



**FCC 47 CFR PART 15 SUBPART E
CERTIFICATION TEST REPORT**

FOR

GSM/WCDMA/LTE Tablet + Bluetooth, DTS/UNII a/b/g/n/ac & ANT +

MODEL NUMBER: SM-T805Y

FCC ID: A3LSMT805Y

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: SAMSUNG ELECTRONICS CO., LTD.

EUT DESCRIPTION: GSM/WCDMA/LTE Tablet + Bluetooth, DTS/UNII a/b/g/n/ac & ANT+

MODEL: SM-T805Y

SERIAL NUMBER: R32F203DVSN, R32F500BEQT, R32F500BFHY (Radiated);
R32F108JLEK (Conducted);

DATE TESTED: February 6 - April 26; May 15 – June 13, 2014

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

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

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

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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 C63.4-2009

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 and 47266 Benicia Street, Fremont, California, USA. Line conducted emissions are measured only at the 47173 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

47173 Benicia Street	47266 Benicia Street
☒ Chamber A	☐ Chamber D
☒ Chamber B	☒ Chamber E
☐ Chamber C	☒ Chamber F

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 Tablet + Bluetooth, DTS/UNII a/b/g/n/ac & ANT+.

5.2. 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	802.11a	13.7	23.44
5180-5240	802.11n HT20	13.94	24.77
5190-5230	802.11n HT40	14.63	29.04
5210	802.11ac HT80	14.53	28.38
5260-5320	802.11a	13.69	23.39
5260-5320	802.11n HT20	14.45	27.86
5270-5310	802.11n HT40	14	25.12
5290	802.11ac HT80	14.72	29.65
5500-5700	802.11a	13.84	24.21
5500-5700	802.11n HT20	14.36	27.29
5510-5670	802.11n HT40	15.01	31.70
5530	802.11ac HT80	14.25	26.61

The transmitter has average conducted output power as follows:

Band (GHz)	Mode	Mode	Mode	Ch #	Freq. (MHz)	Avg Pwr (dBm)	
						Wi-Fi 1	Wi-Fi 2
5.2 (UNII)	1 Tx	802.11a	6 Mbps	36	5180	10.5	
				40	5200	10.4	
				48	5240	10.5	
				36	5180		10.5
				40	5200		10.5
				48	5240		10.5
	2 Tx			36	5180	10.5	10.5
				40	5200	10.4	10.5
				48	5240	10.5	10.5

	1 Tx	802.11n (HT20)	MCS0	36	5180	10.3		
				40	5200	10.3		
				48	5240	10.4		
				36	5180		10.4	
				40	5200		10.5	
				48	5240		10.5	
				2 Tx	36	5180	10.3	10.4
					40	5200	10.3	10.5
					48	5240	10.4	10.5
	1 Tx	802.11n (HT40)	MCS0	38	5190	10.4		
				46	5230	10.5		
				38	5190		10.4	
				46	5230		10.5	
				2 Tx	38	5190	10.4	10.4
					46	5230	10.5	10.5
	1 Tx	802.11ac (20 MHz)	MCS0	36	5180	10.3		
				40	5200	10.3		
				48	5240	10.3		
				36	5180		10.5	
				40	5200		10.4	
				48	5240		10.3	
				2 Tx	36	5180	10.3	10.5
					40	5200	10.3	10.4
					48	5240	10.3	10.3
	1 Tx	802.11ac (40 MHz)	MCS0	38	5190	10.5		
				46	5230	10.5		
				38	5190		9.6	
				46	5230		9.5	
				2 Tx	38	5190	10.5	9.6
					46	5230	10.5	9.5
	1 Tx	802.11ac (80 MHz)	MCS0	42	5210	10.4		
				42	5210		10.4	
				2 Tx	42	5210	10.4	10.4
5.3(UNII)	1 Tx	802.11a	6 Mbps	52	5260	9.7		
				60	5300	9.9		
				64	5320	9.8		
	1 Tx	802.11a	6 Mbps	52	5260		9.5	
				60	5300		9.4	
				64	5320		9.6	
	2 Tx	802.11a	6 Mbps	52	5260	9.7	9.6	

				60	5300	9.8	9.6
				64	5320	9.9	9.7
	1 Tx	802.11n (HT20)	MCS0	52	5260	9.7	
				60	5300	9.7	
				64	5320	9.8	
				52	5260		9.4
				60	5300		9.4
				64	5320		9.5
	2 Tx			52	5260	10.3	10.2
				60	5300	10.4	10.2
				64	5320	10.4	10.3
	1 Tx	802.11n (HT40)	MCS0	54	5270	9.7	
				62	5310	9.7	
				54	5270		9.5
				62	5310		9.6
	2 Tx			54	5270	10.2	10.1
				62	5310	10.3	10.1
	1 Tx	802.11ac (20 MHz)	MCS0	52	5260	9.7	
				60	5300	9.7	
				64	5320	9.8	
				52	5260		9.4
				60	5300		9.5
				64	5320		9.5
	2 Tx			52	5260	10.3	10.1
				60	5300	10.3	10.2
				64	5320	10.4	10.3
	1 Tx	802.11ac (40 MHz)	MCS0	54	5270	9.7	
				62	5310	9.7	
				54	5270		9.5
				62	5310		9.5
	2 Tx			54	5270	10.2	10.1
				62	5310	10.3	10.1
	1 Tx	802.11ac (80 MHz)	MCS0	58	5290	10.5	
				58	5290		10.3
				2 Tx	58	5290	10.5
5.5(UNII)	1 Tx	802.11a	6 Mbps	100	5500	9.9	
				120	5600	9.8	
				140	5700	9.8	
				100	5500		9.7
				120	5600		9.6
				140	5700		9.5
	2 Tx			100	5500	9.9	9.9

				120	5600	9.8	9.8		
				140	5700	9.8	9.9		
	1 Tx	802.11n (HT20)	MCS0	100	5500	9.7			
				120	5600	9.7			
				140	5700	9.6			
				100	5500		9.7		
				120	5600		9.5		
				140	5700		9.7		
	2 Tx			100	5500	10.4	10.3		
				120	5600	10.3	10.3		
				140	5700	10.2	10.3		
	1 Tx			802.11n (HT40)	MCS0	102	5510	9.9	
						118	5590	9.8	
						134	5670	9.7	
		102	5510				9.7		
		118	5590				9.6		
		134	5670				9.6		
	2 Tx	102	5510			10.2	10.2		
		118	5590			10.2	10.3		
		134	5670			10.2	10.3		
	1 Tx	802.11ac (20 MHz)	MCS0			100	5500	9.7	
						120	5600	9.7	
						140	5700	9.6	
				100	5500		9.6		
				120	5600		9.5		
				140	5700		9.7		
	2 Tx			100	5500	10.4	10.3		
				120	5600	10.3	10.3		
				140	5700	10.2	10.3		
	1 Tx			802.11ac (40 MHz)	MCS0	102	5510	9.9	
						118	5590	9.8	
						134	5670	9.7	
		102	5510				9.5		
		118	5590				9.6		
		134	5670				9.7		
	2 Tx	102	5510			10.2	10.2		
		118	5590			10.2	10.3		
		134	5670			10.2	10.3		
	1 Tx	802.11ac (80 MHz)	MCS0			106	5530	10.5	
						138	5690	10.5	
						106	5530		10.5

				138	5690		10.5
	2 Tx			106	5530	10.5	10.5
				138	5690	10.5	10.5

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes two FPCB antennas, with a maximum gain of -2.01dBi and 1.35dBi dBi for 5GHz.

5.4. List of test reduction and modes covering other modes:

5.2GHz BAND Authorized Frequency Band (Antenna Port & Radiated Testing)		
Frequency Range (MHz)	Mode	Covered by
5180 - 5240	802.11a Legacy 1TX	802.11a CDD 2TX
5180 - 5240	802.11n/ac HT20 1TX	802.11n HT20 CDD 2TX
5180 - 5240	802.11n/ac HT20 STBC 2TX	802.11n HT20 CDD 2TX
5190 - 5230	802.11n/ac HT40 1TX	802.11n HT40 CDD 2TX
5190 - 5230	802.11n/ac HT40 STBC 2TX	802.11n HT40 CDD 2TX
5210	802.11ac VHT80 1TX	802.11ac VHT80 CDD 2TX
5210	802.11ac VHT80 STBC 2TX	802.11ac VHT80 CDD 2TX

5.3GHz BAND Authorized Frequency Band (Antenna Port & Radiated Testing)		
Frequency Range (MHz)	Mode	Covered by
5260 - 5320	802.11a Legacy 1TX	802.11a CDD 2TX
5260 - 5320	802.11n/ac HT20 1TX	802.11n HT20 CDD 2TX
5260 - 5320	802.11n/ac HT20 STBC 2TX	802.11n HT20 CDD 2TX
5270 - 5310	802.11n/ac HT40 1TX	802.11n HT40 CDD 2TX
5270 - 5310	802.11n/ac HT40 STBC 2TX	802.11n HT40 CDD 2TX
5290	802.11ac VHT80 1TX	802.11ac VHT80 CDD 2TX
5290	802.11ac VHT80 STBC 2TX	802.11ac VHT80 CDD 2TX

5.6GHz BAND Authorized Frequency Band (Antenna Port & Radiated Testing)		
Frequency Range (MHz)	Mode	Covered by
5500 - 5700	802.11a Legacy 1TX	802.11a CDD 2TX
5500 - 5700	802.11n/ac HT20 1TX	802.11n HT20 CDD 2TX
5500 - 5700	802.11n/ac HT20 STBC 2TX	802.11n HT20 CDD 2TX
5510 - 5670	802.11n/ac HT40 1TX	802.11n HT40 CDD 2TX
5510 - 5670	802.11n/ac HT40 STBC 2TX	802.11n HT40 CDD 2TX
5530	802.11ac VHT80 1TX	802.11ac VHT80 CDD 2TX
5530	802.11ac VHT80 STBC 2TX	802.11ac VHT80 CDD 2TX

5.5. 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 VHT80mode: MCS0

Both one port and two ports transmit configuration were verified. 2x2 CDD mode was the worst case which has equal or higher power than the other configurations.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	Samsung	ETA-U90CBC	N/A	N/A
Earphone	Samsung	GH59	N/A	N/A

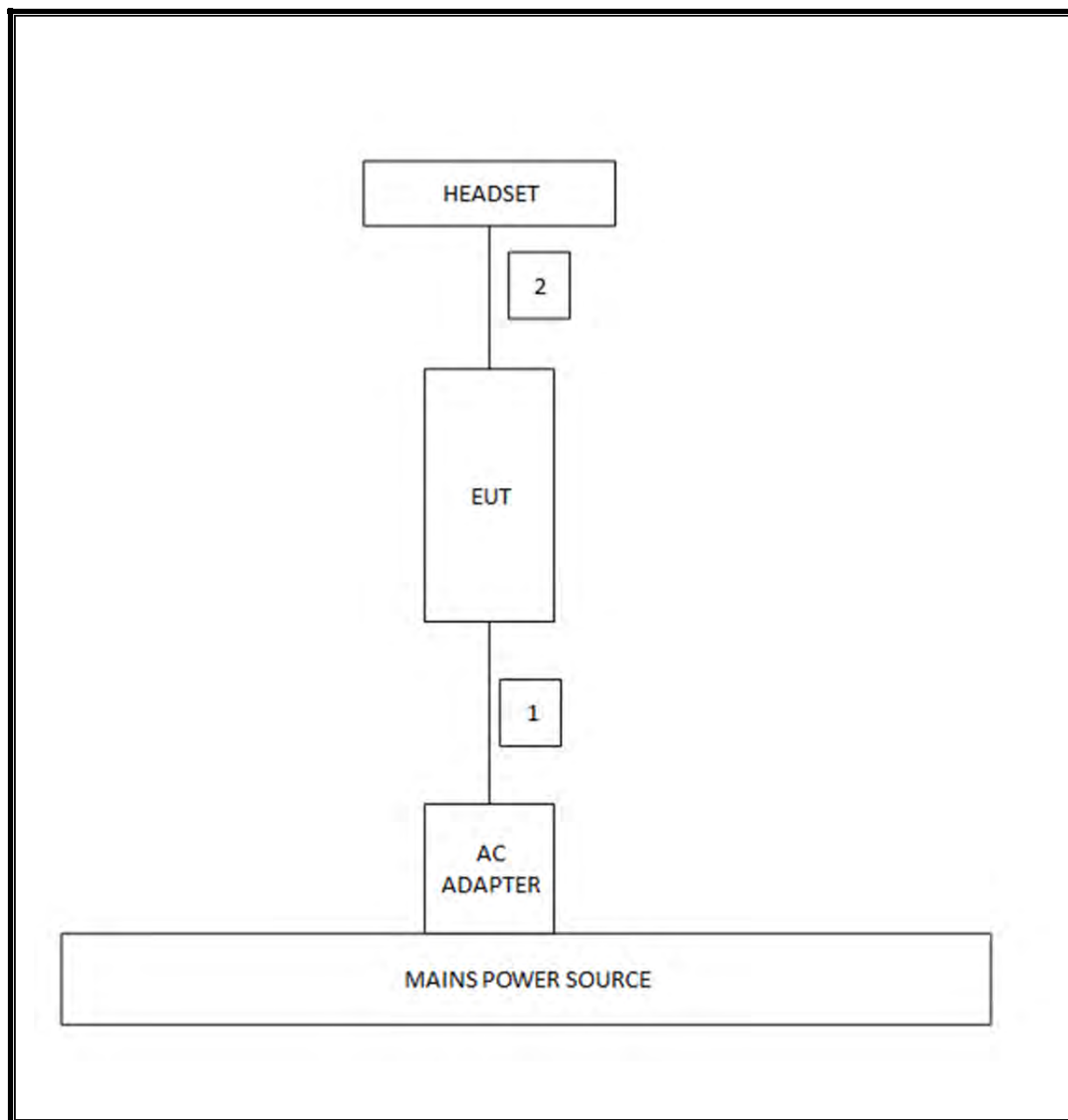
I/O CABLES

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	12/20/14
Spectrum Analyzer, 9KHz-40GHz	HP	8564E	C00986	04/01/15
EMI Test Receiver, 9 kHz-7 GHz	R & S	ESCI 7	1000741	08/13/14
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	08/18/14
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/14
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/14
Antenna, Horn, 1-18 GHz	ETS	3117	C01022	02/21/15
Antenna, Horn, 18- 26 GHz	ARA	MWH-1826/B	C00946	11/12/14
Antenna, Horn, 26-40 GHz	ARA	MWH-2640	C00891	06/28/14
Antenna, Bilog, 30MHz-1 GHz	Sunol Sciences	JB1	T243	03/06/15
RF Preamplifier, 100KHz -> 1300MHz	HP	TBD	C00825	06/01/15
RF Preamplifier, 1GHz - 18GHz	Miteq	NSP4000-SP2	924343	03/23/15
RF Preamplifier, 1GHz - 26.5GHz	HP	8449B	F00351	06/27/14
AC Power Supply, 2,500VA 45-500Hz	Elgar-Ametek	CW2501M	F00013	CNR
RF Preamplifier, 1GHz - 40GHz	Miteq	NSP4000-SP2	C00990	08/20/14
Attenuator / Switch driver	HP	11713A	F00204	CNR
Low Pass Filter 3GHz	Micro-Tronics	LPS17541	F00219	05/23/15
High Pass Filter 5GHz	Micro-Tronics	HPS17542	F00222	05/22/15
High Pass Filter 6GHz	Micro-Tronics	HPM17543	F00224	05/22/15

7. SUMMARY TABLE

The model FCC ID: A3LSMT805Y shares the same enclosure and circuit board as model FCC ID: A3LSMT805. The WLAN/Bluetooth/NFC circuitry and layout, including antenna, are almost identical between the two units. The WLAN/Bluetooth antenna and surrounding circuitry is the same between these two units.

After confirming through preliminary radiated emissions that the performance of the A3LSMT805Y WLAN UNII conducted portion remains representative of this model (FCC ID A3LSMT805) test data for FCC ID: A3LSMT805 is being submitted for this application.

Radiated performance for 5GHz band data is worse than A3LSMT805. So full radiated testing performed and document in the report.

Radiated emissions were fully re-evaluated against 15B requirements for digital devices and results indicated no significant differences between the two versions. Other differences between the two FCC IDs are in the WWAN RF Transceiver, connectivity part, components and placement. WWAN SAR and EMC has been fully retested for FCC ID: A3LSMT805Y.

FCC Part Section	Test Description	Test Limit	Test Condition	Test Result	Worst Case
15.247 (a)	Occupied Band width (26dB)	N/A	Conducted	Pass	84.8MHz
15.407 (a)(1)	TX Cond. Power 5.15-2.25	<17dBm or 4+10Log(OBW)		Pass	14.63dBm
15.407 (a)(2)	TX Cond. Power 5.25-5.35 & 5.47-5.725	<24dBm or 11+10Log(OBW)		Pass	15.01dBm
15.407 (a)(5)	PSD	<4dBm for UNII 1 <11dBm for UNII 2&3		Pass	2.85dBm
15.407 (a)(6)	Peak Excursion Ratio	13dB		Pass	8.94dB
15.207 (a)	AC Power Line conducted emissions	Section 10	Radiated	Pass	50 dBuV
15.407 (b) & 15.209	Radiated Spurious Emission	< 54dBuV/m		Pass	53.04 dBuV/m
15.407 (h)(2)	Dynamic Frequency Selection	N/A	Radiated / Conducted	Pass	N/A

8. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS

LIMITS

None; for reporting purposes only.

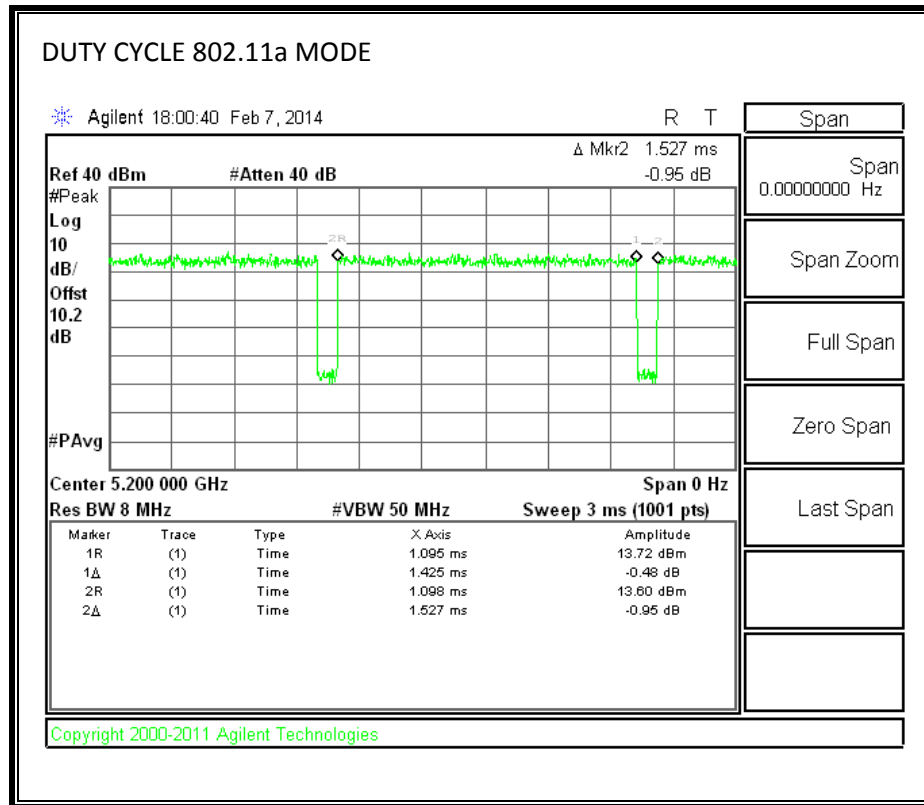
PROCEDURE

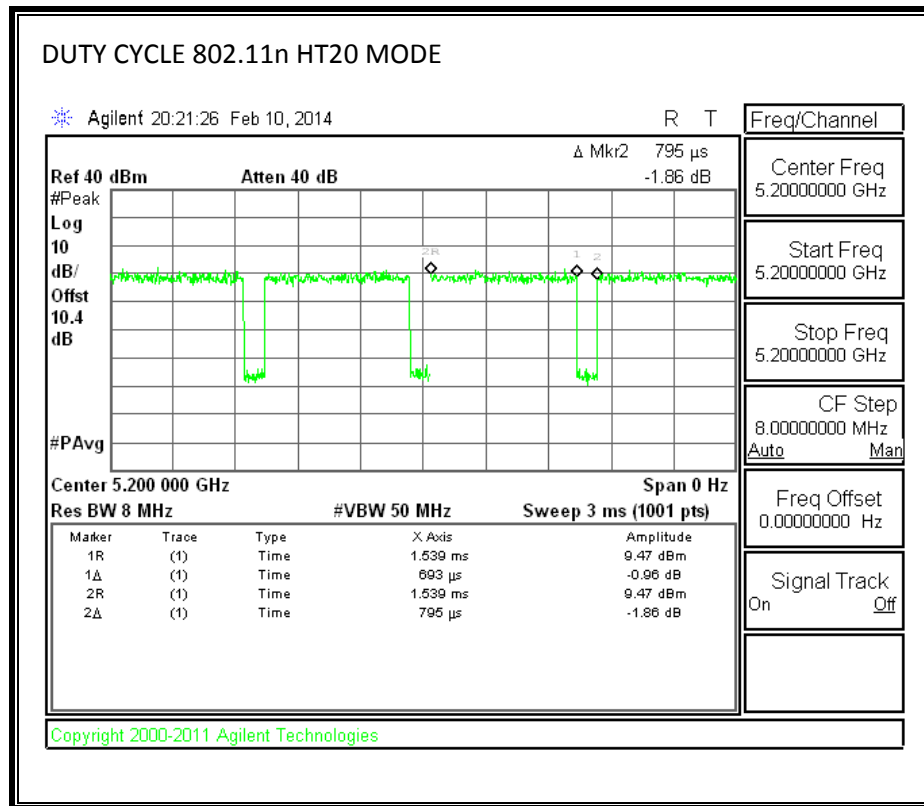
KDB 789033 Zero-Span Spectrum Analyzer Method.

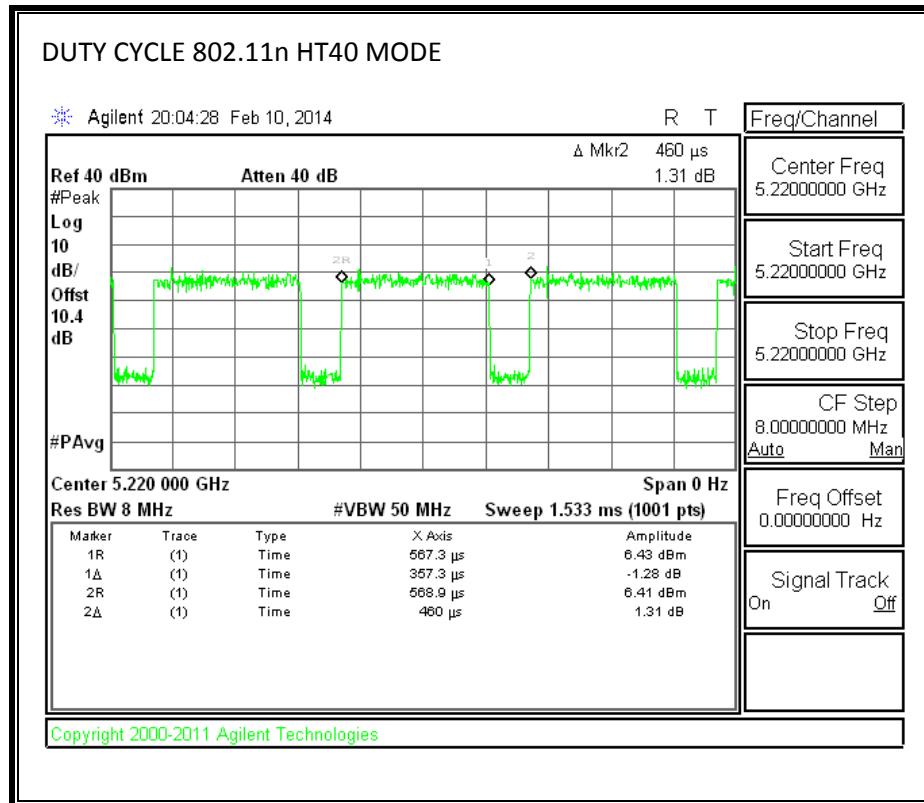
8.1. ON TIME AND DUTY CYCLE RESULTS

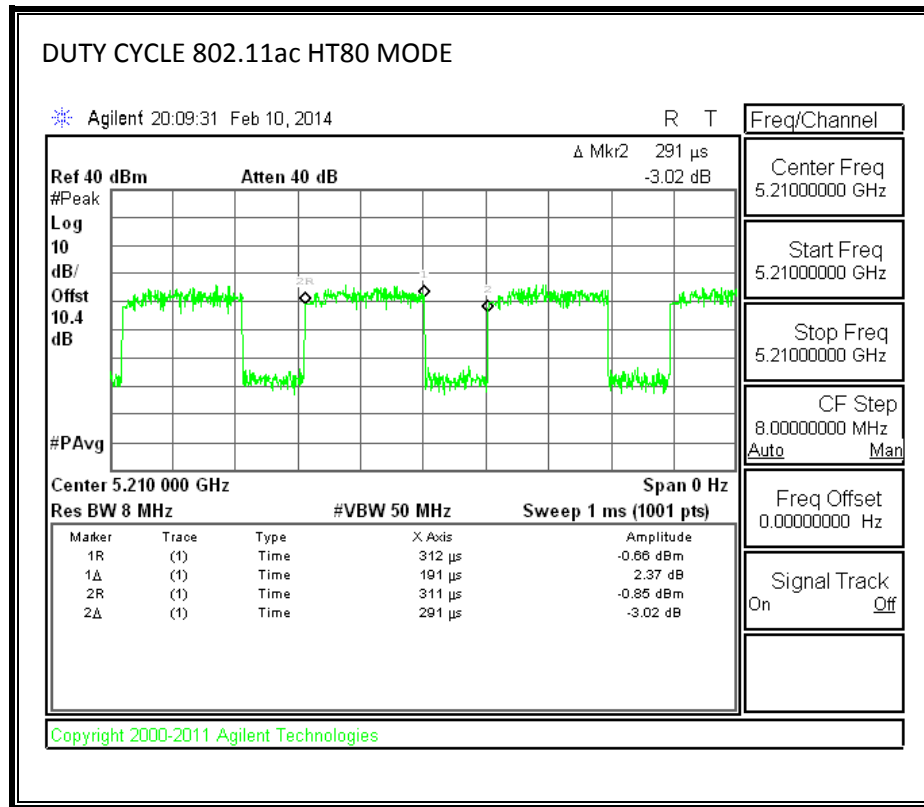
Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (kHz)
802.11a	1.425	1.527	0.933	93.3%	0.30	0.702
802.11n HT20	0.693	0.795	0.872	87.2%	0.60	1.443
802.11n HT40	0.357	0.460	0.777	77.7%	1.10	2.799
802.11ac HT80	0.191	0.291	0.656	65.6%	1.83	5.236

8.2. DUTY CYCLE PLOTS









9. MEASUREMENT METHOD

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.

For band edge and harmonic: KDB 789033 Method AD with Power RMS Averaging and duty cycle correction is used

10. ANTENNA PORT TEST RESULTS

10.1. 26 dB BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

10.1.1. 802.11a MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5180	22.7	22.3
Mid	5200	22.7	22.3
High	5240	22.7	22.2

10.1.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5180	22.8	22.4
Mid	5200	22.8	22.5
High	5240	22.9	22.5

10.1.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5190	42.1	41.6
Mid	5230	42.8	41.9

10.1.4. 802.11ac HT80 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5210	84.7	84.7

10.1.5. 802.11a MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5260	22.7	22.3
Mid	5300	22.7	22.3
High	5320	22.7	22.2

10.1.6. 802.11n HT20 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5260	22.9	22.4
Mid	5300	22.9	22.4
High	5320	22.8	22.5

10.1.7. 802.11n HT40 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5270	41.9	41.7
Mid	5310	42.1	41.5

10.1.8. 802.11ac HT80 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5290	84.5	84.8

10.1.9. 802.11a MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5500	22.8	22.3
Mid	5580	22.7	22.4
High	5700	22.7	22.2

10.1.10. 802.11n HT20 MODE IN THE 5.5 GHz BAND

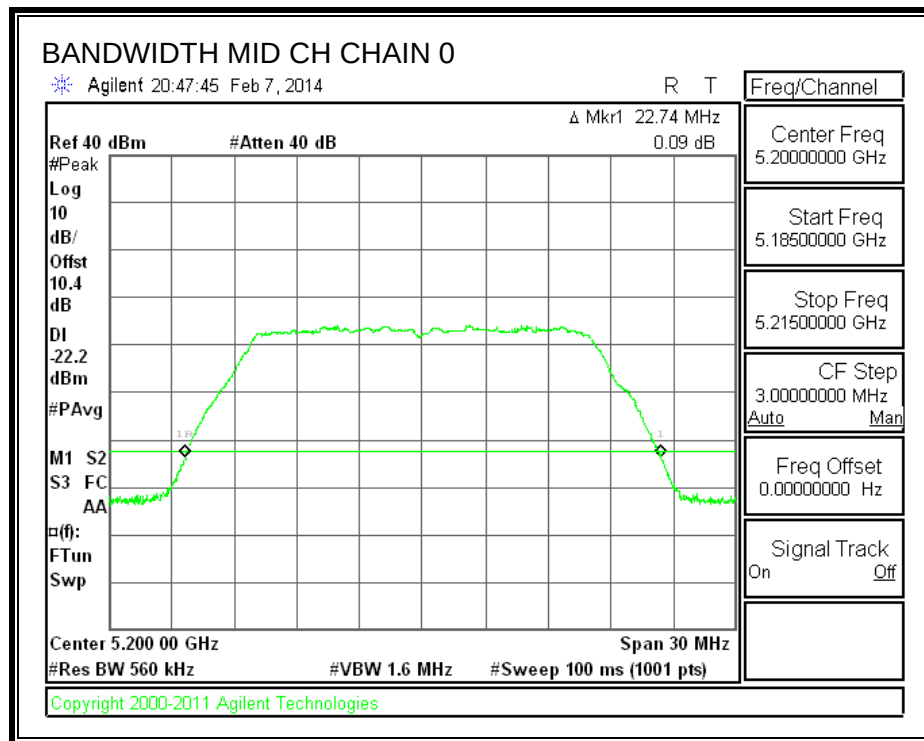
Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5500	22.8	22.4
Mid	5580	22.7	22.6
High	5700	22.7	22.5

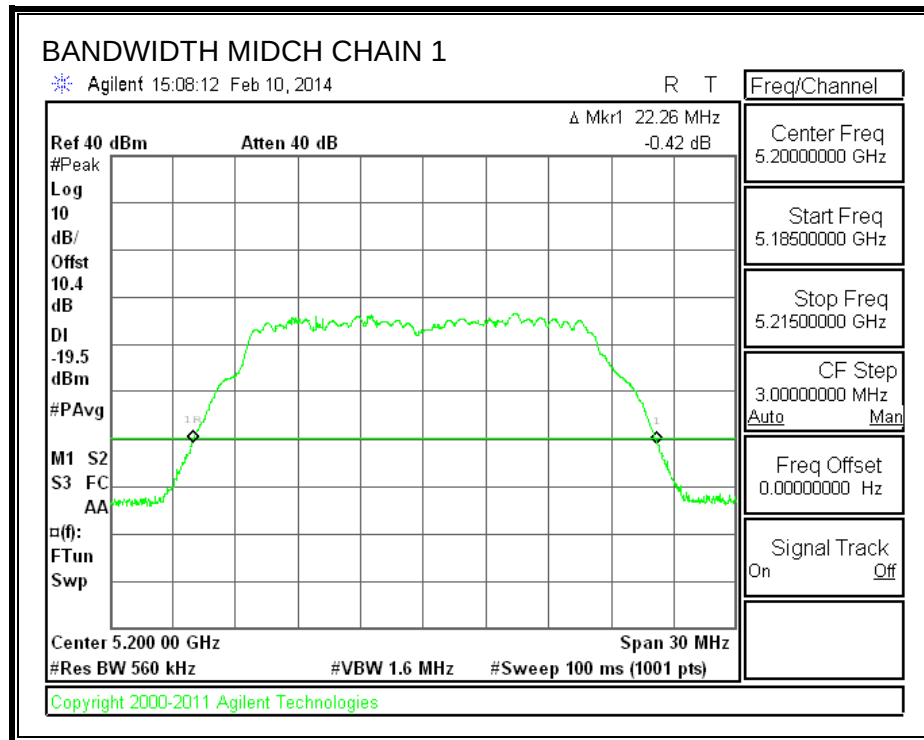
10.1.11. 802.11n HT40 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5510	41.9	41.7
Mid	5550	41.9	41.6
High	5670	42.0	41.8

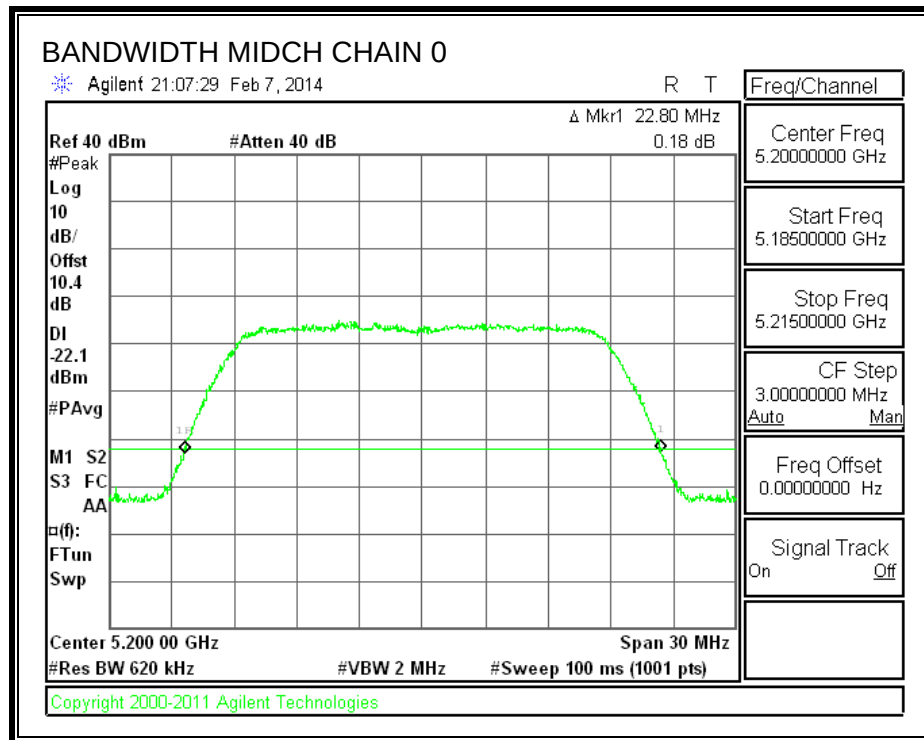
10.1.12. **802.11ac HT80 MODE IN THE 5.5 GHz BAND**

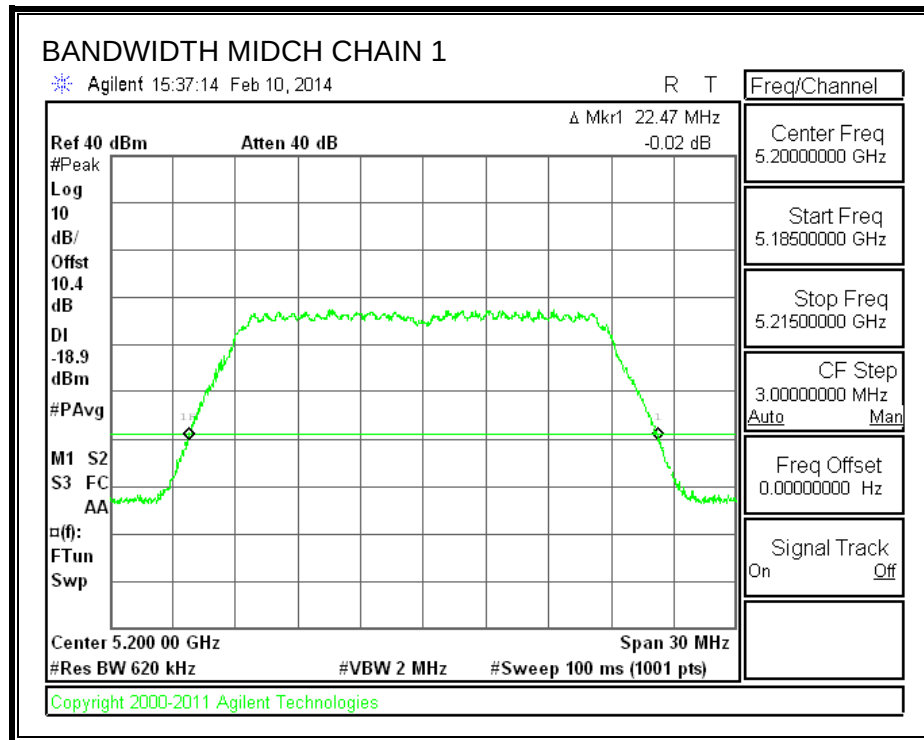
Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5530	84.7	84.5

802.11a 5.2G 26 dB BANDWIDTH

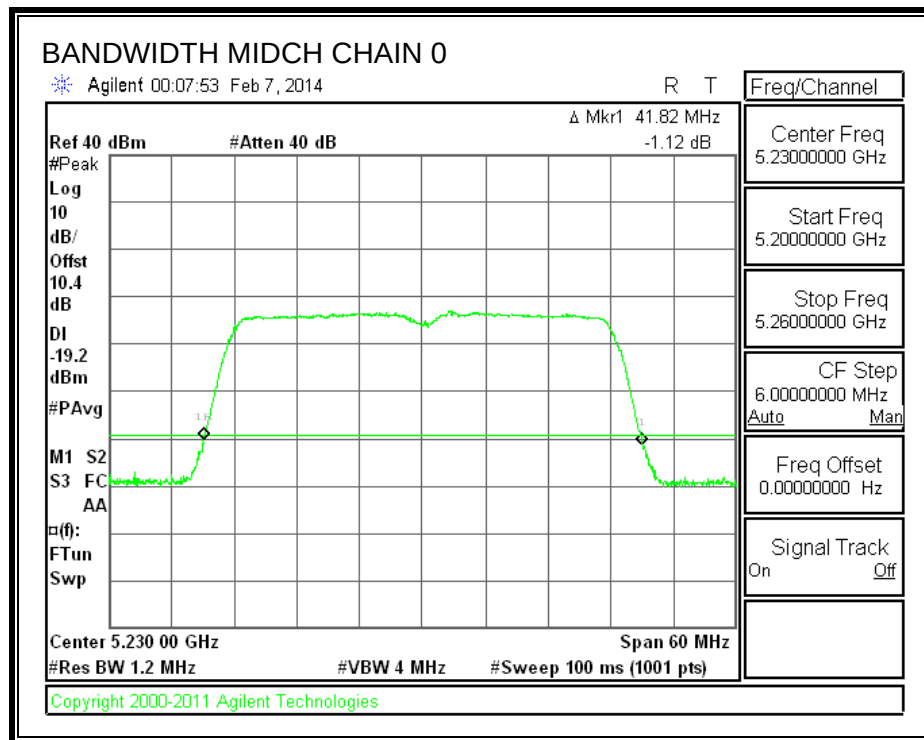


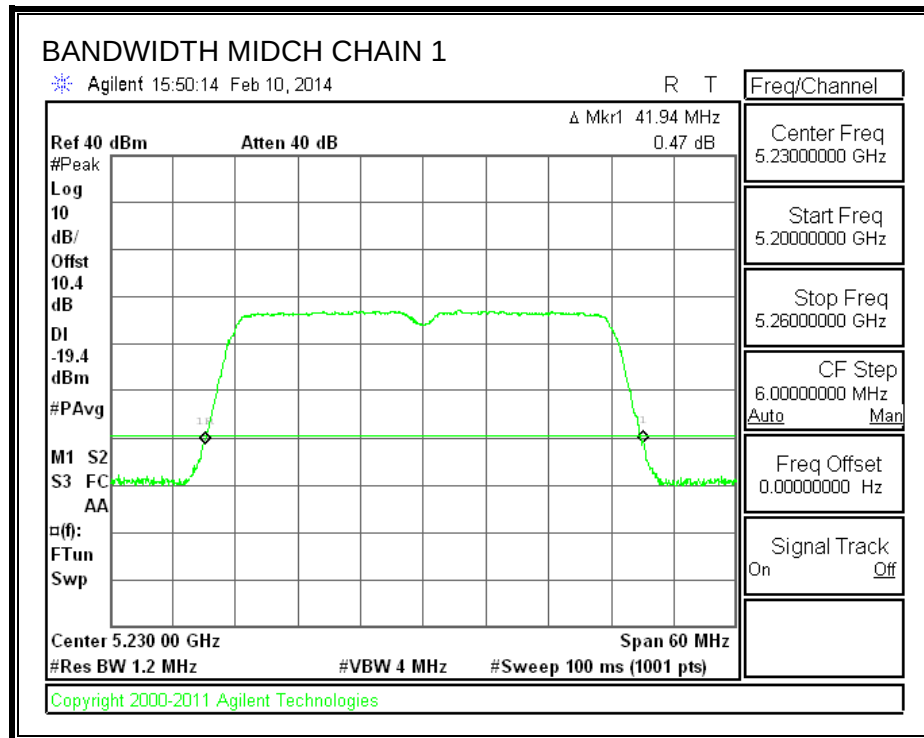
802.11n HT20 5.2G 26 dB BANDWIDTH

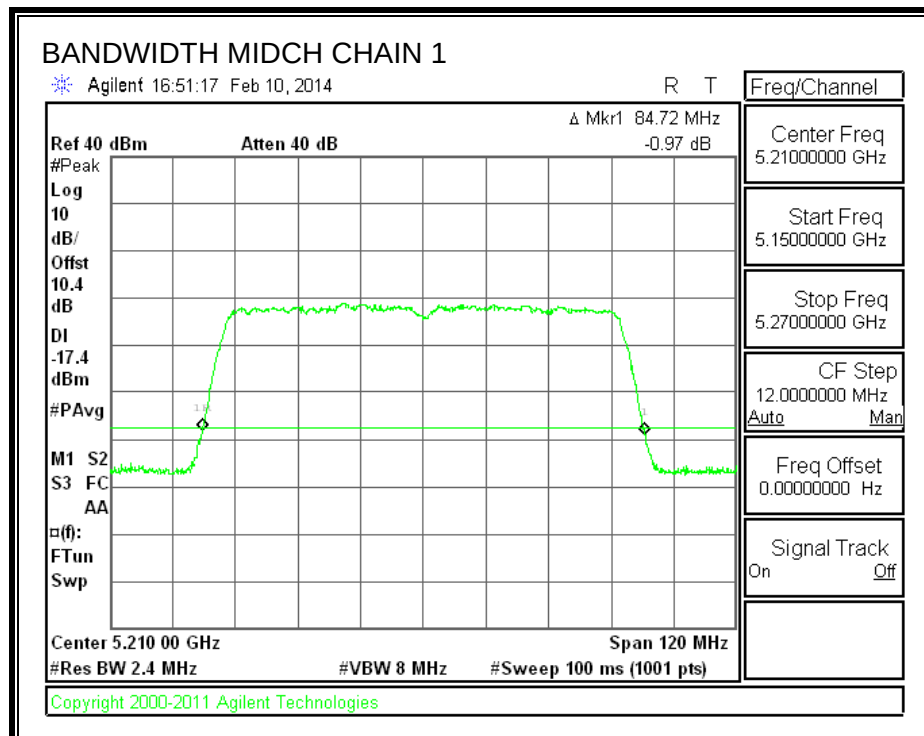
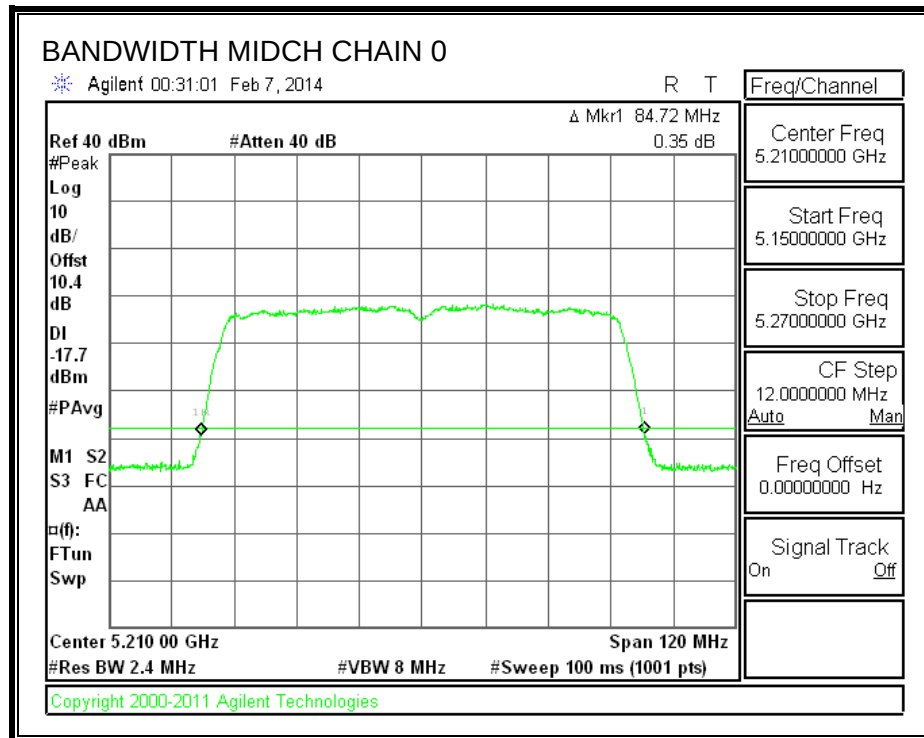


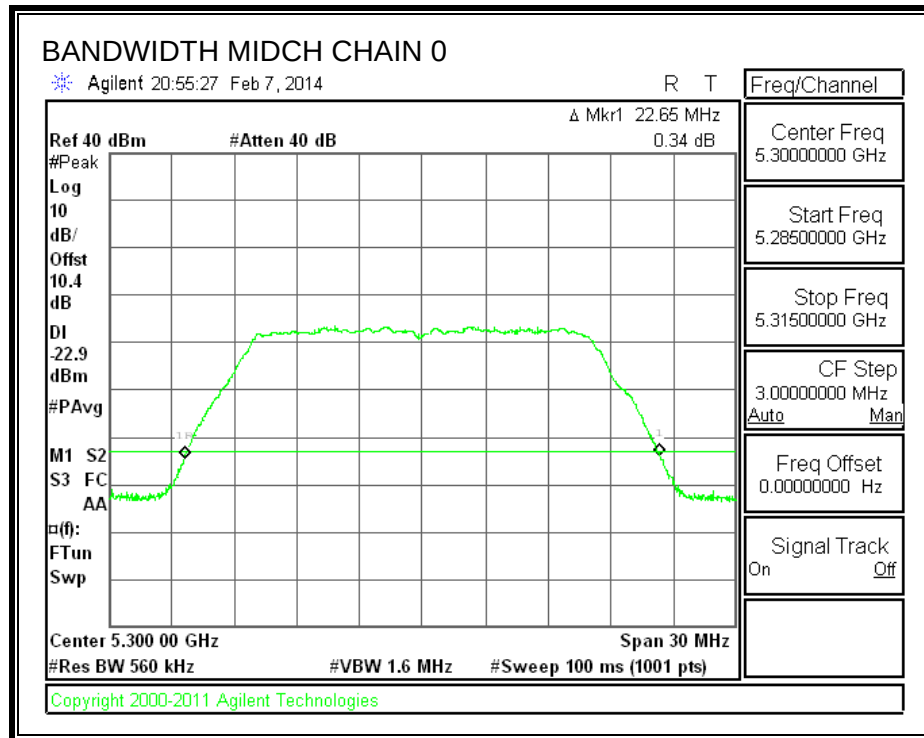


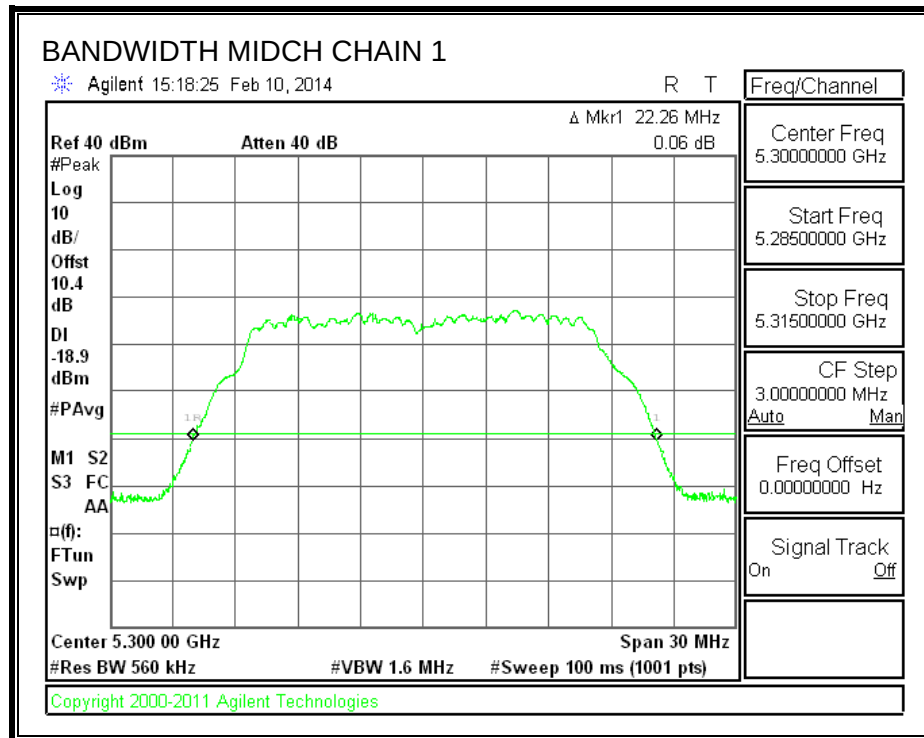
802.11n HT40 5.2G 26 dB BANDWIDTH



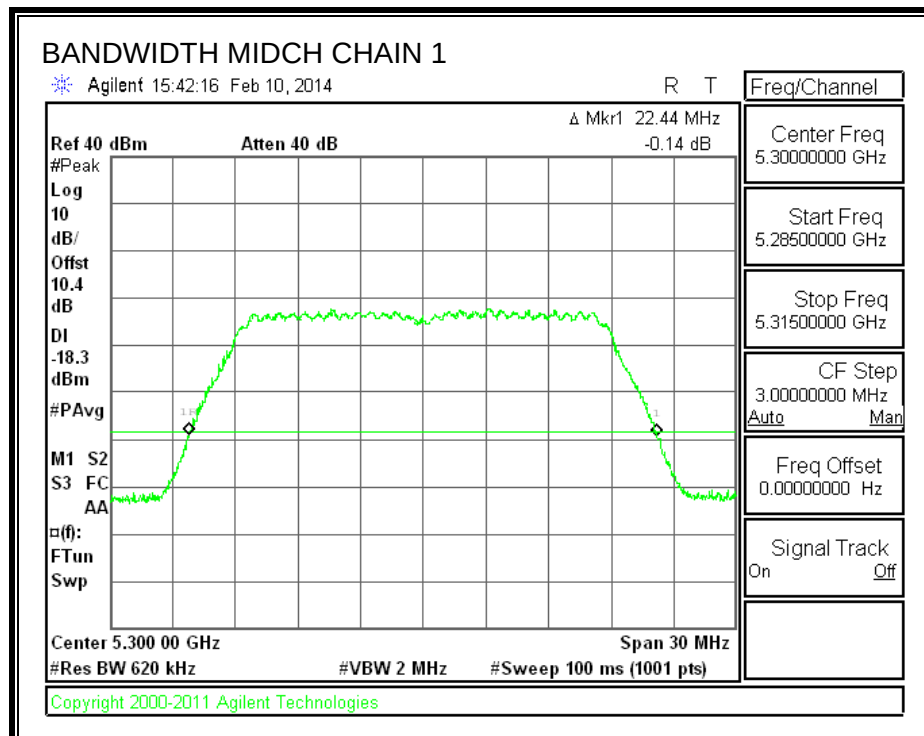
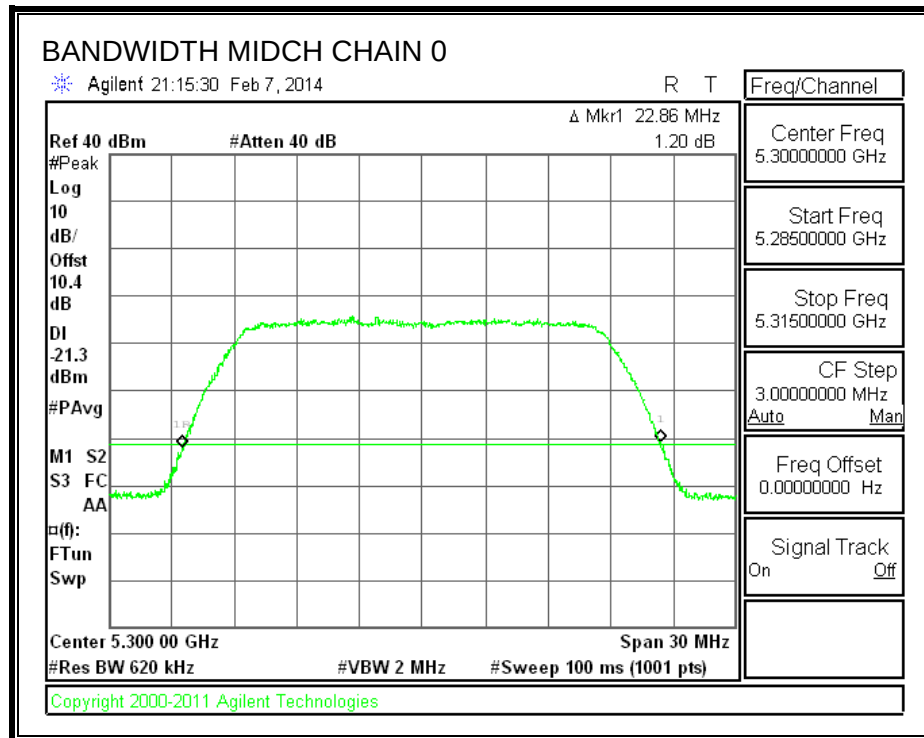
**802.11ac HT80 5.2G 26 dB BANDWIDTH**

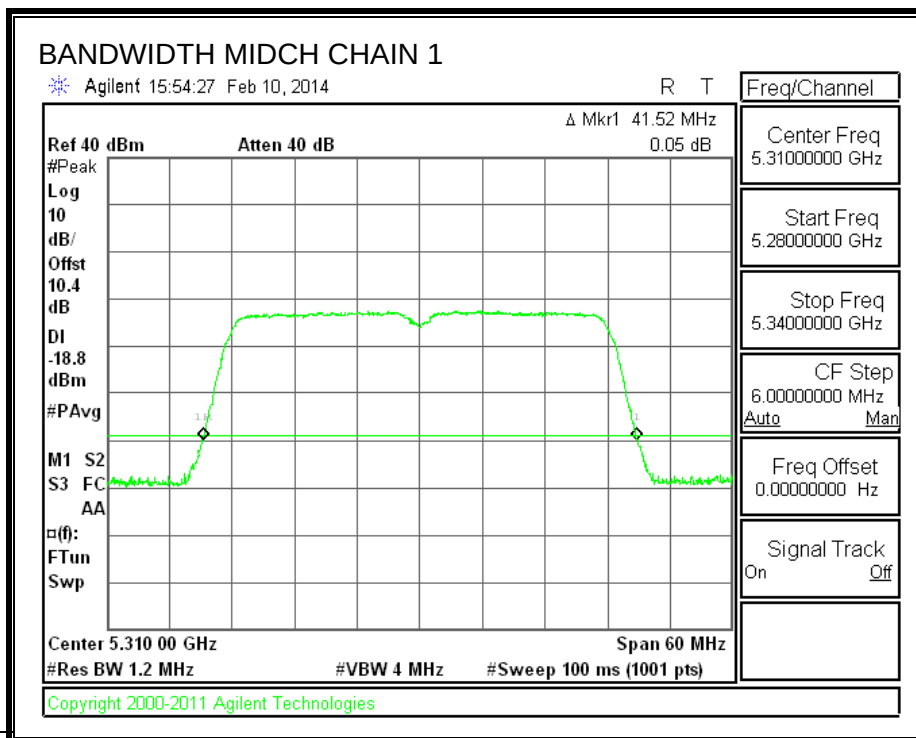
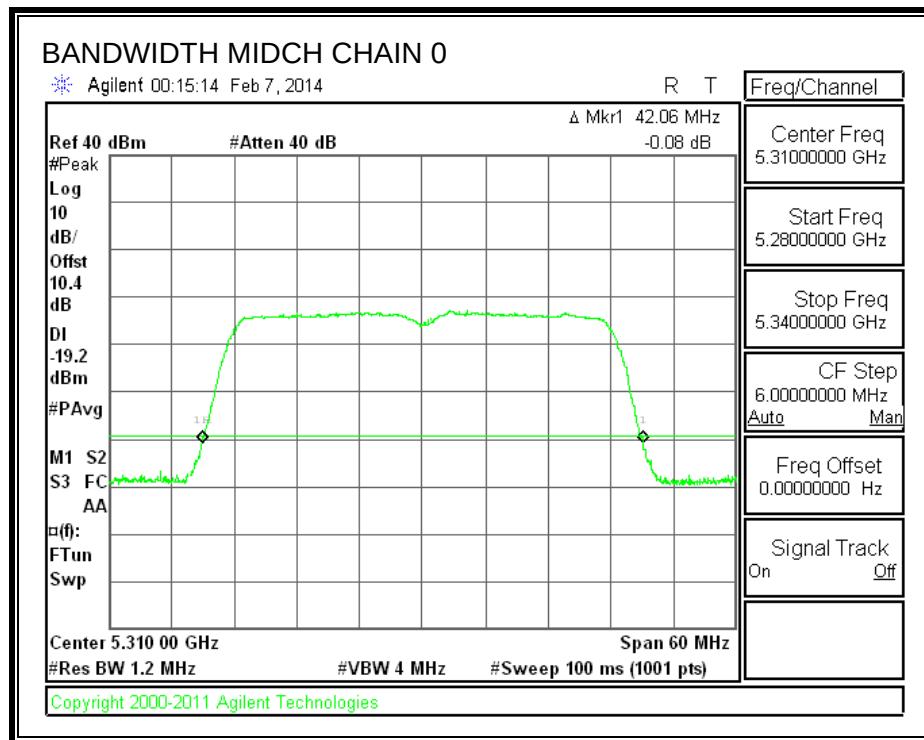


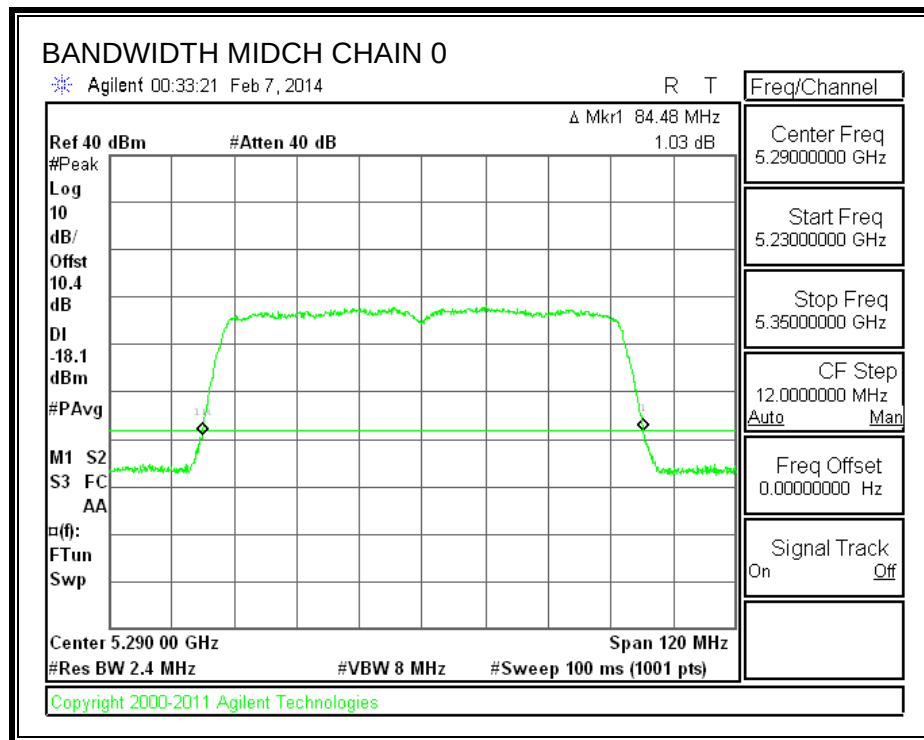
802.11a 5.3G 26 dB BANDWIDTH

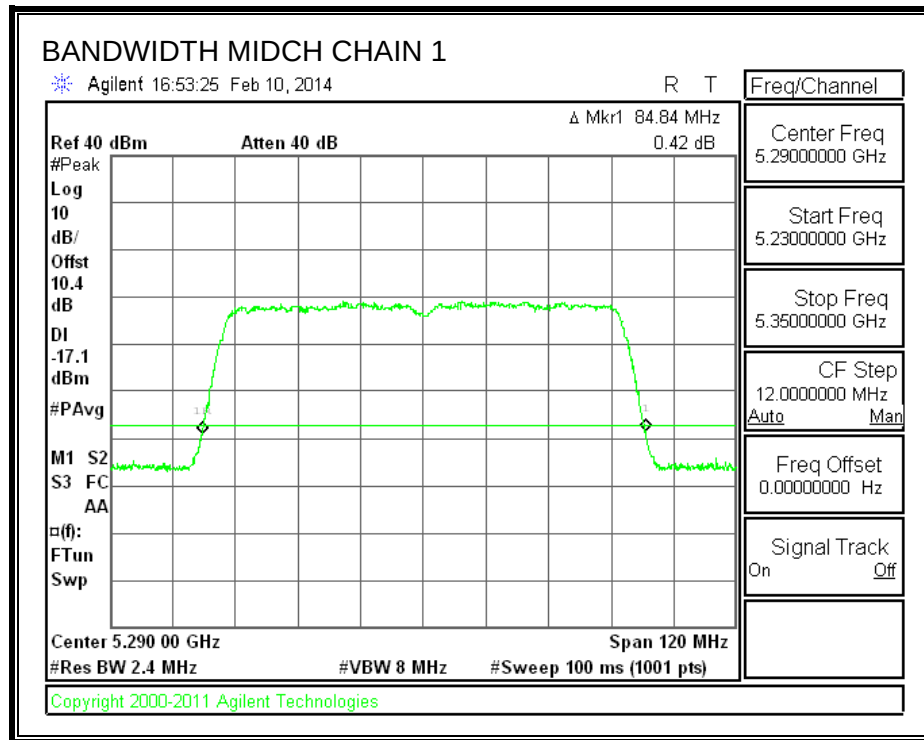


802.11n HT20 5.3G 26 dB BANDWIDTH

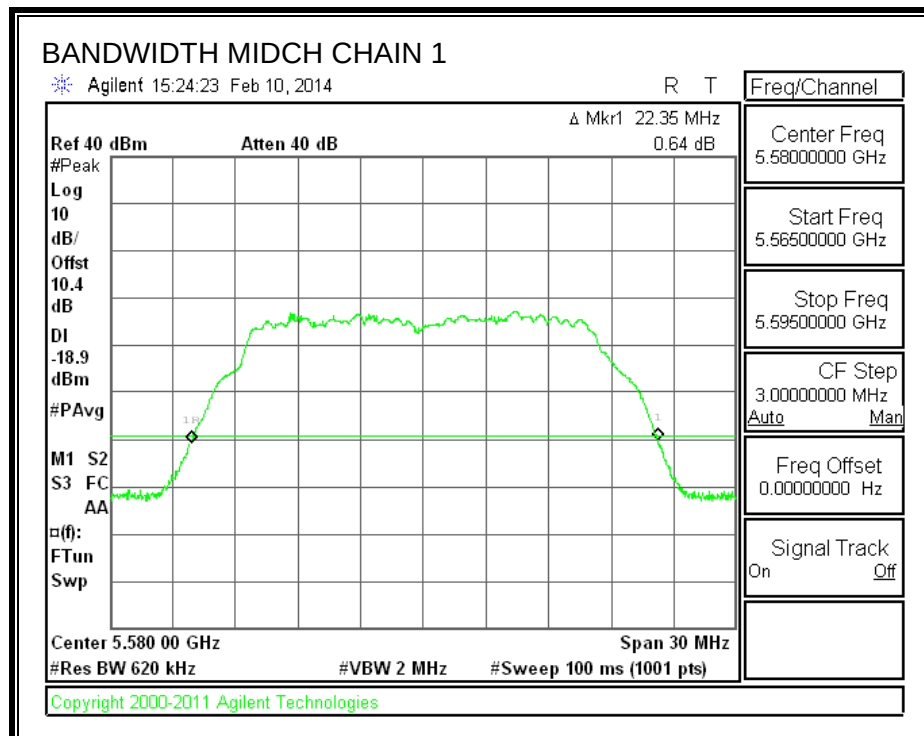
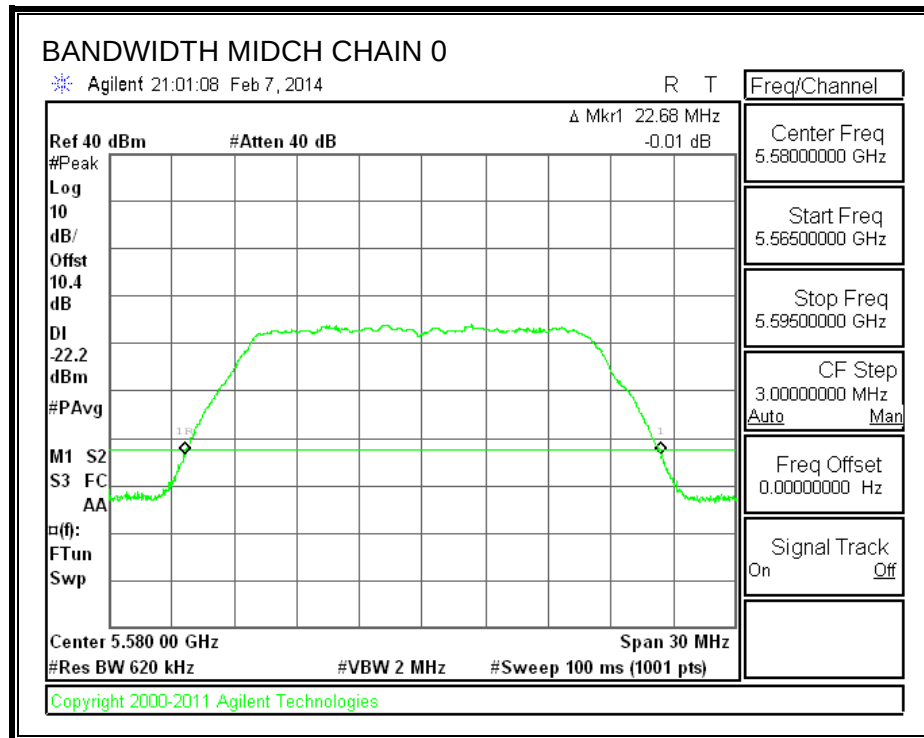


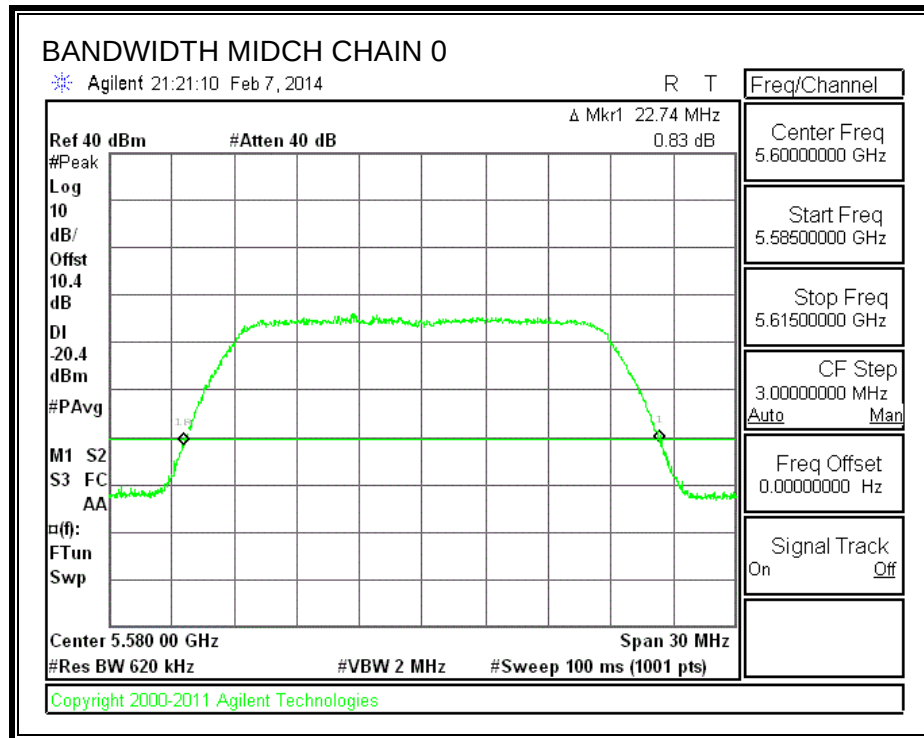
802.11n HT40 5.3G 26 dB BANDWIDTH

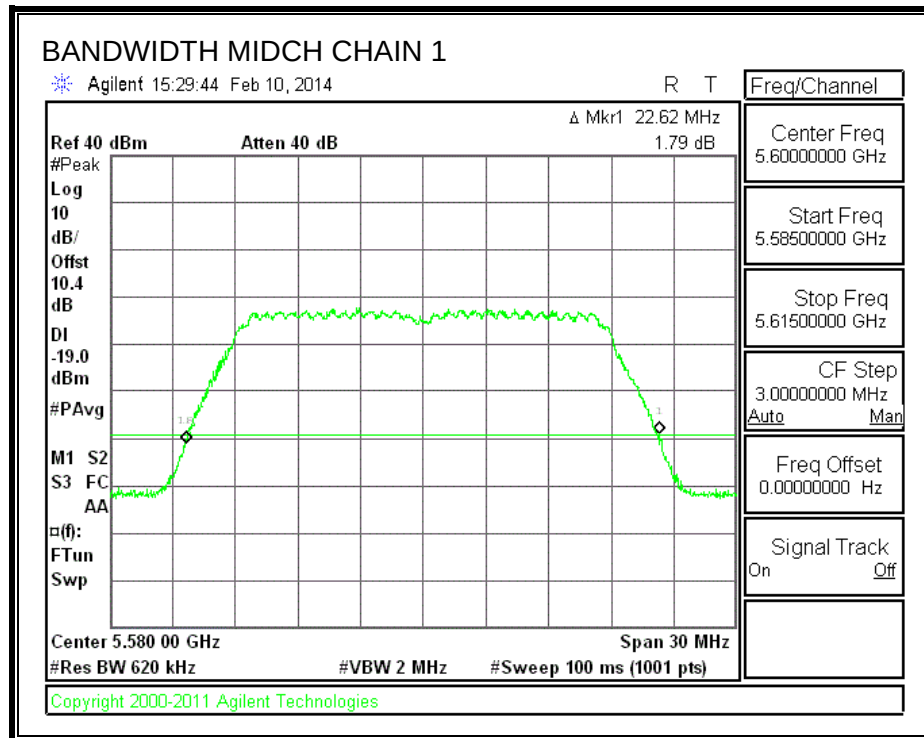
802.11ac HT80 5.3G 26 dB BANDWIDTH



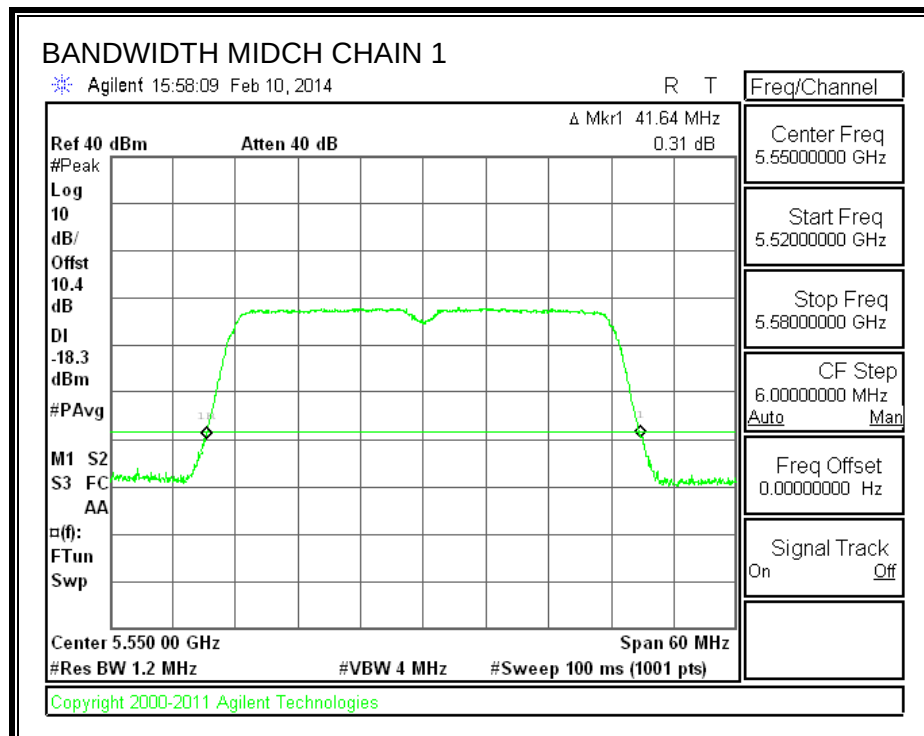
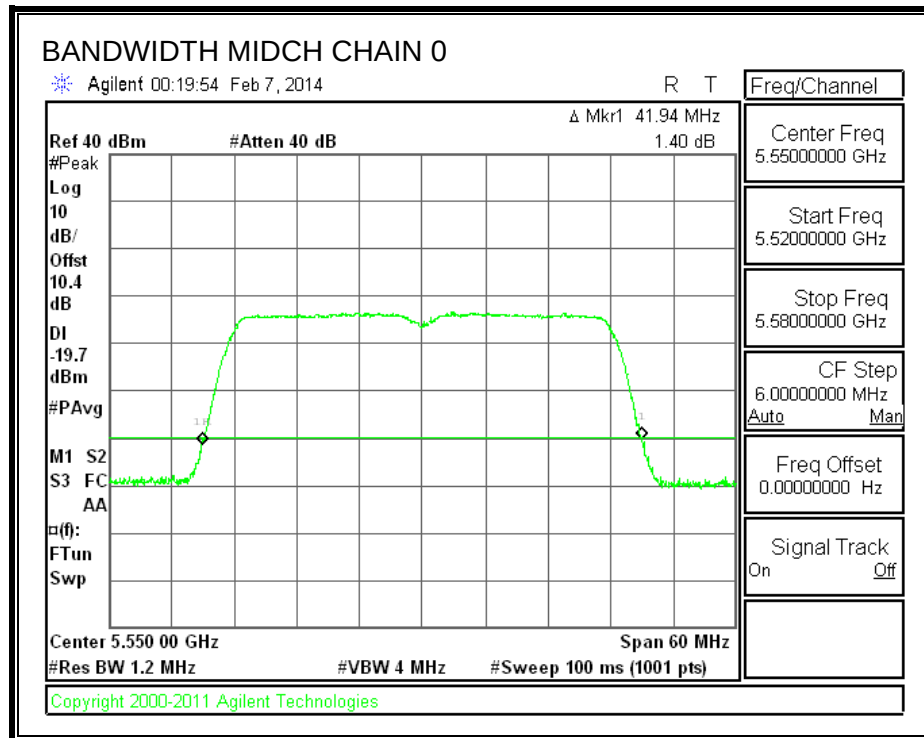
802.11a 5.5G 26 dB BANDWIDTH

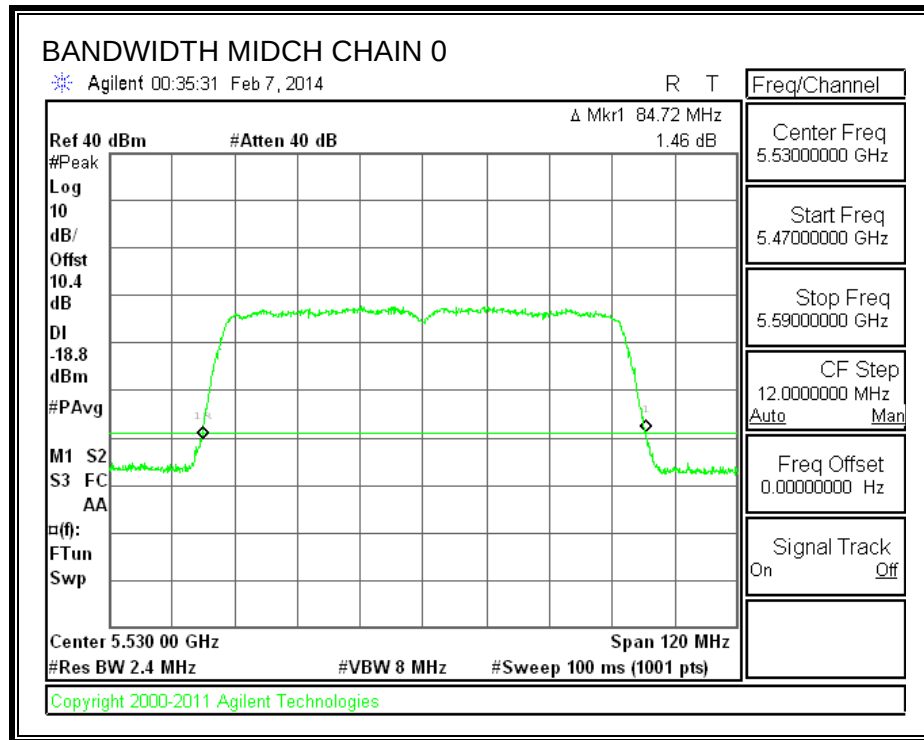


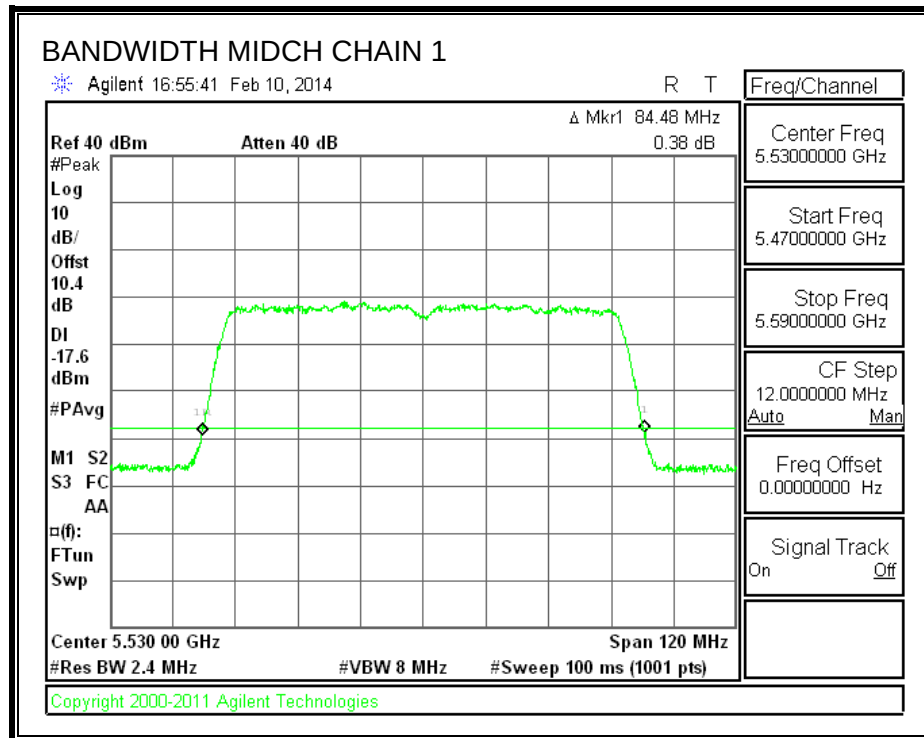
802.11n HT20 5.5G 26 dB BANDWIDTH



802.11n HT40 5.5G 26 dB BANDWIDTH



802.11ac HT80 5.5G 26 dB BANDWIDTH



10.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

10.2.1. 802.11a MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5180	16.8	16.8
Mid	5200	16.8	16.7
High	5240	16.7	16.7

10.2.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5180	17.9	17.9
Mid	5200	17.9	17.9
High	5240	17.9	17.9

10.2.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5190	36.4	36.4
High	5230	36.4	36.4

10.2.4. 802.11ac HT80 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5210	76.0	76.0

10.2.5. 802.11a MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5260	16.7	16.7
Mid	5300	16.8	16.7
High	5320	16.8	16.7

10.2.6. 802.11n HT20 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5260	17.9	17.9
Mid	5300	17.9	17.9
High	5320	17.9	17.9

10.2.7. 802.11n HT40 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5270	36.4	36.4
High	5310	36.4	36.4

10.2.8. 802.11ac HT80 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5290	76.0	75.9

10.2.9. 802.11a MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5500	16.8	16.7
Mid	5580	16.7	16.7
High	5700	16.8	16.7

10.2.10. 802.11n HT20 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5500	17.9	17.9
Mid	5580	17.9	17.9
High	5700	17.9	17.9

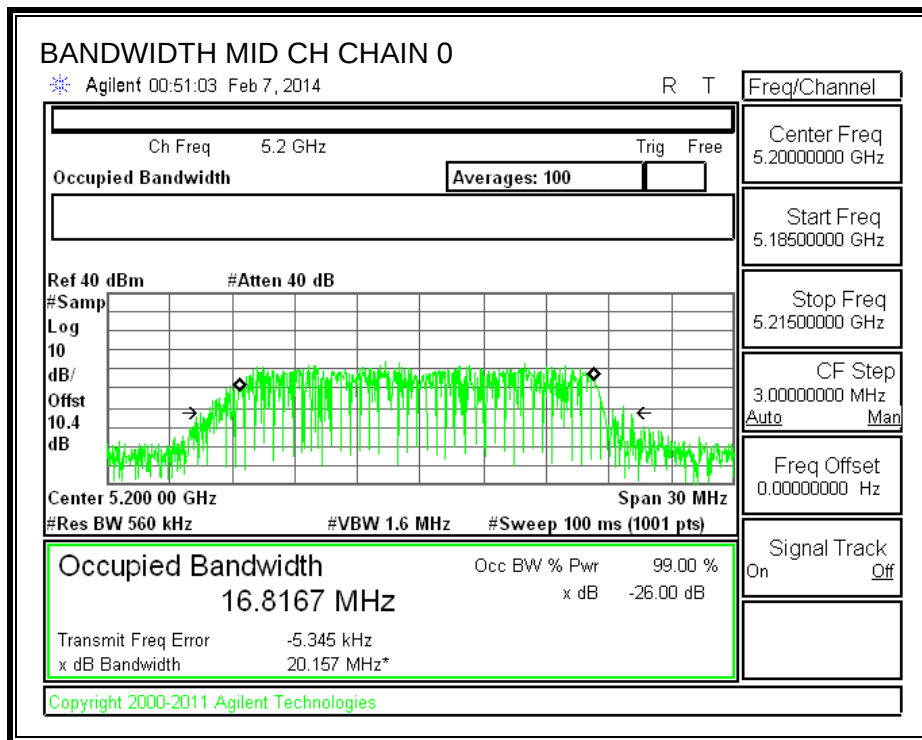
10.2.11. 802.11n HT40 MODE IN THE 5.5 GHz BAND

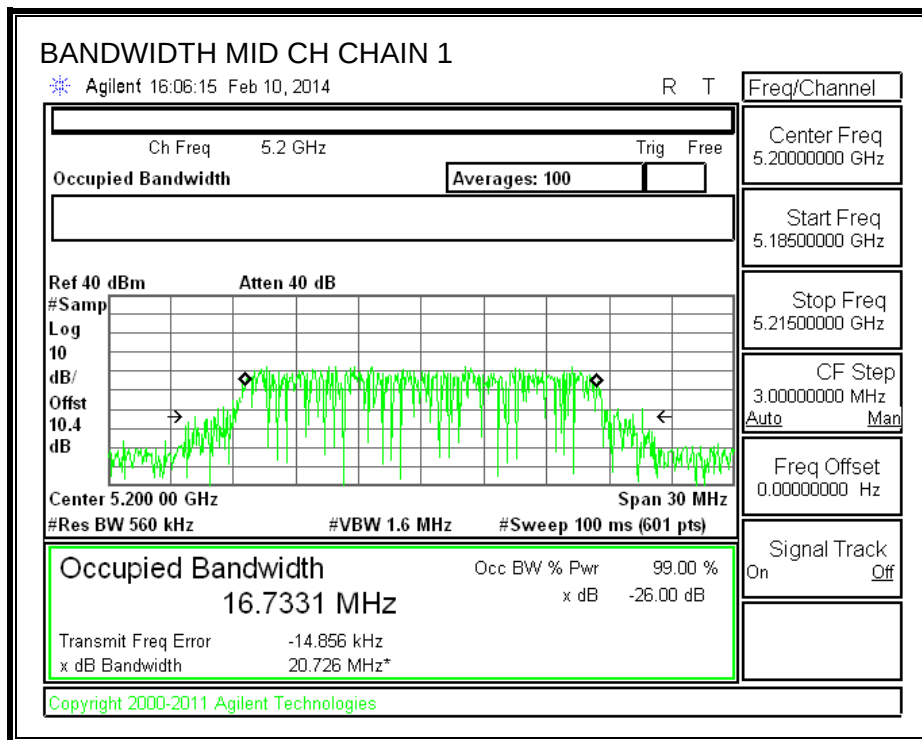
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5510	36.4	36.4
Mid	5550	36.4	36.4
High	5670	36.4	36.4

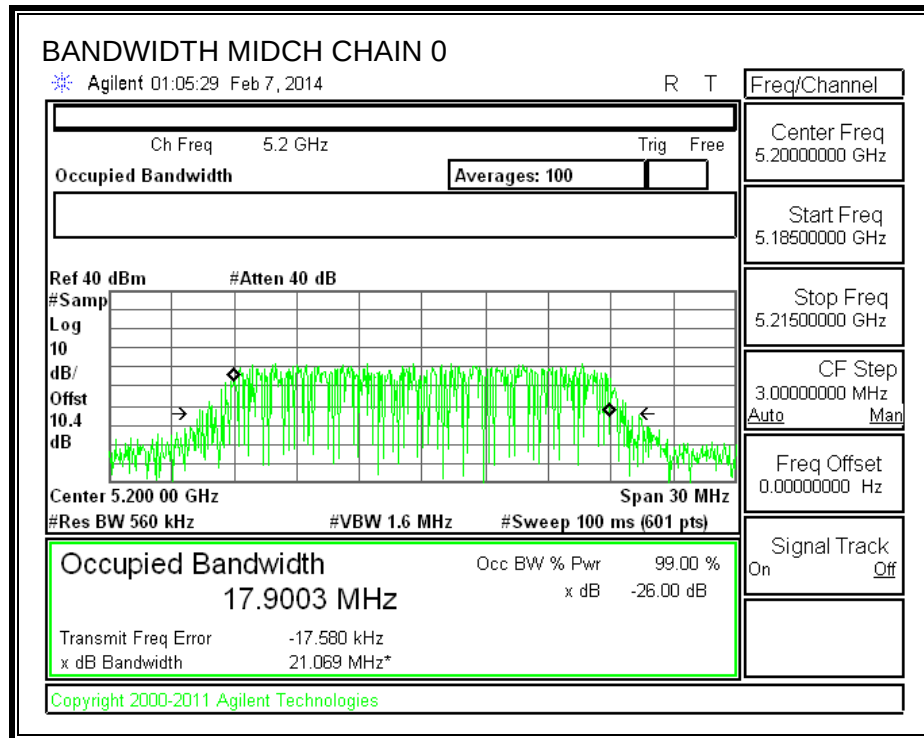
10.2.12. 802.11ac HT80 MODE IN THE 5.5 GHz BAND

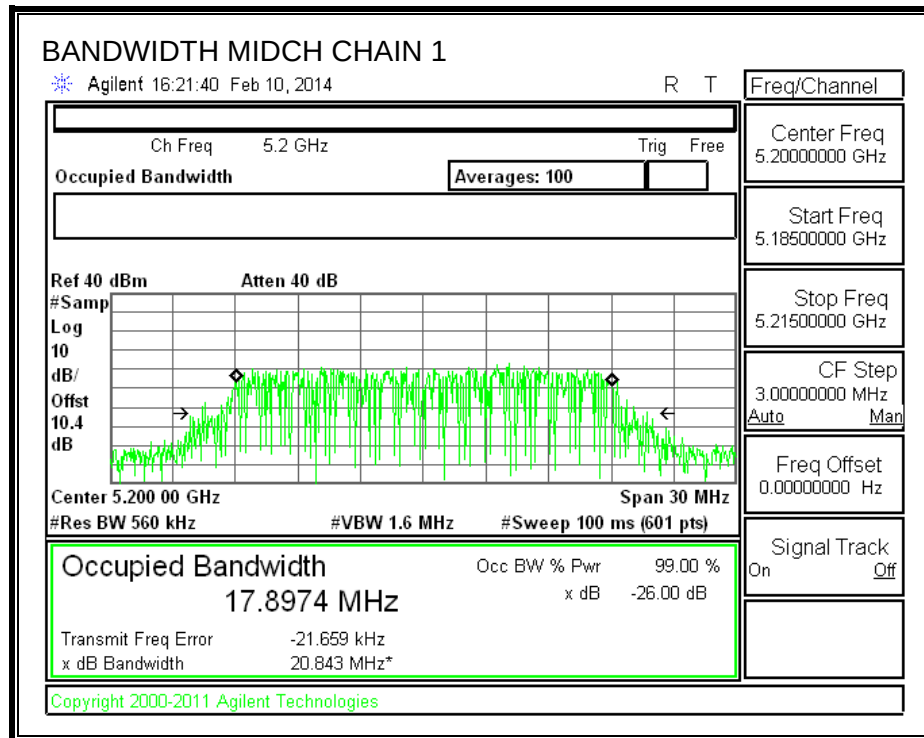
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5530	76.1	75.9

802.11a 5.2G 99% BANDWIDTH

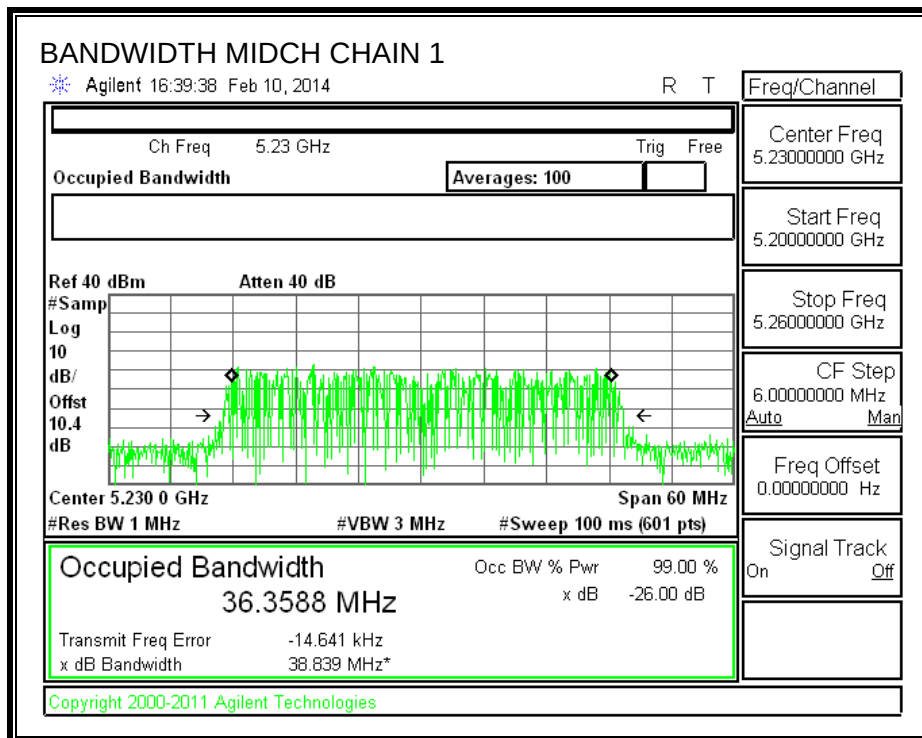
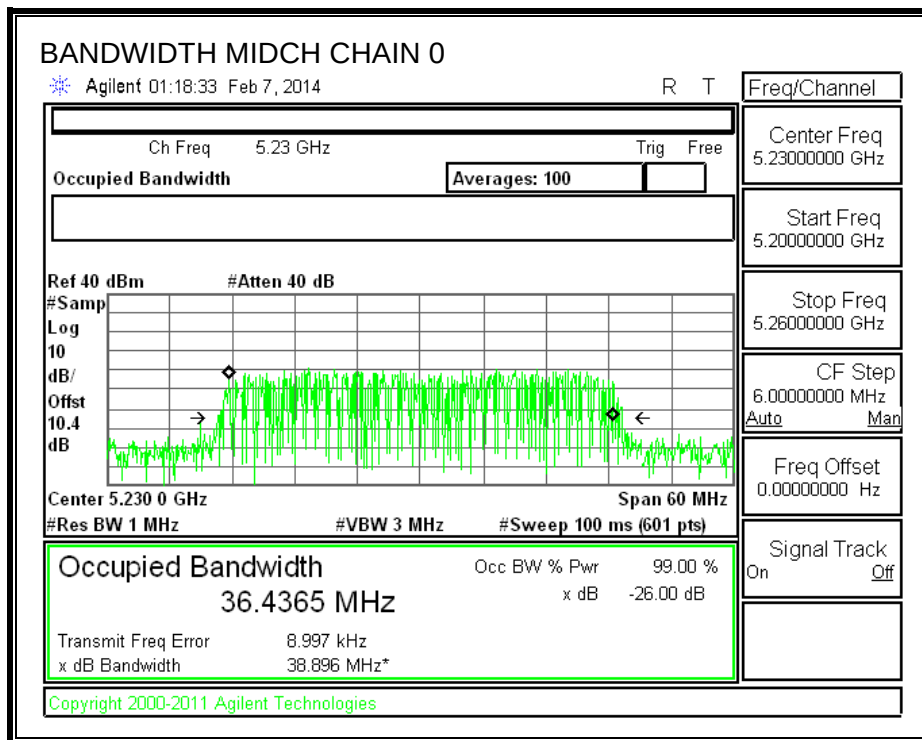


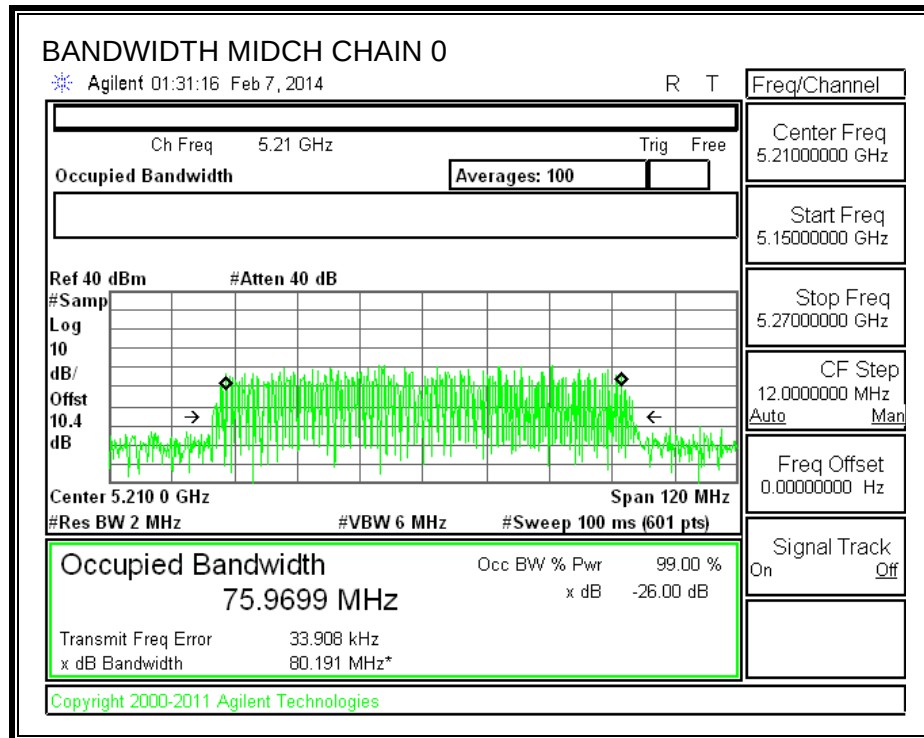


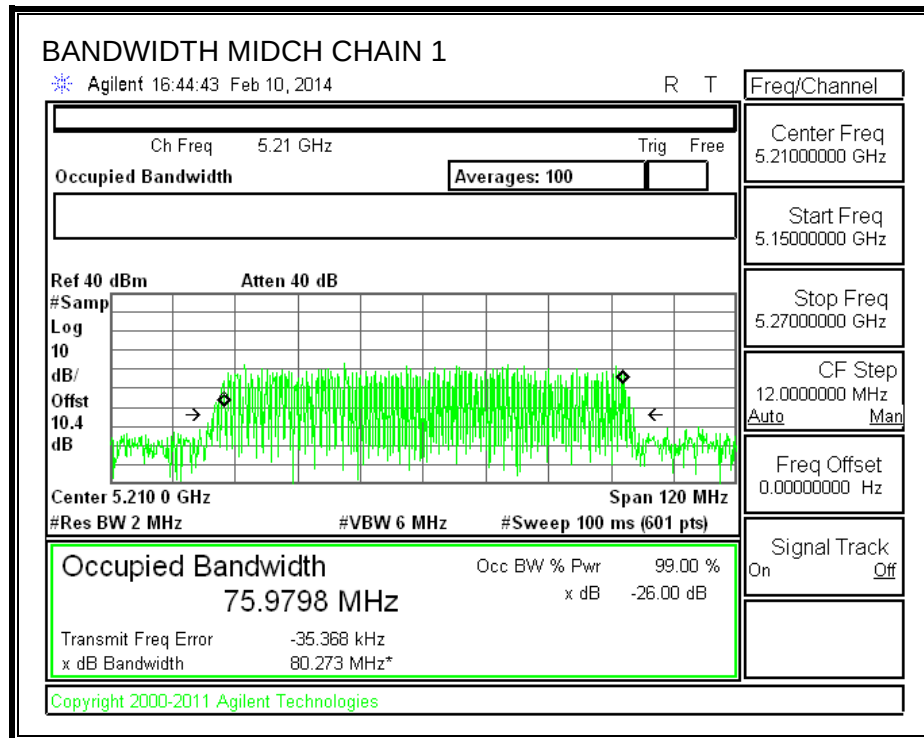
802.11n HT20 5.2G 99% BANDWIDTH



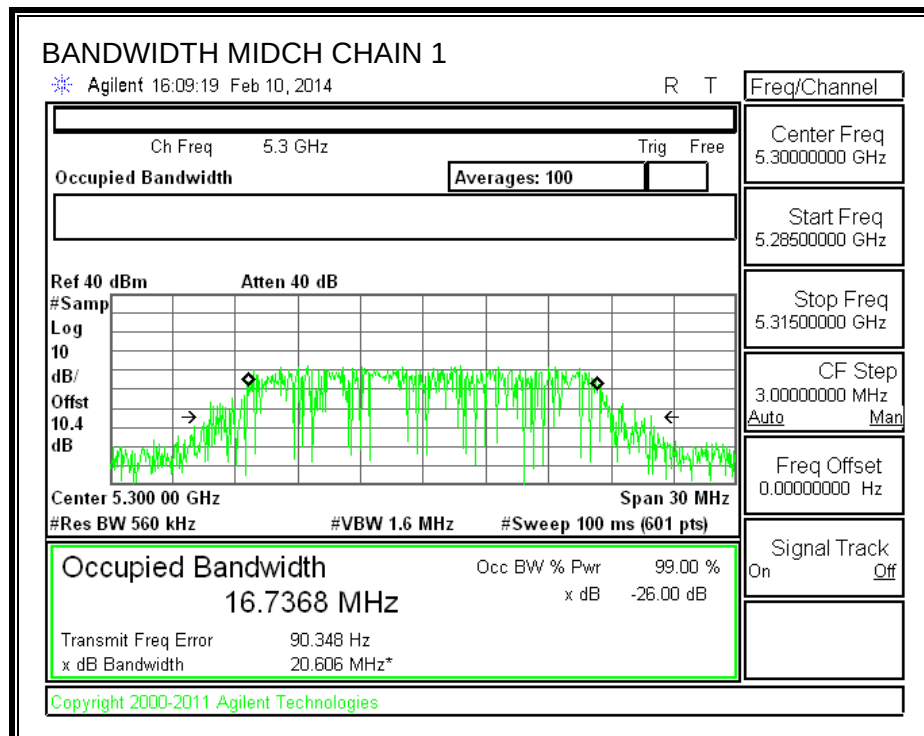
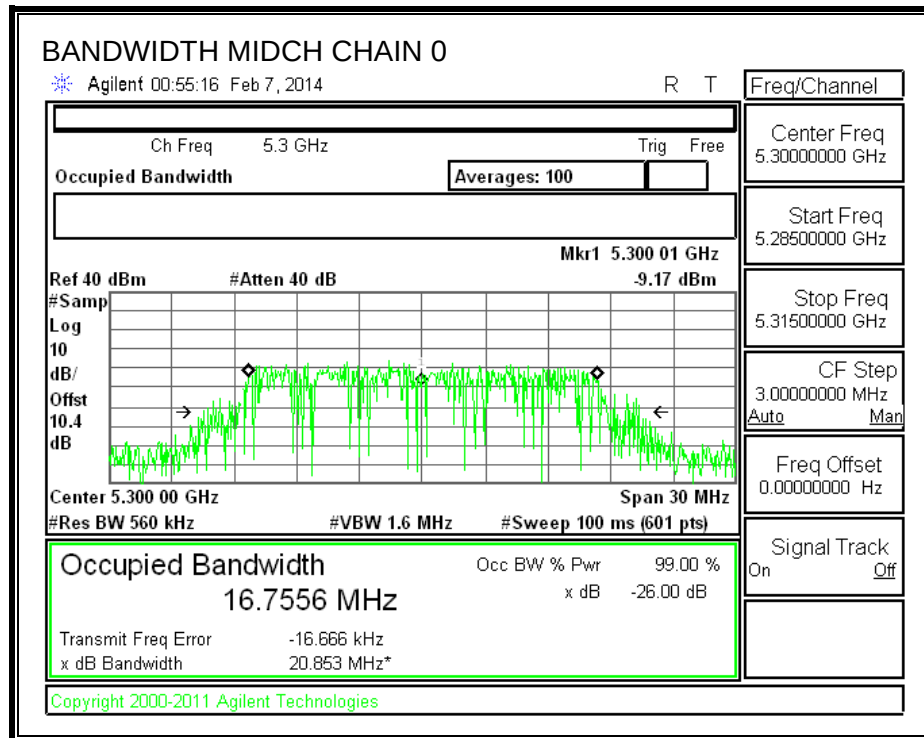
802.11n HT40 5.2G 99% BANDWIDTH



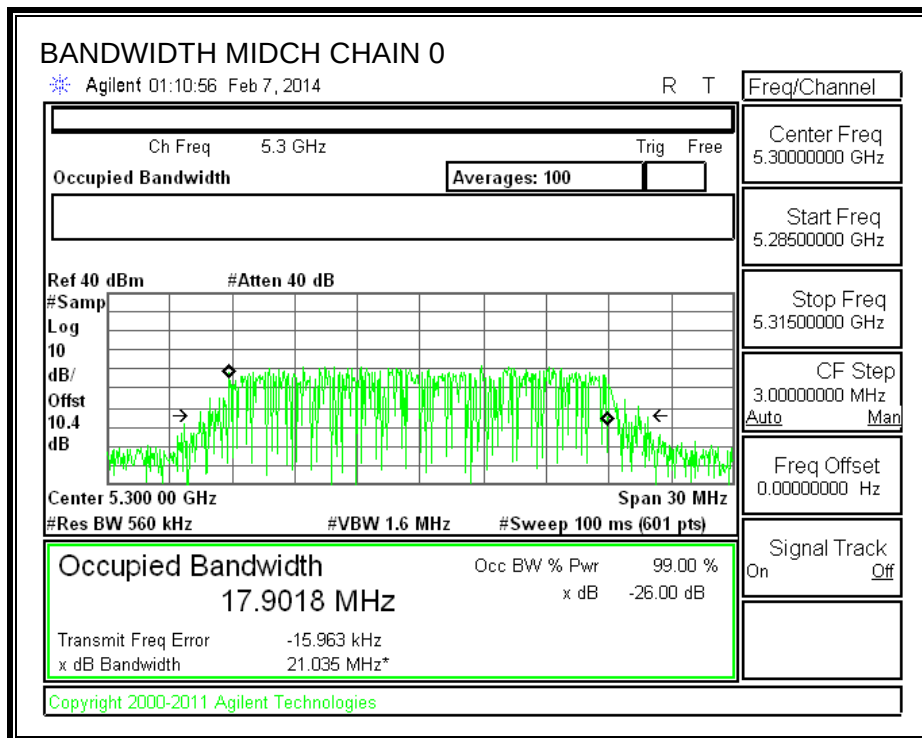
802.11ac HT80 5.2G 99% BANDWIDTH

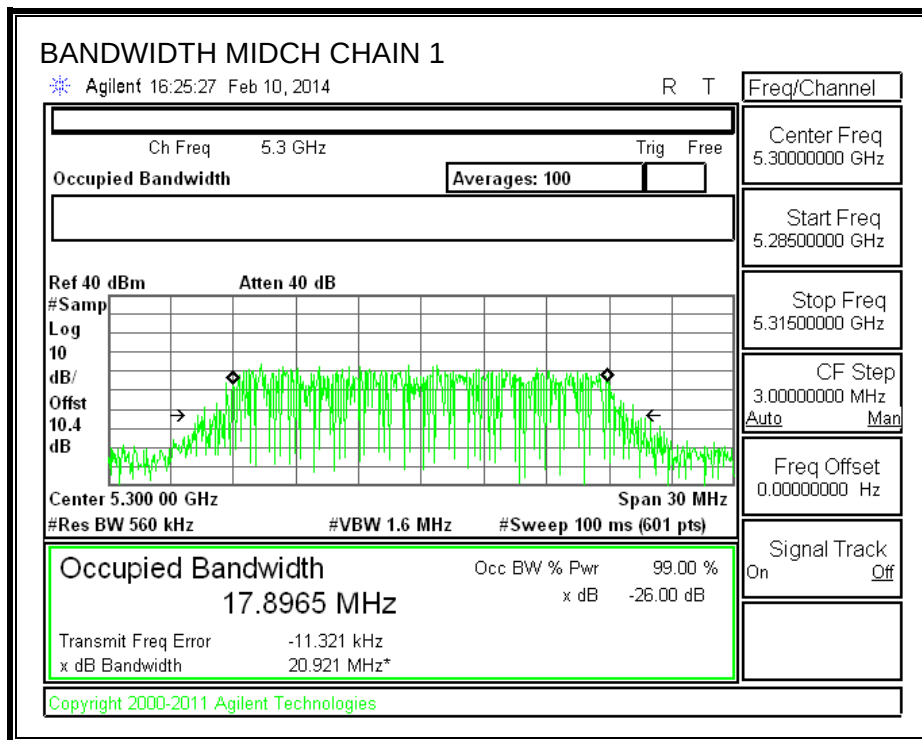


802.11a 5.3G 99% BANDWIDTH

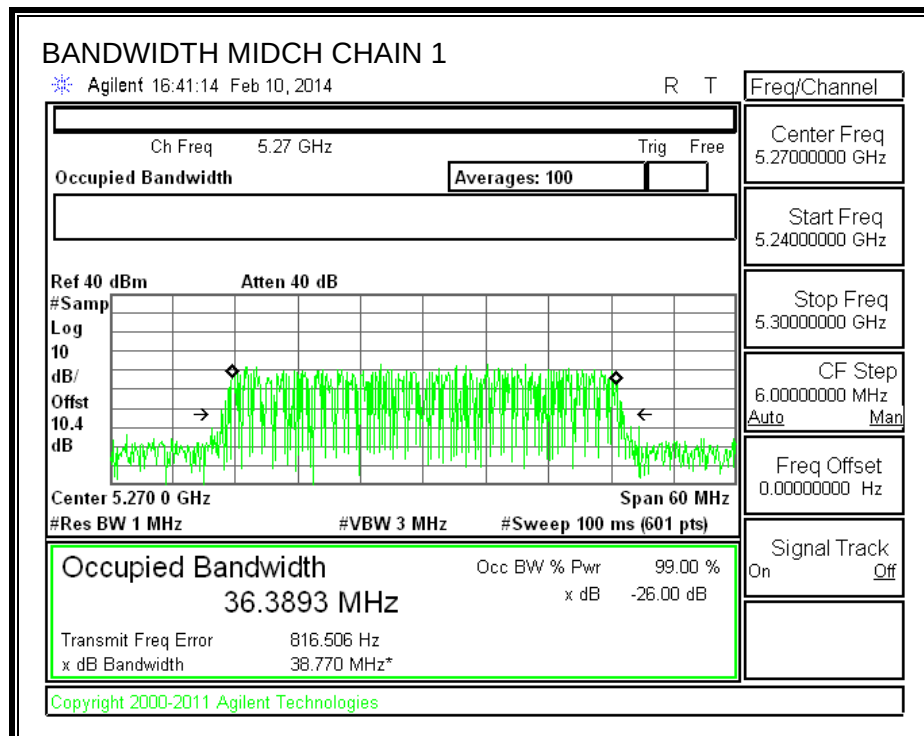
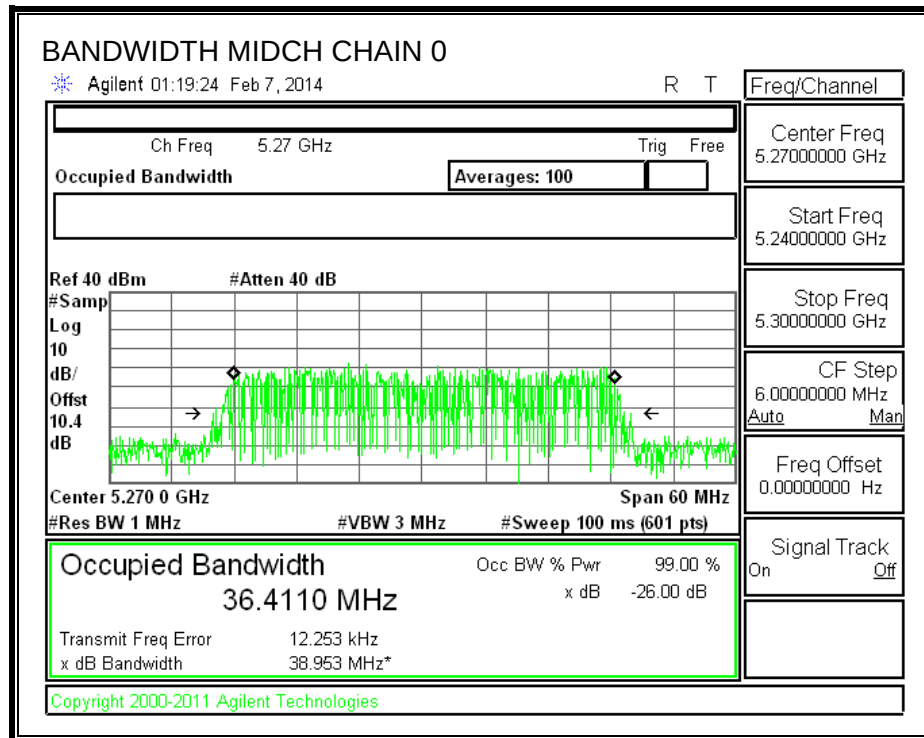


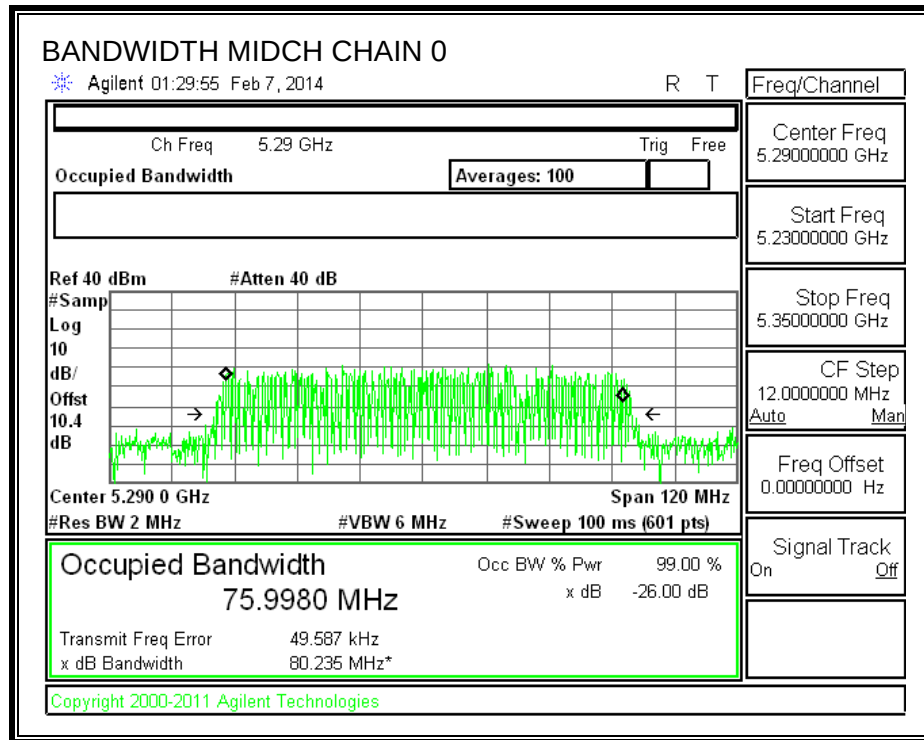
802.11n HT20 5.3G 99% BANDWIDTH

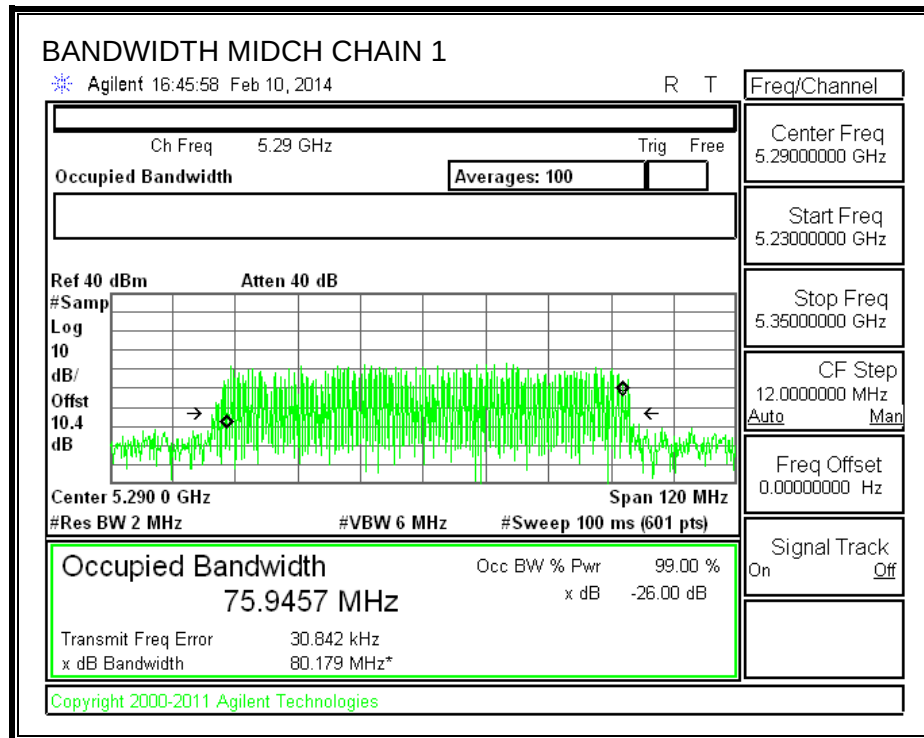




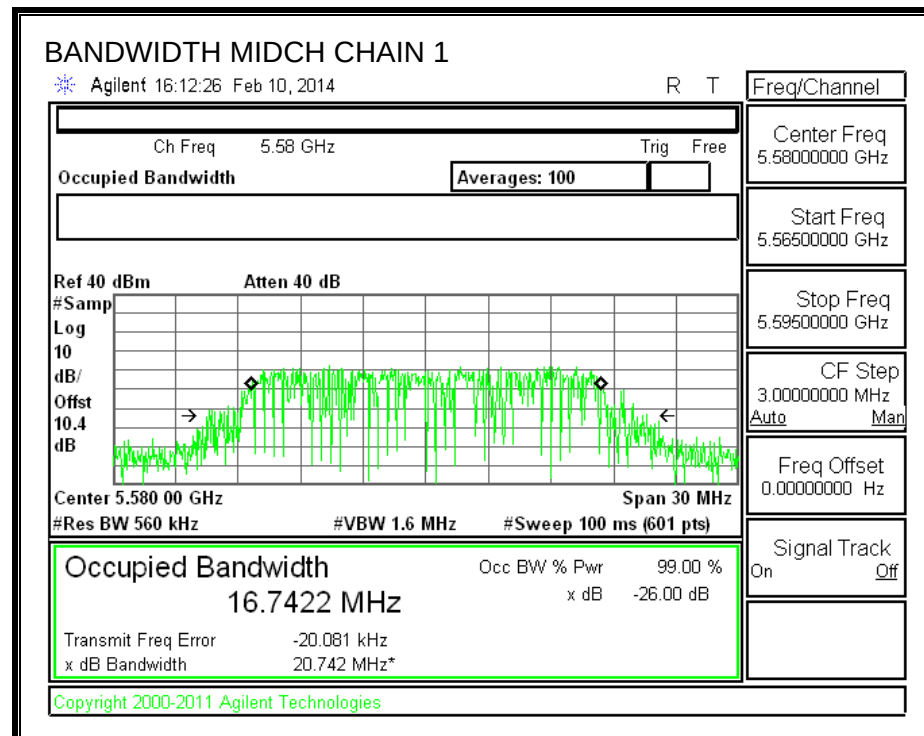
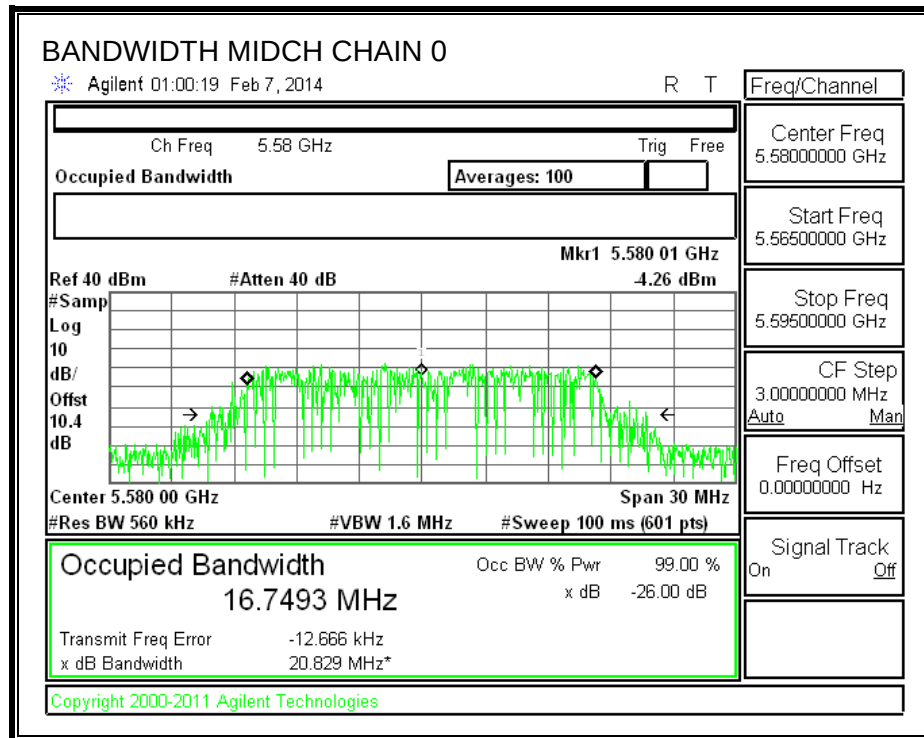
802.11n HT40 5.3G 99% BANDWIDTH



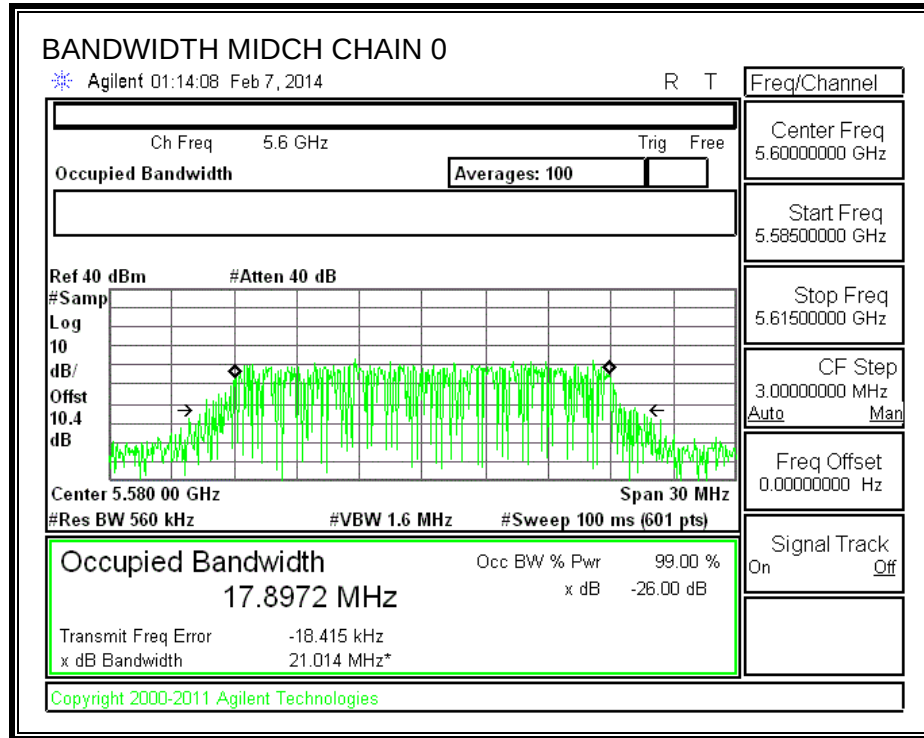
802.11ac HT80 5.3G 99% BANDWIDTH

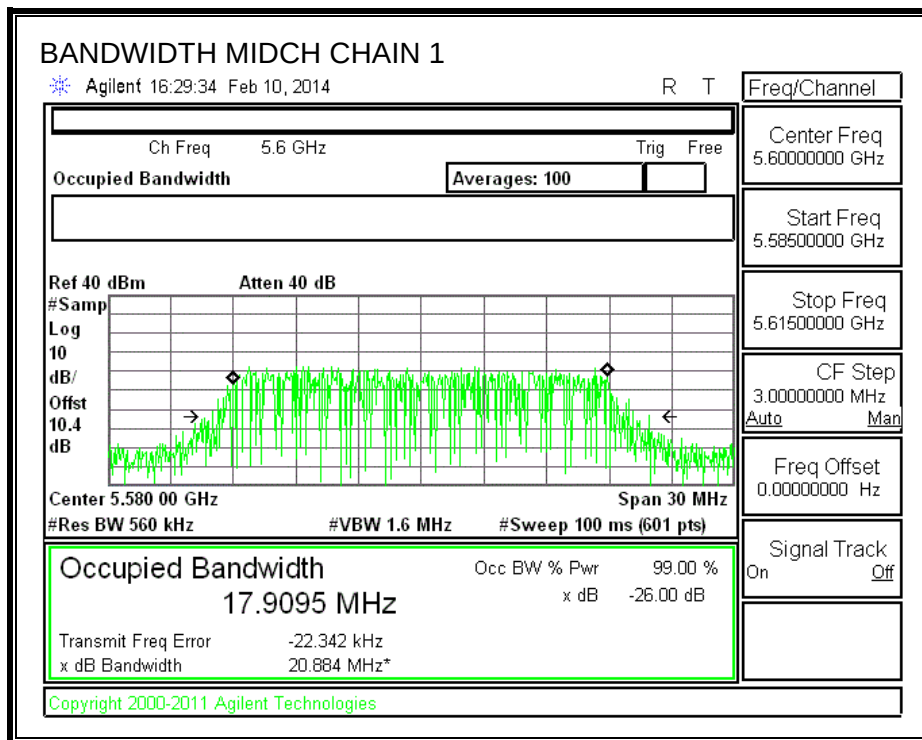


802.11a 5.5G 99% BANDWIDTH

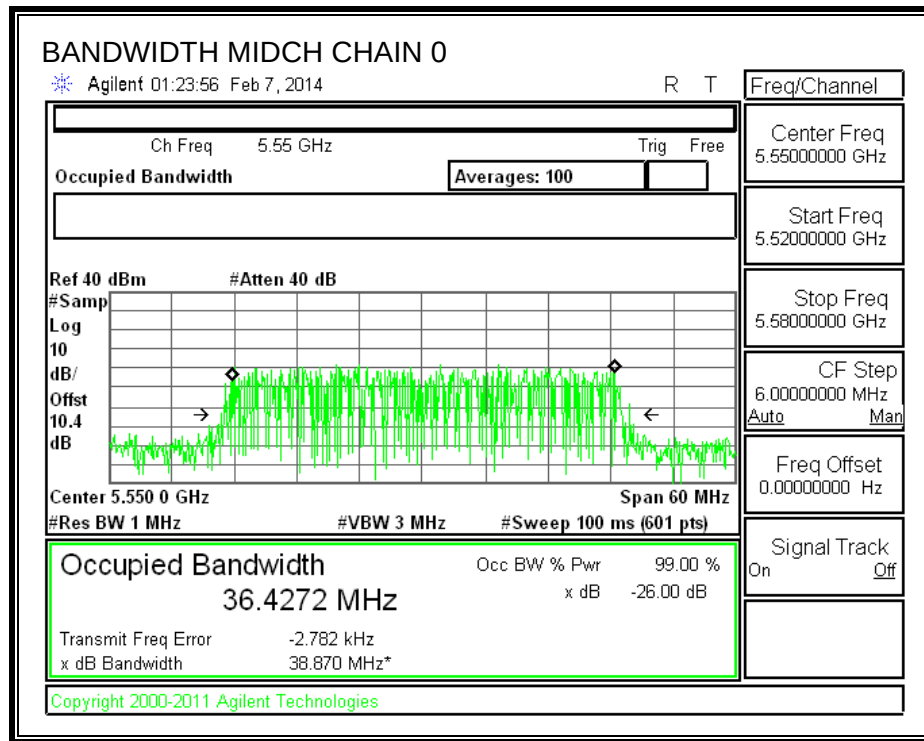


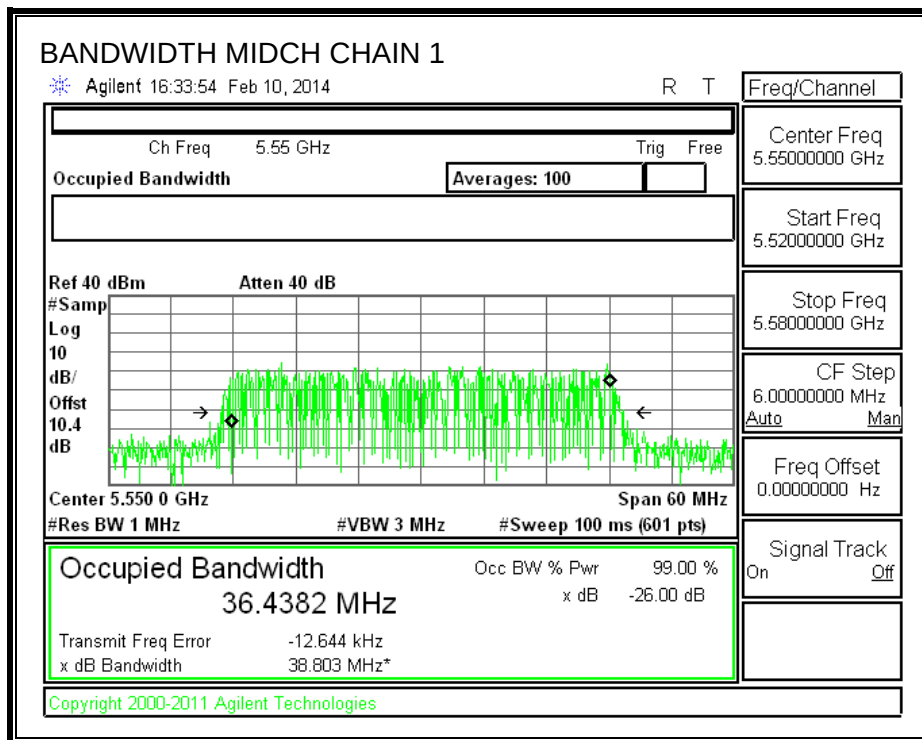
802.11n HT20 5.5G 99% BANDWIDTH



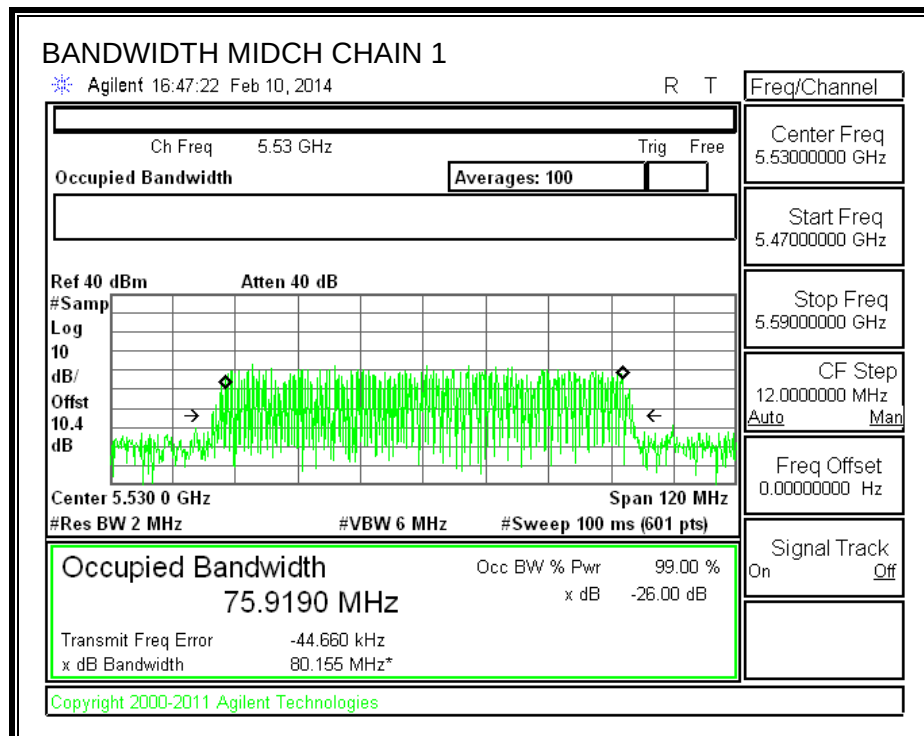
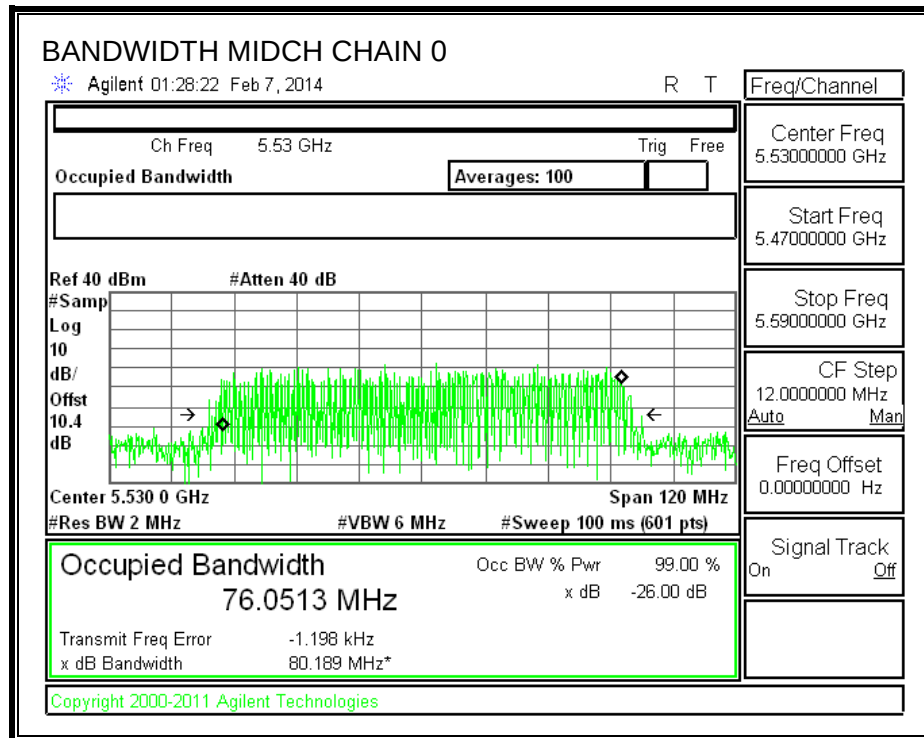


802.11n HT40 5.5G 99% BANDWIDTH





802.11ac HT80 5.5G 99% BANDWIDTH



10.3. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

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

IC RSS-210 A9.2 (1)

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

DIRECTIONAL ANTENNA GAIN

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

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
-2.01	1.35	-0.01

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

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
-2.01	1.35	2.84

10.3.1. 802.11a MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5180	22.30	16.8000	-0.01	2.84
Mid	5200	22.30	16.7000	-0.01	2.84
High	5240	22.20	16.7000	-0.01	2.84

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	17.00	22.25	22.26	17.00	4.00	10.00	4.00
Mid	5200	17.00	22.23	22.24	17.00	4.00	10.00	4.00
High	5240	17.00	22.23	22.24	17.00	4.00	10.00	4.00

Duty Cycle CF (dB)	0.30	Included in Calculations of Corr'd Power & PPSD
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Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	10.12	10.41	13.57	17.00	-3.43
Mid	5200	9.77	10.55	13.49	17.00	-3.51
High	5240	9.97	10.76	13.70	17.00	-3.30

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5180	-1.27	-1.49	1.93	4.00	-2.07
Mid	5200	-1.70	-0.78	2.09	4.00	-1.91
High	5240	-1.65	-0.54	2.25	4.00	-1.75

10.3.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5180	22.40	17.9000	-0.01	2.84
Mid	5200	22.50	17.9000	-0.01	2.84
High	5240	22.50	17.9000	-0.01	2.84

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	17.00	22.53	22.54	17.00	4.00	10.00	4.00
Mid	5200	17.00	22.53	22.54	17.00	4.00	10.00	4.00
High	5240	17.00	22.53	22.54	17.00	4.00	10.00	4.00

Duty Cycle CF (dB)	0.60	Included in Calculations of Corr'd Power & PPSD
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Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	10.17	10.10	13.75	17.00	-3.25
Mid	5200	10.38	10.16	13.88	17.00	-3.12
High	5240	10.38	10.27	13.94	17.00	-3.06

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5180	-1.45	-1.53	2.12	4.00	-1.88
Mid	5200	-1.45	-1.72	2.03	4.00	-1.97
High	5240	-1.73	-1.69	1.90	4.00	-2.10

10.3.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5190	41.60	36.4000	-0.01	2.84
High	5230	41.90	36.4000	-0.01	2.84

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	17.00	23.00	23.01	17.00	4.00	10.00	4.00
High	5230	17.00	23.00	23.01	17.00	4.00	10.00	4.00

Duty Cycle CF (dB)	1.10	Included in Calculations of Corr'd Power & PPSD
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Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5190	9.48	10.08	13.90	17.00	-3.10
High	5230	10.83	10.20	14.63	17.00	-2.37

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5190	-4.79	-4.77	-0.67	4.00	-4.67
High	5230	-3.44	-4.49	0.18	4.00	-3.82

10.3.4. 802.11ac HT80 MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSP (dBi)
Low	5210	84.70	76.0000	-0.01	2.84

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC EIRP Limit (dBm)	Max IC Power (dBm)	Power Limit (dBm)	FCC PPSP Limit (dBm)	IC eirp PSD Limit (dBm)	PPSP Limit (dBm)
Low	5210	17.00	23.00	23.01	17.00	4.00	10.00	4.00

Duty Cycle CF (dB)	1.83	Included in Calculations of Corr'd Power & PPSP
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Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5210	9.44	9.93	14.53	17.00	-2.47

PPSP Results

Channel	Frequency (MHz)	Chain 0 Meas PPSP (dBm)	Chain 1 Meas PPSP (dBm)	Total Corr'd PPSP (dBm)	PPSP Limit (dBm)	PPSP Margin (dB)
Low	5210	-7.23	-7.51	-2.53	4.00	-6.53

10.3.5. 802.11a MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5260	22.70	16.7000	-0.01	2.84
Mid	5300	22.70	16.7000	-0.01	2.84
High	5320	22.20	16.7000	-0.01	2.84

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	23.23	29.23	23.23	11.00	11.00	11.00
Mid	5300	24.00	23.23	29.23	23.23	11.00	11.00	11.00
High	5320	24.00	23.23	29.23	23.23	11.00	11.00	11.00

Duty Cycle CF (dB)	0.30	Included in Calculations of Corr'd Power & PPSD
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Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	9.86	10.83	13.68	23.23	-9.55
Mid	5300	9.91	10.79	13.69	23.23	-9.54
High	5320	9.40	10.96	13.56	23.23	-9.67

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5260	-1.52	-0.56	2.30	11.00	-8.70
Mid	5300	-2.13	-0.34	2.17	11.00	-8.83
High	5320	-1.94	-0.62	2.08	11.00	-8.92

10.3.6. 802.11n HT20 MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5260	22.40	17.9000	-0.01	2.84
Mid	5300	22.40	17.9000	-0.01	2.84
High	5320	22.50	17.9000	-0.01	2.84

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	23.53	29.53	23.53	11.00	11.00	11.00
Mid	5300	24.00	23.53	29.53	23.53	11.00	11.00	11.00
High	5320	24.00	23.53	29.53	23.53	11.00	11.00	11.00

Duty Cycle CF (dB)	0.60	Included in Calculations of Corr'd Power & PPSD
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Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	10.74	10.48	14.22	23.53	-9.30
Mid	5300	10.93	10.54	14.35	23.53	-9.18
High	5320	10.99	10.68	14.45	23.53	-9.08

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5260	-0.85	-1.01	2.68	11.00	-8.32
Mid	5300	-1.00	-0.89	2.67	11.00	-8.33
High	5320	-0.40	-1.16	2.85	11.00	-8.15

10.3.7. 802.11n HT40 MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5270	41.70	36.4000	-0.01	2.84
High	5310	41.50	36.4000	-0.01	2.84

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)	1.10	Included in Calculations of Corr'd Power & PPSD
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Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5270	9.11	10.54	14.00	24.00	-10.00
High	5310	8.86	10.46	13.84	24.00	-10.16

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5270	-6.32	-4.10	-0.96	11.00	-11.96
High	5310	-6.01	-3.57	-0.51	11.00	-11.51

10.3.8. 802.11ac HT80 MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5290	84.50	75.9000	-0.01	2.84

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)	1.83	Included in Calculations of Corr'd Power & PPSD
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Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5290	9.51	10.22	14.72	24.00	-9.28

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5290	-8.56	-7.40	-3.10	11.00	-14.10

10.3.9. 802.11a MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5500	22.30	16.7000	-0.01	2.84
Mid	5580	22.40	16.7000	-0.01	2.84
High	5700	22.20	16.7000	-0.01	2.84

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	23.23	29.23	23.23	11.00	11.00	11.00
Mid	5580	24.00	23.23	29.23	23.23	11.00	11.00	11.00
High	5700	24.00	23.23	29.23	23.23	11.00	11.00	11.00

Duty Cycle CF (dB)	0.30	Included in Calculations of Corr'd Power & PPSD
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Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	10.55	10.41	13.79	23.23	-9.44
Mid	5580	10.38	10.45	13.72	23.23	-9.50
High	5700	9.85	11.13	13.84	23.23	-9.38

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5500	-1.17	-1.16	2.15	11.00	-8.85
Mid	5580	-0.77	-1.06	2.40	11.00	-8.60
High	5700	-1.40	0.02	2.68	11.00	-8.32

10.3.10. 802.11n HT20 MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5500	22.40	17.9000	-0.01	2.84
Mid	5580	22.60	17.9000	-0.01	2.84
High	5700	22.50	17.9000	-0.01	2.84

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	23.53	29.53	23.53	11.00	11.00	11.00
Mid	5580	24.00	23.53	29.53	23.53	11.00	11.00	11.00
High	5700	24.00	23.53	29.53	23.53	11.00	11.00	11.00

Duty Cycle CF (dB)	0.60	Included in Calculations of Corr'd Power & PPSD
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Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	10.71	10.05	14.00	23.53	-9.53
Mid	5580	11.15	10.31	14.36	23.53	-9.17
High	5700	10.88	10.59	14.34	23.53	-9.18

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5500	-1.27	-1.73	2.12	11.00	-8.88
Mid	5580	-0.63	-1.52	2.56	11.00	-8.44
High	5700	-1.28	-1.25	2.35	11.00	-8.65

10.3.11. 802.11n HT40 MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5510	41.70	36.4000	-0.01	2.84
Mid	5550	41.60	36.4000	-0.01	2.84
High	5670	41.80	36.4000	-0.01	2.84

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)	1.10	Included in Calculations of Corr'd Power & PPSD
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Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	9.83	10.98	14.55	24.00	-9.45
Mid	5550	9.73	11.07	14.56	24.00	-9.44
High	5670	9.88	11.72	15.01	24.00	-8.99

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5510	-4.88	-3.40	0.03	11.00	-10.97
Mid	5550	-5.05	-3.78	-0.26	11.00	-11.26
High	5670	-4.52	-2.67	0.61	11.00	-10.39

10.3.12. 802.11ac HT80 MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5530	84.50	75.9000	-0.01	2.84

Limits

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

Duty Cycle CF (dB)	1.83	Included in Calculations of Corr'd Power & PPSD
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Output Power Results

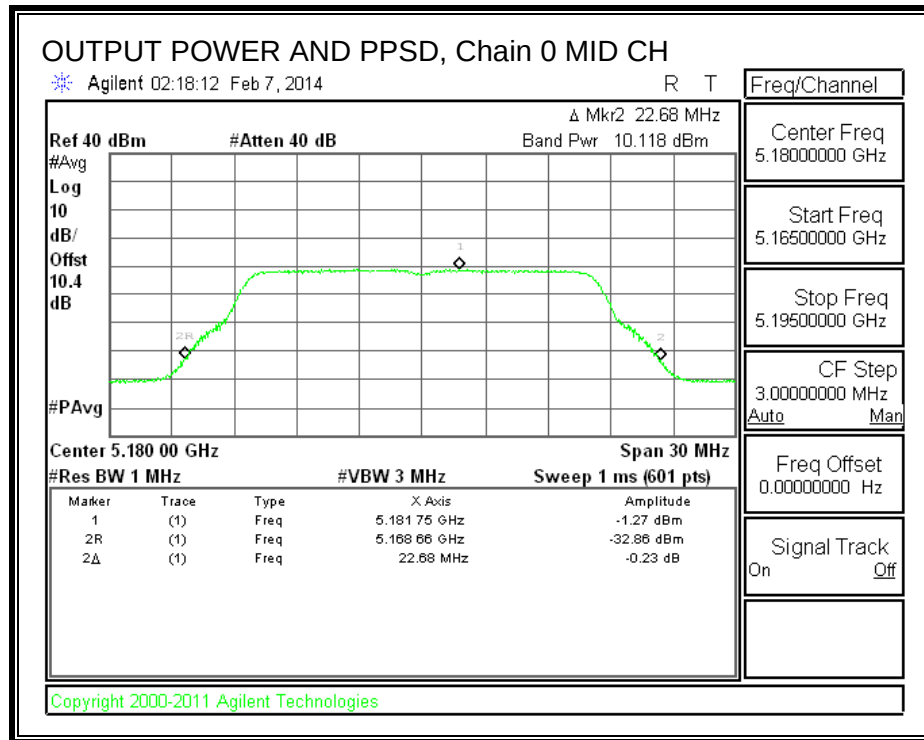
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5530	9.15	9.65	14.25	24.00	-9.75

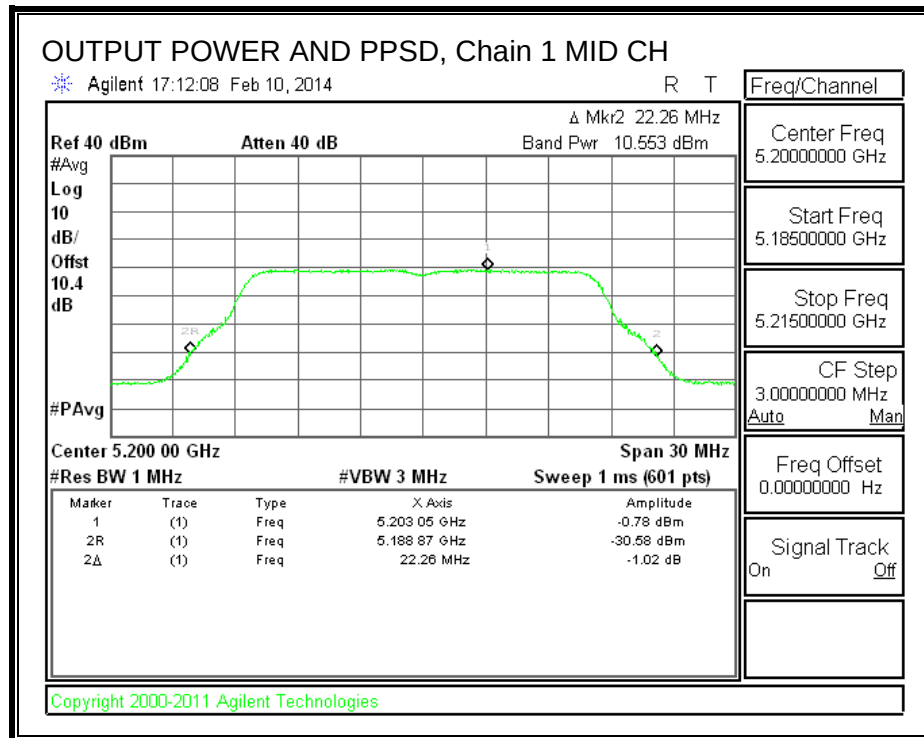
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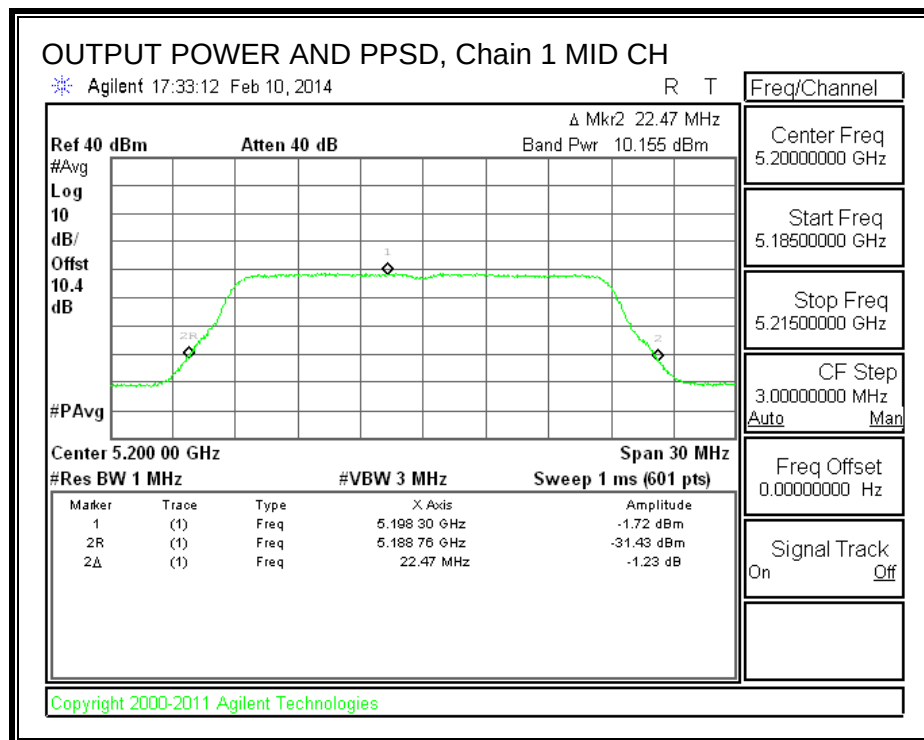
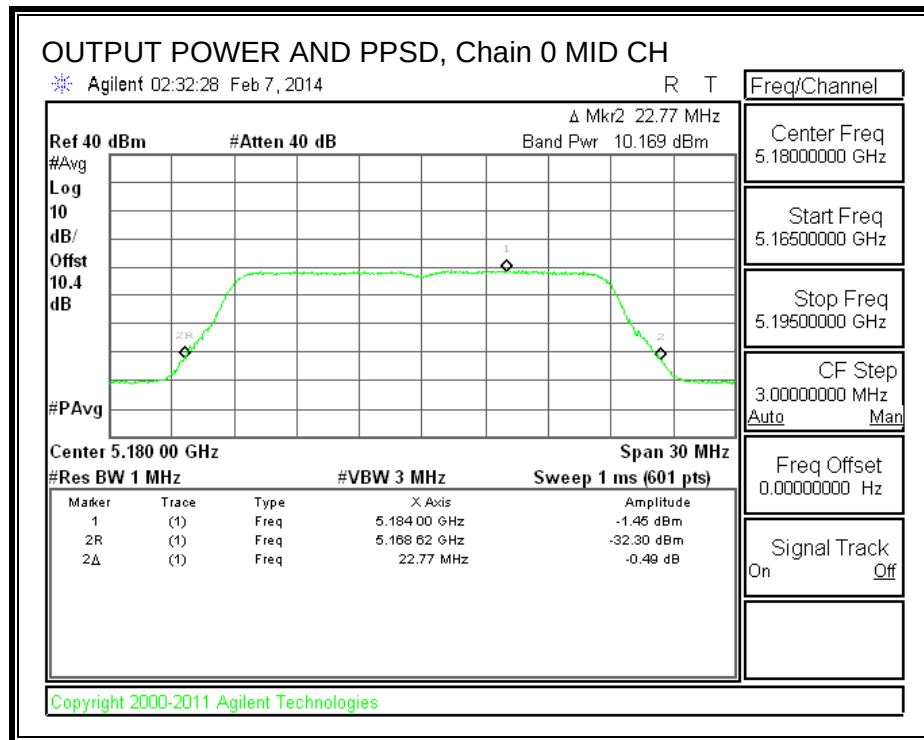
Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Chain 1 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5530	-7.72	-7.86	-2.95	11.00	-13.95

10.3.13. Plots

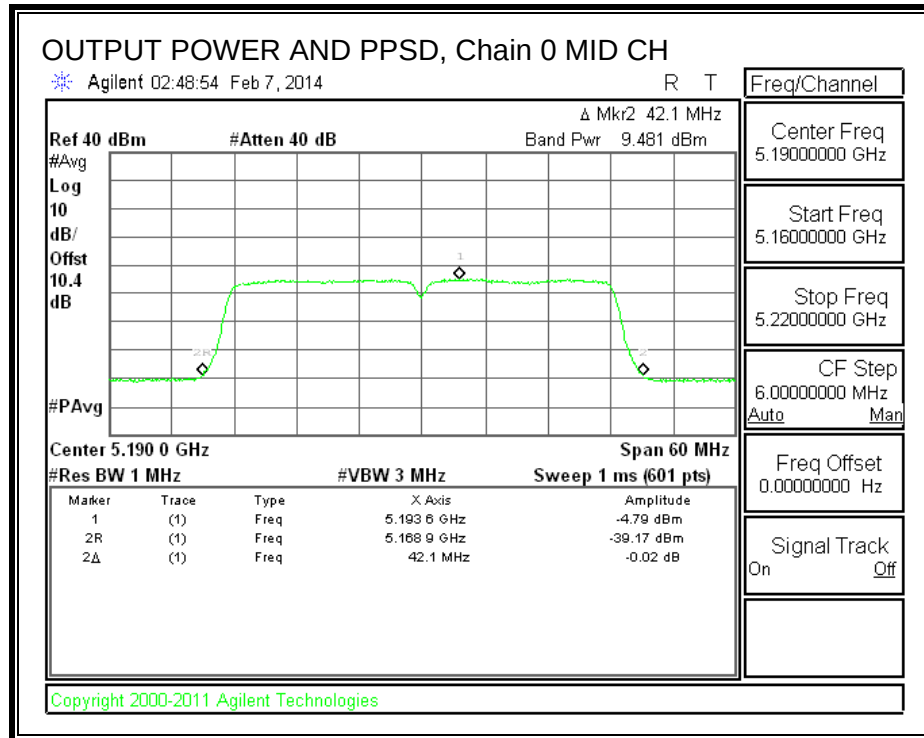
802.11a 5.2G OUTPUT POWER AND PPSD, Chain 0

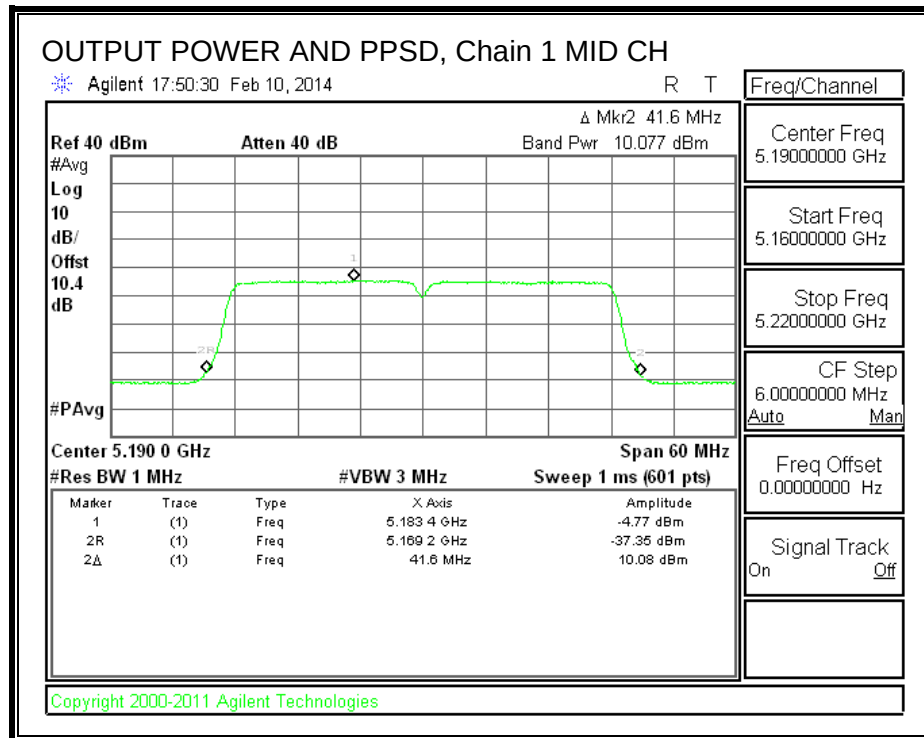


**802.11n HT20 5.2G OUTPUT POWER AND PPSD, Chain 0**

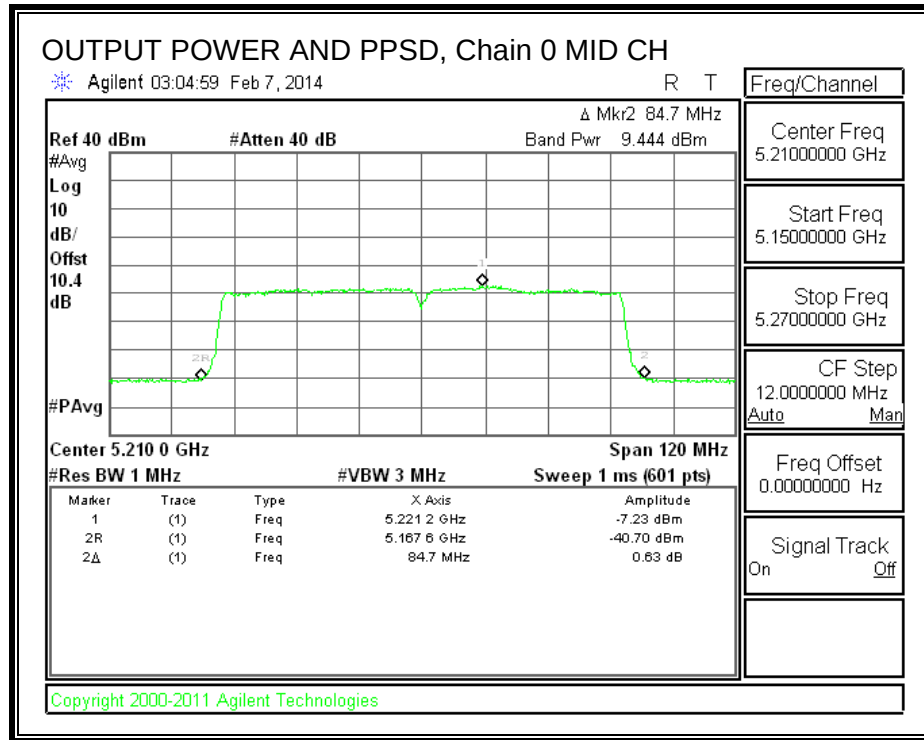


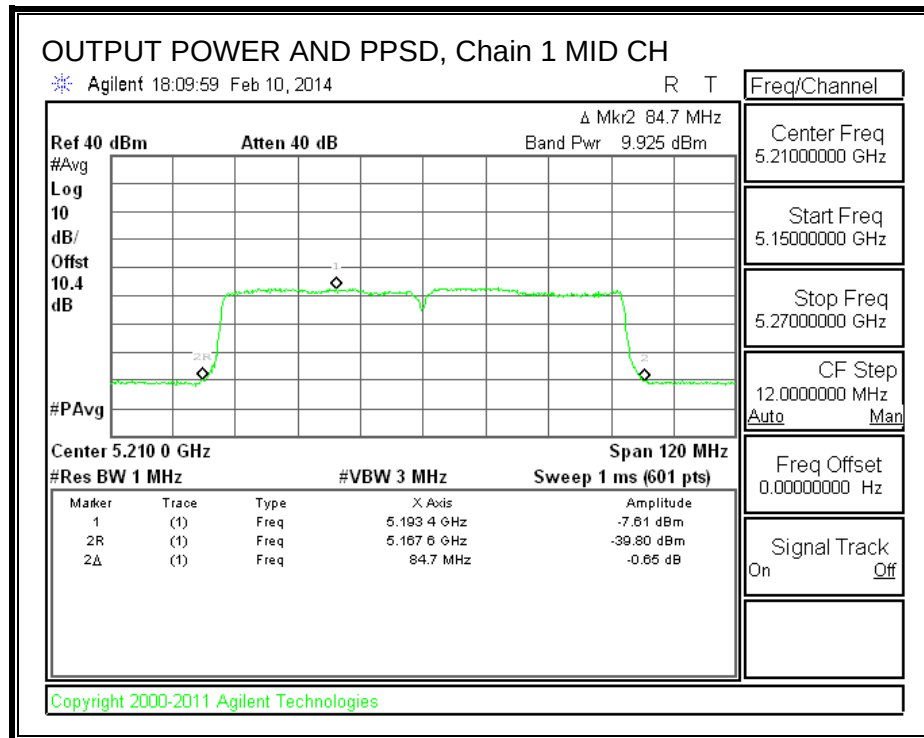
802.11n HT40 5.2G OUTPUT POWER AND PPSD, Chain 0

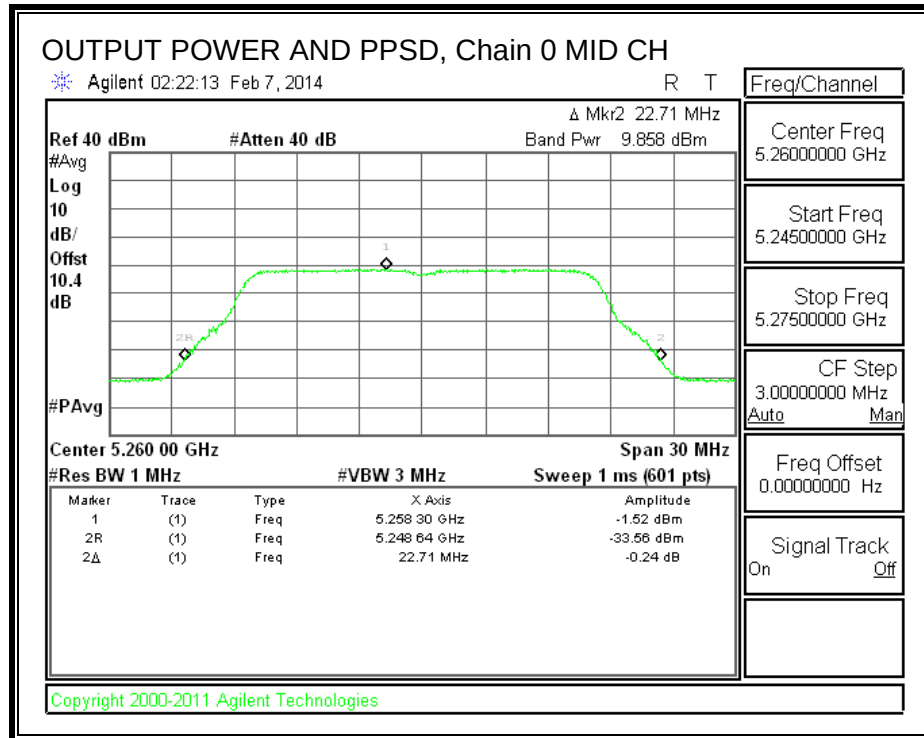


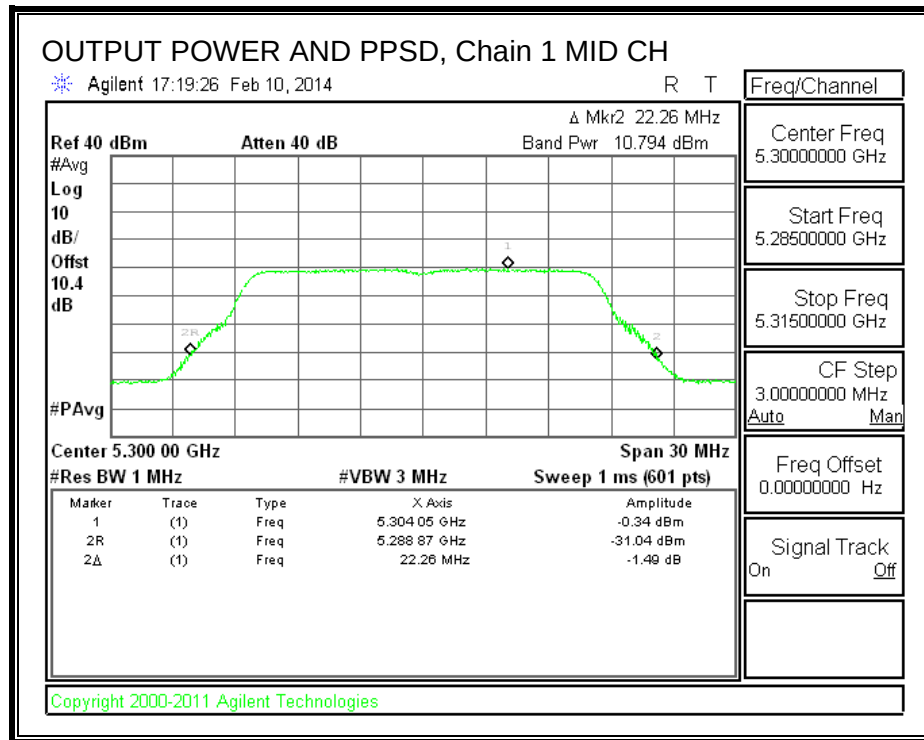


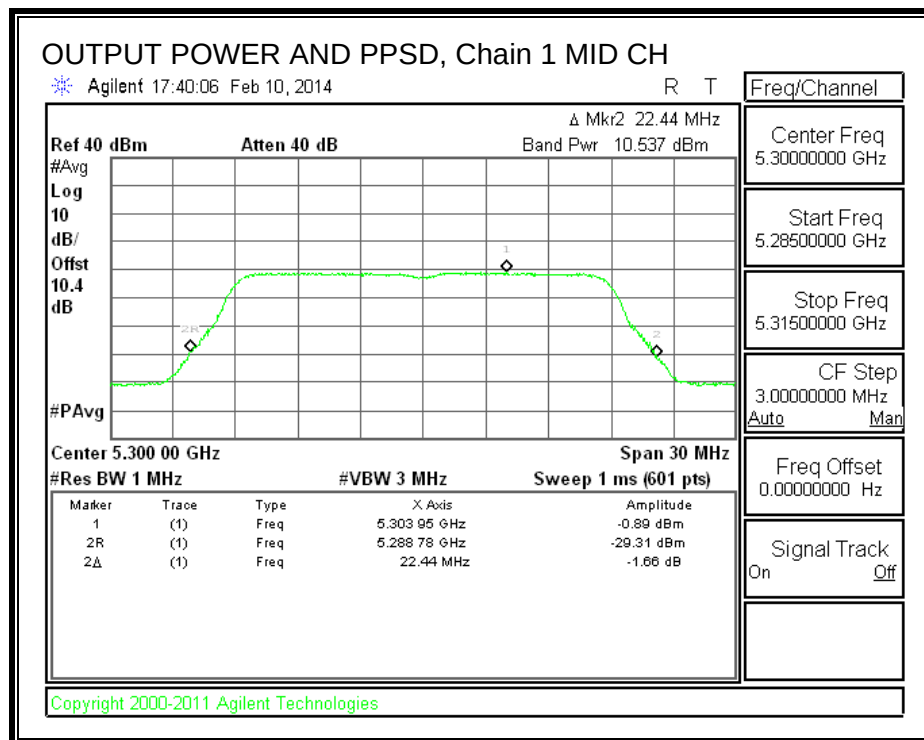
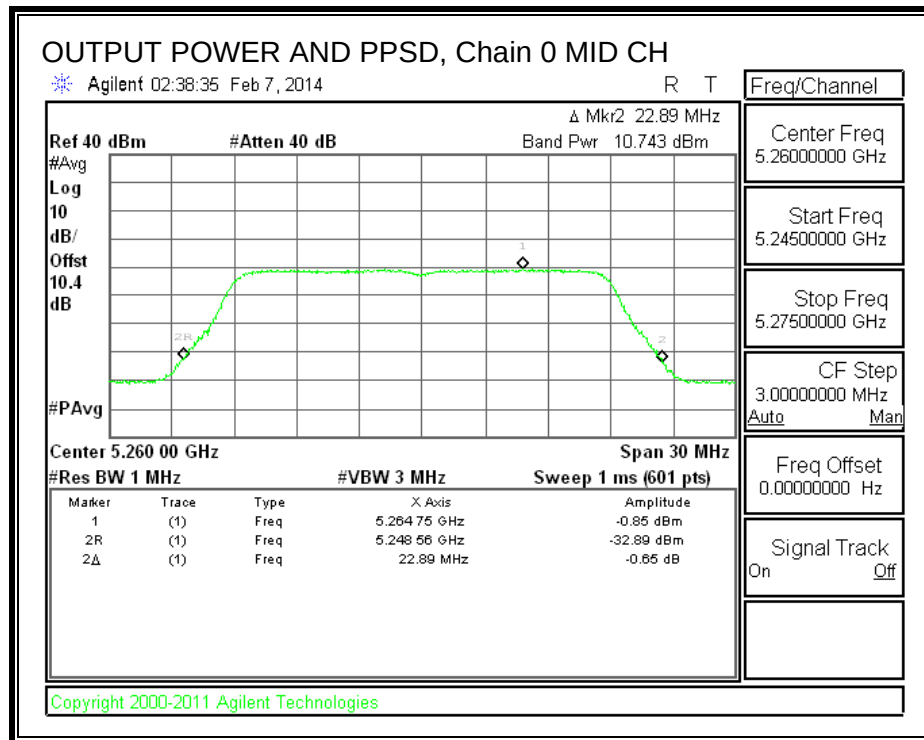
802.11ac HT80 5.2G OUTPUT POWER AND PPSD, Chain 0



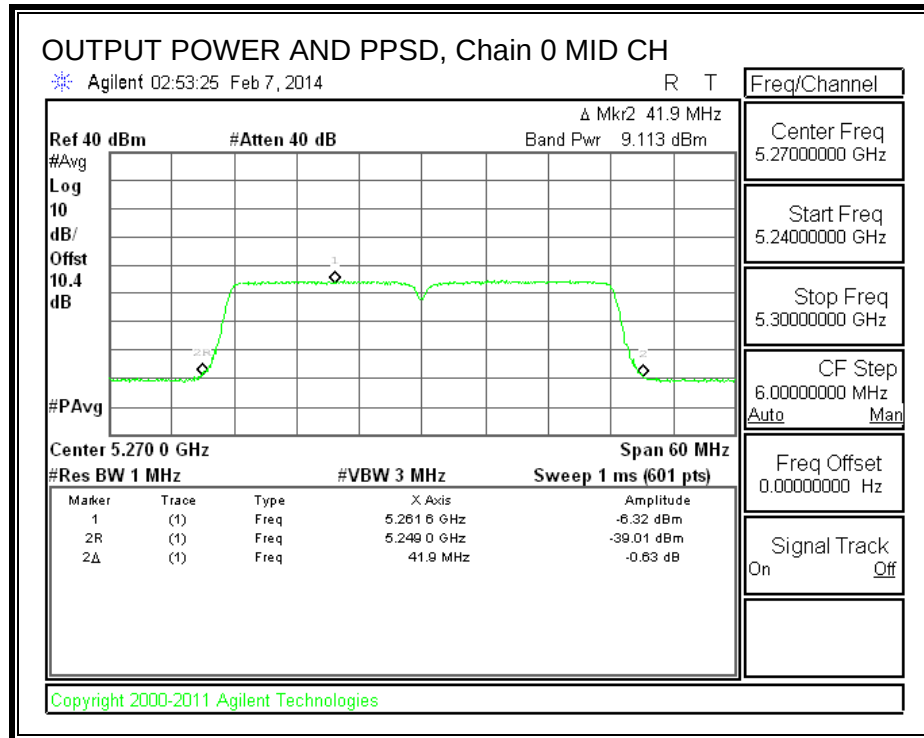


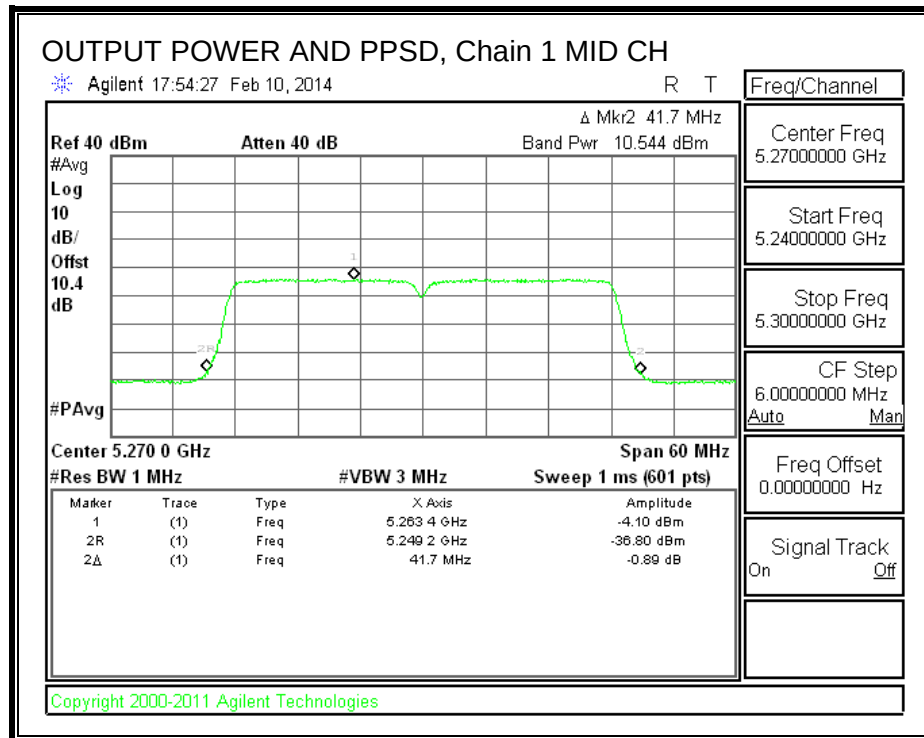
802.11a 5.3G OUTPUT POWER AND PPSD, Chain 0

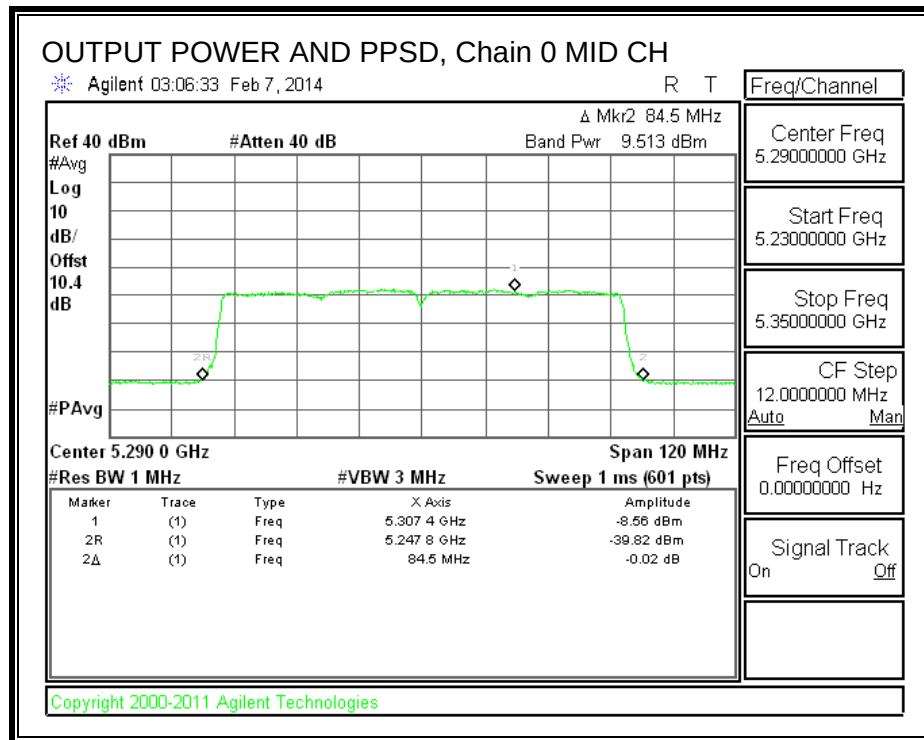
**802.11n HT20 5.3G OUTPUT POWER AND PPSD, Chain 0**

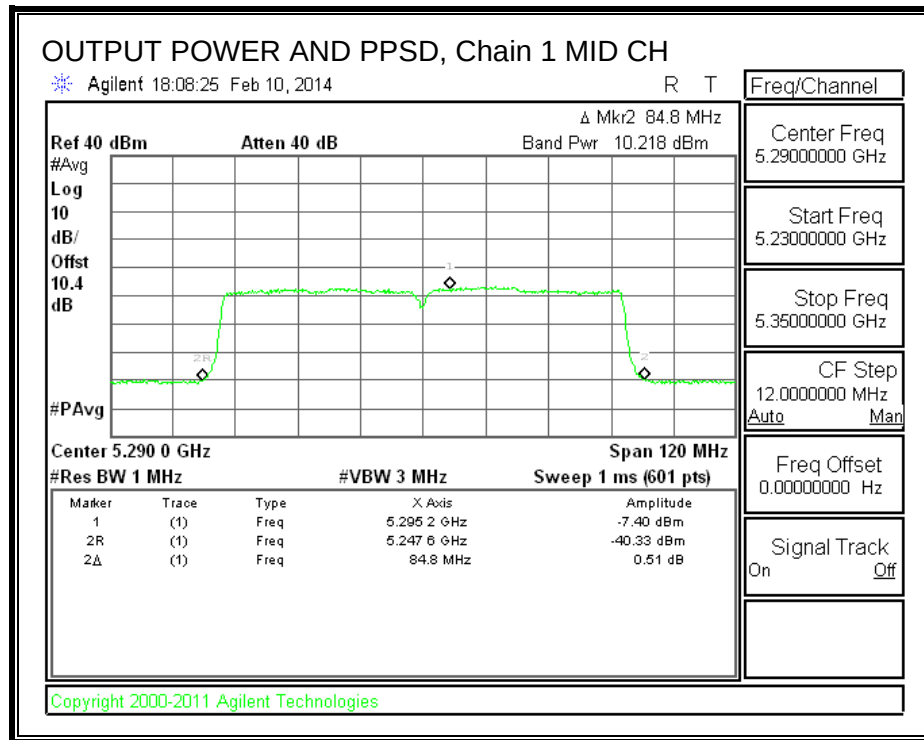


802.11n HT40 5.3G OUTPUT POWER AND PSD, Chain 0

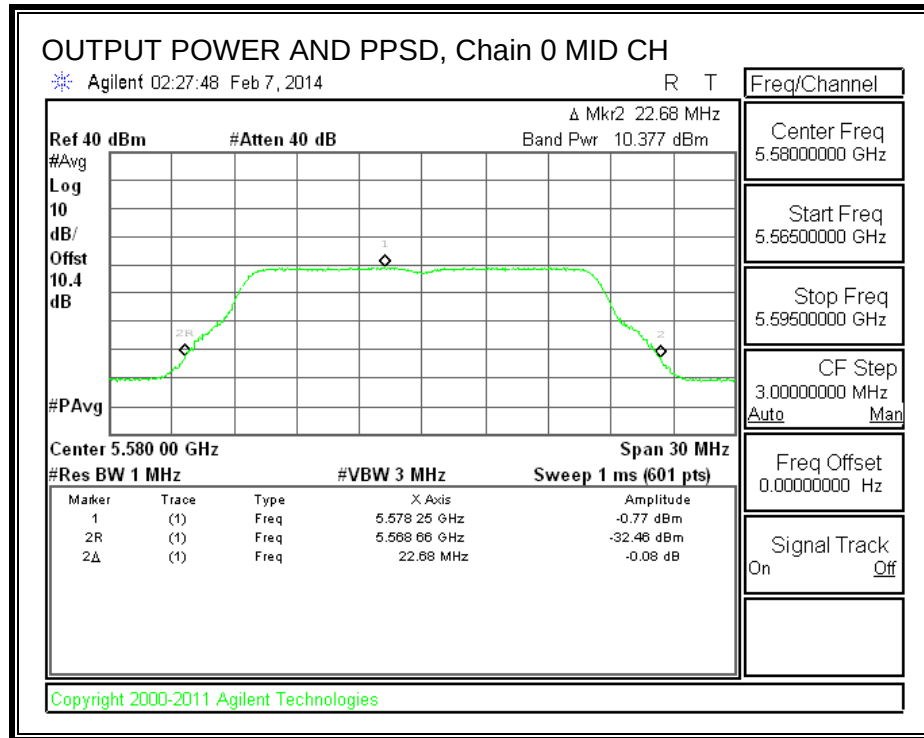


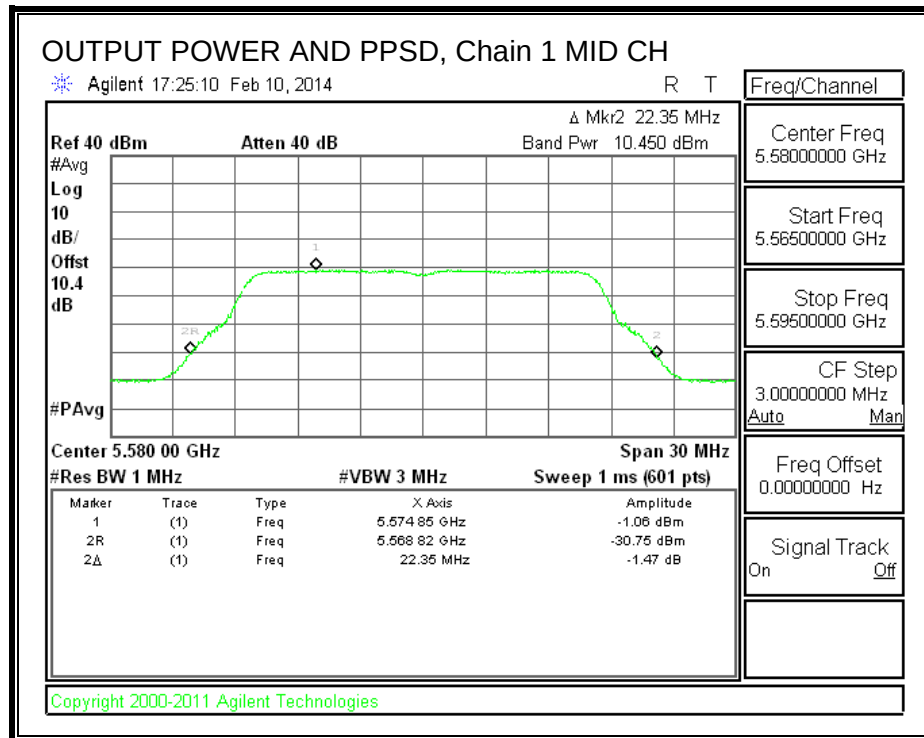
**802.11ac HT80 5.3G OUTPUT POWER AND PPSD, Chain 0**

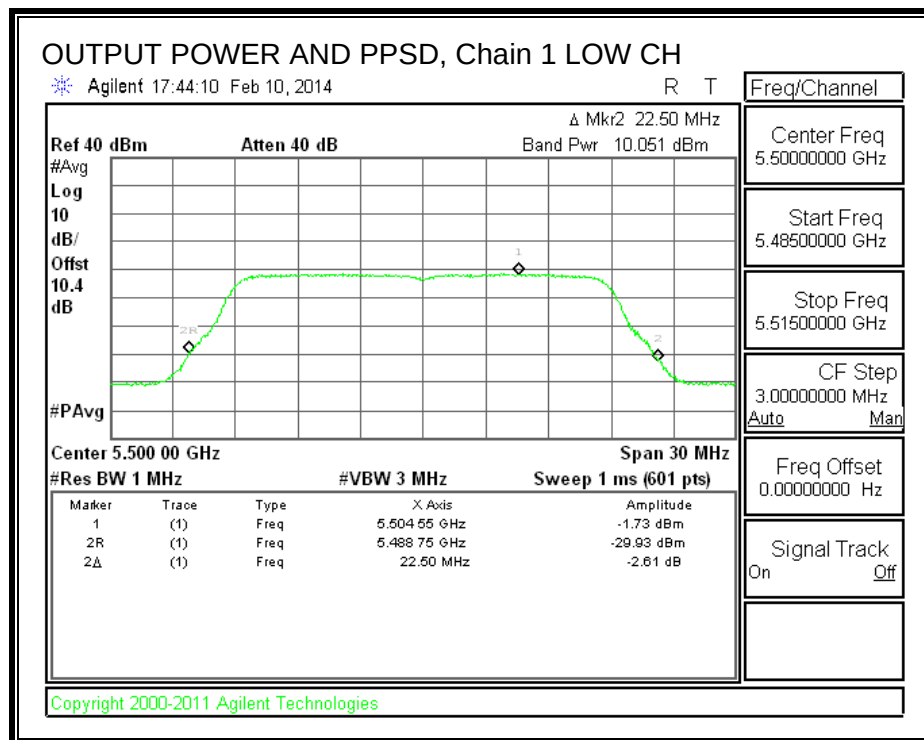
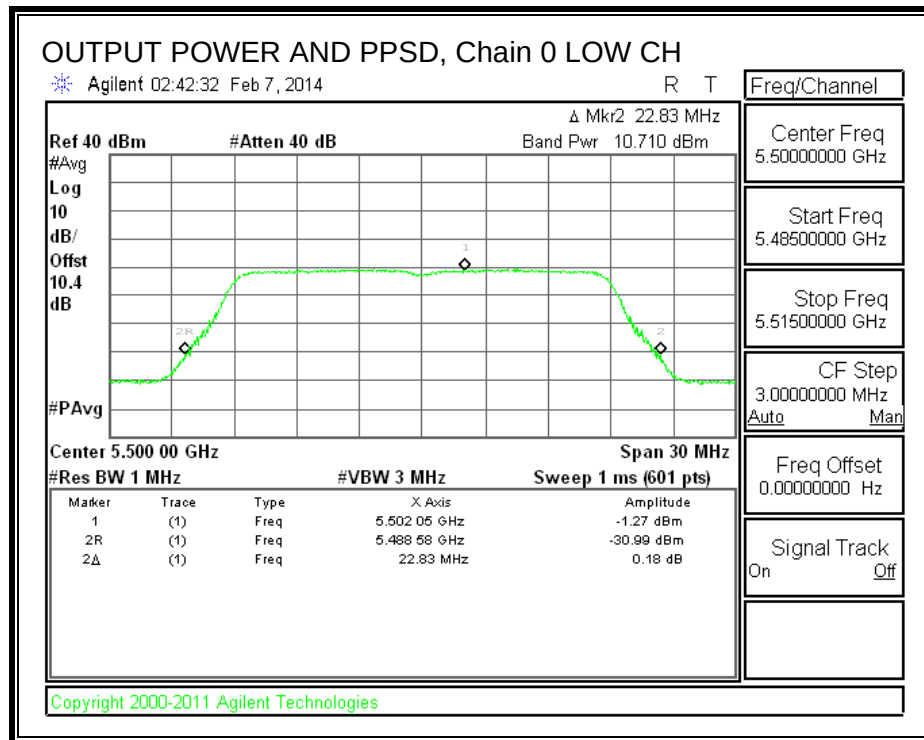




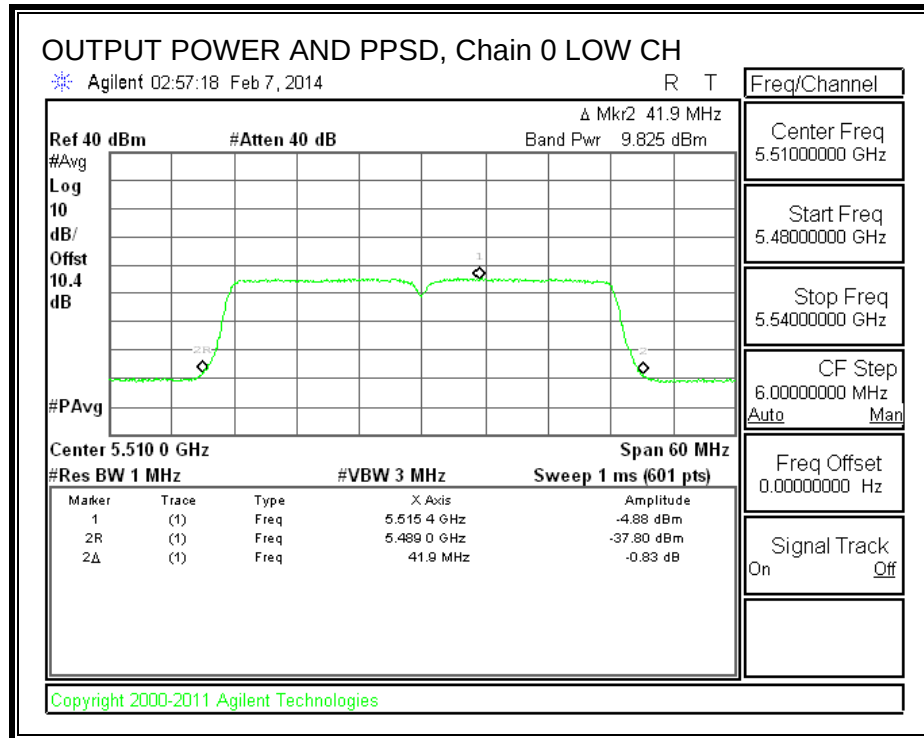
802.11a 5.5G OUTPUT POWER AND PPSD, Chain 0

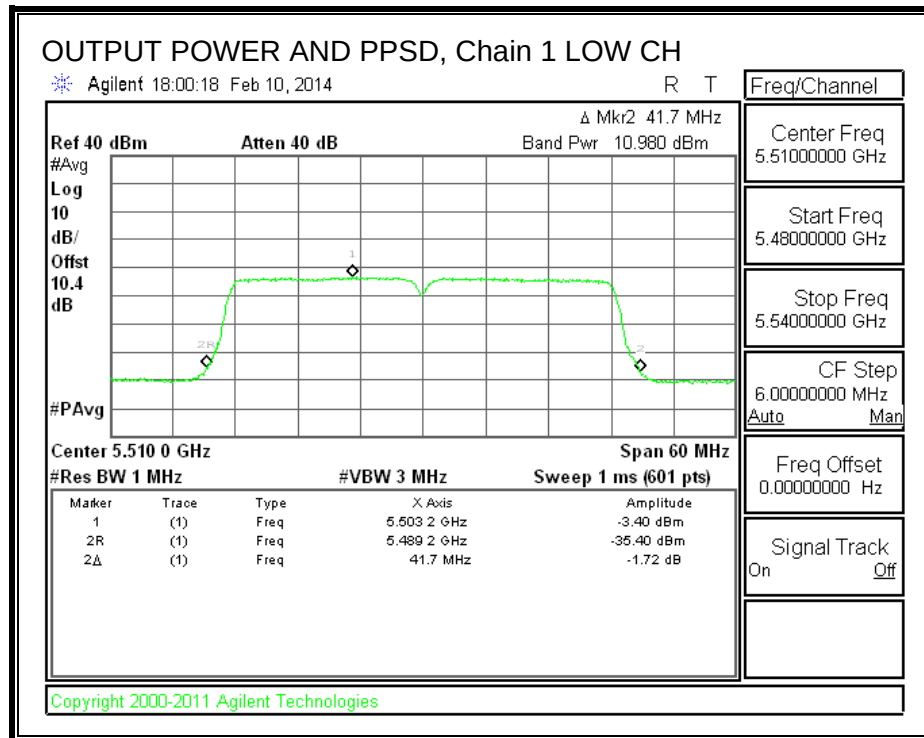


**802.11n HT20 5.5G OUTPUT POWER AND PPSD, Chain 0**

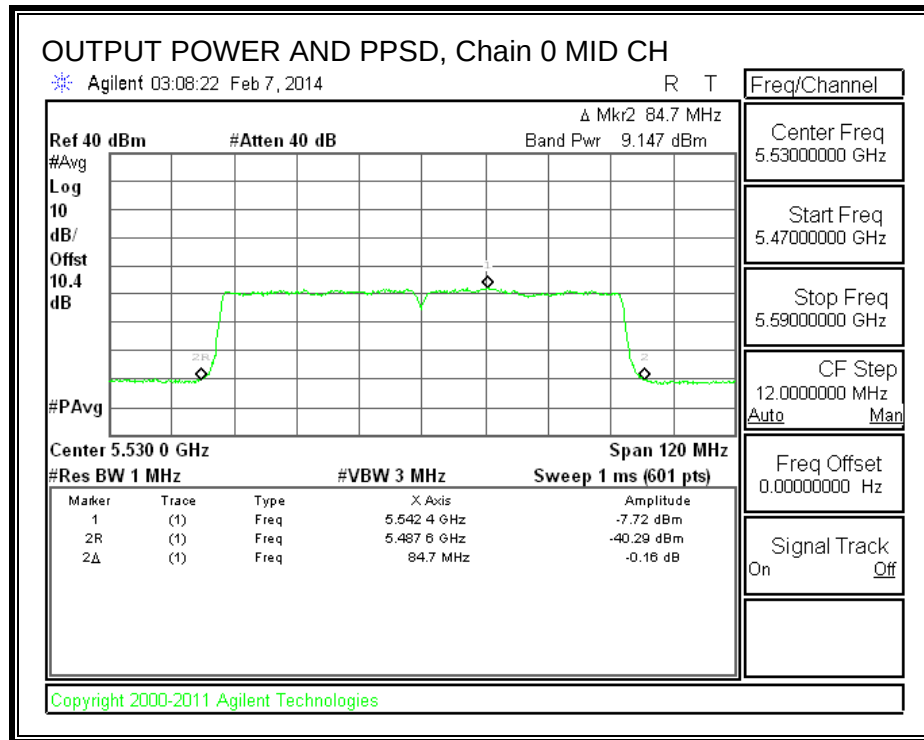


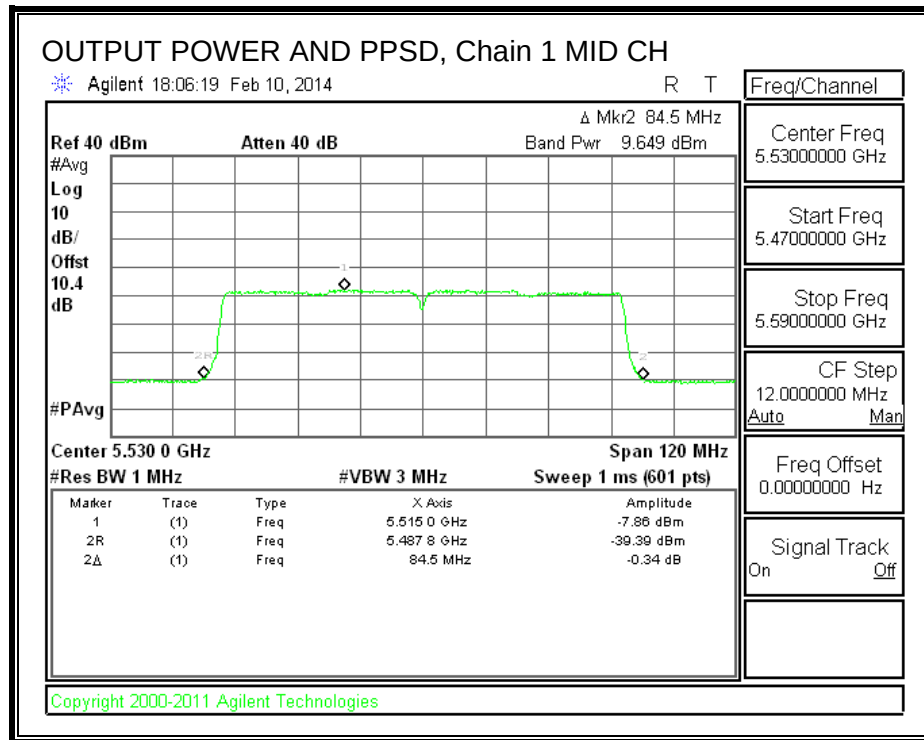
802.11n HT40 5.5G OUTPUT POWER AND PPSD, Chain 0





802.11ac HT80 5.5G OUTPUT POWER AND PPSD, Chain 0





10.4. PEAK EXCURSION

LIMITS

FCC §15.407 (a) (6)

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

RESULTS

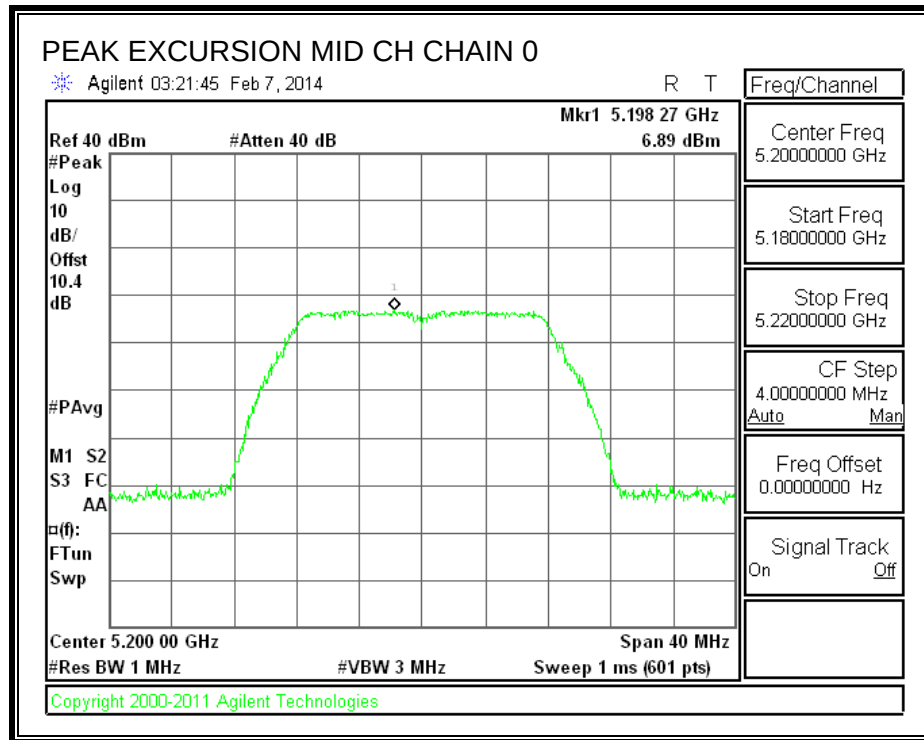
10.4.1. 802.11a MODE IN THE 5.2 GHz BAND

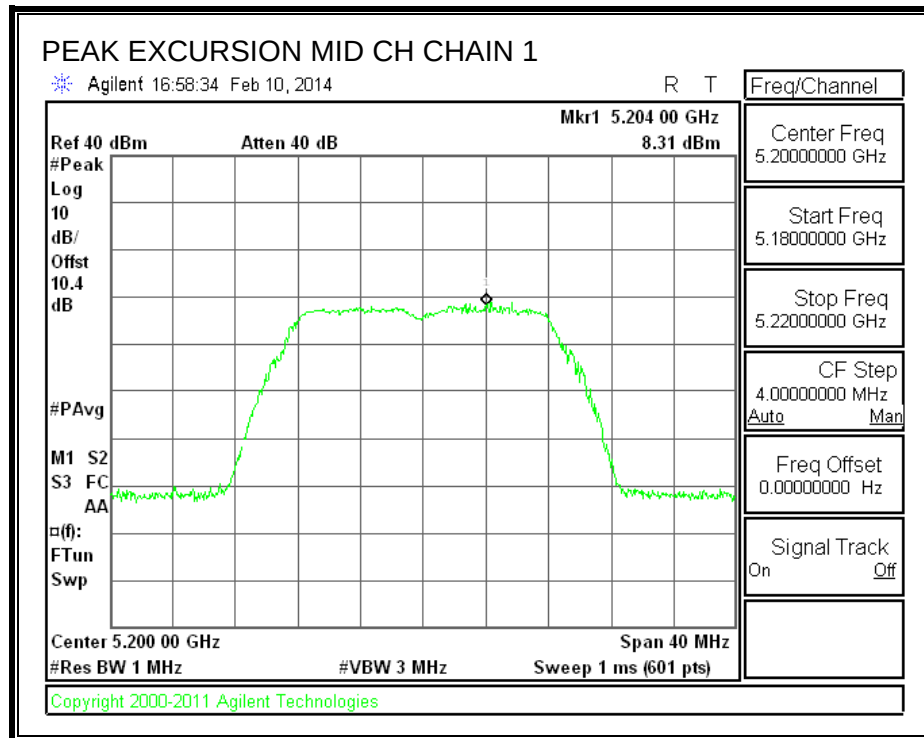
Chain 0

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Mid	5200	6.89	-1.70	0.30	8.29	13	-4.71

Chain 1

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Mid	5200	8.31	-0.78	0.30	8.79	13	-4.21

PEAK EXCURSION



10.4.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

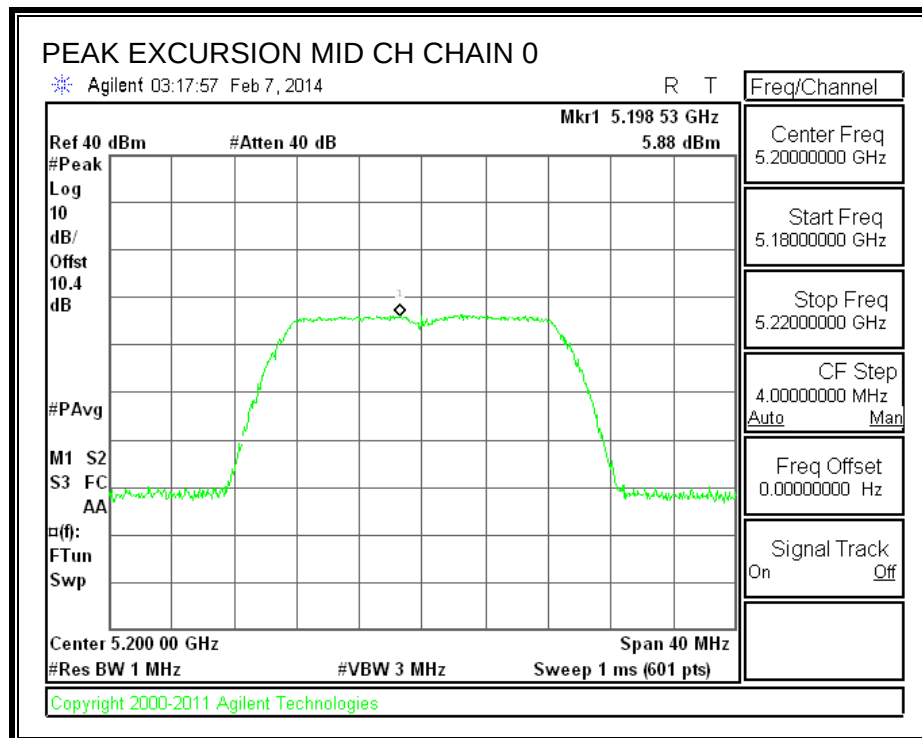
Chain 0

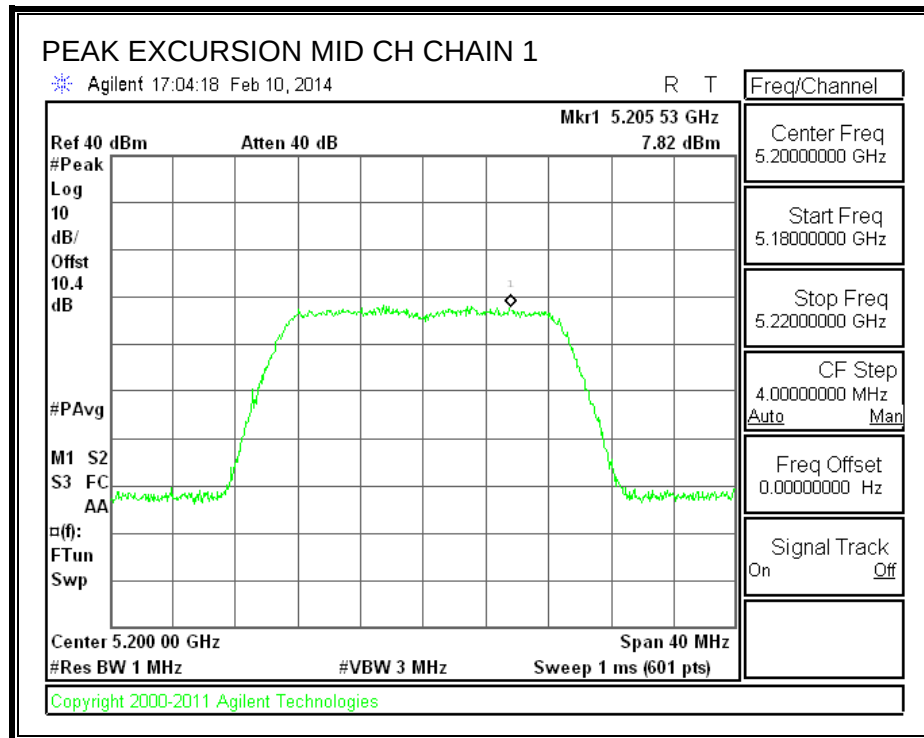
Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Mid	5200	5.88	-1.45	0.60	6.73	13	-6.27

Chain 1

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Mid	5200	7.82	-1.72	0.60	8.94	13	-4.06

PEAK EXCURSION





10.4.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

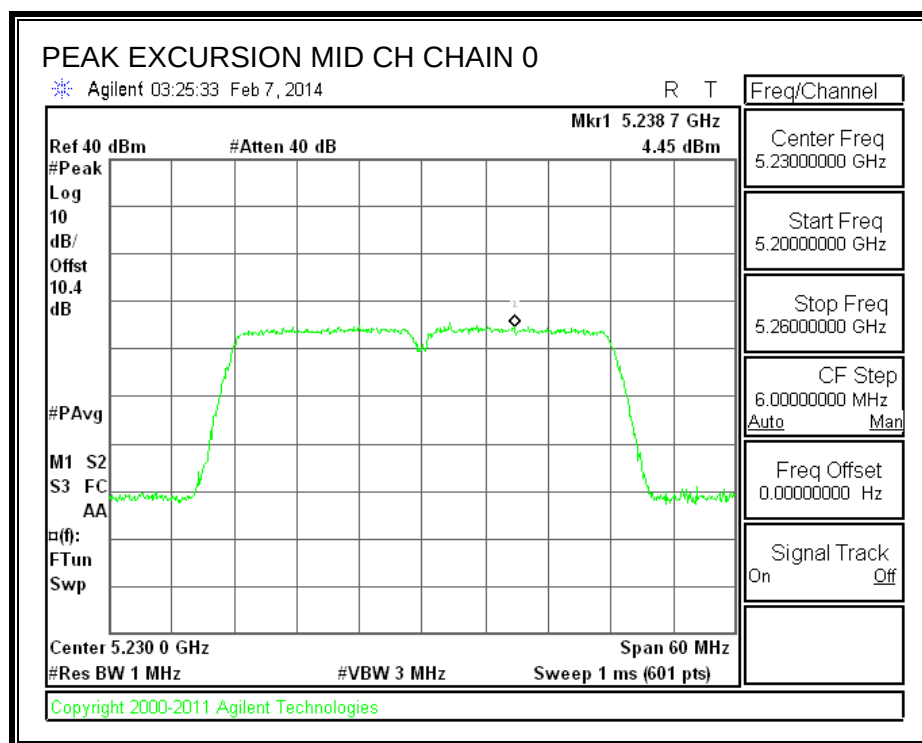
Chain 0

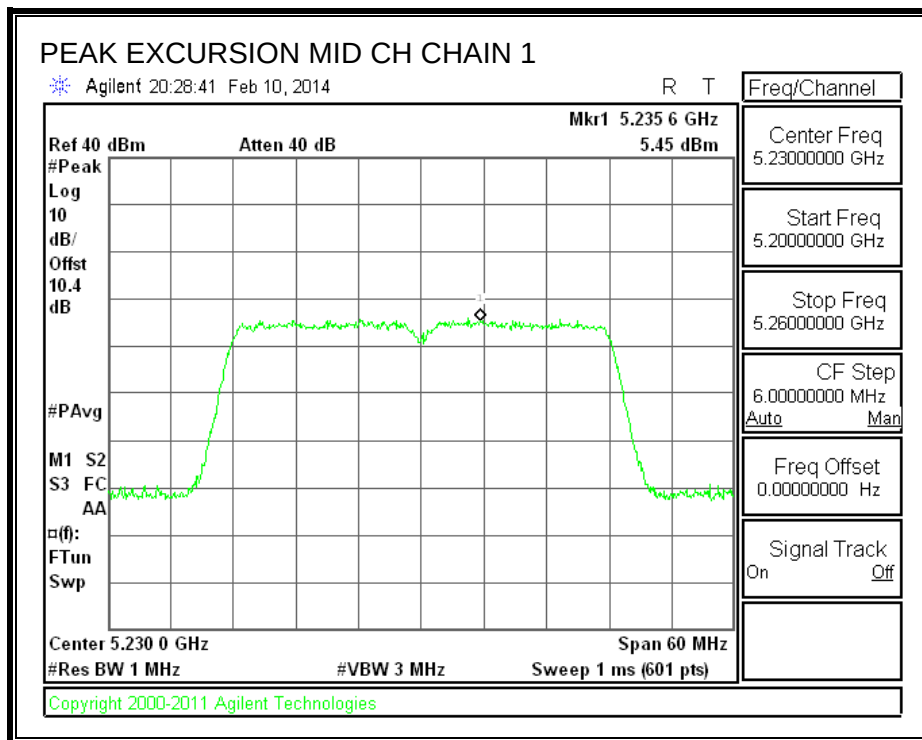
Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Mid	5230	4.450	-3.44	1.10	6.79	13	-6.21

Chain 1

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Mid	5230	5.450	-4.49	1.10	8.84	13	-4.16

PEAK EXCURSION





10.4.4. 802.11ac HT80 MODE IN THE 5.2 GHz BAND

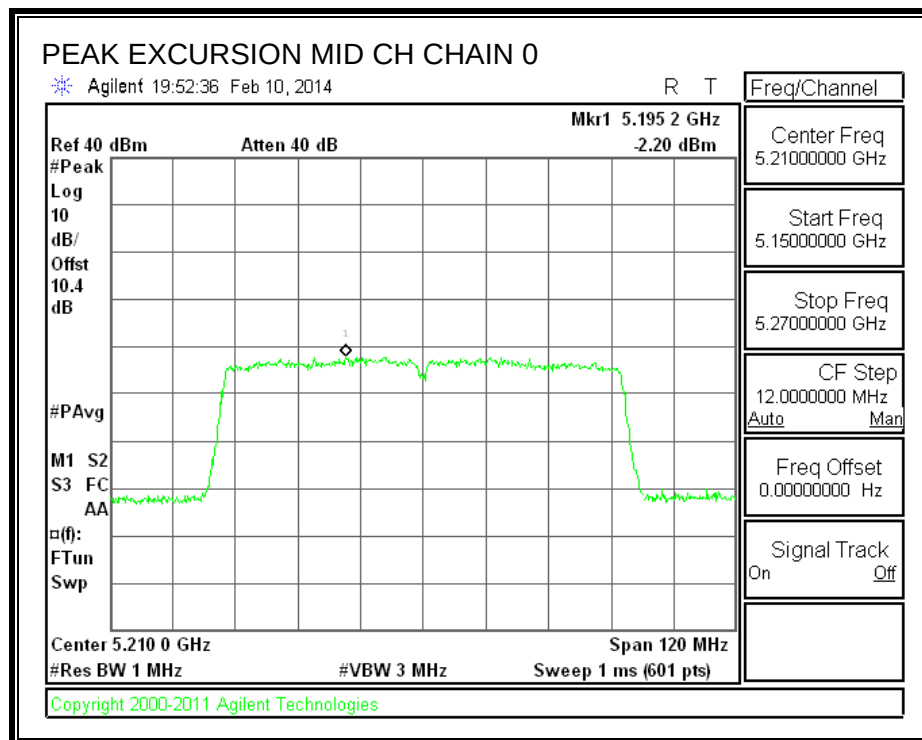
Chain 0

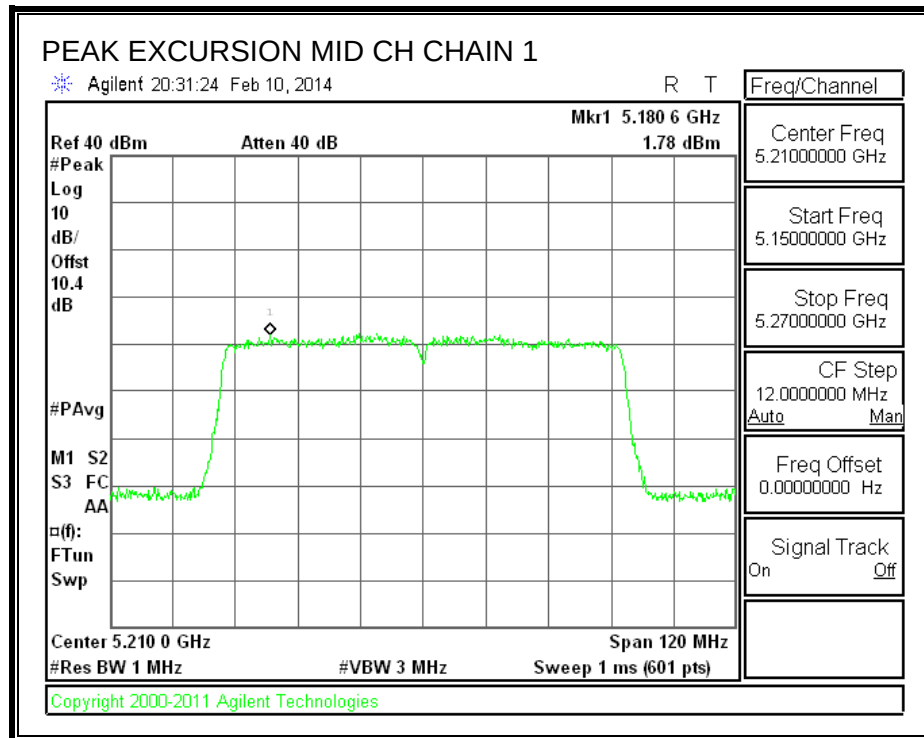
Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Mid	5210	-2.200	-7.23	1.83	3.20	13	-9.80

Chain 1

Channel	Frequency (MHz)	PK Level (dBm)	PSD (dBm)	DCCF (dB)	Peak Excursion (dB)	Limit (dB)	Margin (dB)
Mid	5210	1.780	-7.51	1.83	7.46	13	-5.54

PEAK EXCURSION





11. TRANSMITTER ABOVE 1 GHz

LIMITS

FCC §15.205 and §15.209

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

TEST PROCEDURE

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

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

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

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

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

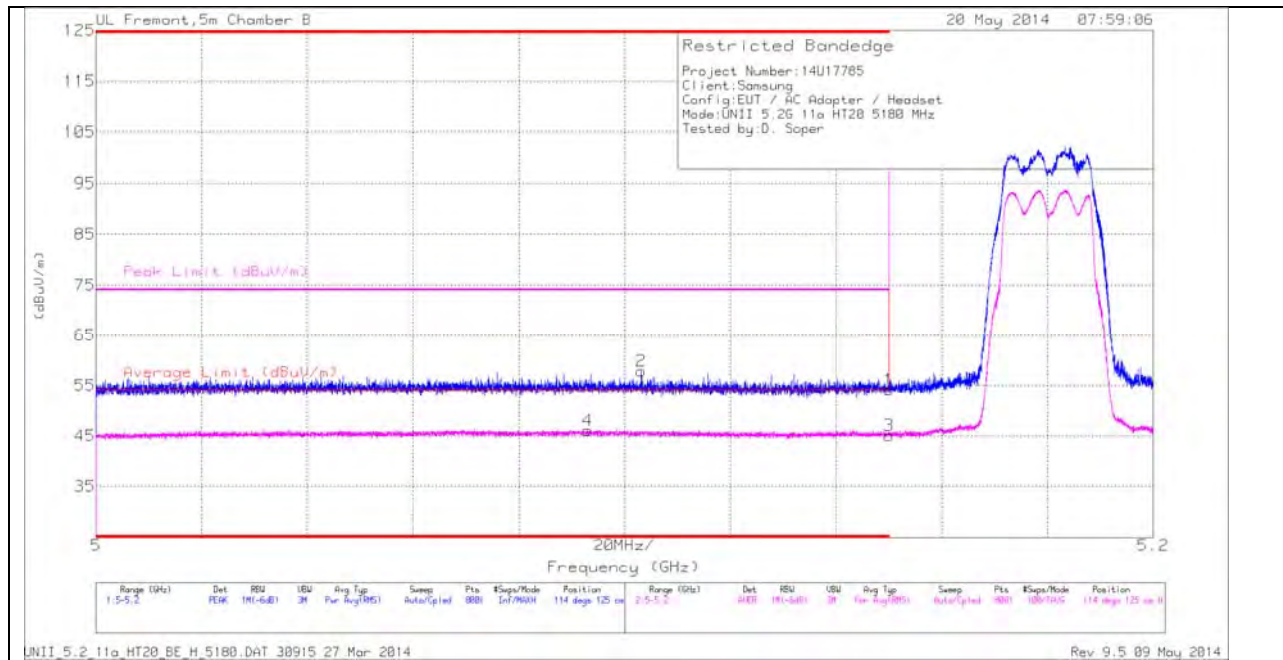
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

11.1. 5.2 GHz

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

RESTRICTED BANDEDGE (LOW CHANNEL)

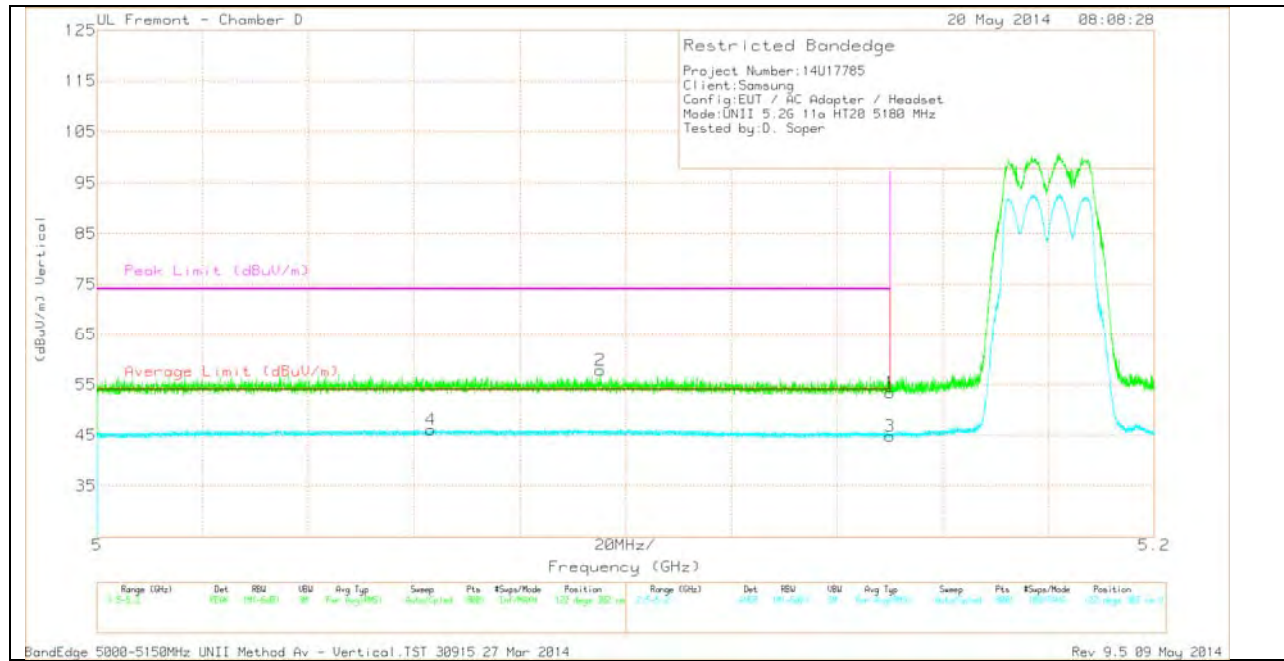
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequenc y (GHz)	Meter Readin g (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	38.72	PK	33.7	-18.3	0	54.12	-	-	74	-19.88	114	125	H
2	* 5.103	42.26	PK	33.6	-18	0	57.86	-	-	74	-16.14	114	125	H
3	* 5.15	29.64	RMS	33.7	-18.3	.3	45.24	54	-8.76	-	-	114	125	H
4	* 5.093	30.42	RMS	33.6	-17.9	.3	46.32	54	-7.68	-	-	114	125	H

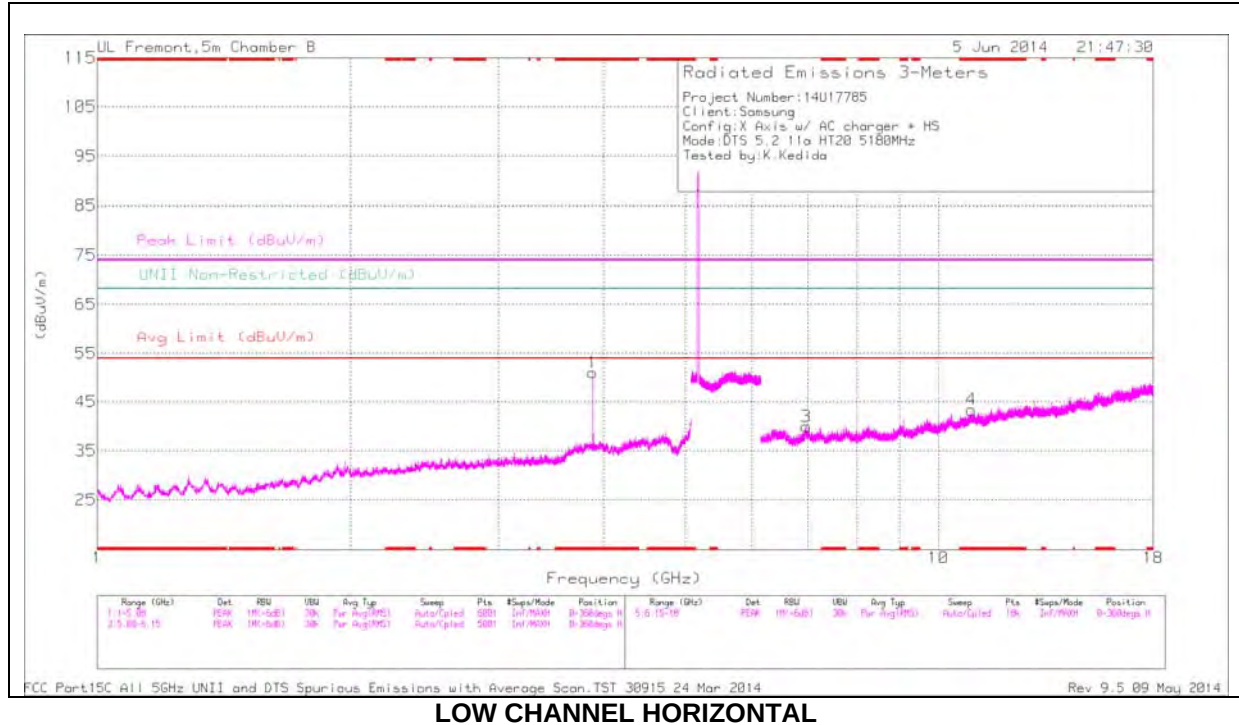
VERTICAL PEAK AND AVERAGE PLOT



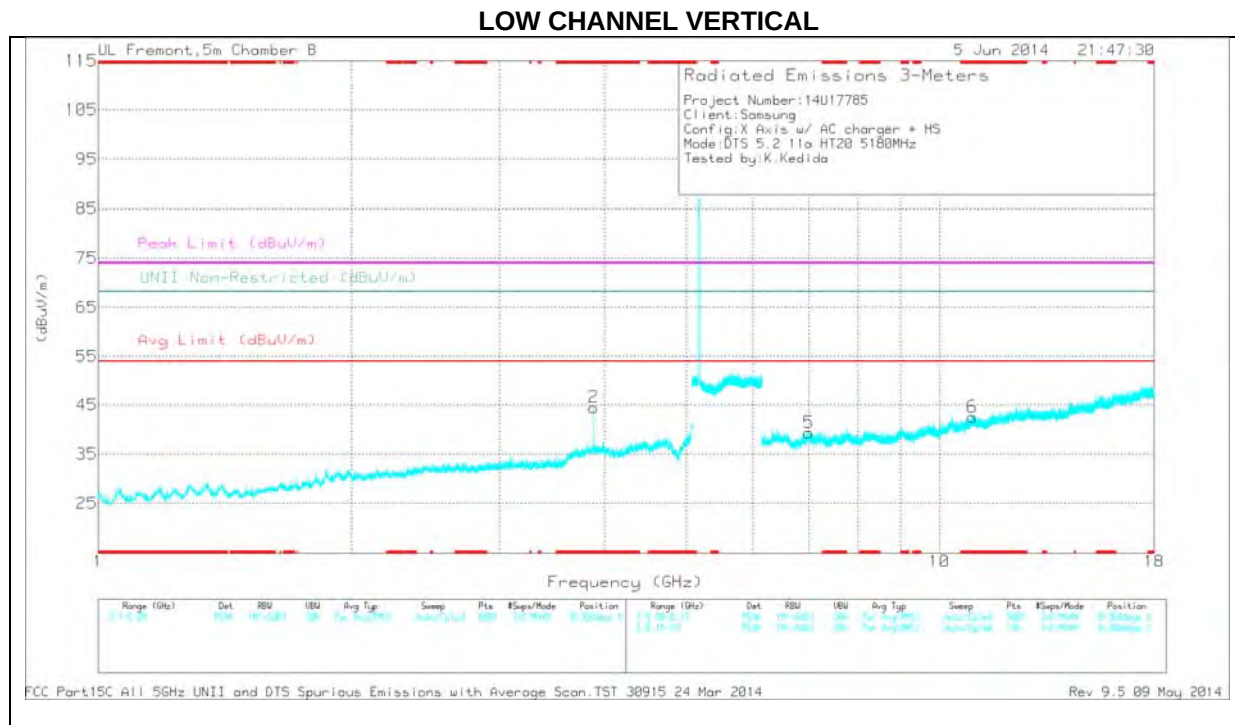
VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBUV)	Det	AF T712 (dB/m)	Amp/Cbl/FI tri/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	* 5.063	30.45	RMS	33.6	-18	.3	46.35	54	-7.65	-	-	122	302	V
2	* 5.095	42.22	PK	33.6	-17.9	0	57.92	-	-	74	-16.08	122	302	V
1	* 5.15	38.05	PK	33.7	-18.3	0	53.45	-	-	74	-20.55	122	302	V
3	* 5.15	29.41	RMS	33.7	-18.3	.3	45.11	54	-8.89	-	-	122	302	V

HARMONICS AND SPURIOUS EMISSIONS



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

Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restrict ed (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.885	48.6	PK	33.8	-31.4	0	51	-	-	74	-23	-	-	0-360	201	H
2	* 3.885	42.11	PK	33.8	-31.4	0	44.51	-	-	74	-29.49	-	-	0-360	201	V
4	* 10.95	28.17	PK	37.8	-22.6	0	43.37	-	-	74	-30.63	-	-	0-360	101	H
6	*	27.36	PK	37.8	-22.6	0	42.56	-	-	74	-31.44	-	-	0-360	201	V
	10.946															
3	6.965	31.77	PK	35.6	-27.4	0	39.97	-	-	-	-	68.2	-28.23	0-360	201	H
5	6.992	30.87	PK	35.6	-27.1	0	39.37	-	-	-	-	68.2	-28.83	0-360	201	V

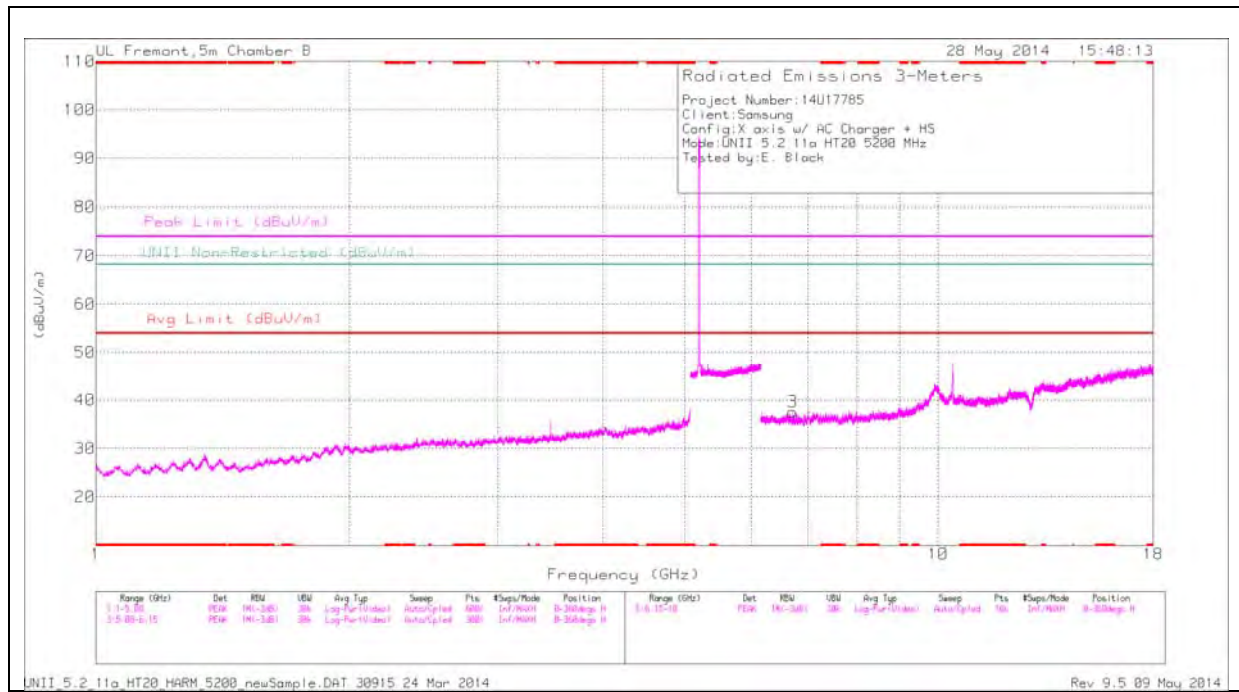
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

Radiated Emissions

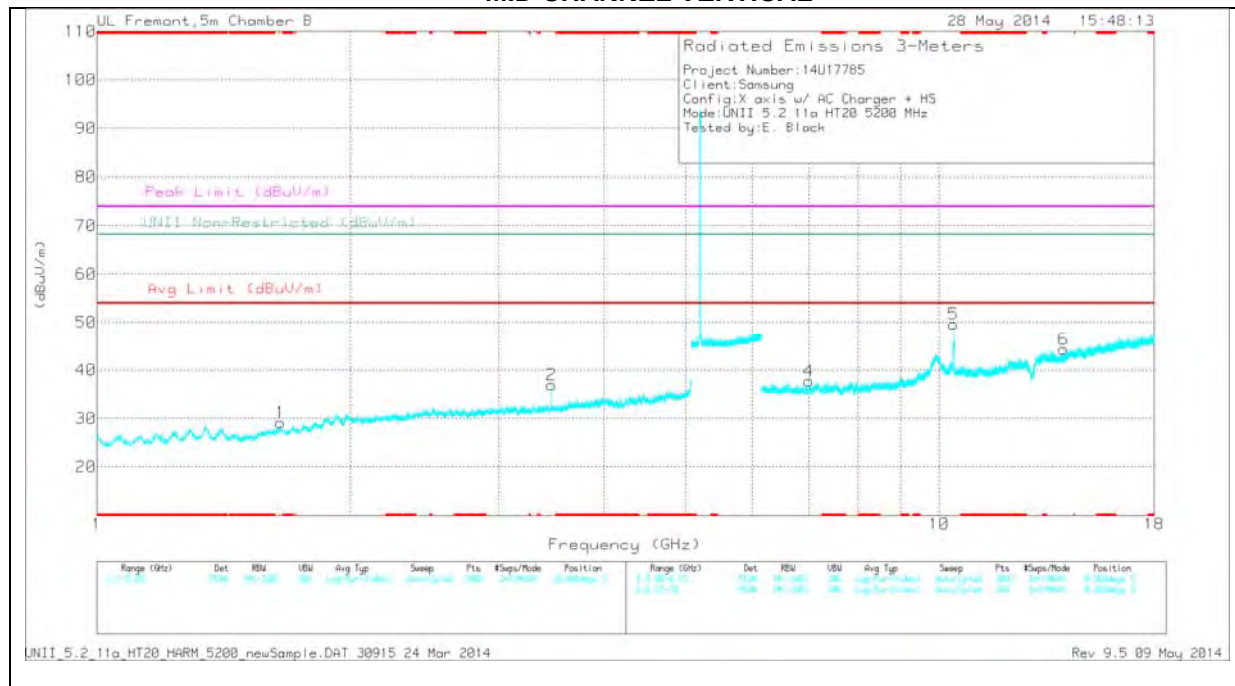
Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F tr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 3.885	51.4	PK1	33.8	-31.4	0	53.8	-	-	74	-20.2	-	-	208	239	H
* 3.885	48.12	AD1	33.8	-31.4	.3	50.82	54	-3.18	-	-	-	-	208	239	H
* 3.885	48.2	PK1	33.8	-31.4	0	50.6	-	-	74	-23.4	-	-	265	364	V
* 3.885	43.82	AD1	33.8	-31.4	.3	46.52	54	-7.48	-	-	-	-	265	364	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.

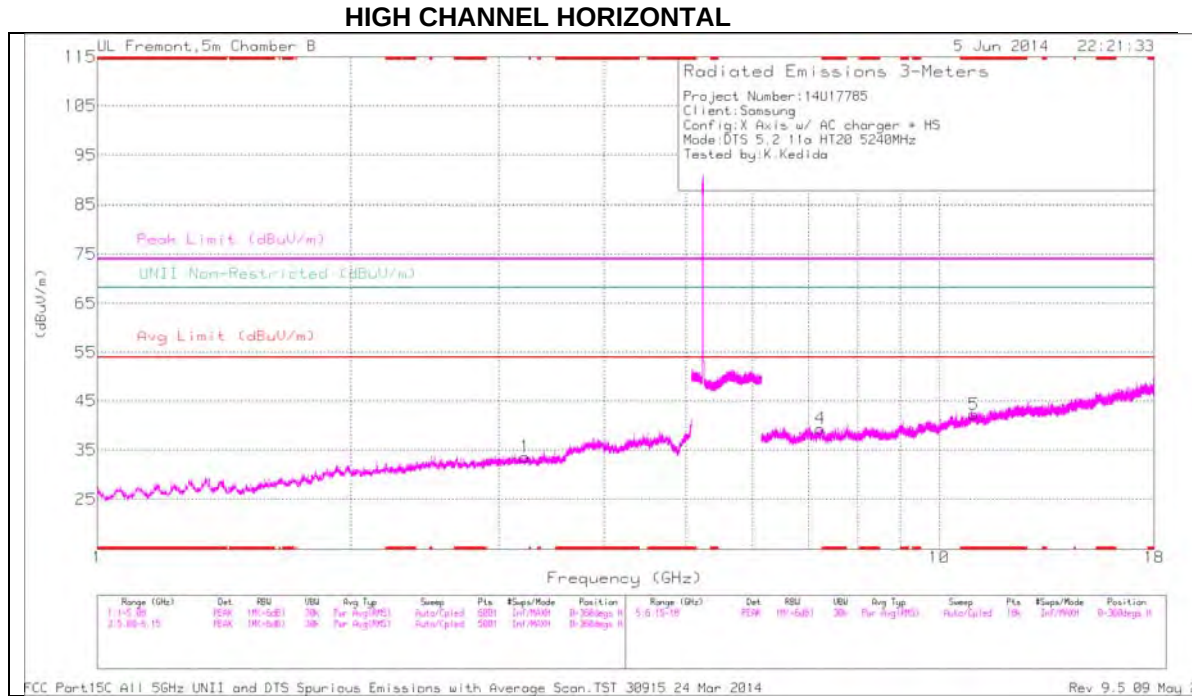
MID CHANNEL DATA

Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restrict ed (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.652	33.37	PK	28.8	-33	0	29.17	-	-	-	-	68.2	-39.03	0-360	99	V
2	3.466	35.45	PK	32.8	-31.3	0	36.95	-	-	-	-	68.2	-31.25	0-360	202	V
3	6.724	30.36	PK	35.7	-28.5	0	37.56	-	-	-	-	68.2	-30.64	0-360	99	H
4	6.997	29.17	PK	35.6	-27	0	37.77	-	-	-	-	68.2	-30.43	0-360	99	V
5	10.398	35.34	PK	37.3	-23	0	49.64	-	-	-	-	68.2	-18.56	0-360	202	V
6	14.05	26.59	PK	38.6	-20.8	0	44.39	-	-	-	-	68.2	-23.81	0-360	202	V

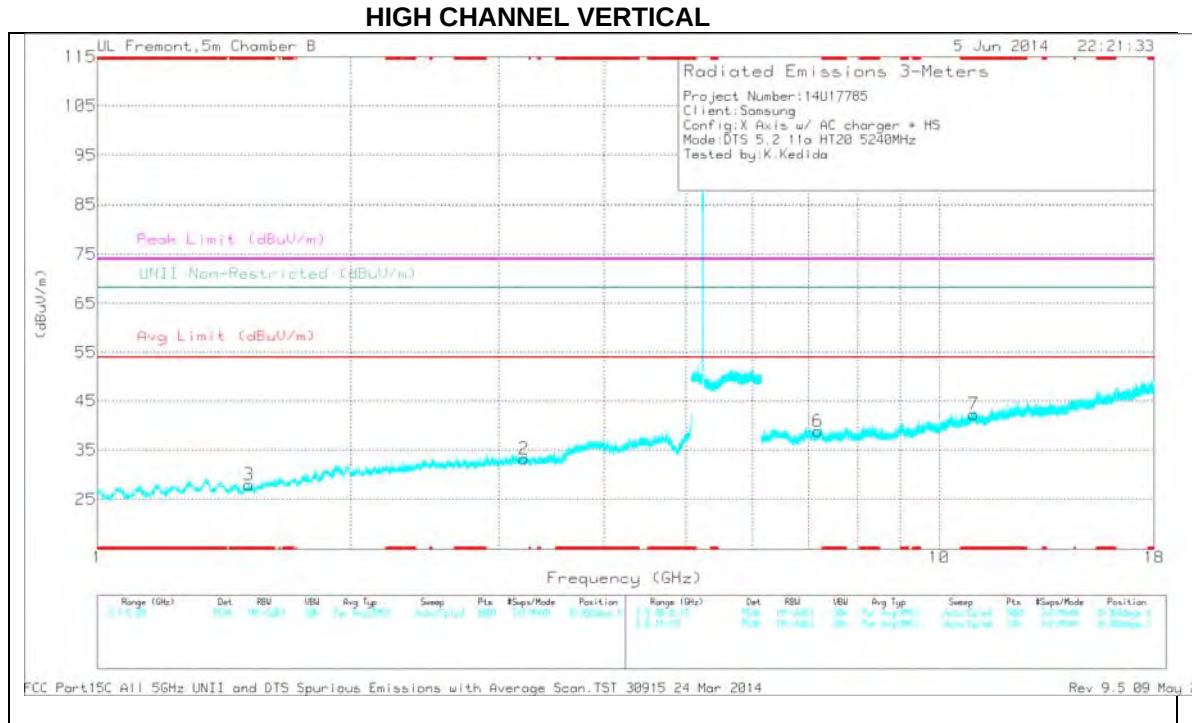
PK - Peak detector

Radiated Emissions

Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F tr/Pad (dB)	DC Corr (dB)	Correcte d 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
1.653	42.69	PK1	28.8	-33	0	38.49	54	-15.51	74	-35.51	68.2	-29.71	0	100	V
3.467	43.78	PK1	32.8	-31.3	0	45.28	54	-8.72	74	-28.72	68.2	-22.92	0	265	V
3.467	35.39	AD1	32.8	-31.3	.3	37.09	54	-16.91	74	-36.91	-	-	0	265	V
6.724	39.66	PK1	35.7	-28.5	0	46.86	54	-7.14	74	-27.14	68.2	-21.34	0	100	H
6.997	38.04	PK1	35.6	-27	0	46.64	54	-7.36	74	-27.36	68.2	-21.56	0	100	V
10.398	30.09	AD1	37.3	-23	.3	44.59	54	-9.41	74	-29.41	-	-	0	201	V
10.399	43.11	PK1	37.3	-23	0	57.41	54	3.41	74	-16.59	68.2	-10.79	0	201	V
14.051	35.69	PK1	38.6	-20.8	0	53.49	54	-0.51	74	-20.51	68.2	-14.71	0	204	V



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 T345 (dB/m)	Ampl/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	* 1.515	34.39	PK	28	-34.4	0	27.99	-	-	74	-46.01	-	-	0-360	100	V
5	* 10.998	26.87	PK	37.8	-22.4	0	42.27	-	-	74	-31.73	-	-	0-360	200	H
7	* 10.99	26.82	PK	37.8	-22.3	0	42.32	-	-	74	-31.68	-	-	0-360	201	V
2	3.213	32.13	PK	32.8	-31.7	0	33.23	-	-	-	-	68.2	-34.97	0-360	201	V
1	3.226	32.64	PK	32.8	-31.8	0	33.64	-	-	-	-	68.2	-34.56	0-360	100	H
6	7.18	29.86	PK	35.6	-26.6	0	38.86	-	-	-	-	68.2	-29.34	0-360	201	V
4	7.232	29.98	PK	35.5	-26.1	0	39.38	-	-	-	-	68.2	-28.82	0-360	100	H

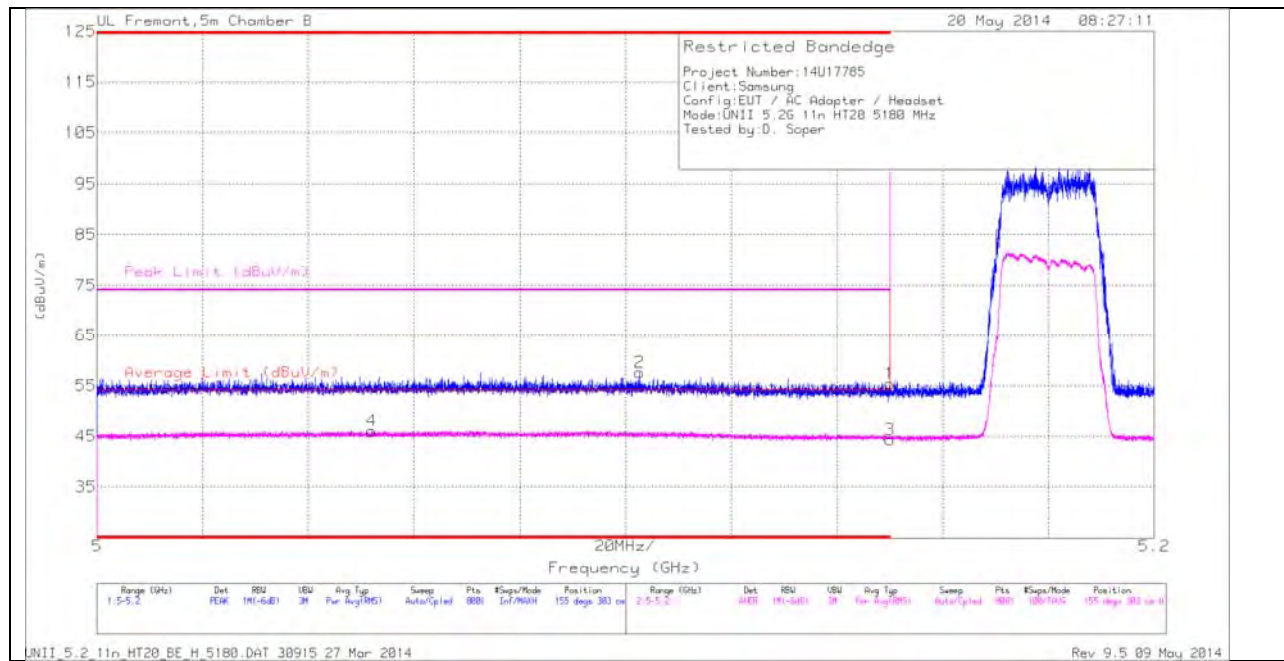
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Ampl/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 10.999	34.81	PK1	37.8	-22.4	0	50.21	-	-	74	-23.79	-	-	2	201	H
3.227	41.26	PK1	32.8	-31.8	0	42.26	-	-	-	-	68.2	-25.94	2	101	H

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

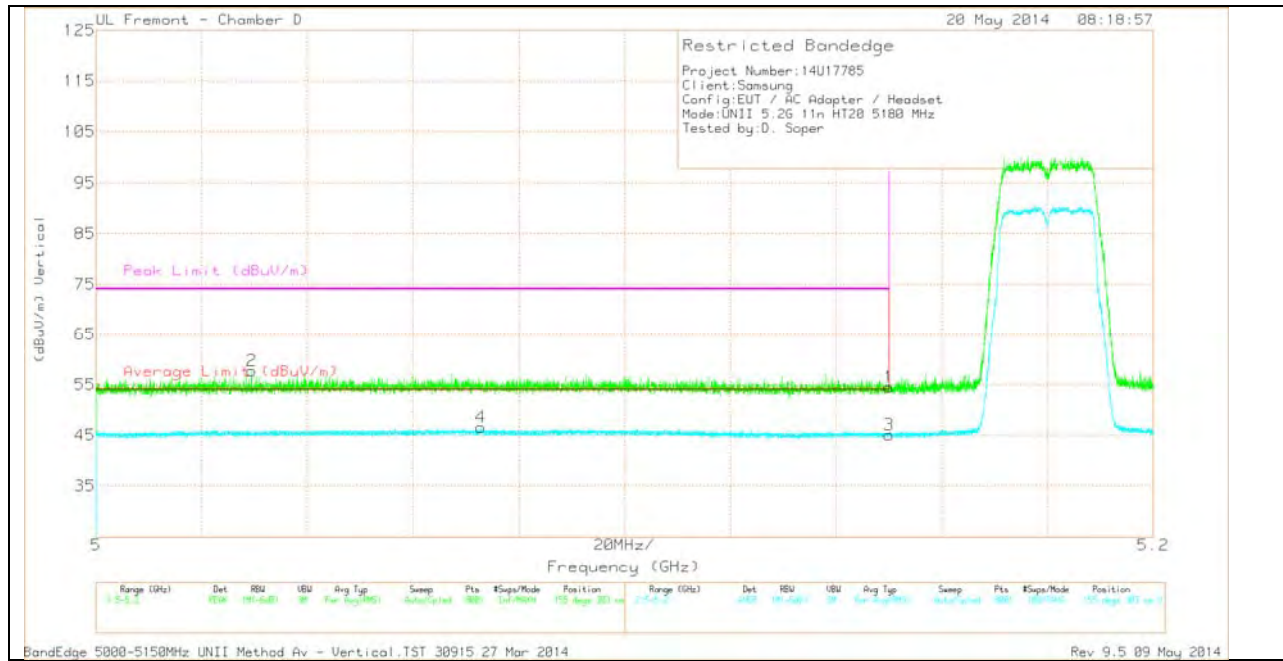
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequenc y (GHz)	Meter Readin g (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	39.99	PK	33.7	-18.3	0	55.39	-	-	74	-18.61	155	303	H
2	* 5.103	42.05	PK	33.6	-18	0	57.65	-	-	74	-16.35	155	303	H
3	* 5.15	28.9	RMS	33.7	-18.3	.6	44.5	54	-9.5	-	-	155	303	H
4	* 5.052	30.52	RMS	33.6	-18.1	.6	46.22	54	-7.78	-	-	155	303	H

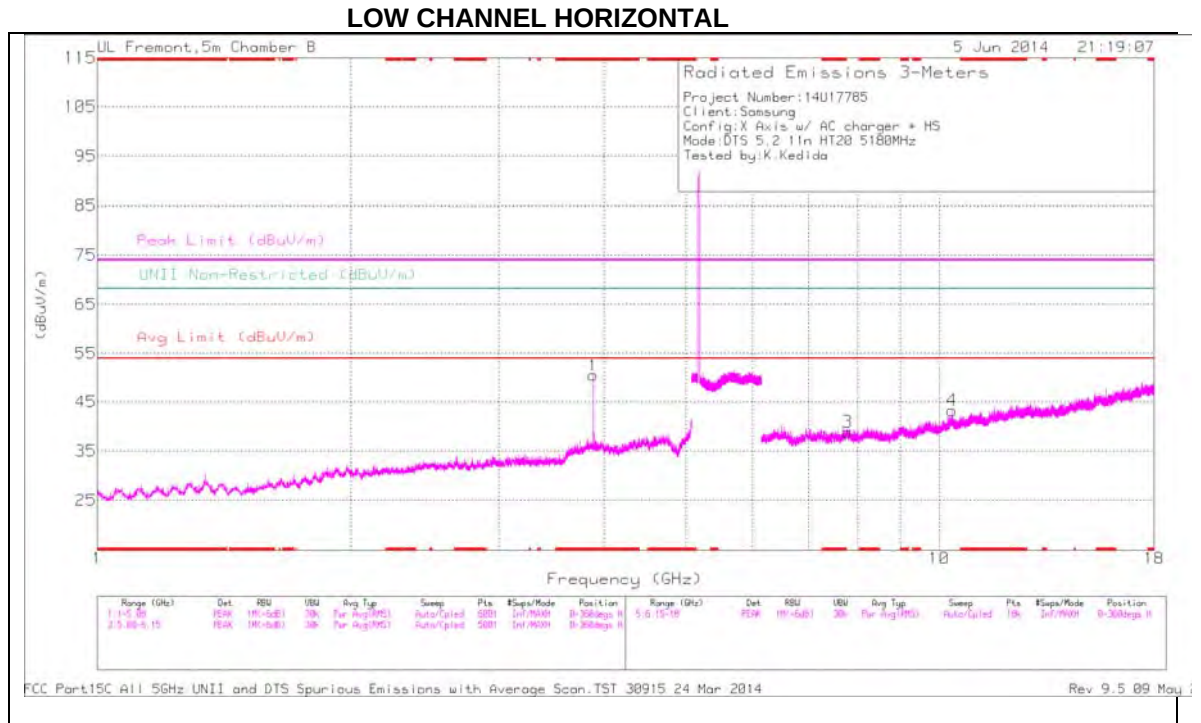
VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

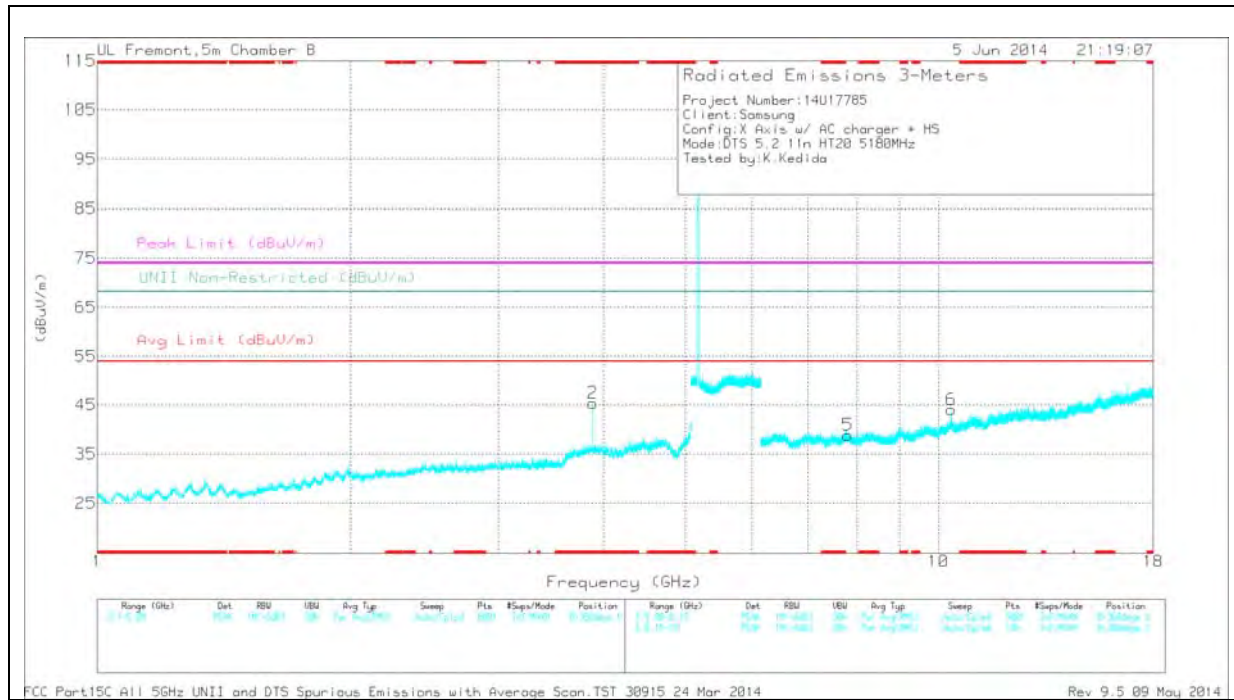
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/FI tri/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 5.029	42.32	PK	33.5	-18.1	0	57.72	-	-	74	-16.28	155	303	V
4	* 5.073	30.67	RMS	33.6	-18	.6	46.57	54	-7.43	-	-	155	303	V
1	* 5.15	39.16	PK	33.7	-18.3	0	54.56	-	-	74	-19.44	155	303	V
3	* 5.15	29.38	RMS	33.7	-18.3	.6	45.08	54	-8.92	-	-	155	303	V

HARMONICS AND SPURIOUS EMISSIONS



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

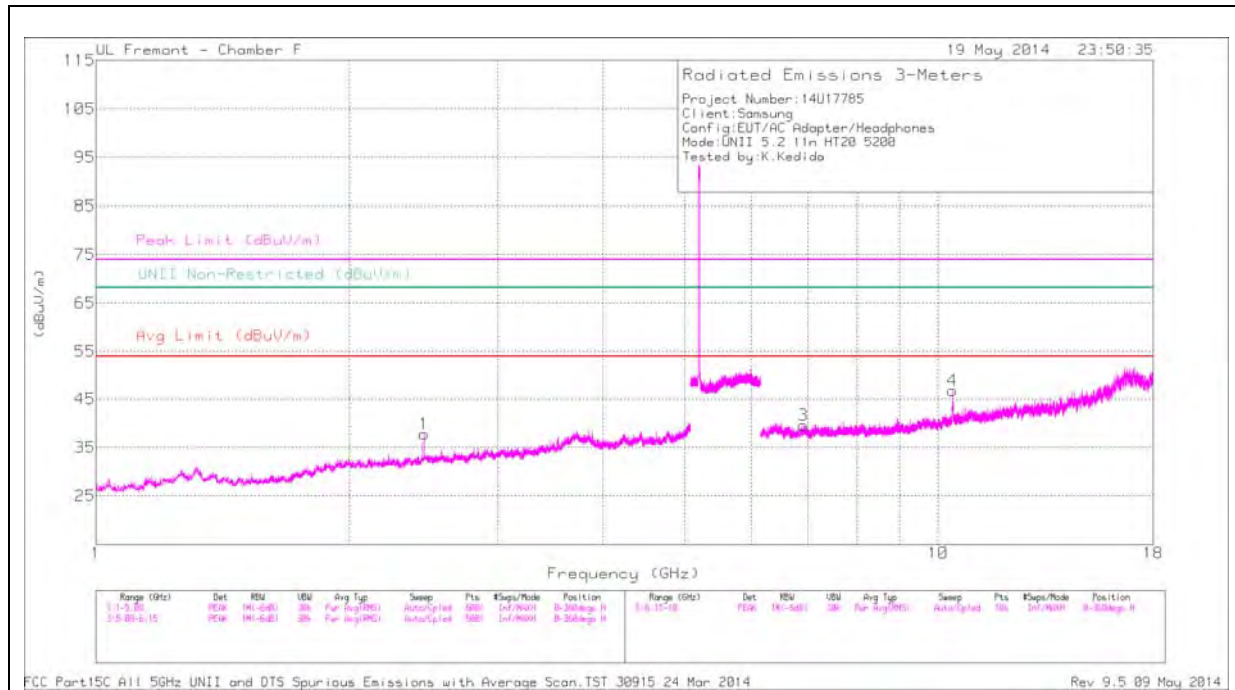
Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restrict ed (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.885	48.03	PK	33.8	-31.4	0	50.43	-	-	74	-23.57	-	-	0-360	101	H
2	* 3.885	42.97	PK	33.8	-31.4	0	45.37	-	-	74	-28.63	-	-	0-360	201	V
3	7.786	29.56	PK	35.7	-26.4	0	38.86	-	-	-	-	68.2	-29.34	0-360	201	H
5	7.802	29.57	PK	35.7	-26.4	0	38.87	-	-	-	-	68.2	-29.33	0-360	100	V
6	10.361	29.45	PK	37.2	-22.6	0	44.05	-	-	-	-	68.2	-24.15	0-360	201	V
4	10.362	28.55	PK	37.3	-22.6	0	43.25	-	-	-	-	68.2	-24.95	0-360	201	H

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

PK - Peak detector

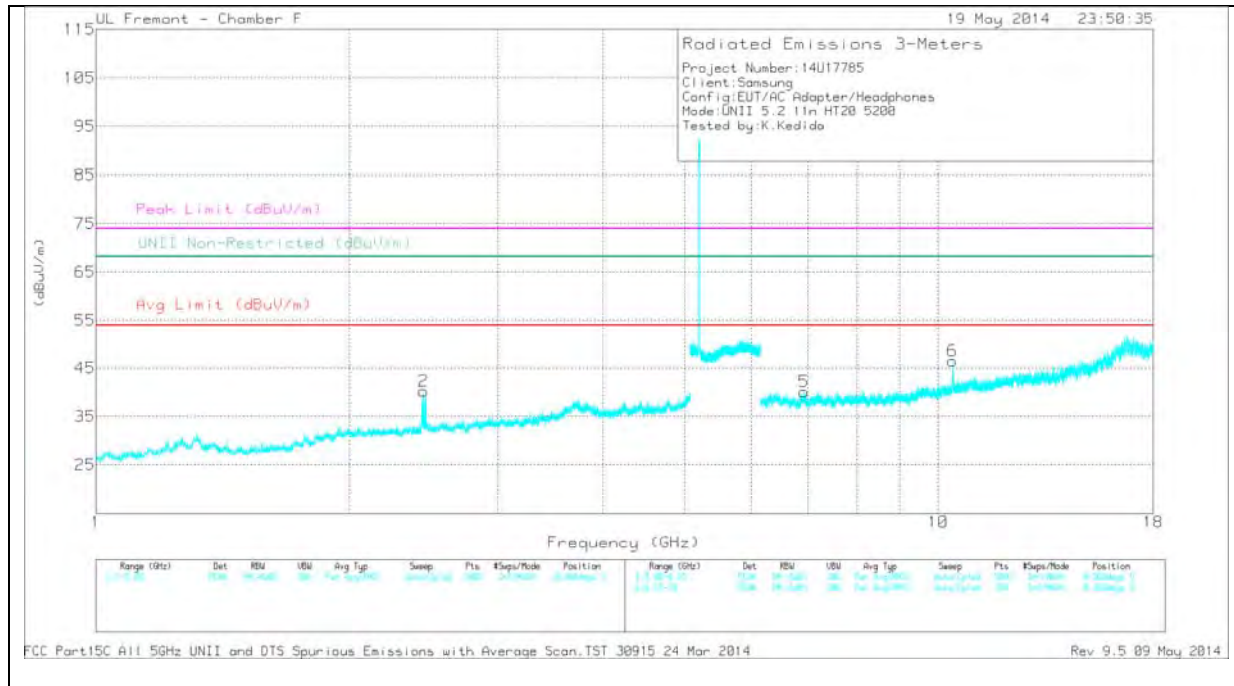
Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 3.885	51.88	PK1	33.8	-31.4	0	54.28	-	-	74	-19.72	-	-	213	270	H
* 3.885	49.12	AD1	33.8	-31.4	.6	52.12	54	-1.88	-	-	-	-	213	270	H
* 3.885	45.95	PK1	33.8	-31.4	0	48.35	-	-	74	-25.65	-	-	263	363	V
* 3.885	43.93	AD1	33.8	-31.4	.6	46.63	54	-7.37	-	-	-	-	263	363	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.

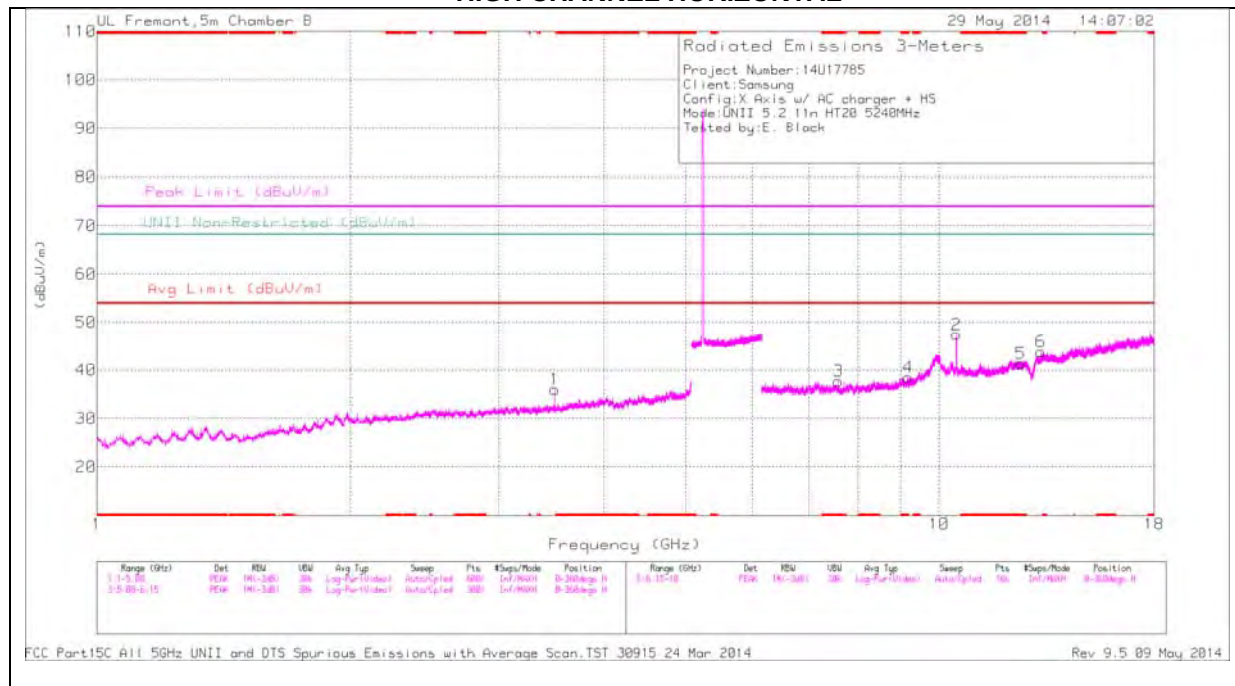
MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dBm)	Amp/Cbl/Filr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.454	36.33	PK	32.4	-30.9	0	37.83	-	-	-	-	68.2	-30.37	0-360	200	H
2	2.447	38.82	PK	32.4	-31	0	40.22	-	-	-	-	68.2	-27.98	0-360	201	V
3	6.92	30.3	PK	35.5	-26.2	0	39.6	-	-	-	-	68.2	-28.6	0-360	101	H
4	10.402	31.69	PK	37.4	-22.4	0	46.69	-	-	-	-	68.2	-21.51	0-360	101	H
5	6.935	30.39	PK	35.5	-25.8	0	40.09	-	-	-	-	68.2	-28.11	0-360	201	V
6	10.399	31.59	PK	37.3	-22.4	0	46.49	-	-	-	-	68.2	-21.71	0-360	201	V

PK - Peak detector

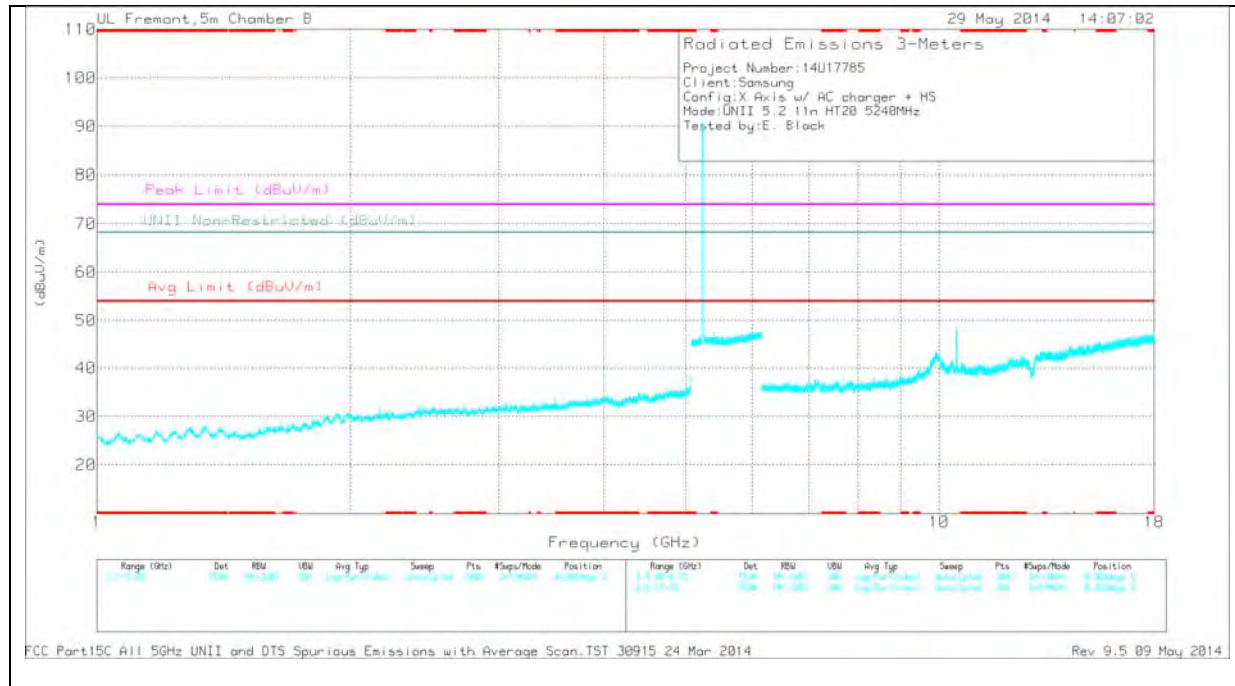
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dBm)	Amp/Cbl/Filr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2.44	43.74	PK1	32.4	-30.9	0	45.24	-	-	-	-	68.2	-22.96	56	342	H
2.452	28.84	AD1	32.4	-30.9	.6	30.64	-	-	-	-	-	-	56	342	H
6.918	37.61	PK1	35.5	-26.2	0	46.91	-	-	-	-	68.2	-21.29	56	208	H
10.4	40.83	PK1	37.4	-22.4	0	55.83	-	-	-	-	68.2	-12.37	63	329	H
10.4	29.12	AD1	37.4	-22.4	.6	44.42	-	-	-	-	-	-	63	329	H
10.398	42	PK1	37.3	-22.3	0	57	-	-	-	-	68.2	-11.2	145	206	V
10.4	29.43	AD1	37.4	-22.4	.6	44.73	-	-	-	-	-	-	145	206	V

HIGH CHANNEL HORIZONTAL



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

HIGH CHANNEL VERTICAL



HIGH 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
3	* 7.593	29.07	PK	35.7	-27	0	37.77	-	-	74	-36.23	-	-	0-360	201	H
4	* 9.188	26.85	PK	36.3	-24.6	0	38.55	-	-	74	-35.45	-	-	0-360	201	H
5	* 12.498	24.17	PK	39	-21.8	0	41.37	-	-	74	-32.63	-	-	0-360	201	H
1	3.494	34.83	PK	32.8	-31.6	0	36.03	-	-	-	-	68.2	-32.17	0-360	99	H
2	10.479	33.3	PK	37.4	-23.3	0	47.4	-	-	-	-	68.2	-20.8	0-360	201	H
6	13.208	26.46	PK	39.2	-21.8	0	43.86	-	-	-	-	68.2	-24.34	0-360	201	H

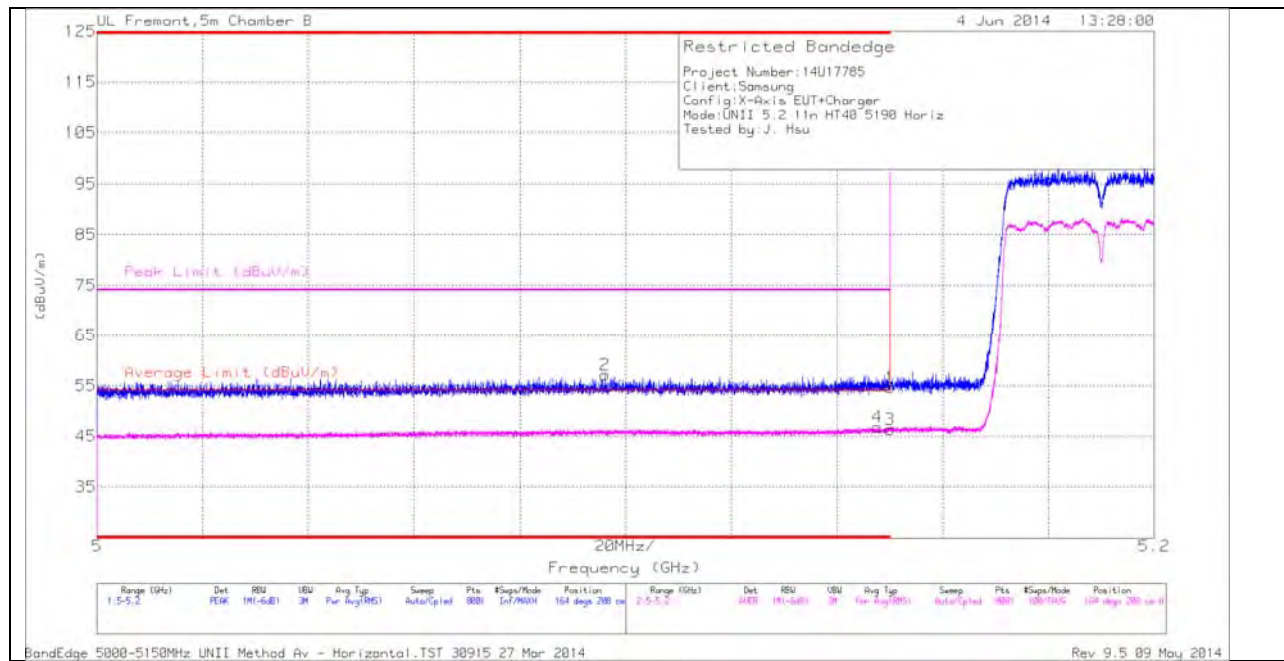
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

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
* 7.593	38.45	PK1	35.7	-27	0	47.15	-	-	74	-26.85	-	-	247	203	H
* 9.19	35.46	PK1	36.3	-24.5	0	47.26	-	-	74	-26.74	-	-	247	203	H
* 12.497	34.23	PK1	39	-21.8	0	51.43	-	-	74	-22.57	-	-	247	203	H
3.493	41.88	PK1	32.8	-31.6	0	43.08	-	-	-	-	68.2	-25.12	247	100	H
10.478	31.32	AD1	37.4	-23.4	.6	45.52	-	-	-	-	-	-	247	213	H
10.48	44.17	PK1	37.4	-23.3	0	58.27	-	-	-	-	68.2	-9.93	247	213	H
13.209	35.49	PK1	39.2	-21.7	0	52.99	-	-	-	-	68.2	-15.21	247	203	H

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

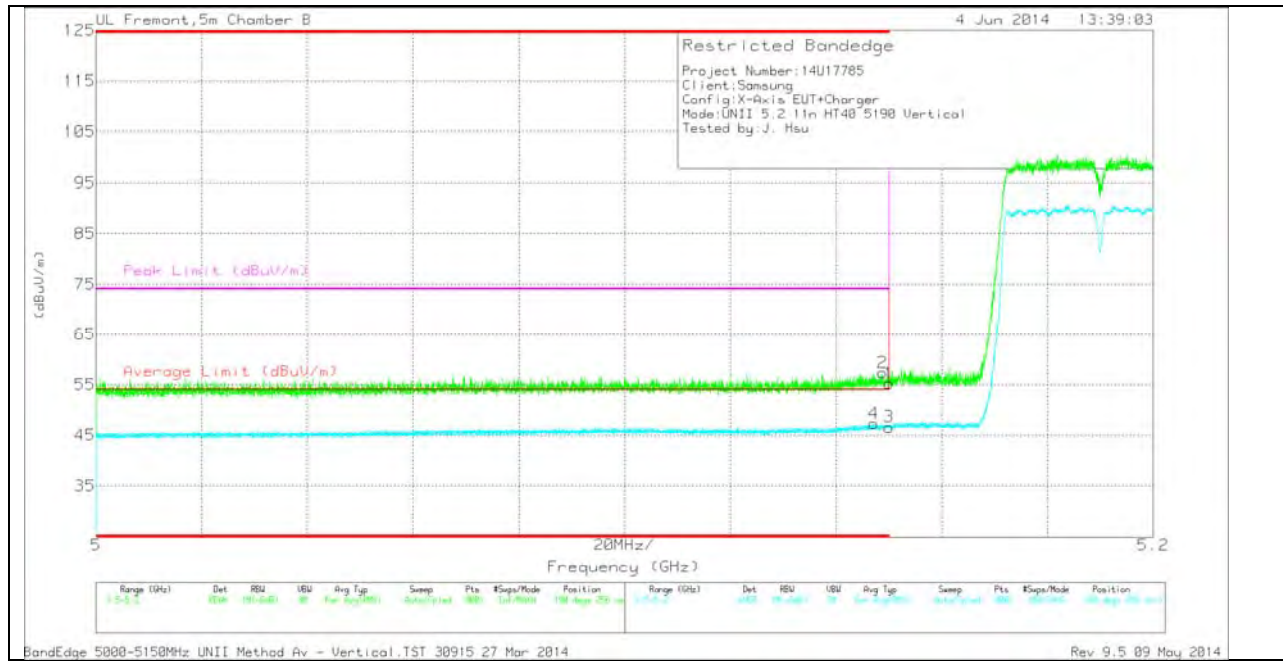


HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	40.58	PK	34.3	-20.3	0	54.58	-	-	74	-19.42	164	208	H
2	* 5.096	42.95	PK	34.2	-20	0	57.15	-	-	74	-16.85	164	208	H
3	* 5.15	31.85	RMS	34.3	-20.3	1.1	46.85	54	-7.15	-	-	164	208	H
4	* 5.148	32.35	RMS	34.3	-20.3	1.1	47.35	54	-6.65	-	-	164	208	H

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

VERTICAL PEAK AND AVERAGE PLOT

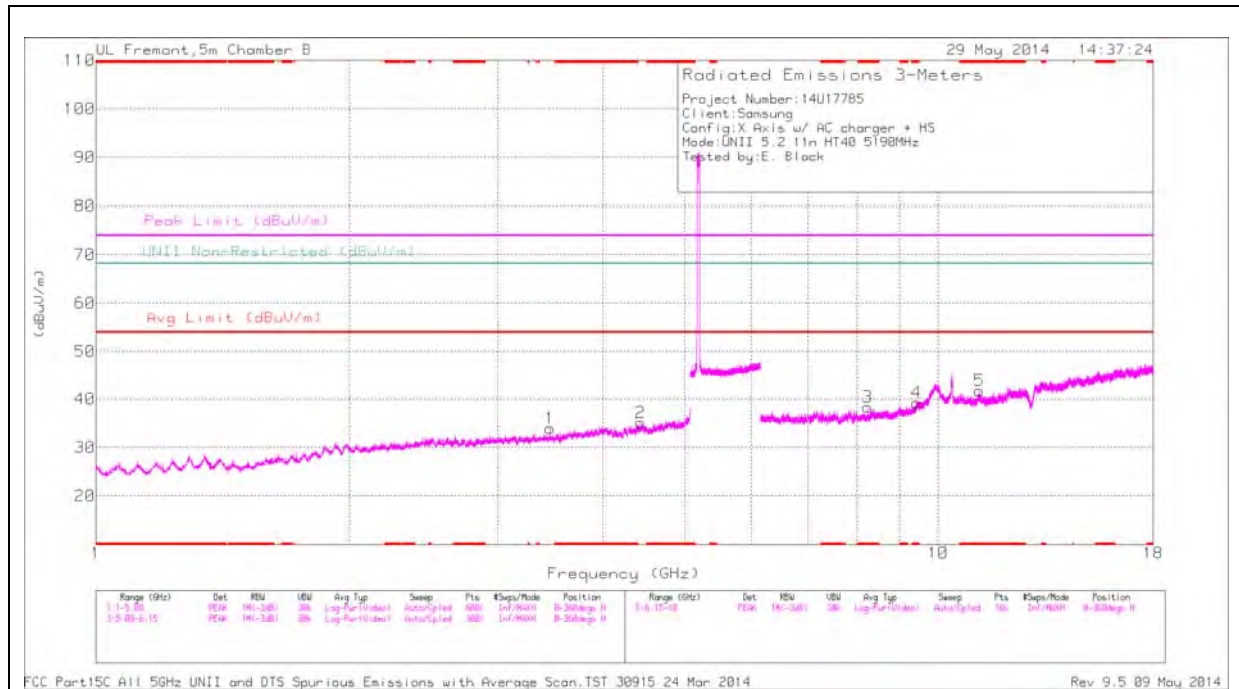


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBUV)	Det	AF T345 (dB/m)	Amp/Cbl/FI tr/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	32.77	RMS	34.3	-20.3	1.1	47.27	54	-6.73	-	-	190	256	V
2	* 5.149	43.36	PK	34.3	-20.3	0	57.36	-	-	74	-16.64	190	256	V
1	* 5.15	41.22	PK	34.3	-20.3	0	55.22	-	-	74	-18.78	190	256	V
3	* 5.15	32.13	RMS	34.3	-20.3	1.1	46.63	54	-7.37	-	-	190	256	V

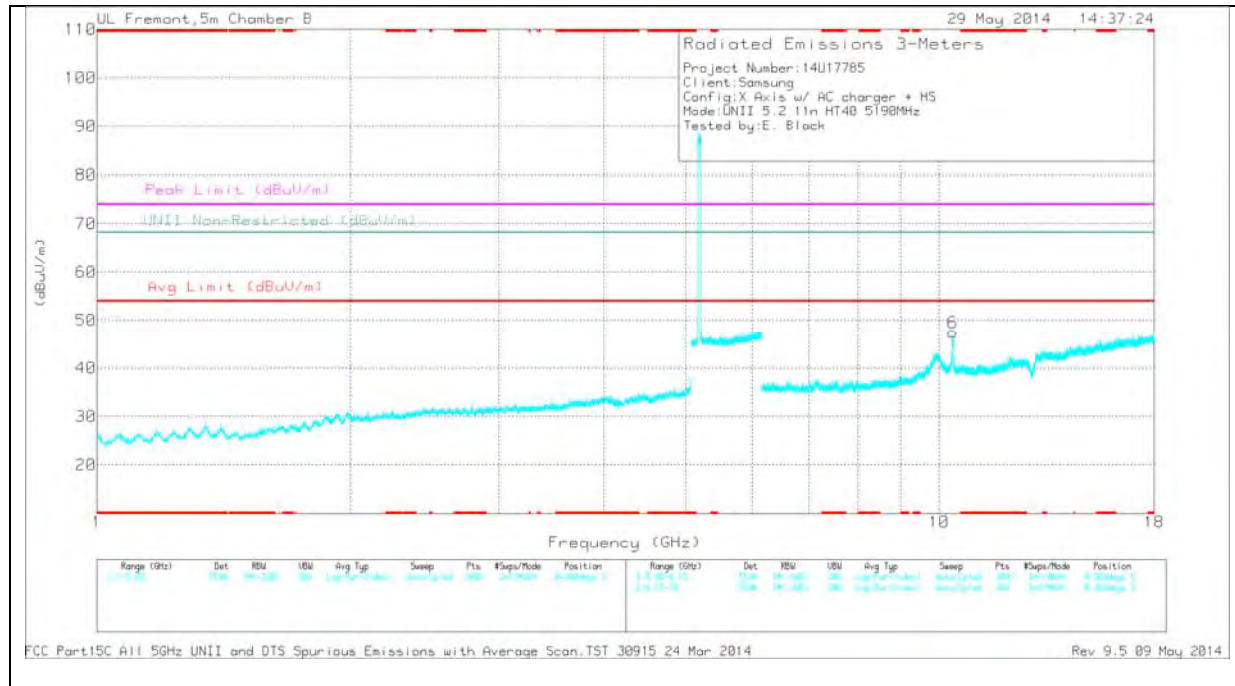
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL HORIZONTAL



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

LOW CHANNEL VERTICAL



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

LOW CHANNEL DATA

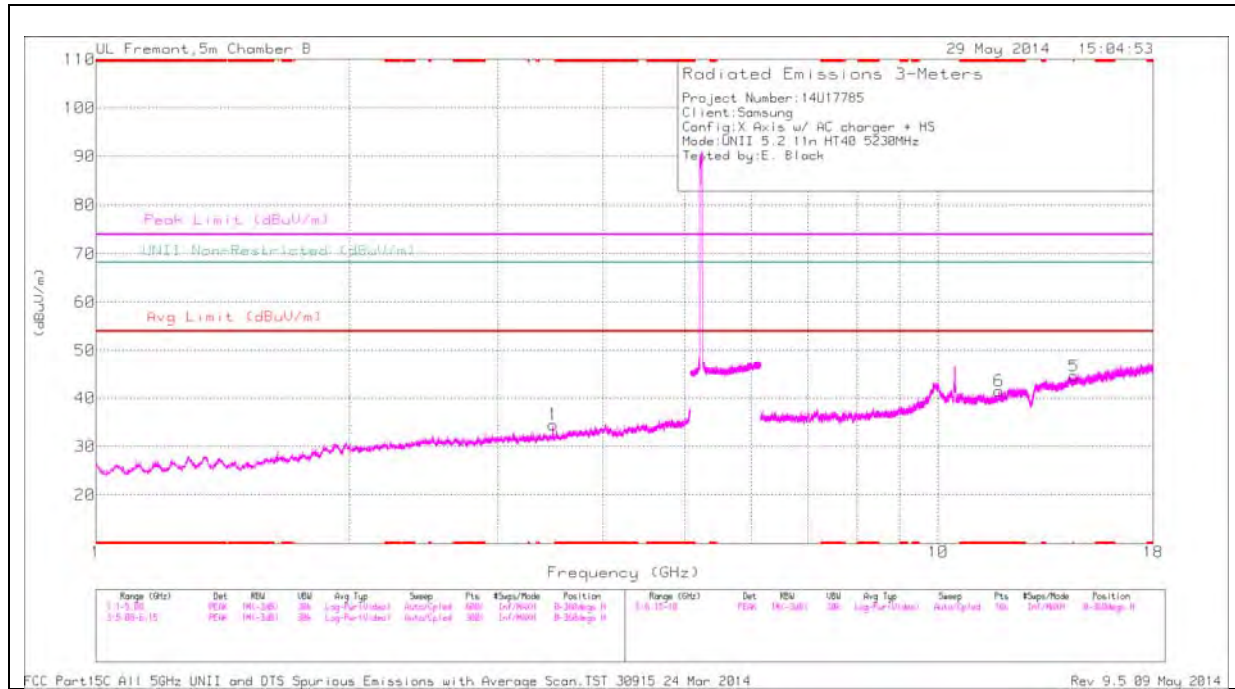
Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restrict ed (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	* 8.244	28.97	PK	35.7	-26.3	0	38.37	-	-	74	-35.63	-	-	0-360	99	H
4	* 9.421	27.27	PK	36.5	-24.5	0	39.27	-	-	74	-34.73	-	-	0-360	99	H
5	* 11.199	25.92	PK	37.9	-22.1	0	41.72	-	-	74	-32.28	-	-	0-360	202	H
1	3.46	32.31	PK	32.8	-31.2	0	33.91	-	-	-	-	68.2	-34.29	0-360	99	H
2	4.431	30.94	PK	33.9	-29.7	0	35.14	-	-	-	-	68.2	-33.06	0-360	99	H
6	10.378	32.81	PK	37.3	-22.6	0	47.51	-	-	-	-	68.2	-20.69	0-360	202	V

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

PK - Peak detector

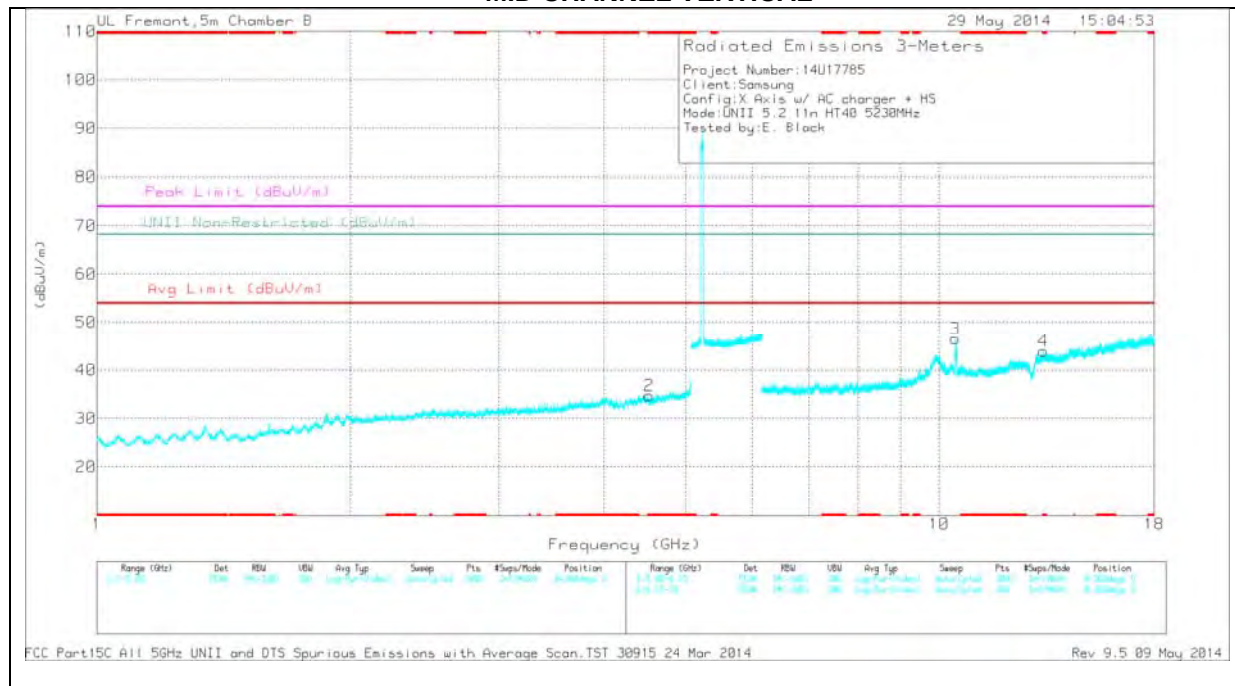
Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 8.243	37.84	PK1	35.7	-26.3	0	47.24	-	-	74	-26.76	-	-	320	100	H
* 9.42	36.04	PK1	36.5	-24.5	0	48.04	-	-	74	-25.96	-	-	320	100	H
* 11.199	34.52	PK1	37.9	-22	0	50.42	-	-	74	-23.58	-	-	320	204	H
3.46	41.22	PK1	32.8	-31.2	0	42.82	-	-	-	-	68.2	-25.38	320	100	H
4.431	40.16	PK1	33.9	-29.7	0	44.36	-	-	-	-	68.2	-23.84	320	100	H
10.377	43.13	PK1	37.3	-22.6	0	57.83	-	-	-	-	68.2	-10.37	320	234	V
10.379	30.01	AD1	37.3	-22.6	1.1	45.21	-	-	-	-	-	-	320	234	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	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restrict ed (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.527	31.23	PK	34.1	-30.6	0	34.73	-	-	74	-39.27	-	-	0-360	99	V
5	* 14.488	26.15	PK	39.3	-20.8	0	44.65	-	-	74	-29.35	-	-	0-360	202	H
6	* 11.808	25.2	PK	38.3	-22	0	41.5	-	-	74	-32.5	-	-	0-360	99	H
4	* 13.3	26.01	PK	39.3	-21.4	0	43.91	-	-	74	-30.09	-	-	0-360	99	V
1	3.487	33.19	PK	32.8	-31.5	0	34.49	-	-	-	-	68.2	-33.71	0-360	202	H
3	10.46	32.58	PK	37.4	-23.4	0	46.58	-	-	-	-	68.2	-21.62	0-360	202	V

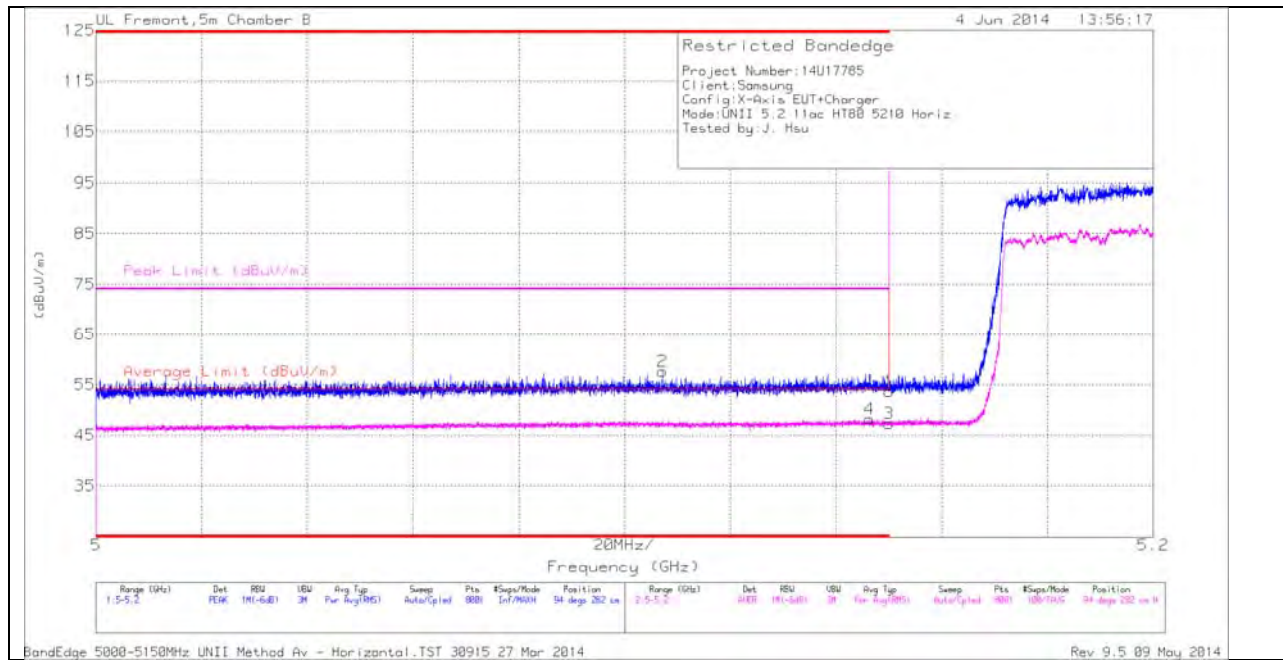
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.525	40.77	PK1	34	-30.6	0	44.17	-	-	74	-29.83	-	-	329	100	V
* 14.49	34.84	PK1	39.3	-20.8	0	53.34	-	-	74	-20.66	-	-	329	204	H
* 11.81	34.14	PK1	38.3	-22	0	50.44	-	-	74	-23.56	-	-	329	100	H
* 13.3	35.7	PK1	39.3	-21.4	0	53.6	-	-	74	-20.4	-	-	329	100	V
3.487	42	PK1	32.8	-31.5	0	43.3	-	-	-	-	68.2	-24.9	329	201	H
10.459	31.07	AD1	37.4	-23.4	1.1	45.57	-	-	-	-	-	-	329	223	V
10.46	43.98	PK1	37.4	-23.4	0	57.98	-	-	-	-	68.2	-10.22	329	223	V

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

HORIZONTAL PEAK AND AVERAGE PLOT

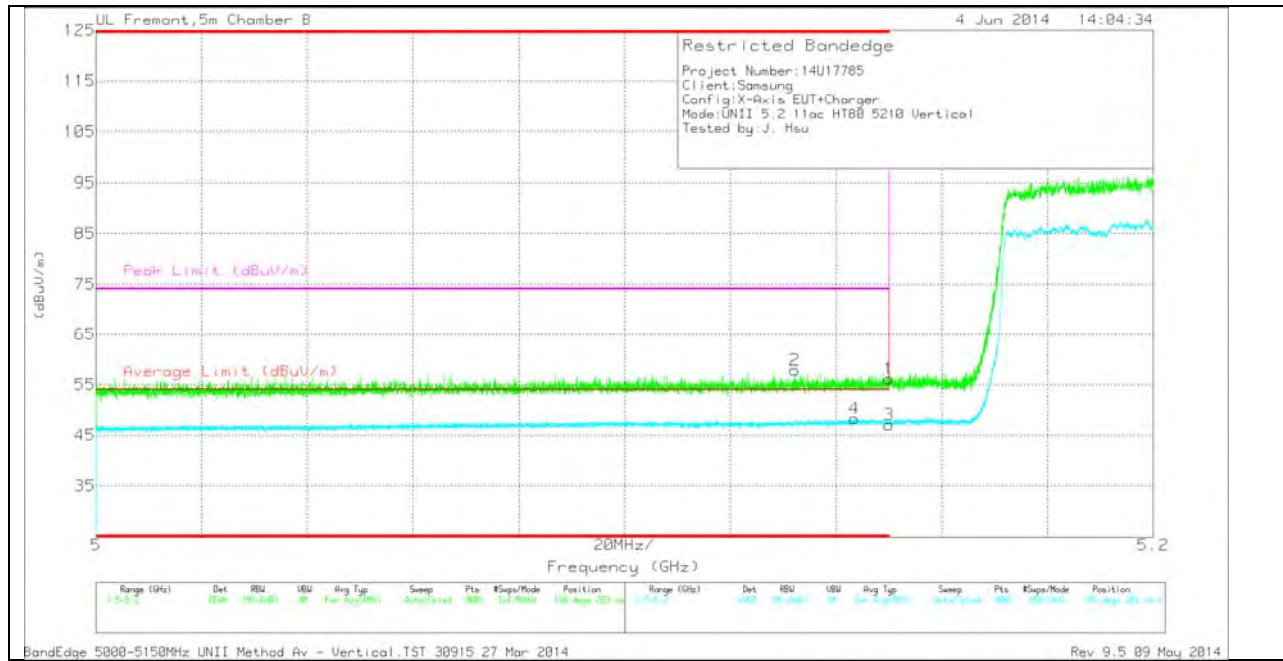


HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/FI tr/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	* 5.107	43.36	PK	34.3	-20.1	0	57.56	-	-	74	-16.44	94	282	H
4	* 5.146	32.4	RMS	34.3	-20.3	1.8	48.2	54	-5.8	-	-	94	282	H
1	* 5.15	39.7	PK	34.3	-20.3	0	53.7	-	-	74	-20.3	94	282	H
3	* 5.15	31.49	RMS	34.3	-20.3	1.8	47.29	54	-6.71	-	-	94	282	H

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

VERTICAL PEAK AND AVERAGE PLOT



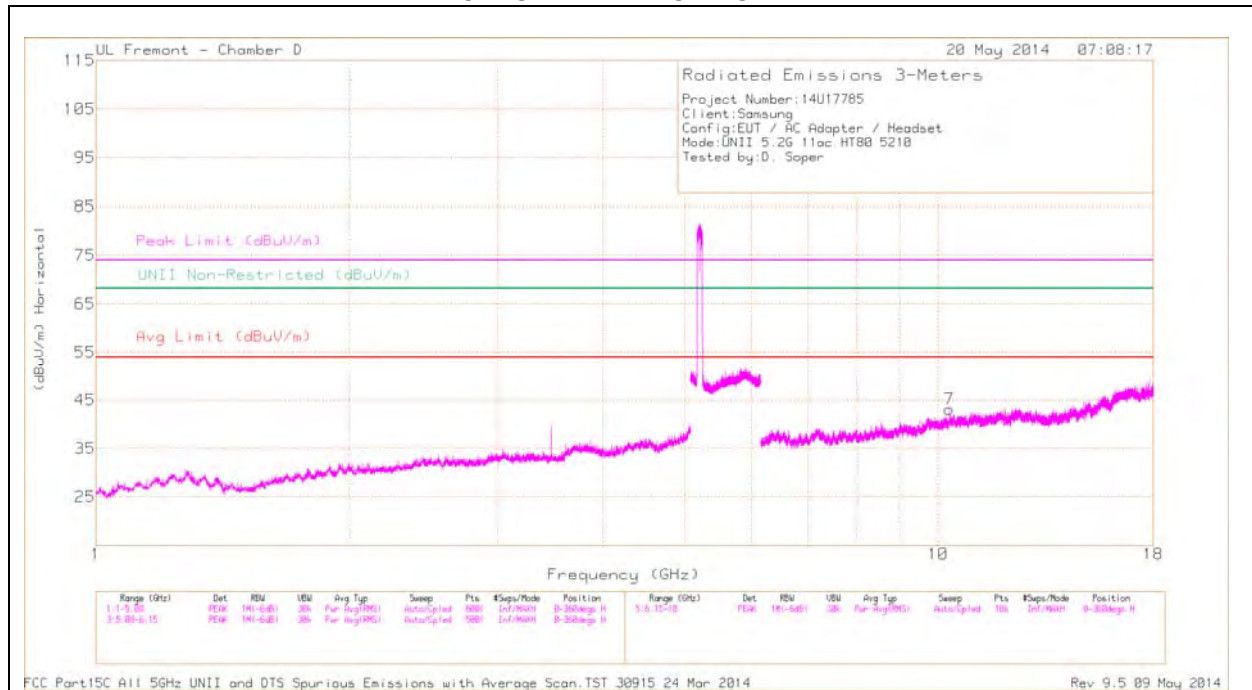
VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/FI tri/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	* 5.132	43.86	PK	34.3	-20.3	0	57.86	-	-	74	-16.14	196	283	V
4	* 5.144	32.4	RMS	34.3	-20.2	1.8	48.3	54	-5.7	-	-	196	283	V
1	* 5.15	42.13	PK	34.3	-20.3	0	56.13	-	-	74	-17.87	196	283	V
3	* 5.15	31.25	RMS	34.3	-20.3	1.8	47.05	54	-6.95	-	-	196	283	V

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

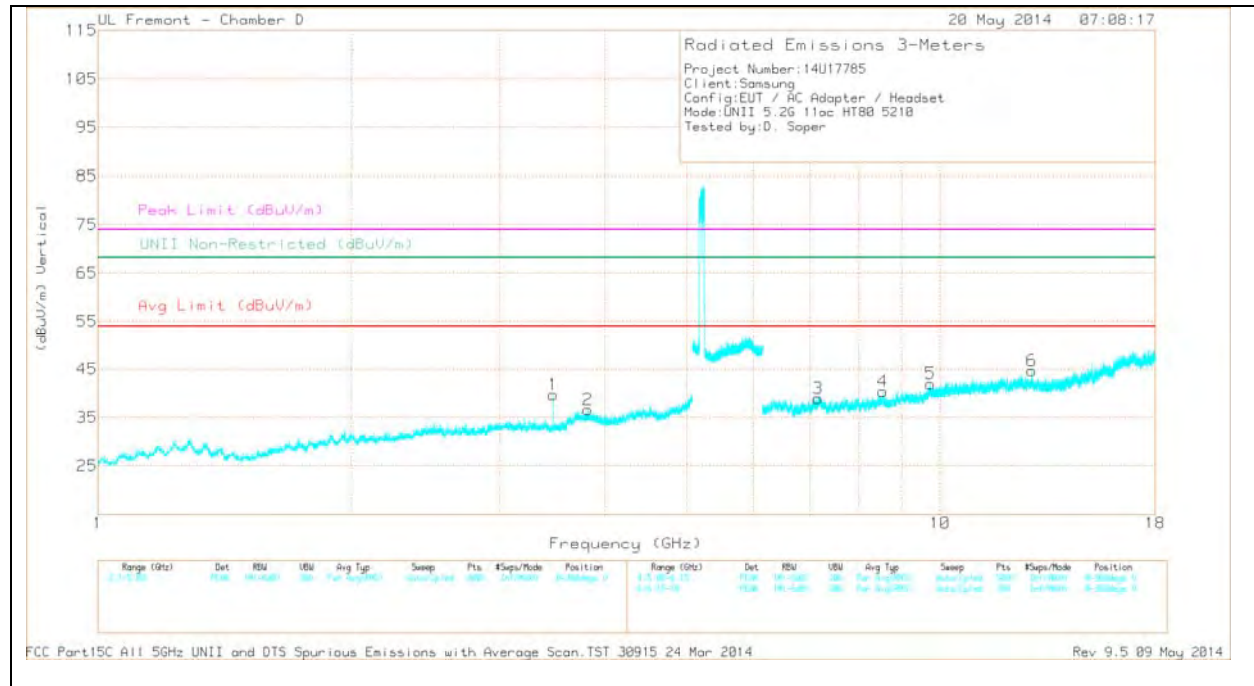
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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

LOW CHANNEL VERTICAL



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

LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (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	* 3.815	32.57	PK	32.8	-28.8	0	36.57	-	-	74	-37.43	-	-	0-360	100	V
1	3.473	36.52	PK	32.3	-29.1	0	39.72	-	-	-	-	68.2	-28.48	0-360	201	V
3	7.156	28.26	PK	35.1	-24.4	0	38.96	-	-	-	-	68.2	-29.24	0-360	201	V
4	8.552	27.97	PK	35.4	-23	0	40.37	-	-	-	-	68.2	-27.83	0-360	100	V
5	9.734	26.9	PK	36.4	-21.3	0	42	-	-	-	-	68.2	-26.2	0-360	201	V
7	10.317	27.38	PK	37	-21.3	0	43.08	-	-	-	-	68.2	-25.12	0-360	201	H
6	12.851	28.02	PK	38.6	-21.9	0	44.72	-	-	-	-	68.2	-23.48	0-360	100	V

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

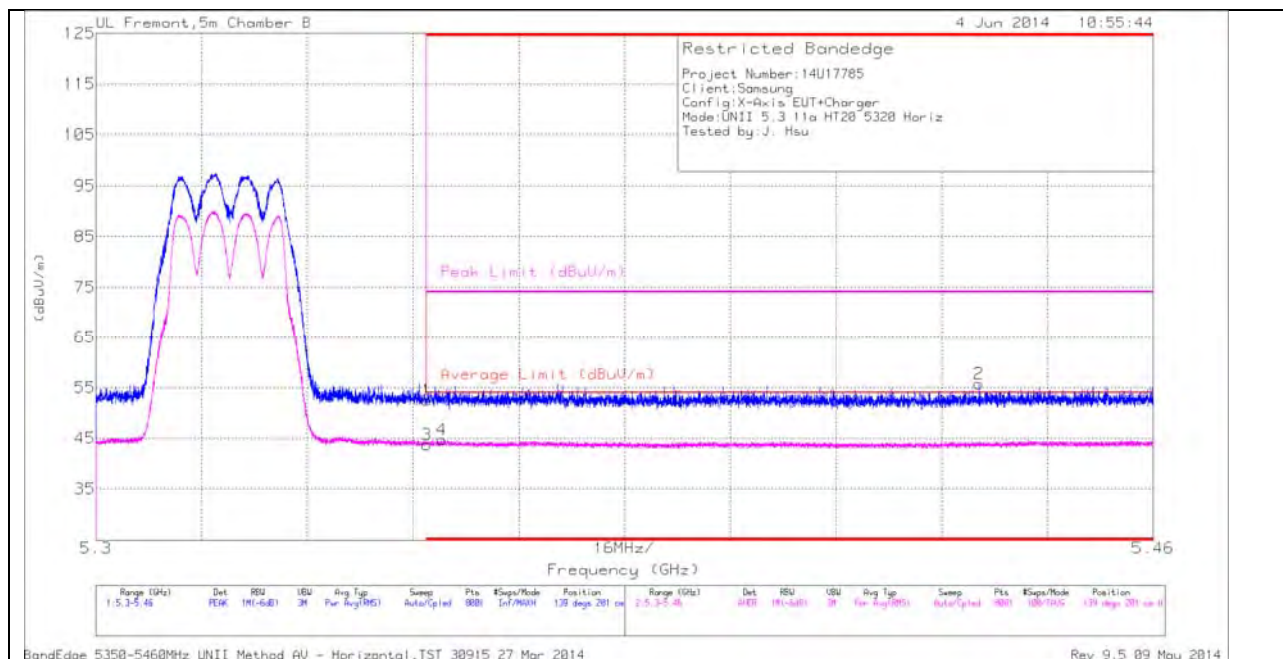
PK - Peak detector

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (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
3.473	42.36	PK1	32.3	-29.1	0	45.56	-	-	-	-	68.2	-22.64	169	211	V
3.473	36.04	AD1	32.3	-29.1	1.8	41.04	-	-	-	-	-	-	169	211	V

11.2. 5.3 GHz

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

HORIZONTAL PEAK AND AVERAGE PLOT

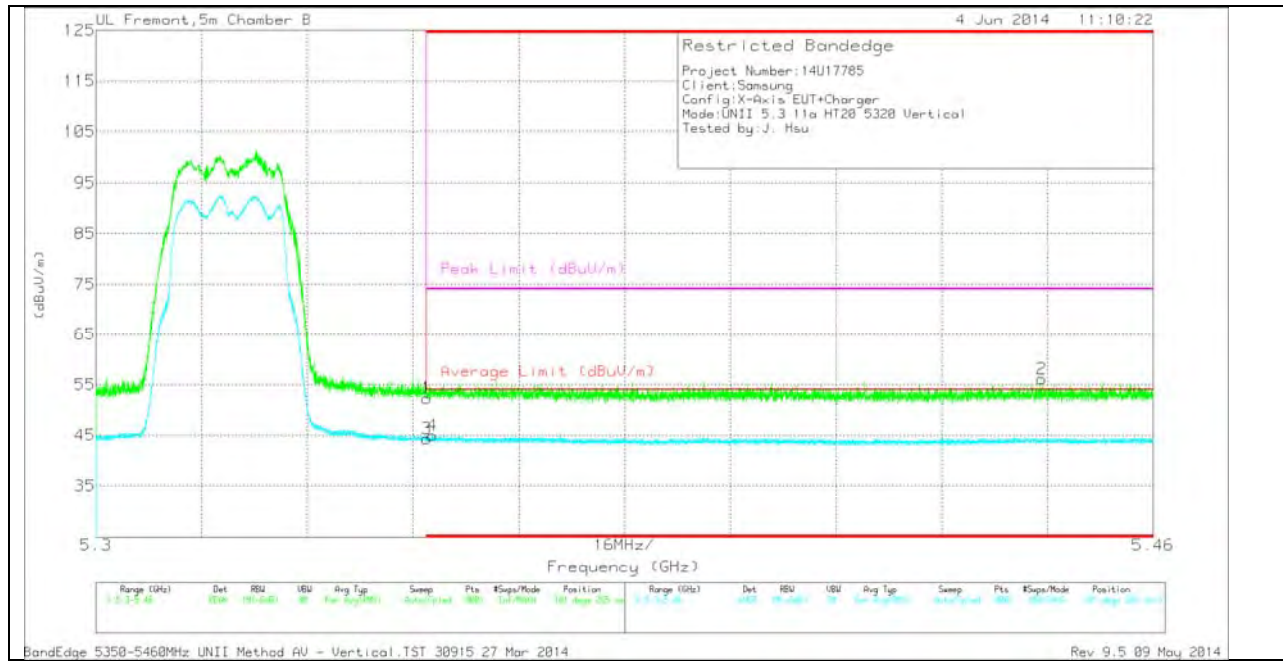


HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/FI tr/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	37.87	PK	34.5	-19.9	0	52.47	-	-	74	-21.53	139	201	H
2	* 5.434	41.33	PK	34.5	-20.1	0	55.73	-	-	74	-18.27	139	201	H
3	* 5.35	28.9	RMS	34.5	-19.9	.3	43.7	54	-10.3	-	-	139	201	H
4	* 5.352	30	RMS	34.5	-20	.3	44.7	54	-9.3	-	-	139	201	H

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

VERTICAL PEAK AND AVERAGE PLOT



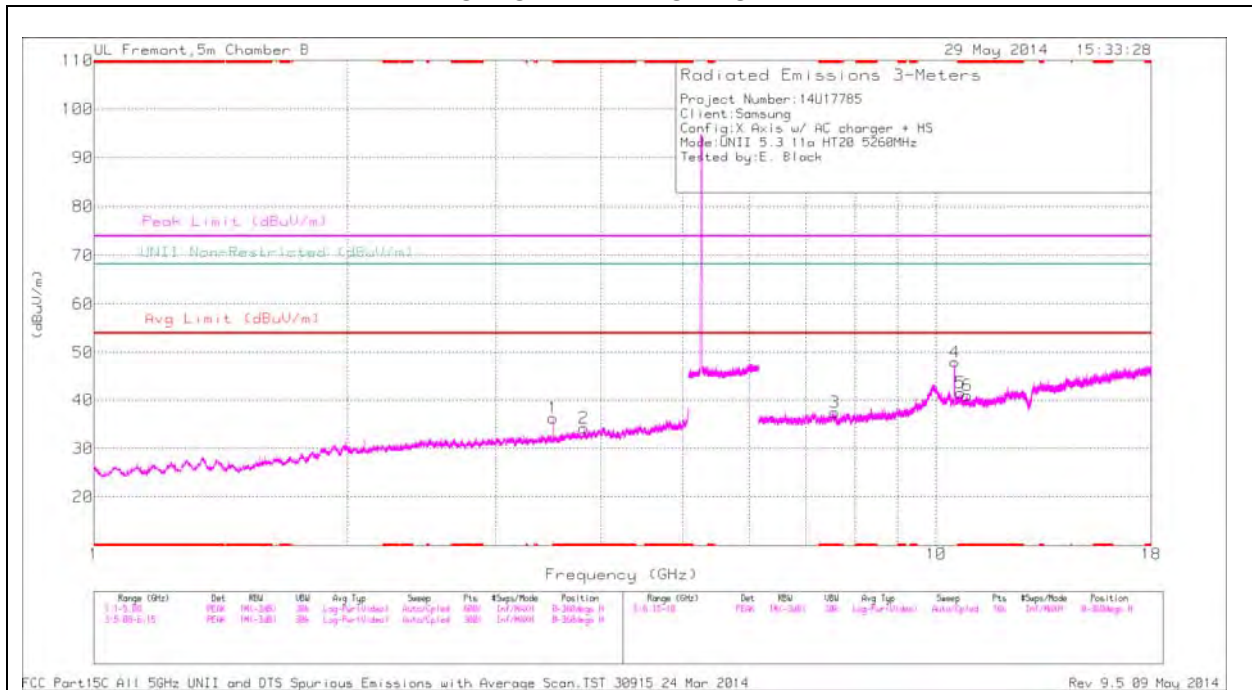
VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/FI tri/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	37.74	PK	34.5	-19.9	0	52.34	-	-	74	-21.66	181	265	V
2	* 5.443	41.66	PK	34.5	-20	0	56.16	-	-	74	-17.84	181	265	V
3	* 5.35	29.5	RMS	34.5	-19.9	.3	44.3	54	-9.7	-	-	181	265	V
4	* 5.351	30.26	RMS	34.5	-20	.3	44.96	54	-9.04	-	-	181	265	V

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

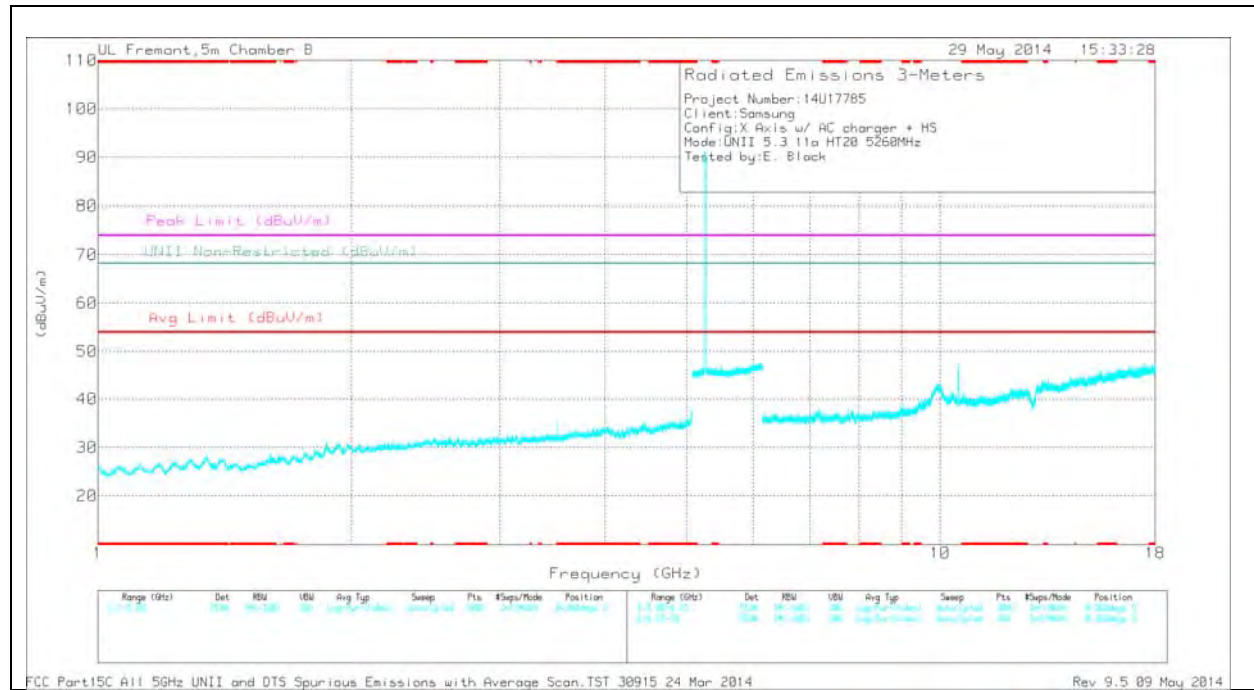
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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

LOW CHANNEL VERTICAL



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

LOW CHANNEL DATA

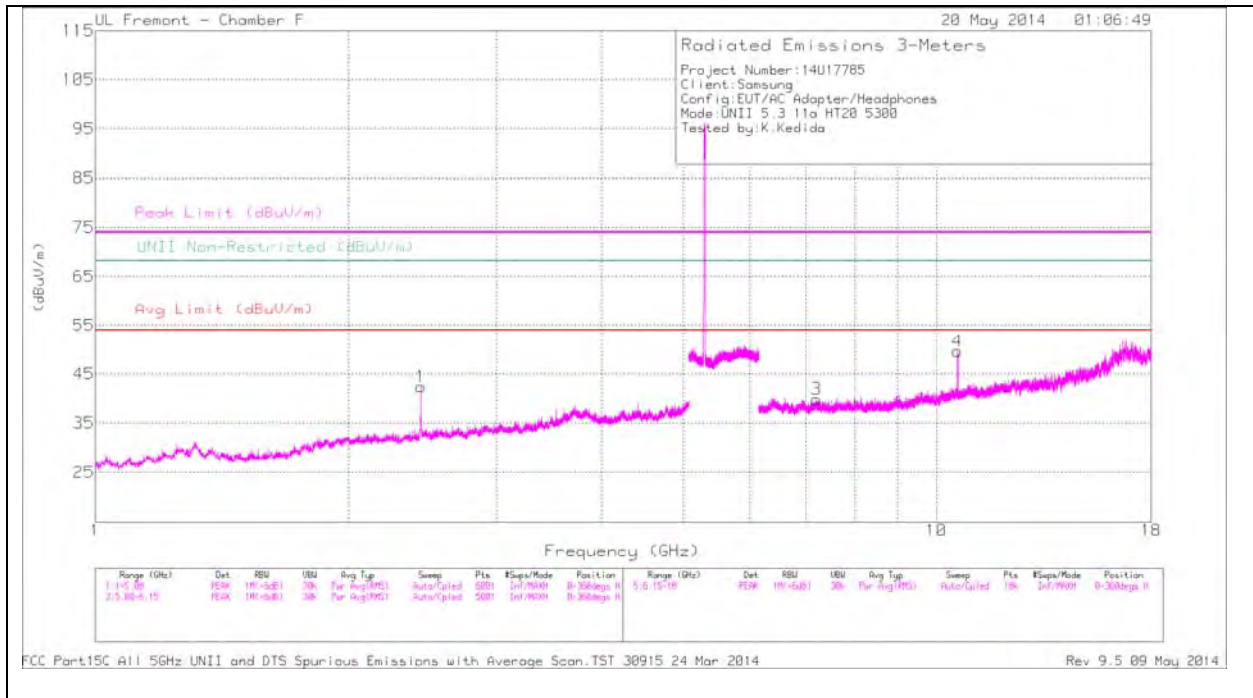
Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restrict ed (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.506	35.13	PK	32.8	-31.7	0	36.23	-	-	74	-37.77	-	-	0-360	99	H
2	* 3.819	31.61	PK	33.7	-31.1	0	34.21	-	-	74	-39.79	-	-	0-360	99	H
3	* 7.572	28.68	PK	35.6	-26.8	0	37.48	-	-	74	-36.52	-	-	0-360	202	H
5	* 10.695	25.92	PK	37.8	-22.2	0	41.52	-	-	74	-32.48	-	-	0-360	202	H
6	* 10.899	25.74	PK	37.8	-22.6	0	40.94	-	-	74	-33.06	-	-	0-360	202	H
4	10.52	33.63	PK	37.5	-23.1	0	48.03	-	-	-	-	68.2	-20.17	0-360	202	H

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

PK - Peak detector

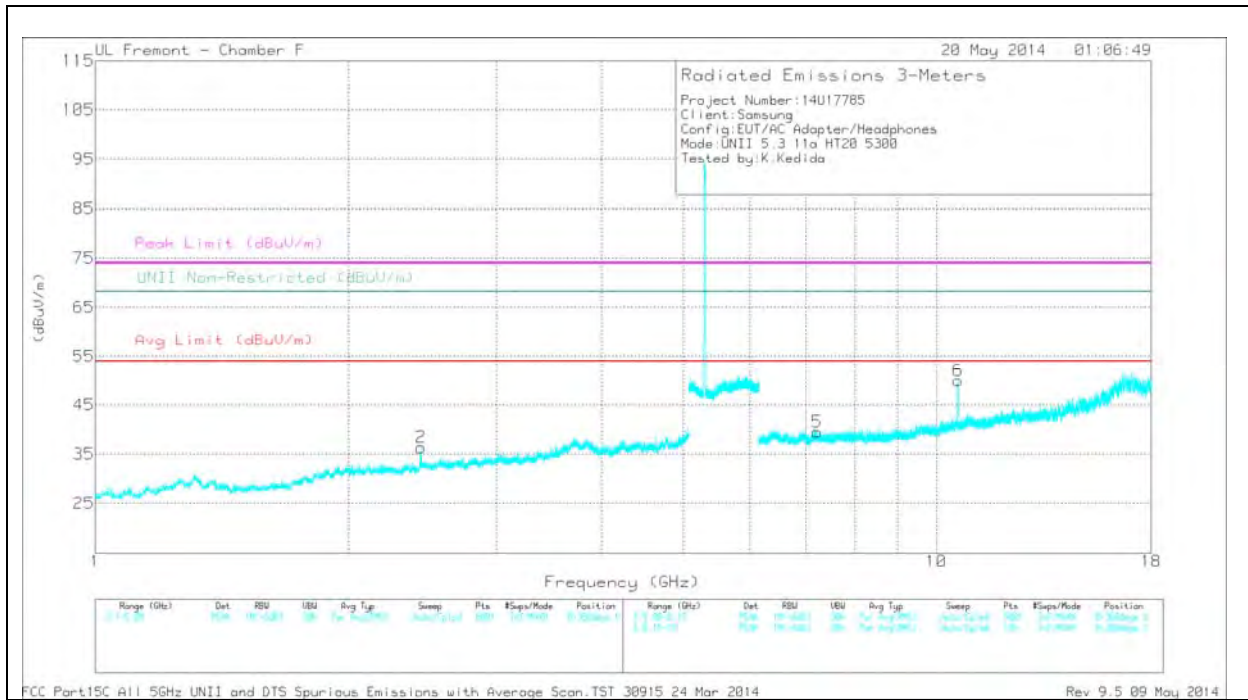
Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F tr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 3.507	42.34	PK1	32.8	-31.7	0	43.44	-	-	74	-30.56	-	-	247	100	H
* 7.572	37.69	PK1	35.6	-26.8	0	46.49	-	-	74	-27.51	-	-	247	204	H
* 10.696	35.12	PK1	37.8	-22.2	0	50.72	-	-	74	-23.28	-	-	247	204	H
* 10.695	34.67	PK1	37.8	-22.2	0	50.27	-	-	74	-23.73	-	-	247	204	H
* 10.9	34.33	PK1	37.8	-22.6	0	49.53	-	-	74	-24.47	-	-	247	204	H
10.52	32.84	AD1	37.5	-23.1	.3	47.44	-	-	-	-	-	-	247	223	H
10.521	44.93	PK1	37.5	-23.1	0	59.33	-	-	-	-	68.2	-8.87	247	223	H

MID CHANNEL HORIZONTAL



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

MID CHANNEL VERTICAL



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

MID CHANNEL DATA

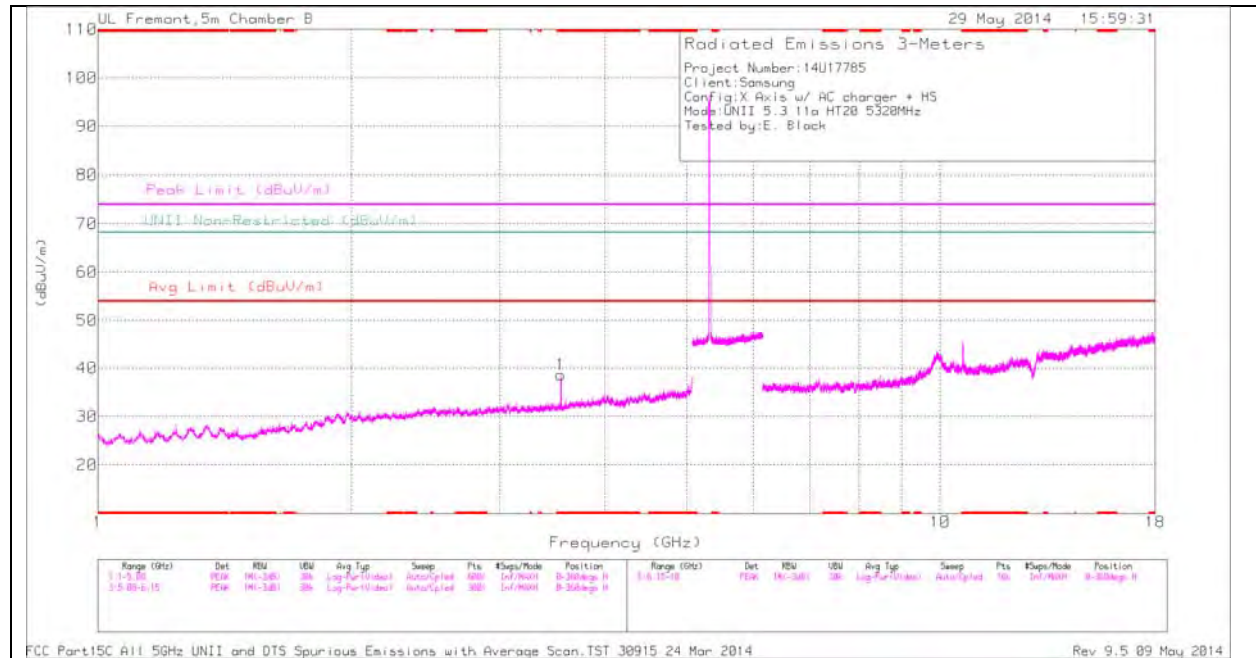
Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Ampl/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restrict ed (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.44	40.91	PK	32.4	-30.9	0	42.41	-	-	-	-	68.2	-25.79	0-360	199	H
2	2.441	34.85	PK	32.4	-30.9	0	36.35	-	-	-	-	68.2	-31.85	0-360	201	V
3	7.203	29.58	PK	35.5	-25.2	0	39.88	-	-	-	-	68.2	-28.32	0-360	101	H
4	10.595	34.55	PK	37.8	-22.7	0	49.65	-	-	-	-	68.2	-18.55	0-360	101	H
5	7.212	29.28	PK	35.5	-25.3	0	39.48	-	-	-	-	68.2	-28.72	0-360	101	V
6	* 10.603	34.69	PK	37.9	-22.6	0	49.99	-	-	74	-24.01	-	-	0-360	201	V

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

PK - Peak detector

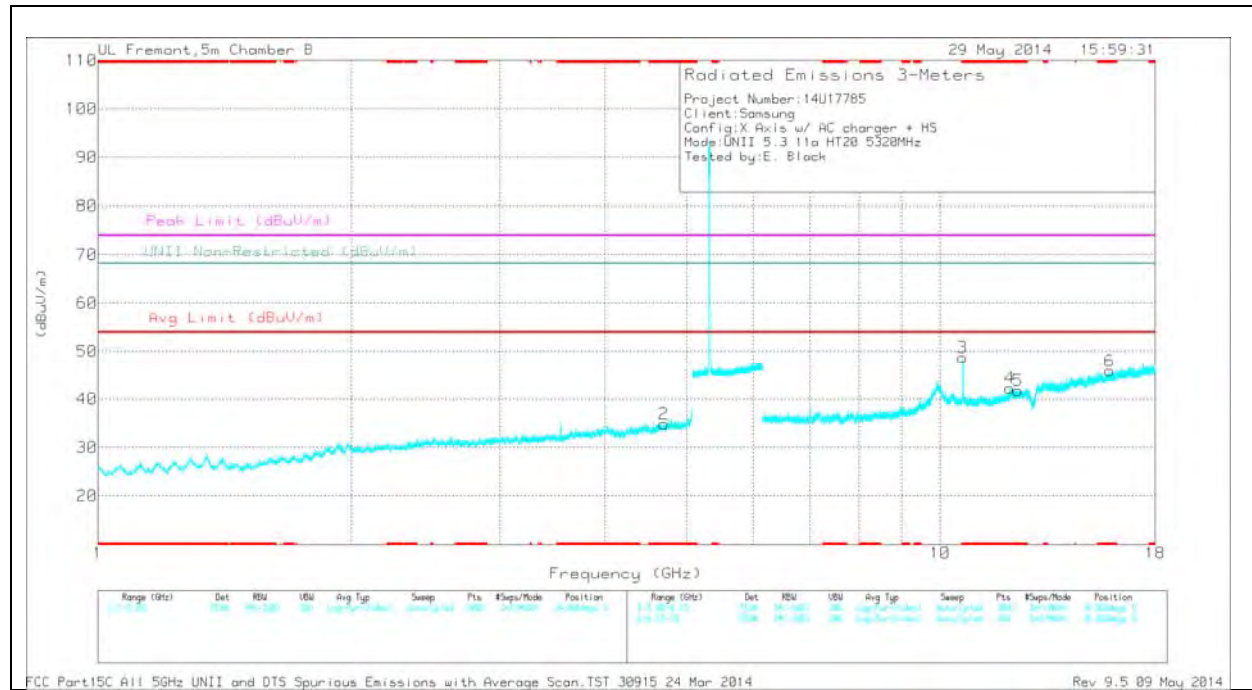
Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Ampl/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2.44	46.76	PK1	32.4	-30.9	0	48.26	-	-	-	-	68.2	-19.94	283	180	H
2.44	30.08	AD1	32.4	-30.9	.3	31.88	-	-	-	-	-	-	283	180	H
7.202	37.12	PK1	35.5	-25.2	0	47.42	-	-	-	-	68.2	-20.78	283	102	H
10.599	44.39	PK1	37.8	-22.6	0	59.59	-	-	-	-	68.2	-8.61	69	350	H
10.599	32.67	AD1	37.8	-22.6	.3	48.17	-	-	-	-	-	-	69	350	H

HIGH CHANNEL HORIZONTAL



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

HIGH CHANNEL VERTICAL



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

HIGH CHANNEL DATA

Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Chl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restrict ed (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.547	37.54	PK	33	-31.9	0	38.64	-	-	74	-35.36	-	-	0-360	201	H
2	* 4.697	30.59	PK	34.2	-29.9	0	34.89	-	-	74	-39.11	-	-	0-360	99	V
3	* 10.639	33.24	PK	37.7	-22.2	0	48.74	-	-	74	-25.26	-	-	0-360	202	V
4	* 12.095	25.13	PK	38.8	-21.7	0	42.23	-	-	74	-31.77	-	-	0-360	99	V
5	* 12.369	24.58	PK	39	-21.8	0	41.78	-	-	74	-32.22	-	-	0-360	202	V
6	* 15.903	24.63	PK	40.8	-19.5	0	45.93	-	-	74	-28.07	-	-	0-360	202	V

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

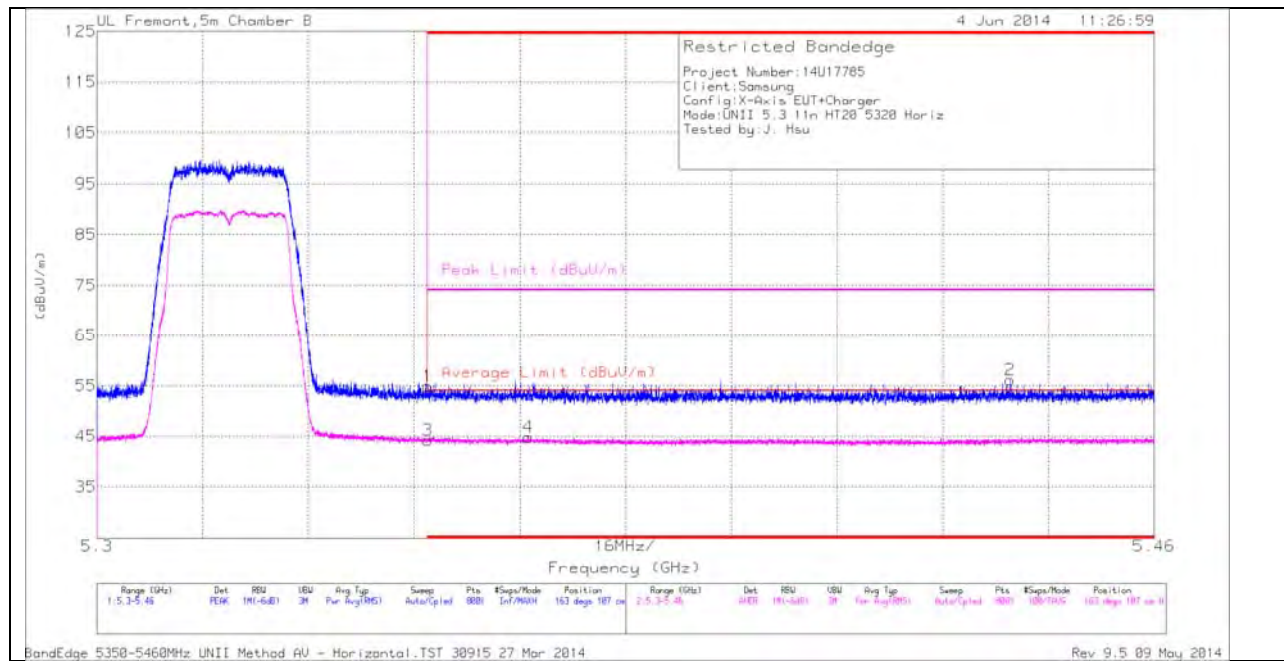
PK - Peak detector

Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Chl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.699	40.8	PK1	34.2	-29.9	0	45.1	-	-	74	-28.9	-	-	308	100	V
* 10.639	45.55	PK1	37.7	-22.2	0	61.05	-	-	74	-12.95	-	-	308	234	V
* 10.639	32.19	AD1	37.7	-22.2	.3	47.89	54	-6.11	-	-	-	-	308	234	V
* 12.096	35.02	PK1	38.8	-21.6	0	52.22	-	-	74	-21.78	-	-	308	100	V
* 12.094	34.19	PK1	38.8	-21.7	0	51.29	-	-	74	-22.71	-	-	308	100	V
* 12.368	34.1	PK1	39	-21.8	0	51.3	-	-	74	-22.7	-	-	308	204	V
* 15.905	33.85	PK1	40.8	-19.5	0	55.15	-	-	74	-18.85	-	-	308	204	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

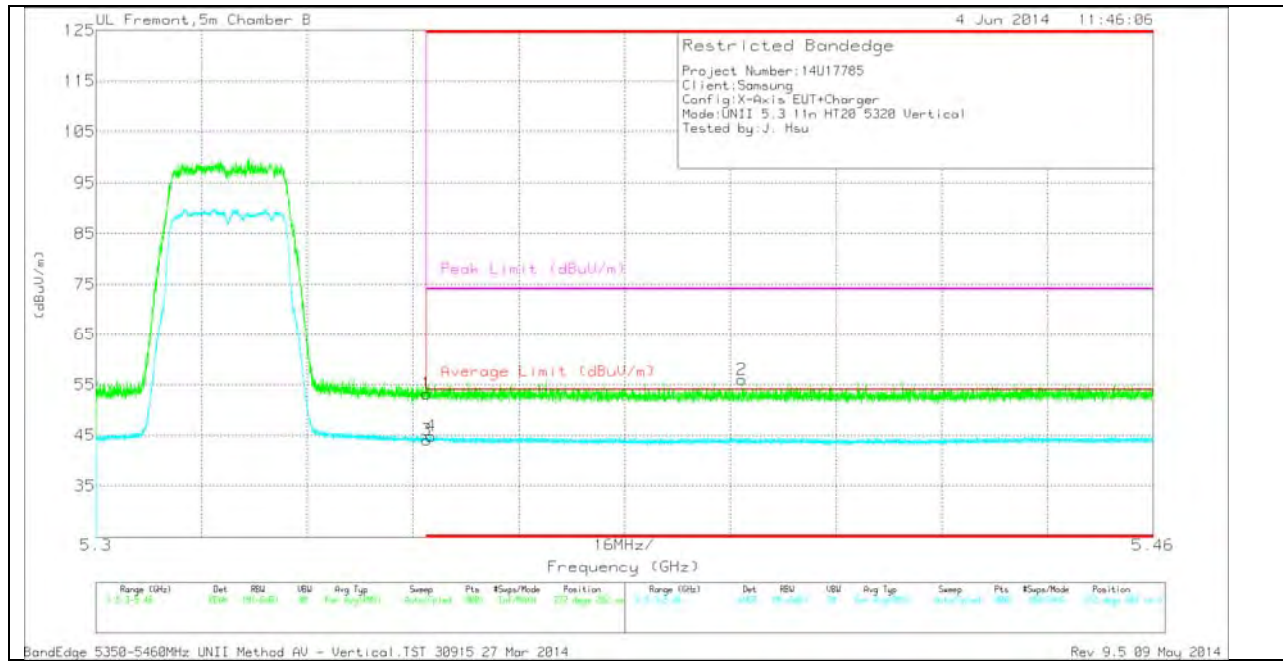


HORIZONTAL DATA

Marker	Frequenc y (GHz)	Meter Readin g (dBuV)	Det	AF T34S (dB/m)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	40.24	PK	34.5	-19.9	0	54.84	-	-	74	-19.16	163	107	H
2	* 5.438	41.58	PK	34.5	-20	0	56.08	-	-	74	-17.92	163	107	H
3	* 5.35	29.42	RMS	34.5	-19.9	.6	44.22	54	-9.78	-	-	163	107	H
4	* 5.365	30.03	RMS	34.5	-19.9	.6	44.83	54	-9.17	-	-	163	107	H

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

VERTICAL PEAK AND AVERAGE PLOT



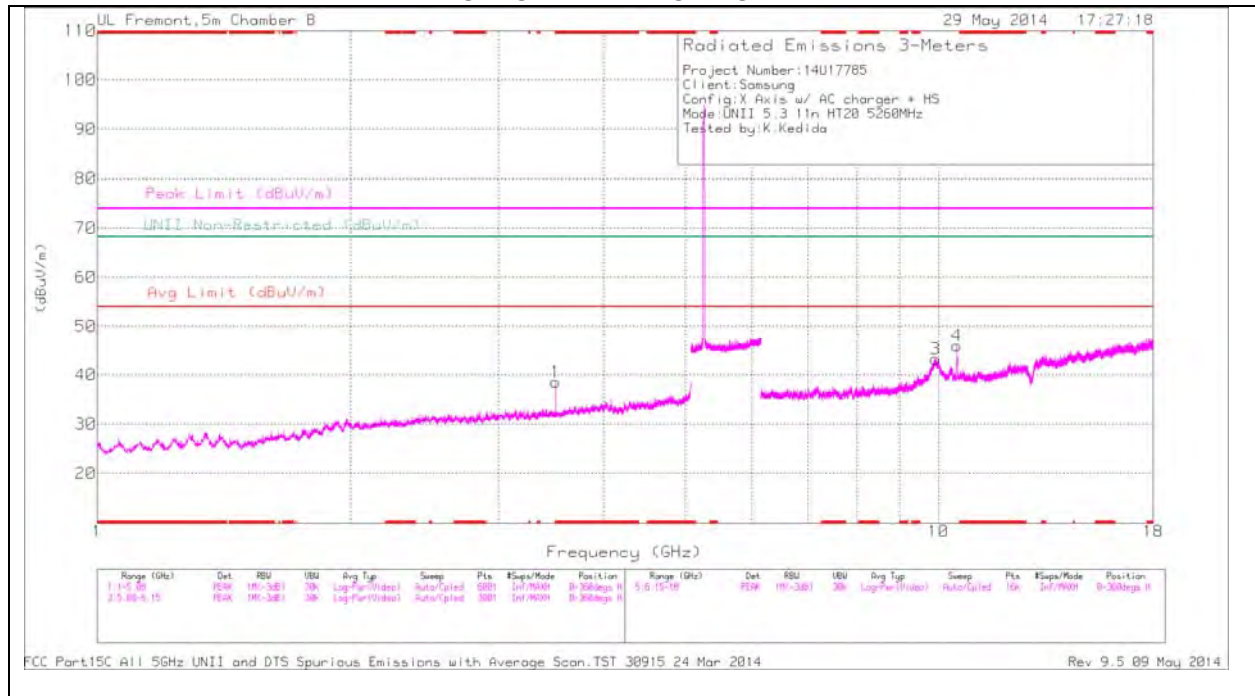
VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	38.61	PK	34.5	-19.9	0	53.21	-	-	74	-20.79	272	282	V
2	* 5.398	41.61	PK	34.5	-20.1	0	56.01	-	-	74	-17.99	272	282	V
3	* 5.35	29.3	RMS	34.5	-19.9	.6	44.1	54	-9.9	-	-	272	282	V
4	* 5.351	30.17	RMS	34.5	-20	.6	44.87	54	-9.13	-	-	272	282	V

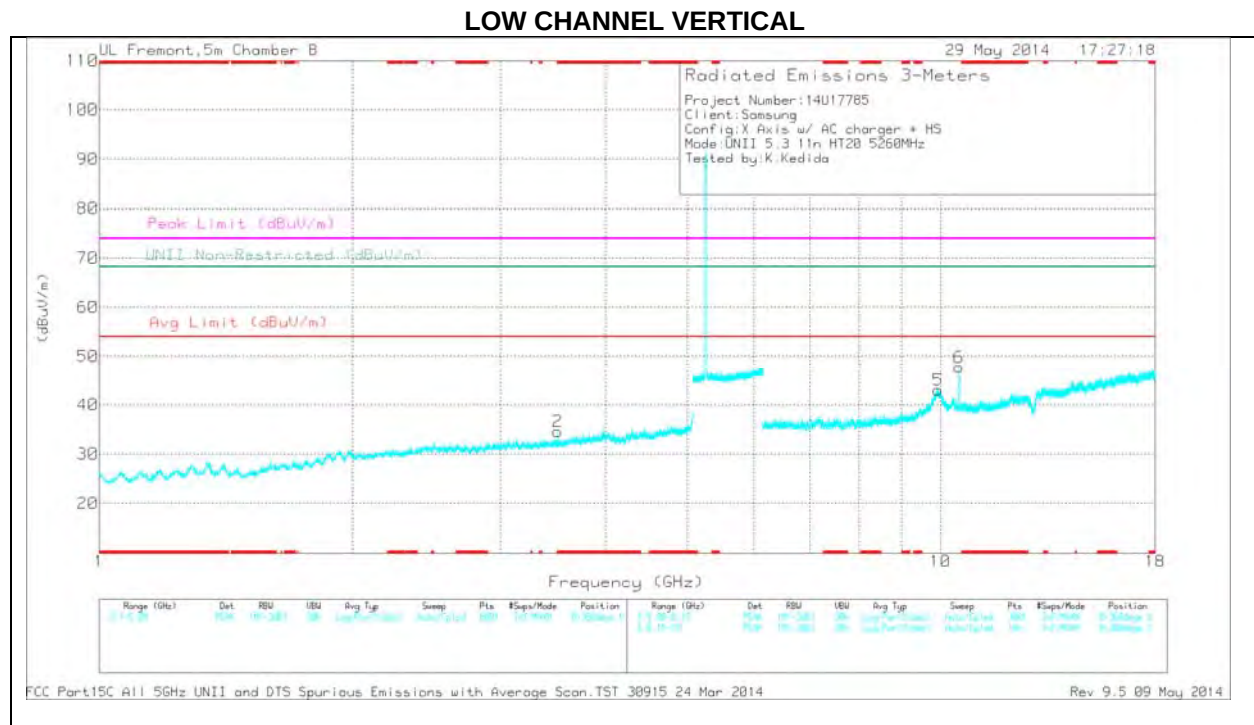
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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



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

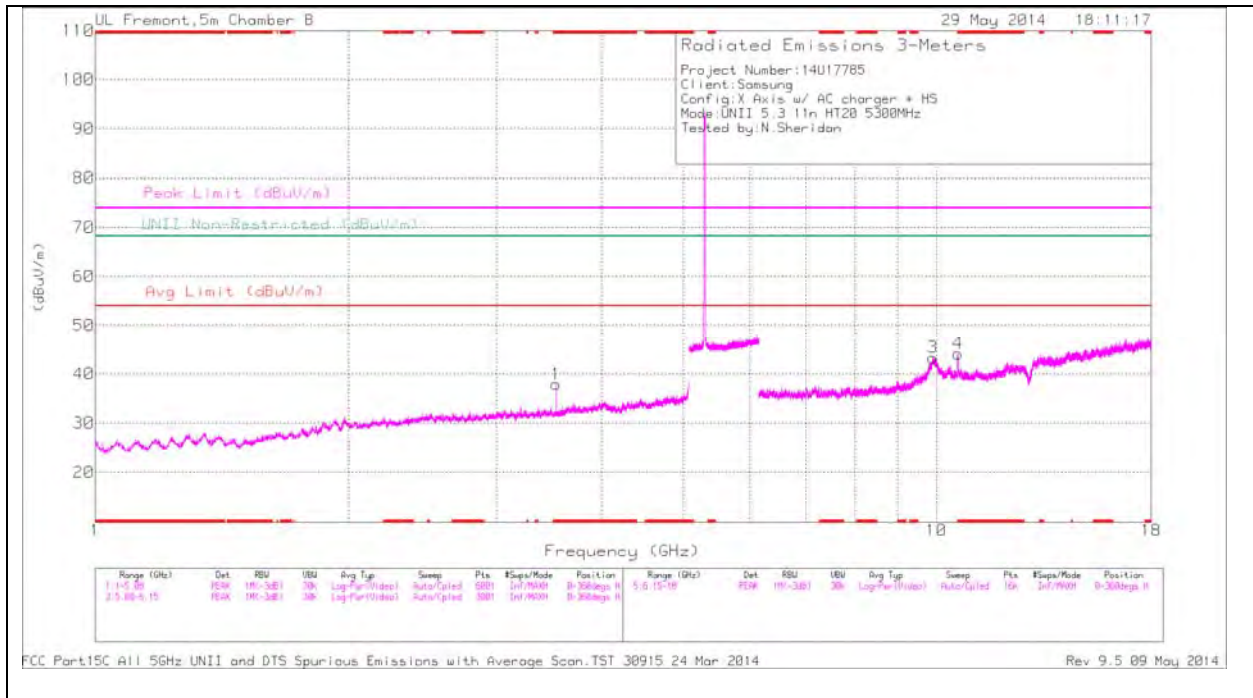
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dBm)	Amp/Cbl/Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.506	37.42	PK	32.8	-31.7	0	38.52	-	-	74	-35.48	-	-	0-360	99	H
2	* 3.506	33.48	PK	32.8	-31.7	0	34.58	-	-	74	-39.42	-	-	0-360	202	V
3	9.922	30.24	PK	37	-24	0	43.24	-	-	-	-	68.2	-24.96	0-360	202	H
5	9.943	30.12	PK	37	-24.1	0	43.02	-	-	-	-	68.2	-25.18	0-360	202	V
4	10.521	31.61	PK	37.5	-23.1	0	46.01	-	-	-	-	68.2	-22.19	0-360	202	H
6	10.522	33.22	PK	37.5	-23	0	47.72	-	-	-	-	68.2	-20.48	0-360	202	V

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

PK - Peak detector

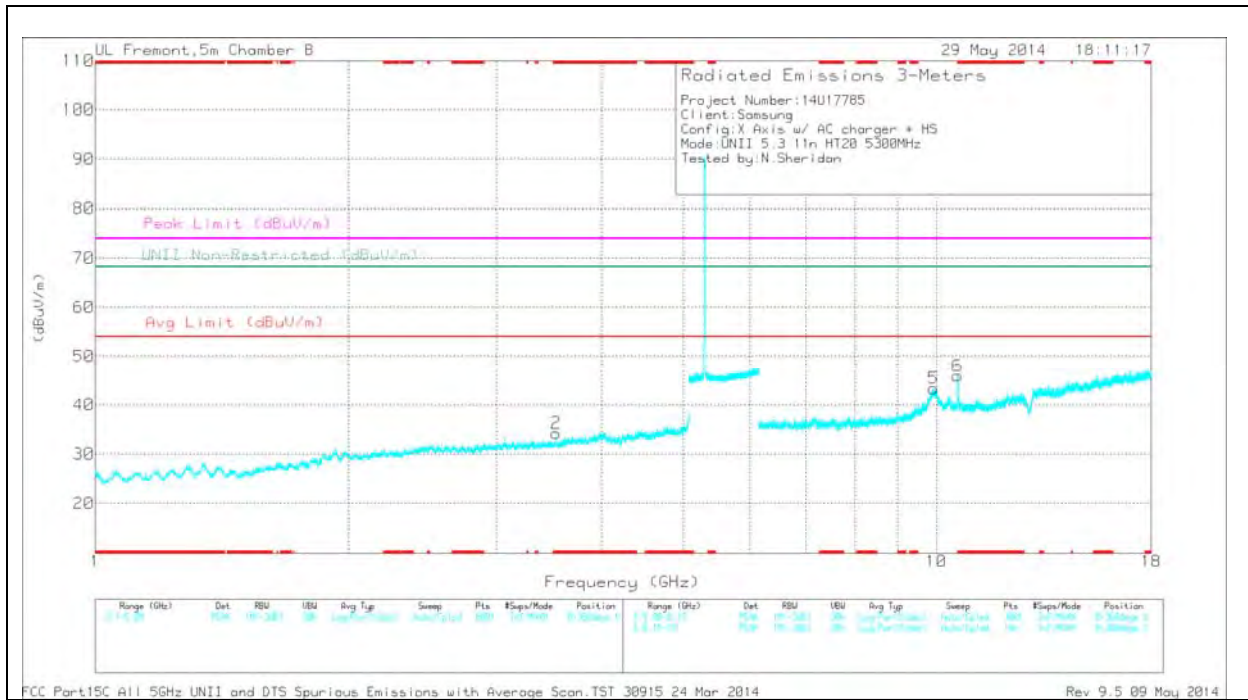
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dBm)	Amp/Cbl/Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 3.507	43.8	PK1	32.8	-31.7	0	44.9	-	-	74	-29.1	-	-	188	245	H
* 3.507	35.78	AD1	32.8	-31.7	.6	37.08	54	-16.92	-	-	-	-	188	245	H
10.516	43.09	PK1	37.5	-23.2	0	57.39	-	-	-	-	68.2	-10.81	252	184	H
10.519	30.61	AD1	37.5	-23.1	.6	45.21	-	-	-	-	-	-	252	184	H
10.519	31.05	AD1	37.5	-23.1	.6	45.65	-	-	-	-	-	-	310	240	V
10.52	42.66	PK1	37.5	-23.1	0	57.06	-	-	-	-	68.2	-11.14	310	240	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.

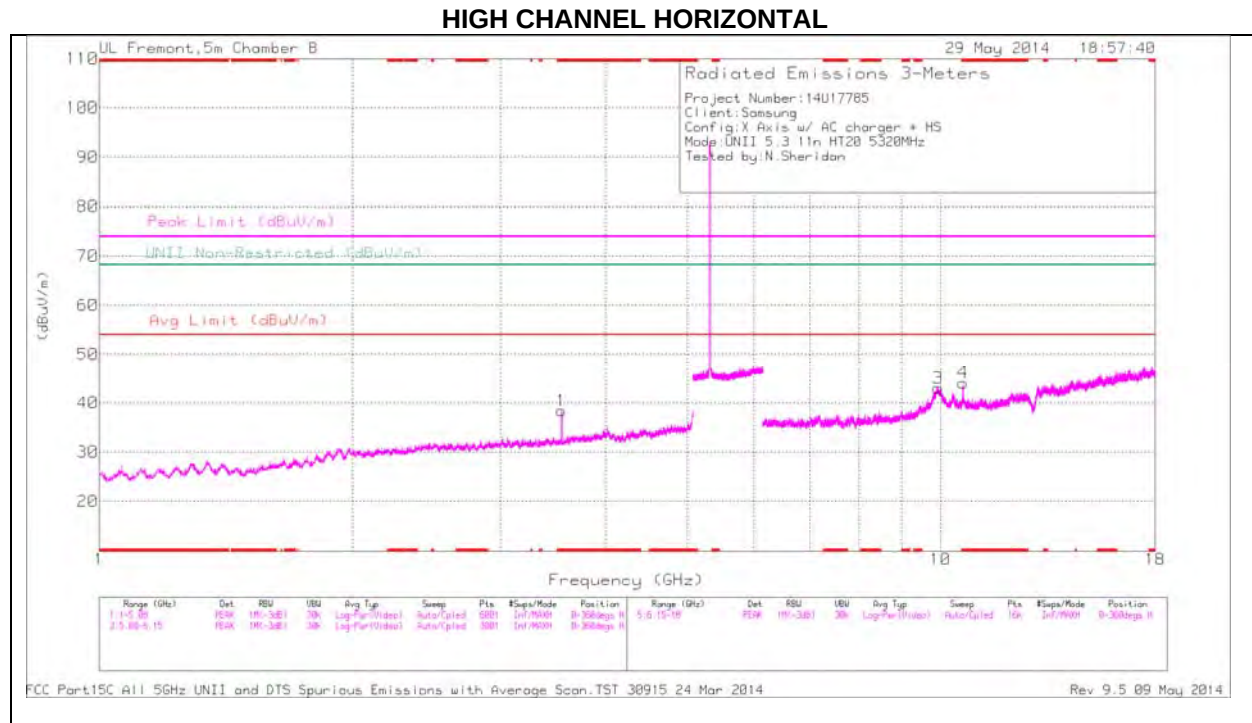
MID CHANNEL DATA

Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restrict ed (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.534	36.9	PK	32.9	-31.9	0	37.9	-	-	74	-36.1	-	-	0-360	202	H
2	* 3.533	33.26	PK	32.9	-31.9	0	34.26	-	-	74	-39.74	-	-	0-360	202	V
4	* 10.605	29.12	PK	37.7	-22.7	0	44.12	-	-	74	-29.88	-	-	0-360	201	H
3	9.908	30.44	PK	37	-24.1	0	43.34	-	-	-	-	68.2	-24.86	0-360	201	H
5	9.927	30.26	PK	37	-23.9	0	43.36	-	-	-	-	68.2	-24.84	0-360	99	V
6	10.599	30.95	PK	37.7	-22.7	0	45.95	-	-	-	-	68.2	-22.25	0-360	202	V

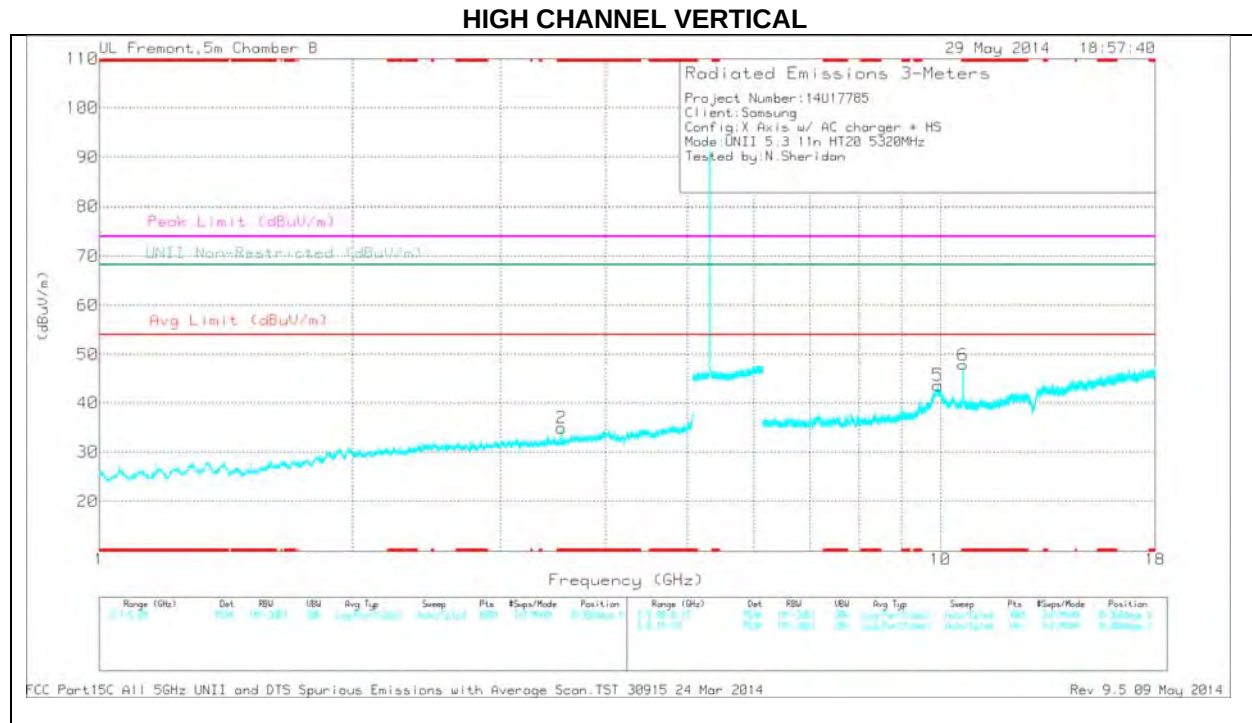
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d 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	45.51	PK1	32.9	-31.9	0	46.51	-	-	74	-27.49	-	-	181	244	H
* 3.533	39	AD1	32.9	-31.9	.6	40.2	54	-13.8	-	-	-	-	181	244	H
* 10.604	41.13	PK1	37.7	-22.7	0	56.13	-	-	74	-17.87	-	-	245	169	H
* 10.603	28.31	AD1	37.7	-22.7	.6	43.51	54	-10.49	-	-	-	-	245	169	H
* 10.602	43.24	PK1	37.7	-22.7	0	58.24	-	-	74	-15.76	-	-	300	203	V
* 10.601	29.75	AD1	37.7	-22.7	.6	44.95	54	-9.05	-	-	-	-	300	203	V



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	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restrict ed (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.547	37.34	PK	33	-31.9	0	38.44	-	-	74	-35.56	-	-	0-360	202	H
2	* 3.547	33.82	PK	33	-31.9	0	34.92	-	-	74	-39.08	-	-	0-360	202	V
4	* 10.639	28.6	PK	37.7	-22.2	0	44.1	-	-	74	-29.9	-	-	0-360	202	H
6	* 10.639	32.35	PK	37.7	-22.2	0	47.85	-	-	74	-26.15	-	-	0-360	202	V
3	9.929	29.92	PK	37	-23.9	0	43.02	-	-	-	-	68.2	-25.18	0-360	99	H
5	9.931	30.47	PK	37	-23.9	0	43.57	-	-	-	-	68.2	-24.63	0-360	202	V

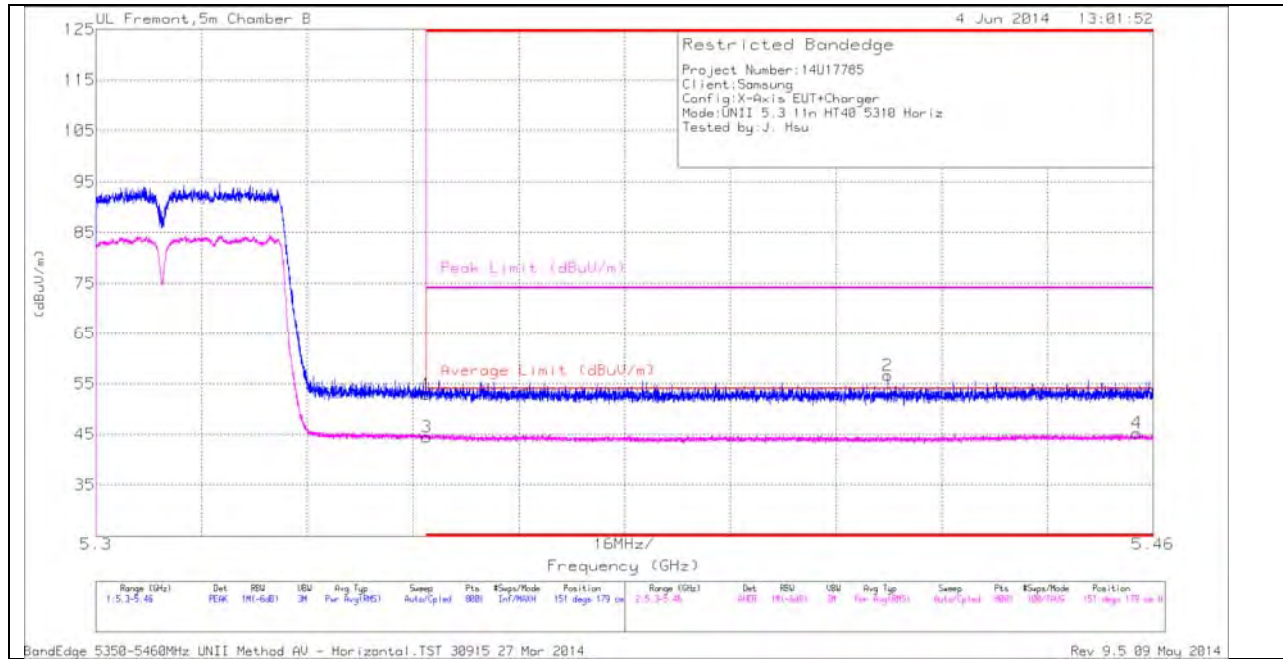
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d 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
* 3.547	45.45	PK1	33	-31.9	0	46.55	-	-	74	-27.45	-	-	182	240	H
* 3.547	38.66	AD1	33	-31.9	.6	39.96	54	-14.04	-	-	-	-	182	240	H
* 10.641	42.46	PK1	37.7	-22.2	0	57.96	-	-	74	-16.04	-	-	248	163	H
* 10.641	29.07	AD1	37.7	-22.2	.6	44.77	54	-9.23	-	-	-	-	248	163	H
* 10.638	42.81	PK1	37.7	-22.2	0	58.31	-	-	74	-15.69	-	-	305	214	V
* 10.639	29.89	AD1	37.7	-22.2	.6	45.59	54	-8.41	-	-	-	-	305	214	V

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

HORIZONTAL PEAK AND AVERAGE PLOT

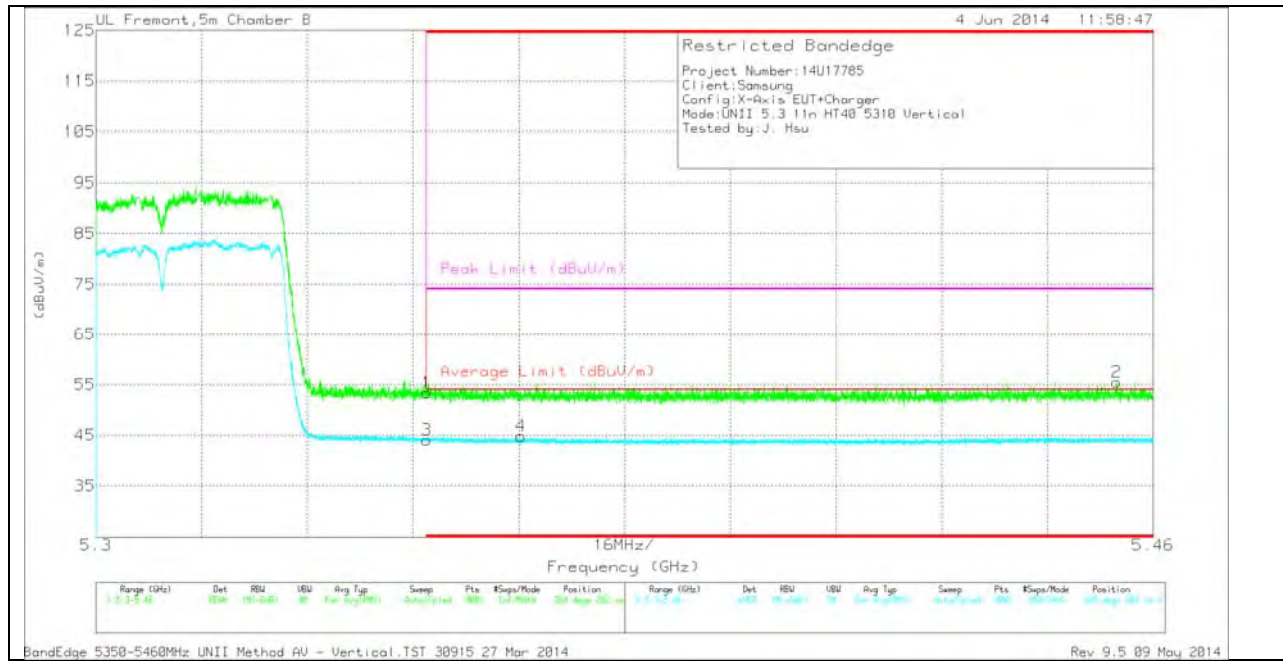


HORIZONTAL DATA

Marker	Frequenc y (GHz)	Meter Readin g (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	38.29	PK	34.5	-19.9	0	52.89	-	-	74	-21.11	151	179	H
2	* 5.42	42.18	PK	34.5	-20.1	0	56.58	-	-	74	-17.42	151	179	H
3	* 5.35	29.39	RMS	34.5	-19.9	1.1	44.49	54	-9.51	-	-	151	179	H
4	* 5.457	30.36	RMS	34.5	-20.1	1.1	45.26	54	-8.74	-	-	151	179	H

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

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	38.82	PK	34.5	-19.9	0	53.42	-	-	74	-20.58	268	282	V
2	* 5.454	41.07	PK	34.5	-20.1	0	55.47	-	-	74	-18.53	268	282	V
3	* 5.35	29.33	RMS	34.5	-19.9	1.1	44.13	54	-9.87	-	-	268	282	V
4	* 5.364	29.99	RMS	34.5	-19.9	1.1	44.79	54	-9.21	-	-	268	282	V

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

PK - Peak detector

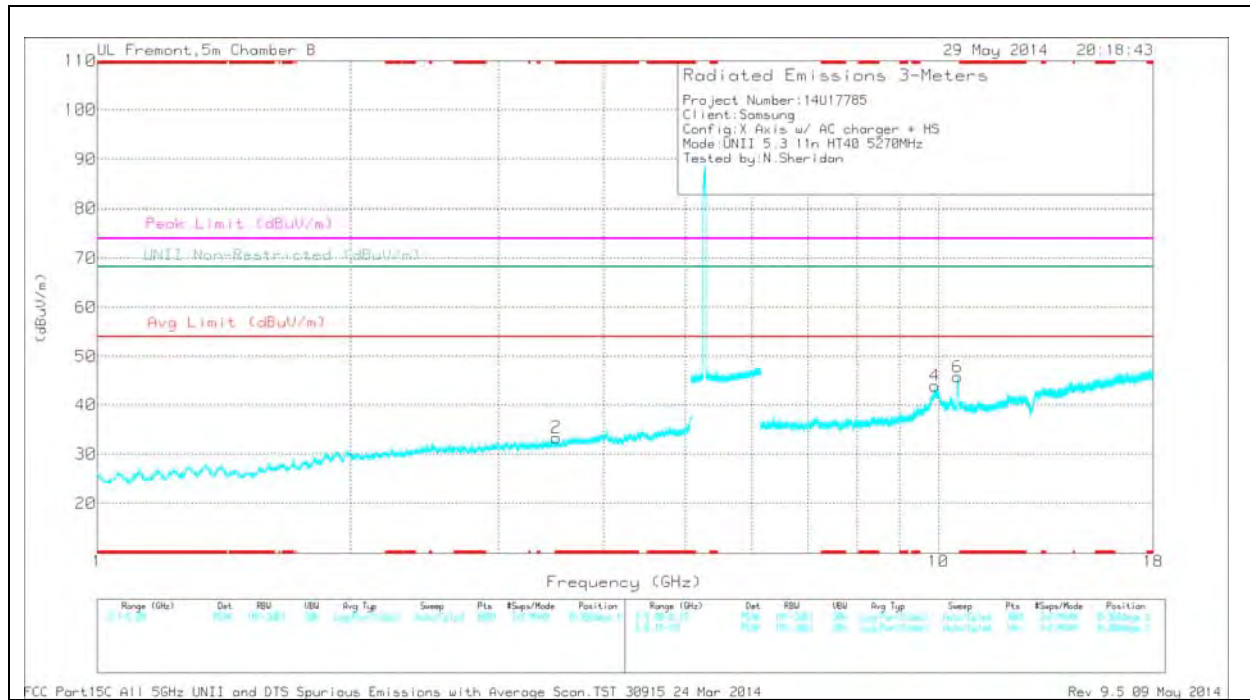
HARMONICS AND SPURIOUS EMISSIONS

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

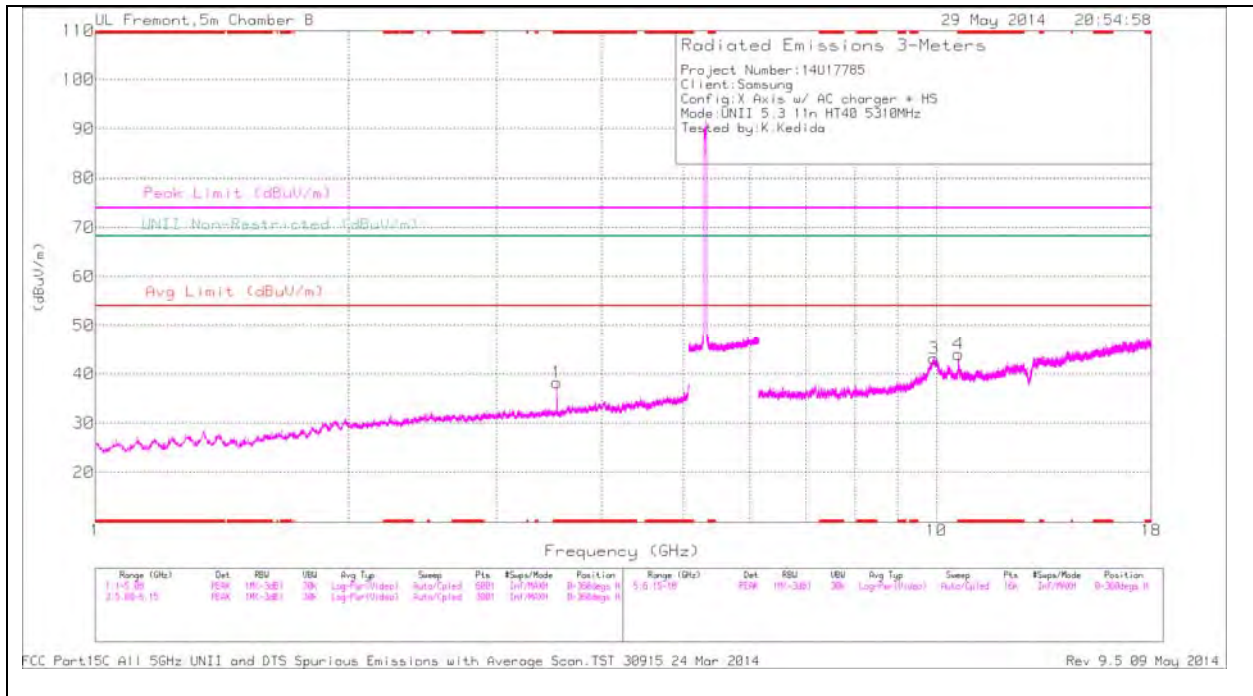
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Ampl/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.513	34.76	PK	32.8	-31.8	0	35.76	-	-	74	-38.24	-	-	0-360	99	H
2	* 3.513	32.37	PK	32.8	-31.8	0	33.37	-	-	74	-40.63	-	-	0-360	202	V
4	9.908	30.98	PK	37	-24.1	0	43.88	-	-	-	-	68.2	-24.32	0-360	202	V
3	9.925	30.15	PK	37	-23.9	0	43.25	-	-	-	-	68.2	-24.95	0-360	99	H
6	10.533	31.15	PK	37.5	-22.9	0	45.75	-	-	-	-	68.2	-22.45	0-360	202	V
5	10.548	31.2	PK	37.6	-23	0	45.8	-	-	-	-	68.2	-22.4	0-360	202	H

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

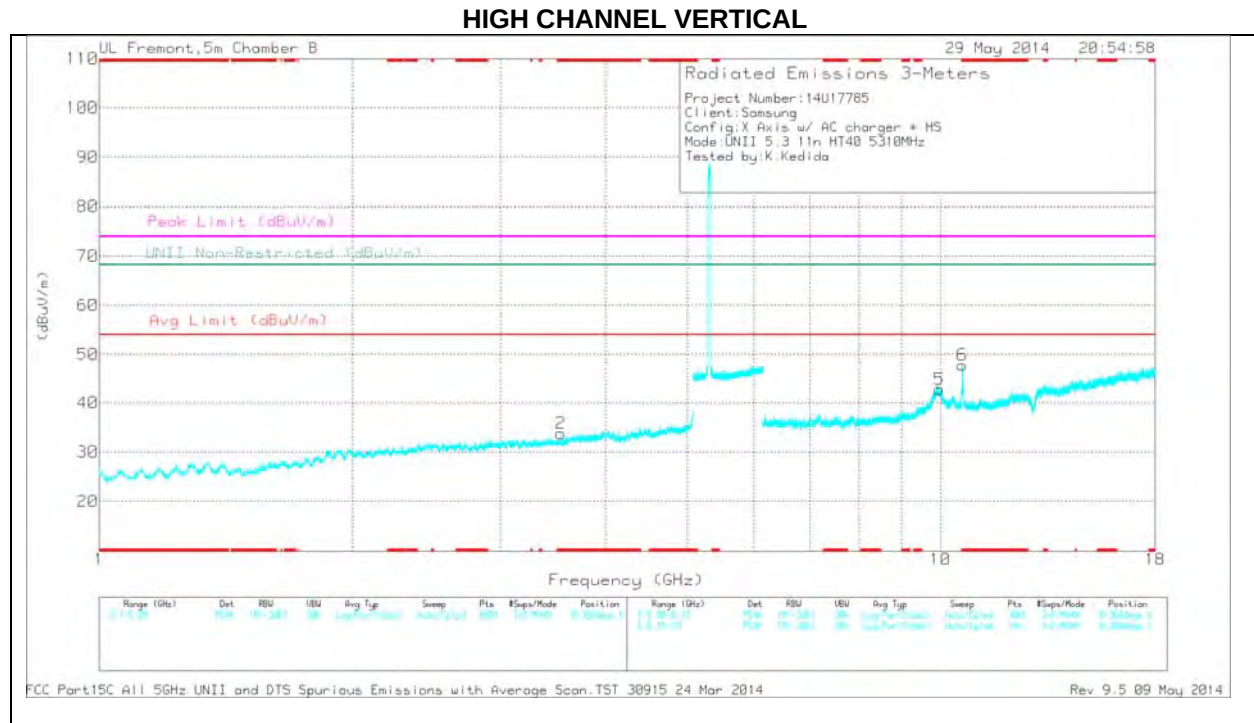
PK - Peak detector

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Ampl/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
* 3.513	43.51	PK1	32.8	-31.8	0	44.51	-	-	74	-29.49	-	-	173	211	H
* 3.513	34.47	AD1	32.8	-31.8	1.1	35.67	54	-18.33	-	-	-	-	173	211	H
10.531	41.8	PK1	37.5	-22.9	0	56.4	-	-	-	-	68.2	-11.8	303	206	V
10.534	29.02	AD1	37.5	-22.9	1.1	43.82	-	-	-	-	-	-	303	206	V
10.546	26.78	AD1	37.6	-23	1.1	41.58	-	-	-	-	-	-	255	187	H
10.547	38.84	PK1	37.6	-23	0	53.44	-	-	-	-	68.2	-14.76	255	187	H

HIGH CHANNEL HORIZONTAL



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



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	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restrict ed (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.54	37.35	PK	32.9	-32	0	38.25	-	-	74	-35.75	-	-	0-360	201	H
2	* 3.54	32.88	PK	32.9	-32	0	33.78	-	-	74	-40.22	-	-	0-360	202	V
4	* 10.619	28.51	PK	37.7	-22.2	0	44.01	-	-	74	-29.99	-	-	0-360	99	H
6	* 10.619	32.31	PK	37.7	-22.2	0	47.81	-	-	74	-26.19	-	-	0-360	202	V
3	9.931	30.02	PK	37	-23.9	0	43.12	-	-	-	-	68.2	-25.08	0-360	99	H
5	9.971	29.76	PK	37	-24	0	42.76	-	-	-	-	68.2	-25.44	0-360	99	V

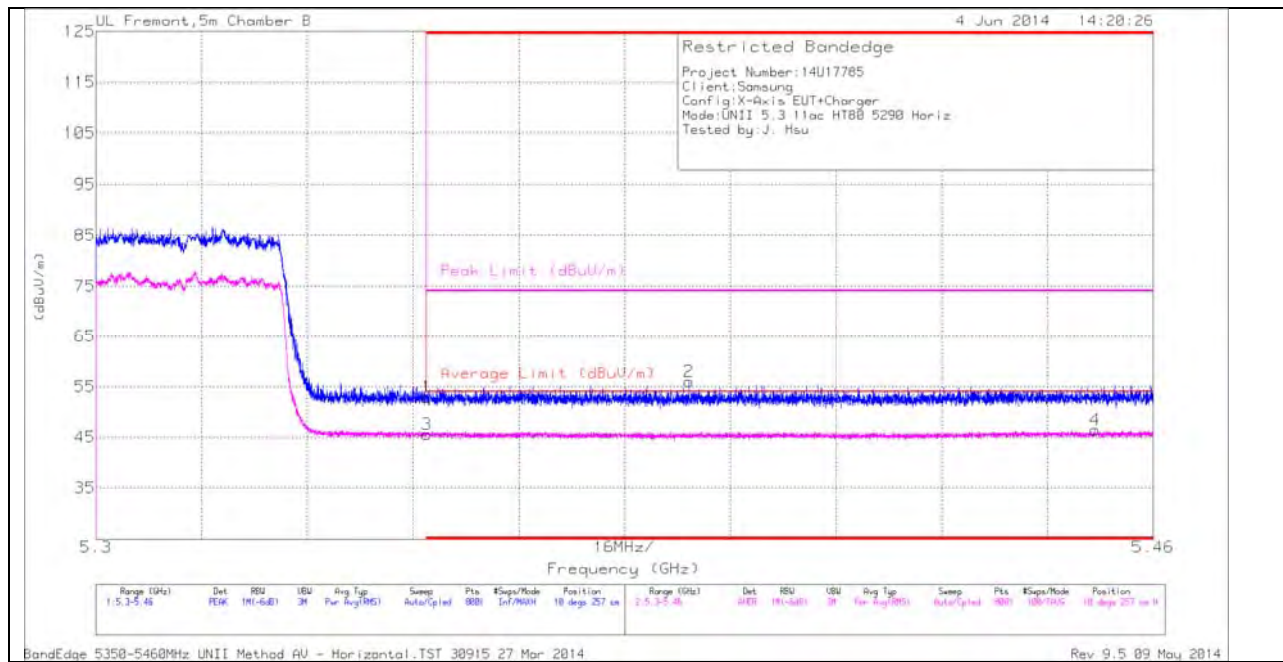
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d 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
* 3.54	45.39	PK1	32.9	-32	0	46.29	-	-	74	-27.71	-	-	181	244	H
* 3.54	38.9	AD1	32.9	-32	1.1	40	54	-14	-	-	-	-	181	244	H
* 10.618	39.87	PK1	37.7	-22.2	0	55.37	-	-	74	-18.63	-	-	219	178	H
* 10.619	26.78	AD1	37.7	-22.2	1.1	42.48	54	-11.52	-	-	-	-	219	178	H
* 10.618	42.48	PK1	37.7	-22.2	0	57.98	-	-	74	-16.02	-	-	303	203	V
* 10.619	29.28	AD1	37.7	-22.2	1.1	44.98	54	-9.02	-	-	-	-	303	203	V

11.2.4. TX ABOVE 1 GHz 802.11ac HT80 MODE IN THE 5.3 GHz BAND AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT

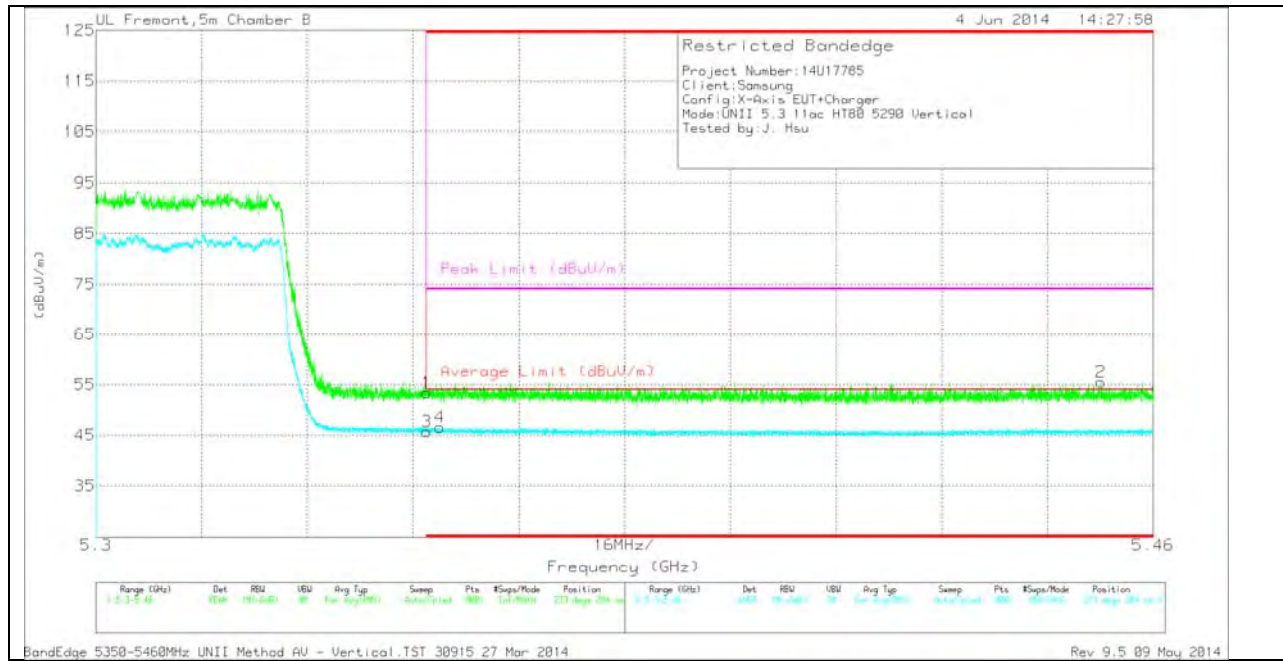


HORIZONTAL DATA

Marker	Frequenc y (GHz)	Meter Readin g (dBuV)	Det	AF T345 (dB/m)	Amp/CbI/FI tr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	38.26	PK	34.5	-19.9	0	52.86	-	-	74	-21.14	10	257	H
3	* 5.35	29.2	RMS	34.5	-19.9	1.8	45.6	54	-8.4	-	-	10	257	H
2	* 5.39	41.52	PK	34.5	-20	0	56.02	-	-	74	-17.98	10	257	H
4	* 5.451	30.25	RMS	34.5	-20.1	1.8	46.45	54	-7.55	-	-	10	257	H

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

VERTICAL PEAK AND AVERAGE PLOT



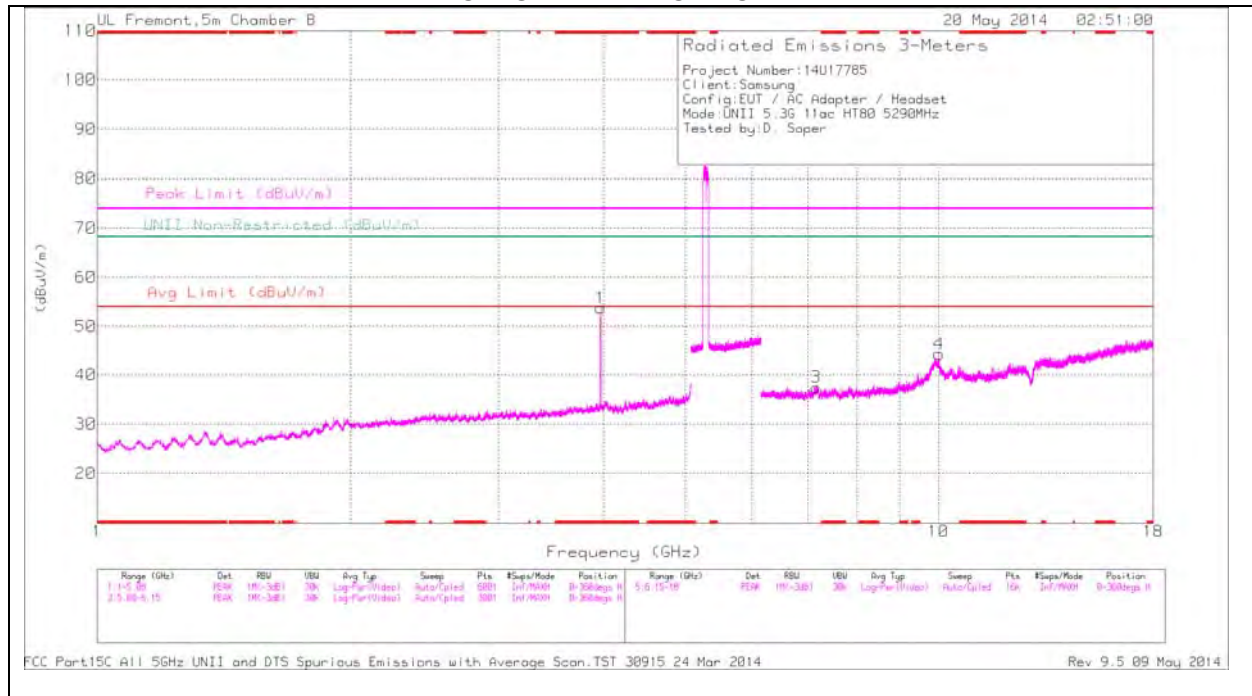
VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/FI tri/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	38.8	PK	34.5	-19.9	0	53.4	-	-	74	-20.6	273	284	V
3	* 5.35	29.31	RMS	34.5	-19.9	1.8	45.71	54	-8.29	-	-	273	284	V
4	* 5.352	30.3	RMS	34.5	-20	1.8	46.6	54	-7.4	-	-	273	284	V
2	* 5.452	41.07	PK	34.5	-20.1	0	55.47	-	-	74	-18.53	273	284	V

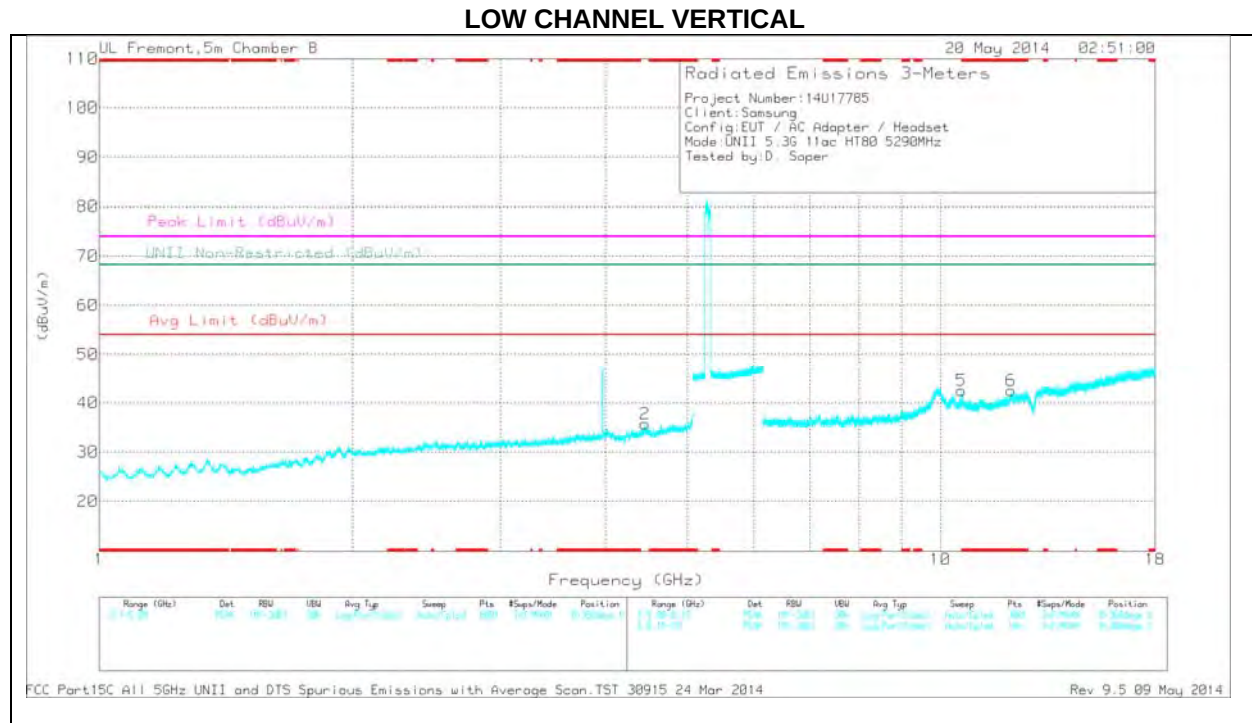
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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



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 T345 (dB/m)	Amp/Cbl/Filtr/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	* 3.968	50.37	PK	33.7	-30.3	0	53.77	-	-	74	-20.23	-	-	0-360	202	H
6	* 12.139	25.01	PK	38.9	-21.4	0	42.51	-	-	74	-31.49	-	-	0-360	203	V
2	4.454	31.41	PK	33.9	-29.6	0	35.71	-	-	-	-	68.2	-32.49	0-360	99	V
3	7.151	29.37	PK	35.6	-27.5	0	37.47	-	-	-	-	68.2	-30.73	0-360	202	H
4	10.014	30.45	PK	37.1	-23.3	0	44.25	-	-	-	-	68.2	-23.95	0-360	99	H
5	10.599	27.58	PK	37.7	-22.8	0	42.48	-	-	-	-	68.2	-25.72	0-360	203	V

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

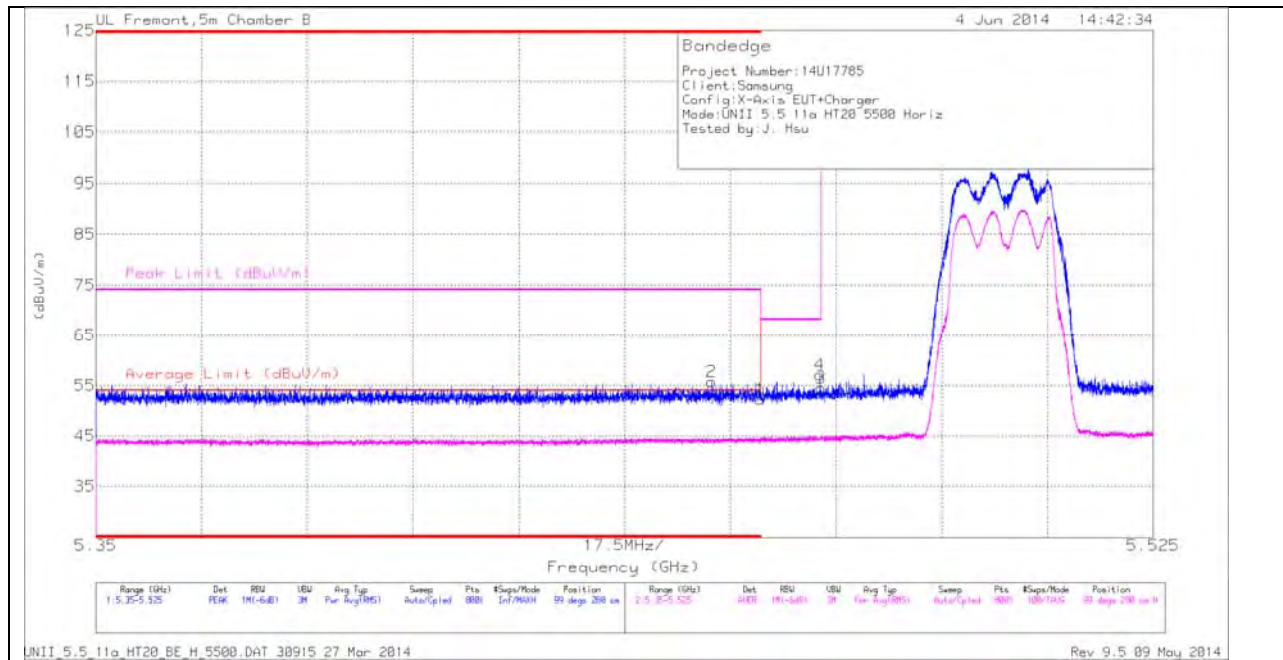
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 3.968	53.05	PK1	33.7	-30.3	0	56.45	-	-	74	-17.55	-	-	252	204	H
* 3.968	47.36	AD1	33.7	-30.3	1.8	52.66	54	-1.34	-	-	-	-	252	204	H

11.3. 5.5-5.6 GHz

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

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT

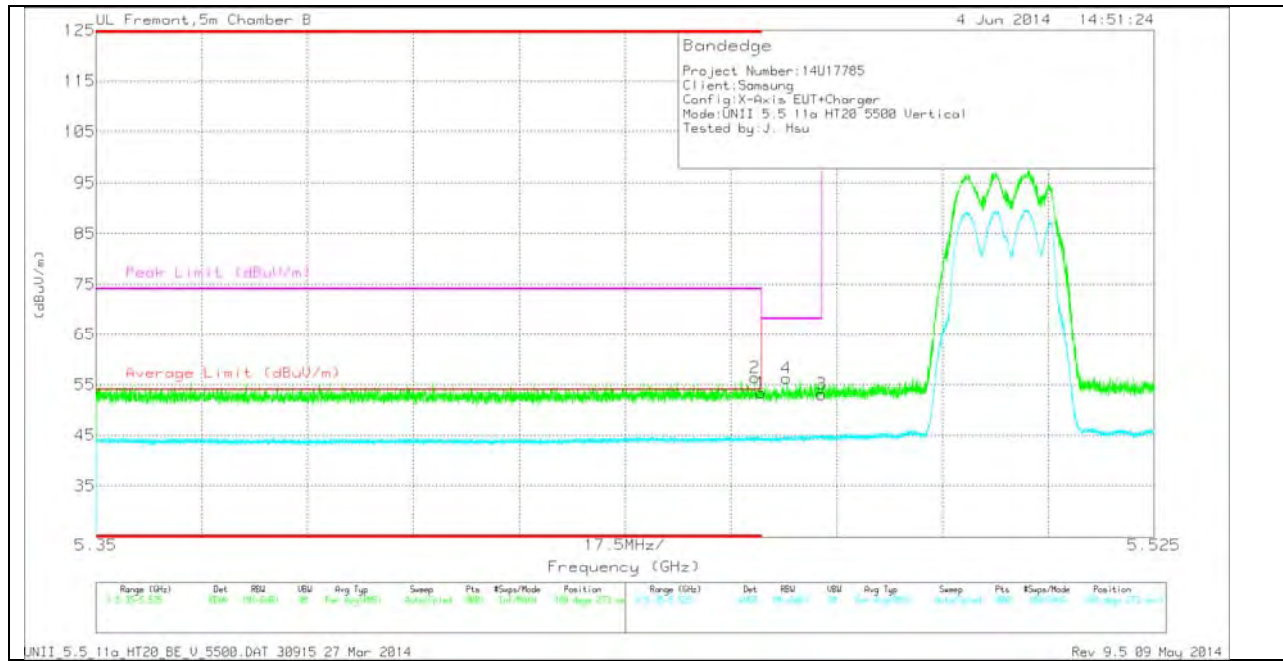


HORIZONTAL DATA

Marker	Frequenc y (GHz)	Meter Readin g (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/FI triPad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.46	37.88	PK	34.5	-20.1	0	52.28	-	-	74	-21.72	99	280	H
2	* 5.452	41.34	PK	34.5	-20.1	0	55.74	-	-	74	-18.26	99	280	H
5	* 5.46	29.47	RMS	34.5	-20.1	.3	44.07	54	-9.93	-	-	99	280	H
6	* 5.459	30.2	RMS	34.5	-20.1	.3	44.8	54	-9.2	-	-	99	280	H
8	5.468	30.41	RMS	34.5	-20	.3	45.11	-	-	-	-	99	280	H
3	5.47	40.07	PK	34.5	-20	0	54.57	-	-	68.2	-13.63	99	280	H
4	5.47	42.59	PK	34.5	-20	0	57.09	-	-	68.2	-11.11	99	280	H
7	5.47	29.8	RMS	34.5	-20	.3	44.5	-	-	-	-	99	280	H

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

VERTICAL PEAK AND AVERAGE PLOT



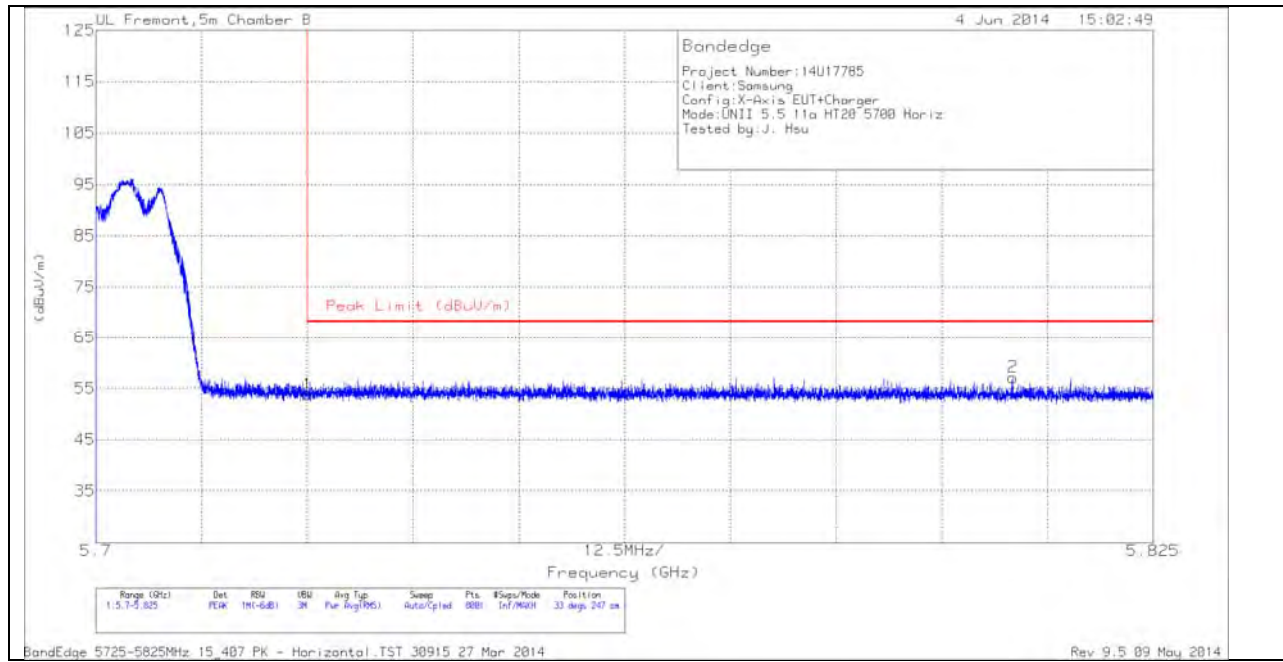
VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dBm)	Amp/Cbl/FI tri/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.46	39.04	PK	34.5	-20.1	0	53.44	-	-	74	-20.56	189	273	V
2	* 5.459	42.03	PK	34.5	-20.1	0	56.43	-	-	74	-17.57	189	273	V
5	* 5.46	29.4	RMS	34.5	-20.1	.3	44	54	-10	-	-	189	273	V
6	* 5.456	30.2	RMS	34.5	-20.1	.3	44.8	54	-9.2	-	-	189	273	V
4	5.464	41.8	PK	34.5	-20.1	0	56.2	-	-	68.2	-12	189	273	V
8	5.469	30.43	RMS	34.5	-20	.3	45.13	-	-	-	-	189	273	V
3	5.47	38.59	PK	34.5	-20	0	53.09	-	-	68.2	-15.11	189	273	V
7	5.47	30.03	RMS	34.5	-20	.3	44.73	-	-	-	-	189	273	V

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

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT

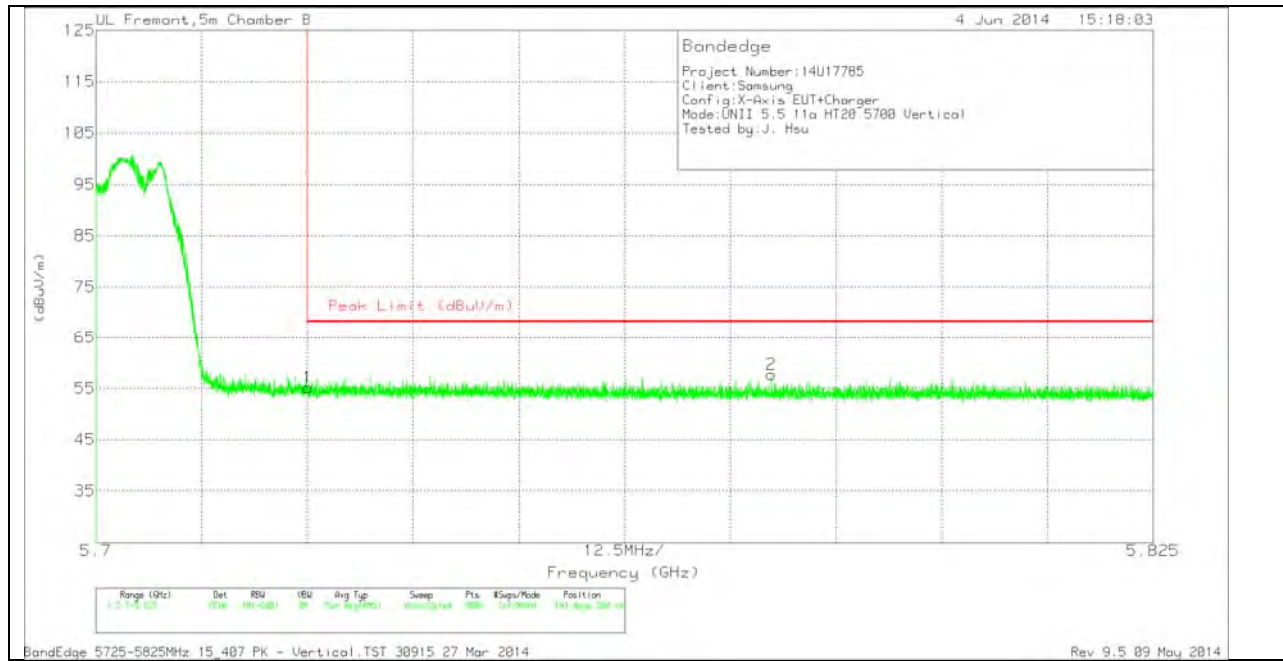


HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	39.05	PK	34.6	-19.9	0	53.75	68.2	-14.45	33	247	H
2	5.808	42.28	PK	34.7	-19.8	0	57.18	68.2	-11.02	33	247	H

PK - Peak detector

VERTICAL PEAK AND AVERAGE PLOT



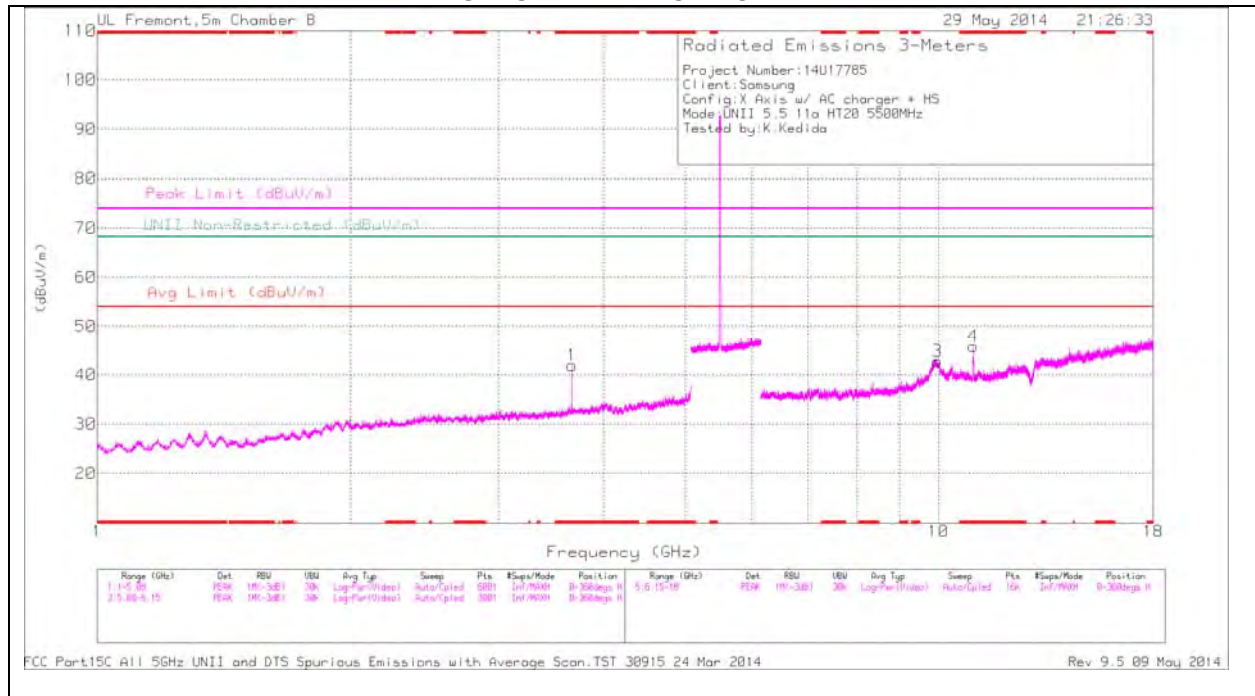
VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	40.42	PK	34.6	-19.9	0	55.12	68.2	-13.08	193	260	V
2	5.78	42.81	PK	34.7	-19.8	0	57.71	68.2	-10.49	193	260	V

PK - Peak detector

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

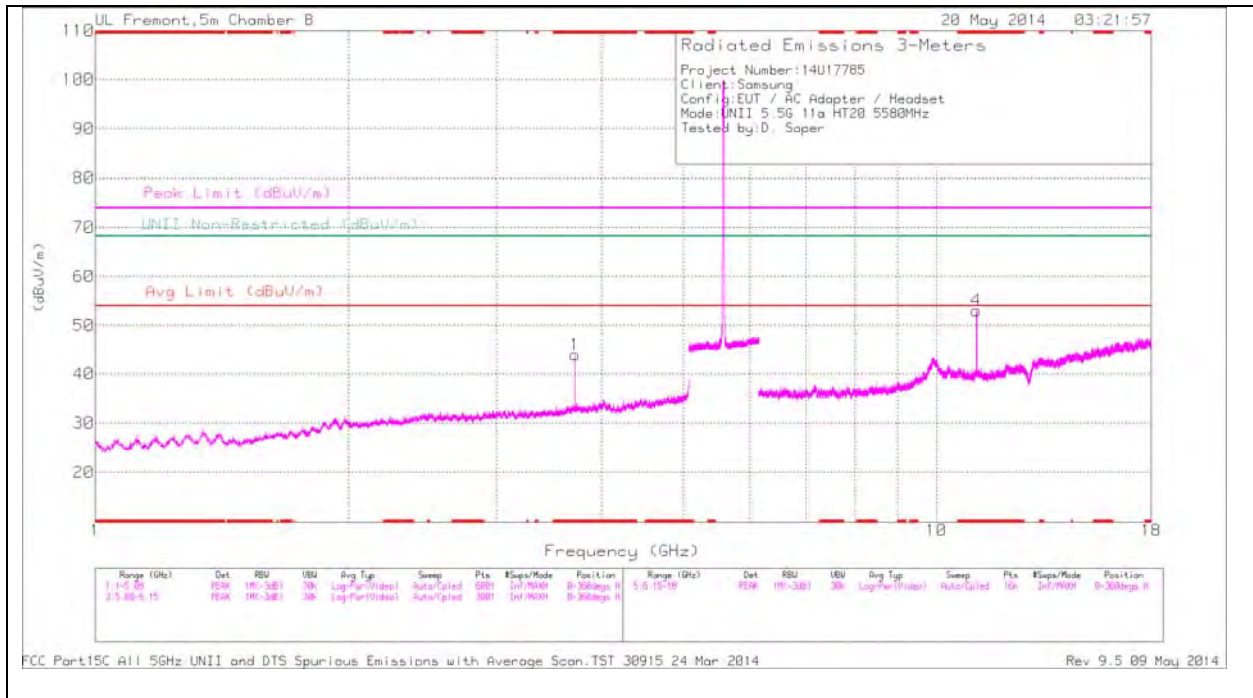
Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restrict ed (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.667	39.95	PK	33.3	-31.3	0	41.95	-	-	74	-32.05	-	-	0-360	201	H
2	* 3.667	33.71	PK	33.3	-31.3	0	35.71	-	-	74	-38.29	-	-	0-360	202	V
4	* 10.996	30.36	PK	37.8	-22.3	0	45.86	-	-	74	-28.14	-	-	0-360	202	H
6	* 10.999	32.44	PK	37.8	-22.4	0	47.84	-	-	74	-26.16	-	-	0-360	202	V
5	9.966	29.72	PK	37	-24	0	42.72	-	-	-	-	68.2	-25.48	0-360	202	V
3	9.967	29.8	PK	37	-24	0	42.8	-	-	-	-	68.2	-25.4	0-360	202	H

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

PK - Peak detector

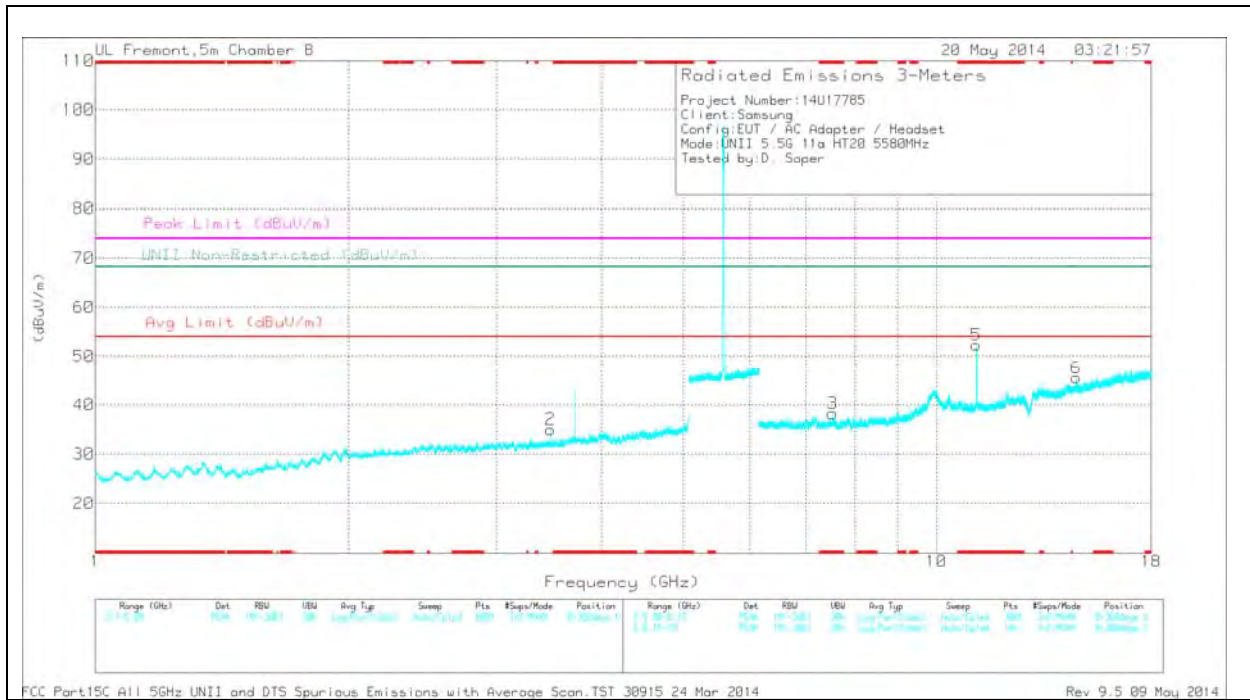
Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 3.666	45.85	PK1	33.3	-31.3	0	47.85	-	-	74	-26.15	-	-	166	200	H
* 3.667	40.03	AD1	33.3	-31.3	.3	42.23	54	-11.77	-	-	-	-	166	200	H
* 10.995	41.55	PK1	37.8	-22.3	0	57.05	-	-	74	-16.95	-	-	256	314	H
* 10.998	27.5	AD1	37.8	-22.4	.3	43.1	54	-10.9	-	-	-	-	256	314	H
* 10.999	40.85	PK1	37.8	-22.4	0	56.25	-	-	74	-17.75	-	-	213	287	V
* 10.999	28.76	AD1	37.8	-22.4	.3	44.36	54	-9.64	-	-	-	-	213	287	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

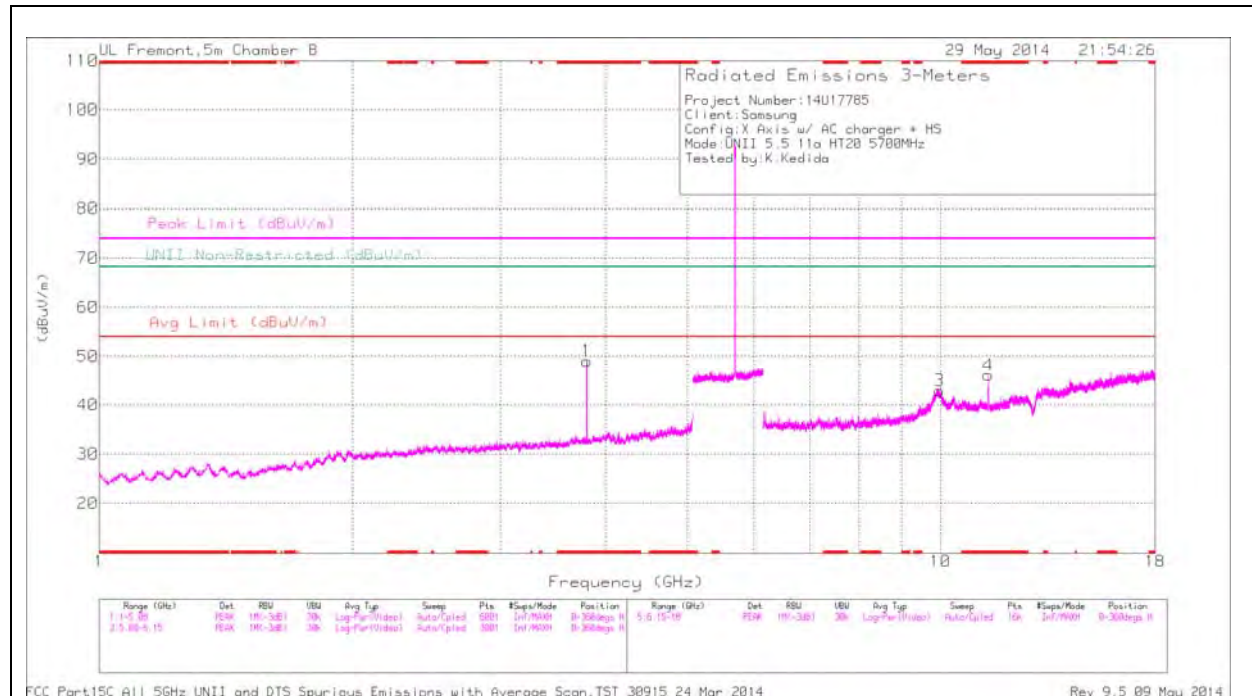
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.72	41.73	PK	33.4	-31.2	0	43.93	-	-	74	-30.07	-	-	0-360	202	H
4	* 11.16	37.36	PK	37.9	-22.2	0	53.06	-	-	74	-20.94	-	-	0-360	202	H
3	* 7.526	28.96	PK	35.6	-26.3	0	38.26	-	-	74	-35.74	-	-	0-360	202	V
5	* 11.16	36.66	PK	37.9	-22.2	0	52.36	-	-	74	-21.64	-	-	0-360	202	V
2	3.477	33.72	PK	32.8	-31.5	0	35.02	-	-	-	-	68.2	-33.18	0-360	99	V
6	14.67	25.76	PK	39.4	-19.6	0	45.56	-	-	-	-	68.2	-22.64	0-360	202	V

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

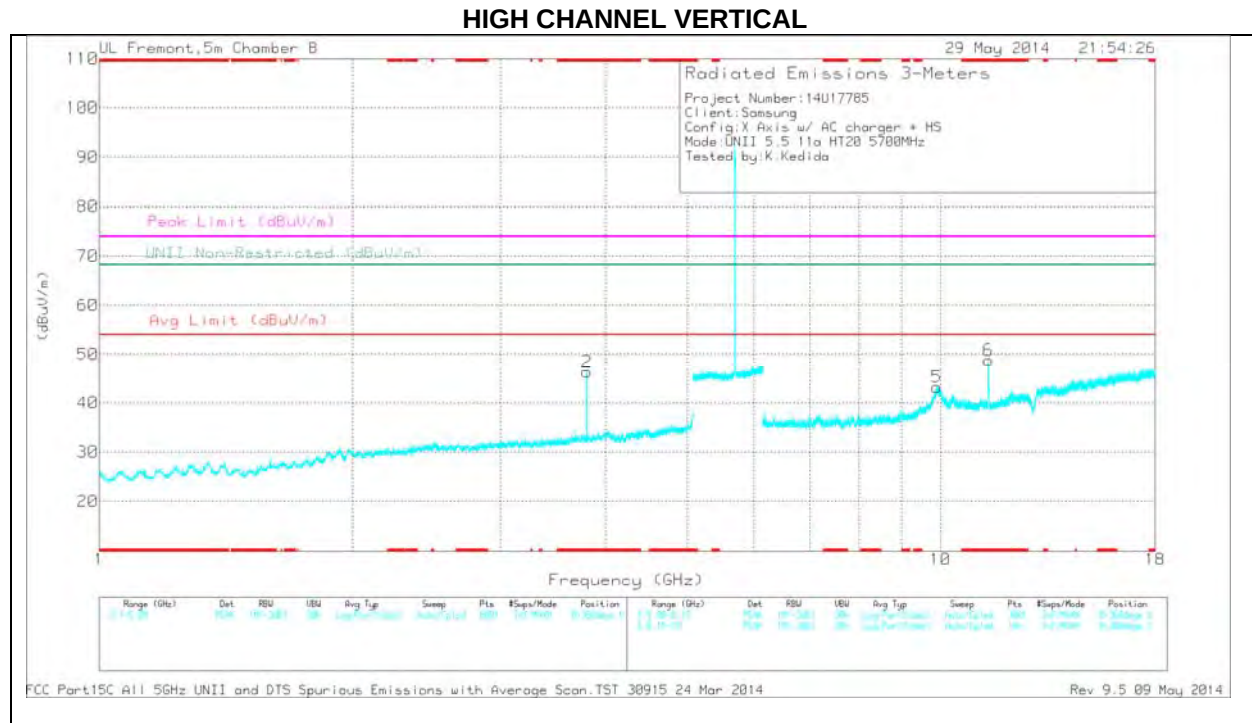
PK - Peak detector

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
* 3.72	46.48	PK1	33.4	-31.2	0	48.68	-	-	74	-25.32	-	-	230	233	H
* 3.72	40.98	AD1	33.4	-31.2	.3	43.48	54	-10.52	-	-	-	-	230	233	H
* 11.16	47.06	PK1	37.9	-22.2	0	62.76	-	-	74	-11.24	-	-	330	221	H
* 11.16	35.42	AD1	37.9	-22.2	.3	51.42	54	-2.58	-	-	-	-	330	221	H
* 11.161	49.23	PK1	37.9	-22.2	0	64.93	-	-	74	-9.07	-	-	33	277	V
* 11.161	37.04	AD1	37.9	-22.2	.3	53.04	54	-.96	-	-	-	-	33	277	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	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restrict ed (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.8	46.38	PK	33.6	-30.9	0	49.08	-	-	74	-24.92	-	-	0-360	99	H
2	* 3.8	43.77	PK	33.6	-31	0	46.37	-	-	74	-27.63	-	-	0-360	202	V
4	* 11.396	30.62	PK	38	-22.5	0	46.12	-	-	74	-27.88	-	-	0-360	201	H
6	* 11.398	33.2	PK	38	-22.4	0	48.8	-	-	74	-25.2	-	-	0-360	202	V
5	9.901	30.34	PK	37	-24.1	0	43.24	-	-	-	-	68.2	-24.96	0-360	99	V
3	9.969	29.92	PK	37	-24	0	42.92	-	-	-	-	68.2	-25.28	0-360	99	H

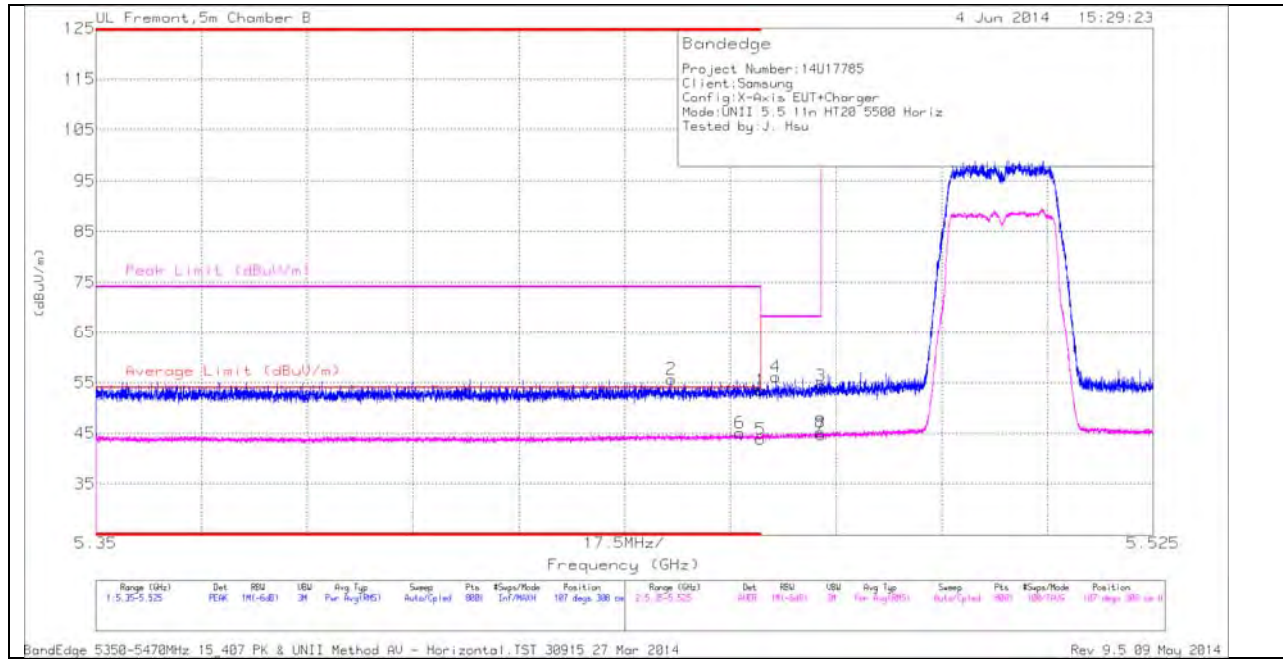
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F tr/Pad (dB)	DC Corr (dB)	Correcte d 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
* 3.8	50.86	PK1	33.6	-30.9	0	53.56	-	-	74	-20.44	-	-	174	217	H
* 3.8	47.98	AD1	33.6	-30.9	.3	50.88	54	-3.12	-	-	-	-	174	217	H
* 3.8	47.74	PK1	33.6	-30.9	0	50.44	-	-	74	-23.56	-	-	82	258	V
* 3.8	43.74	AD1	33.6	-30.9	.3	46.64	54	-7.36	-	-	-	-	82	258	V
* 11.395	44.33	PK1	38	-22.5	0	59.83	-	-	74	-14.17	-	-	299	201	V
* 11.401	31.18	AD1	38	-22.4	.3	46.98	54	-7.02	-	-	-	-	299	201	V

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

HORIZONTAL PEAK AND AVERAGE PLOT

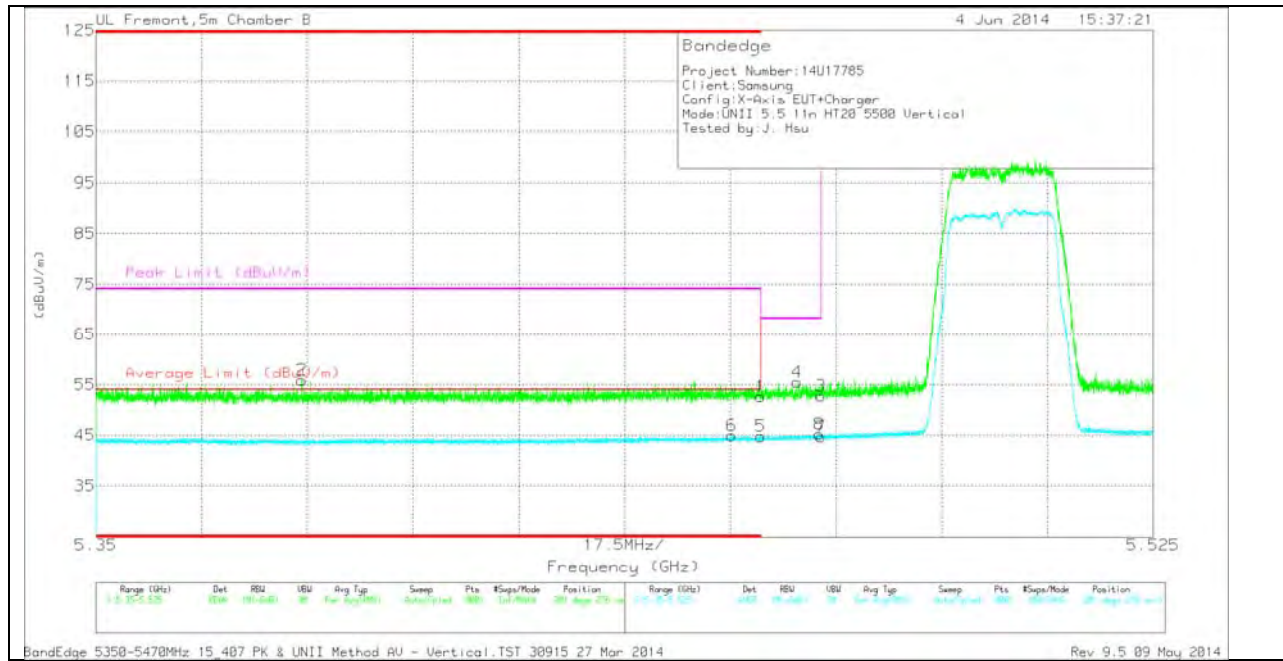


HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.46	39.11	PK	34.5	-20.1	0	53.51	-	-	74	-20.49	107	308	H
2	* 5.445	41.19	PK	34.5	-20	0	55.69	-	-	74	-18.31	107	308	H
5	* 5.46	29.23	RMS	34.5	-20.1	.6	43.83	54	-10.17	-	-	107	308	H
6	* 5.457	30.42	RMS	34.5	-20.1	.6	45.02	54	-8.98	-	-	107	308	H
4	5.463	41.69	PK	34.5	-20.1	0	56.09	-	-	68.2	-12.11	107	308	H
3	5.47	39.88	PK	34.5	-20	0	54.38	-	-	68.2	-13.82	107	308	H
7	5.47	29.96	RMS	34.5	-20	.6	44.66	-	-	-	-	107	308	H
8	5.47	30.45	RMS	34.5	-20	.6	45.15	-	-	-	-	107	308	H

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

VERTICAL PEAK AND AVERAGE PLOT



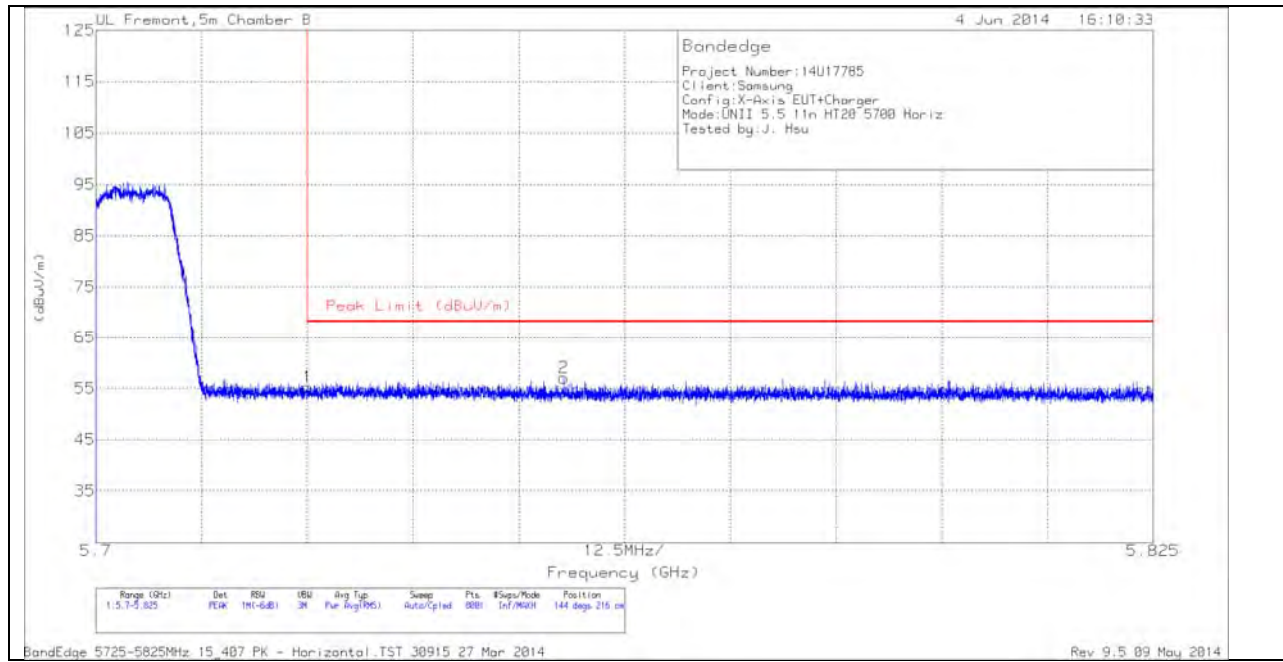
VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dBm)	Amp/Cbl/FI tri/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	* 5.384	41.36	PK	34.5	-20	0	55.86	-	-	74	-18.14	201	276	V
6	* 5.455	30.3	RMS	34.5	-20.1	.6	44.9	54	-9.1	-	-	201	276	V
1	* 5.46	38.26	PK	34.5	-20.1	0	52.66	-	-	74	-21.34	201	276	V
5	* 5.46	30.17	RMS	34.5	-20.1	.6	44.77	54	-9.23	-	-	201	276	V
4	5.466	41.13	PK	34.5	-20.1	0	55.53	-	-	68.2	-12.67	201	276	V
3	5.47	38.23	PK	34.5	-20	0	52.73	-	-	68.2	-15.47	201	276	V
7	5.47	30.01	RMS	34.5	-20	.6	44.71	-	-	-	-	201	276	V
8	5.47	30.49	RMS	34.5	-20	.6	45.19	-	-	-	-	201	276	V

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

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT

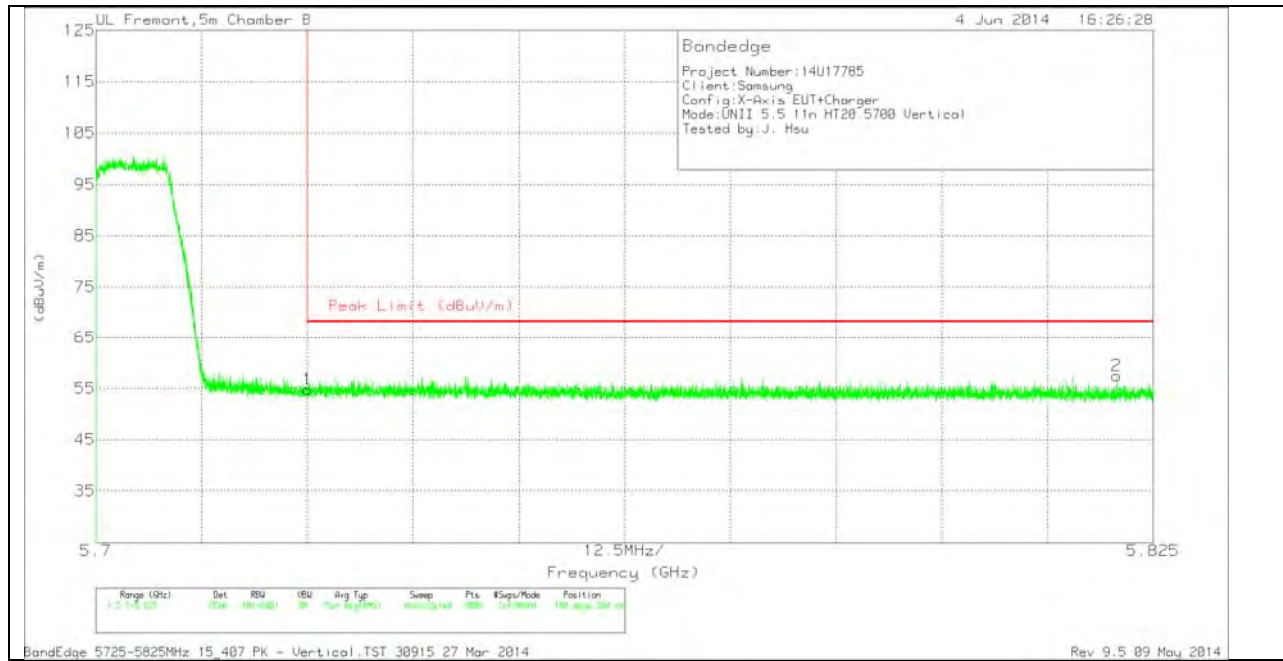


HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	40.54	PK	34.6	-19.9	0	55.24	68.2	-12.96	144	216	H
2	5.755	42.26	PK	34.6	-19.8	0	57.06	68.2	-11.14	144	216	H

PK - Peak detector

VERTICAL PEAK AND AVERAGE PLOT



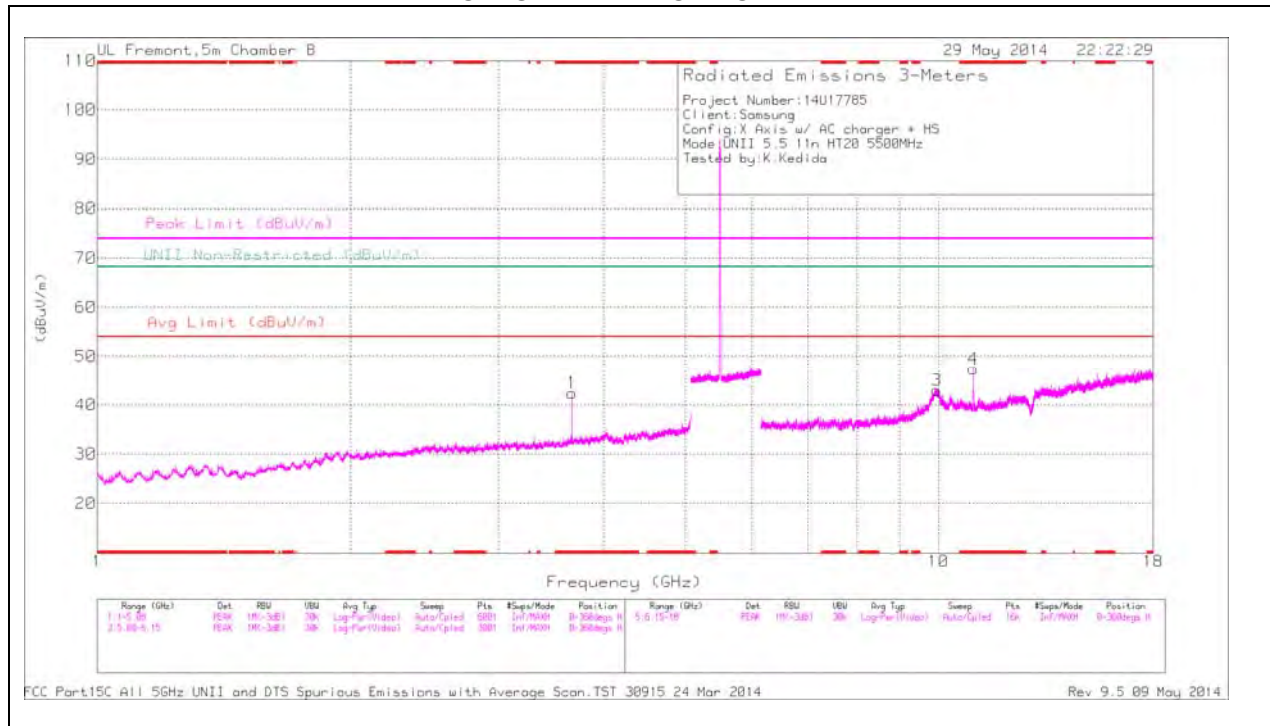
VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	40.1	PK	34.6	-19.9	0	54.8	68.2	-13.4	189	260	V
2	5.821	42.69	PK	34.7	-19.9	0	57.49	68.2	-10.71	189	260	V

PK - Peak detector

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

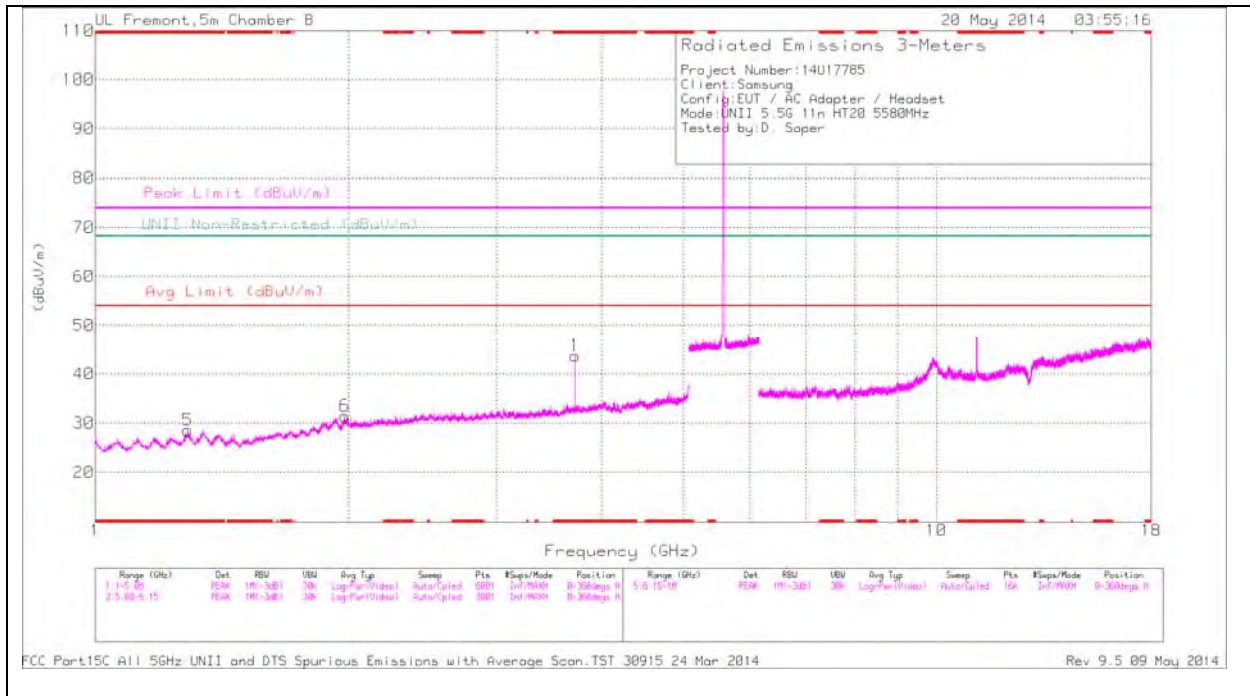
Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restrict ed (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.667	40.44	PK	33.3	-31.3	0	42.44	-	-	74	-31.56	-	-	0-360	201	H
2	* 3.667	35.1	PK	33.3	-31.3	0	37.1	-	-	74	-36.9	-	-	0-360	202	V
4	* 11.001	32.02	PK	37.8	-22.4	0	47.42	-	-	74	-26.58	-	-	0-360	201	H
6	* 11.002	31.02	PK	37.8	-22.4	0	46.42	-	-	74	-27.58	-	-	0-360	202	V
3	9.952	30.17	PK	37	-24.2	0	42.97	-	-	-	-	68.2	-25.23	0-360	201	H
5	9.955	29.98	PK	37	-24.2	0	42.78	-	-	-	-	68.2	-25.42	0-360	202	V

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

PK - Peak detector

Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F tr/Pad (dB)	DC Corr (dB)	Correcte d 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
* 3.667	45.35	PK1	33.3	-31.3	0	47.35	-	-	74	-26.65	-	-	166	197	H
* 3.667	39.62	AD1	33.3	-31.3	.6	41.82	54	-12.18	-	-	-	-	166	197	H
* 10.996	42.1	PK1	37.8	-22.3	0	57.6	-	-	74	-16.4	-	-	254	286	H
* 11.001	28.98	AD1	37.8	-22.4	.6	44.58	54	-9.42	-	-	-	-	254	286	H
* 10.995	42.6	PK1	37.8	-22.3	0	58.1	-	-	74	-15.9	-	-	294	253	V
* 11	29.47	AD1	37.8	-22.4	.6	45.07	54	-8.93	-	-	-	-	294	253	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.

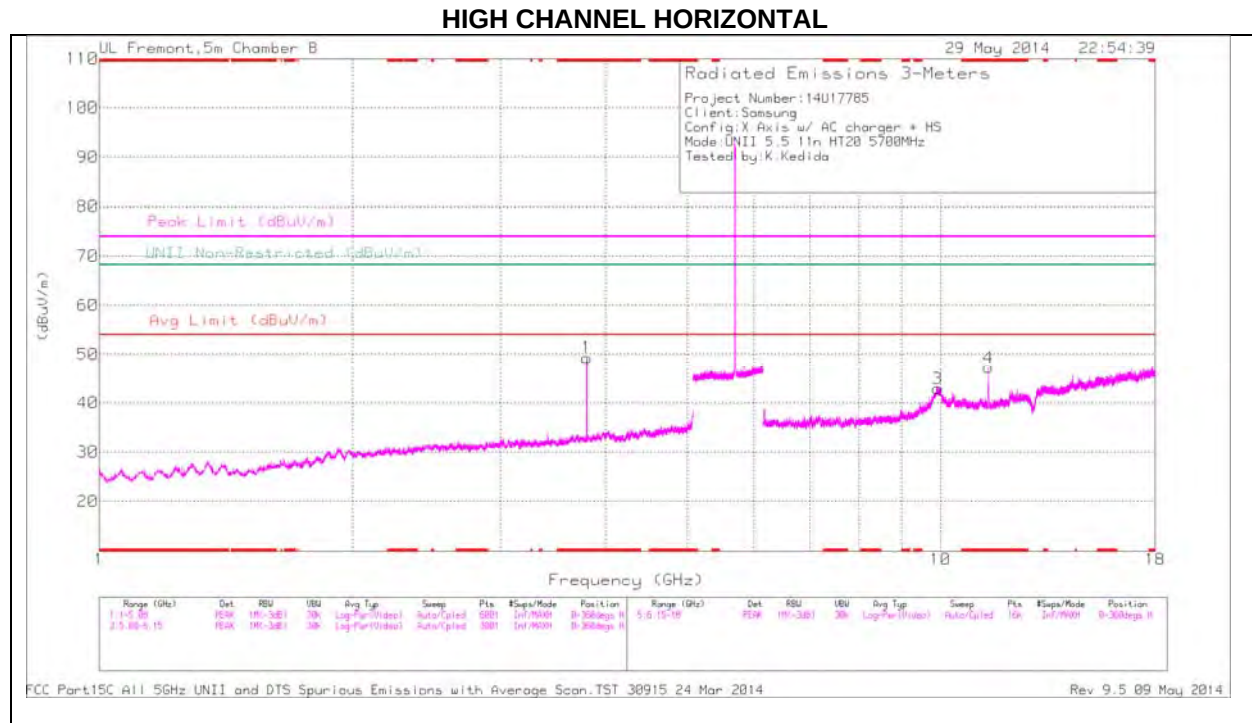
MID CHANNEL DATA

Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restrict ed (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.72	41.5	PK	33.4	-31.2	0	43.7	-	-	74	-30.3	-	-	0-360	99	H
5	* 1.289	34.14	PK	28.8	-34.4	0	28.54	-	-	74	-45.46	-	-	0-360	202	H
2	* 11.159	33.26	PK	37.9	-22.2	0	48.96	-	-	74	-25.04	-	-	0-360	202	V
6	1.98	32.95	PK	31.3	-32.8	0	31.45	-	-	-	-	68.2	-36.75	0-360	202	H
4	6.213	30.65	PK	35.4	-28.2	0	37.85	-	-	-	-	68.2	-30.35	0-360	202	V
3	9.899	29.8	PK	37	-24.1	0	42.7	-	-	-	-	68.2	-25.5	0-360	202	V

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

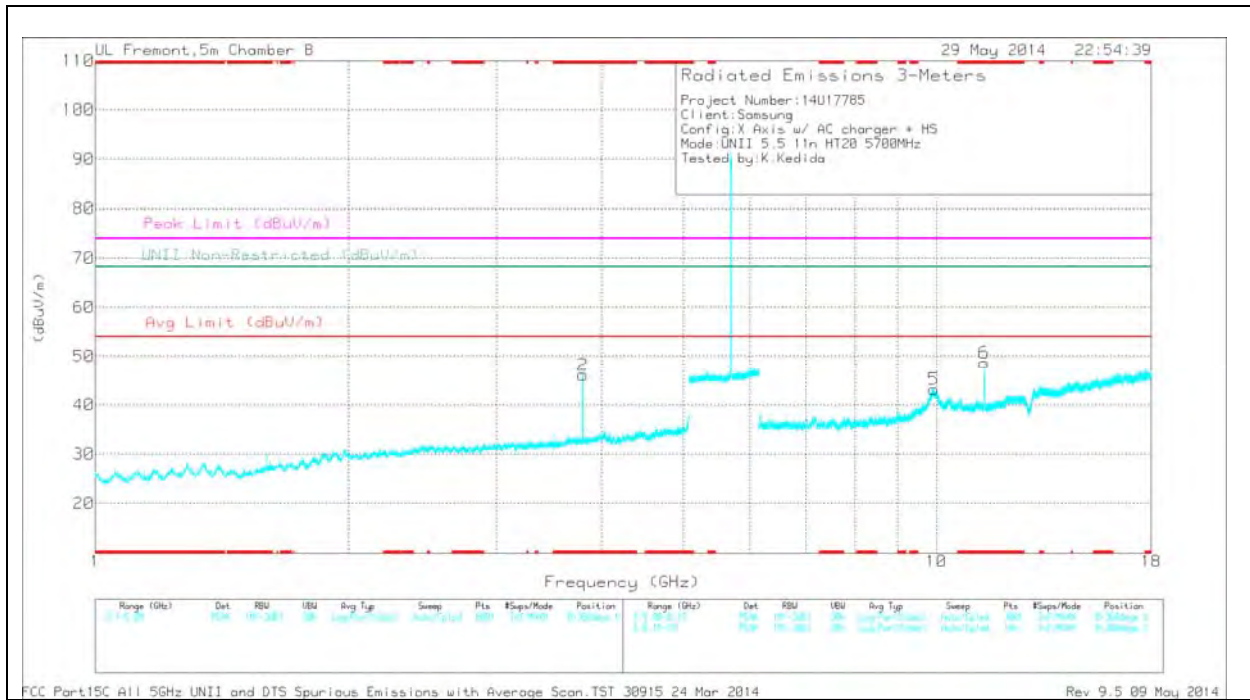
PK - Peak detector

Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F tr/Pad (dB)	DC Corr (dB)	Correcte d 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
* 3.72	47.37	PK1	33.4	-31.2	0	49.57	-	-	74	-24.43	-	-	270	224	H
* 3.72	42.36	AD1	33.4	-31.2	.6	45.16	54	-8.84	-	-	-	-	270	224	H
* 11.16	43.89	PK1	37.9	-22.2	0	59.59	-	-	74	-14.41	-	-	32	253	V
* 11.161	32.33	AD1	37.9	-22.2	.6	48.63	54	-5.37	-	-	-	-	32	253	V



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

Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restrict ed (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.8	46.72	PK	33.6	-31	0	49.32	-	-	74	-24.68	-	-	0-360	99	H
2	* 3.8	43.57	PK	33.6	-31	0	46.17	-	-	74	-27.83	-	-	0-360	202	V
4	* 11.401	31.63	PK	38	-22.4	0	47.23	-	-	74	-26.77	-	-	0-360	201	H
6	* 11.397	33.09	PK	38	-22.4	0	48.69	-	-	74	-25.31	-	-	0-360	202	V
3	9.925	29.78	PK	37	-23.9	0	42.88	-	-	-	-	68.2	-25.32	0-360	99	H
5	9.928	30.09	PK	37	-23.9	0	43.19	-	-	-	-	68.2	-25.01	0-360	202	V

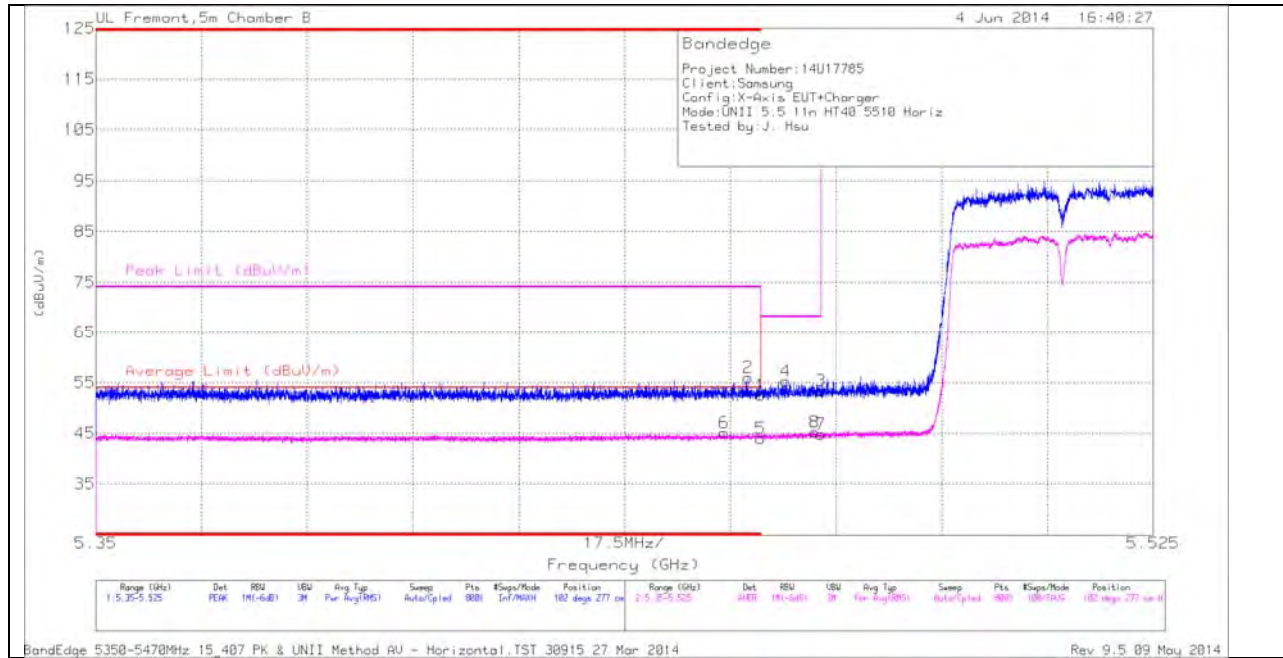
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d 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
* 3.8	50.56	PK1	33.6	-30.9	0	53.26	-	-	74	-20.74	-	-	175	217	H
* 3.8	48.03	AD1	33.6	-30.9	.6	50.93	54	-3.07	-	-	-	-	175	217	H
* 3.8	48.21	PK1	33.6	-30.9	0	50.91	-	-	74	-23.09	-	-	111	195	V
* 3.8	44.29	AD1	33.6	-30.9	.6	47.19	54	-6.81	-	-	-	-	111	195	V
* 11.396	42.08	PK1	38	-22.5	0	57.58	-	-	74	-16.42	-	-	257	292	H
* 11.401	29.82	AD1	38	-22.4	.6	45.62	54	-8.38	-	-	-	-	257	292	H
* 11.395	44.59	PK1	38	-22.5	0	60.09	-	-	74	-13.91	-	-	298	202	V
* 11.401	31.07	AD1	38	-22.4	.6	46.87	54	-7.13	-	-	-	-	298	202	V

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

HORIZONTAL PEAK AND AVERAGE PLOT

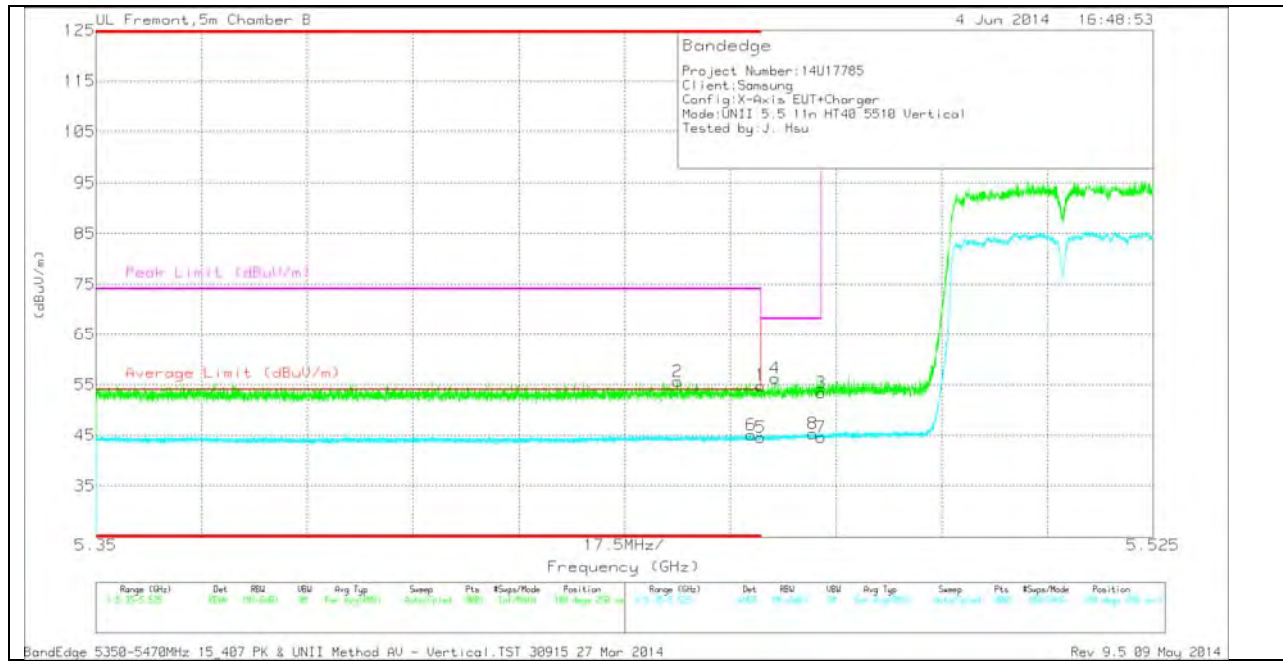


HORIZONTAL DATA

Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6	* 5.454	30.12	RMS	34.5	-20.1	1.1	45.02	54	-8.98	-	-	102	277	H
2	* 5.458	41.61	PK	34.5	-20.1	0	56.01	-	-	74	-17.99	102	277	H
1	* 5.46	38.15	PK	34.5	-20.1	0	52.55	-	-	74	-21.45	102	277	H
5	* 5.46	29.09	RMS	34.5	-20.1	1.1	43.99	54	-10.01	-	-	102	277	H
4	5.464	40.85	PK	34.5	-20.1	0	55.25	-	-	68.2	-12.95	102	277	H
8	5.469	30.25	RMS	34.5	-20	1.1	45.25	-	-	-	-	102	277	H
3	5.47	38.92	PK	34.5	-20	0	53.42	-	-	68.2	-14.78	102	277	H
7	5.47	29.81	RMS	34.5	-20	1.1	44.81	-	-	-	-	102	277	H

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

VERTICAL PEAK AND AVERAGE PLOT



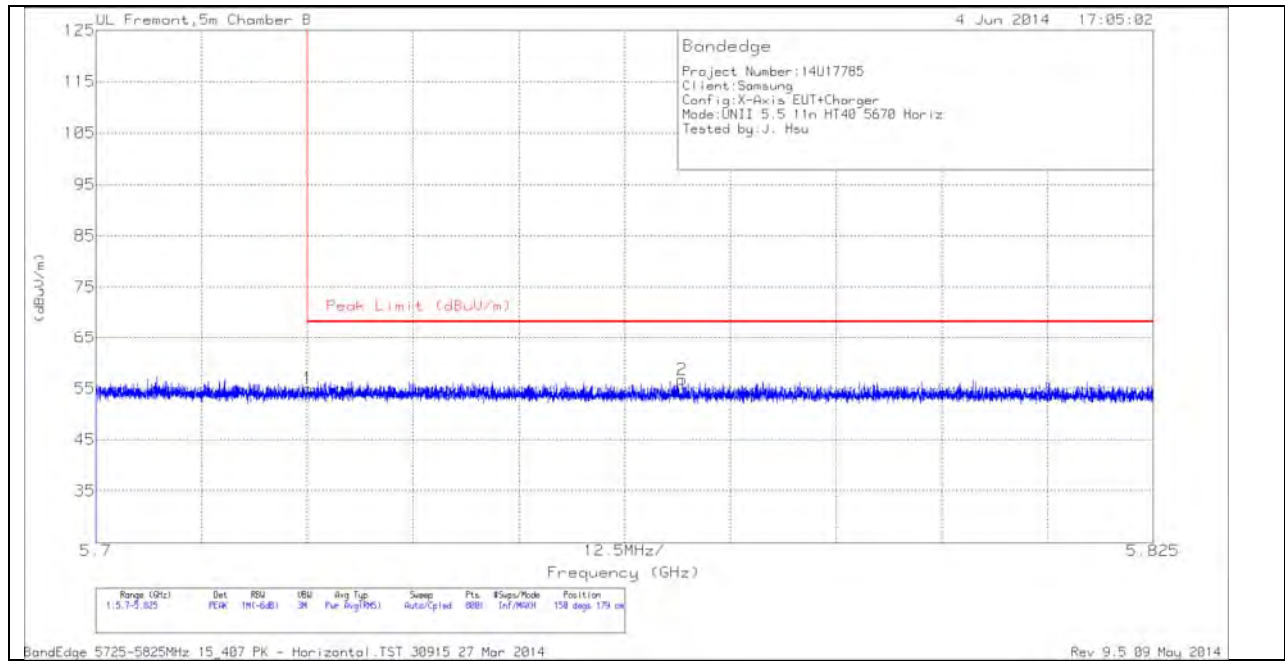
VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dBm)	Amp/Cbl/FI tri/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	* 5.446	41.25	PK	34.5	-20.1	0	55.65	-	-	74	-18.35	188	250	V
6	* 5.459	30.23	RMS	34.5	-20.1	1.1	45.13	54	-8.87	-	-	188	250	V
1	* 5.46	40.42	PK	34.5	-20.1	0	54.82	-	-	74	-19.18	188	250	V
5	* 5.46	29.64	RMS	34.5	-20.1	1.1	44.54	54	-9.46	-	-	188	250	V
4	5.462	41.86	PK	34.5	-20.1	0	56.26	-	-	68.2	-11.94	188	250	V
8	5.469	30.37	RMS	34.5	-20	1.1	45.37	-	-	-	-	188	250	V
3	5.47	38.84	PK	34.5	-20	0	53.34	-	-	68.2	-14.86	188	250	V
7	5.47	29.6	RMS	34.5	-20	1.1	44.6	-	-	-	-	188	250	V

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

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT

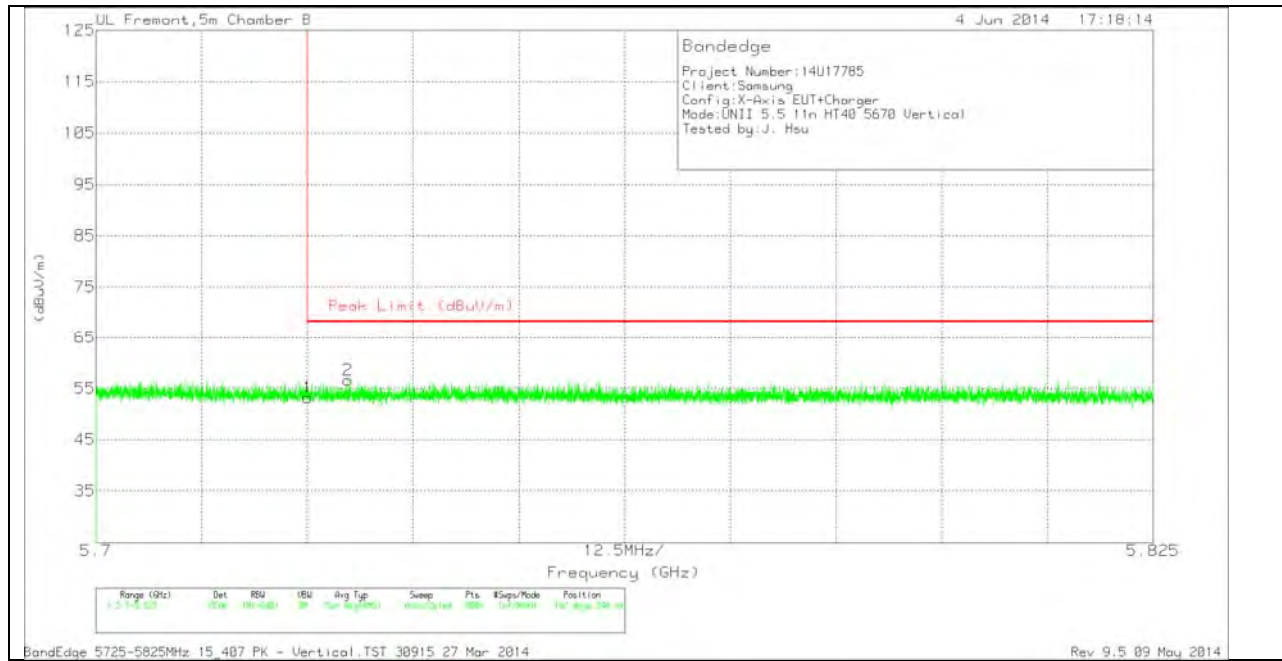


HORIZONTAL DATA

Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Filtr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	40.3	PK	34.6	-19.9	0	55	68.2	-13.2	150	179	H
2	5.769	41.96	PK	34.6	-19.8	0	56.76	68.2	-11.44	150	179	H

PK - Peak detector

VERTICAL PEAK AND AVERAGE PLOT



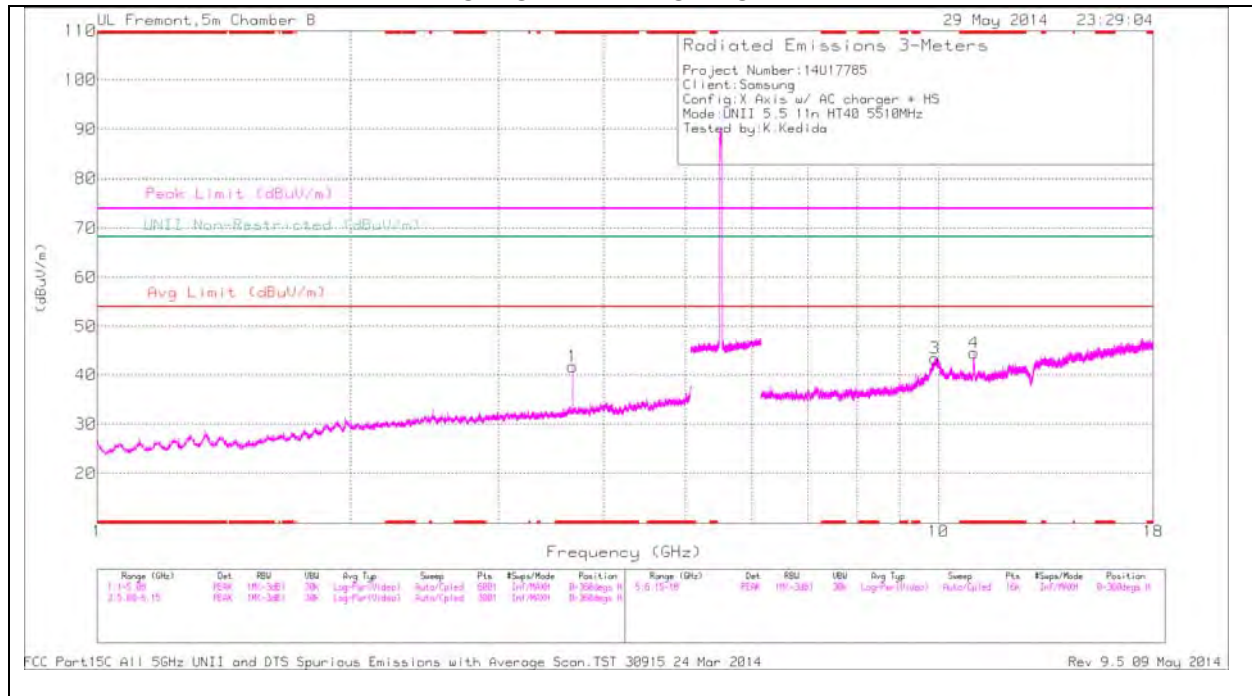
VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	38.44	PK	34.6	-19.9	0	53.14	68.2	-15.06	192	244	V
2	5.73	41.86	PK	34.6	-19.8	0	56.66	68.2	-11.54	192	244	V

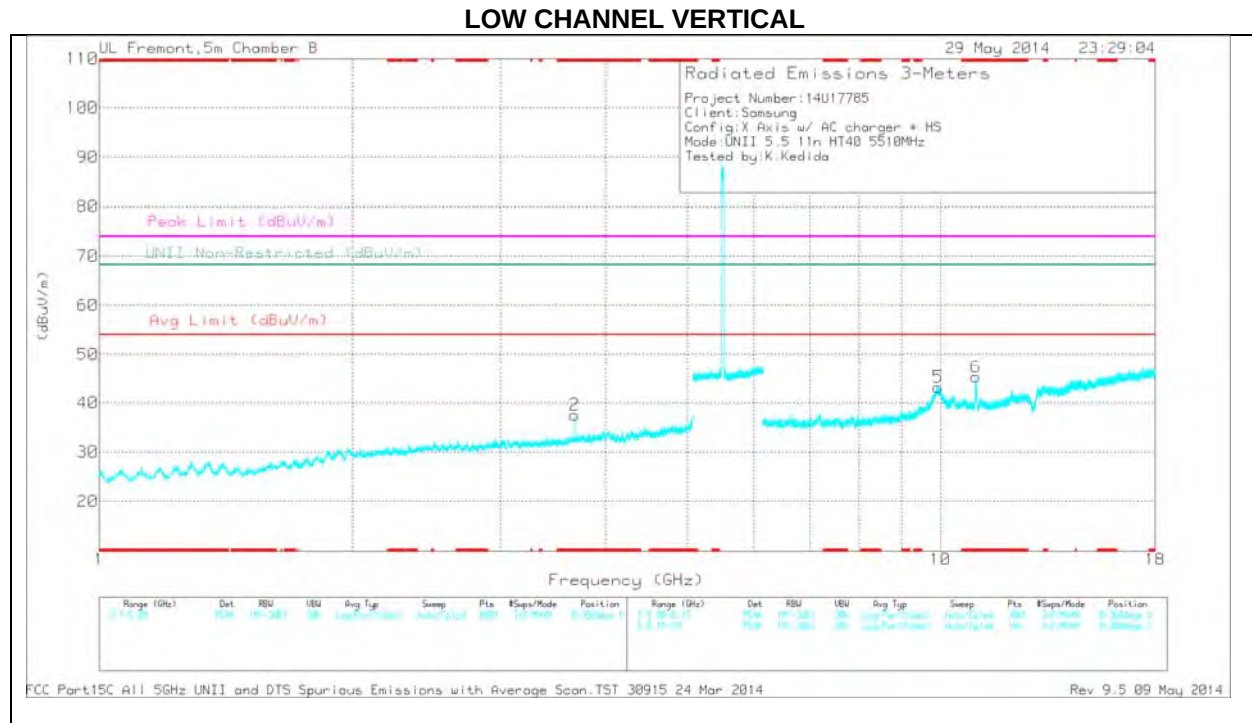
PK - Peak detector

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

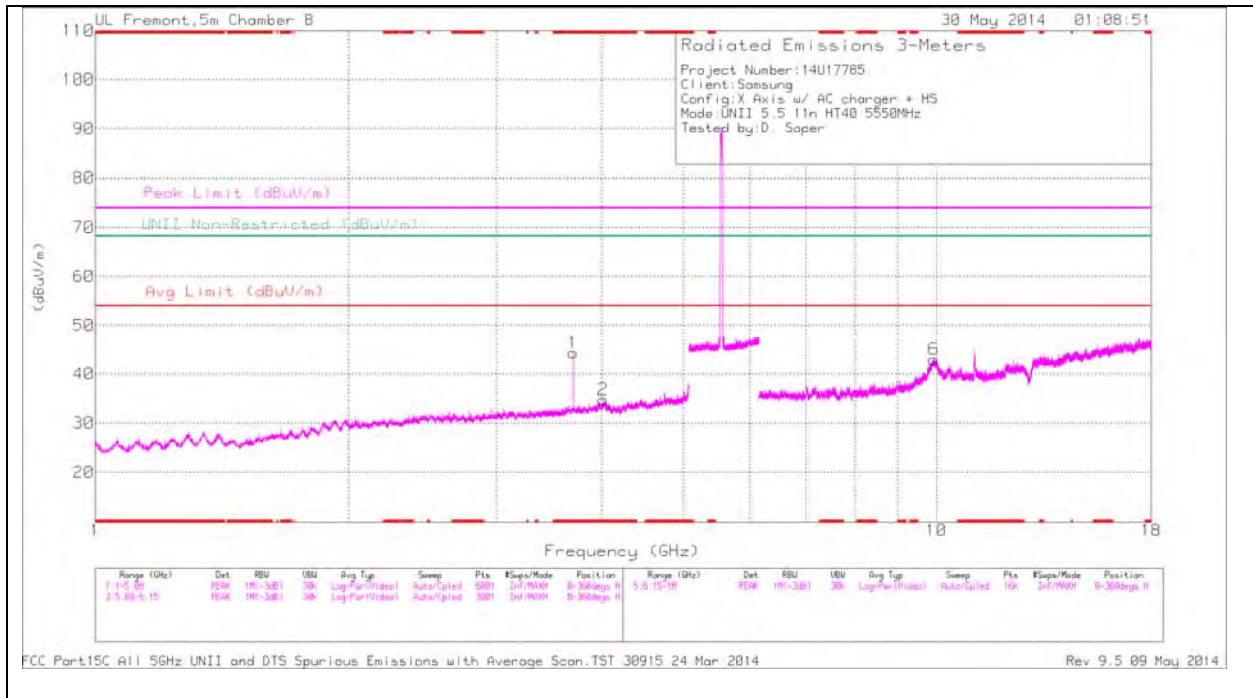
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.673	39.69	PK	33.3	-31.3	0	41.69	-	-	74	-32.31	-	-	0-360	201	H
2	* 3.674	35.55	PK	33.3	-31.3	0	37.55	-	-	74	-36.45	-	-	0-360	202	V
4	* 11.02	29.42	PK	37.8	-22.7	0	44.52	-	-	74	-29.48	-	-	0-360	202	H
6	* 11.021	30.2	PK	37.8	-22.7	0	45.3	-	-	74	-28.7	-	-	0-360	202	V
3	9.908	30.47	PK	37	-24.1	0	43.37	-	-	-	-	68.2	-24.83	0-360	202	H
5	9.939	30.2	PK	37	-24	0	43.2	-	-	-	-	68.2	-25	0-360	202	V

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

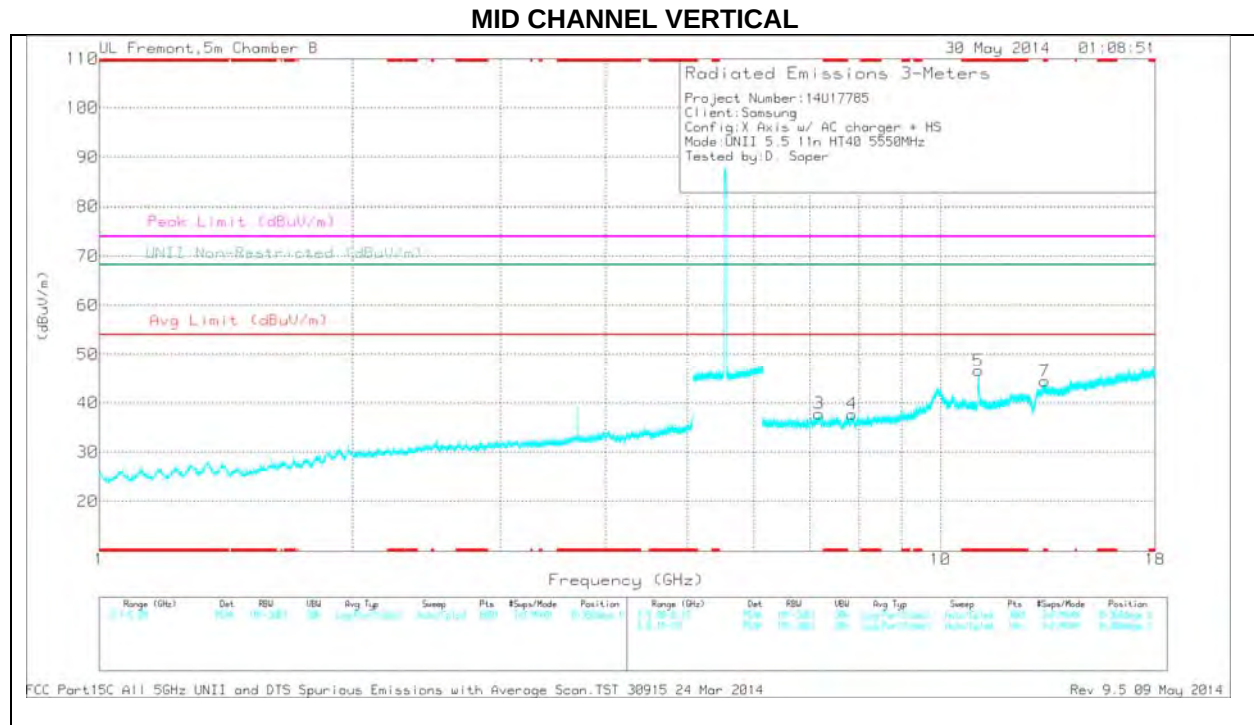
PK - Peak detector

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
* 3.673	45.4	PK1	33.3	-31.3	0	47.4	-	-	74	-26.6	-	-	168	197	H
* 3.673	38.98	AD1	33.3	-31.3	1.1	41.18	54	-12.82	-	-	-	-	168	197	H
* 11.017	39.7	PK1	37.8	-22.6	0	54.9	-	-	74	-19.1	-	-	249	178	H
* 11.021	26.91	AD1	37.8	-22.7	1.1	42.21	54	-11.79	-	-	-	-	249	178	H
* 11.02	39.78	PK1	37.8	-22.7	0	54.88	-	-	74	-19.12	-	-	306	212	V
* 11.019	27.76	AD1	37.8	-22.7	1.1	43.06	54	-10.94	-	-	-	-	306	212	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.



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

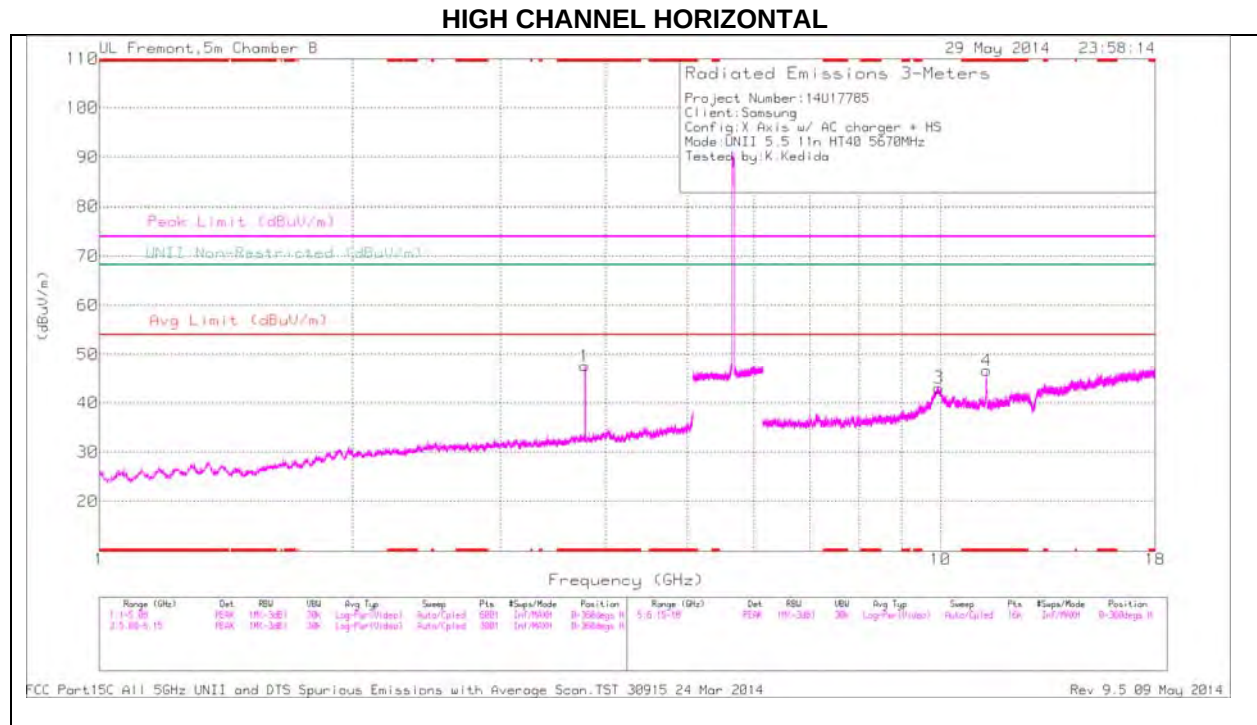
MID CHANNEL DATA

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
1	* 3.7	42.45	PK	33.3	-31.4	0	44.35	-	-	74	-29.65	-	-	0-360	202	H
2	* 4.016	30.66	PK	33.6	-29.5	0	34.76	-	-	74	-39.24	-	-	0-360	202	H
5	* 11.101	31.73	PK	37.8	-22.9	0	46.63	-	-	74	-27.37	-	-	0-360	202	V
7	* 13.303	26.48	PK	39.3	-21.3	0	44.48	-	-	74	-29.52	-	-	0-360	99	V
3	7.173	29.05	PK	35.6	-26.8	0	37.85	-	-	-	-	68.2	-30.35	0-360	202	V
4	7.853	28.42	PK	35.7	-26.4	0	37.72	-	-	-	-	68.2	-30.48	0-360	202	V
6	9.928	29.86	PK	37	-23.9	0	42.96	-	-	-	-	68.2	-25.24	0-360	202	H

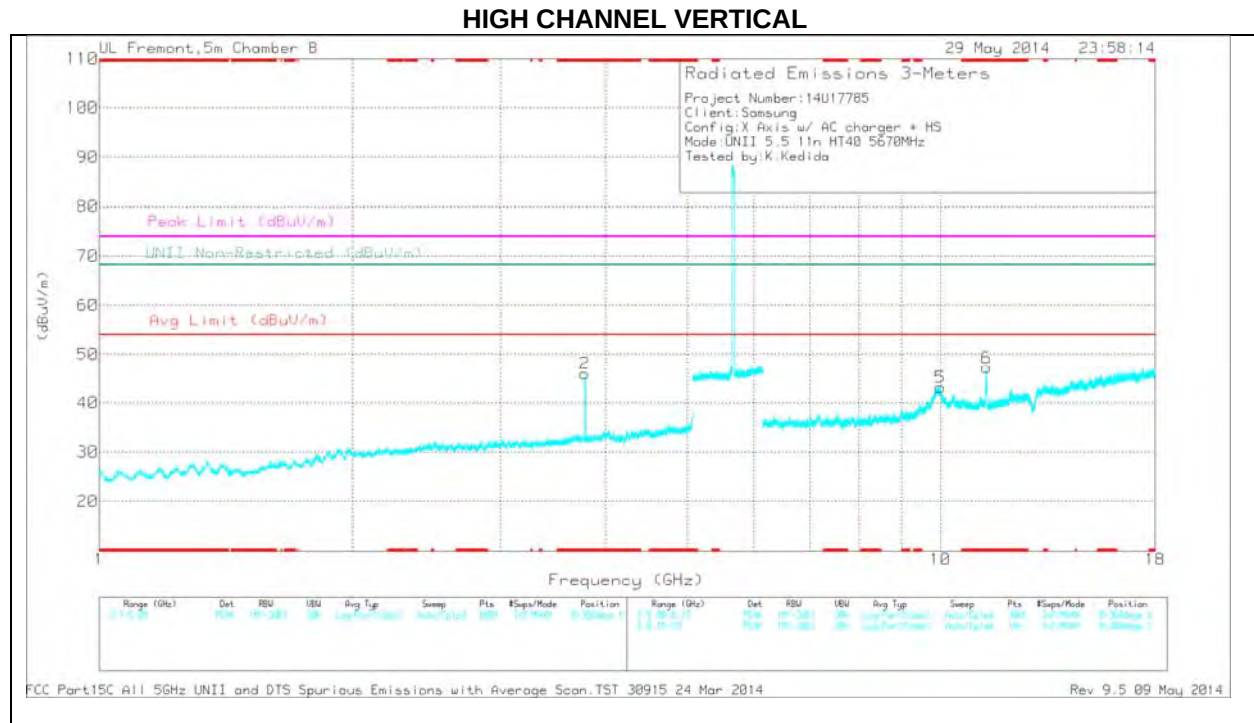
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

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
* 3.7	47.39	PK1	33.3	-31.4	0	49.29	-	-	74	-24.71	-	-	170	196	H
* 3.7	42.14	AD1	33.3	-31.4	1.1	44.24	54	-9.76	-	-	-	-	170	196	H
* 11.101	43.04	PK1	37.8	-22.9	0	57.94	-	-	74	-16.06	-	-	148	233	V
* 11.099	30.11	AD1	37.8	-22.9	1.1	45.21	54	-8.79	-	-	-	-	148	233	V



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	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restrict ed (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.78	44.91	PK	33.6	-30.9	0	47.61	-	-	74	-26.39	-	-	0-360	99	H
2	* 3.78	43.32	PK	33.6	-30.9	0	46.02	-	-	74	-27.98	-	-	0-360	202	V
4	* 11.341	31.15	PK	38	-22.5	0	46.65	-	-	74	-27.35	-	-	0-360	202	H
6	* 11.341	31.75	PK	38	-22.5	0	47.25	-	-	74	-26.75	-	-	0-360	202	V
3	9.956	30.16	PK	37	-24.1	0	43.06	-	-	-	-	68.2	-25.14	0-360	99	H
5	9.997	29.63	PK	37	-23.5	0	43.13	-	-	-	-	68.2	-25.07	0-360	99	V

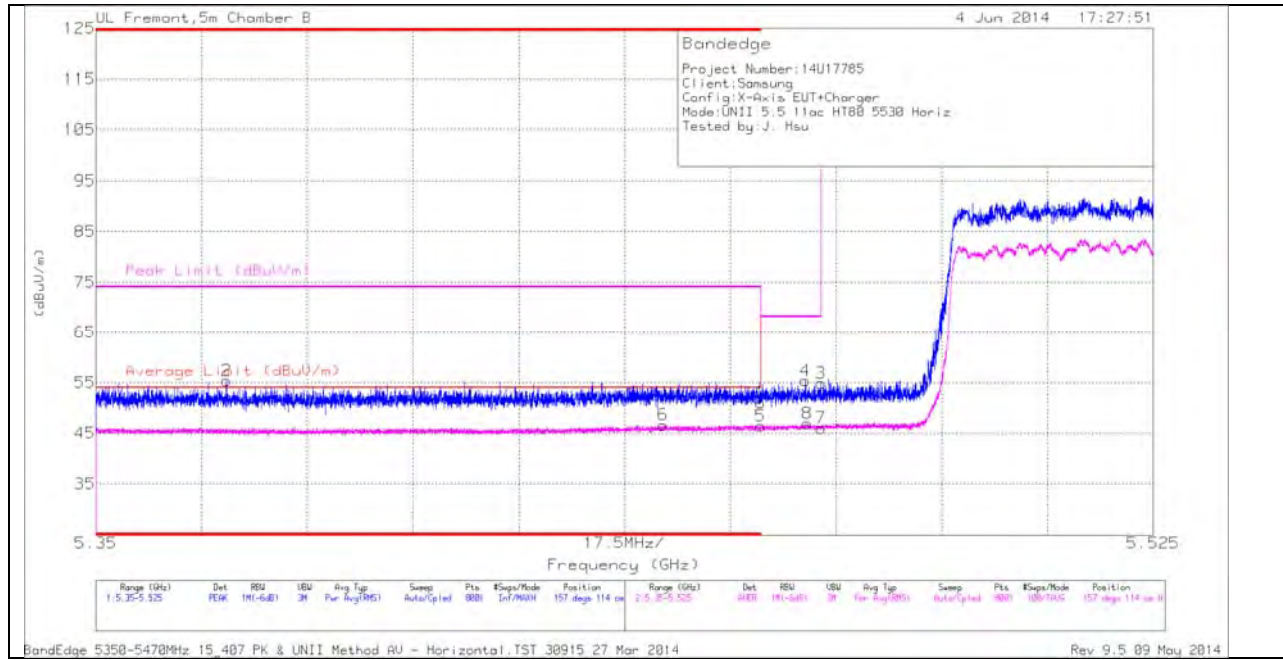
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d 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
* 3.78	50.48	PK1	33.6	-30.9	0	53.18	-	-	74	-20.82	-	-	169	161	H
* 3.78	46.95	AD1	33.6	-30.9	1.1	49.85	54	-4.15	-	-	-	-	169	161	H
* 11.336	39.49	PK1	38	-22.5	0	54.99	-	-	74	-19.01	-	-	284	175	H
* 11.339	27.11	AD1	38	-22.5	1.1	42.81	54	-11.19	-	-	-	-	284	175	H
* 11.34	42.24	PK1	38	-22.5	0	57.74	-	-	74	-16.26	-	-	307	204	V
* 11.341	30.02	AD1	38	-22.5	1.1	45.72	54	-8.28	-	-	-	-	307	204	V

11.3.4. TX ABOVE 1 GHz 802.11ac HT80 MODE IN THE 5.5 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT

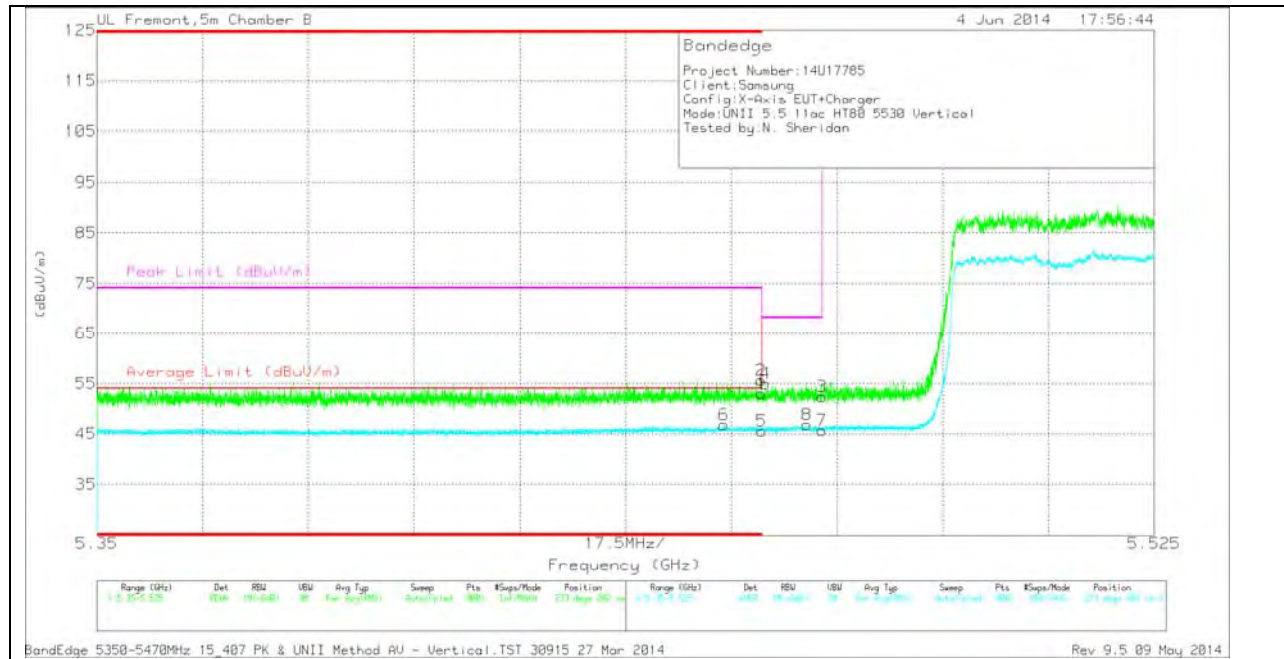


HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/FI tr/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	* 5.372	40.82	PK	34.5	-19.9	0	55.42	-	-	74	-18.58	157	114	H
6	* 5.444	30.33	RMS	34.5	-20	1.8	46.63	54	-7.37	-	-	157	114	H
1	* 5.46	36.7	PK	34.5	-20.1	0	51.1	-	-	74	-22.9	157	114	H
5	* 5.46	30.29	RMS	34.5	-20.1	1.8	46.49	54	-7.51	-	-	157	114	H
4	5.467	40.93	PK	34.5	-20.1	0	55.33	-	-	68.2	-12.87	157	114	H
8	5.468	30.76	RMS	34.5	-20.1	1.8	46.96	-	-	-	-	157	114	H
3	5.47	40.4	PK	34.5	-20	0	54.9	-	-	68.2	-13.3	157	114	H
7	5.47	29.71	RMS	34.5	-20	1.8	46.01	-	-	-	-	157	114	H

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

VERTICAL PEAK AND AVERAGE PLOT



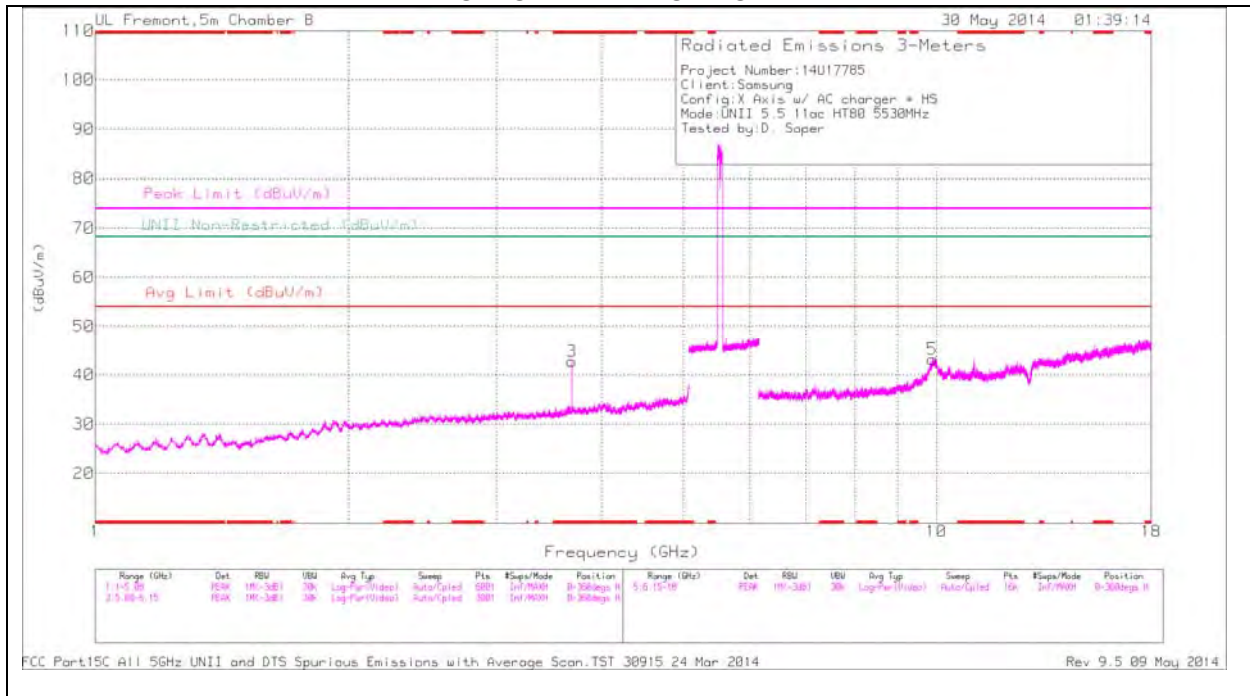
VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dBm)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.46	38.62	PK	34.5	-20.1	0	53.02	-	-	74	-20.98	273	202	V
2	* 5.46	41.21	PK	34.5	-20.1	0	55.61	-	-	74	-18.39	273	202	V
5	* 5.46	29.41	RMS	34.5	-20.1	1.8	45.61	54	-8.39	-	-	273	202	V
6	* 5.454	30.58	RMS	34.5	-20.1	1.8	46.78	54	-7.22	-	-	273	202	V
4	5.461	40.55	PK	34.5	-20.1	0	54.95	-	-	68.2	-13.25	273	202	V
8	5.468	30.62	RMS	34.5	-20.1	1.8	46.82	-	-	-	-	273	202	V
3	5.47	37.88	PK	34.5	-20	0	52.38	-	-	68.2	-15.82	273	202	V
7	5.47	29.45	RMS	34.5	-20	1.8	45.75	-	-	-	-	273	202	V

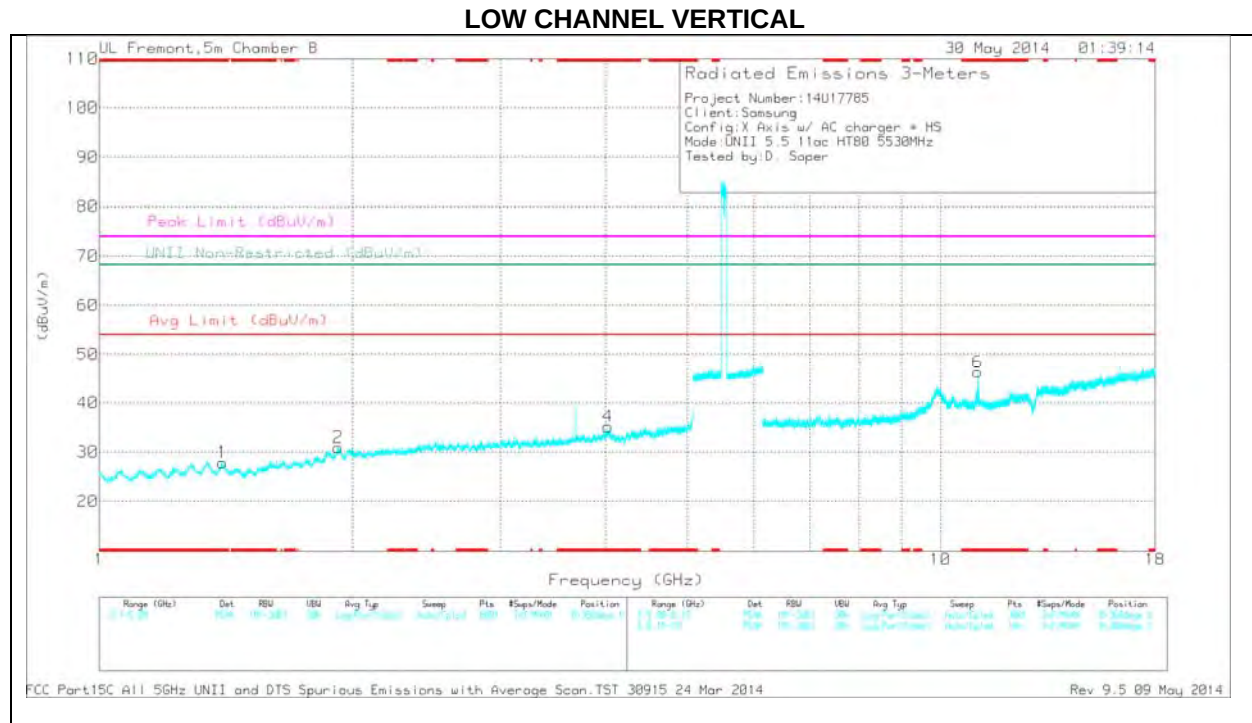
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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



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

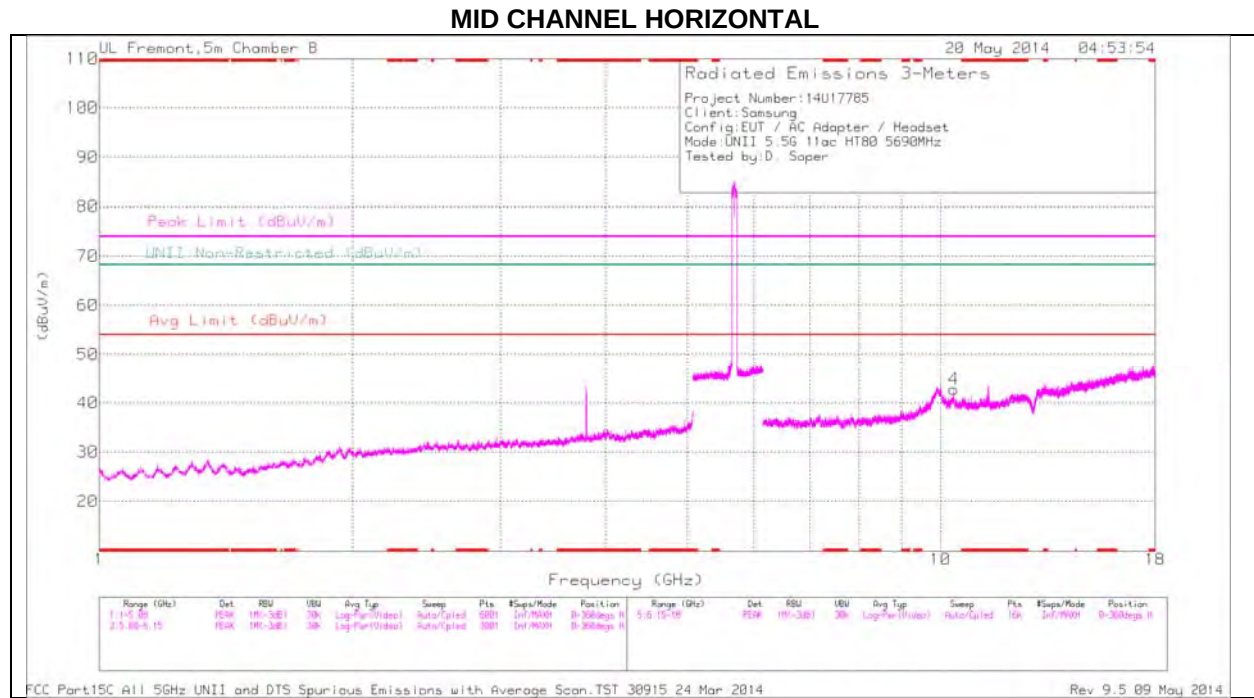
LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 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
3	* 3.687	40.75	PK	33.3	-31.3	0	42.75	-	-	74	-31.25	-	-	0-360	201	H
1	* 1.402	33.25	PK	28.5	-33.9	0	27.85	-	-	74	-46.15	-	-	0-360	202	V
4	* 4.027	31.08	PK	33.6	-29.5	0	35.18	-	-	74	-38.82	-	-	0-360	99	V
6	* 11.074	31.44	PK	37.8	-22.9	0	46.34	-	-	74	-27.66	-	-	0-360	202	V
2	1.923	32.72	PK	31.1	-32.9	0	30.92	-	-	-	-	68.2	-37.28	0-360	202	V
5	9.891	30.18	PK	37	-24	0	43.18	-	-	-	-	68.2	-25.02	0-360	99	H

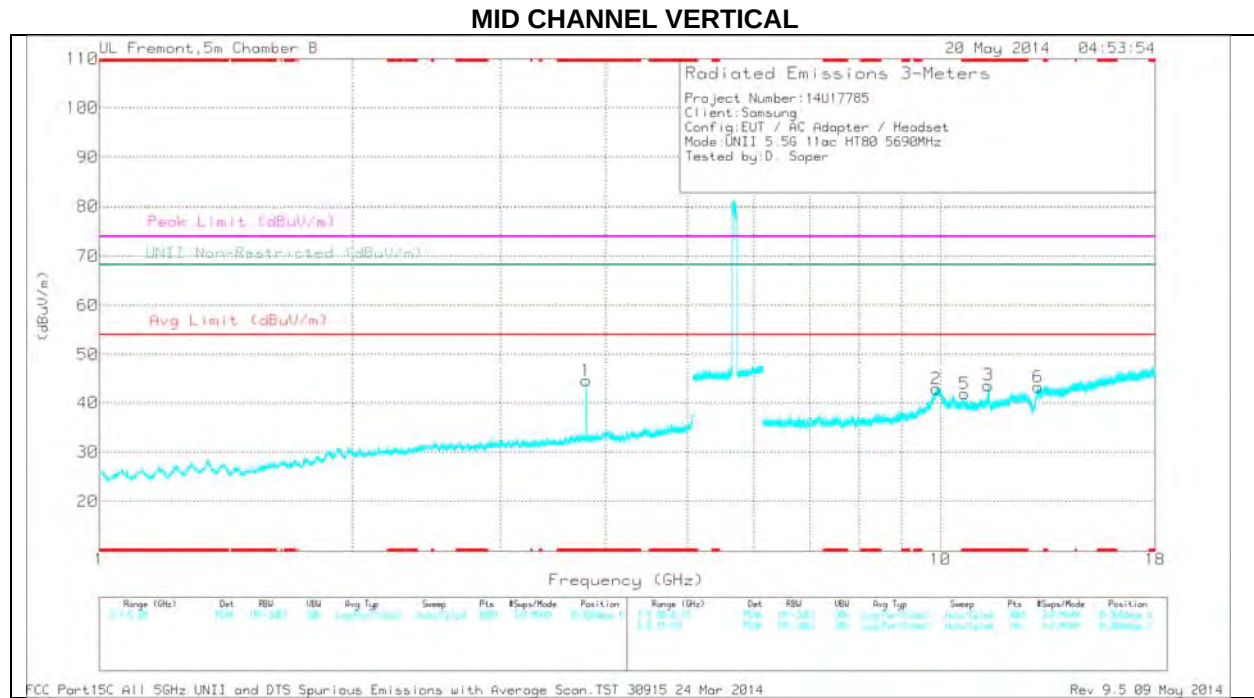
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

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
* 3.687	46.53	PK1	33.3	-31.3	0	48.53	-	-	74	-25.47	-	-	169	198	H
* 3.687	40.04	AD1	33.3	-31.3	1.8	43.84	54	-10.16	-	-	-	-	169	198	H
* 11.075	35.53	PK1	37.8	-22.9	0	50.43	-	-	74	-23.57	-	-	169	204	V
* 11.075	23.88	AD1	37.8	-22.9	1.8	40.58	54	-13.42	-	-	-	-	169	204	V



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

Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non- Restrict ed (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.793	41.9	PK	33.6	-30.9	0	44.6	-	-	74	-29.4	-	-	0-360	202	V
3	* 11.396	28.1	PK	38	-22.5	0	43.6	-	-	74	-30.4	-	-	0-360	202	V
5	* 10.68	25.94	PK	37.7	-21.8	0	41.84	-	-	74	-32.16	-	-	0-360	202	V
2	9.885	29.96	PK	37	-24.1	0	42.86	-	-	-	-	68.2	-25.34	0-360	99	V
4	10.371	28	PK	37.3	-22.5	0	42.8	-	-	-	-	68.2	-25.4	0-360	99	H
6	13.06	25.25	PK	39.1	-21.1	0	43.25	-	-	-	-	68.2	-24.95	0-360	202	V

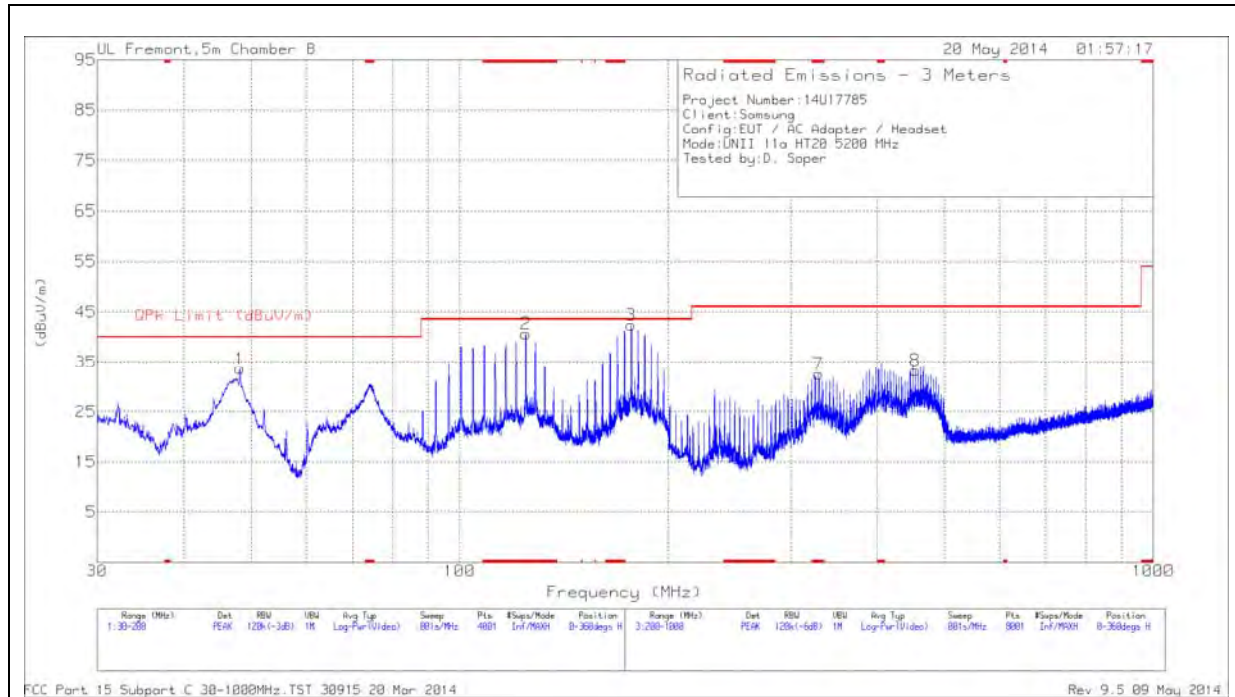
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F tr/Pad (dB)	DC Corr (dB)	Correcte d 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
* 3.793	46.74	PK1	33.6	-30.9	0	49.44	-	-	74	-24.56	-	-	190	262	V
* 3.793	39.76	AD1	33.6	-30.9	1.8	44.26	54	-9.74	-	-	-	-	190	262	V
* 11.396	39.6	PK1	38	-22.5	0	55.1	-	-	74	-18.9	-	-	256	278	V
* 11.394	25.8	AD1	38	-22.5	1.8	43.1	54	-10.9	-	-	-	-	256	278	V

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

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



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



Below 1G Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 124.5625	54.26	PK	14.1	-27.7	40.66	43.52	-2.86	0-360	200	H
7	* 329.4	44.36	PK	14	-25.8	32.56	46.02	-13.46	0-360	101	H
6	* 405.8	38.34	PK	15.9	-25.9	28.34	46.02	-17.68	0-360	200	V
4	32.125	45.43	PK	19.9	-28.8	36.53	40	-3.47	0-360	101	V
1	48.19	53.44	PK	8.7	-28.5	33.64	40	-6.36	0-360	400	H
5	100.465	53.06	PK	10.2	-28	35.26	43.52	-8.26	0-360	101	V
3	176.7738	58.4	PK	11.1	-27.1	42.4	43.52	-1.12	0-360	200	H
8	454	42.4	PK	16.8	-25.9	33.3	46.02	-12.72	0-360	200	H

12. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 7.2.2

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

* Decreases with the logarithm of the frequency.

TEST PROCEDURE

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

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

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

RESULTS

6 WORST EMISSIONS

Line-L1 .15 - 30MHz

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L1 (dB)	LC Cables 1&3 (dB)	Corrected Reading dB(uVolts)	CISPR 11/22 Class B Quasi-peak	Margin to Limit (dB)	CISPR 11/22 Class B Average	Margin to Limit (dB)
1	.15	37.77	PK	1.4	0	39.17	66	-26.83	-	-
2	.15	14.23	Av	1.4	0	15.63	-	-	56	-40.37
3	.2805	35.76	PK	.6	0	36.36	60.8	-24.44	-	-
4	.2805	25.98	Av	.6	0	26.58	-	-	50.8	-24.22
5	1.086	41.09	PK	.2	0	41.29	56	-14.71	-	-
6	1.086	16.35	Av	.2	0	16.55	-	-	46	-29.45
7	2.3595	41.58	PK	.2	.1	41.88	56	-14.12	-	-
8	2.3595	20.28	Av	.2	.1	20.58	-	-	46	-25.42
9	4.7445	43.56	PK	.2	.1	43.86	56	-12.14	-	-
10	4.7445	21.51	Av	.2	.1	21.81	-	-	46	-24.19
11	16.1925	43.58	PK	.3	.2	44.08	60	-15.92	-	-
12	16.1925	28.16	Av	.3	.2	28.66	-	-	50	-21.34

Line-L2 .15 - 30MHz

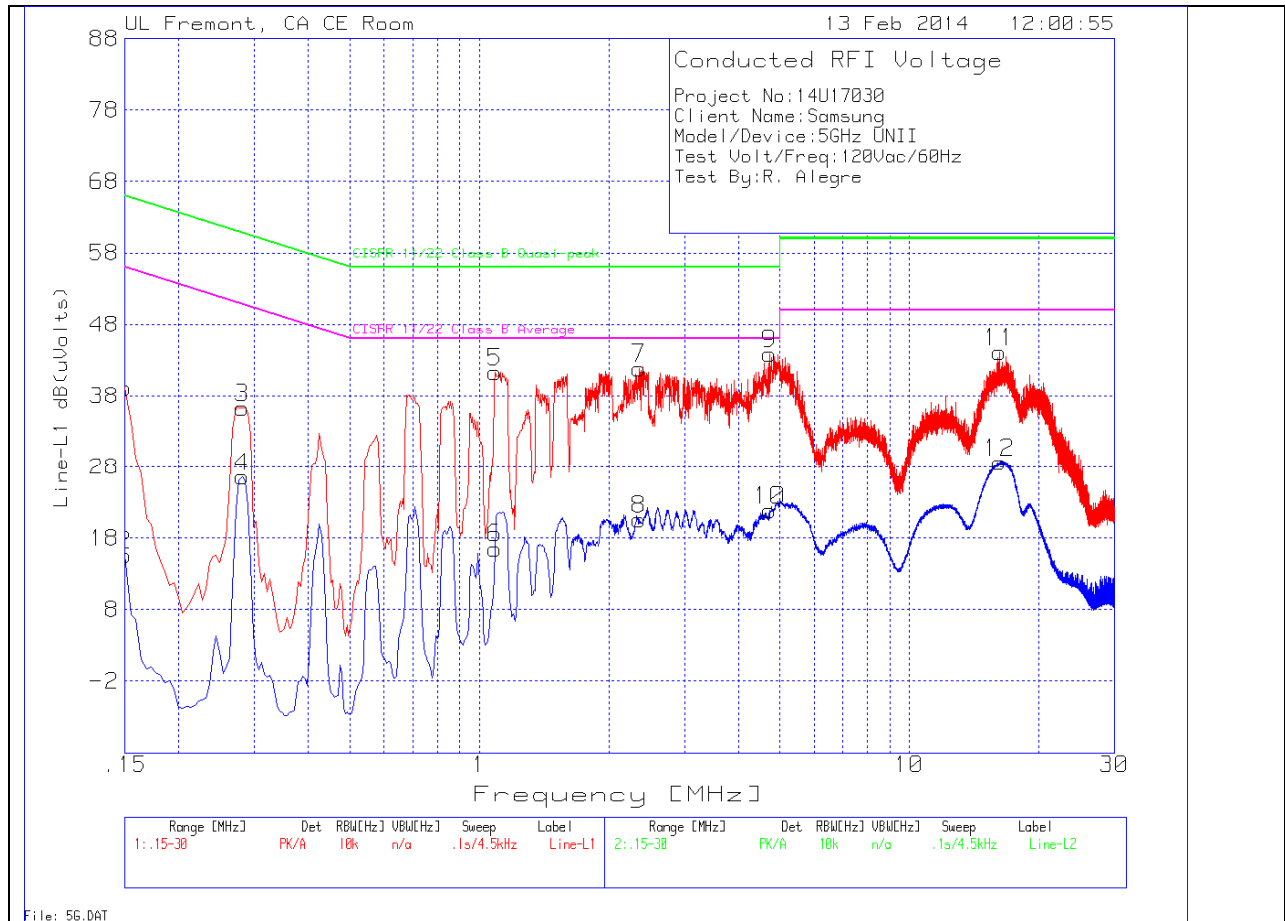
Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L2 (dB)	LC Cables 2&3 (dB)	Corrected Reading dB(uVolts)	CISPR 11/22 Class B Quasi-peak	Margin to Limit (dB)	CISPR 11/22 Class B Average	Margin to Limit (dB)
13	.15	44.07	PK	1.5	0	45.57	66	-20.43	-	-
14	.15	15.03	Av	1.5	0	16.53	-	-	56	-39.47
15	.276	37.87	PK	.7	0	38.57	60.9	-22.33	-	-
16	.276	20.67	Av	.7	0	21.37	-	-	50.9	-29.53
17	.8835	37.23	PK	.3	0	37.53	56	-18.47	-	-
18	.8835	12.01	Av	.3	0	12.31	-	-	46	-33.69
19	4.9425	40.31	PK	.2	.1	40.61	56	-15.39	-	-
20	4.9425	20.37	Av	.2	.1	20.67	-	-	46	-25.33
21	16.467	49.5	PK	.3	.2	50	60	-10	-	-
22	16.467	33.2	Av	.3	.2	33.7	-	-	50	-16.3

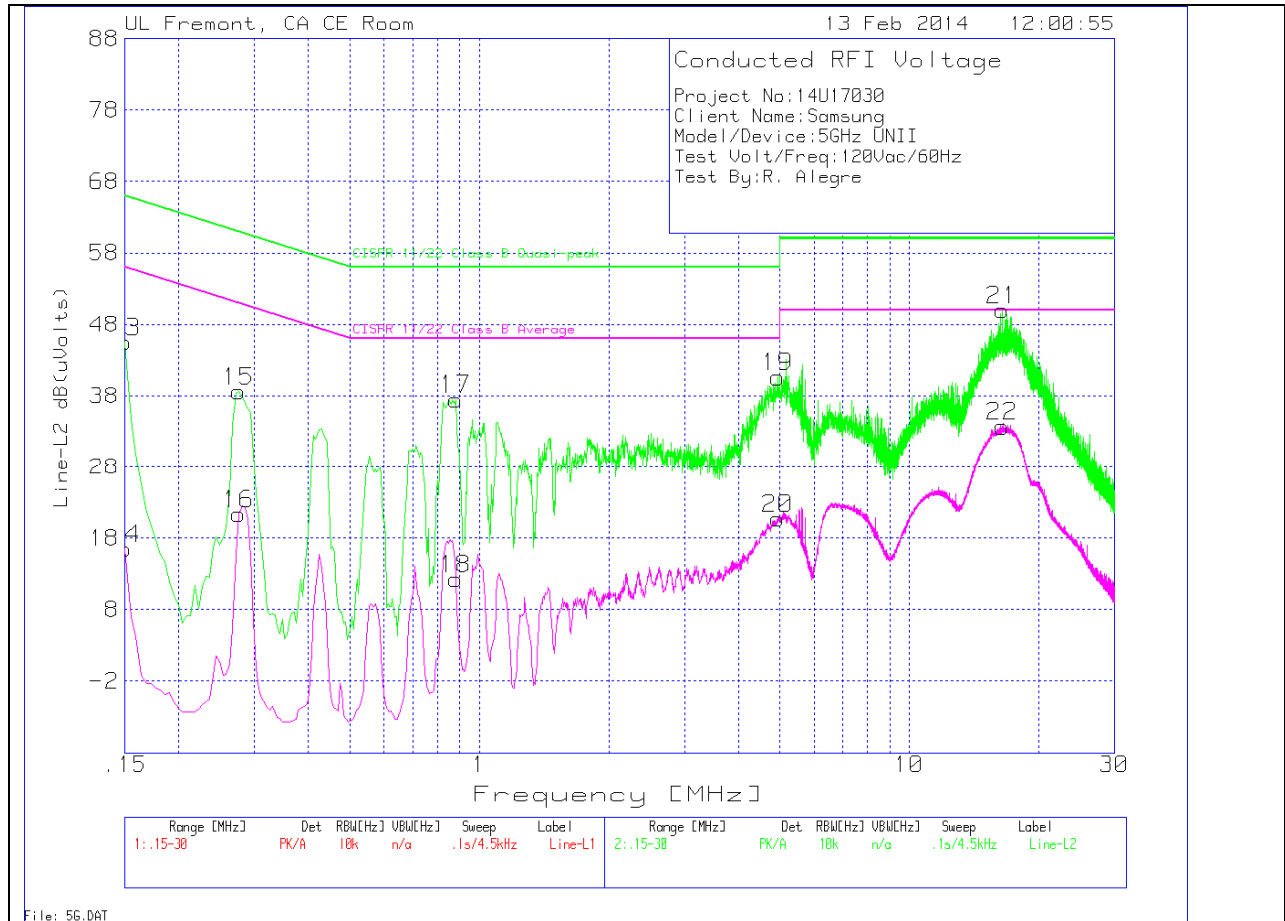
PK - Peak detector

Av - average detection

LINE 1 PLOT



LINE 2 PLOT



13. DYNAMIC FREQUENCY SELECTION

13.1. OVERVIEW

13.1.1. LIMITS

INDUSTRY CANADA

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

RSS-210 Issue 7 A9.4 (b) (ii) **Channel Availability Check Time:** ...

Additional requirements for the band 5600-5650 MHz: Until further notice, devices subject to this Section shall not be capable of transmitting in the band 5600-5650 MHz, so that Environment Canada weather radars operating in this band are protected.

FCC

§15.407 (h) and FCC 06-96 APPENDIX "COMPLIANCE MEASUREMENT PROCEDURES FOR UNLICENSED-NATIONAL INFORMATION INFRASTRUCTURE DEVCIES OPERATING IN THE 5250-5350 MHz AND 5470-5725 MHz BANDS INCORPORATING DYNAMIC FREQUENCY SELECTION".

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

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

Table 2: Applicability of DFS requirements during normal operation

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

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

Maximum Transmit Power	Value (see note)
≥ 200 milliwatt	-64 dBm
< 200 milliwatt	-62 dBm

Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna

Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.

Table 4: DFS Response requirement values

Parameter	Value
<i>Non-occupancy period</i>	30 minutes
<i>Channel Availability Check Time</i>	60 seconds
<i>Channel Move Time</i>	10 seconds
<i>Channel Closing Transmission Time</i>	200 milliseconds + approx. 60 milliseconds over remaining 10 second period
The instant that the <i>Channel Move Time</i> and the <i>Channel Closing Transmission Time</i> begins is as follows: For the Short pulse radar Test Signals this instant is the end of the <i>Burst</i>. For the Frequency Hopping radar Test Signal, this instant is the end of the last radar burst generated. For the Long Pulse radar Test Signal this instant is the end of the 12-second period defining the radar transmission. The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate channel changes (an aggregate of approximately 60 milliseconds) during the remainder of the 10-second period. The aggregate duration of control signals will not count quiet periods in between transmissions.	

Table 5 – Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (Microseconds)	PRI (Microseconds)	Pulses	Minimum Percentage of Successful Detection	Minimum Trials
1	1	1428	18	60%	30
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30

4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120

Table 6 – Long Pulse Radar Test Signal

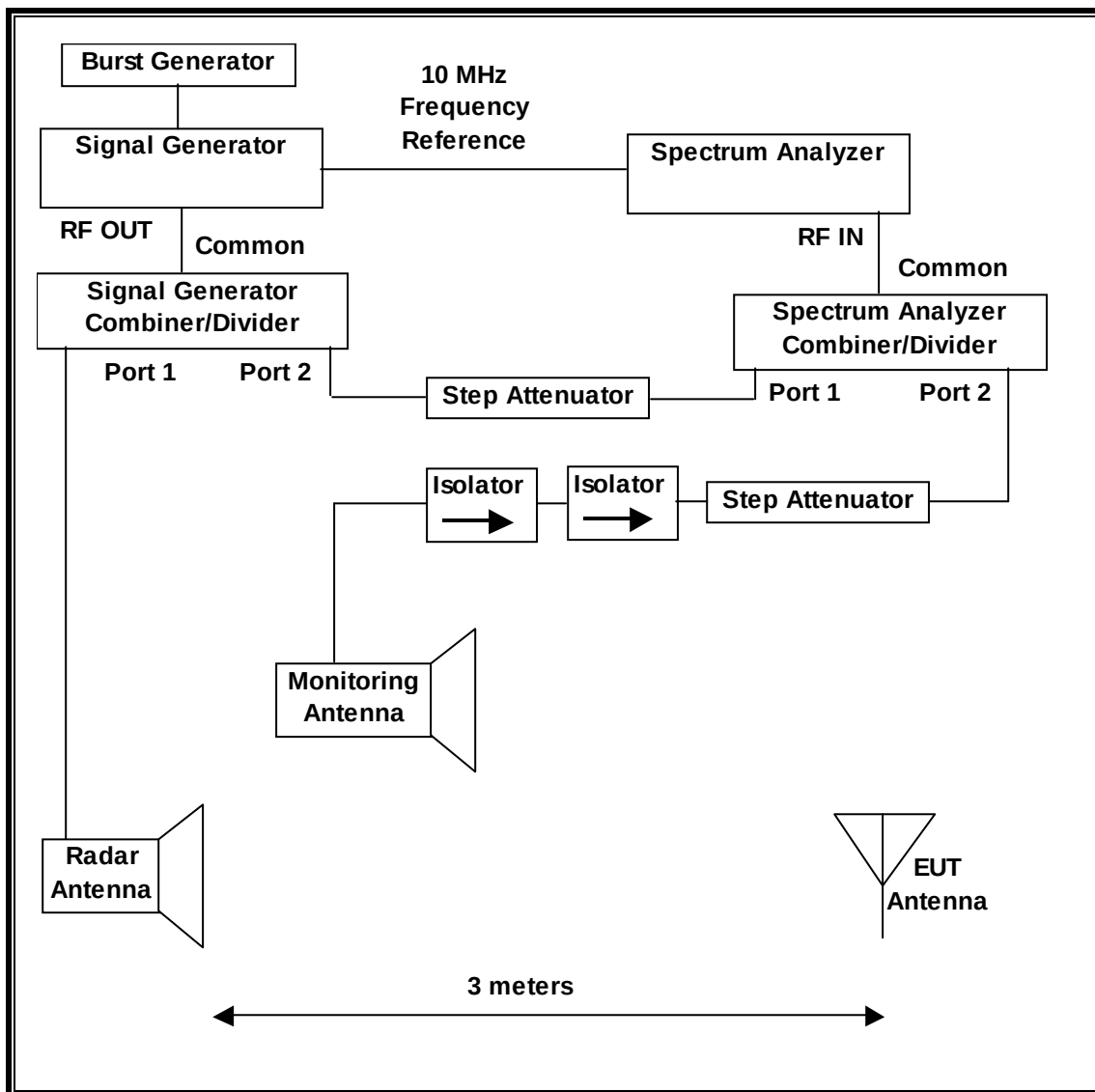
Radar Waveform	Bursts	Pulses per Burst	Pulse Width (μsec)	Chirp Width (MHz)	PRI (μsec)	Minimum Percentage of Successful Detection	Minimum Trials
5	8-20	1-3	50-100	5-20	1000-2000	80%	30

Table 7 – Frequency Hopping Radar Test Signal

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

13.1.2. TEST AND MEASUREMENT SYSTEM

RADIATED METHOD SYSTEM BLOCK DIAGRAM



SYSTEM OVERVIEW

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

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

The hopping type 6 pulse parameters are fixed while the hopping sequence is based on the August 2005 NTIA Hopping Frequency List. The initial starting point randomized at run-time and each subsequent starting point is incremented by 475. Each frequency in the 100-length segment is compared to the boundaries of the EUT Detection Bandwidth and the software creates a hopping burst pattern in accordance with Section 7.4.1.3 Method #2 Simulated Frequency Hopping Radar Waveform Generating Subsystem of FCC 06-96 APPENDIX. The frequency of the signal generator is incremented in 1 MHz steps from F_L to F_H for each successive trial. This incremental sequence is repeated as required to generate a minimum of 30 total trials and to maintain a uniform frequency distribution over the entire Detection Bandwidth.

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

SYSTEM CALIBRATION

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

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

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

ADJUSTMENT OF DISPLAYED TRAFFIC LEVEL

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

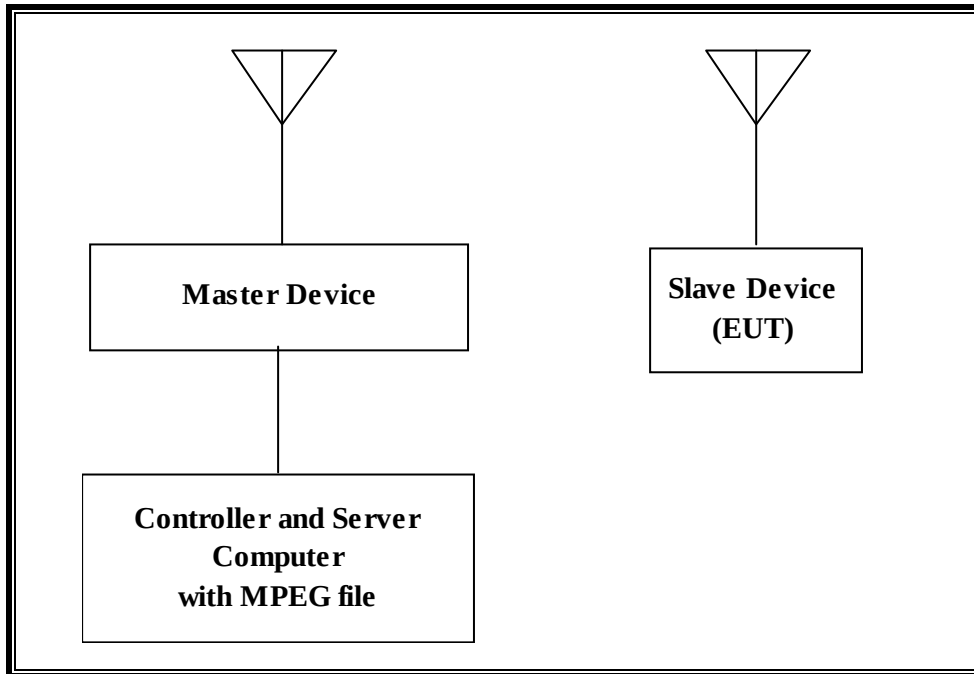
TEST AND MEASUREMENT EQUIPMENT

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

TEST EQUIPMENT LIST				
Description	Manufacturer	Model	Asset Number	Cal Due
Spectrum Analyzer, 26.5 GHz	Agilent / HP	E4440A	C01178	09/10/14
Vector Signal Generator, 20GHz	Agilent / HP	E8267C	C01066	09/12/14

13.1.3. SETUP OF EUT

RADIATED METHOD EUT TEST SETUP



SUPPORT EQUIPMENT

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

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	Manufacturer	Model	Serial Number	FCC ID
Wireless Access Point	Cisco	AIR-AP1252AG-A-K9	FTX120690N2	LDK102061
AC Adapter (AP)	Delta Electronics	EADP-45BB B	DTH112490BD	DoC
Notebook PC (Controller/Server)	Dell	PP18L	10657517725	DoC
AC Adapter (Controller/Server PC)	Dell	LA65SN0-00	CN-ODF263-71615-6AU-1019	DoC

13.1.4. DESCRIPTION OF EUT

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

The EUT is a Slave Device without Radar Detection.

The highest power level within these bands is 14.72 dBm EIRP in the 5250-5350 MHz band and 15.01 dBm EIRP in the 5470-5725 MHz band.

The antennas assembly utilized with the EUT have gain of -0.4dBi and -3.18dBi.

Two antennas are utilized to meet the diversity and MIMO operational requirements.

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

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

The EUT uses two transmitter/receiver chains, each connected to an antenna to perform radiated tests.

WLAN traffic is generated by streaming the video file TestFile.mp2 "6 ½ Magic Hours" from the Master to the Slave in full motion video mode MX Player version 1.7.22 media play.

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

The EUT utilizes the 802.11ac architecture. Three nominal channel bandwidths are implemented: 20 MHz, 40 MHz and 80 MHz. However, pursuant to FCC KDB Publication 848637, "Client devices with 80 MHz BW mode can be tested with an approved master operating in 40 MHz BW mode". Therefore, 80MHz BW DFS testing was not performed and has been excluded from this report.

The software installed in the access point is 2.4(25d)JA1.

UNIFORM CHANNEL SPREADING

This requirement is not applicable to Slave radio devices.

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

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

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

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

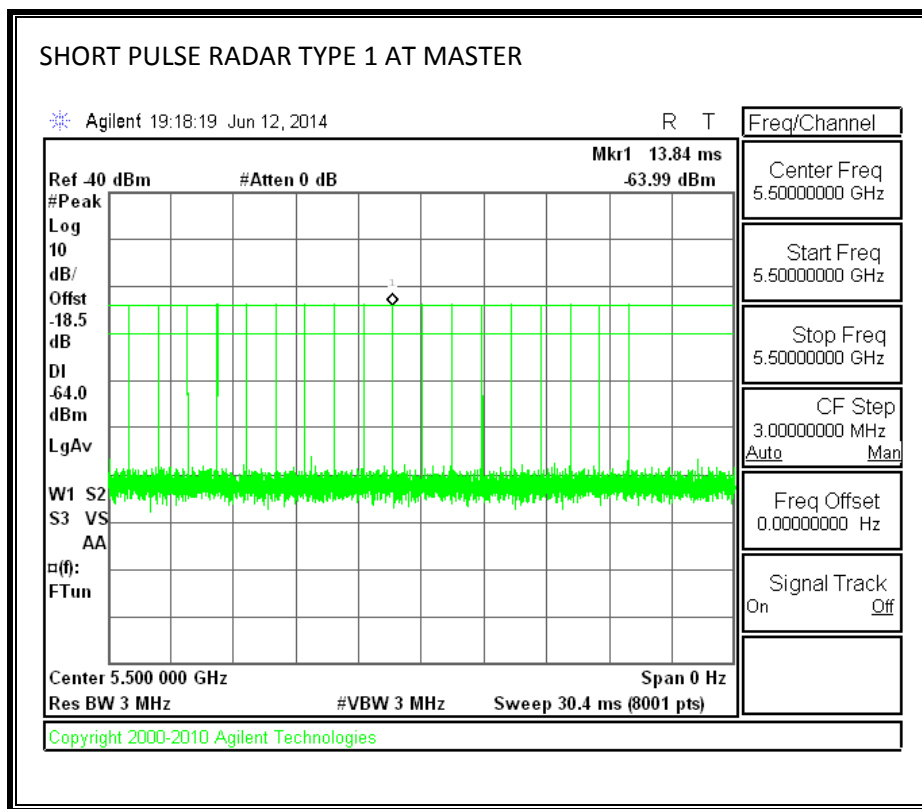
13.2. RESULTS FOR 20 MHz BANDWIDTH

13.2.1. TEST CHANNEL

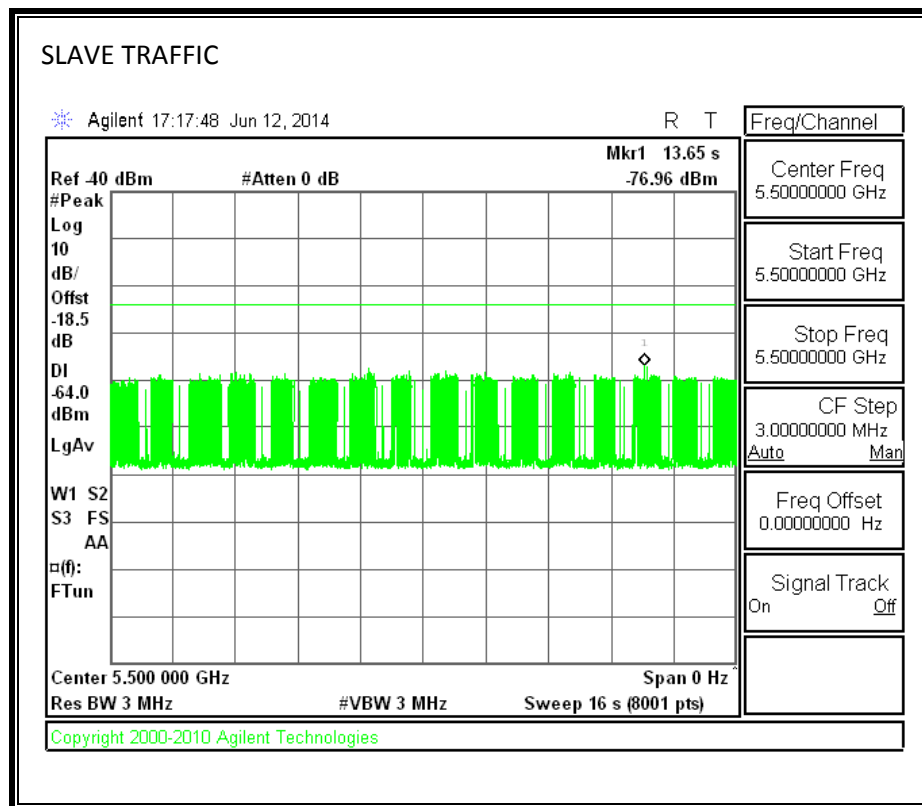
All tests were performed at a channel center frequency of 5500 MHz.

13.2.2. RADAR WAVEFORM AND TRAFFIC

RADAR WAVEFORM



TRAFFIC



13.2.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

13.2.4. MOVE AND CLOSING TIME

REPORTING NOTES

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

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

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time =

(Number of analyzer bins showing transmission) * (dwell time per bin)

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

RESULTS

Channel Move Time (sec)	Limit (sec)
0.086	10

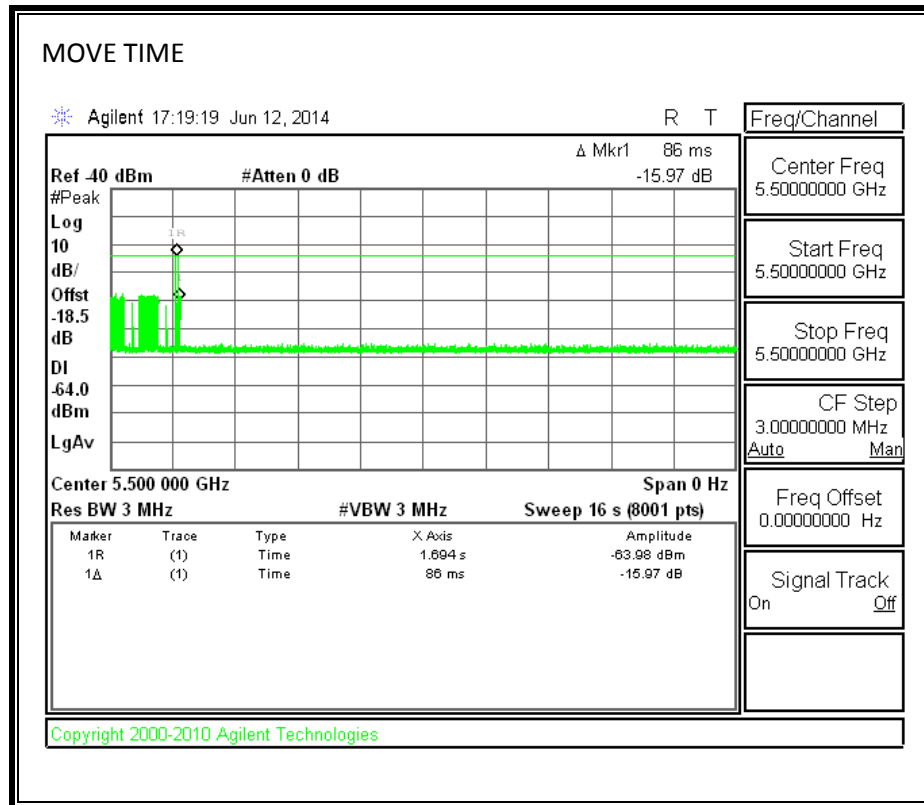
LII VERIFICATION SERVICES INC

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

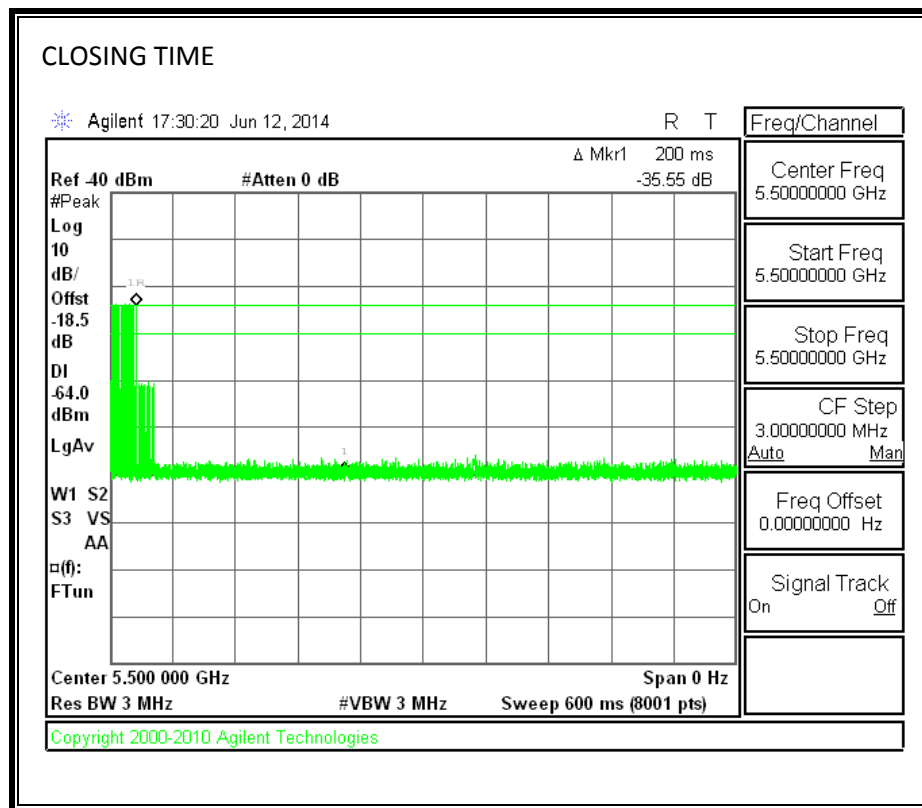
FORM NO: CCSUP4701H
FAX: (510) 661-0888

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MOVE TIME

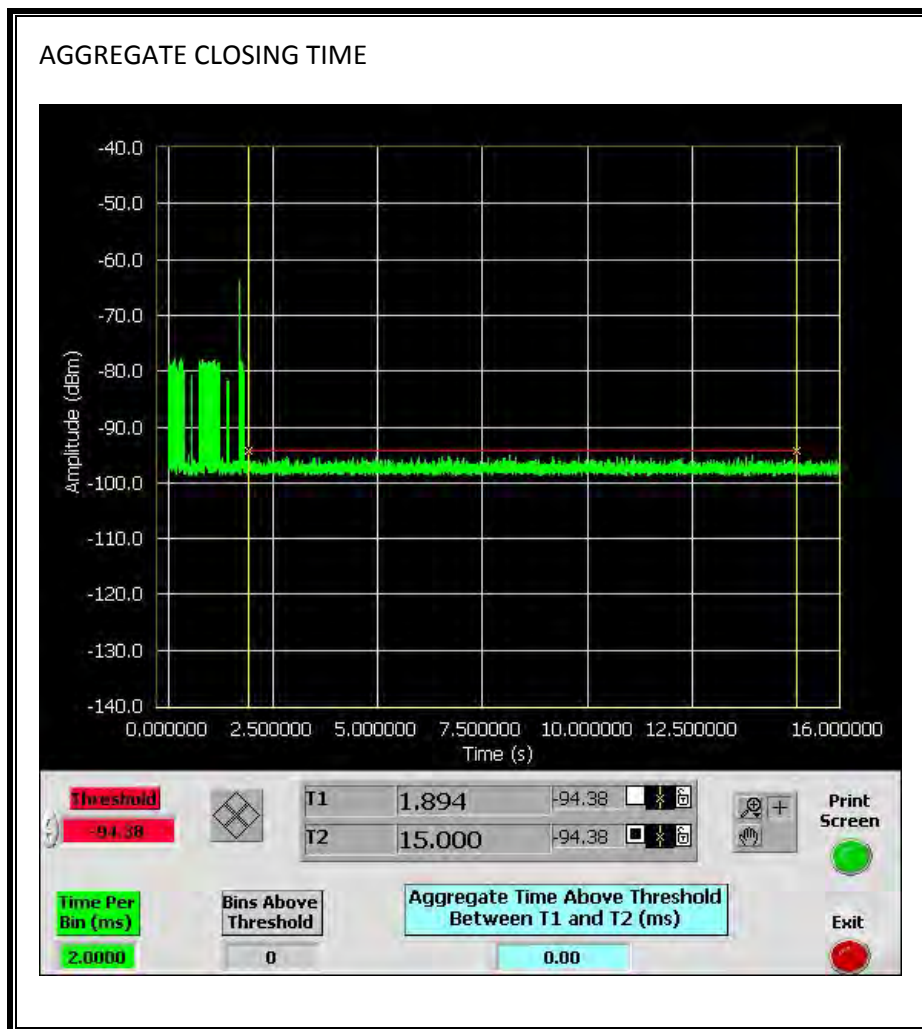


CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the aggregate monitoring period.



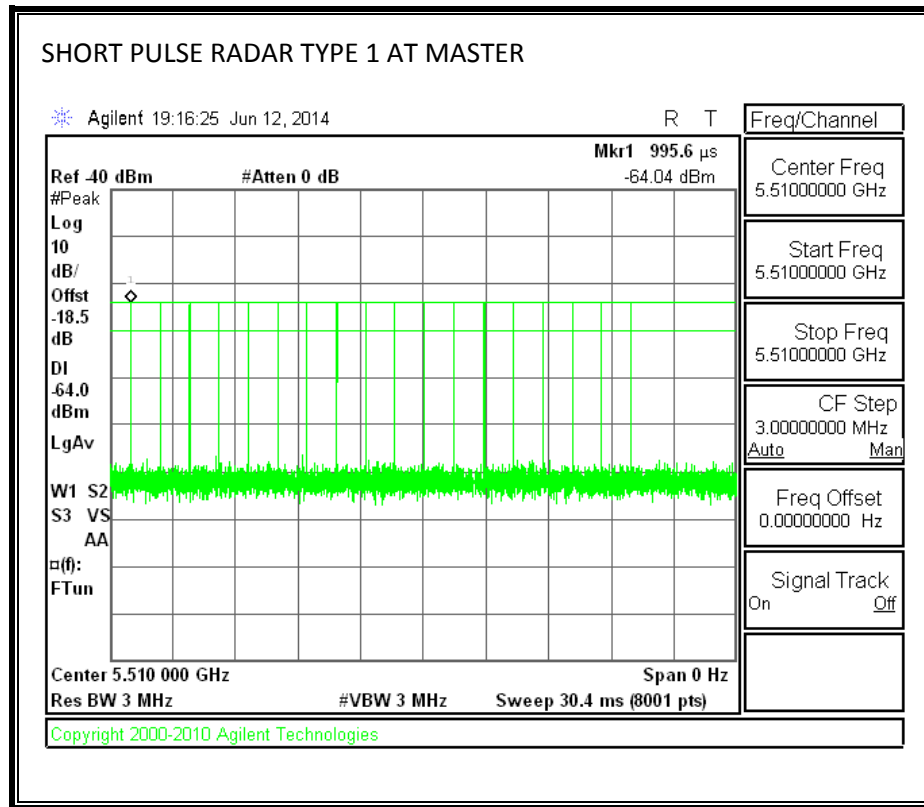
13.3. RESULTS FOR 40 MHz BANDWIDTH

13.3.1. TEST CHANNEL

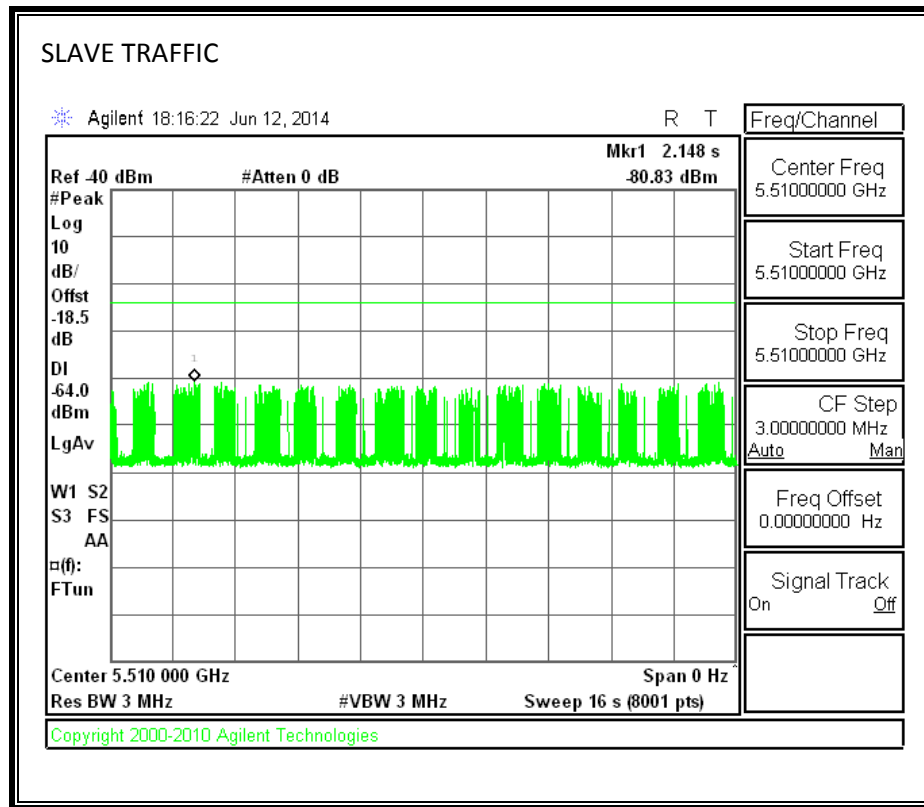
All tests were performed at a channel center frequency of 5510 MHz.

13.3.2. RADAR WAVEFORM AND TRAFFIC

RADAR WAVEFORM



TRAFFIC



13.3.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

13.3.4. MOVE AND CLOSING TIME

REPORTING NOTES

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

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

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time =

(Number of analyzer bins showing transmission) * (dwell time per bin)

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

RESULTS

Channel Move Time (sec)	Limit (sec)
0.016	10

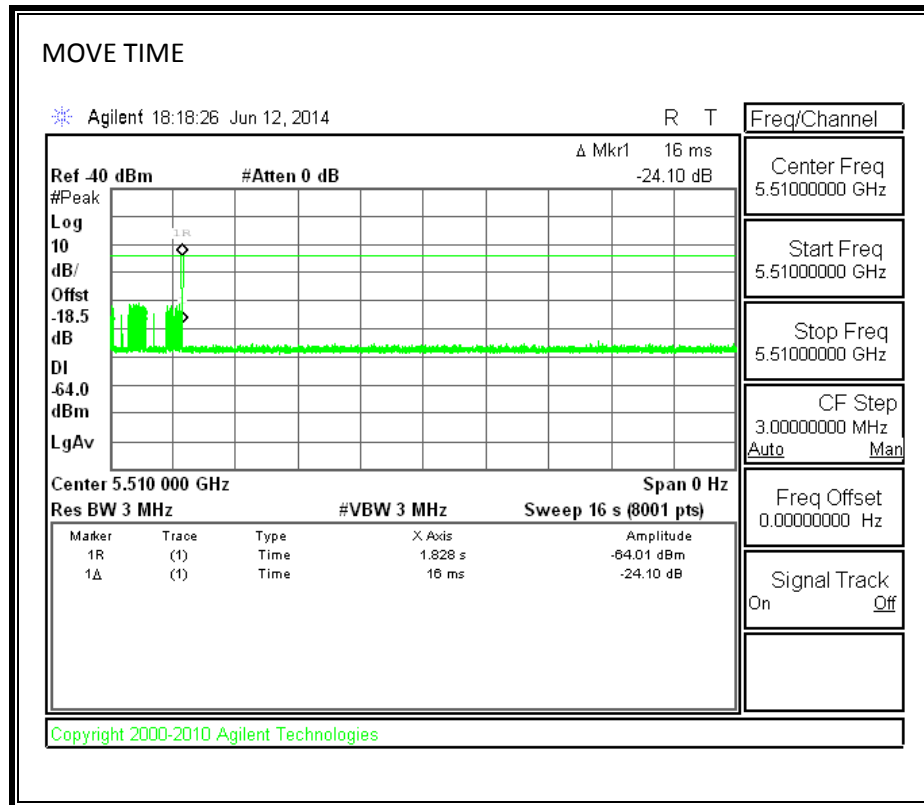
LIL VERIFICATION SERVICES INC

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

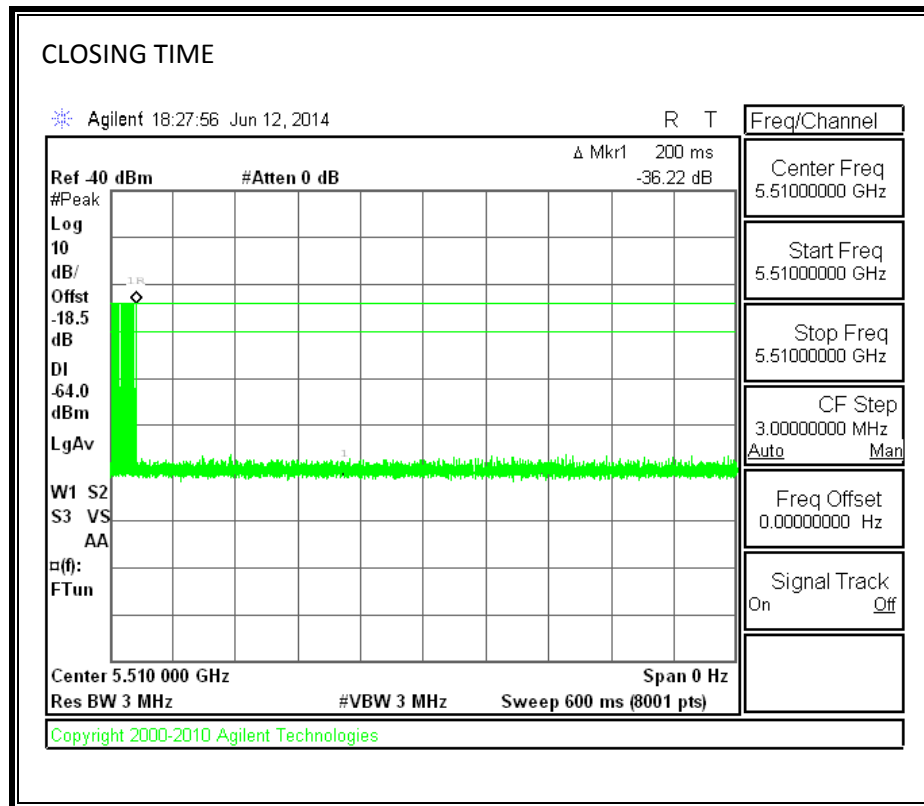
FORM NO: CCSUP4701H
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MOVE TIME

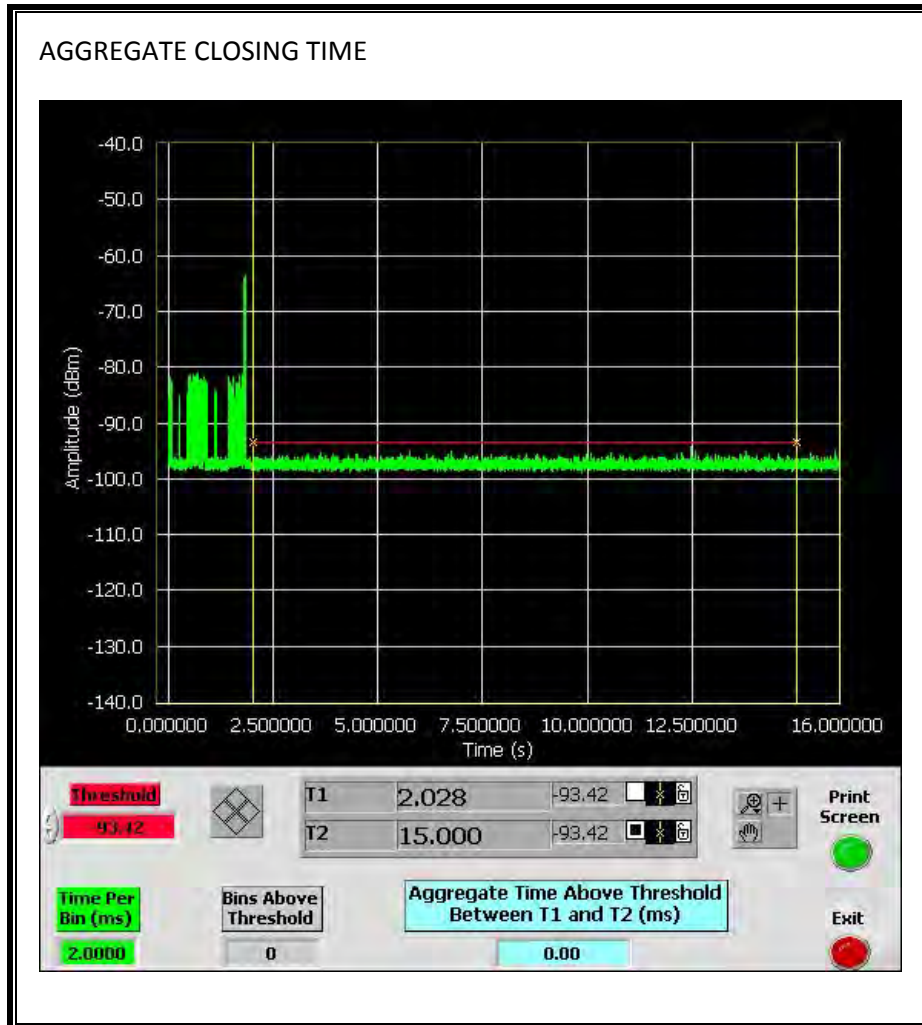


CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the aggregate monitoring period.



13.3.5. NON-OCCUPANCY PERIOD

RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation time.

