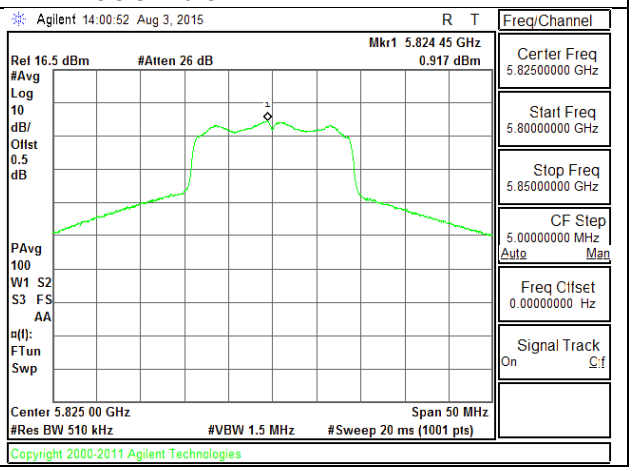
11n HT20 5.8 Mid Ch



11n HT40 5.8 Mid Ch



11n HT40 5.8 Mid Ch



12. TRANSMITTER ABOVE 1 GHz SISO

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 for below 1GHz and 150cm for above 1GHz. The antenna to EUT distance is 3 meters.

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

Reference to KDB 789033 UNII part G) 6) d) Method AD:

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.

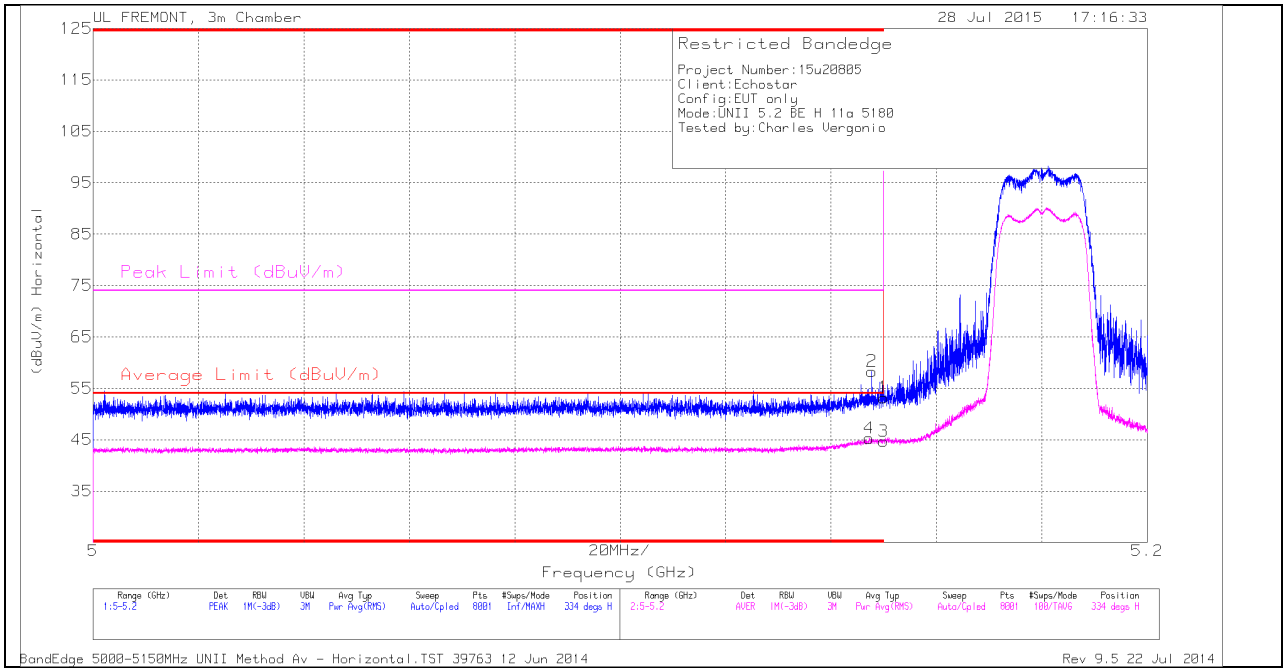
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

12.1. 5.2 GHz

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

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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	* 5.147	31.58	RMS	34.2	-20.8	.22	45.20	54	-8.80	-	-	334	119	H
2	* 5.148	44.89	PK	34.2	-20.8	0	58.29	-	-	74	-15.71	334	119	H
1	* 5.15	39.78	PK	34.2	-20.8	0	53.18	-	-	74	-20.82	334	119	H
3	* 5.15	30.98	RMS	34.2	-20.8	.22	44.60	54	-9.40	-	-	334	119	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
PK - Peak detector
RMS - RMS detection

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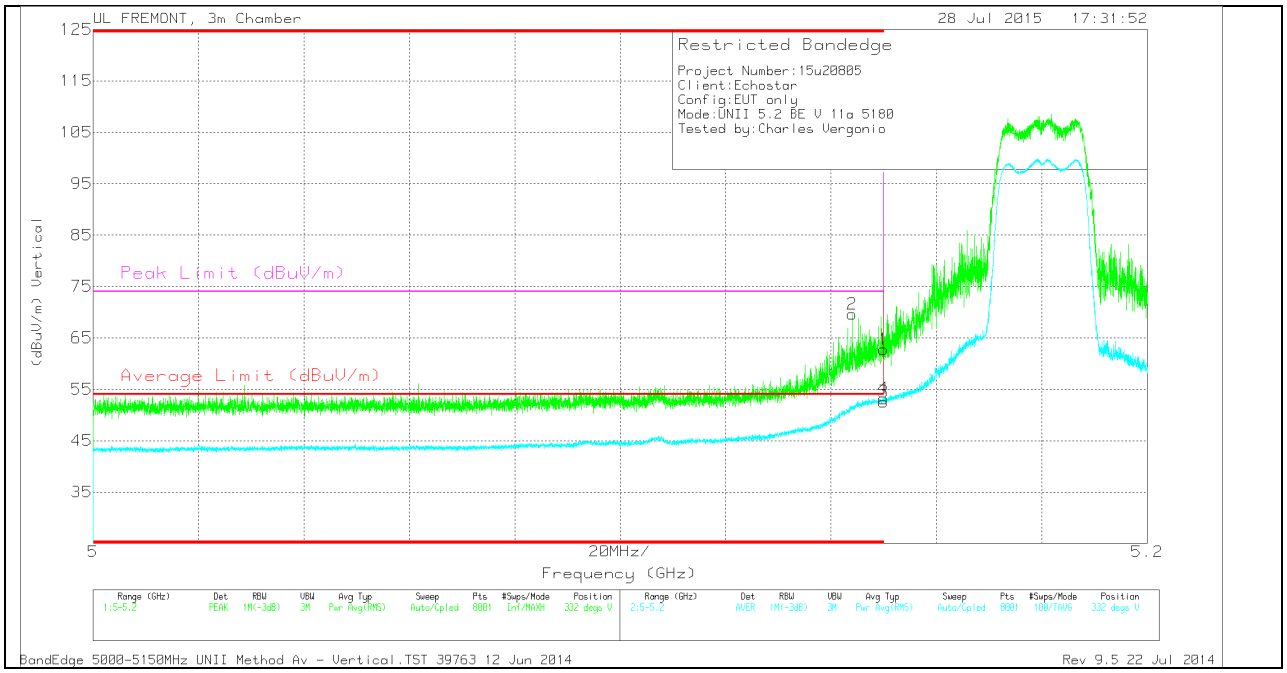
VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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	* 5.144	56.11	PK	34.2	-20.7	0	69.61	-	-	74	-4.39	332	128	V
1	* 5.15	49.36	PK	34.2	-20.8	0	62.76	-	-	74	-11.24	332	128	V
3	* 5.15	38.94	RMS	34.2	-20.8	.22	52.56	54	-1.44	-	-	332	128	V
4	* 5.15	39.59	RMS	34.2	-20.8	.22	53.21	54	-.79	-	-	332	128	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
PK - Peak detector
RMS - RMS detection

BandEdge 5000-5150MHz UNII Method Av - Vertical.TST 39763 12 Jun 2014
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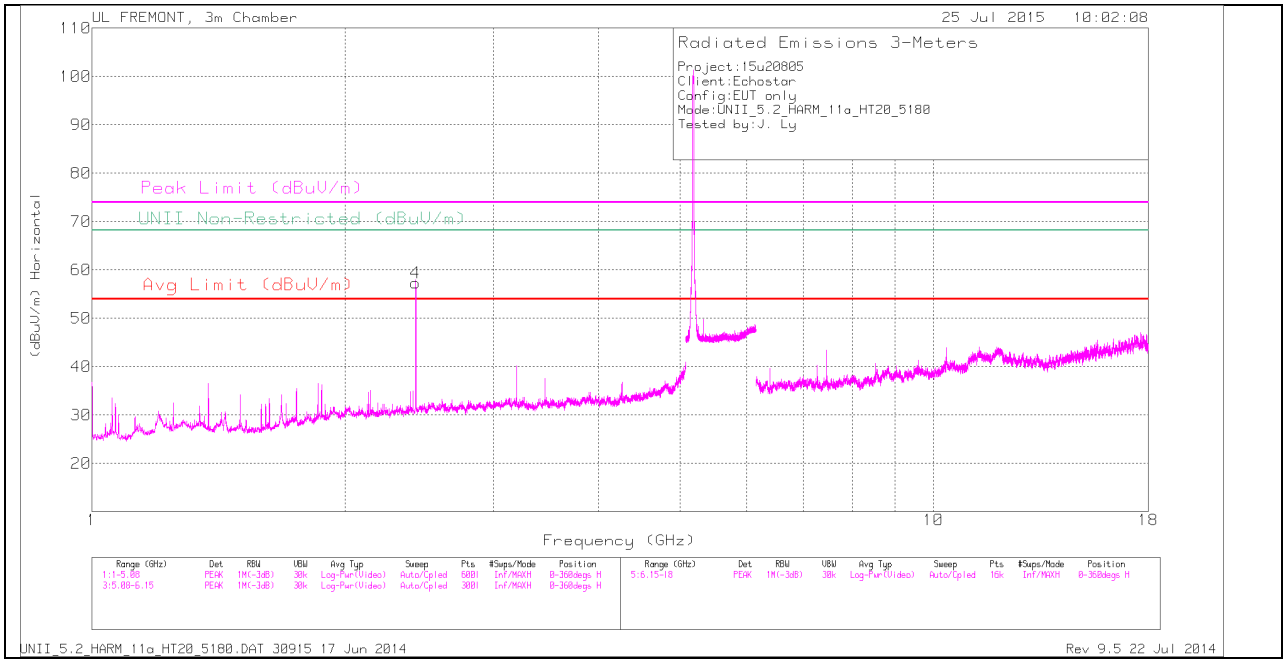
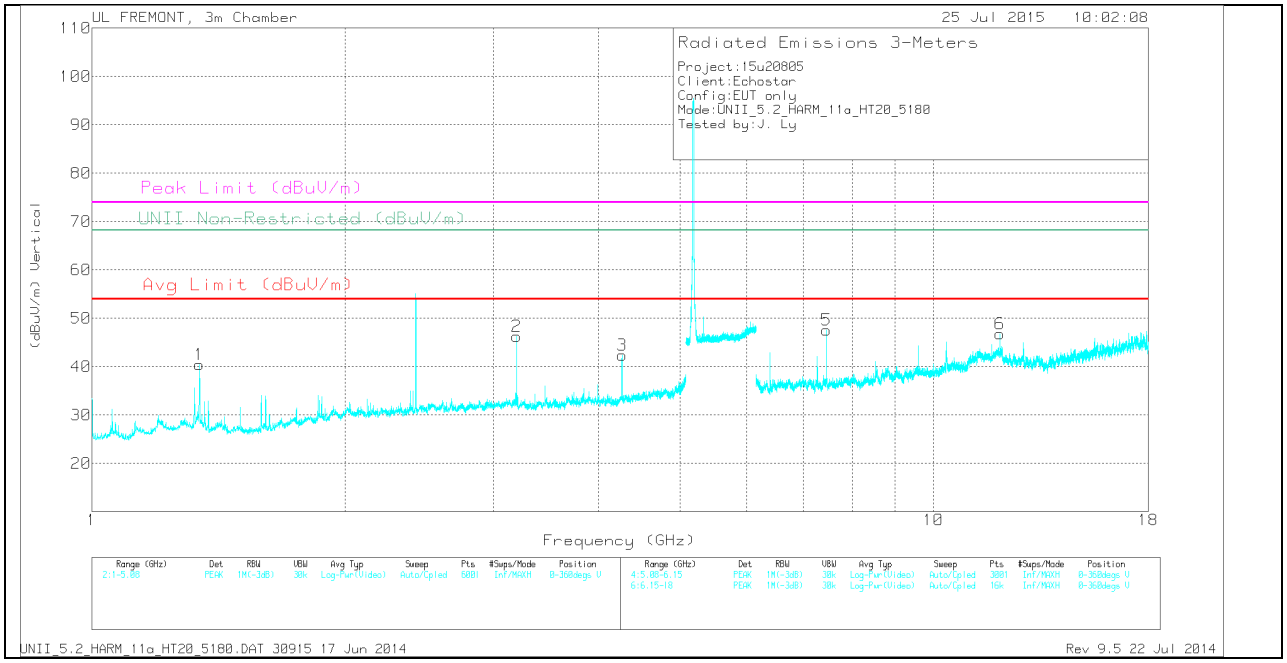
HARMONICS AND SPURIOUS EMISSIONS

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 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	1.342	43.83	PK	29.4	-32.8	0	40.43	-	-	74	-33.57	-	-	0-360	100	V
4	2.425	57.16	PK	32.1	-31.9	0	57.36	-	-	-	-	68.2	-10.84	0-360	200	H
2	3.198	44.31	PK	32.6	-30.6	0	46.31	-	-	-	-	68.2	-21.89	0-360	100	V
3	4.264	39.02	PK	33.4	-30	0	42.42	-	-	74	-31.58	-	-	0-360	100	V
5	7.462	39.38	PK	35.7	-27.5	0	47.58	-	-	74	-26.42	-	-	0-360	100	V
6	11.988	31.12	PK	39.1	-23.4	0	46.82	-	-	74	-27.18	-	-	0-360	100	V

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
1.341	50.19	PK1	29.4	-32.8	0	46.79	-	-	74	-27.21	-	-	264	111	V
1.342	42.06	AD1	29.4	-32.8	.22	38.88	54	-15.12	-	-	-	-	264	111	V
2.423	29.09	AD1	32.1	-31.9	.22	29.51	-	-	-	-	-	-	62	279	H
2.425	40.95	PK1	32.1	-31.9	0	41.15	-	-	-	-	68.2	-27.05	62	279	H
3.198	48.76	PK1	32.6	-30.6	0	50.76	-	-	-	-	68.2	-17.44	254	187	V
3.198	45.15	AD1	32.6	-30.6	.22	47.37	-	-	-	-	-	-	254	187	V
4.264	46.62	PK1	33.4	-30	0	50.02	-	-	74	-23.98	-	-	307	109	V
4.264	42.36	AD1	33.4	-30	.22	45.98	54	-8.02	-	-	-	-	307	109	V
7.462	44.6	PK1	35.7	-27.5	0	52.8	-	-	74	-21.2	-	-	306	108	V
7.462	39.5	AD1	35.7	-27.5	.22	47.92	54	-6.08	-	-	-	-	306	108	V
11.988	38.79	PK1	39.1	-23.4	0	54.49	-	-	74	-19.51	-	-	24	116	V
11.988	29.75	AD1	39.1	-23.4	.22	45.67	54	-8.33	-	-	-	-	24	116	V

PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average

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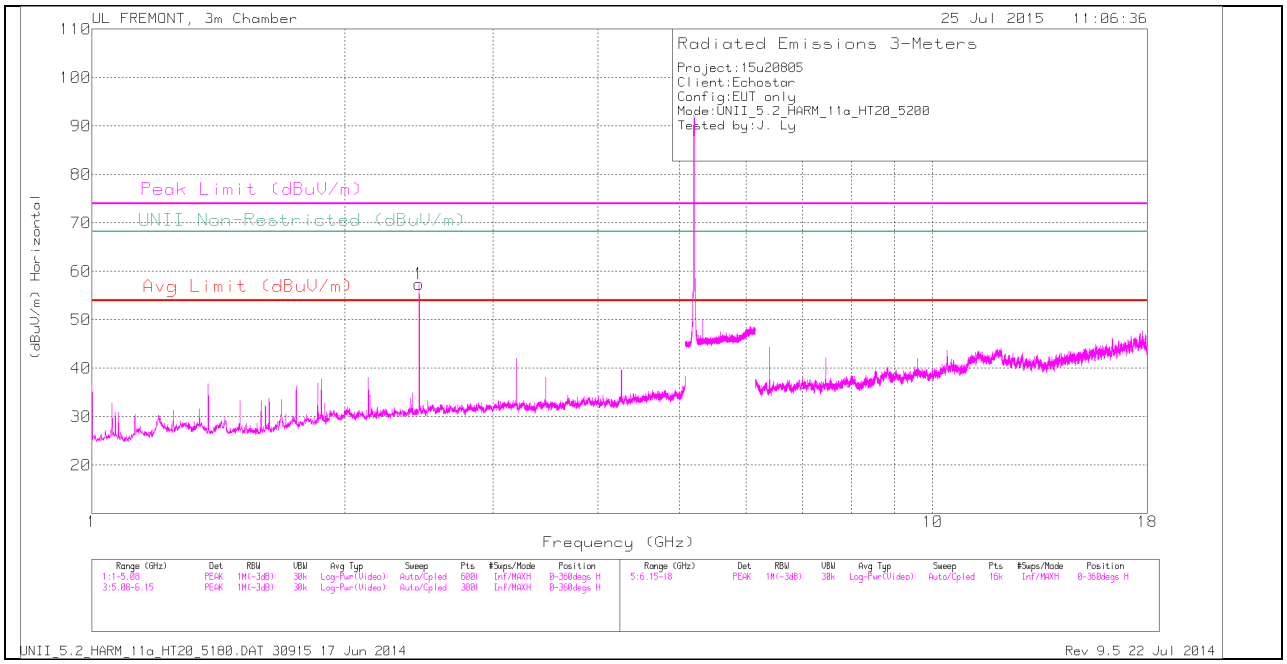
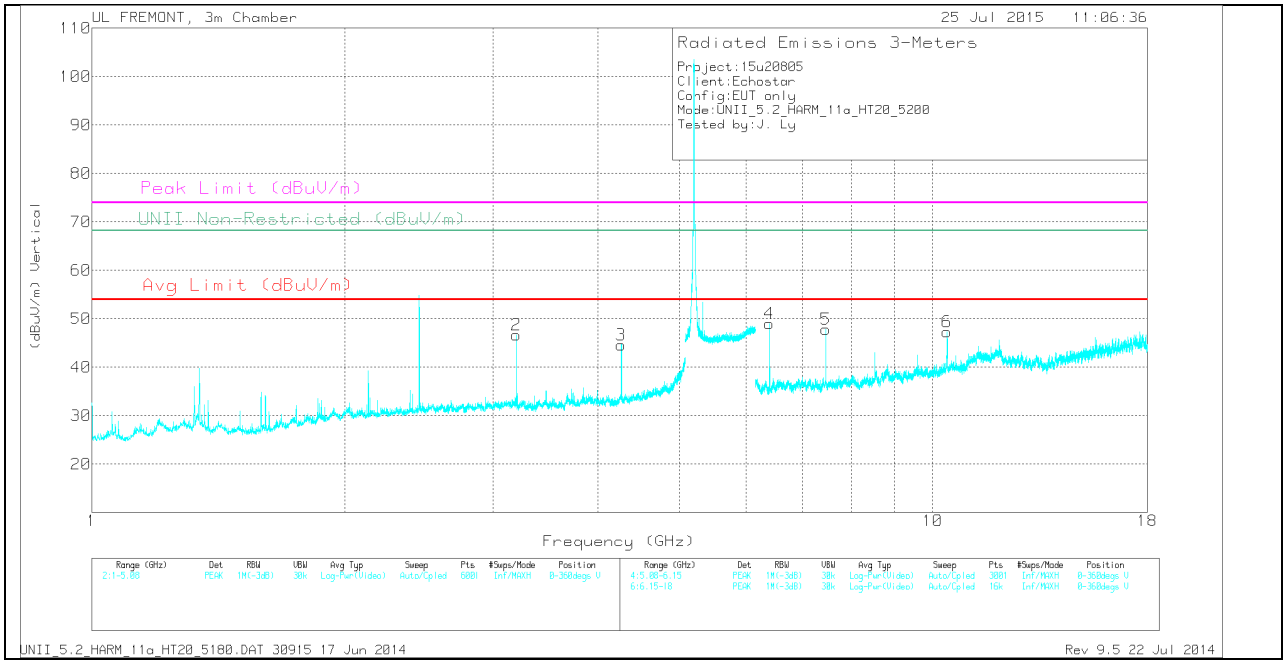
Rev 9.5 22 Jul 2014

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 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	2.45	57.09	PK	32.2	-31.9	0	57.39	-	-	-	-	68.2	-10.81	0-360	200	H
2	3.198	44.66	PK	32.6	-30.6	0	46.66	-	-	-	-	68.2	-21.54	0-360	100	V
3	4.263	41.2	PK	33.4	-30	0	44.6	-	-	74	-29.4	-	-	0-360	100	V
4	6.396	42.16	PK	35.5	-28.7	0	48.96	-	-	-	-	68.2	-19.24	0-360	100	V
5	7.462	39.61	PK	35.7	-27.5	0	47.81	-	-	74	-26.19	-	-	0-360	100	V
6	10.401	34.28	PK	37.3	-24.3	0	47.28	-	-	-	-	68.2	-20.92	0-360	100	V

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
2.451	59.91	PK1	32.2	-31.9	0	60.21	-	-	-	-	68.2	-7.99	220	185	H
3.198	48.46	PK1	32.6	-30.6	0	50.46	-	-	-	-	68.2	-17.74	254	141	V
3.198	45	AD1	32.6	-30.6	.22	47.22	-	-	-	-	-	-	254	141	V
4.264	46.68	PK1	33.4	-30	0	50.08	-	-	74	-23.92	-	-	305	111	V
4.264	42.26	AD1	33.4	-30	.22	45.88	54	-8.12	-	-	-	-	305	111	V
6.395	45.6	PK1	35.5	-28.8	0	52.3	-	-	-	-	68.2	-15.9	255	112	V
6.396	41.59	AD1	35.5	-28.8	.22	48.51	-	-	-	-	-	-	255	112	V
7.462	44.6	PK1	35.7	-27.5	0	52.8	-	-	74	-21.2	-	-	306	105	V
7.462	39.42	AD1	35.7	-27.5	.22	47.84	54	-6.16	-	-	-	-	306	105	V
10.4	44.92	PK1	37.3	-24.3	0	57.92	-	-	-	-	68.2	-10.28	33	107	V
10.401	32.39	AD1	37.3	-24.3	.22	45.61	-	-	-	-	-	-	33	107	V

PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average

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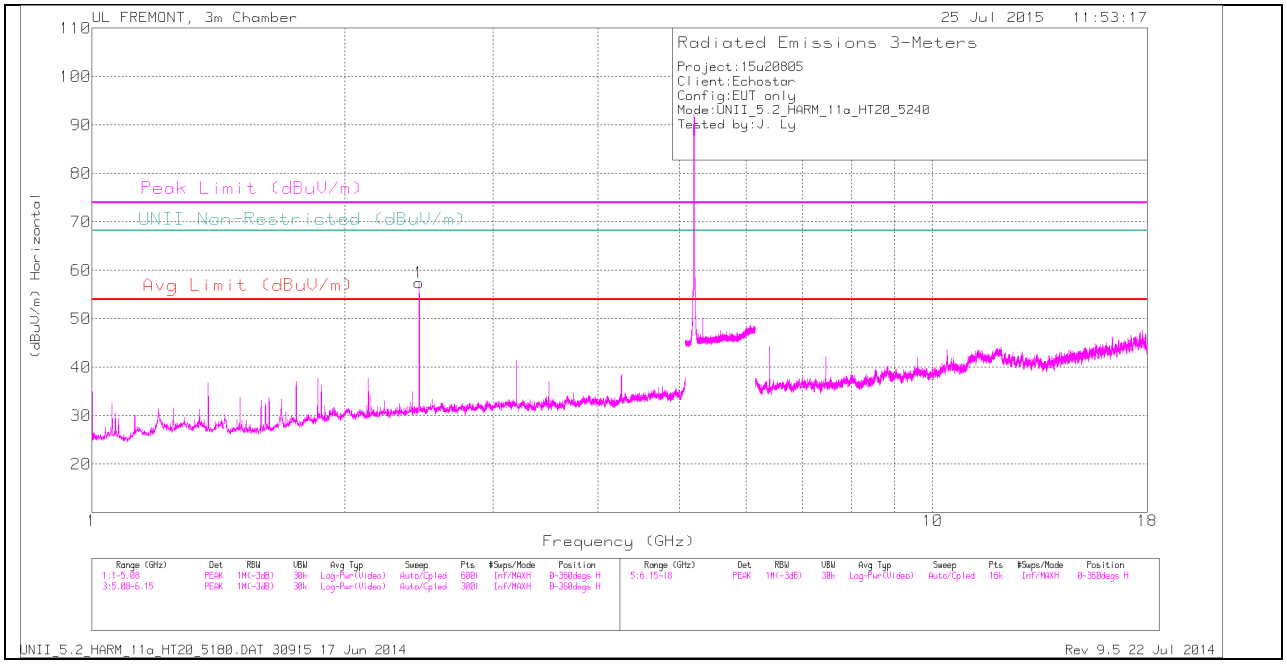
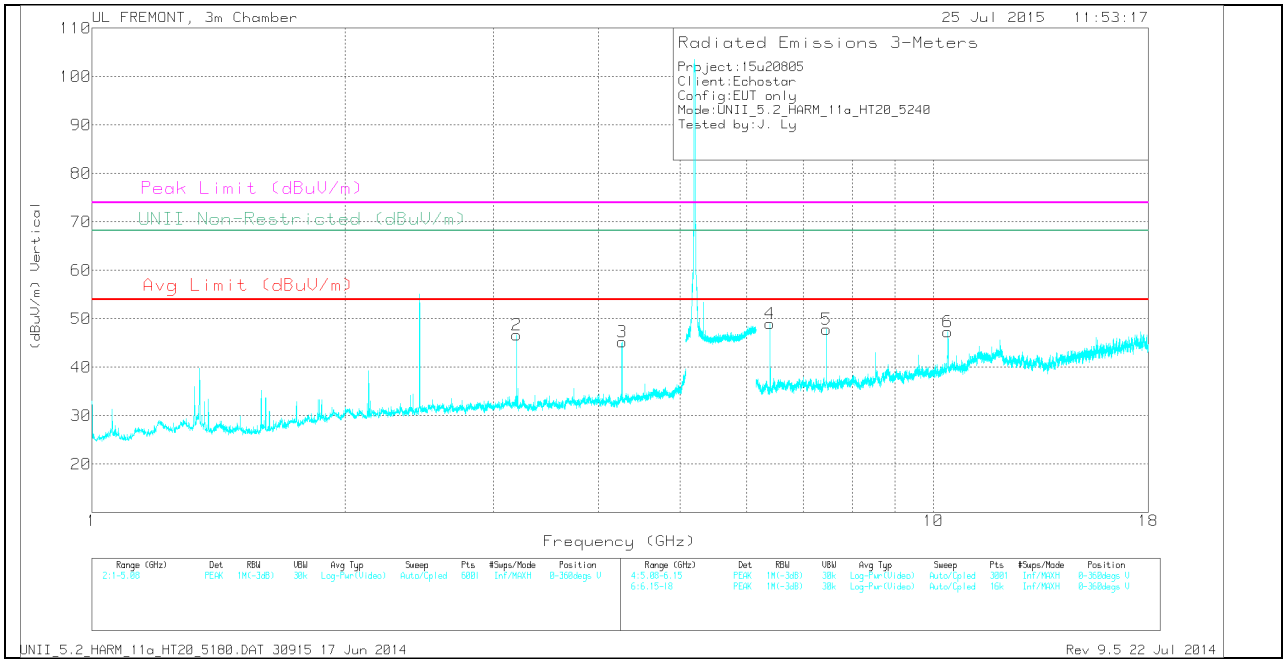
HIGH CHANNEL HORIZONTAL



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 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	2.45	57.2	PK	32.2	-31.9	0	57.5	-	-	-	-	68.2	-10.7	0-360	200	H
2	3.198	44.62	PK	32.6	-30.6	0	46.62	-	-	-	-	68.2	-21.58	0-360	100	V
3	4.264	41.87	PK	33.4	-30	0	45.27	-	-	74	-28.73	-	-	0-360	100	V
4	6.396	42.16	PK	35.5	-28.7	0	48.96	-	-	-	-	68.2	-19.24	0-360	100	V
5	7.462	39.61	PK	35.7	-27.5	0	47.81	-	-	74	-26.19	-	-	0-360	100	V
6	10.401	34.28	PK	37.3	-24.3	0	47.28	-	-	-	-	68.2	-20.92	0-360	100	V

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
2.451	59.92	PK1	32.2	-31.9	0	60.22	-	-	-	-	68.2	-7.98	220	187	H
3.198	48.46	PK1	32.6	-30.6	0	50.46	-	-	-	-	68.2	-17.74	255	140	V
4.264	46.53	PK1	33.4	-30	0	49.93	-	-	74	-24.07	-	-	307	110	V
4.264	42.39	AD1	33.4	-30	.22	46.01	54	-7.99	-	-	-	-	307	110	V
6.395	45.6	PK1	35.5	-28.8	0	52.3	-	-	-	-	68.2	-15.9	255	112	V
6.396	45.98	PK1	35.5	-28.7	0	52.78	-	-	-	-	68.2	-15.42	255	110	V
7.462	44.6	PK1	35.7	-27.5	0	52.8	-	-	74	-21.2	-	-	306	105	V
7.462	39.42	AD1	35.7	-27.5	.22	47.84	54	-6.16	-	-	-	-	306	105	V
7.462	44.66	PK1	35.7	-27.5	0	52.86	-	-	74	-21.14	-	-	307	107	V
7.462	39.37	AD1	35.7	-27.5	.22	47.79	54	-6.21	-	-	-	-	307	107	V
10.4	44.92	PK1	37.3	-24.3	0	57.92	-	-	-	-	68.2	-10.28	33	107	V
10.403	36.76	PK1	37.3	-24.3	0	49.76	-	-	-	-	68.2	-18.44	341	130	V

PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average

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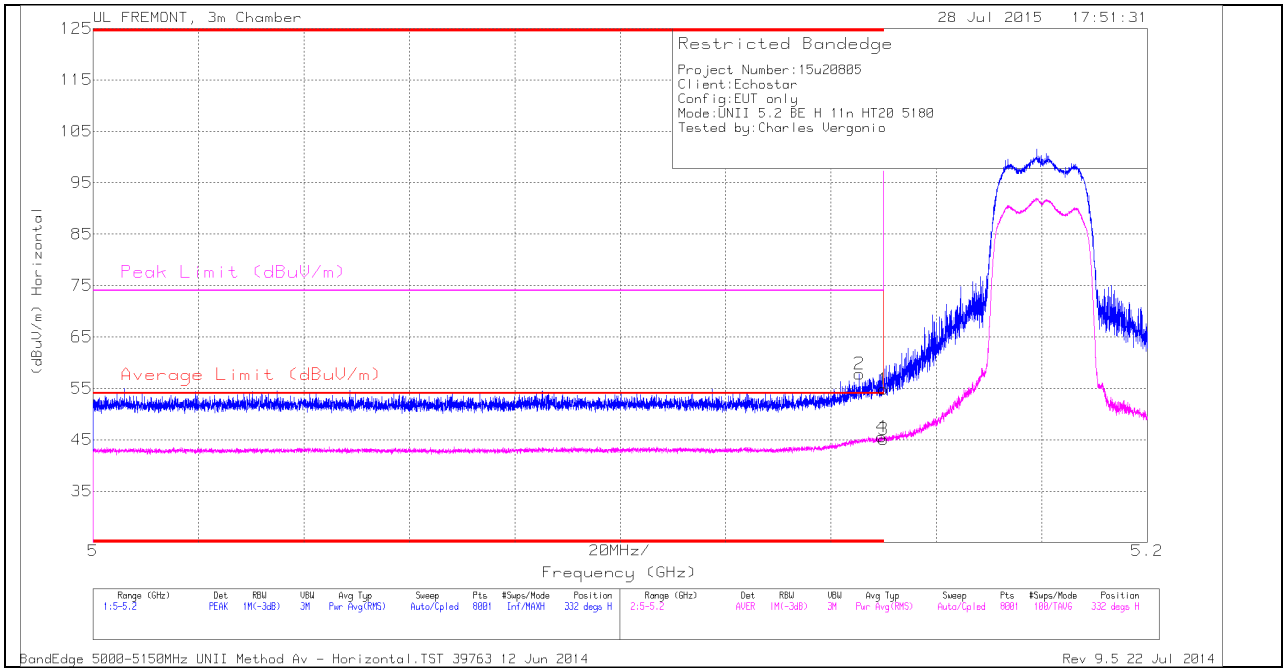
12.1.2. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.2 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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	* 5.145	44.31	PK	34.2	-20.7	0	57.81	-	-	74	-16.19	332	129	H
1	* 5.15	41.43	PK	34.2	-20.8	0	54.83	-	-	74	-19.17	332	129	H
3	* 5.15	31.48	RMS	34.2	-20.8	.23	45.11	54	-8.89	-	-	332	129	H
4	* 5.15	31.93	RMS	34.2	-20.8	.23	45.56	54	-8.44	-	-	332	129	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
PK - Peak detector
RMS - RMS detection

BandEdge 5000-5150MHz UNII Method Av - Horizontal.TST 39763 12 Jun 2014
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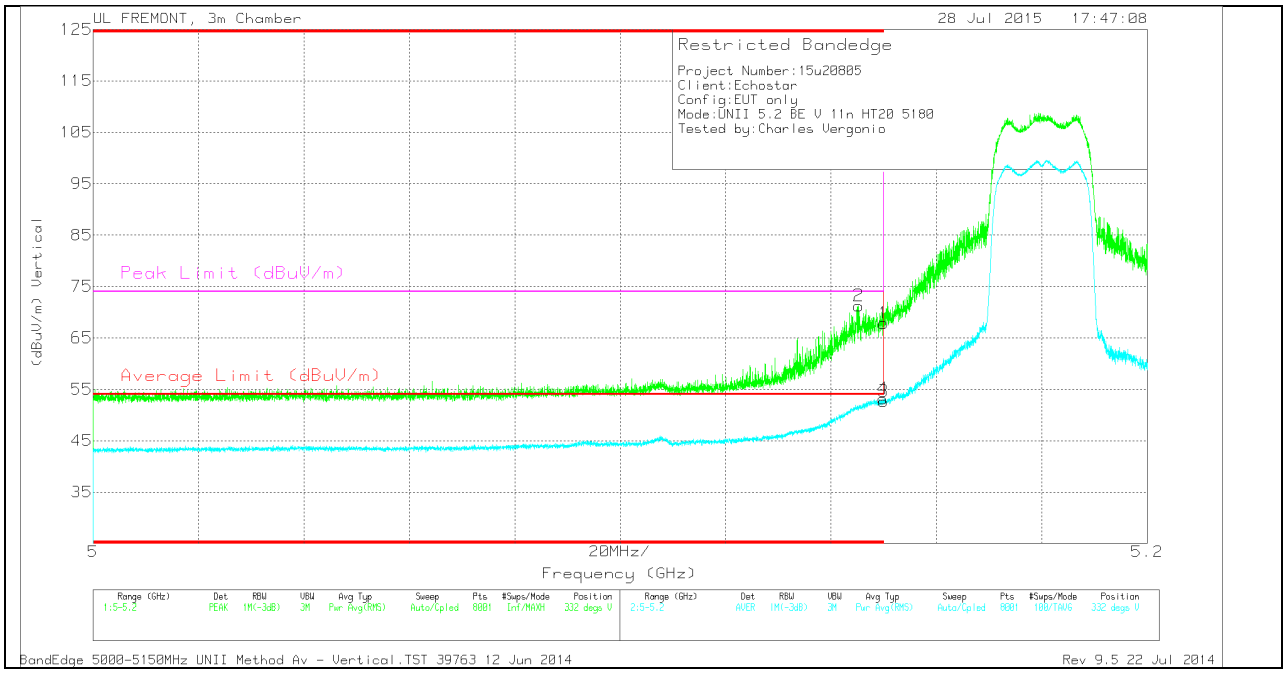
VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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	* 5.145	57.77	PK	34.2	-20.7	0	71.27	-	-	74	-2.73	332	128	V
1	* 5.15	54.47	PK	34.2	-20.8	0	67.87	-	-	74	-6.13	332	128	V
3	* 5.15	39.05	RMS	34.2	-20.8	.23	52.68	54	-1.32	-	-	332	128	V
4	* 5.15	39.55	RMS	34.2	-20.8	.23	53.18	54	-.82	-	-	332	128	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
PK - Peak detector
RMS - RMS detection

BandEdge 5000-5150MHz UNII Method Av - Vertical.TST 39763 12 Jun 2014
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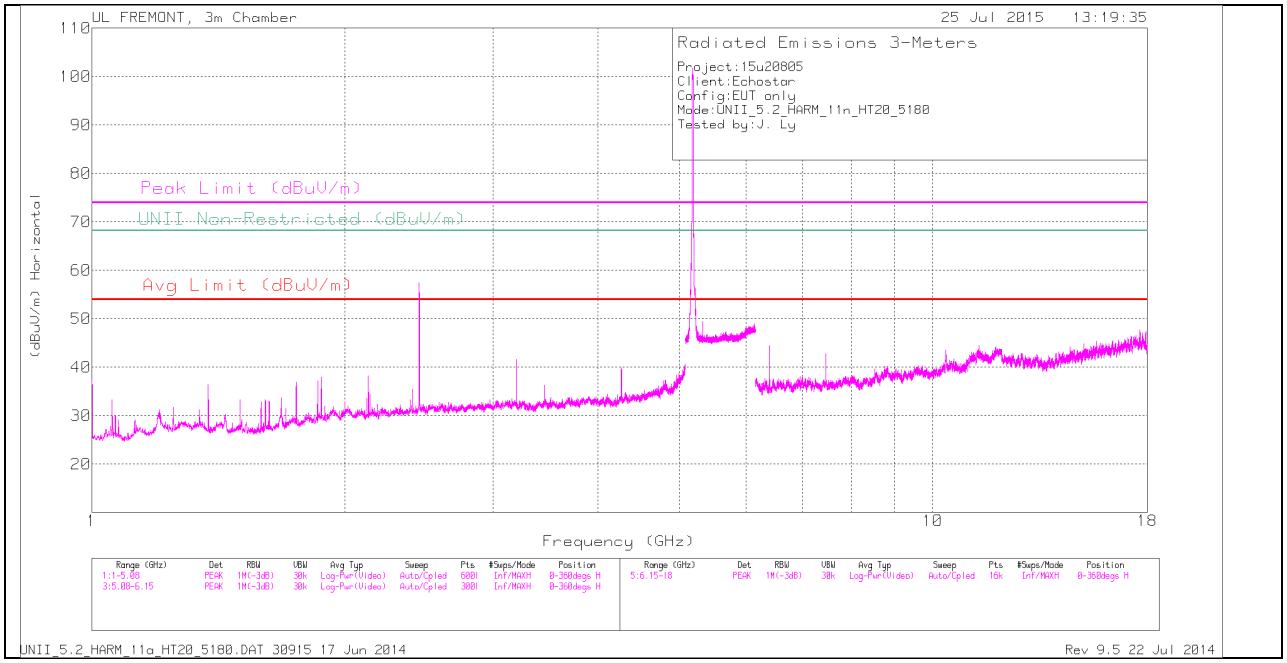
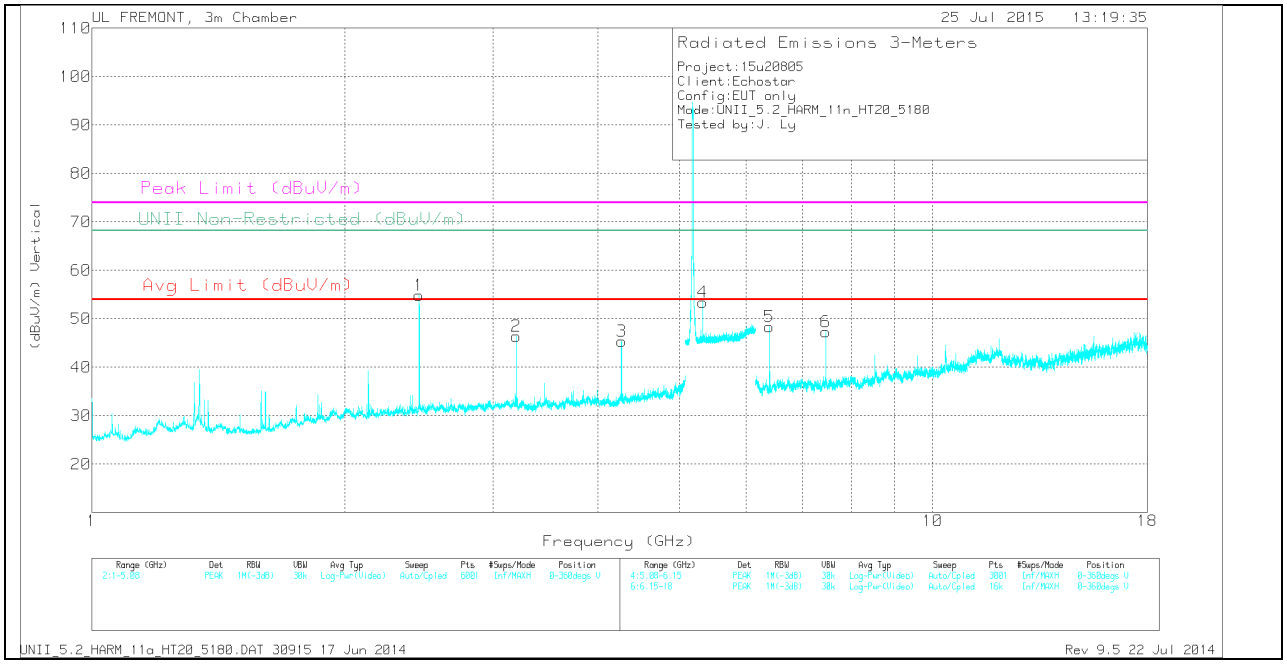
HARMONICS AND SPURIOUS EMISSIONS

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 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	2.45	54.52	PK	32.2	-31.9	0	54.82	-	-	-	-	68.2	-13.38	0-360	100	V
2	3.198	44.39	PK	32.6	-30.6	0	46.39	-	-	-	-	68.2	-21.81	0-360	100	V
3	4.264	41.95	PK	33.4	-30	0	45.35	-	-	74	-28.65	-	-	0-360	100	V
4	5.33	39.37	PK	34.5	-20.5	0	53.37	-	-	-	-	68.2	-14.83	0-360	100	V
5	6.396	41.53	PK	35.5	-28.7	0	48.33	-	-	-	-	68.2	-19.87	0-360	100	V
6	7.462	39.18	PK	35.7	-27.5	0	47.38	-	-	74	-26.62	-	-	0-360	100	V

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
2.45	57.66	PK1	32.2	-31.9	0	57.96	-	-	-	-	68.2	-10.24	310	105	V
3.198	48.59	PK1	32.6	-30.6	0	50.59	-	-	-	-	68.2	-17.61	256	186	V
4.264	46.45	PK1	33.4	-30	0	49.85	-	-	74	-24.15	-	-	310	112	V
4.264	42.19	AD1	33.4	-30	.23	45.82	54	-8.18	-	-	-	-	310	112	V
5.33	45.63	PK1	34.5	-20.5	0	59.63	-	-	-	-	68.2	-8.57	104	112	V
6.396	45.95	PK1	35.5	-28.8	0	52.65	-	-	-	-	68.2	-15.55	254	102	V
7.462	44.51	PK1	35.7	-27.5	0	52.71	-	-	74	-21.29	-	-	308	106	V
7.462	39.65	AD1	35.7	-27.5	.23	48.08	54	-5.92	-	-	-	-	308	106	V

PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average

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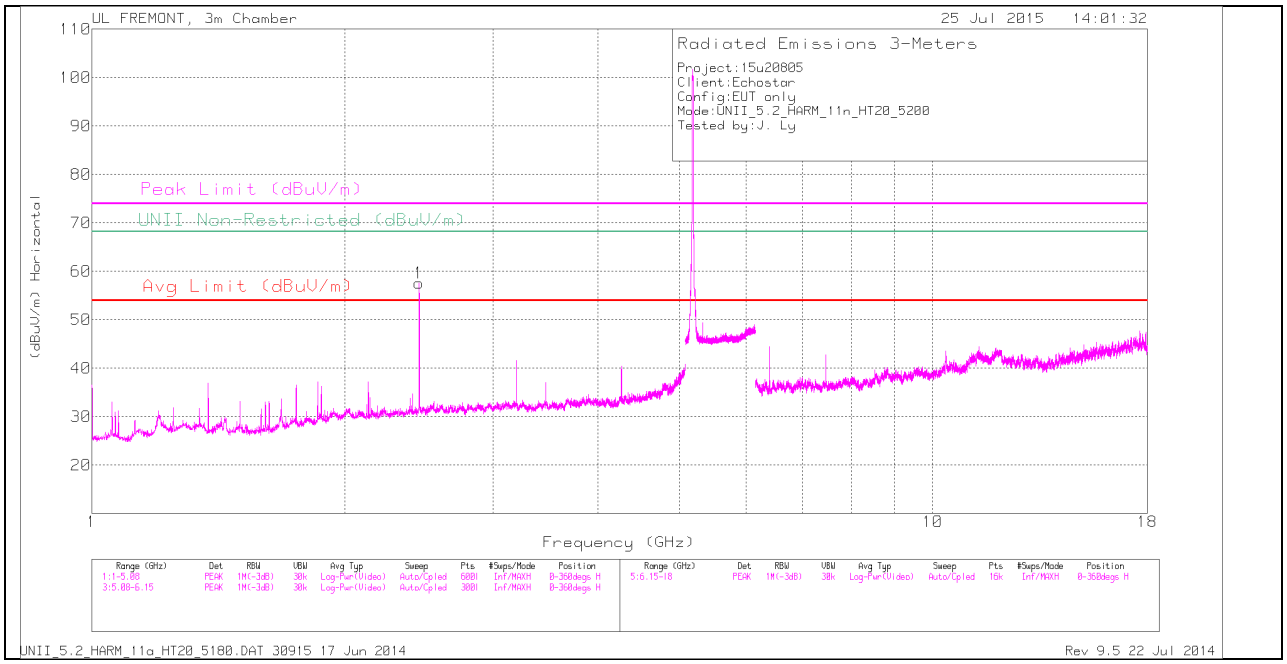
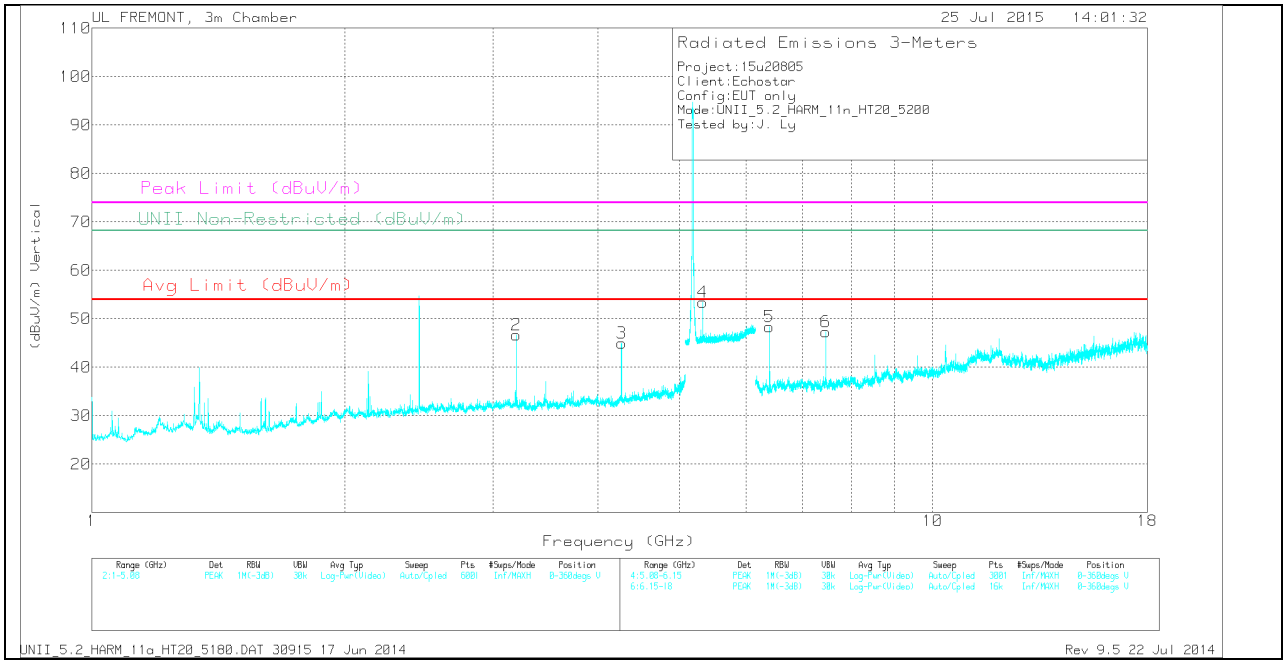
MID CHANNEL HORIZONTAL



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 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	2.45	57.28	PK	32.2	-31.9	0	57.58	-	-	-	-	68.2	-10.62	0-360	200	H
2	3.198	44.7	PK	32.6	-30.6	0	46.7	-	-	-	-	68.2	-21.5	0-360	100	V
3	4.264	41.64	PK	33.4	-30	0	45.04	-	-	74	-28.96	-	-	0-360	100	V
4	5.33	39.37	PK	34.5	-20.5	0	53.37	-	-	-	-	68.2	-14.83	0-360	100	V
5	6.396	41.53	PK	35.5	-28.7	0	48.33	-	-	-	-	68.2	-19.87	0-360	100	V
6	7.462	39.18	PK	35.7	-27.5	0	47.38	-	-	74	-26.62	-	-	0-360	100	V

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
2.451	60.39	PK1	32.2	-31.9	0	60.69	-	-	-	-	68.2	-7.51	222	186	H
3.198	48.45	PK1	32.6	-30.6	0	50.45	-	-	-	-	68.2	-17.75	255	140	V
4.264	46.58	PK1	33.4	-30	0	49.98	-	-	74	-24.02	-	-	309	109	V
4.264	42.34	AD1	33.4	-30	.23	45.97	54	-8.03	-	-	-	-	309	109	V
5.33	45.05	PK1	34.5	-20.5	0	59.05	-	-	-	-	68.2	-9.15	101	100	V
6.396	44.46	PK1	35.5	-28.8	0	51.16	-	-	-	-	68.2	-17.04	254	127	V
7.462	44.51	PK1	35.7	-27.5	0	52.71	-	-	74	-21.29	-	-	308	106	V
7.462	39.65	AD1	35.7	-27.5	.23	48.08	54	-5.92	-	-	-	-	308	106	V

PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average

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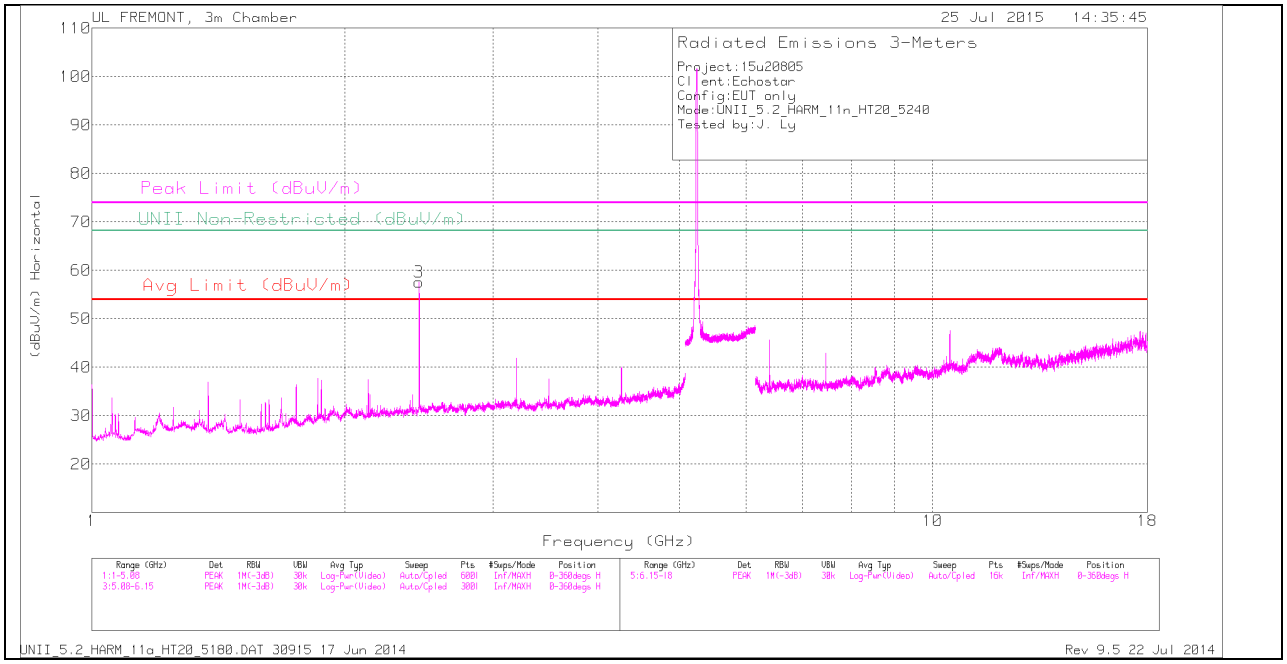
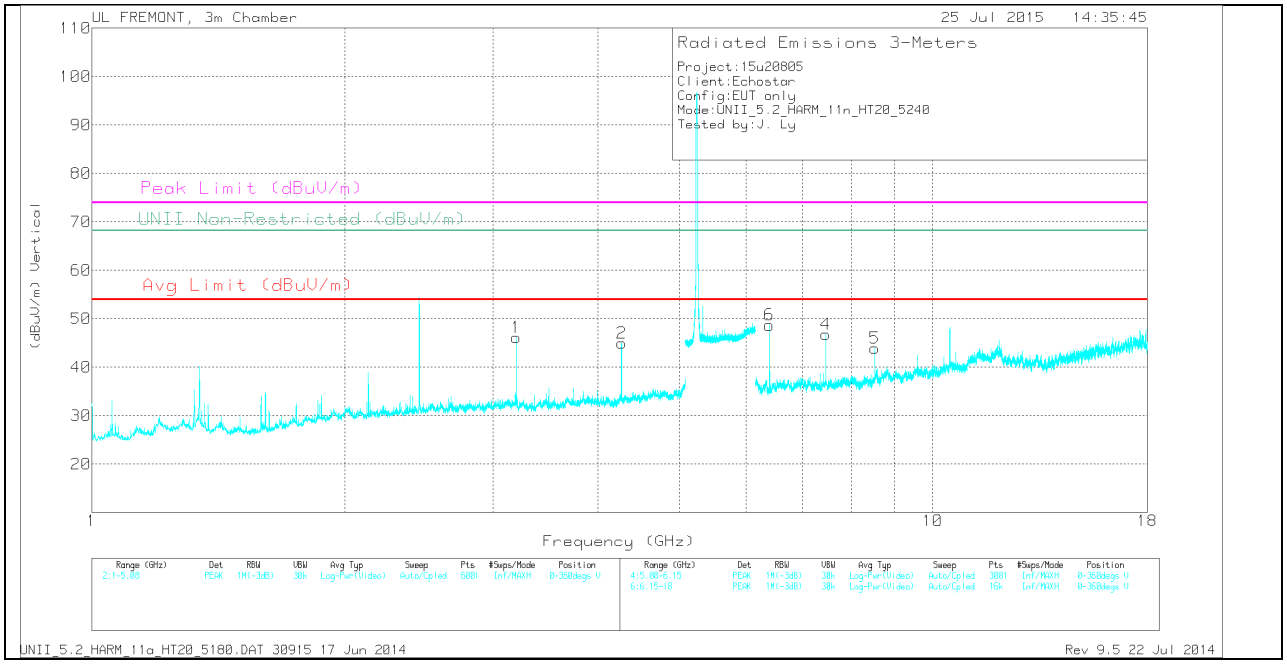
HIGH CHANNEL HORIZONTAL



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 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
3	2.45	57.26	PK	32.2	-31.9	0	57.56	-	-	-	-	68.2	-10.64	0-360	200	H
1	3.198	44.16	PK	32.6	-30.6	0	46.16	-	-	-	-	68.2	-22.04	0-360	100	V
2	4.264	41.53	PK	33.4	-30	0	44.93	-	-	74	-29.07	-	-	0-360	100	V
6	6.396	41.89	PK	35.5	-28.7	0	48.69	-	-	-	-	68.2	-19.51	0-360	100	V
4	7.462	38.57	PK	35.7	-27.5	0	46.77	-	-	74	-27.23	-	-	0-360	100	V
5	8.527	34.04	PK	35.8	-25.9	0	43.94	-	-	-	-	68.2	-24.26	0-360	100	V

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
2.451	60.25	PK1	32.2	-31.9	0	60.55	-	-	-	-	68.2	-7.65	222	186	H
3.198	48.58	PK1	32.6	-30.6	0	50.58	-	-	-	-	68.2	-17.62	254	155	V
4.264	46.12	PK1	33.4	-30	0	49.52	-	-	74	-24.48	-	-	311	122	V
4.264	42.03	AD1	33.4	-30	.23	45.66	54	-8.34	-	-	-	-	311	122	V
6.395	45.92	PK1	35.5	-28.8	0	52.62	-	-	-	-	68.2	-15.58	257	107	V
7.462	44.56	PK1	35.7	-27.5	0	52.76	-	-	74	-21.24	-	-	309	107	V
7.462	39.47	AD1	35.7	-27.5	.23	47.90	54	-6.10	-	-	-	-	309	107	V
8.528	39.85	PK1	35.8	-25.9	0	49.75	-	-	-	-	68.2	-18.45	302	117	V

PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average

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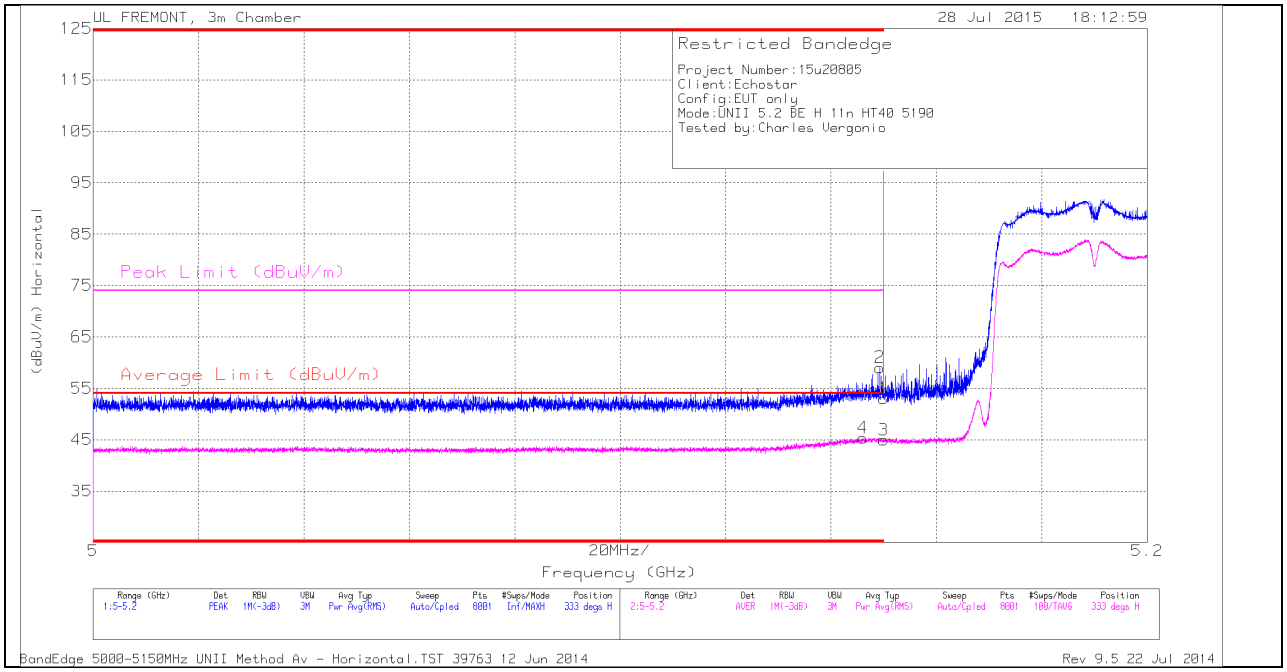
12.1.3. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.2 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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	* 5.146	31.43	RMS	34.2	-20.7	.49	45.42	54	-8.58	-	-	333	120	H
2	* 5.149	45.63	PK	34.2	-20.8	0	59.03	-	-	74	-14.97	333	120	H
1	* 5.15	39.63	PK	34.2	-20.8	0	53.03	-	-	74	-20.97	333	120	H
3	* 5.15	31.11	RMS	34.2	-20.8	.49	45.0	54	-9.0	-	-	333	120	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
PK - Peak detector
RMS - RMS detection

BandEdge 5000-5150MHz UNII Method Av - Horizontal.TST 39763 12 Jun 2014
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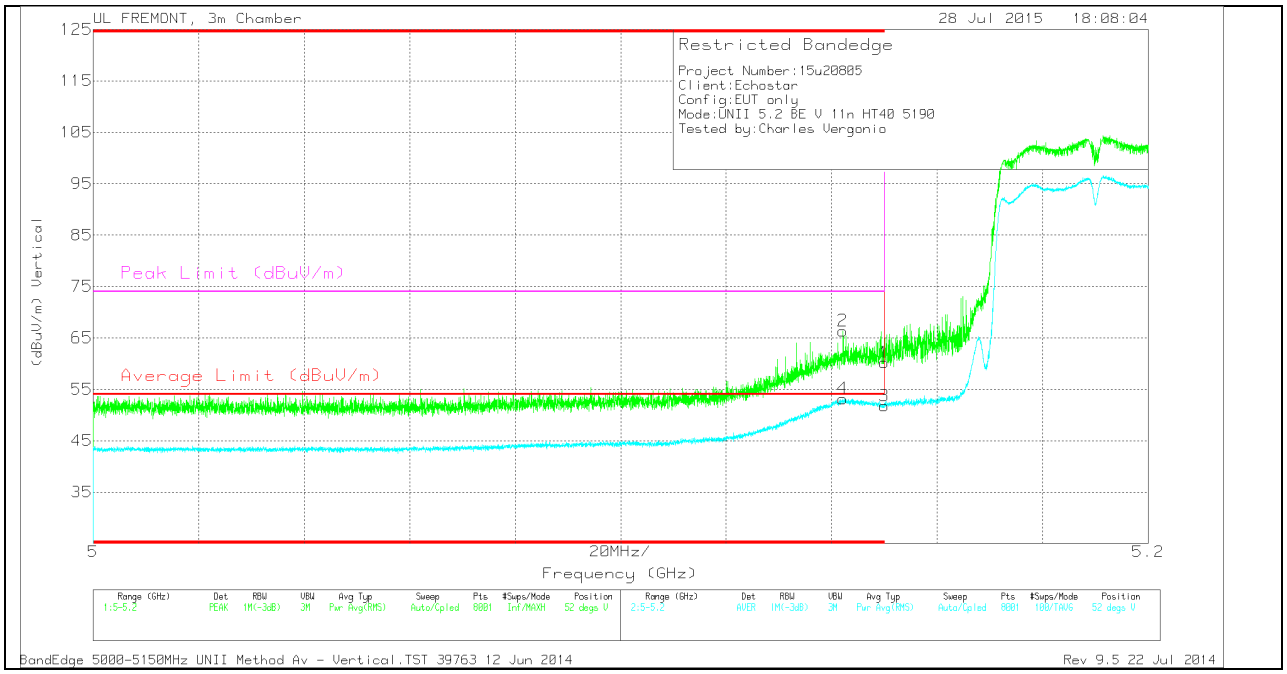
VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

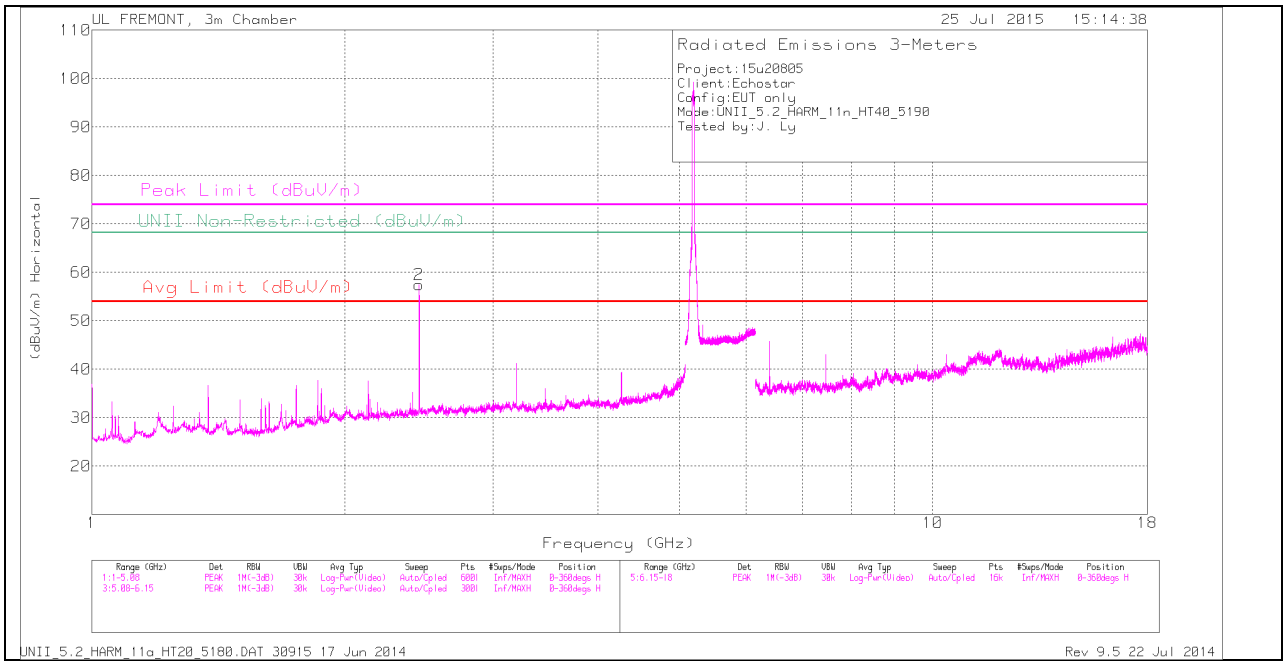
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 5.142	52.87	PK	34.2	-20.7	0	66.37	-	-	74	-7.63	52	123	V
4	* 5.142	39.29	RMS	34.2	-20.7	.49	53.28	54	-.72	-	-	52	123	V
1	* 5.15	46.82	PK	34.2	-20.8	0	60.22	-	-	74	-13.78	52	123	V
3	* 5.15	37.97	RMS	34.2	-20.8	.49	51.86	54	-2.14	-	-	52	123	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
PK - Peak detector
RMS - RMS detection

BandEdge 5000-5150MHz UNII Method Av - Vertical.TST 39763 12 Jun 2014
Rev 9.5 22 Jul 2014

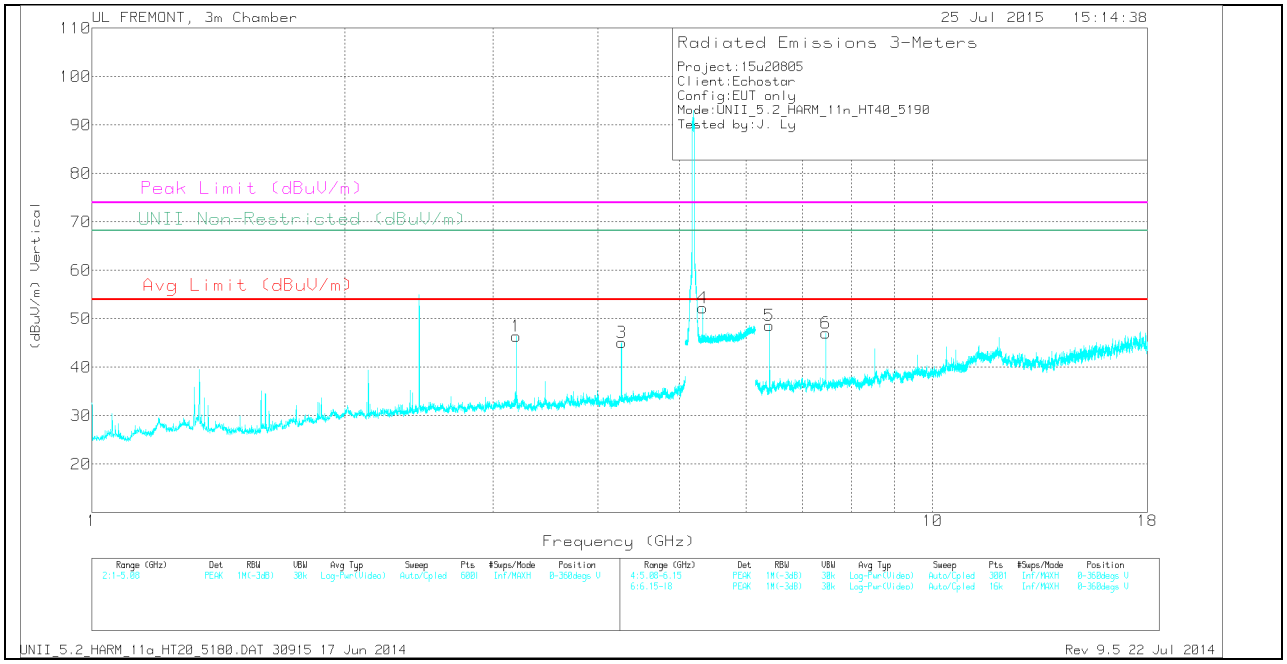
HARMONICS AND SPURIOUS EMISSIONS

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 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
2	2.45	57.12	PK	32.2	-31.9	0	57.42	-	-	-	-	68.2	-10.78	0-360	200	H
1	3.198	44.4	PK	32.6	-30.6	0	46.4	-	-	-	-	68.2	-21.8	0-360	200	V
3	4.264	41.76	PK	33.4	-30	0	45.16	-	-	74	-28.84	-	-	0-360	100	V
4	5.33	38.2	PK	34.5	-20.5	0	52.2	-	-	-	-	68.2	-16	0-360	100	V
5	6.396	41.81	PK	35.5	-28.7	0	48.61	-	-	-	-	68.2	-19.59	0-360	100	V
6	7.462	38.82	PK	35.7	-27.5	0	47.02	-	-	74	-26.98	-	-	0-360	100	V

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
2.451	60.08	PK1	32.2	-31.9	0	60.38	-	-	-	-	68.2	-7.82	222	185	H
3.198	48.96	PK1	32.6	-30.6	0	50.96	-	-	-	-	68.2	-17.24	257	187	V
4.264	45.61	PK1	33.4	-30	0	49.01	-	-	74	-24.99	-	-	139	100	V
4.264	40.86	AD1	33.4	-30	.49	44.75	54	-9.25	-	-	-	-	139	100	V
5.329	45.34	PK1	34.5	-20.5	0	59.34	-	-	-	-	68.2	-8.86	104	104	V
6.396	45.22	PK1	35.5	-28.8	0	51.92	-	-	-	-	68.2	-16.28	256	108	V
7.461	43.97	PK1	35.7	-27.5	0	52.17	-	-	74	-21.83	-	-	13	121	V
7.462	37.87	AD1	35.7	-27.5	.49	46.56	54	-7.44	-	-	-	-	13	121	V

PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average

UNII_5.2_HARM_11a_HT20_5180.DAT 30915 17 Jun 2014
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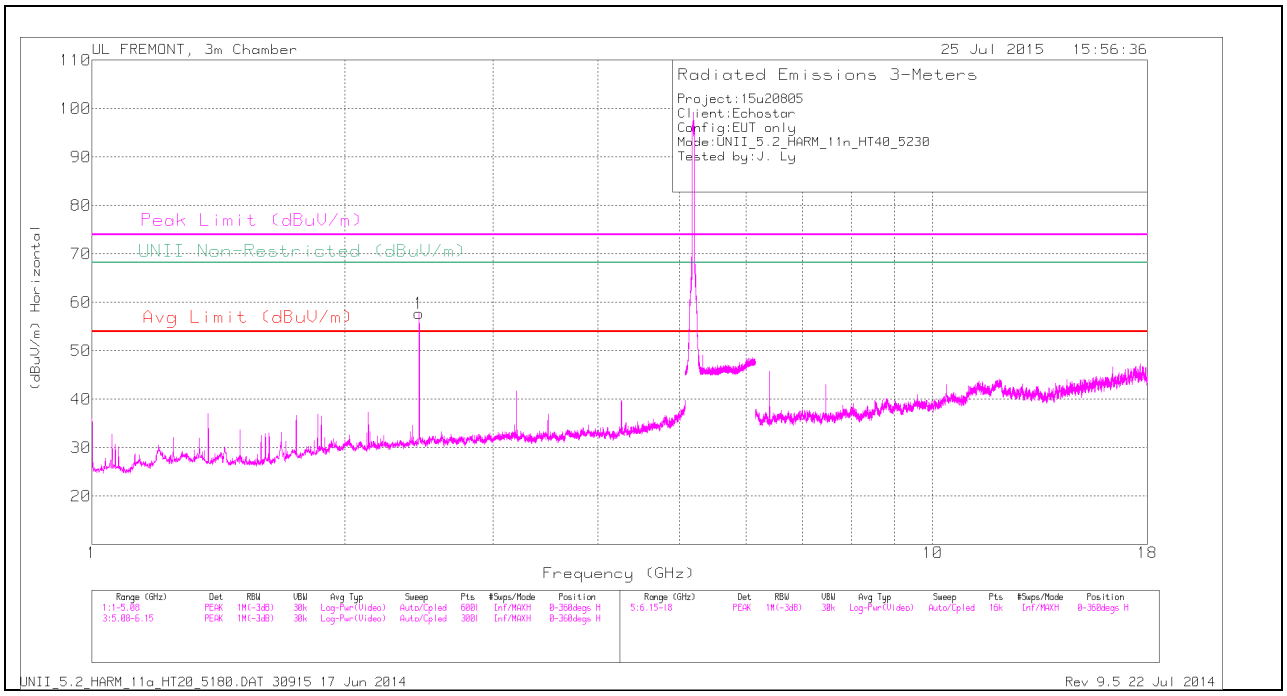
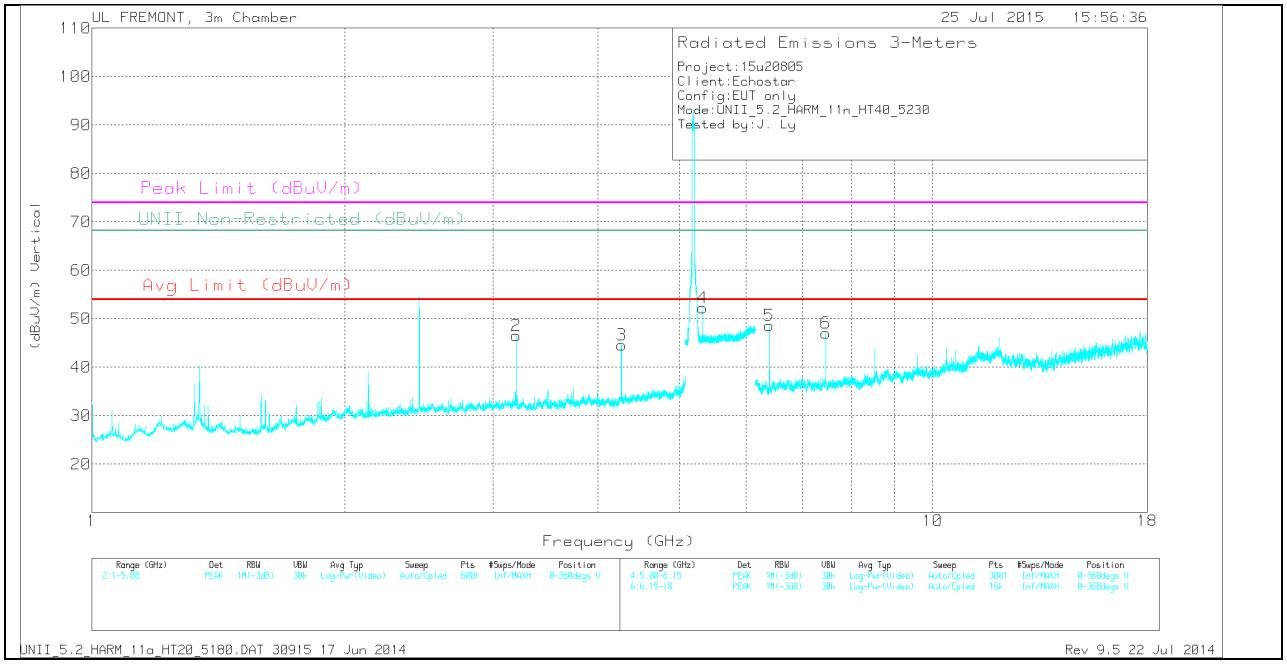
MID CHANNEL HORIZONTAL



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 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	2.45	57.39	PK	32.2	-31.9	0	57.69	-	-	-	-	68.2	-10.51	0-360	200	H
2	3.198	44.53	PK	32.6	-30.6	0	46.53	-	-	-	-	68.2	-21.67	0-360	200	V
3	4.264	41.22	PK	33.4	-30	0	44.62	-	-	74	-29.38	-	-	0-360	100	V
4	5.33	38.2	PK	34.5	-20.5	0	52.2	-	-	-	-	68.2	-16	0-360	100	V
5	6.396	41.81	PK	35.5	-28.7	0	48.61	-	-	-	-	68.2	-19.59	0-360	100	V
6	7.462	38.82	PK	35.7	-27.5	0	47.02	-	-	74	-26.98	-	-	0-360	100	V

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
2.451	59.52	PK1	32.2	-31.9	0	59.82	-	-	-	-	68.2	-8.38	220	331	H
3.198	48.48	PK1	32.6	-30.6	0	50.48	-	-	-	-	68.2	-17.72	257	140	V
4.264	46.56	PK1	33.4	-30	0	49.96	-	-	74	-24.04	-	-	313	108	V
4.264	42.05	AD1	33.4	-30	.49	45.94	54	-8.06	-	-	-	-	313	108	V
5.329	44.87	PK1	34.5	-20.5	0	58.87	-	-	-	-	68.2	-9.33	109	112	V
6.396	45.22	PK1	35.5	-28.8	0	51.92	-	-	-	-	68.2	-16.28	256	108	V
7.461	43.96	PK1	35.7	-27.5	0	52.16	-	-	74	-21.84	-	-	12	133	V
7.462	38.78	AD1	35.7	-27.5	.49	47.47	54	-6.53	-	-	-	-	12	133	V

PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average

UNII_5.2_HARM_11a_HT20_5180.DAT 30915 17 Jun 2014
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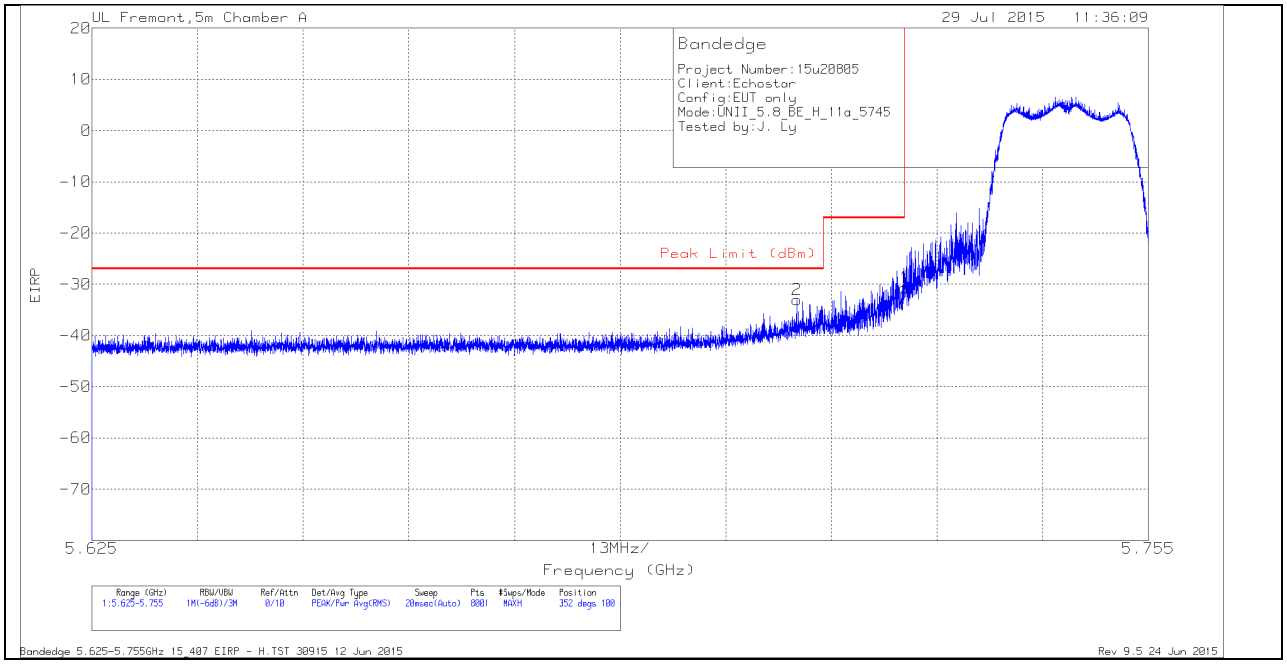
12.2. 5.8 GHz

12.2.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.8 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



CH 149 HORIZONTAL DATA

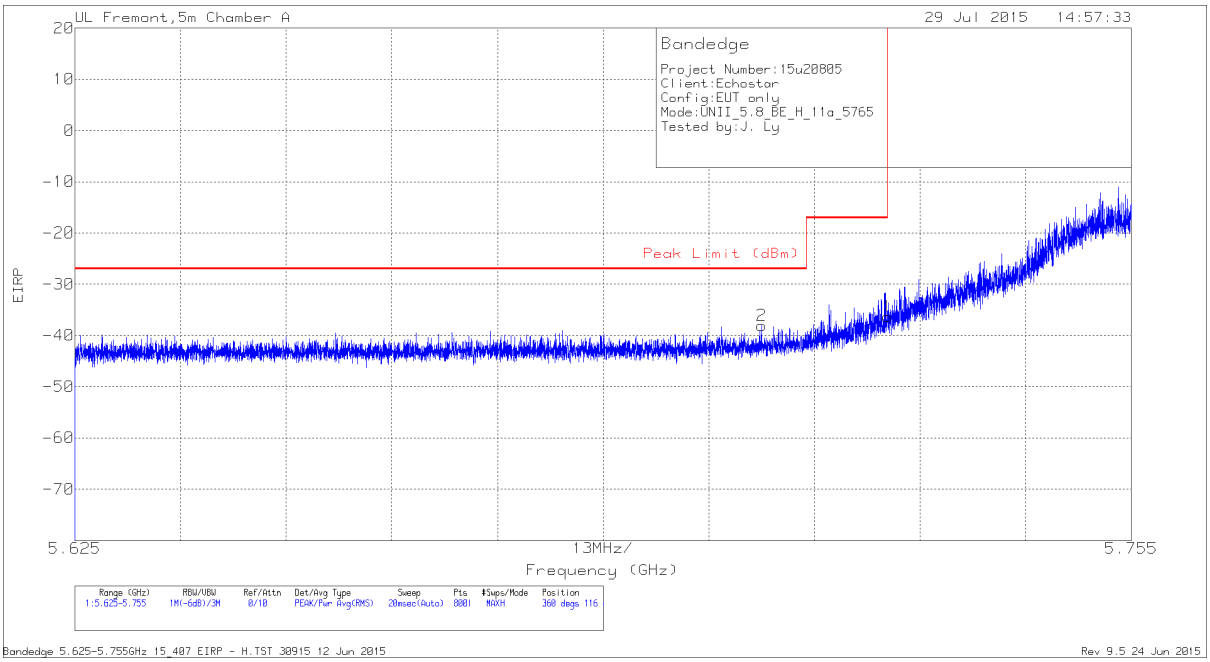
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.712	-59.6	Pk	34.7	-19.9	11.8	-33	-27	-6	352	100	H
1	5.725	-57.37	Pk	34.7	-19.8	11.8	-30.67	-17	-13.67	352	100	H

Pk - Peak detector

Bandedge 5.625-5.755GHz 15_407 EIRP - H.TST 30915 12 Jun 2015

Rev 9.5 24 Jun 2015



CH 153 HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.71	-64.72	Pk	34.7	-19.8	11.8	-38.02	-27	-11.02	360	116	H
1	5.725	-63.03	Pk	34.7	-19.8	11.8	-36.33	-17	-19.33	360	116	H

Pk - Peak detector

Bandedge 5.625-5.755GHz 15_407 EIRP - H.TST 30915 12 Jun 2015

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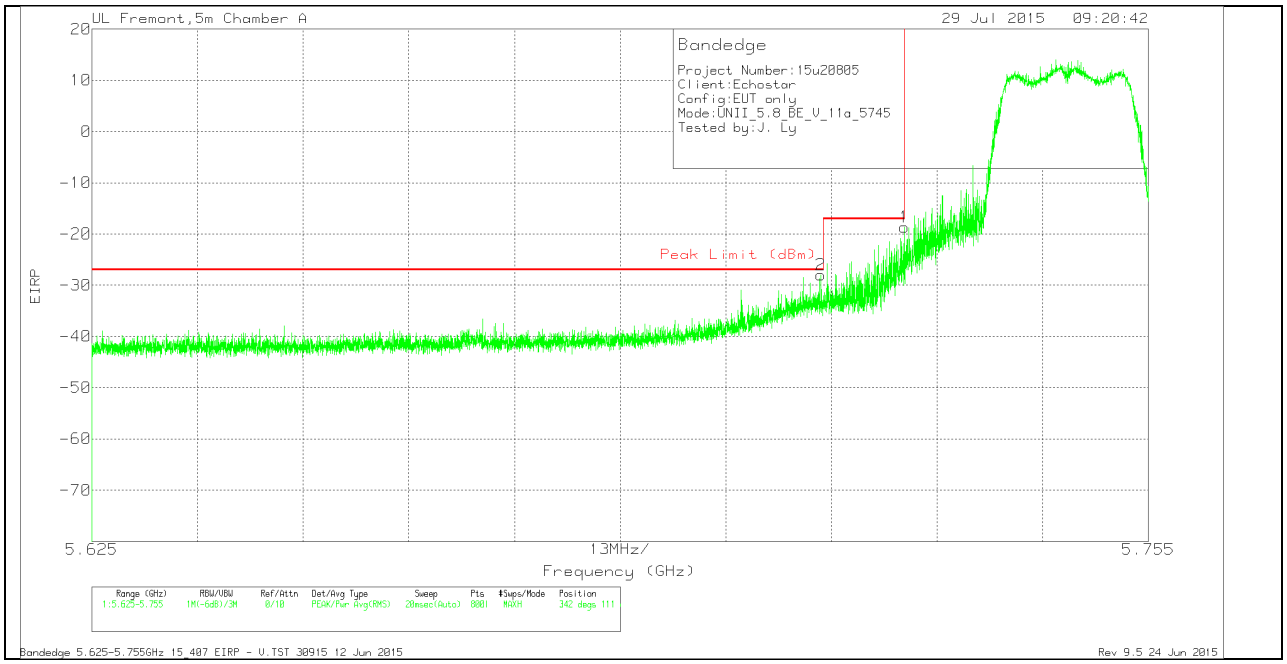
VERTICAL PEAK AND AVERAGE PLOT



CH 149 VERTICAL DATA

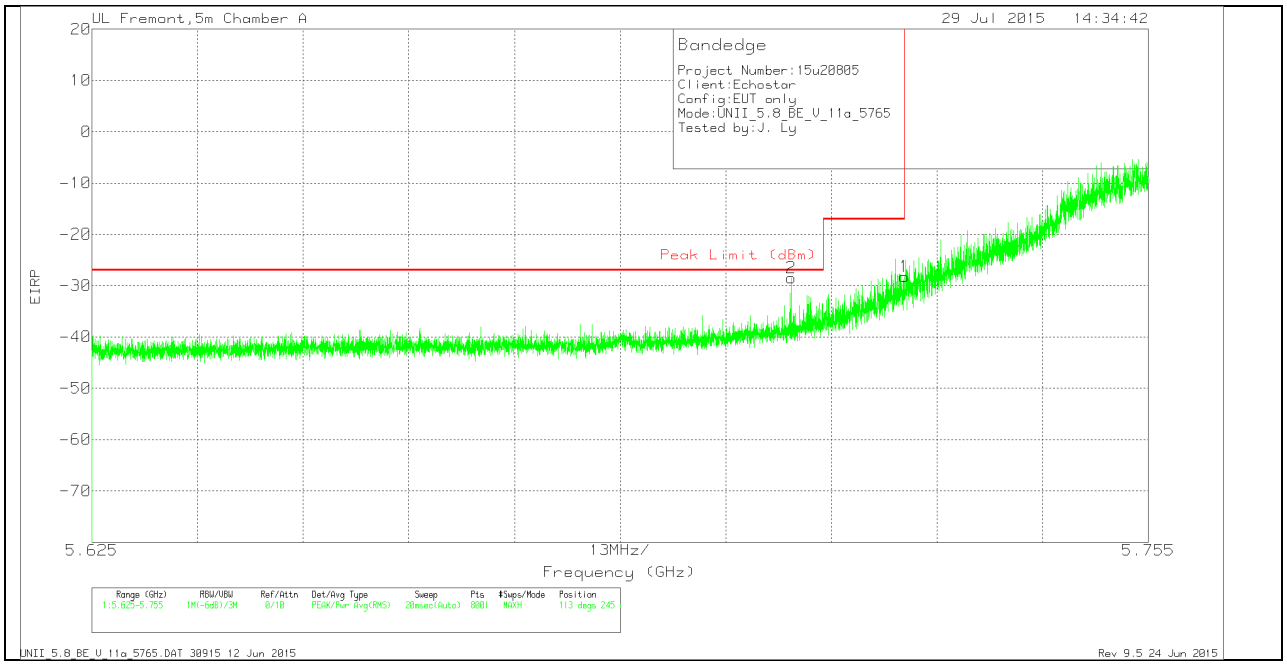
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.715	-54.66	Pk	34.7	-19.8	11.8	-27.96	-27	-.96	342	111	V
1	5.725	-45.31	Pk	34.7	-19.8	11.8	-18.61	-17	-1.61	342	111	V

Pk - Peak detector

Bandedge 5.625-5.755GHz 15_407 EIRP - V.TST 30915 12 Jun 2015

Rev 9.5 24 Jun 2015



CH 153 VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.711	-55.05	Pk	34.7	-19.9	11.8	-28.45	-27	-1.45	113	245	V
1	5.725	-54.96	Pk	34.7	-19.8	11.8	-28.26	-17	-11.26	113	245	V

Pk - Peak detector

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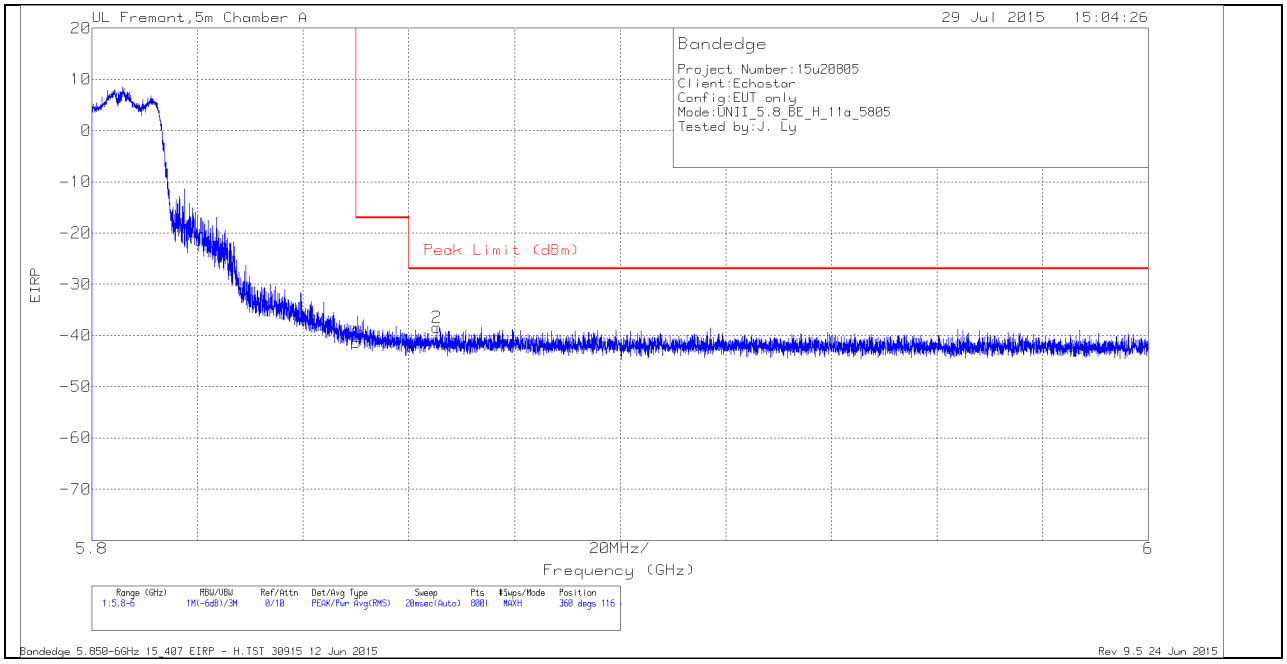
AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



CH 161 HORIZONTAL DATA

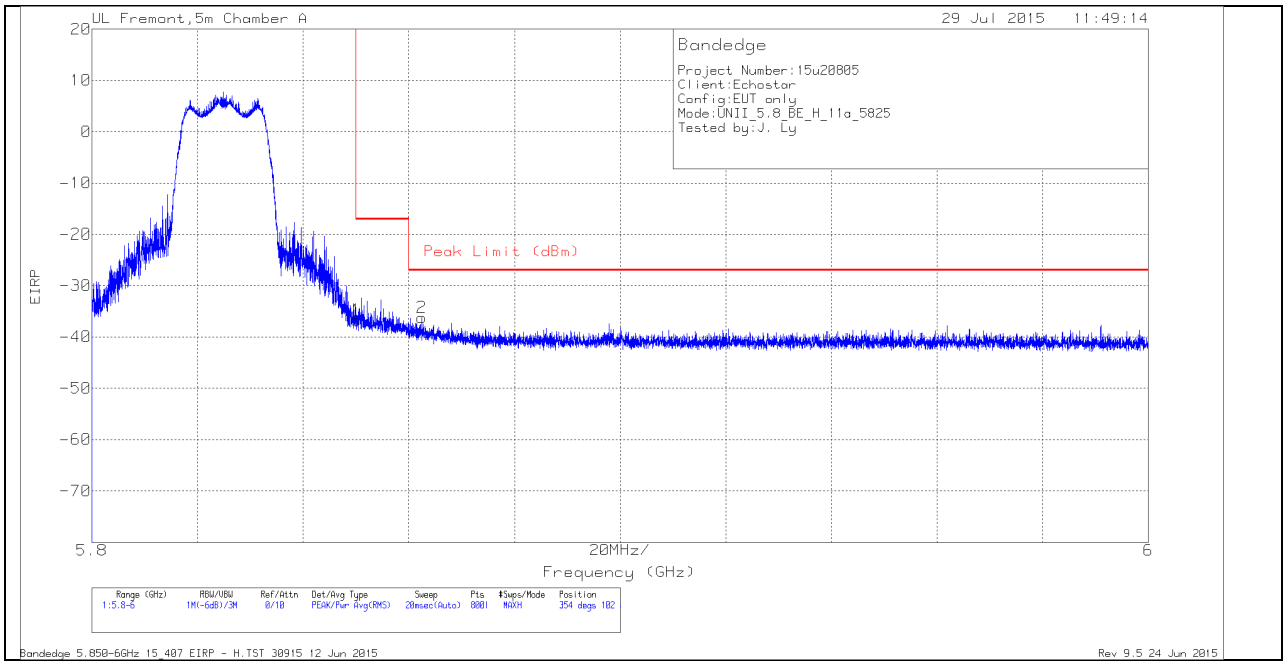
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-68.95	Pk	35.1	-19.3	11.8	-41.35	-17	-24.35	360	116	H
2	5.865	-66.02	Pk	35.1	-19.3	11.8	-38.42	-27	-11.42	360	116	H

Pk - Peak detector

Bandedge 5.850-6GHz 15_407 EIRP - H.TST 30915 12 Jun 2015

Rev 9.5 24 Jun 2015



CH 165 HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-64.27	Pk	35.1	-19.3	11.8	-36.67	-17	-19.67	354	102	H
2	5.862	-63.76	Pk	35.1	-19.3	11.8	-36.16	-27	-9.16	354	102	H

Pk - Peak detector

Bandedge 5.850-6GHz 15_407 EIRP - H.TST 30915 12 Jun 2015

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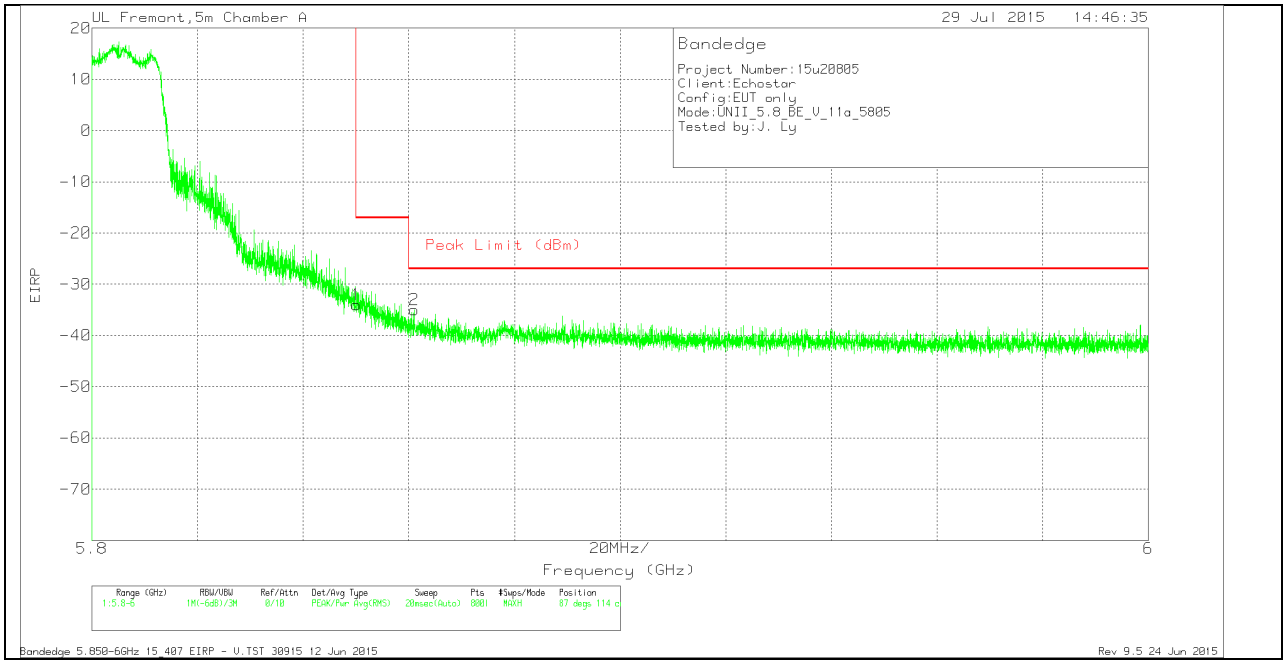
VERTICAL PEAK AND AVERAGE PLOT



CH 161 VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-61.62	Pk	35.1	-19.3	11.8	-34.02	-17	-17.02	87	114	V
2	5.861	-62.53	Pk	35.1	-19.4	11.8	-35.03	-27	-8.03	87	114	V

Pk - Peak detector

Bandedge 5.850-6GHz 15_407 EIRP - V.TST 30915 12 Jun 2015

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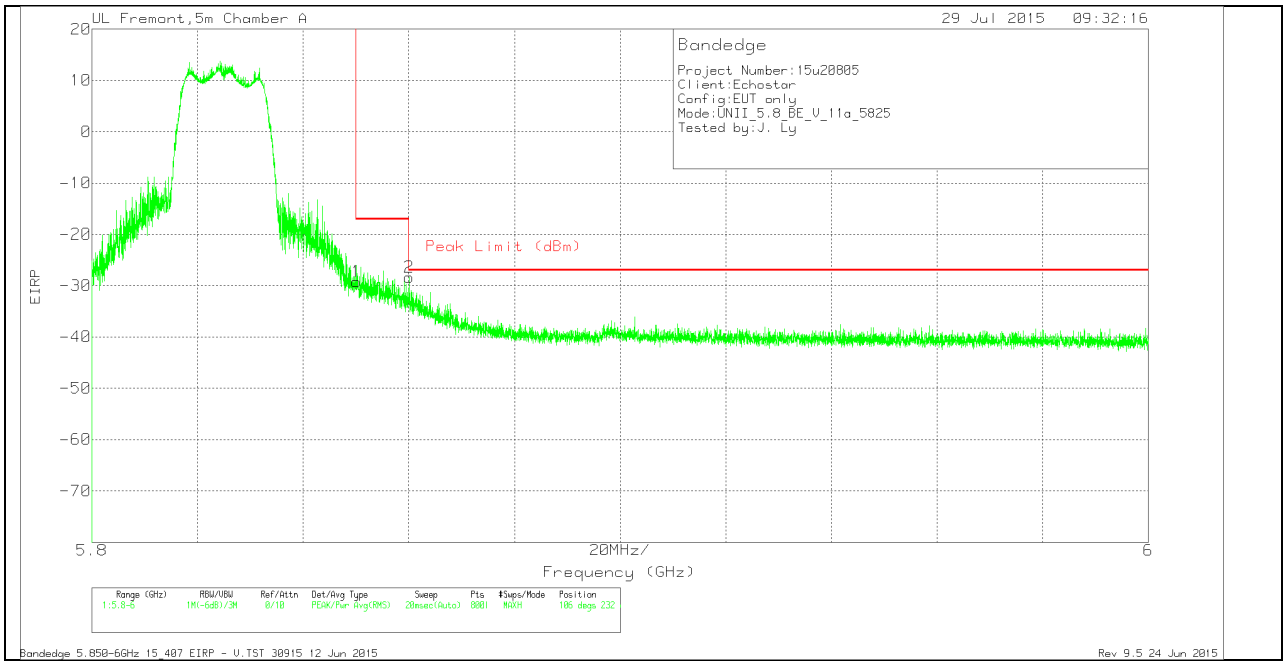

CH 165 VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-56.84	Pk	35.1	-19.3	11.8	-29.24	-17	-12.24	106	232	V
2	5.86	-55.91	Pk	35.1	-19.4	11.8	-28.41	-27	-1.41	106	232	V

Pk - Peak detector

Bandedge 5.850-6GHz 15_407 EIRP - V.TST 30915 12 Jun 2015

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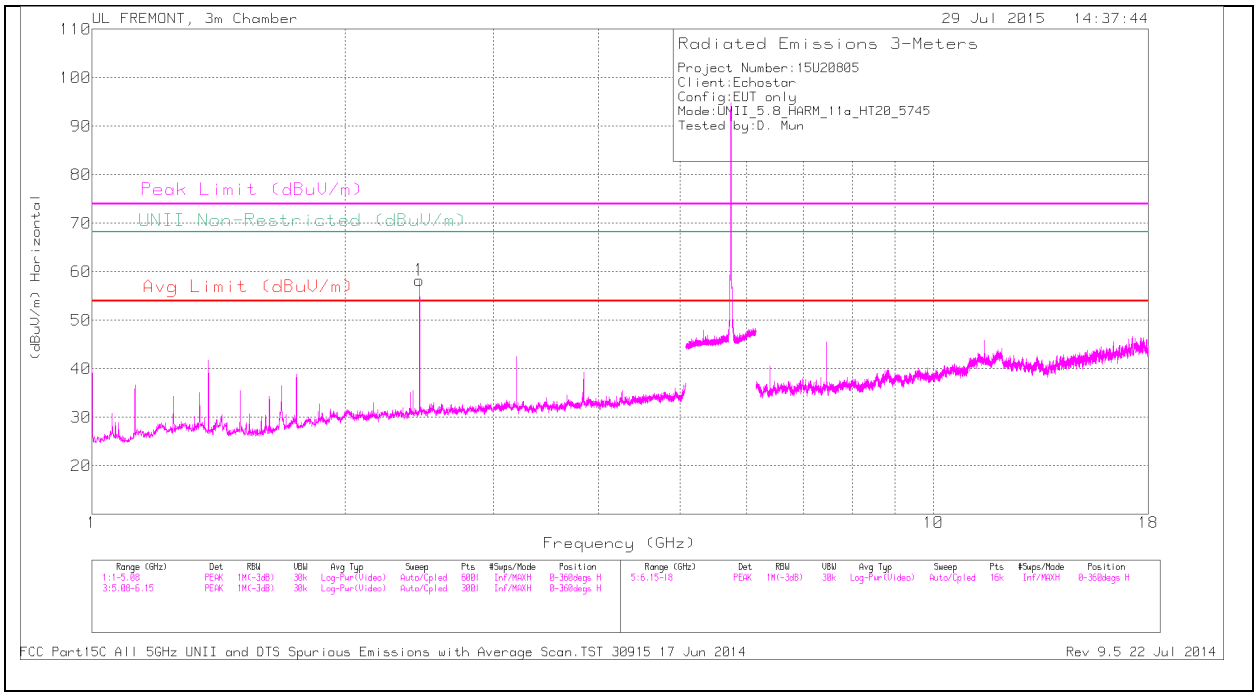
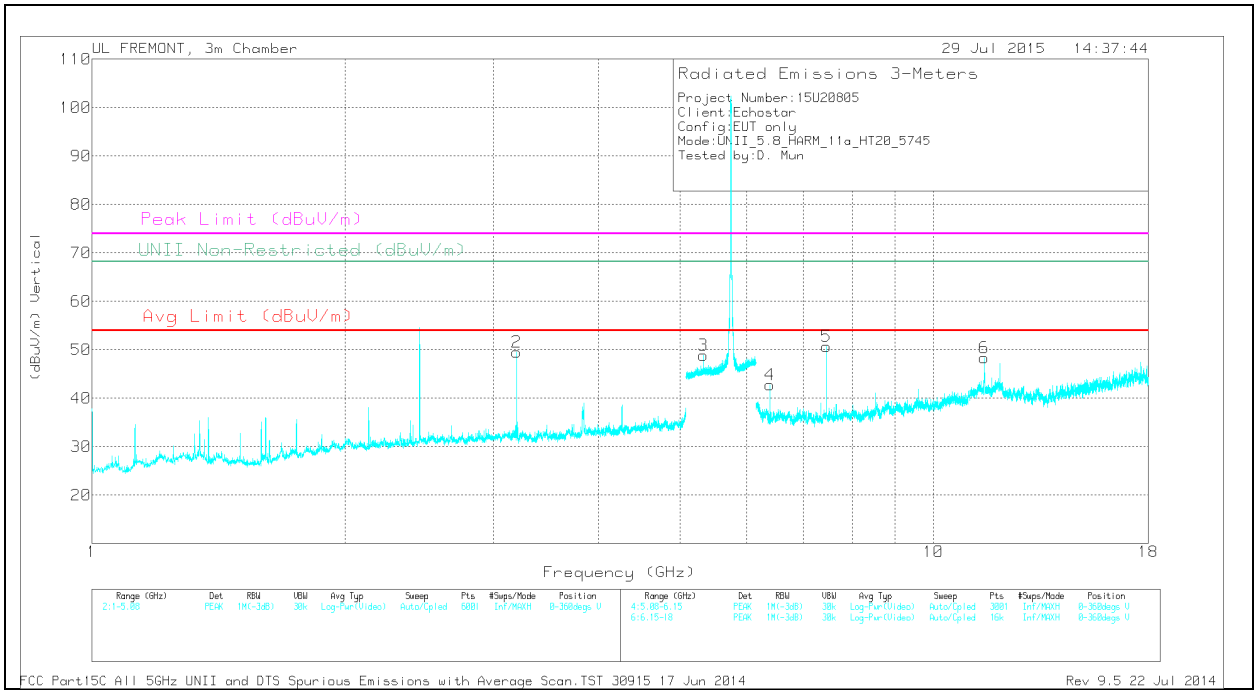
HARMONICS AND SPURIOUS EMISSIONS

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 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	2.45	57.99	PK	32.2	-31.9	0	58.29	-	-	-	-	68.2	-9.91	0-360	100	H
2	3.198	47.48	PK	32.6	-30.6	0	49.48	-	-	-	-	68.2	-18.72	0-360	100	V
3	5.33	34.9	PK	34.5	-20.5	0	48.9	-	-	-	-	68.2	-19.3	0-360	200	V
4	6.396	35.95	PK	35.5	-28.7	0	42.75	-	-	-	-	68.2	-25.45	0-360	100	V
5	7.462	42.5	PK	35.7	-27.5	0	50.7	-	-	74	-23.3	-	-	0-360	100	V
6	11.49	33.06	PK	38.4	-23.1	0	48.36	-	-	74	-25.64	-	-	0-360	100	V

PK - Peak detector

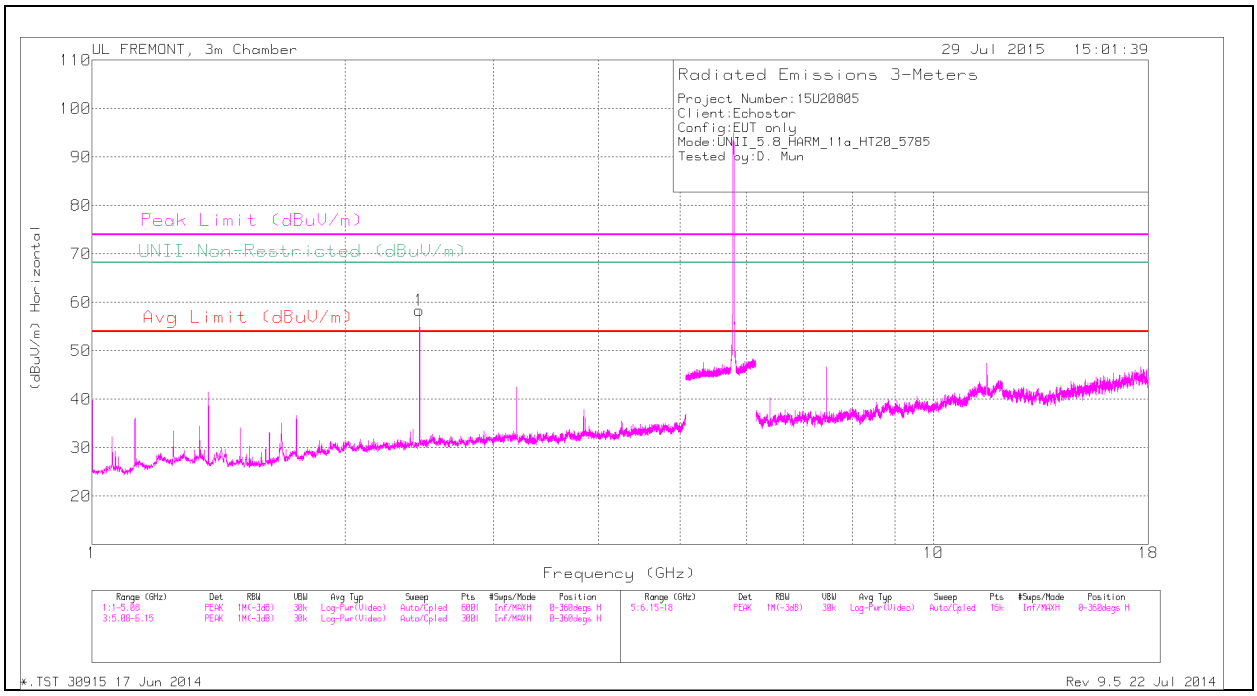
Radiated Emissions

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
2.45	59	PK1	32.2	-31.9	0	59.3	-	-	-	-	68.2	-8.9	231	158	H
3.198	43.89	PK1	32.6	-30.6	0	45.89	-	-	-	-	68.2	-22.31	231	100	V
5.328	42.64	PK1	34.5	-20.5	0	56.64	-	-	-	-	68.2	-11.56	231	200	V
6.396	40.22	PK1	35.5	-28.8	0	46.92	-	-	-	-	68.2	-21.28	231	100	V
7.461	41.01	PK1	35.7	-27.5	0	49.21	-	-	74	-24.79	-	-	231	100	V
7.462	32.42	AD1	35.7	-27.5	.22	40.84	54	-13.16	-	-	-	-	231	100	V
11.488	36.93	PK1	38.4	-23.2	0	52.13	-	-	74	-21.87	-	-	231	100	V
11.491	25.19	AD1	38.4	-23.1	.22	40.71	54	-13.29	-	-	-	-	231	100	V

PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average

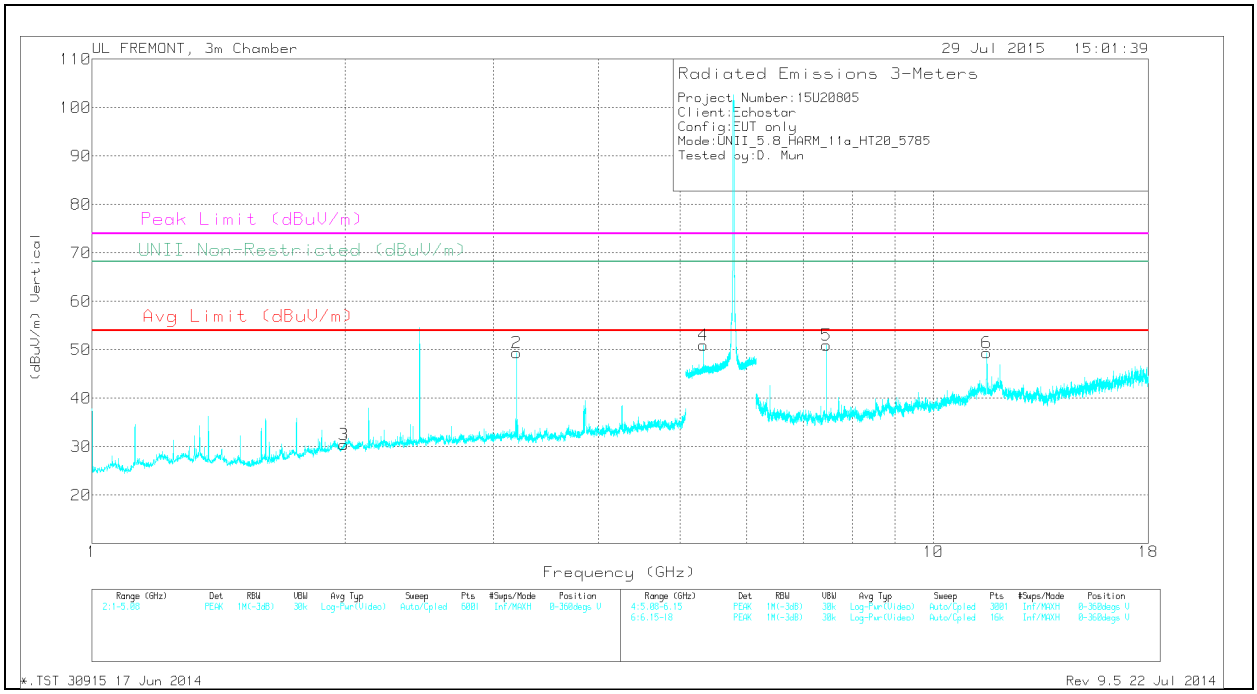
FCC Part15C All 5GHz UNII and DTS Spurious Emissions with Average Scan.TST 30915 17 Jun 2014
Rev 9.5 22 Jul 2014

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 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
3	1.991	30.36	PK	31.5	-31.4	0	30.46	-	-	-	-	68.2	-37.74	0-360	100	V
1	2.45	58.01	PK	32.2	-31.9	0	58.31	-	-	-	-	68.2	-9.89	0-360	100	H
2	3.198	47.42	PK	32.6	-30.6	0	49.42	-	-	-	-	68.2	-18.78	0-360	100	V
4	5.33	37.01	PK	34.5	-20.5	0	51.01	-	-	-	-	68.2	-17.19	0-360	100	V
5	7.462	42.7	PK	35.7	-27.5	0	50.9	-	-	74	-23.1	-	-	0-360	100	V
6	11.57	33.54	PK	38.6	-22.7	0	49.44	-	-	74	-24.56	-	-	0-360	100	V

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
1.992	40.66	PK1	31.5	-31.4	0	40.76	-	-	-	-	68.2	-27.44	360	100	V
2.45	48.18	PK1	32.2	-31.9	0	48.48	-	-	-	-	68.2	-19.72	360	100	H
3.198	40.53	PK1	32.6	-30.6	0	42.53	-	-	-	-	68.2	-25.67	360	100	V
5.33	43.35	PK1	34.5	-20.5	0	57.35	-	-	-	-	68.2	-10.85	360	100	V
7.462	42.56	PK1	35.7	-27.5	0	50.76	-	-	74	-23.24	-	-	360	100	V
7.462	35.29	AD1	35.7	-27.5	.22	43.71	54	-10.29	-	-	-	-	360	100	V
11.569	48.19	PK1	38.6	-22.7	0	64.09	-	-	74	-9.91	-	-	360	100	V
11.569	32.58	AD1	38.6	-22.7	.22	48.70	54	-5.3	-	-	-	-	360	100	V

PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average

*.TST 30915 17 Jun 2014
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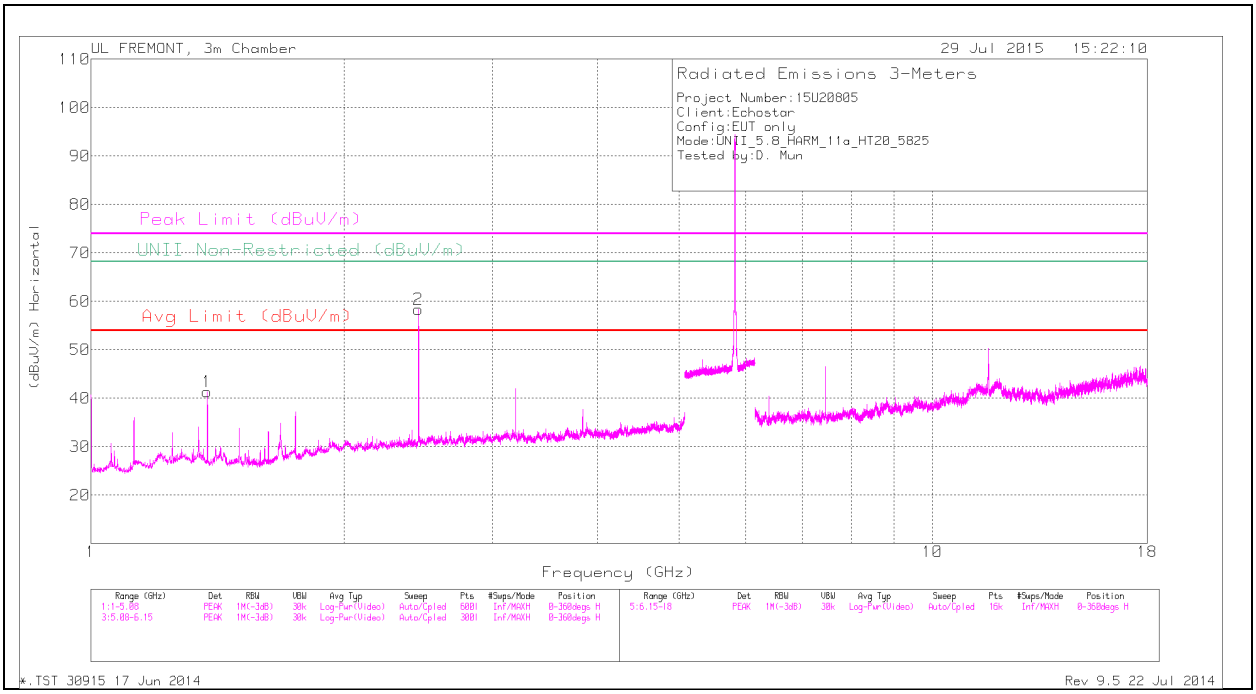
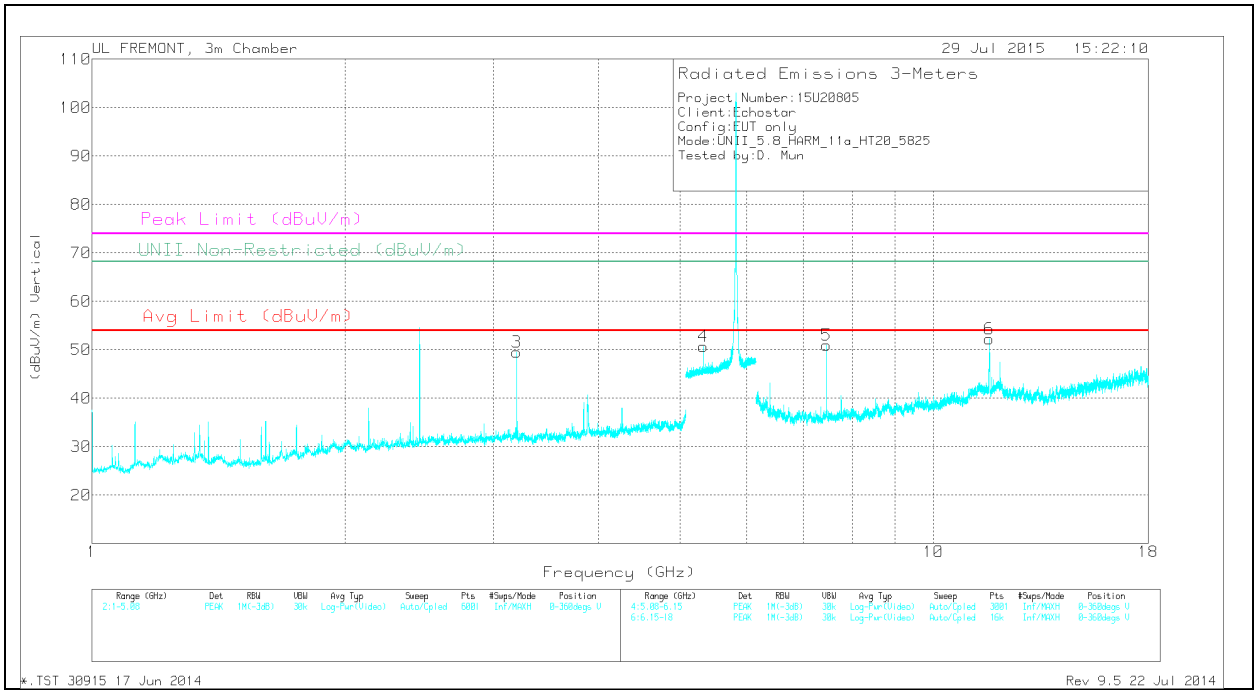
HIGH CHANNEL HORIZONTAL



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 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	1.375	44.97	PK	28.9	-32.5	0	41.37	-	-	74	-32.63	-	-	0-360	100	H
2	2.45	58.04	PK	32.2	-31.9	0	58.34	-	-	-	-	68.2	-9.86	0-360	100	H
3	3.198	47.49	PK	32.6	-30.6	0	49.49	-	-	-	-	68.2	-18.71	0-360	100	V
4	5.33	36.71	PK	34.5	-20.5	0	50.71	-	-	-	-	68.2	-17.49	0-360	100	V
5	7.462	42.71	PK	35.7	-27.5	0	50.91	-	-	74	-23.09	-	-	0-360	100	V
6	11.65	36.96	PK	38.7	-23.4	0	52.26	-	-	74	-21.74	-	-	0-360	100	V

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
1.375	49.36	PK1	28.9	-32.5	0	45.76	-	-	74	-28.24	-	-	145	147	H
1.375	45.68	AD1	28.9	-32.5	.22	42.30	54	-11.7	-	-	-	-	145	147	H
2.45	50.07	PK1	32.2	-31.9	0	50.37	-	-	-	-	68.2	-17.83	145	100	H
3.198	41.77	PK1	32.6	-30.6	0	43.77	-	-	-	-	68.2	-24.43	145	100	V
5.33	42.37	PK1	34.5	-20.5	0	56.37	-	-	-	-	68.2	-11.83	145	100	V
7.461	42.71	PK1	35.7	-27.5	0	50.91	-	-	74	-23.09	-	-	145	100	V
7.462	36.38	AD1	35.7	-27.5	.22	44.80	54	-9.2	-	-	-	-	145	100	V
11.65	43.58	PK1	38.7	-23.4	0	58.88	-	-	74	-15.12	-	-	145	100	V
11.651	28.09	AD1	38.7	-23.4	.22	43.61	54	-10.39	-	-	-	-	145	100	V

PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average

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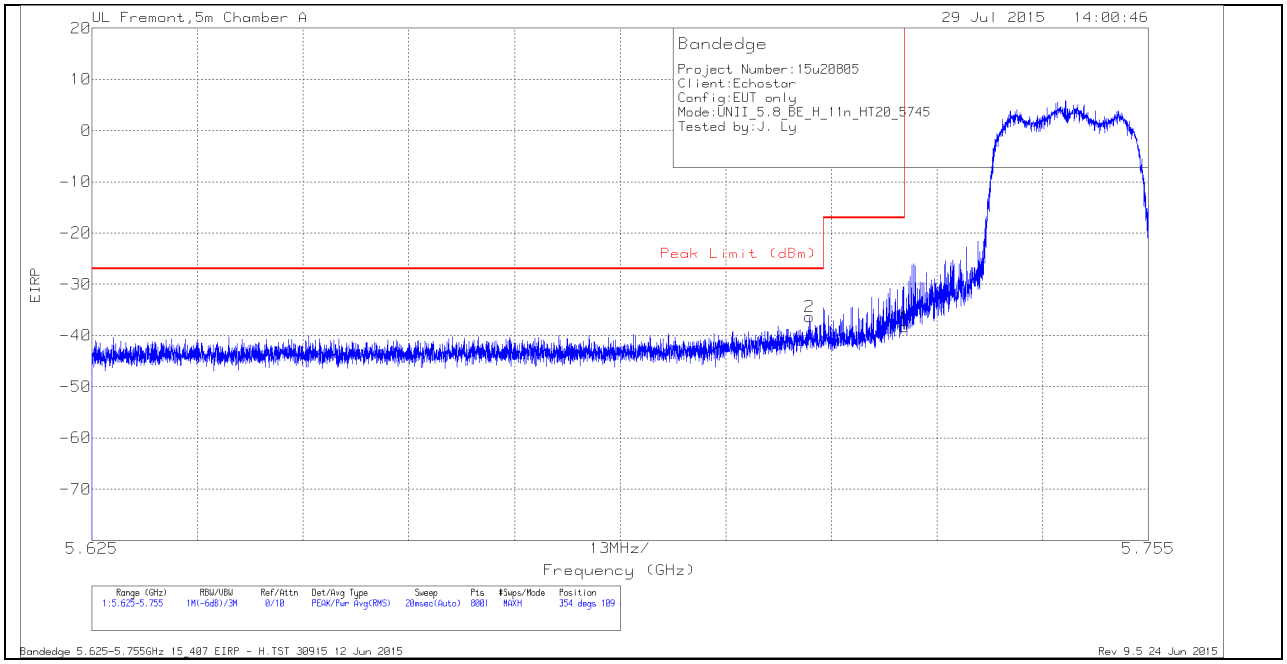
12.2.2. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.8 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



CH 149 HORIZONTAL DATA

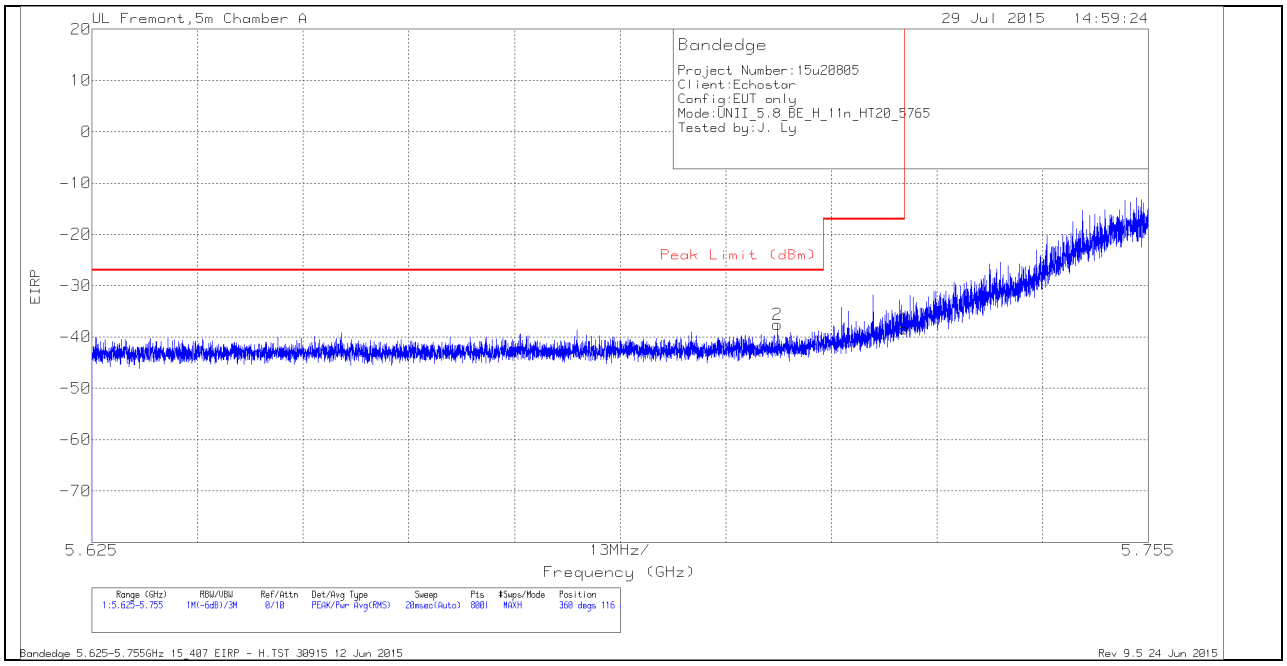
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.713	-62.91	Pk	34.7	-19.9	11.8	-36.31	-27	-9.31	354	109	H
1	5.725	-65.04	Pk	34.7	-19.8	11.8	-38.34	-17	-21.34	354	109	H

Pk - Peak detector

Bandedge 5.625-5.755GHz 15_407 EIRP - H.TST 30915 12 Jun 2015

Rev 9.5 24 Jun 2015



CH 153 HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.709	-64.23	Pk	34.7	-19.8	11.8	-37.53	-27	-10.53	360	116	H
1	5.725	-65.15	Pk	34.7	-19.8	11.8	-38.45	-17	-21.45	360	116	H

Pk - Peak detector

Bandedge 5.625-5.755GHz 15_407 EIRP - H.TST 30915 12 Jun 2015

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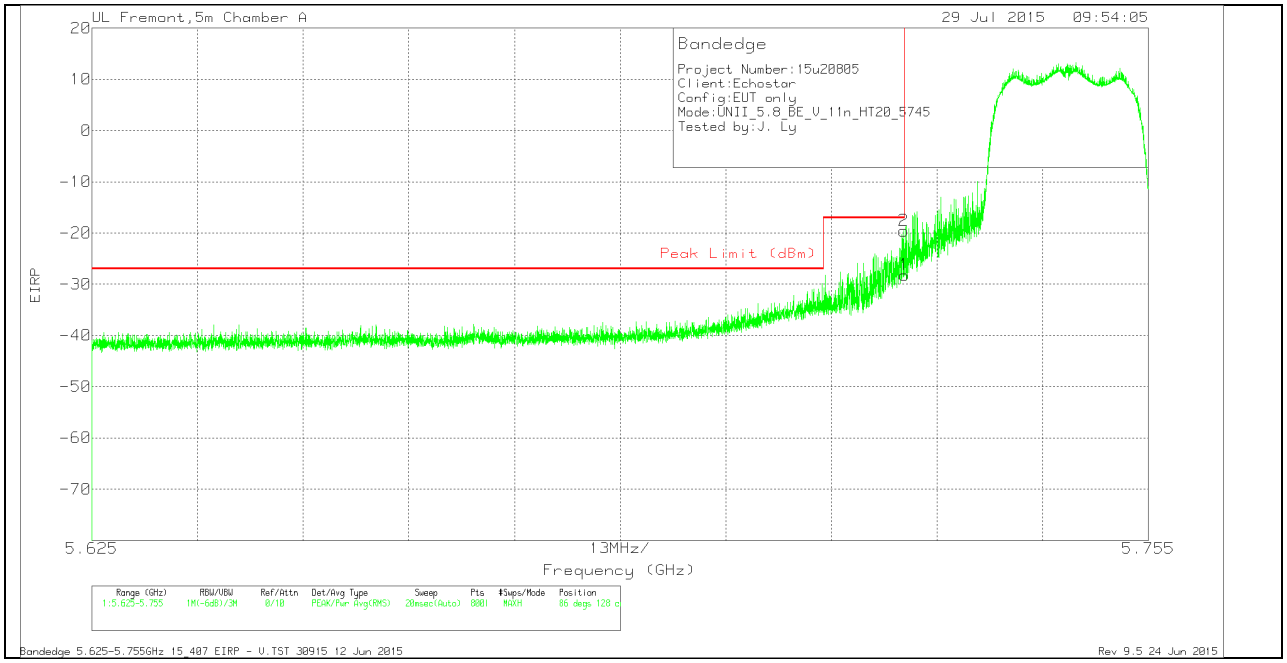
VERTICAL PEAK AND AVERAGE PLOT



CH 149 VERTICAL DATA

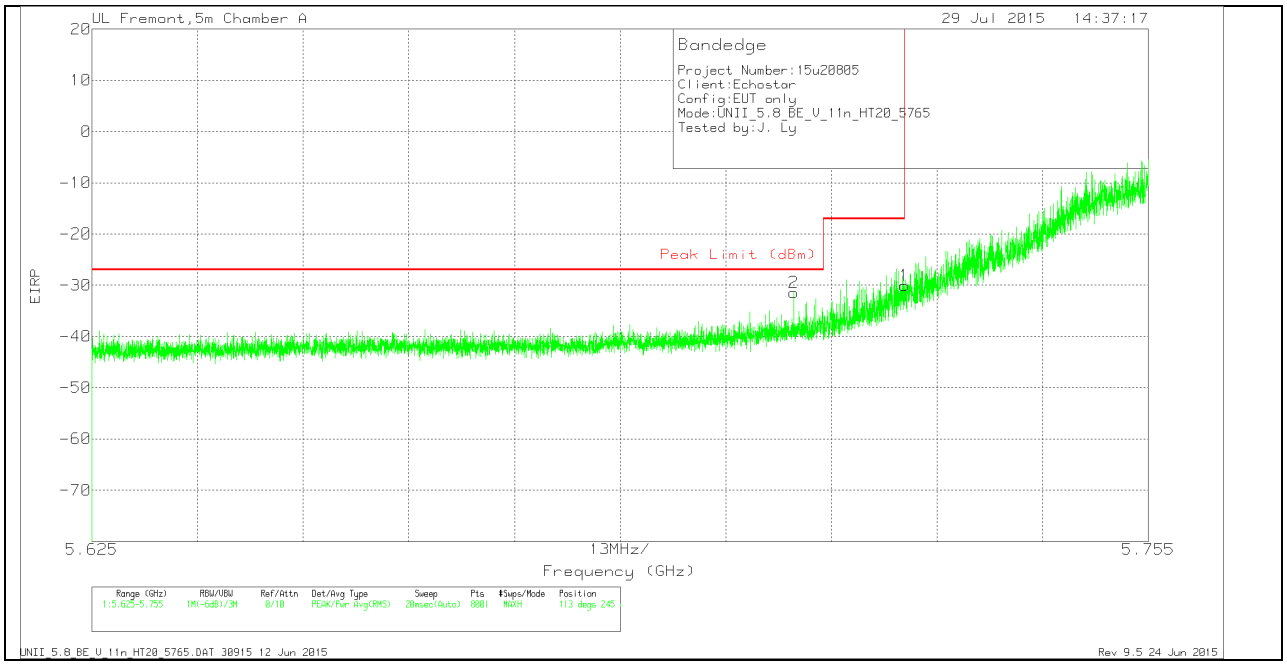
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	-54.87	Pk	34.7	-19.8	11.8	-28.17	-17	-11.17	86	128	V
2	5.725	-46.27	Pk	34.7	-19.8	11.8	-19.57	-17	-2.57	86	128	V

Pk - Peak detector

Bandedge 5.625-5.755GHz 15_407 EIRP - V.TST 30915 12 Jun 2015

Rev 9.5 24 Jun 2015



CH 153 VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.711	-58.01	Pk	34.7	-19.9	11.8	-31.41	-27	-4.41	113	245	V
1	5.725	-56.72	Pk	34.7	-19.8	11.8	-30.02	-17	-13.02	113	245	V

Pk - Peak detector

UNII_5.8_BE_V_11n_HT20_5765.DAT 30915 12 Jun 2015

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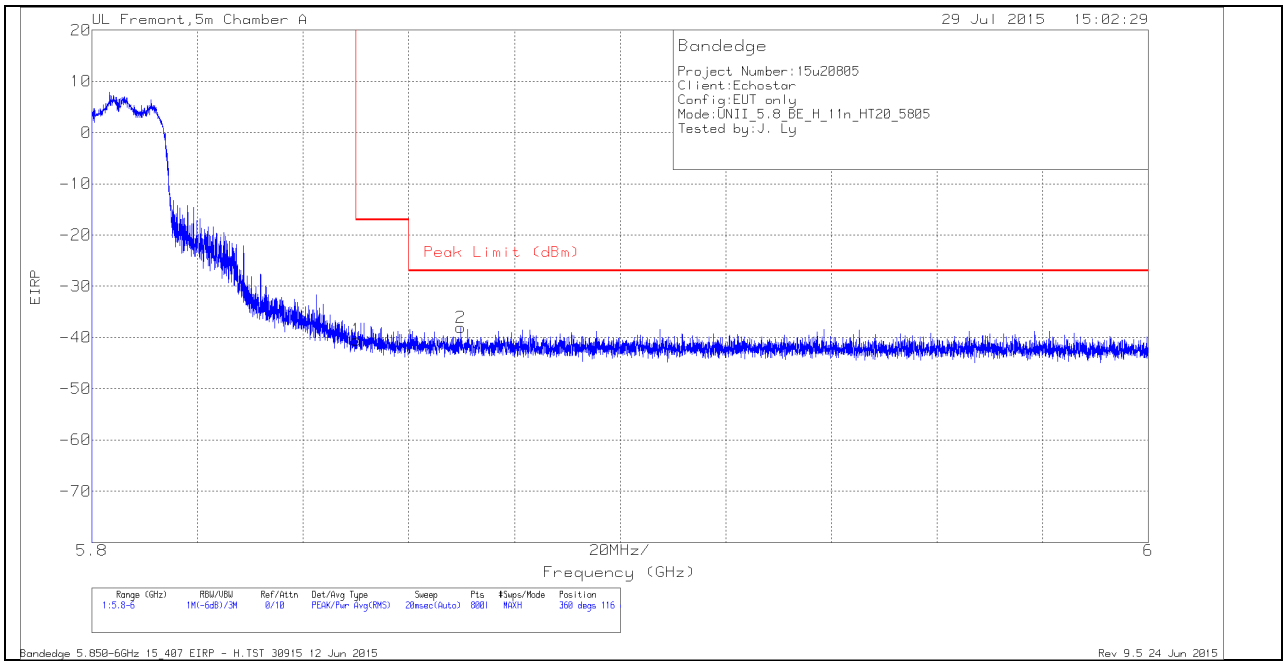
AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



CH 161 HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-68.05	Pk	35.1	-19.3	11.8	-40.45	-17	-23.45	360	116	H
2	5.87	-65.61	Pk	35.1	-19.3	11.8	-38.01	-27	-11.01	360	116	H

Pk - Peak detector

Bandedge 5.850-6GHz 15_407 EIRP - H.TST 30915 12 Jun 2015

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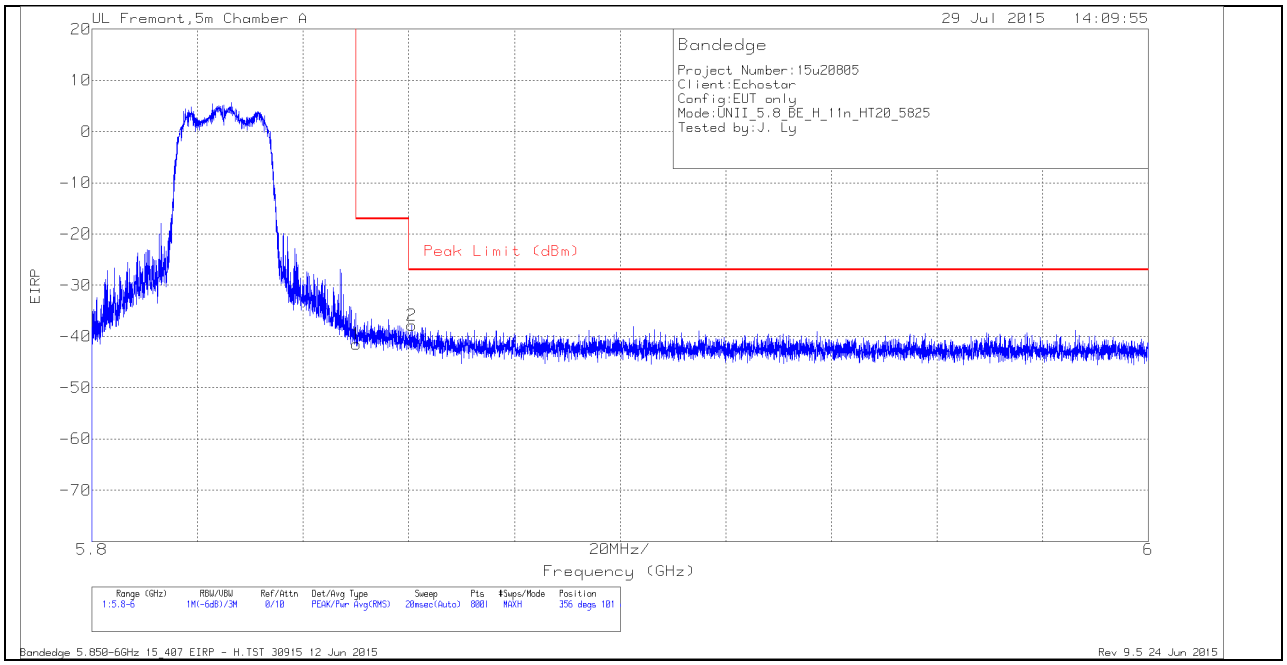

CH 165 HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-69.11	Pk	35.1	-19.3	11.8	-41.51	-17	-24.51	356	101	H
2	5.861	-65.33	Pk	35.1	-19.4	11.8	-37.83	-27	-10.83	356	101	H

Pk - Peak detector

Bandedge 5.850-6GHz 15_407 EIRP - H.TST 30915 12 Jun 2015

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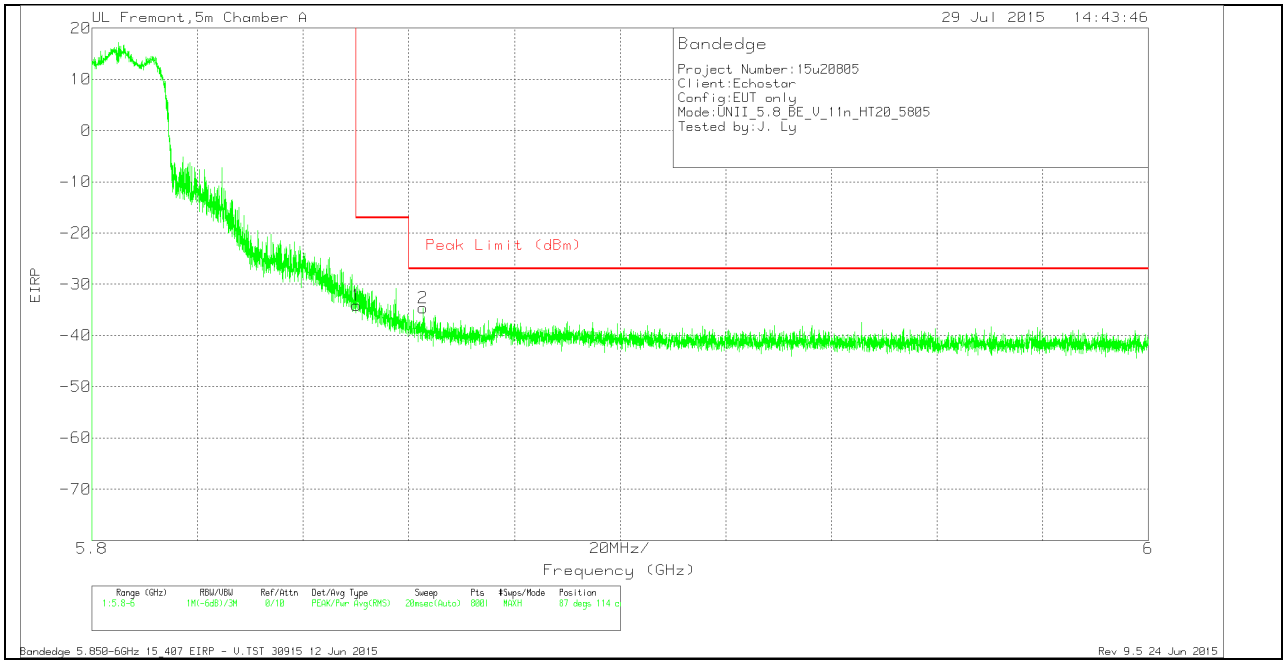
VERTICAL PEAK AND AVERAGE PLOT



CH 161 VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-61.75	Pk	35.1	-19.3	11.8	-34.15	-17	-17.15	87	114	V
2	5.863	-62.23	Pk	35.1	-19.3	11.8	-34.63	-27	-7.63	87	114	V

Pk - Peak detector

Bandedge 5.850-6GHz 15_407 EIRP - V.TST 30915 12 Jun 2015

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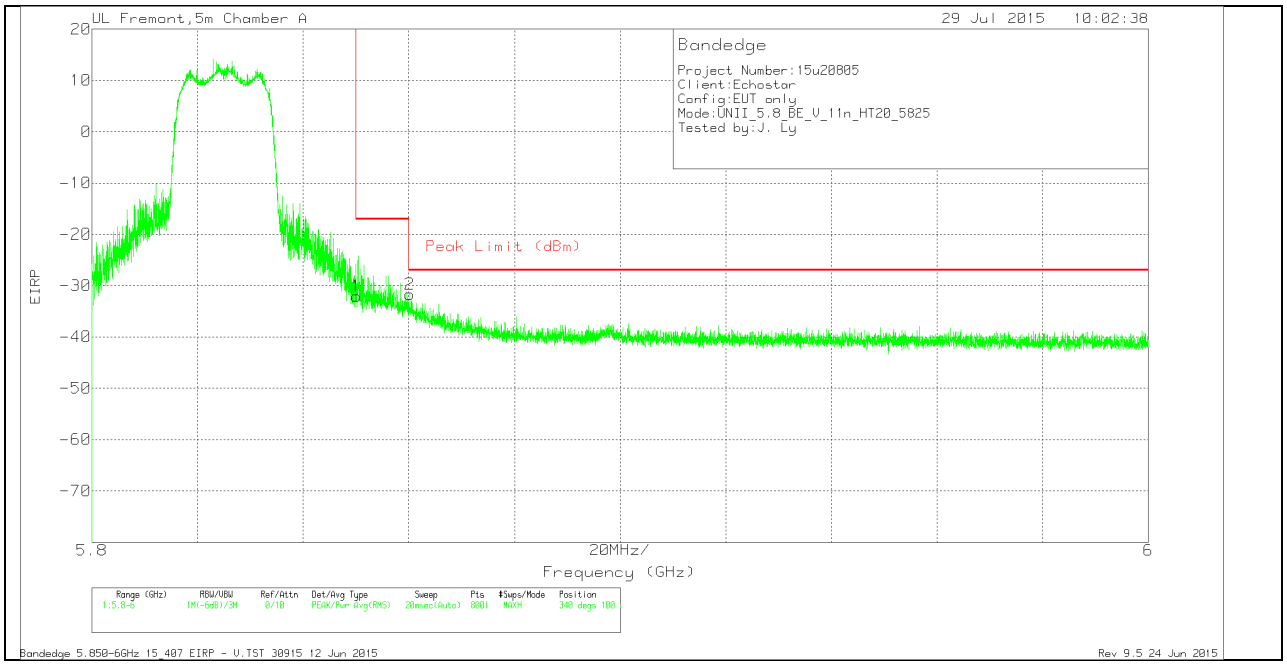


CH 165 VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-59.68	Pk	35.1	-19.3	11.8	-32.08	-17	-15.08	340	100	V
2	5.86	-59.18	Pk	35.1	-19.4	11.8	-31.68	-27	-4.68	340	100	V

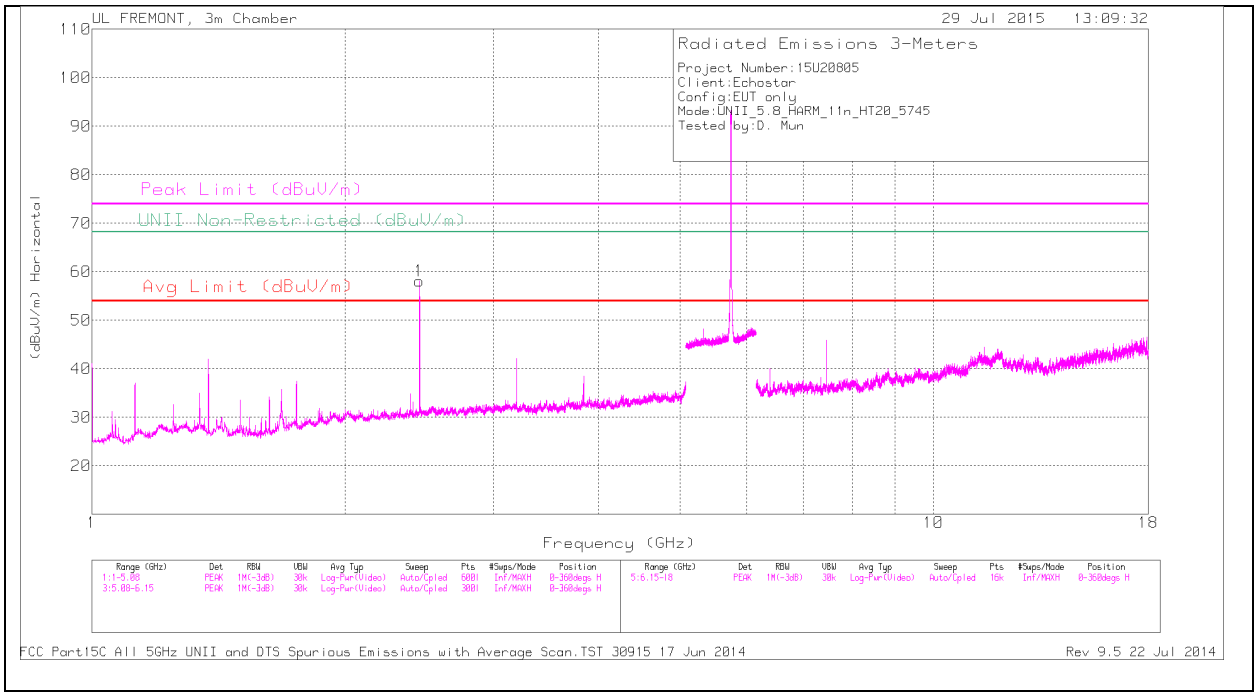
Pk - Peak detector

Bandedge 5.850-6GHz 15_407 EIRP - V.TST 30915 12 Jun 2015

Rev 9.5 24 Jun 2015

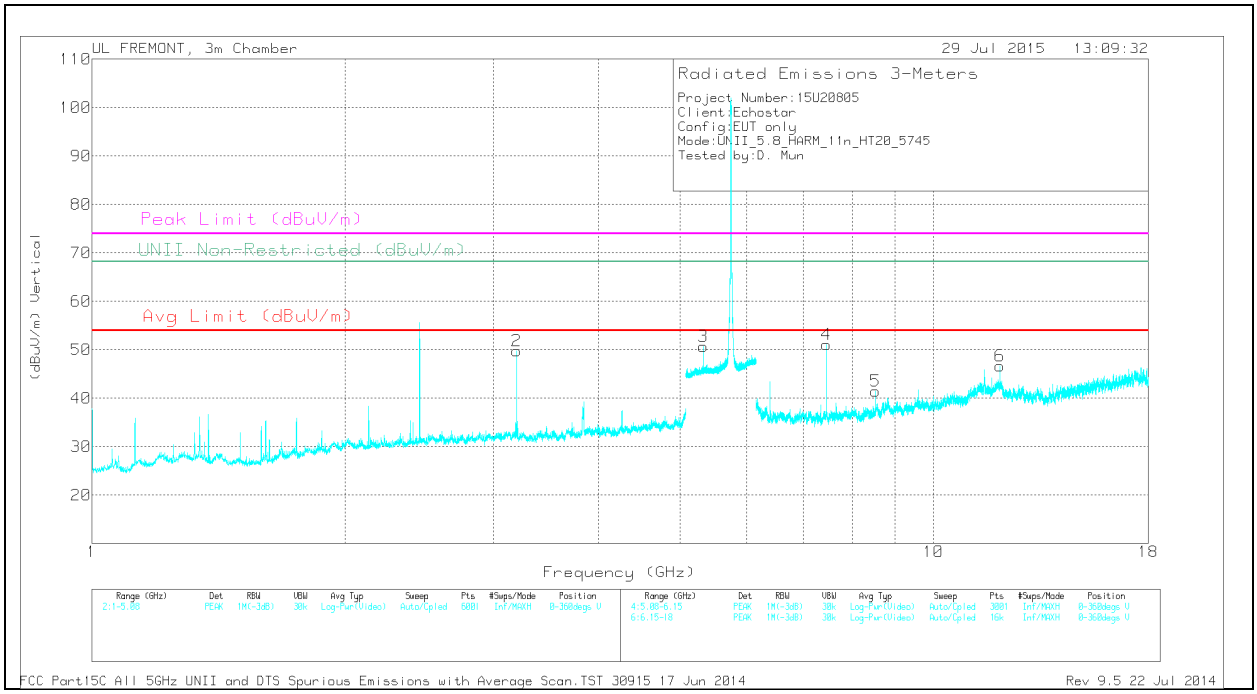
HARMONICS AND SPURIOUS EMISSIONS

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 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	2.45	57.84	PK	32.2	-31.9	0	58.14	-	-	-	-	68.2	-10.06	0-360	100	H
2	3.198	47.76	PK	32.6	-30.6	0	49.76	-	-	-	-	68.2	-18.44	0-360	100	V
3	5.33	36.68	PK	34.5	-20.5	0	50.68	-	-	-	-	68.2	-17.52	0-360	100	V
4	7.462	42.83	PK	35.7	-27.5	0	51.03	-	-	74	-22.97	-	-	0-360	100	V
5	8.527	31.58	PK	35.8	-25.9	0	41.48	-	-	-	-	68.2	-26.72	0-360	100	V
6	11.988	30.98	PK	39.1	-23.4	0	46.68	-	-	74	-27.32	-	-	0-360	100	V

PK - Peak detector

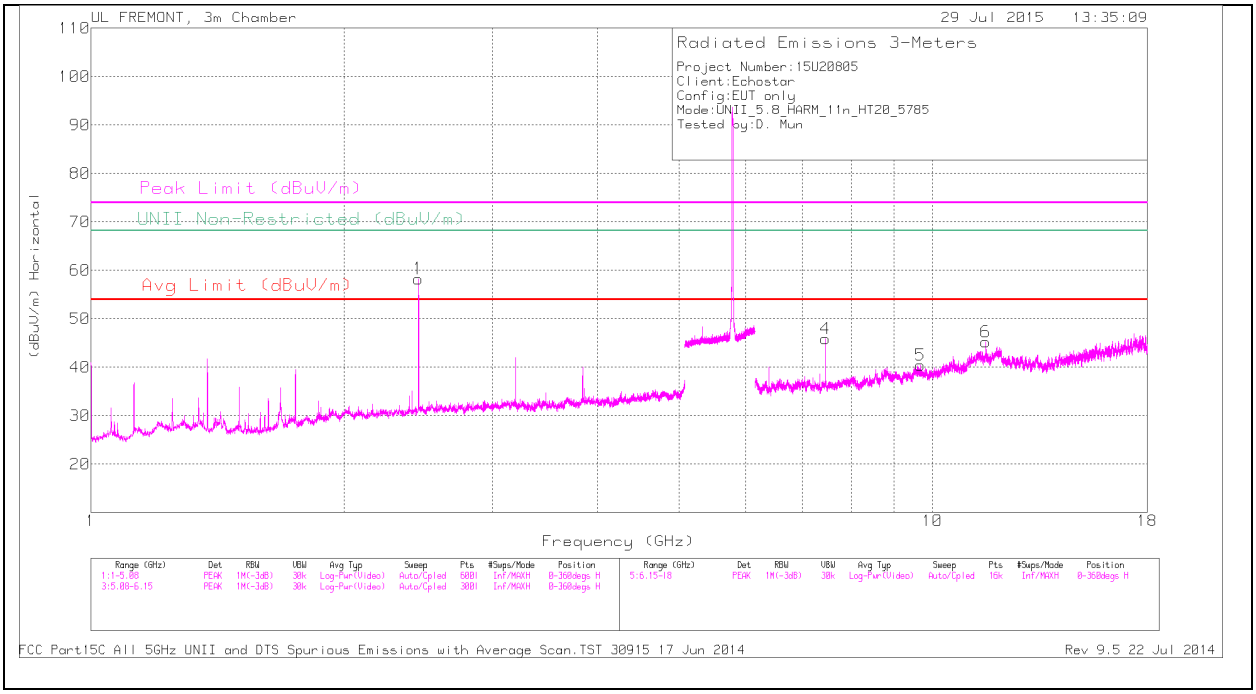
Radiated Emissions

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
2.45	59.11	PK1	32.2	-31.9	0	59.41	-	-	-	-	68.2	-8.79	231	101	H
3.198	43.75	PK1	32.6	-30.6	0	45.75	-	-	-	-	68.2	-22.45	231	100	V
5.329	43.76	PK1	34.5	-20.5	0	57.76	-	-	-	-	68.2	-10.44	231	100	V
7.461	41.62	PK1	35.7	-27.5	0	49.82	-	-	74	-24.18	-	-	231	100	V
7.462	34.04	AD1	35.7	-27.5	.23	42.47	54	-11.53	-	-	-	-	231	100	V
8.528	38.16	PK1	35.8	-25.9	0	48.06	-	-	-	-	68.2	-20.14	231	100	V
11.988	25.7	AD1	39.1	-23.4	.23	41.63	54	-12.37	-	-	-	-	231	100	V
11.989	37.17	PK1	39.1	-23.4	0	52.87	-	-	74	-21.13	-	-	231	100	V

PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average

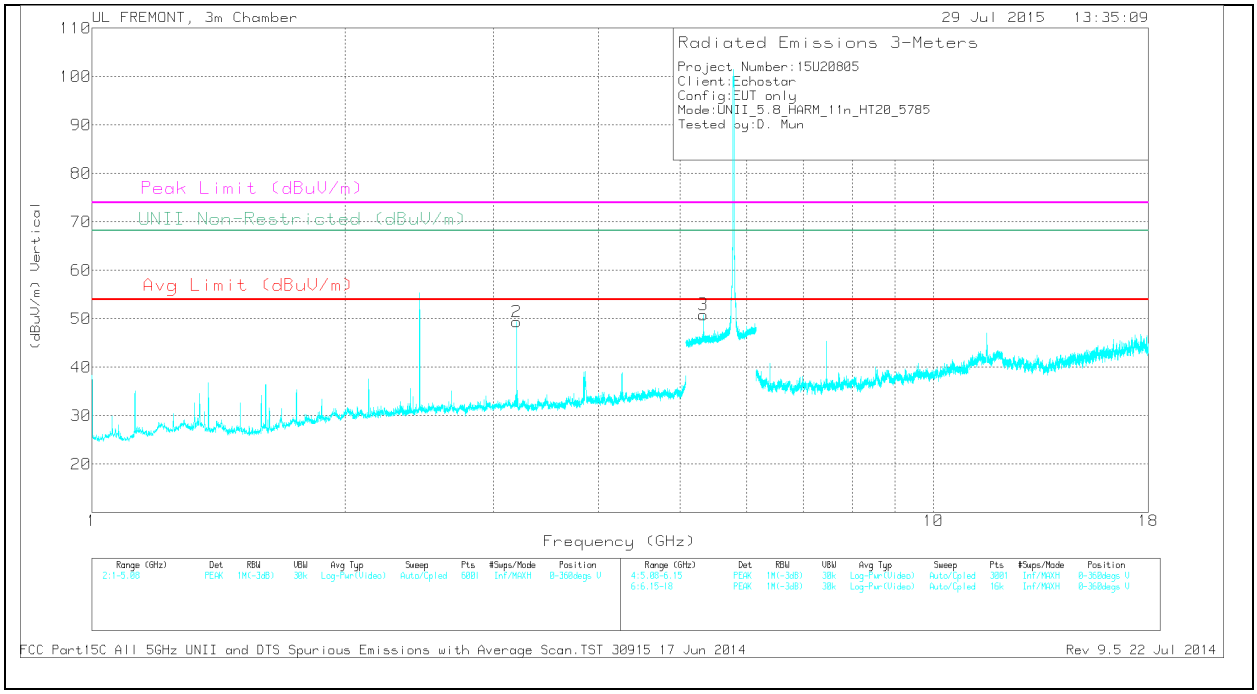
FCC Part15C All 5GHz UNII and DTS Spurious Emissions with Average Scan.TST 30915 17 Jun 2014
Rev 9.5 22 Jul 2014

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 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	2.45	57.99	PK	32.2	-31.9	0	58.29	-	-	-	-	68.2	-9.91	0-360	100	H
2	3.198	47.35	PK	32.6	-30.6	0	49.35	-	-	-	-	68.2	-18.85	0-360	100	V
3	5.33	36.89	PK	34.5	-20.5	0	50.89	-	-	-	-	68.2	-17.31	0-360	100	V
4	7.462	37.64	PK	35.7	-27.5	0	45.84	-	-	74	-28.16	-	-	0-360	100	H
5	9.676	28.41	PK	36.8	-24.8	0	40.41	-	-	-	-	68.2	-27.79	0-360	200	H
6	11.568	29.3	PK	38.6	-22.7	0	45.2	-	-	74	-28.8	-	-	0-360	200	H

PK - Peak detector

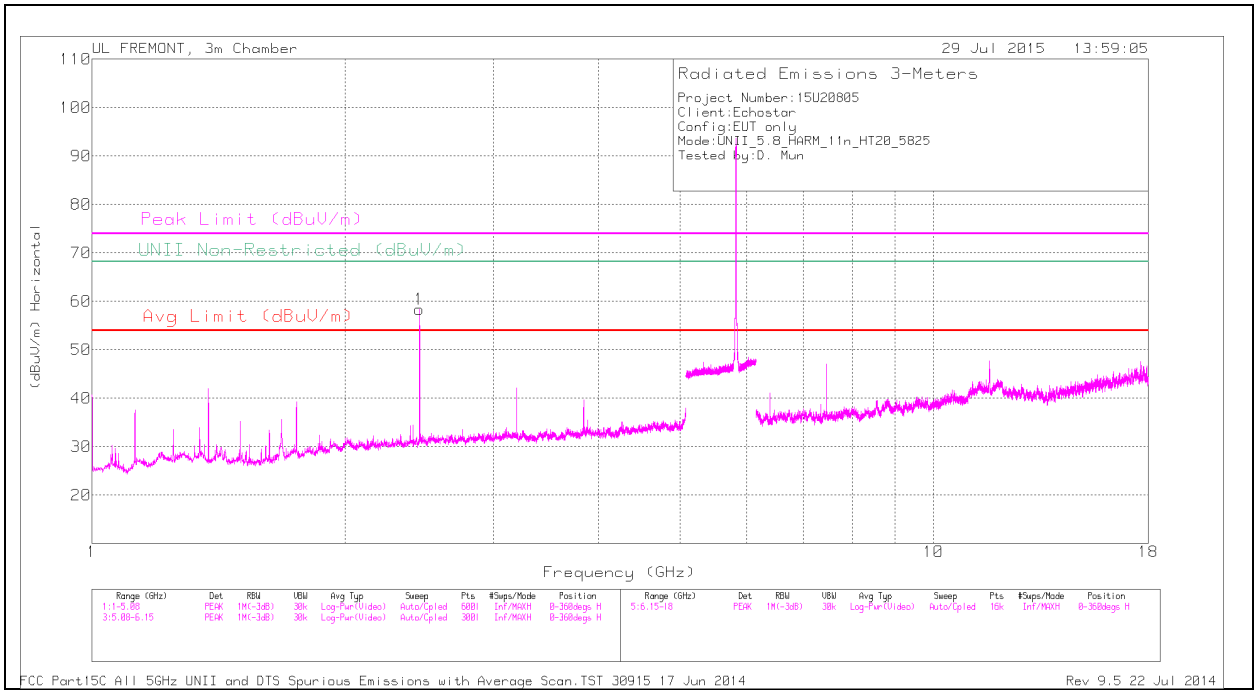
Radiated Emissions

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
2.45	58.91	PK1	32.2	-31.9	0	59.21	-	-	-	-	68.2	-8.99	233	100	H
3.198	46.13	PK1	32.6	-30.6	0	48.13	-	-	-	-	68.2	-20.07	233	100	V
5.33	43.83	PK1	34.5	-20.5	0	57.83	-	-	-	-	68.2	-10.37	233	100	V
7.461	40.29	PK1	35.7	-27.5	0	48.49	-	-	74	-25.51	-	-	233	100	H
7.462	31.93	AD1	35.7	-27.5	.23	40.36	54	-13.64	-	-	-	-	233	100	H
9.677	36.88	PK1	36.8	-24.8	0	48.88	-	-	-	-	68.2	-19.32	233	200	H
11.567	36.62	PK1	38.6	-22.7	0	52.52	-	-	74	-21.48	-	-	233	200	H
11.568	25	AD1	38.6	-22.7	.23	41.13	54	-12.87	-	-	-	-	233	200	H

PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average

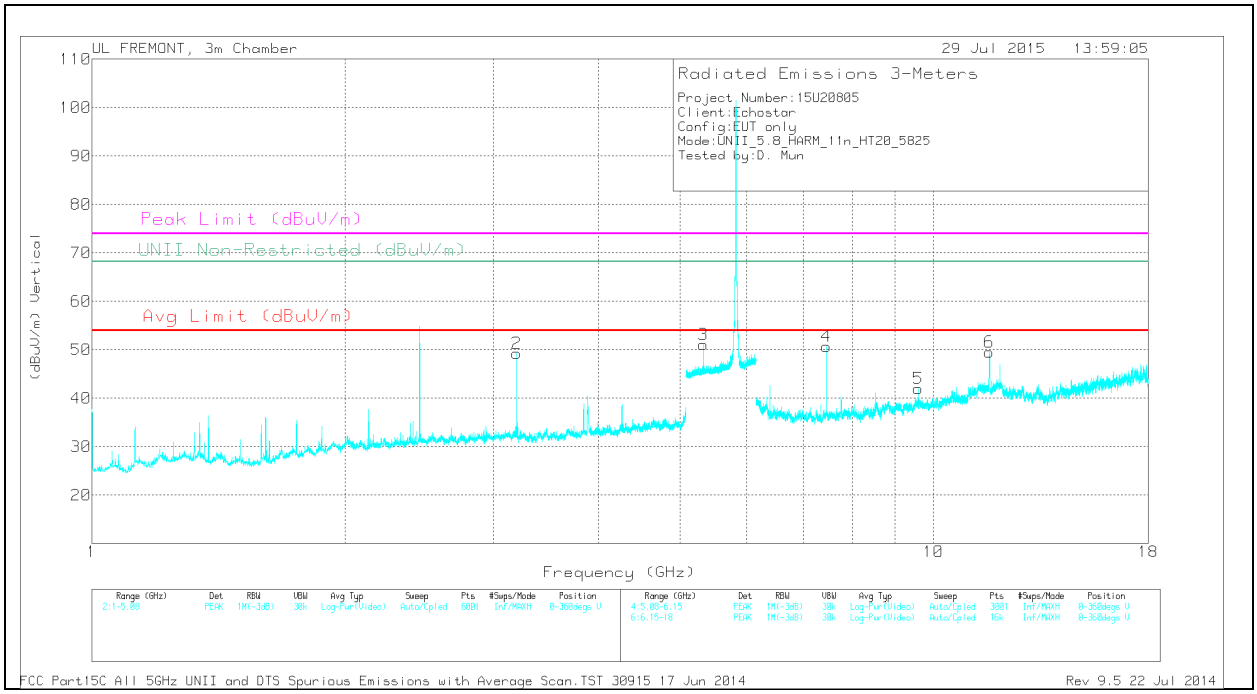
FCC Part15C All 5GHz UNII and DTS Spurious Emissions with Average Scan.TST 30915 17 Jun 2014
Rev 9.5 22 Jul 2014

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 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	2.45	58.11	PK	32.2	-31.9	0	58.41	-	-	-	-	68.2	-9.79	0-360	100	H
2	3.198	47.31	PK	32.6	-30.6	0	49.31	-	-	-	-	68.2	-18.89	0-360	100	V
3	5.33	37.11	PK	34.5	-20.5	0	51.11	-	-	-	-	68.2	-17.09	0-360	100	V
4	7.462	42.52	PK	35.7	-27.5	0	50.72	-	-	74	-23.28	-	-	0-360	100	V
5	9.593	29.18	PK	36.7	-23.9	0	41.98	-	-	-	-	68.2	-26.22	0-360	100	V
6	11.648	34.19	PK	38.7	-23.4	0	49.49	-	-	74	-24.51	-	-	0-360	200	V

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
2.45	59.01	PK1	32.2	-31.9	0	59.31	-	-	-	-	68.2	-8.89	232	102	H
3.198	45.1	PK1	32.6	-30.6	0	47.1	-	-	-	-	68.2	-21.1	232	100	V
5.33	43.38	PK1	34.5	-20.5	0	57.38	-	-	-	-	68.2	-10.82	232	100	V
7.462	42.26	PK1	35.7	-27.5	0	50.46	-	-	74	-23.54	-	-	232	100	V
7.462	35.85	AD1	35.7	-27.5	.23	44.28	54	-9.72	-	-	-	-	232	100	V
9.592	35.96	PK1	36.7	-23.9	0	48.76	-	-	-	-	68.2	-19.44	232	100	V
11.648	26.18	AD1	38.7	-23.4	.23	41.71	54	-12.29	-	-	-	-	232	200	V
11.649	39.21	PK1	38.7	-23.4	0	54.51	-	-	74	-19.49	-	-	232	200	V

PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average

FCC Part15C All 5GHz UNII and DTS Spurious Emissions with Average Scan.TST 30915 17 Jun 2014
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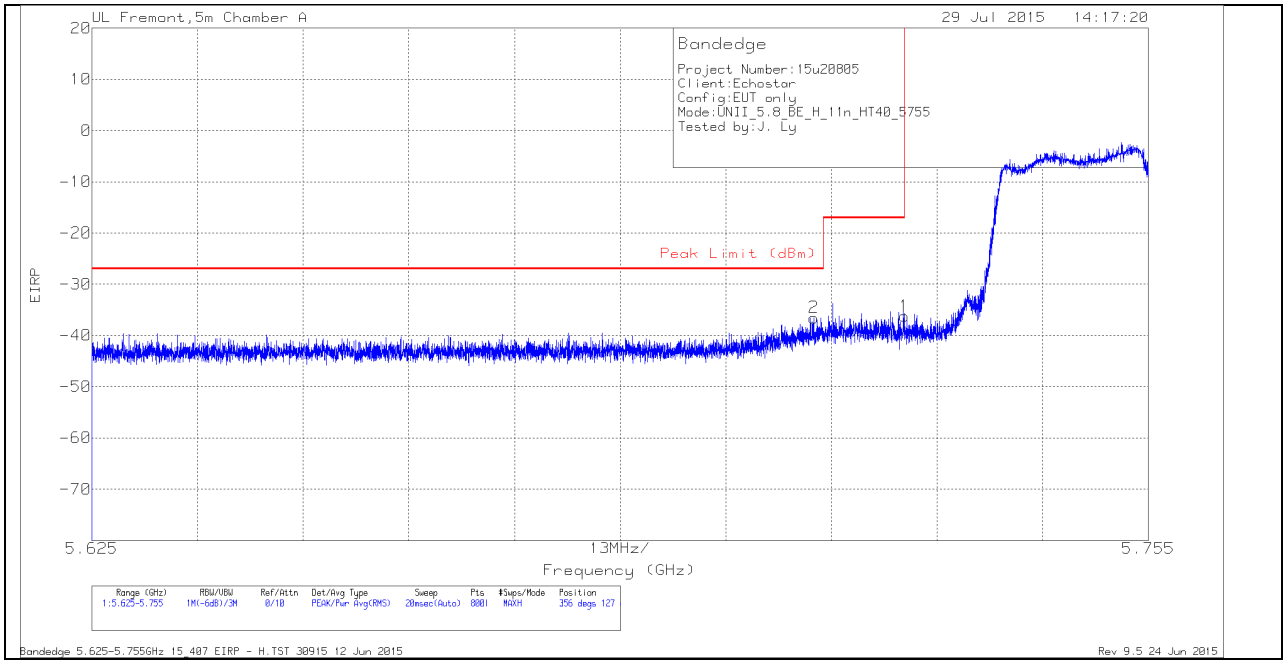
12.2.3. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.8 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.714	-63.12	Pk	34.7	-19.9	11.8	-36.52	-27	-9.52	356	127	H
1	5.725	-62.97	Pk	34.7	-19.8	11.8	-36.27	-17	-19.27	356	127	H

Pk - Peak detector

Bandedge 5.625-5.755GHz 15_407 EIRP - H.TST 30915 12 Jun 2015

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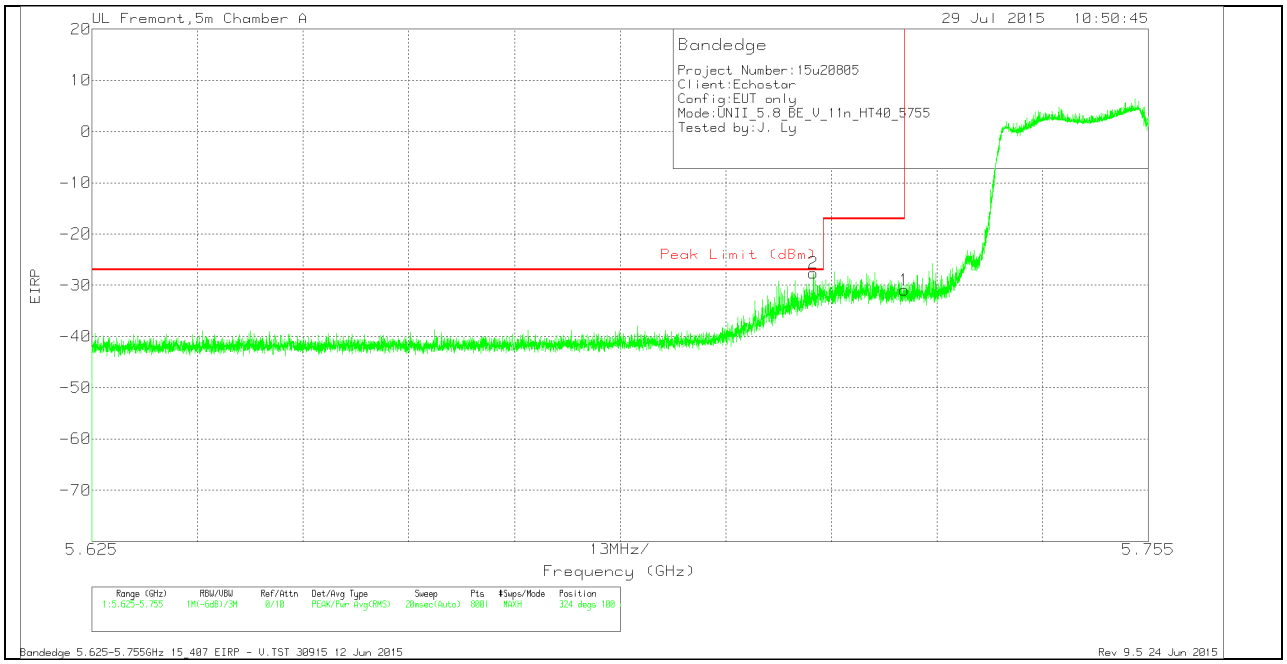
VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.714	-54.25	Pk	34.7	-19.9	11.8	-27.65	-27	-.65	324	100	V
1	5.725	-57.66	Pk	34.7	-19.8	11.8	-30.96	-17	-13.96	324	100	V

Pk - Peak detector

Bandedge 5.625-5.755GHz 15_407 EIRP - V.TST 30915 12 Jun 2015

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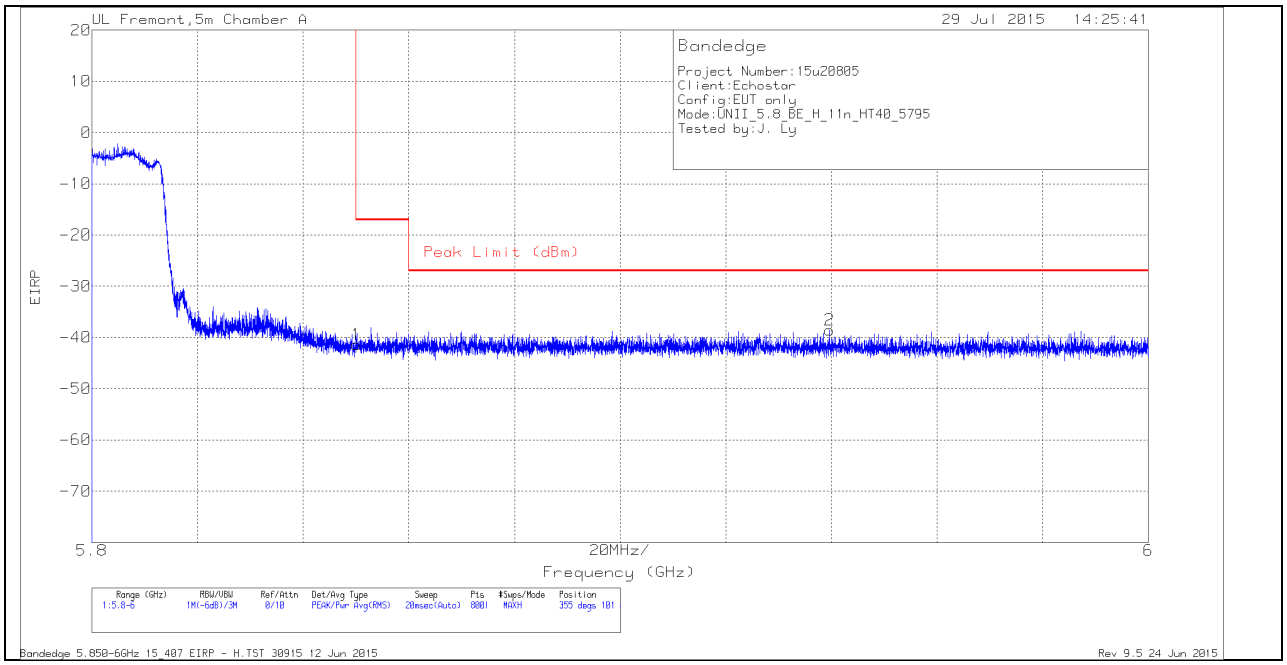
AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-68.93	Pk	35.1	-19.3	11.8	-41.33	-17	-24.33	355	101	H
2	5.94	-66.33	Pk	35.3	-19.3	11.8	-38.53	-27	-11.53	355	101	H

Pk - Peak detector

Bandedge 5.850-6GHz 15_407 EIRP - H.TST 30915 12 Jun 2015

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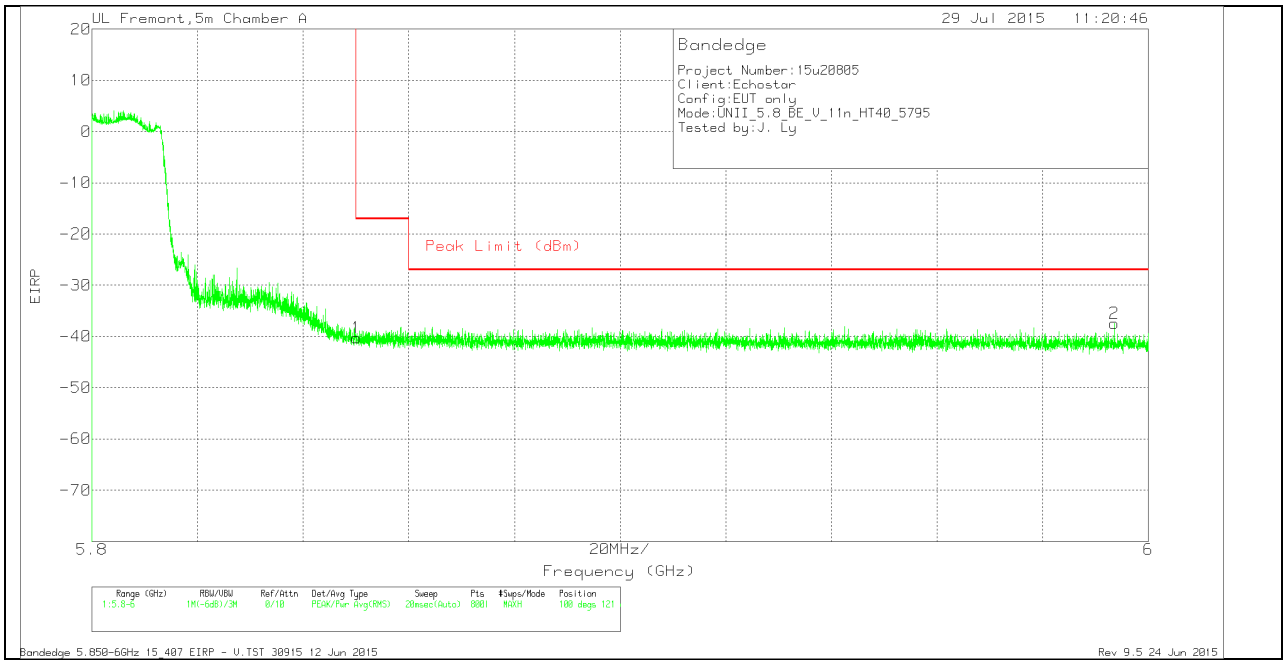
VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-67.91	Pk	35.1	-19.3	11.8	-40.31	-17	-23.31	100	121	V
2	5.994	-65.37	Pk	35.4	-19.3	11.8	-37.47	-27	-10.47	100	121	V

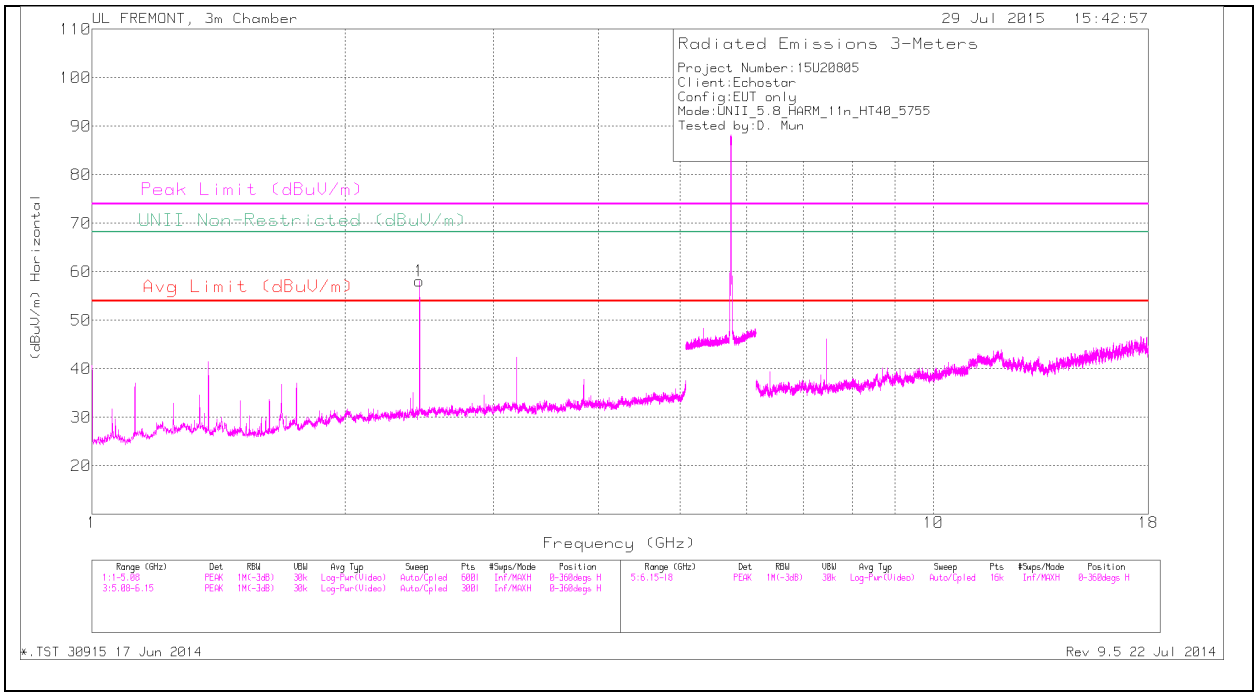
Pk - Peak detector

Bandedge 5.850-6GHz 15_407 EIRP - V.TST 30915 12 Jun 2015

Rev 9.5 24 Jun 2015

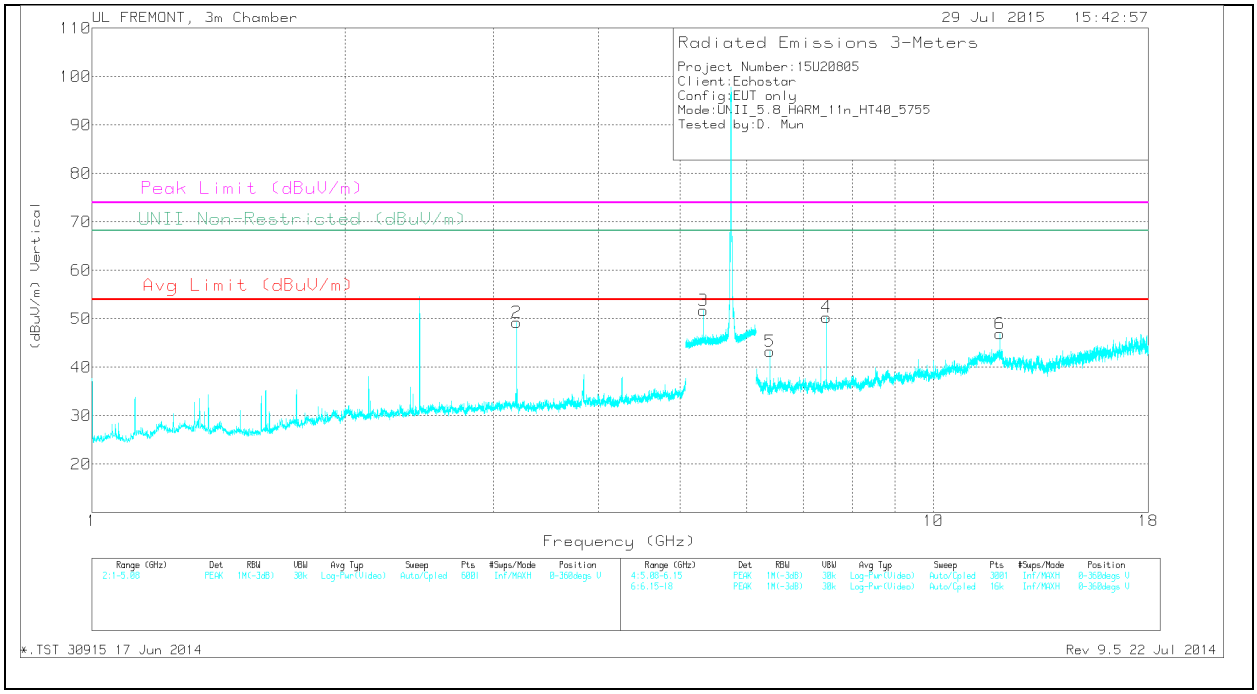
HARMONICS AND SPURIOUS EMISSIONS

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 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	2.45	57.84	PK	32.2	-31.9	0	58.14	-	-	-	-	68.2	-10.06	0-360	100	H
2	3.198	47.28	PK	32.6	-30.6	0	49.28	-	-	-	-	68.2	-18.92	0-360	100	V
3	5.33	37.77	PK	34.5	-20.5	0	51.77	-	-	-	-	68.2	-16.43	0-360	100	V
5	6.396	36.44	PK	35.5	-28.7	0	43.24	-	-	-	-	68.2	-24.96	0-360	100	V
4	7.462	42.17	PK	35.7	-27.5	0	50.37	-	-	74	-23.63	-	-	0-360	100	V
6	11.988	31.22	PK	39.1	-23.4	0	46.92	-	-	74	-27.08	-	-	0-360	100	V

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
2.45	58.93	PK1	32.2	-31.9	0	59.23	-	-	-	-	68.2	-8.97	232	100	H
3.198	44.14	PK1	32.6	-30.6	0	46.14	-	-	-	-	68.2	-22.06	232	100	V
5.33	43.35	PK1	34.5	-20.5	0	57.35	-	-	-	-	68.2	-10.85	232	100	V
6.396	40.26	PK1	35.5	-28.7	0	47.06	-	-	-	-	68.2	-21.14	232	100	V
7.462	41.46	PK1	35.7	-27.5	0	49.66	-	-	74	-24.34	-	-	232	100	V
7.462	34.11	AD1	35.7	-27.5	.49	42.8	54	-11.2	-	-	-	-	232	100	V
11.987	36.98	PK1	39.1	-23.4	0	52.68	-	-	74	-21.32	-	-	232	100	V
11.988	25.64	AD1	39.1	-23.4	.49	41.83	54	-12.17	-	-	-	-	232	100	V

PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average

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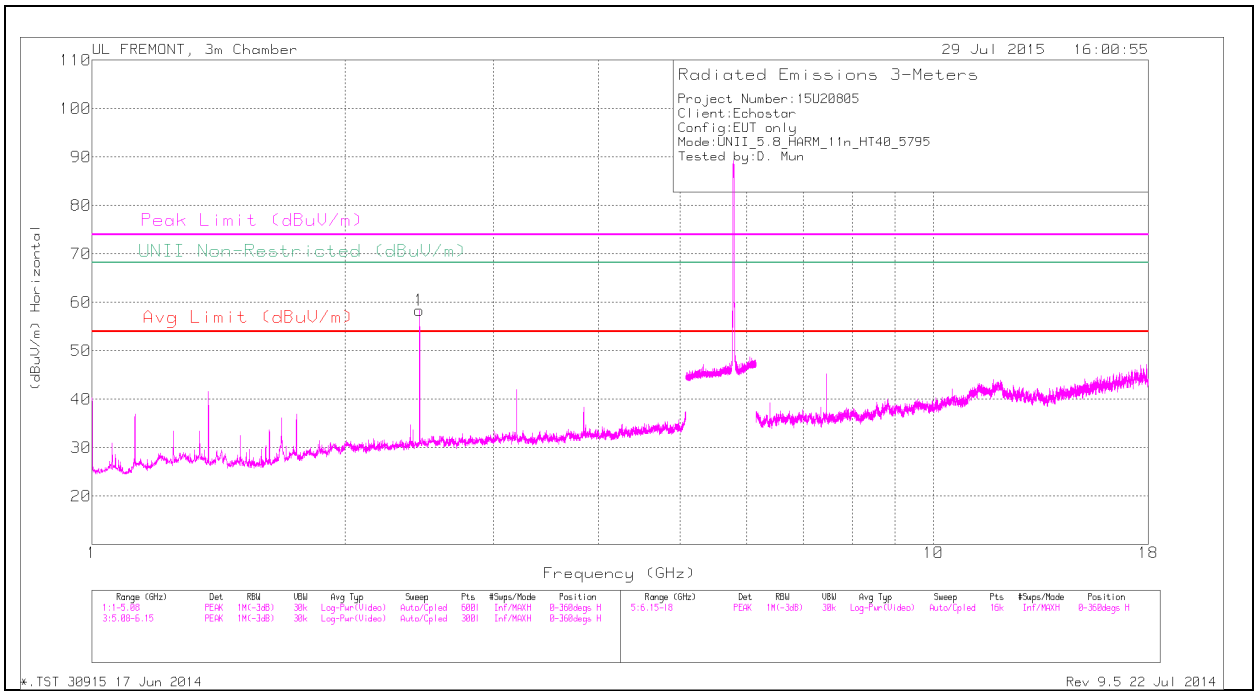
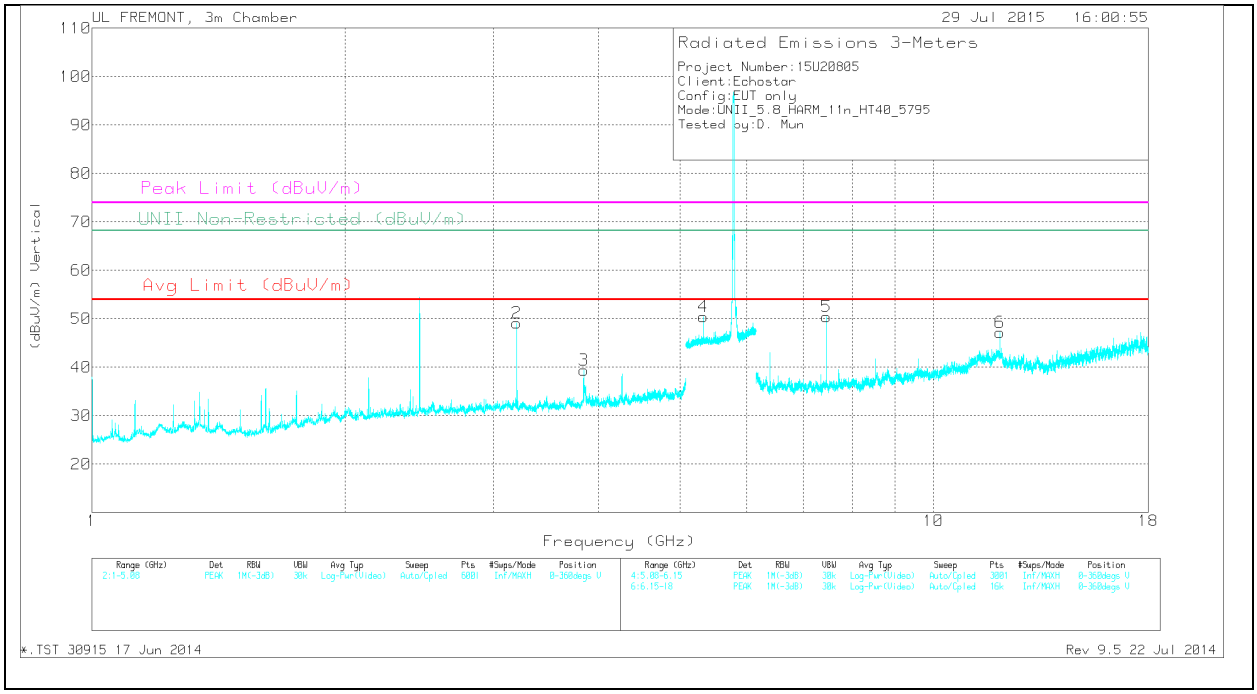
HIGH CHANNEL HORIZONTAL



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 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	2.45	58.04	PK	32.2	-31.9	0	58.34	-	-	-	-	68.2	-9.86	0-360	100	H
2	3.198	47.17	PK	32.6	-30.6	0	49.17	-	-	-	-	68.2	-19.03	0-360	100	V
3	3.84	36.55	PK	33.1	-30.2	0	39.45	-	-	74	-34.55	-	-	0-360	100	V
4	5.33	36.43	PK	34.5	-20.5	0	50.43	-	-	-	-	68.2	-17.77	0-360	100	V
5	7.462	42.29	PK	35.7	-27.5	0	50.49	-	-	74	-23.51	-	-	0-360	100	V
6	11.988	31.46	PK	39.1	-23.4	0	47.16	-	-	74	-26.84	-	-	0-360	100	V

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
2.45	58.67	PK1	32.2	-31.9	0	58.97	-	-	-	-	68.2	-9.23	235	100	H
3.198	47.02	PK1	32.6	-30.6	0	49.02	-	-	-	-	68.2	-19.18	235	100	V
3.84	42.02	PK1	33.1	-30.2	0	44.92	-	-	74	-29.08	-	-	235	100	V
3.84	32.2	AD1	33.1	-30.2	.49	35.59	54	-18.41	-	-	-	-	235	100	V
5.329	44.12	PK1	34.5	-20.5	0	58.12	-	-	-	-	68.2	-10.08	235	100	V
7.461	43.54	PK1	35.7	-27.5	0	51.74	-	-	74	-22.26	-	-	235	100	V
7.462	37.67	AD1	35.7	-27.5	.49	46.36	54	-7.64	-	-	-	-	235	100	V
11.988	37.27	PK1	39.1	-23.4	0	52.97	-	-	74	-21.03	-	-	235	100	V
11.988	25.51	AD1	39.1	-23.4	.49	41.7	54	-12.3	-	-	-	-	235	100	V

PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average

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13. TRANSMITTER ABOVE 1 GHz MIMO

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 for below 1GHz and 150cm for above 1GHz. The antenna to EUT distance is 3 meters.

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

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

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

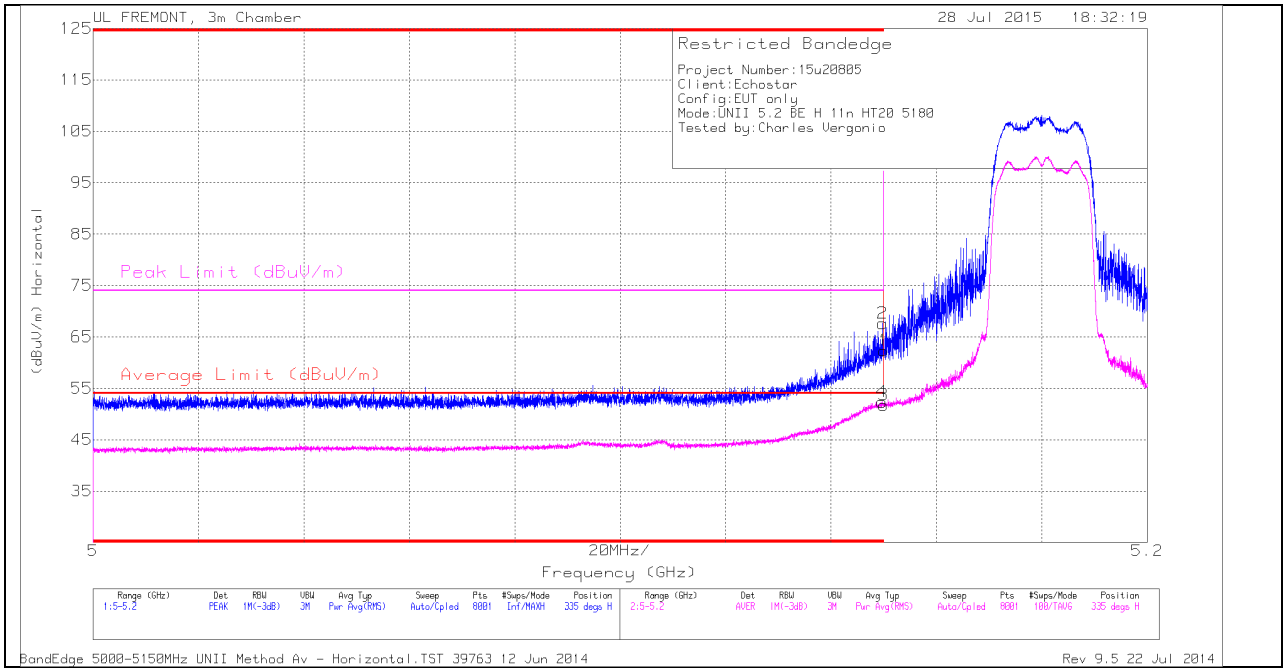
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

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

13.1. 5.2 GHz

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

HORIZONTAL PEAK AND AVERAGE PLOT



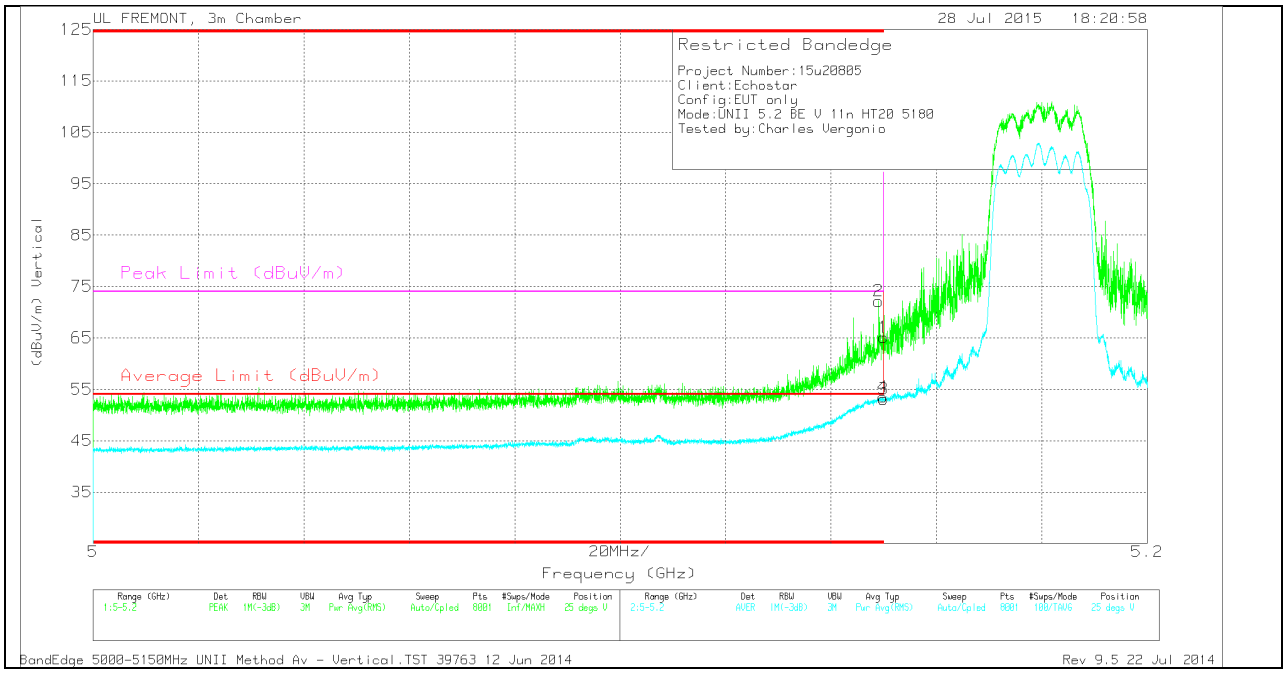
HORIZONTAL DATA

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)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	48.96	PK	34.2	-20.8	0	62.36	-	-	74	-11.64	335	295	H
2	* 5.15	54.23	PK	34.2	-20.8	0	67.63	-	-	74	-6.37	335	295	H
3	* 5.15	38.13	RMS	34.2	-20.8	.22	51.75	54	-2.25	-	-	335	295	H
4	* 5.15	38.74	RMS	34.2	-20.8	.22	52.36	54	-1.64	-	-	335	295	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
PK - Peak detector
RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

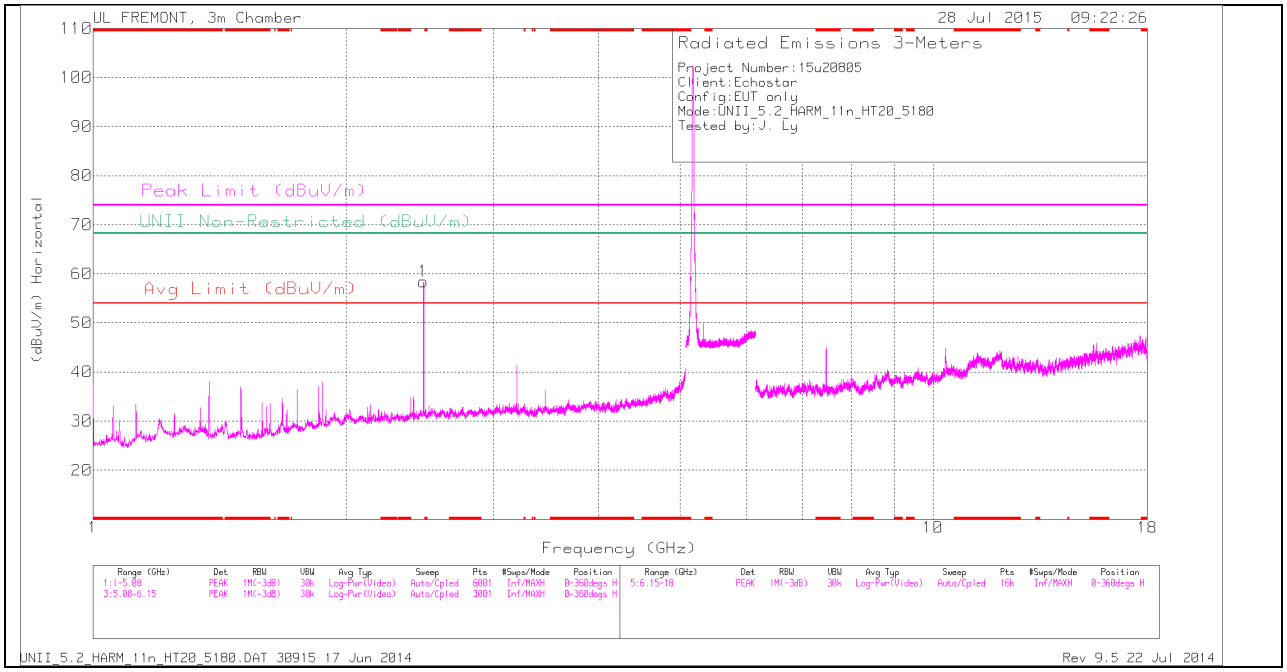
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 5.149	58.75	PK	34.2	-20.8	0	72.15	-	-	74	-1.85	25	176	V
1	* 5.15	51.69	PK	34.2	-20.8	0	65.09	-	-	74	-8.91	25	176	V
3	* 5.15	39.48	RMS	34.2	-20.8	.22	53.1	54	-.9	-	-	25	176	V
4	* 5.15	39.88	RMS	34.2	-20.8	.22	53.5	54	-.5	-	-	25	176	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
PK - Peak detector
RMS - RMS detection

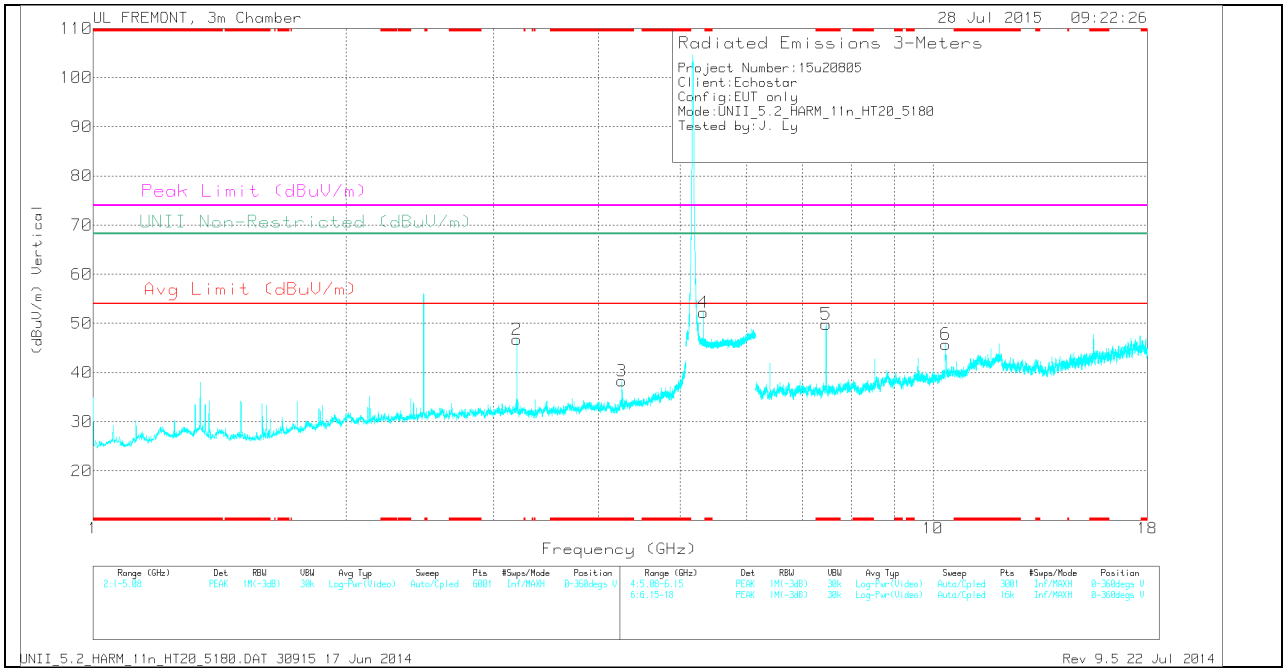
HARMONICS AND SPURIOUS EMISSIONS

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 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
3	* 4.263	34.89	PK	33.4	-30	0	38.29	-	-	74	-35.71	-	-	0-360	200	V
5	* 7.462	41.65	PK	35.7	-27.5	0	49.85	-	-	74	-24.15	-	-	0-360	100	V
1	2.475	57.83	PK	32.3	-31.7	0	58.43	-	-	-	-	68.2	-9.77	0-360	200	H
2	3.198	44.74	PK	32.6	-30.6	0	46.74	-	-	-	-	68.2	-21.46	0-360	100	V
4	5.33	38.22	PK	34.5	-20.5	0	52.22	-	-	-	-	68.2	-15.98	0-360	100	V
6	10.356	32.56	PK	37.2	-24	0	45.76	-	-	-	-	68.2	-22.44	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 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
* 4.264	43.64	PK1	33.4	-30	0	47.04	-	-	74	-26.96	-	-	276	171	V
* 4.264	35.93	AD1	33.4	-30	.23	39.56	54	-14.44	-	-	-	-	276	171	V
* 7.461	42.43	PK1	35.7	-27.5	0	50.63	-	-	74	-23.37	-	-	276	171	V
* 7.461	35.72	AD1	35.7	-27.5	.23	44.15	54	-9.85	-	-	-	-	276	171	V
2.475	59.64	PK1	32.3	-31.7	0	60.24	-	-	-	-	68.2	-7.96	230	158	H
3.198	48.35	PK1	32.6	-30.6	0	50.35	-	-	-	-	68.2	-17.85	281	102	V
5.33	42.78	PK1	34.5	-20.5	0	56.78	-	-	-	-	68.2	-11.42	276	169	V
10.357	38.22	PK1	37.2	-24	0	51.42	-	-	-	-	68.2	-16.78	276	171	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average

UNII_5.2_HARM_11n_HT20_5180.DAT 30915 17 Jun 2014
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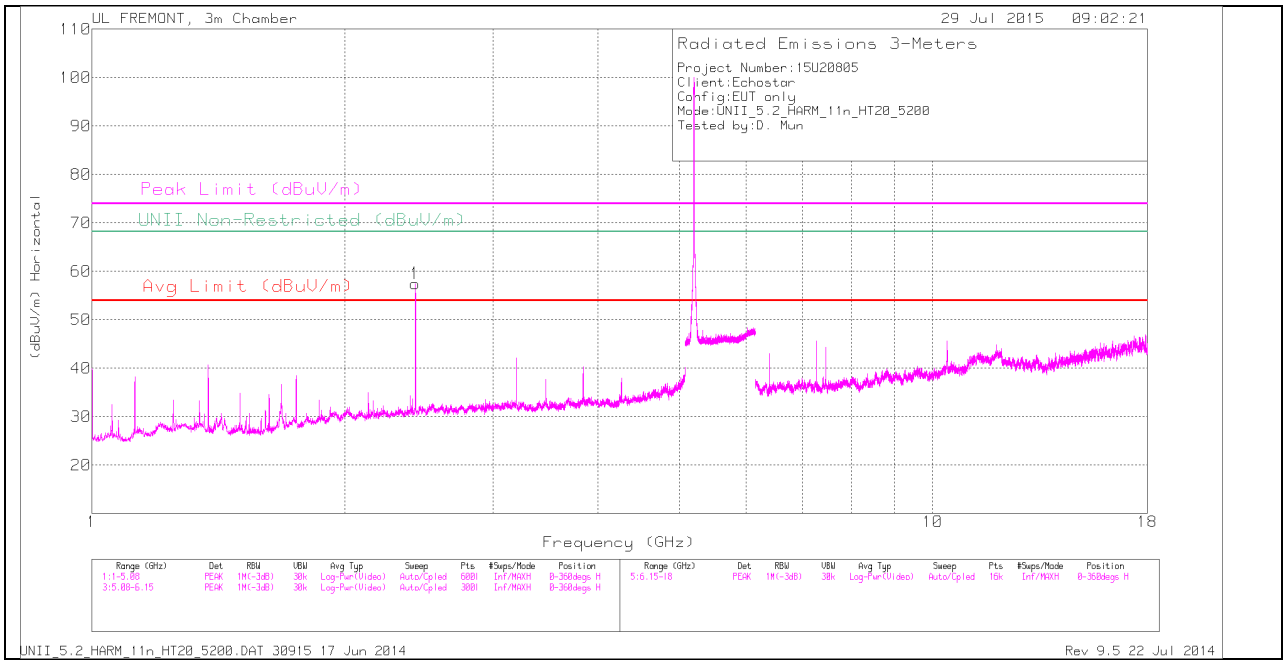
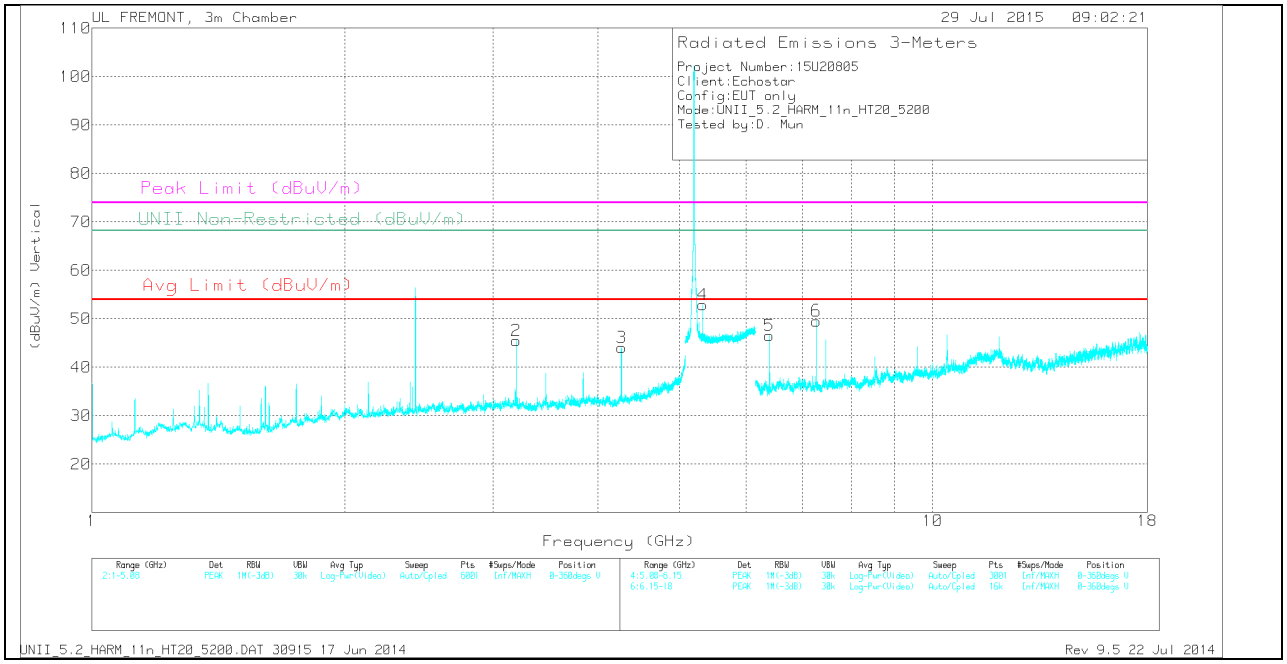
MID CHANNEL HORIZONTAL



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 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	2.425	57.31	PK	32.1	-31.9	0	57.51	-	-	-	-	68.2	-10.69	0-360	100	H
2	3.198	43.52	PK	32.6	-30.6	0	45.52	-	-	-	-	68.2	-22.68	0-360	100	V
3	4.264	40.73	PK	33.4	-30	0	44.13	-	-	74	-29.87	-	-	0-360	100	V
4	5.33	38.87	PK	34.5	-20.5	0	52.87	-	-	-	-	68.2	-15.33	0-360	100	V
5	6.395	39.87	PK	35.5	-28.8	0	46.57	-	-	-	-	68.2	-21.63	0-360	100	V
6	7.275	42.49	PK	35.6	-28.5	0	49.59	-	-	74	-24.41	-	-	0-360	100	V

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
2.425	58.71	PK1	32.1	-31.9	0	58.91	-	-	-	-	68.2	-9.29	248	103	H
3.198	46.54	PK1	32.6	-30.6	0	48.54	-	-	-	-	68.2	-19.66	248	100	V
4.263	41.59	PK1	33.4	-30	0	44.99	-	-	74	-29.01	-	-	248	100	V
4.264	32.22	AD1	33.4	-30	.23	35.85	54	-18.15	-	-	-	-	248	100	V
5.33	44.27	PK1	34.5	-20.5	0	58.27	-	-	-	-	68.2	-9.93	248	100	V
6.396	40.64	PK1	35.5	-28.7	0	47.44	-	-	-	-	68.2	-20.76	248	100	V
7.275	40.69	PK1	35.6	-28.5	0	47.79	-	-	74	-26.21	-	-	249	100	V
7.275	31.1	AD1	35.6	-28.5	.23	38.43	54	-15.57	-	-	-	-	249	100	V

PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average

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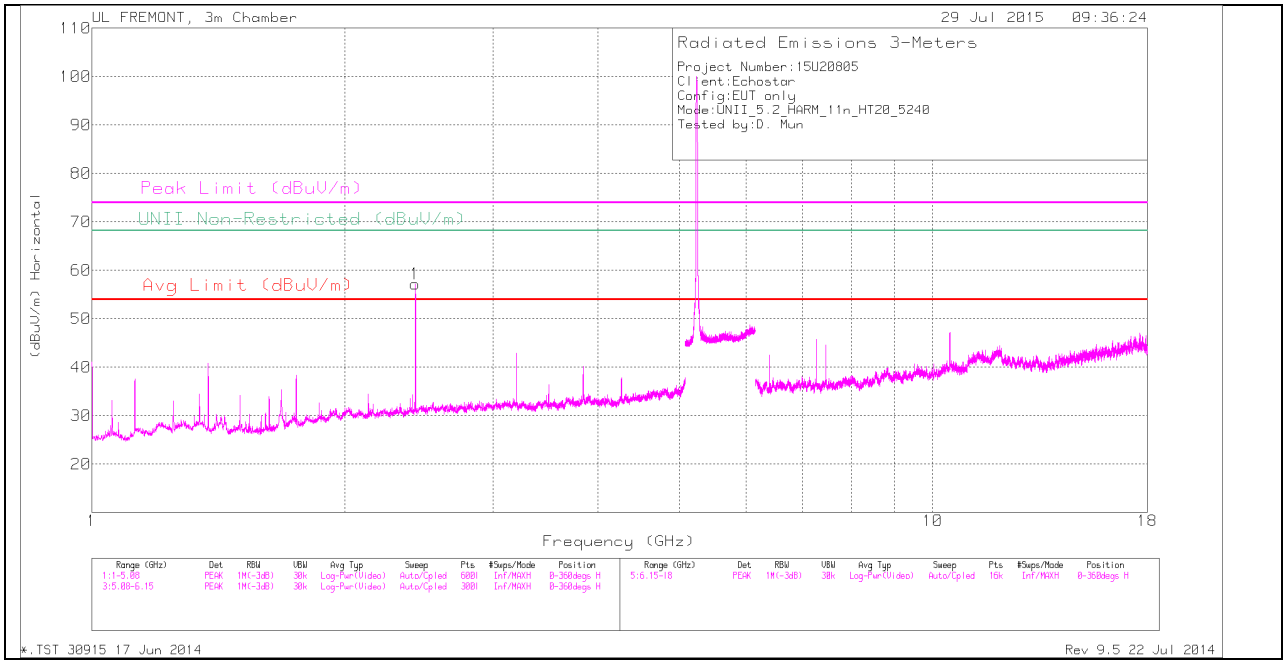
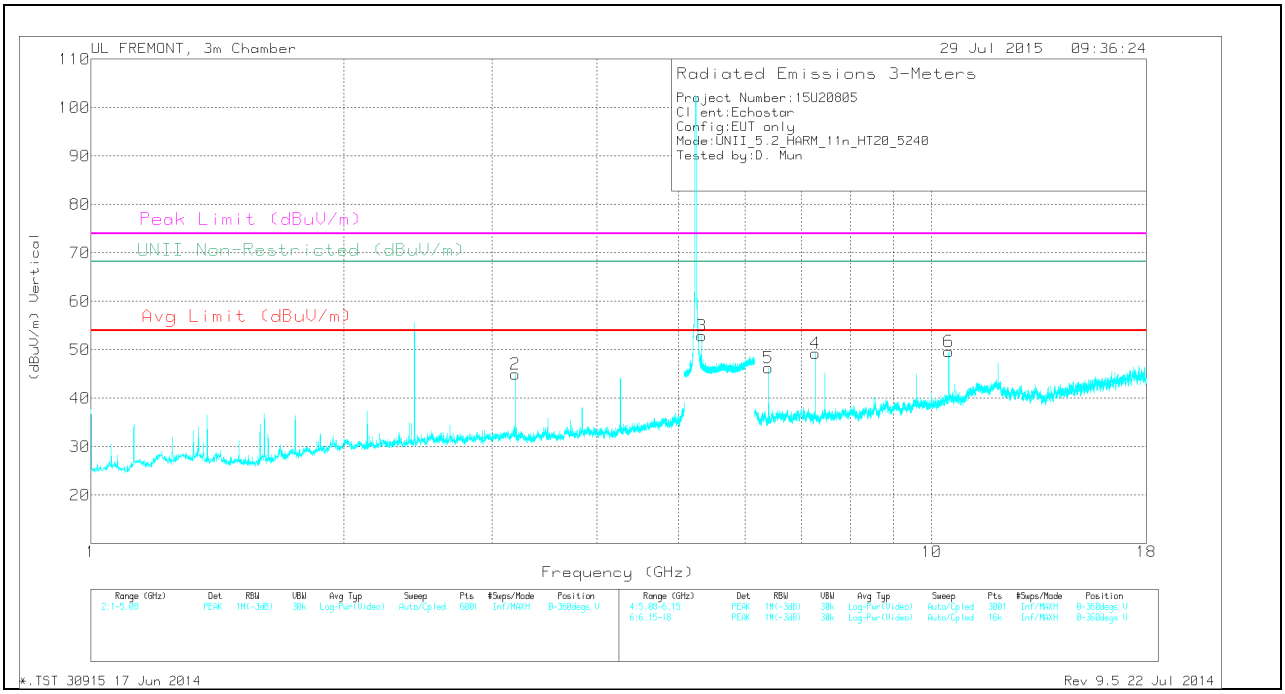
HIGH CHANNEL HORIZONTAL



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 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	2.425	57.02	PK	32.1	-31.9	0	57.22	-	-	-	-	68.2	-10.98	0-360	100	H
2	3.198	43.02	PK	32.6	-30.6	0	45.02	-	-	-	-	68.2	-23.18	0-360	100	V
3	5.33	38.87	PK	34.5	-20.5	0	52.87	-	-	-	-	68.2	-15.33	0-360	100	V
5	6.396	39.43	PK	35.5	-28.7	0	46.23	-	-	-	-	68.2	-21.97	0-360	100	V
4	7.275	42.12	PK	35.6	-28.5	0	49.22	-	-	74	-24.78	-	-	0-360	100	V
6	10.479	36.51	PK	37.4	-24.2	0	49.71	-	-	-	-	68.2	-18.49	0-360	200	V

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
2.425	58.67	PK1	32.1	-31.9	0	58.87	-	-	-	-	68.2	-9.33	249	104	H
3.198	46.61	PK1	32.6	-30.6	0	48.61	-	-	-	-	68.2	-19.59	249	100	V
5.33	44.38	PK1	34.5	-20.5	0	58.38	-	-	-	-	68.2	-9.82	249	100	V
6.395	40.59	PK1	35.5	-28.8	0	47.29	-	-	-	-	68.2	-20.91	249	100	V
7.275	40.69	PK1	35.6	-28.5	0	47.79	-	-	74	-26.21	-	-	249	100	V
7.275	31.1	AD1	35.6	-28.5	.23	38.43	54	-15.57	-	-	-	-	249	100	V
10.479	36.51	PK1	37.4	-24.2	0	49.71	-	-	-	-	68.2	-18.49	0-360	200	V

PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average

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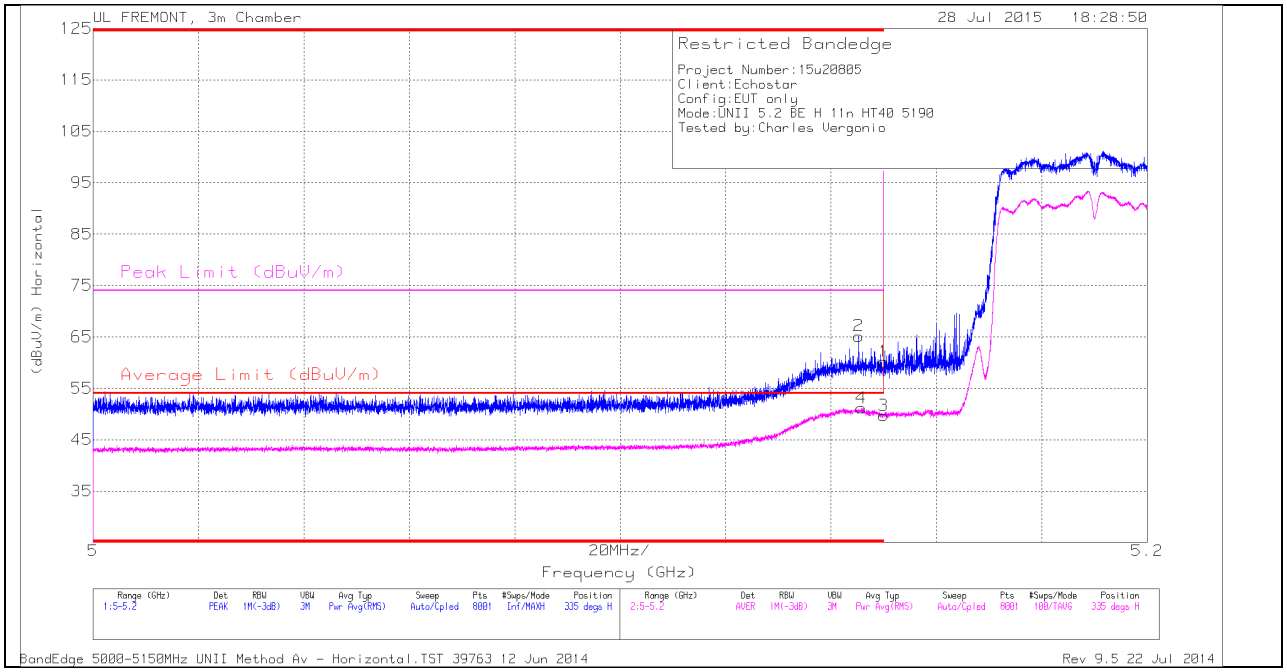
13.1.2. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.2 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



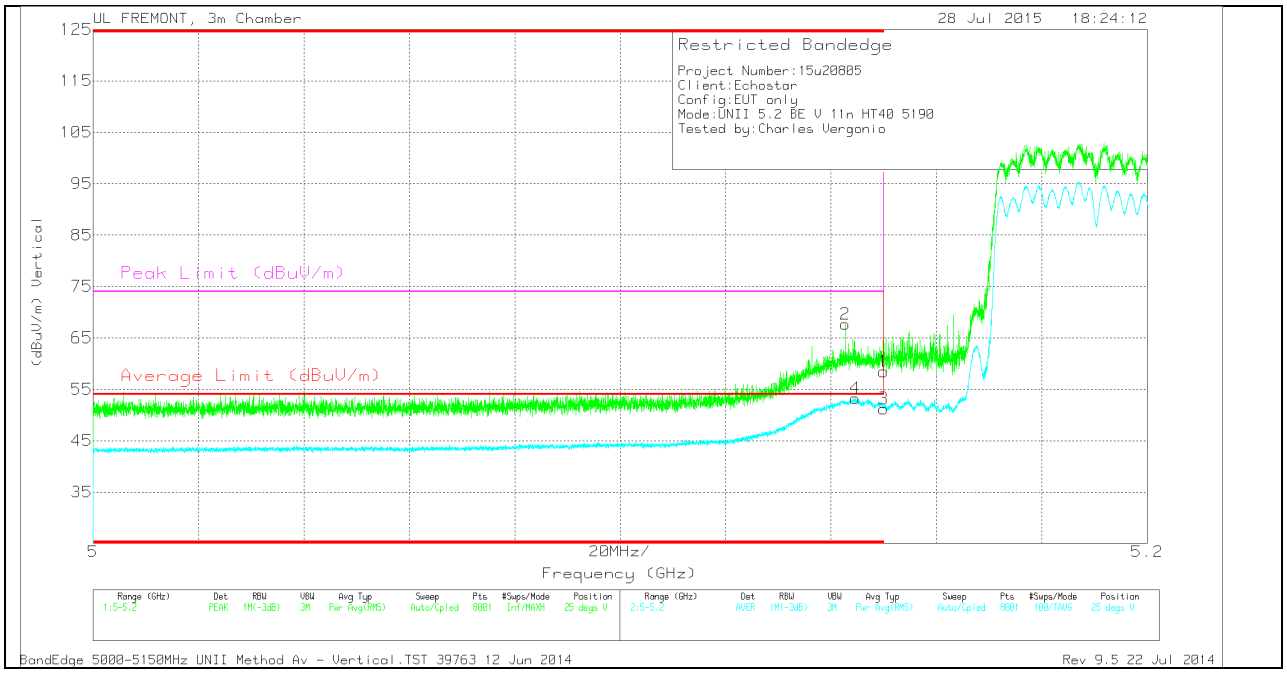
HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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	* 5.145	51.67	PK	34.2	-20.7	0	65.17	-	-	74	-8.83	335	295	H
4	* 5.146	37.28	RMS	34.2	-20.7	.49	51.27	54	-2.73	-	-	335	295	H
1	* 5.15	46.78	PK	34.2	-20.8	0	60.18	-	-	74	-13.82	335	295	H
3	* 5.15	35.88	RMS	34.2	-20.8	.49	49.77	54	-4.23	-	-	335	295	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
PK - Peak detector
RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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	* 5.143	54.18	PK	34.2	-20.7	0	67.68	-	-	74	-6.32	25	176	V
4	* 5.145	39.33	RMS	34.2	-20.7	.49	53.32	54	-.68	-	-	25	176	V
1	* 5.15	45.06	PK	34.2	-20.8	0	58.46	-	-	74	-15.54	25	176	V
3	* 5.15	37.39	RMS	34.2	-20.8	.49	51.28	54	-2.72	-	-	25	176	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
PK - Peak detector
RMS - RMS detection

BandEdge 5000-5150MHz UNII Method Av - Vertical.TST 39763 12 Jun 2014
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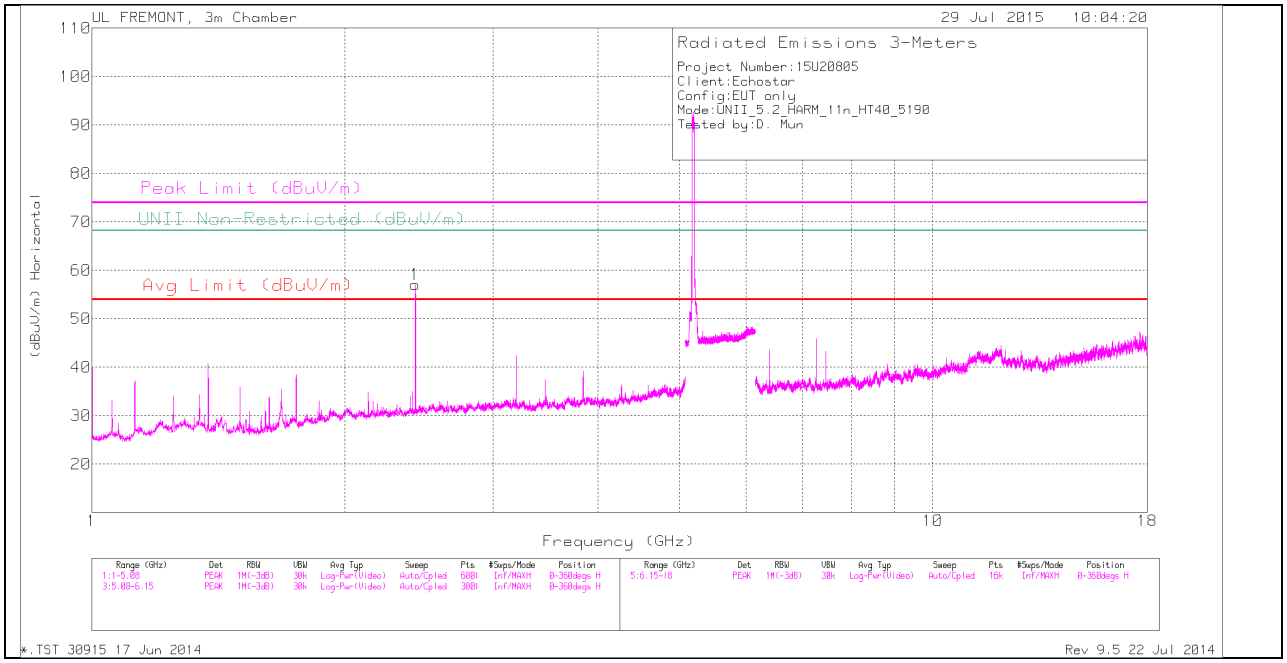
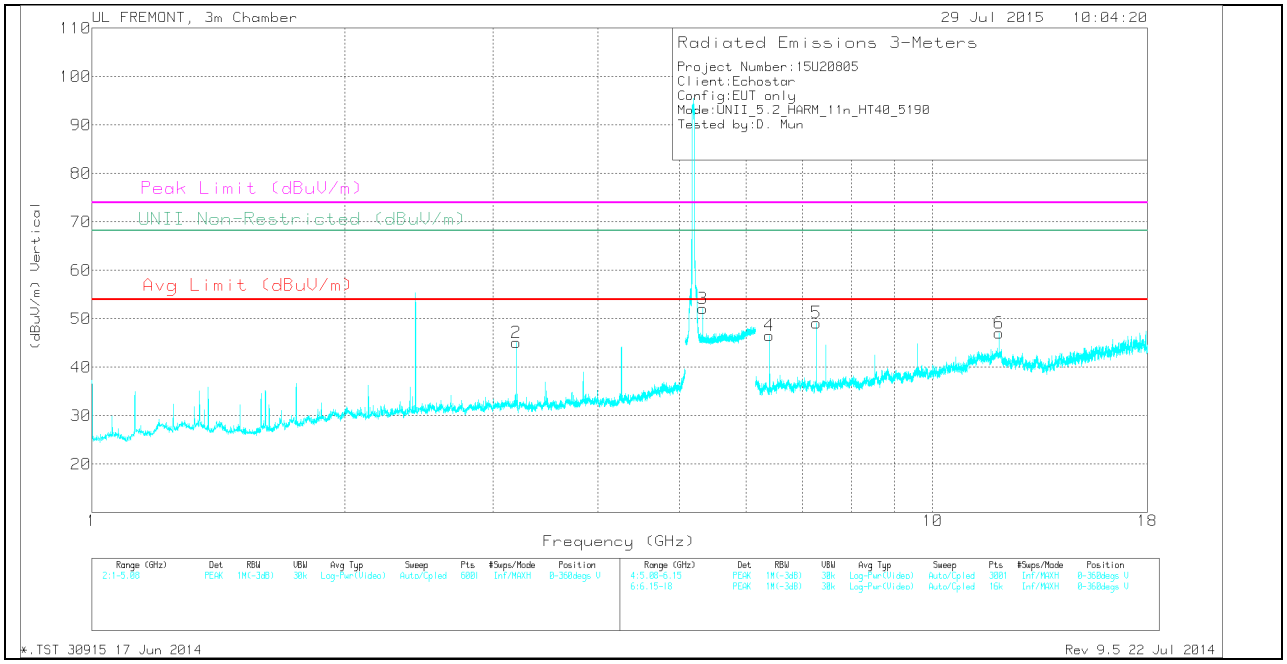
HARMONICS AND SPURIOUS EMISSIONS

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 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	2.425	56.9	PK	32.1	-31.9	0	57.1	-	-	-	-	68.2	-11.1	0-360	100	H
2	3.198	43.08	PK	32.6	-30.6	0	45.08	-	-	-	-	68.2	-23.12	0-360	100	V
3	5.33	38.12	PK	34.5	-20.5	0	52.12	-	-	-	-	68.2	-16.08	0-360	100	V
4	6.395	39.85	PK	35.5	-28.8	0	46.55	-	-	-	-	68.2	-21.65	0-360	100	V
5	7.275	42.1	PK	35.6	-28.5	0	49.2	-	-	74	-24.8	-	-	0-360	100	V
6	11.988	31.31	PK	39.1	-23.4	0	47.01	-	-	74	-26.99	-	-	0-360	100	V

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
2.425	58.44	PK1	32.1	-31.9	0	58.64	-	-	-	-	68.2	-9.56	249	102	H
3.198	46.41	PK1	32.6	-30.6	0	48.41	-	-	-	-	68.2	-19.79	249	100	V
5.33	43.77	PK1	34.5	-20.5	0	57.77	-	-	-	-	68.2	-10.43	249	100	V
6.396	40.69	PK1	35.5	-28.8	0	47.39	-	-	-	-	68.2	-20.81	249	100	V
7.275	40.66	PK1	35.6	-28.5	0	47.76	-	-	74	-26.24	-	-	249	100	V
7.275	31.31	AD1	35.6	-28.5	.49	38.90	54	-15.1	-	-	-	-	249	100	V
11.986	37.12	PK1	39.1	-23.4	0	52.82	-	-	74	-21.18	-	-	249	100	V
11.988	25.57	AD1	39.1	-23.4	.49	41.76	54	-12.24	-	-	-	-	249	100	V

PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average

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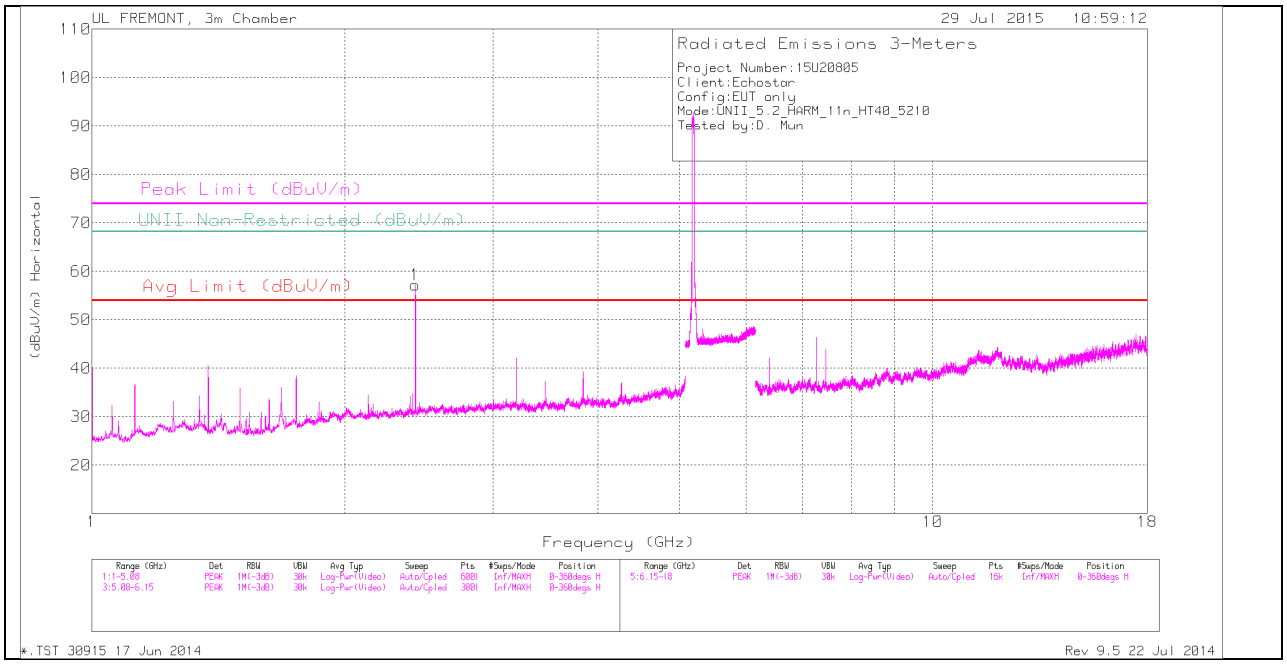
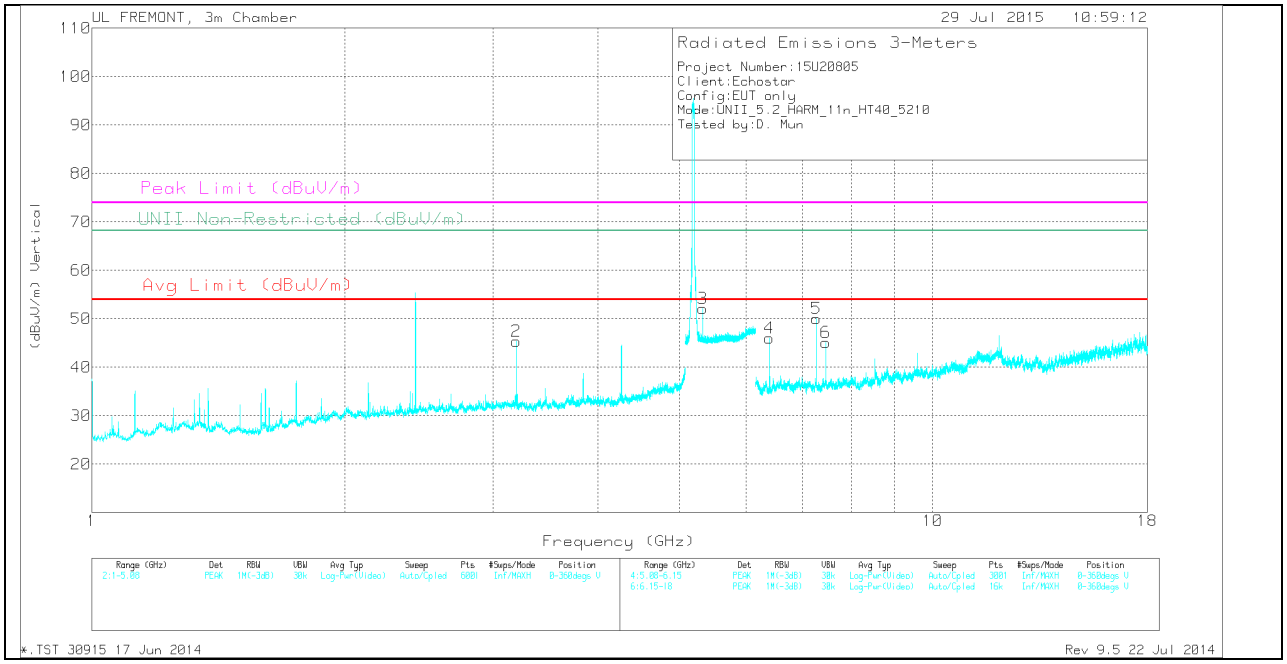
MID CHANNEL HORIZONTAL



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 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	2.425	56.97	PK	32.1	-31.9	0	57.17	-	-	-	-	68.2	-11.03	0-360	100	H
2	3.198	43.36	PK	32.6	-30.6	0	45.36	-	-	-	-	68.2	-22.84	0-360	100	V
3	5.33	38.11	PK	34.5	-20.5	0	52.11	-	-	-	-	68.2	-16.09	0-360	100	V
4	6.396	39.17	PK	35.5	-28.7	0	45.97	-	-	-	-	68.2	-22.23	0-360	100	V
5	7.275	42.93	PK	35.6	-28.5	0	50.03	-	-	74	-23.97	-	-	0-360	100	V
6	7.462	36.96	PK	35.7	-27.5	0	45.16	-	-	74	-28.84	-	-	0-360	200	V

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
2.425	58.38	PK1	32.1	-31.9	0	58.58	-	-	-	-	68.2	-9.62	251	102	H
3.198	46.85	PK1	32.6	-30.6	0	48.85	-	-	-	-	68.2	-19.35	251	100	V
5.329	44.04	PK1	34.5	-20.5	0	58.04	-	-	-	-	68.2	-10.16	251	100	V
6.396	41.4	PK1	35.5	-28.8	0	48.1	-	-	-	-	68.2	-20.1	251	100	V
7.275	40.9	PK1	35.6	-28.5	0	48	-	-	74	-26	-	-	251	100	V
7.275	31.18	AD1	35.6	-28.5	.49	38.77	54	-15.23	-	-	-	-	251	100	V
7.461	39.53	PK1	35.7	-27.5	0	47.73	-	-	74	-26.27	-	-	251	200	V
7.462	29.09	AD1	35.7	-27.5	.49	37.78	54	-16.22	-	-	-	-	251	200	V

PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average

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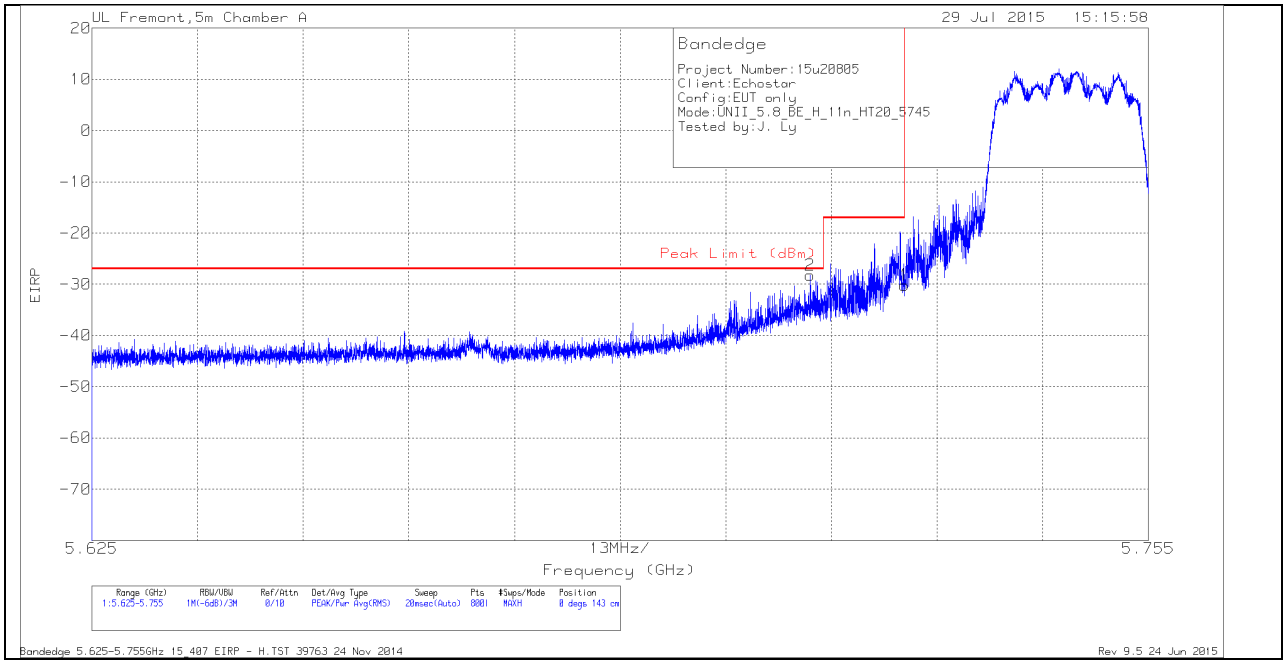
13.2. 5.8 GHz

13.2.1. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.8 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT

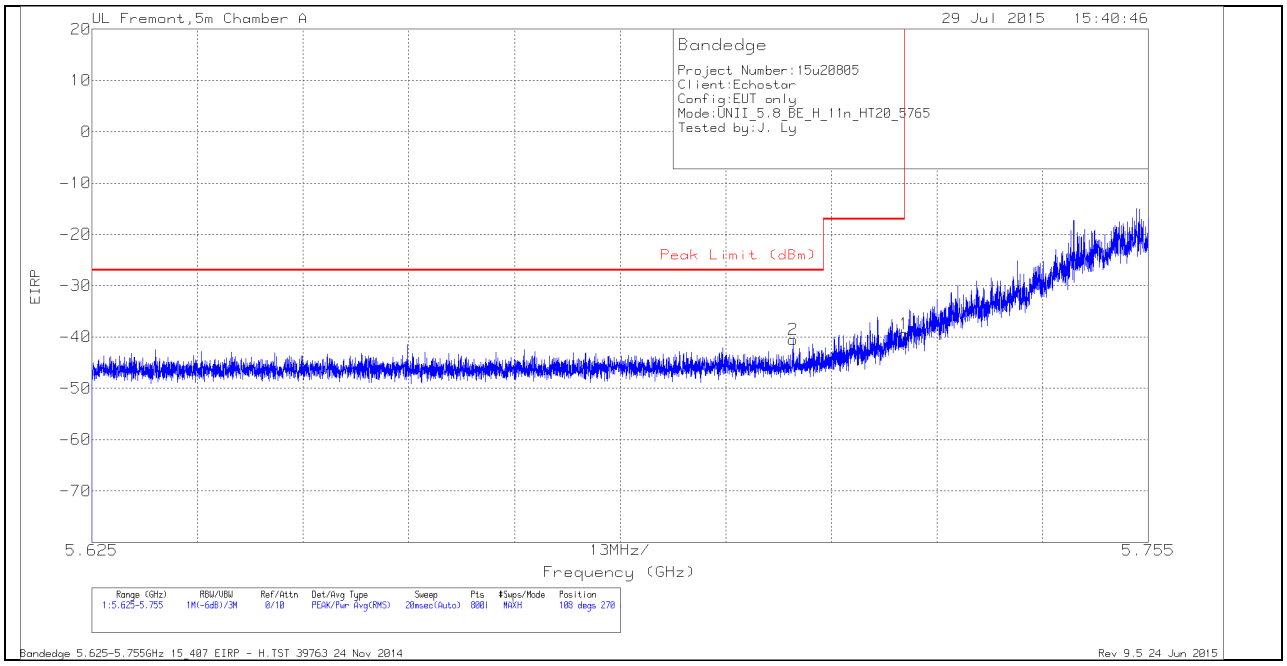


CH 149 HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.713	-53.98	Pk	34.7	-20.8	11.8	-28.28	-27	-1.28	0	143	H
1	5.725	-55.94	Pk	34.7	-20.7	11.8	-30.14	-17	-13.14	0	143	H

Pk - Peak detector



CH 153 HORIZONTAL DATA

Trace Markers

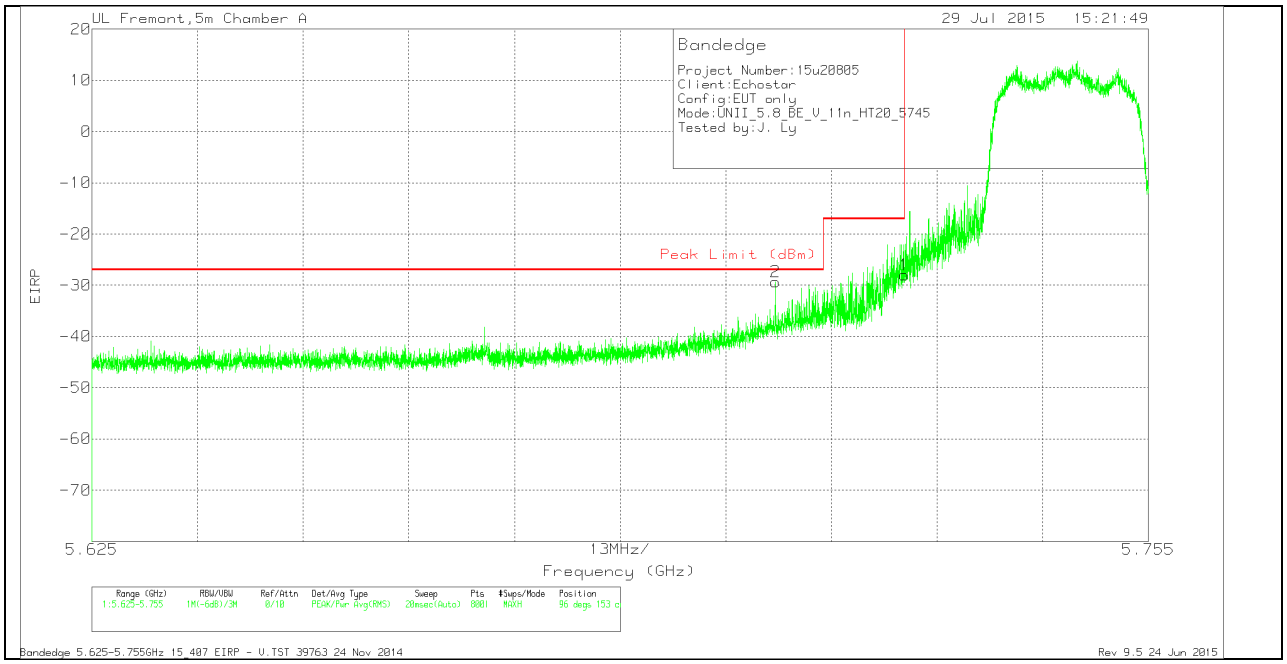
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.711	-66.3	Pk	34.7	-20.7	11.8	-40.5	-27	-13.5	108	270	H
1	5.725	-65.25	Pk	34.7	-20.7	11.8	-39.45	-17	-22.45	108	270	H

Pk - Peak detector

Bandedge 5.625-5.755GHz 15_407 EIRP - H.TST 39763 24 Nov 2014

Rev 9.5 24 Jun 2015

VERTICAL PEAK AND AVERAGE PLOT



CH 149 VERTICAL DATA

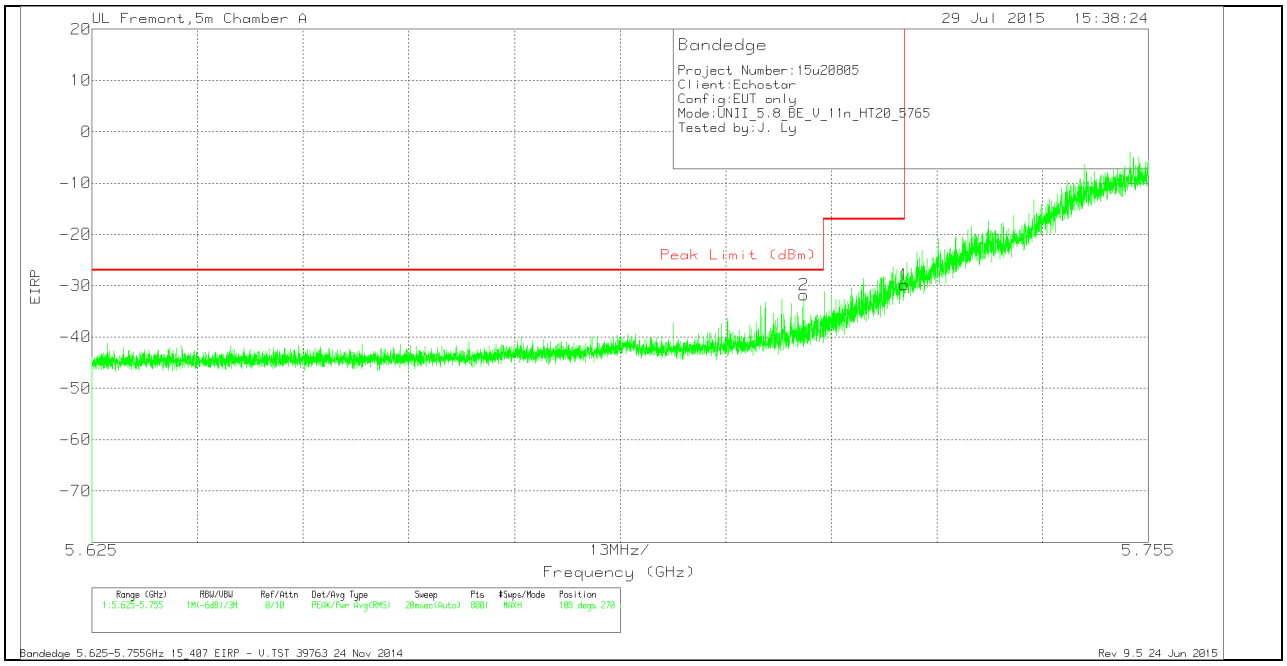
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.709	-55	Pk	34.7	-20.8	11.8	-29.3	-27	-2.3	96	153	V
1	5.725	-53.79	Pk	34.7	-20.7	11.8	-27.99	-17	-10.99	96	153	V

Pk - Peak detector

Bandedge 5.625-5.755GHz 15_407 EIRP - V.TST 39763 24 Nov 2014

Rev 9.5 24 Jun 2015



CH 153 VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.713	-57.64	Pk	34.7	-20.7	11.8	-31.84	-27	-4.84	108	270	V
1	5.725	-55.62	Pk	34.7	-20.7	11.8	-29.82	-17	-12.82	108	270	V

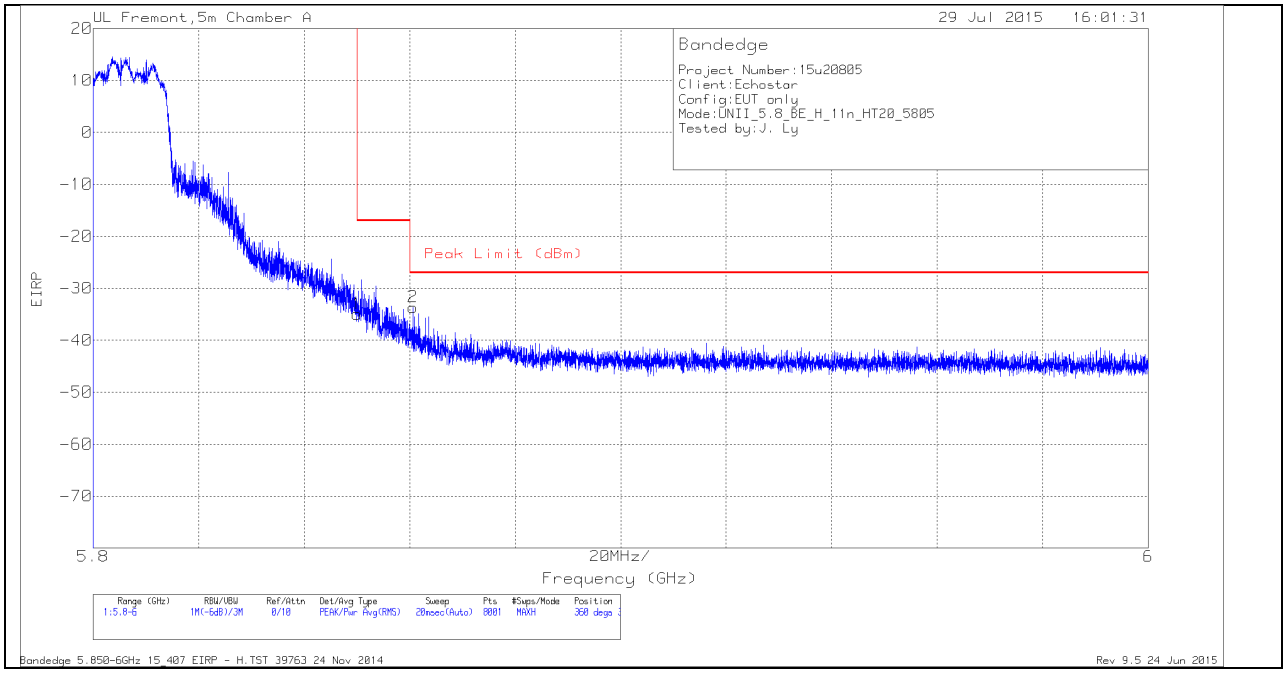
Pk - Peak detector

Bandedge 5.625-5.755GHz 15_407 EIRP - V.TST 39763 24 Nov 2014

Rev 9.5 24 Jun 2015

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



CH 161 HORIZONTAL DATA

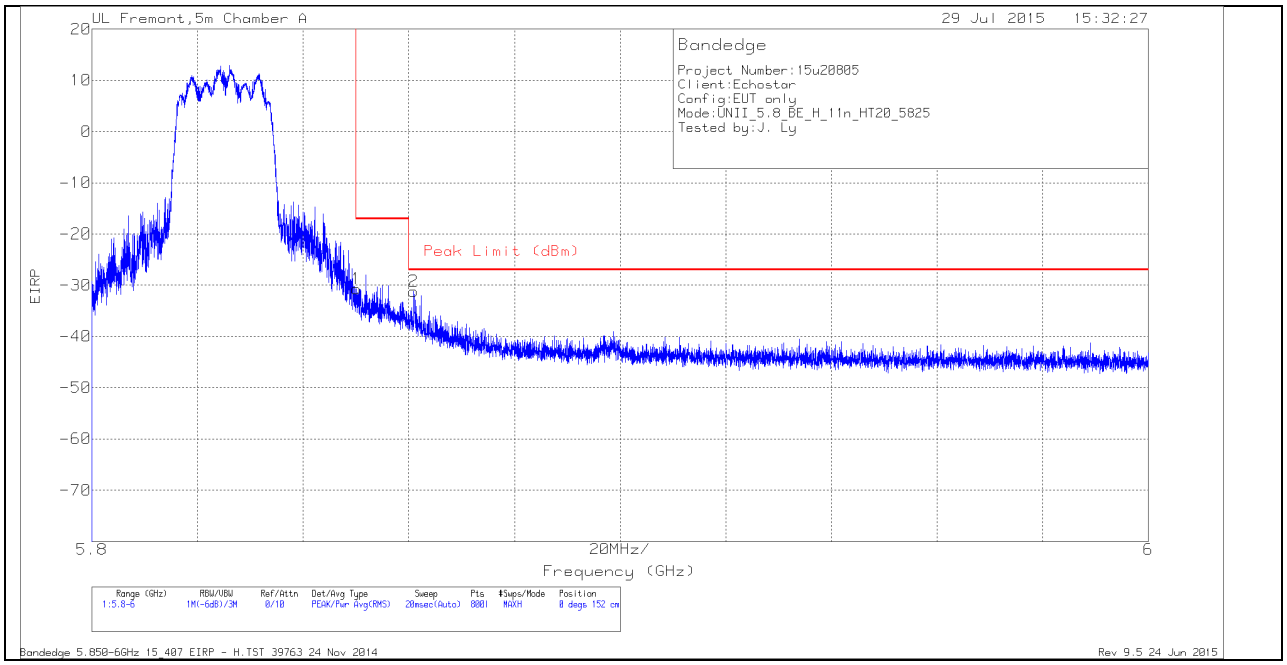
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-61.54	Pk	35.1	-20.3	11.8	-34.94	-17	-17.94	360	306	H
2	5.861	-60.23	Pk	35.1	-20.3	11.8	-33.63	-27	-6.63	360	306	H

Pk - Peak detector

Bandedge 5.850-6GHz 15_407 EIRP - H.TST 39763 24 Nov 2014

Rev 9.5 24 Jun 2015



CH 165 HORIZONTAL DATA

Trace Markers

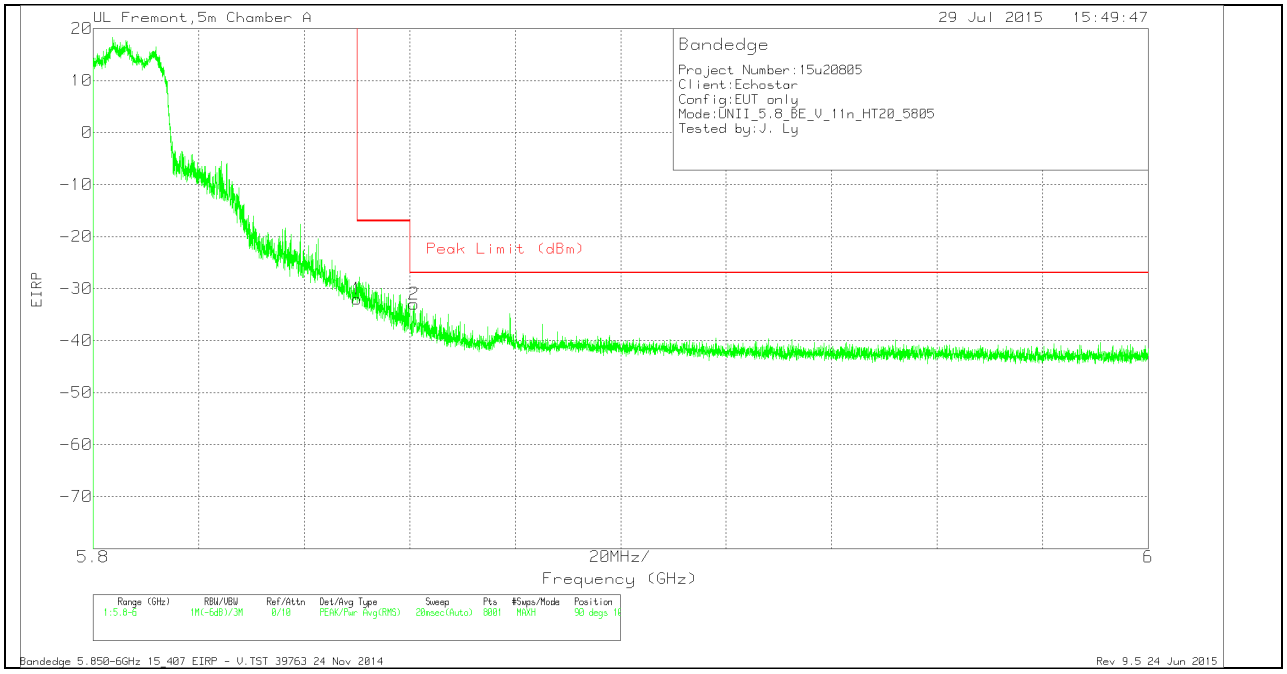
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-57.34	Pk	35.1	-20.3	11.8	-30.74	-17	-13.74	0	152	H
2	5.861	-57.82	Pk	35.1	-20.3	11.8	-31.22	-27	-4.22	0	152	H

Pk - Peak detector

Bandedge 5.850-6GHz 15_407 EIRP - H.TST 39763 24 Nov 2014

Rev 9.5 24 Jun 2015

VERTICAL PEAK AND AVERAGE PLOT



CH 161 VERTICAL DATA

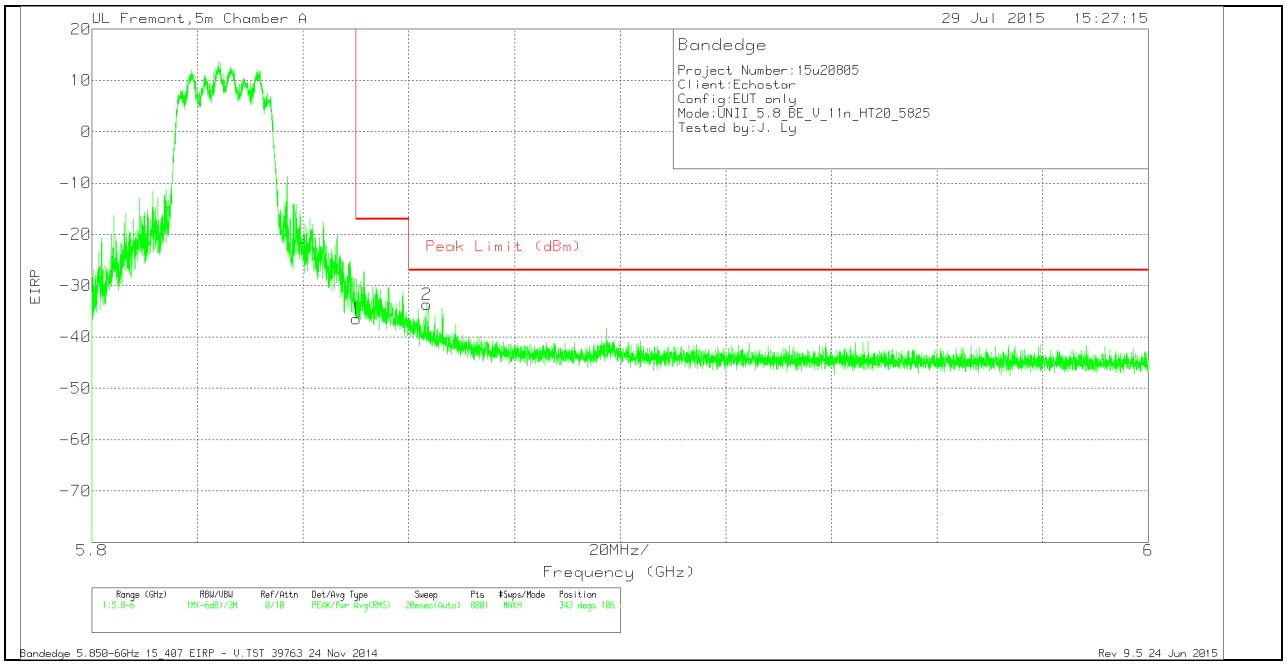
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-58.59	Pk	35.1	-20.3	11.8	-31.99	-17	-14.99	90	106	V
2	5.861	-59.57	Pk	35.1	-20.3	11.8	-32.97	-27	-5.97	90	106	V

Pk - Peak detector

Bandedge 5.850-6GHz 15_407 EIRP - V.TST 39763 24 Nov 2014

Rev 9.5 24 Jun 2015



CH 165 VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-63.09	Pk	35.1	-20.3	11.8	-36.49	-17	-19.49	343	106	V
2	5.863	-60.18	Pk	35.1	-20.3	11.8	-33.58	-27	-6.58	343	106	V

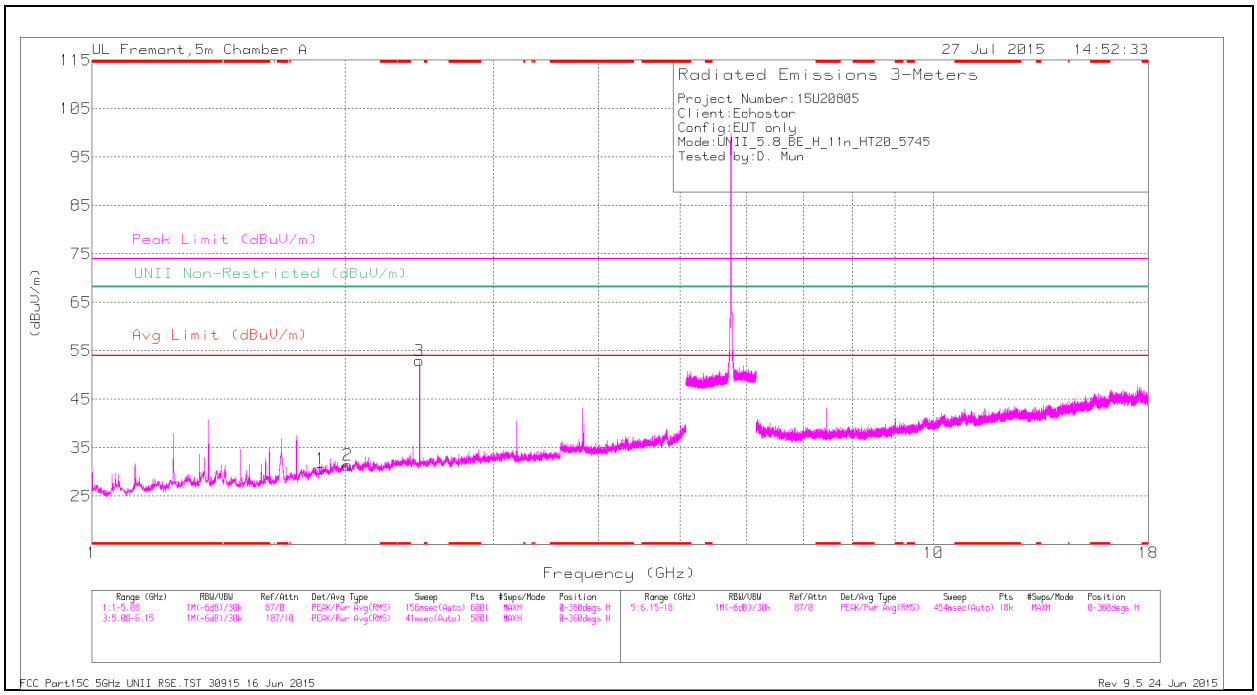
Pk - Peak detector

Bandedge 5.850-6GHz 15_407 EIRP - V.TST 39763 24 Nov 2014

Rev 9.5 24 Jun 2015

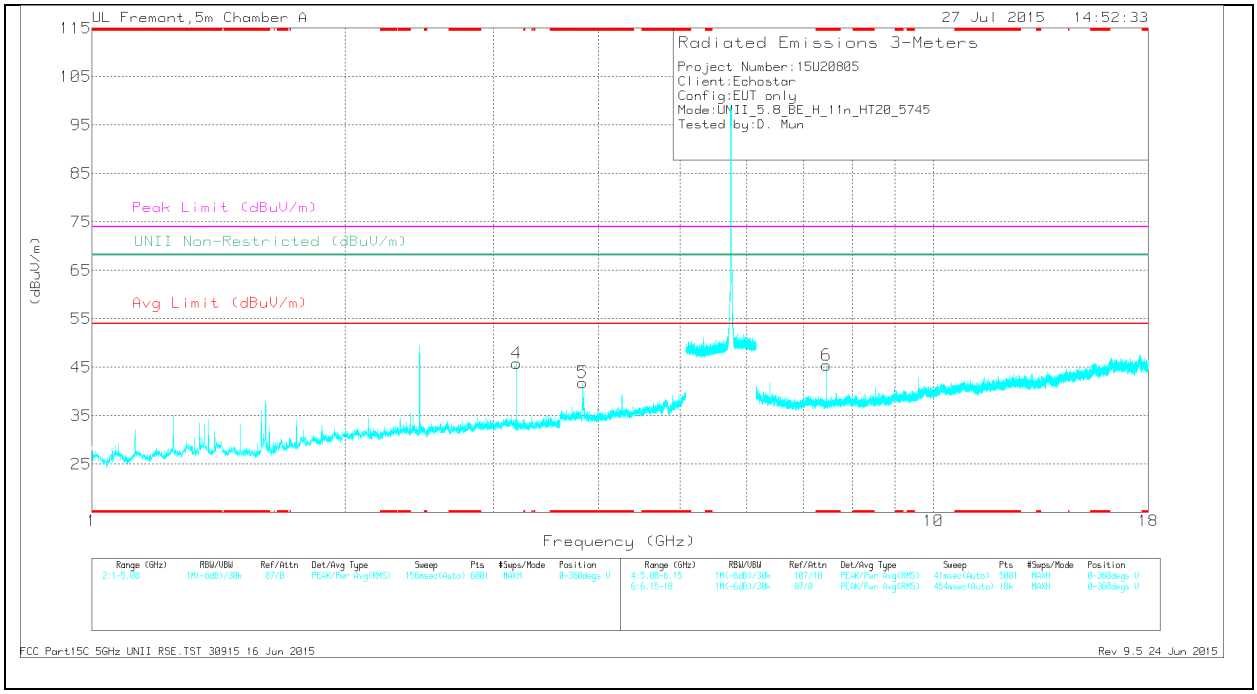
HARMONICS AND SPURIOUS EMISSIONS

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 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
5	* 3.83	40.27	Pk	33.4	-31.8	0	41.87	-	-	74	-32.13	-	-	0-360	100	V
6	* 7.461	36.45	Pk	35.5	-26.5	0	45.45	-	-	74	-28.55	-	-	0-360	100	V
1	1.871	35.31	Pk	30.6	-35.3	0	30.61	-	-	-	-	68.2	-37.59	0-360	100	H
2	2.012	34.29	Pk	31.2	-34.1	0	31.39	-	-	-	-	68.2	-36.81	0-360	100	H
3	2.45	55.49	Pk	32	-34.5	0	52.99	-	-	-	-	68.2	-15.21	0-360	100	H
4	3.198	46.28	Pk	32.7	-33.2	0	45.78	-	-	-	-	68.2	-22.42	0-360	100	V

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

Pk - Peak detector

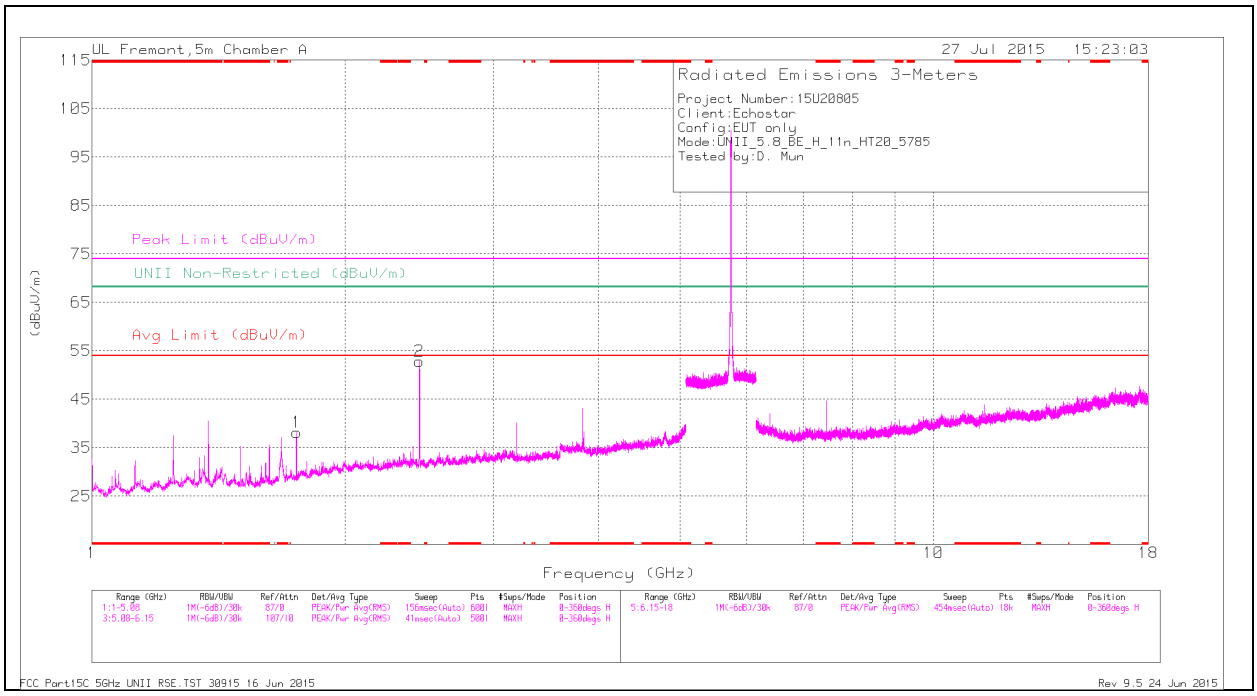
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 3.83	46.65	PK1	33.4	-31.8	0	48.25	-	-	74	-25.75	-	-	357	100	V
* 3.83	39.12	ADR	33.4	-31.8	.23	40.95	54	-13.05	-	-	-	-	357	100	V
* 7.462	39.44	PK1	35.5	-26.5	0	48.44	-	-	74	-25.56	-	-	357	100	V
* 7.462	31.01	ADR	35.5	-26.5	.23	40.24	54	-13.76	-	-	-	-	357	100	V
1.87	44.8	PK1	30.6	-35.3	0	40.1	-	-	-	-	68.2	-28.1	1	100	H
2.014	43.53	PK1	31.2	-34.1	0	40.63	-	-	-	-	68.2	-27.57	1	100	H
2.449	50.58	PK1	32	-34.5	0	48.08	-	-	-	-	68.2	-20.12	1	100	H
3.198	43.52	PK1	32.7	-33.2	0	43.02	-	-	-	-	68.2	-25.18	1	100	V

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

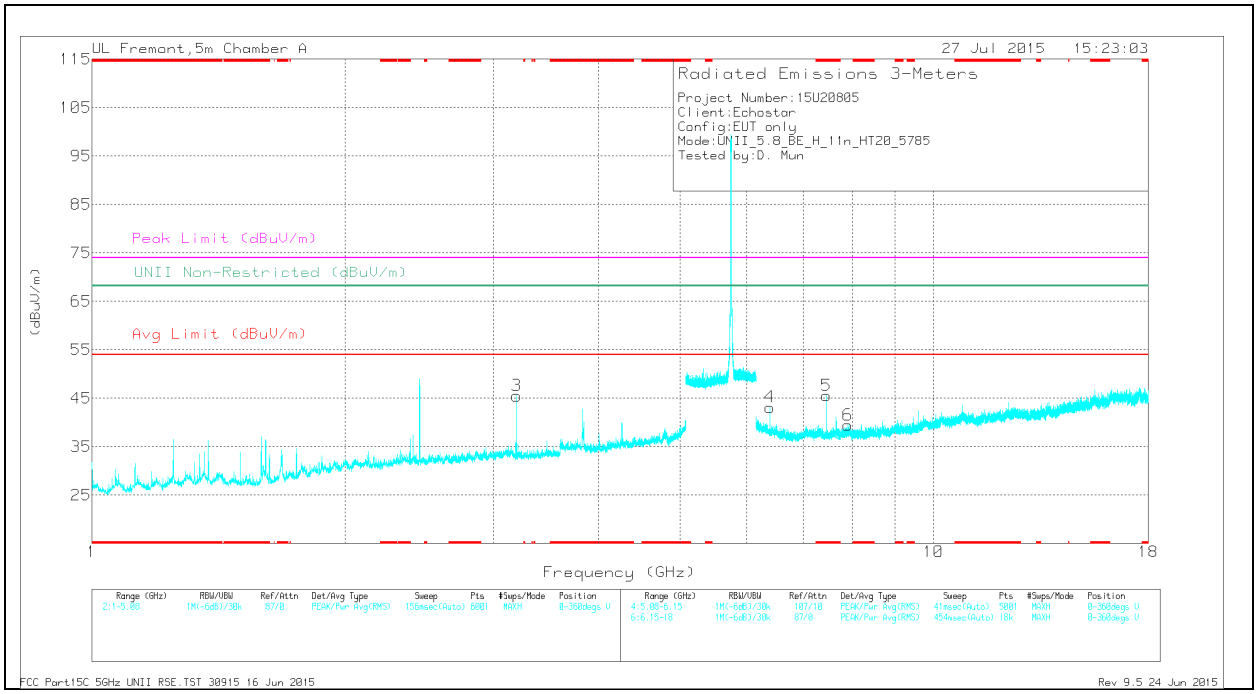
PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average

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 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
5	* 7.461	36.55	Pk	35.5	-26.5	0	45.55	-	-	74	-28.45	-	-	0-360	200	V
1	1.75	43.57	Pk	29.3	-34.7	0	38.17	-	-	-	-	68.2	-30.03	0-360	100	H
2	2.45	55.33	Pk	32	-34.5	0	52.83	-	-	-	-	68.2	-15.37	0-360	100	H
3	3.198	46.01	Pk	32.7	-33.2	0	45.51	-	-	-	-	68.2	-22.69	0-360	100	V
4	6.396	35.67	Pk	35.5	-28	0	43.17	-	-	-	-	68.2	-25.03	0-360	200	V
6	7.913	29.42	Pk	35.7	-25.7	0	39.42	-	-	-	-	68.2	-28.78	0-360	200	V

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

Pk - Peak detector

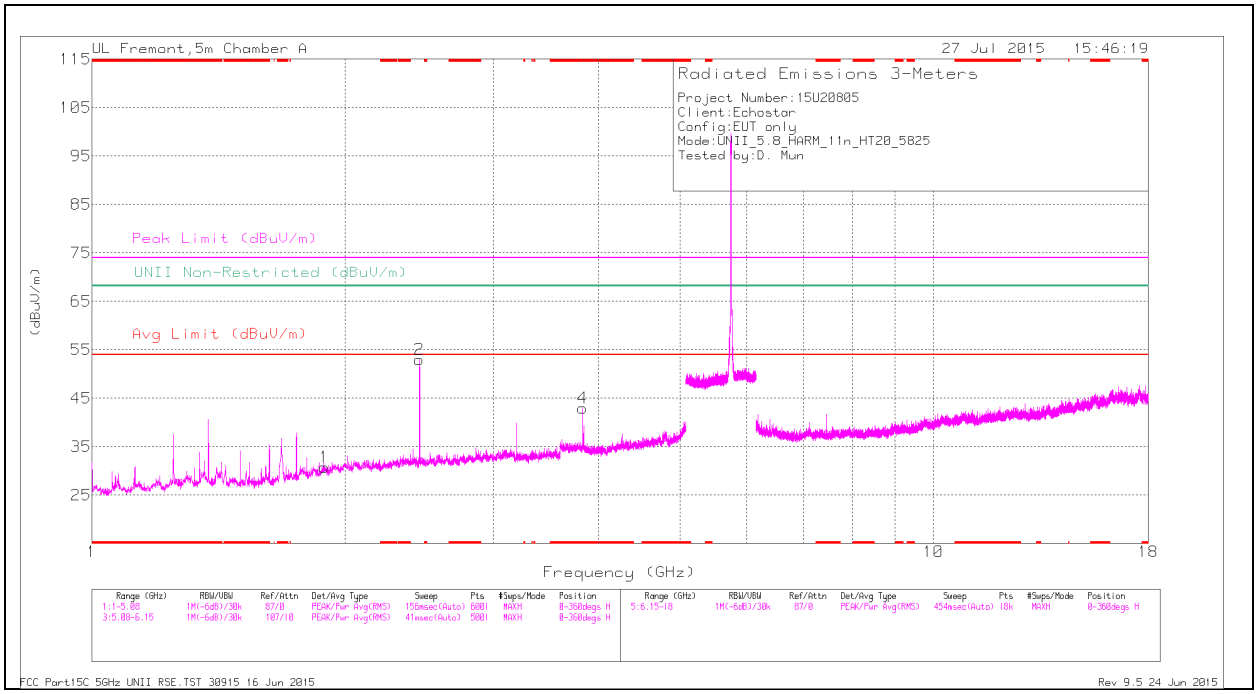
Radiated Emissions

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
* 7.461	39.86	PK1	35.5	-26.5	0	48.86	-	-	74	-25.14	-	-	0	201	V
* 7.461	31.65	AD1	35.5	-26.5	.23	40.88	54	-13.12	-	-	-	-	0	201	V
1.751	43.6	PK1	29.3	-34.7	0	38.2	-	-	-	-	68.2	-30	0	100	H
2.449	50.76	PK1	32	-34.5	0	48.26	-	-	-	-	68.2	-19.94	0	100	H
3.198	43.56	PK1	32.7	-33.2	0	43.06	-	-	-	-	68.2	-25.14	0	100	V
6.395	40.63	PK1	35.5	-28	0	48.13	-	-	-	-	68.2	-20.07	0	201	V
7.912	36.64	PK1	35.7	-25.7	0	46.64	-	-	-	-	68.2	-21.56	0	201	V

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

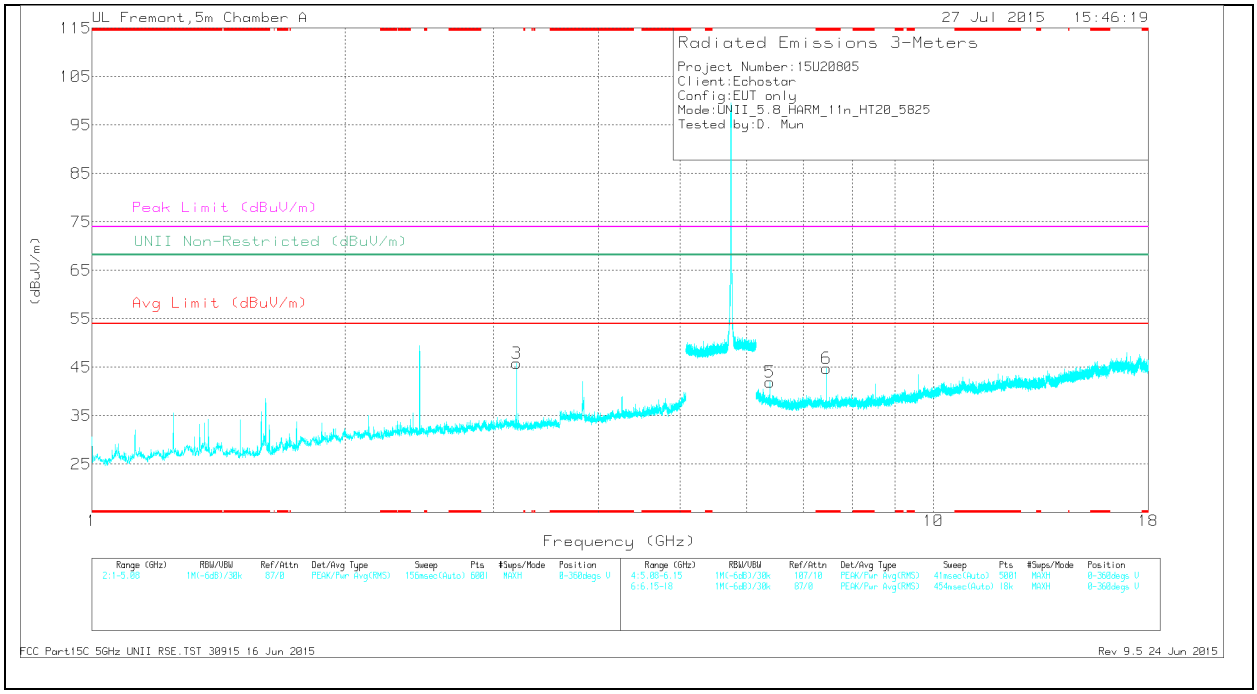
PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average
Rev 9.5 24 Jun 2015

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 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	* 3.83	41.42	Pk	33.4	-31.8	0	43.02	-	-	74	-30.98	-	-	0-360	100	H
6	* 7.461	35.77	Pk	35.5	-26.5	0	44.77	-	-	74	-29.23	-	-	0-360	100	V
1	1.889	35.35	Pk	30.7	-35.3	0	30.75	-	-	-	-	68.2	-37.45	0-360	100	H
2	2.45	55.51	Pk	32	-34.5	0	53.01	-	-	-	-	68.2	-15.19	0-360	100	H
3	3.198	46.3	Pk	32.7	-33.2	0	45.8	-	-	-	-	68.2	-22.4	0-360	100	V
5	6.396	34.49	Pk	35.5	-28	0	41.99	-	-	-	-	68.2	-26.21	0-360	100	V

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 3.829	43.18	PK-U	33.4	-31.8	0	44.78	-	-	74	-29.22	-	-	5	101	H
* 3.829	31.68	ADR	33.4	-31.8	.23	33.51	54	-20.49	-	-	-	-	5	101	H
* 7.461	40.12	PK-U	35.5	-26.5	0	49.12	-	-	74	-24.88	-	-	5	101	V
* 7.461	29.39	ADR	35.5	-26.5	.23	38.62	54	-15.38	-	-	-	-	5	101	V
1.889	43.83	PK-U	30.7	-35.3	0	39.23	-	-	-	-	68.2	-28.97	327	100	H
2.449	43.04	PK-U	32	-34.5	0	40.54	-	-	-	-	68.2	-27.66	5	254	H
3.196	43.04	PK-U	32.7	-33.1	0	42.64	-	-	-	-	68.2	-25.56	5	101	V
6.395	41.62	PK-U	35.5	-28	0	49.12	-	-	-	-	68.2	-19.08	5	101	V

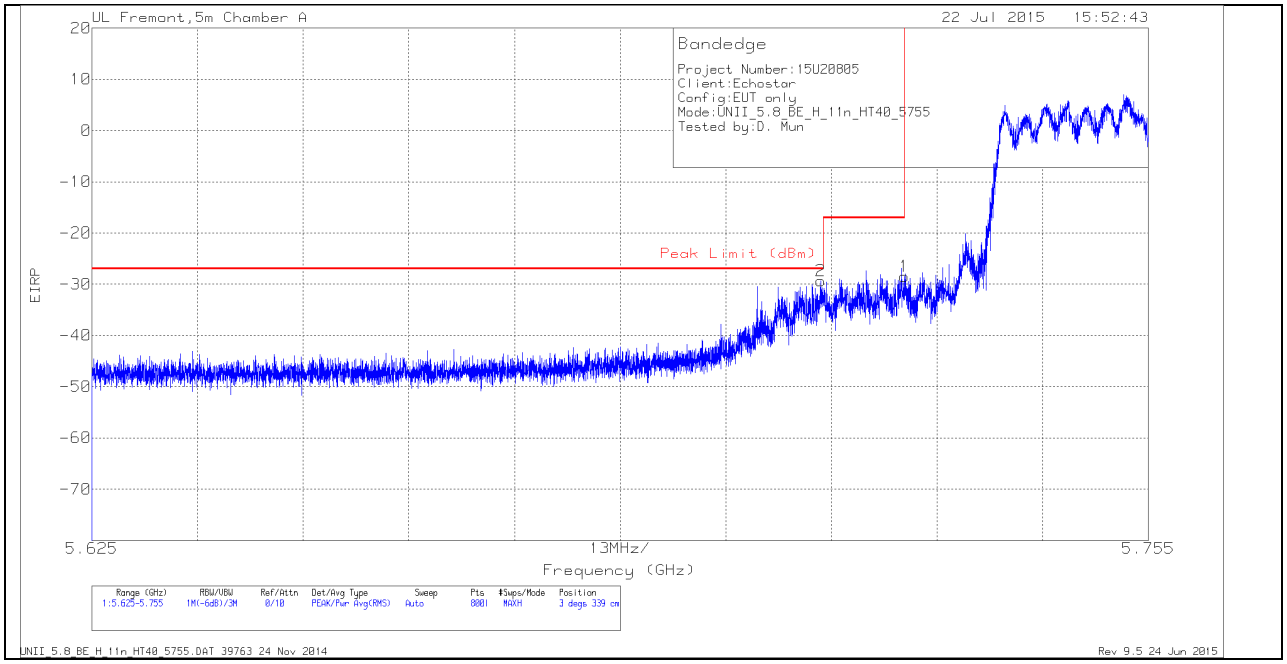
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

13.2.2. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.8 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

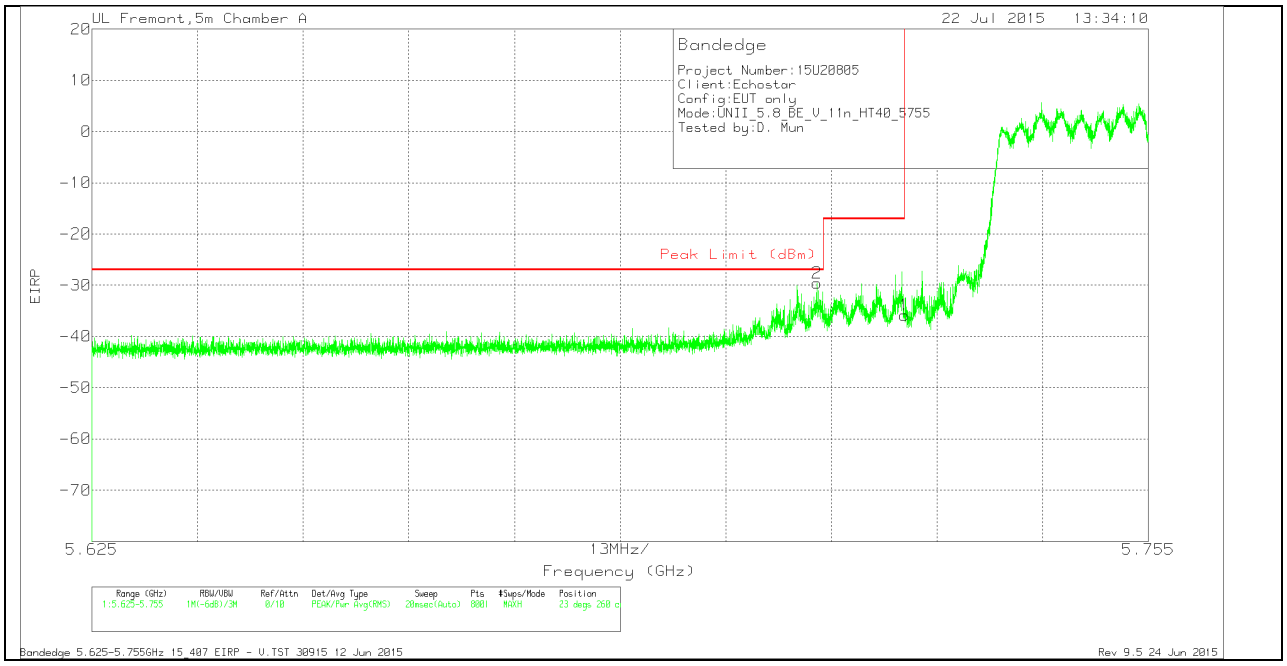
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (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	5.715	-55.03	Pk	34.7	-20.8	11.8	0	-29.33	-27	-2.33	3	339	H
1	5.725	-54.33	Pk	34.7	-20.7	11.8	0	-28.53	-17	-11.53	3	339	H

Pk - Peak detector

UNII_5.8_BE_H_11n_HT40_5755.DAT 39763 24 Nov 2014

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.714	-56.3	Pk	34.7	-19.8	11.8	-29.6	-27	-2.6	23	260	V
1	5.725	-62.55	Pk	34.7	-19.8	11.8	-35.85	-17	-18.85	23	260	V

Pk - Peak detector

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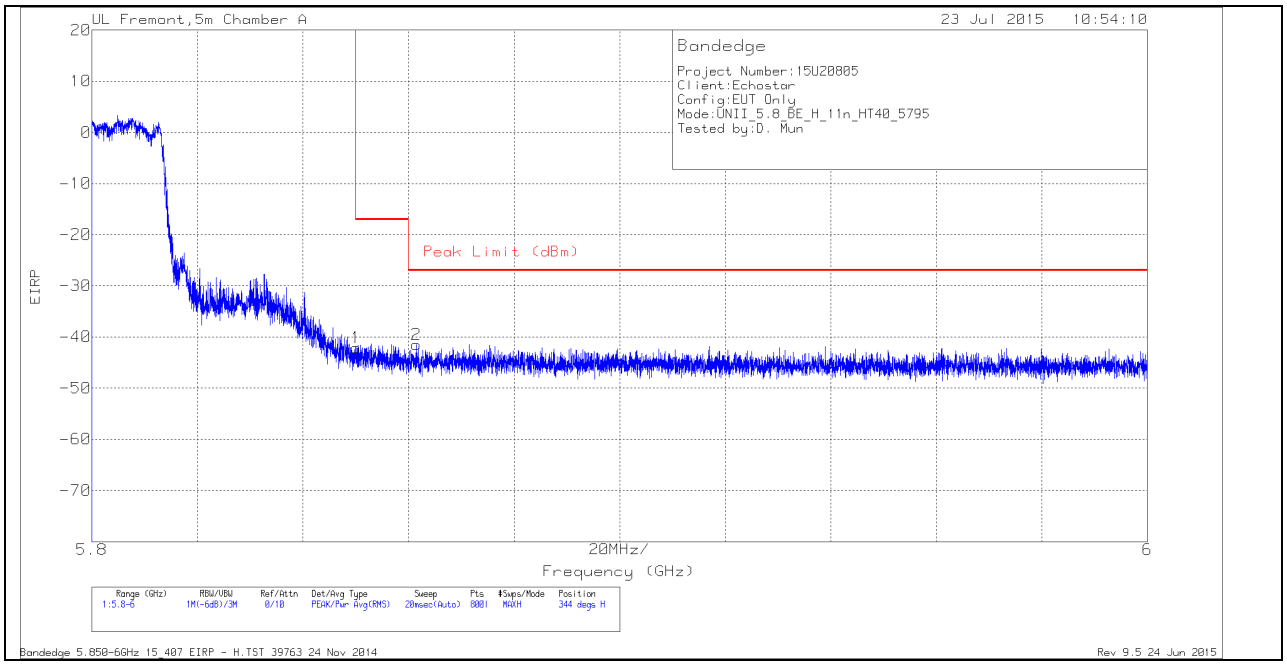
AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

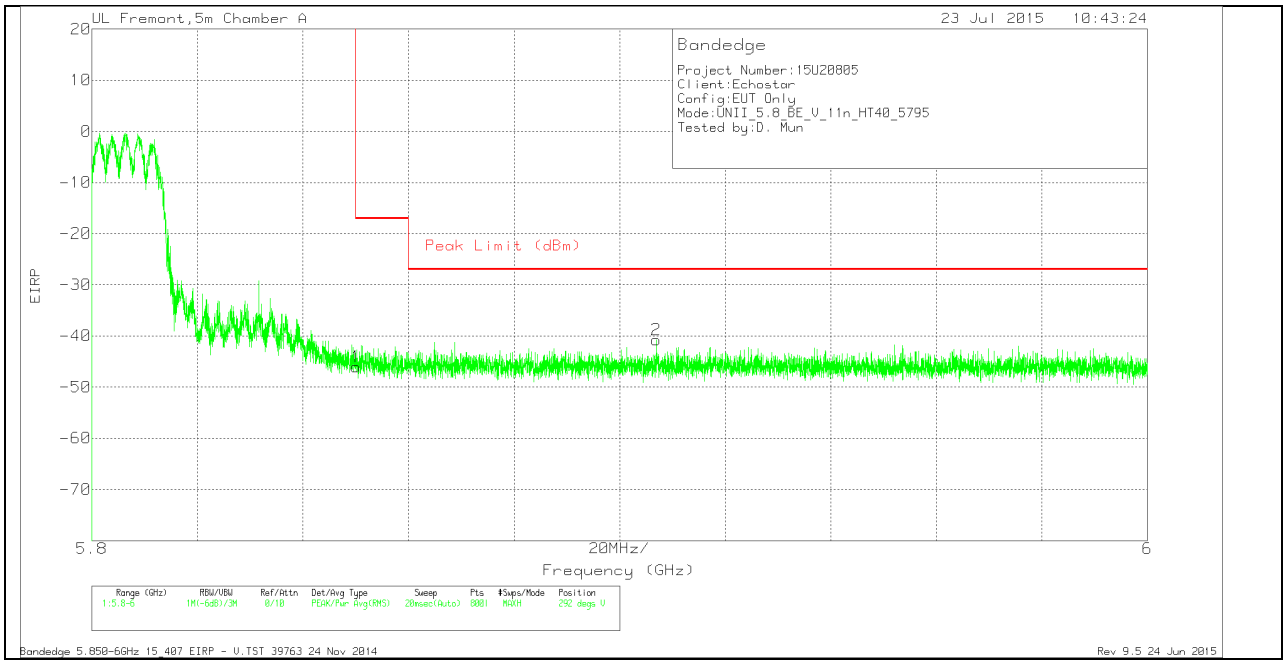
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-68.68	Pk	35.1	-20.3	11.8	-42.08	-17	-25.08	344	303	H
2	5.862	-68.04	Pk	35.1	-20.3	11.8	-41.44	-27	-14.44	344	303	H

Pk - Peak detector

Bandedge 5.850-6GHz 15_407 EIRP - H.TST 39763 24 Nov 2014

Rev 9.5 24 Jun 2015

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-72.67	Pk	35.1	-20.3	11.8	-46.07	-17	-29.07	292	370	V
2	5.907	-67.6	Pk	35.2	-20.2	11.8	-40.8	-27	-13.8	292	370	V

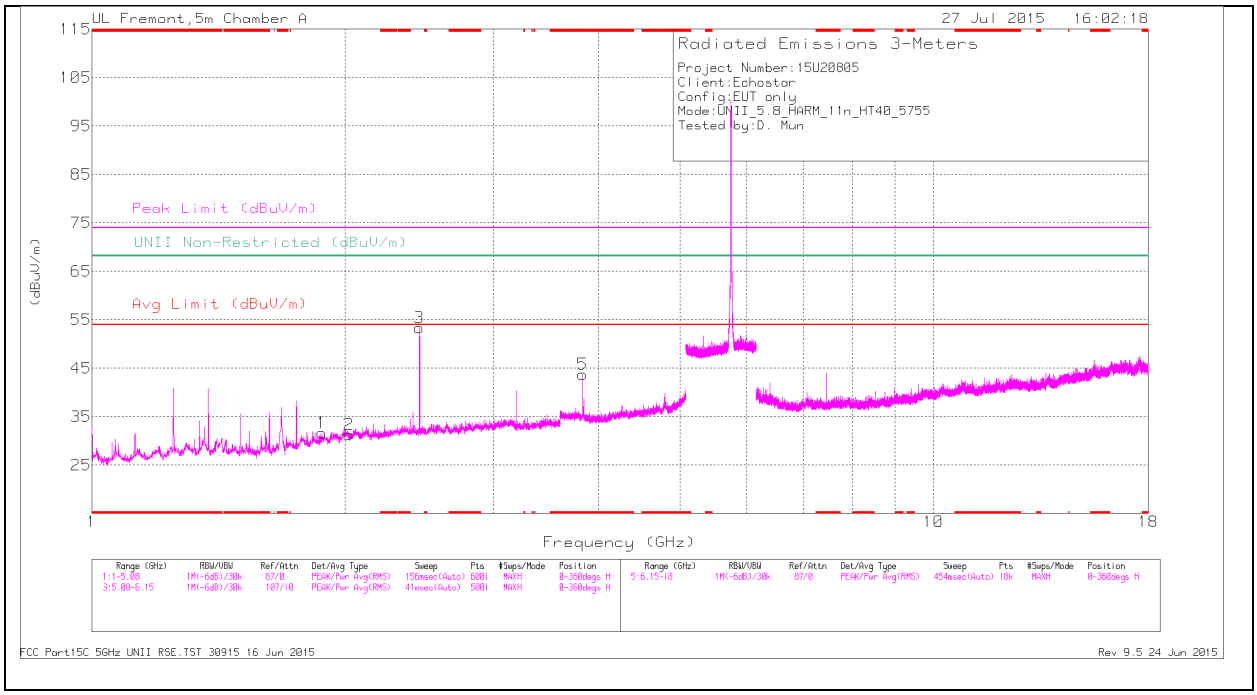
Pk - Peak detector

Bandedge 5.850-6GHz 15_407 EIRP - V.TST 39763 24 Nov 2014

Rev 9.5 24 Jun 2015

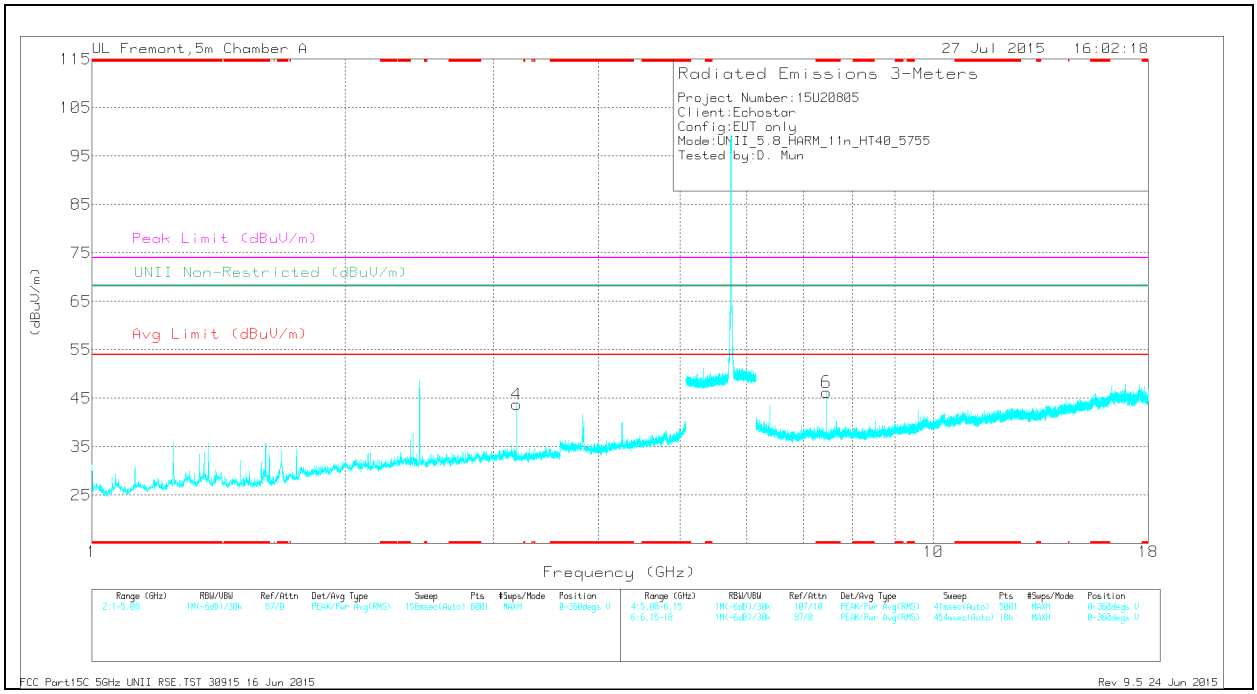
HARMONICS AND SPURIOUS EMISSIONS

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 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
5	* 3.83	42.1	Pk	33.4	-31.8	0	43.7	-	-	74	-30.3	-	-	0-360	100	H
6	* 7.461	37.28	Pk	35.5	-26.5	0	46.28	-	-	74	-27.72	-	-	0-360	200	V
1	1.874	36.42	Pk	30.6	-35.4	0	31.62	-	-	-	-	68.2	-36.58	0-360	201	H
2	2.02	34.14	Pk	31.2	-34.1	0	31.24	-	-	-	-	68.2	-36.96	0-360	100	H
3	2.45	55.92	Pk	32	-34.5	0	53.42	-	-	-	-	68.2	-14.78	0-360	100	H
4	3.198	44.29	Pk	32.7	-33.2	0	43.79	-	-	-	-	68.2	-24.41	0-360	200	V

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

Pk - Peak detector

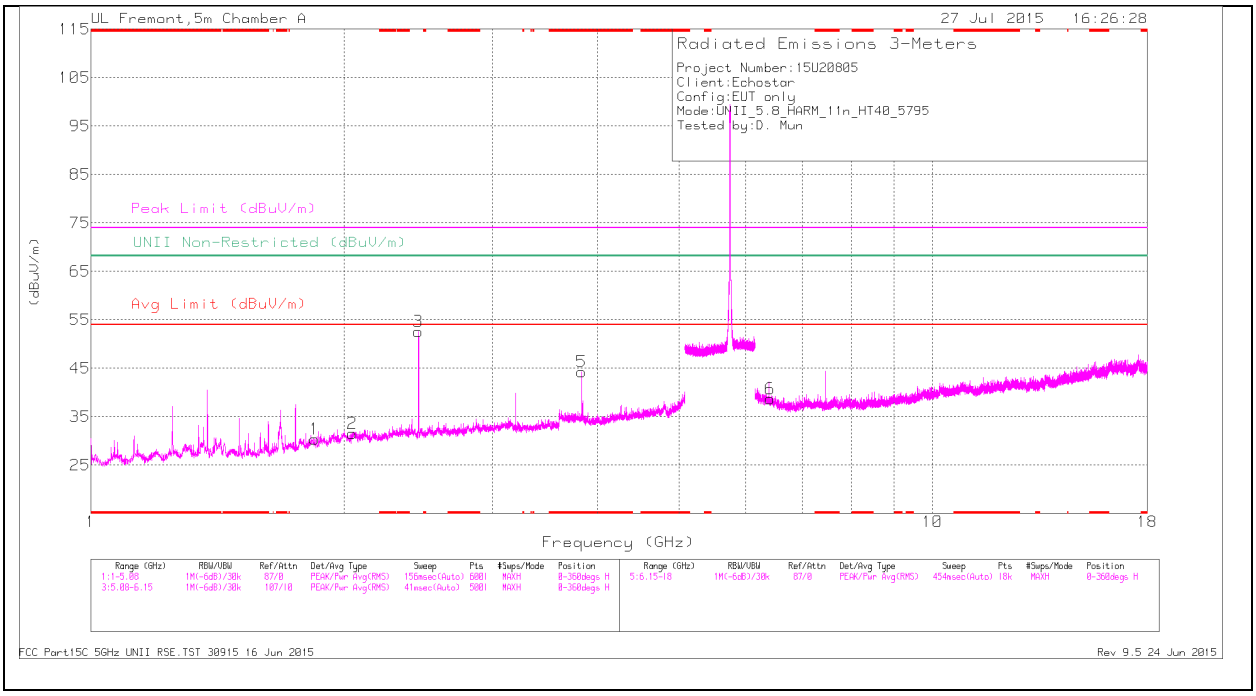
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 3.83	44.11	PK1	33.4	-31.8	0	45.71	-	-	74	-28.29	-	-	360	100	H
* 3.83	36.17	AD1	33.4	-31.8	.49	38.26	54	-15.74	-	-	-	-	360	100	H
* 7.462	39.02	PK1	35.5	-26.5	0	48.02	-	-	74	-25.98	-	-	360	201	V
* 7.462	30.09	AD1	35.5	-26.5	.49	39.58	54	-14.42	-	-	-	-	360	201	V
1.875	44.19	PK1	30.6	-35.4	0	39.39	-	-	-	-	68.2	-28.81	360	202	H
2.018	42.66	PK1	31.2	-34.1	0	39.76	-	-	-	-	68.2	-28.44	360	100	H
2.449	51.48	PK1	32	-34.5	0	48.98	-	-	-	-	68.2	-19.22	360	100	H
3.198	43.97	PK1	32.7	-33.2	0	43.47	-	-	-	-	68.2	-24.73	360	201	V

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

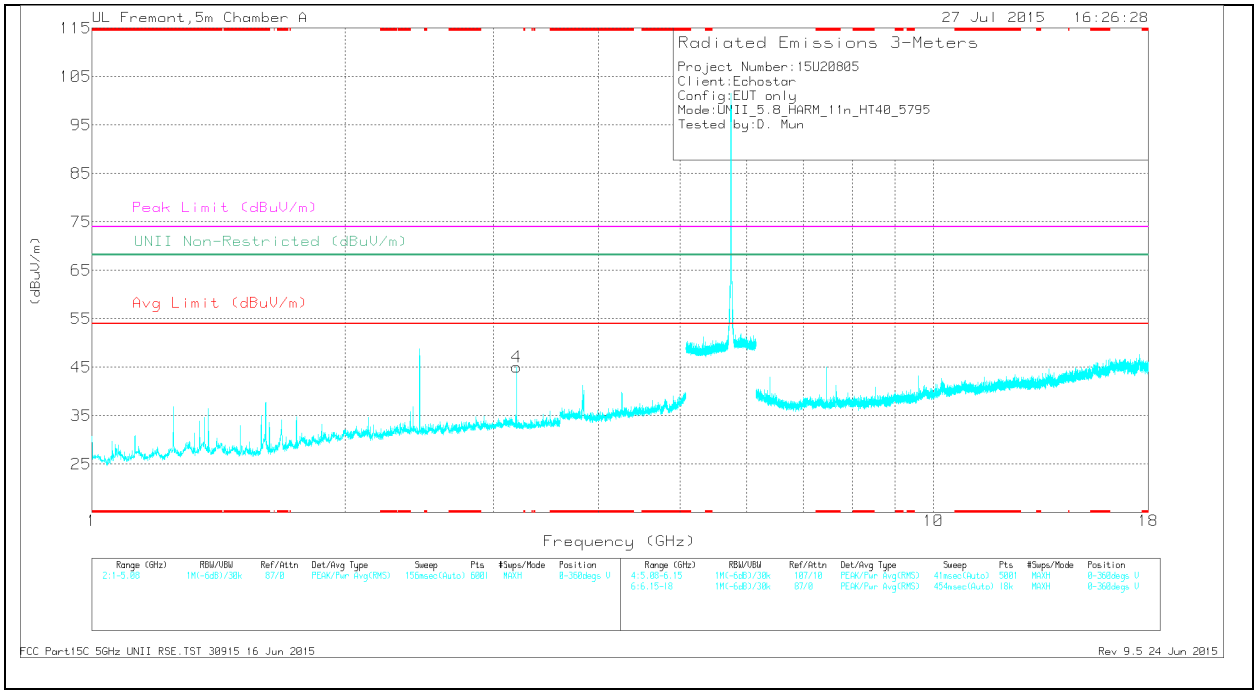
PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average
Rev 9.5 24 Jun 2015

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 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
5	* 3.83	42.72	Pk	33.4	-31.8	0	44.32	-	-	74	-29.68	-	-	0-360	100	H
1	1.845	35.07	Pk	30.4	-35.1	0	30.37	-	-	-	-	68.2	-37.83	0-360	100	H
2	2.044	34.47	Pk	31.3	-34.2	0	31.57	-	-	-	-	68.2	-36.63	0-360	100	H
3	2.45	55.06	Pk	32	-34.5	0	52.56	-	-	-	-	68.2	-15.64	0-360	100	H
4	3.198	45.55	Pk	32.7	-33.2	0	45.05	-	-	-	-	68.2	-23.15	0-360	100	V
6	6.415	31.04	Pk	35.5	-27.8	0	38.74	-	-	-	-	68.2	-29.46	0-360	200	H

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

Pk - Peak detector

Radiated Emissions

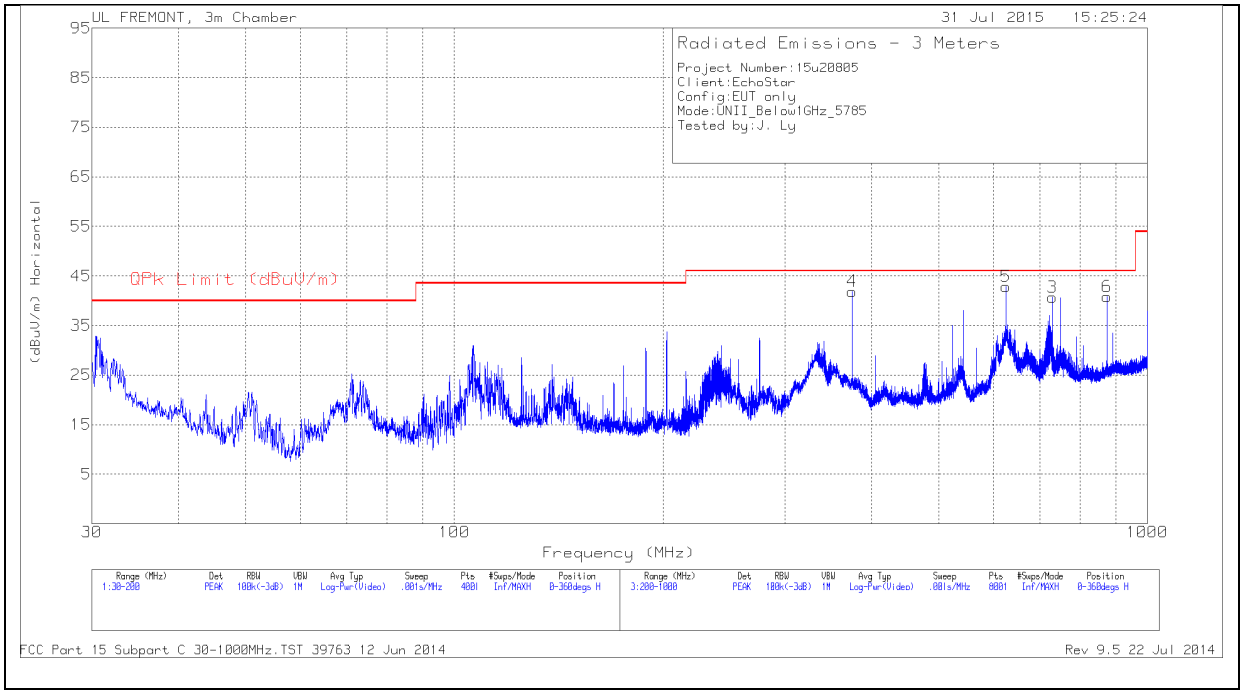
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 3.83	44.49	PK1	33.4	-31.8	0	46.09	-	-	74	-27.91	-	-	0	100	H
* 3.83	36.89	AD1	33.4	-31.8	.49	38.98	54	-15.02	-	-	-	-	0	100	H
1.844	44.22	PK1	30.3	-35.1	0	39.42	-	-	-	-	68.2	-28.78	0	100	H
2.045	43.36	PK1	31.3	-34.2	0	40.46	-	-	-	-	68.2	-27.74	0	100	H
2.451	50.35	PK1	32	-34.5	0	47.85	-	-	-	-	68.2	-20.35	0	100	H
2.451	50.41	PK1	32	-34.5	0	47.91	-	-	-	-	68.2	-20.29	0	100	H
3.198	44.2	PK1	32.7	-33.2	0	43.7	-	-	-	-	68.2	-24.5	0	100	V
6.416	40.37	PK1	35.5	-27.7	0	48.17	-	-	-	-	68.2	-20.03	0	201	H

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

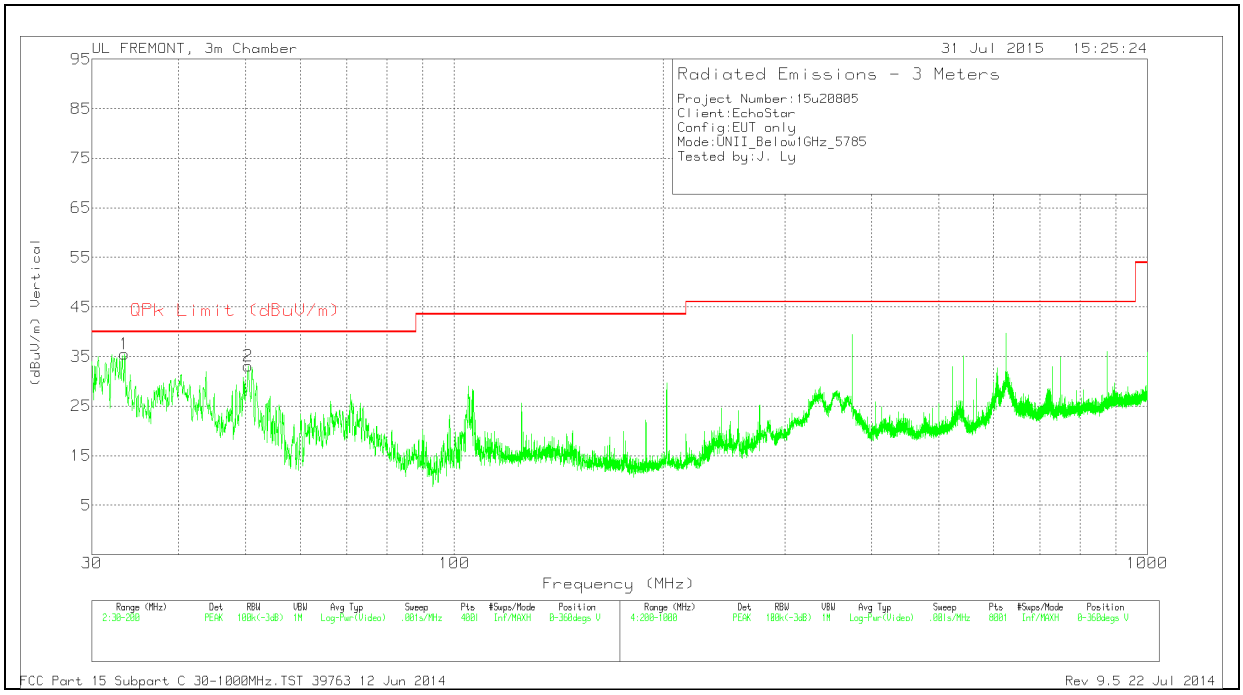
PK1 - KDB789033 Method: Peak
AD1 - KDB789033 Method: AD Primary Power Average

14. 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

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
1	33.4425	43.36	PK	19.2	-27.1	35.46	40	-4.54	0-360	100	V
2	50.4	51.94	PK	8.1	-26.9	33.14	40	-6.86	0-360	100	V
4	375	51.51	PK	15.1	-24.7	41.91	46.02	-4.11	0-360	100	H
5	625	48.44	PK	19	-24.6	42.84	46.02	-3.18	0-360	300	H
3	729	44.74	PK	19.9	-23.9	40.74	46.02	-5.28	0-360	100	H
6	875	41.93	PK	21.8	-22.9	40.83	46.02	-5.19	0-360	100	H

PK - Peak detector

Radiated Emissions

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
375.004	50.56	QP	15.1	-24.7	40.96	46.02	-5.06	135	105	H
624.9976	49.64	QP	19	-24.6	44.04	46.02	-1.98	271	135	H
875.0028	42.64	QP	21.8	-22.9	41.54	46.02	-4.48	140	157	H

QP - Quasi-Peak detector

FCC Part 15 Subpart C 30-1000MHz.TST 39763 12 Jun 2014
Rev 9.5 22 Jul 2014

15. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 8.8

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

* Decreases with the logarithm of the frequency.

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 C63.10.

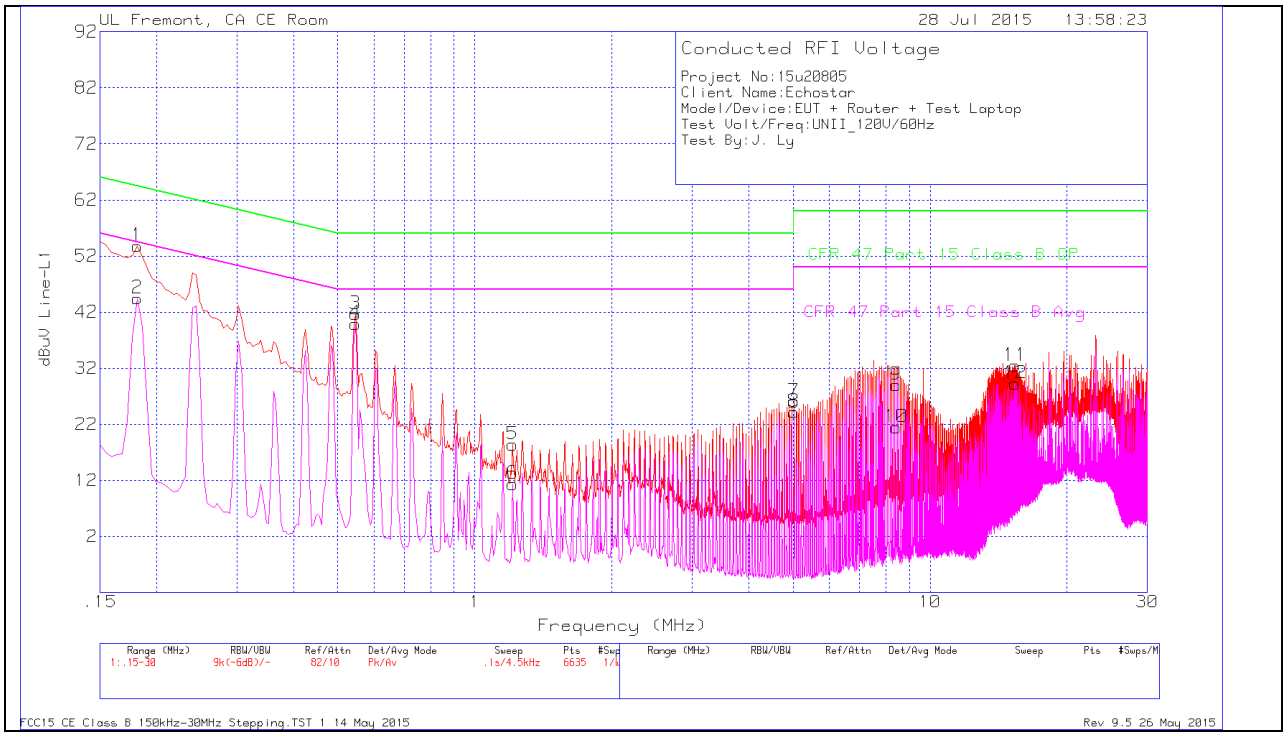
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

6 WORST EMISSIONS

LINE 1 PLOT



LINE 1 RESULTS

Trace Markers

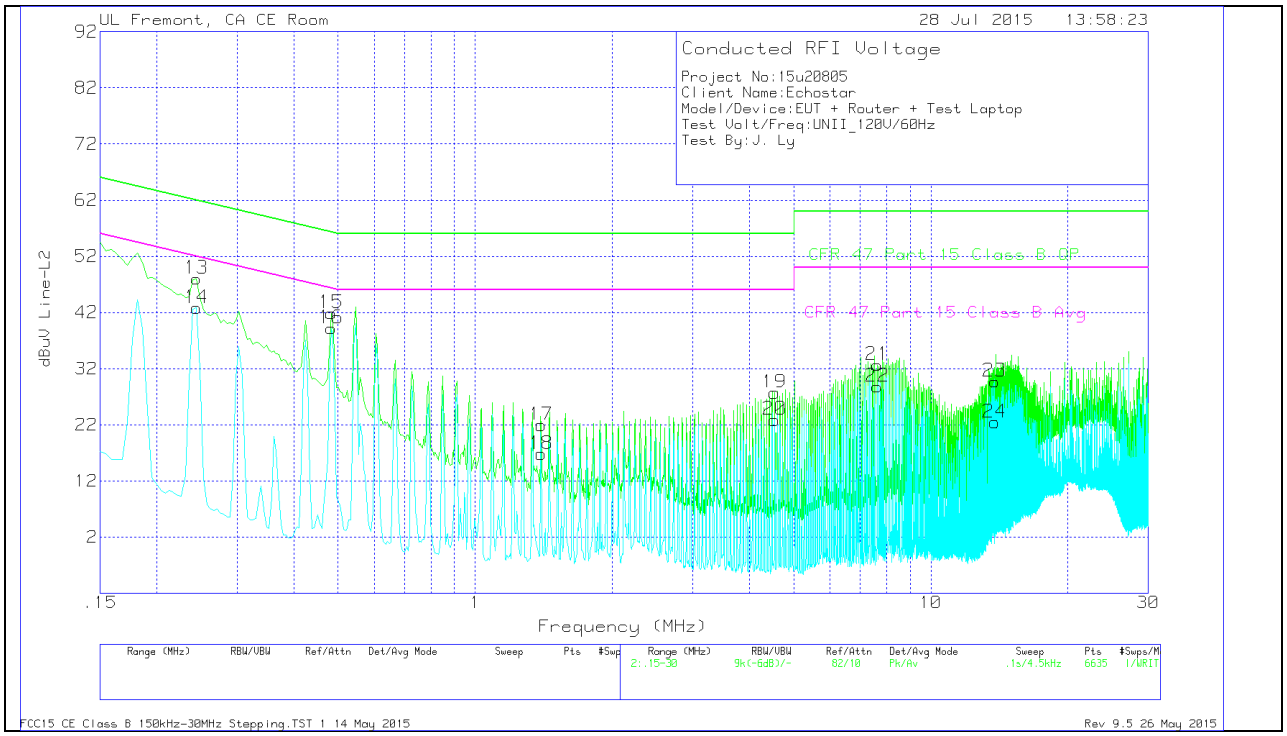
Range 1: Line-L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L1	LC Cables 1&3	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	Margin (dB)	CFR 47 Part 15 Class B Avg	Margin (dB)
1	.1815	52.68	Pk	1.1	0	53.78	64.42	-10.64	-	-
2	.1815	43.35	Av	1.1	0	44.45	-	-	54.42	-9.97
3	.546	41.36	Pk	.3	0	41.66	56	-14.34	-	-
4	.546	39.64	Av	.3	0	39.94	-	-	46	-6.06
5	1.212	18.2	Pk	.2	0	18.4	56	-37.6	-	-
6	1.212	11.19	Av	.2	0	11.39	-	-	46	-34.61
7	5.028	25.76	Pk	.2	.1	26.06	60	-33.94	-	-
8	5.028	23.9	Av	.2	.1	24.2	-	-	50	-25.8
9	8.4255	28.7	Pk	.2	.1	29	60	-31	-	-
10	8.4255	21.19	Av	.2	.1	21.49	-	-	50	-28.51
11	15.387	31.93	Pk	.3	.2	32.43	60	-27.57	-	-
12	15.387	28.77	Av	.3	.2	29.27	-	-	50	-20.73

Pk - Peak detector

Av - Average detection

LINE 2 PLOT



LINE 2 RESULTS

Trace Markers

Range 2: Line-L2 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L2	LC Cables 2&3	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	Margin (dB)	CFR 47 Part 15 Class B Avg	Margin (dB)
13	.2445	47.23	Pk	.8	0	48.03	61.94	-13.91	-	-
14	.2445	42	Av	.8	0	42.8	-	-	51.94	-9.14
15	.483	41.47	Pk	.4	0	41.87	56.29	-14.42	-	-
16	.483	38.8	Av	.4	0	39.2	-	-	46.29	-7.09
17	1.3965	21.68	Pk	.2	.1	21.98	56	-34.02	-	-
18	1.3965	16.52	Av	.2	.1	16.82	-	-	46	-29.18
19	4.542	27.44	Pk	.2	.1	27.74	56	-28.26	-	-
20	4.542	22.61	Av	.2	.1	22.91	-	-	46	-23.09
21	7.6335	32.35	Pk	.2	.1	32.65	60	-27.35	-	-
22	7.6335	28.52	Av	.2	.1	28.82	-	-	50	-21.18
23	13.8165	29.33	Pk	.2	.2	29.73	60	-30.27	-	-
24	13.8165	22.04	Av	.2	.2	22.44	-	-	50	-27.56

Pk - Peak detector

Av - Average detection

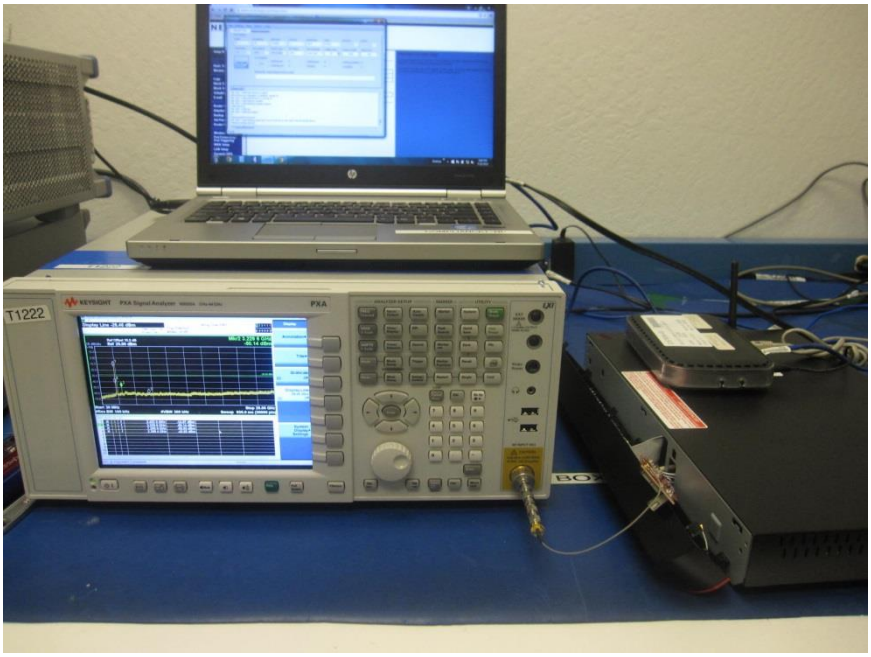
FCC15 CE Class B 150kHz-30MHz Stepping.TST 1 14 May 2015

Rev 9.5 26 May 2015

16. SETUP PHOTOS

ANTENNA PORT CONDUCTED RF MEASUREMENT SETUP

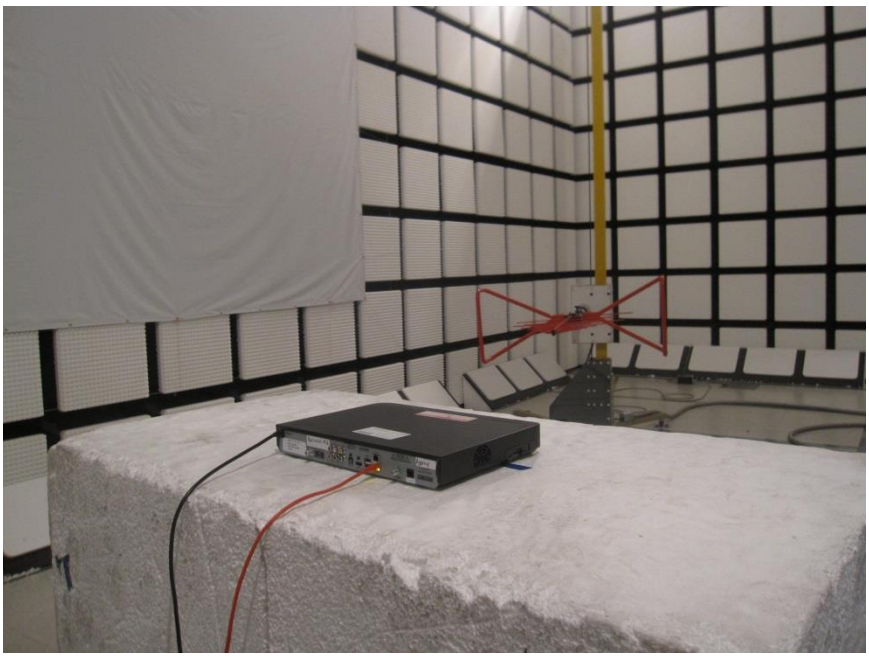
ANTENNA PORT CONDUCTED PHOTO



RADIATED RF MEASUREMENT SETUP (BELOW 1 GHz)

RADIATED FRONT PHOTO (BELOW 1 GHz)

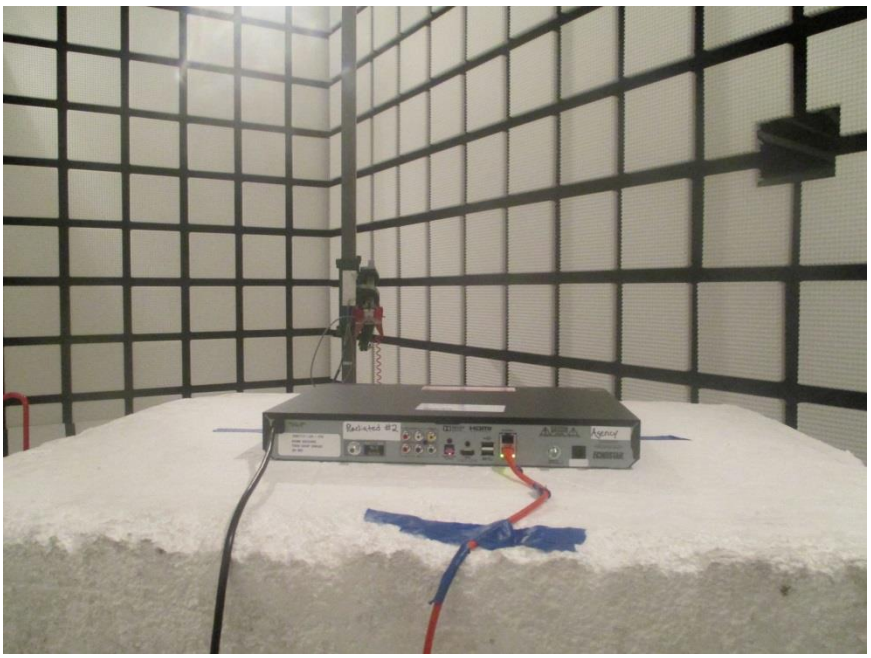
RADIATED BACK PHOTO (BELOW 1 GHz)



RADIATED RF MEASUREMENT SETUP (ABOVE 1 GHz)

RADIATED FRONT PHOTO (ABOVE 1 GHz)

RADIATED BACK PHOTO (ABOVE 1 GHz)



17. POWER SETTING TABLE

SISO

Channel ID	36	40	44	48	149	153	157	161	165
Center Freq.	5180	5200	5220	5240	5745	5765	5785	5805	5825
11a	56	56	56	56	58	70	70	70	58
11n 20	54	54	54	54	54	68	68	68	54
Channel ID	38		46		151		159		
Center Freq.	5190		5230		5755		5795		
11n 40	38		38		38		38		

MIMO

Channel ID	36	40	44	48	149	153	157	161	165
Center Freq.	5180	5200	5220	5240	5745	5765	5785	5805	5825
11a									
11n 20	46	46	46	46	56	56	70	70	56
Channel ID	38		46		151		159		
Center Freq.	5190		5230		5755		5795		
11n 40	30		30		38		38		

END OF REPORT