



**FCC CFR47 PART 15 SUBPART C
INDUSTRY CANADA RSS-210 ISSUE 8**

CERTIFICATION TEST REPORT

FOR

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

MODEL NUMBER: SM-T255S

FCC ID: A3LSMT255S

IC ID: 649E-SMT255S

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Prepared for

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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, ANT+ & NFC

MODEL: SM-T255S

SERIAL NUMBER: SP1D7293263V (Radiated)
FL-117-D (Conducted)

DATE TESTED: MARCH 28 – APRIL 14, 2014.

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	Pass
INDUSTRY CANADA RSS-210 Issue 8 Annex 8	Pass
INDUSTRY CANADA RSS-GEN Issue 3	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, RSS-GEN Issue 3, and RSS-210 Issue 8.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at <http://www.ccsemc.com>.

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:

$$\begin{aligned} \text{Field Strength (dBuV/m)} &= \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \\ &\text{Cable Loss (dB)} - \text{Preamp Gain (dB)} \\ 36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} &= 28.9 \text{ dBuV/m} \end{aligned}$$

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, ANT+ & NFC

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
2412 - 2462	802.11b	19.01	79.62
2412 - 2462	802.11g	20.6	114.82
2412 - 2462	802.11n HT20	20.17	103.99
5745-5825	802.11a	20.94	124.17
5745-5825	802.11n HT20	22.08	161.44
5755-5795	802.11n HT40	20.62	115.35

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an FPCB antenna, with a maximum gain of 0.98 dBi for 2.4GHz and 1.95 for 5GHz.

5.4. WORST-CASE CONFIGURATION AND MODE

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

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

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

802.11b mode: 1 Mbps
802.11g mode: 6 Mbps
802.11a mode: 6 Mbps
802.11n HT20mode: MCS0
802.11n HT40mode: MCS0

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

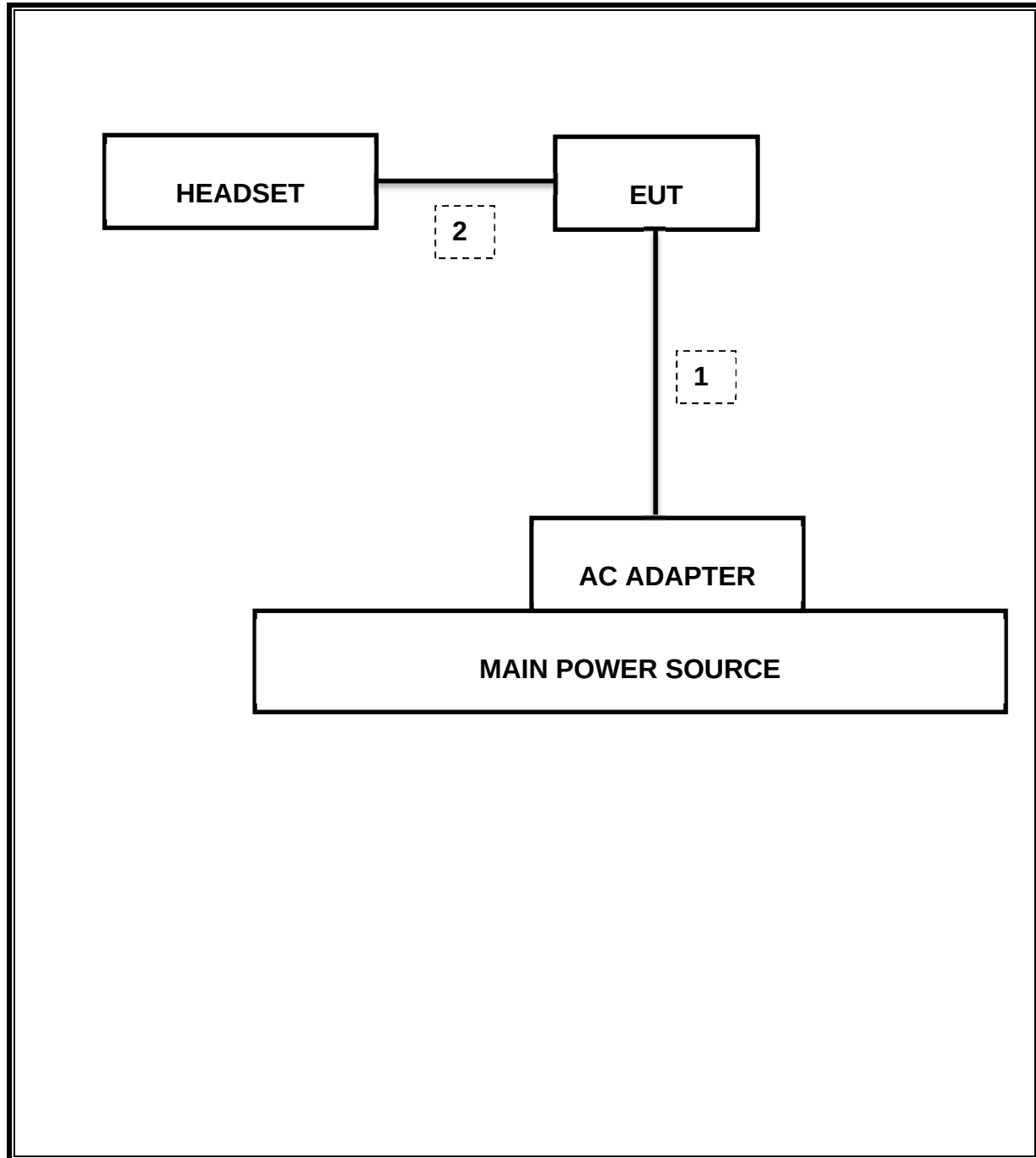
Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	Samsung	T255S	N/A	N/A
Earphone	Samsung	T255S	N/A	N/A

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	1m	N/A

TEST SETUP

The EUT is a stand-alone unit during the tests. Test software exercised the radio card.

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	06/01/14
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	05/23/14
High Pass Filter 5GHz	Micro-Tronics	HPS17542	F00222	05/22/14
High Pass Filter 6GHz	Micro-Tronics	HPM17543	F00224	05/22/14

7. MEASUREMENT METHODS

KDB 558074 D01 DTS Meas Guidance v03r01:Measurement Procedure PK2 is used for power and PKPSD is used for power spectral density.

Unwanted emissions within Restricted Bands are measured using traditional radiated procedures.

Band edge emissions within Restricted Bands are measured using RMS with duty cycle factor offset method.

8. SUMMARY TABLE

FCC Part Section	RSS Section(s)	Test Description	Test Limit	Test Condition	Test Result	Worst Case
15.247 (a)(2)	RSS-210 A8.2(a)	Occupied Band width (6dB)	>500KHz	Conducted	Pass	8.58 MHz
2.1051, 15.247 (d)	RSS-210 A8.5	Band Edge / Conducted Spurious Emission	-20dBc		Pass	-29.626 dBm
15.247	RSS-210 A8.4	TX conducted output power	<30dBm		Pass	22.08dBm
15.247	RSS-210 A8.2	PSD	<8dBm		Pass	-6.21 dBm
15.207 (a)	RSS-GEN 7.2.2	AC Power Line conducted emissions	Section 10	Radiated	Pass	52.3 dBuV
15.205, 15.209	RSS-210 Clause 2.6, RSS-210 Clause 6	Radiated Spurious Emission	< 54dBuV/m		Pass	47.26 dBuV/m

9. ANTENNA PORT TEST RESULTS

9.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-210 A8.2 (a)

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

TEST PROCEDURE

Reference to KDB 558074 D01 DTS Meas Guidance v03r01: The transmitter output is connected to a spectrum analyzer with the RBW set to 100 kHz, the VBW $\geq 3 \times$ RBW, peak detector and max hold.

RESULTS

9.1.1. 802.11b MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	8.58	0.5
Mid	2437	9.54	0.5
High	2462	9.56	0.5
Worst		8.58	

9.1.2. 802.11g MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	16.45	0.5
Mid	2437	16.38	0.5
High	2462	16.43	0.5
Worst		16.38	

9.1.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	17.58	0.5
Mid	2437	17.63	0.5
High	2462	17.65	0.5
Worst		17.58	

9.1.4. 802.11a MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	16.560	0.5
Mid	5785	16.500	0.5
High	5825	16.560	0.5
Worst		16.500	

9.1.5. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	17.760	0.5
Mid	5785	17.790	0.5
High	5825	17.730	0.5
Worst		17.730	

9.1.6. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5755	35.2	0.5
High	5795	35.2	0.5
Worst		35.2	0.5

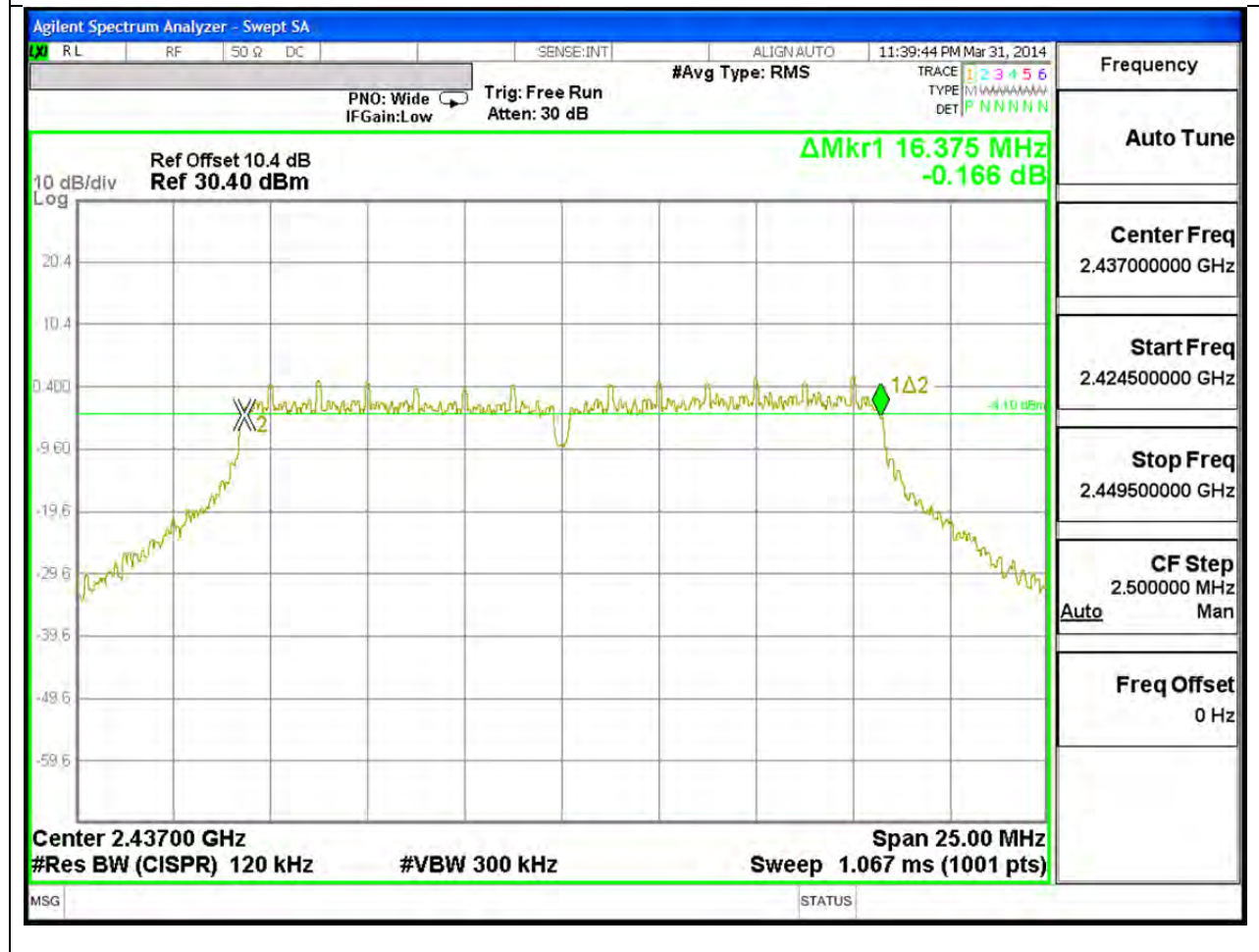
802.11b 6 dB BANDWIDTH

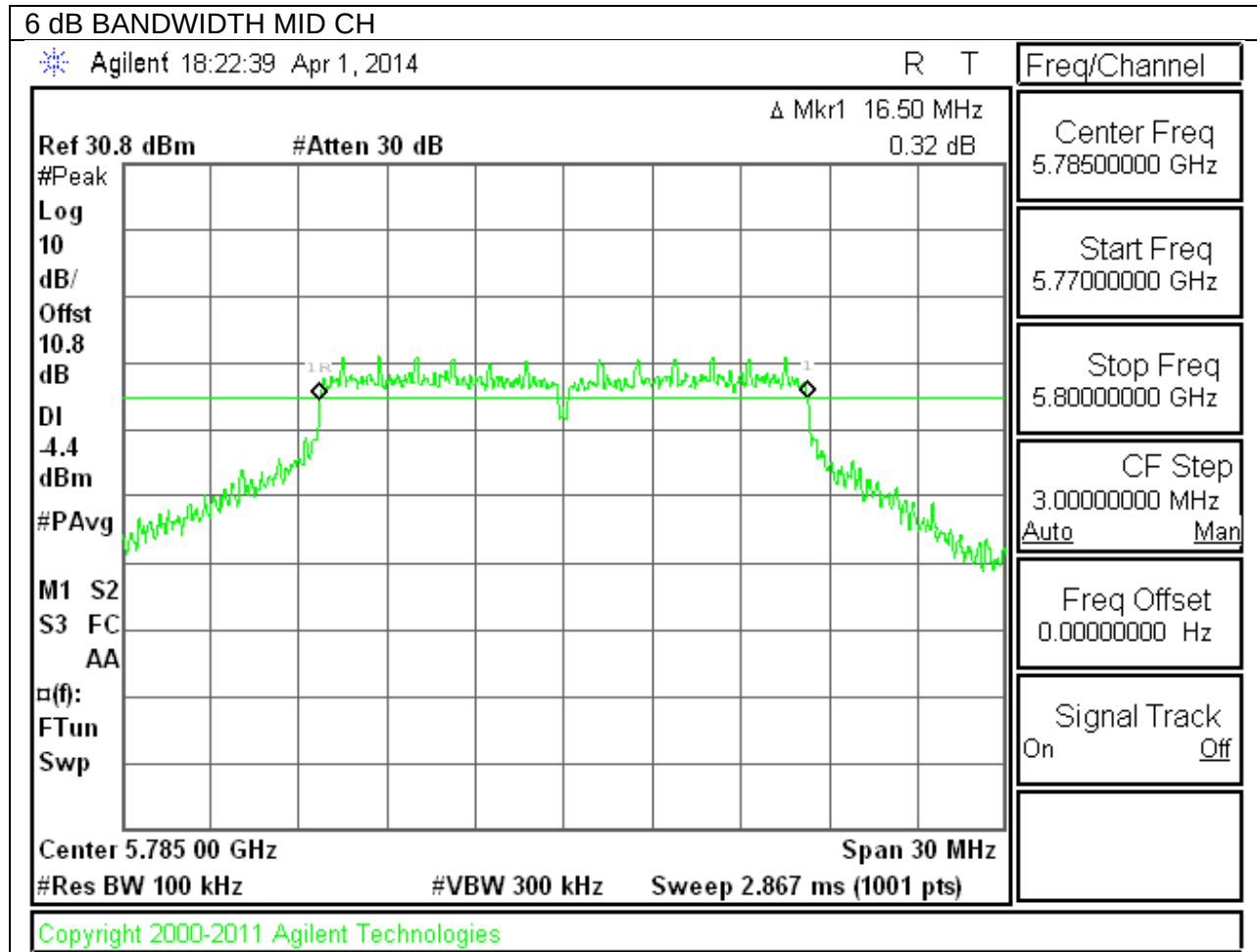
6 dB BANDWIDTH MID CH

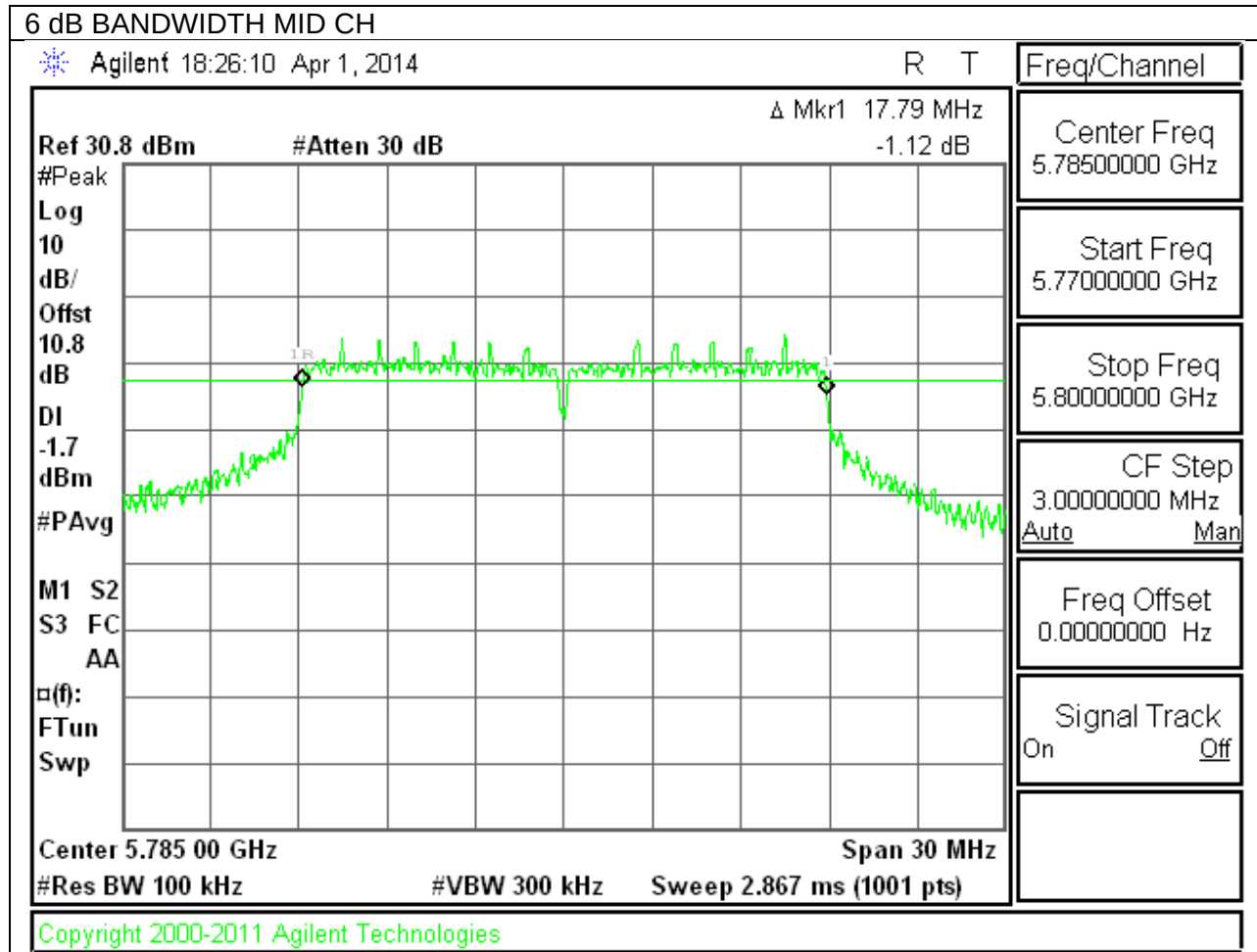


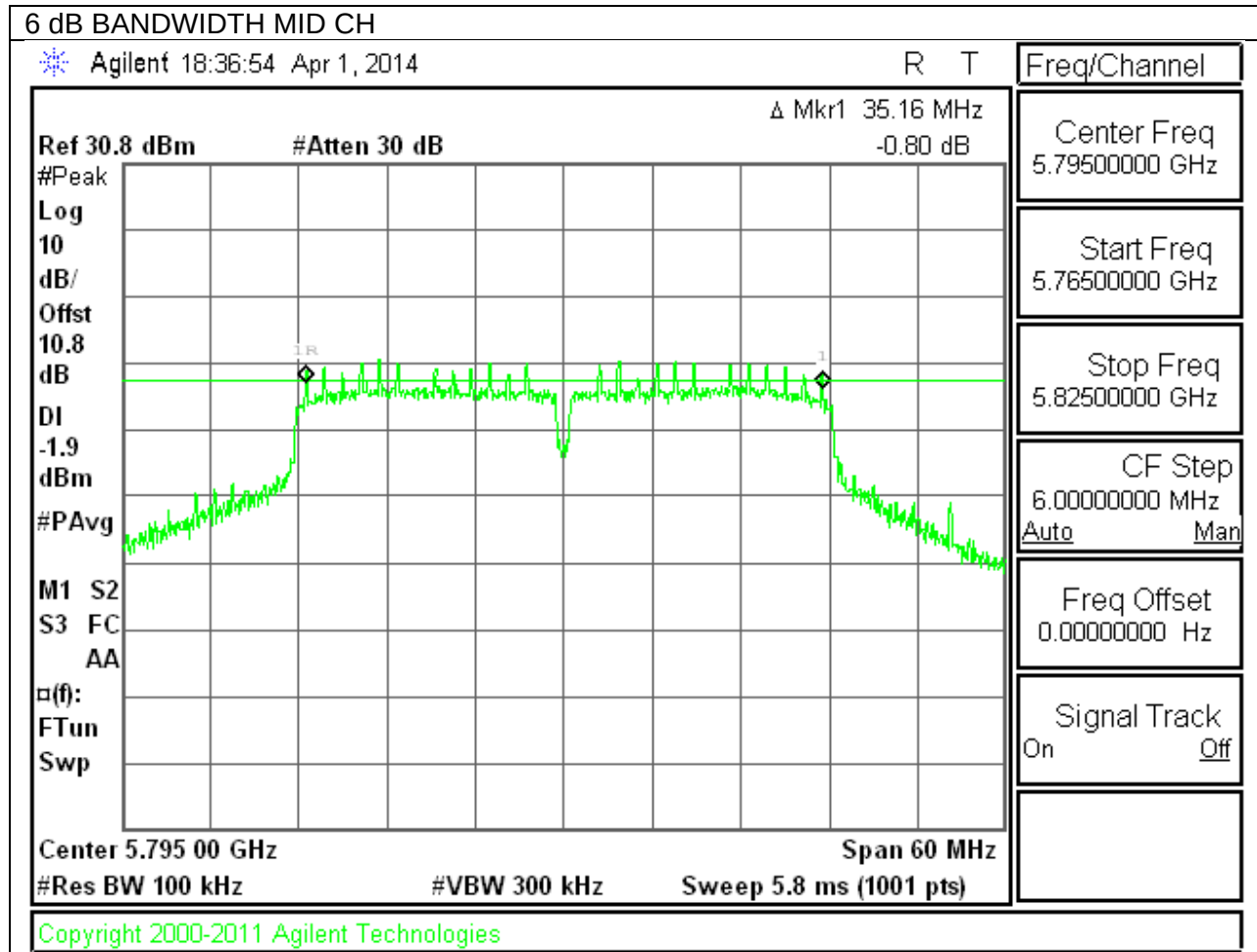
802.11g 6 dB BANDWIDTH

6 dB BANDWIDTH MID CH



802.11a 6 dB BANDWIDTH 5.8GHz

802.11n HT20 6 dB BANDWIDTH 5.8GHz

802.11n HT40 6 dB BANDWIDTH 5.8GHz

9.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

9.2.1. 802.11b MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	13.47
Mid	2437	13.78
High	2462	13.70
Worst		13.78

9.2.2. 802.11g MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	16.52
Mid	2437	16.63
High	2462	16.73
Worst		16.73

9.2.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	17.69
Mid	2437	17.77
High	2462	17.92
Worst		17.92

9.2.4. 802.11a MODE IN THE 5.8 GHz BAND

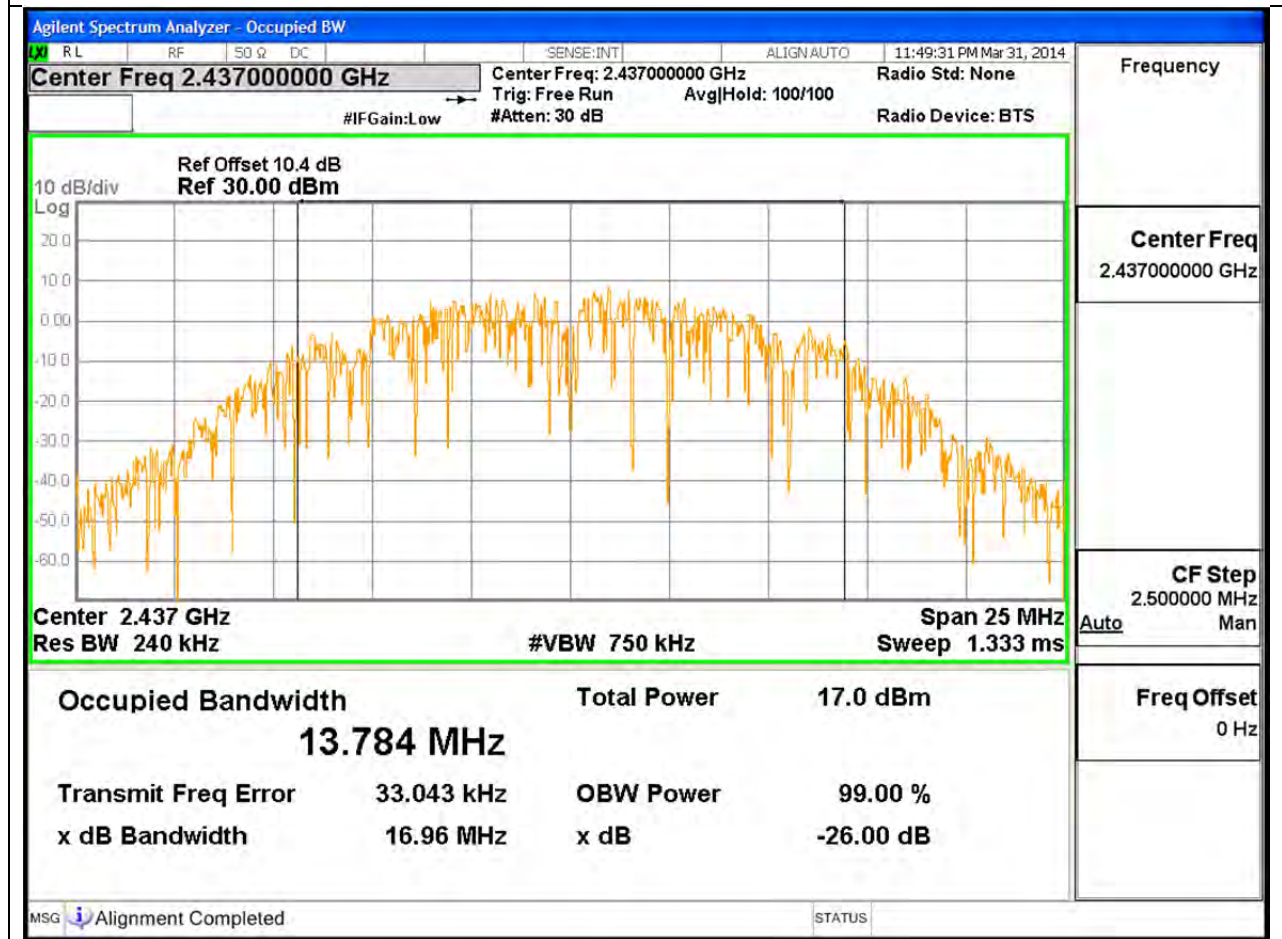
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	17.119
Mid	5785	17.024
High	5825	17.112
Worst		17.119

9.2.5. 802.11n HT20 MODE IN THE 5.8 GHz BAND

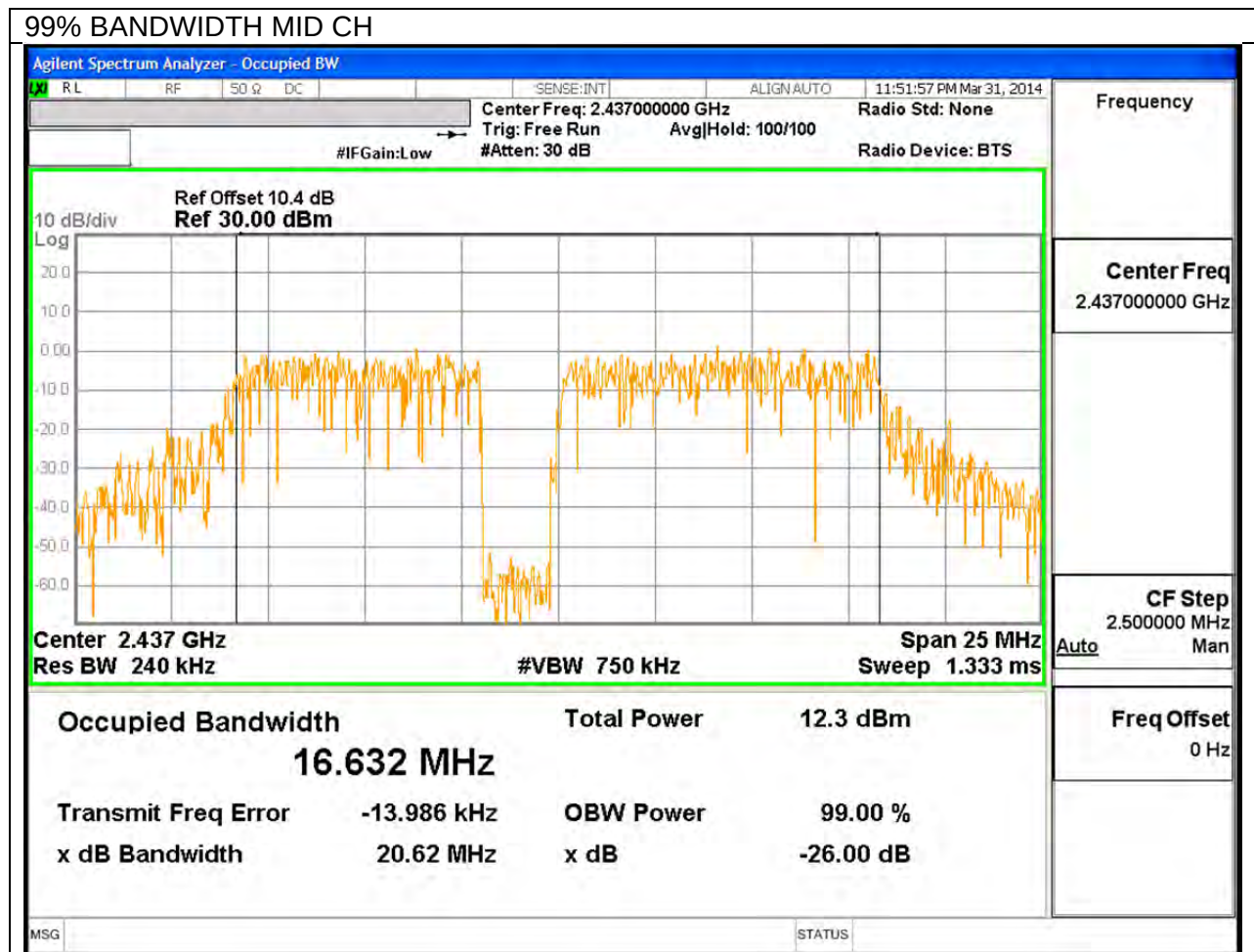
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	18.073
Mid	5785	18.548
High	5825	18.470
Worst		18.548

9.2.6. 802.11n HT40 MODE IN THE 5.8 GHz BAND

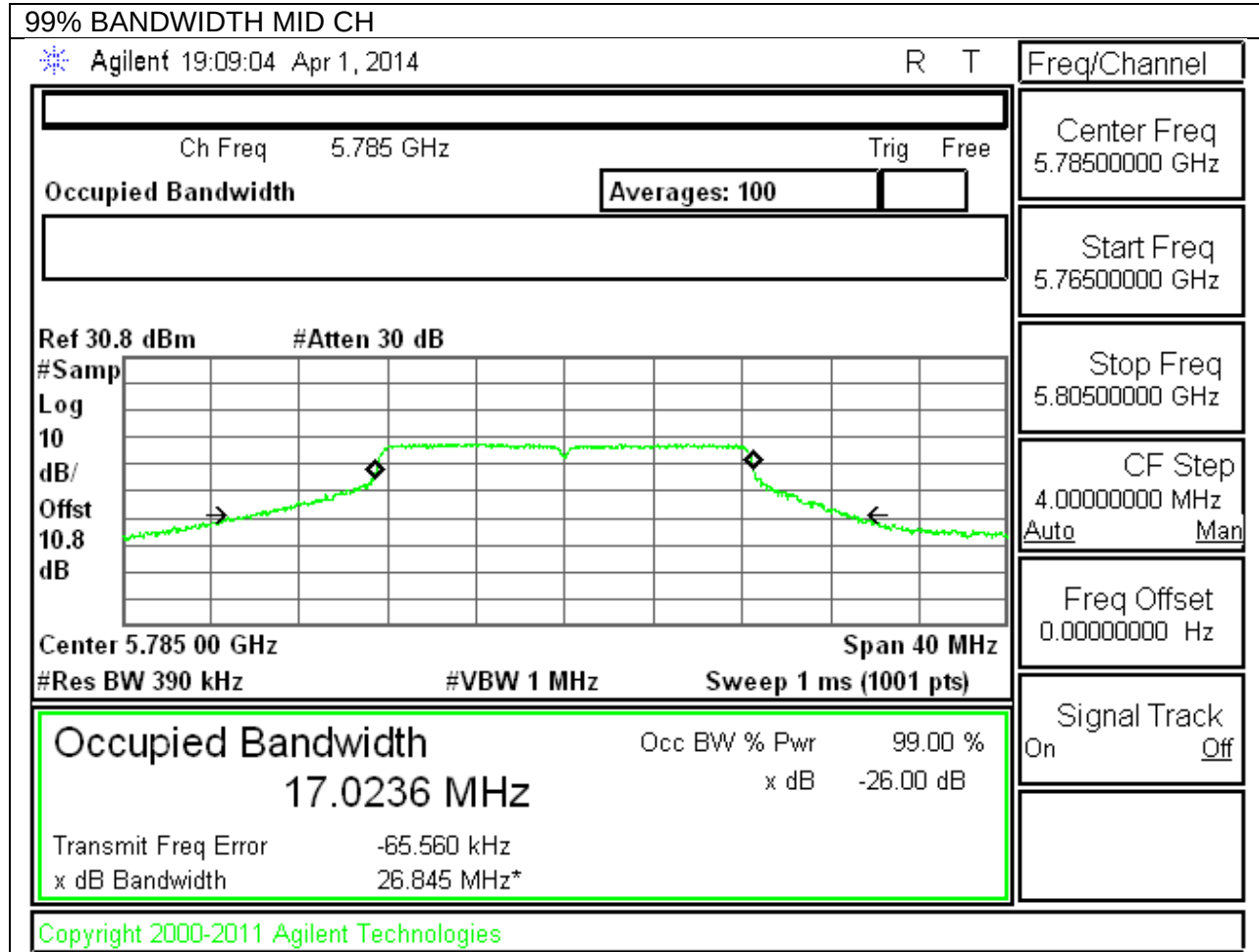
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5755	36.3
High	5795	36.5
Worst		36.5

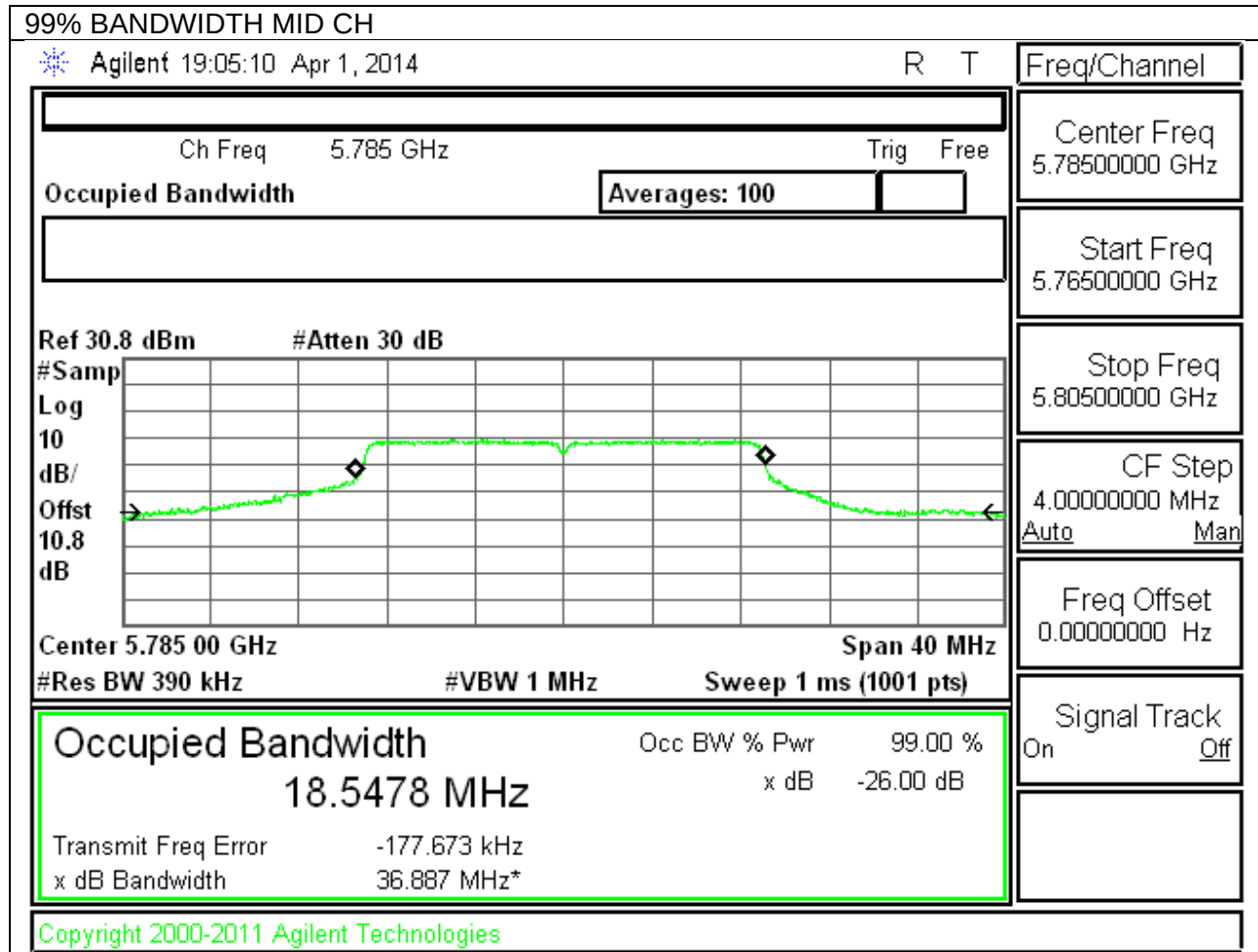
802.11b 99% BANDWIDTH**99% BANDWIDTH MID CH**

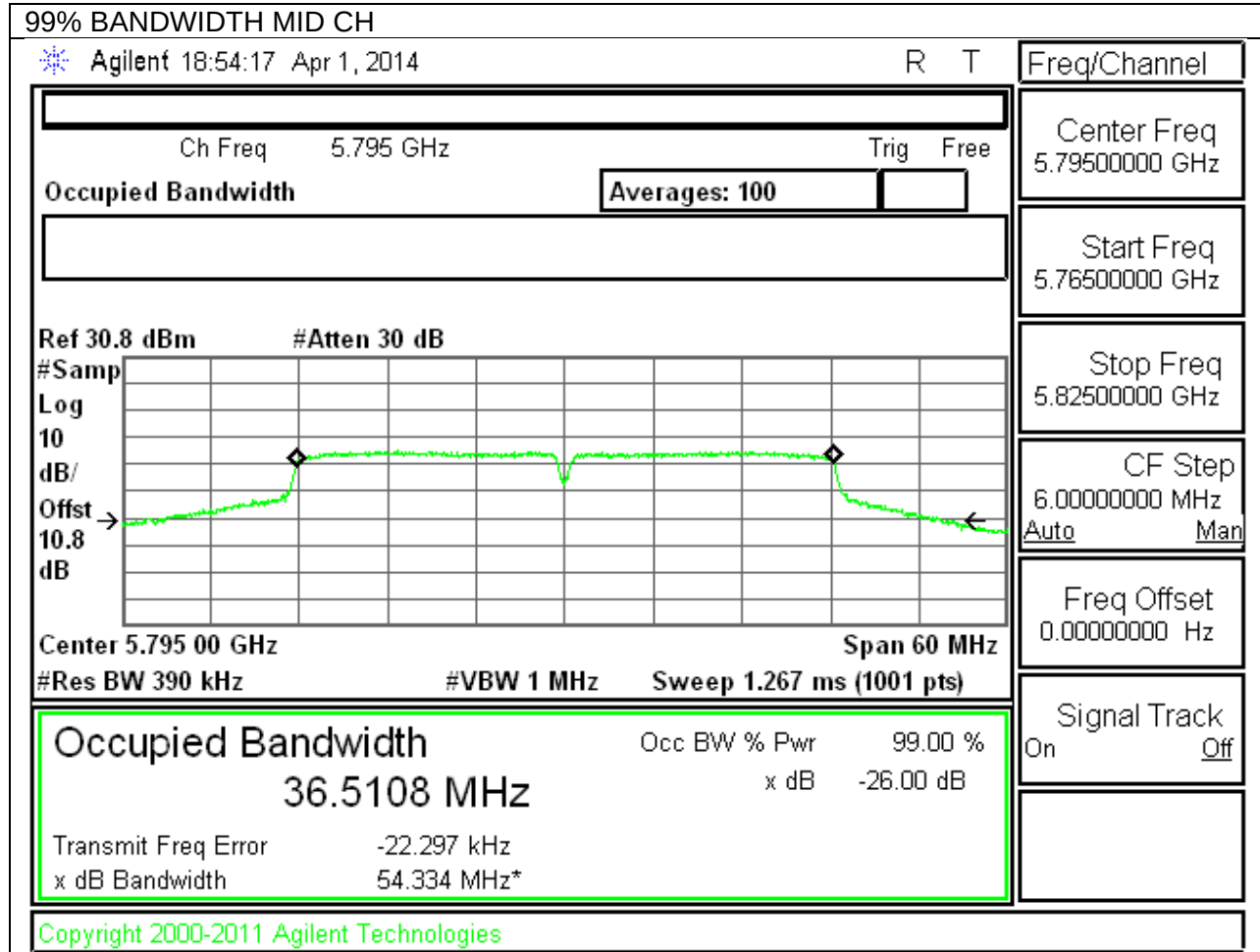
802.11g 99% BANDWIDTH



802.11n 99% BANDWIDTH**99% BANDWIDTH MID CH**

802.11a 5.8GHz 99% BANDWIDTH

802.11n HT20 5.8GHz 99% BANDWIDTH

802.11n HT40 5.8GHz 99% BANDWIDTH

9.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 0.4 dB (including 10 dB pad and 0.2 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

RESULTS

9.3.1. 802.11b MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	2412	16.70
Mid	2437	17.30
High	2462	17.10
Worst		17.300

9.3.2. 802.11g MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	2412	13.10
Mid	2437	12.90
High	2462	13.40
Worst		13.400

9.3.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	2412	13.10
Mid	2437	12.90
High	2462	12.50
Worst		13.100

9.3.4. 802.11a MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5745	12.300
Mid	5785	11.800
High	5825	11.900
Worst		12.300

9.3.5. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5745	11.700
Mid	5785	12.200
High	5825	12.300
Worst		12.300

9.3.6. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5755	12.5
High	5795	12.5
Worst		12.5

9.4. OUTPUT POWER

LIMITS

FCC §15.247

IC RSS-210 A8.4

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

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

RESULTS

9.4.1. 802.11b MODE IN THE 2.4 GHz BAND

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	2412	0.98	30.00	30	36	30.00
Mid	2437	0.98	30.00	30	36	30.00
High	2462	0.98	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	2412	18.14	18.14	30.00	-11.86
Mid	2437	19.01	19.01	30.00	-10.99
High	2462	18.83	18.83	30.00	-11.17
Worst			19.01		

9.4.2. 802.11g MODE IN THE 2.4 GHz BAND

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	2412	0.98	30.00	30	36	30.00
Mid	2437	0.98	30.00	30	36	30.00
High	2462	0.98	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	2412	20.22	20.22	30.00	-9.78
Mid	2437	20.20	20.20	30.00	-9.80
High	2462	20.60	20.60	30.00	-9.40
Worst			20.60		

9.4.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	2412	0.98	30.00	30	36	30.00
Mid	2437	0.98	30.00	30	36	30.00
High	2462	0.98	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	2412	20.17	20.17	30.00	-9.83
Mid	2437	19.99	19.99	30.00	-10.01
High	2462	19.75	19.75	30.00	-10.25
Worst			20.17		

9.4.4. 802.11a MODE IN THE 5.8 GHz BAND

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	5745	1.95	30.00	30	36	30.00
Mid	5785	1.95	30.00	30	36	30.00
High	5825	1.95	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	5745	20.94	20.94	30.00	-9.06
Mid	5785	19.60	19.60	30.00	-10.40
High	5825	19.63	19.63	30.00	-10.37
Worst			20.94		

9.4.5. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	5745	1.95	30.00	30	36	30.00
Mid	5785	1.95	30.00	30	36	30.00
High	5825	1.95	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	5745	21.54	21.54	30.00	-8.46
Mid	5785	21.83	21.83	30.00	-8.17
High	5825	22.08	22.08	30.00	-7.92
Worst			22.08		

9.4.6. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Limits

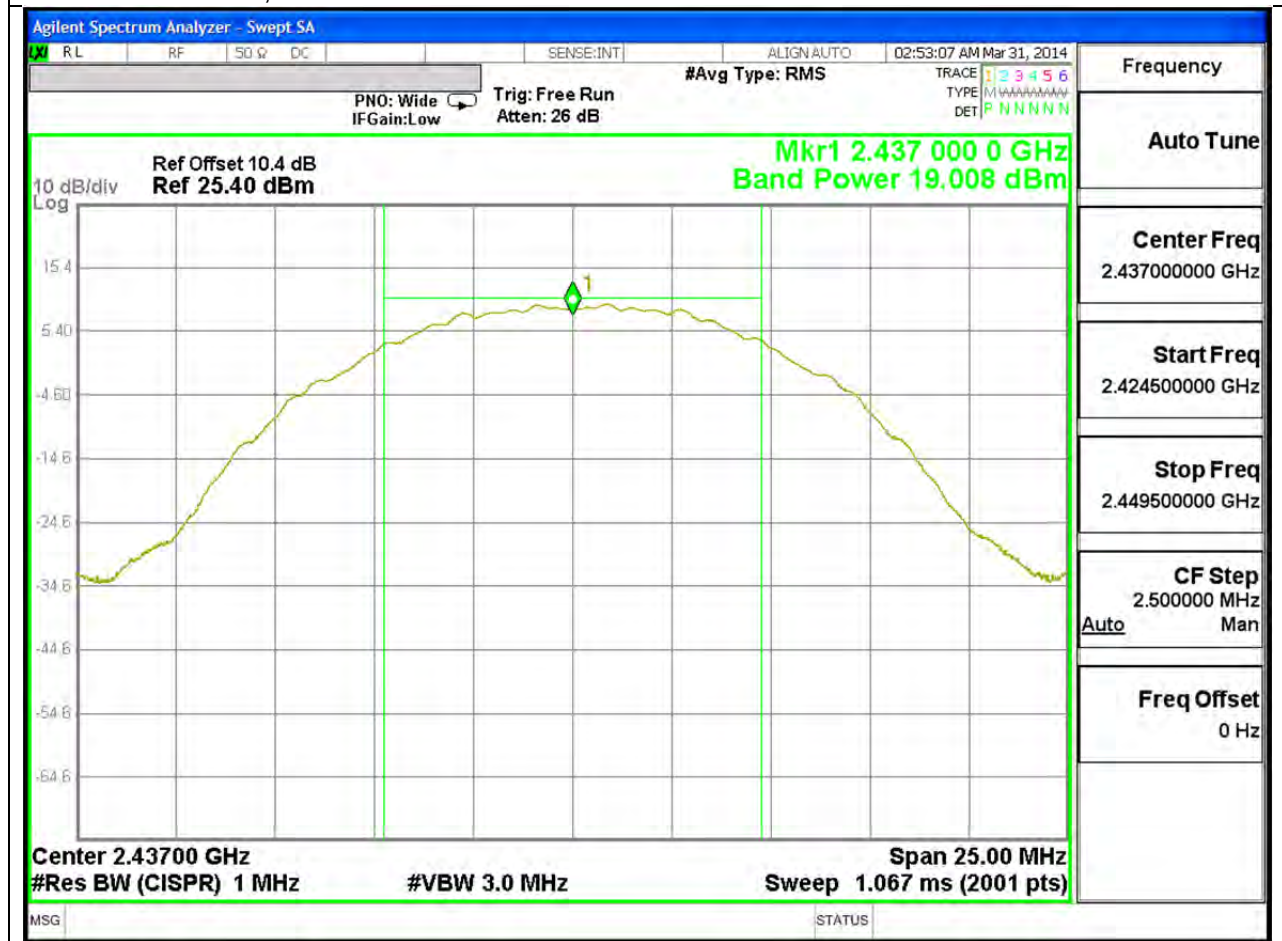
Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	5755	1.95	30.00	30	36	30.00
High	5795	1.95	30.00	30	36	30.00

Results

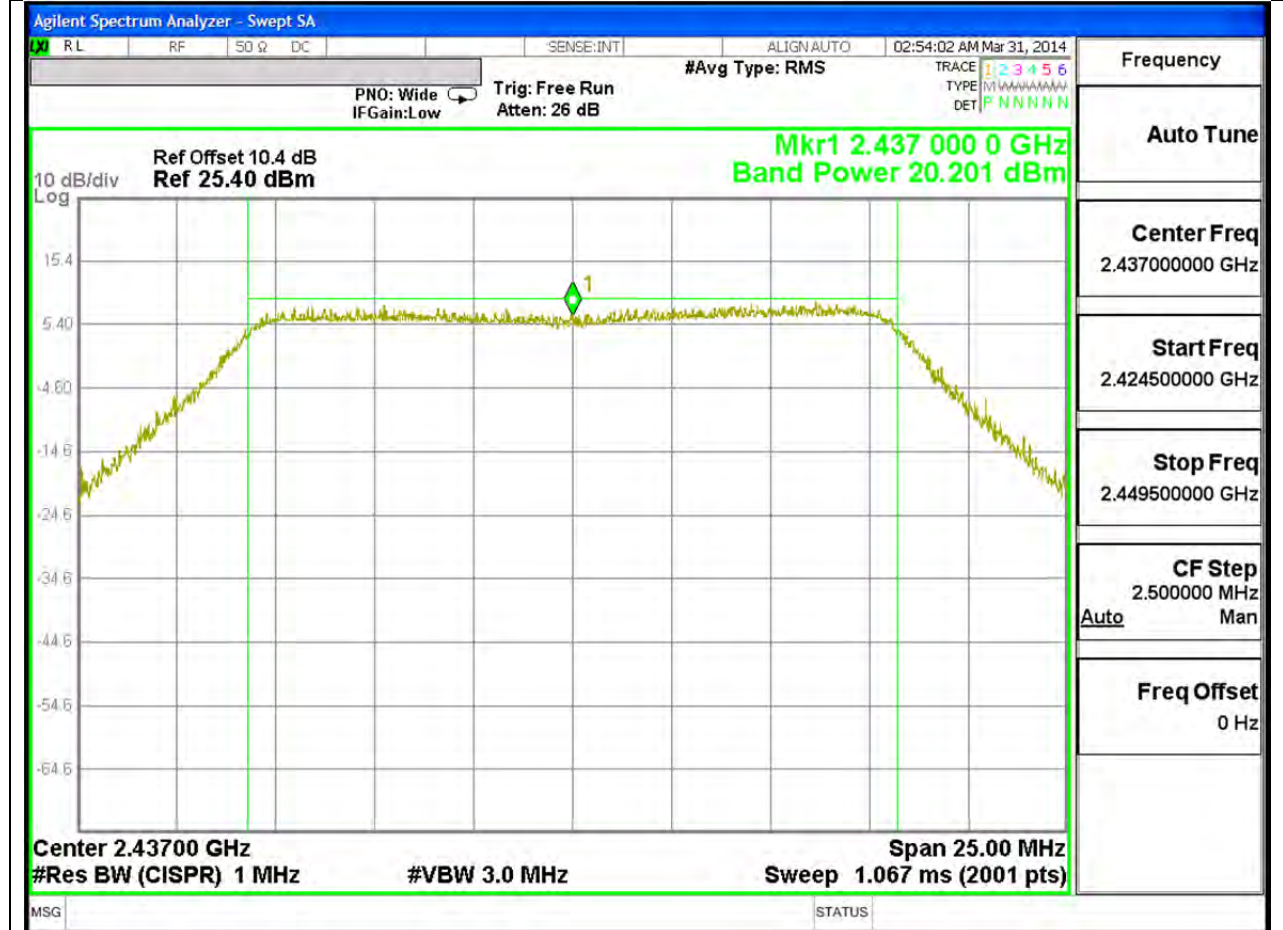
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	5755	20.62	20.62	30.00	-9.38
High	5795	20.45	20.45	30.00	-9.55
Worst			20.62		

802.11b OUTPUT POWER, Chain 0

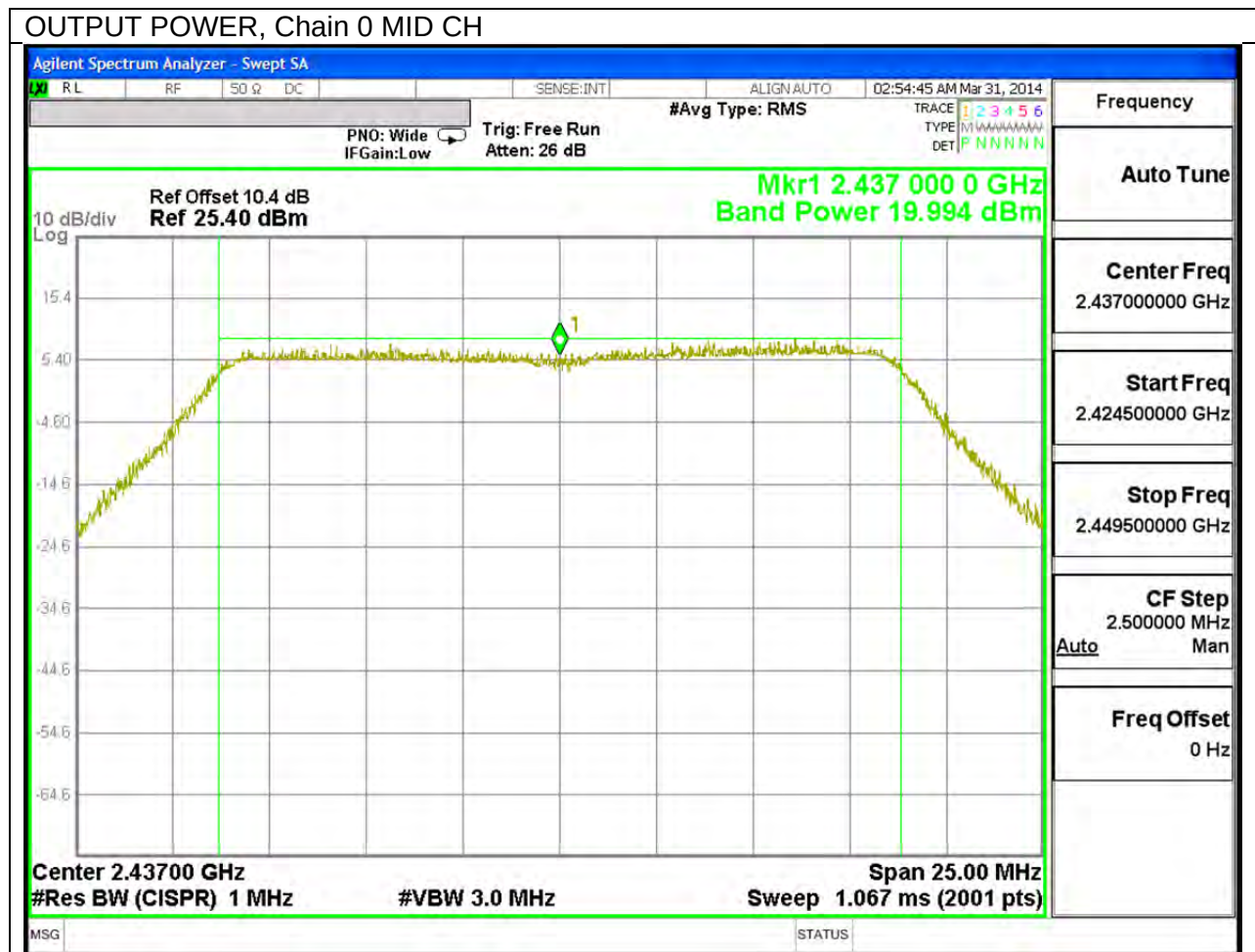
OUTPUT POWER, Chain 0 MID CH

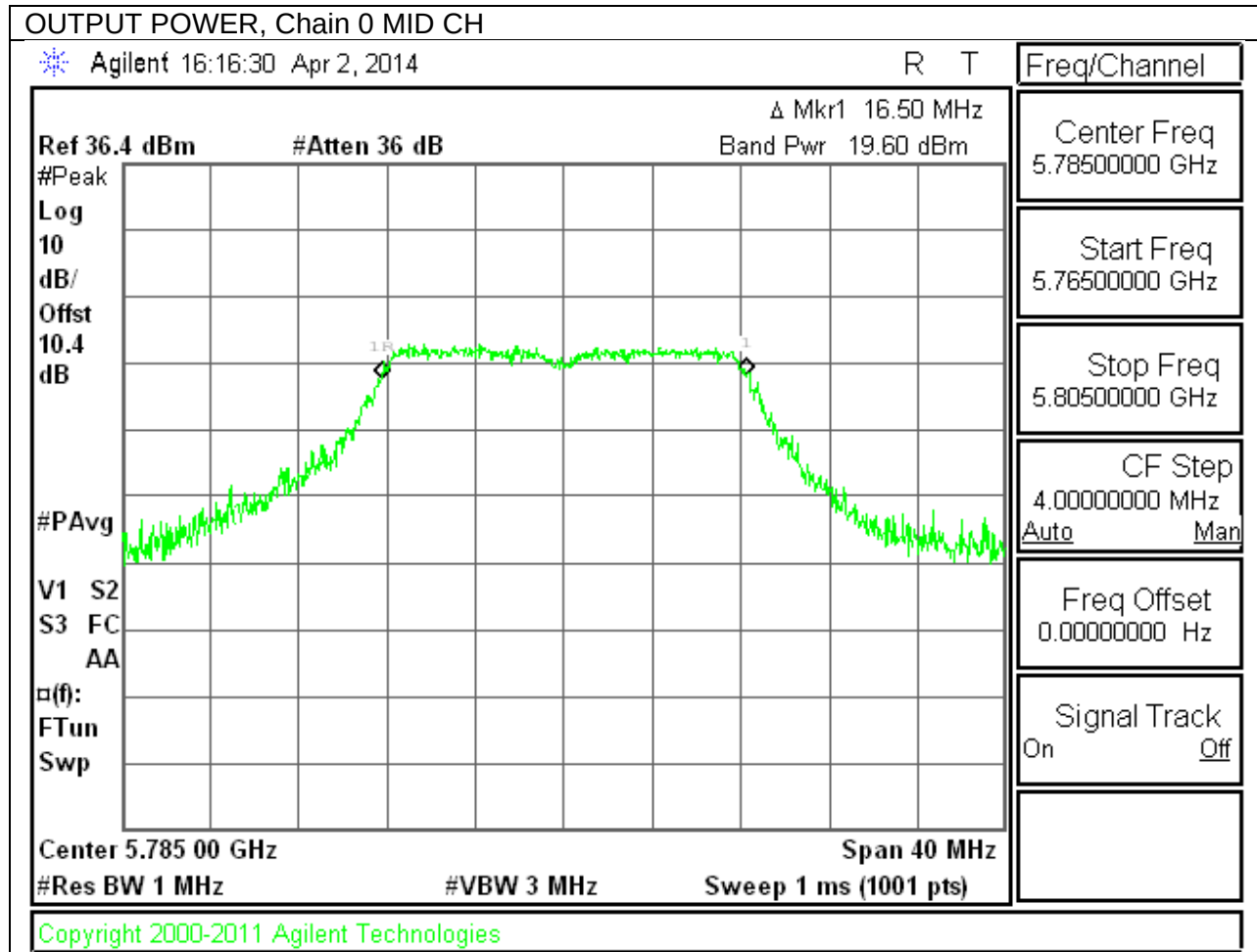


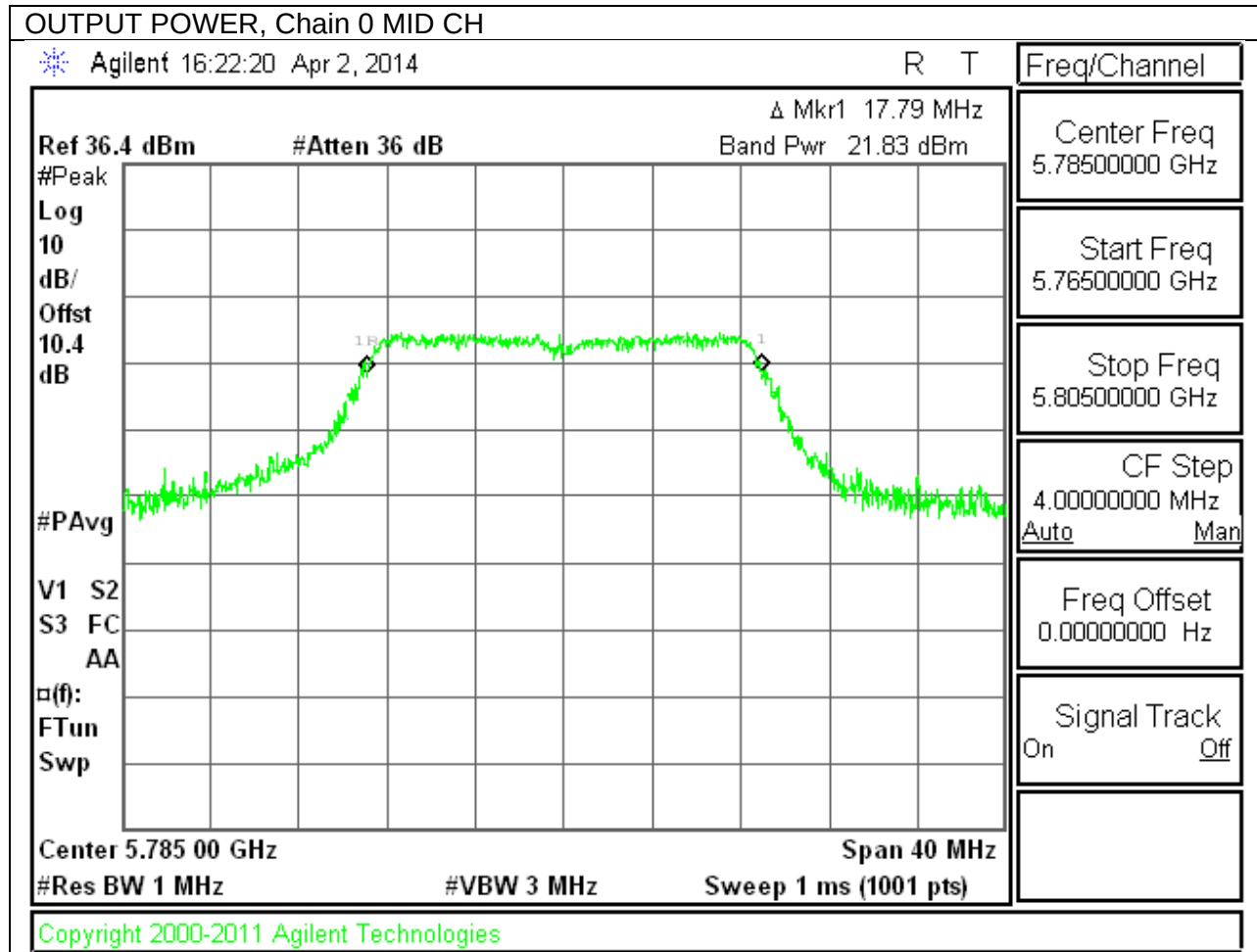
OUTPUT POWER, Chain 0 MID CH

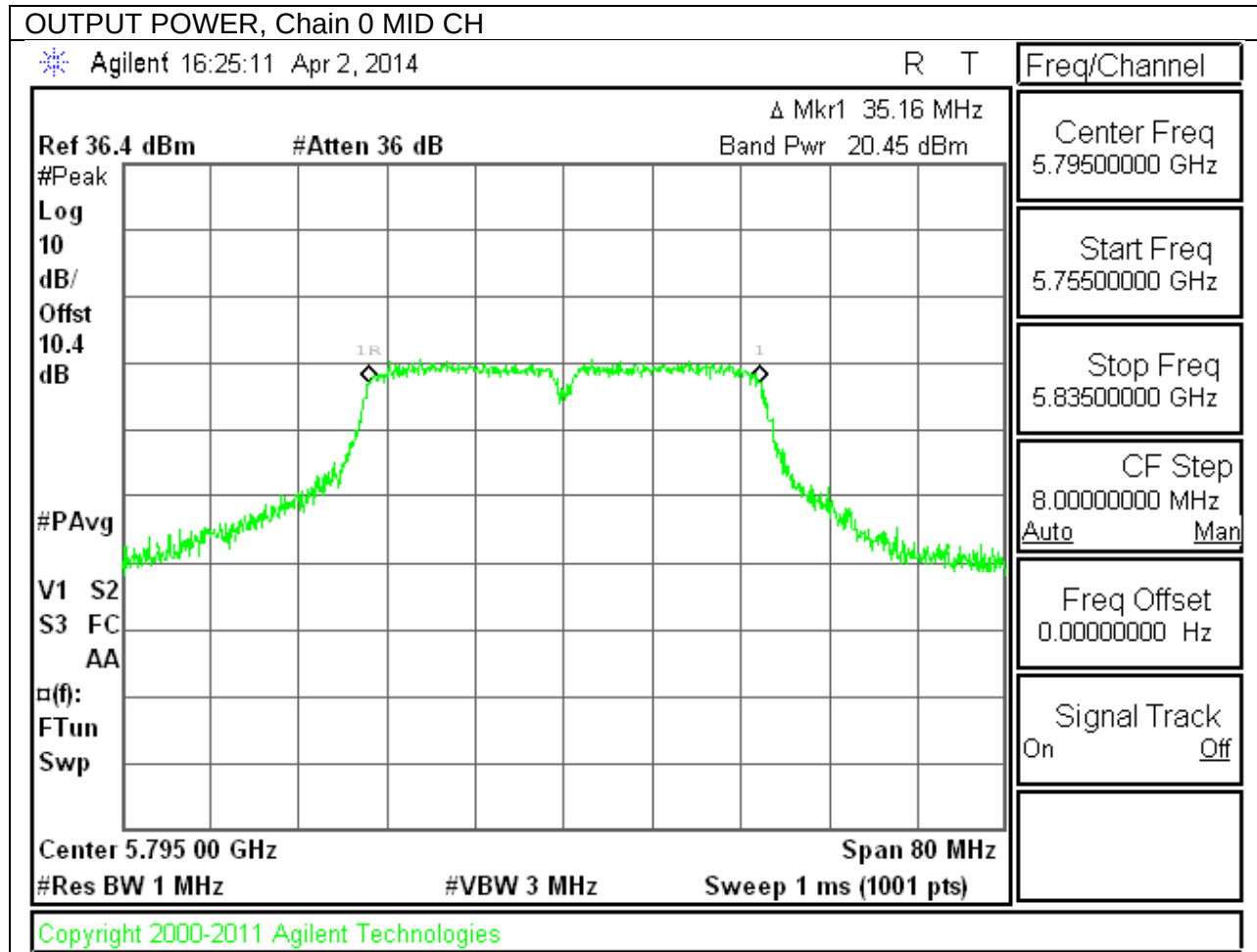


802.11n OUTPUT POWER, Chain 0



802.11a 5.8 GHz OUTPUT POWER, Chain 0

802.11n HT20 5.8 GHz OUTPUT POWER, Chain 0

802.11n HT40 5.8 GHz OUTPUT POWER, Chain 0

9.5. PSD

LIMITS

FCC §15.247

IC RSS-210 A8.2

The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

RESULTS

9.5.1. 802.11b MODE IN THE 2.4 GHz BAND

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-6.21	8.0	-14.2
Mid	2437	-7.72	8.0	-15.7
High	2462	-8.09	8.0	-16.1

9.5.2. 802.11g MODE IN THE 2.4 GHz BAND

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-14.66	8.0	-22.7
Mid	2437	-14.53	8.0	-22.5
High	2462	-14.73	8.0	-22.7

9.5.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-14.57	8.0	-22.6
Mid	2437	-14.66	8.0	-22.7
High	2462	-13.38	8.0	-21.4

9.5.4. 802.11a MODE IN THE 5.8 GHz BAND

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Limit (dBm)	Margin (dB)
Low	5745	-12.67	8.0	-20.7
Mid	5785	-13.30	8.0	-21.3
High	5825	-13.68	8.0	-21.7

9.5.5. 802.11n HT20 MODE IN THE 5.8 GHz BAND

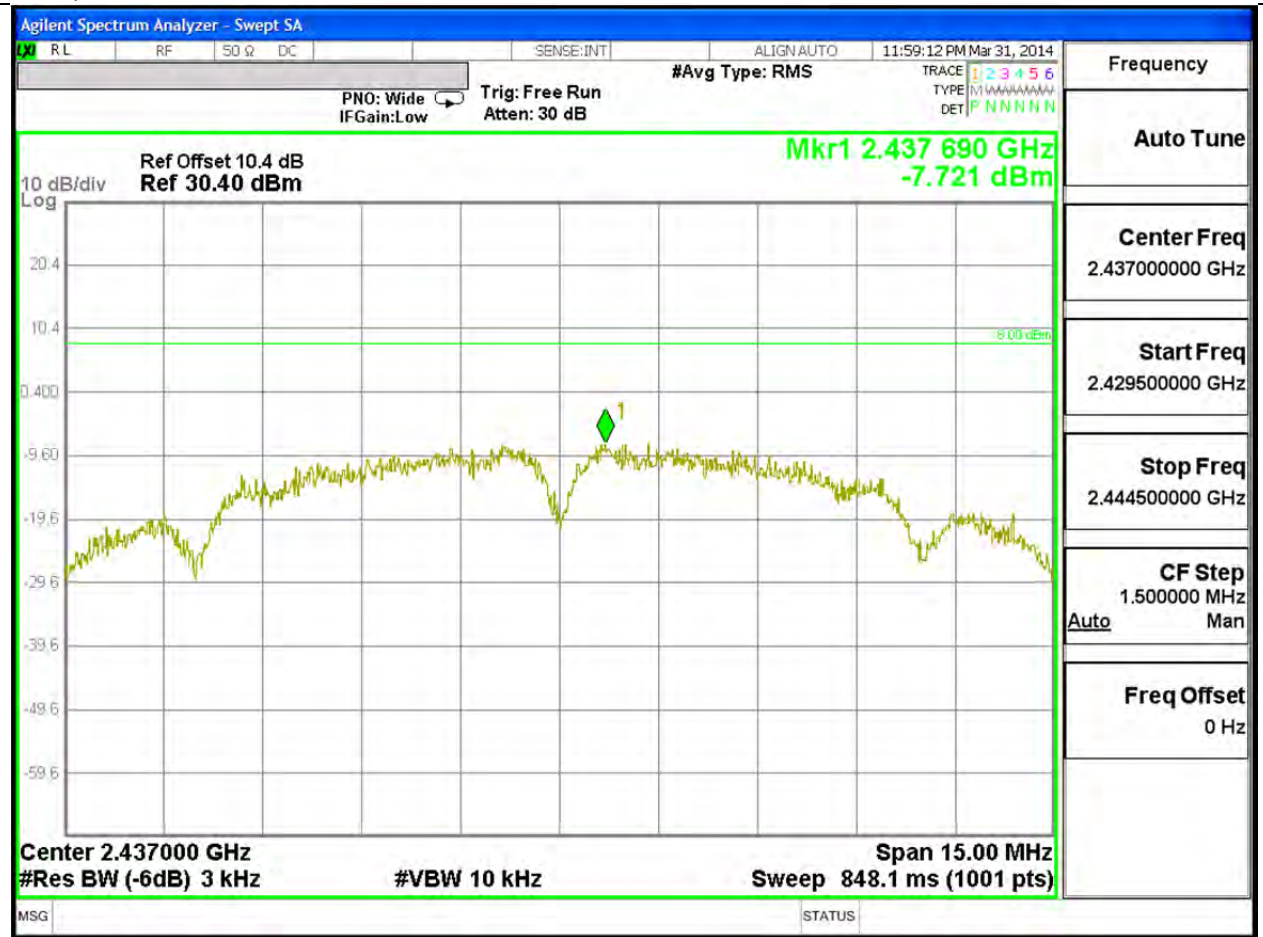
PSD Results

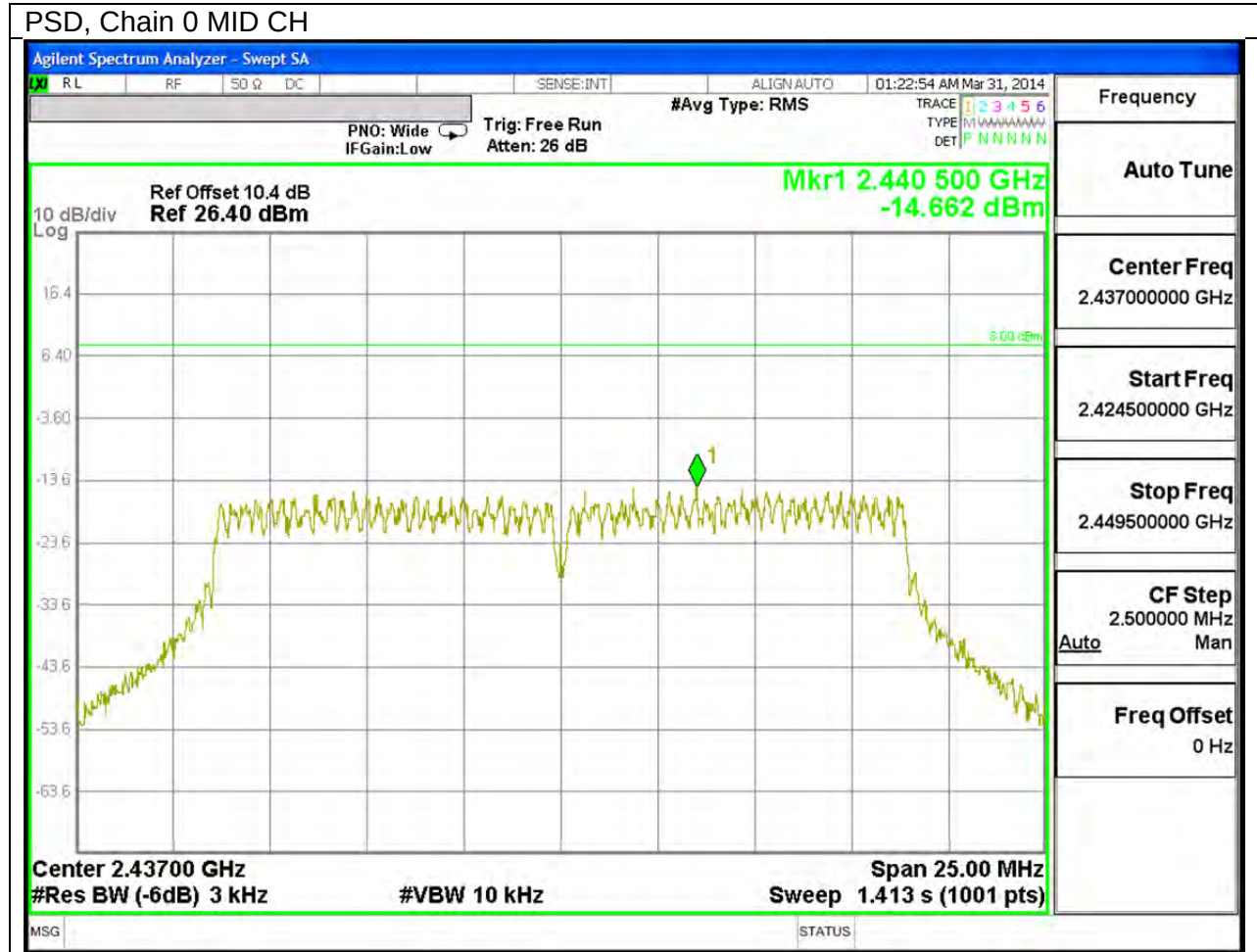
Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Limit (dBm)	Margin (dB)
Low	5745	-12.65	8.0	-20.7
Mid	5785	-11.72	8.0	-19.7
High	5825	-11.24	8.0	-19.2

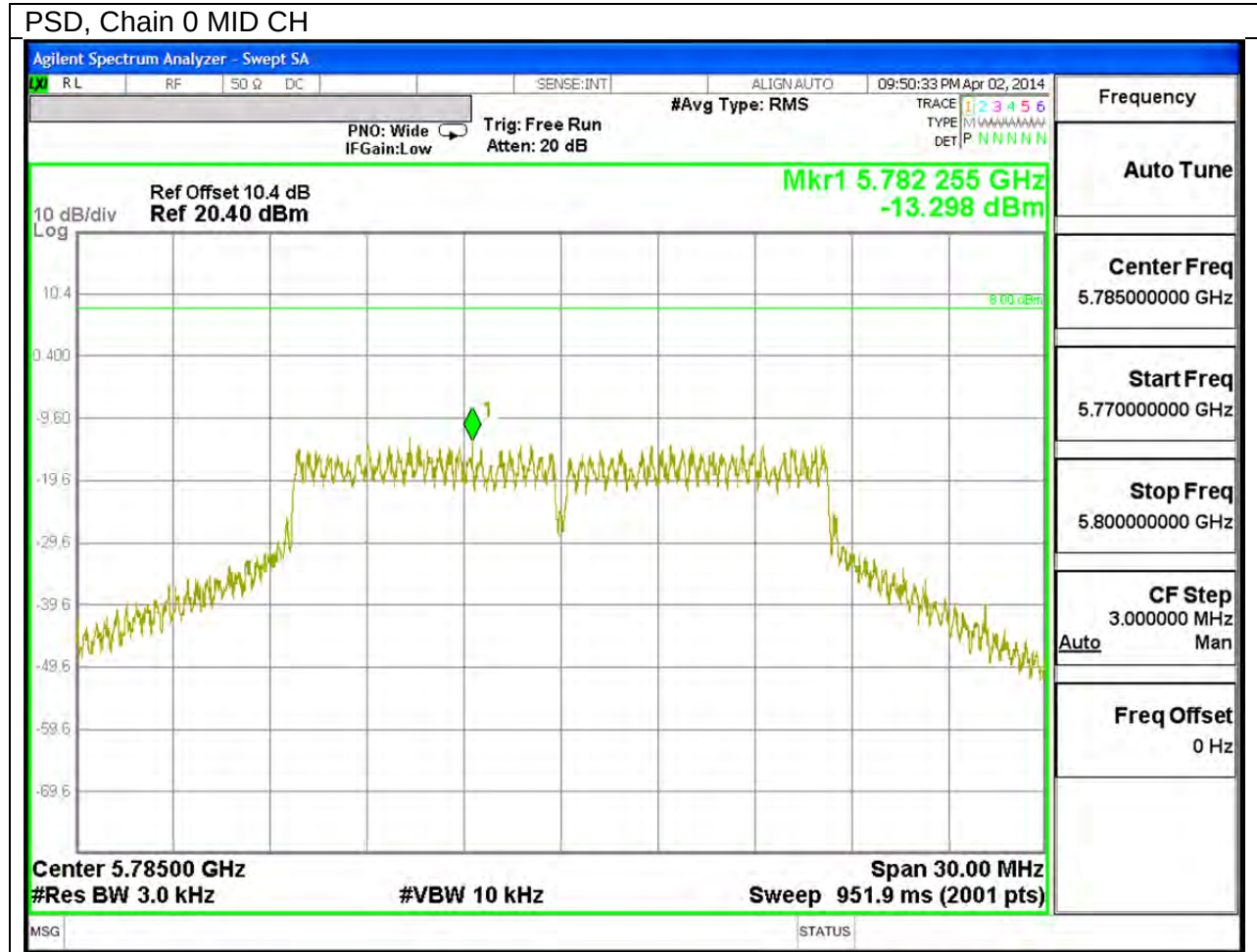
9.5.6. 802.11n HT40 MODE IN THE 5.8 GHz BAND

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Limit (dBm)	Margin (dB)
Low	5755	-16.87	8.0	-24.9
High	5795	-16.23	8.0	-24.2

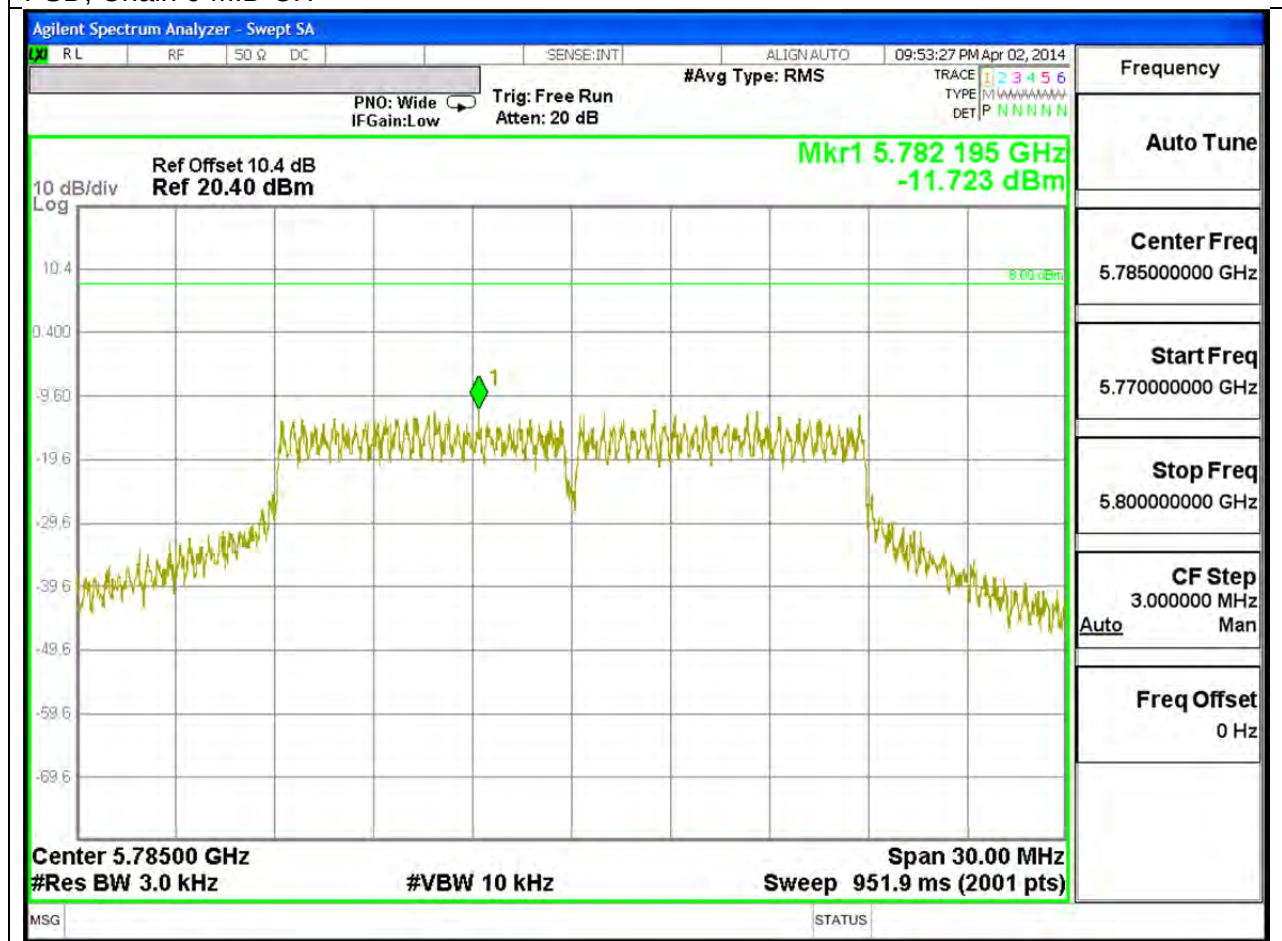


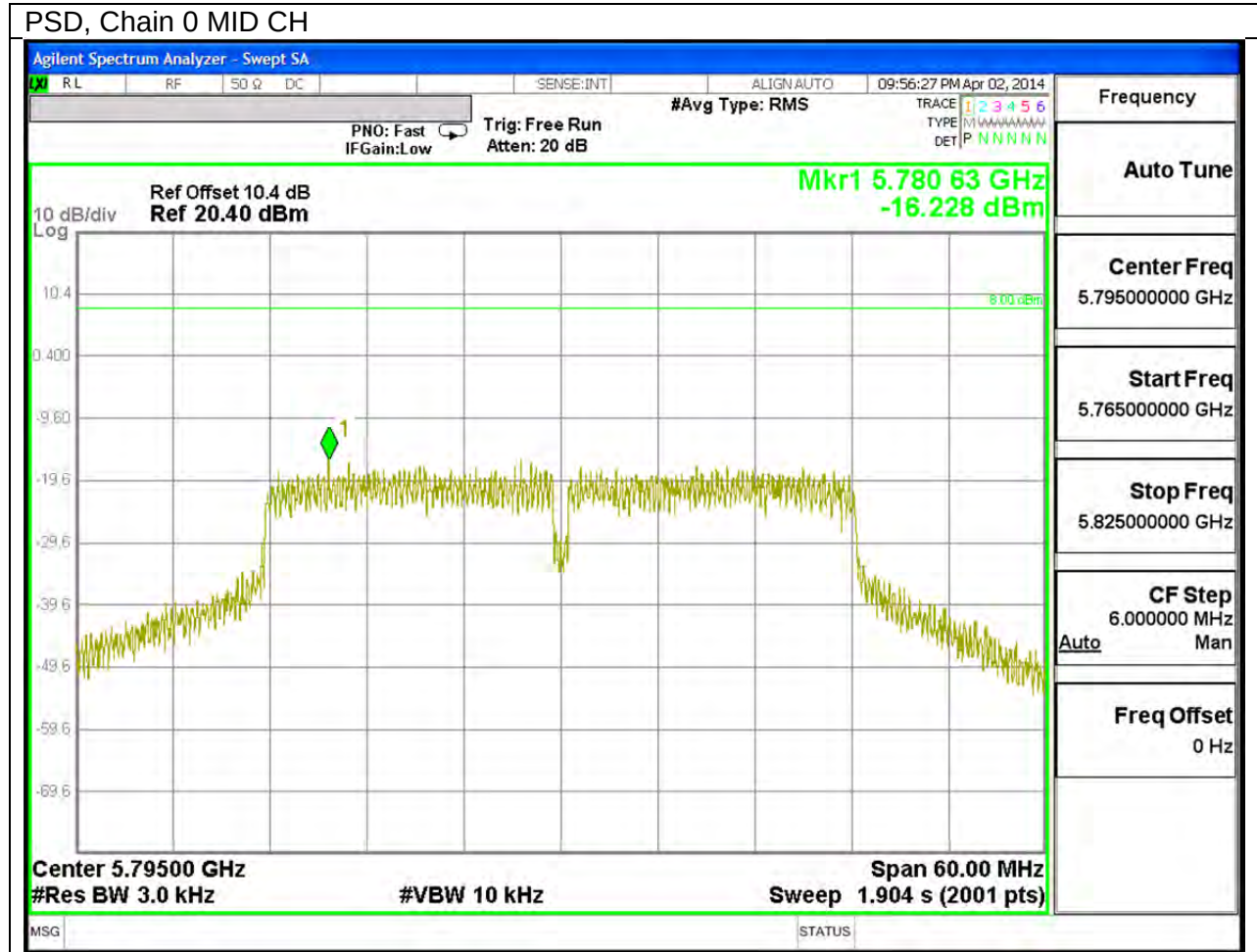
802.11n PSD, Chain 0

802.11a 5.8GHz PSD, Chain 0

802.11n HT20 5.8GHz PSD, Chain 0

PSD, Chain 0 MID CH



802.11n HT40 5.8GHz PSD, Chain 0

9.6. OUT-OF-BAND EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

RESULTS

9.6.1. 802.11b MODE IN THE 2.4 GHz BAND

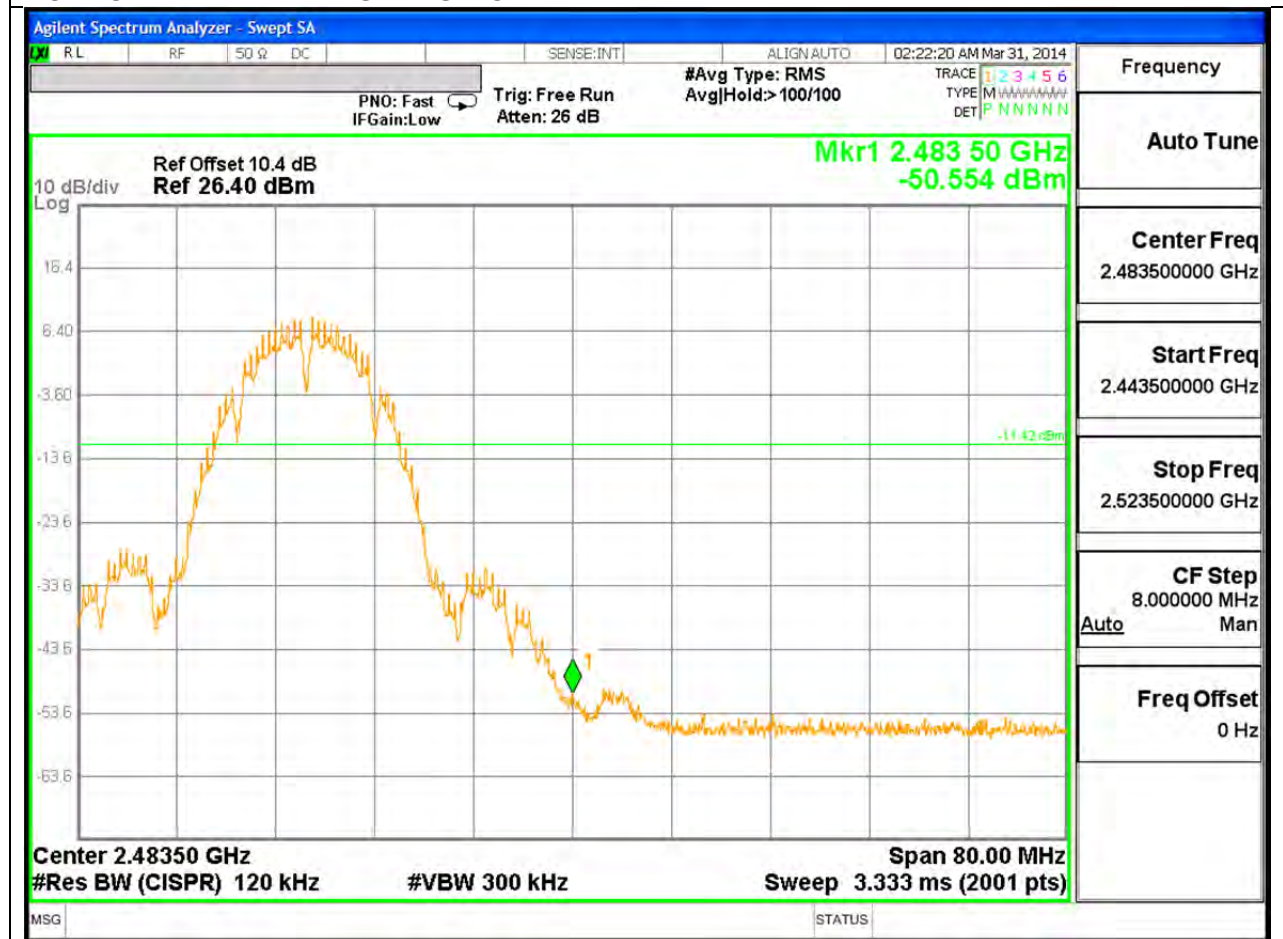
IN-BAND REFERENCE LEVEL

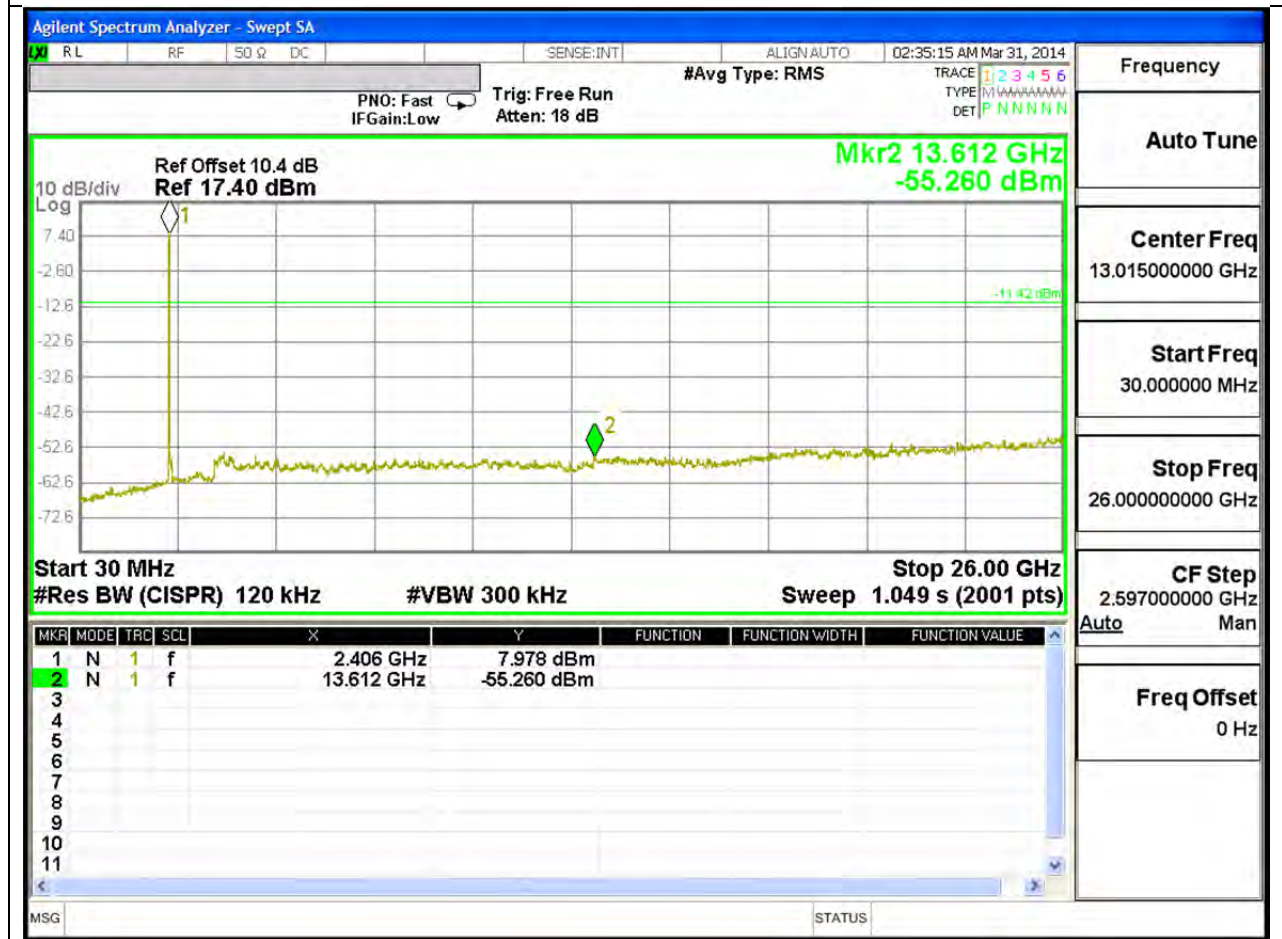
REFERENCE LEVEL MID CH



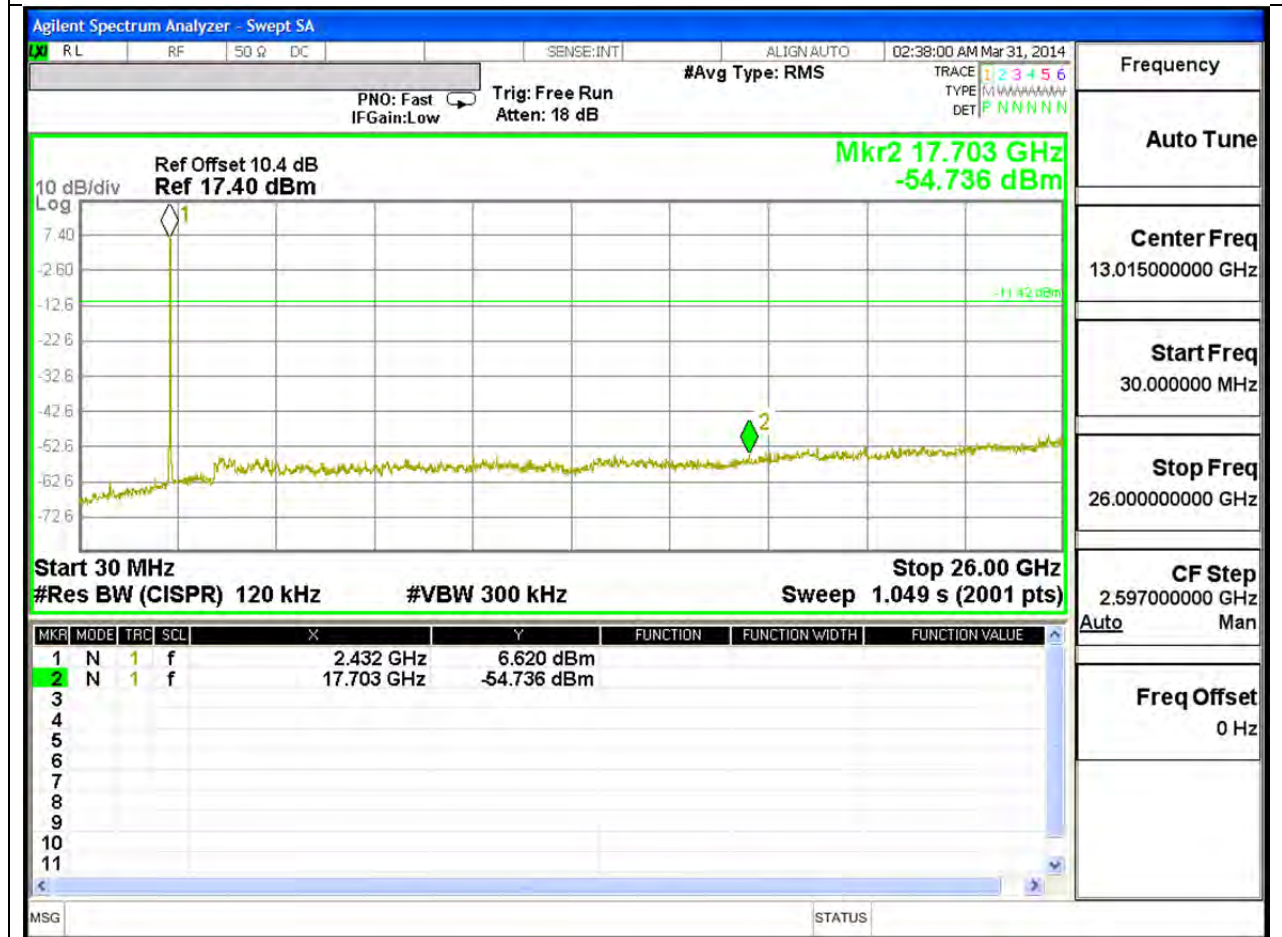
LOW CHANNEL BANDEDGE**AUTHORIZED BAND EDGE LOW CH**

AUTHORIZED BAND EDGE HIGH CH

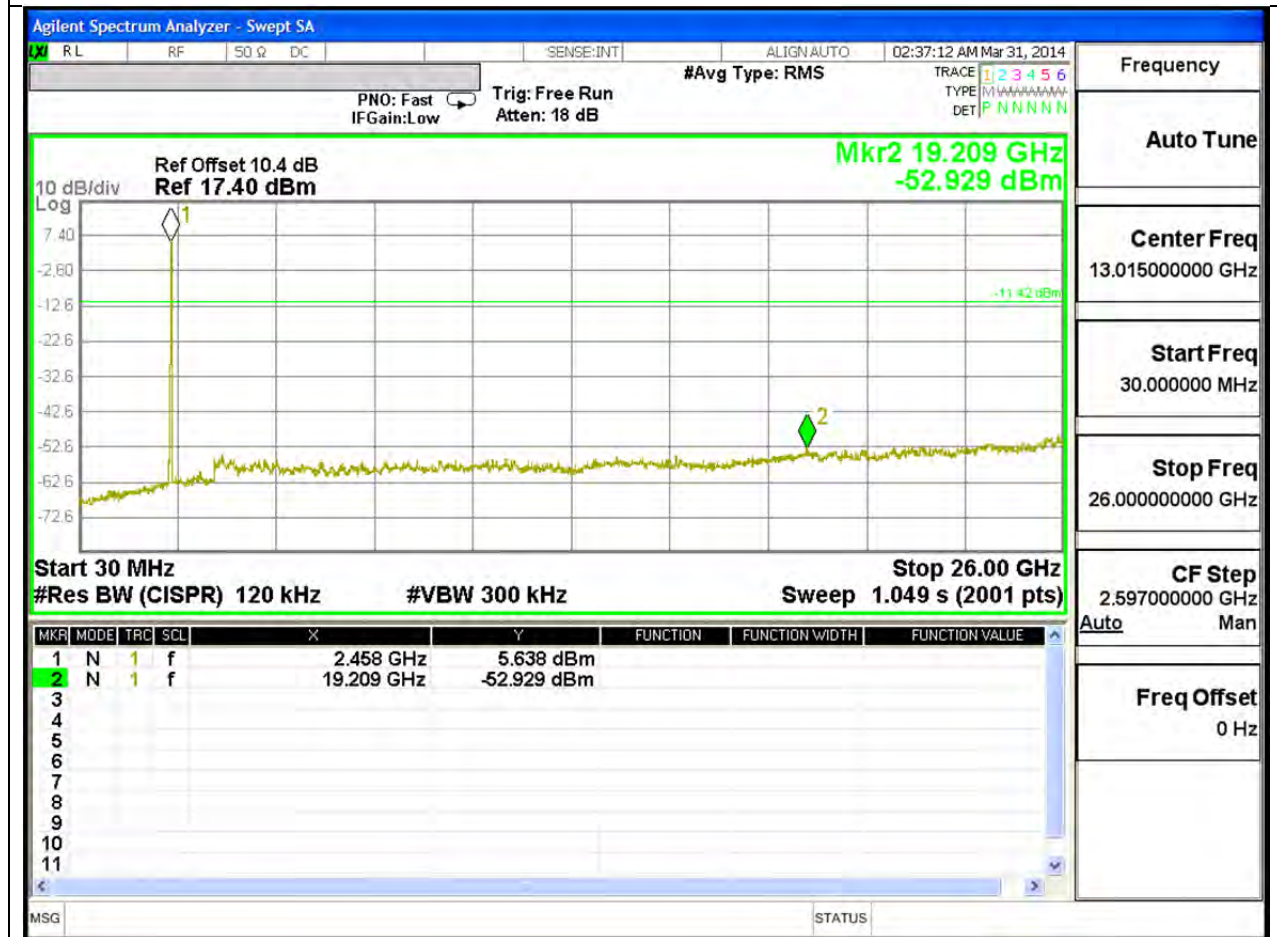


OUT-OF-BAND EMISSIONS**OUT OF BAND LOW CH**

OUT OF BAND MID CH

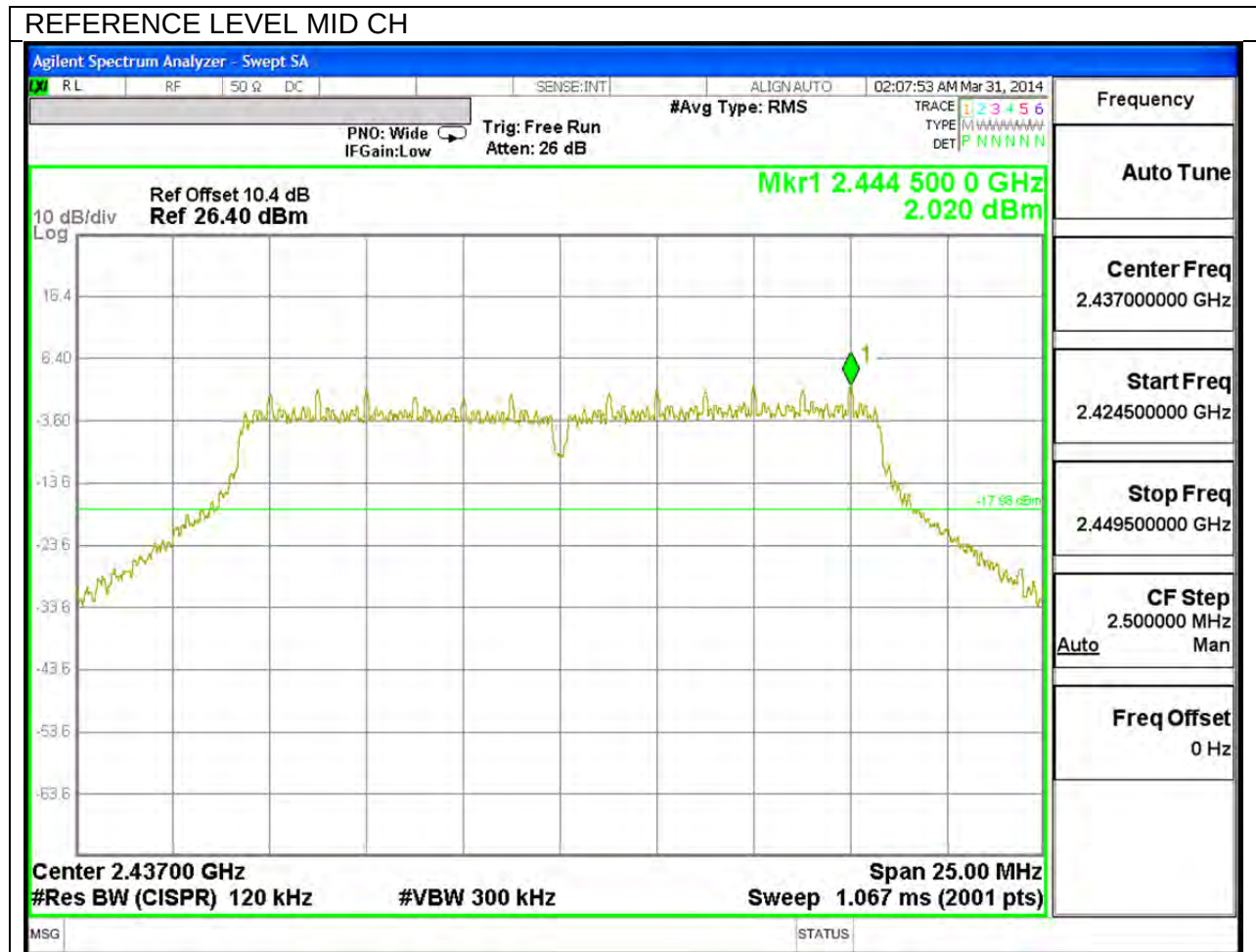


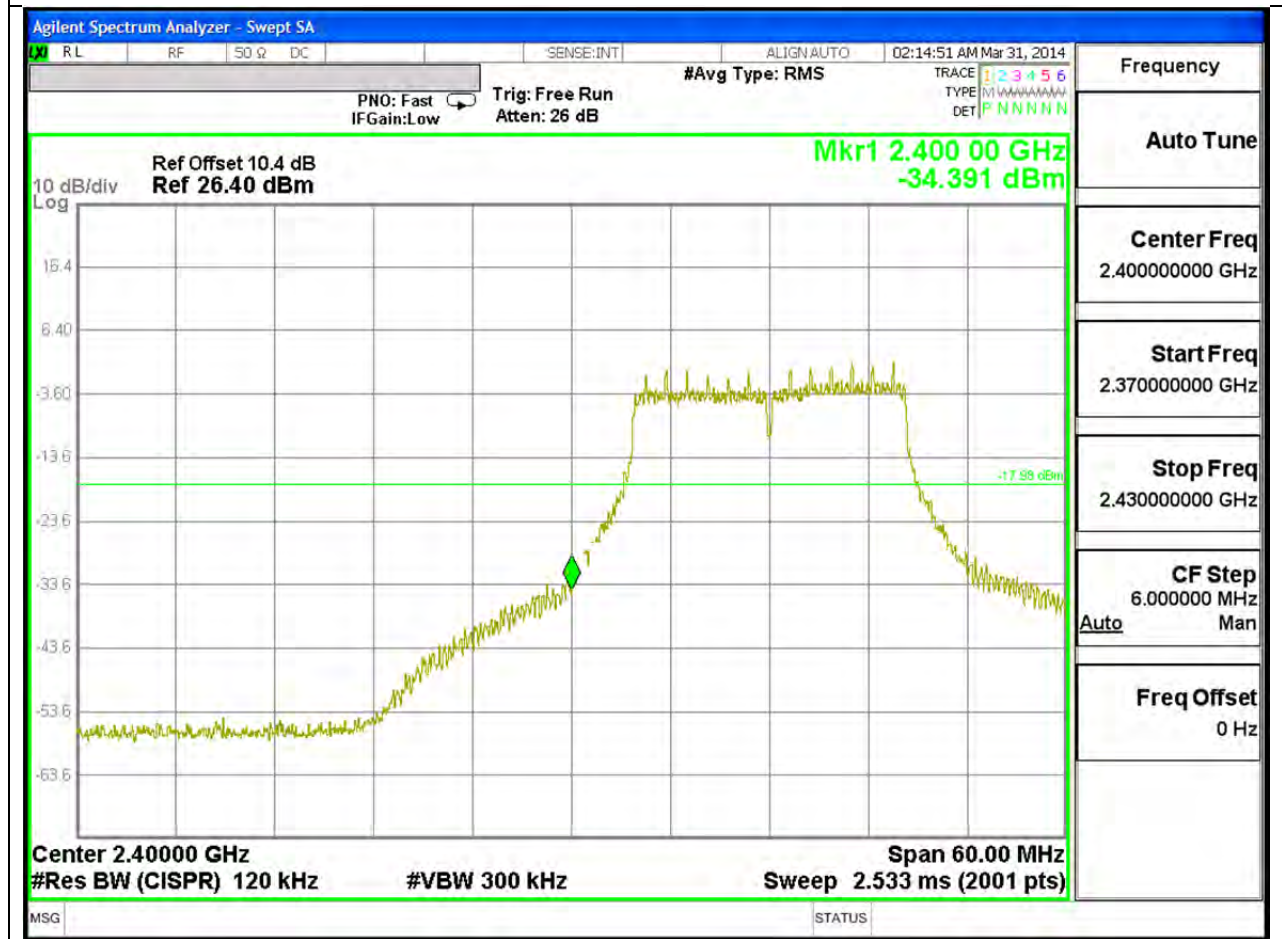
OUT OF BAND HIGH CH



9.6.2. 802.11g MODE IN THE 2.4 GHz BAND

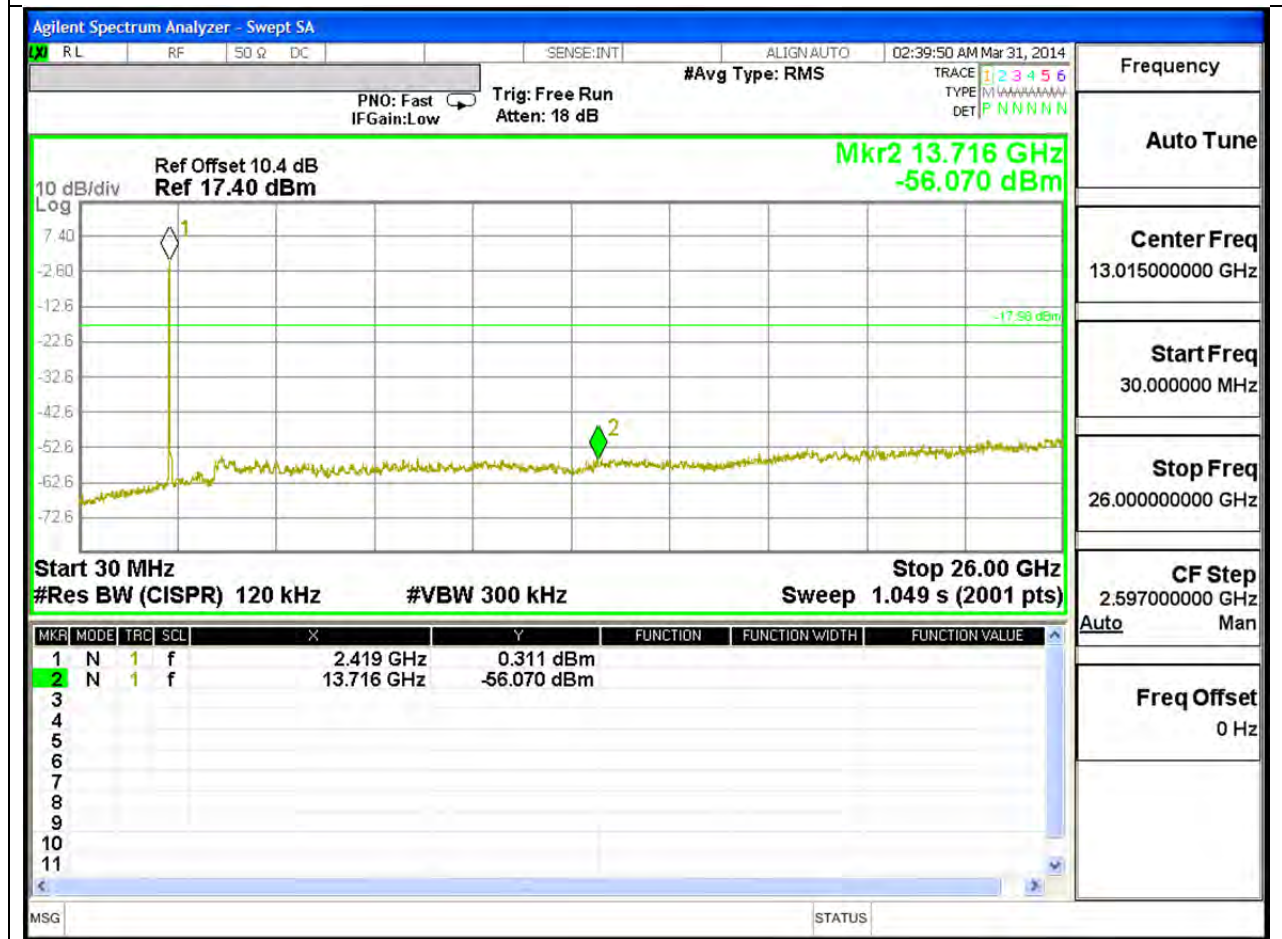
IN-BAND REFERENCE LEVEL



LOW CHANNEL BANDEDGE**AUTHORIZED BAND EDGE LOW CH**

AUTHORIZED BAND EDGE HIGH CH



OUT-OF-BAND EMISSIONS**OUT OF BAND LOW CH**

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω DC SENSE:INT ALIGN: AUTO 02:40:32 AM Mar 31, 2014

#Avg Type: RMS

PNO: Fast IFGain:Low Trig: Free Run Atten: 18 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET P N N N N N N

Ref Offset 10.4 dB
Ref 17.40 dBm

Mkr2 14.171 GHz
-56.293 dBm

10 dB/div
Log

Start 30 MHz
#Res BW (CISPR) 120 kHz #VBW 300 kHz

Stop 26.00 GHz
Sweep 1.049 s (2001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.445 GHz	-0.599 dBm			
2	N	1	f	14.171 GHz	-56.293 dBm			
3								
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency

Auto Tune

Center Freq
13.015000000 GHz

Start Freq
30.000000 MHz

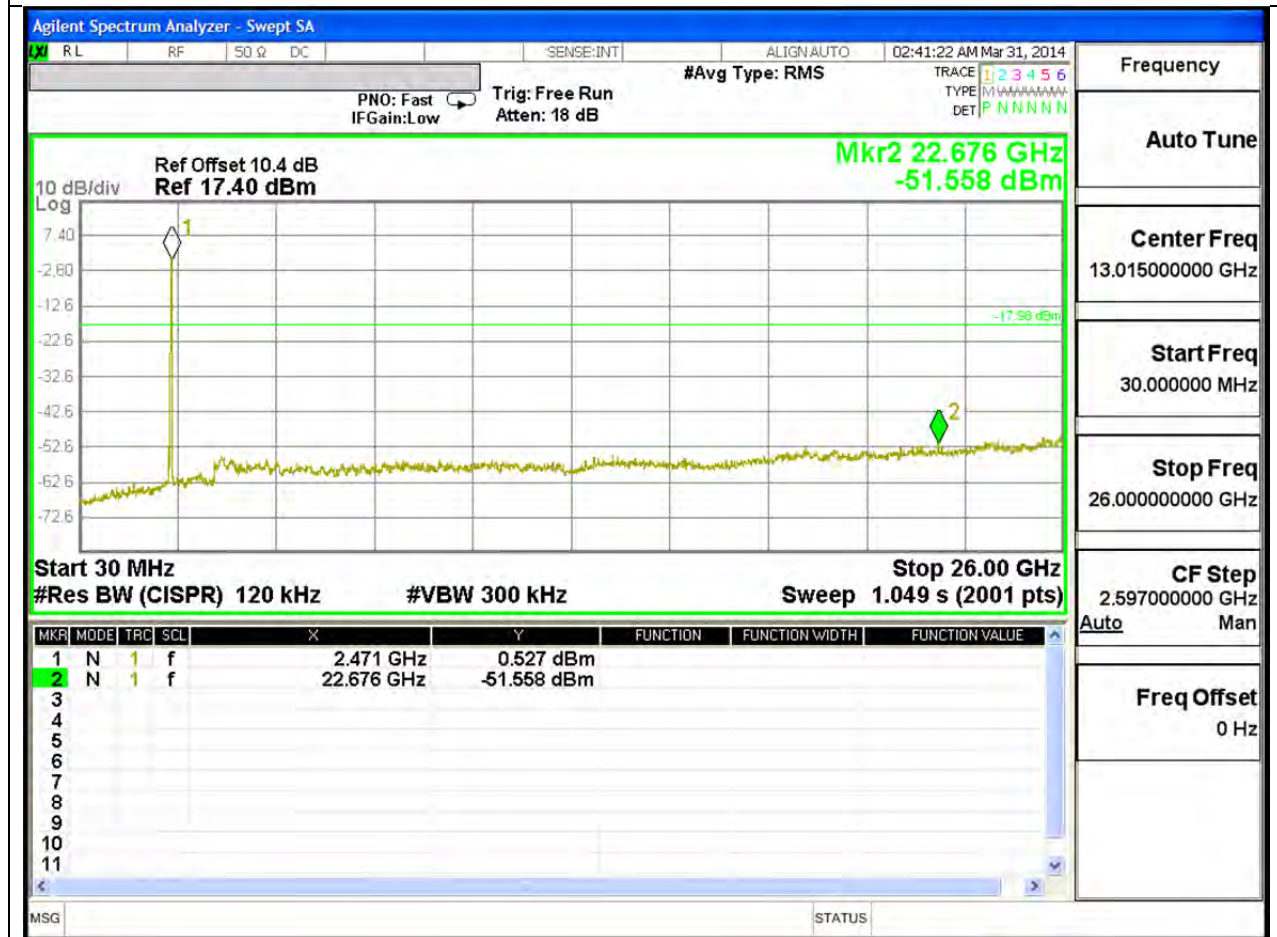
Stop Freq
26.000000000 GHz

CF Step
2.597000000 GHz
Man

Auto

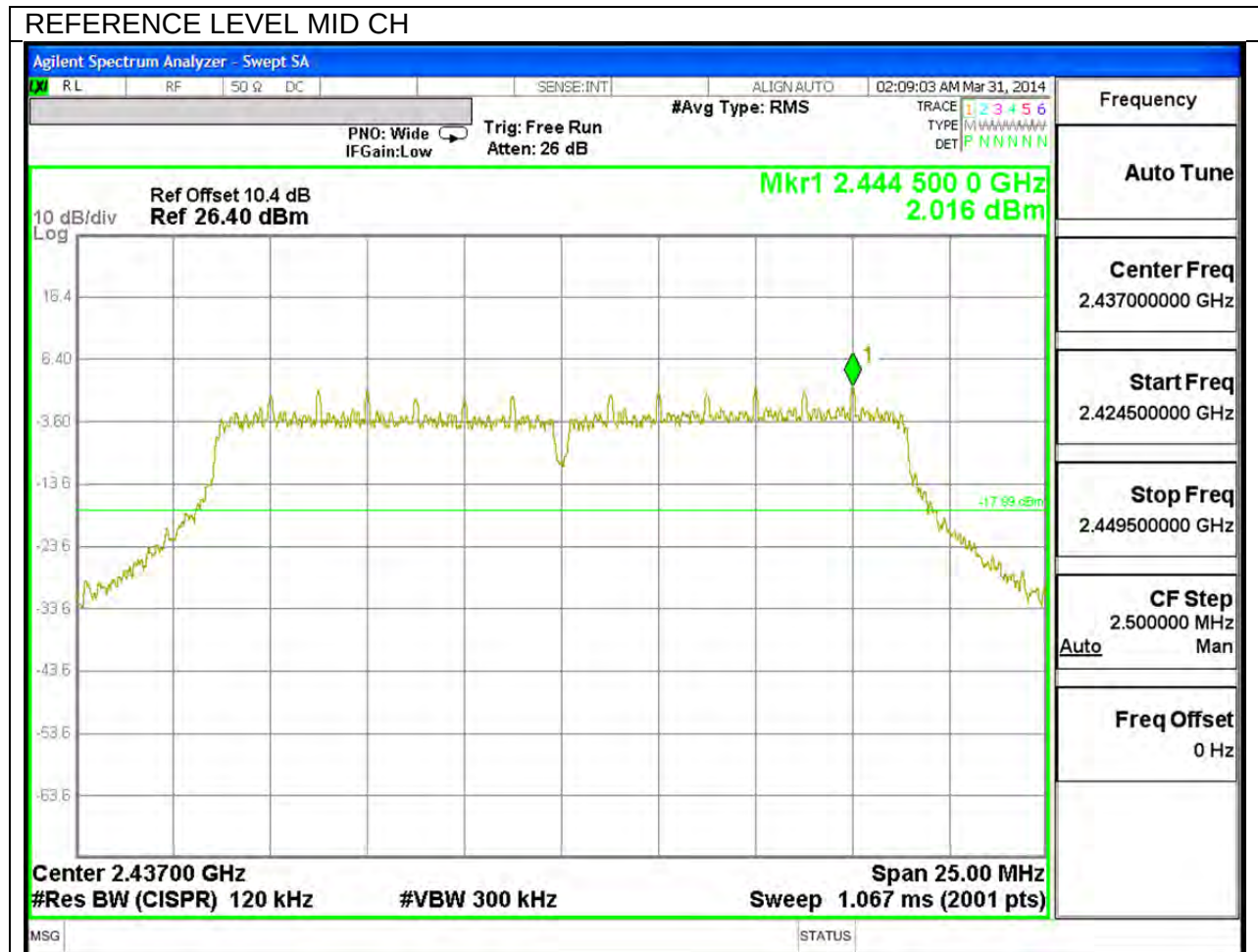
Freq Offset
0 Hz

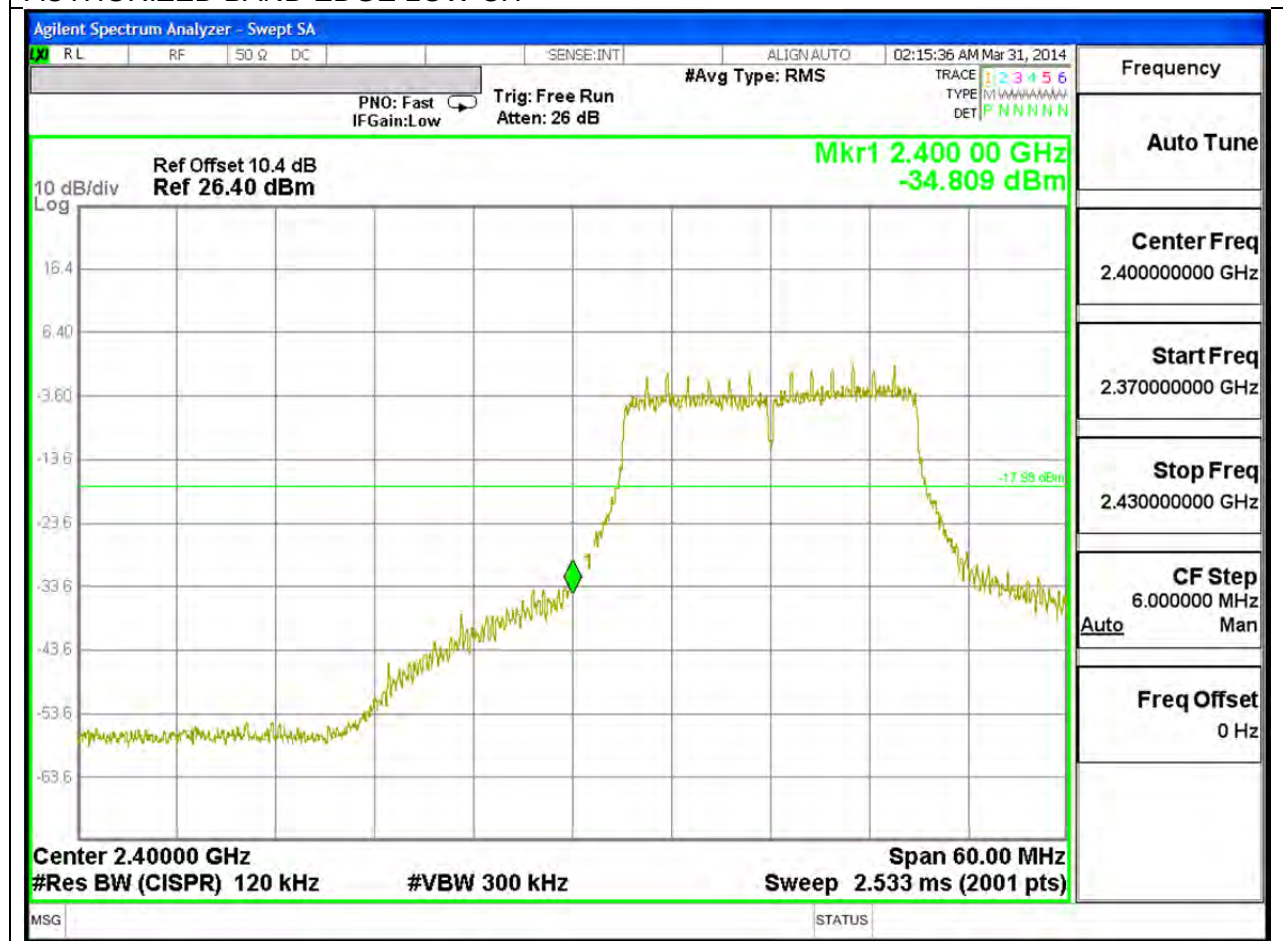
OUT OF BAND HIGH CH



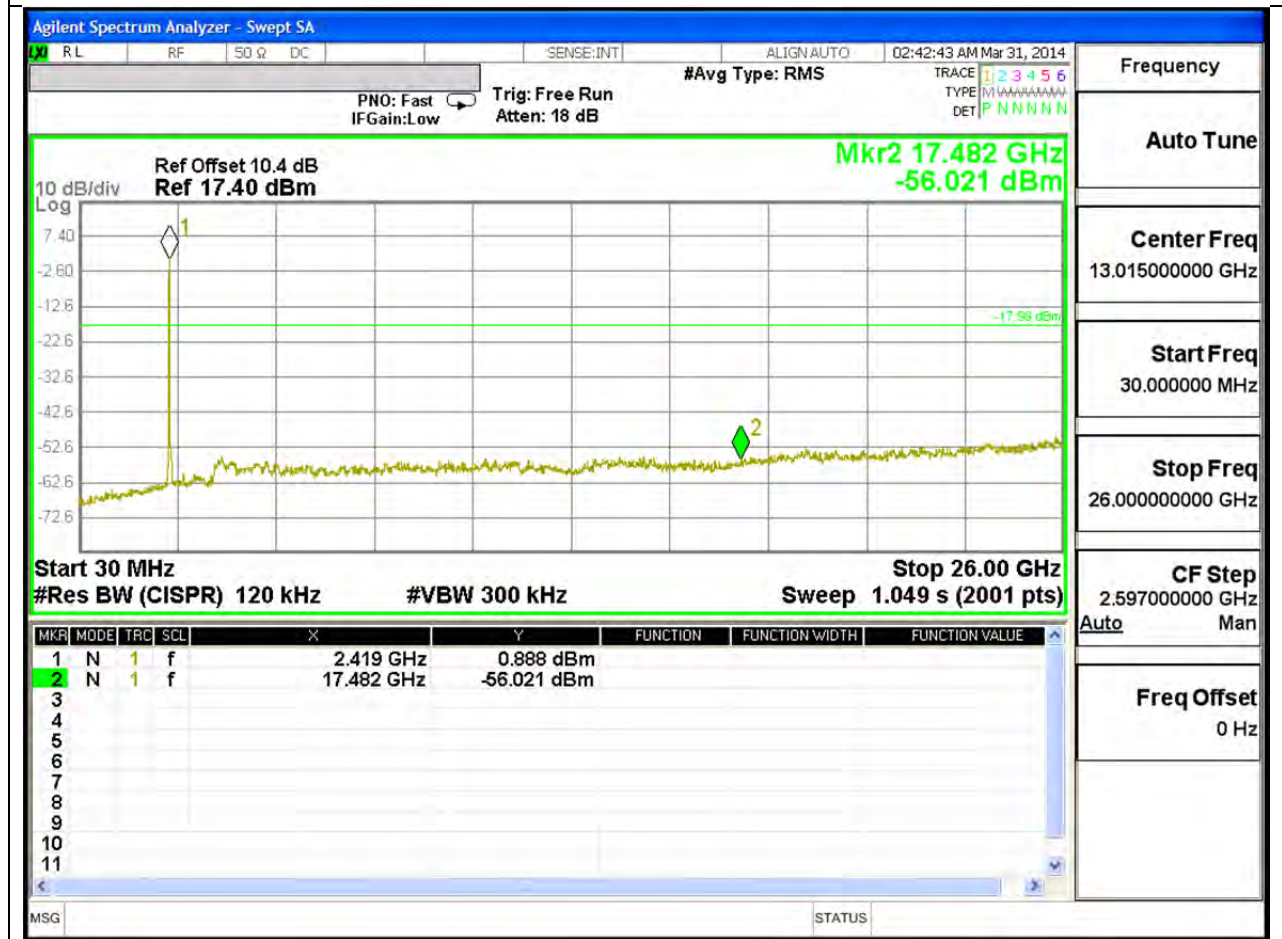
9.6.3. 802.11n MODE IN THE 2.4 GHz BAND

IN-BAND REFERENCE LEVEL

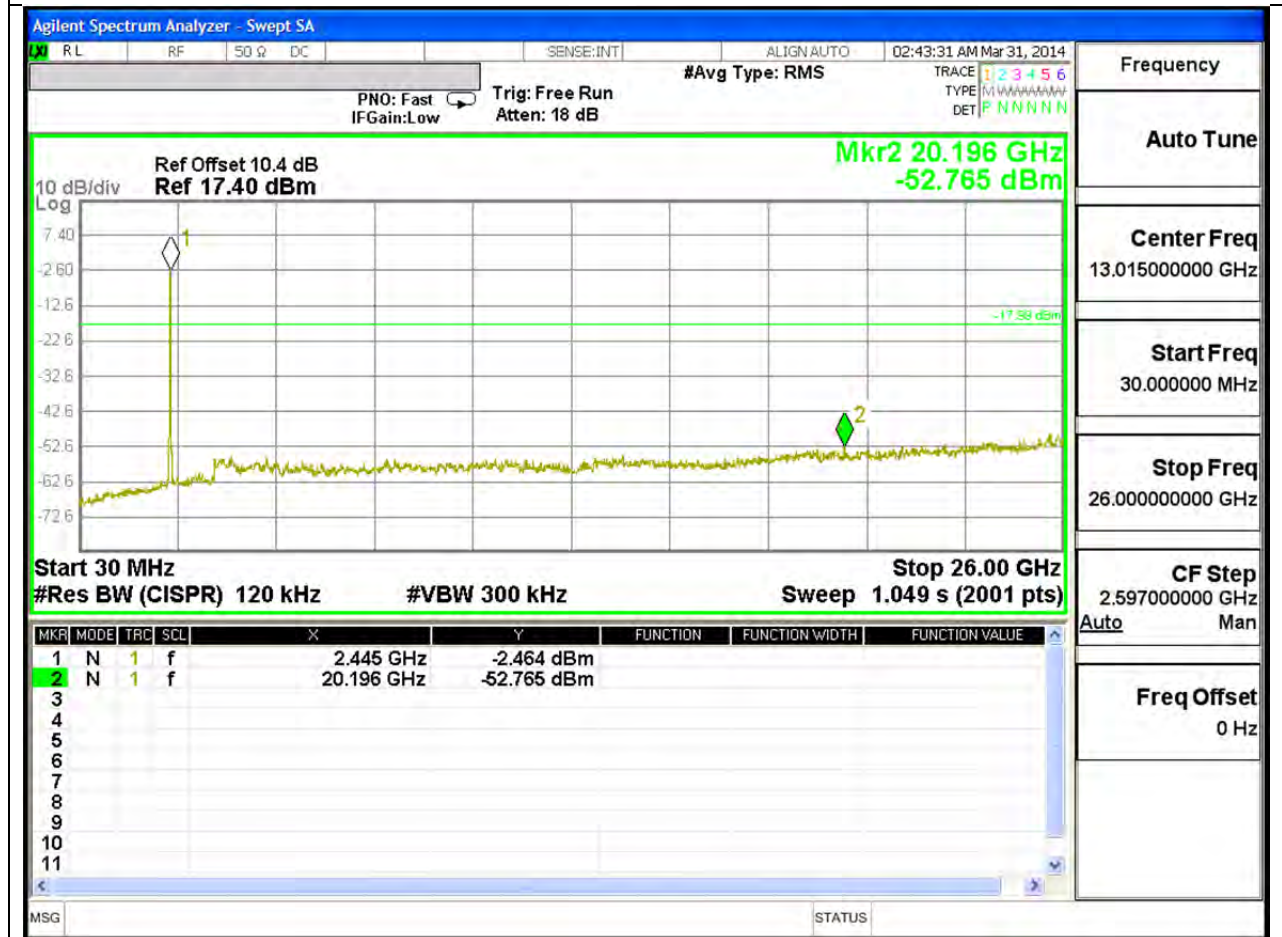


LOW CHANNEL BANDEDGE**AUTHORIZED BAND EDGE LOW CH**

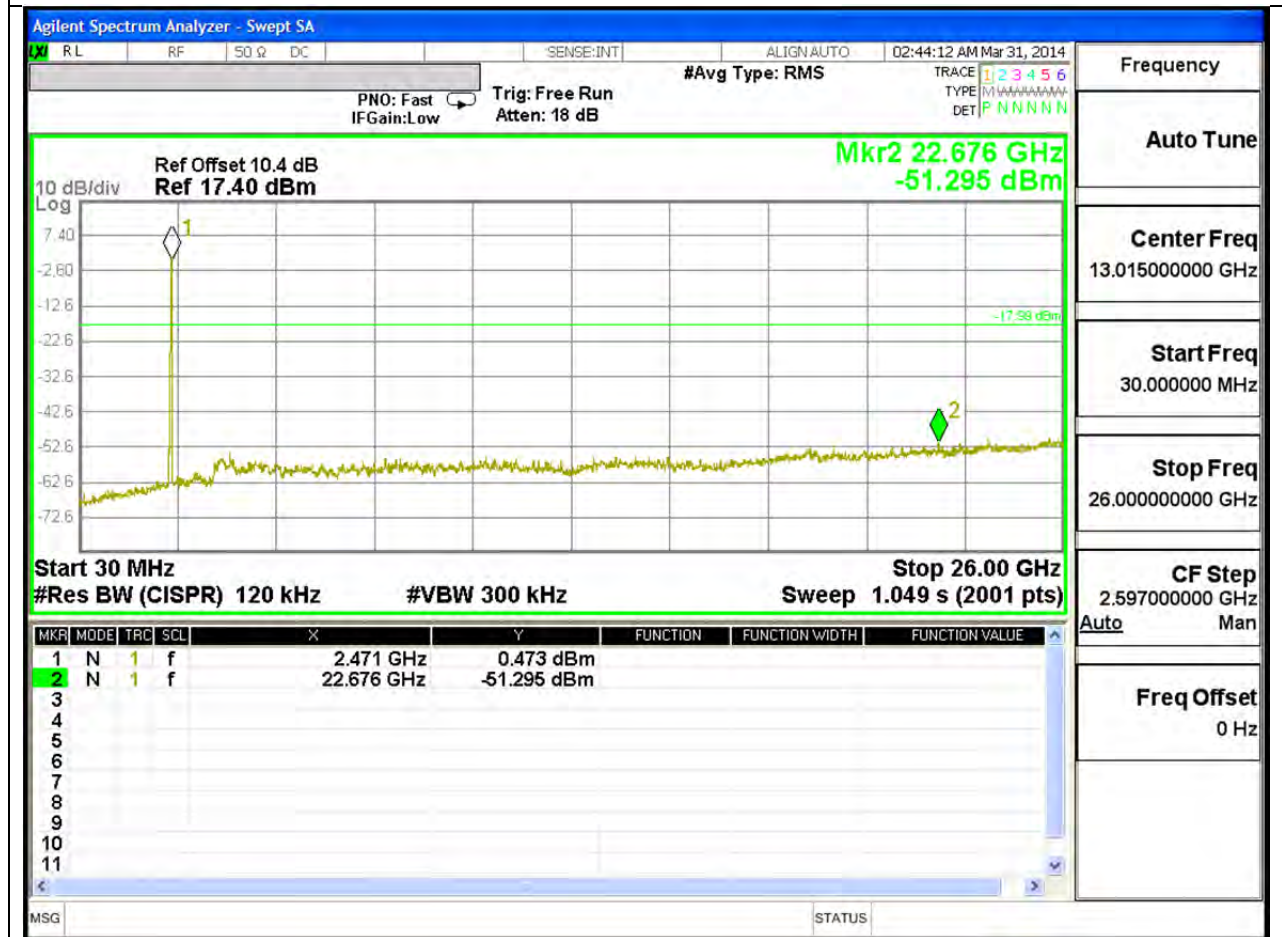
HIGH CHANNEL BANDEDGE**AUTHORIZED BAND EDGE HIGH CH**

OUT-OF-BAND EMISSIONS**OUT OF BAND LOW CH**

OUT OF BAND MID CH

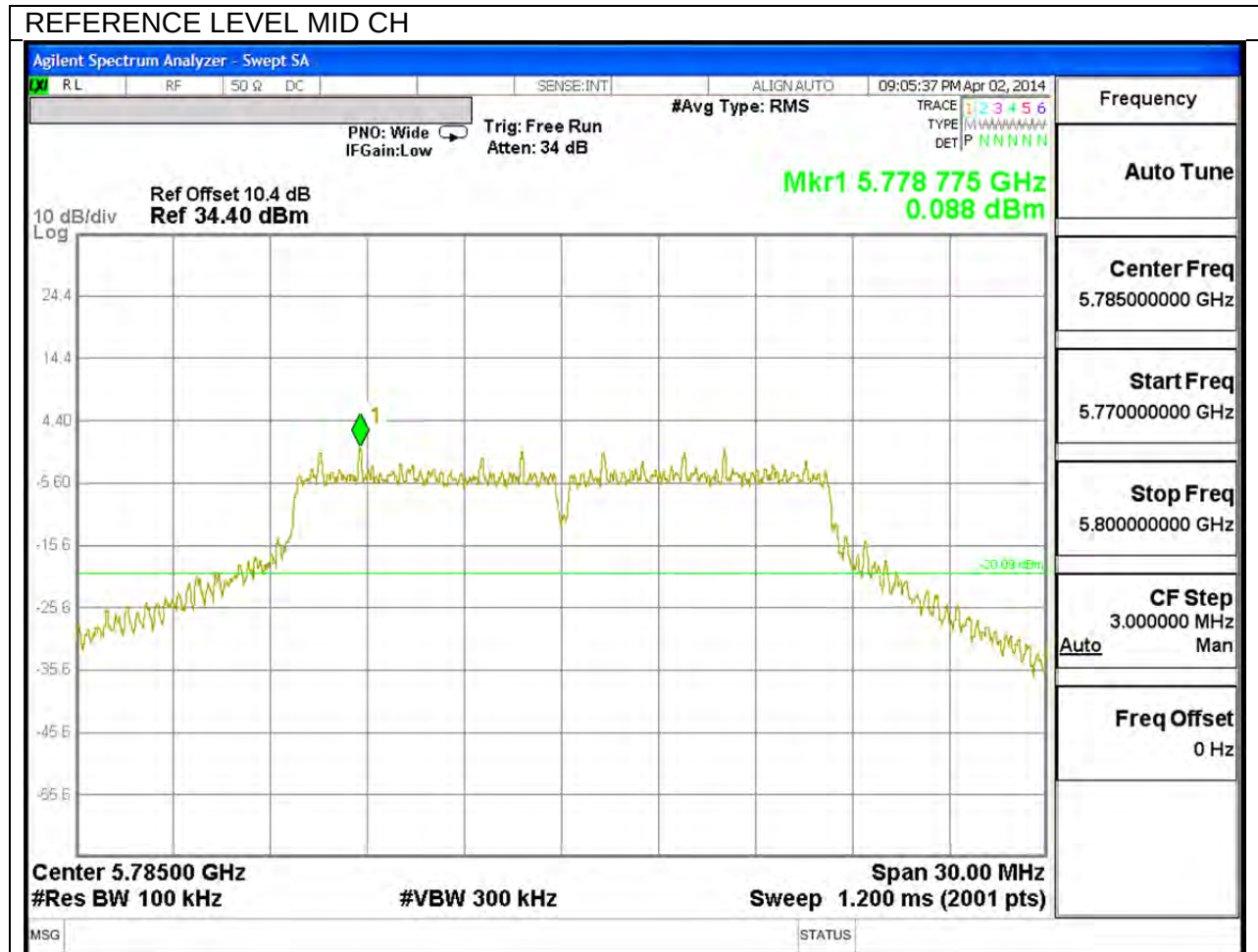


OUT OF BAND HIGH CH



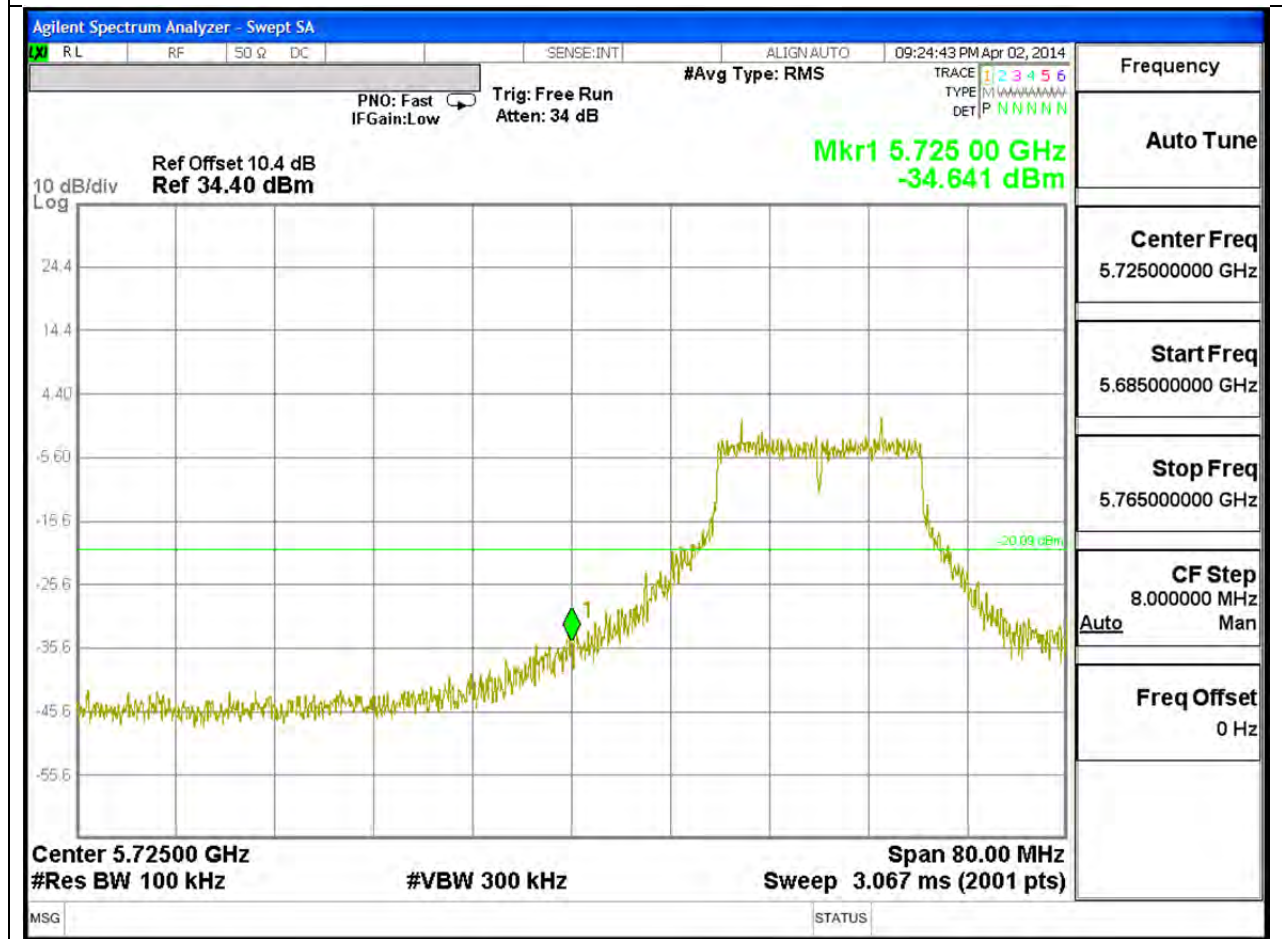
9.6.4. 802.11a MODE IN THE 5.8 GHz BAND

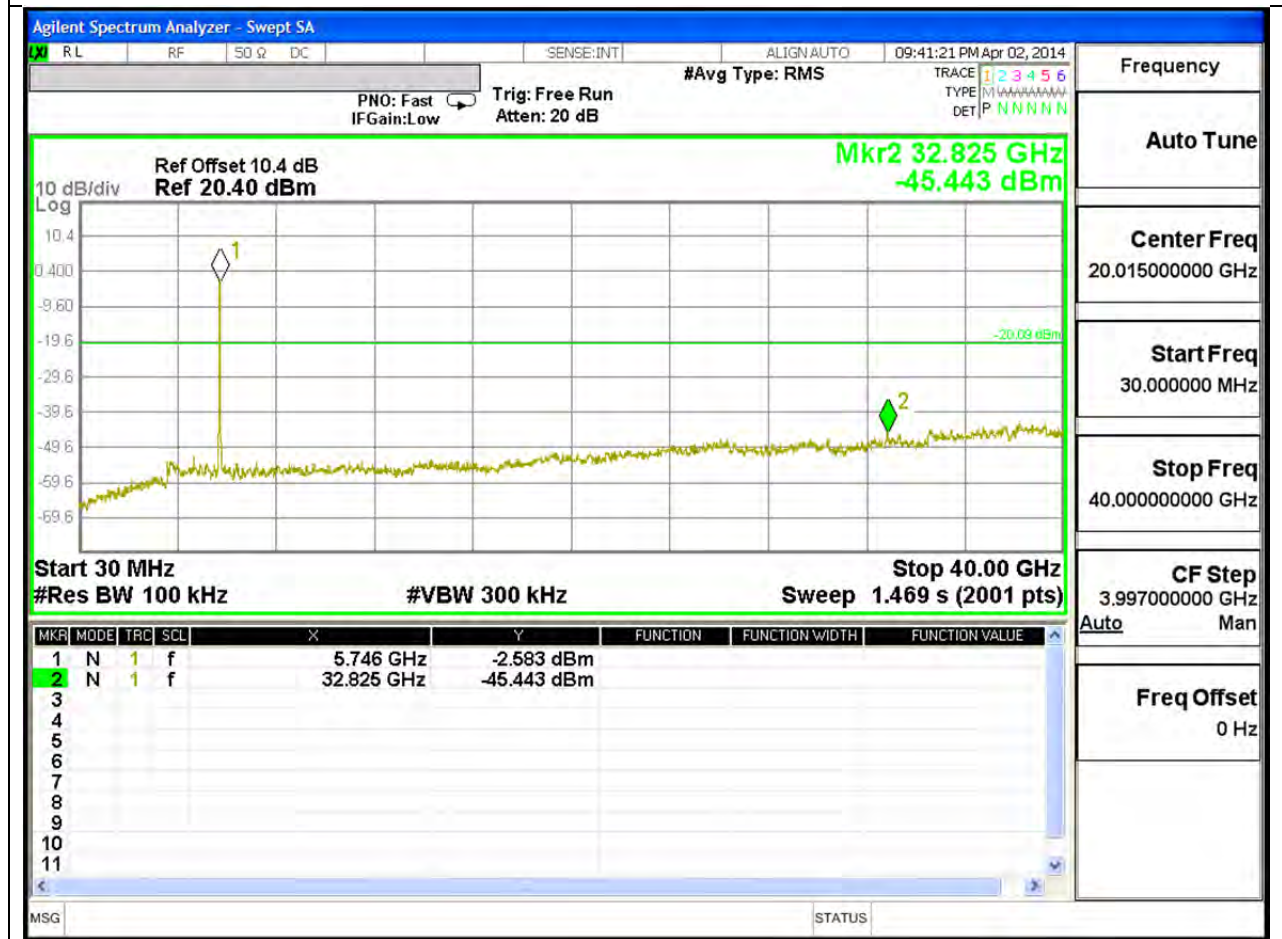
IN-BAND REFERENCE LEVEL



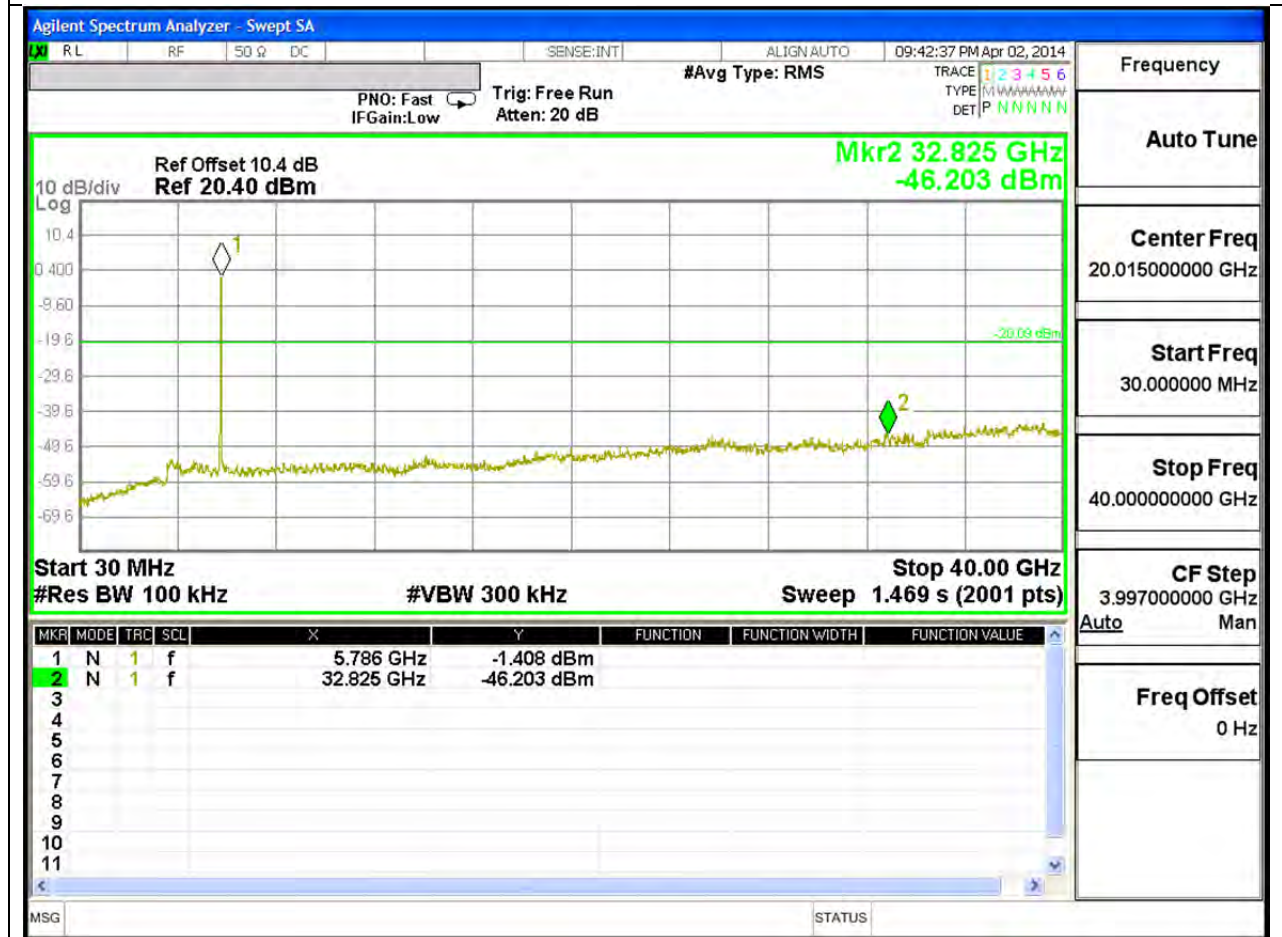
LOW CHANNEL BANDEDGE

AUTHORIZED BAND EDGE LOW CH

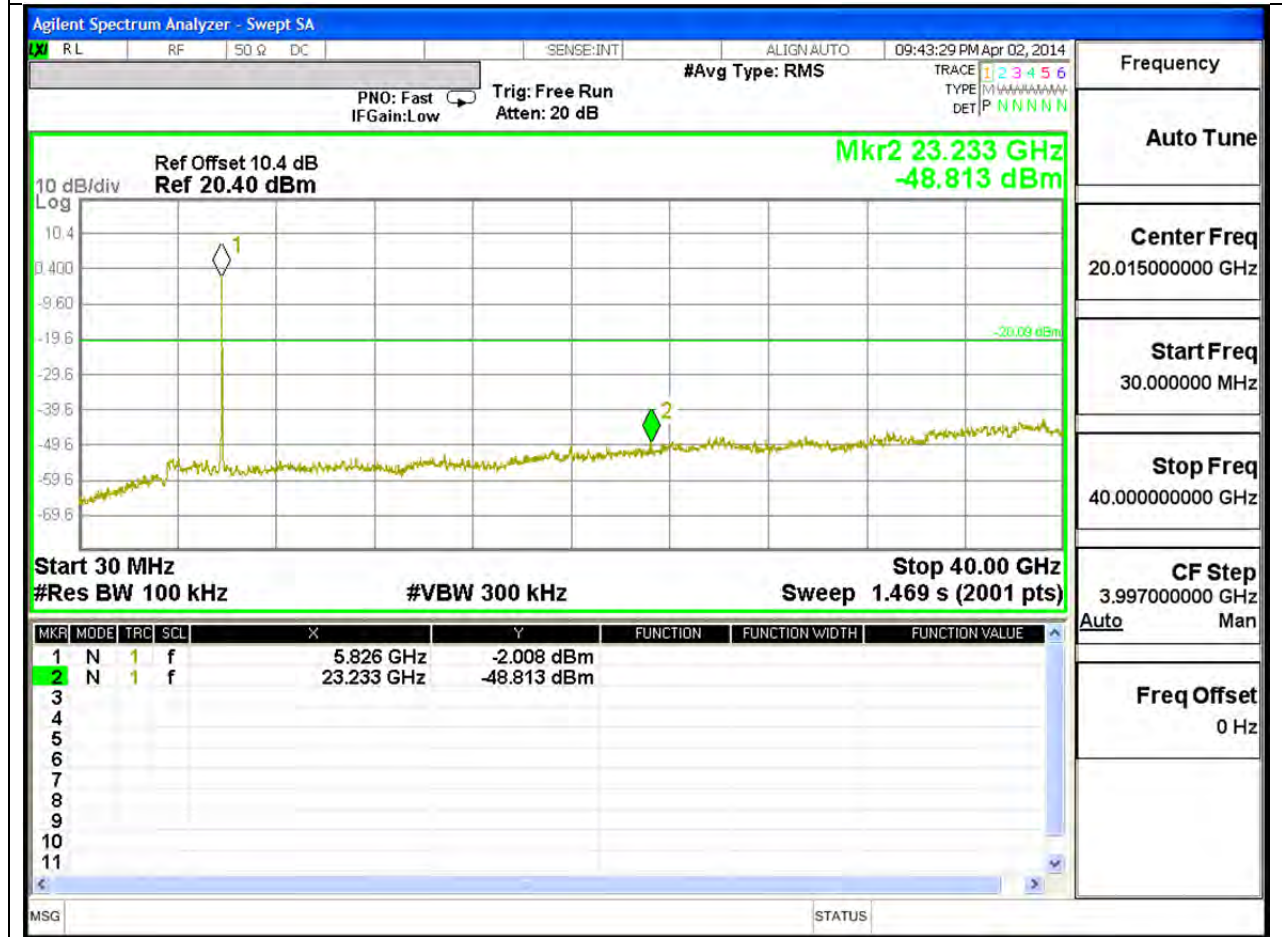


OUT-OF-BAND EMISSIONS**OUT OF BAND LOW CH**

OUT OF BAND MID CH

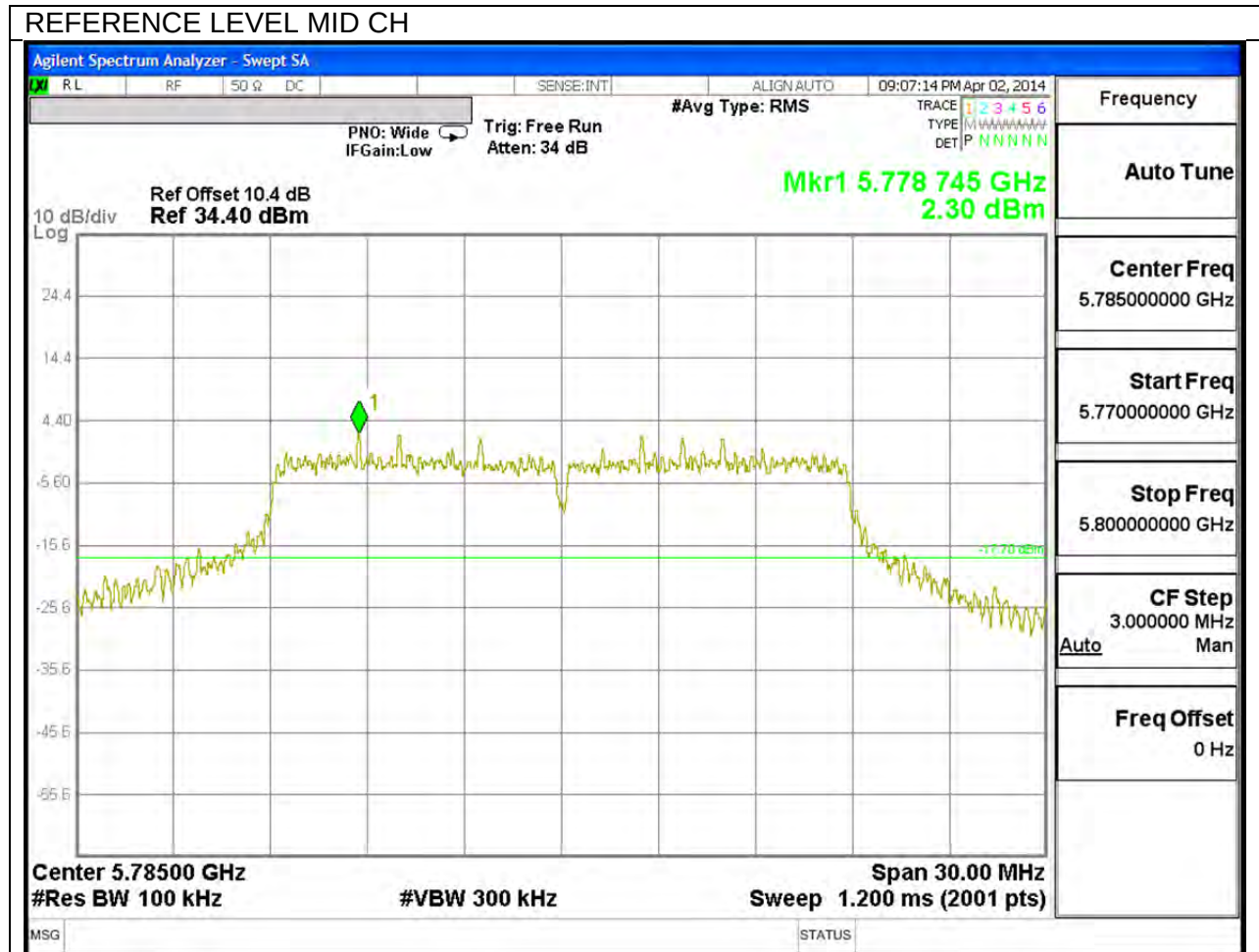


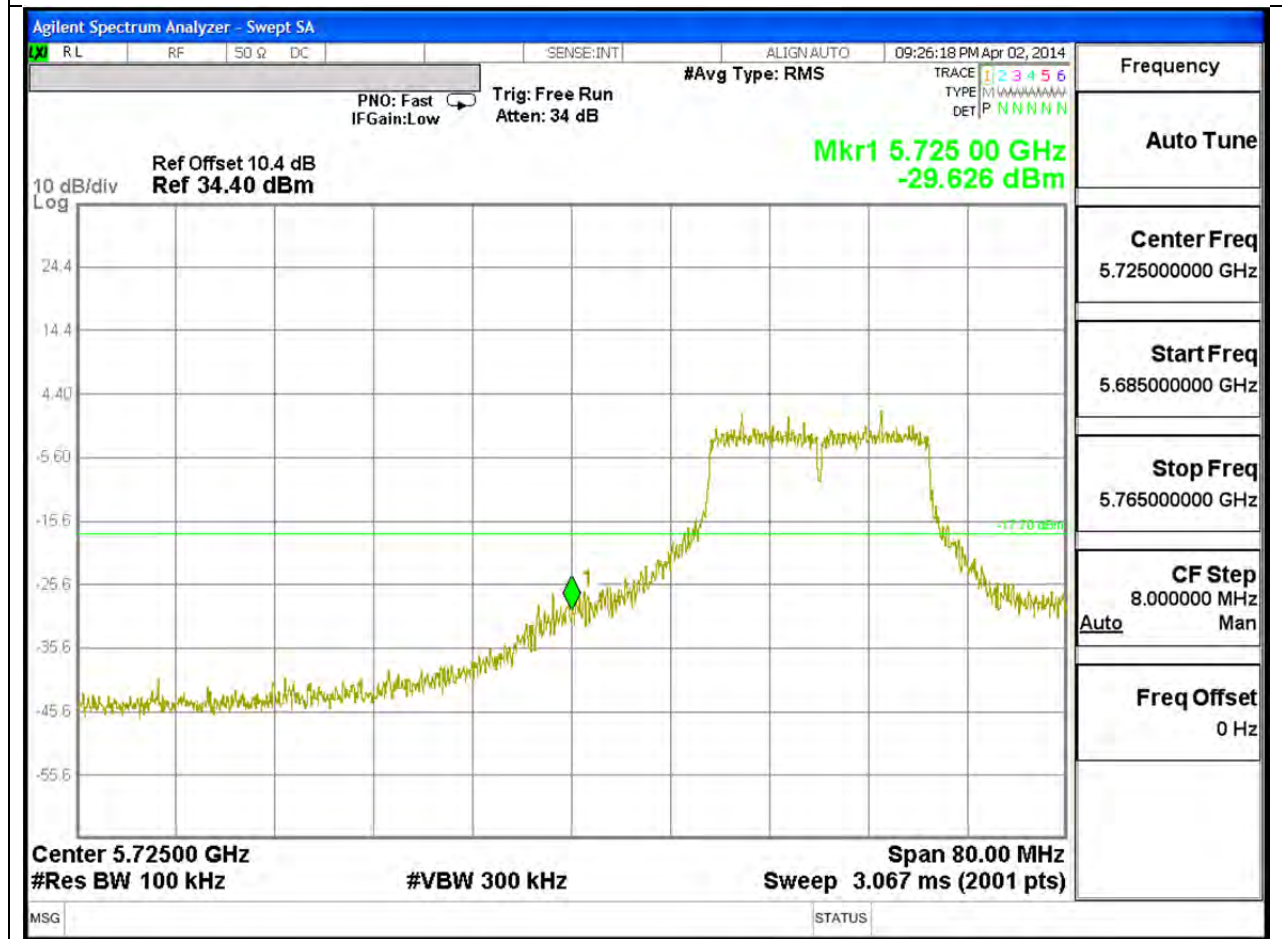
OUT OF BAND HIGH CH



9.6.5. 802.11n MODE IN THE 5.8 GHz BAND

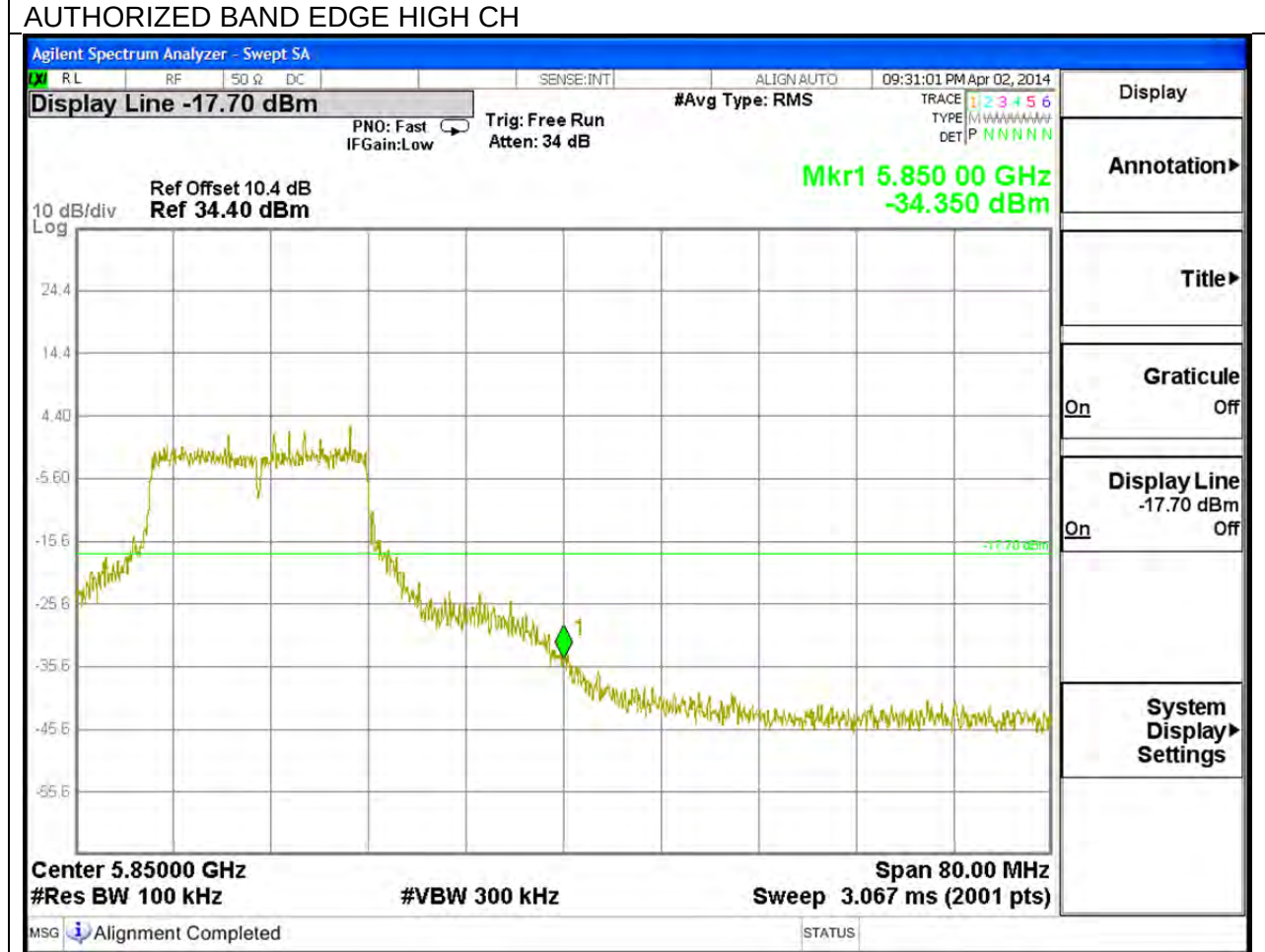
IN-BAND REFERENCE LEVEL

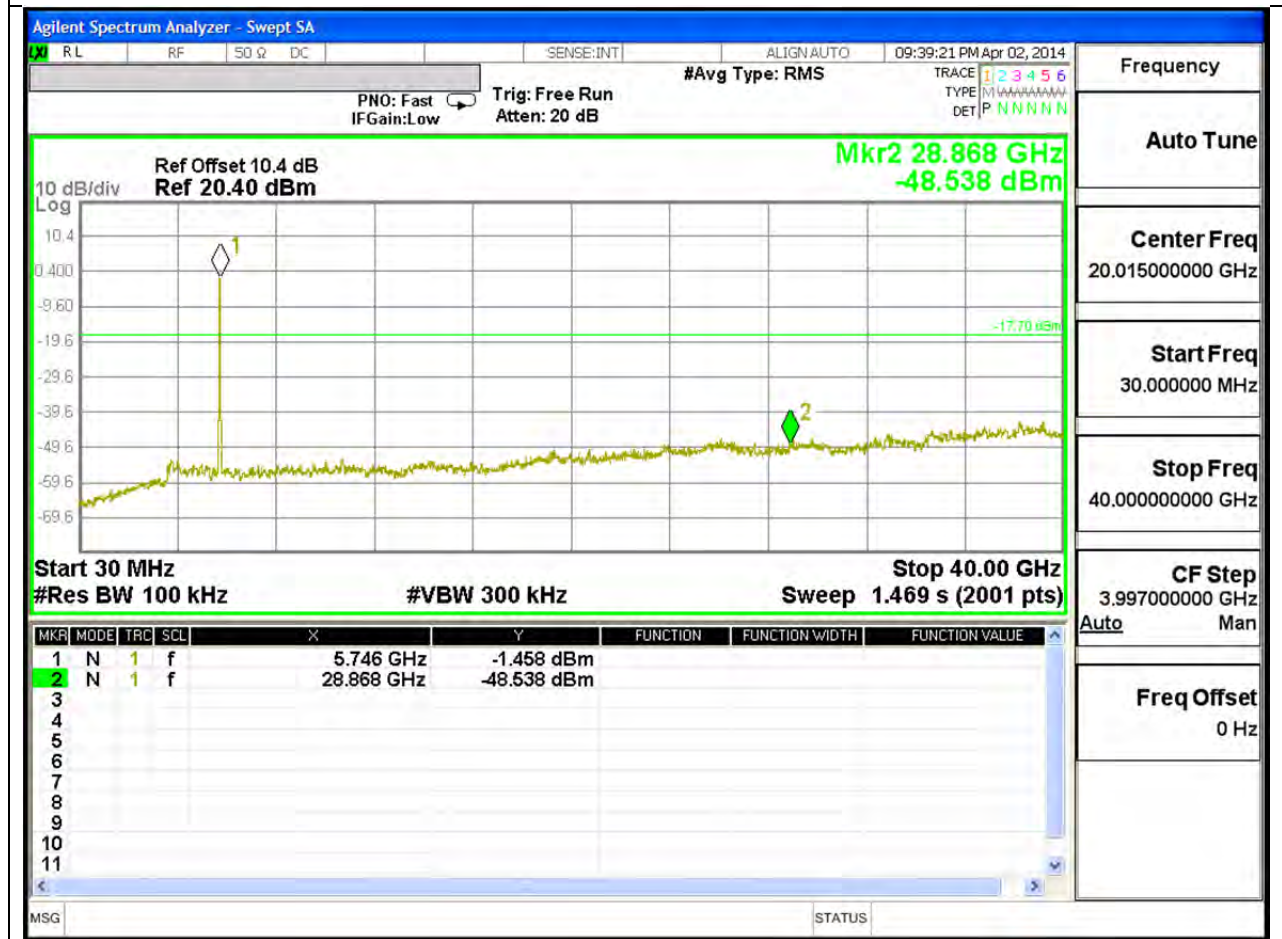


LOW CHANNEL BANDEDGE**AUTHORIZED BAND EDGE LOW CH**

HIGH CHANNEL BANDEDGE

AUTHORIZED BAND EDGE HIGH CH



OUT-OF-BAND EMISSIONS**OUT OF BAND LOW CH**

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω DC SENSE:INT ALIGN AUTO 09:37:49 PM Apr 02, 2014

#Avg Type: RMS PNO: Fast IFGain:Low Trig: Free Run Atten: 20 dB TRACE 1 2 3 4 5 6 TYPE M N W V D L DET P N N N N N

The spectrum plot shows a signal at 5.786 GHz with a power level of -0.876 dBm. The noise floor is at -46.325 dBm. The reference offset is 10.4 dB and the reference level is 20.40 dBm. The sweep range is from 30 MHz to 40.00 GHz with a resolution bandwidth of 100 kHz and a video bandwidth of 300 kHz.

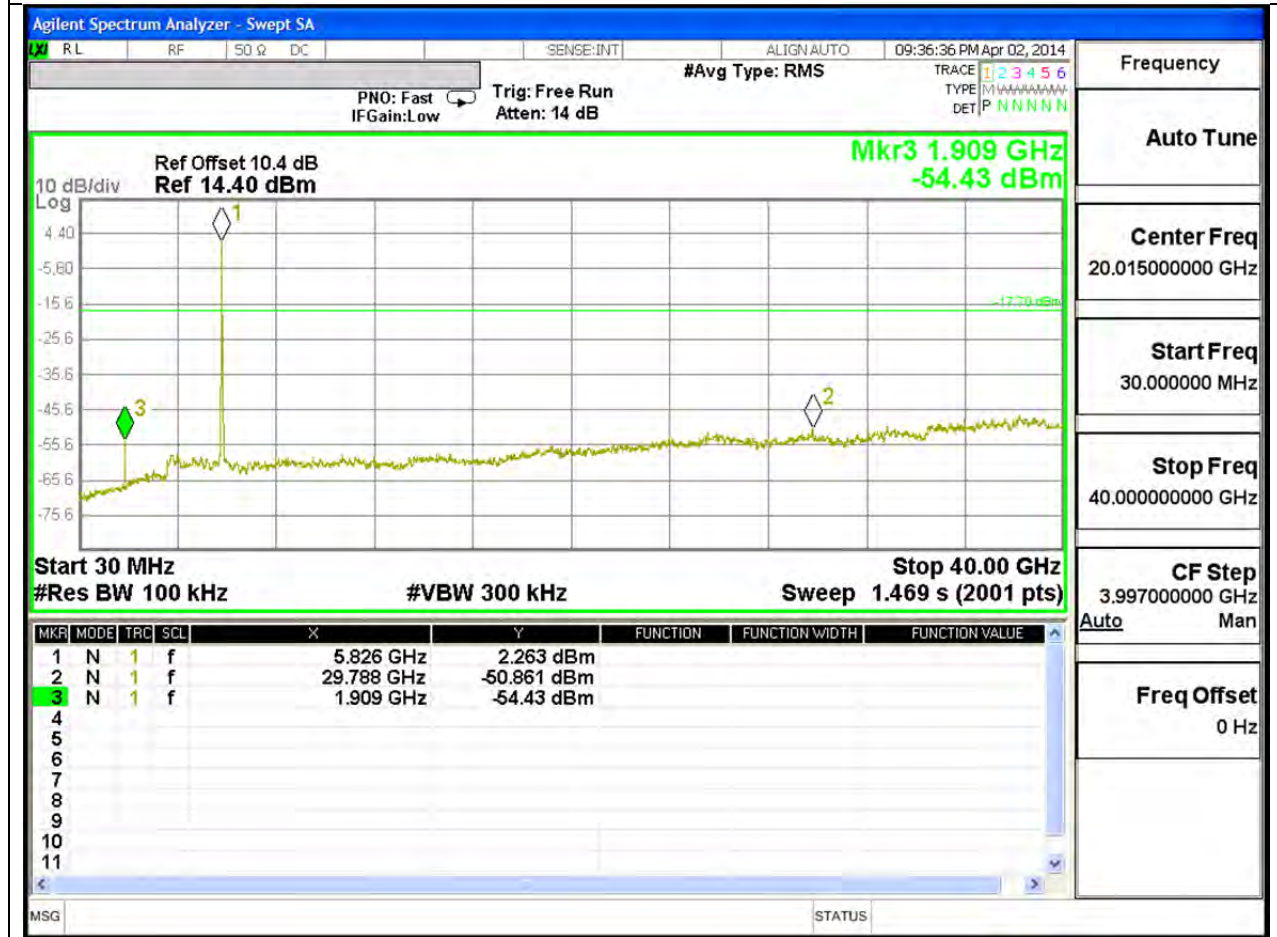
MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	5.786 GHz	-0.876 dBm			
2	N	1	f	25.831 GHz	-46.325 dBm			
3								
4								
5								
6								
7								
8								
9								
10								
11								

Start 30 MHz #Res BW 100 kHz Stop 40.00 GHz Sweep 1.469 s (2001 pts)

Frequency Auto Tune Center Freq 20.015000000 GHz Start Freq 30.000000 MHz Stop Freq 40.000000000 GHz CF Step 3.997000000 GHz Man

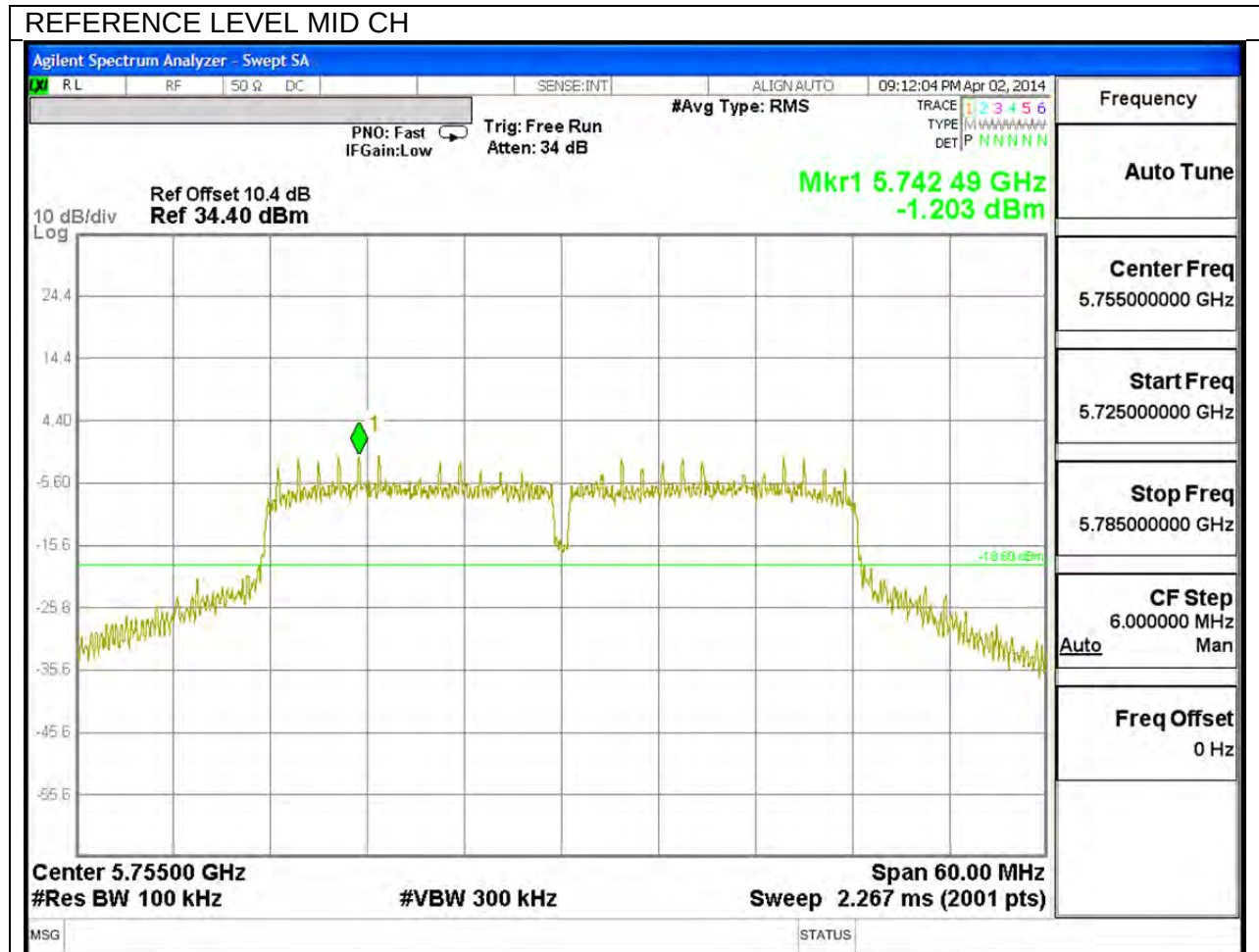
Freq Offset 0 Hz

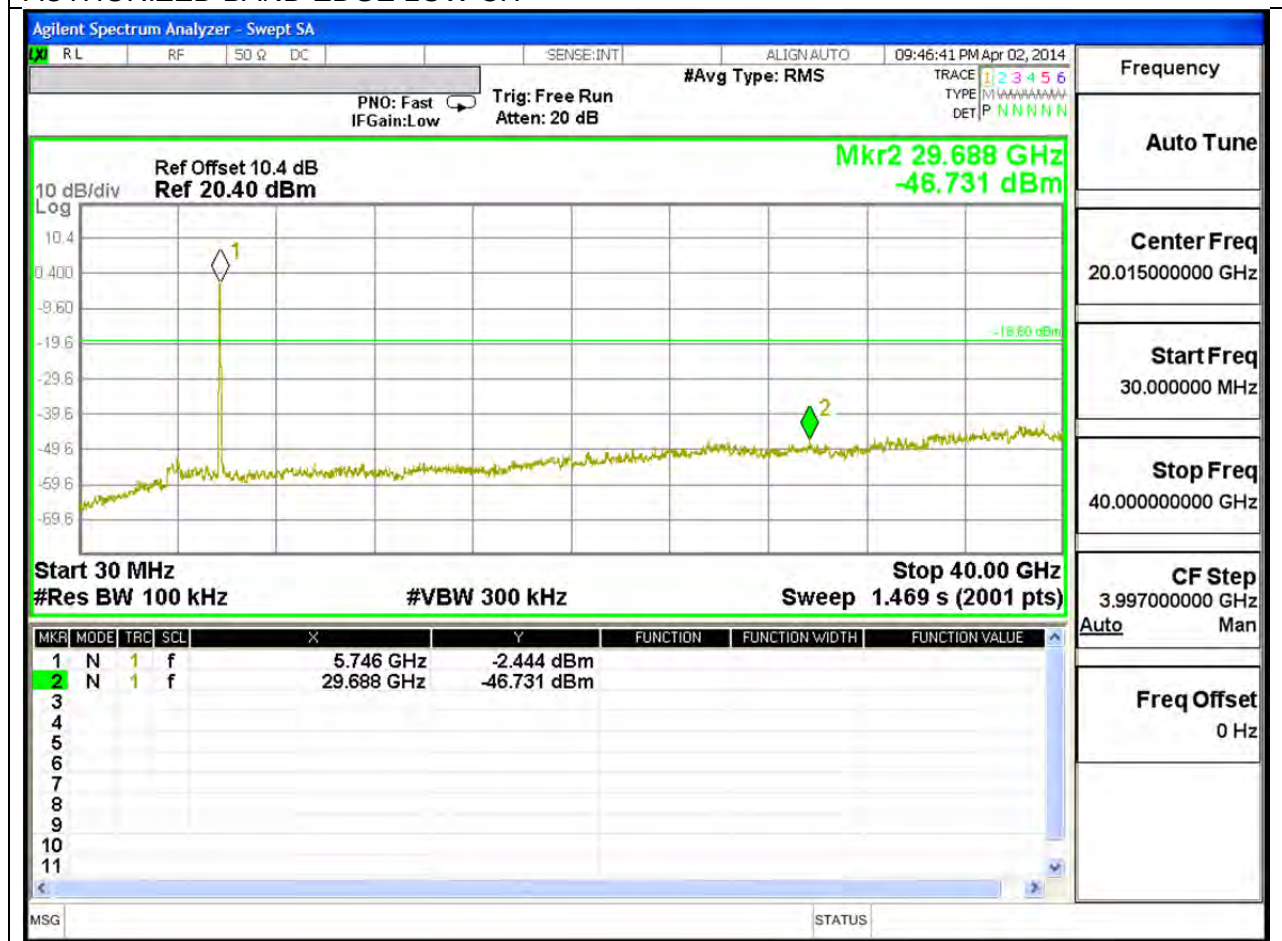
OUT OF BAND HIGH CH



9.6.6. 802.11n HT40 MODE IN THE 5.8 GHz BAND

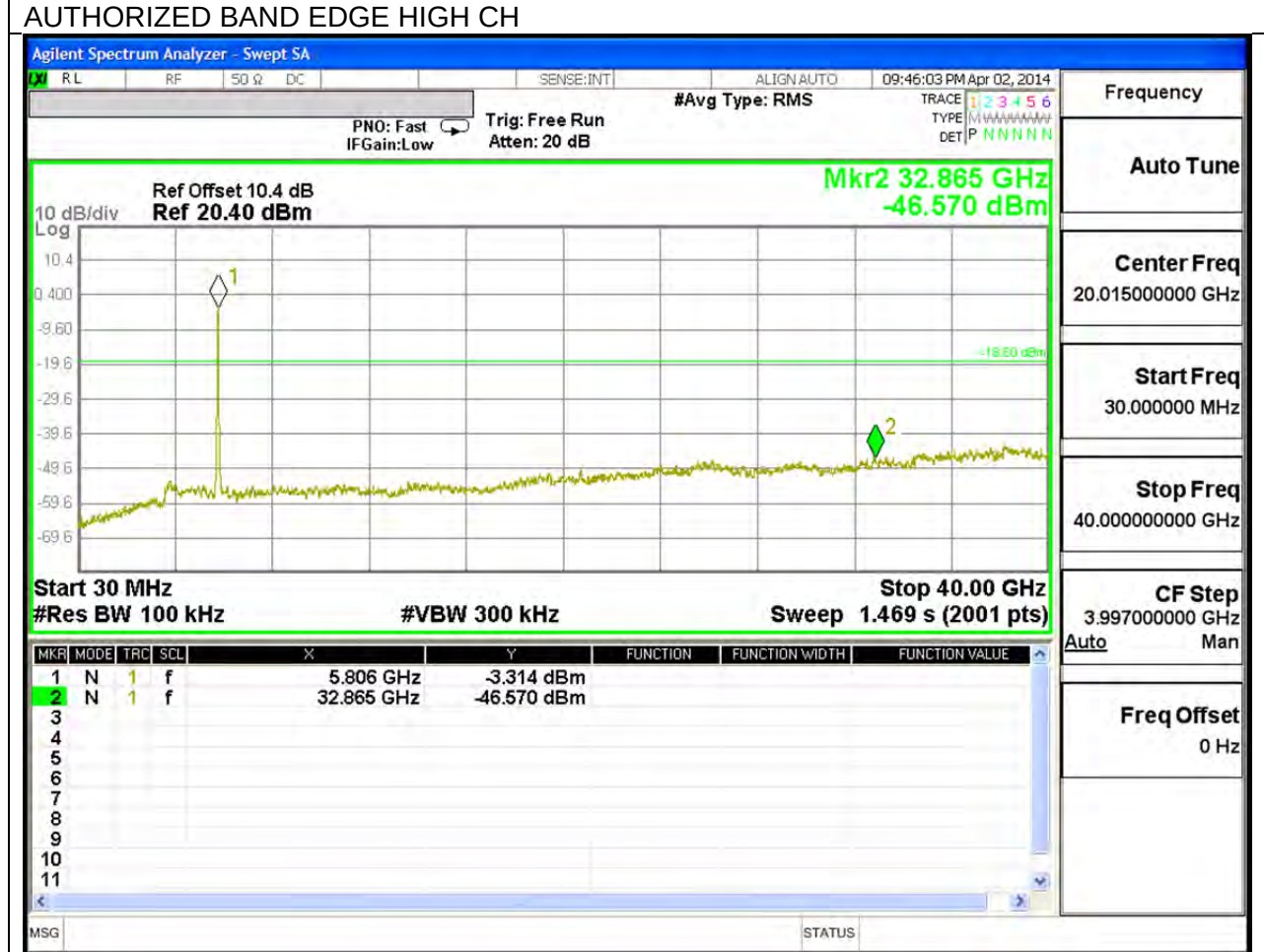
IN-BAND REFERENCE LEVEL

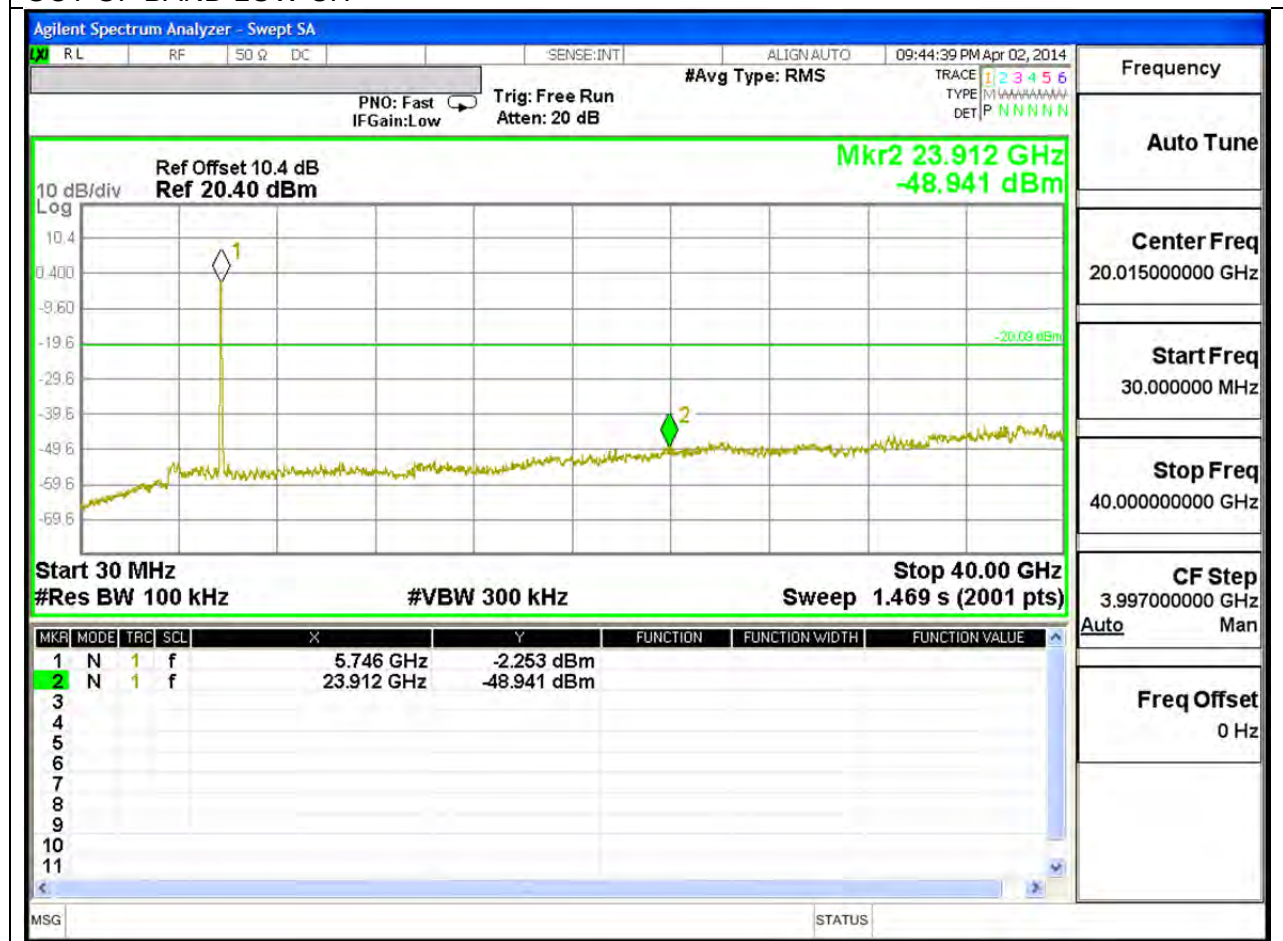


LOW CHANNEL BANDEDGE**AUTHORIZED BAND EDGE LOW CH**

HIGH CHANNEL BANDEDGE

AUTHORIZED BAND EDGE HIGH CH



OUT-OF-BAND EMISSIONS**OUT OF BAND LOW CH**

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω DC SENSE:INT ALIGN AUTO 09:45:21 PM Apr 02, 2014
#Avg Type: RMS TRACE 1 2 3 4 5 6 TYPE M W W W W W W W W DET P N N N N N

PNO: Fast IFGain:Low Trig: Free Run Atten: 20 dB

Ref Offset 10.4 dB Ref 20.40 dBM Mkr2 32.865 GHz -46.570 dBm

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	5.806 GHz	-3.314 dBm			
2	N	1	f	32.865 GHz	-46.570 dBm			
3								
4								
5								
6								
7								
8								
9								
10								
11								

Start 30 MHz Stop 40.00 GHz
#Res BW 100 kHz #VBW 300 kHz Sweep 1.469 s (2001 pts)

MSG STATUS

10. RADIATED TEST RESULTS

10.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

IC RSS-210 Clause 2.6 (Transmitter)

IC RSS-GEN Clause 6 (Receiver)

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

TEST PROCEDURE

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

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

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and add duty cycle factor for average measurements. Duty cycle factor= $10\log(1/x)$ For this sample B mode = 0dB (duty cycle >98%); G mode = 0.3dB; N mode = 0.3dB.

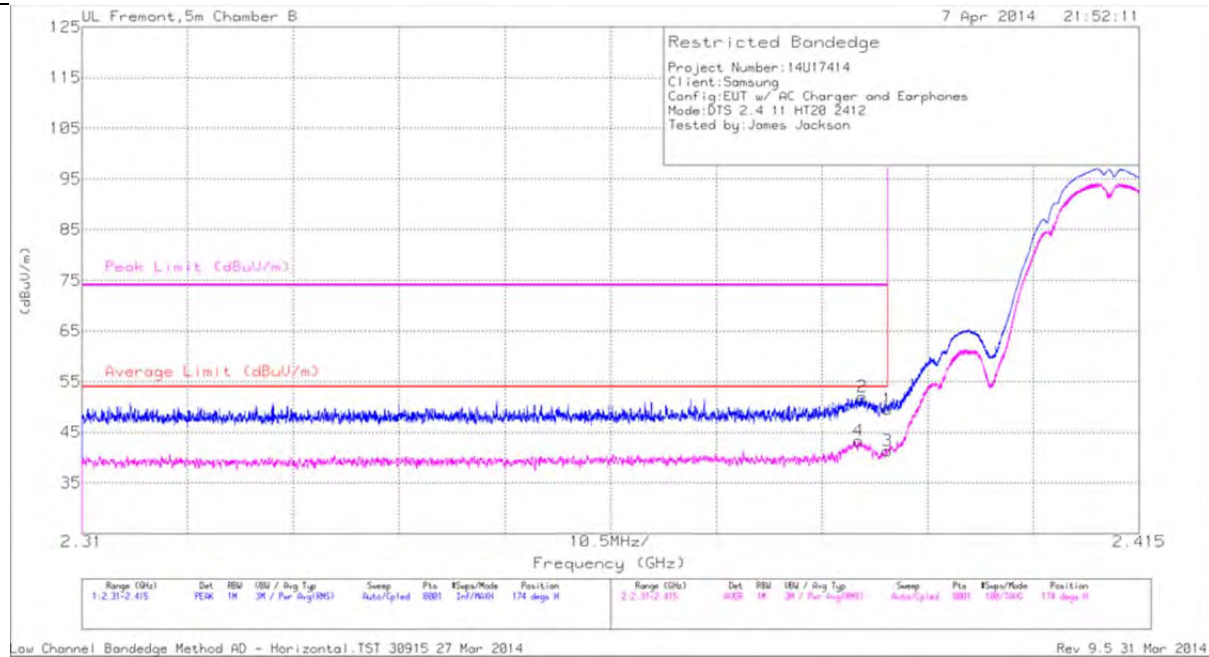
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

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

10.2. TRANSMITTER ABOVE 1 GHz

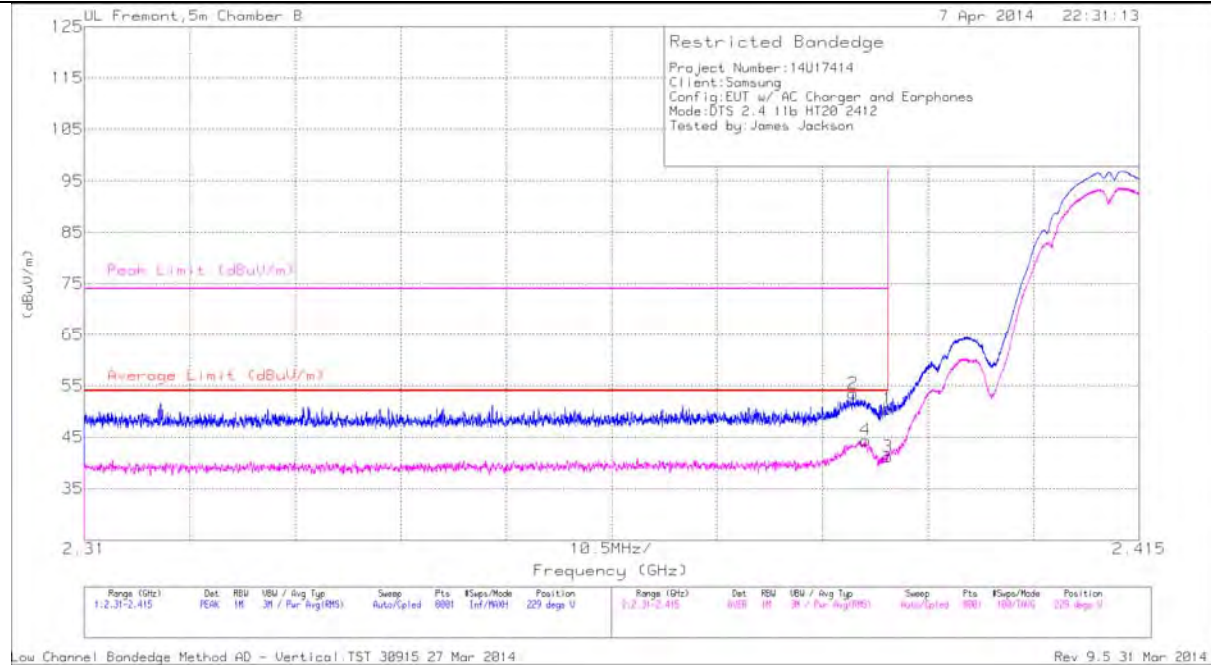
10.2.1. TX ABOVE 1 GHz 802.11b MODE IN THE 2.4 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

LOW CHANNEL RESTRICTED, HORIZ



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AFT345 (dB/m)	Amp/Cbl/Fitter/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	40.3	PK	32.1	-22.9	49.5	-	-	74	-24.5	174	377	H
2	* 2.388	42.77	PK	32.1	-22.9	51.97	-	-	74	-22.03	174	377	H
3	* 2.39	32.03	RMS	32.1	-22.9	41.33	54	-12.67	-	-	174	377	H
4	* 2.387	33.99	RMS	32.1	-22.9	43.29	54	-10.71	-	-	174	377	H

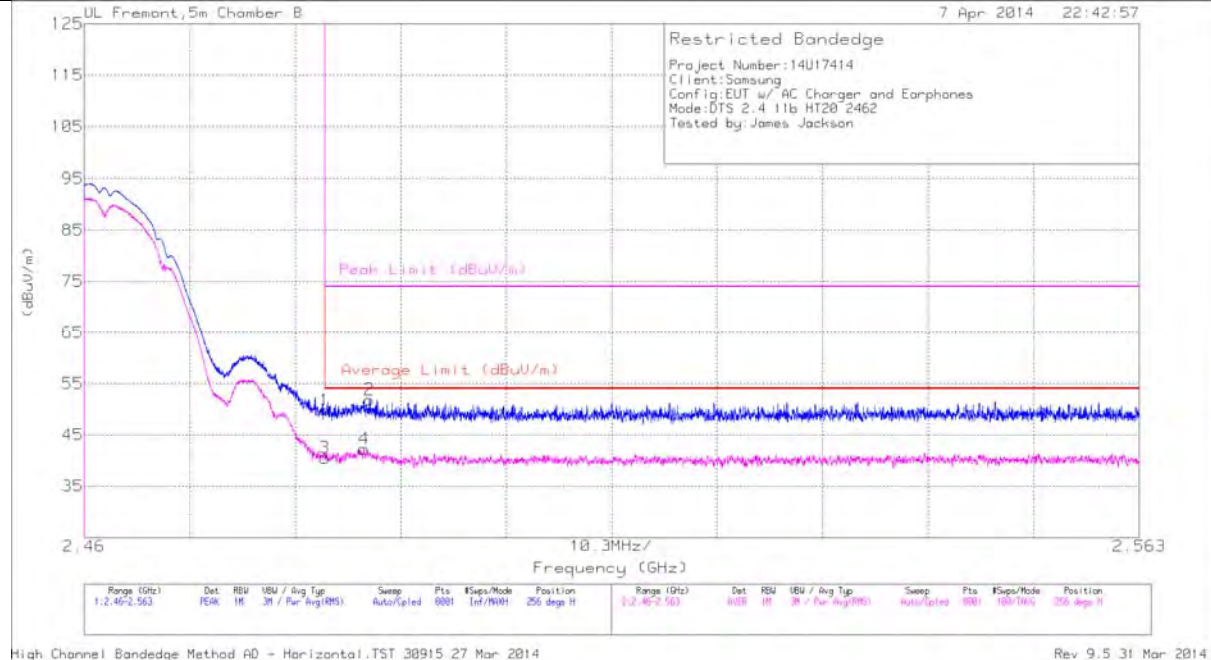
LOW CHANNEL RESTRICTED, VERT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Filt/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.387	44.29	PK	32.1	-22.9	53.49	-	-	74	-20.51	229	211	V
4	* 2.388	35.2	RMS	32.1	-22.9	44.4	54	-9.6	-	-	229	211	V
1	* 2.39	41.33	PK	32.1	-22.9	50.53	-	-	74	-23.47	229	211	V
3	* 2.39	31.99	RMS	32.1	-22.9	41.19	54	-12.81	-	-	229	211	V

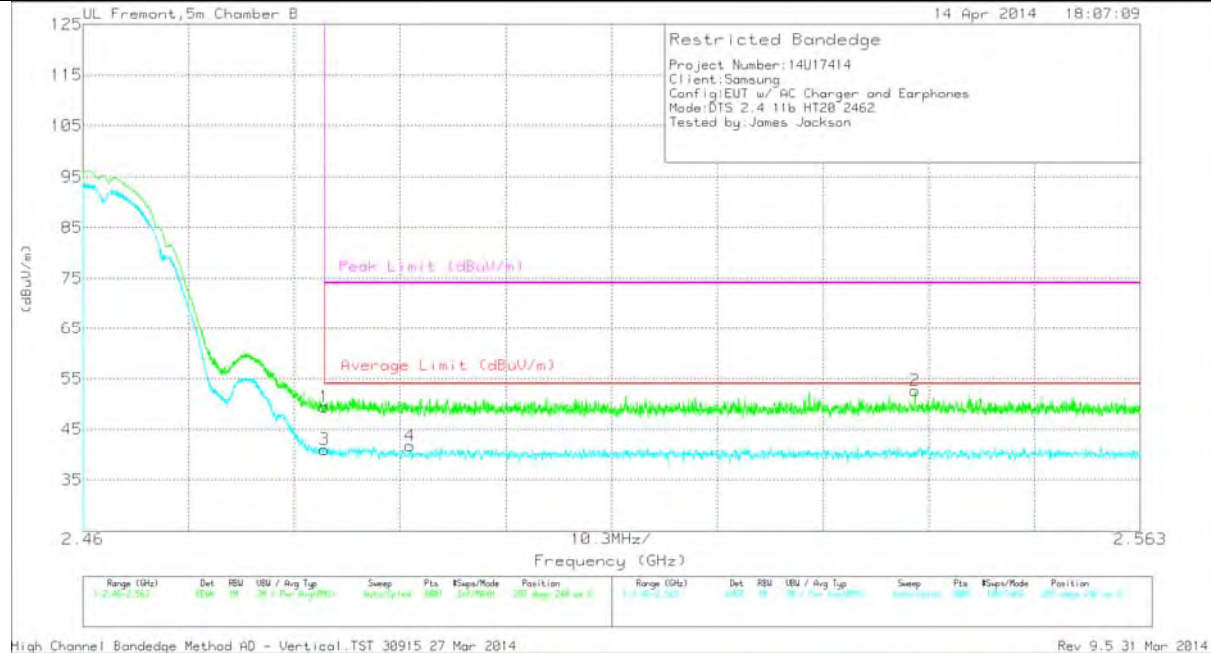
AUTHORIZED BANDEDGE (HIGH CHANNEL)

HIGH CHANNEL RESTRICTED, HORIZ



Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/FI tr/Pad (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	* 2.484	40.03	PK	32.4	-22.6	49.83	-	-	74	-24.17	256	157	H
3	* 2.484	30.6	RMS	32.4	-22.6	40.5	54	-13.5	-	-	256	157	H
4	* 2.487	32.33	RMS	32.4	-22.6	42.23	54	-11.77	-	-	256	157	H
2	* 2.488	42.03	PK	32.4	-22.6	51.83	-	-	74	-22.17	256	157	H

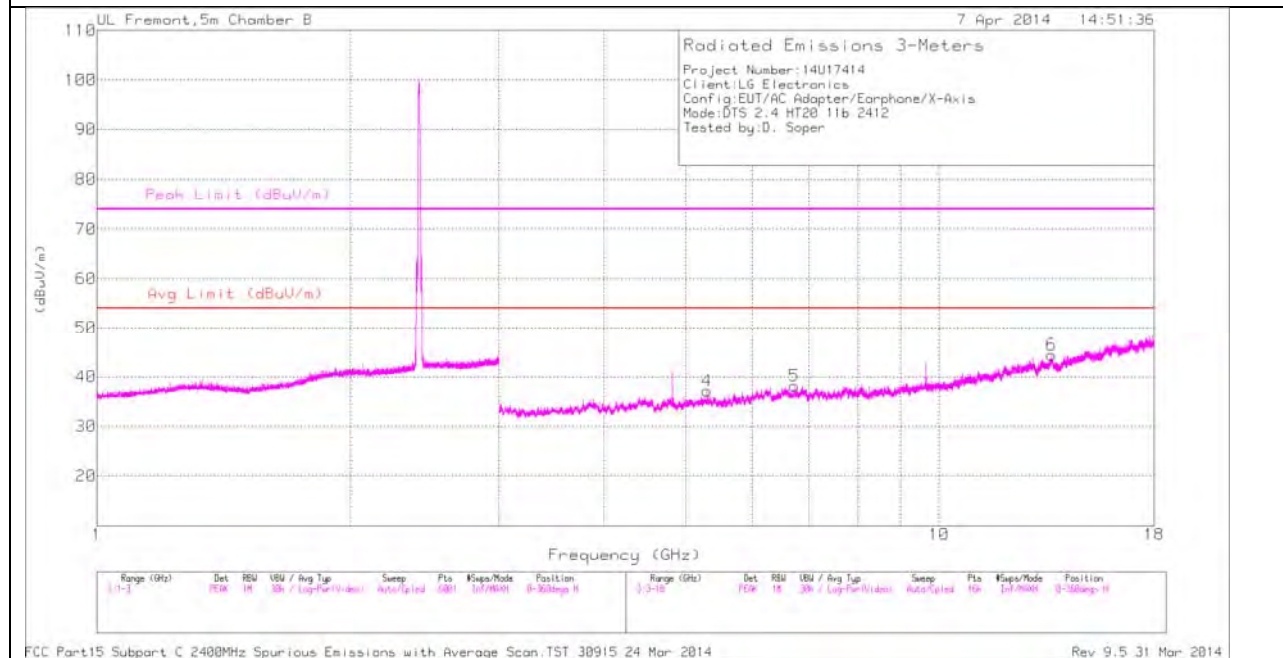
HIGH CHANNEL BANDEDGE, VERT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/CbI/FI tr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	39.61	PK	32.4	-22.6	49.41	-	-	74	-24.59	287	240	V
3	* 2.484	31.14	RMS	32.4	-22.6	41.04	54	-12.96	-	-	287	240	V
4	* 2.492	31.96	RMS	32.4	-22.7	41.76	54	-12.24	-	-	287	240	V
2	2.541	42.6	PK	32.5	-22.5	52.6	-	-	74	-21.4	287	240	V

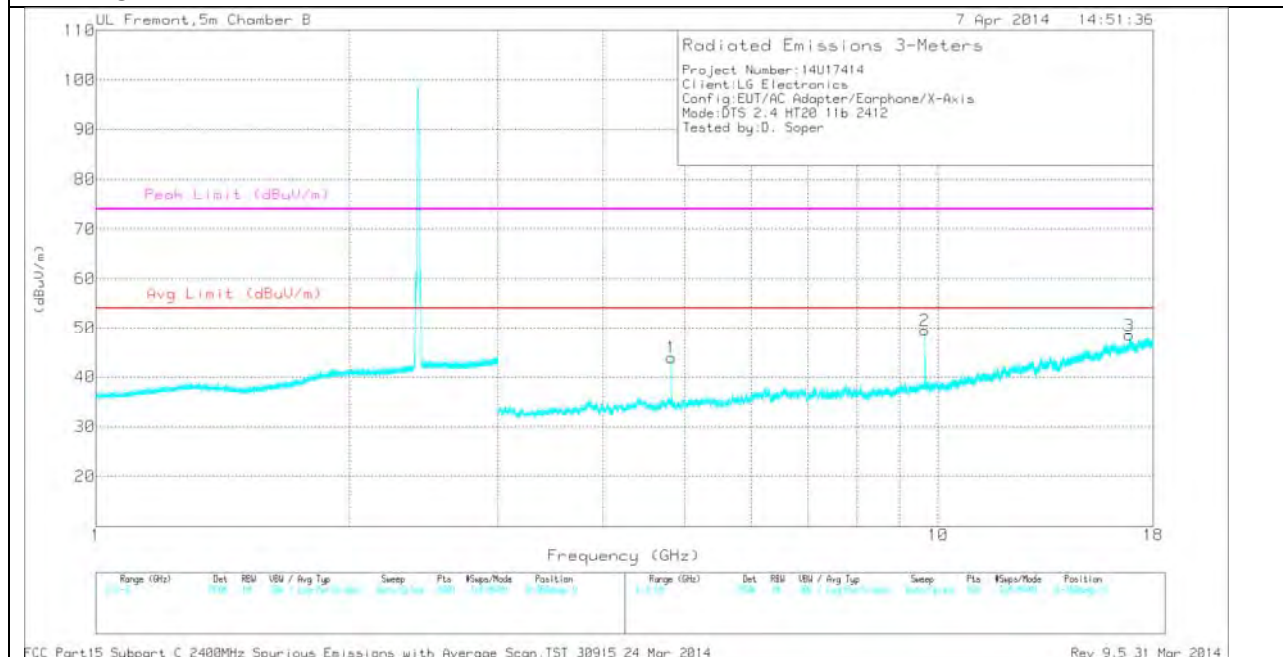
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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

LOW CHANNEL
VERTICAL



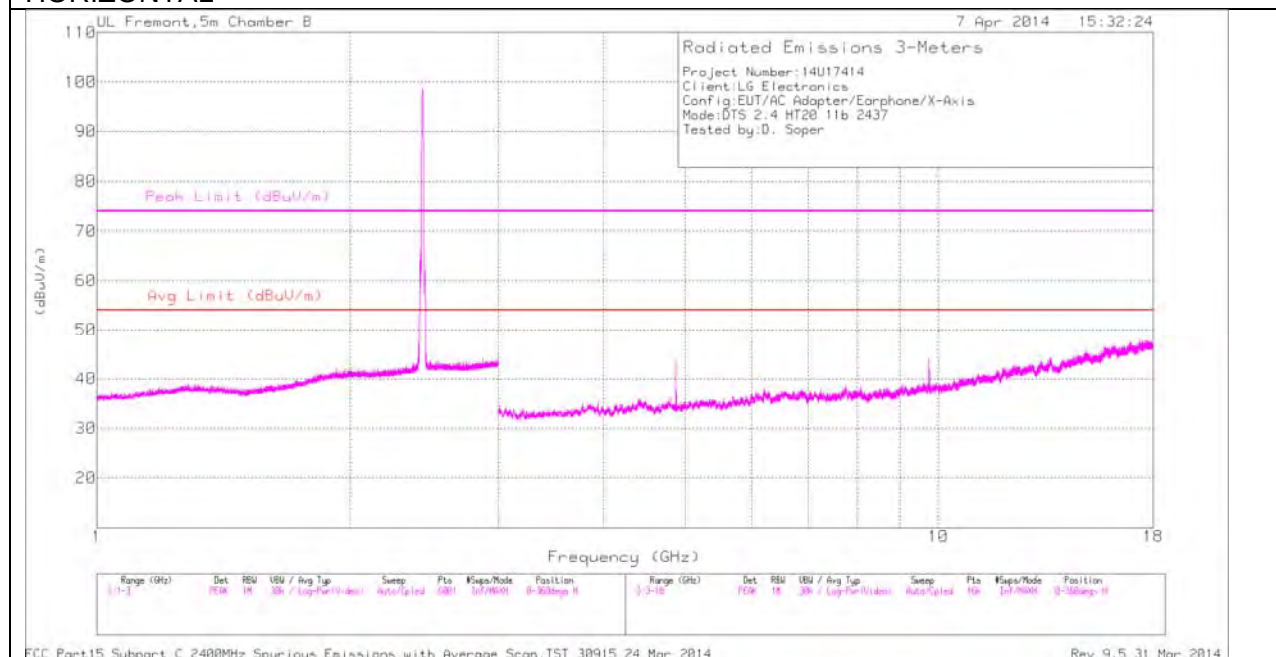
Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.824	39.03	PK	34.2	-29.3	43.93	54	-10.07	74	-30.07	0-360	99	V
4	5.302	31.47	PK	34.4	-28.7	37.17	54	-16.83	74	-36.83	0-360	201	H
5	6.728	31.14	PK	35.7	-28.6	38.24	54	-15.76	74	-35.76	0-360	201	H
2	9.647	36.79	PK	36.8	-24.1	49.49	54	-4.51	74	-24.51	0-360	202	V
6	13.606	26.97	PK	38.8	-21.3	44.47	54	-9.53	74	-29.53	0-360	99	H
3	16.858	26.1	PK	41.4	-19	48.5	54	-5.5	74	-25.5	0-360	99	V

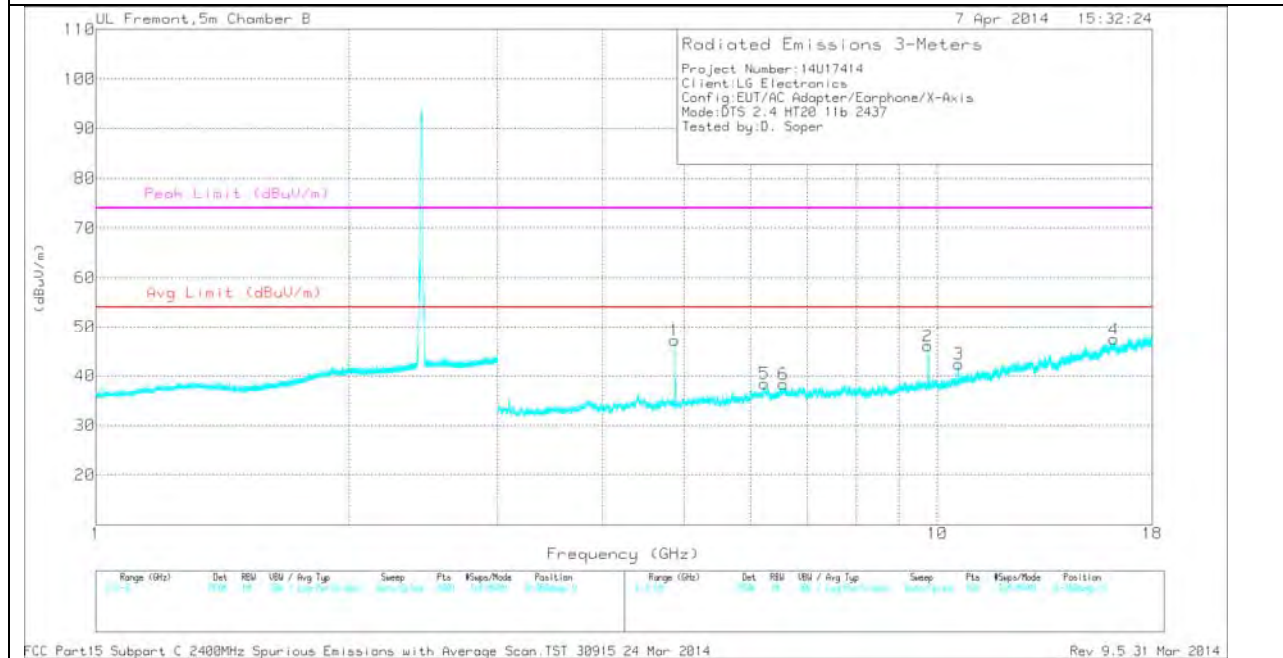
PK - Peak detector

MID CHANNEL
HORIZONTAL



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

MID CHANNEL
VERTICAL



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

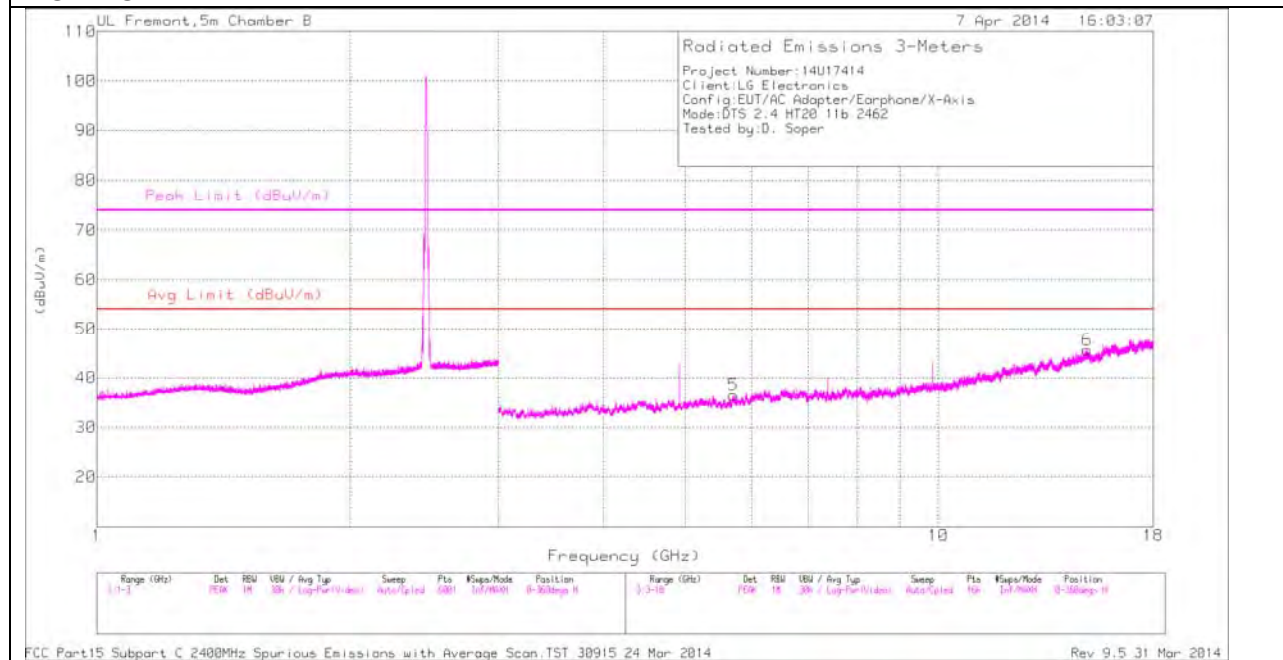
MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.874	43.66	PK	34.2	-30.6	47.26	54	-6.74	74	-26.74	0-360	99	V
3	* 10.603	28.08	PK	37.7	-23.4	42.38	54	-11.62	74	-31.62	0-360	202	V
5	6.227	30.99	PK	35.4	-27.9	38.49	54	-15.51	74	-35.51	0-360	99	V
6	6.563	29.97	PK	35.7	-27.3	38.37	54	-15.63	74	-35.63	0-360	202	V
2	9.748	33.41	PK	36.9	-24.2	46.11	54	-7.89	74	-27.89	0-360	202	V
4	16.214	26.21	PK	41.1	-19.9	47.41	54	-6.59	74	-26.59	0-360	202	V

PK - Peak detector

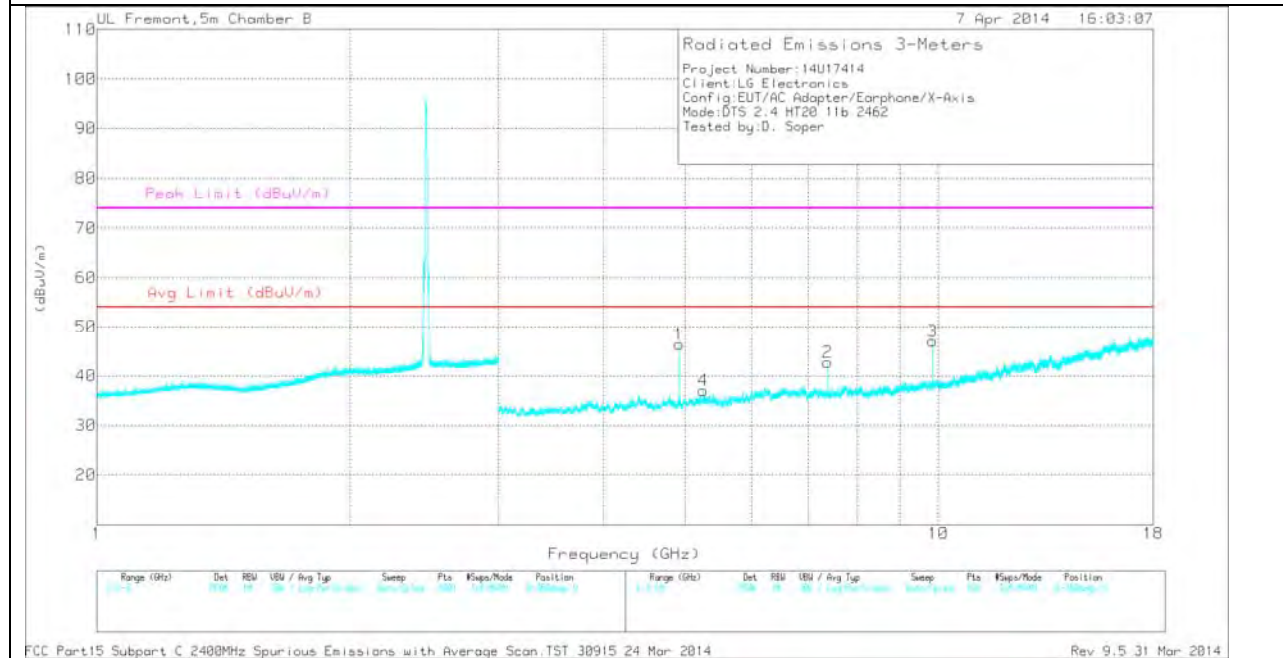
FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

HIGH CHANNEL
HORIZONTAL



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

HIGH CHANNEL
VERTICAL



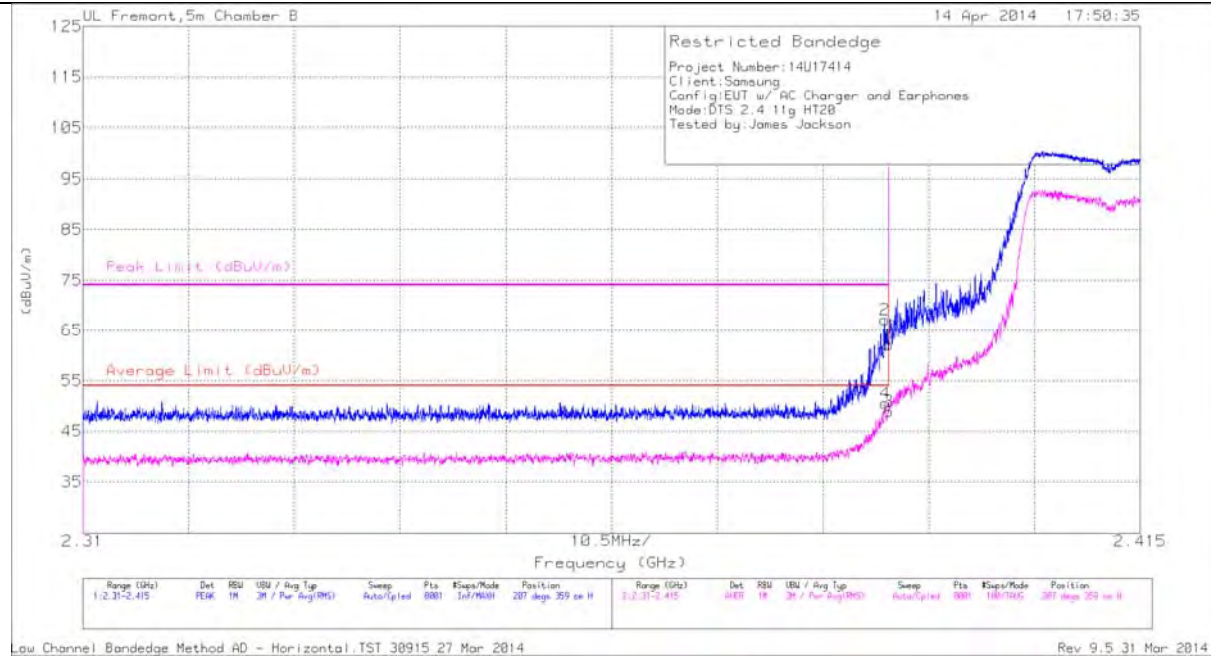
Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.924	42.98	PK	34.2	-30.7	46.48	54	-7.52	74	-27.52	0-360	99	V
2	* 7.384	34.56	PK	35.6	-27.4	42.76	54	-11.24	74	-31.24	0-360	202	V
4	5.257	32.5	PK	34.4	-29.8	37.1	54	-16.9	74	-36.9	0-360	99	V
5	5.708	31.03	PK	34.5	-29	36.53	54	-17.47	74	-37.47	0-360	202	H
3	9.848	34.15	PK	37	-24.1	47.05	54	-6.95	74	-26.95	0-360	202	V
6	15.025	26.37	PK	39.7	-20.4	45.67	54	-8.33	74	-28.33	0-360	99	H

PK - Peak detector

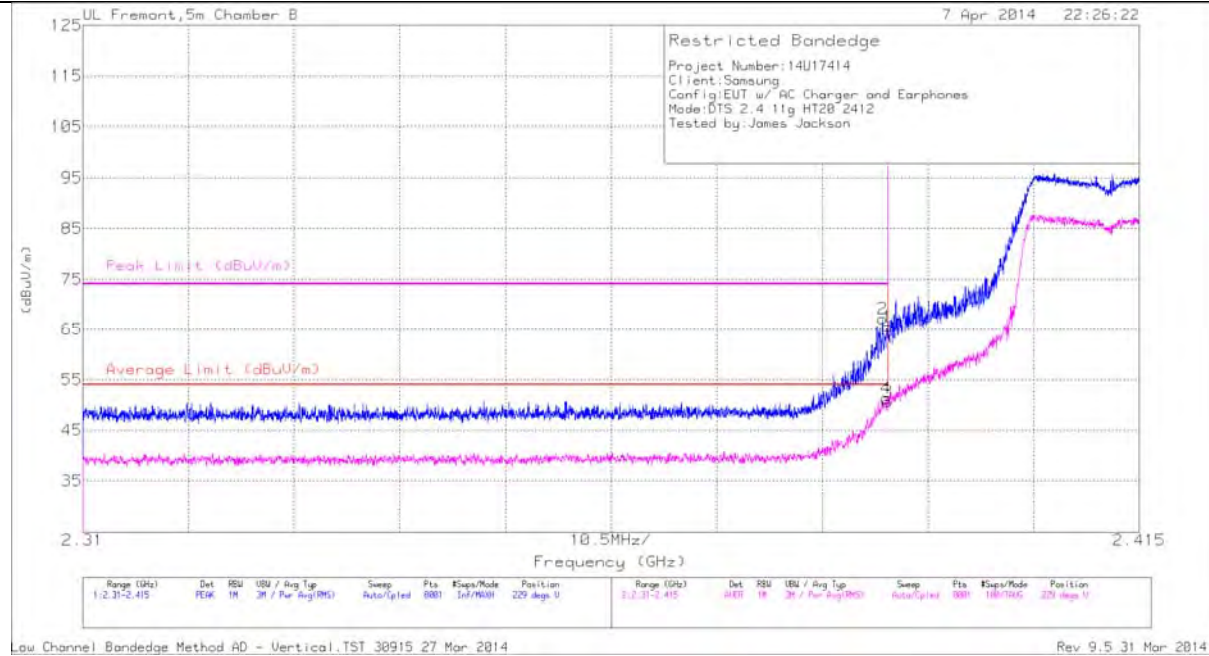
10.2.2. TX ABOVE 1 GHz 802.11g MODE IN THE 2.4 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

LOW CHANNEL RESTRICTED, HORIZ



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AFT345 (dB/m)	Amp/Cb/Filter/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	* 2.39	52.93	PK	32.1	-22.9	0	62.13	-	-	74	-11.87	207	359	H
2	* 2.39	58.02	PK	32.1	-22.9	0	67.22	-	-	74	-6.78	207	359	H
3	* 2.39	39.39	RMS	32.1	-22.9	.3	48.89	54	-5.11	-	-	207	359	H
4	* 2.39	41	RMS	32.1	-22.9	.3	50.5	54	-3.5	-	-	207	359	H

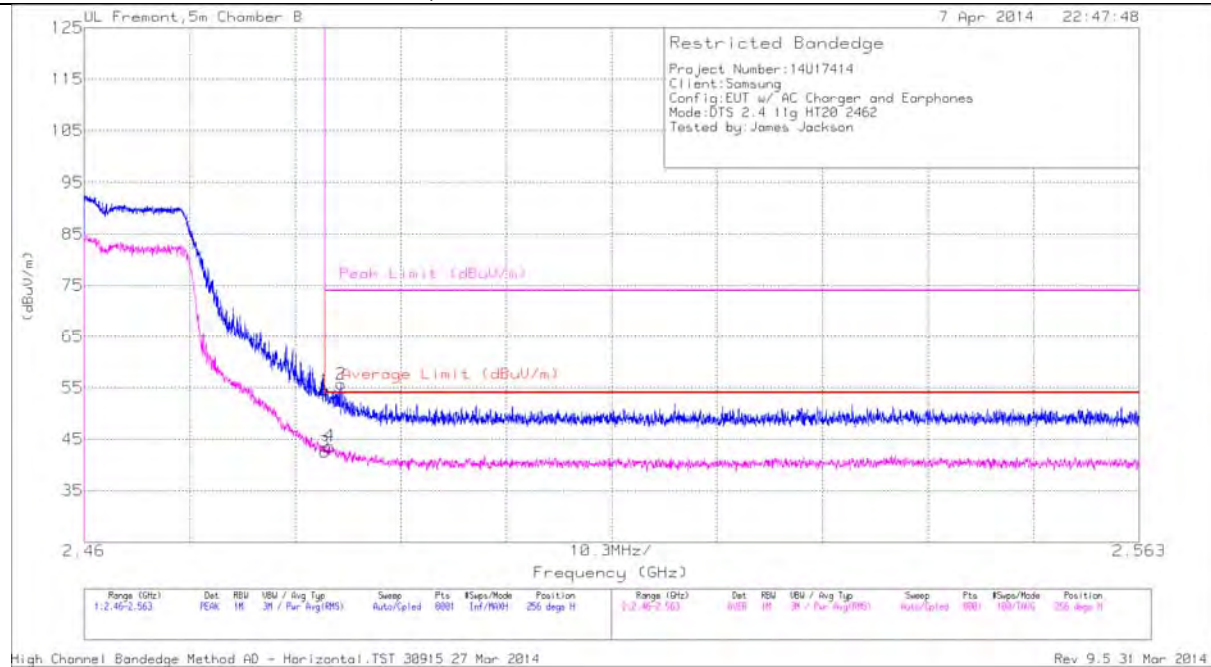
LOW CHANNEL RESTRICTED, VERT



Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl /Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/ m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.389	57.98	PK	32.1	-22.9	0	67.18	-	-	74	-6.82	229	211	V
1	* 2.39	56.33	PK	32.1	-22.9	0	65.53	-	-	74	-8.47	229	211	V
3	* 2.39	41.48	RMS	32.1	-22.9	-3	50.68	54	-3.32	-	-	229	211	V
4	* 2.39	42.04	RMS	32.1	-22.9	-3	51.24	54	-2.76	-	-	229	211	V

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HIGH CHANNEL RESTRICTED, HORIZ

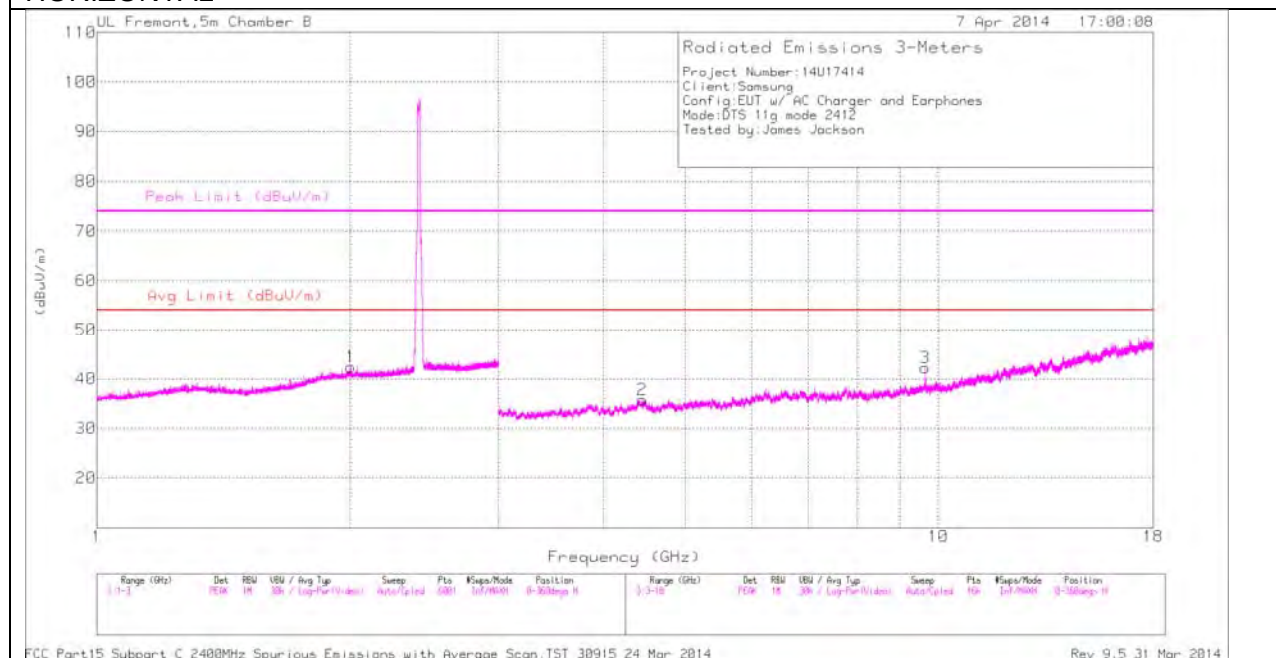


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fit r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	44.68	PK	32.4	-22.6	0	54.48	-	-	74	-19.52	256	157	H
3	* 2.484	32.38	RMS	32.4	-22.6	.3	42.48	54	-11.52	-	-	256	157	H
4	* 2.484	33.55	RMS	32.4	-22.6	.3	43.65	54	-10.35	-	-	256	157	H
2	* 2.485	45.87	PK	32.4	-22.6	0	55.67	-	-	74	-18.33	256	157	H

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cb/Fl 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	* 2.484	39.67	PK	32.4	-22.6	0	49.47	-	-	74	-24.53	303	304	V
2	* 2.484	43.63	PK	32.4	-22.6	0	53.43	-	-	74	-20.57	303	304	V
3	* 2.484	31.16	RMS	32.4	-22.6	.3	41.26	54	-12.74	-	-	303	304	V
4	* 2.484	32.19	RMS	32.4	-22.6	.3	42.29	54	-11.71	-	-	303	304	V

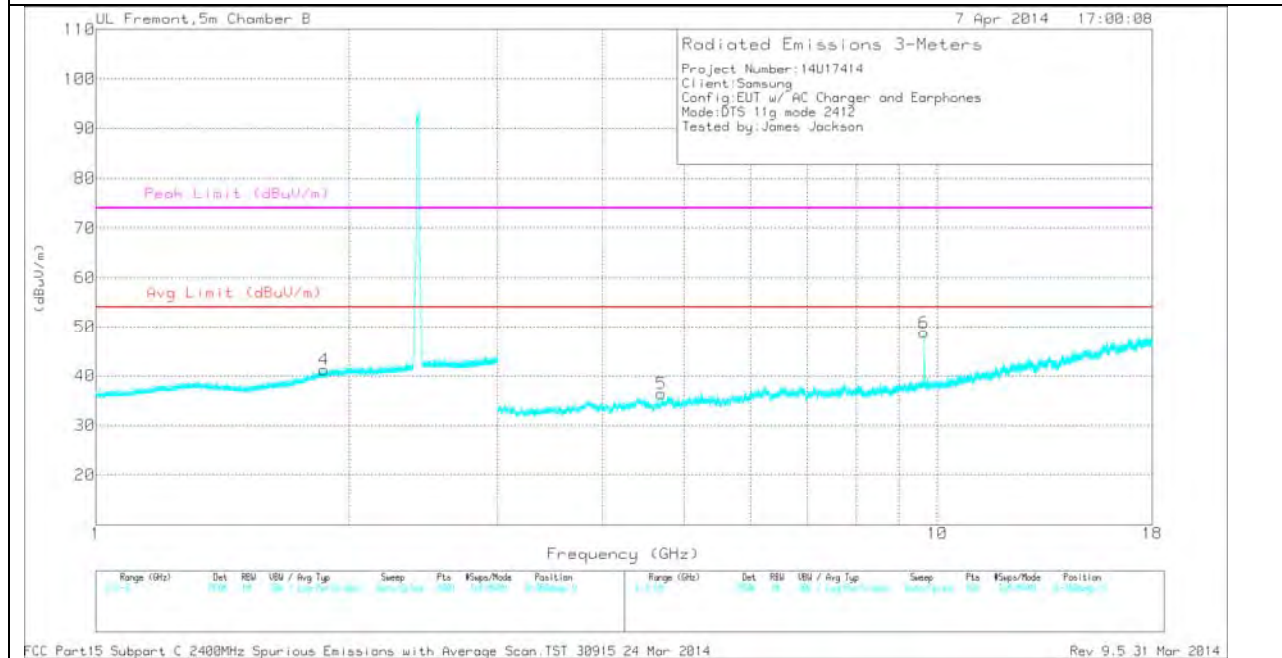
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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

LOW CHANNEL
VERTICAL

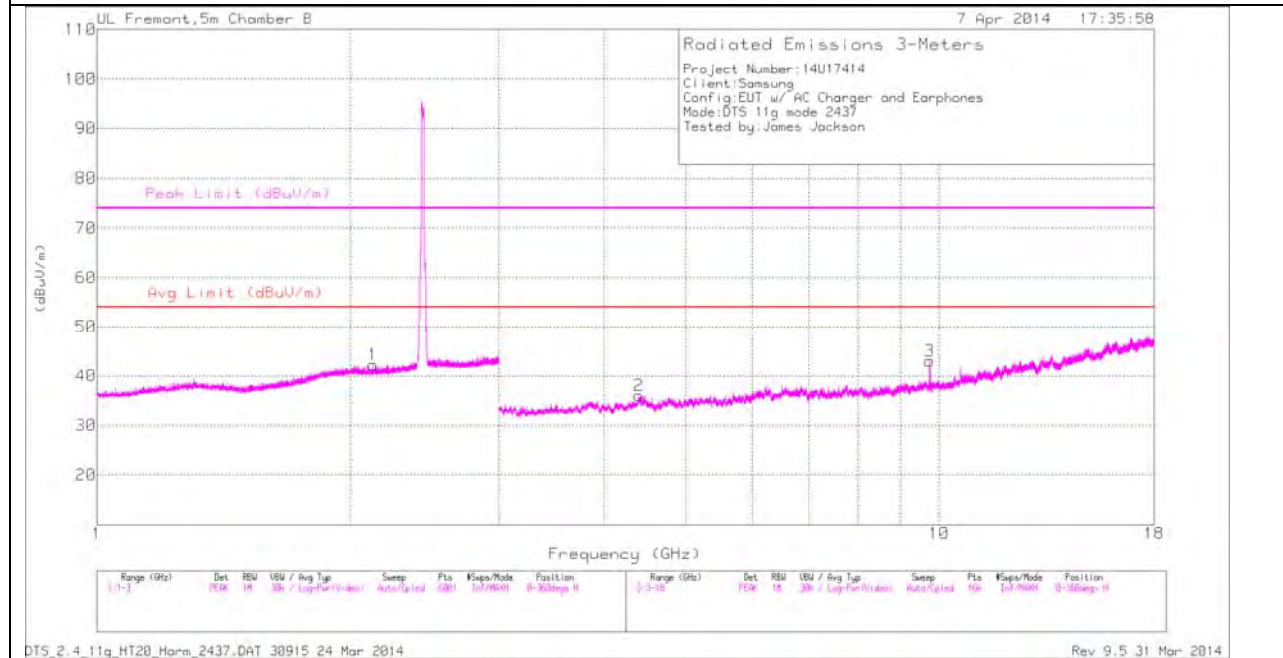


Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

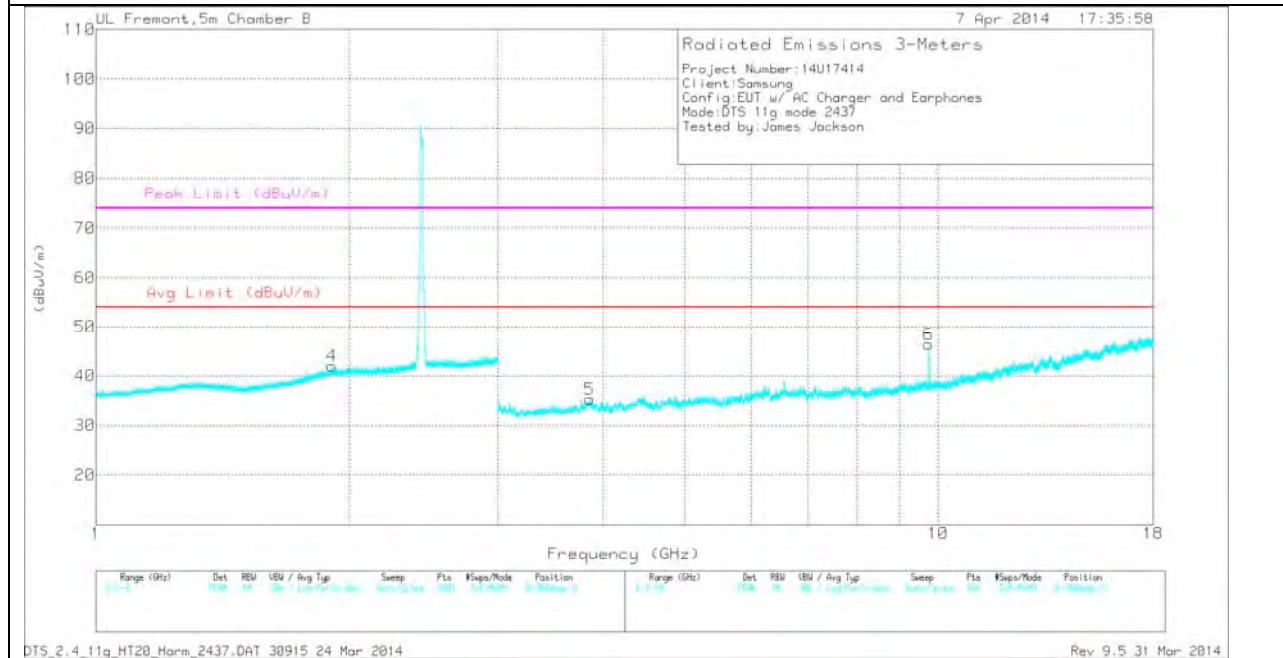
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	* 4.7	31.97	PK	34.2	-29.8	36.37	54	-17.63	74	-37.63	0-360	202	V
4	1.865	34.11	PK	30.8	-23.7	41.21	54	-12.79	74	-32.79	0-360	202	V
1	2.001	34.45	PK	31.4	-23.5	42.35	54	-11.65	74	-31.65	0-360	99	H
2	4.447	30.88	PK	33.9	-29	35.78	54	-18.22	74	-38.22	0-360	202	H
3	9.647	29.57	PK	36.8	-24.1	42.27	54	-11.73	74	-31.73	0-360	202	H
6	9.647	36.14	PK	36.8	-24.1	48.84	54	-5.16	74	-25.16	0-360	202	V

MID CHANNEL
HORIZONTAL



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

MID CHANNEL
VERTICAL



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

MID CHANNEL DATA

Trace Markers

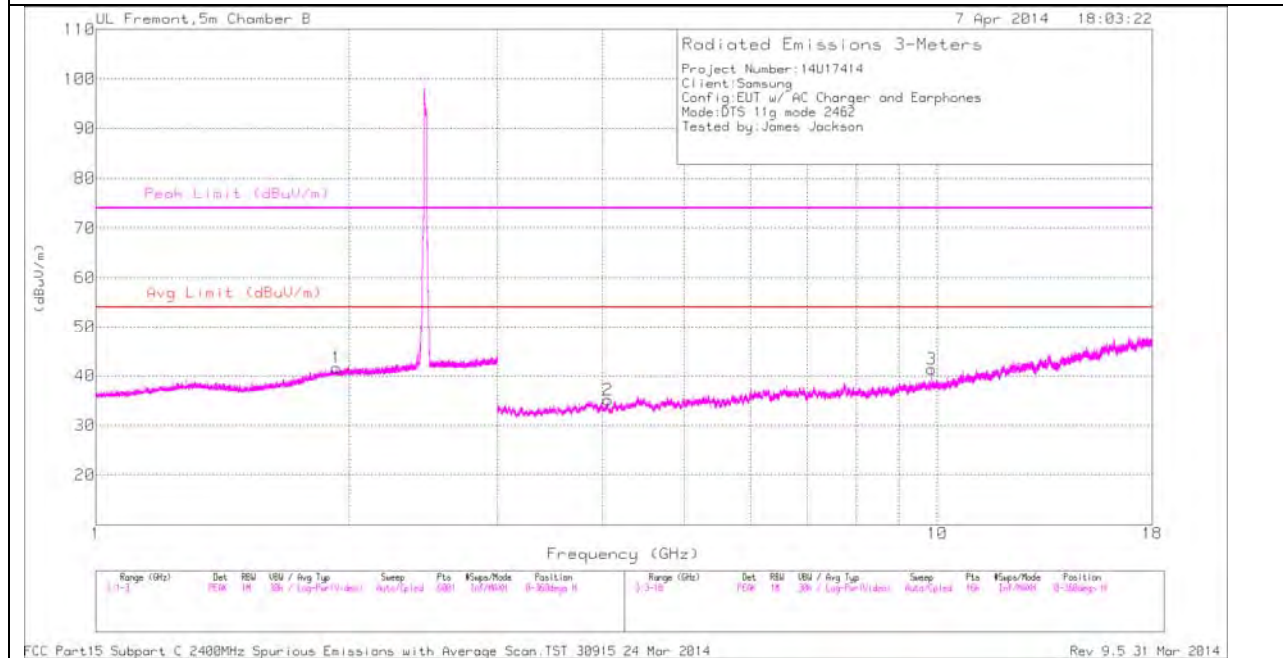
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.398	32.17	PK	33.8	-29.9	36.07	54	-17.93	74	-37.93	0-360	202	H
5	* 3.857	31.78	PK	33.7	-30.2	35.28	54	-18.72	74	-38.72	0-360	99	V
4	1.906	34.45	PK	31.1	-23.6	41.95	54	-12.05	74	-32.05	0-360	202	V
1	2.127	34.24	PK	31.3	-23.3	42.24	54	-11.76	74	-31.76	0-360	202	H
3	9.748	30.35	PK	36.9	-24.2	43.05	54	-10.95	74	-30.95	0-360	202	H
6	9.748	33.72	PK	36.9	-24.2	46.42	54	-7.58	74	-27.58	0-360	202	V

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

PK - Peak detector

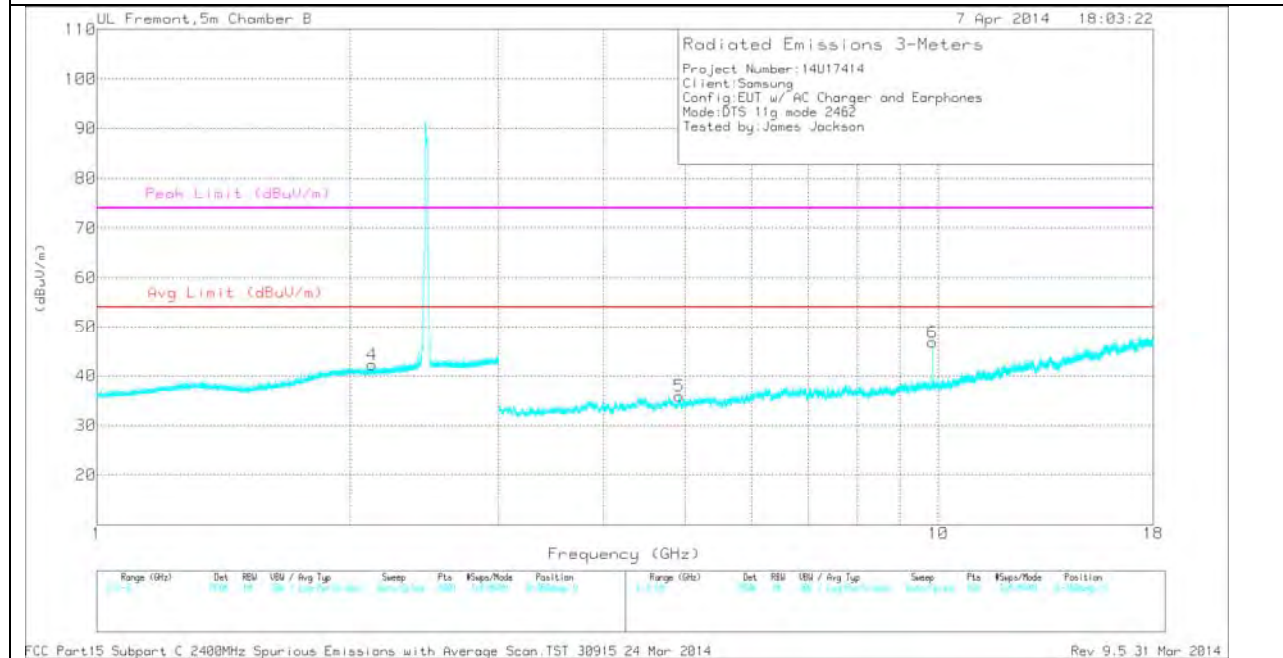
Radiated Emissions

HIGH CHANNEL HORIZONTAL



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

HIGH CHANNEL
VERTICAL



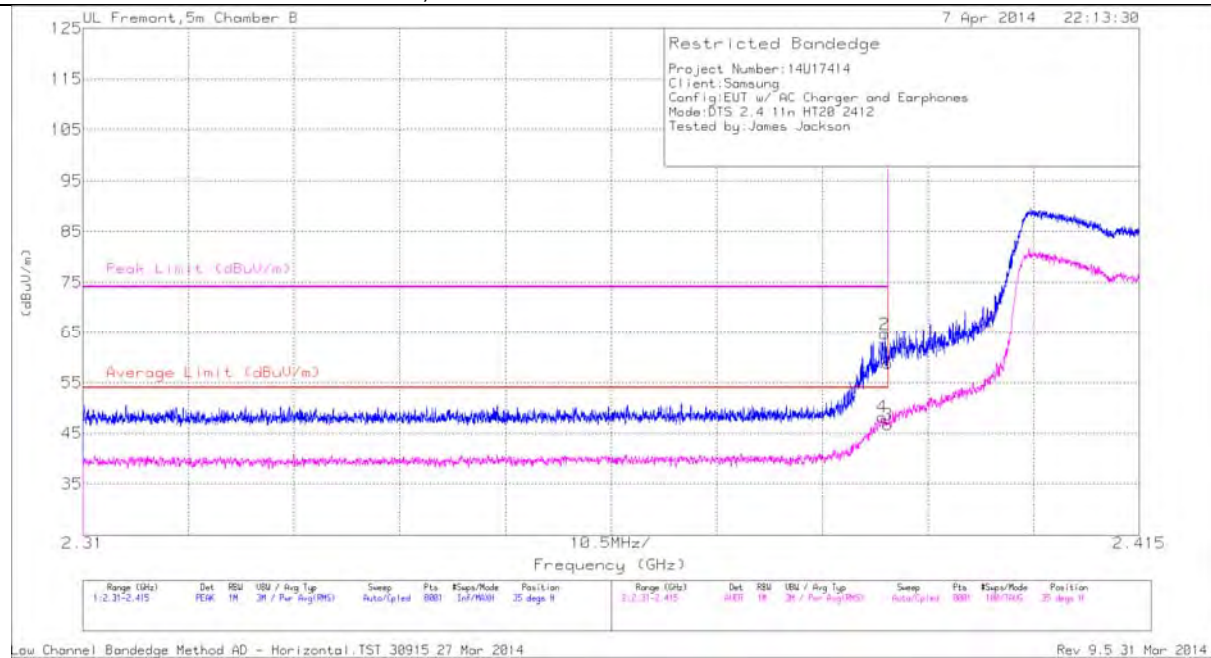
Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.058	32.31	PK	33.6	-30.8	35.11	54	-18.89	74	-38.89	0-360	202	H
5	* 4.923	32.43	PK	34.2	-30.7	35.93	54	-18.07	74	-38.07	0-360	99	V
1	1.931	34.06	PK	31.2	-23.6	41.66	54	-12.34	74	-32.34	0-360	99	H
4	2.123	34.3	PK	31.3	-23.3	42.3	54	-11.7	74	-31.7	0-360	99	V
3	9.847	28.51	PK	37	-24.1	41.41	54	-12.59	74	-32.59	0-360	202	H
6	9.848	33.9	PK	37	-24.1	46.8	54	-7.2	74	-27.2	0-360	202	V

PK - Peak detector

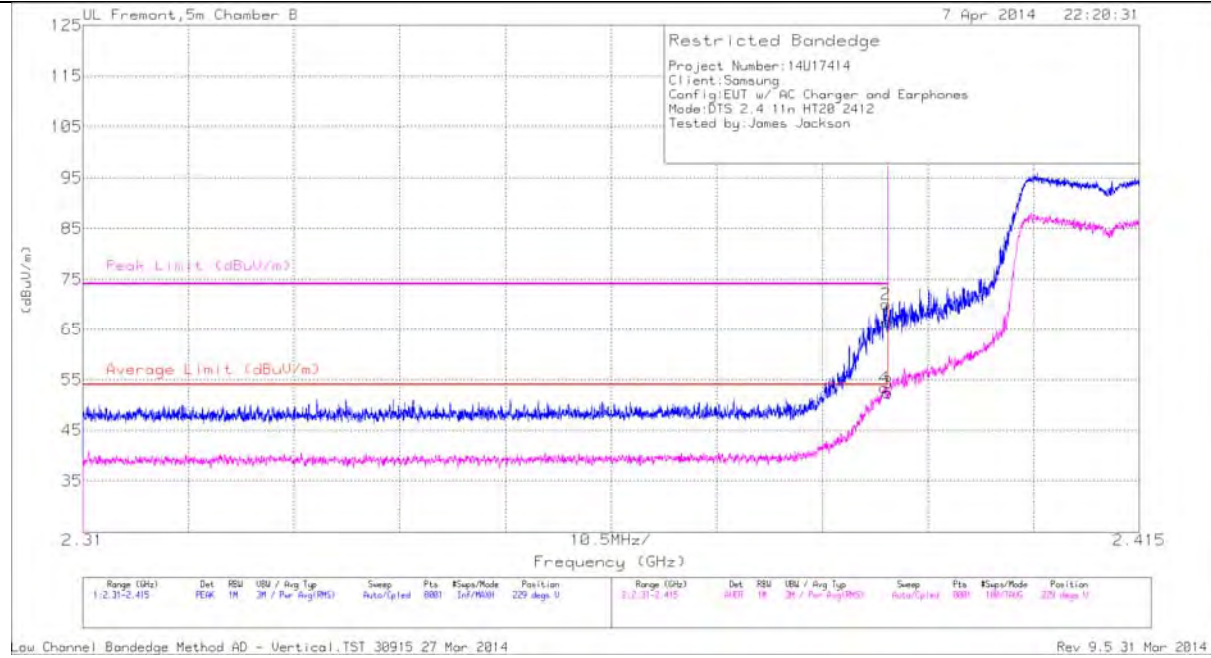
10.2.3. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 2.4 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

LOW CHANNEL RESTRICTED, HORIZ



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AFT345 (dB/m)	Amp/Cb/Filter/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	* 2.39	49.64	PK	32.1	-22.9	0	58.84	-	-	74	-15.16	35	213	H
2	* 2.39	55.55	PK	32.1	-22.9	0	64.75	-	-	74	-9.25	35	213	H
3	* 2.39	37.16	RMS	32.1	-22.9	.3	46.66	54	-7.34	-	-	35	213	H
4	* 2.389	38.74	RMS	32.1	-22.9	.3	48.24	54	-5.76	-	-	35	213	H

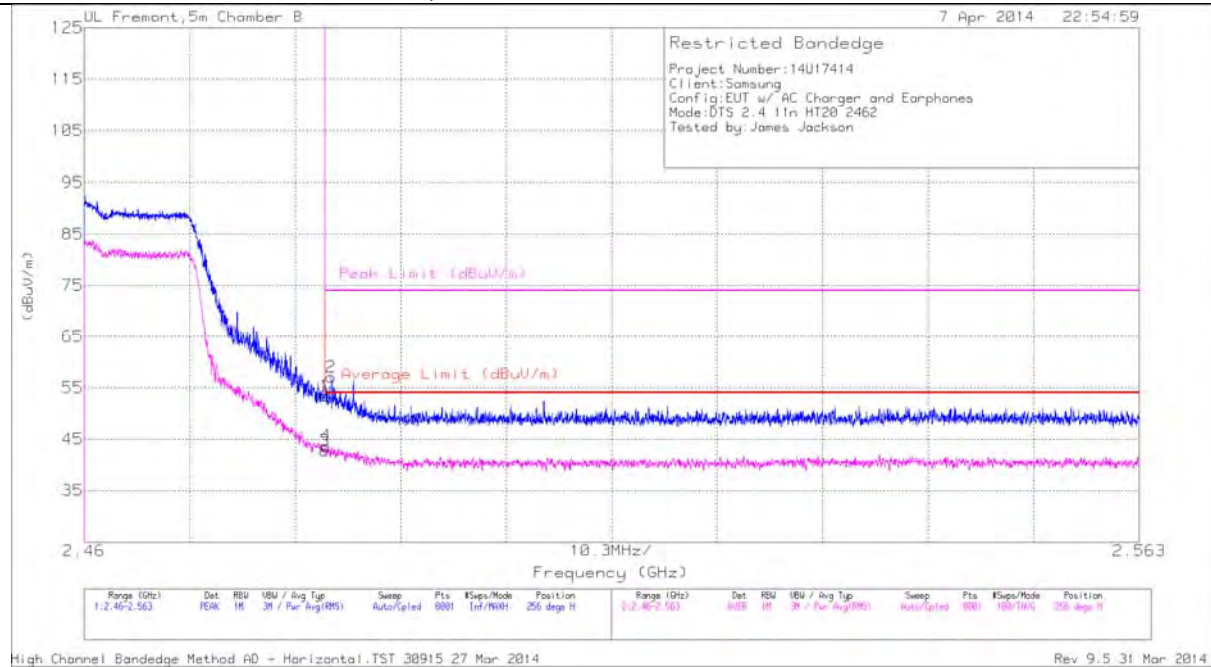
LOW CHANNEL RESTRICTED, VERT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Filt/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	57.33	PK	32.1	-22.9	66.53	-	-	74	-7.47	229	211	V
2	* 2.39	60.87	PK	32.1	-22.9	70.07	-	-	74	-3.93	229	211	V
3	* 2.39	43.15	RMS	32.1	-22.9	52.35	54	-1.65	-	-	229	211	V
4	* 2.39	44.18	RMS	32.1	-22.9	53.38	54	-62	-	-	229	211	V

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HIGH CHANNEL RESTRICTED, HORIZ



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fit r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	43.58	PK	32.4	-22.6	0	53.38	-	-	74	-20.62	256	157	H
2	* 2.484	47.23	PK	32.4	-22.6	0	57.03	-	-	74	-16.97	256	157	H
3	* 2.484	32.62	RMS	32.4	-22.6	.3	42.72	54	-11.28	-	-	256	157	H
4	* 2.484	33.56	RMS	32.4	-22.6	.3	43.66	54	-10.34	-	-	256	157	H

UL Fremont, 5m Chamber B

7 Apr 2014 23:02:01

Restricted Bandedge
 Project Number: 14U17414
 Client: Samsung
 Config: EUT w/ AC Charger and Earphones
 Mode: DTS 2.4.11n HT20 2462
 Tested by: James Jackson

Peak Limit (dBuV/m)

Average Limit (dBuV/m)

10.3MHz/

Frequency (GHz)

Range (GHz)	Det	RBW	VBW / Avg Typ	Sweep	Pts	#Seps/Mode	Position	Range (GHz)	Det	RBW	VBW / Avg Typ	Sweep	Pts	#Seps/Mode	Position
1.2-4.2.563	Peak	10	10 / Full Avg (R)	Auto/Track	5001	101/Point	0.1 Step 1	1.2-4.2.563	Peak	10	10 / Full Avg (R)	Auto/Track	5001	101/Point	0.1 Step 1

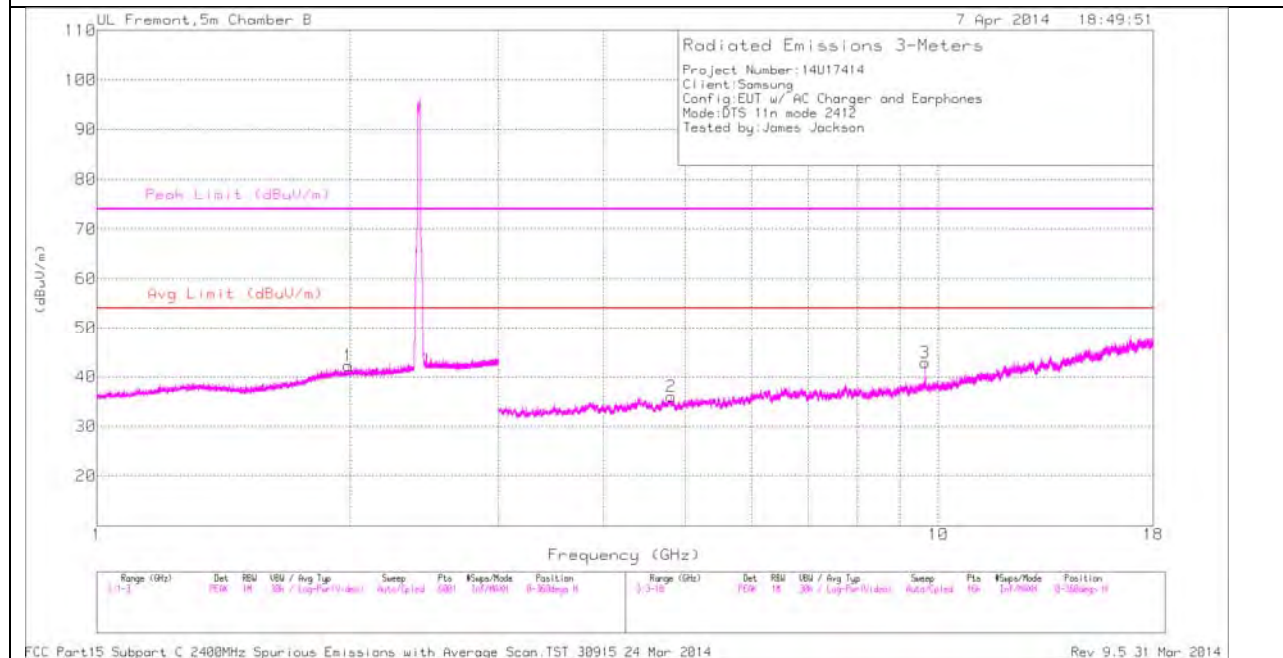
High Channel Bandedge Method A0 - Vertical TST 30915 27 Mar 2014

Rev 9.5 31 Mar 2014

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Ch/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	43.12	PK	32.4	-22.6	0	52.92	-	-	74	-21.08	303	304	V
2	* 2.484	43.12	PK	32.4	-22.6	0	52.92	-	-	74	-21.08	303	304	V
3	* 2.484	31.28	RMS	32.4	-22.6	.3	41.38	54	-12.62	-	-	303	304	V
4	* 2.484	32.05	RMS	32.4	-22.6	.3	42.15	54	-11.85	-	-	303	304	V

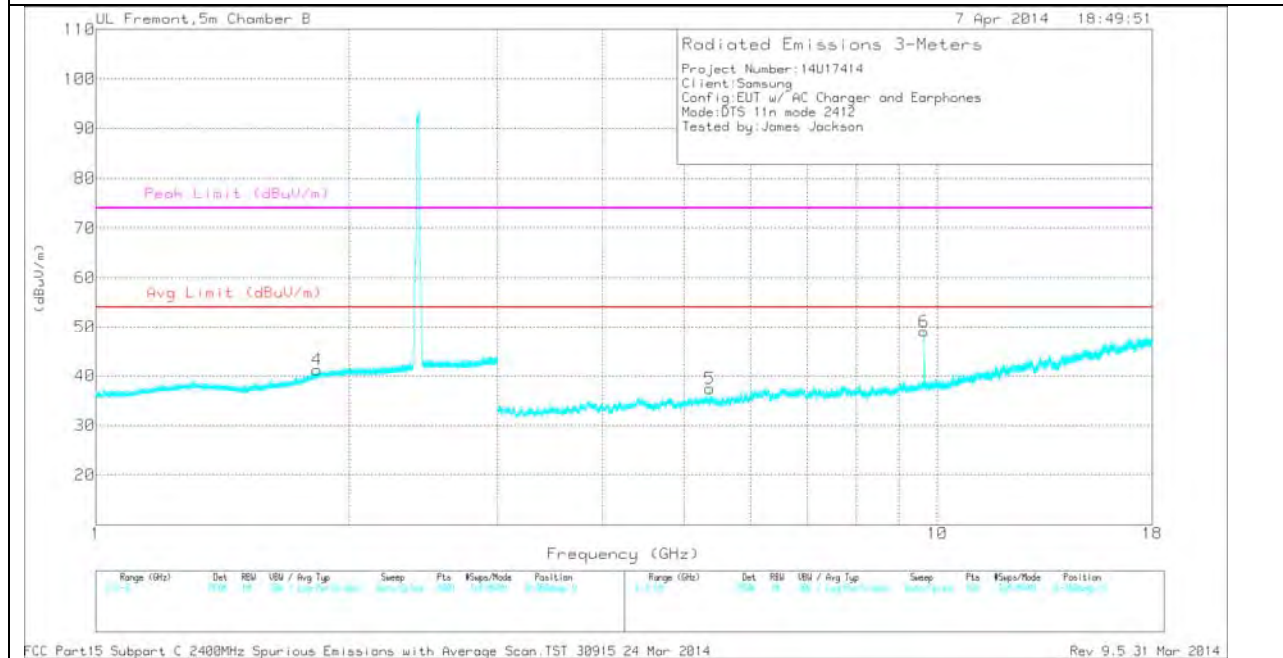
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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

LOW CHANNEL
VERTICAL



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

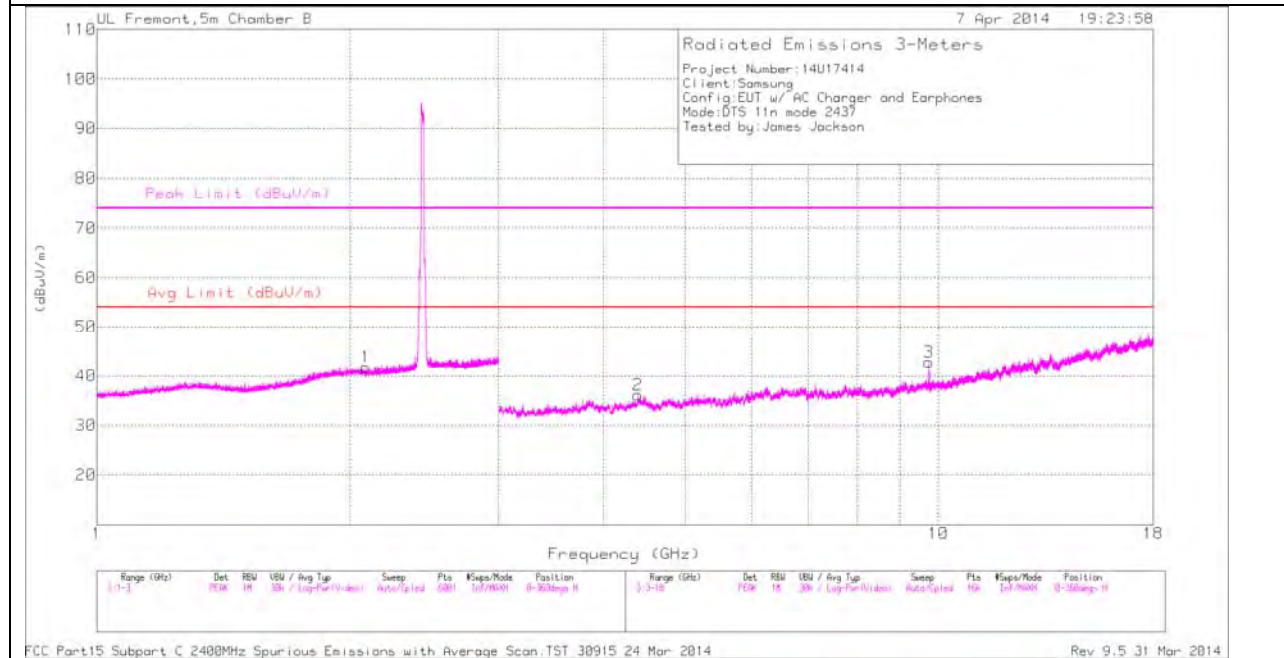
LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.816	30.89	PK	34.2	-29.1	35.99	54	-18.01	74	-38.01	0-360	202	H
5	* 5.364	31.85	PK	34.5	-28.9	37.45	54	-16.55	74	-36.55	0-360	99	V
4	1.832	34.47	PK	30.5	-23.7	41.27	54	-12.73	74	-32.73	0-360	99	V
1	1.99	34.41	PK	31.3	-23.5	42.21	54	-11.79	74	-31.79	0-360	201	H
3	9.647	30.22	PK	36.8	-24.1	42.92	54	-11.08	74	-31.08	0-360	202	H
6	9.647	36.38	PK	36.8	-24.1	49.08	54	-4.92	74	-24.92	0-360	202	V

PK - Peak detector

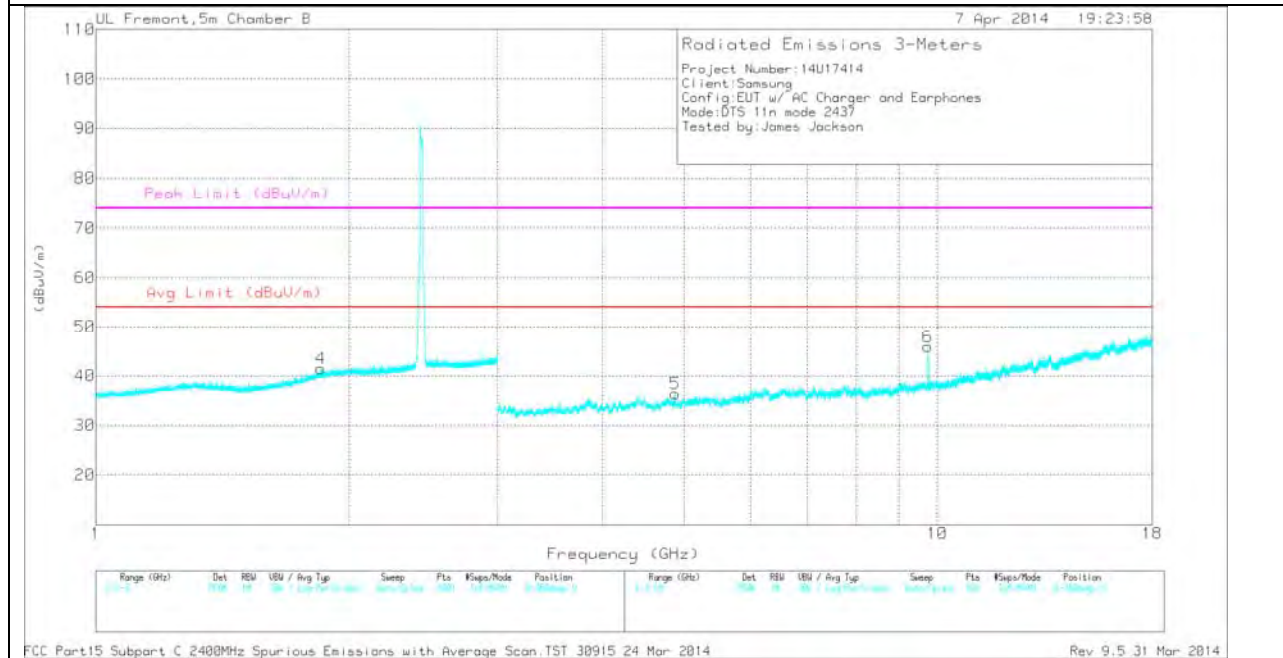
FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

MID CHANNEL
HORIZONTAL



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

MID CHANNEL
VERTICAL



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

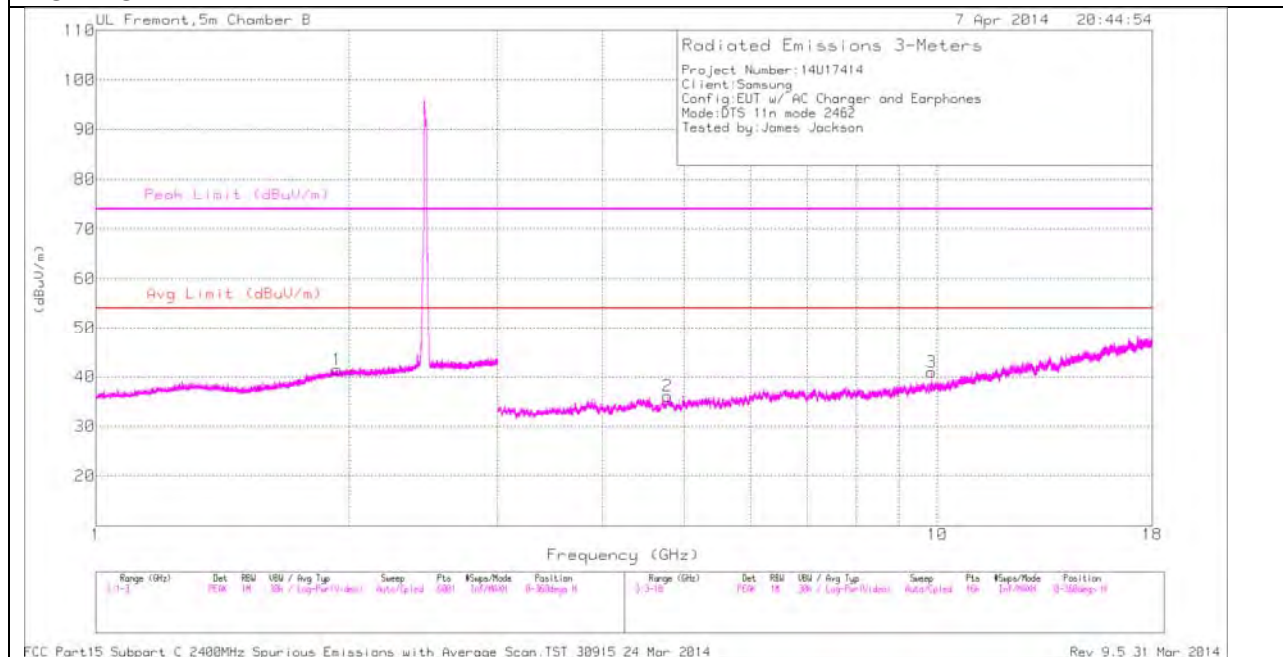
MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.394	32.46	PK	33.8	-30.1	36.16	54	-17.84	74	-37.84	0-360	99	H
5	* 4.878	32.79	PK	34.2	-30.6	36.39	54	-17.61	74	-37.61	0-360	99	V
4	1.852	34.56	PK	30.6	-23.7	41.46	54	-12.54	74	-32.54	0-360	202	V
1	2.086	33.89	PK	31.3	-23.4	41.79	54	-12.21	74	-32.21	0-360	201	H
3	9.748	30.01	PK	36.9	-24.2	42.71	54	-11.29	74	-31.29	0-360	202	H
6	9.748	33.29	PK	36.9	-24.2	45.99	54	-8.01	74	-28.01	0-360	202	V

PK - Peak detector

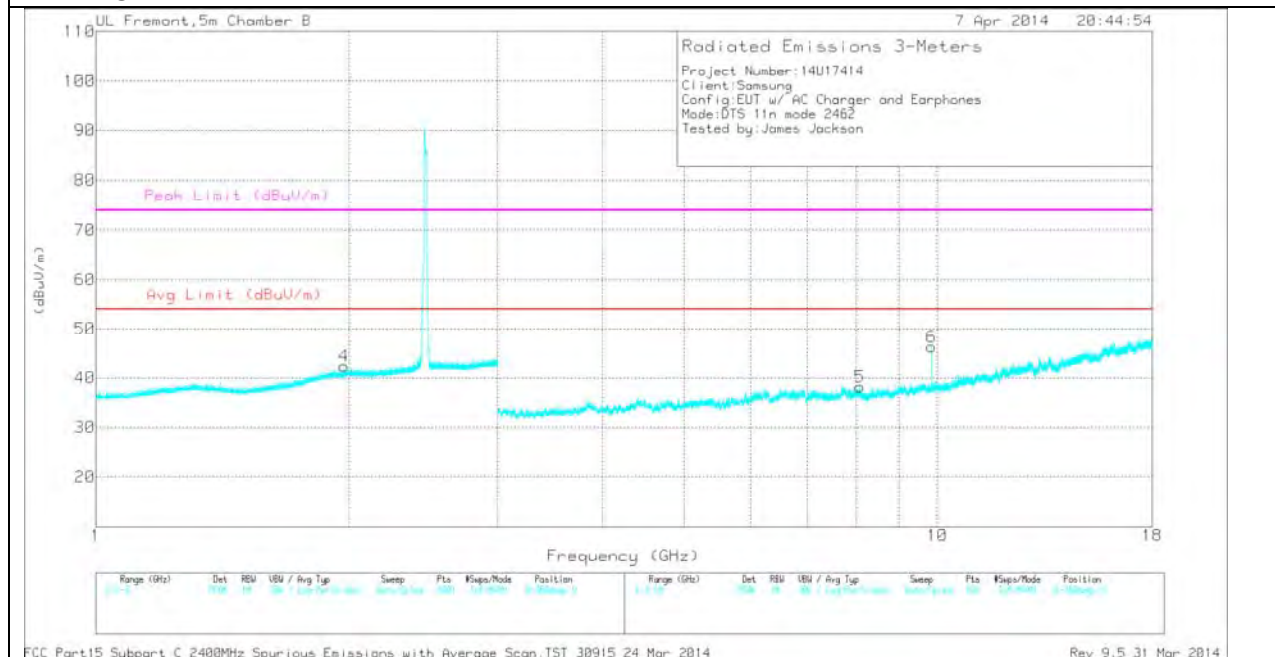
FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

HIGH CHANNEL HORIZONTAL



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

HIGH CHANNEL
VERTICAL



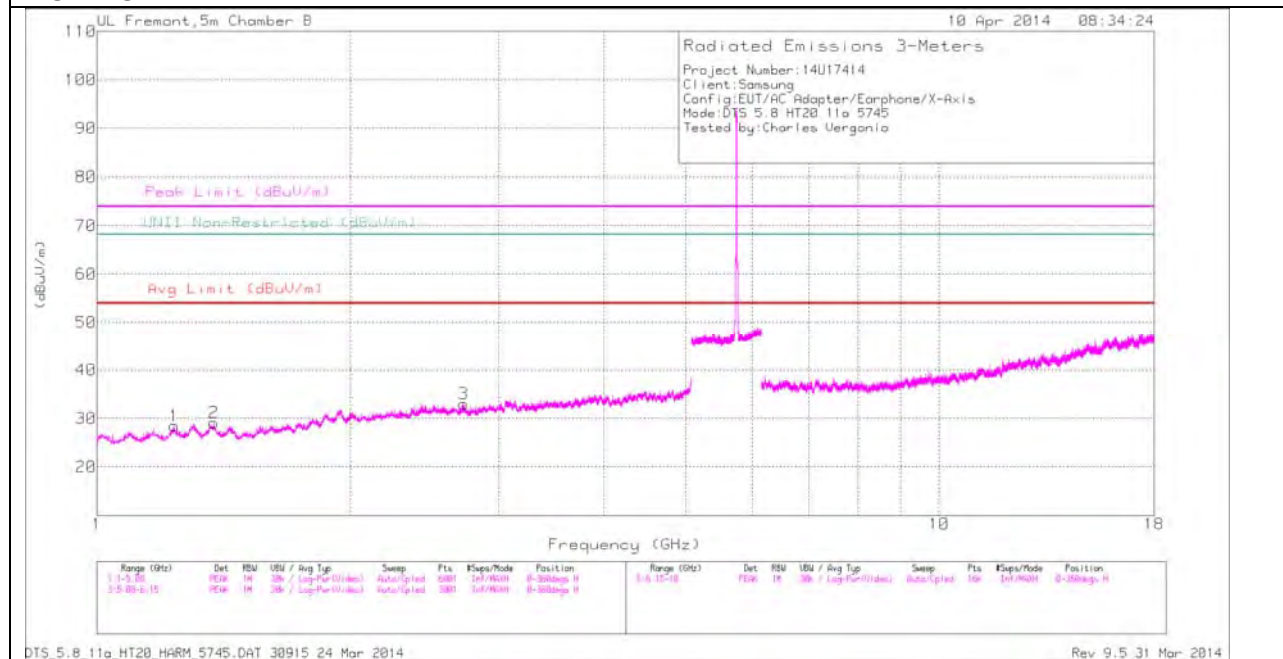
Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.778	31	PK	34.2	-29.1	36.1	54	-17.9	74	-37.9	0-360	202	H
5	* 8.088	28.26	PK	35.7	-25.8	38.16	54	-15.84	74	-35.84	0-360	202	V
1	1.934	33.89	PK	31.2	-23.6	41.49	54	-12.51	74	-32.51	0-360	202	H
4	1.971	34.59	PK	31.3	-23.5	42.39	54	-11.61	74	-31.61	0-360	99	V
6	9.847	33.41	PK	37	-24.1	46.31	54	-7.69	74	-27.69	0-360	202	V
3	9.848	28.06	PK	37	-24.1	40.96	54	-13.04	74	-33.04	0-360	202	H

PK - Peak detector

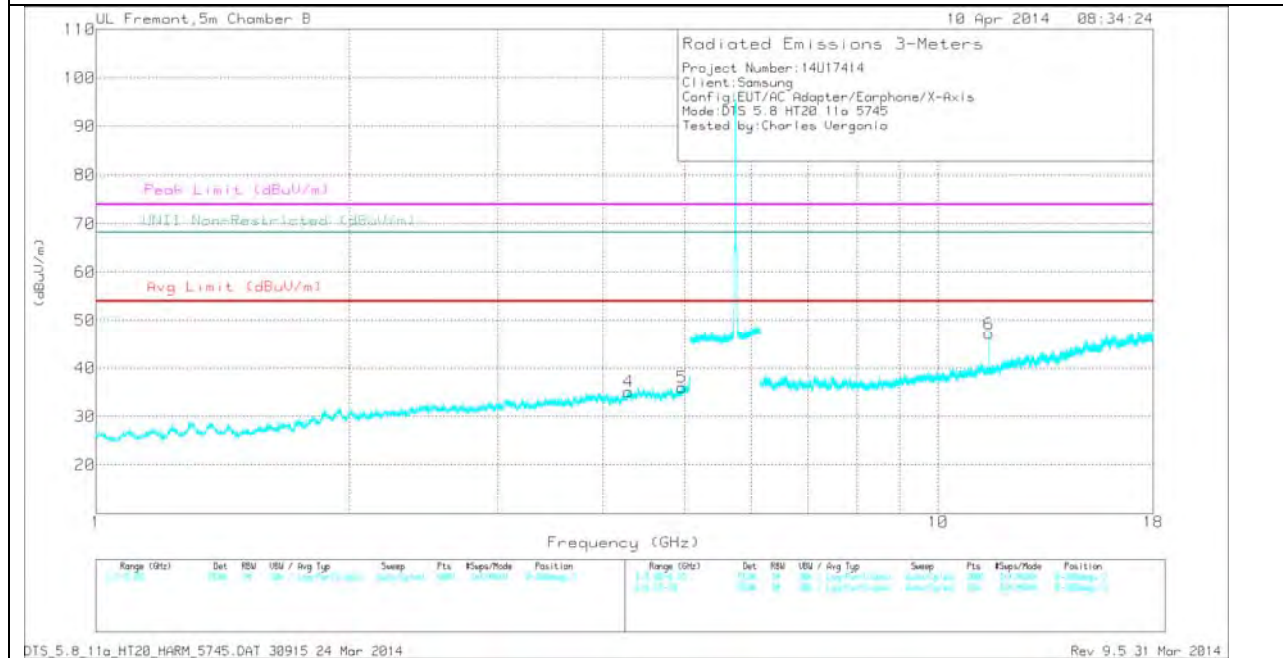
**10.2.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.8 GHz BAND
HARMONICS AND SPURIOUS EMISSIONS**

**LOW CHANNEL
HORIZONTAL**



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

LOW CHANNEL
VERTICAL

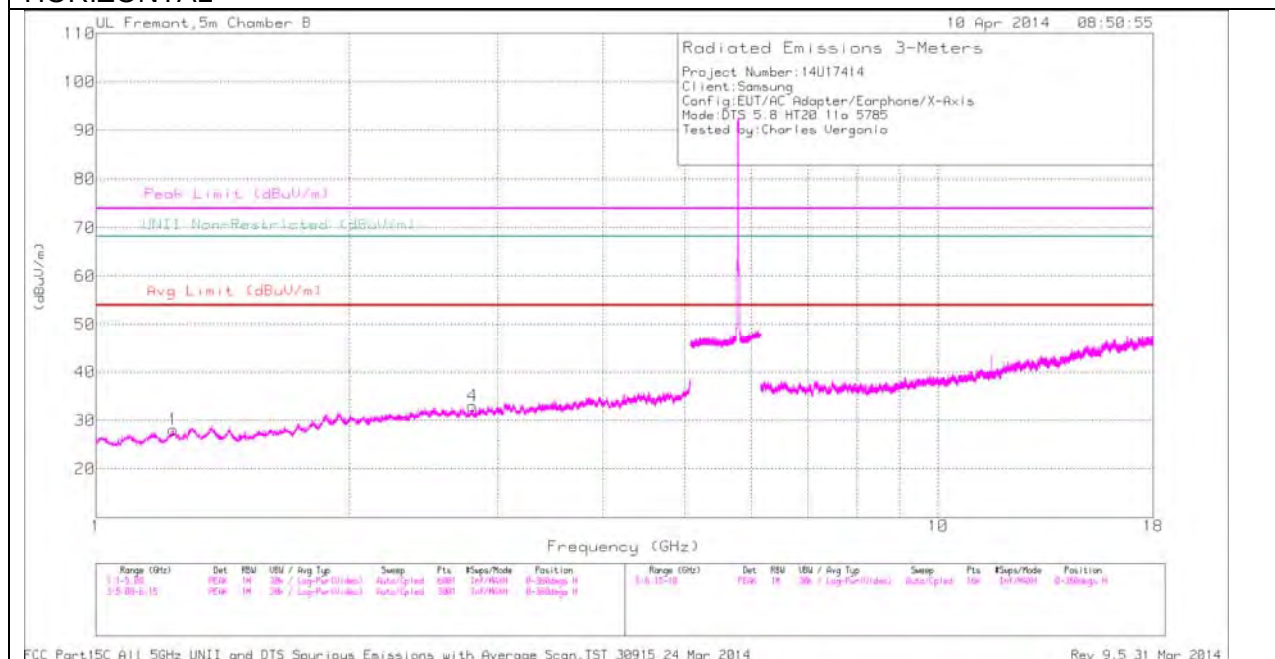


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T34S (dB/m)	Amp/Chl/ Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.235	34.81	PK	28.4	-34.7	0	28.51	54	-25.49	74	-45.49	-	-	0-360	201	H
2	* 1.377	34.29	PK	28.6	-33.8	0	29.09	54	-24.91	74	-44.91	-	-	0-360	99	H
3	* 2.726	32.69	PK	32.2	-31.9	0	32.99	54	-21.01	74	-41.01	-	-	0-360	99	H
4	* 4.288	31.56	PK	33.7	-30.1	0	35.16	54	-18.84	74	-38.84	-	-	0-360	202	V
5	* 4.968	30.38	PK	34.2	-28.6	0	35.98	54	-18.02	74	-38.02	-	-	0-360	202	V
6	* 11.49	32.14	PK	38	-23	0	47.14	54	-6.86	74	-26.86	-	-	0-360	201	V

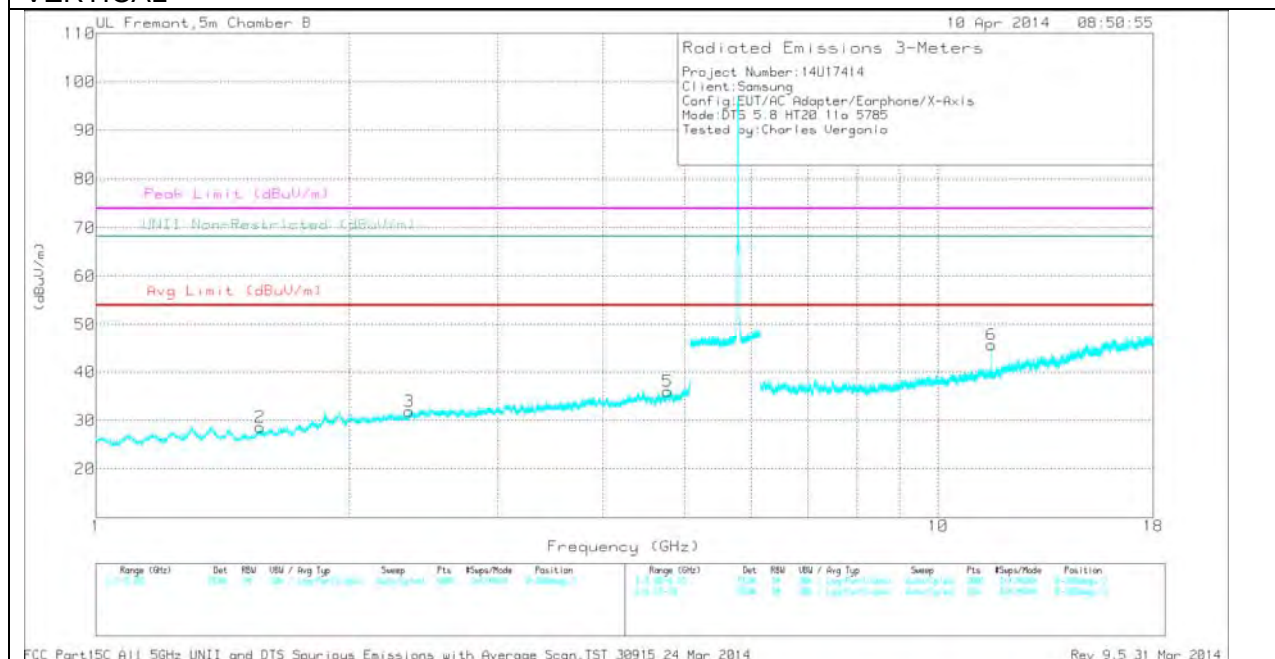
PK - Peak detector

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

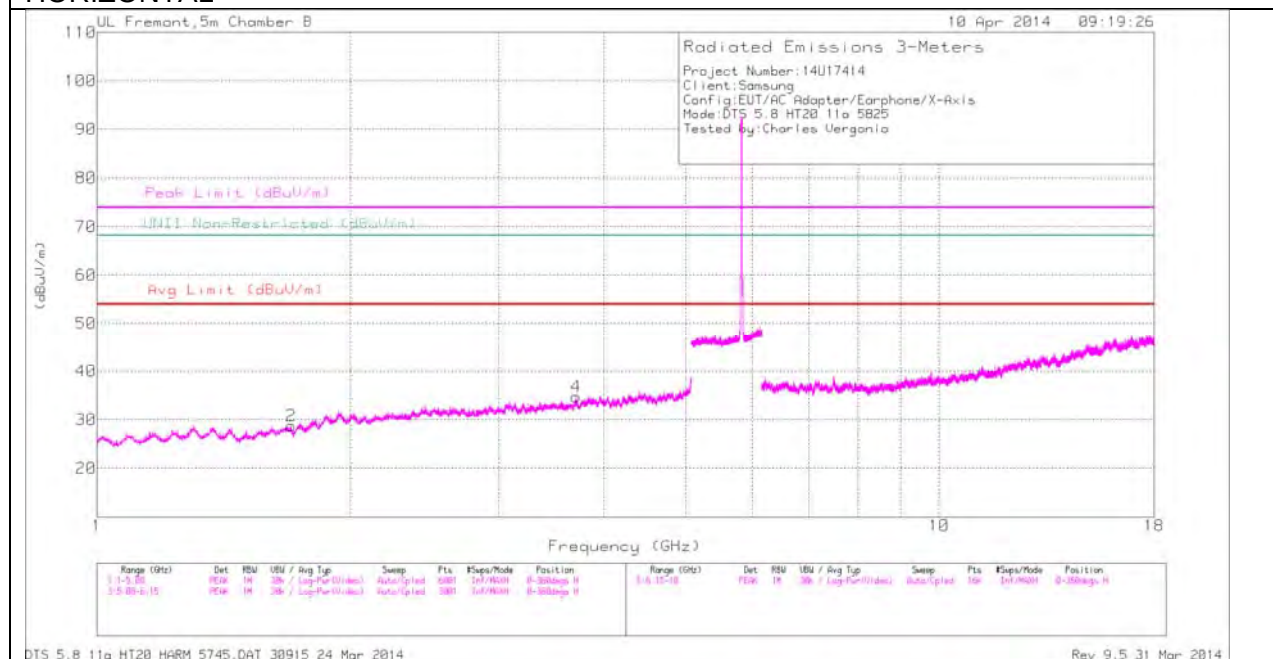


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Af T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.235	34.41	PK	28.4	-34.7	0	28.11	54	-25.89	74	-45.89	-	-	0-360	99	H
4	* 2.799	33.11	PK	32.3	-32.4	0	33.01	54	-20.99	74	-40.99	-	-	0-360	201	H
2	* 1.567	33.79	PK	28.3	-33.5	0	28.59	54	-25.41	74	-45.41	-	-	0-360	99	V
3	* 2.355	33.03	PK	31.9	-33	0	31.93	54	-22.07	74	-42.07	-	-	0-360	99	V
5	* 4.773	30.89	PK	34.2	-29.1	0	35.99	54	-18.01	74	-38.01	-	-	0-360	202	V
6	* 11.57	30.4	PK	38.1	-22.8	0	45.7	54	-8.3	74	-28.3	-	-	0-360	202	V

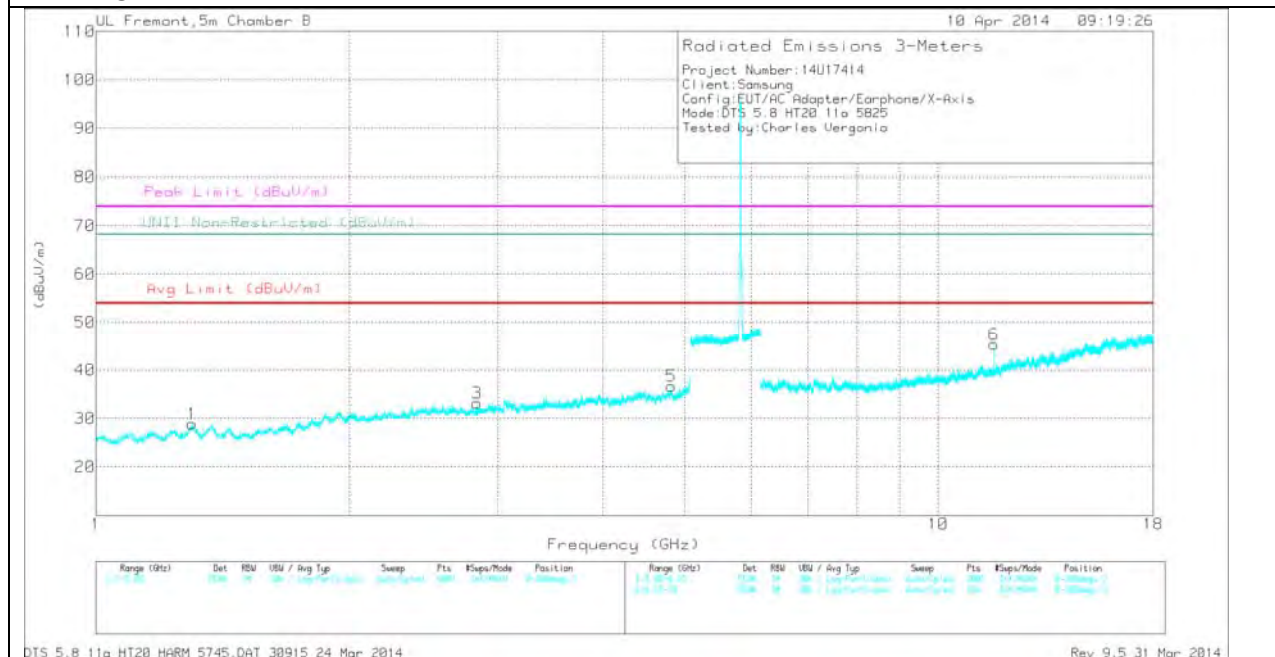
PK - Peak detector

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



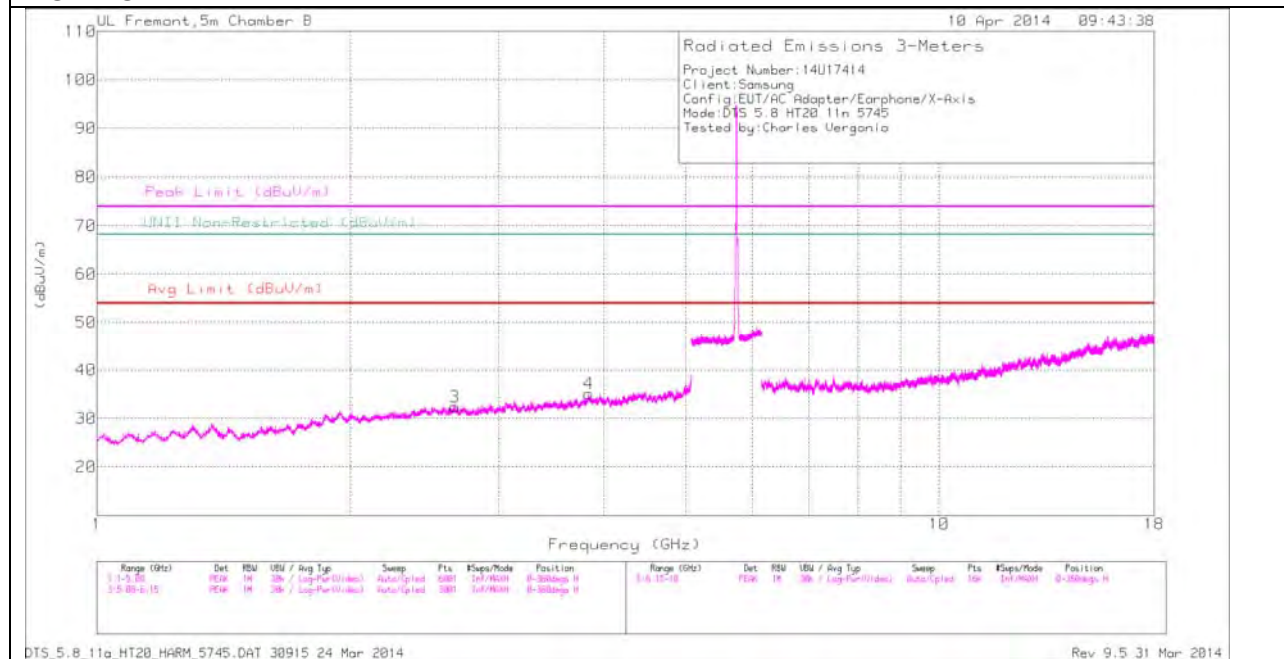
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Af T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 1.7	33.13	PK	29	-33.4	0	28.73	54	-25.27	74	-45.27	-	-	0-360	99	H
4	* 3.709	32.37	PK	33.4	-31.1	0	34.67	54	-19.33	74	-39.33	-	-	0-360	99	H
1	* 1.301	34.17	PK	28.9	-34.2	0	28.87	54	-25.13	74	-45.13	-	-	0-360	202	V
3	* 2.833	33.24	PK	32.4	-32.5	0	33.14	54	-20.86	74	-40.86	-	-	0-360	99	V
5	* 4.819	32.02	PK	34.2	-29.6	0	36.62	54	-17.38	74	-37.38	-	-	0-360	202	V
6	* 11.65	30.41	PK	38.1	-23.1	0	45.41	54	-8.59	74	-28.59	-	-	0-360	202	V

PK - Peak detector

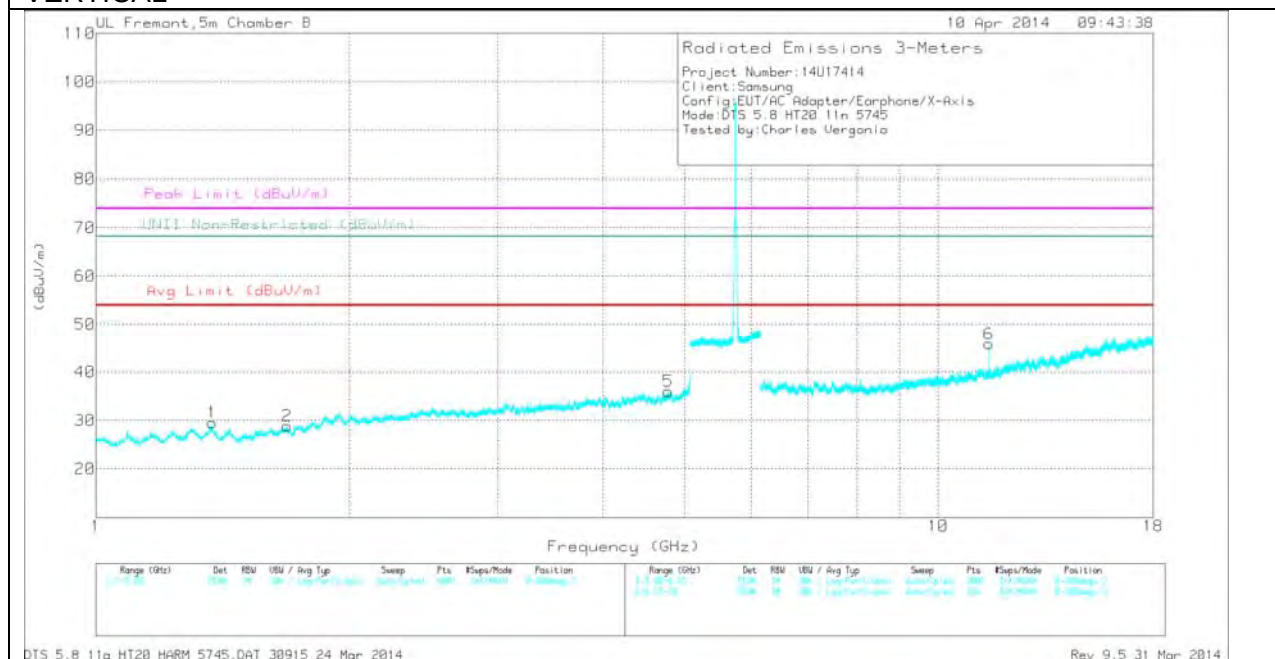
**10.2.1. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.8 GHz BAND
HARMONICS AND SPURIOUS EMISSIONS**

**LOW CHANNEL
HORIZONTAL**



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

LOW CHANNEL
VERTICAL

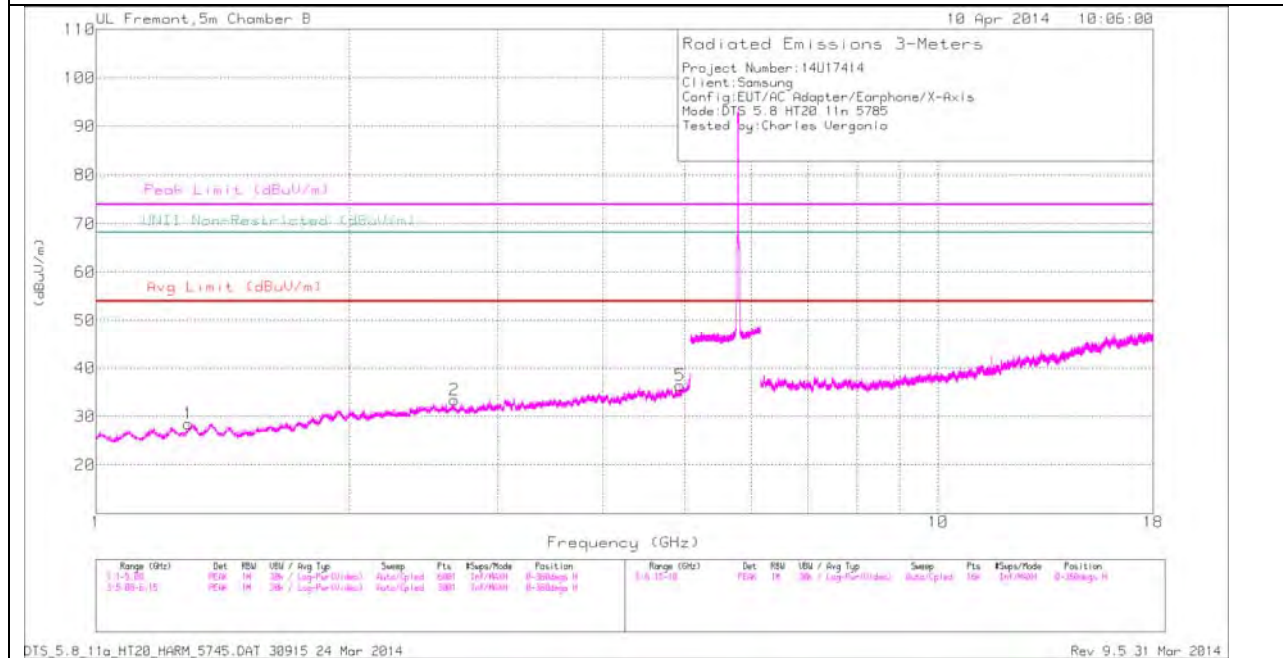


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Chl/ 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	* 2.658	32.07	PK	32.3	-32	0	32.37	54	-21.63	74	-41.63	-	-	0-360	99	H
4	* 3.834	32.39	PK	33.7	-31	0	35.09	54	-18.91	74	-38.91	-	-	0-360	202	H
1	* 1.373	34.71	PK	28.6	-33.8	0	29.51	54	-24.49	74	-44.49	-	-	0-360	202	V
2	* 1.685	33.18	PK	29	-33.3	0	28.88	54	-25.12	74	-45.12	-	-	0-360	99	V
5	* 4.783	30.78	PK	34.2	-28.9	0	36.08	54	-17.92	74	-37.92	-	-	0-360	202	V
6	* 11.49	30.93	PK	38	-23	0	45.93	54	-8.07	74	-28.07	-	-	0-360	202	V

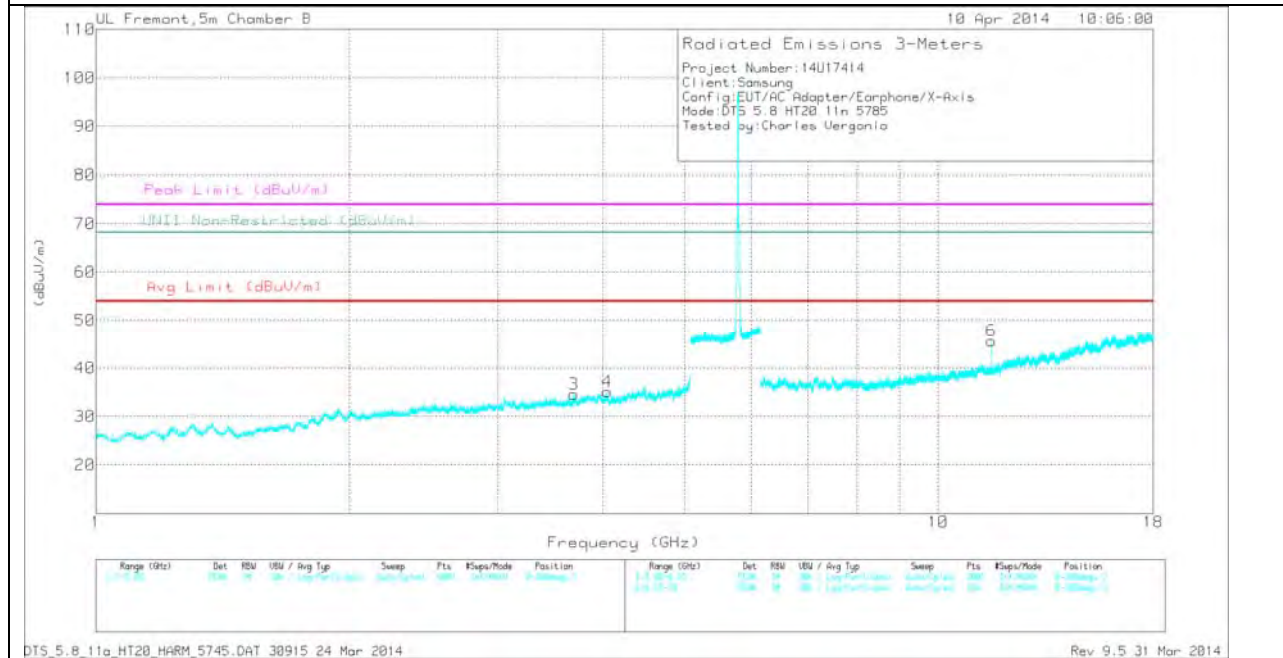
PK - Peak detector

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

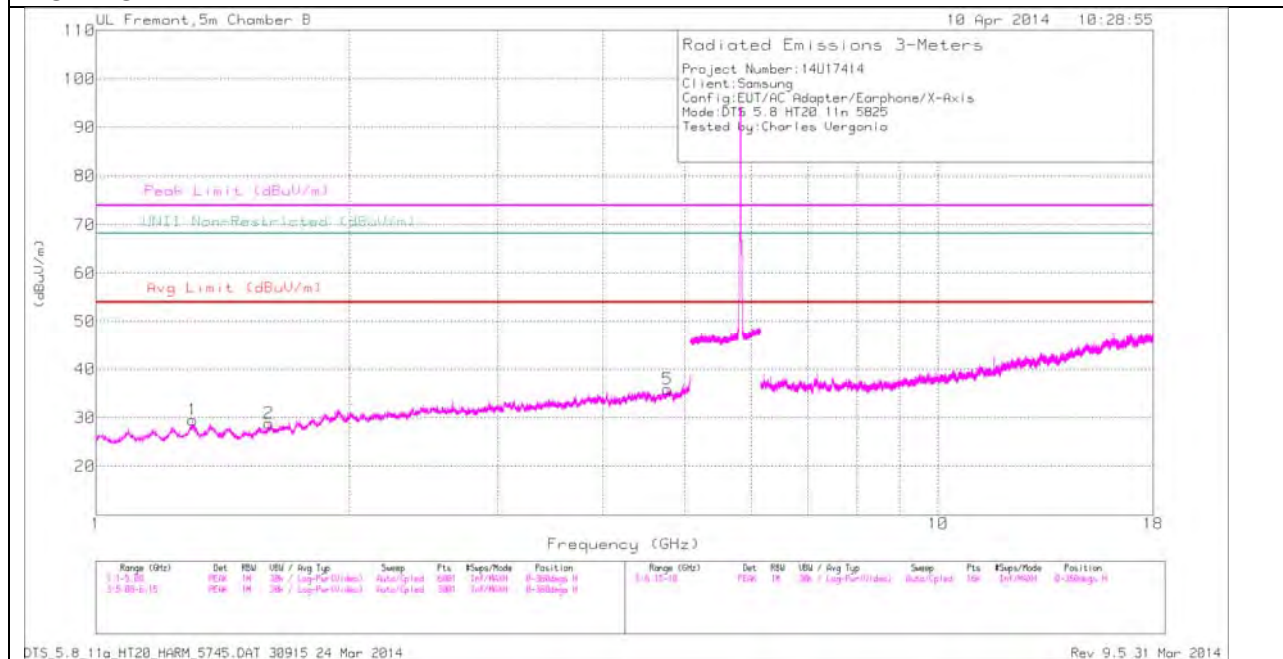


Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.288	34.05	PK	28.8	-34.4	0	28.45	54	-25.55	74	-45.55	-	-	0-360	99	H
2	* 2.665	32.92	PK	32.3	-31.8	0	33.42	54	-20.58	74	-40.58	-	-	0-360	202	H
5	* 4.94	31.4	PK	34.2	-29.2	0	36.4	54	-17.6	74	-37.6	-	-	0-360	202	H
3	* 3.696	32.54	PK	33.3	-31.2	0	34.64	54	-19.36	74	-39.36	-	-	0-360	202	V
4	* 4.048	31.32	PK	33.6	-29.8	0	35.12	54	-18.88	74	-38.88	-	-	0-360	99	V
6	* 11.57	30.4	PK	38.1	-22.8	0	45.7	54	-8.3	74	-28.3	-	-	0-360	202	V

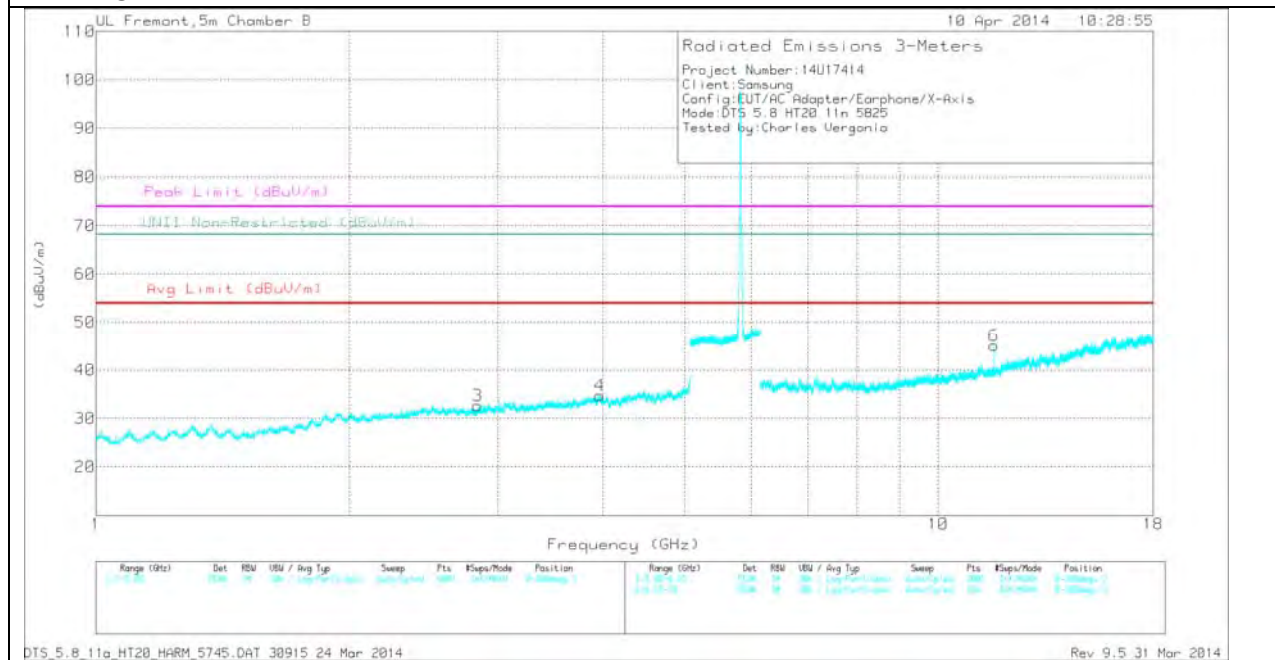
PK - Peak detector

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.

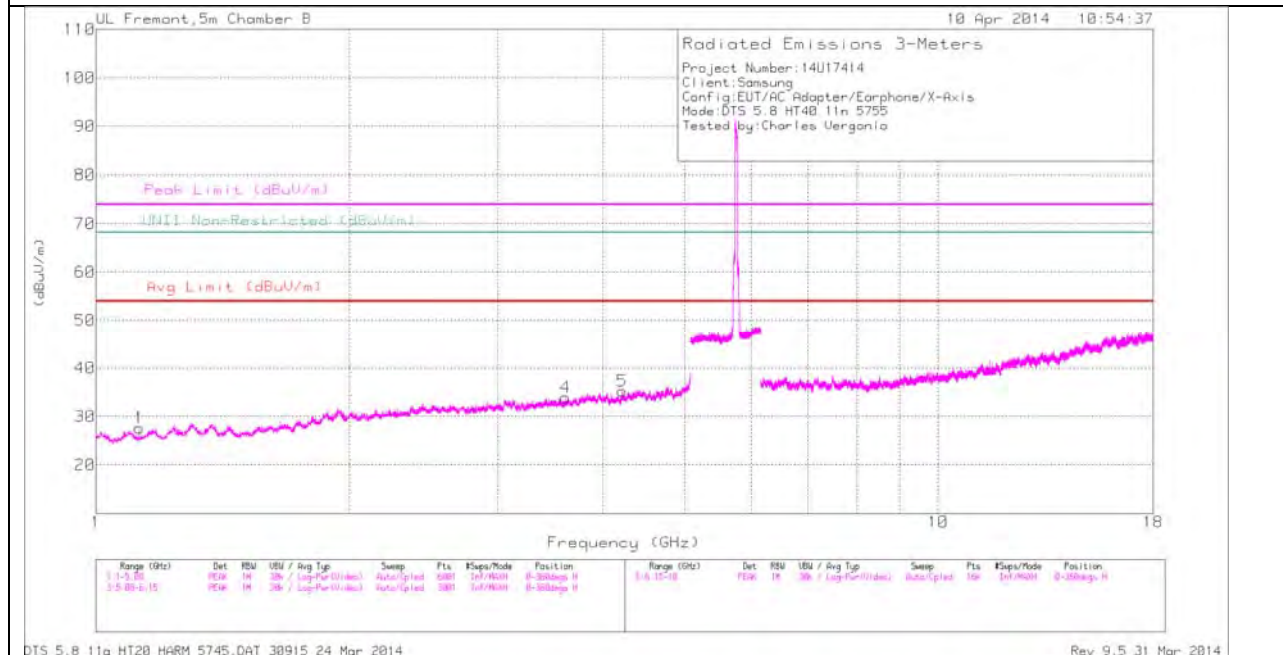
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Af T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.302	34.86	PK	28.9	-34.2	0	29.56	54	-24.44	74	-44.44	-	-	0-360	99	H
2	* 1.603	33.41	PK	28.5	-33	0	28.91	54	-25.09	74	-45.09	-	-	0-360	202	H
5	* 4.775	30.81	PK	34.2	-29.1	0	35.91	54	-18.09	74	-38.09	-	-	0-360	202	H
3	* 2.839	32.64	PK	32.4	-32.4	0	32.64	54	-21.36	74	-41.36	-	-	0-360	202	V
4	* 3.966	31.08	PK	33.7	-30	0	34.78	54	-19.22	74	-39.22	-	-	0-360	202	V
6	* 11.65	30.07	PK	38.1	-23.1	0	45.07	54	-8.93	74	-28.93	-	-	0-360	202	V

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

PK - Peak detector

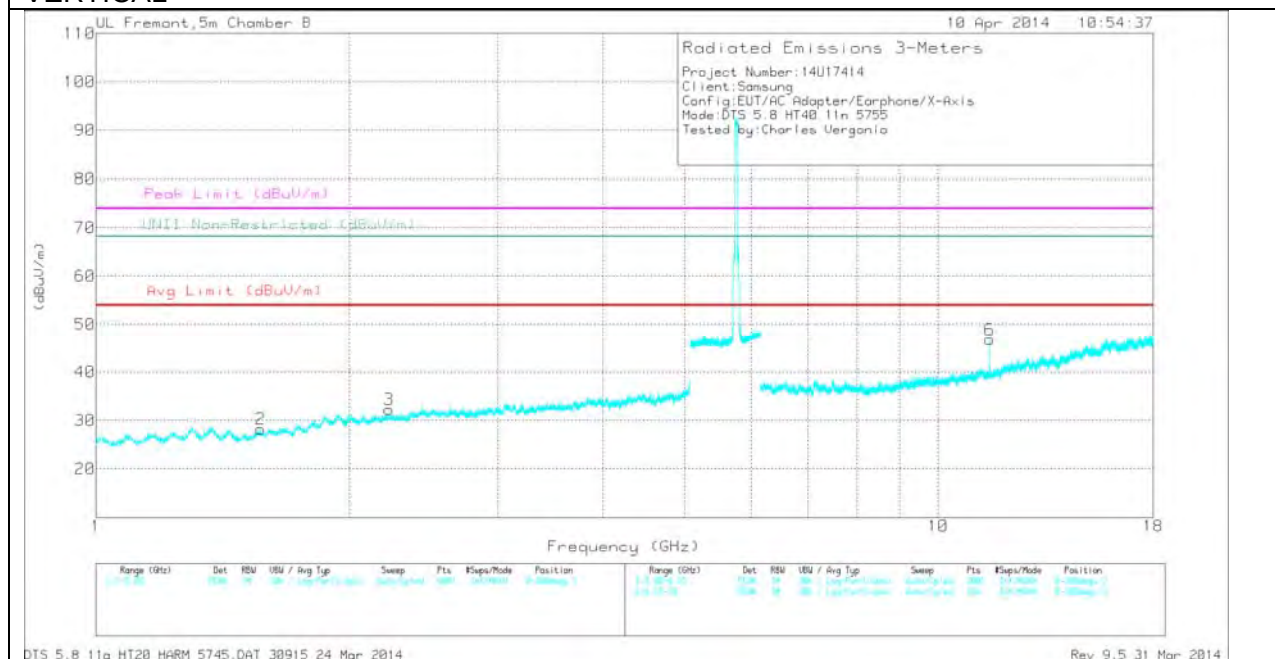
10.2.1. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.8 GHz BAND HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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

LOW CHANNEL
VERTICAL

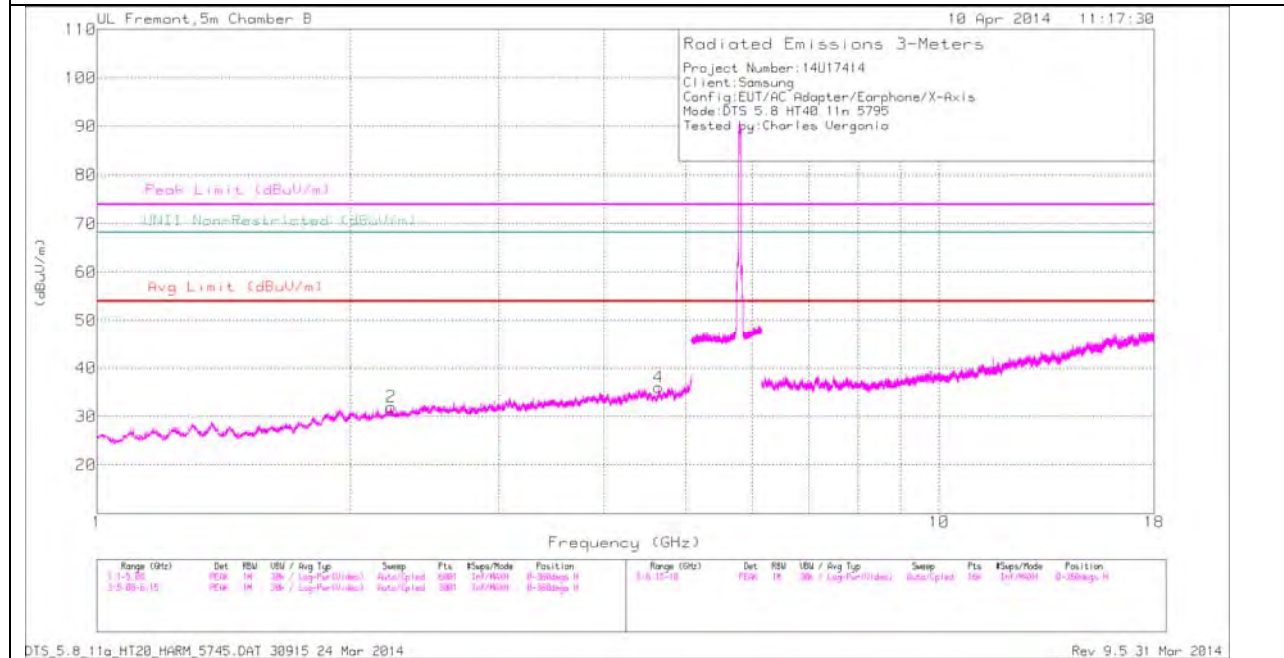


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T34S (dB/m)	Amp/Chl/ Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.126	34.49	PK	27.6	-34.5	0	27.59	54	-26.41	74	-46.41	-	-	0-360	202	H
4	* 3.612	32.28	PK	33.1	-31.4	0	33.98	54	-20.02	74	-40.02	-	-	0-360	99	H
5	* 4.219	32.1	PK	33.6	-30.4	0	35.3	54	-18.7	74	-38.7	-	-	0-360	99	H
2	* 1.57	33.46	PK	28.3	-33.5	0	28.26	54	-25.74	74	-45.74	-	-	0-360	202	V
3	* 2.228	33.11	PK	31.4	-32.3	0	32.21	54	-21.79	74	-41.79	-	-	0-360	99	V
6	* 11.51	31.66	PK	38.1	-22.9	0	46.86	54	-7.14	74	-27.14	-	-	0-360	202	V

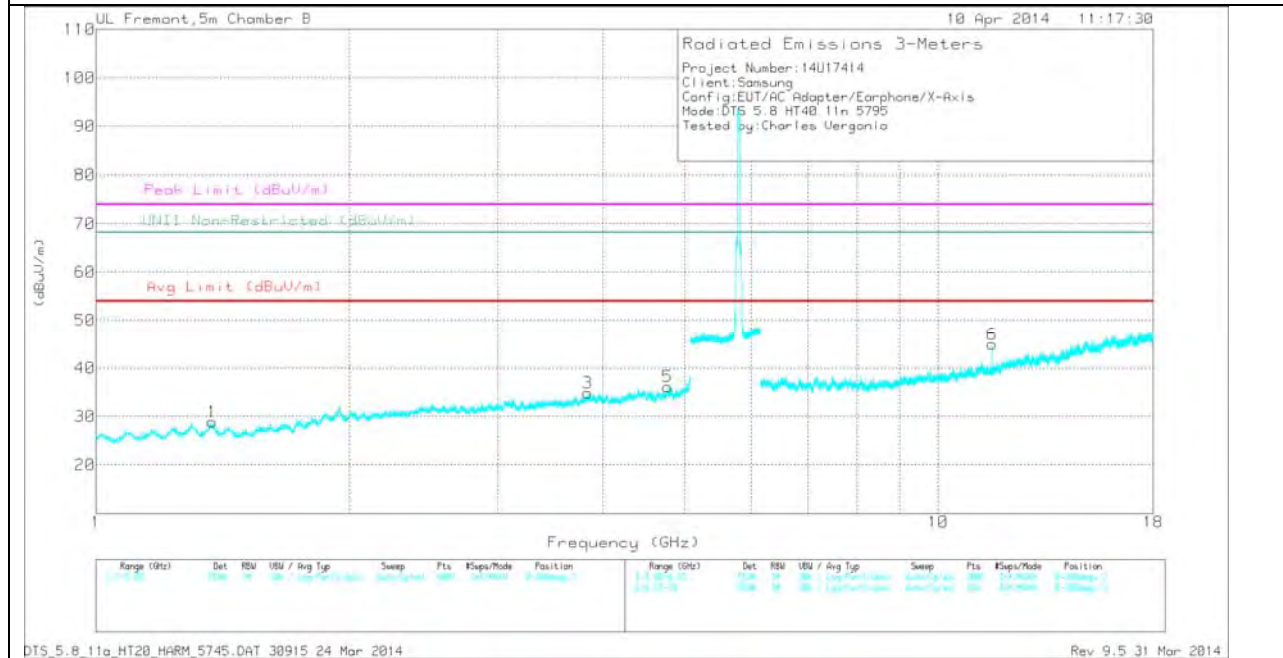
PK - Peak detector

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.

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.234	32.95	PK	31.4	-32.3	0	32.05	54	-21.95	74	-41.95	-	-	0-360	99	H
4	* 4.646	31.34	PK	34.2	-29.5	0	36.04	54	-17.96	74	-37.96	-	-	0-360	202	H
1	* 1.375	34.07	PK	28.6	-33.8	0	28.87	54	-25.13	74	-45.13	-	-	0-360	99	V
3	* 3.837	32.24	PK	33.7	-31.1	0	34.84	54	-19.16	74	-39.16	-	-	0-360	202	V
5	* 4.77	31.16	PK	34.2	-29.2	0	36.16	54	-17.84	74	-37.84	-	-	0-360	202	V
6	* 11.59	29.82	PK	38.1	-22.9	0	45.02	54	-8.98	74	-28.98	-	-	0-360	202	V

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

PK - Peak detector

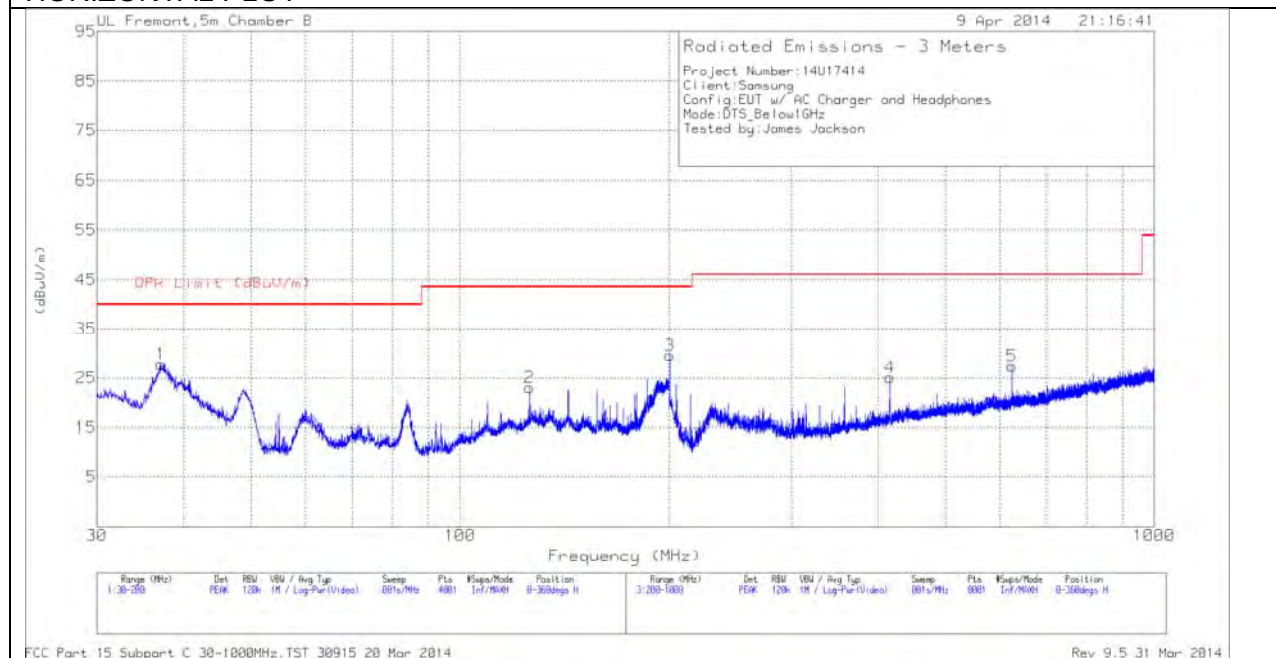
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.234	41.36	PK1	31.4	-32.3	0	40.46	54	-13.54	74	-33.54	-	-	359	100	H
* 4.645	40.31	PK1	34.2	-29.5	0	45.01	54	-8.99	74	-28.99	-	-	359	100	H
* 1.376	43.41	PK1	28.6	-33.8	0	38.21	54	-15.79	74	-35.79	-	-	359	100	V
* 3.838	41.46	PK1	33.7	-31.1	0	44.06	54	-9.94	74	-29.94	-	-	359	100	V
* 4.77	39.58	PK1	34.2	-29.2	0	44.58	54	-9.42	74	-29.42	-	-	359	100	V
* 11.59	36.9	PK1	38.1	-22.9	0	52.1	54	-1.9	74	-21.9	-	-	279	151	V
* 11.59	31.32	AD1	38.1	-22.9	.6	47.12	54	-6.88	-	-	-	-	279	151	V

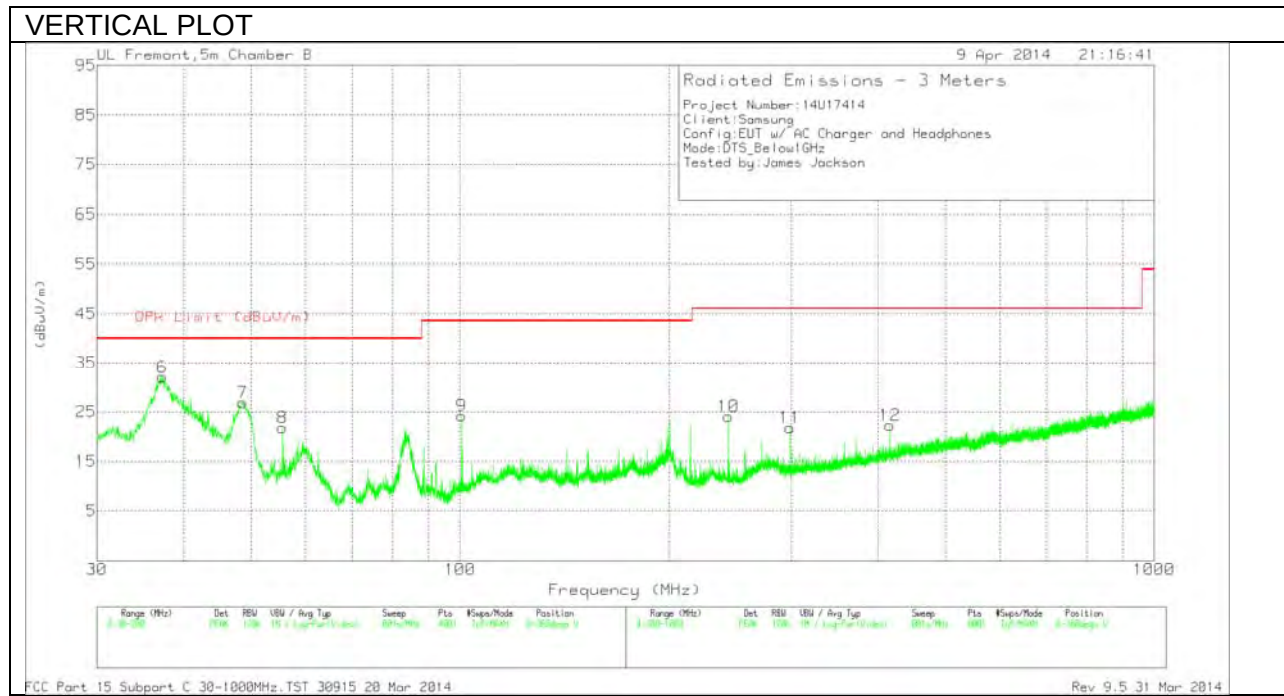
10.3. WORST-CASE BELOW 1 GHz

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

HORIZONTAL PLOT



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



Below 1G Data

Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 126.0925	37.19	PK	13.7	-27.8	23.09	43.52	-20.43	0-360	300	H
10	* 243.4	39.07	PK	11.5	-26.5	24.07	46.02	-21.95	0-360	200	V
1	37.0975	40.84	PK	15.7	-28.8	27.74	40	-12.26	0-360	400	H
6	37.225	45.33	PK	15.6	-28.8	32.13	40	-7.87	0-360	101	V
7	48.6575	47.17	PK	8.3	-28.6	26.87	40	-13.13	0-360	101	V
8	55.5	43.37	PK	7	-28.6	21.77	40	-18.23	0-360	101	V
9	100.635	41.85	PK	10.4	-28.1	24.15	43.52	-19.37	0-360	101	V
3	200.6	44.35	PK	12.2	-27	29.55	43.52	-13.97	0-360	200	H
11	298.8	34.65	PK	13.2	-26.1	21.75	46.02	-24.27	0-360	101	V
4	416	35.25	PK	15.8	-26	25.05	46.02	-20.97	0-360	101	H
12	416	32.46	PK	15.8	-26	22.26	46.02	-23.76	0-360	300	V
5	624	33.51	PK	19.1	-25.2	27.41	46.02	-18.61	0-360	300	H

11. 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 2009.

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 dBuV	CFR 47 Part 15 Class B QP	Margin to Limit (dB)	CFR 47 Part 15 Class B Avg	Margin to Limit (dB)
1	.186	49.27	PK	1	0	50.27	64.2	-13.93	54.2	-3.93
2	.186	29.11	Av	1	0	30.11	64.2	-34.09	54.2	-24.09
3	1.5945	42.57	PK	.2	.1	42.87	56	-13.13	46	-3.13
4	1.5945	23.87	Av	.2	.1	24.17	56	-31.83	46	-21.83
5	3.597	52	PK	.2	.1	52.3	56	-3.7		
6	3.597	35.96	Av	.2	.1	36.26	56	-19.74	46	-9.74
7	7.62	45.02	PK	.2	.1	45.32	60	-14.68	50	-4.68
8	7.62	25.68	Av	.2	.1	25.98	60	-34.02	50	-24.02
9	17.061	31.69	PK	.3	.2	32.19	60	-27.81	50	-17.81
10	17.061	15.65	Av	.3	.2	16.15	60	-43.85	50	-33.85

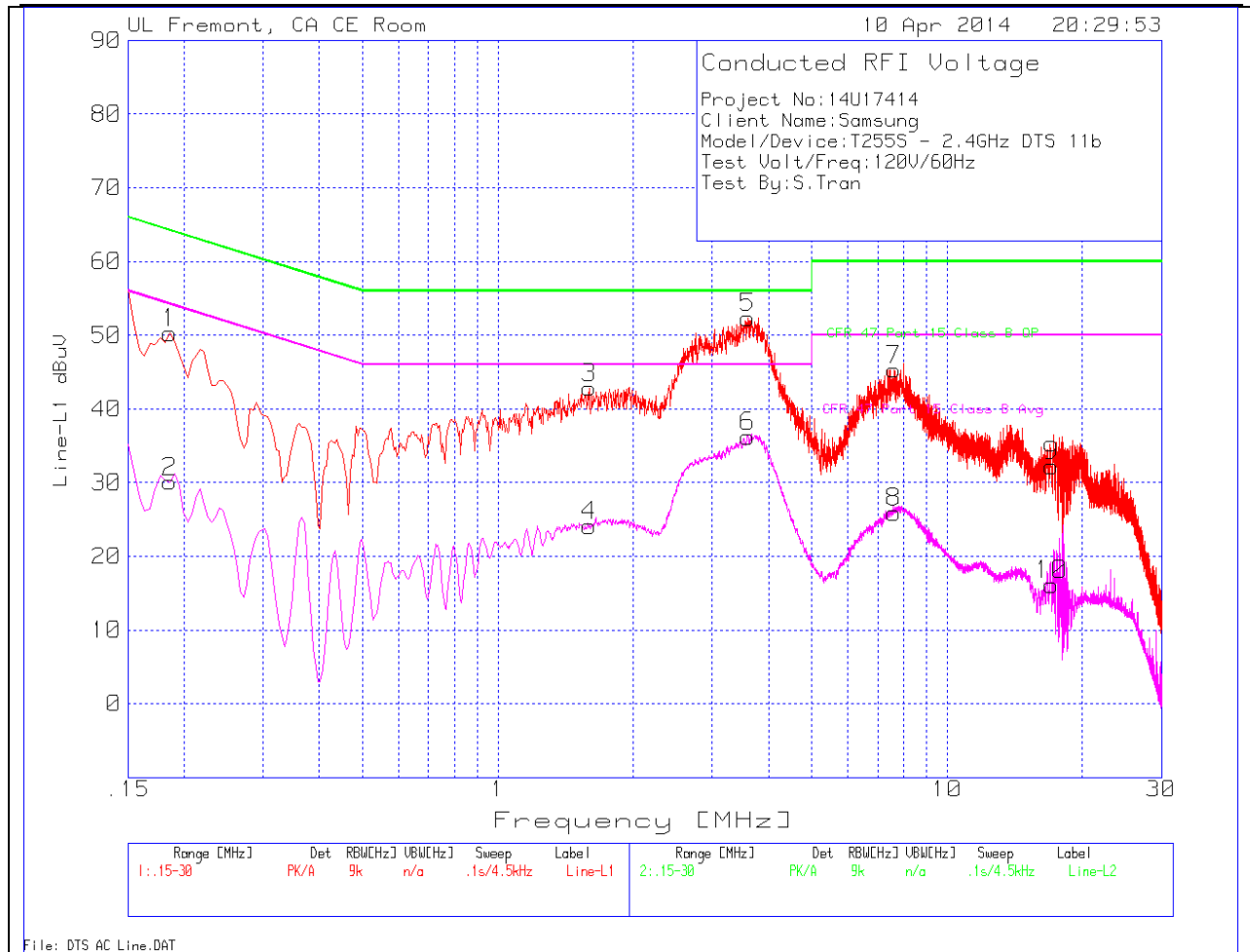
Line-L2 .15 - 30MHz

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L2 (dB)	LC Cables 2&3 (dB)	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	Margin to Limit (dB)	CFR 47 Part 15 Class B Avg	Margin to Limit (dB)
11	.1815	40.93	PK	1.2	0	42.13	64.4	-22.27	54.4	-12.27
12	.1815	21.13	Av	1.2	0	22.33	64.4	-42.07	54.4	-32.07
13	1.5945	36.86	PK	.2	.1	37.16	56	-18.84	46	-8.84
14	1.5945	19.14	Av	.2	.1	19.44	56	-36.56	46	-26.56
15	3.6645	48.99	PK	.2	.1	49.29	56	-6.71		
16	3.6645	32.64	Av	.2	.1	32.94	56	-23.06	46	-13.06
17	8.043	41.98	PK	.2	.1	42.28	60	-17.72	50	-7.72
18	8.043	24.88	Av	.2	.1	25.18	60	-34.82	50	-24.82
19	16.8675	43.13	PK	.3	.2	43.63	60	-16.37	50	-6.37
20	16.8675	21.32	Av	.3	.2	21.82	60	-38.18	50	-28.18

PK - Peak detector
Av - average detection

LINE 1 RESULTS



LINE 2 RESULTS

