



FCC CFR47 PART 15 SUBPART C

CERTIFICATION TEST REPORT

FOR

GSM/WCDMA/LTE Phone + BT/BLE, DTS/UNII a/b/g/n/ac, NFC and ANT+

MODEL NUMBER: SM-A800S

FCC ID: A3LSMA800S

REPORT NUMBER: 15I20931-E4

ISSUE DATE: JUNE 19, 2015

Prepared for

**SAMSUNG ELECTRONICS CO., LTD.
129 SAMSUNG-RO, YEONGTONG-GU, SUWON-SI,
GYEONGGI-DO, 443-742, KOREA**

Prepared by

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



NVLAP LAB CODE 200065-0

Revision History

Issue			
Rev.	Date	Revisions	Revised By
-	06/19/15	Initial Issue	P. Zhang

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS	7
2. TEST METHODOLOGY	8
3. FACILITIES AND ACCREDITATION	8
4. CALIBRATION AND UNCERTAINTY	9
4.1. MEASURING INSTRUMENT CALIBRATION	9
4.2. SAMPLE CALCULATION	9
4.3. MEASUREMENT UNCERTAINTY	9
5. EQUIPMENT UNDER TEST	10
5.1. DESCRIPTION OF EUT	10
5.2. DESCRIPTION OF AVAILABLE ANTENNAS	10
5.3. MAXIMUM OUTPUT POWER.....	11
5.4. WORST-CASE CONFIGURATION AND MODE	12
5.5. DESCRIPTION OF TEST SETUP.....	13
6. TEST AND MEASUREMENT EQUIPMENT	15
7. SUMMARY TABLE	16
8. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS	17
8.1. ON TIME AND DUTY CYCLE RESULTS.....	17
8.2. DUTY CYCLE PLOTS	18
9. MEASUREMENT METHOD.....	22
10. ANTENNA PORT TEST RESULTS	23
10.1. 6 dB BANDWIDTH	23
10.1.1. 802.11a MODE IN THE 5.8 GHz BAND	23
10.1.2. 802.11n HT20 MODE IN THE 5.8 GHz BAND	24
10.1.3. 802.11n HT40 MODE IN THE 5.8 GHz BAND	24
5.1.1. 802.11ac HT80 MODE IN THE 5.8 GHz BAND	24
10.1.4. 6 dB BANDWIDTH MID CH PLOTS.....	25
10.2. 26 dB BANDWIDTH	26
10.2.1. 802.11a MODE IN THE 5.2 GHz BAND	26
10.2.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND	26
10.2.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND	26
10.2.4. 802.11ac HT80 MODE IN THE 5.2 GHz BAND	27
5.1.1. 802.11a MODE IN THE 5.3 GHz BAND	27

5.1.1.	802.11n HT20 MODE IN THE 5.3 GHz BAND	27
10.2.5.	802.11n HT40 MODE IN THE 5.3 GHz BAND	27
10.2.6.	802.11ac HT80 MODE IN THE 5.3 GHz BAND	28
5.1.2.	802.11a MODE IN THE 5.5 GHz BAND	28
5.1.3.	802.11n HT20 MODE IN THE 5.5 GHz BAND	28
10.2.7.	802.11n HT40 MODE IN THE 5.5 GHz BAND	28
10.2.8.	802.11ac HT80 MODE IN THE 5.5 GHz BAND	29
5.1.4.	802.11a MODE IN THE 5.8 GHz BAND	29
5.1.5.	802.11n HT20 MODE IN THE 5.8 GHz BAND	29
10.2.9.	802.11n HT40 MODE IN THE 5.8 GHz BAND	29
10.2.10.	802.11ac HT80 MODE IN THE 5.8 GHz BAND	30
5.1.1.	26 dB BANDWIDTH PLOTS	31
10.3.	99% BANDWIDTH	34
10.3.1.	802.11a MODE IN THE 5.2 GHz BAND	34
10.3.2.	802.11n HT20 MODE IN THE 5.2 GHz BAND	34
10.3.3.	802.11n HT40 MODE IN THE 5.2 GHz BAND	34
10.3.4.	802.11ac HT80 MODE IN THE 5.2 GHz BAND	34
5.1.2.	802.11a MODE IN THE 5.3 GHz BAND	35
5.1.3.	802.11n HT20 MODE IN THE 5.3 GHz BAND	35
10.3.5.	802.11n HT40 MODE IN THE 5.3 GHz BAND	35
10.3.6.	802.11ac HT80 MODE IN THE 5.3 GHz BAND	35
5.1.4.	802.11a MODE IN THE 5.5 GHz BAND	36
5.1.5.	802.11n HT20 MODE IN THE 5.5 GHz BAND	36
10.3.7.	802.11n HT40 MODE IN THE 5.5 GHz BAND	36
10.3.8.	802.11ac HT80 MODE IN THE 5.5 GHz BAND	36
5.1.6.	802.11a MODE IN THE 5.8 GHz BAND	37
5.1.7.	802.11n HT20 MODE IN THE 5.8 GHz BAND	37
10.3.9.	802.11n HT40 MODE IN THE 5.8 GHz BAND	37
10.3.10.	802.11ac HT80 MODE IN THE 5.8 GHz BAND	37
5.1.1.	99% BANDWIDTH PLOTS	38
10.4.	AVERAGE POWER	41
10.4.1.	802.11a MODE IN THE 5.2 GHz BAND	41
10.4.2.	802.11n HT20 MODE IN THE 5.2 GHz BAND	41
10.4.3.	802.11n HT40 MODE IN THE 5.2 GHz BAND	42
10.4.4.	802.11ac HT80 MODE IN THE 5.2 GHz BAND	42
5.1.2.	802.11a MODE IN THE 5.3 GHz BAND	42
5.1.3.	802.11n HT20 MODE IN THE 5.3 GHz BAND	42
10.4.5.	802.11n HT40 MODE IN THE 5.3 GHz BAND	42
10.4.6.	802.11ac HT80 MODE IN THE 5.3 GHz BAND	43
5.1.4.	802.11a MODE IN THE 5.5 GHz BAND	43
5.1.5.	802.11n HT20 MODE IN THE 5.5 GHz BAND	43
10.4.7.	802.11n HT40 MODE IN THE 5.5 GHz BAND	43
10.4.8.	802.11ac HT80 MODE IN THE 5.5 GHz BAND	44
5.1.6.	802.11a MODE IN THE 5.8 GHz BAND	44
5.1.7.	802.11n HT20 MODE IN THE 5.8 GHz BAND	44
10.4.9.	802.11n HT40 MODE IN THE 5.8 GHz BAND	44
10.4.10.	802.11ac HT80 MODE IN THE 5.8 GHz BAND	45
10.5.	OUTPUT POWER AND PPSD	46

5.1.1.	802.11a MODE IN THE 5.2 GHz BAND	47
10.5.1.	802.11n HT20 MODE IN THE 5.2 GHz BAND	48
10.5.2.	802.11n HT40 MODE IN THE 5.2 GHz BAND	49
10.5.3.	802.11ac HT80 MODE IN THE 5.2 GHz BAND	50
5.1.2.	802.11a MODE IN THE 5.3 GHz BAND	51
10.5.4.	802.11n HT20 MODE IN THE 5.3 GHz BAND	52
10.5.5.	802.11n HT40 MODE IN THE 5.3 GHz BAND	53
10.5.6.	802.11ac HT80 MODE IN THE 5.3 GHz BAND	54
5.1.3.	802.11a MODE IN THE 5.5 GHz BAND	55
10.5.7.	802.11n HT20 MODE IN THE 5.5 GHz BAND	56
10.5.8.	802.11n HT40 MODE IN THE 5.5 GHz BAND	57
10.5.9.	802.11ac HT80 MODE IN THE 5.5 GHz BAND	58
5.1.4.	802.11a MODE IN THE 5.8 GHz BAND	59
10.5.10.	802.11n HT20 MODE IN THE 5.8 GHz BAND	60
10.5.11.	802.11n HT40 MODE IN THE 5.8 GHz BAND	61
10.5.12.	802.11ac HT80 MODE IN THE 5.8 GHz BAND	62
5.1.1.	OUTPUT POWER AND PPSD PLOTS, Chain 0	63
11.	TRANSMITTER ABOVE 1 GHz.....	68
11.1.	5.2 GHz	69
11.1.1.	TX ABOVE 1 GHz 802.11a MODE IN THE 5.2 GHz BAND	69
11.1.2.	TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.2 GHz BAND	80
11.1.3.	TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.2 GHz BAND	91
11.1.5.	TX ABOVE 1 GHz 802.11ac HT80 MODE IN THE 5.2 GHz BAND	99
11.2.	5.3 GHz	104
11.2.1.	TX ABOVE 1 GHz 802.11a MODE IN THE 5.3 GHz BAND	104
11.2.2.	TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.3 GHz BAND	115
11.2.3.	TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.3 GHz BAND	126
11.2.4.	TX ABOVE 1 GHz 802.11ac HT80 MODE IN THE 5.3 GHz BAND	134
11.3.	5.5-5.6 GHz	139
11.3.1.	TX ABOVE 1 GHz 802.11a MODE IN THE 5.5 GHz BAND	139
11.3.2.	TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.5 GHz BAND	152
11.3.3.	TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.5 GHz BAND	165
11.3.4.	TX ABOVE 1 GHz 802.11ac HT80 MODE IN THE 5.5 GHz BAND	178
11.4.	5.8 GHz	185
11.4.1.	TX ABOVE 1 GHz 802.11a MODE IN THE 5.8 GHz BAND	185
11.4.2.	TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.8 GHz BAND	198
11.4.3.	TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.8 GHz BAND	211
11.4.4.	TX ABOVE 1 GHz 802.11ac HT80 MODE IN THE 5.8 GHz BAND	221
12.	WORST-CASE BELOW 1 GHz (in the 5.3 GHz Band).....	228
13.	AC POWER LINE CONDUCTED EMISSIONS	231
14.	DYNAMIC FREQUENCY SELECTION.....	236
10.2.	OVERVIEW	236
10.2.1.	LIMITS	236

10.2.2.	TEST AND MEASUREMENT SYSTEM	243
10.2.3.	SETUP OF EUT	247
10.2.4.	DESCRIPTION OF EUT	249
10.3.	<i>RESULTS FOR 20 MHz BANDWIDTH</i>	251
10.3.1.	TEST CHANNEL	251
10.3.2.	RADAR WAVEFORM AND TRAFFIC	251
10.3.3.	OVERLAPPING CHANNEL TESTS	254
10.3.4.	MOVE AND CLOSING TIME	254
10.4.	<i>RESULTS FOR 40 MHz BANDWIDTH</i>	259
10.4.1.	TEST CHANNEL	259
10.4.2.	RADAR WAVEFORM AND TRAFFIC	259
10.4.3.	OVERLAPPING CHANNEL TESTS	263
10.4.4.	MOVE AND CLOSING TIME	263
10.4.5.	10-MINUTE BEACON MONITORING PERIOD	268
10.5.	<i>RESULTS FOR 80 MHz BANDWIDTH</i>	269
10.5.1.	TEST CHANNEL	269
10.5.2.	RADAR WAVEFORM AND TRAFFIC	269
10.5.3.	OVERLAPPING CHANNEL TESTS	272
10.5.4.	MOVE AND CLOSING TIME	272
10.5.5.	10-MINUTE BEACON MONITORING PERIOD	277
15.	SETUP PHOTOS	278

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: SAMSUNG ELECTRONICS CO., LTD.
EUT DESCRIPTION: GSM/WCDMA/LTE Phone + BT/BLE, DTS/UNII a/b/g/n/ac, NFC and ANT+
MODEL: SM-A800S
SERIAL NUMBER: 2138045 (Conducted), 2140998 (Radiated)
DATE TESTED: JUNE 9 -19, 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 For
UL Verification Services Inc. By:



PENG ZHANG
CONSUMER TECHNOLOGY DIVISION
PROJECT LEAD
UL VERIFICATION SERVICES INC

Tested By:



STEVEN TRAN
CONSUMER TECHNOLOGY DIVISION
LAB ENGINEER
UL VERIFICATION SERVICES INC

2. TEST METHODOLOGY

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

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 GSM/WCDMA/LTE Phone + BT/BLE, DTS/UNII a/b/g/n/ac, NFC and ANT+

5.2. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an FPCB antenna, with a maximum gain of -1.91 dBi.

5.3. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

Frequency Range (MHz)	Mode	Total Output Power (dBm)	Total Output Power (mW)
5180 - 5240	802.11n HT20	12.63	18.32
5260 - 5320	802.11n HT20	12.64	18.37
5500 - 5700	802.11n HT20	13.83	24.15
5745 - 5825	802.11n HT20	13.68	23.33
5190 - 5230	802.11n HT40	13.13	20.56
5270 - 5310	802.11n HT40	13.02	20.04
5510 - 5670	802.11n HT40	13.31	21.43
5755 - 5795	802.11n HT40	13.78	23.88
5180 - 5240	802.11a	12.69	18.58
5260 - 5320	802.11a	12.54	17.95
5500 - 5700	802.11a	12.92	19.59
5745 - 5825	802.11a	13.62	23.01
5210 - 5210	802.11ac HT80	12.97	19.82
5290 - 5290	802.11ac HT80	11.78	15.07
5530 - 5690	802.11ac HT80	12.26	16.83
5775 - 5775	802.11ac HT80	12.85	19.28

5.4. WORST-CASE CONFIGURATION AND MODE

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

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

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

802.11a mode: 6 Mbps

802.11n HT20mode: MCS0

802.11n HT40mode: MCS0

802.11ac HT80mode: MCS0

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	Samsung	ETA0U83KWK	DK1FB05HS	N/A
Earphone	Samsung	N/A	N/A	N/A

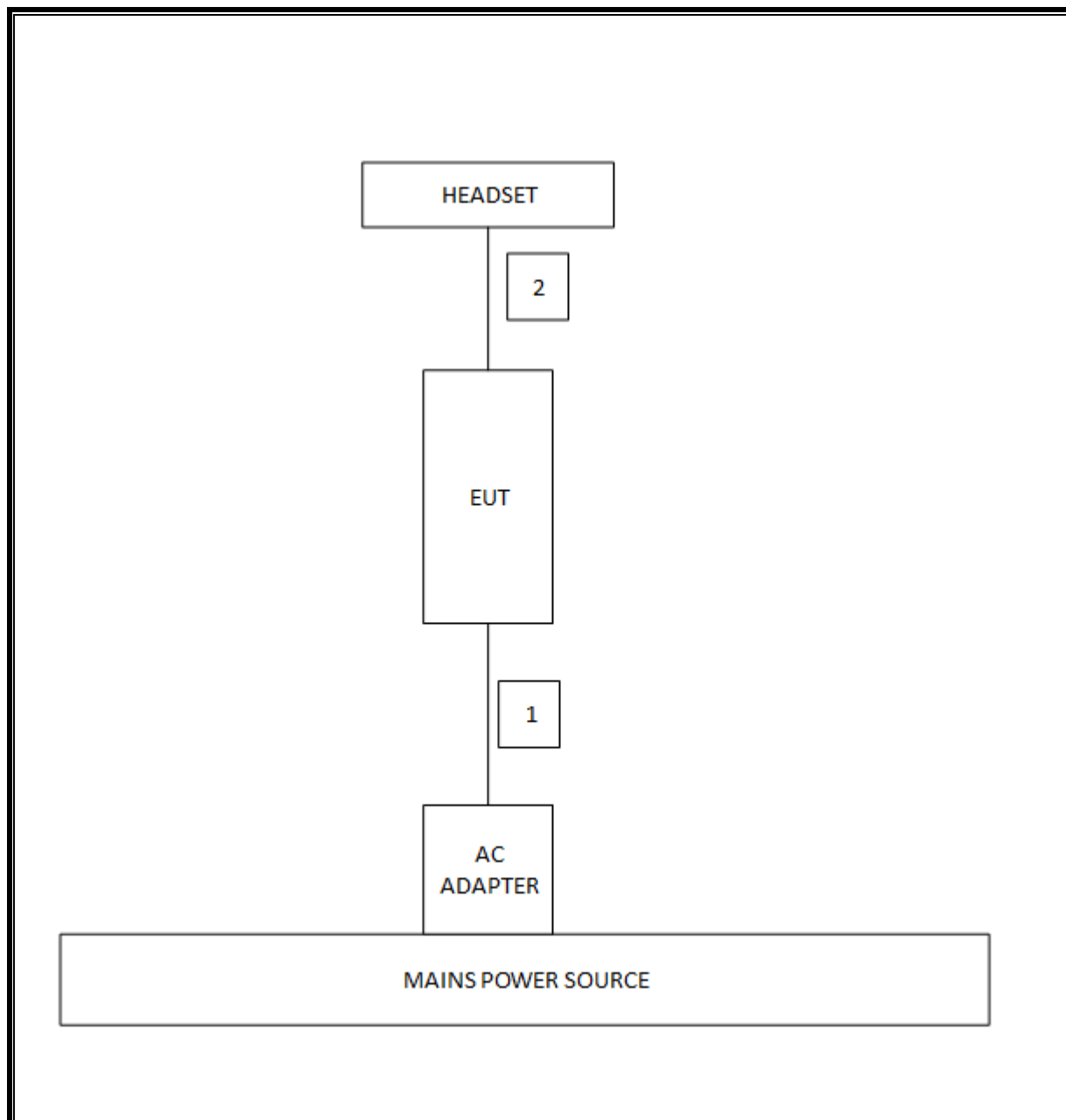
I/O CABLES

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

TEST SETUP

The EUT is setup as a stand-alone device.

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment List				
Description	Manufacturer	Model	Asset	Cal Due
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	06/28/15
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	F00351	06/27/15
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 22, 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	82.54 MHz
15.407	RSS-247 6.2.4	6dB Band width (5.8Ghz)	500KHz		Pass	16.325 MHz
15.407 (a)(2)	RSS-247 6.2	TX Cond. Power 5.15-2.25, 5.25-5.35 & 5.47-5.725	<24dBm or 11+10Log(OBW)		Pass	13.83 dBm
15.407 (a)(3)	RSS-247 6.2.4	TX Cond. Power 5.725-5.825	< 30dBm or 17+10Log(OBW)		Pass	13.78 dBm
15.407 (a)(5)	RSS-247 6.2	PSD (5.2,5.3,5.5GHz)	<11dBm		Pass	1.3 dBm
15.407 (a)(5)	RSS-247 6.2.4	PSD (5.8GHz)	30dBm per 500kHz			1.17 dBm
15.207 (a)	RSS-GEN 8.8	AC Power Line conducted emissions	Section 10	Radiated	Pass	41.82 dBuV (QP)
15.407 (b) & 15.209	RSS-GEN 8.9/7	Radiated Spurious Emission	< 54dBuV/m		Pass	50.84dBuV/m
15.407 (h)(2)	RSS-247 6.3	Dynamic Frequency Selection	N/A	Radiated / Conducted	Pass	N/A

8. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS

LIMITS

None; for reporting purposes only.

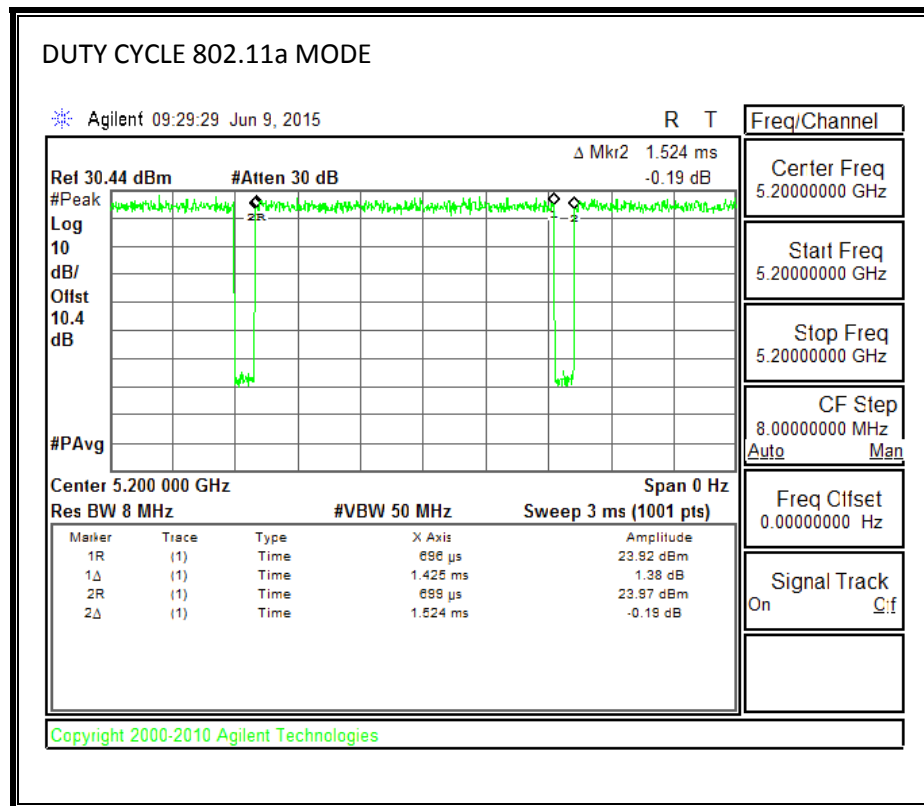
PROCEDURE

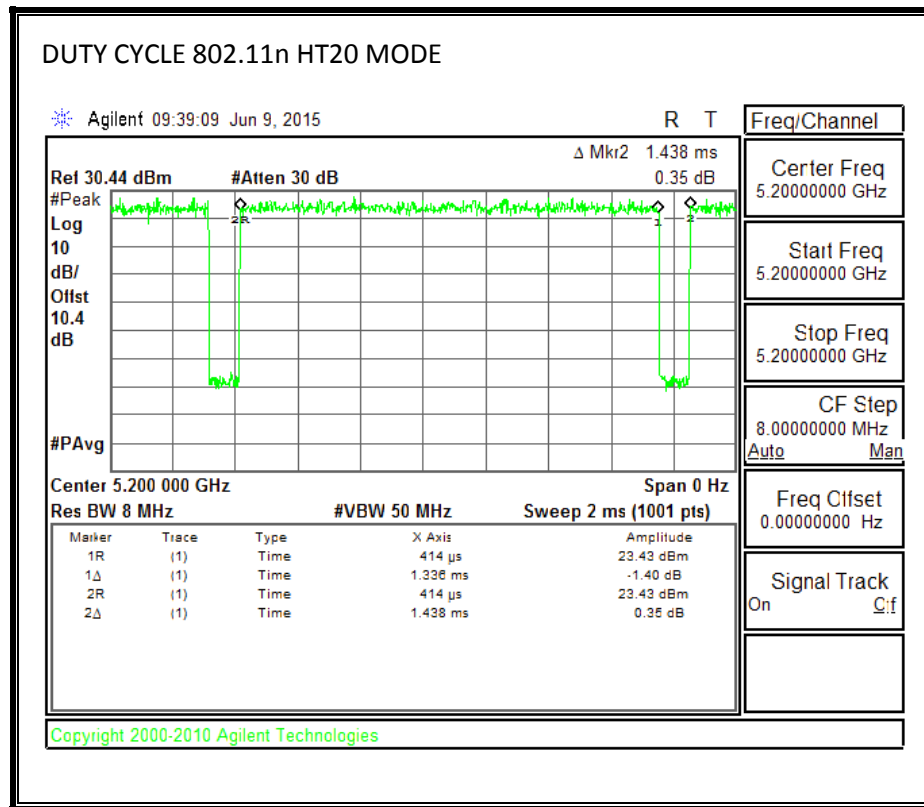
KDB 789033 Zero-Span Spectrum Analyzer Method.

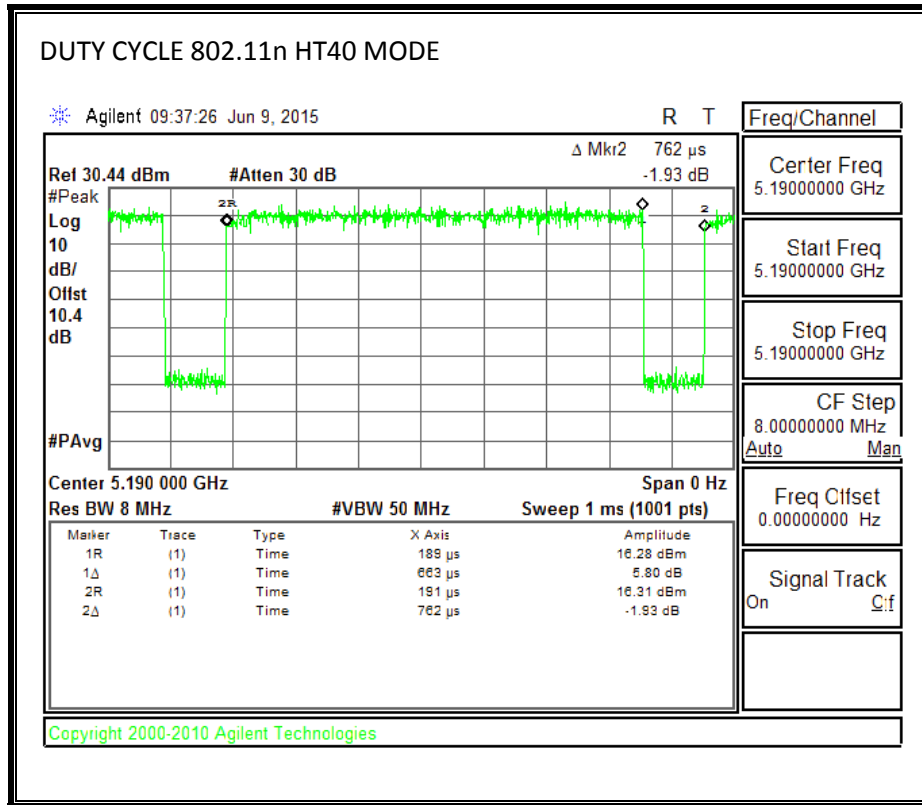
8.1. ON TIME AND DUTY CYCLE RESULTS

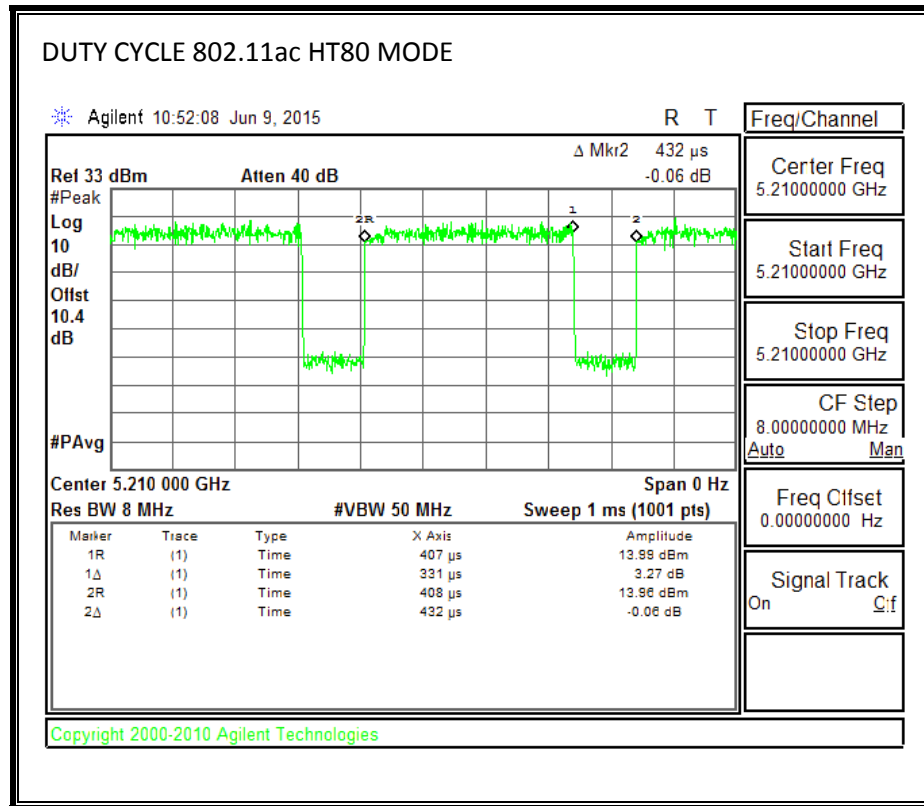
Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (kHz)
802.11a	1.425	1.524	0.935	93.5%	0.29	0.702
802.11ac HT80	0.331	0.432	0.766	76.6%	1.16	3.021
802.11n HT20	1.336	1.438	0.929	92.9%	0.32	0.749
802.11n HT40	0.663	0.762	0.870	87.0%	0.60	1.508

8.2. DUTY CYCLE PLOTS









9. MEASUREMENT METHOD

789033 D02 General UNII Test Procedures New Rules v01

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

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

10. ANTENNA PORT TEST RESULTS

10.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407

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

TEST PROCEDURE

Reference to 789033 D02 General UNII Test Procedures New Rules v01: The transmitter output is connected to a spectrum analyzer with the RBW set to 100KHz, the VBW $\geq 3 \times$ 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	16.350	0.5
Mid	5785	16.375	0.5
High	5825	16.325	0.5
Worst		16.375	

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	17.631	0.5
Mid	5785	17.604	0.5
High	5825	17.577	0.5
Worst		17.631	

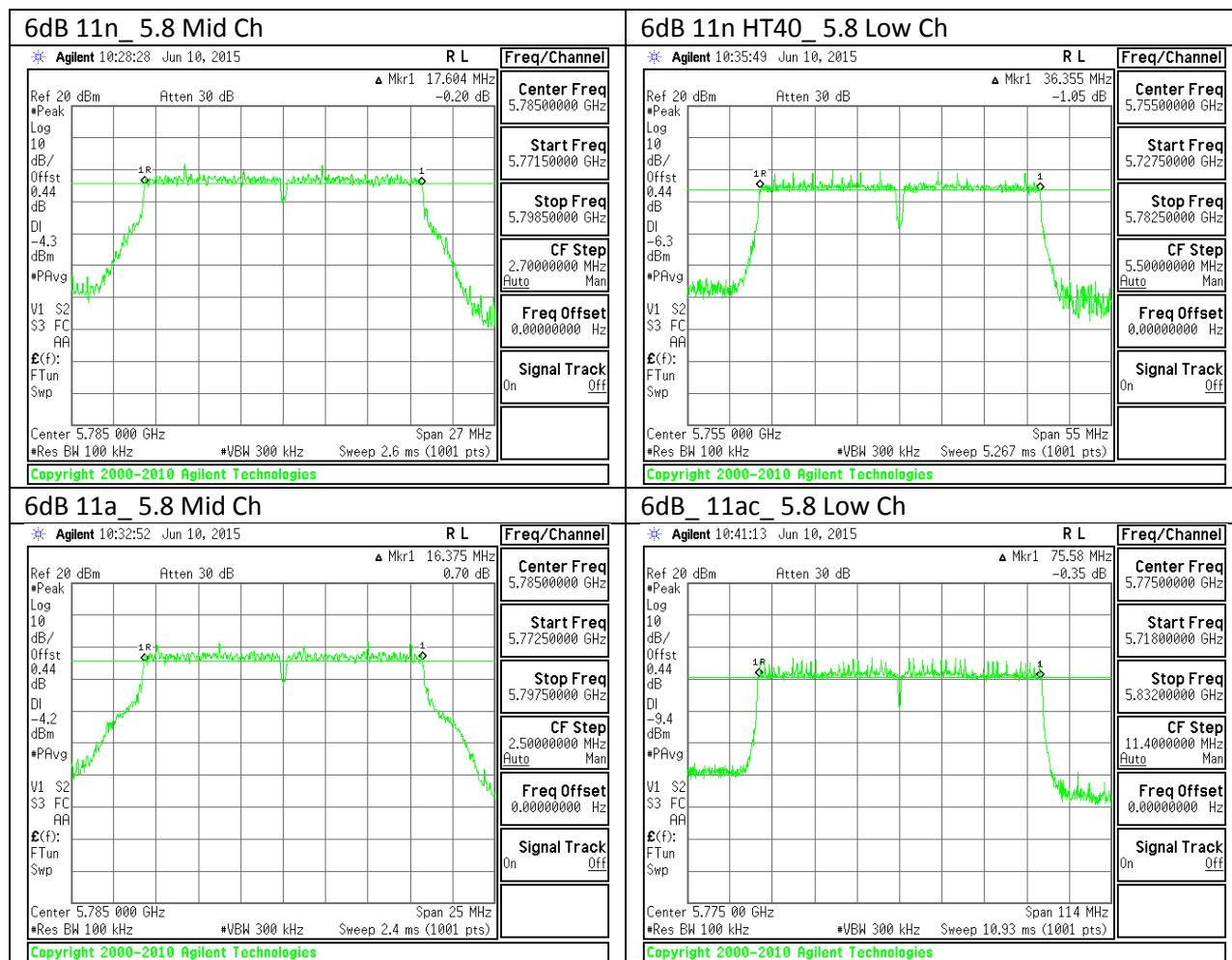
10.1.3. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5755	36.355	0.5
High	5795	36.300	0.5
Worst		36.355	

5.1.1. 802.11ac HT80 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5775	75.580	0.5
Worst		75.580	

10.1.4. 6 dB BANDWIDTH MID CH PLOTS



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	21.42
Mid	5200	21.32
High	5240	21.37
Worst		21.42

10.2.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5180	22.07
Mid	5200	21.87
High	5240	21.84
Worst		22.07

10.2.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	26dB Bandwidth (MHz)
Low	5190	40.24
Mid	5230	40.18
Worst		40.24

10.2.4. 802.11ac HT80 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5210	82.01

5.1.1. 802.11a MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5260	21.42
Mid	5300	21.45
High	5320	21.42
Worst		21.45

5.1.1. 802.11n HT20 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5260	21.87
Mid	5300	21.74
High	5320	21.76
Worst		21.87

10.2.5. 802.11n HT40 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5270	36.88
High	5310	40.06
Worst		40.06

10.2.6. 802.11ac HT80 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5290	82.28

5.1.2. 802.11a MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5500	21.42
Mid	5580	21.53
High	5700	21.50
Worst		21.53

5.1.3. 802.11n HT20 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5500	21.63
Mid	5580	21.87
High	5700	21.92
Worst		21.92

10.2.7. 802.11n HT40 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5510	40.24
Mid	5550	40.18
High	5670	40.24
Worst		40.24

10.2.8. 802.11ac HT80 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5530	82.01
High	5690	81.74
Worst		82.01

5.1.4. 802.11a MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5745	21.45
Mid	5785	21.50
High	5825	21.48
Worst		21.50

5.1.5. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5745	21.81
Mid	5785	21.76
High	5825	21.87
Worst		21.87

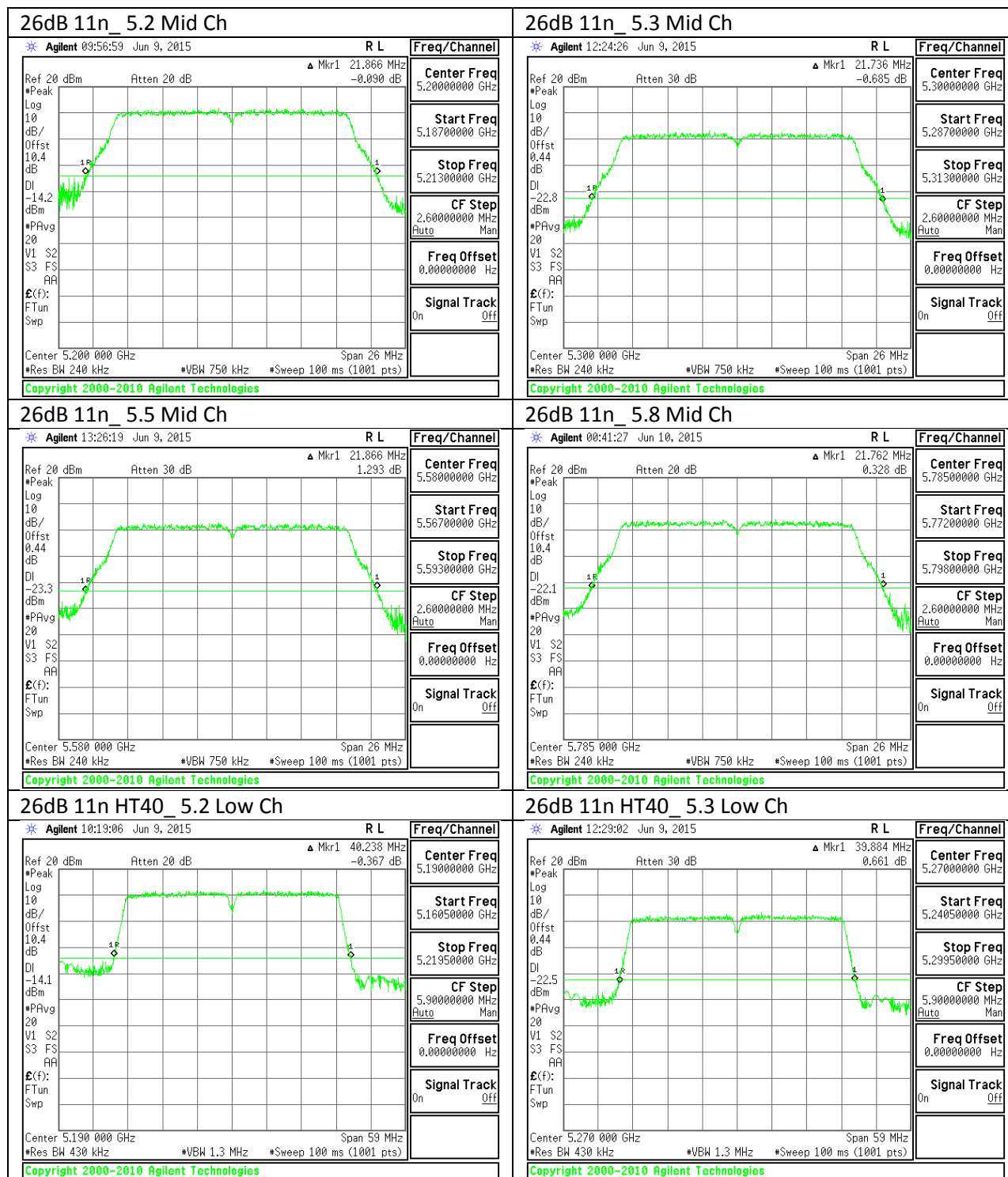
10.2.9. 802.11n HT40 MODE IN THE 5.8 GHz BAND

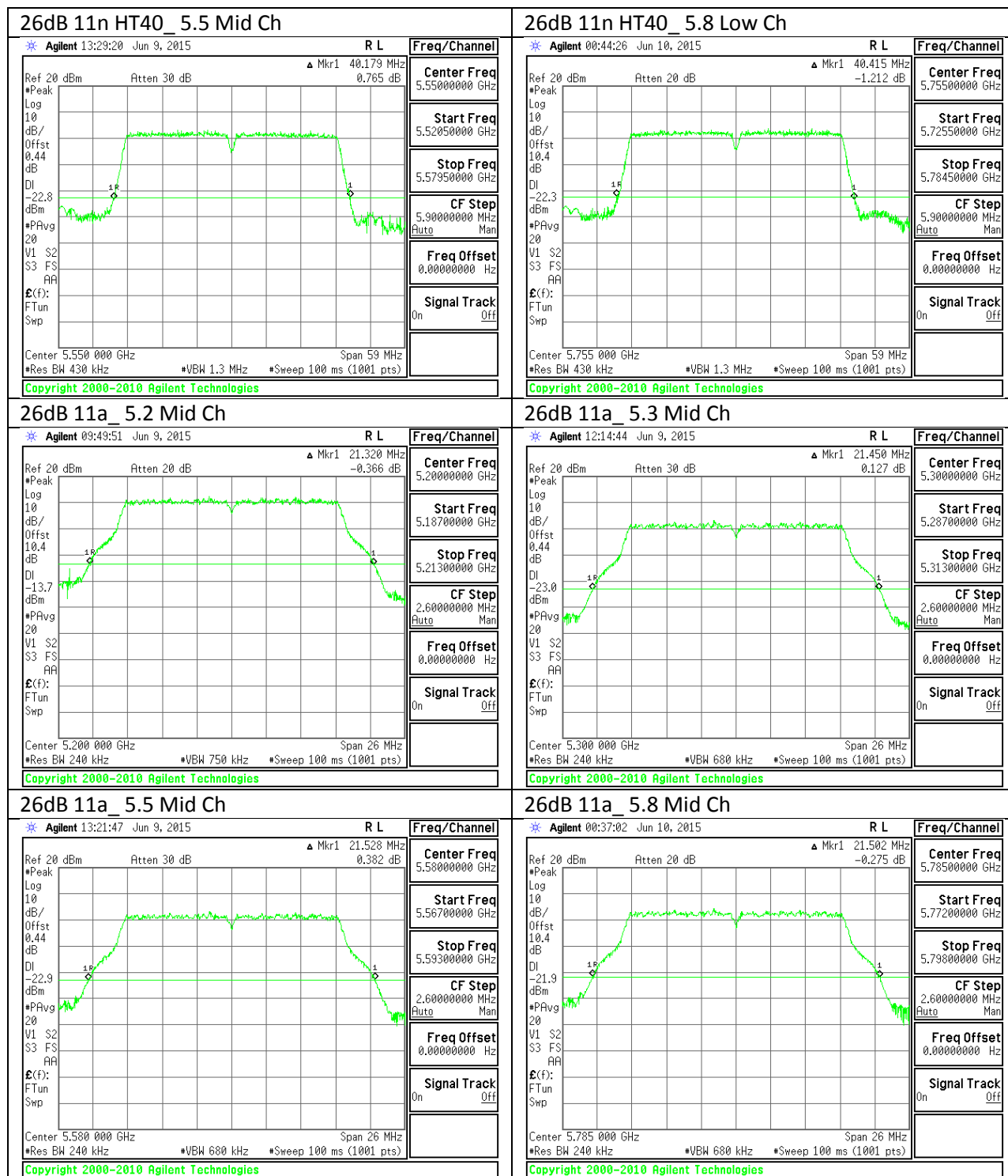
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5755	40.42
High	5795	40.30
Worst		40.42

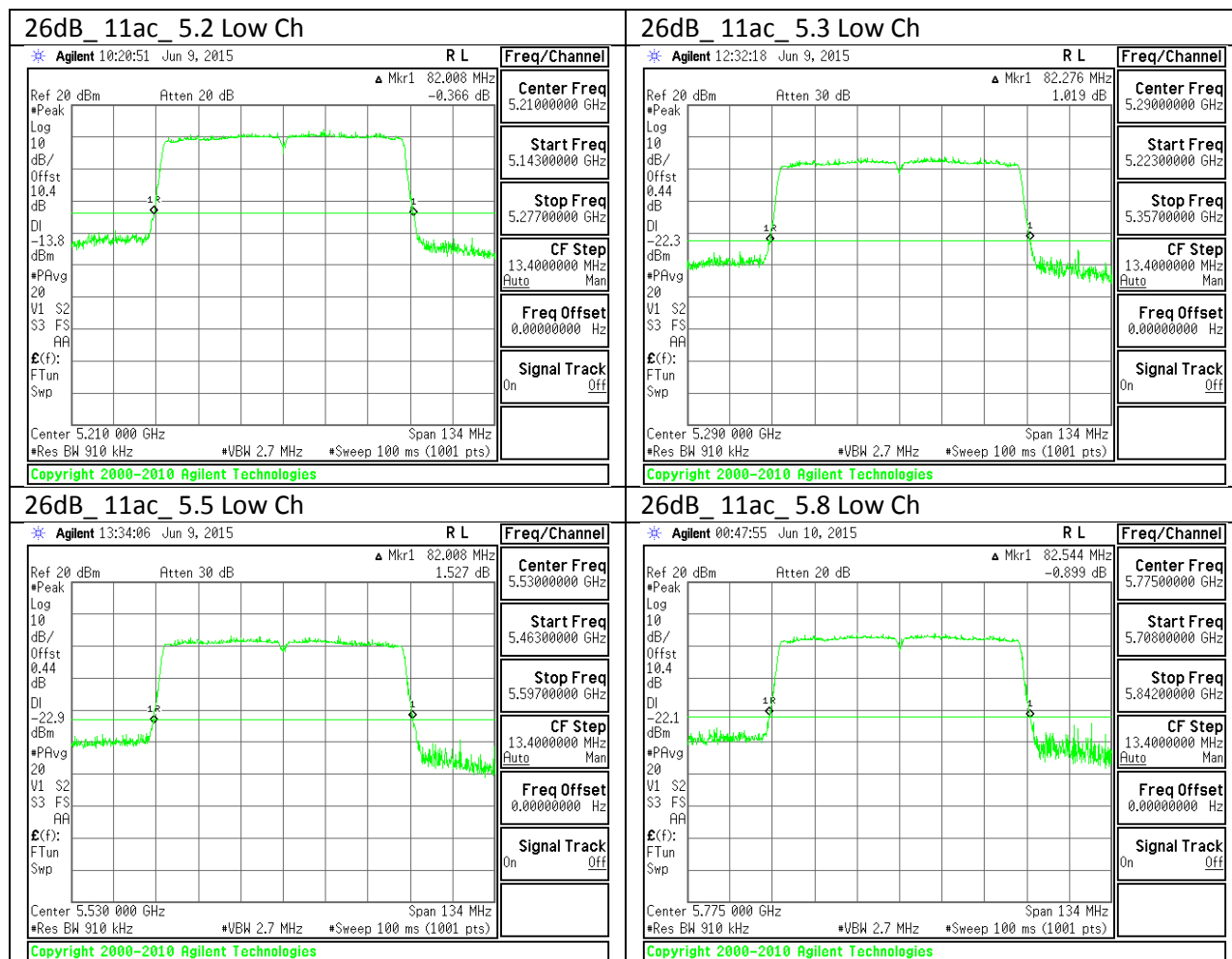
10.2.10. 802.11ac HT80 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5775	82.54

5.1.1. 26 dB BANDWIDTH PLOTS







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	17.20
Mid	5200	17.19
High	5240	17.21
Worst		17.21

10.3.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5180	18.30
Mid	5200	18.30
High	5240	18.31
Worst		18.31

10.3.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5190	36.67
Mid	5230	36.82
Worst		36.82

10.3.4. 802.11ac HT80 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5210	76.03

5.1.2. 802.11a MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5260	17.19
Mid	5300	17.19
High	5320	17.20
Worst		17.20

5.1.3. 802.11n HT20 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5260	18.30
Mid	5300	18.27
High	5320	18.30
Worst		18.30

10.3.5. 802.11n HT40 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5270	36.72
High	5310	36.74
Worst		36.74

10.3.6. 802.11ac HT80 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5290	75.93

5.1.4. 802.11a MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5500	17.17
Mid	5580	17.20
High	5700	17.21
Worst		17.21

5.1.5. 802.11n HT20 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5500	18.30
Mid	5580	18.32
High	5700	18.31
Worst		18.32

10.3.7. 802.11n HT40 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5510	36.72
Mid	5550	36.69
High	5670	36.72
Worst		36.72

10.3.8. 802.11ac HT80 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5530	75.88
High	5690	75.81
Worst		75.88

5.1.6. 802.11a MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	17.15
Mid	5785	17.01
High	5825	17.06
Worst		17.15

5.1.7. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	18.15
Mid	5785	18.10
High	5825	18.09
Worst		18.15

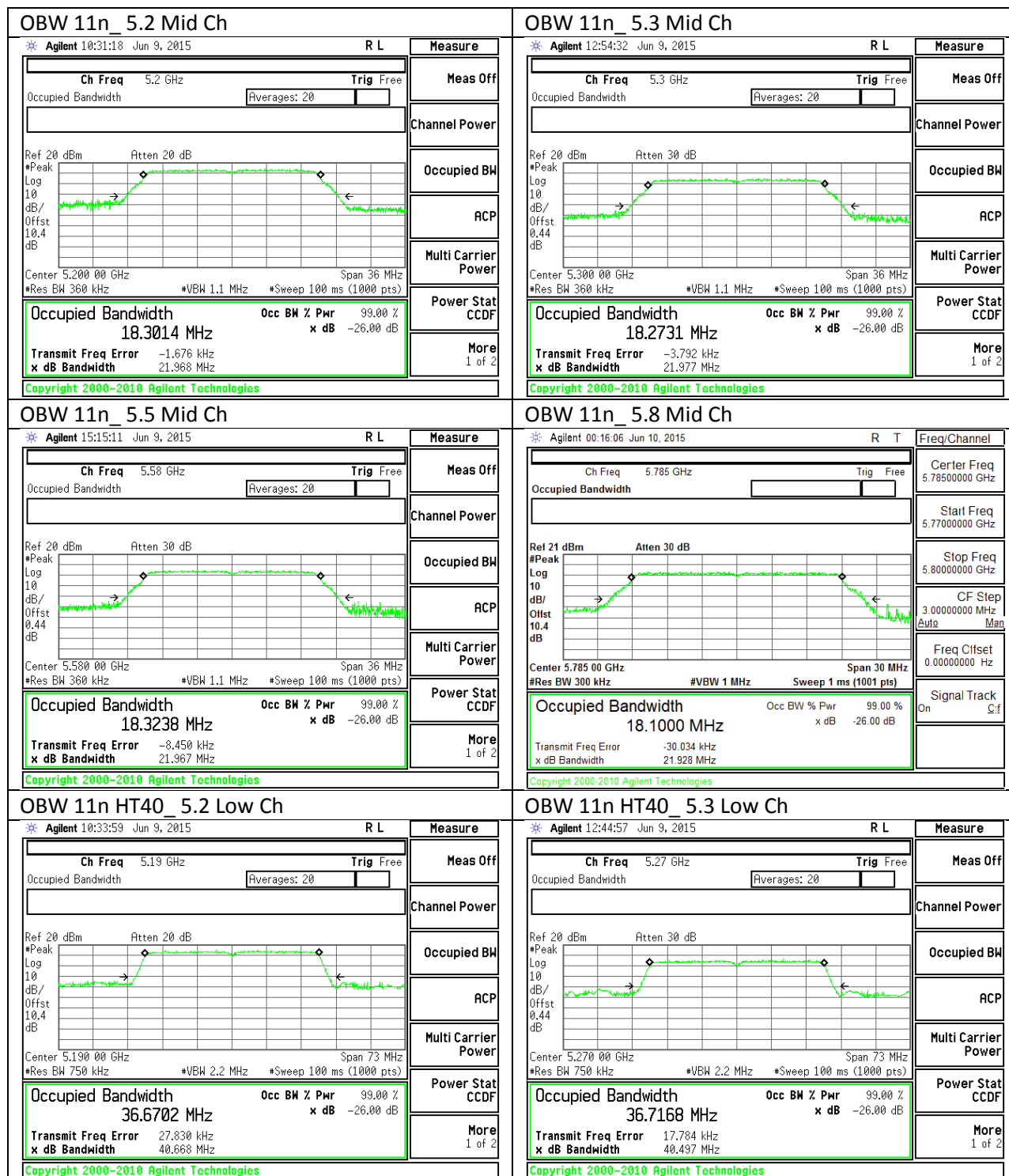
10.3.9. 802.11n HT40 MODE IN THE 5.8 GHz BAND

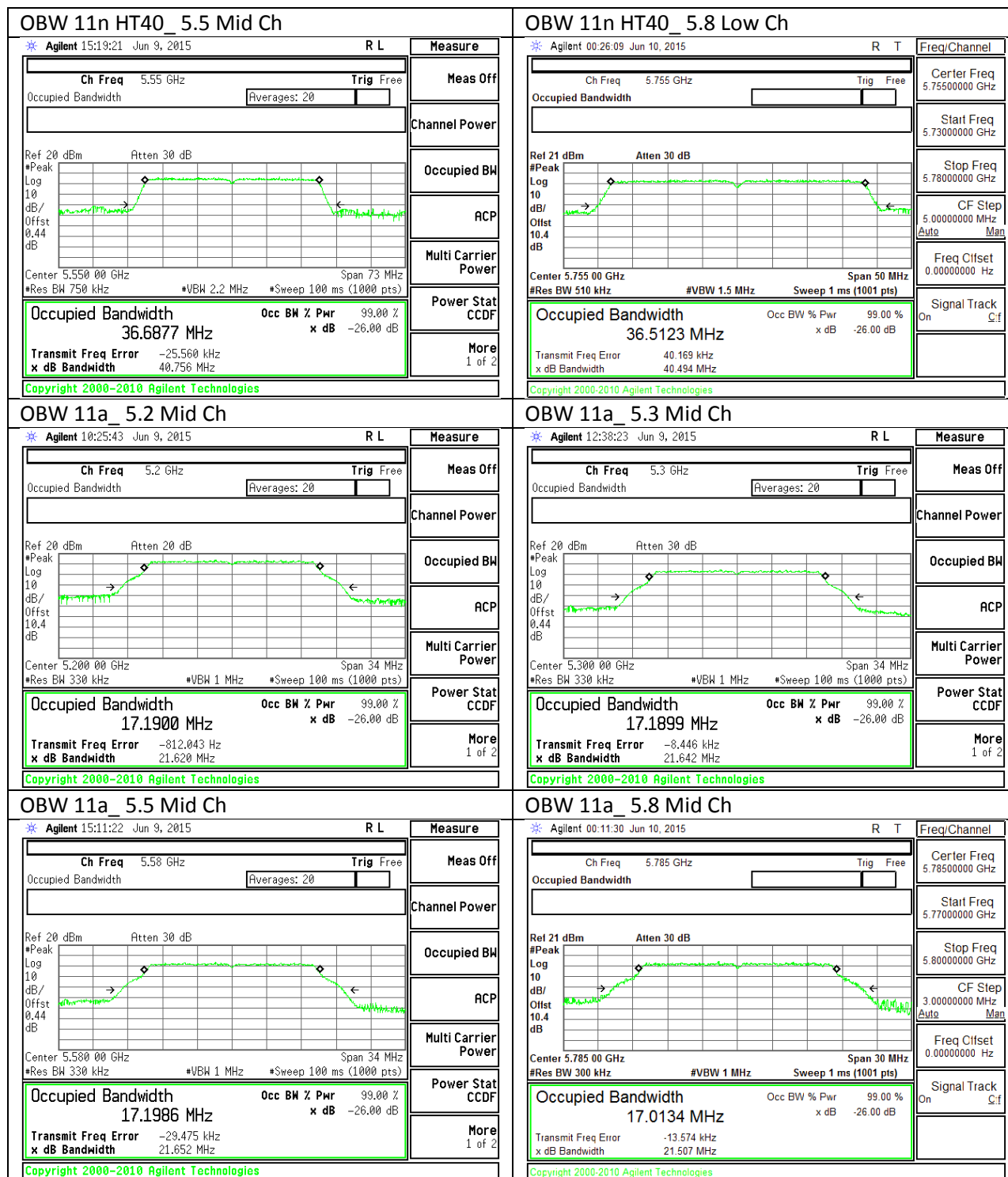
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5755	36.51
High	5795	36.38
Worst		36.51

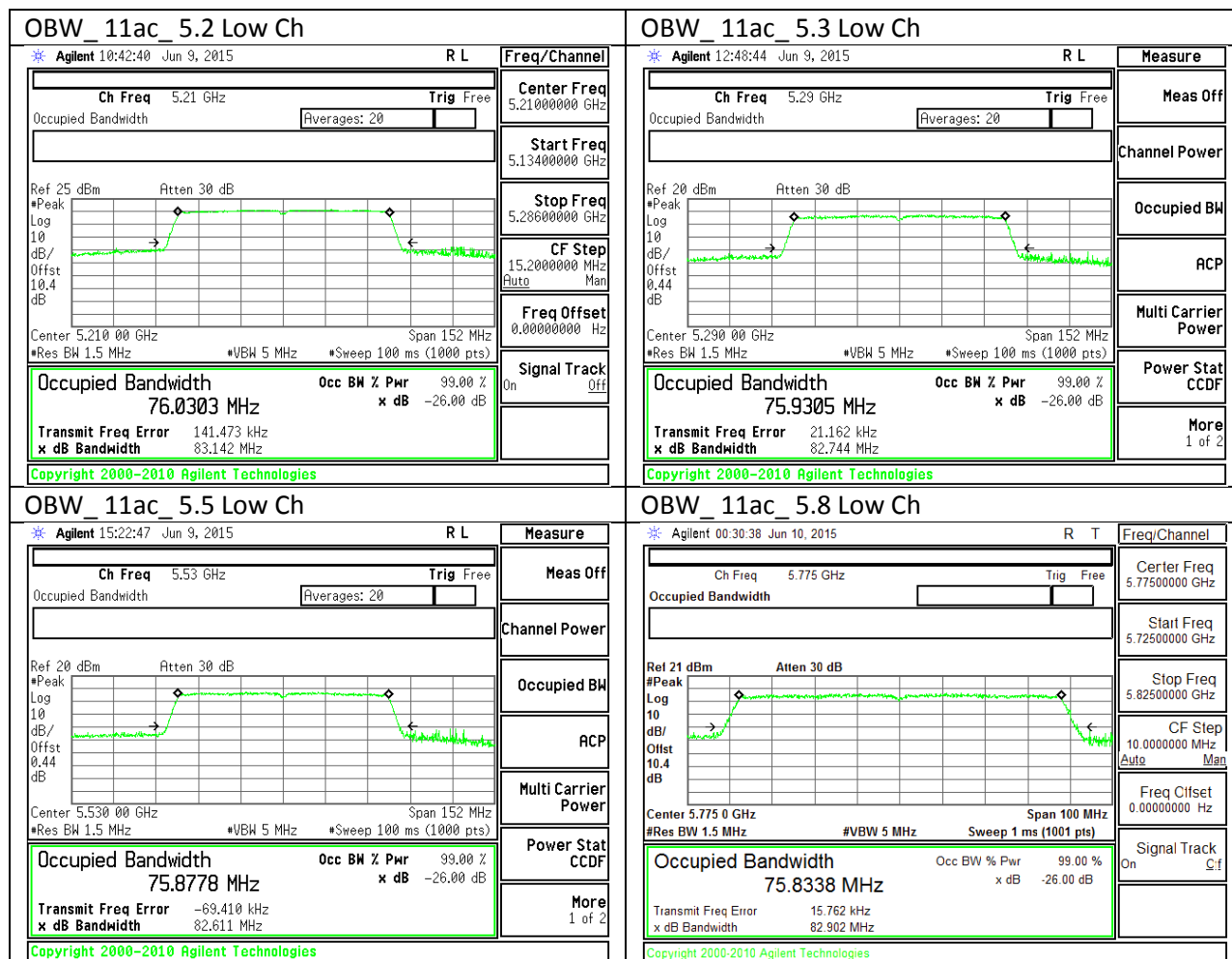
10.3.10. 802.11ac HT80 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5775	75.83

5.1.1. 99% BANDWIDTH PLOTS







10.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

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

RESULTS

10.4.1. 802.11a MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5180	12.00
Mid	5200	12.00
High	5240	12.00
Worst		12.00

10.4.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5180	12.00
Mid	5200	11.90
High	5240	11.90
Worst		12.00

10.4.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5190	12.10
Mid	5230	12.20
Worst		12.20

10.4.4. 802.11ac HT80 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5210	11.10

5.1.2. 802.11a MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5260	12.00
Mid	5300	12.00
High	5320	12.00
Worst		12.00

5.1.3. 802.11n HT20 MODE IN THE 5.3 GHz BAND

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

10.4.5. 802.11n HT40 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5270	12.20
High	5310	12.10
Worst		12.20

10.4.6. 802.11ac HT80 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5290	11.10

5.1.4. 802.11a MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5500	12.00
Mid	5580	12.00
High	5700	11.90
Worst		12.00

5.1.5. 802.11n HT20 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5500	12.10
Mid	5580	12.00
High	5700	12.50
Worst		12.50

10.4.7. 802.11n HT40 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5510	12.30
Mid	5550	12.10
High	5670	12.20
Worst		12.30

10.4.8. 802.11ac HT80 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5530	11.50
High	5690	11.50
Worst		11.50

5.1.6. 802.11a MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5745	12.40
Mid	5785	12.10
High	5825	12.20
Worst		12.40

5.1.7. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5745	12.10
Mid	5785	12.30
High	5825	12.00
Worst		12.30

10.4.9. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5755	12.00
High	5795	12.50
Worst		12.50

10.4.10. 802.11ac HT80 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5775	11.50

10.5. 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 $11 \text{ dBm} + 10 \log B$, where B is the 26-dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 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 $11 \text{ dBm} + 10 \log B$, 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.

Test Methodology

RESULTS

5.1.1. 802.11a MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5180	21.424	17.197	-1.91
Mid	5200	21.320	17.190	-1.91
High	5240	21.372	17.213	-1.91

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	22.35	24.26	24.00	11.00	10.00	10.00
Mid	5200	24.00	22.35	24.26	24.00	11.00	10.00	10.00
High	5240	24.00	22.36	24.27	24.00	11.00	10.00	10.00

Duty Cycle CF (dB)	0.29	Included in Calculations of Corr'd Power & PPSP
--------------------	------	---

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	12.380	12.67	24.00	-11.33
Mid	5200	12.402	12.69	24.00	-11.31
High	5240	12.176	12.47	24.00	-11.53

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5180	0.820	1.11	11.00	-9.89
Mid	5200	0.860	1.15	11.00	-9.85
High	5240	0.580	0.87	11.00	-10.13

10.5.1. 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 (dBi)
Low	5180	22.074	18.300	-1.91
Mid	5200	22.074	18.300	-1.91
High	5240	22.074	18.310	-1.91

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	22.62	24.53	24.00	11.00	10.00	10.00
Mid	5200	24.00	22.62	24.53	24.00	11.00	10.00	10.00
High	5240	24.00	22.63	24.54	24.00	11.00	10.00	10.00

Duty Cycle CF (dB)	0.32	Included in Calculations of Corr'd Power & PSD
--------------------	------	--

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	12.311	12.63	24.00	-11.37
Mid	5200	12.215	12.54	24.00	-11.47
High	5240	12.200	12.52	24.00	-11.48

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5180	0.350	0.67	11.00	-10.33
Mid	5200	0.370	0.69	11.00	-10.31
High	5240	0.270	0.59	11.00	-10.41

10.5.2. 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 (dBi)
Low	5190	40.24	36.670	-1.91
Mid	5230	40.18	36.820	-1.91

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	24.91	24.00	11.00	10.00	10.00
Mid	5230	24.00	23.00	24.91	24.00	11.00	10.00	10.00
Duty Cycle CF (dB)		0.60	Included in Calculations of Corr'd Power & PPSP					

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5190	12.526	13.13	24.00	-10.87
Mid	5230	12.419	13.02	24.00	-10.98

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5190	-2.100	-1.50	11.00	-12.50
Mid	5230	-2.260	-1.66	11.00	-12.66

10.5.3. 802.11ac HT80 MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5210	82.010	76.030	-1.91

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC EIRP Limit (dBm)	Max IC Power (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC eirp PSD Limit (dBm)	PPSD Limit (dBm)
Low	5210	24.00	23.00	24.91	24.00	11.00	10.00	11.00
Duty Cycle CF (dB)		1.16	Included in Calculations of Corr'd Power & PPSP					

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5210	11.814	12.97	24.00	-11.03

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5210	-5.880	-4.72	11.00	-15.72

5.1.2. 802.11a MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5260	21.42	17.19	-1.91
Mid	5300	21.45	17.19	-1.91
High	5320	21.42	17.20	-1.91

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5260	24.00	23.35	29.35	23.35	11.00	11.00	11.00
Mid	5300	24.00	23.35	29.35	23.35	11.00	11.00	11.00
High	5320	24.00	23.35	29.35	23.35	11.00	11.00	11.00

Duty Cycle CF (dB)	0.29	Included in Calculations of Corr'd Power & PSD
--------------------	------	--

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	12.080	12.37	23.35	-10.98
Mid	5300	12.246	12.54	23.35	-10.82
High	5320	12.203	12.49	23.35	-10.86

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5260	0.580	0.87	11.00	-10.13
Mid	5300	0.670	0.96	11.00	-10.04
High	5320	0.570	0.86	11.00	-10.14

10.5.4. 802.11n HT20 MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5260	21.87	18.30	-1.91
Mid	5300	21.74	18.27	-1.91
High	5320	21.76	18.30	-1.91

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5260	24.00	23.62	29.62	23.62	11.00	11.00	11.00
Mid	5300	24.00	23.62	29.62	23.62	11.00	11.00	11.00
High	5320	24.00	23.62	29.62	23.62	11.00	11.00	11.00

Duty Cycle CF (dB)	0.32	Included in Calculations of Corr'd Power & PSD
--------------------	------	--

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	12.173	12.49	23.62	-11.13
Mid	5300	12.318	12.64	23.62	-10.98
High	5320	12.100	12.42	23.62	-11.20

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5260	0.310	0.63	11.00	-10.37
Mid	5300	0.440	0.76	11.00	-10.24
High	5320	0.210	0.53	11.00	-10.47

10.5.5. 802.11n HT40 MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5270	36.9	36.72	-1.91
High	5310	40.1	36.74	-1.91

Limits

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

Duty Cycle CF (dB)	0.60	Included in Calculations of Corr'd Power & PSD
--------------------	------	--

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5270	12.35	12.95	24.00	-11.05
High	5310	12.42	13.02	24.00	-10.98

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5270	-2.18	-1.58	11.00	-12.58
High	5310	-2.36	-1.76	11.00	-12.76

10.5.6. 802.11ac HT80 MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5290	82.3	75.93	-1.91

Limits

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

Duty Cycle CF (dB)	1.16	Included in Calculations of Corr'd Power & PSD
--------------------	------	--

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5290	10.62	11.78	24.00	-12.23

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5290	-6.88	-5.72	11.00	-16.72

5.1.3. 802.11a MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5500	21.42	17.17	-1.91
Mid	5580	21.53	17.20	-1.91
High	5700	21.50	17.21	-1.91

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5500	24.00	23.35	29.35	23.35	11.00	11.00	11.00
Mid	5580	24.00	23.35	29.35	23.35	11.00	11.00	11.00
High	5700	24.00	23.36	29.36	23.36	11.00	11.00	11.00

Duty Cycle CF (dB)	0.29	Included in Calculations of Corr'd Power & PSD
--------------------	------	--

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	12.630	12.92	23.35	-10.43
Mid	5580	12.319	12.61	23.35	-10.75
High	5700	12.305	12.60	23.36	-10.76

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5500	1.010	1.30	11.00	-9.70
Mid	5580	0.770	1.06	11.00	-9.94
High	5700	0.680	0.97	11.00	-10.03

10.5.7. 802.11n HT20 MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5500	21.63	18.30	-1.91
Mid	5580	21.87	18.32	-1.91
High	5700	21.92	18.31	-1.91

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5500	24.00	23.62	29.62	23.62	11.00	11.00	11.00
Mid	5580	24.00	23.63	29.63	23.63	11.00	11.00	11.00
High	5700	24.00	23.63	29.63	23.63	11.00	11.00	11.00

Duty Cycle CF (dB)	0.32	Included in Calculations of Corr'd Power & PSD
--------------------	------	--

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	12.414	12.73	23.62	-10.89
Mid	5580	12.394	12.71	23.63	-10.92
High	5700	12.507	12.83	23.63	-10.80

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5500	0.570	0.89	11.00	-10.11
Mid	5580	0.480	0.80	11.00	-10.20
High	5700	0.600	0.92	11.00	-10.08

10.5.8. 802.11n HT40 MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5510	40.24	36.72	-1.91
Mid	5550	40.18	36.69	-1.91
High	5670	40.24	36.72	-1.91

Limits

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

Duty Cycle CF (dB)	0.60	Included in Calculations of Corr'd Power & PSD
--------------------	------	--

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	12.711	13.31	24.00	-10.69
Mid	5550	12.558	13.16	24.00	-10.84
High	5670	12.630	13.23	24.00	-10.77

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5510	-2.050	-1.45	11.00	-12.45
Mid	5550	-2.050	-1.45	11.00	-12.45
High	5670	-2.010	-1.41	11.00	-12.41

10.5.9. 802.11ac HT80 MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5530	82.01	75.88	-1.91
Mid	5690	81.74	75.81	-1.91

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5530	24.00	24.00	30.00	24.00	11.00	11.00	11.00
Mid	5690	24.00	24.00	30.00	24.00	11.00	11.00	11.00

Duty Cycle CF (dB)	1.16	Included in Calculations of Corr'd Power & PSD
--------------------	------	--

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5530	11.096	12.26	24.00	-11.74
Mid	5690	10.873	12.03	24.00	-11.97

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5530	-6.360	-5.20	11.00	-16.20
Mid	5690	-6.450	-5.29	11.00	-16.29

5.1.4. 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	21.45	17.15	-1.91
Mid	5785	21.50	17.01	-1.91
High	5825	21.48	17.06	-1.91

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	29.34	35.34	29.34	30.00	17.00	17.00
Mid	5785	30.00	29.31	35.31	29.31	30.00	17.00	17.00
High	5825	30.00	29.32	35.32	29.32	30.00	17.00	17.00

Duty Cycle CF (dB)	0.29	Included in Calculations of Corr'd Power & PPSP
--------------------	------	---

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	13.33	13.62	29.34	-15.72
Mid	5785	13.12	13.41	29.31	-15.90
High	5825	12.98	13.27	29.32	-16.05

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5745	0.88	1.17	17.00	-15.84
Mid	5785	0.70	0.99	17.00	-16.01
High	5825	-1.57	-1.28	17.00	-18.28

10.5.10. 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	21.81	18.15	-1.91
Mid	5785	21.76	18.10	-1.91
High	5825	21.87	18.09	-1.91

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	29.59	35.59	29.59	30.00	17.00	17.00
Mid	5785	30.00	29.58	35.58	29.58	30.00	17.00	17.00
High	5825	30.00	29.57	35.57	29.57	30.00	17.00	17.00

Duty Cycle CF (dB)	0.32	Included in Calculations of Corr'd Power & PPSP
--------------------	------	---

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	13.36	13.68	29.59	-15.91
Mid	5785	13.17	13.49	29.58	-16.09
High	5825	12.84	13.16	29.57	-16.41

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5745	-1.86	-1.54	17.00	-18.54
Mid	5785	-1.55	-1.23	17.00	-18.23
High	5825	-2.22	-1.90	17.00	-18.90

10.5.11. 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	40.42	36.51	-1.91
High	5795	40.30	36.38	-1.91

Limits

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

Duty Cycle CF (dB)	0.60	Included in Calculations of Corr'd Power & PSD
--------------------	------	--

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	12.54	13.14	30.00	-16.87
High	5795	13.18	13.78	30.00	-16.22

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5755	-5.29	-4.69	17.00	-21.69
High	5795	-4.80	-4.20	17.00	-21.20

10.5.12. 802.11ac HT80 MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5775	82.5	75.8	-1.91

Limits

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

Duty Cycle CF (dB)	1.16	Included in Calculations of Corr'd Power & PSD
--------------------	------	--

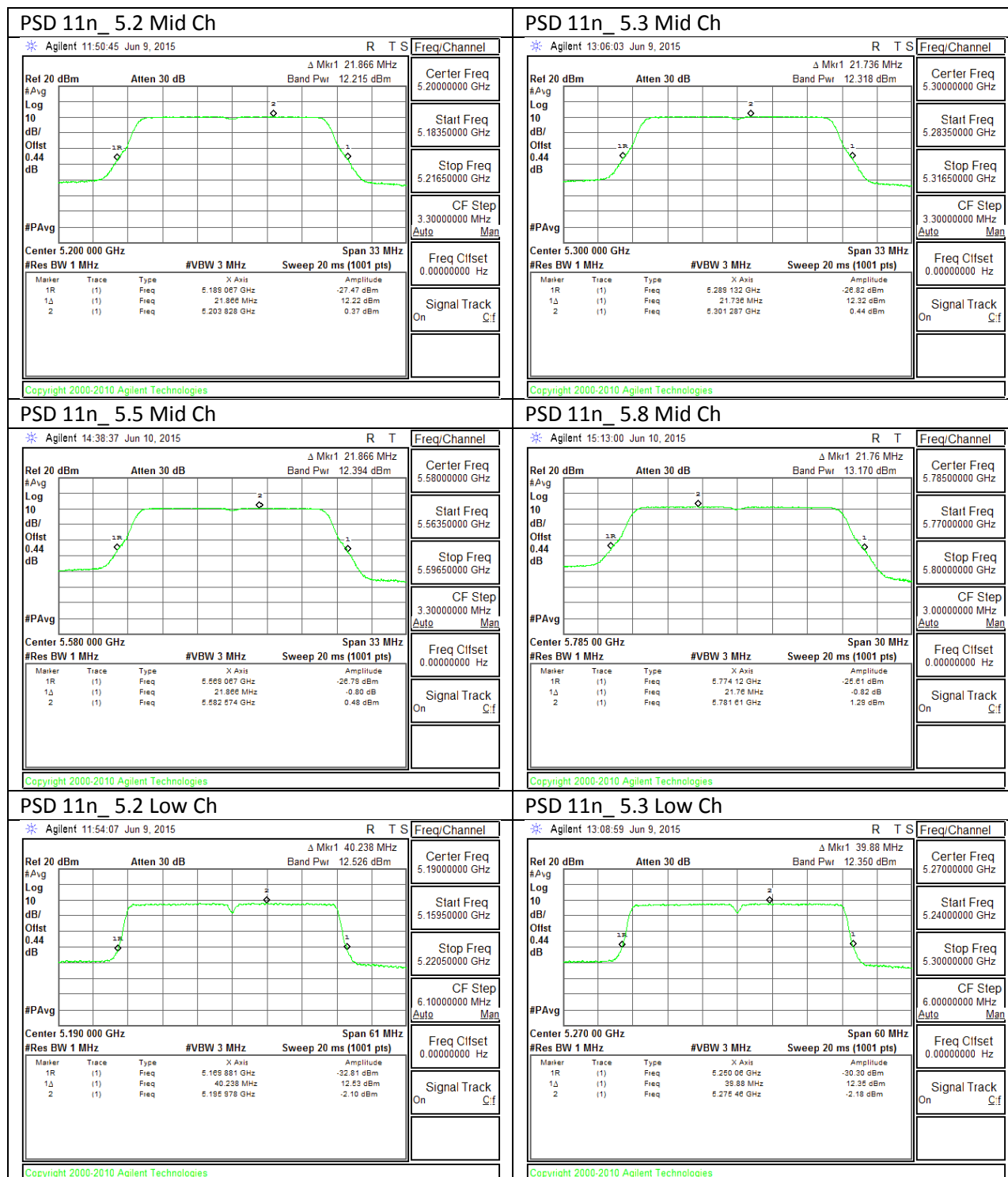
Output Power Results

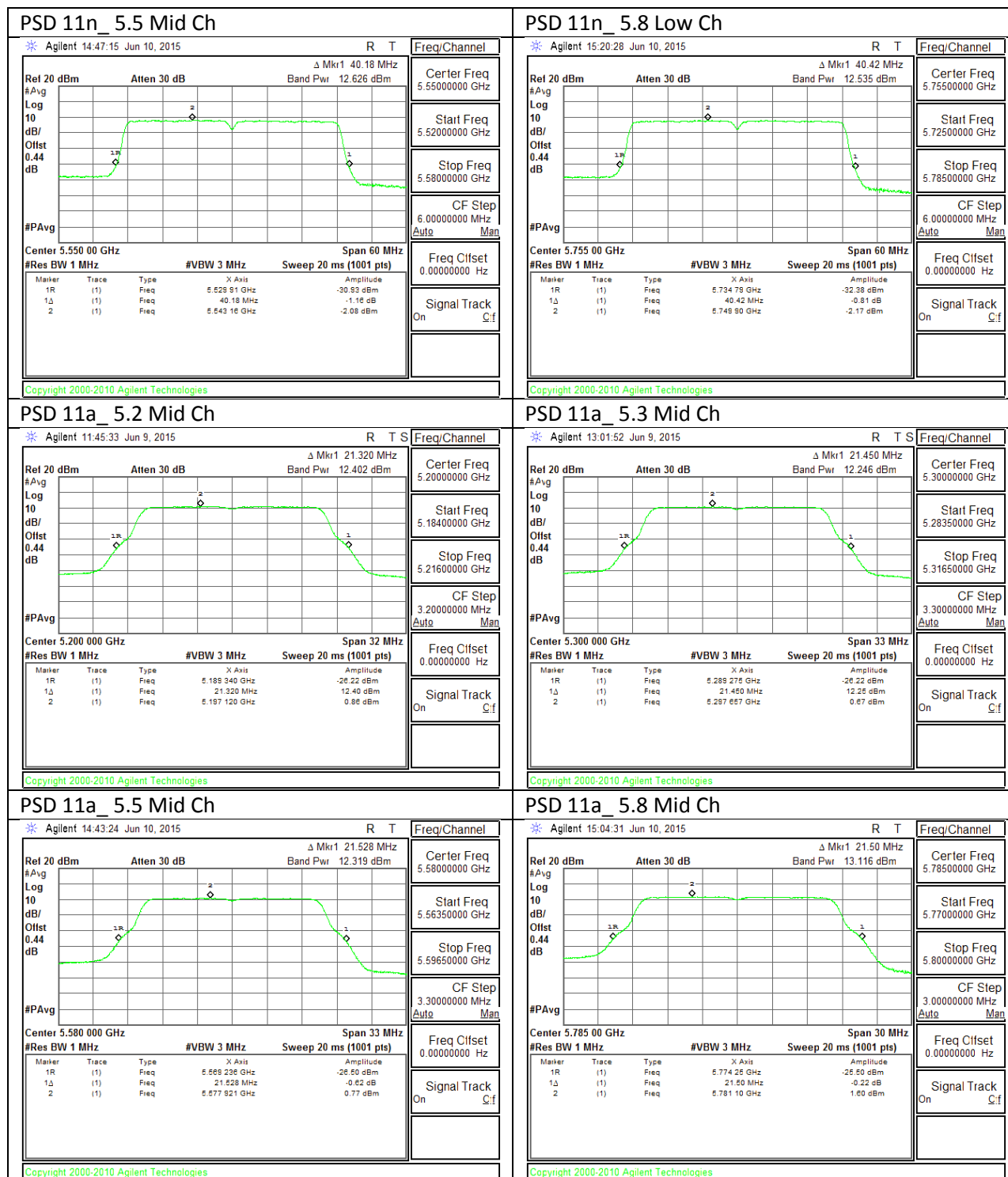
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5775	11.69	12.85	30.00	-17.15

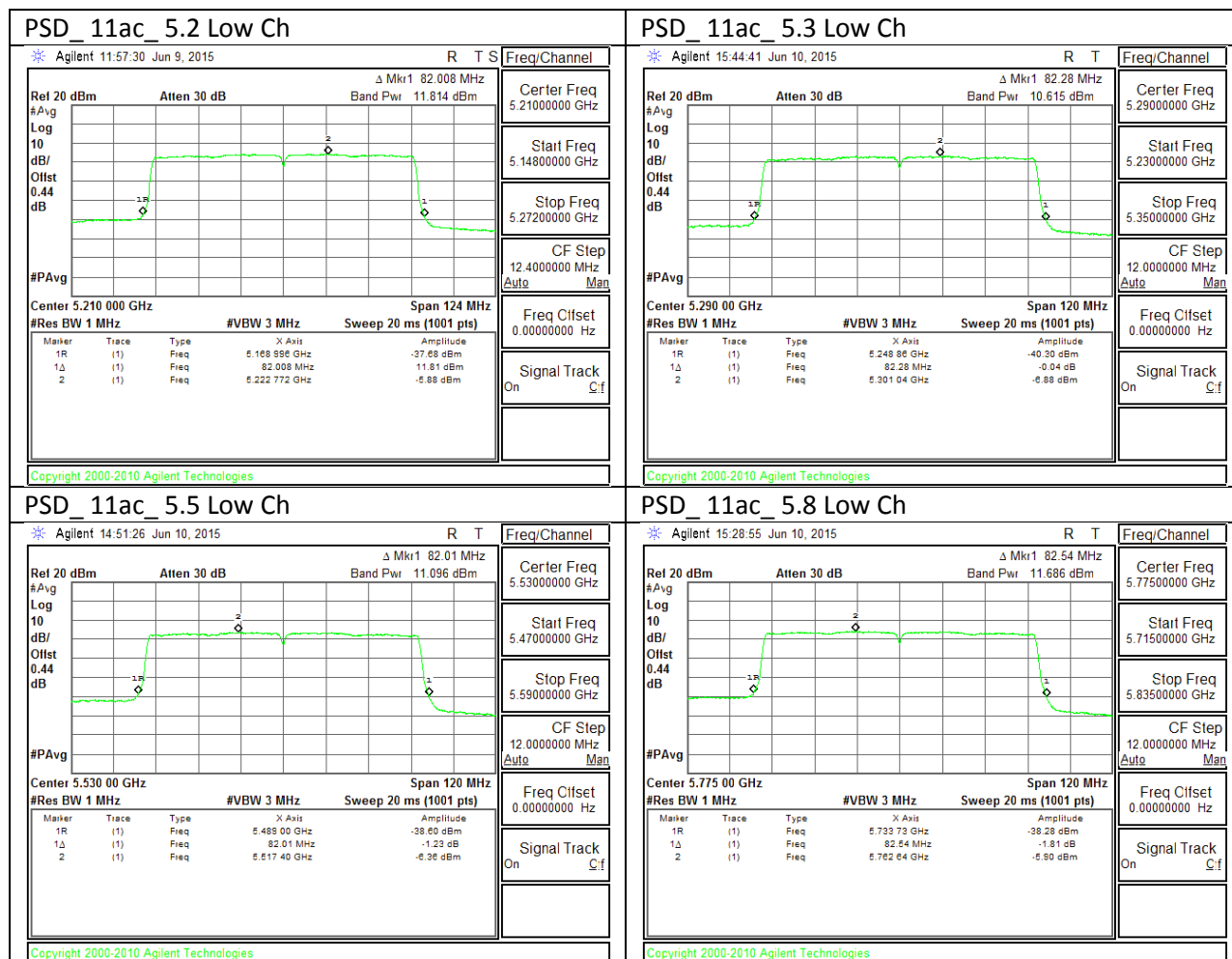
PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5775	-4.34	-3.18	17.00	-20.18

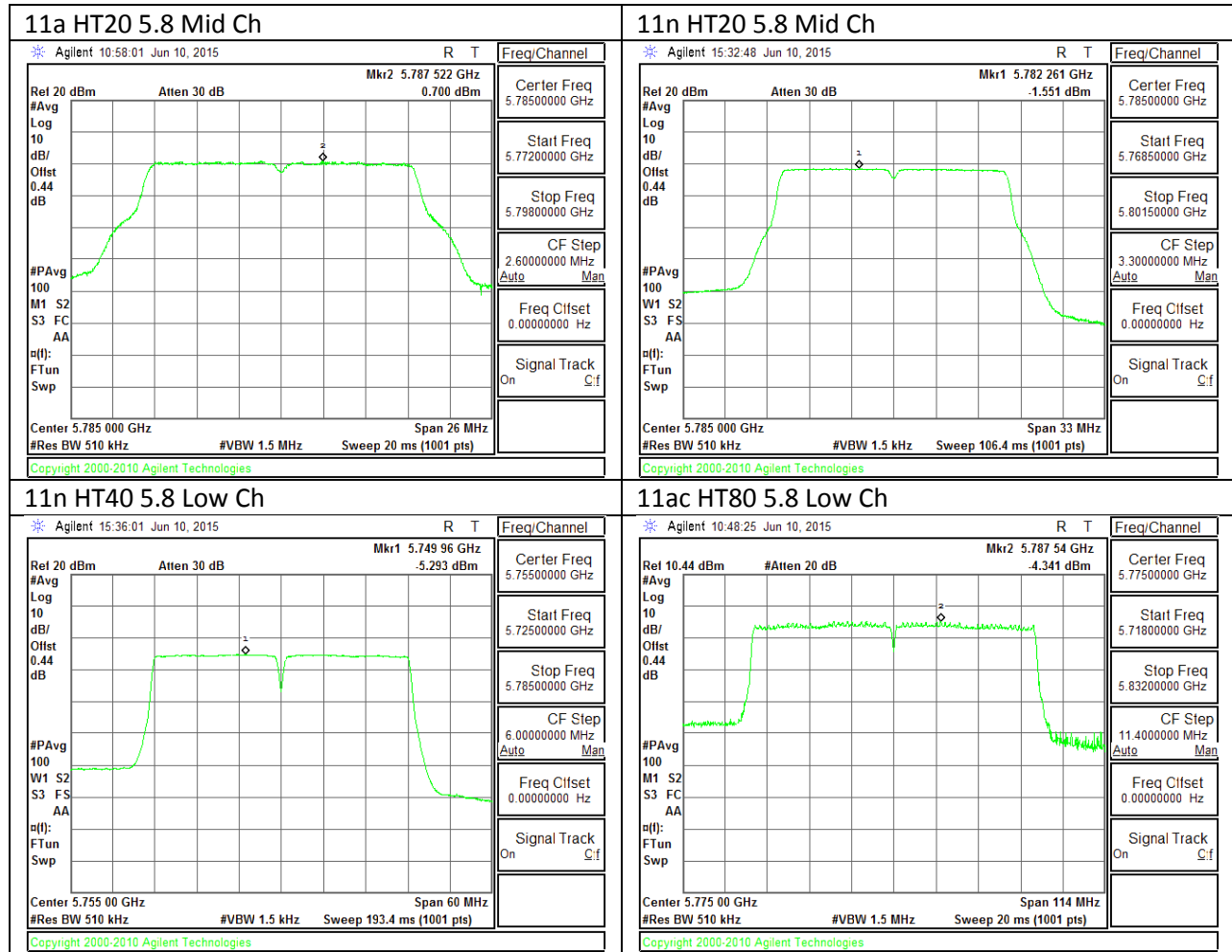
5.1.1. OUTPUT POWER AND PSD PLOTS, Chain 0







UNII 5.8 PSD



11. TRANSMITTER ABOVE 1 GHz

LIMITS

FCC §15.205 and §15.209

Frequency Range (MHz)	Field Strength Limit (μ V/m) at 3 m	Field Strength Limit (dB μ V/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. 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.

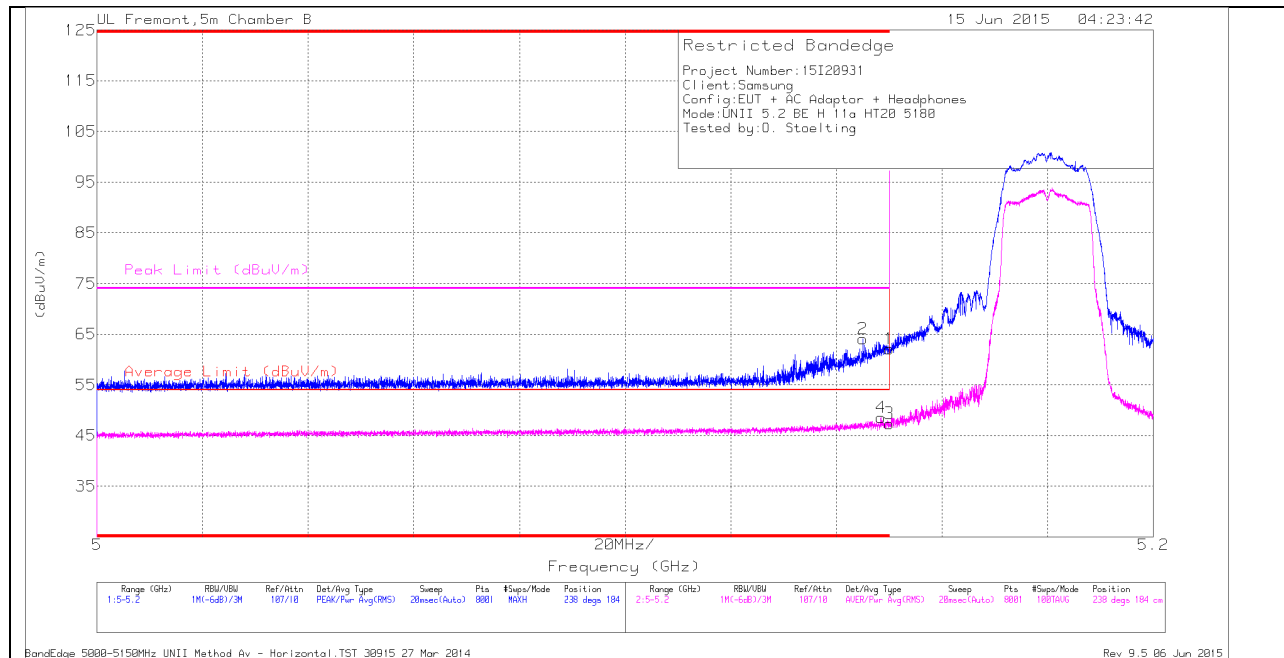
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

11.1. 5.2 GHz

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

RESTRICTED BANDEDGE (LOW CHANNEL)

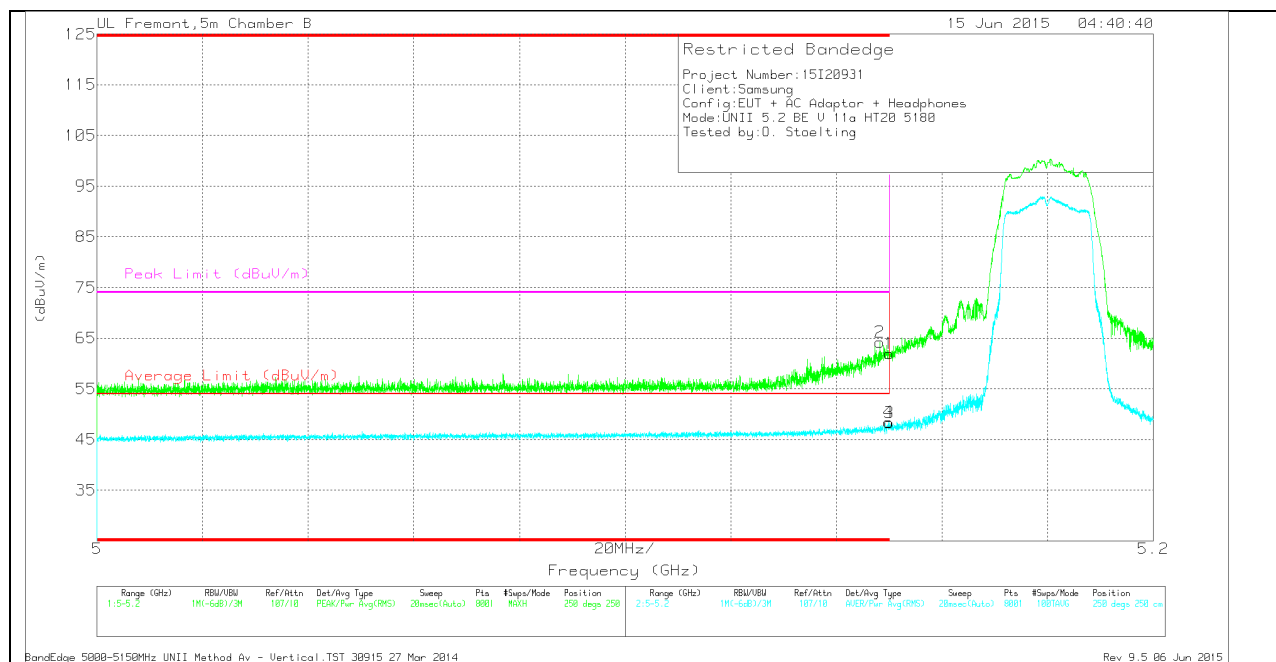
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fitter/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	47.49	Pk	34.1	-19.5	0	62.09	-	-	74	-11.91	238	184	H
2	* 5.145	49.4	Pk	34.1	-19.4	0	64.1	-	-	74	-9.9	238	184	H
3	* 5.15	32.48	RMS	34.1	-19.5	.29	47.37	54	-6.63	-	-	238	184	H
4	* 5.149	33.68	RMS	34.1	-19.5	.29	48.57	54	-5.43	-	-	238	184	H

VERTICAL PEAK AND AVERAGE PLOT

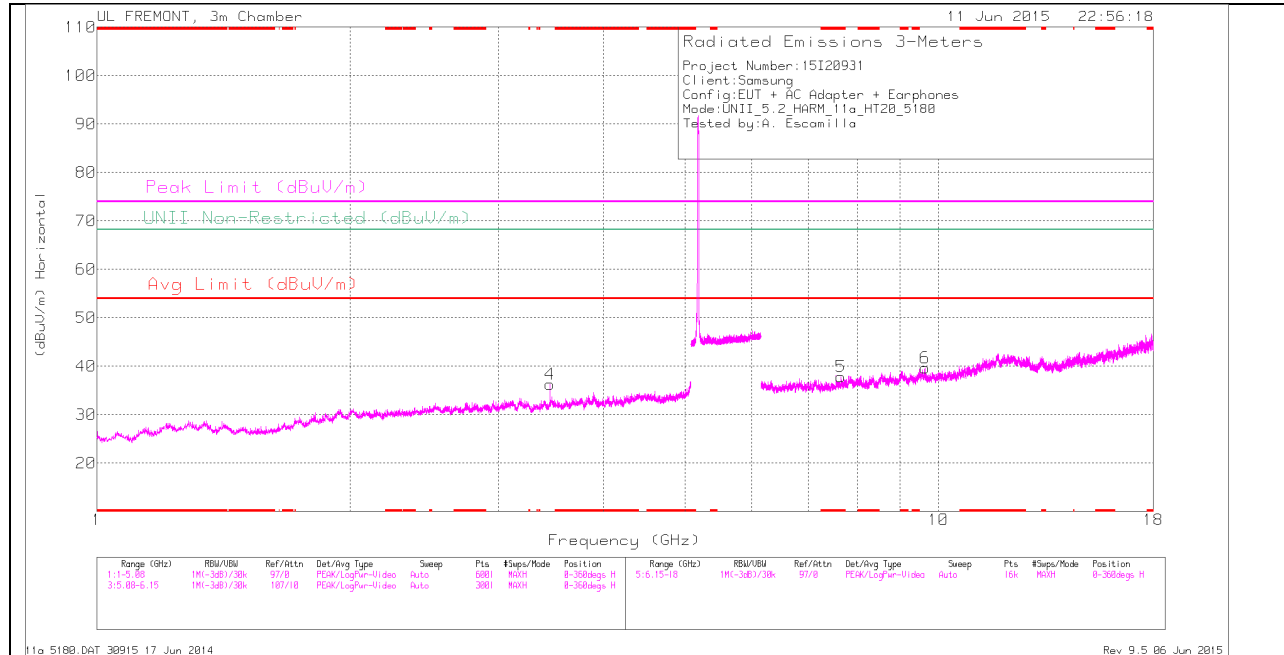


VERTICAL DATA

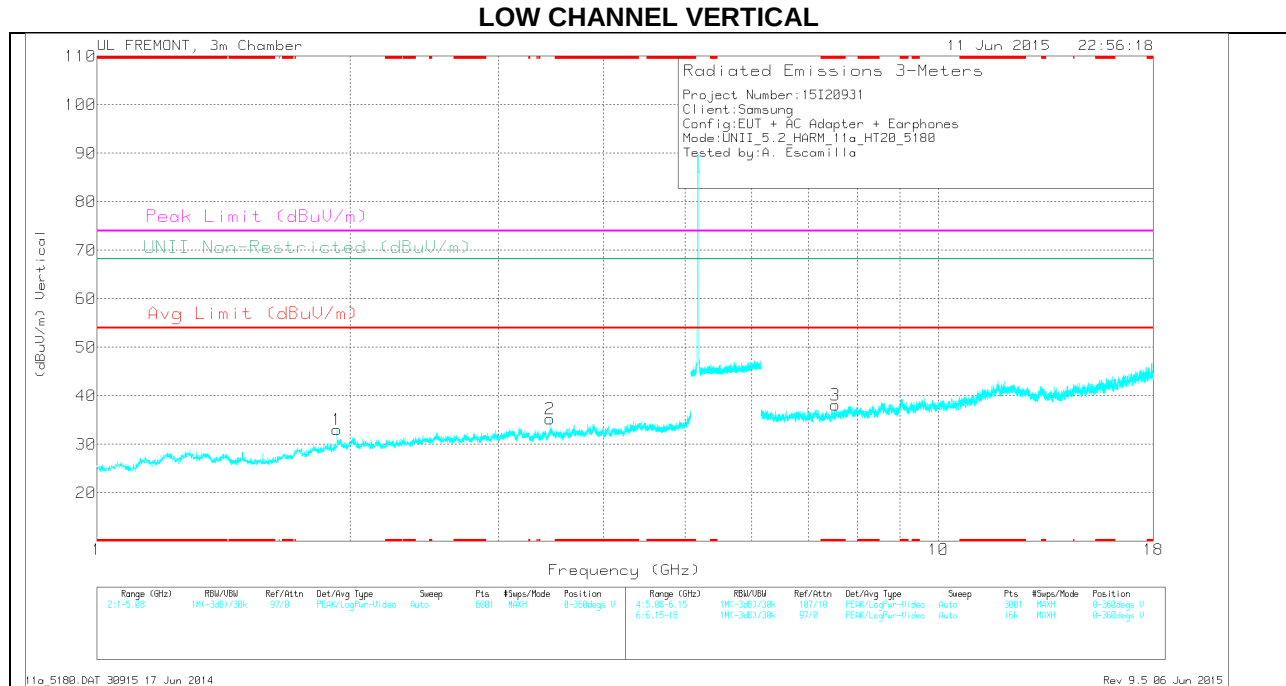
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Filt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 5.148	49.55	Pk	34.1	-19.5	0	64.15	-	-	74	-9.85	250	250	V
1	* 5.15	47.34	Pk	34.1	-19.5	0	61.94	-	-	74	-12.06	250	250	V
3	* 5.15	33.38	RMS	34.1	-19.5	.29	48.27	54	-5.73	-	-	250	250	V
4	* 5.15	33.57	RMS	34.1	-19.5	.29	48.46	54	-5.54	-	-	250	250	V

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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



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/Ftr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	* 7.66	29.81	Avg	35.8	-27.8	37.81	54	-16.19	-	-	-	-	0-360	200	H
3	* 7.541	30.45	Avg	35.7	-28	38.15	54	-15.85	-	-	-	-	0-360	100	V
1	1.928	33.72	Avg	31.2	-31.9	33.02	54	-20.98	-	-	-	-	0-360	100	V
4	3.453	34	Avg	32.8	-30.5	36.3	54	-17.7	-	-	-	-	0-360	100	H
2	3.453	32.89	Avg	32.8	-30.5	35.19	54	-18.81	-	-	-	-	0-360	200	V
6	9.635	26.95	Avg	36.8	-24.1	39.65	54	-14.35	-	-	-	-	0-360	100	H

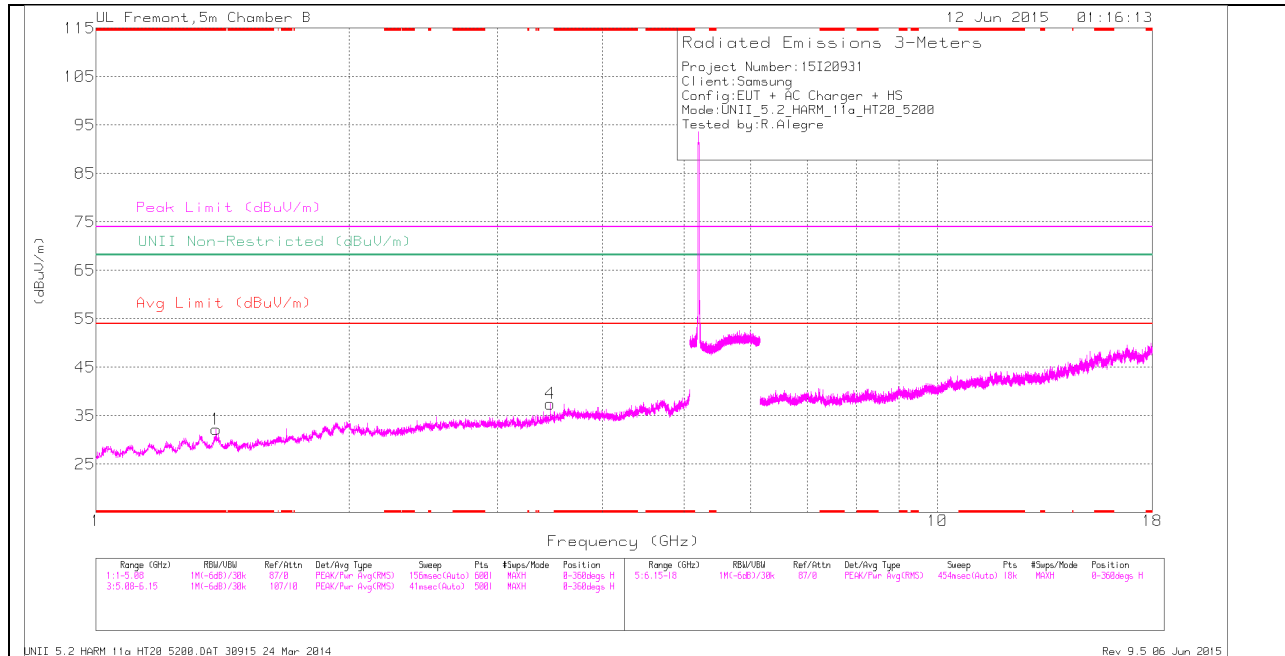
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Ftr /Pad (dB)	DCCF	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 7.658	39.31	PK3	35.8	-27.8	0	47.31	-	-	74	-26.69	68.2	-20.89	29	396	H
* 7.66	26.72	ADR	35.8	-27.8	0.29	35.01	54	-18.99	-	-	-	-	29	396	H
* 7.539	38.83	PK3	35.7	-28.1	0	46.43	-	-	74	-27.57	68.2	-21.77	13	207	V
* 7.54	26.54	ADR	35.7	-28.1	0.29	34.43	54	-19.57	-	-	-	-	13	207	V
1.928	41.92	PK3	31.2	-31.9	0	41.22	-	-	74	-32.78	68.2	-26.98	330	199	V
1.93	28.95	ADR	31.2	-31.9	0.29	28.54	54	-25.46	-	-	-	-	330	199	V
3.453	41.84	PK3	32.8	-30.5	0	44.14	-	-	74	-29.86	68.2	-24.06	352	113	H
3.453	31.61	ADR	32.8	-30.5	0.29	34.2	54	-19.8	-	-	-	-	352	113	H
3.453	42.43	PK3	32.8	-30.5	0	44.73	-	-	74	-29.27	68.2	-23.47	294	313	V
3.453	32.49	ADR	32.8	-30.5	0.29	35.08	54	-18.92	-	-	-	-	294	313	V
9.633	36.27	PK3	36.8	-24.1	0	48.97	-	-	74	-25.03	68.2	-19.23	255	341	H
9.633	24.15	ADR	36.8	-24	0.29	37.24	54	-16.76	-	-	-	-	255	341	H

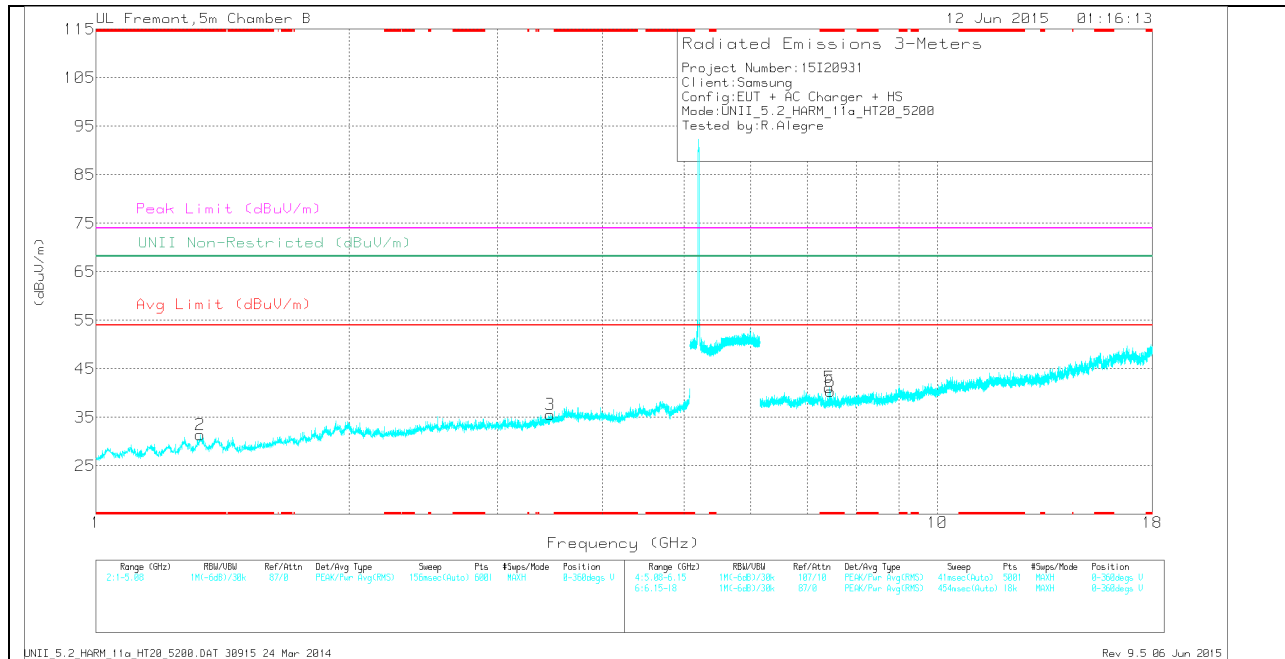
FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

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 T345 (dB/m)	Amp/Cbl/Ftr/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	* 1.39	35.61	Pk	29.4	-32.8	0	32.21	-	-	74	-41.79	68.2	-35.99	0-360	101	H
2	* 1.33	34.87	Pk	29.4	-32.9	0	31.37	-	-	74	-42.63	68.2	-36.83	0-360	199	V
5	* 7.44	32.4	Pk	35.3	-26.6	0	41.1	-	-	74	-32.9	68.2	-27.1	0-360	199	V
6	* 7.467	30.84	Pk	35.3	-25.8	0	40.34	-	-	74	-33.66	68.2	-27.86	0-360	101	V
4	3.466	34.36	Pk	33.4	-30.3	0	37.46	-	-	74	-36.54	68.2	-30.74	0-360	101	H
3	3.466	32.42	Pk	33.4	-30.3	0	35.52	-	-	74	-38.48	68.2	-32.68	0-360	199	V

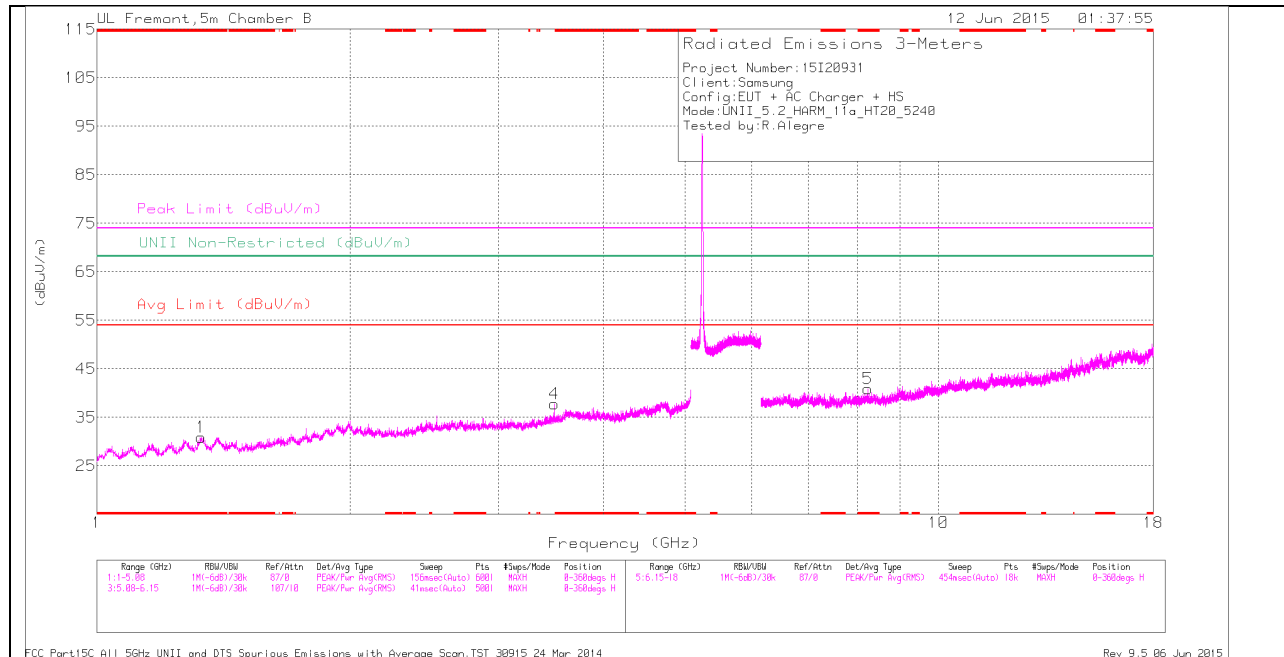
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Ftr/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
* 1.39	42.59	PK3	29.4	-32.8	0	39.19	-	-	74	-34.81	68.2	-29.01	307	102	H
* 1.392	30.9	ADR	29.4	-32.8	.29	27.79	54	-26.21	-	-	-	-	307	102	H
* 1.33	42.33	PK3	29.4	-32.9	0	38.83	-	-	74	-35.17	68.2	-29.37	335	200	V
* 1.332	31.12	ADR	29.4	-32.9	.29	27.91	54	-26.09	-	-	-	-	335	200	V
* 7.441	37.76	PK3	35.3	-26.6	0	46.46	-	-	74	-27.54	68.2	-21.74	335	200	V
* 7.439	26.67	ADR	35.3	-26.6	.29	35.66	54	-18.34	-	-	-	-	335	200	V
* 7.466	38.02	PK3	35.3	-25.8	0	47.52	-	-	74	-26.48	68.2	-20.68	335	102	V
* 7.469	26.39	ADR	35.3	-25.8	.29	36.18	54	-17.82	-	-	-	-	335	102	V
3.467	42.52	PK3	33.4	-30.3	0	45.62	-	-	74	-28.38	68.2	-22.58	335	296	H
3.467	32.96	ADR	33.4	-30.3	.29	36.35	54	-17.65	-	-	-	-	335	296	H
3.467	40.61	PK3	33.4	-30.3	0	43.71	-	-	74	-30.29	68.2	-24.49	335	200	V
3.468	28.82	ADR	33.4	-30.3	.29	32.21	54	-21.79	-	-	-	-	335	200	V

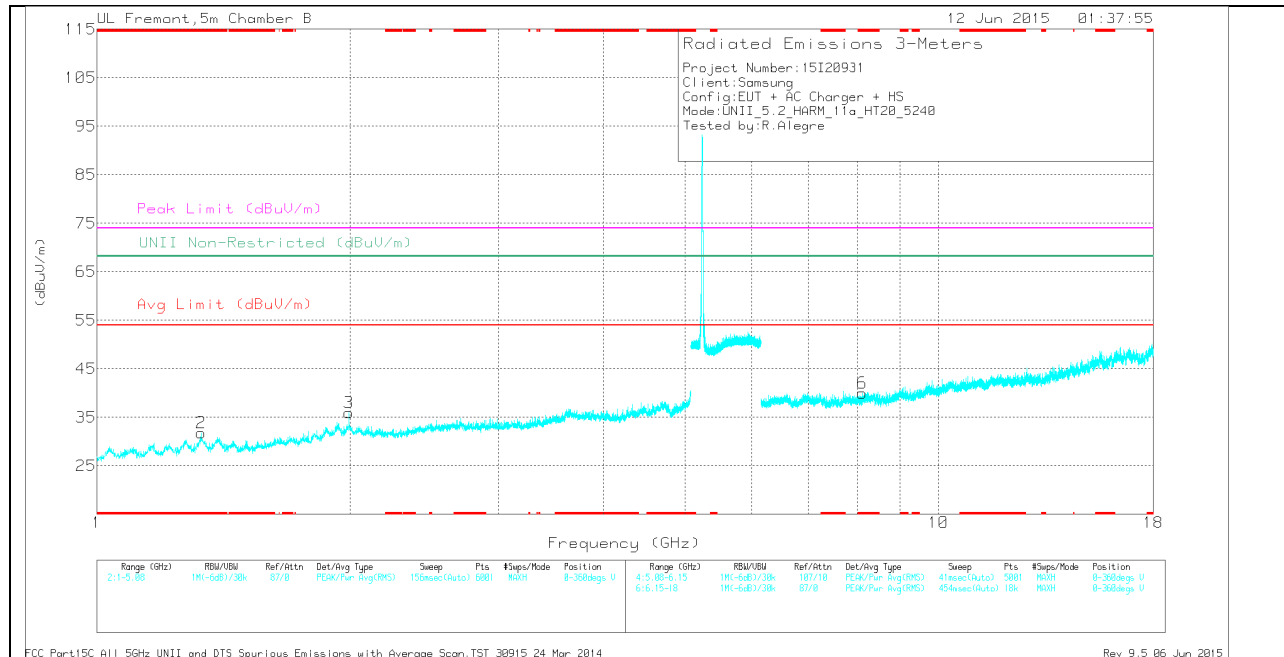
FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

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 T345 (dB/m)	Amp/Cbl/Ftr/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	* 1.329	34.39	Pk	29.4	-32.9	0	30.89	-	-	74	-43.11	68.2	-37.31	0-360	199	H
2	* 1.329	35.27	Pk	29.4	-32.9	0	31.77	-	-	74	-42.23	68.2	-36.43	0-360	199	V
5	* 8.24	30.99	Pk	35.7	-25.8	0	40.89	-	-	74	-33.11	68.2	-27.31	0-360	101	H
6	* 8.118	30.33	Pk	35.7	-26.1	0	39.93	-	-	74	-34.07	68.2	-28.27	0-360	101	V
3	1.992	35.53	Pk	32.3	-31.9	0	35.93	-	-	74	-38.07	68.2	-32.27	0-360	101	V
4	3.493	34.59	Pk	33.5	-30.3	0	37.79	-	-	74	-36.21	68.2	-30.41	0-360	101	H

PK - Peak detector

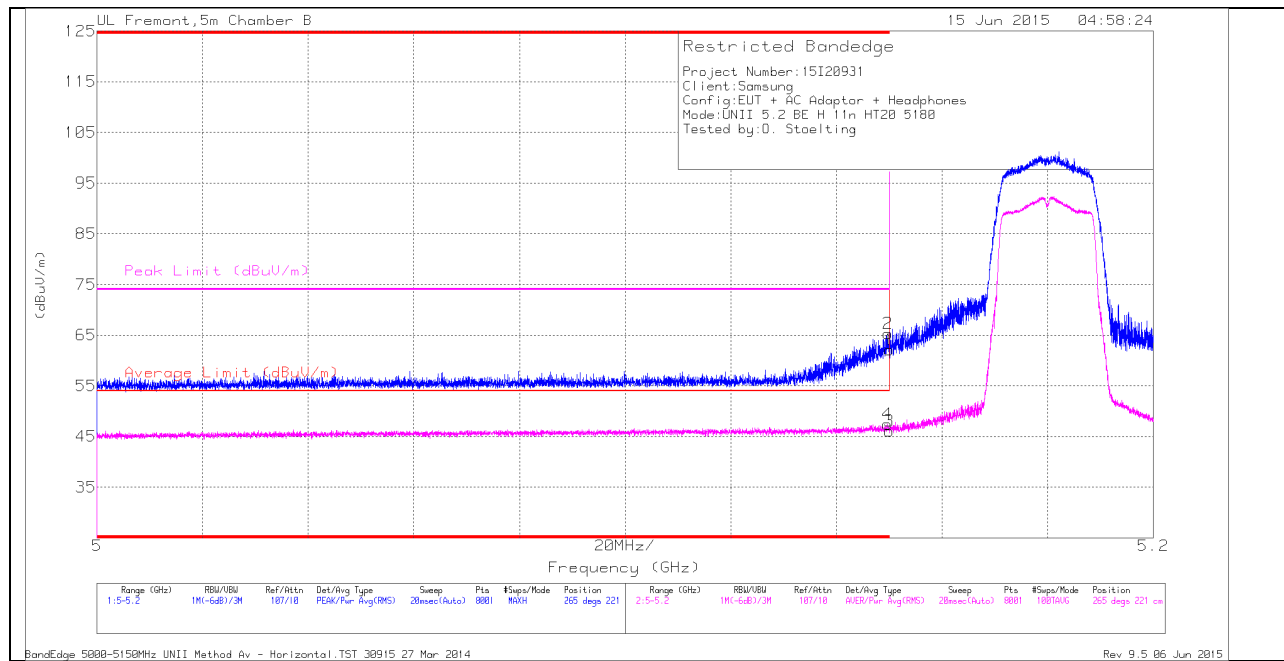
RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Ftr/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
* 1.33	43.22	PK3	29.4	-32.9	0	39.72	-	-	74	-34.28	68.2	-28.48	1	199	H
* 1.33	31.26	ADR	29.4	-32.9	.29	28.05	54	-25.95	-	-	-	-	1	199	H
* 1.33	43.17	PK3	29.4	-32.9	0	39.67	-	-	74	-34.33	68.2	-28.53	307	200	V
* 1.33	31.27	ADR	29.4	-32.9	.29	28.06	54	-25.94	-	-	-	-	307	200	V
* 8.242	38.28	PK3	35.7	-25.8	0	48.18	-	-	74	-25.82	68.2	-20.02	307	102	H
* 8.242	26.57	ADR	35.7	-25.8	.29	36.76	54	-17.24	-	-	-	-	307	102	H
* 8.117	37.51	PK3	35.7	-26.1	0	47.11	-	-	74	-26.89	68.2	-21.09	307	102	V
* 8.116	26.66	ADR	35.7	-26.1	.29	36.55	54	-17.45	-	-	-	-	307	102	V
1.991	41.41	PK3	32.3	-31.9	0	41.81	-	-	74	-32.19	68.2	-26.39	307	102	V
1.991	29.89	ADR	32.3	-31.9	.29	30.58	-54	-23.42	-	-	-	-	307	102	V
3.493	42.08	PK3	33.5	-30.4	0	45.18	-	-	74	-28.82	68.2	-23.02	307	216	H
3.493	33.02	ADR	33.5	-30.4	.29	36.41	54	-17.59	-	-	-	-	307	216	H

FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

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

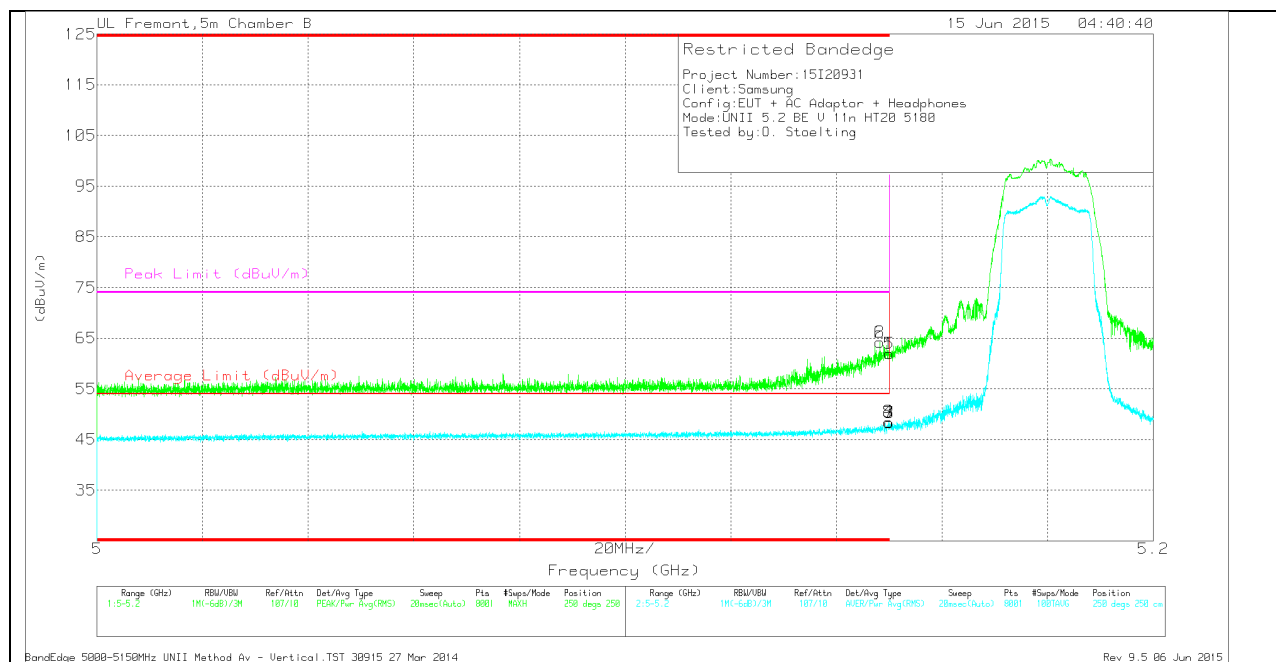
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fit r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	47.49	Pk	34.1	-19.5	0	62.09	-	-	74	-11.91	265	221	H
2	* 5.15	50.75	Pk	34.1	-19.5	0	65.35	-	-	74	-8.65	265	221	H
3	* 5.15	31.19	RMS	34.1	-19.5	-32	46.11	54	-7.89	-	-	265	221	H
4	* 5.15	32.53	RMS	34.1	-19.5	-32	47.45	54	-6.55	-	-	265	221	H

VERTICAL PEAK AND AVERAGE PLOT

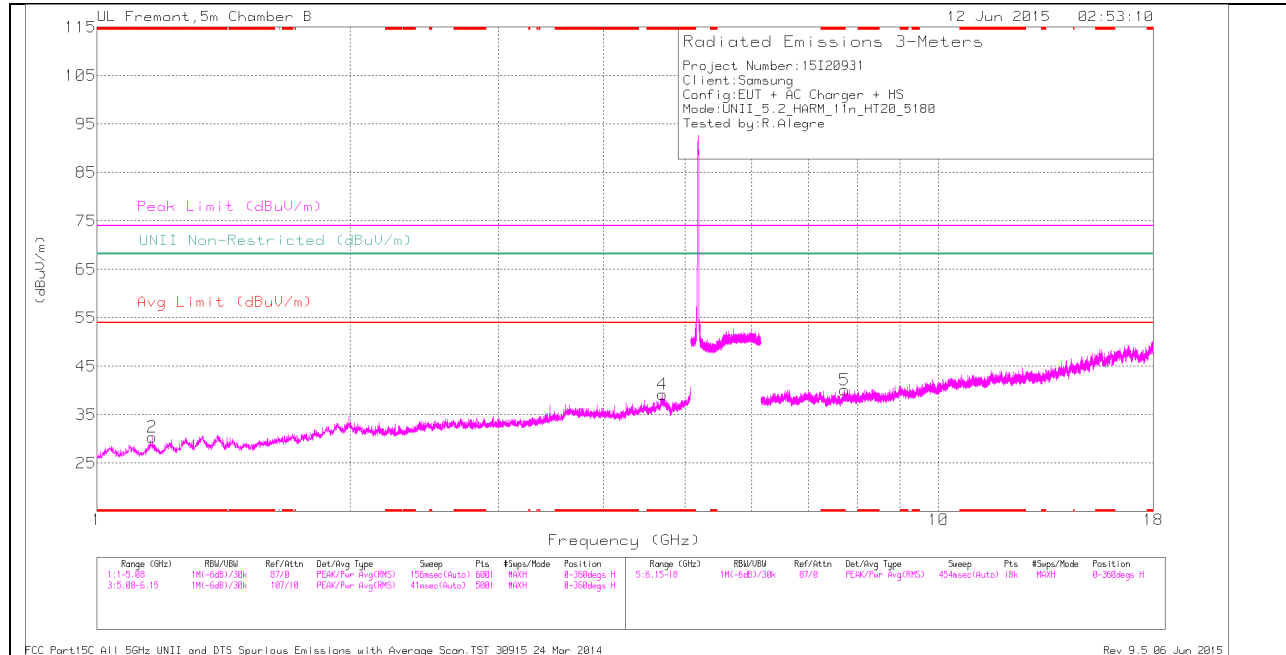


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Filt 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	* 5.148	49.55	Pk	34.1	-19.5	0	64.15	-	-	74	-9.85	250	250	V
6	* 5.148	49.55	Pk	34.1	-19.5	0	64.15	-	-	74	-9.85	250	250	V
1	* 5.15	47.34	Pk	34.1	-19.5	0	61.94	-	-	74	-12.06	250	250	V
5	* 5.15	47.34	Pk	34.1	-19.5	0	61.94	-	-	74	-12.06	250	250	V
3	* 5.15	33.38	RMS	34.1	-19.5	.32	48.3	54	-5.7	-	-	250	250	V
4	* 5.15	33.57	RMS	34.1	-19.5	.32	48.49	54	-5.51	-	-	250	250	V
7	* 5.15	33.38	RMS	34.1	-19.5	.32	48.3	54	-5.7	-	-	250	250	V
8	* 5.15	33.57	RMS	34.1	-19.5	.32	48.49	54	-5.51	-	-	250	250	V

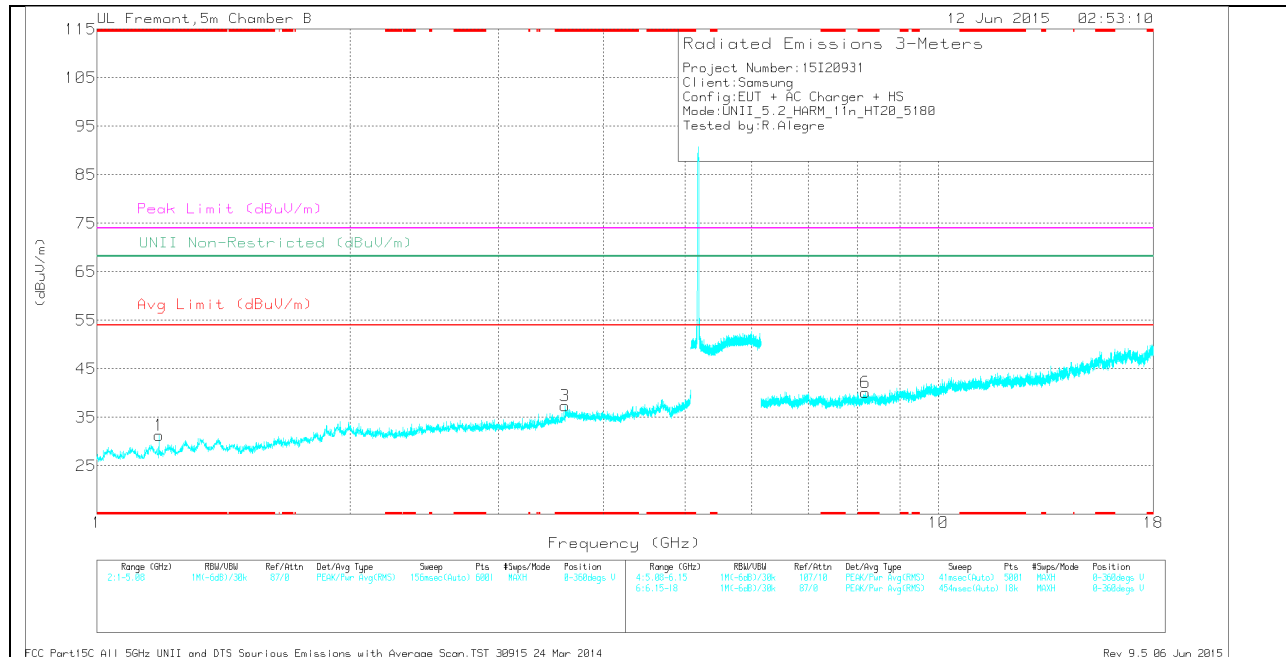
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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

LOW CHANNEL VERTICAL



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

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Ftr/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	* 1.163	35.82	Pk	28.2	-33.6	0	30.42	-	-	74	-43.58	68.2	-37.78	0-360	200	H
4	* 4.695	33.95	Pk	34.2	-29	0	39.15	-	-	74	-34.85	68.2	-29.05	0-360	200	H
1	* 1.185	36.64	Pk	28.4	-33.7	0	31.34	-	-	74	-42.66	68.2	-36.86	0-360	200	V
3	* 3.602	33.66	Pk	33.8	-30.1	0	37.36	-	-	74	-36.64	68.2	-30.84	0-360	101	V
5	* 7.733	30.77	Pk	35.5	-26.2	0	40.07	-	-	74	-33.93	68.2	-28.13	0-360	101	H
6	* 8.184	29.83	Pk	35.7	-25.4	0	40.13	-	-	74	-33.87	68.2	-28.07	0-360	199	V

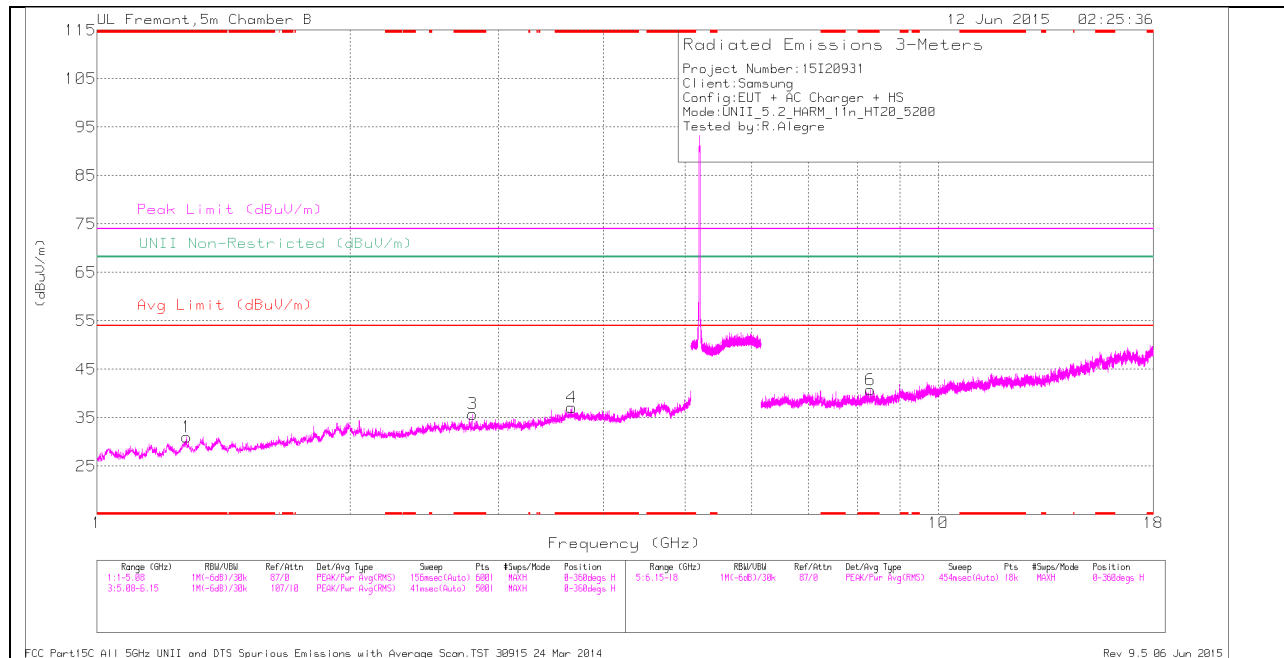
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Ftr/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
* 1.162	42.81	PK3	28.2	-33.6	0	37.41	-	-	74	-36.59	68.2	-30.79	360	199	H
* 1.163	31.58	ADR	28.2	-33.6	0.32	26.5	54	-27.5	-	-	-	-	360	199	H
* 4.696	42.27	PK3	34.2	-29	0	47.47	-	-	74	-26.53	68.2	-20.73	360	199	H
* 4.694	29.88	ADR	34.2	-29	0.32	35.4	54	-18.6	-	-	-	-	360	199	H
* 1.186	42.15	PK3	28.4	-33.7	0	36.85	-	-	74	-37.15	68.2	-31.35	360	199	V
* 1.186	30.21	ADR	28.4	-33.7	0.32	25.23	54	-28.77	-	-	-	-	360	199	V
* 3.601	40.87	PK3	33.8	-30.1	0	44.57	-	-	74	-29.43	68.2	-23.63	360	102	V
* 3.601	29.2	ADR	33.8	-30.1	0.32	33.22	54	-20.78	-	-	-	-	360	102	V
* 7.734	38.15	PK3	35.5	-26.2	0	47.45	-	-	74	-26.55	68.2	-20.75	360	102	H
* 7.733	26.9	ADR	35.5	-26.2	0.32	36.52	54	-17.48	-	-	-	-	360	102	H
* 8.186	37.09	PK3	35.7	-25.4	0	47.39	-	-	74	-26.61	68.2	-20.81	360	198	V
* 8.186	26.43	ADR	35.7	-25.4	0.32	37.05	54	-16.95	-	-	-	-	360	198	V

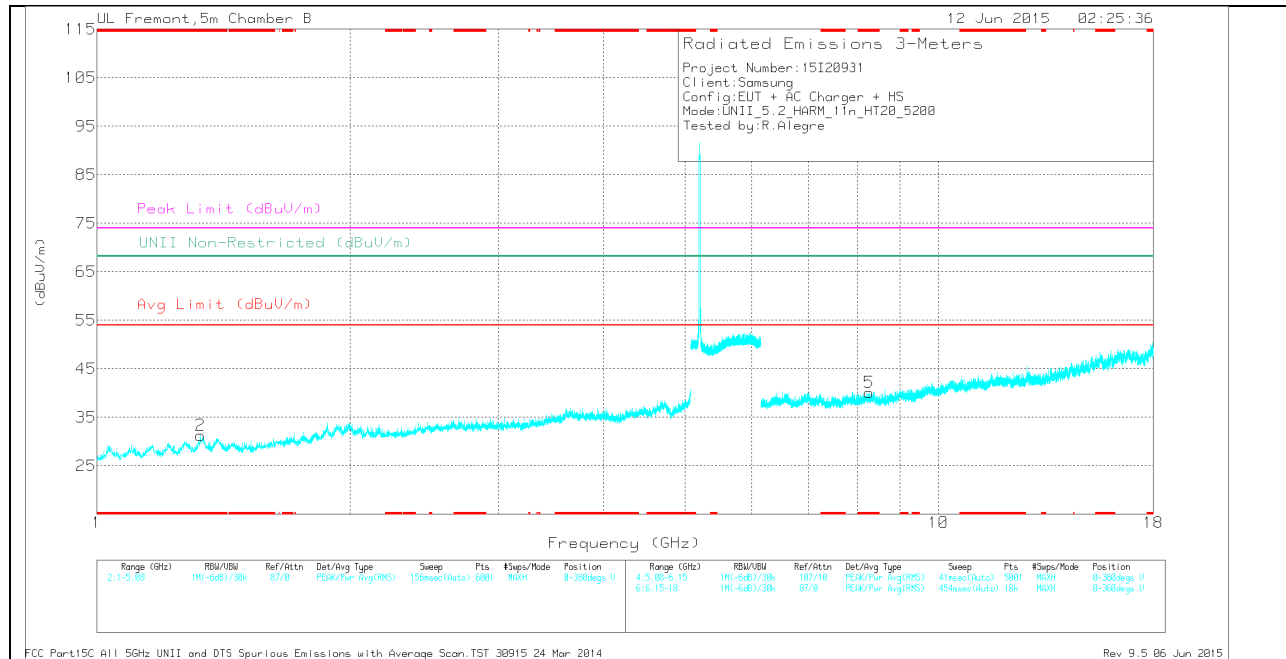
FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

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 T345 (dB/m)	Amp/Cbl/ Ftr/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	* 1.277	35.21	Pk	29.2	-33.4	0	31.01	-	-	74	-42.99	68.2	-37.19	0-360	199	H
3	* 2.794	34.67	Pk	32.6	-31.5	0	35.77	-	-	74	-38.23	68.2	-32.43	0-360	199	H
4	* 3.665	33.55	Pk	33.7	-30.1	0	37.15	-	-	74	-36.85	68.2	-31.05	0-360	199	H
2	* 1.327	34.77	Pk	29.4	-32.9	0	31.27	-	-	74	-42.73	68.2	-36.93	0-360	199	V
6	* 8.301	30.72	Pk	35.7	-25.7	0	40.72	-	-	74	-33.28	68.2	-27.48	0-360	101	H
5	* 8.268	30.23	Pk	35.7	-25.8	0	40.13	-	-	74	-33.87	68.2	-28.07	0-360	200	V

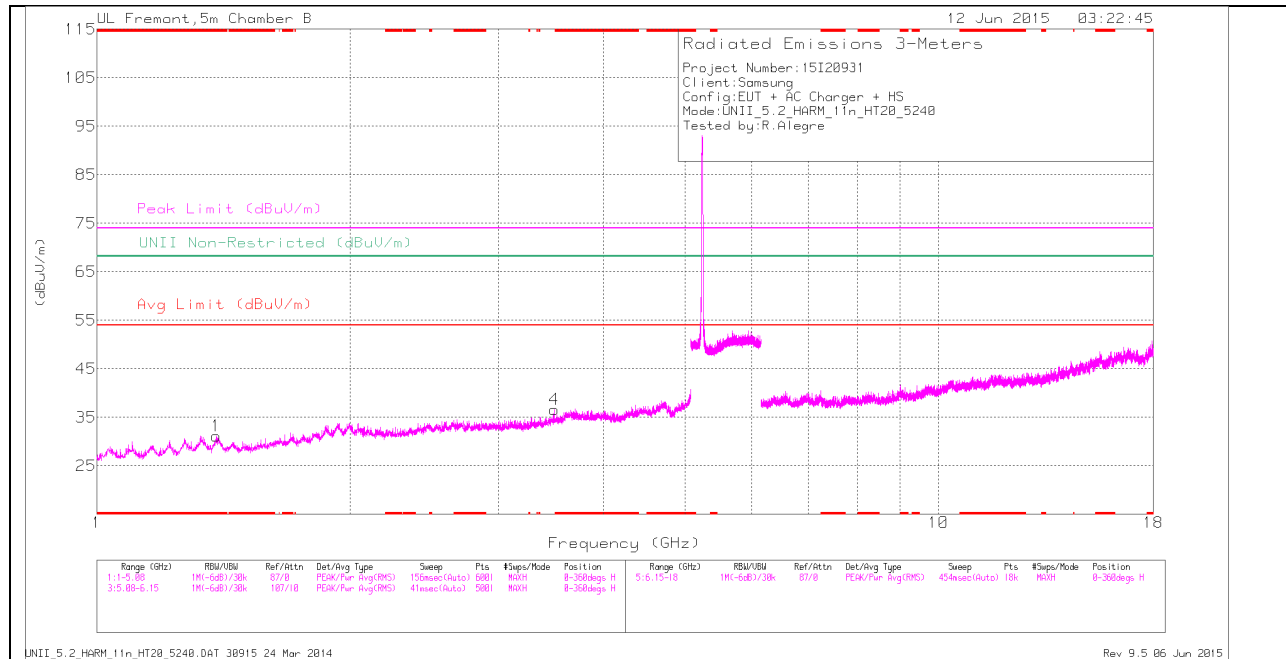
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.277	43.02	PK3	29.2	-33.4	0	38.82	-	-	74	-35.18	68.2	-29.38	360	199	H
* 1.276	31.2	ADR	29.2	-33.4	.32	27.32	54	-26.68	-	-	-	-	360	199	H
* 2.796	40.43	PK3	32.6	-31.5	0	41.53	-	-	74	-32.47	68.2	-26.67	360	199	H
* 2.793	28.83	ADR	32.6	-31.5	.32	30.25	54	-23.75	-	-	-	-	360	199	H
* 3.664	41.12	PK3	33.7	-30.1	0	44.72	-	-	74	-29.28	68.2	-23.48	360	199	H
* 3.664	29.13	ADR	33.7	-30.1	.32	33.05	54	-20.95	-	-	-	-	360	199	H
* 1.327	42.61	PK3	29.4	-32.9	0	39.11	-	-	74	-34.89	68.2	-29.09	360	199	V
* 1.327	31.05	ADR	29.4	-32.9	.32	27.87	54	-26.13	-	-	-	-	360	199	V
* 8.3	37.82	PK3	35.7	-25.7	0	47.82	-	-	74	-26.18	68.2	-20.38	360	102	H
* 8.3	26.69	ADR	35.7	-25.7	.32	37.01	54	-16.99	-	-	-	-	360	102	H

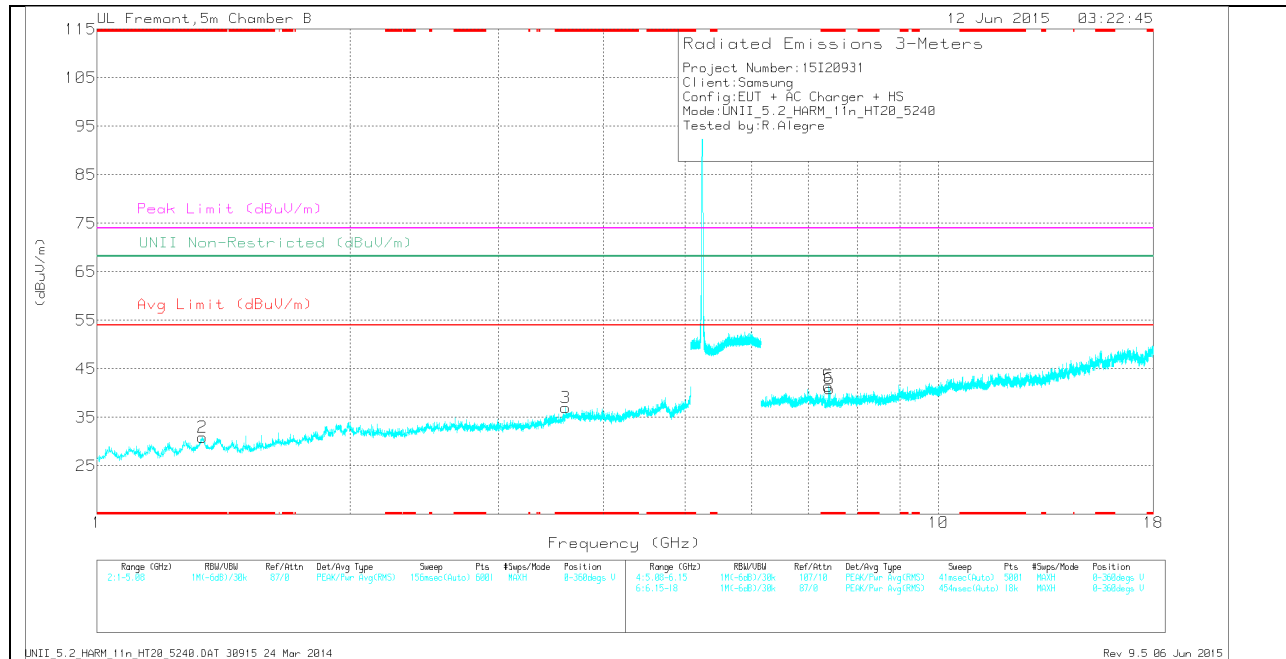
FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

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 T345 (dB/m)	Amp/Cbl/Ftr/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	* 1.386	34.53	Pk	29.4	-32.8	0	31.13	-	-	74	-42.87	68.2	-37.07	0-360	199	H
2	* 1.335	34.34	Pk	29.4	-32.9	0	30.84	-	-	74	-43.16	68.2	-37.36	0-360	199	V
3	* 3.604	33.17	Pk	33.8	-30	0	36.97	-	-	74	-37.03	68.2	-31.23	0-360	199	V
5	* 7.402	32.79	Pk	35.4	-26.8	0	41.39	-	-	74	-32.61	68.2	-26.81	0-360	101	V
6	* 7.422	32.29	Pk	35.4	-26.8	0	40.89	-	-	74	-33.11	68.2	-27.31	0-360	101	V
4	3.493	33.39	Pk	33.5	-30.3	0	36.59	-	-	74	-37.41	68.2	-31.61	0-360	101	H

PK - Peak detector

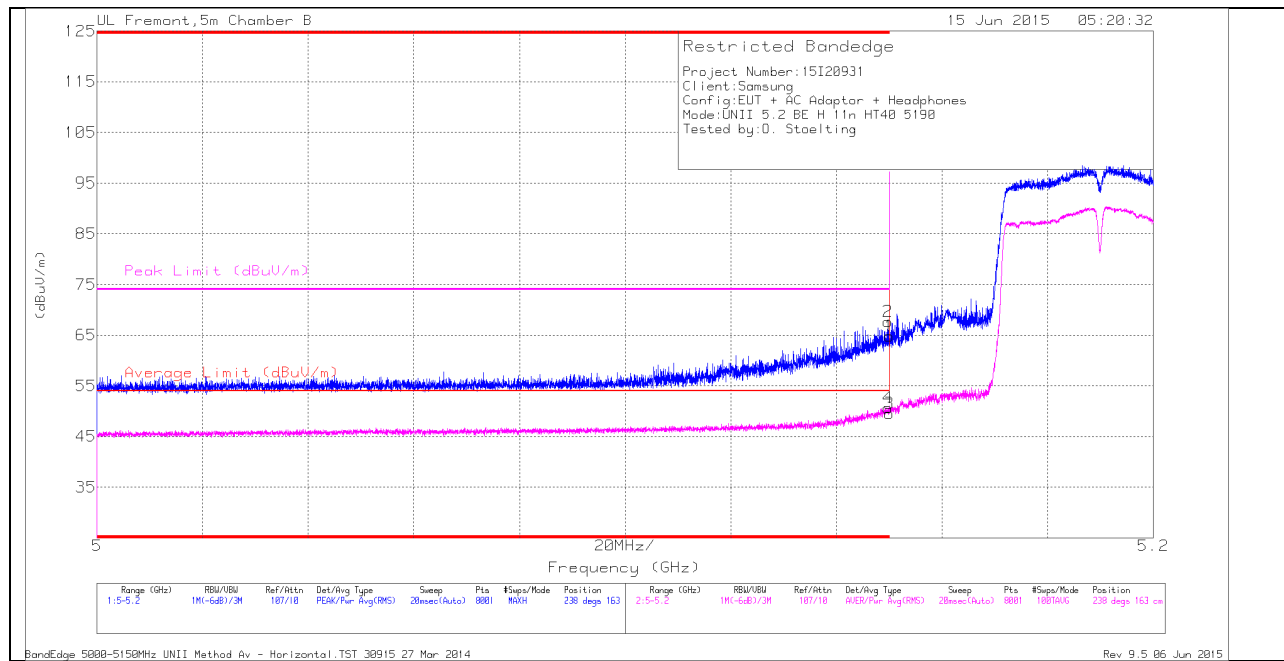
RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Ftr/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
* 1.384	41.94	PK3	29.4	-32.8	0	38.54	-	-	74	-35.46	68.2	-29.66	261	199	H
* 1.388	31.02	ADR	29.4	-32.8	0.32	27.94	54	-26.06	-	-	-	-	261	199	H
* 1.337	43.24	PK3	29.4	-32.9	0	39.74	-	-	74	-34.26	68.2	-28.46	312	200	V
* 1.334	31.19	ADR	29.4	-32.9	0.32	28.01	54	-25.99	-	-	-	-	312	200	V
* 3.605	40.96	PK3	33.8	-30.1	0	44.66	-	-	74	-29.34	68.2	-23.54	312	200	V
* 3.603	29.1	ADR	33.8	-30	0.32	33.22	54	-20.78	-	-	-	-	312	200	V
* 7.402	38.2	PK3	35.4	-26.8	0	46.8	-	-	74	-27.2	68.2	-21.4	312	102	V
* 7.402	27.02	ADR	35.4	-26.8	0.32	35.94	54	-18.06	-	-	-	-	312	102	V
* 7.421	37.98	PK3	35.4	-26.8	0	46.58	-	-	74	-27.42	68.2	-21.62	312	102	V
* 7.424	26.98	ADR	35.4	-26.8	0.32	35.9	54	-18.1	-	-	-	-	312	102	V
3.493	41.81	PK3	33.5	-30.4	0	44.91	-	-	74	-29.09	68.2	-23.29	312	250	H
3.493	32.85	ADR	33.5	-30.4	0.32	36.27	54	-17.73	-	-	-	-	312	250	H

FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

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

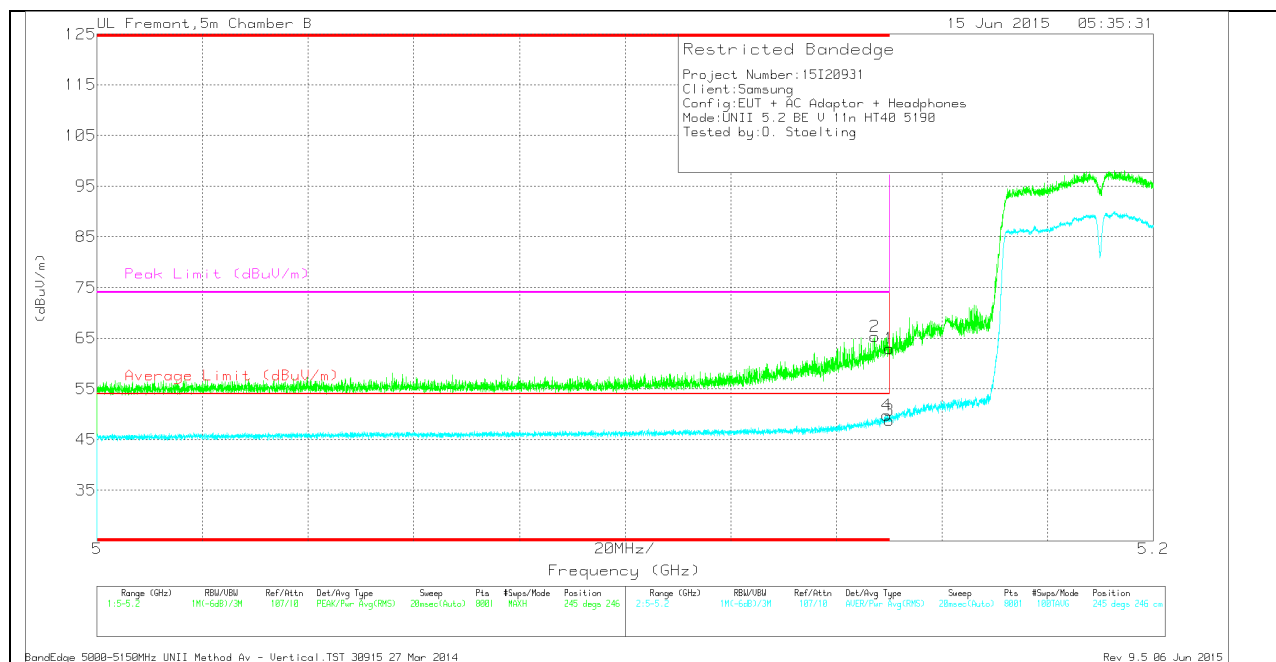
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Filt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	50.26	Pk	34.1	-19.5	0	64.86	-	-	74	-9.14	238	163	H
2	* 5.15	53.02	Pk	34.1	-19.5	0	67.62	-	-	74	-6.38	238	163	H
3	* 5.15	34.32	RMS	34.1	-19.5	.6	49.52	54	-4.48	-	-	238	163	H
4	* 5.15	35.51	RMS	34.1	-19.5	.6	50.71	54	-3.29	-	-	238	163	H

VERTICAL PEAK AND AVERAGE PLOT

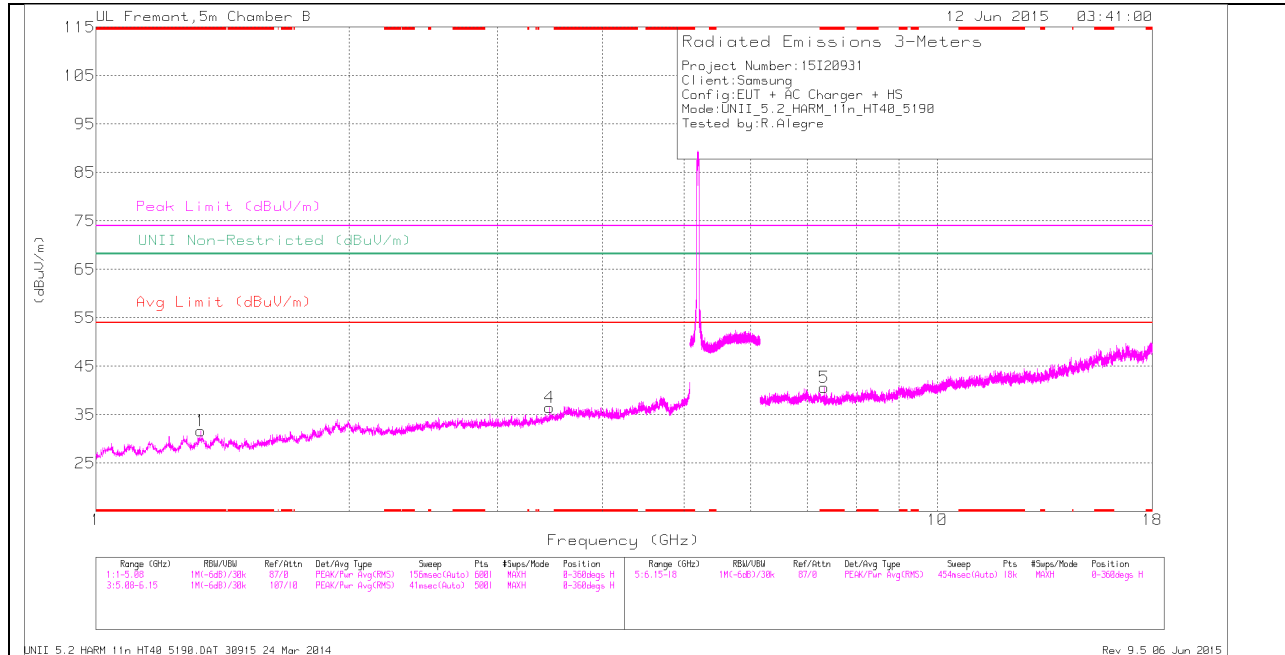


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Filt 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	* 5.147	50.67	Pk	34.1	-19.5	0	65.27	-	-	74	-8.73	245	246	V
1	* 5.15	48.32	Pk	34.1	-19.5	0	62.92	-	-	74	-11.08	245	246	V
3	* 5.15	33.57	RMS	34.1	-19.5	.6	48.77	54	-5.23	-	-	245	246	V
4	* 5.15	34.58	RMS	34.1	-19.5	.6	49.78	54	-4.22	-	-	245	246	V

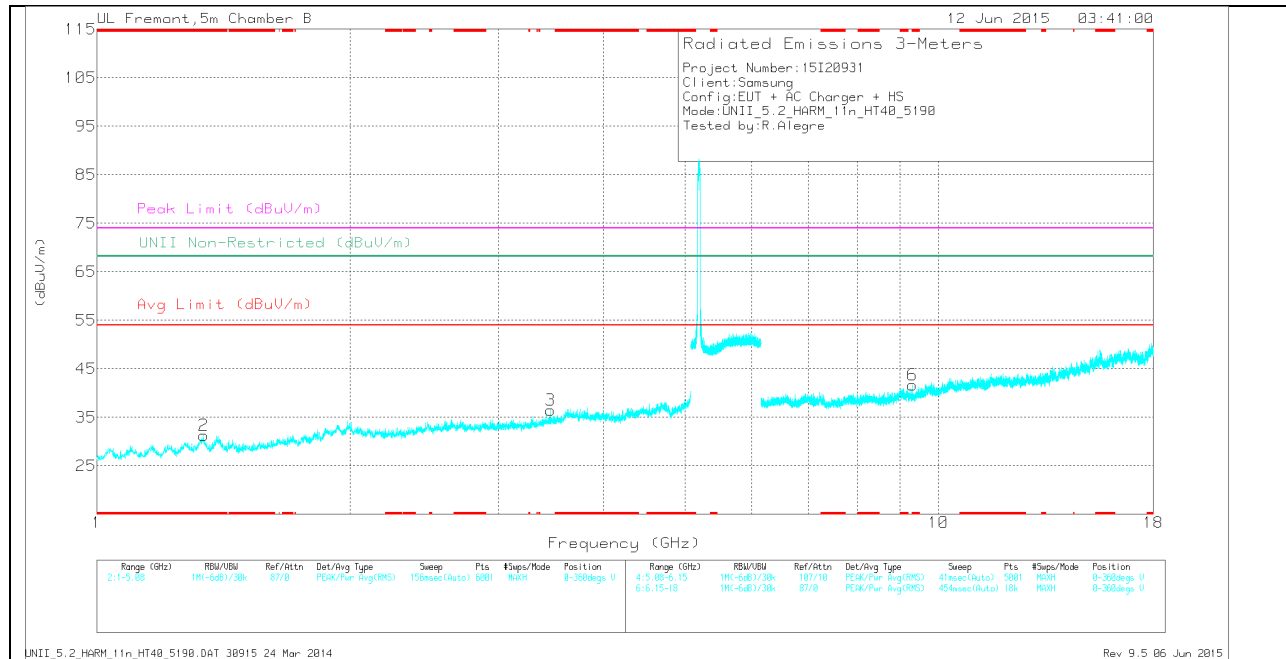
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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

LOW CHANNEL VERTICAL



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

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Ftr/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	* 1.333	35.21	Pk	29.4	-32.9	0	31.71	-	-	74	-42.29	68.2	-36.49	0-360	101	H
2	* 1.339	34.75	Pk	29.4	-32.9	0	31.25	-	-	74	-42.75	68.2	-36.95	0-360	101	V
5	* 7.336	32.87	Pk	35.3	-27.5	0	40.67	-	-	74	-33.33	68.2	-27.53	0-360	101	H
6	* 9.314	29.76	Pk	36.3	-24.4	0	41.66	-	-	74	-32.34	68.2	-26.54	0-360	199	V
4	3.46	33.48	Pk	33.3	-30.3	0	36.48	-	-	74	-37.52	68.2	-31.72	0-360	199	H
3	3.46	33.45	Pk	33.3	-30.3	0	36.45	-	-	74	-37.55	68.2	-31.75	0-360	199	V

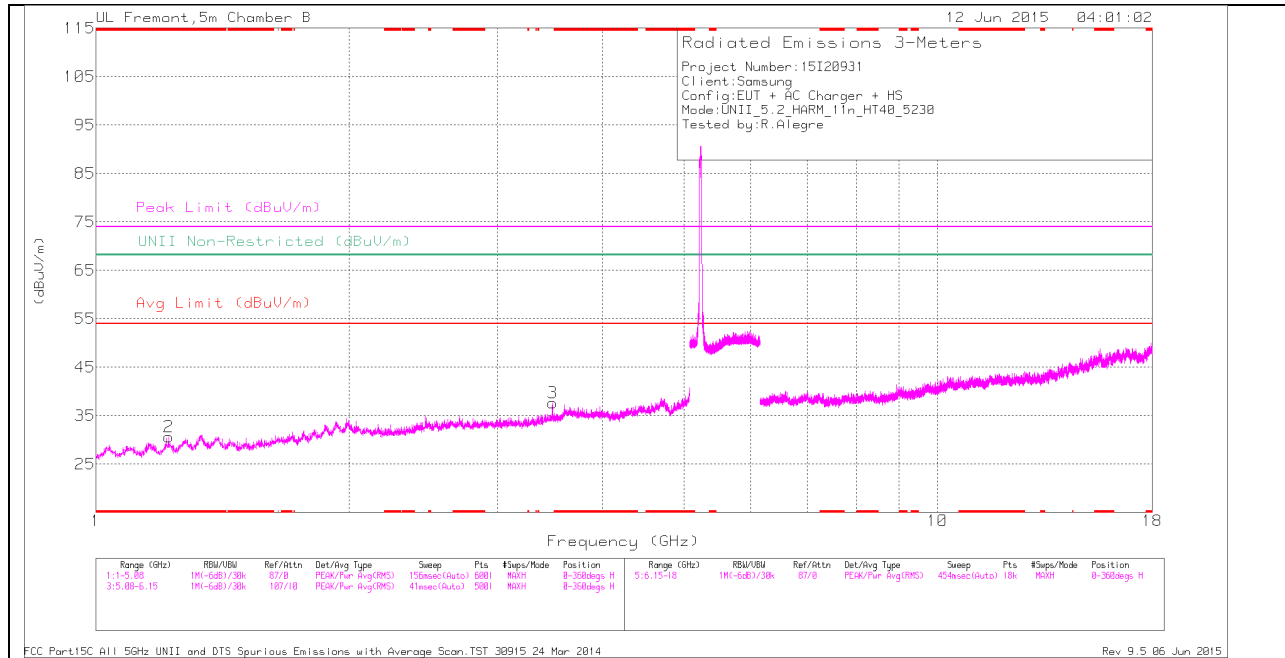
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.334	42.52	PK3	29.4	-32.9	0	39.02	-	-	74	-34.98	68.2	-29.18	322	102	H
* 1.334	31.14	ADR	29.4	-32.9	0.6	28.24	54	-25.76	-	-	-	-	322	102	H
* 1.337	42.66	PK3	29.4	-32.9	0	39.16	-	-	74	-34.84	68.2	-29.04	306	102	V
* 1.337	31.02	ADR	29.4	-32.9	0.6	28.12	54	-25.88	-	-	-	-	306	102	V
* 7.335	39.41	PK3	35.3	-27.5	0	47.21	-	-	74	-26.79	68.2	-20.99	261	102	H
* 7.334	27.56	ADR	35.3	-27.5	0.6	35.96	54	-18.04	-	-	-	-	261	102	H
* 9.313	36.55	PK3	36.2	-24.4	0	48.35	-	-	74	-25.65	68.2	-19.85	261	199	V
* 9.315	24.98	ADR	36.3	-24.4	0.6	37.48	54	-16.52	-	-	-	-	261	199	V
3.46	43.01	PK3	33.3	-30.3	0	46.01	-	-	74	-27.99	68.2	-22.19	306	255	H
3.46	33.44	ADR	33.3	-30.3	0.6	37.04	54	-16.96	-	-	-	-	306	255	H
3.46	42.72	PK3	33.3	-30.3	0	45.73	-	-	74	-28.27	68.2	-22.47	261	307	V
3.46	33.16	ADR	33.3	-30.3	0.6	36.76	54	-17.24	-	-	-	-	261	307	V

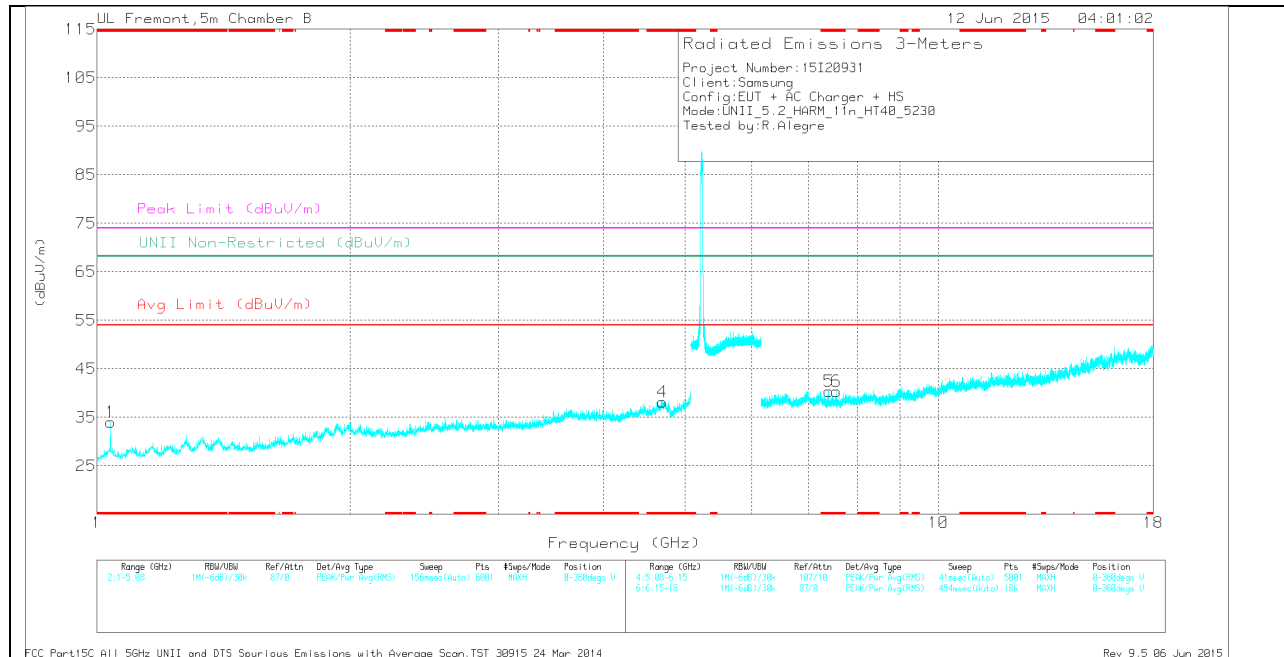
FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

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 T345 (dB/m)	Amp/Cbl/Ftr/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	* 1.22	35.62	Pk	28.7	-33.7	0	30.62	-	-	74	-43.38	68.2	-37.58	0-360	199	H
1	* 1.038	40.07	Pk	27.4	-33.4	0	34.07	-	-	74	-39.93	68.2	-34.13	0-360	199	V
4	* 4.696	33.02	Pk	34.2	-29	0	38.22	-	-	74	-35.78	68.2	-29.98	0-360	101	V
5	* 7.412	31.82	Pk	35.4	-26.8	0	40.42	-	-	74	-33.58	68.2	-27.78	0-360	199	V
6	* 7.565	31.05	Pk	35.4	-26.1	0	40.35	-	-	74	-33.65	68.2	-27.85	0-360	199	V
3	3.487	34.45	Pk	33.5	-30.3	0	37.65	-	-	74	-36.35	68.2	-30.55	0-360	101	H

PK - Peak detector

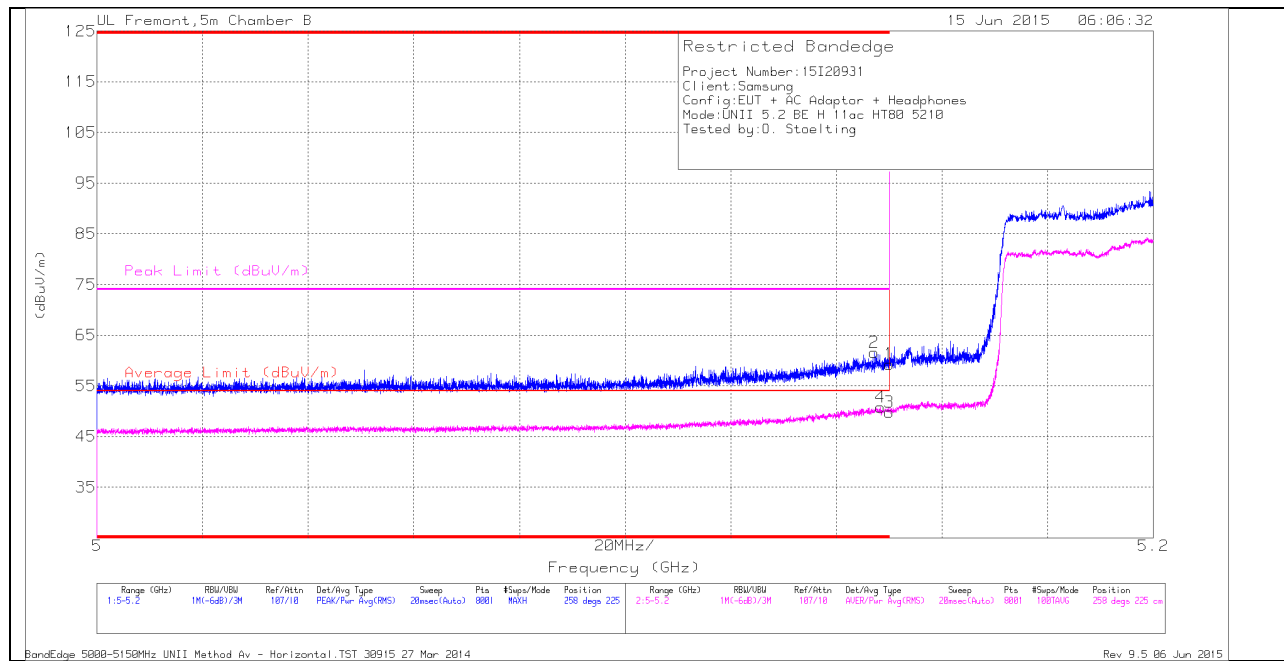
RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Ftr/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
* 1.221	42.9	PK3	28.7	-33.7	0	37.9	-	-	74	-36.1	68.2	-30.3	360	199	H
* 1.22	31.35	ADR	28.7	-33.7	0.6	26.95	54	-27.05	-	-	-	-	360	199	H
* 1.04	43.06	PK3	27.4	-33.4	0	37.06	-	-	74	-36.94	68.2	-31.14	322	200	V
* 1.036	31.51	ADR	27.4	-33.4	0.6	26.11	54	-27.89	-	-	-	-	322	200	V
* 4.697	41.56	PK3	34.2	-29.1	0	46.66	-	-	74	-27.34	68.2	-21.54	322	102	V
* 4.696	29.94	ADR	34.2	-29	0.6	35.74	54	-18.26	-	-	-	-	322	102	V
* 7.413	38.24	PK3	35.4	-26.8	0	46.84	-	-	74	-27.16	68.2	-21.36	322	199	V
* 7.414	26.89	ADR	35.4	-26.8	0.6	36.09	54	-17.91	-	-	-	-	322	199	V
* 7.563	37.51	PK3	35.4	-26.1	0	46.81	-	-	74	-27.19	68.2	-21.39	322	199	V
* 7.563	26.13	ADR	35.4	-26.1	0.6	36.03	54	-17.97	-	-	-	-	322	199	V
3.486	42.83	PK3	33.5	-30.3	0	46.03	-	-	74	-27.97	68.2	-22.17	322	286	H
3.487	33.23	ADR	33.5	-30.3	0.6	37.03	54	-16.97	-	-	-	-	322	286	H

FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

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

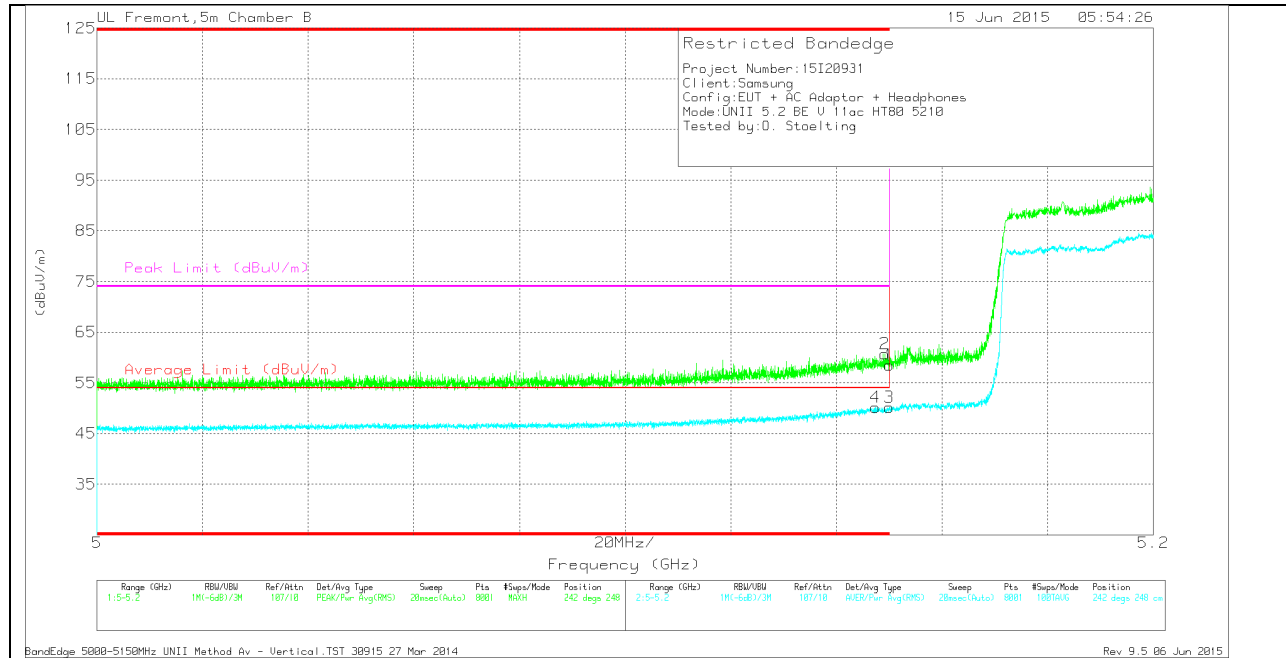
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fit 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	* 5.147	46.97	Pk	34.1	-19.5	0	61.57	-	-	74	-12.43	258	225	H
4	* 5.148	35.08	RMS	34.1	-19.5	1.16	50.84	54	-3.16	-	-	258	225	H
1	* 5.15	44.69	Pk	34.1	-19.5	0	59.29	-	-	74	-14.71	258	225	H
3	* 5.15	34.04	RMS	34.1	-19.5	1.16	49.8	54	-4.2	-	-	258	225	H

VERTICAL PEAK AND AVERAGE PLOT

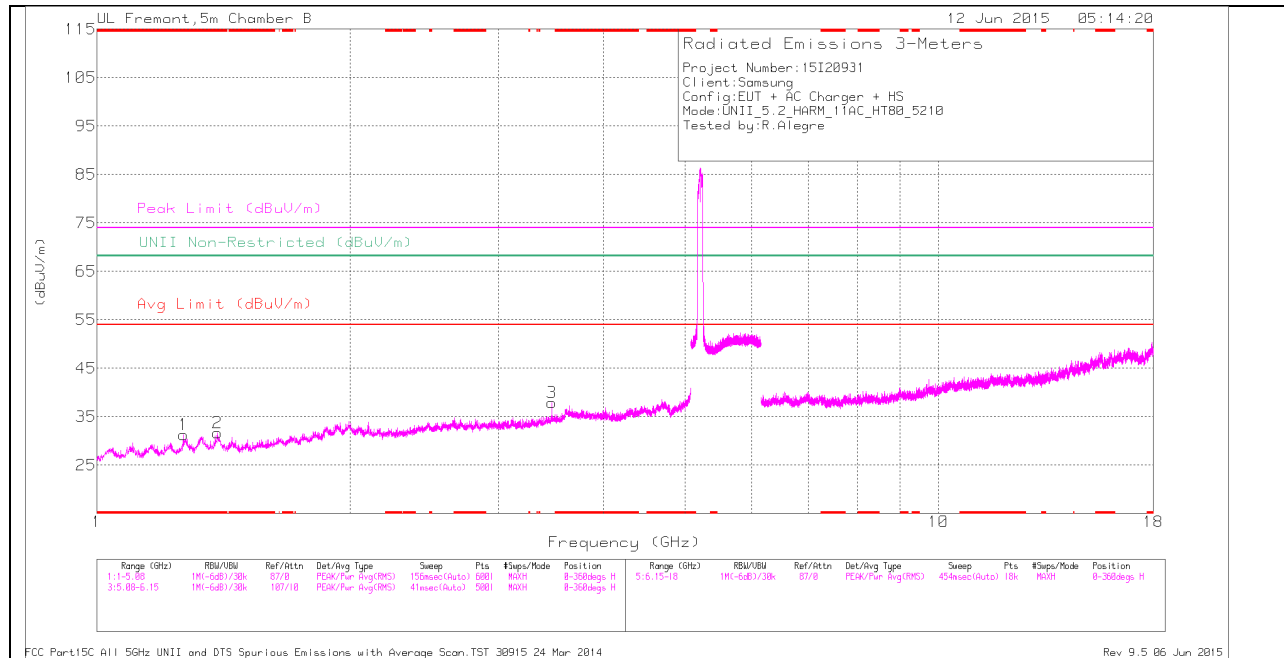


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Filt 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	34.45	RMS	34.1	-19.5	1.16	50.21	54	-3.79	-	-	242	248	V
2	* 5.149	46.17	Pk	34.1	-19.5	0	60.77	-	-	74	-13.23	242	248	V
1	* 5.15	43.9	Pk	34.1	-19.5	0	58.5	-	-	74	-15.5	242	248	V
3	* 5.15	34.44	RMS	34.1	-19.5	1.16	50.2	54	-3.8	-	-	242	248	V

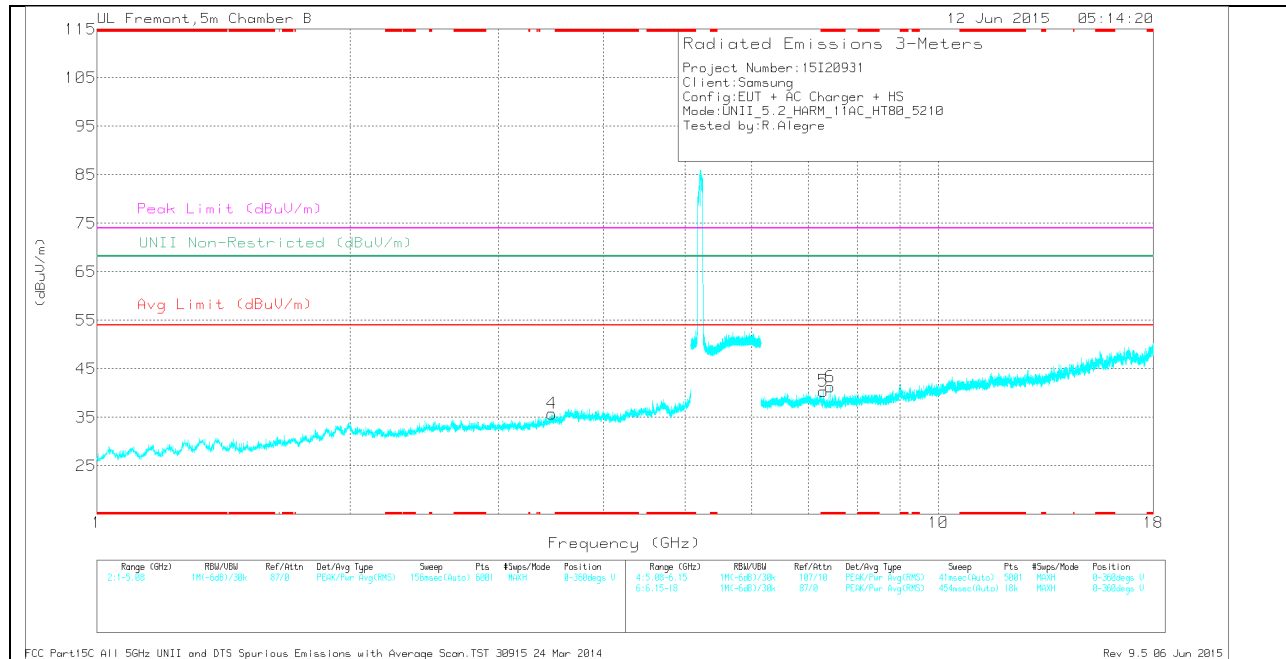
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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

LOW CHANNEL VERTICAL



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

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Ftr/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	* 1.267	35.66	Pk	29.1	-33.5	0	31.26	-	-	74	-42.74	68.2	-36.94	0-360	102	H
2	* 1.39	35.08	Pk	29.4	-32.8	0	31.68	-	-	74	-42.32	68.2	-36.52	0-360	102	H
5	* 7.298	31.64	Pk	35.3	-26.5	0	40.44	-	-	74	-33.56	68.2	-27.76	0-360	101	V
6	* 7.43	32.7	Pk	35.4	-26.8	0	41.3	-	-	74	-32.7	68.2	-26.9	0-360	101	V
3	3.473	34.8	Pk	33.4	-30.3	0	37.9	-	-	74	-36.1	68.2	-30.3	0-360	102	H
4	3.473	32.67	Pk	33.4	-30.3	0	35.77	-	-	74	-38.23	68.2	-32.43	0-360	200	V

PK - Peak detector

RADIATED EMISSIONS

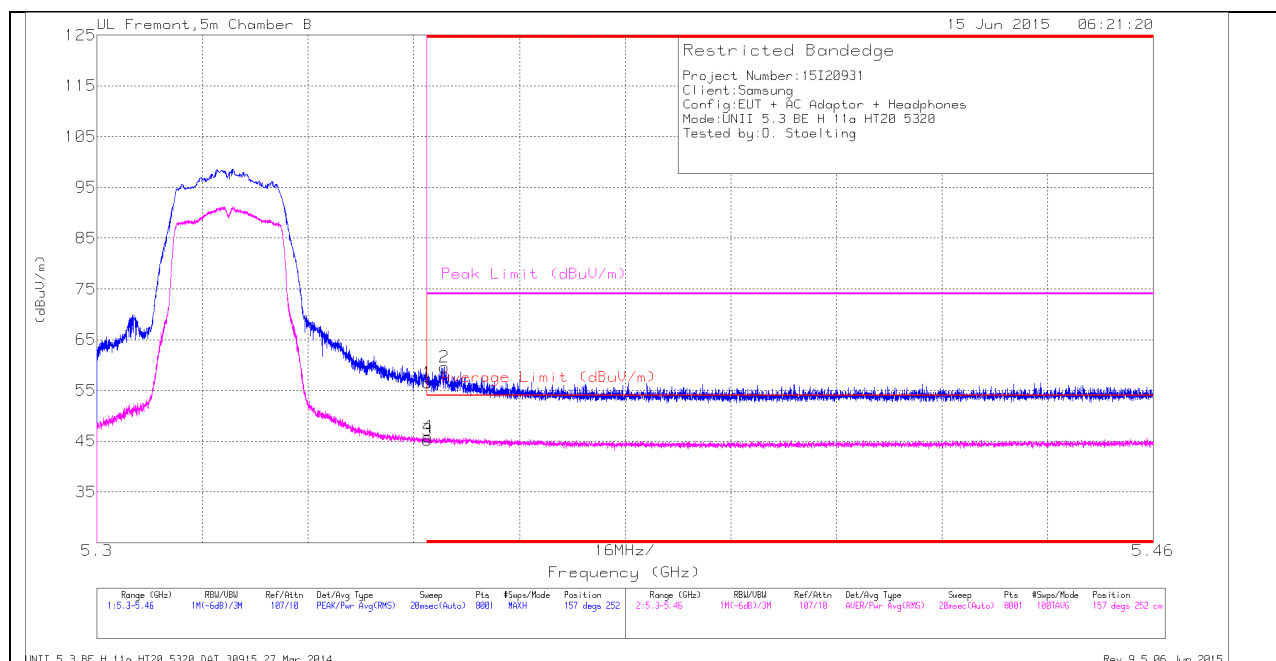
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.268	42.57	PK3	29.1	-33.5	0	38.17	-	-	74	-35.83	68.2	-30.03	360	101	H
* 1.268	30.97	ADR	29.1	-33.5	1.16	27.73	54	-26.27	-	-	-	-	360	101	H
* 1.39	42.53	PK3	29.4	-32.8	0	39.13	-	-	74	-34.87	68.2	-29.07	360	101	H
* 1.391	30.98	ADR	29.4	-32.8	1.16	28.74	54	-25.26	-	-	-	-	360	101	H
* 7.298	39.05	PK3	35.3	-26.5	0	47.85	-	-	74	-26.15	68.2	-20.35	266	102	V
* 7.298	27.46	ADR	35.3	-26.5	1.16	37.42	54	-16.58	-	-	-	-	266	102	V
* 7.429	37.98	PK3	35.4	-26.8	0	46.58	-	-	74	-27.42	68.2	-21.62	266	102	V
* 7.429	26.81	ADR	35.4	-26.8	1.16	36.57	54	-17.43	-	-	-	-	266	102	V
3.473	42.25	PK3	33.4	-30.3	0	45.35	-	-	74	-28.65	68.2	-22.85	337	289	H
3.473	33.46	ADR	33.4	-30.3	1.16	37.72	54	-16.28	-	-	-	-	337	289	H
3.473	33.47	ADR	33.4	-30.3	0	36.57	-	-	74	-37.43	68.2	-31.63	266	261	V
3.474	42.55	PK3	33.4	-30.3	1.16	46.81	54	-7.19	-	-	-	-	266	261	V

FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

11.2. 5.3 GHz

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

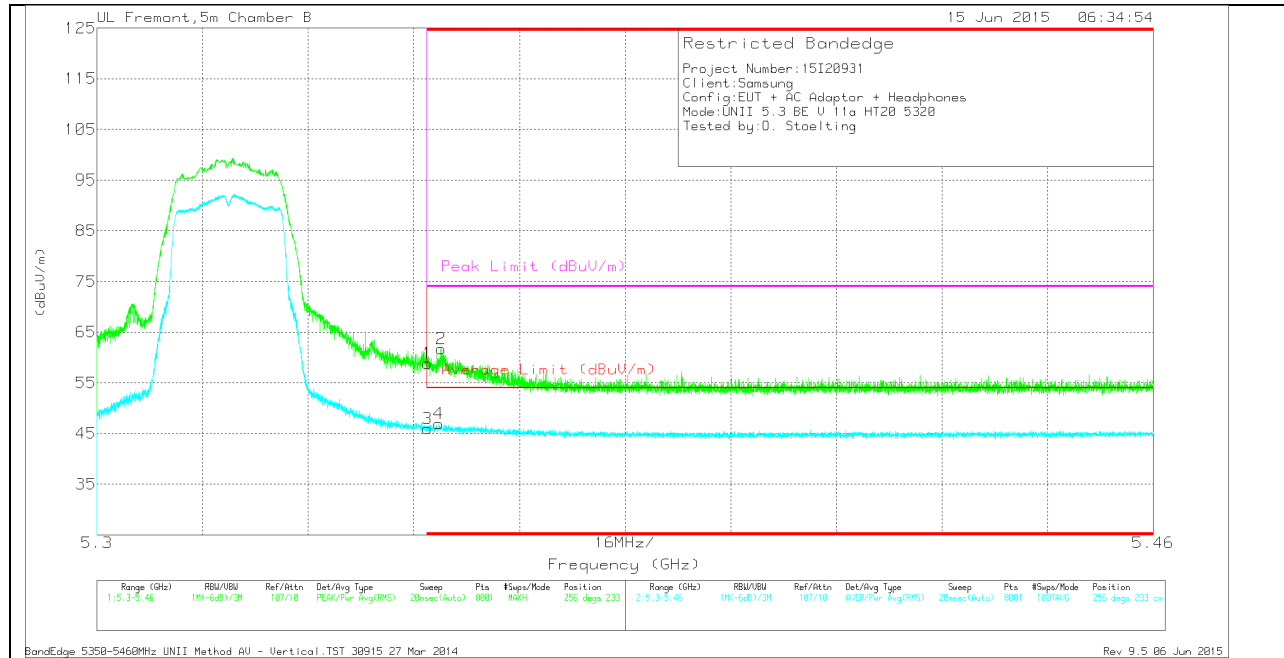
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Filt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	41.44	Pk	34.4	-19.3	0	56.54	-	-	74	-17.46	157	252	H
3	* 5.35	29.84	RMS	34.4	-19.3	.29	45.23	54	-8.77	-	-	157	252	H
4	* 5.35	30.49	RMS	34.4	-19.3	.29	45.88	54	-8.12	-	-	157	252	H
2	* 5.353	44.37	Pk	34.4	-19.2	0	59.57	-	-	74	-14.43	157	252	H

VERTICAL PEAK AND AVERAGE PLOT

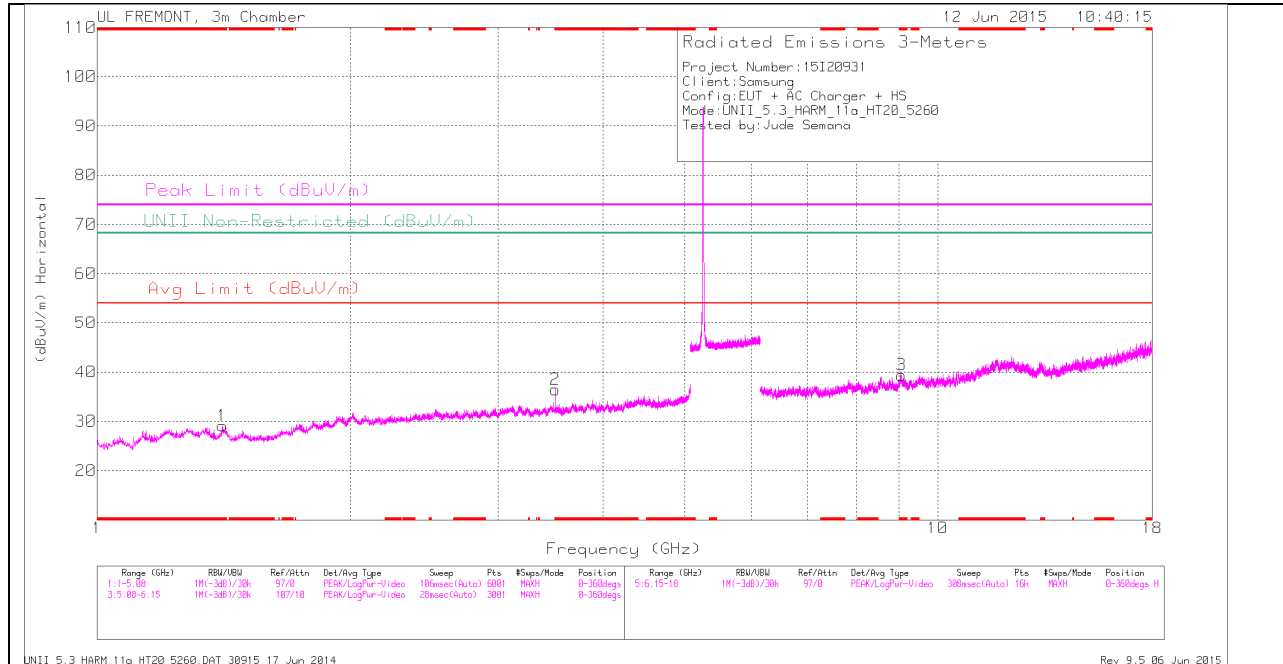


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Filt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	43.74	Pk	34.4	-19.3	0	58.84	-	-	74	-15.16	256	233	V
3	* 5.35	30.26	RMS	34.4	-19.3	.29	45.65	54	-8.35	-	-	256	233	V
2	* 5.352	46.61	Pk	34.4	-19.3	0	61.71	-	-	74	-12.29	256	233	V
4	* 5.352	31.21	RMS	34.4	-19.3	.29	46.6	54	-7.40	-	-	256	233	V

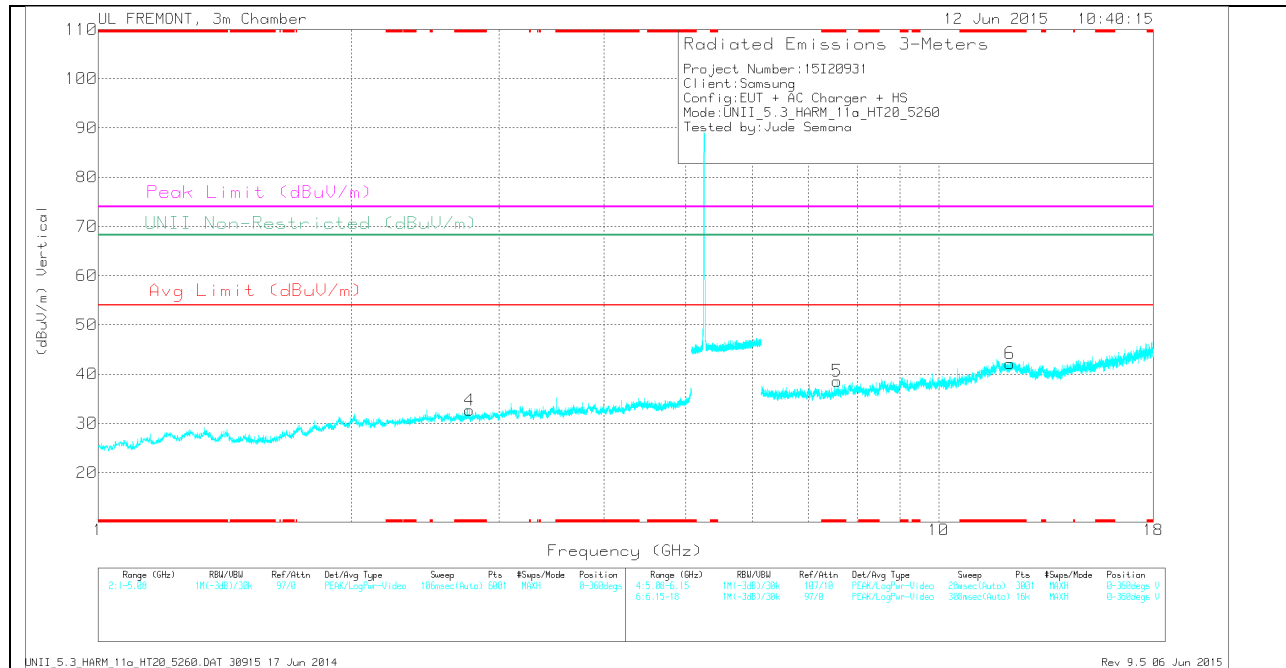
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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

LOW CHANNEL VERTICAL



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

LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Ftr/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	* 1.41	32.61	Avg	28.6	-32.1	0	29.11	54	-24.89	-	-	-	-	0-360	200	H
2	* 3.506	34.37	Avg	32.8	-30.7	0	36.47	54	-17.53	-	-	-	-	0-360	200	H
4	* 2.765	31.79	Avg	32.5	-31.6	0	32.69	54	-21.31	-	-	-	-	0-360	100	V
3	* 9.058	27.29	Avg	36.1	-24	0	39.39	54	-14.61	-	-	-	-	0-360	200	H
5	* 7.573	30.28	Avg	35.7	-27.4	0	38.58	54	-15.42	-	-	-	-	0-360	100	V
6	* 12.158	27.36	Avg	39	-24.2	0	42.16	54	-11.84	-	-	-	-	0-360	100	V

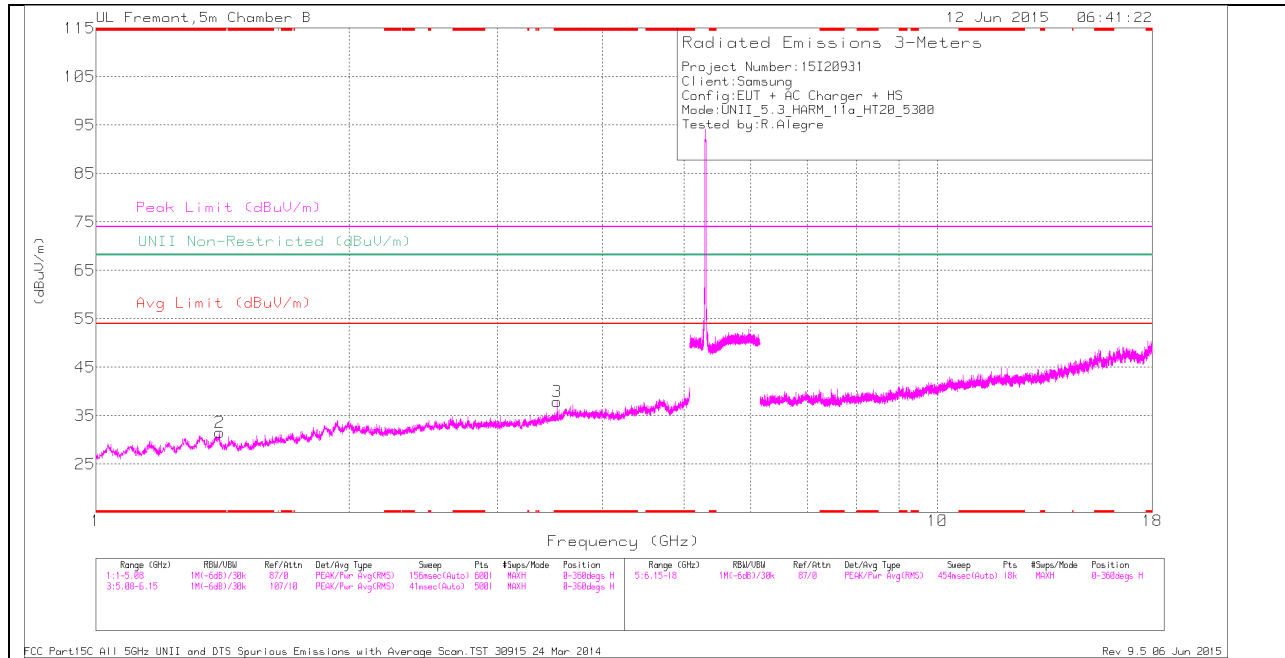
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Avg - Video bandwidth < Resolution bandwidth

Radiated Emissions

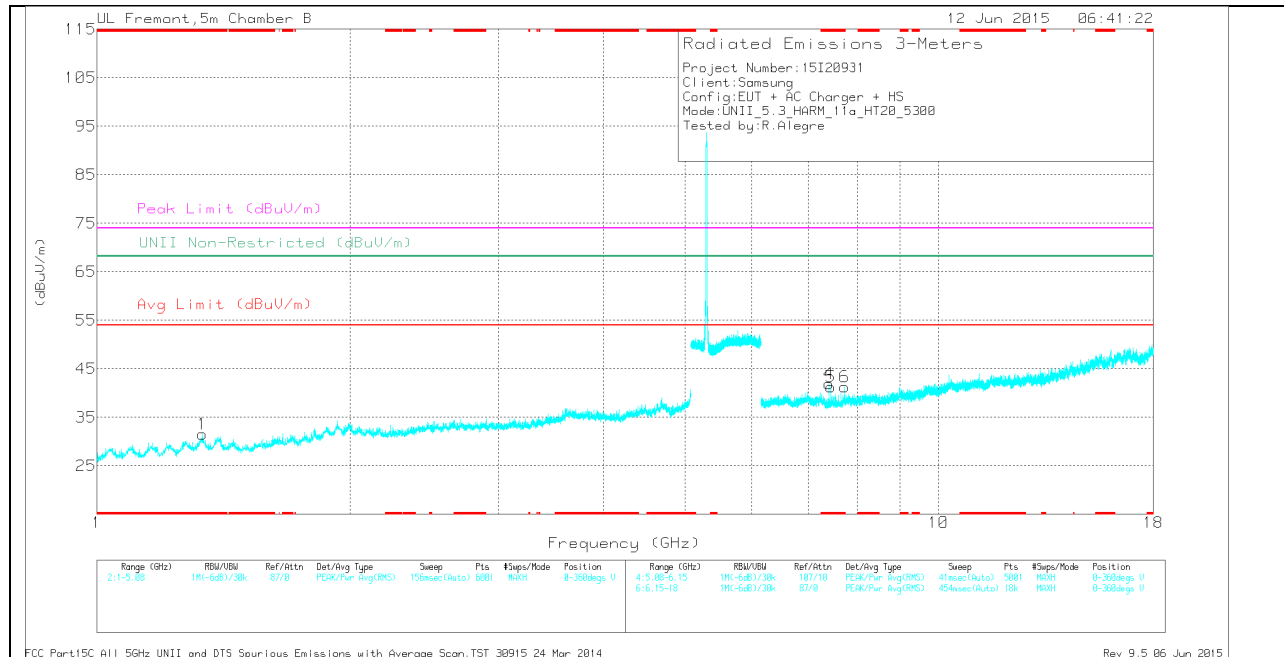
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.41	41.48	PK3	28.6	-32.1	0	37.98	-	-	74	-36.02	68.2	-30.22	360	200	H
* 1.41	29.83	ADR	28.6	-32.1	0.29	26.62	54	-27.38	-	-	-	-	360	200	H
* 3.506	42.05	PK3	32.8	-30.7	0	44.15	-	-	74	-29.85	68.2	-24.05	360	200	H
* 3.507	33.39	ADR	32.8	-30.7	0.29	35.78	54	-18.22	-	-	-	-	360	200	H
* 2.766	41.35	PK3	32.5	-31.6	0	42.25	-	-	74	-31.75	68.2	-25.95	360	100	V
* 2.763	28.93	ADR	32.5	-31.6	0.29	30.12	54	-23.88	-	-	-	-	360	100	V
* 7.573	38.74	PK3	35.7	-27.4	0	47.04	-	-	74	-26.96	68.2	-21.16	360	100	V
* 7.571	27.14	ADR	35.7	-27.4	0.29	35.73	54	-18.27	-	-	-	-	360	100	V
* 7.571	38.63	PK3	35.7	-27.4	0	46.93	-	-	74	-27.07	68.2	-21.27	360	100	V
* 7.573	27.26	ADR	35.7	-27.4	0.29	35.85	54	-18.15	-	-	-	-	360	100	V
* 12.157	37.32	PK3	39	-24.2	0	52.12	-	-	74	-21.88	68.2	-16.08	360	100	V
* 12.156	25.13	ADR	39	-24.2	0.29	40.22	54	-13.78	-	-	-	-	360	100	V

MID CHANNEL HORIZONTAL



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

MID CHANNEL VERTICAL



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

MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Ftr/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	* 1.403	35.13	Pk	29.3	-32.9	0	31.53	-	-	74	-42.47	68.2	-36.67	0-360	102	H
3	* 3.533	35.06	Pk	33.7	-30.8	0	37.96	-	-	74	-36.04	68.2	-30.24	0-360	102	H
1	* 1.335	34.99	Pk	29.4	-32.9	0	31.49	-	-	74	-42.51	68.2	-36.71	0-360	101	V
4	* 7.408	33.29	Pk	35.4	-26.8	0	41.89	-	-	74	-32.11	68.2	-26.31	0-360	200	V
5	* 7.449	32.3	Pk	35.3	-26.3	0	41.3	-	-	74	-32.7	68.2	-26.9	0-360	200	V
6	* 7.738	31.93	Pk	35.5	-26.2	0	41.23	-	-	74	-32.77	68.2	-26.97	0-360	200	V

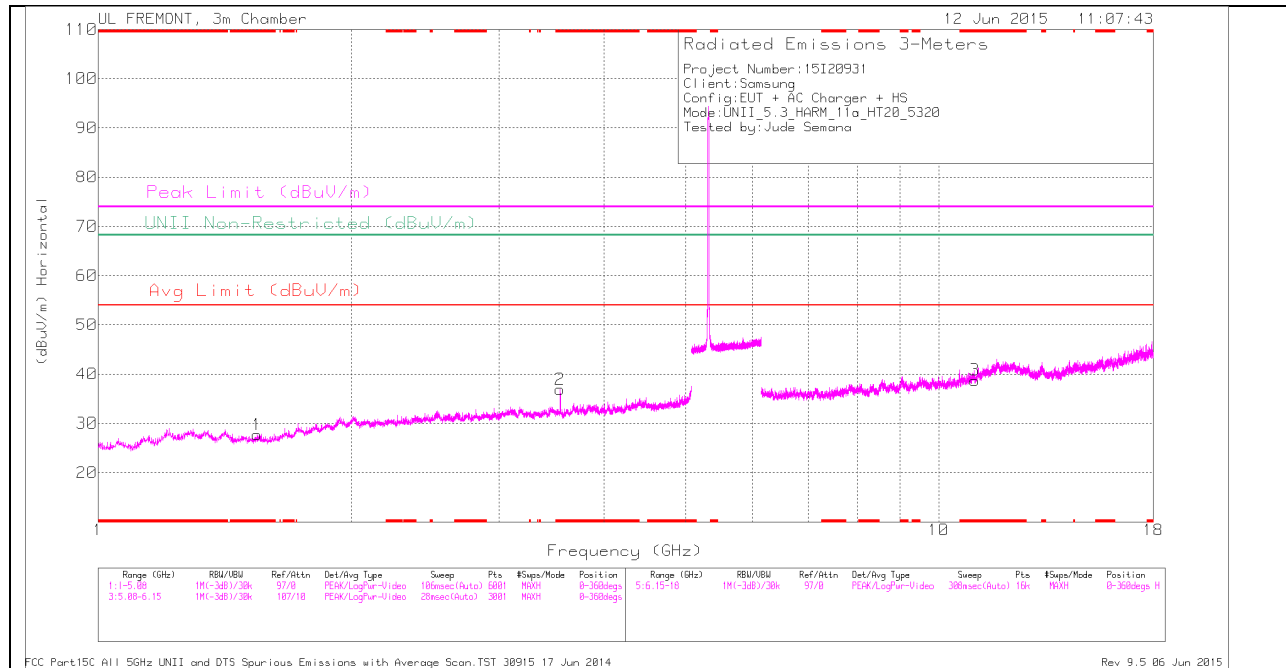
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

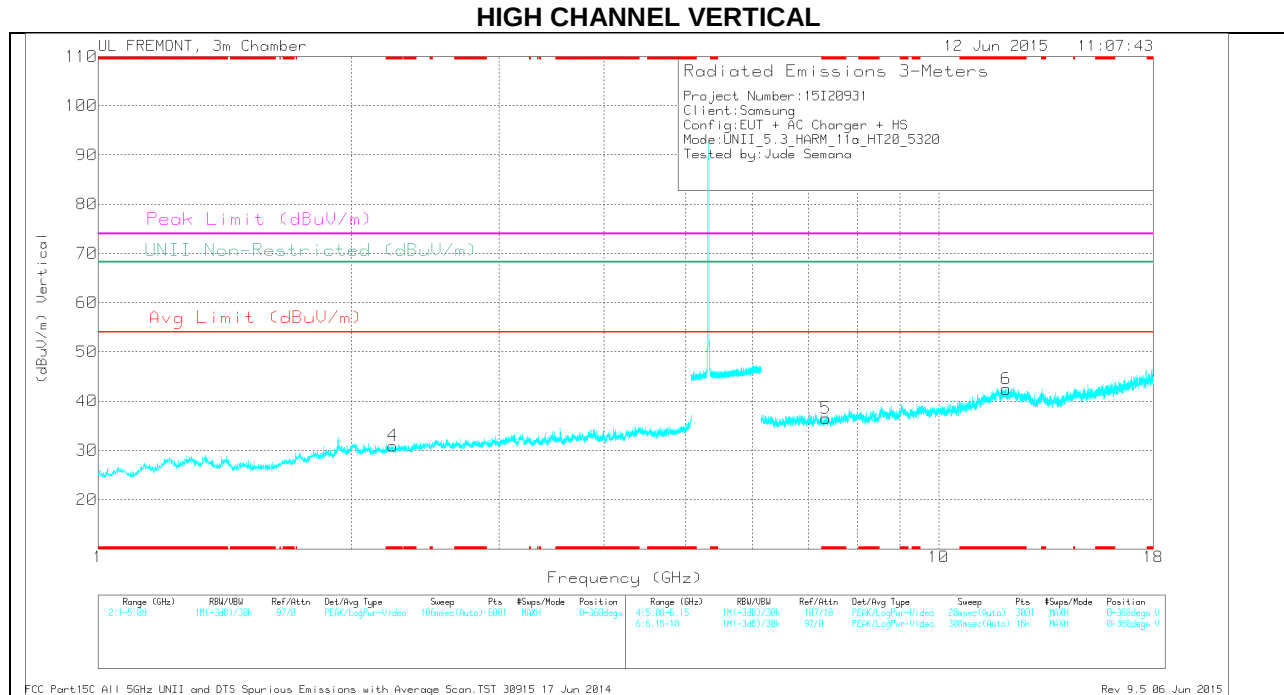
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Ftr/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
* 1.401	41.84	PK3	29.3	-32.9	0	38.24	-	-	74	-35.76	68.2	-29.96	1	101	H
* 1.402	30.75	ADR	29.3	-32.9	0.29	27.44	54	-26.56	-	-	-	-	1	101	H
* 3.533	43.82	PK3	33.7	-30.8	0	46.72	-	-	74	-27.28	68.2	-21.48	330	285	H
* 3.533	34.69	ADR	33.7	-30.8	0.29	37.88	54	-16.12	-	-	-	-	330	285	H
* 1.335	42.33	PK3	29.4	-32.9	0	38.83	-	-	74	-35.17	68.2	-29.37	330	102	V
* 1.335	31.18	ADR	29.4	-32.9	0.29	27.97	54	-26.03	-	-	-	-	330	102	V
* 7.408	38.48	PK3	35.4	-26.8	0	47.08	-	-	74	-26.92	68.2	-21.12	330	200	V
* 7.409	27.14	ADR	35.4	-26.8	0.29	36.03	54	-17.97	-	-	-	-	330	200	V
* 7.45	37.66	PK3	35.3	-26.3	0	46.66	-	-	74	-27.34	68.2	-21.54	330	200	V
* 7.448	26.53	ADR	35.3	-26.4	0.29	35.72	54	-18.28	-	-	-	-	330	200	V
* 7.74	38.22	PK3	35.5	-26.3	0	47.42	-	-	74	-26.58	68.2	-20.78	330	200	V
* 7.739	26.96	ADR	35.5	-26.2	0.29	36.55	54	-17.45	-	-	-	-	330	200	V

HIGH CHANNEL HORIZONTAL



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



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

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Ftr/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	* 1.545	32.27	Avg	28.1	-32.7	0	27.67	54	-26.33	-	-	-	-	0-360	100	H
2	* 3.547	35.27	Avg	32.8	-31.2	0	36.87	54	-17.13	-	-	-	-	0-360	100	H
4	* 2.242	31.14	Avg	31.5	-31.7	0	30.94	54	-23.06	-	-	-	-	0-360	100	V
3	* 11.036	24.54	Avg	37.8	-23.6	0	38.74	54	-15.26	-	-	-	-	0-360	200	H
5	* 7.34	29.33	Avg	35.6	-28.4	0	36.53	54	-17.47	-	-	-	-	0-360	100	V
6	* 12.033	26.76	Avg	39.1	-23.4	0	42.46	54	-11.54	-	-	-	-	0-360	100	V

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

Avg - Video bandwidth < Resolution bandwidth

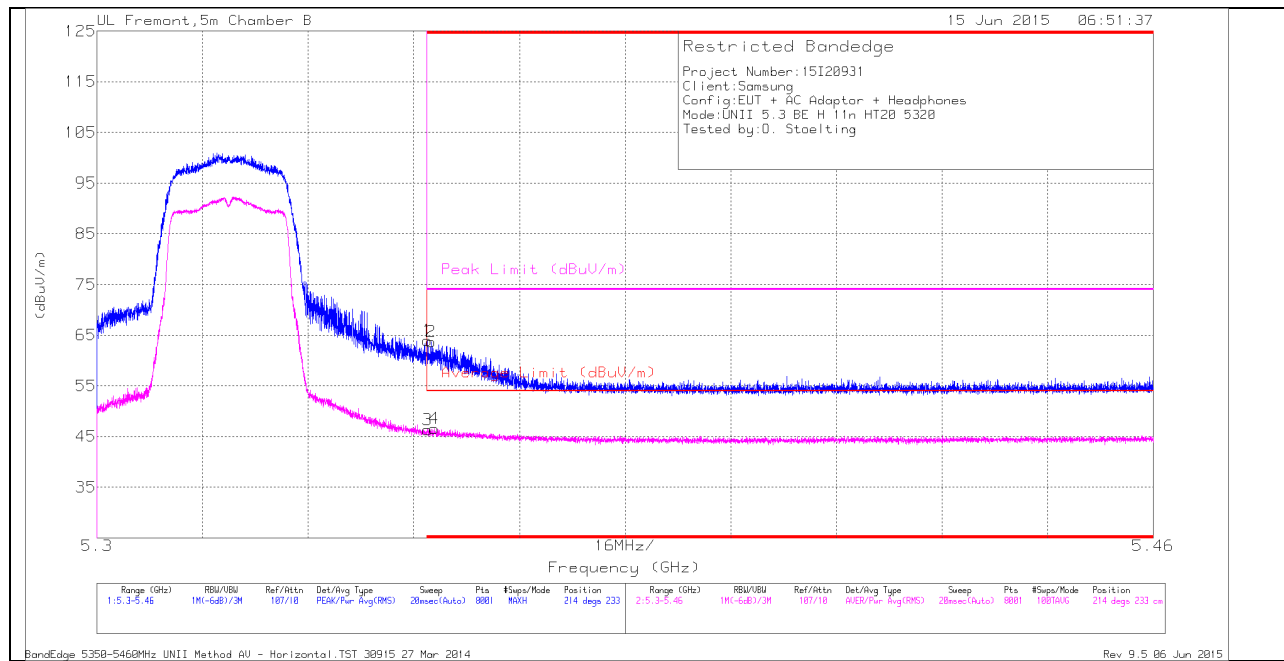
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Ftr/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
* 1.545	41.95	PK3	28.1	-32.7	0	37.35	-	-	74	-36.65	68.2	-30.85	0	100	H
* 1.547	29.98	ADR	28.1	-32.7	0.29	25.67	54	-28.33	-	-	-	-	0	100	H
* 3.547	43.7	PK3	32.8	-31.2	0	45.3	-	-	74	-28.7	68.2	-22.9	0	100	H
* 3.547	34.75	ADR	32.8	-31.2	0.29	36.64	54	-17.36	-	-	-	-	0	100	H
* 2.241	41.74	PK3	31.5	-31.7	0	41.54	-	-	74	-32.46	68.2	-26.66	0	100	V
* 2.241	29.08	ADR	31.5	-31.7	0.29	29.17	54	-24.83	-	-	-	-	0	100	V
* 11.035	35.43	PK3	37.8	-23.5	0	49.73	-	-	74	-24.27	68.2	-18.47	0	200	H
* 11.036	23.91	ADR	37.8	-23.6	0.29	38.4	54	-15.6	-	-	-	-	0	200	H
* 7.339	39.22	PK3	35.6	-28.4	0	46.42	-	-	74	-27.58	68.2	-21.78	0	100	V
* 7.34	27.72	ADR	35.6	-28.4	0.29	35.21	54	-18.79	-	-	-	-	0	100	V
* 12.032	36.64	PK3	39.1	-23.4	0	52.34	-	-	74	-21.66	68.2	-15.86	0	100	V
* 12.031	25.15	ADR	39.1	-23.4	0.29	41.14	54	-12.86	-	-	-	-	0	100	V

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

AUTHORIZED BANDEDGE (HIGH CHANNEL)

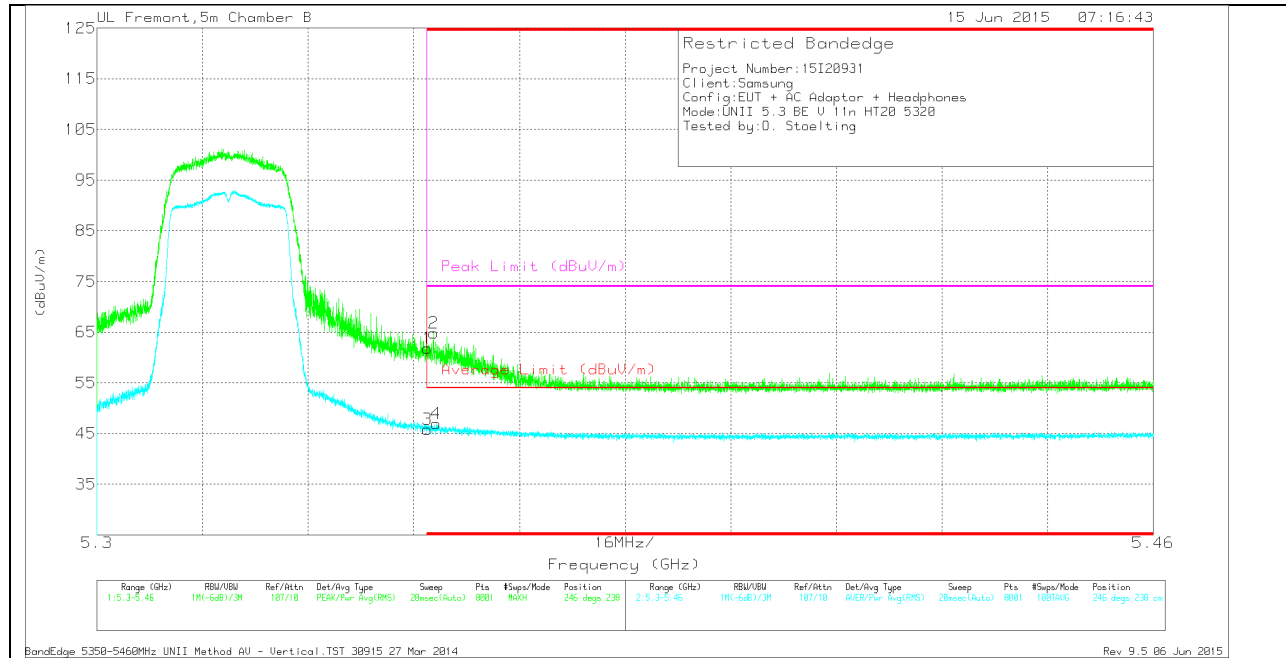
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fit r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	48.89	Pk	34.4	-19.3	0	63.99	-	-	74	-10.01	214	233	H
3	* 5.35	30.85	RMS	34.4	-19.3	.32	46.27	54	-7.73	-	-	214	233	H
2	* 5.351	48.62	Pk	34.4	-19.3	0	63.72	-	-	74	-10.28	214	233	H
4	* 5.351	31.15	RMS	34.4	-19.3	.32	46.57	54	-7.43	-	-	214	233	H

VERTICAL PEAK AND AVERAGE PLOT

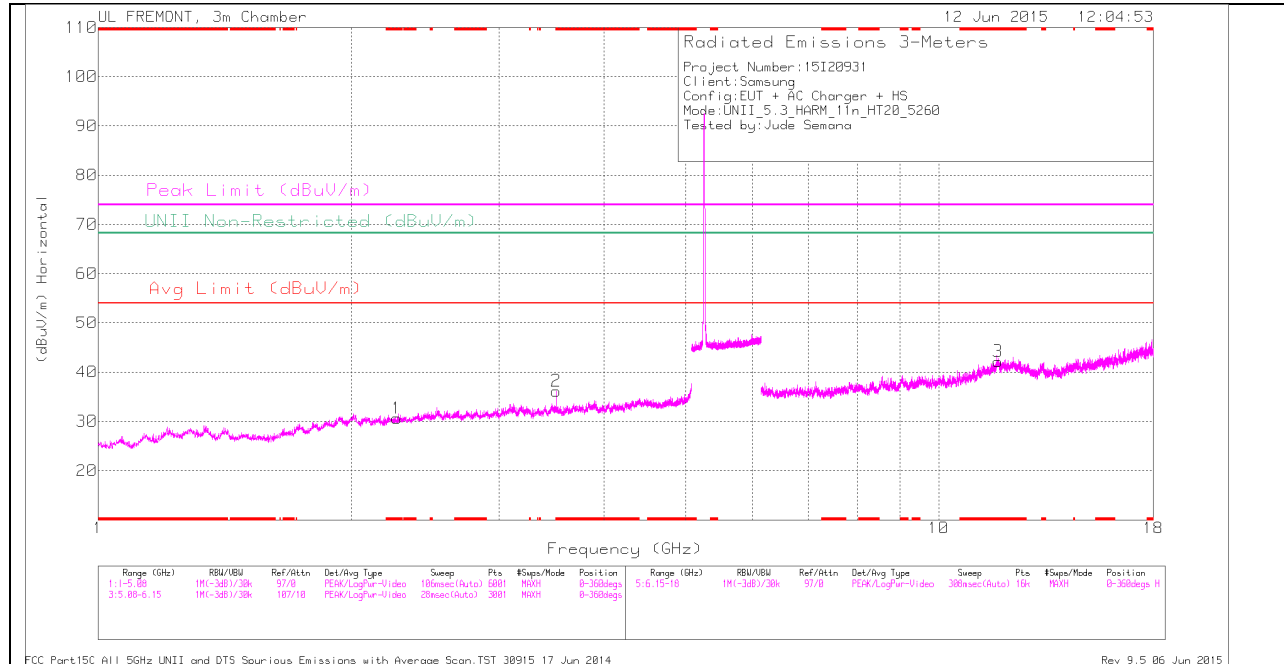


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Filt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	46.71	PK	34.4	-19.3	0	61.81	-	-	74	-12.19	246	238	V
3	* 5.35	30.37	RMS	34.4	-19.3	.32	45.79	54	-8.21	-	-	246	238	V
2	* 5.351	49.73	PK	34.4	-19.3	0	64.83	-	-	74	-9.17	246	238	V
4	* 5.351	31.49	RMS	34.4	-19.3	.32	46.91	54	-7.09	-	-	246	238	V

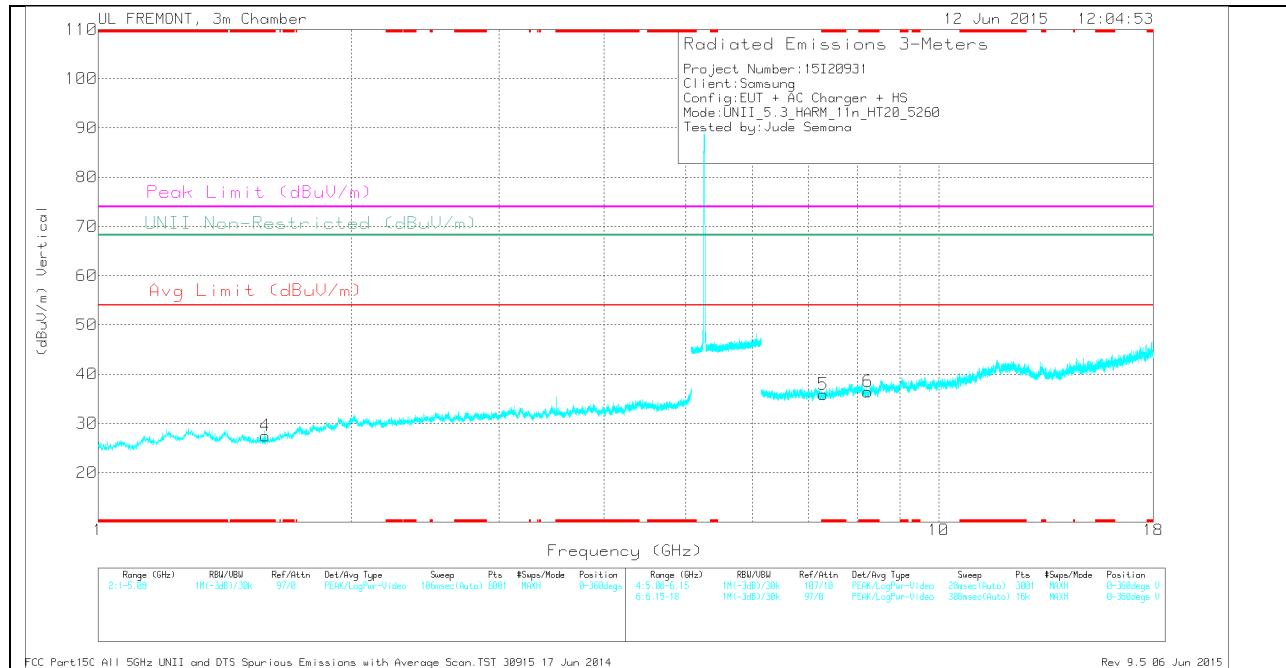
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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

LOW CHANNEL VERTICAL



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

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Ftr/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	* 1.41	32.61	Avg	28.6	-32.1	0	29.11	54	-24.89	-	-	-	-	0-360	200	H
2	* 3.506	34.37	Avg	32.8	-30.7	0	36.47	54	-17.53	-	-	-	-	0-360	200	H
4	* 2.765	31.79	Avg	32.5	-31.6	0	32.69	54	-21.31	-	-	-	-	0-360	100	V
3	* 9.058	27.29	Avg	36.1	-24	0	39.39	54	-14.61	-	-	-	-	0-360	200	H
5	* 7.573	30.28	Avg	35.7	-27.4	0	38.58	54	-15.42	-	-	-	-	0-360	100	V
6	* 12.158	27.36	Avg	39	-24.2	0	42.16	54	-11.84	-	-	-	-	0-360	100	V

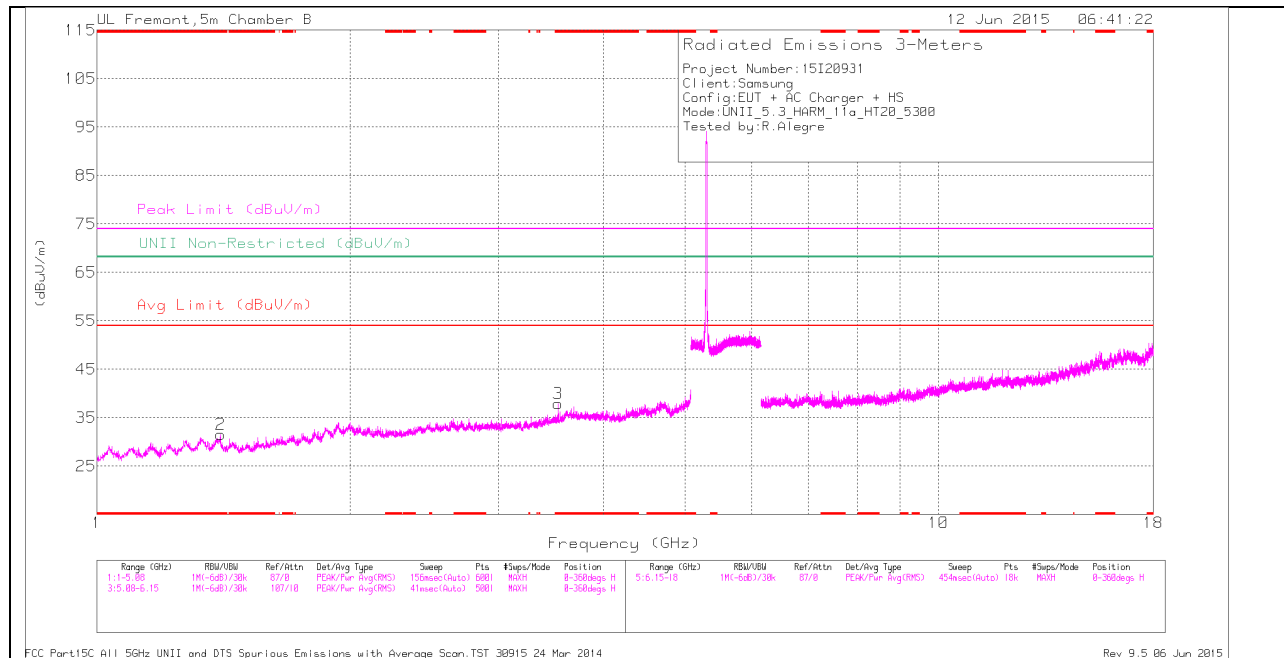
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Ftr/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
* 2.269	40.45	PK3	31.6	-31.5	0	40.55	-	-	74	-33.45	68.2	-27.65	1	100	H
* 2.269	28.76	ADR	31.6	-31.5	0.32	29.18	54	-24.82	-	-	-	-	1	100	H
* 3.507	42.61	PK3	32.8	-30.7	0	44.71	-	-	74	-29.29	68.2	-23.49	1	200	H
* 3.507	33.69	ADR	32.8	-30.7	0.32	36.11	54	-17.89	-	-	-	-	1	200	H
* 1.583	41.81	PK3	28	-32.8	0	37.01	-	-	74	-36.99	68.2	-31.19	1	100	V
* 1.582	29.76	ADR	28	-32.8	0.32	25.28	54	-28.72	-	-	-	-	1	100	V
* 11.768	37.08	PK3	38.9	-23	0	52.98	-	-	74	-21.02	68.2	-15.22	1	100	H
* 11.766	25.32	ADR	38.9	-23	0.32	41.54	54	-12.46	-	-	-	-	1	100	H
* 7.29	39.34	PK3	35.6	-28.4	0	46.54	-	-	74	-27.46	68.2	-21.66	1	200	V
* 7.29	27.41	ADR	35.6	-28.4	0.32	34.93	54	-19.07	-	-	-	-	1	200	V
* 8.234	38.19	PK3	35.8	-27.5	0	46.49	-	-	74	-27.51	68.2	-21.71	1	200	V
* 8.236	26.43	ADR	35.8	-27.5	0.32	35.05	54	-18.95	-	-	-	-	1	200	V

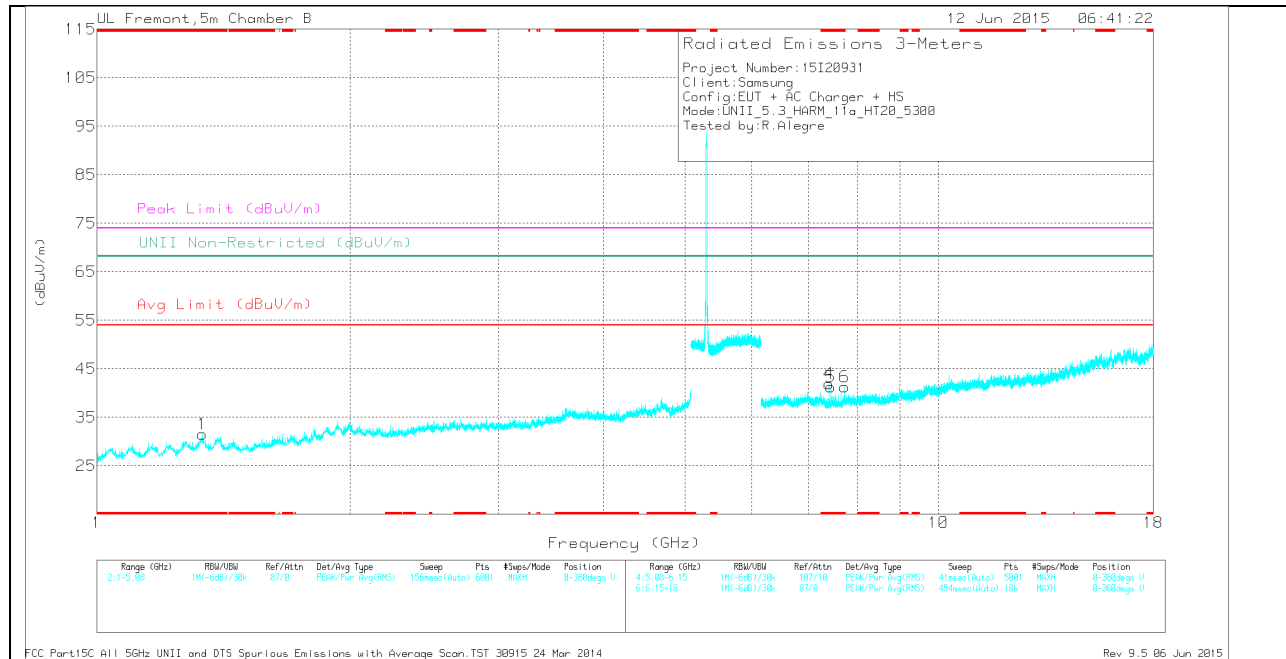
FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

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 T34S (dB/m)	Amp/Cbl/Ftr/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	* 1.403	35.13	Pk	29.3	-32.9	0	31.53	-	-	74	-42.47	68.2	-36.67	0-360	102	H
3	* 3.533	35.06	Pk	33.7	-30.8	0	37.96	-	-	74	-36.04	68.2	-30.24	0-360	102	H
1	* 1.335	34.99	Pk	29.4	-32.9	0	31.49	-	-	74	-42.51	68.2	-36.71	0-360	101	V
4	* 7.408	33.29	Pk	35.4	-26.8	0	41.89	-	-	74	-32.11	68.2	-26.31	0-360	200	V
5	* 7.449	32.3	Pk	35.3	-26.3	0	41.3	-	-	74	-32.7	68.2	-26.9	0-360	200	V
6	* 7.738	31.93	Pk	35.5	-26.2	0	41.23	-	-	74	-32.77	68.2	-26.97	0-360	200	V

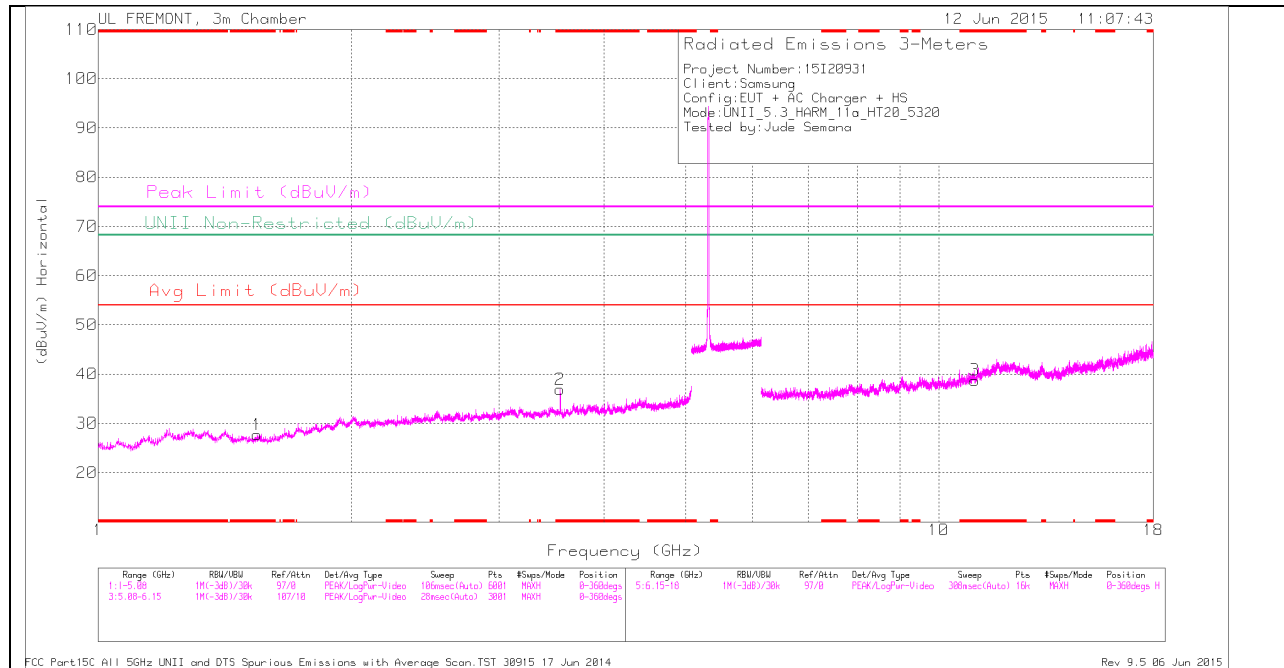
PK - Peak detector

RADIATED EMISSIONS

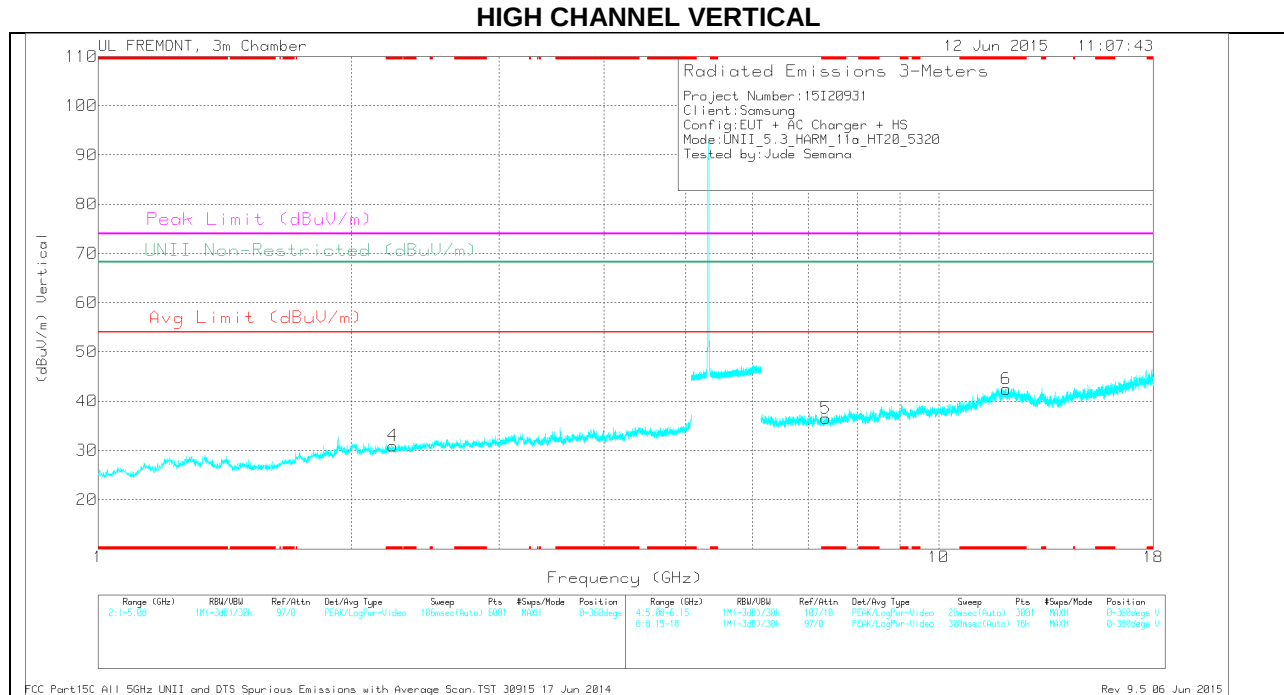
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 3.533	42.92	PK3	32.8	-31.2	0	44.52	-	-	74	-29.48	68.2	-23.68	0	100	H
* 3.533	34.84	ADR	32.8	-31.2	0.32	36.76	54	-17.24	-	-	-	-	0	100	H
* 1.369	41.16	PK3	29	-32.6	0	37.56	-	-	74	-36.44	68.2	-30.64	0	100	H
* 1.367	29.13	ADR	29	-32.6	0.32	25.85	54	-28.15	-	-	-	-	0	100	H
* 8.309	37.47	PK3	35.8	-25.7	0	47.57	-	-	74	-26.43	68.2	-20.63	0	100	H
* 8.306	25.77	ADR	35.8	-25.6	0.32	36.29	54	-17.71	-	-	-	-	0	100	H
* 11.95	37.02	PK3	39.1	-23.8	0	52.32	-	-	74	-21.68	68.2	-15.88	0	200	H
* 11.947	25.35	ADR	39.1	-23.7	0.32	41.07	54	-12.93	-	-	-	-	0	200	H
* 7.454	38.29	PK3	35.7	-27.6	0	46.39	-	-	74	-27.61	68.2	-21.81	0	200	V
* 7.455	26.65	ADR	35.7	-27.6	0.32	35.07	54	-18.93	-	-	-	-	0	200	V
2.467	40.99	PK3	32.2	-31.8	0	41.39	-	-	74	-32.61	68.2	-26.81	0	100	V
2.468	29.3	ADR	32.2	-31.7	0.32	30.12	54	-23.88	-	-	-	-	0	100	V

FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

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.



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/Filt r/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	* 1.545	32.27	Avg	28.1	-32.7	0	27.67	54	-26.33	-	-	-	-	0-360	100	H
2	* 3.547	35.27	Avg	32.8	-31.2	0	36.87	54	-17.13	-	-	-	-	0-360	100	H
4	* 2.242	31.14	Avg	31.5	-31.7	0	30.94	54	-23.06	-	-	-	-	0-360	100	V
3	* 11.036	24.54	Avg	37.8	-23.6	0	38.74	54	-15.26	-	-	-	-	0-360	200	H
5	* 7.34	29.33	Avg	35.6	-28.4	0	36.53	54	-17.47	-	-	-	-	0-360	100	V
6	* 12.033	26.76	Avg	39.1	-23.4	0	42.46	54	-11.54	-	-	-	-	0-360	100	V

PK - Peak detector

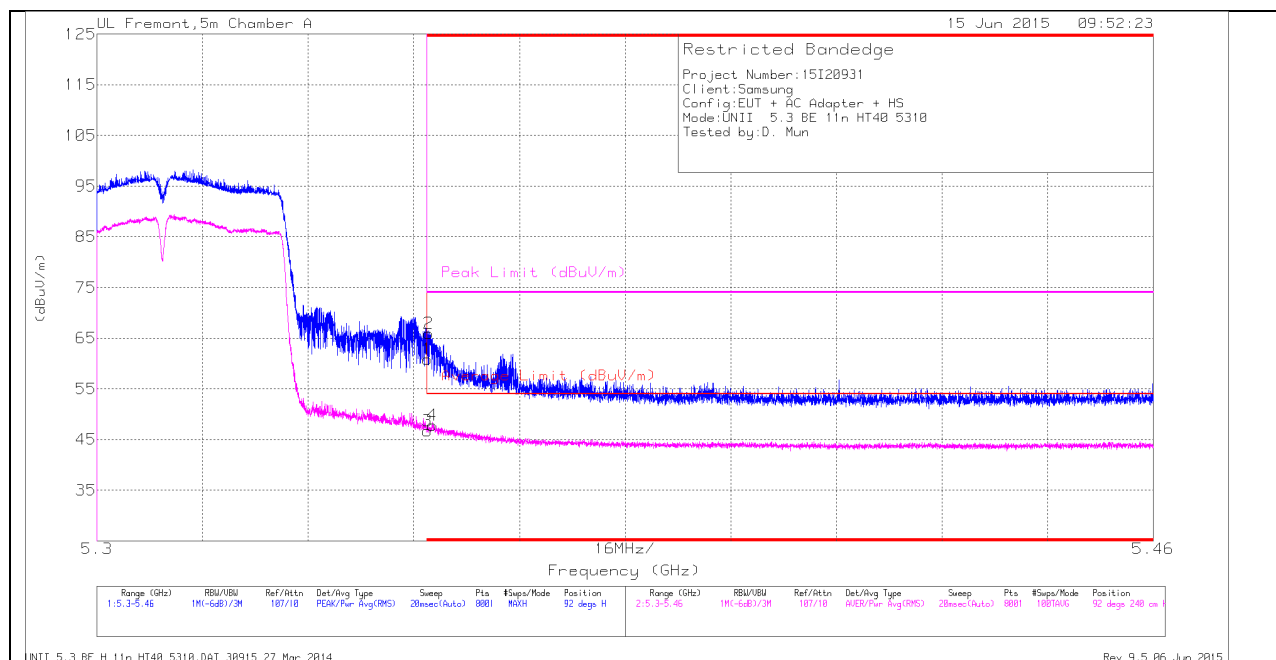
RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Filt r/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
* 1.397	41.02	PK3	28.7	-32.2	0	37.52	-	-	74	-36.48	68.2	-30.68	1	100	H
* 1.397	28.98	ADR	28.7	-32.2	0.32	25.8	54	-28.2	-	-	-	-	1	100	H
* 3.547	43.04	PK3	32.8	-31.2	0	44.64	-	-	74	-29.36	68.2	-23.56	1	200	H
* 3.546	33.58	ADR	32.8	-31.2	0.32	35.5	54	-18.5	-	-	-	-	1	200	H
* 2.274	40.29	PK3	31.6	-31.6	0	40.29	-	-	74	-33.71	68.2	-27.91	1	200	V
* 2.275	28.9	ADR	31.6	-31.6	0.32	29.22	54	-24.78	-	-	-	-	1	200	V
* 11.251	37.25	PK3	38	-23.6	0	51.65	-	-	74	-22.35	68.2	-16.55	1	100	H
* 11.251	24.79	ADR	38	-23.6	0.32	39.51	54	-14.49	-	-	-	-	1	100	H
* 7.486	38.38	PK3	35.7	-28.1	0	45.98	-	-	74	-28.02	68.2	-22.22	1	100	V
* 7.486	27	ADR	35.7	-28.1	0.32	34.92	54	-19.08	-	-	-	-	1	100	V
* 12.005	37.54	PK3	39.1	-23.5	0	52.14	-	-	74	-20.86	68.2	-15.06	1	100	V
* 12.002	25.44	ADR	39.1	-23.4	0.32	41.46	54	-12.54	-	-	-	-	1	100	V

FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

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

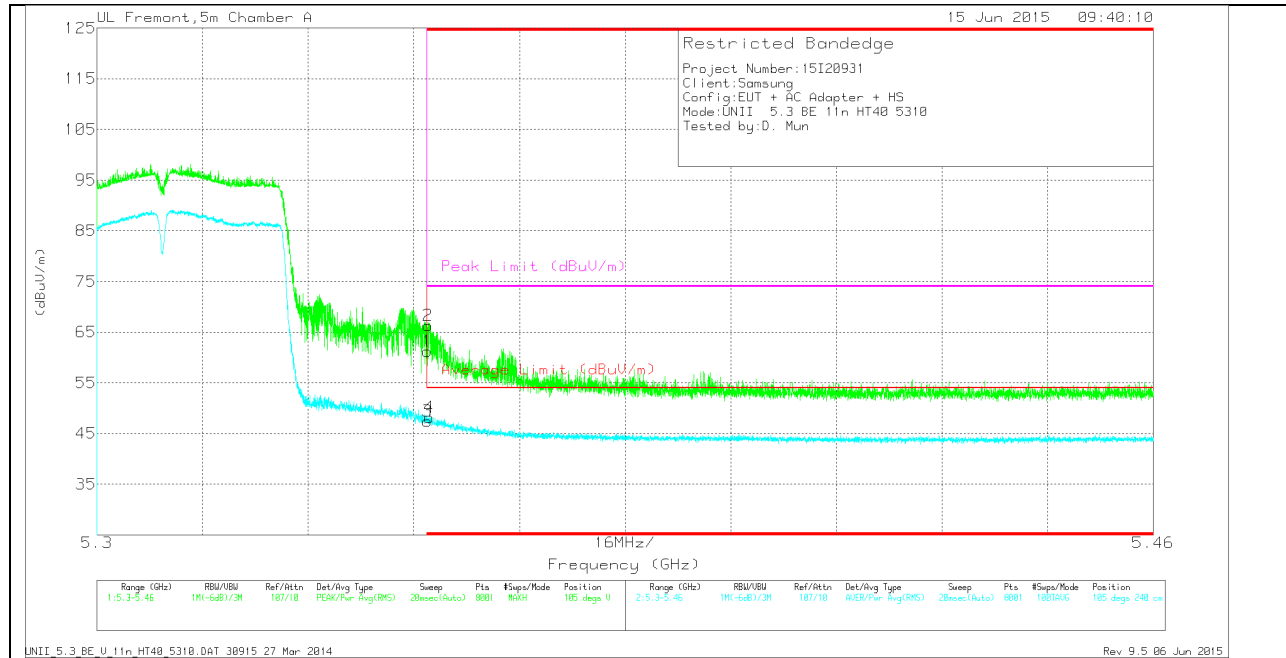
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fitter/Pad (dB)	Fixture Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	47.35	Pk	34.6	-21.1	0	60.85	-	-	74	-13.15	92	240	H
2	* 5.35	52.39	Pk	34.6	-21.1	0	65.89	-	-	74	-8.11	92	240	H
3	* 5.35	33.14	RMS	34.6	-21.1	.6	47.24	54	-6.76	-	-	92	240	H
4	* 5.351	34.27	RMS	34.6	-21.1	.6	48.37	54	-5.63	-	-	92	240	H

VERTICAL PEAK AND AVERAGE PLOT

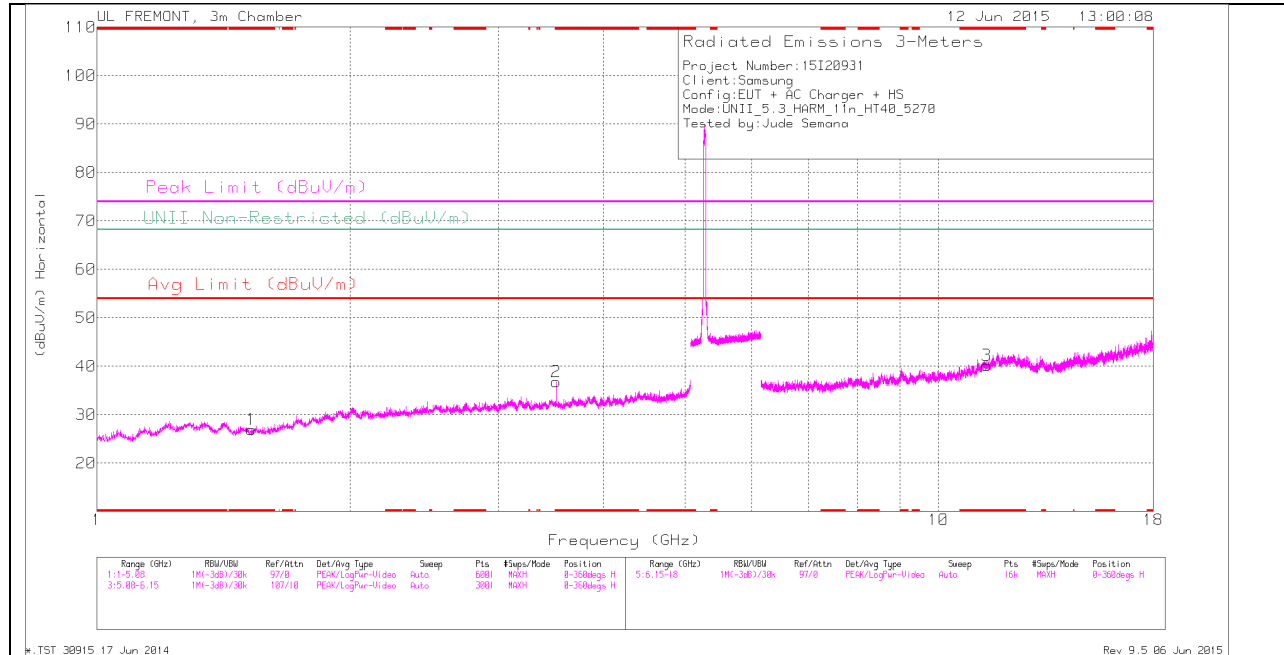


VERTICAL DATA

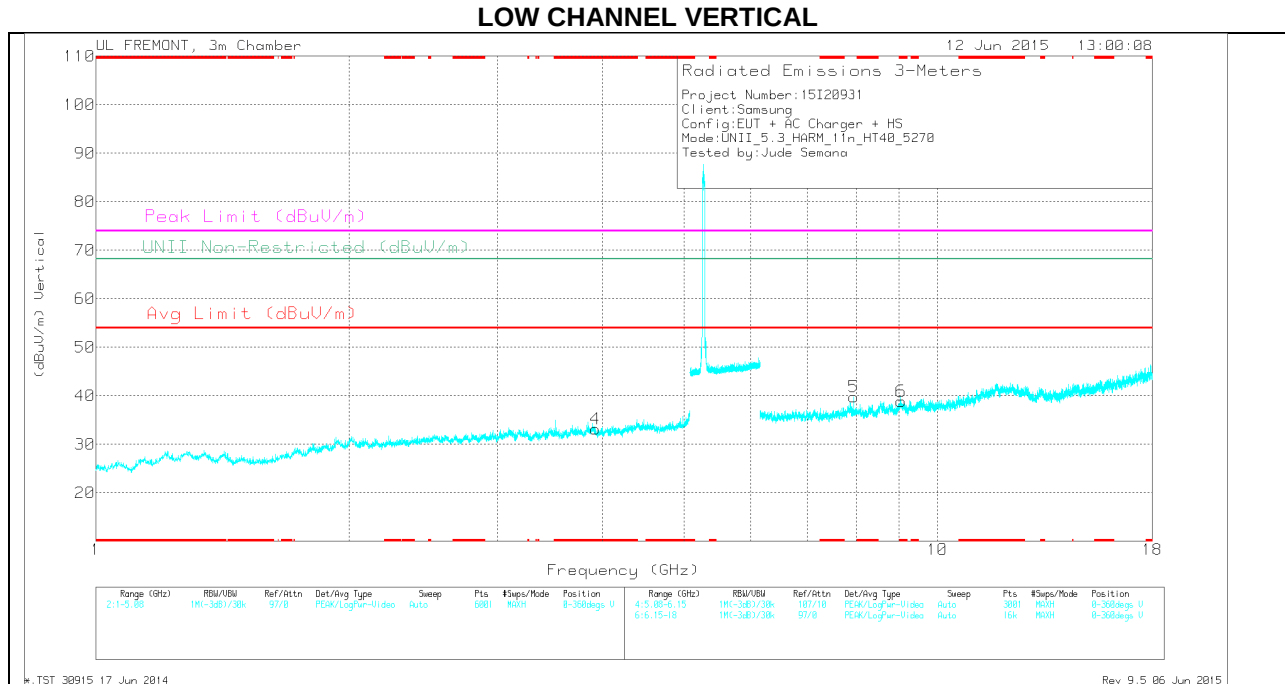
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fit r/Pad (dB)	Fixture Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	47.75	Pk	34.6	-21.1	0	61.25	-	-	74	-12.75	105	240	V
2	* 5.35	52.81	Pk	34.6	-21.1	0	66.31	-	-	74	-7.69	105	240	V
3	* 5.35	33.97	RMS	34.6	-21.1	.6	48.07	54	-5.93	-	-	105	240	V
4	* 5.35	34.69	RMS	34.6	-21.1	.6	48.79	54	-5.21	-	-	105	240	V

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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



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/Ftr/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	* 1.527	31.39	Avg	28.1	-32.5	0	26.99	54	-27.01	-	-	-	-	0-360	100	H
2	* 3.513	34.8	Avg	32.8	-30.8	0	36.8	54	-17.2	-	-	-	-	0-360	200	H
4	* 3.925	30.42	Avg	33.2	-30.4	0	33.22	54	-20.78	-	-	-	-	0-360	200	V
3	* 11.402	25.14	Avg	38.2	-23.1	0	40.24	54	-13.76	-	-	-	-	0-360	100	H
6	* 9.054	26.82	Avg	36.1	-24	0	38.92	54	-15.08	-	-	-	-	0-360	100	V
5	7.956	31.66	Avg	35.8	-27.7	0	39.76	54	-14.24	-	-	-	-	0-360	200	V

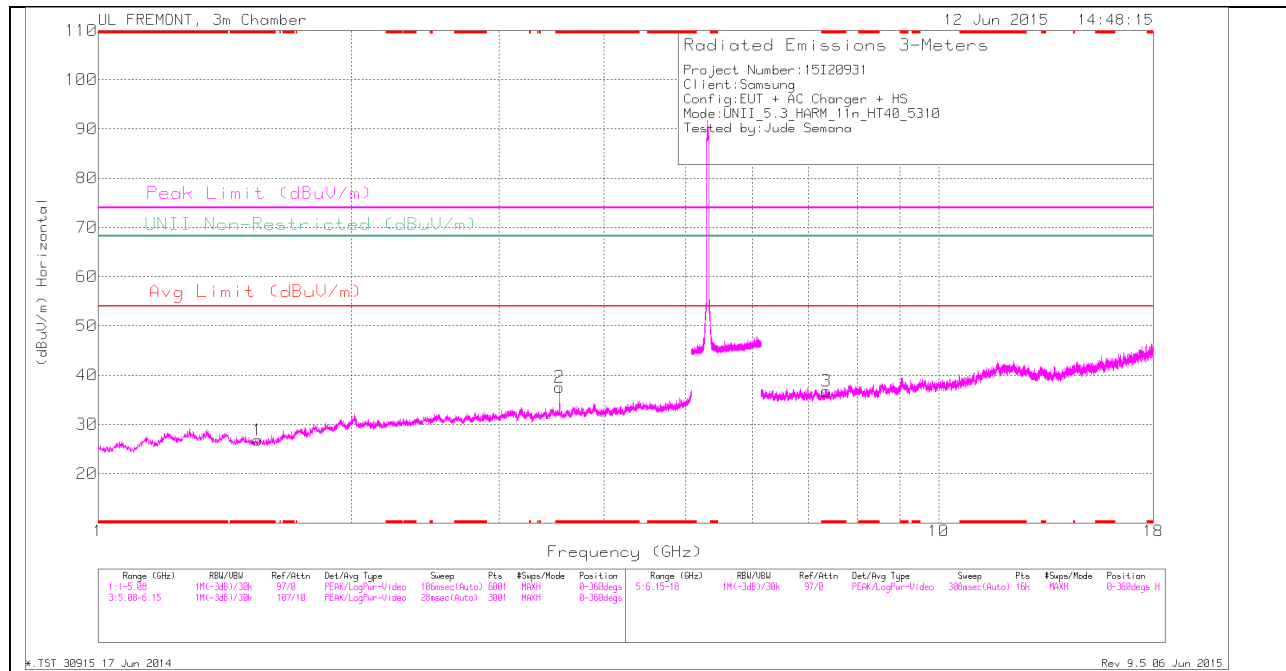
PK - Peak detector

RADIATED EMISSIONS

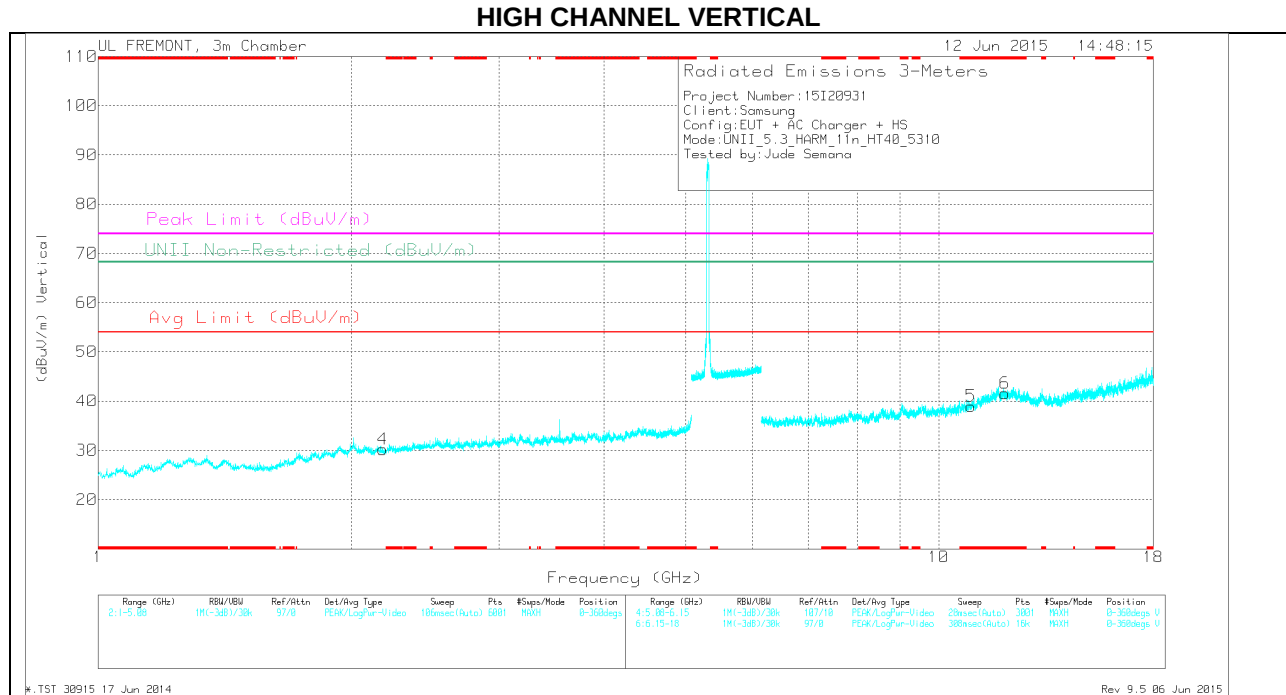
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.528	41.61	PK3	28.1	-32.5	0	37.21	-	-	74	-36.79	68.2	-30.99	1	100	H
* 1.527	29.42	ADR	28.1	-32.5	0.6	25.62	54	-28.38	-	-	-	-	1	100	H
* 3.513	42.77	PK3	32.8	-30.8	0	44.77	-	-	74	-29.23	68.2	-23.43	1	200	H
* 3.513	33.79	ADR	32.8	-30.8	0.6	36.39	54	-17.61	-	-	-	-	1	200	H
* 3.925	40.14	PK3	33.2	-30.5	0	42.84	-	-	74	-31.16	68.2	-25.36	1	200	V
* 3.924	28.65	ADR	33.2	-30.5	0.6	31.95	54	-22.05	-	-	-	-	1	200	V
* 11.403	36.53	PK3	38.2	-23.1	0	51.63	-	-	74	-22.37	68.2	-16.57	1	100	H
* 11.403	24.78	ADR	38.2	-23.1	0.6	40.48	54	-13.52	-	-	-	-	1	100	H
* 9.054	36.49	PK3	36.1	-24	0	48.59	-	-	74	-25.41	68.2	-19.61	1	100	V
* 9.052	25.19	ADR	36.1	-23.9	0.6	37.99	54	-16.01	-	-	-	-	1	100	V
7.957	39.58	PK3	35.8	-27.7	0	47.68	-	-	74	-26.32	68.2	-20.52	1	200	V
7.957	27.12	ADR	35.8	-27.7	0.6	35.82	54	-18.18	-	-	-	-	1	200	V

FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

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.



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