



FCC CFR47 PART 15 SUBPART C

CERTIFICATION TEST REPORT

FOR

GSM/WCDMA/LTE Phone + BLUETOOTH and WLAN 2.4GHz b/g/n

MODEL NUMBER: SM-G5500

FCC ID: A3LSMG5500

REPORT NUMBER: 15I21583-E4V2

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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	09/14/15	Initial Issue	P. Zhang
V2	09/25/15	Updated measurement method and added Duty Cycle plots	C. Vergonio

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: SAMSUNG ELECTRONICS CO., LTD.
EUT DESCRIPTION: GSM/WCDMA/LTE Phone + Bluetooth and WLAN 2.4GHz b/g/n
MODEL: SM-G5500
SERIAL NUMBER: RV8G81T9GEA (Conducted); RV8G81T9FBA (Radiated)
DATE TESTED: SEPTEMBER 10 – 15, 2015

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

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

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

Approved & Released

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2. TEST METHODOLOGY

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

3. FACILITIES AND ACCREDITATION

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

47173 Benicia Street	47266 Benicia Street
☐ Chamber A	☐ 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:

$$\text{Field Strength (dBuV/m)} = \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} - \text{Preamp Gain (dB)}$$

$$36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} = 28.9 \text{ dBuV/m}$$

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 GSM/WCDMA/LTE Phone + Bluetooth and WLAN 2.4GHz b/g/n.

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	16.83	48.19
2412 - 2462	802.11g	13.5	22.39
2412 - 2462	802.11n HT20 MCS0	12.68	18.54

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an FPCB antenna, with a maximum gain of -0.45 dBi.

5.4. WORST-CASE CONFIGURATION AND MODE

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

The fundamental of the EUT was investigated in three orthogonal orientations X,Y,Z, it was determined that 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
802.11n HT20mode: MCS0

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

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

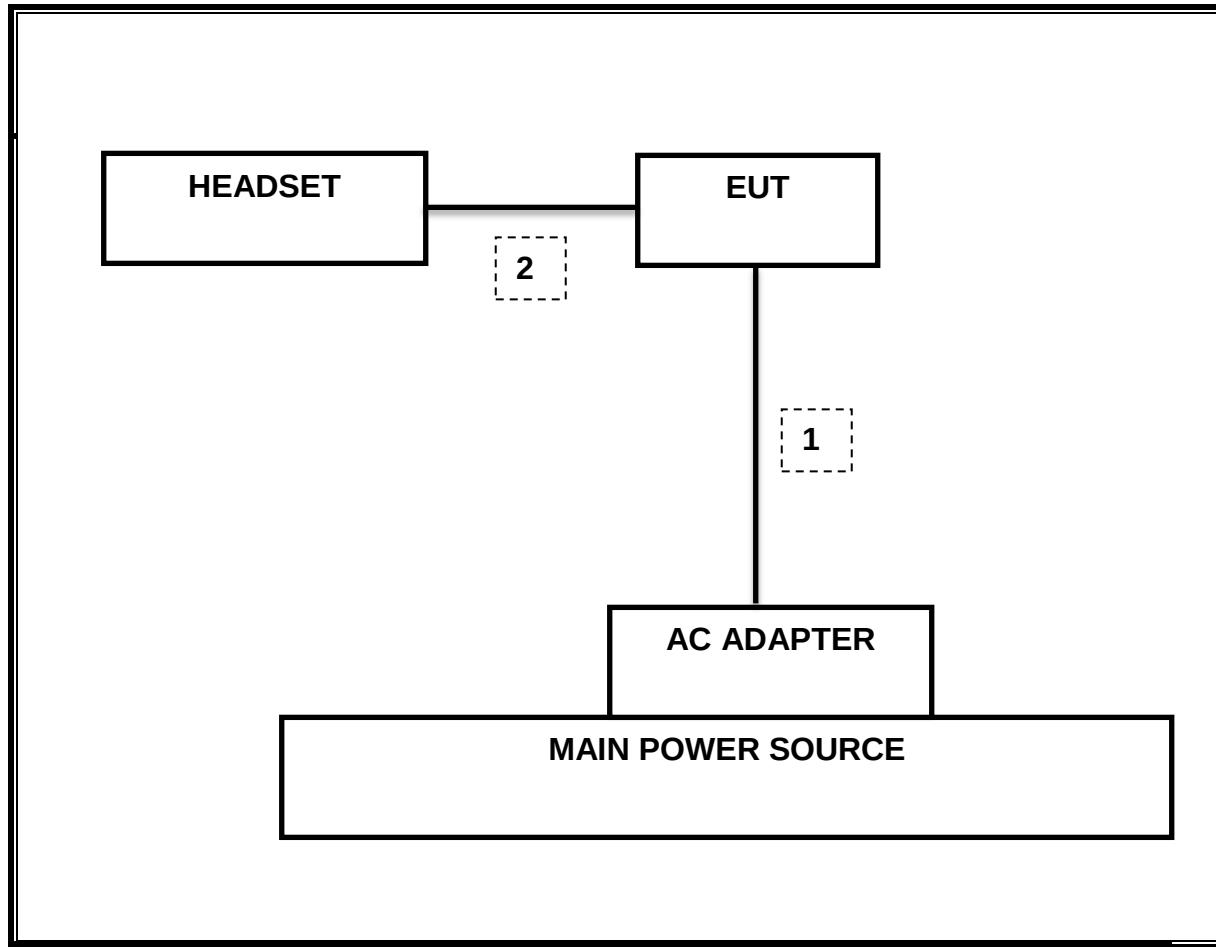
I/O CABLES

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	DC Power	1	Mini-USB	Shielded	80cm	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
Antenna, Biconolog, 30MHz-1 GHz	Sunol Sciences	JB1	C01171	02/13/16
Antenna, Horn, 18GHz	EMCO	3115	C00783	10/25/15
Antenna, Horn, 26.5 GHz	ARA	MWH-1826/B	C00980	11/14/15
RF Preamplifier, 100KHz -> 1300MHz	HP	8447D	T10	01/06/16
RF Preamplifier, 1GHz - 18GHz	Miteq	NSP4000-SP2	924343	03/23/16
RF Preamplifier, 1GHz - 26.5GHz	HP	8449B	F00351	06/27/16
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01069	12/20/15
CBT Bluetooth Tester	R & S	CBT	None	07/12/16
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/15
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/15
LISN, 30 MHz	FCC	50/250-25-2	C00626	01/14/16
Reject Filter, 2.4GHz	Micro-Tronics	BRM50702	N02684	CNR
Radiated Software	UL	UL EMC	Ver 9.5, July 22, 2014	
Conducted Software	UL	UL EMC	Ver 9.5, May 17 2012	
CLT Software	UL	UL RF	Ver 1.0, Feb 2 2015	
Antenna Port Software	UL	UL RF	Ver 2.1.1.1, Jan 20 2015	

7. MEASUREMENT METHODS

KDB 558074 D01 DTS Meas Guidance v03r02: Measurement Procedure AVGPM-G is used for power and AVGPS-3 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	8.07MHz
2.1051, 15.247 (d)	RSS-210 A8.5	Band Edge / Conducted Spurious Emission	-20dBc		Pass	-31.22dBm
15.247	RSS-210 A8.4	TX conducted output power	<30dBm		Pass	16.83dBm
15.247	RSS-210 A8.2	PSD	<8dBm		Pass	-4.413dBm
15.207 (a)	RSS-GEN 7.2.2	AC Power Line conducted emissions	Section 10	Radiated	Pass	33.51dBuV/m(QP)
15.205, 15.209	RSS-210 Clause 2.6, RSS-210 Clause 6	Radiated Spurious Emission	< 54dBuV/m		Pass	47.68dBuV/m

9. ANTENNA PORT TEST RESULTS

9.1. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS

LIMITS

None; for reporting purposes only.

PROCEDURE

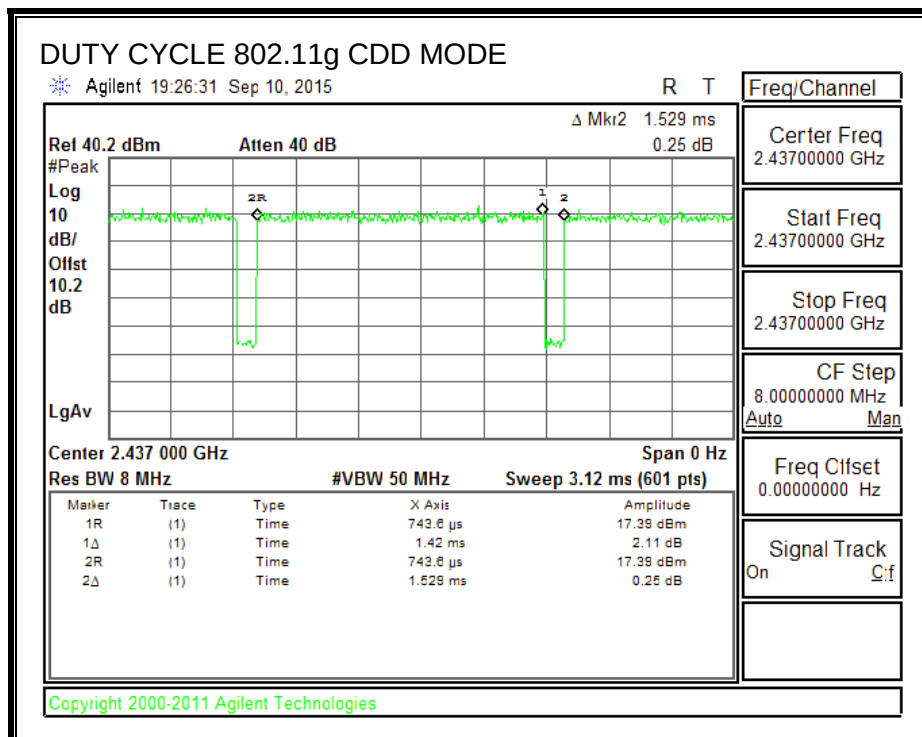
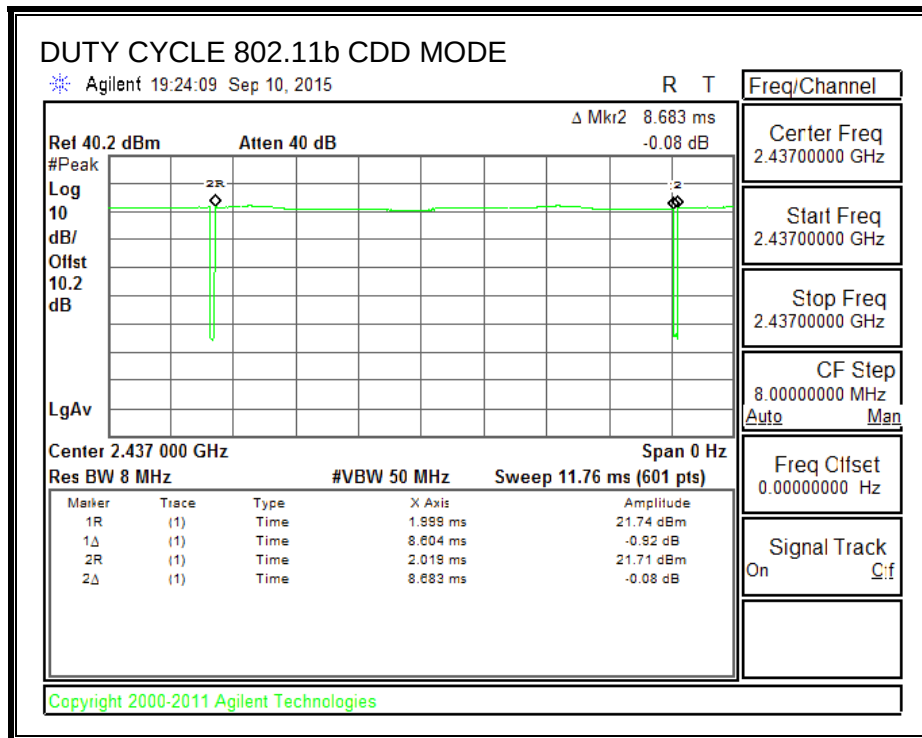
KDB 558074 Zero-Span Spectrum Analyzer Method.

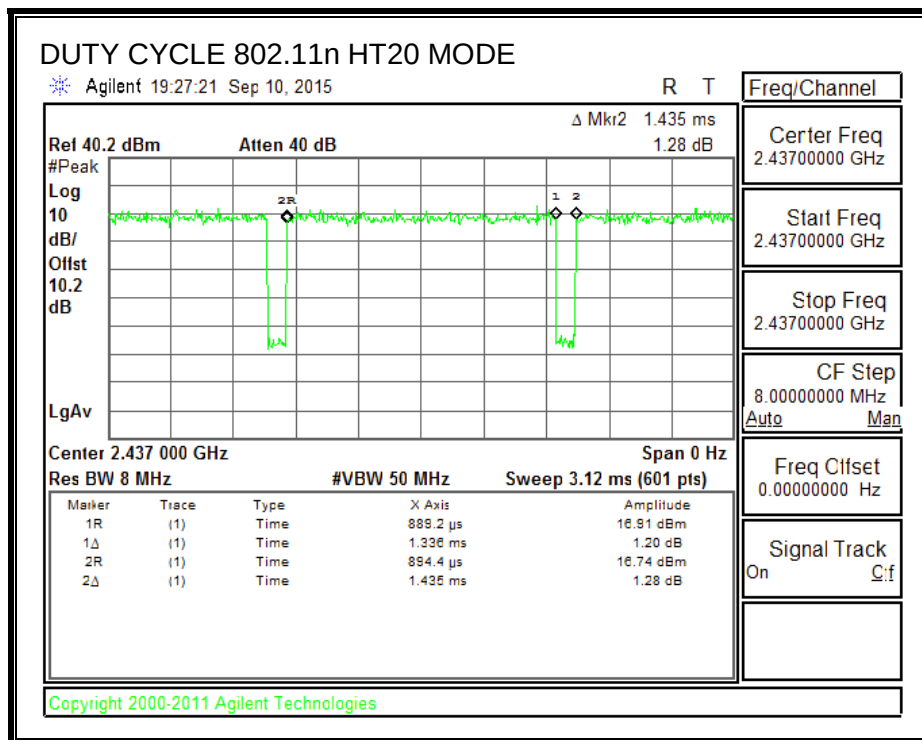
9.1.1. ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
2.4GHz Band						
802.11b CDD	8.604	8.683	0.991	99.09%	0.00	0.010
802.11g CDD	1.420	1.529	0.929	92.87%	0.32	0.704
802.11n HT20 CDD	1.336	1.435	0.931	93.10%	0.31	0.749

9.1.1. DUTY CYCLE PLOTS

2.4 GHz BAND





9.2. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

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

TEST PROCEDURE

Reference to KDB 558074 D01 DTS Meas Guidance v03r03: The transmitter output is connected to a spectrum analyzer with the RBW set to 100KHz, the VBW $\geq 3 \times$ RBW, peak detector and max hold.

RESULTS

9.2.1. 802.11b MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	8.57	0.5
Mid	2437	8.07	0.5
High	2462	9.54	0.5
Worst		8.07	

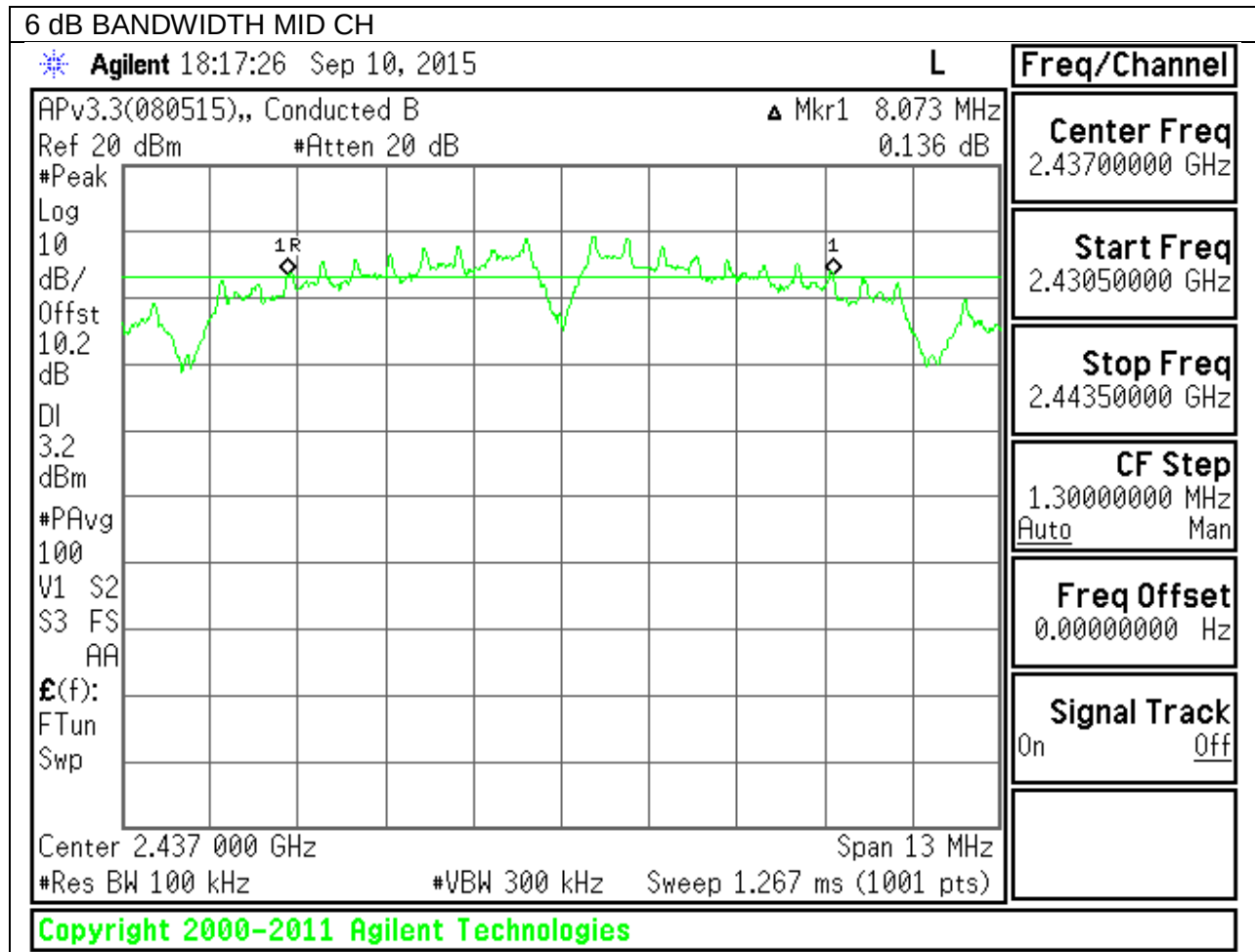
9.2.2. 802.11g MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	15.09	0.5
Mid	2437	14.47	0.5
High	2462	15.11	0.5
Worst		14.47	

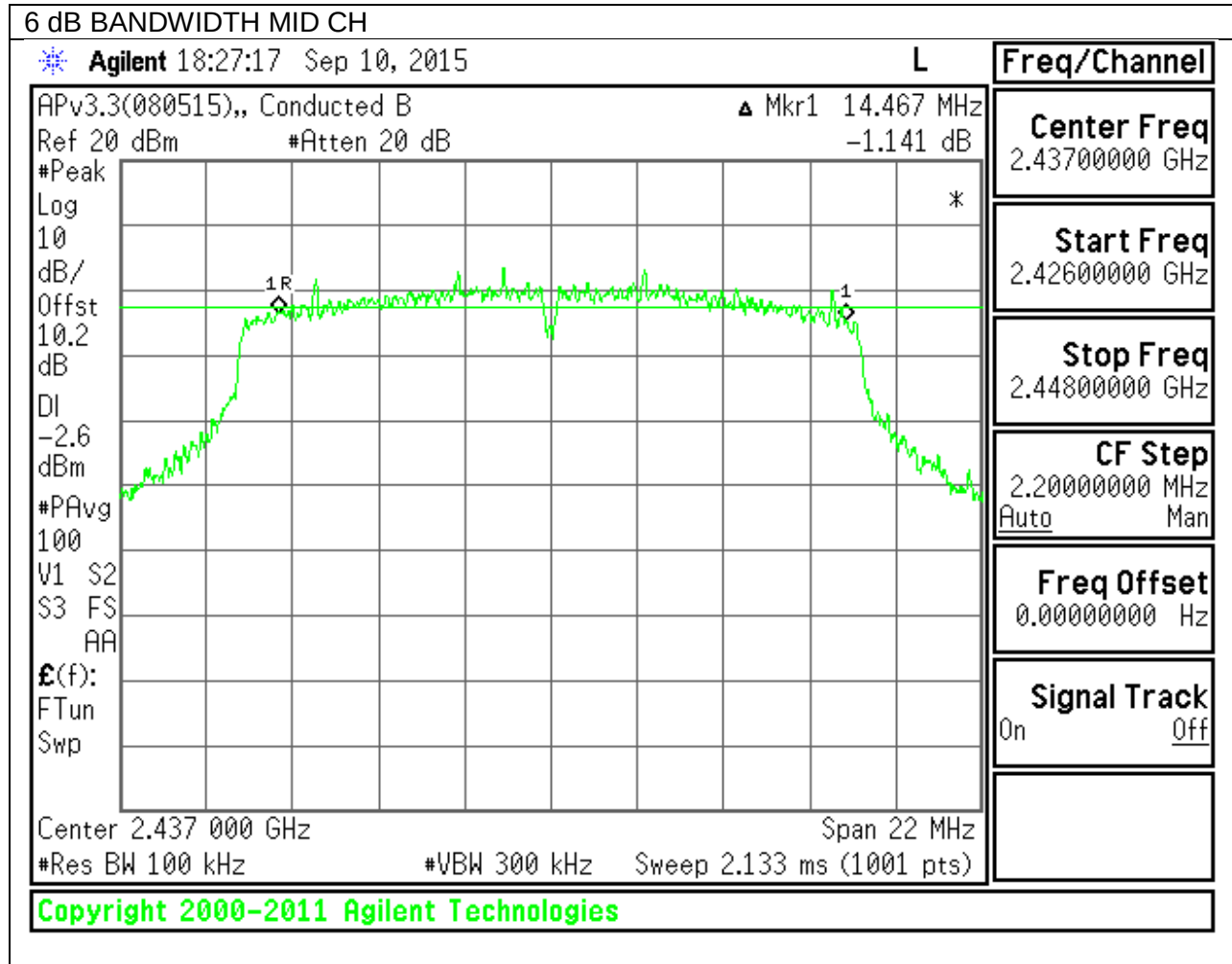
9.2.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	15.16	0.5
Mid	2437	15.13	0.5
High	2462	15.02	0.5
Worst		15.02	

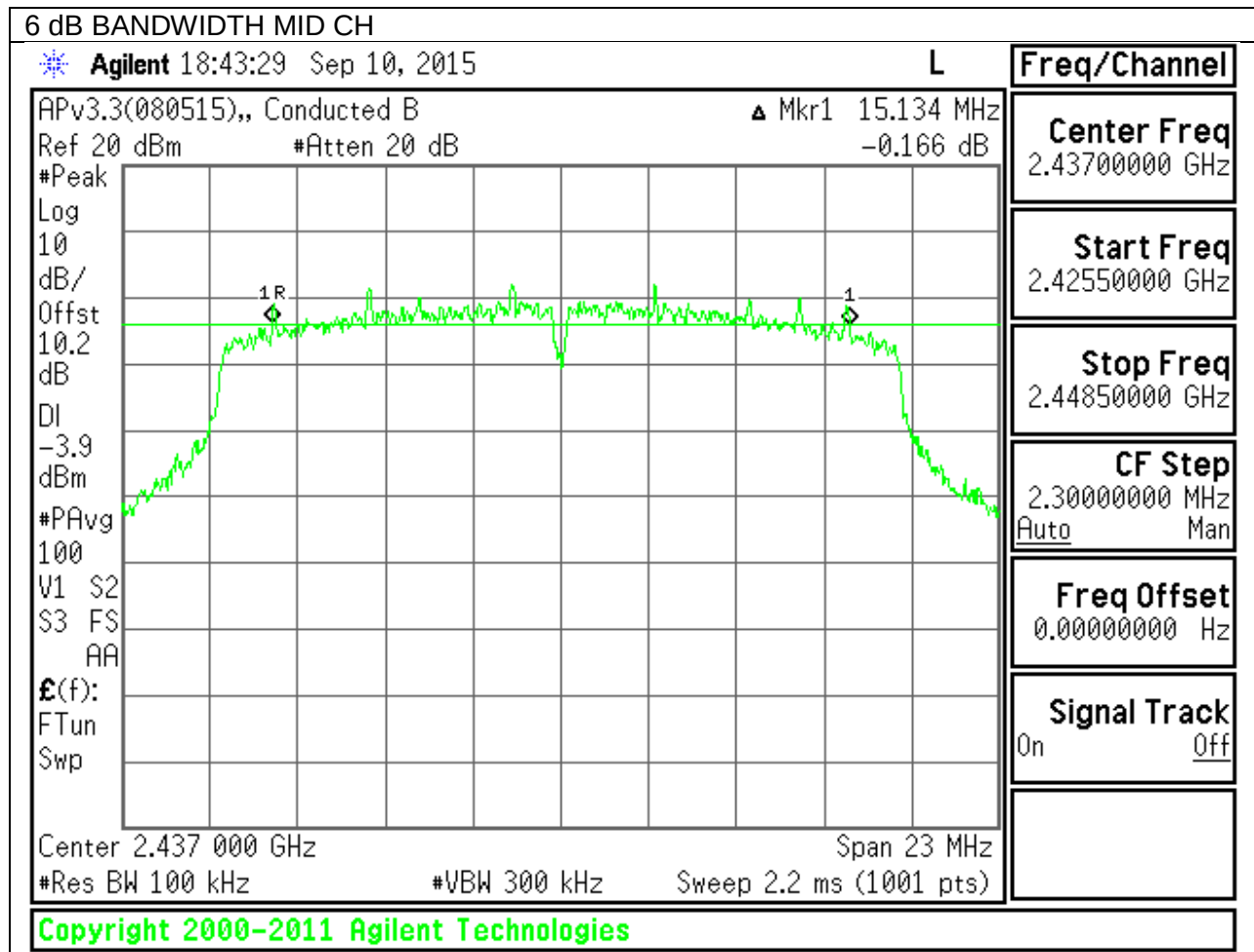
802.11b 6 dB BANDWIDTH



802.11g 6 dB BANDWIDTH



802.11n HT20 6 dB BANDWIDTH



9.3. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

9.3.1. 802.11b MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	14.78
Mid	2437	14.12
High	2462	14.61
Worst		14.78

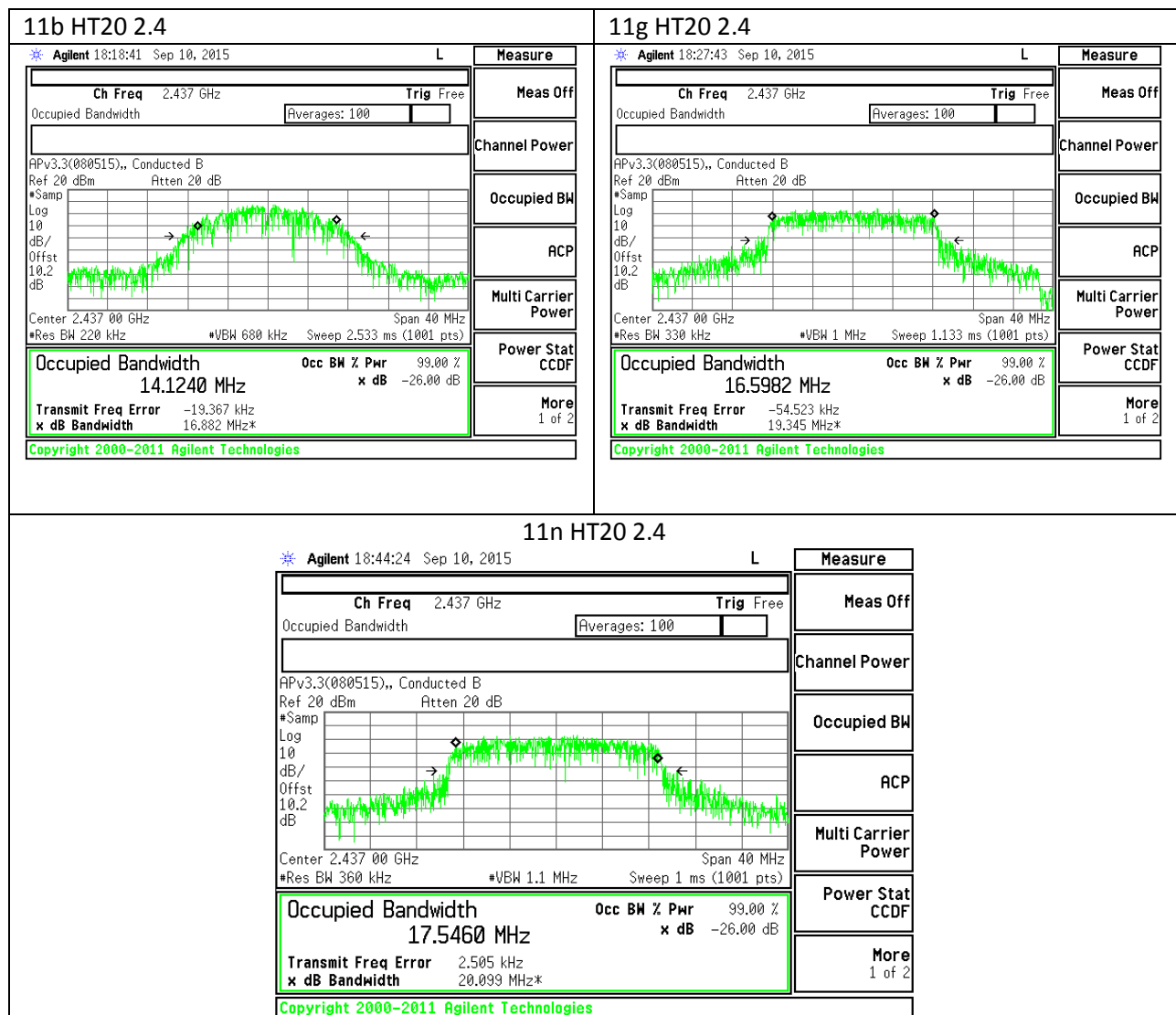
9.3.2. 802.11g MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	16.26
Mid	2437	16.60
High	2462	16.00
Worst		16.00

9.3.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	17.37
Mid	2437	17.55
High	2462	17.41
Worst		17.55

9.3.4. 99% BANDWIDTH MID CH PLOTS



9.4. OUTPUT POWER

LIMITS

FCC §15.247

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.

TEST PROCEDURE

The transmitter output is connected to a power meter.

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

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	-0.45	30.00	30	36	30.00
Mid	2437	-0.45	30.00	30	36	30.00
High	2462	-0.45	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	16.50	16.50	30.00	-13.50
Mid	2437	16.83	16.83	30.00	-13.17
High	2462	16.50	16.50	30.00	-13.50
Worst			16.83		

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	-0.45	30.00	30	36	30.00
Mid	2437	-0.45	30.00	30	36	30.00
High	2462	-0.45	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	13.48	13.48	30.00	-16.52
Mid	2437	13.50	13.50	30.00	-16.50
High	2462	13.48	13.48	30.00	-16.52
Worst			13.50		

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	-0.45	30.00	30	36	30.00
Mid	2437	-0.45	30.00	30	36	30.00
High	2462	-0.45	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	12.27	12.27	30.00	-17.73
Mid	2437	12.68	12.68	30.00	-17.32
High	2462	12.23	12.23	30.00	-17.77
Worst			12.68		

9.5. PSD

LIMITS

FCC §15.247

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	-5.00	8.0	-13.0
Mid	2437	-4.41	8.0	-12.4
High	2462	-5.33	8.0	-13.3

9.5.2. 802.11g MODE IN THE 2.4 GHz BAND

PSD Results

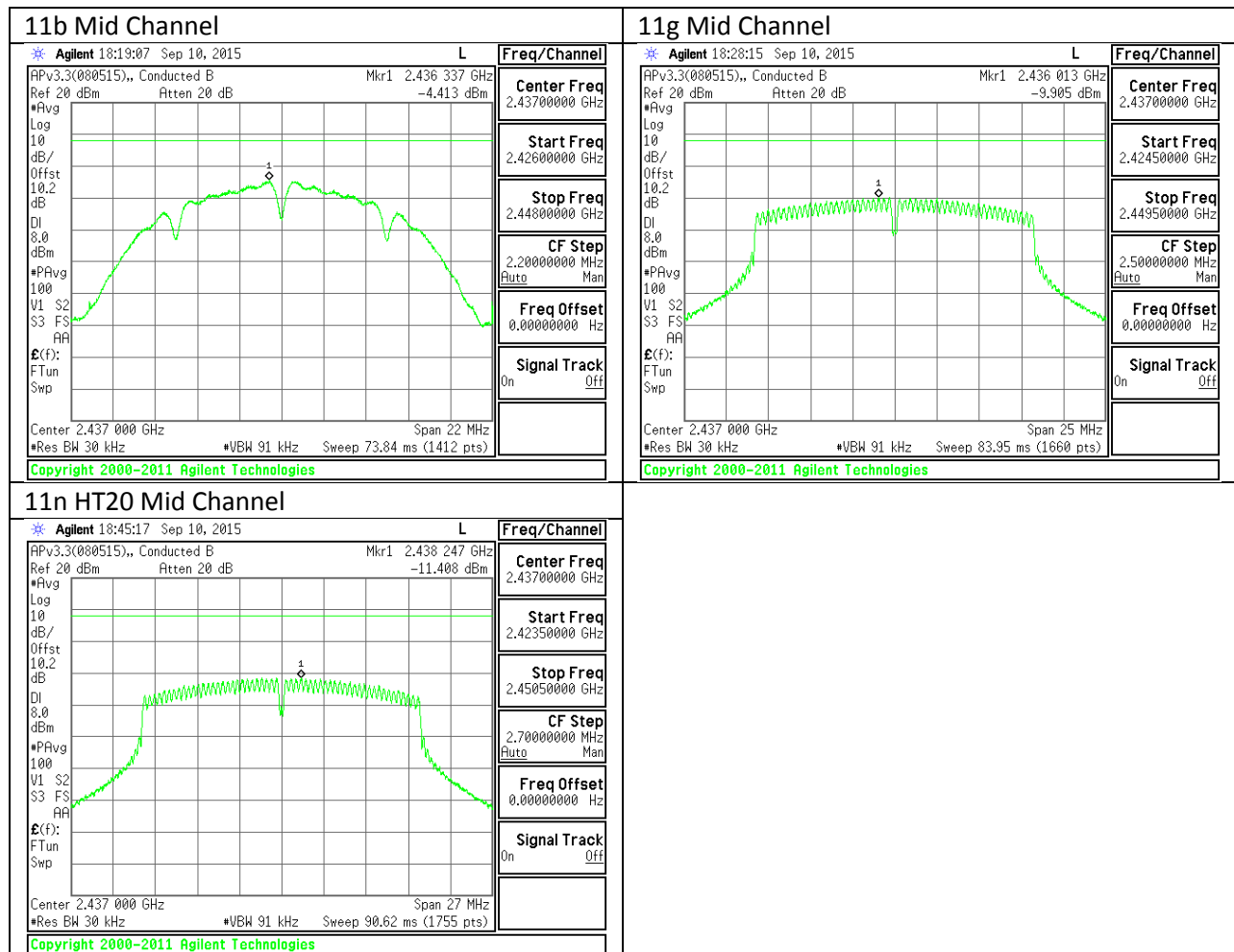
Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-10.26	8.0	-18.3
Mid	2437	-9.91	8.0	-17.9
High	2462	-10.88	8.0	-18.9

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	-12.01	8.0	-20.0
Mid	2437	-11.41	8.0	-19.4
High	2462	-12.33	8.0	-20.3

9.5.4. PSD MID CH PLOTS



9.6. OUT-OF-BAND EMISSIONS

LIMITS

FCC §15.247 (d)

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.

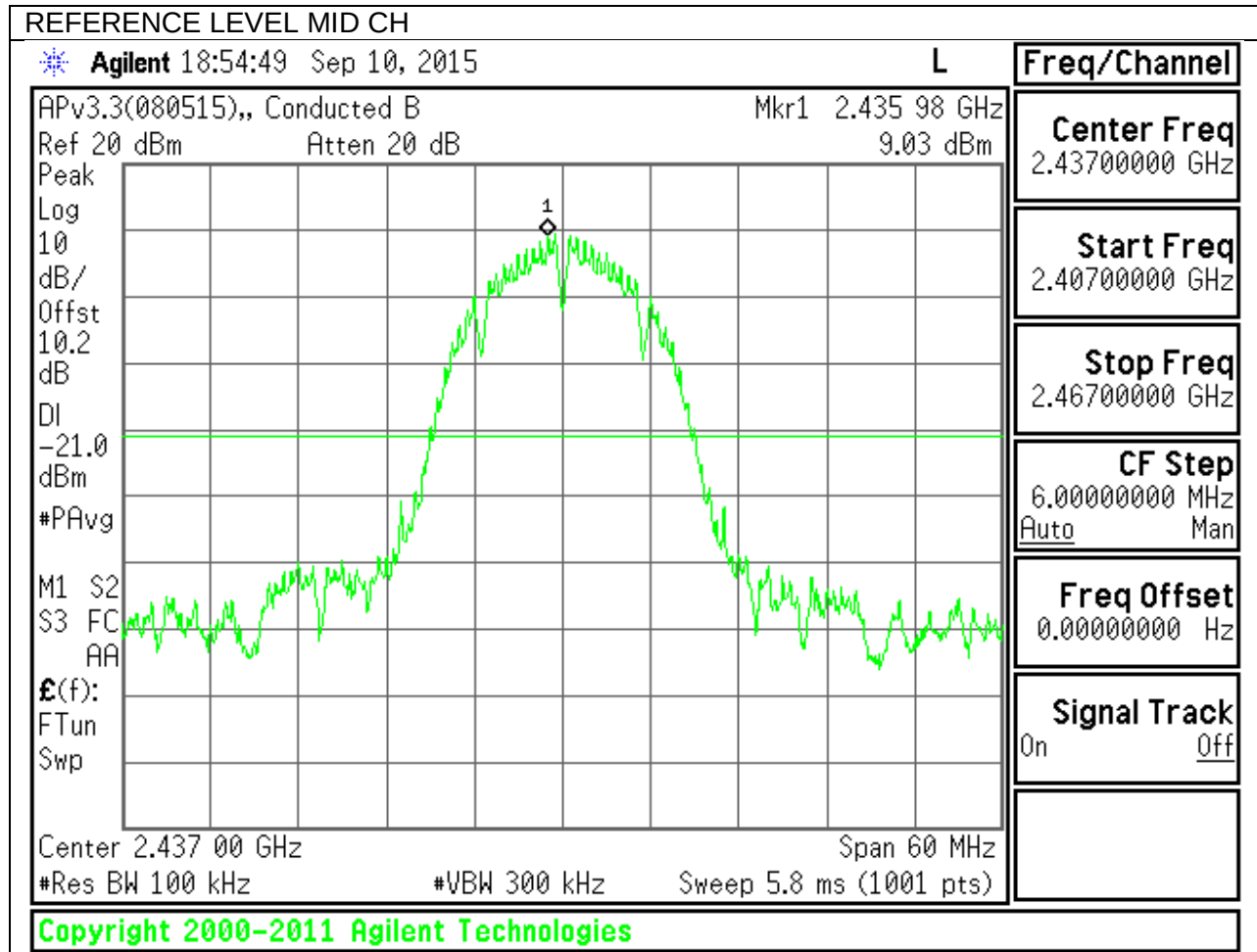
TEST PROCEDURE

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.

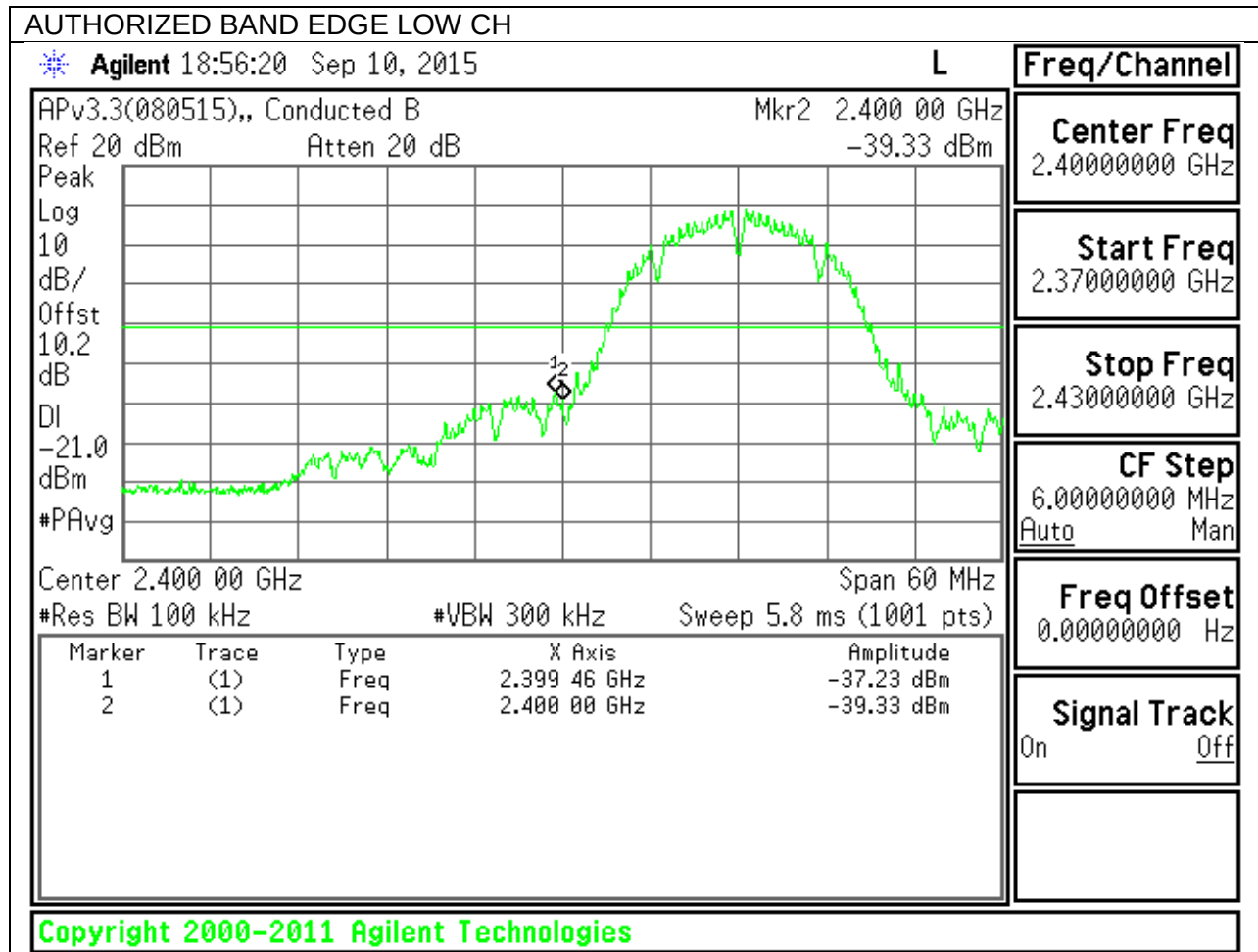
RESULTS

9.6.1. 802.11b MODE IN THE 2.4 GHz BAND

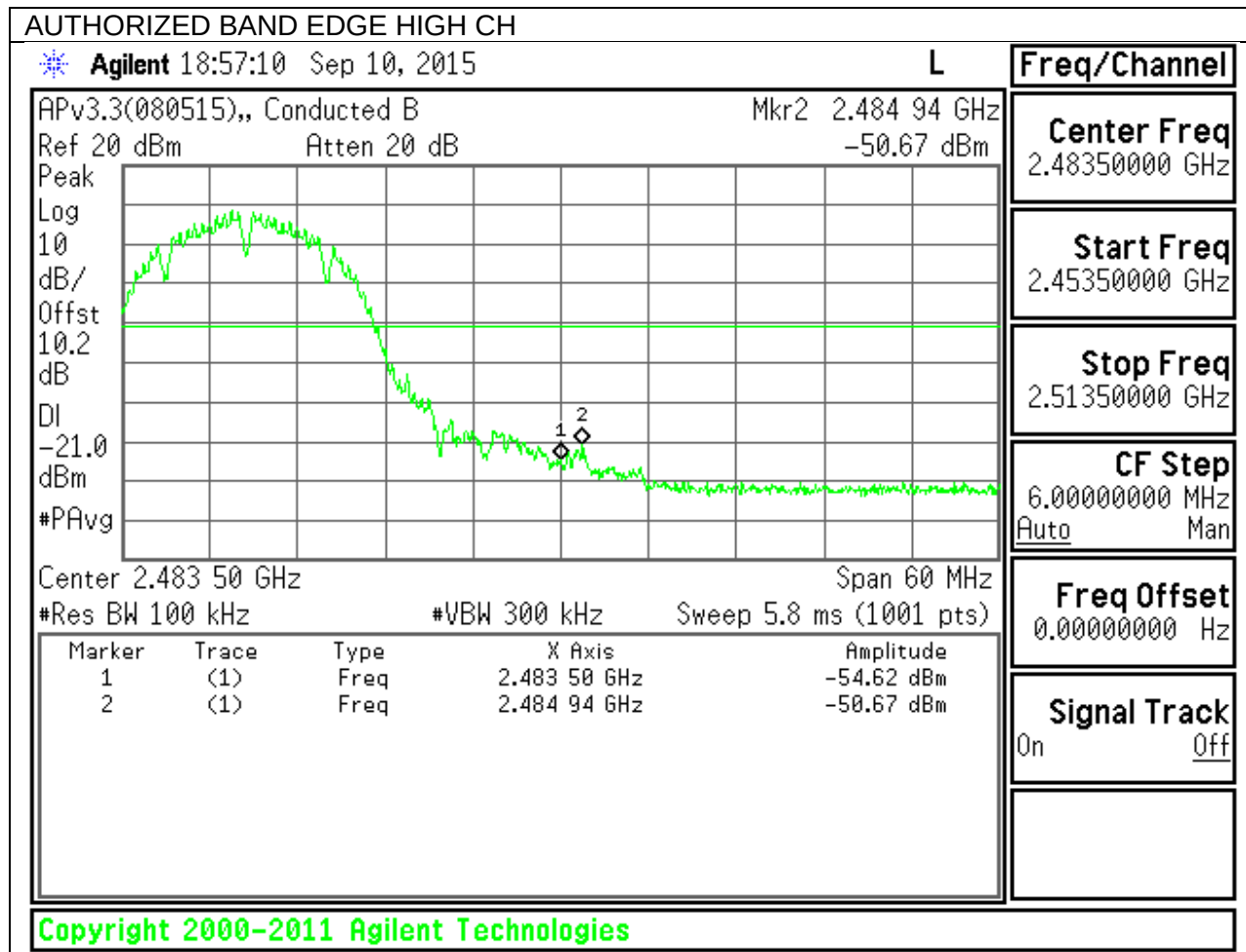
IN-BAND REFERENCE LEVEL



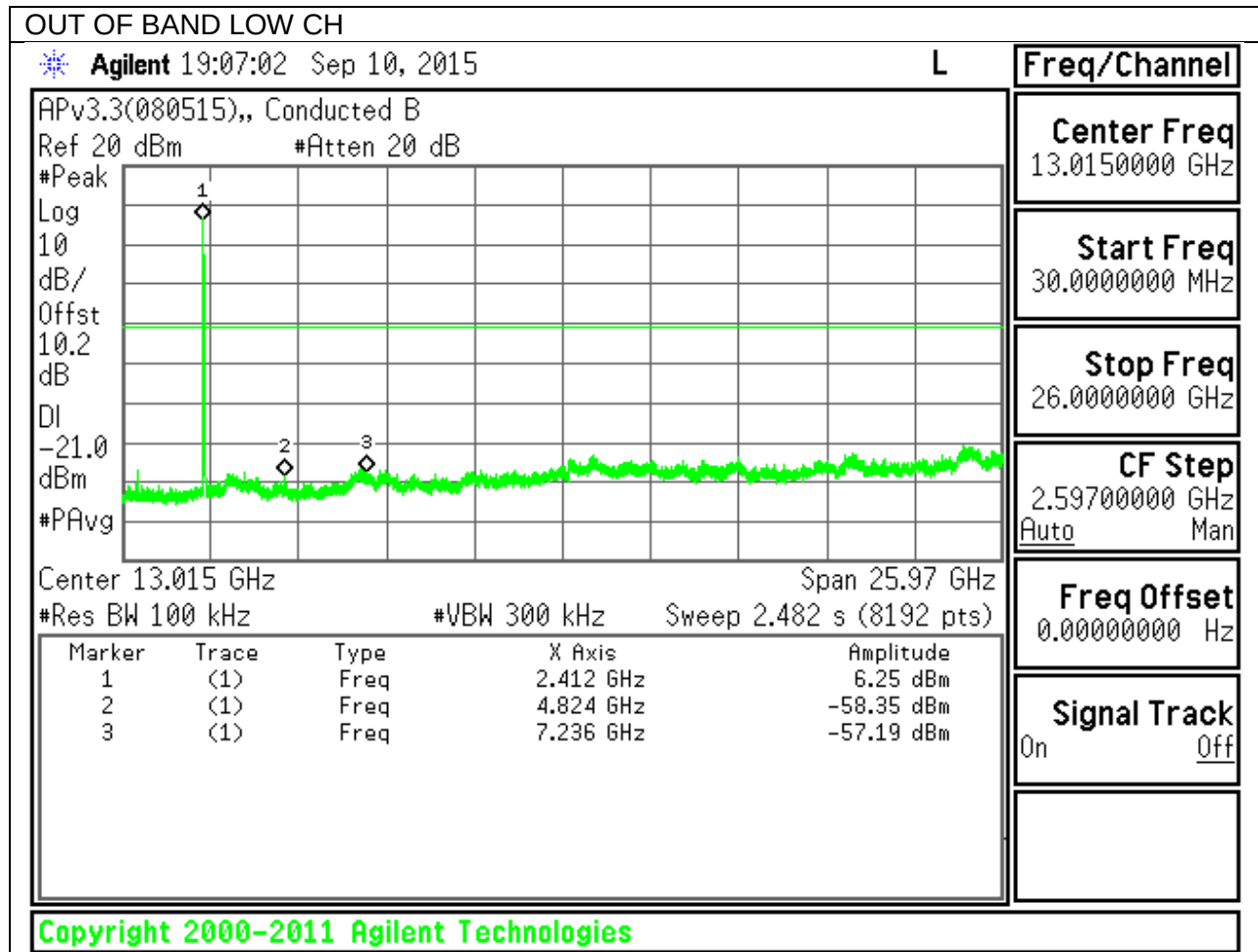
LOW CHANNEL BANDEDGE



HIGH CHANNEL BANDEDGE



OUT-OF-BAND EMISSIONS



OUT OF BAND MID CH

Agilent 19:08:31 Sep 10, 2015

L

Freq/Channel

APv3.3(080515),, Conducted B

Ref 20 dBm

#Atten 20 dB

#Peak

Log

10

dB/

Offst

10.2

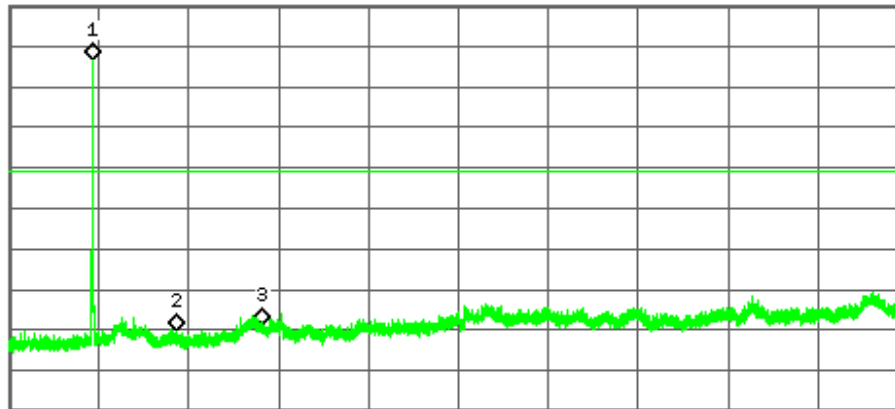
dB

DI

-21.0

dBm

#PAvg



Center 13.015 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 2.482 s (8192 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.437 GHz	6.44 dBm
2	(1)	Freq	4.874 GHz	-60.46 dBm
3	(1)	Freq	7.311 GHz	-58.74 dBm

Center Freq
13.0150000 GHz

Start Freq
30.0000000 MHz

Stop Freq
26.0000000 GHz

CF Step
2.59700000 GHz
Auto Man

Freq Offset
0.00000000 Hz

Signal Track
On Off

Copyright 2000-2011 Agilent Technologies

OUT OF BAND HIGH CH

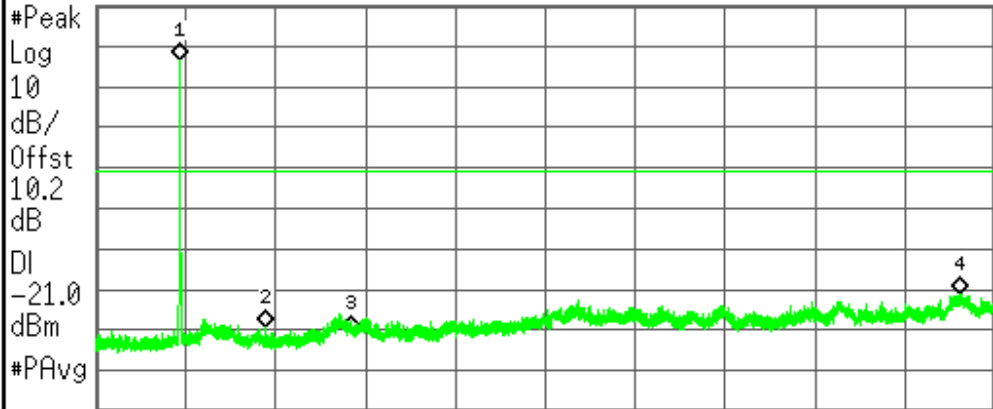
Agilent 19:09:31 Sep 10, 2015

L

Freq/Channel

APv3.3(080515),, Conducted B Mkr4 24.970 GHz
Ref 20 dBm #Atten 20 dB -51.129 dBm

Center Freq
13.0150000 GHz



Start Freq
30.0000000 MHz

Stop Freq
26.0000000 GHz

CF Step
2.59700000 GHz
Auto Man

Center 13.015 GHz Span 25.97 GHz
#Res BW 100 kHz #VBW 300 kHz Sweep 2.482 s (8192 pts)

Freq Offset
0.00000000 Hz

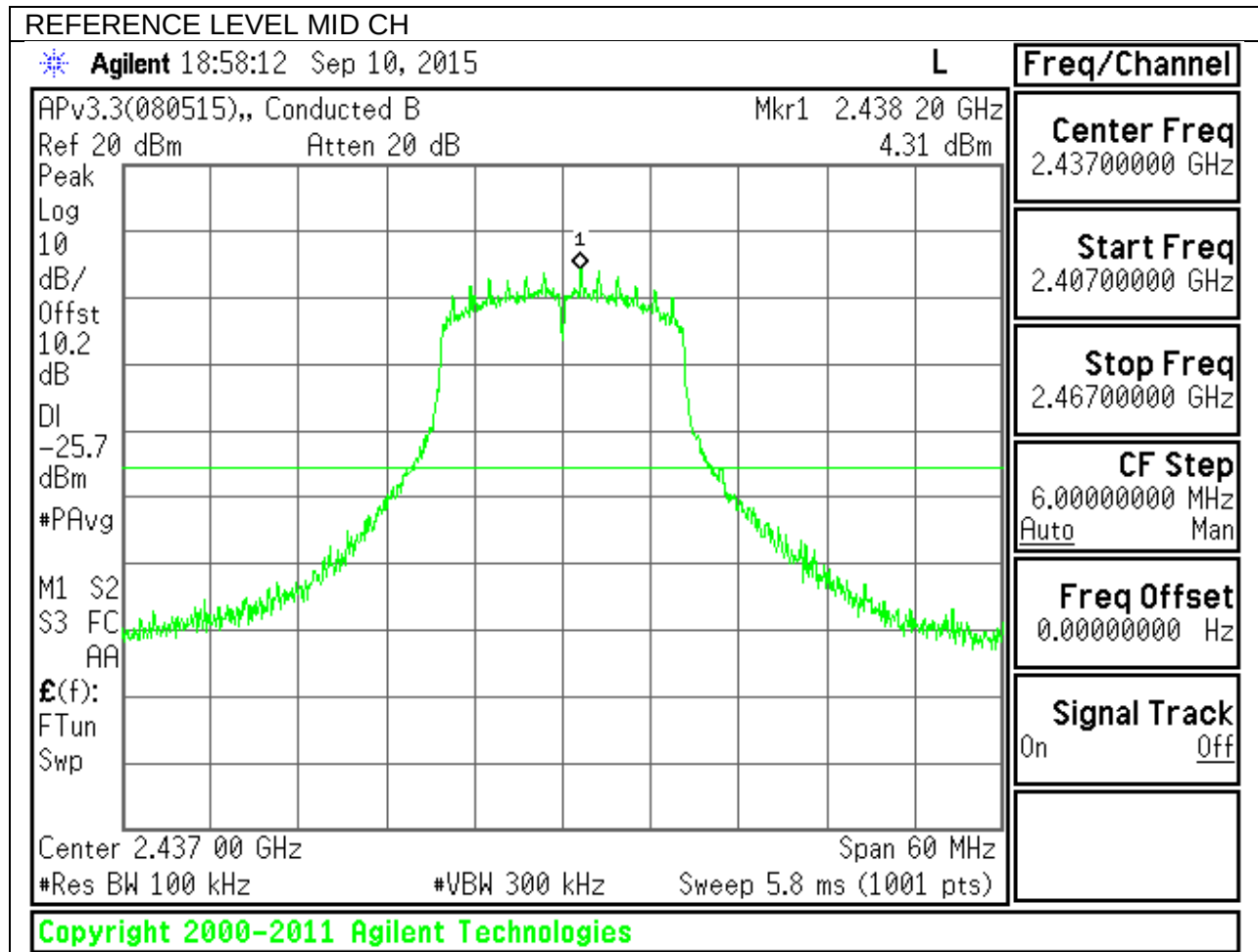
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.462 GHz	6.64 dBm
2	(1)	Freq	4.924 GHz	-59.17 dBm
3	(1)	Freq	7.386 GHz	-60.77 dBm
4	(1)	Freq	24.970 GHz	-51.13 dBm

Signal Track
On Off

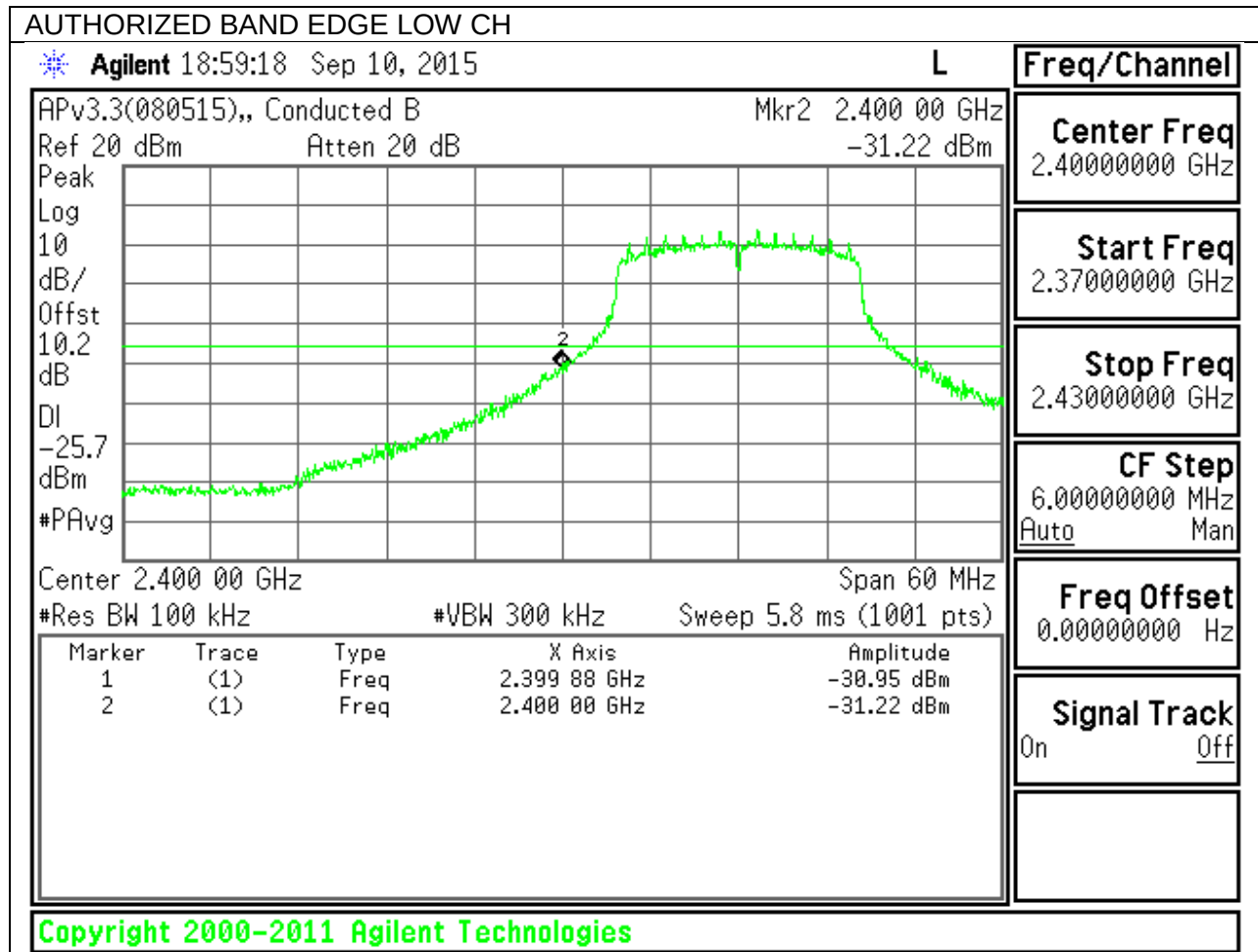
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9.6.2. 802.11g MODE IN THE 2.4 GHz BAND

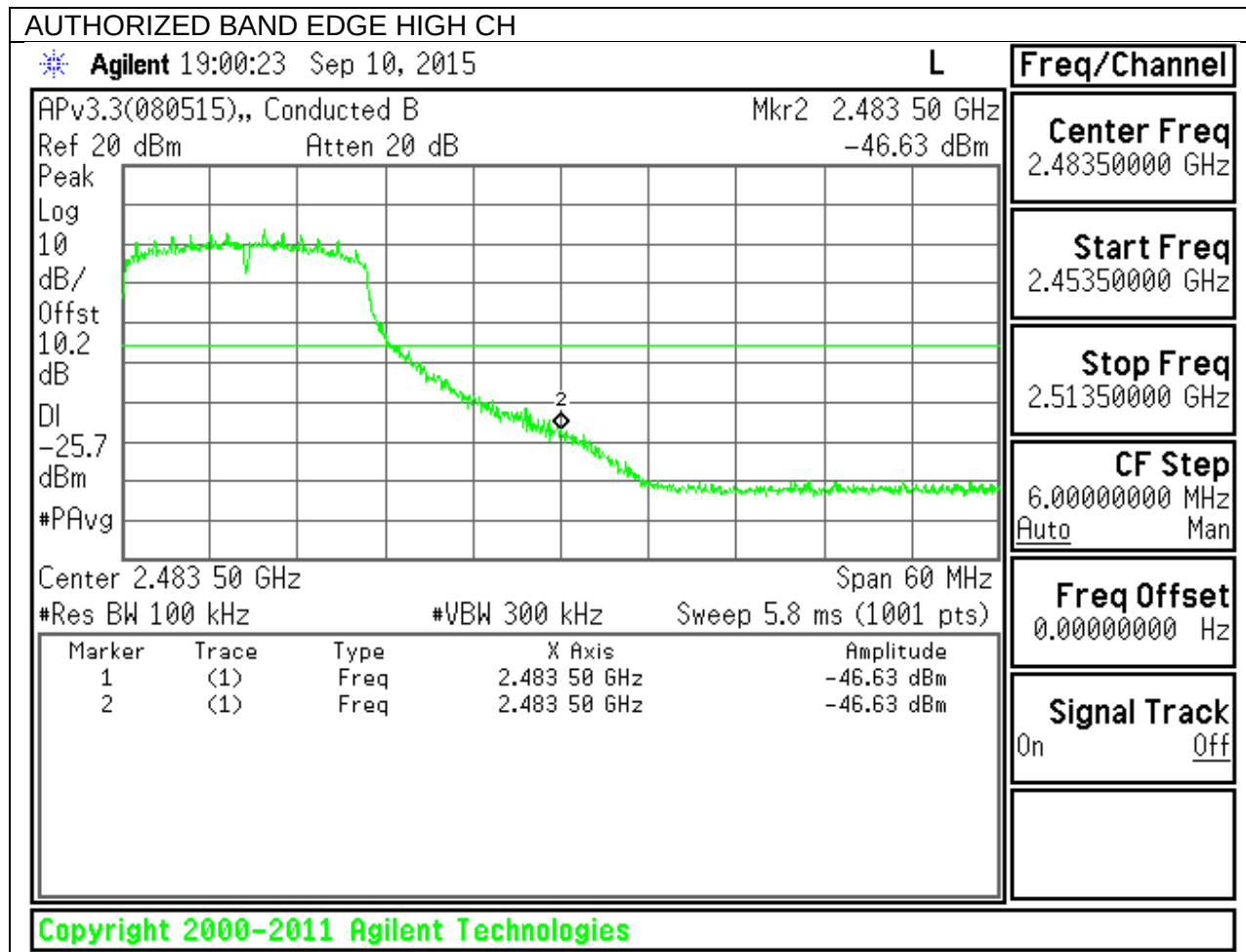
IN-BAND REFERENCE LEVEL



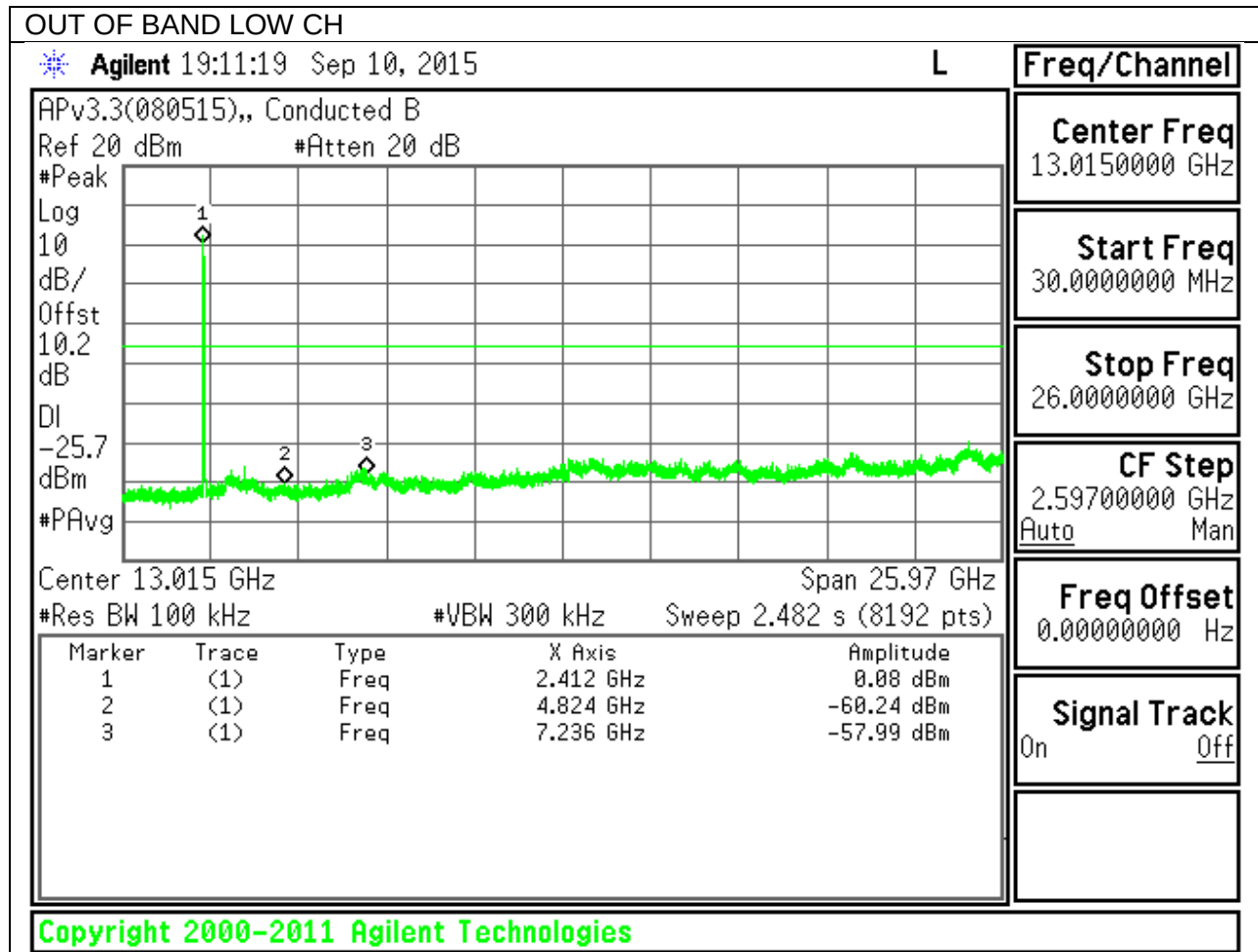
LOW CHANNEL BANDEDGE



HIGH CHANNEL BANDEDGE



OUT-OF-BAND EMISSIONS



OUT OF BAND MID CH

Agilent 19:12:25 Sep 10, 2015

L

APv3.3(080515),, Conducted B

Mkr4 24.792 GHz

Ref 20 dBm

#Atten 20 dB

-50.552 dBm

#Peak

Log

10

dB/

Offst

10.2

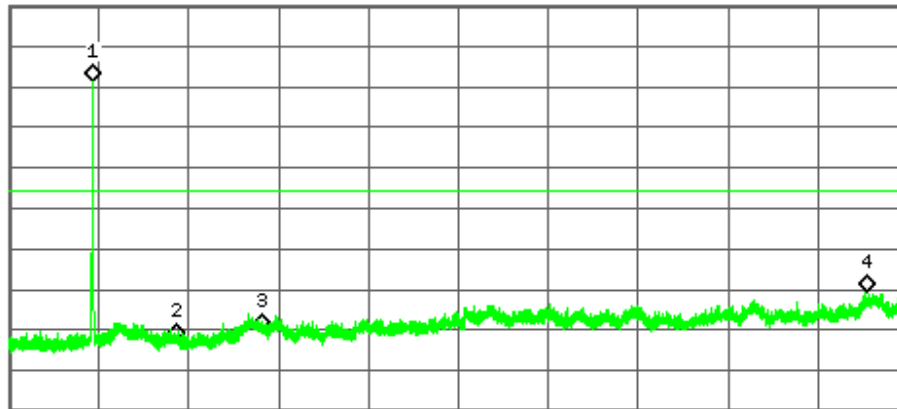
dB

DI

-25.7

dBm

#PAvg



Center 13.015 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 2.482 s (8192 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.437 GHz	1.09 dBm
2	(1)	Freq	4.874 GHz	-62.60 dBm
3	(1)	Freq	7.311 GHz	-60.13 dBm
4	(1)	Freq	24.792 GHz	-50.55 dBm

Freq/Channel

Center Freq

13.0150000 GHz

Start Freq

30.0000000 MHz

Stop Freq

26.0000000 GHz

CF Step

2.59700000 GHz

Auto

Man

Freq Offset

0.00000000 Hz

Signal Track

On

Off

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OUT OF BAND HIGH CH

Agilent 19:13:30 Sep 10, 2015

L

Freq/Channel

APv3.3(080515),, Conducted B

Mkr4 24.935 GHz

Ref 20 dBm

#Atten 20 dB

-49.929 dBm

Center Freq
13.0150000 GHz

#Peak

Log

10

dB/

Offst

10.2

dB

DI

-25.7

dBm

#PAvg

Start Freq
30.0000000 MHz

Stop Freq
26.0000000 GHz

CF Step
2.59700000 GHz
Auto Man

Freq Offset
0.00000000 Hz

Signal Track
On Off

Center 13.015 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 300 kHz

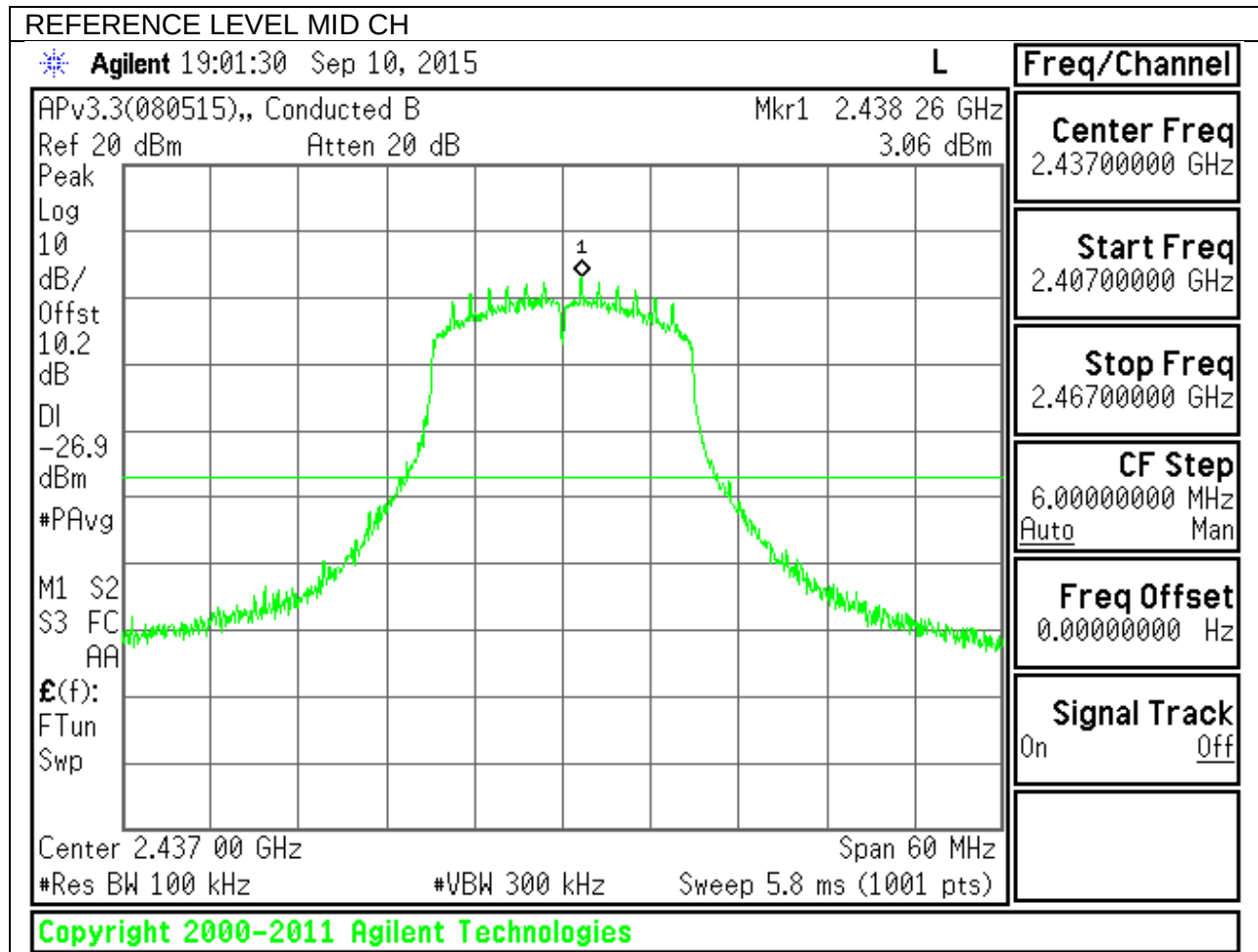
Sweep 2.482 s (8192 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.462 GHz	0.07 dBm
2	(1)	Freq	4.924 GHz	-64.02 dBm
3	(1)	Freq	7.386 GHz	-60.50 dBm
4	(1)	Freq	24.935 GHz	-49.93 dBm

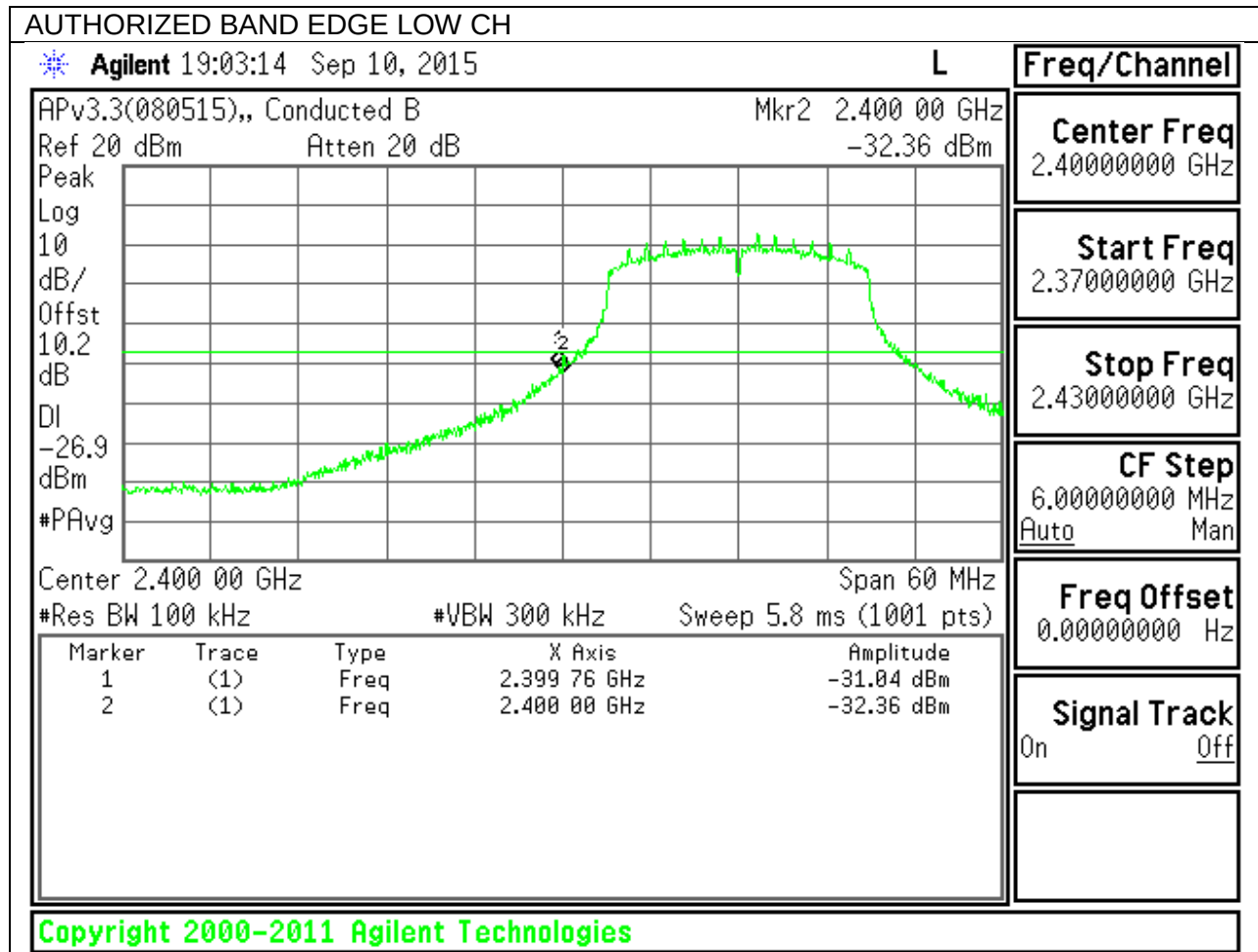
Copyright 2000-2011 Agilent Technologies

9.6.3. 802.11n MODE IN THE 2.4 GHz BAND

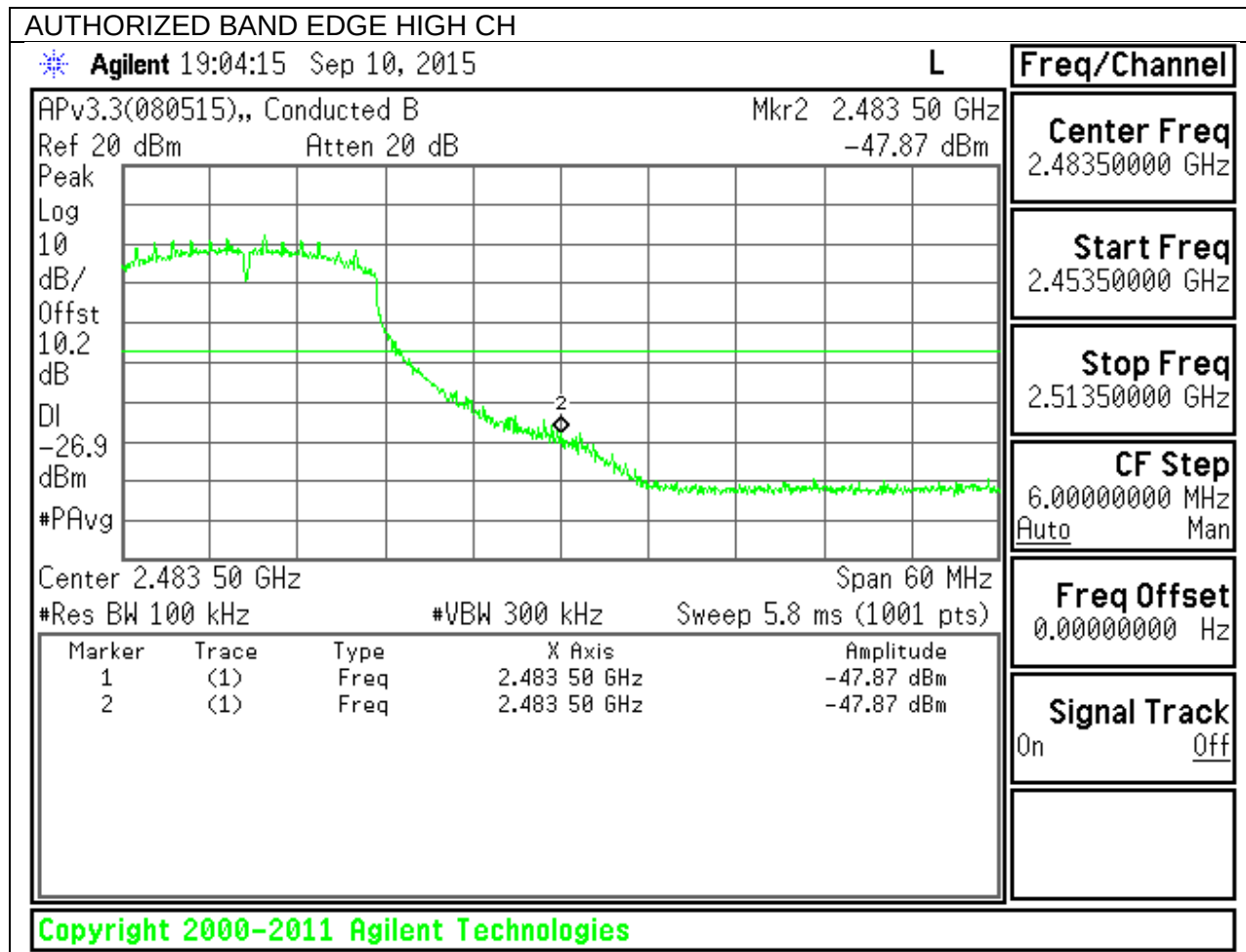
IN-BAND REFERENCE LEVEL



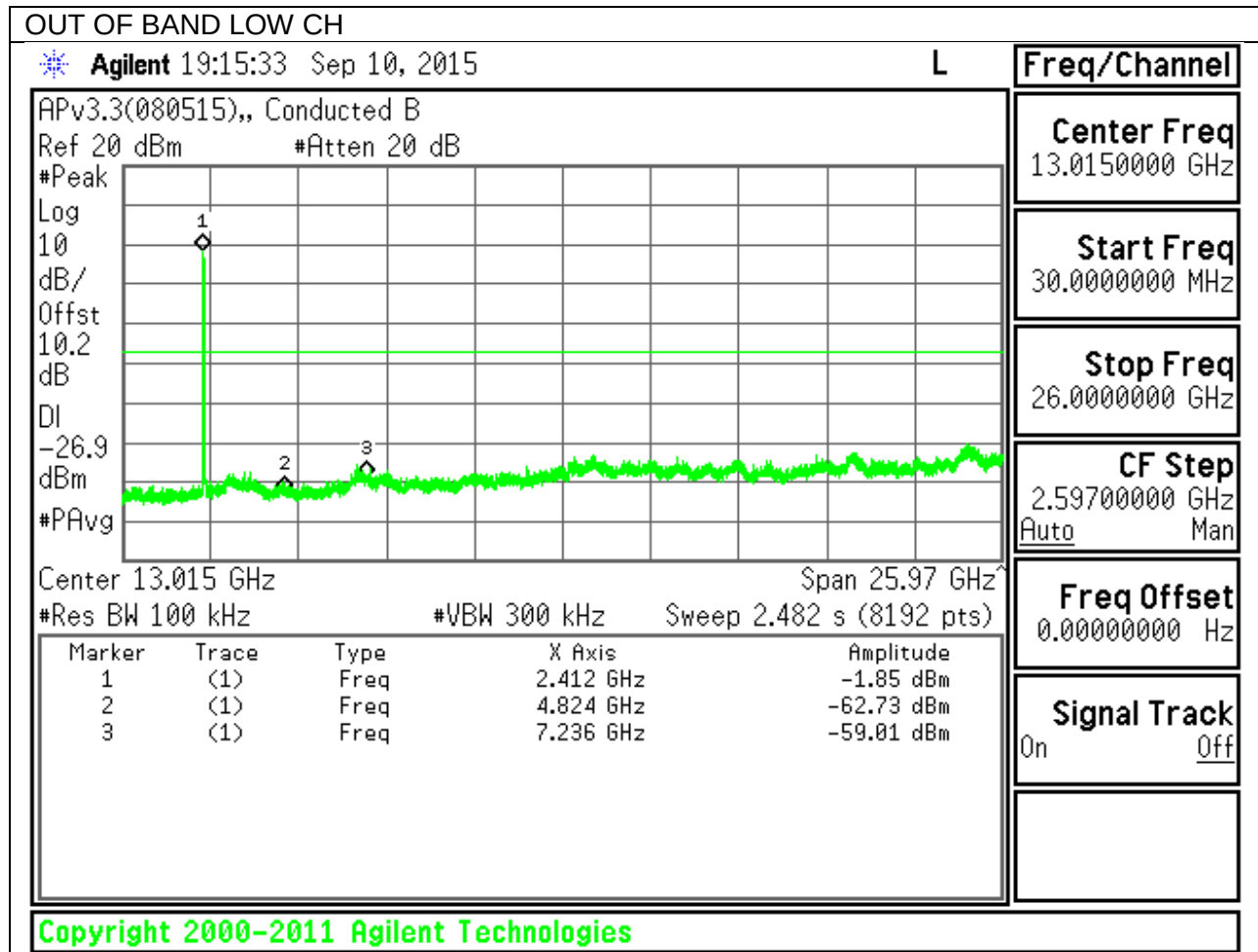
LOW CHANNEL BANDEDGE



HIGH CHANNEL BANDEDGE



OUT-OF-BAND EMISSIONS

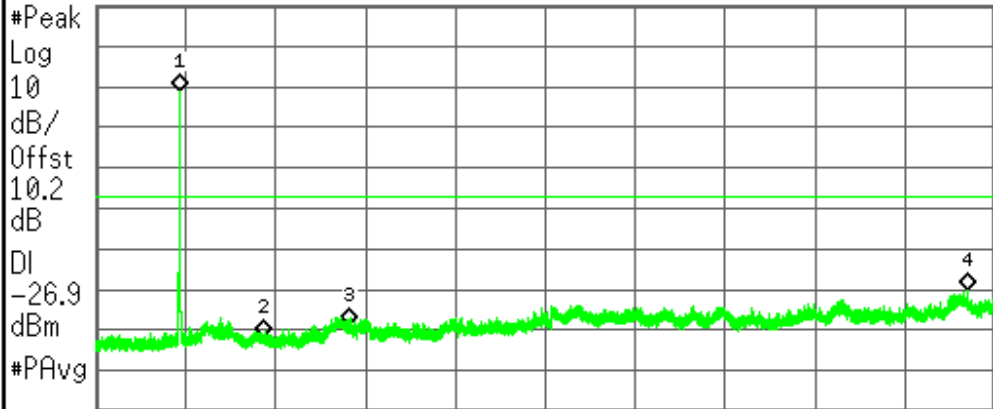


OUT OF BAND MID CH

Agilent 19:16:39 Sep 10, 2015

L

APv3.3(080515),, Conducted B Mkr4 25.198 GHz
Ref 20 dBm #Atten 20 dB -50.337 dBm



Center 13.015 GHz Span 25.97 GHz
#Res BW 100 kHz #VBW 300 kHz Sweep 2.482 s (8192 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.437 GHz	-1.16 dBm
2	(1)	Freq	4.874 GHz	-61.80 dBm
3	(1)	Freq	7.311 GHz	-58.62 dBm
4	(1)	Freq	25.198 GHz	-50.34 dBm

Freq/Channel

Center Freq
13.0150000 GHz

Start Freq
30.0000000 MHz

Stop Freq
26.0000000 GHz

CF Step
2.59700000 GHz

Auto Man

Freq Offset
0.00000000 Hz

Signal Track

On Off

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OUT OF BAND HIGH CH

Agilent 19:17:45 Sep 10, 2015

L

Freq/Channel

APv3.3(080515),, Conducted B

Mkr4 24.973 GHz

Ref 20 dBm

#Atten 20 dB

-51.281 dBm

Center Freq
13.0150000 GHz

#Peak

Log

10

dB/

Offst

10.2

dB

DI

-26.9

dBm

#PAvg

Start Freq
30.0000000 MHz

Stop Freq
26.0000000 GHz

CF Step
2.59700000 GHz
Auto Man

Freq Offset
0.00000000 Hz

Signal Track
On Off

Center 13.015 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 2.482 s (8192 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.462 GHz	-2.03 dBm
2	(1)	Freq	4.924 GHz	-63.06 dBm
3	(1)	Freq	7.386 GHz	-59.52 dBm
4	(1)	Freq	24.973 GHz	-51.28 dBm

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10. RADIATED TEST RESULTS

10.1. LIMITS AND PROCEDURE

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 150 cm above the ground plane for above 1GHz and 80cm for below 1GHz. The antenna to EUT distance is 3 meters.

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

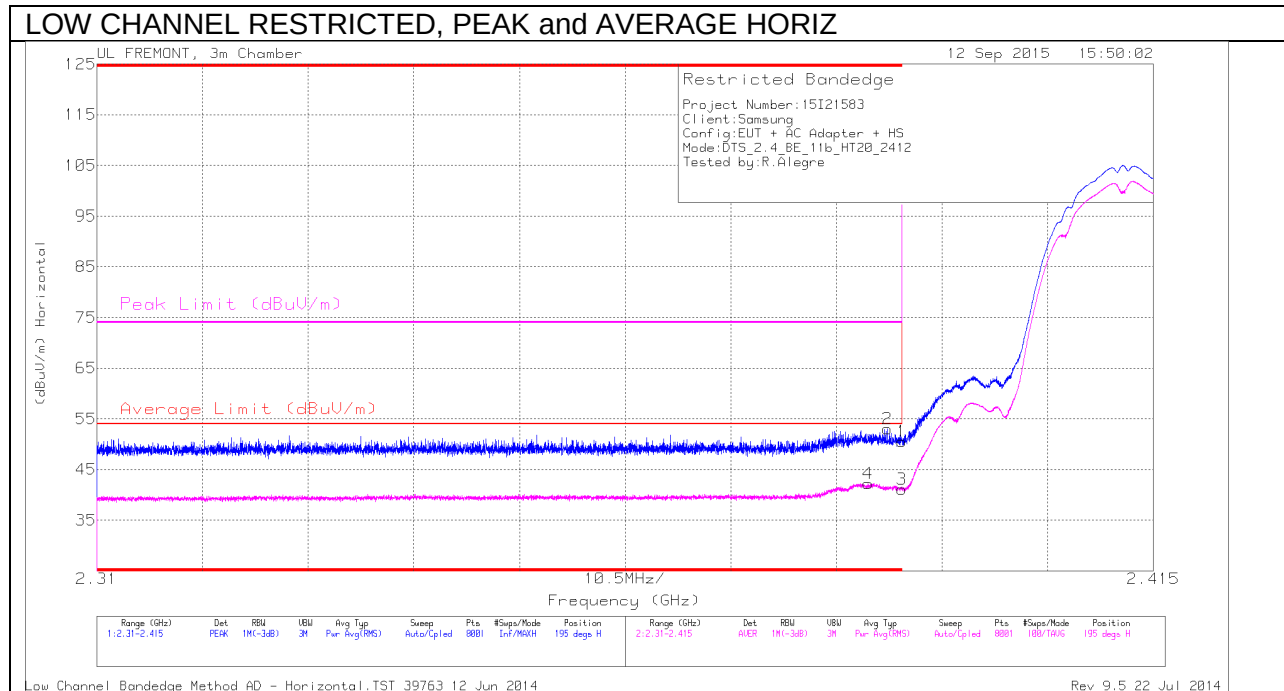
For measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and add duty cycle factor for average measurements. Duty cycle factor= $10\log(1/x)$ For this sample B mode = 0dB (duty cycle >98%); G mode = 0.32dB; N mode = 0.31dB.

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)



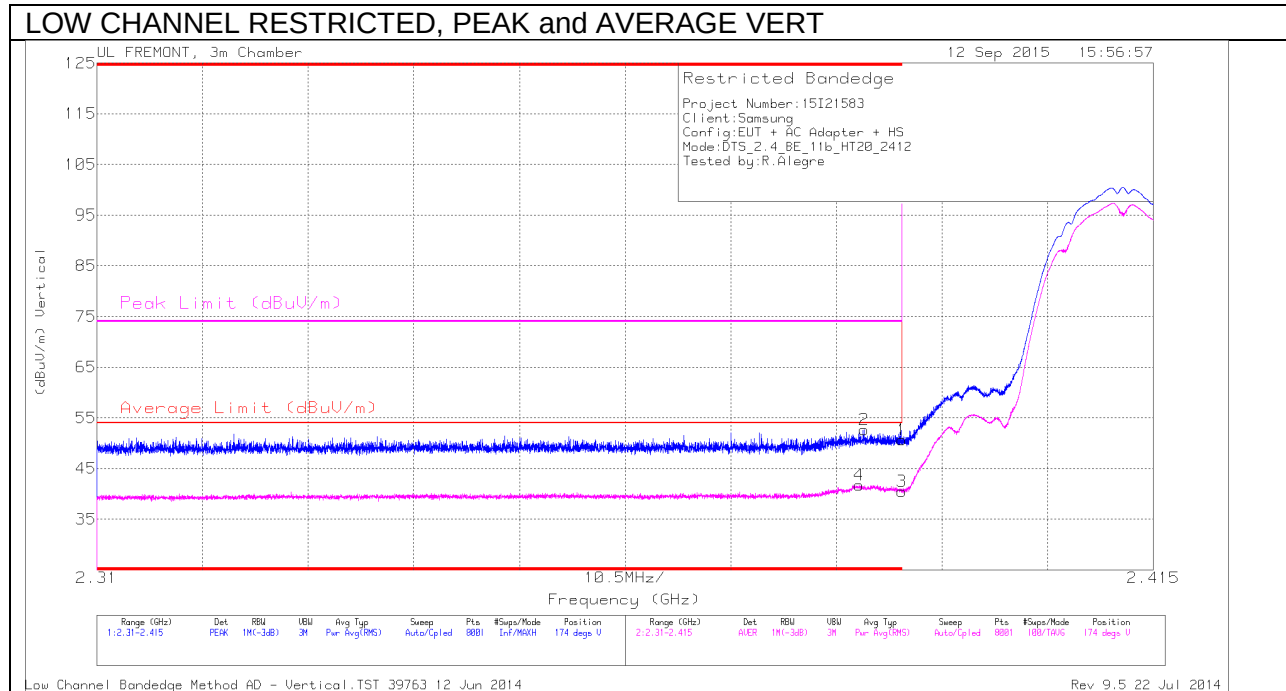
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	* 2.387	32.66	RMS	32	-22.4	42.26	54	-11.74	-	-	195	321	H
2	* 2.389	43.42	PK	32	-22.4	53.02	-	-	74	-20.98	195	321	H
1	* 2.39	40.92	PK	32	-22.4	50.52	-	-	74	-23.48	195	321	H
3	* 2.39	31.49	RMS	32	-22.4	41.09	54	-12.91	-	-	195	321	H

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

Pk - Peak detector

RMS - RMS detection



Trace Markers

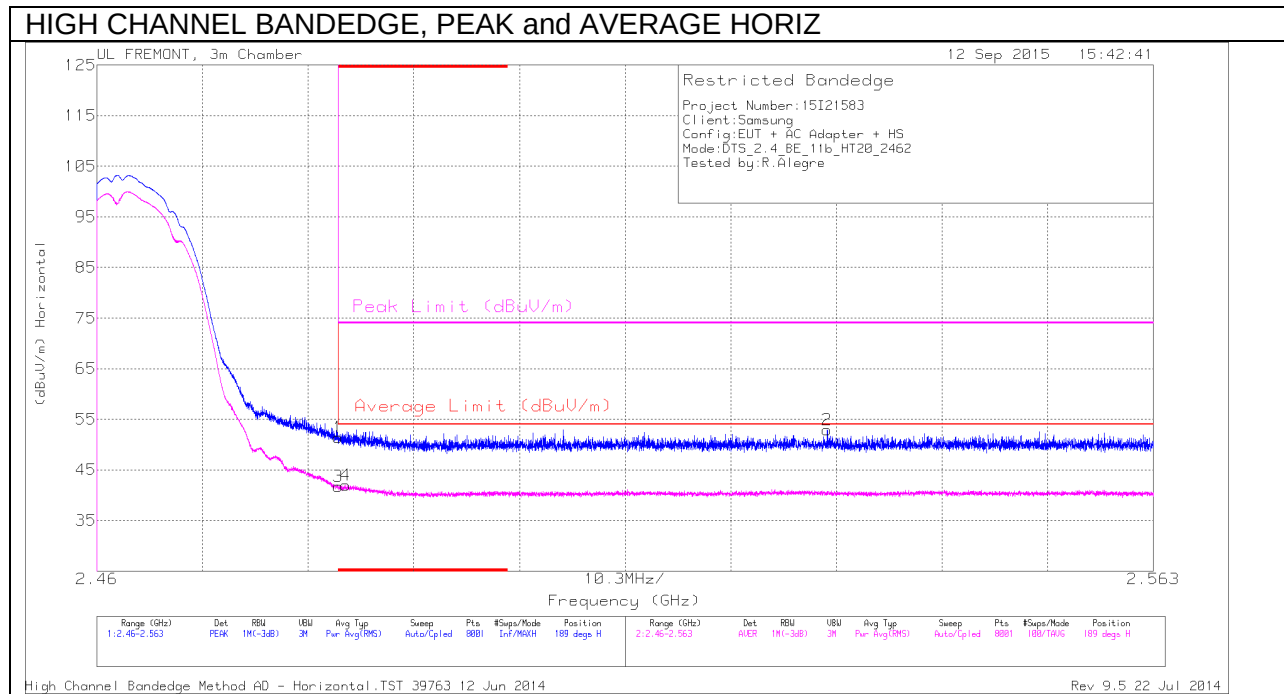
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.386	43.04	PK	32	-22.4	52.64	-	-	74	-21.36	174	296	V
4	* 2.386	32.13	RMS	32	-22.4	41.73	54	-12.27	-	-	174	296	V
1	* 2.39	41.05	PK	32	-22.4	50.65	-	-	74	-23.35	174	296	V
3	* 2.39	30.86	RMS	32	-22.4	40.46	54	-13.54	-	-	174	296	V

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

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)



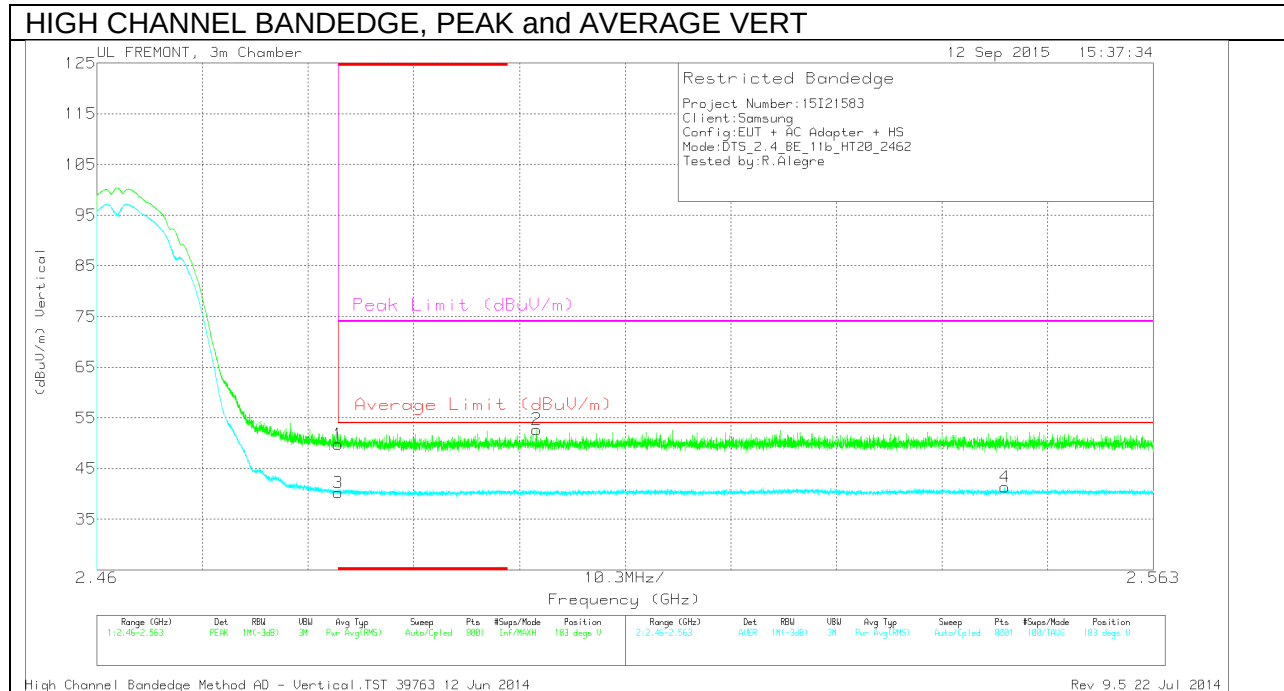
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fitr/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	41.2	PK	32.3	-22.1	51.4	-	-	74	-22.6	189	311	H
3	* 2.484	31.57	RMS	32.3	-22.1	41.77	54	-12.23	-	-	189	311	H
4	* 2.484	31.74	RMS	32.3	-22.1	41.94	54	-12.06	-	-	189	311	H
2	2.531	42.49	PK	32.4	-22	52.89	-	-	74	-21.11	189	311	H

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

Pk - Peak detector

RMS - RMS detection



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fitr/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	39.63	PK	32.3	-22.1	49.83	-	-	74	-24.17	183	360	V
3	* 2.484	30	RMS	32.3	-22.1	40.2	54	-13.8	-	-	183	360	V
2	2.503	42.51	PK	32.3	-22.1	52.71	-	-	74	-21.29	183	360	V
4	2.549	30.91	RMS	32.4	-22	41.31	54	-12.69	-	-	183	360	V

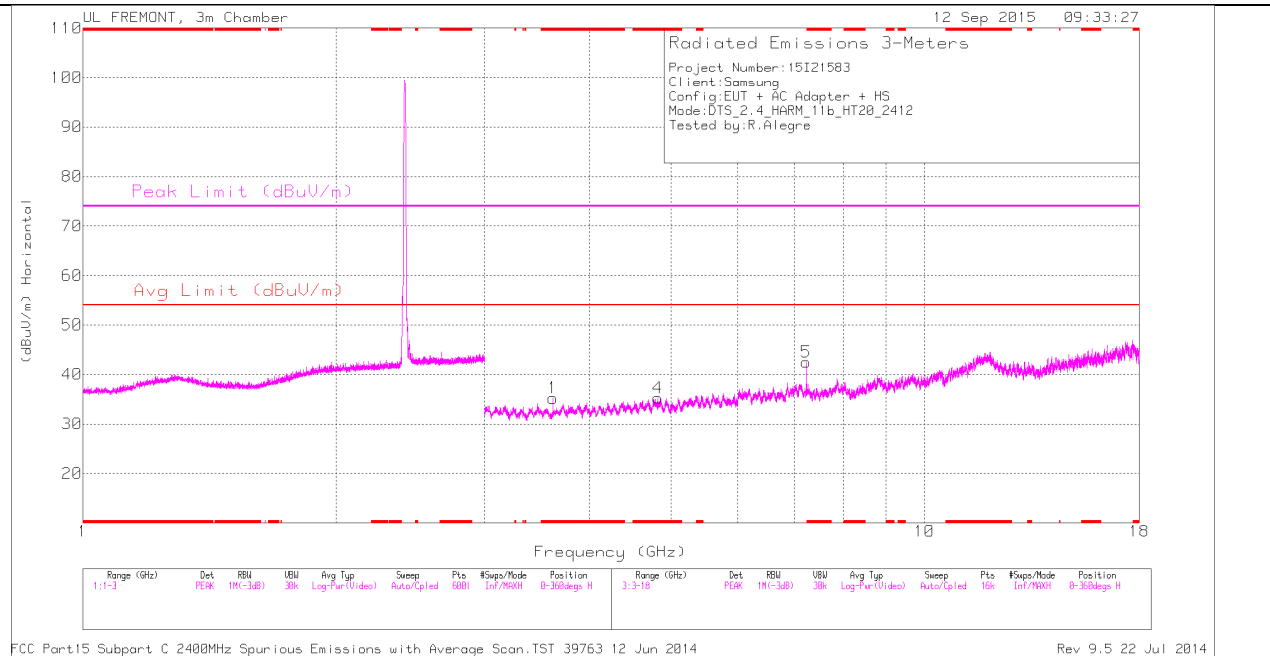
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

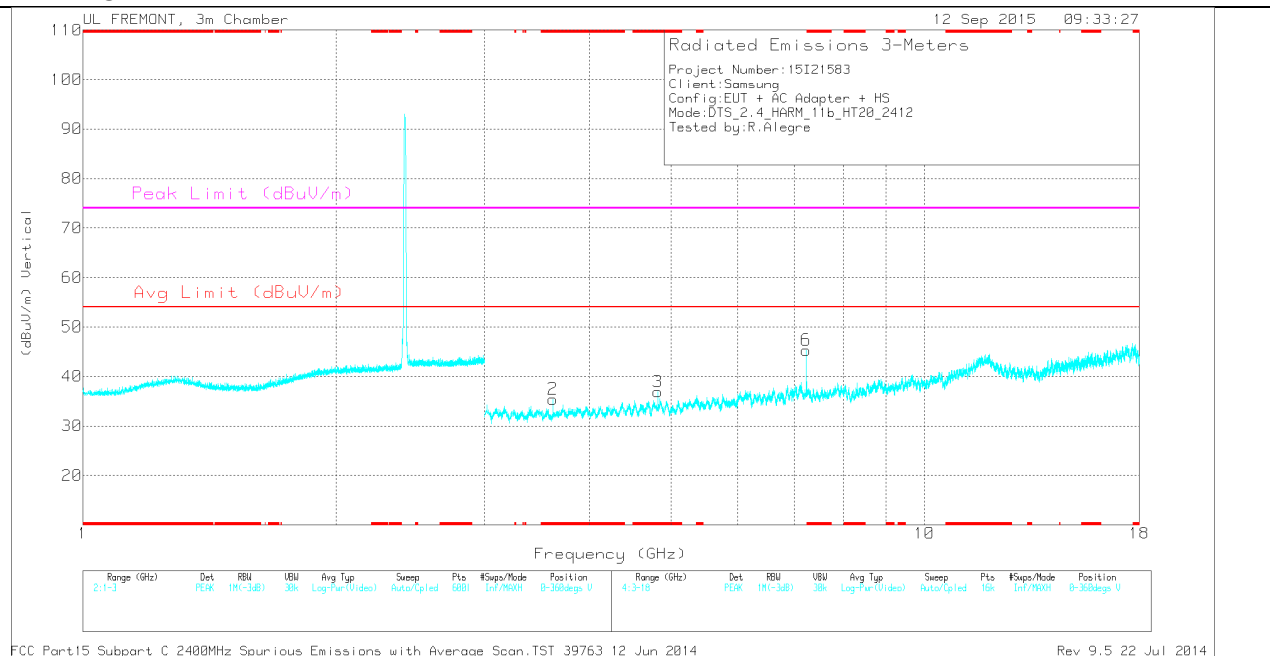
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 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.

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.618	33.11	PK	32.8	-30.7	0	35.21	-	-	74	-38.79	0-360	200	H
4	* 4.823	30.62	PK	34	-29.4	0	35.22	-	-	74	-38.78	0-360	200	H
2	* 3.618	33.36	PK	32.8	-30.7	0	35.46	-	-	74	-38.54	0-360	100	V
3	* 4.824	32.34	PK	34	-29.4	0	36.94	-	-	74	-37.06	0-360	100	V
5	7.236	35.65	PK	35.6	-28.8	0	42.45	-	-	-	-	0-360	100	H
6	7.236	38.56	PK	35.6	-28.8	0	45.36	-	-	-	-	0-360	100	V

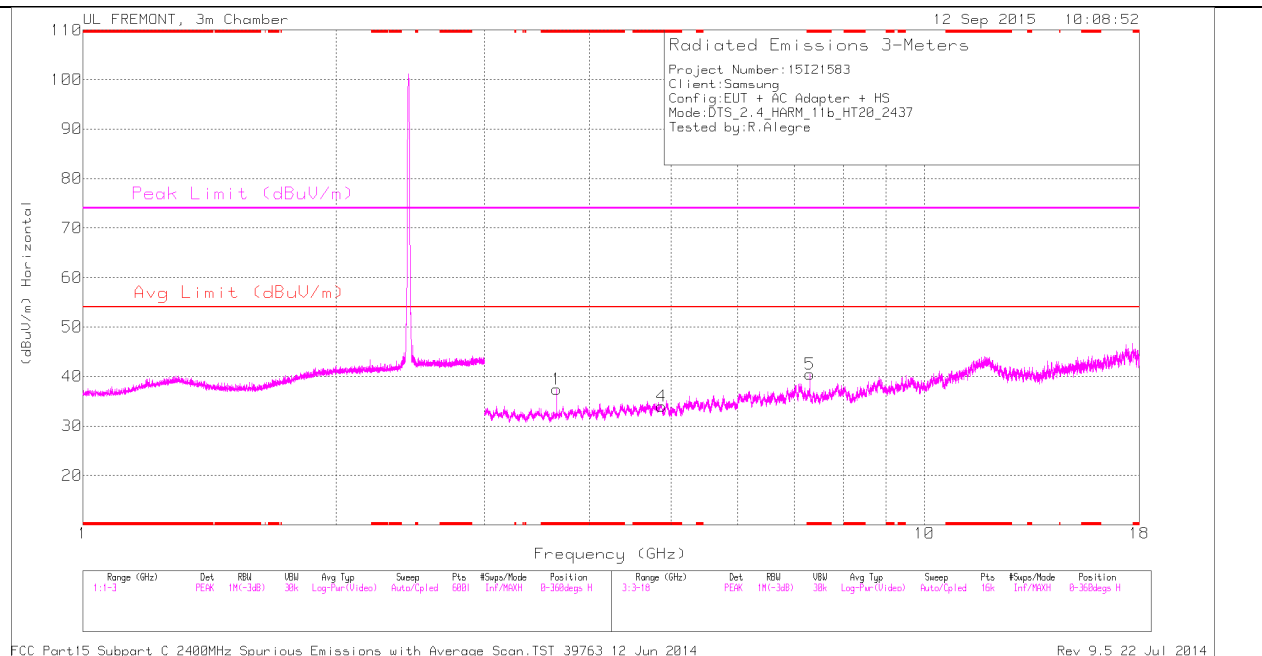
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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)	Azimuth (Degs)	Height (cm)	Polarity
* 3.618	41.31	PK2	32.8	-30.7	0	43.41	-	-	74	-30.59	101	102	H
* 3.618	32.17	MAV1	32.8	-30.7	0	34.27	54	-19.73	-	-	101	102	H
* 4.824	40.86	PK2	34	-29.4	0	45.46	-	-	74	-28.54	323	109	H
* 4.824	30.88	MAV1	34	-29.4	0	35.48	54	-18.52	-	-	323	109	H
* 3.618	41.46	PK2	32.8	-30.7	0	43.56	-	-	74	-30.44	292	104	V
* 3.618	32.88	MAV1	32.8	-30.7	0	34.98	54	-19.02	-	-	292	104	V
* 4.824	41.8	PK2	34	-29.4	0	46.4	-	-	74	-27.6	229	100	V
* 4.824	32.82	MAV1	34	-29.4	0	37.42	54	-16.58	-	-	229	100	V
7.236	45.43	PK2	35.6	-28.8	0	52.23	-	-	74	-21.77	350	100	V
7.237	42.79	PK2	35.6	-28.8	0	49.59	-	-	74	-24.41	0	106	H
7.237	34.21	MAV1	35.6	-28.8	0	41.01	54	-12.99	-	-	0	106	H
7.237	37.54	MAV1	35.6	-28.8	0	44.34	54	-9.66	-	-	350	100	V

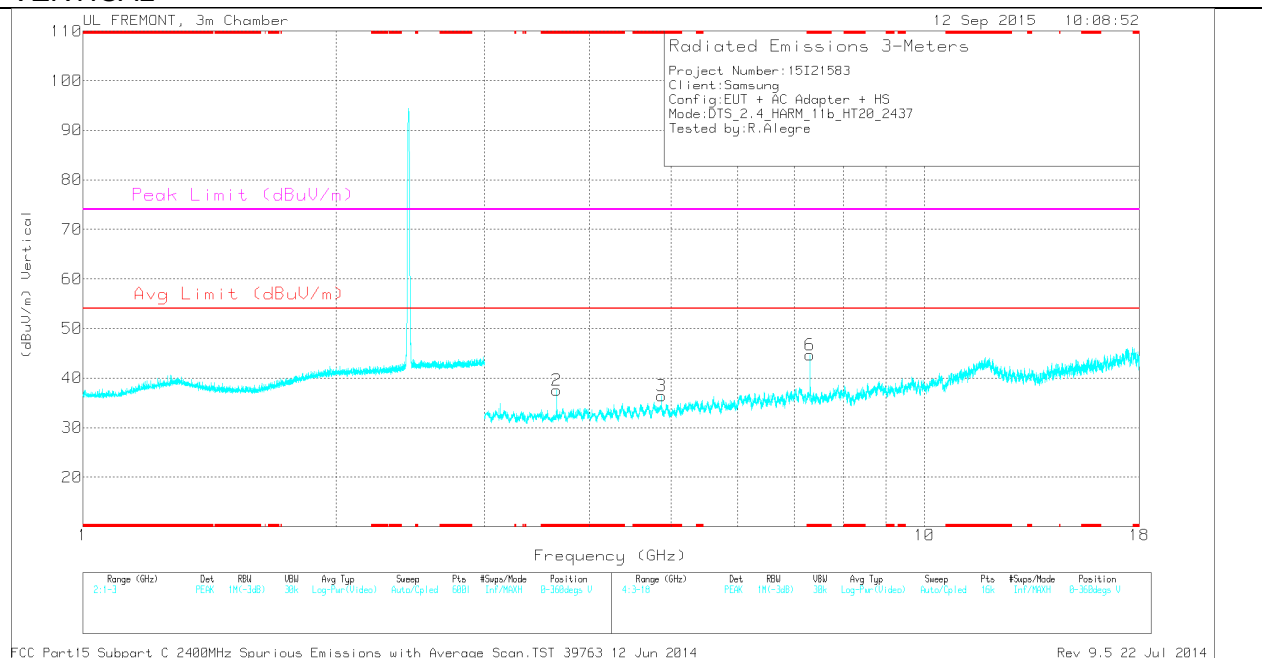
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
PK2 - KDB558074 Method: Maximum Peak
MAV1 - KDB558074 Option 1 Maximum RMS Average

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.

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.655	34.67	PK	32.9	-30.2	0	37.37	-	-	74	-36.63	0-360	100	H
4	* 4.874	29.15	PK	34	-29.1	0	34.05	-	-	74	-39.95	0-360	100	H
5	* 7.31	32.3	PK	35.6	-27.4	0	40.5	-	-	74	-33.5	0-360	100	H
2	* 3.655	34.87	PK	32.9	-30.2	0	37.57	-	-	74	-36.43	0-360	100	V
3	* 4.874	31.53	PK	34	-29.1	0	36.43	-	-	74	-37.57	0-360	100	V
6	* 7.311	36.49	PK	35.6	-27.4	0	44.69	-	-	74	-29.31	0-360	100	V

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

Pk - Peak detector

Radiated Emissions

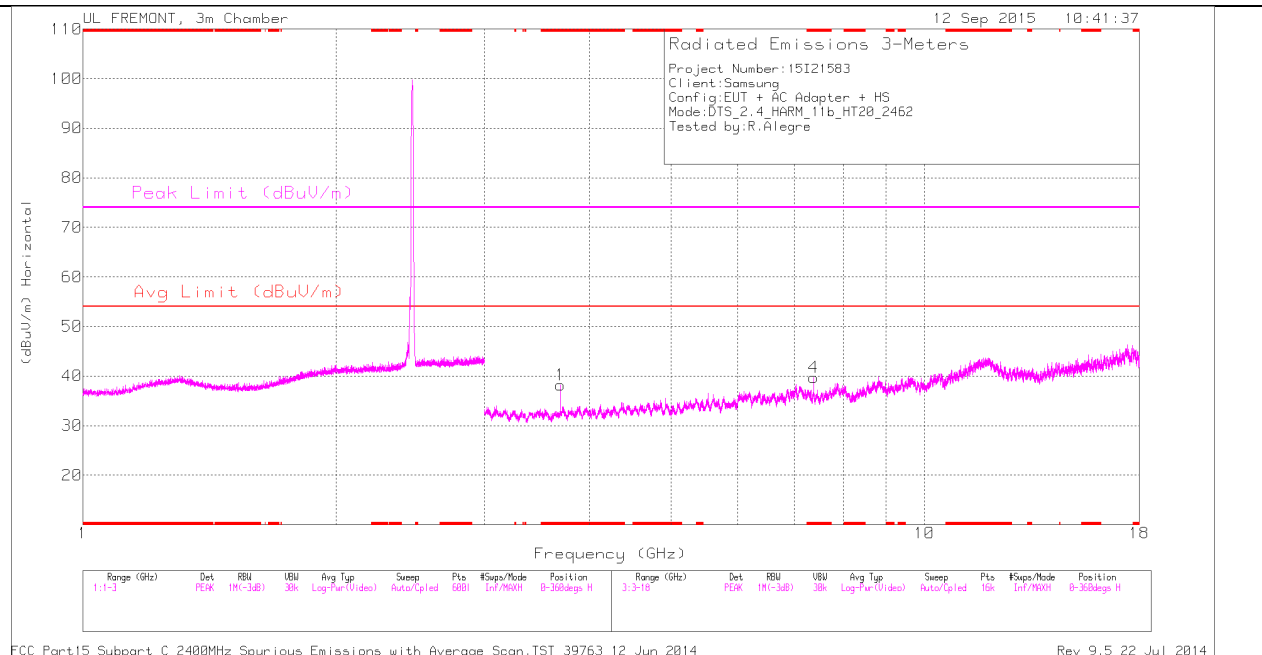
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 3.655	41.46	PK2	32.9	-30.2	0	44.16	-	-	74	-29.84	74	112	H
* 3.655	32.68	MAV1	32.9	-30.2	0	35.38	54	-18.62	-	-	74	112	H
* 4.874	40.09	PK2	34	-29.1	0	44.99	-	-	74	-29.01	93	139	H
* 4.874	29.14	MAV1	34	-29.1	0	34.04	54	-19.96	-	-	93	139	H
* 7.309	40.92	PK2	35.6	-27.5	0	49.02	-	-	74	-24.98	1	120	H
* 7.31	31.11	MAV1	35.6	-27.5	0	39.21	54	-14.79	-	-	1	120	H
* 3.655	41.98	PK2	32.9	-30.2	0	44.68	-	-	74	-29.32	313	102	V
* 3.655	32.99	MAV1	32.9	-30.2	0	35.69	54	-18.31	-	-	313	102	V
* 4.874	39.97	PK2	34	-29.1	0	44.87	-	-	74	-29.13	209	399	V
* 4.874	29.36	MAV1	34	-29.1	0	34.26	54	-19.74	-	-	209	399	V
* 7.31	43.55	PK2	35.6	-27.4	0	51.75	-	-	74	-22.25	346	101	V
* 7.31	35.5	MAV1	35.6	-27.4	0	43.7	54	-10.3	-	-	346	101	V

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

PK2 - KDB558074 Method: Maximum Peak

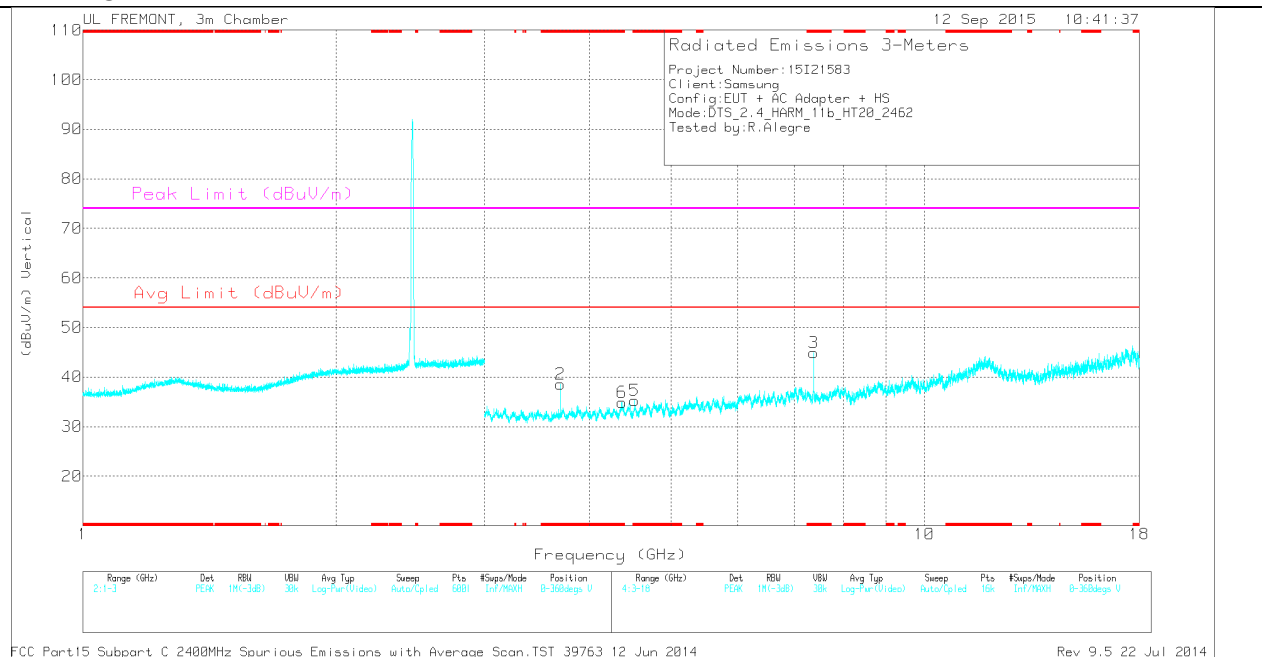
MAV1 - KDB558074 Option 1 Maximum RMS Average

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.

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Ftr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.693	35.35	PK	33	-30.2	0	38.15	-	-	74	-35.85	0-360	100	H
4	* 7.386	31.18	PK	35.6	-27.1	0	39.68	-	-	74	-34.32	0-360	100	H
2	* 3.693	35.8	PK	33	-30.2	0	38.6	-	-	74	-35.4	0-360	100	V
3	* 7.385	36.36	PK	35.6	-27.1	0	44.86	-	-	74	-29.14	0-360	100	V
5	* 4.526	32.17	PK	33.8	-30.7	0	35.27	-	-	74	-38.73	0-360	100	V
6	* 4.371	30.57	PK	33.6	-29.3	0	34.87	-	-	74	-39.13	0-360	200	V

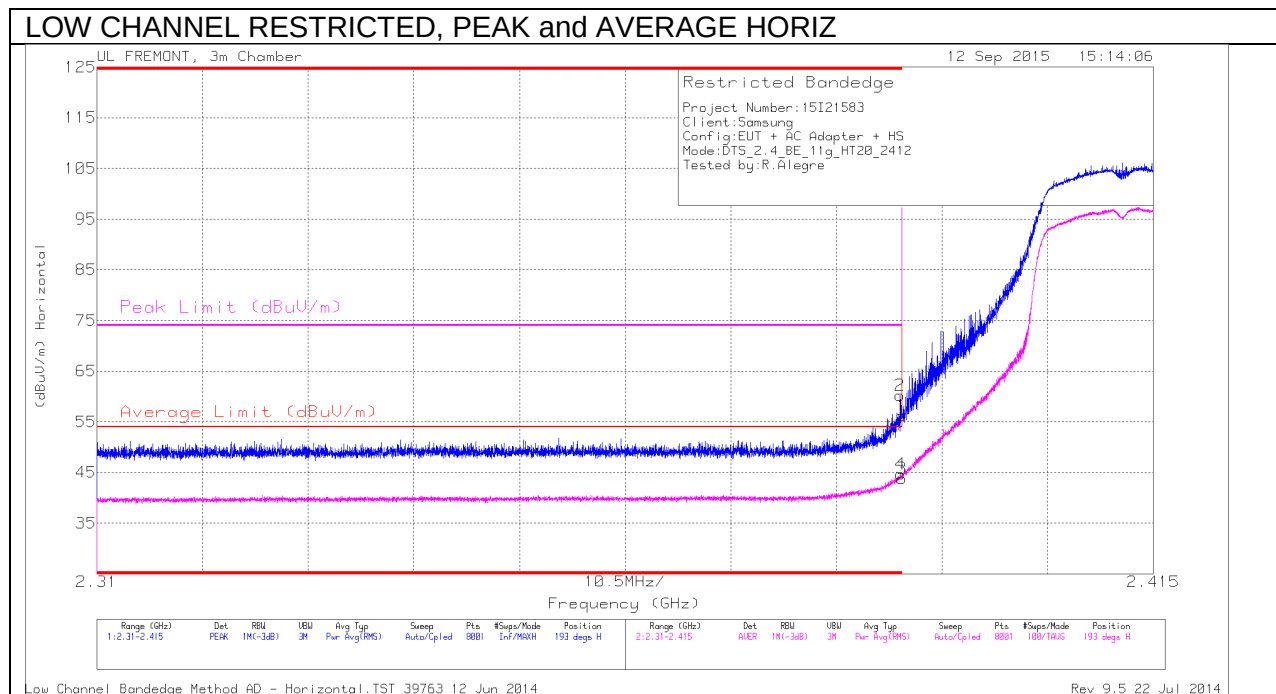
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Ftr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 3.693	42.77	PK2	33	-30.2	0	45.57	-	-	74	-28.43	100	112	H
* 3.693	35.61	MAV1	33	-30.2	0	38.41	54	-15.59	-	-	100	112	H
* 7.386	40.85	PK2	35.6	-27.1	0	49.35	-	-	74	-24.65	329	100	H
* 7.387	31.18	MAV1	35.6	-27.1	0	39.68	54	-14.32	-	-	329	100	H
* 3.693	42.91	PK2	33	-30.2	0	45.71	-	-	74	-28.29	291	100	V
* 3.693	34.98	MAV1	33	-30.2	0	37.78	54	-16.22	-	-	291	100	V
* 7.386	44.02	PK2	35.6	-27.1	0	52.52	-	-	74	-21.48	357	101	V
* 7.385	36.14	MAV1	35.6	-27.1	0	44.64	54	-9.36	-	-	357	101	V
* 4.526	40.84	PK2	33.8	-30.7	0	43.94	-	-	74	-30.06	341	200	V
* 4.526	29.59	MAV1	33.8	-30.7	0	32.69	54	-21.31	-	-	341	200	V
* 4.369	40.02	PK2	33.6	-29.3	0	44.32	-	-	74	-29.68	341	200	V
* 4.372	28.63	MAV1	33.6	-29.3	0	32.93	54	-21.07	-	-	341	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
PK2 - KDB558074 Method: Maximum Peak
MAV1 - KDB558074 Option 1 Maximum RMS Average

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



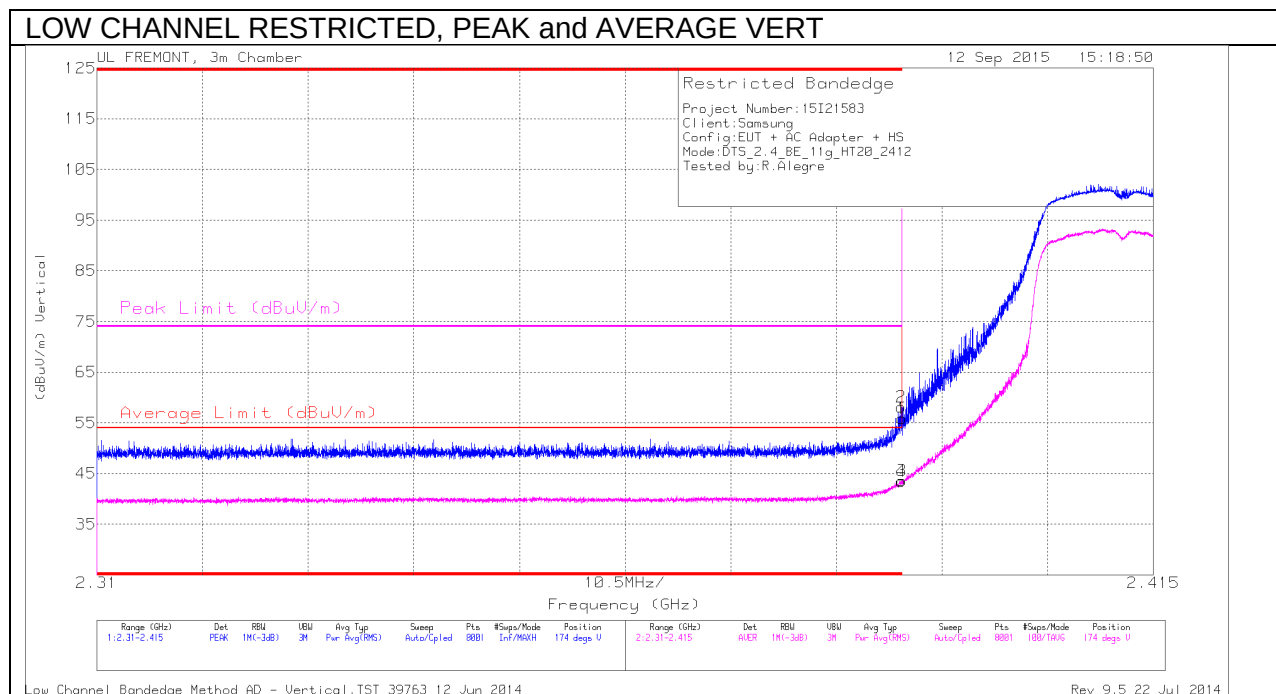
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Filt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	46.68	PK	32	-22.4	0	56.28	-	-	74	-17.72	193	321	H
2	* 2.39	50.62	PK	32	-22.4	0	60.22	-	-	74	-13.78	193	321	H
3	* 2.39	33.95	RMS	32	-22.4	.32	43.87	54	-10.13	-	-	193	321	H
4	* 2.39	34.8	RMS	32	-22.4	.32	44.72	54	-9.28	-	-	193	321	H

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

Pk - Peak detector

RMS - RMS detection



Trace Markers

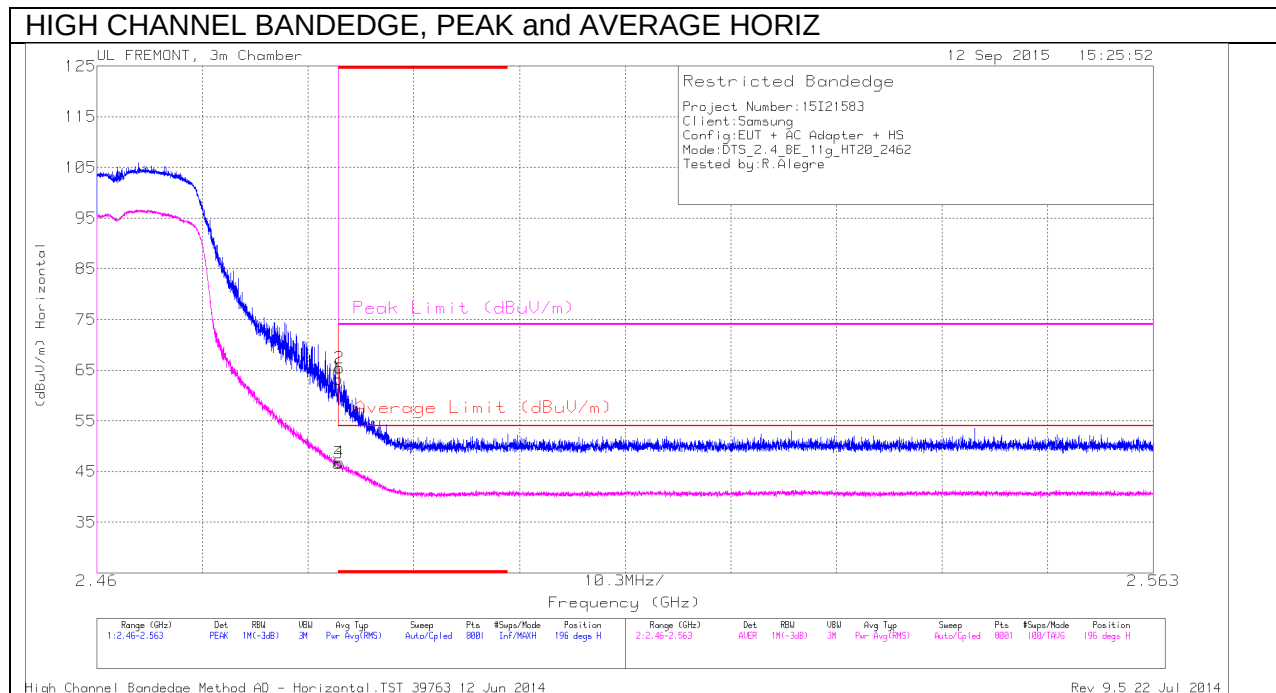
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb/Filter/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	46.3	PK	32	-22.4	0	55.9	-	-	74	-18.1	174	298	V
2	* 2.39	48.5	PK	32	-22.4	0	58.1	-	-	74	-15.9	174	298	V
3	* 2.39	33.67	RMS	32	-22.4	.32	43.59	54	-10.41	-	-	174	298	V
4	* 2.39	33.53	RMS	32	-22.4	.32	43.45	54	-10.55	-	-	174	298	V

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

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)



Trace Markers

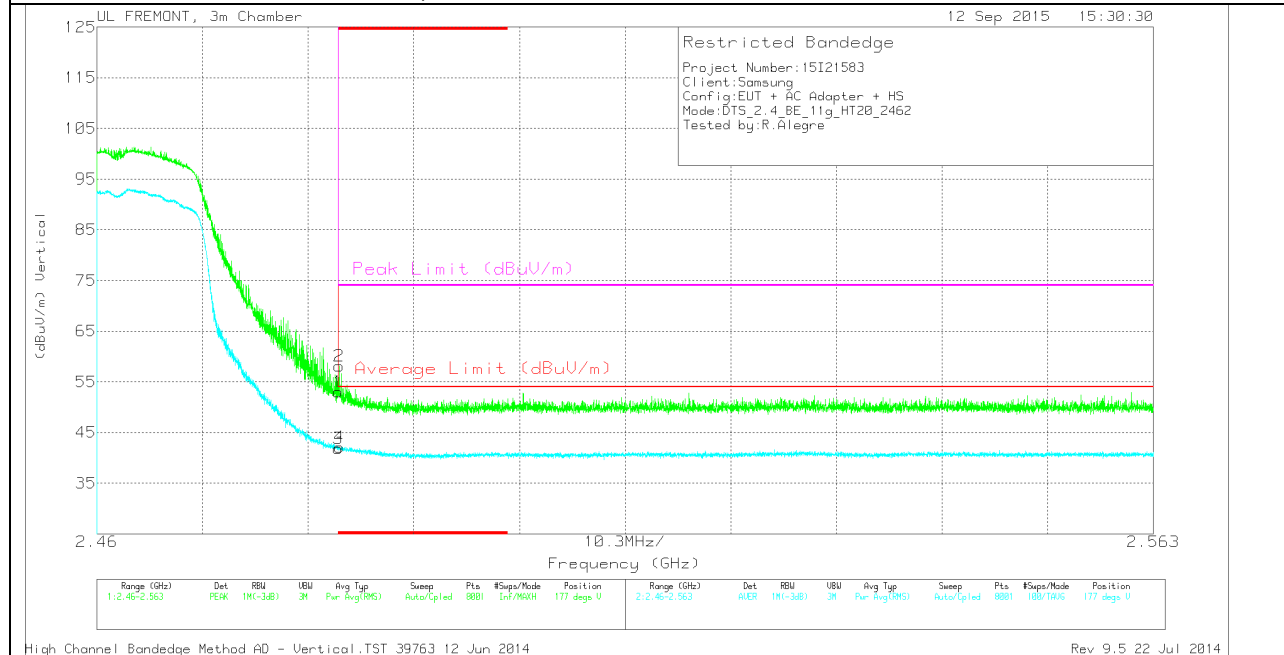
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Filt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	52.98	PK	32.3	-22.1	0	63.18	-	-	74	-10.82	196	313	H
2	* 2.484	55.19	PK	32.3	-22.1	0	65.39	-	-	74	-8.61	196	313	H
3	* 2.484	36.11	RMS	32.3	-22.1	.32	46.63	54	-7.37	-	-	196	313	H
4	* 2.484	36.32	RMS	32.3	-22.1	.32	46.84	54	-7.16	-	-	196	313	H

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

Pk - Peak detector

RMS - RMS detection

HIGH CHANNEL BANDEDGE, PEAK and AVERAGE VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Filt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	42.77	PK	32.3	-22.1	0	52.97	-	-	74	-21.03	177	359	V
2	* 2.484	47.9	PK	32.3	-22.1	0	58.1	-	-	74	-15.9	177	359	V
3	* 2.484	31.28	RMS	32.3	-22.1	.32	41.8	54	-12.2	-	-	177	359	V
4	* 2.484	31.63	RMS	32.3	-22.1	.32	42.15	54	-11.85	-	-	177	359	V

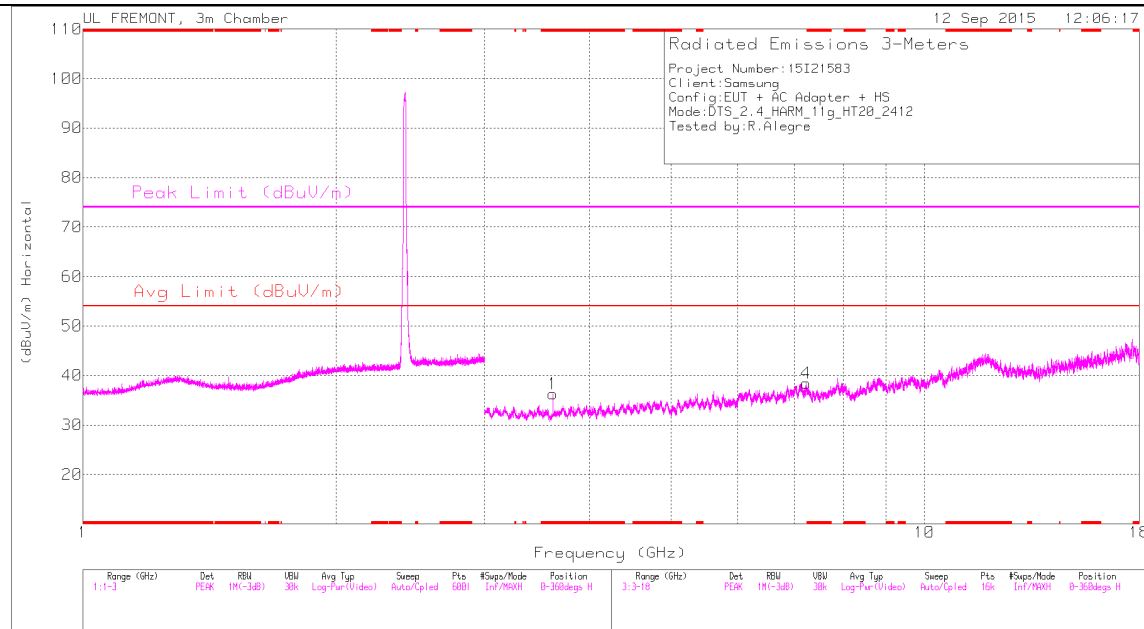
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

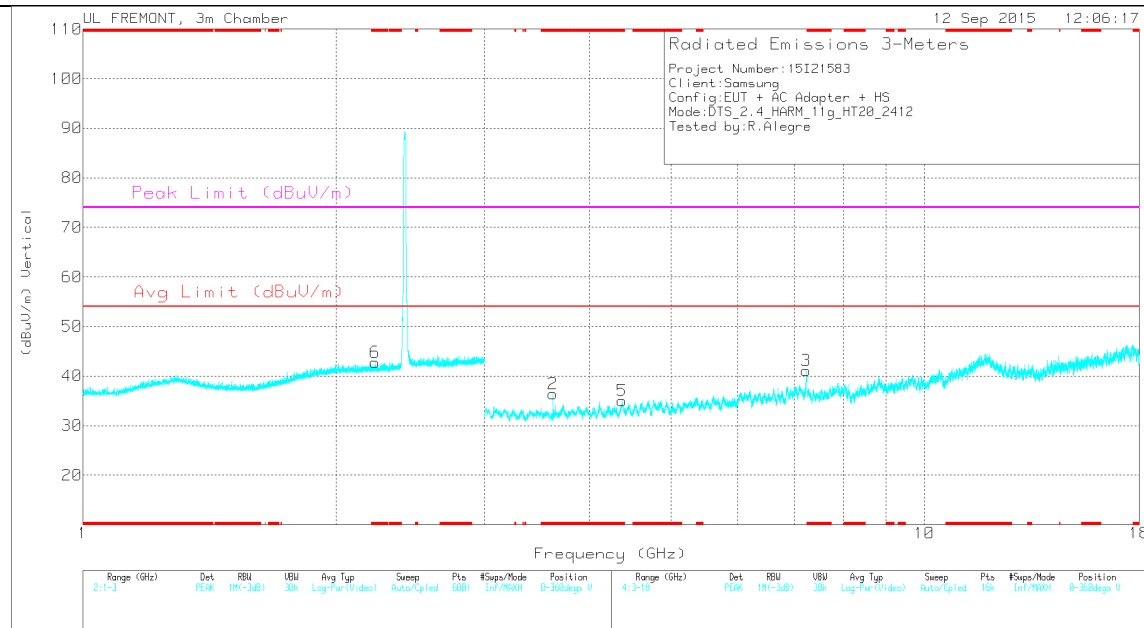
LOW CHANNEL HORIZONTAL



FCC Part15 Subpart C 2400MHz Spurious Emissions with Average Scan.TST 39763 12 Jun 2014 Rev 9.5 22 Jul 2014

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



FCC Part15 Subpart C 2400MHz Spurious Emissions with Average Scan.TST 39763 12 Jun 2014 Rev 9.5 22 Jul 2014

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

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb/Fitr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6	* 2.226	33.58	PK	31.5	-22.3	0	42.78	-	-	74	-31.22	0-360	200	V
1	* 3.618	34.19	PK	32.8	-30.7	0	36.29	-	-	74	-37.71	0-360	100	H
2	* 3.618	34.3	PK	32.8	-30.7	0	36.4	-	-	74	-37.6	0-360	100	V
5	* 4.372	30.74	PK	33.6	-29.3	0	35.04	-	-	74	-38.96	0-360	200	V
4	7.232	31.75	PK	35.6	-28.9	0	38.45	-	-	-	-	0-360	100	H
3	7.232	34.39	PK	35.6	-28.9	0	41.09	-	-	-	-	0-360	100	V

PK - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb/Fitr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.224	42.36	PK2	31.5	-22.3	0	51.56	-	-	74	-22.44	346	200	V
* 2.224	30.79	MAV1	31.5	-22.3	.32	40.31	54	-13.69	-	-	346	200	V
* 3.618	41.38	PK2	32.8	-30.7	0	43.48	-	-	74	-30.52	260	116	H
* 3.618	31.97	MAV1	32.8	-30.7	.32	34.39	54	-19.61	-	-	260	116	H
* 3.618	42.07	PK2	32.8	-30.7	0	44.17	-	-	74	-29.83	300	105	V
* 3.618	33.29	MAV1	32.8	-30.7	.32	35.71	54	-18.29	-	-	300	105	V
* 4.373	39.87	PK2	33.6	-29.3	0	44.17	-	-	74	-29.83	358	185	V
* 4.371	28.57	MAV1	33.6	-29.3	.32	33.19	54	-20.81	-	-	358	185	V
7.233	43.63	PK2	35.6	-28.9	0	50.33	-	-	74	-23.67	6	112	H
7.233	29.99	MAV1	35.6	-28.9	.32	37.01	54	-16.99	-	-	6	112	H
7.233	40.98	PK2	35.6	-28.9	0	47.68	-	-	74	-26.32	320	220	V
7.233	28.94	MAV1	35.6	-28.9	.32	35.96	54	-18.04	-	-	320	220	V

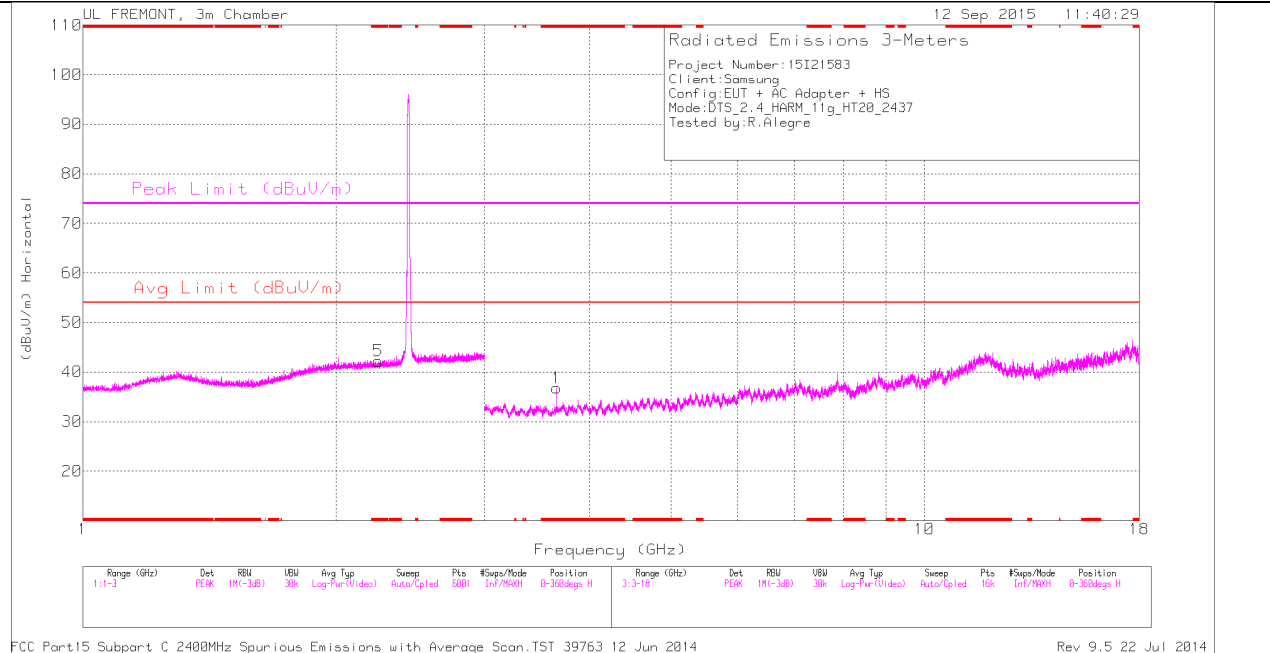
PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average

FCC Part15 Subpart C 2.4GHz RSE.TST 30915 16 Jun 2015

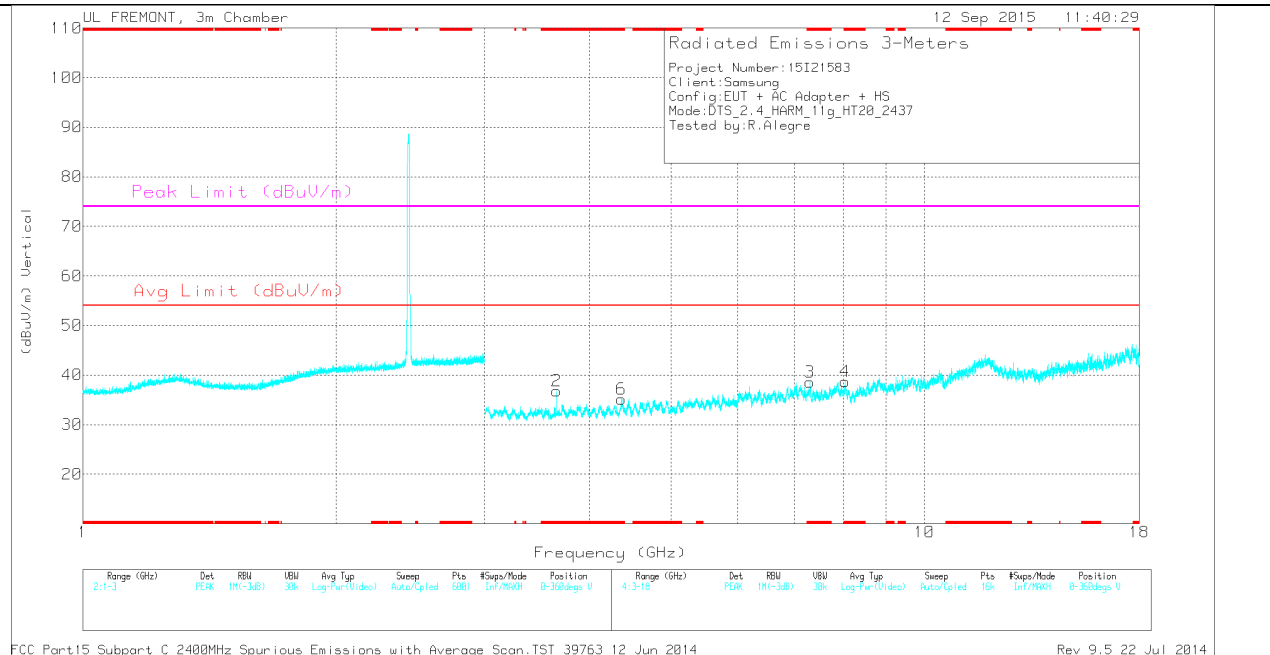
Rev 9.5 24 Jun 2015

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 T119 (dB/m)	Amp/Cb/Filtr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	* 2.242	32.99	PK	31.5	-22.3	0	42.19	-	-	74	-31.81	0-360	200	H
1	* 3.655	34.05	PK	32.9	-30.2	0	36.75	-	-	74	-37.25	0-360	100	H
2	* 3.655	34.13	PK	32.9	-30.2	0	36.83	-	-	74	-37.17	0-360	100	V
3	* 7.311	30.41	PK	35.6	-27.4	0	38.61	-	-	74	-35.39	0-360	100	V
4	* 8.049	29.78	PK	35.7	-26.8	0	38.68	-	-	74	-35.32	0-360	200	V
6	* 4.361	31.03	PK	33.6	-29.5	0	35.13	-	-	74	-38.87	0-360	100	V

PK - Peak detector

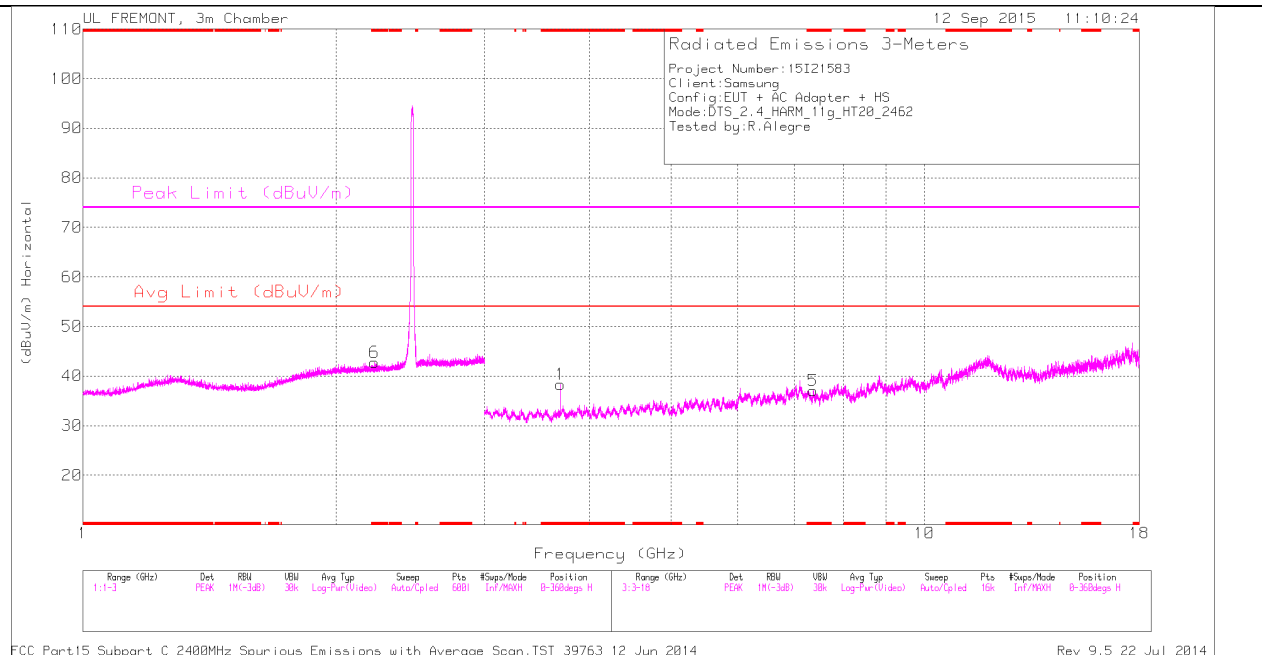
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb/Filtr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.242	42.03	PK2	31.5	-22.3	0	51.23	-	-	74	-22.77	360	200	H
* 2.242	30.78	MAV1	31.5	-22.3	.32	40.3	54	-13.7	-	-	360	200	H
* 3.655	41.59	PK2	32.9	-30.2	0	44.29	-	-	74	-29.71	125	116	H
* 3.655	32.74	MAV1	32.9	-30.2	.32	35.76	54	-18.24	-	-	125	116	H
* 3.655	42.33	PK2	32.9	-30.2	0	45.03	-	-	74	-28.97	288	119	V
* 3.655	33.92	MAV1	32.9	-30.2	.32	36.94	54	-17.06	-	-	288	119	V
* 7.311	37.69	PK2	35.6	-27.4	0	45.89	-	-	74	-28.11	288	163	V
* 7.312	26.48	MAV1	35.6	-27.4	.32	35	54	-19	-	-	288	163	V
* 8.051	38.36	PK2	35.7	-26.8	0	47.26	-	-	74	-26.74	313	200	V
* 8.051	26.76	MAV1	35.7	-26.8	.32	35.98	54	-18.02	-	-	313	200	V
* 4.361	39.39	PK2	33.6	-29.5	0	43.49	-	-	74	-30.51	322	200	V
* 4.362	28.39	MAV1	33.6	-29.5	.32	32.81	54	-21.19	-	-	322	200	V

PK2 - KDB558074 Method: Maximum Peak

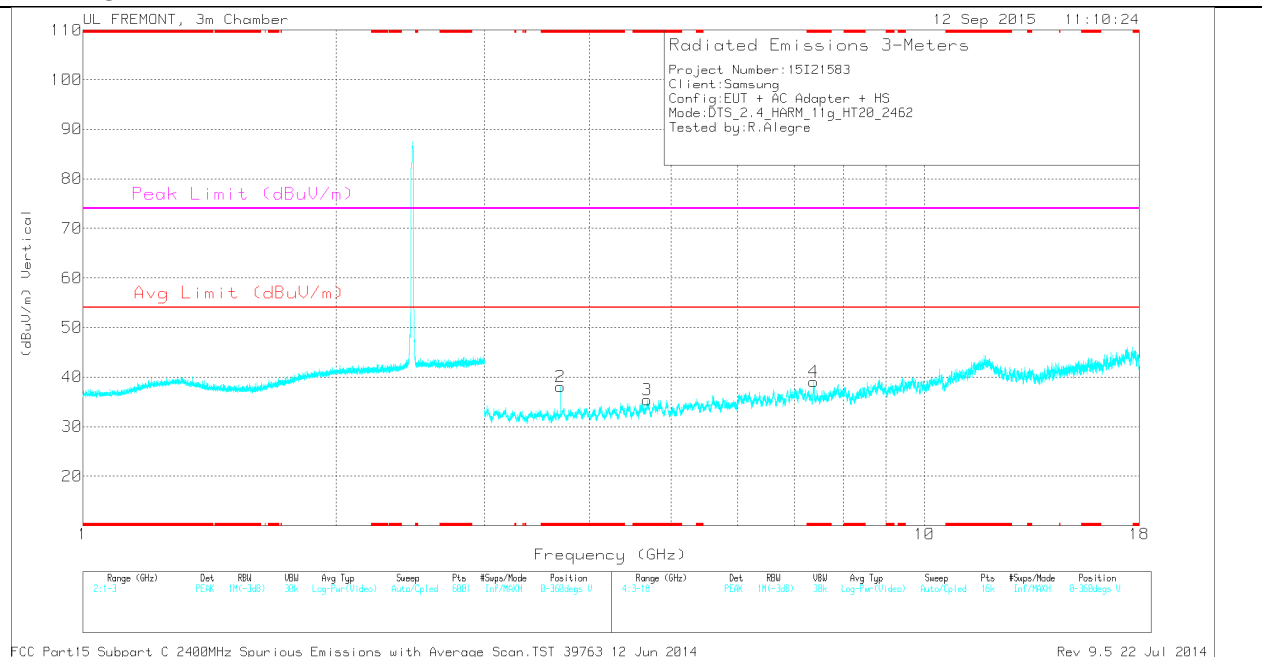
MAV1 - KDB558074 Option 1 Maximum RMS Average

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.

HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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)	Azimuth (Degs)	Height (cm)	Polarity
6	* 2.221	33.59	PK	31.5	-22.3	0	42.79	-	-	74	-31.21	0-360	100	H
1	* 3.693	35.52	PK	33	-30.2	0	38.32	-	-	74	-35.68	0-360	100	H
5	* 7.371	28.6	PK	35.6	-27.1	0	37.1	-	-	74	-36.9	0-360	200	H
2	* 3.693	35.25	PK	33	-30.2	0	38.05	-	-	74	-35.95	0-360	100	V
3	* 4.683	31.6	PK	34	-30.2	0	35.4	-	-	74	-38.6	0-360	100	V
4	* 7.385	30.6	PK	35.6	-27.1	0	39.1	-	-	74	-34.9	0-360	100	V

PK - Peak detector

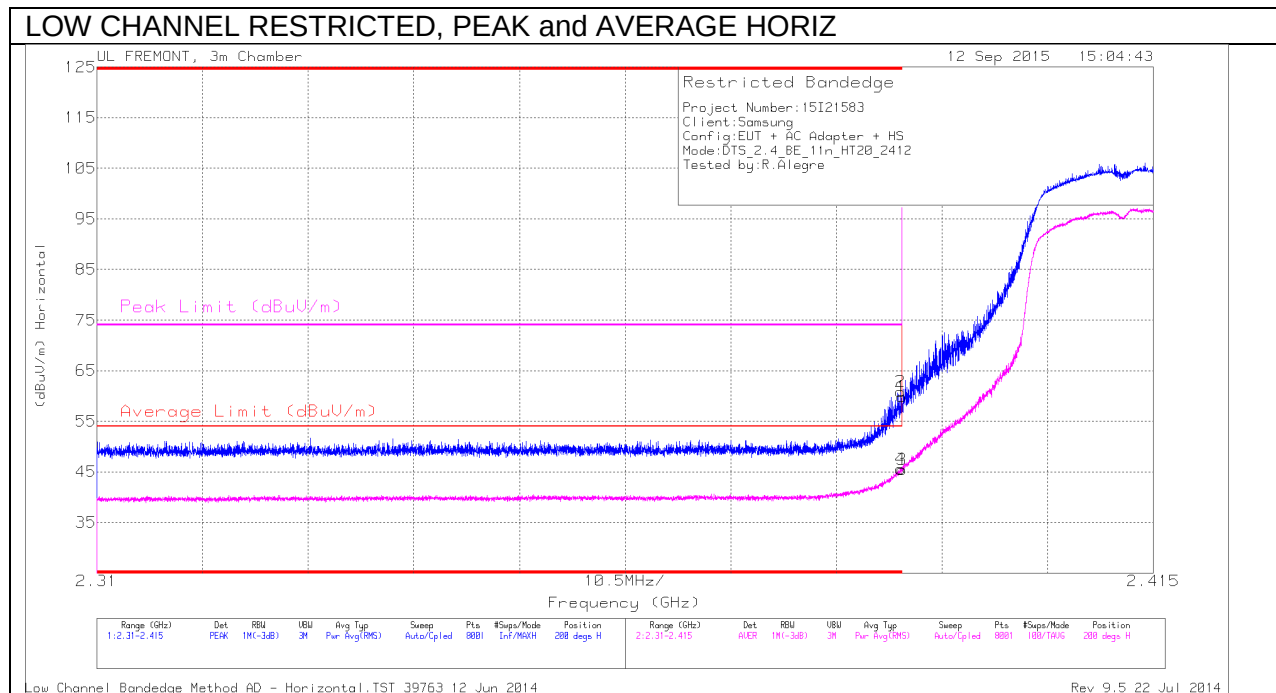
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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)	Azimuth (Degs)	Height (cm)	Polarity
* 2.22	42.48	PK2	31.5	-22.3	0	51.68	-	-	74	-22.32	360	190	H
* 2.222	30.77	MAV1	31.5	-22.3	.32	40.29	54	-13.71	-	-	360	190	H
* 3.693	42.38	PK2	33	-30.2	0	45.18	-	-	74	-28.82	282	100	H
* 3.693	35.09	MAV1	33	-30.2	.32	38.21	54	-15.79	-	-	282	100	H
* 7.371	37.94	PK2	35.6	-27.1	0	46.44	-	-	74	-27.56	291	200	H
* 7.372	26.5	MAV1	35.6	-27.1	.32	35.32	54	-18.68	-	-	291	200	H
* 3.693	41.98	PK2	33	-30.2	0	44.78	-	-	74	-29.22	296	103	V
* 3.693	34.44	MAV1	33	-30.2	.32	37.56	54	-16.44	-	-	296	103	V
* 4.685	40.18	PK2	34	-30.1	0	44.08	-	-	74	-29.92	296	203	V
* 4.683	28.96	MAV1	34	-30.2	.32	33.08	54	-20.92	-	-	296	203	V
* 7.386	37.71	PK2	35.6	-27.1	0	46.21	-	-	74	-27.79	308	194	V
* 7.386	26.7	MAV1	35.6	-27.1	.32	35.52	54	-18.48	-	-	308	194	V

PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average

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



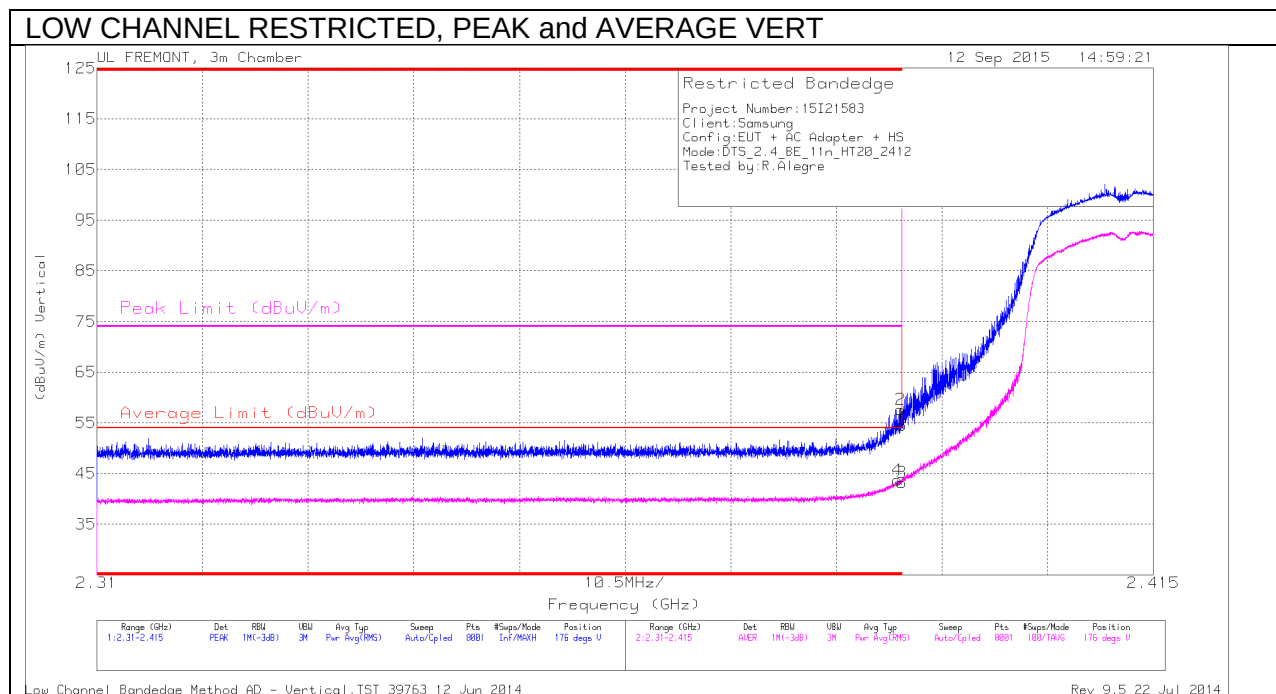
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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	50.23	PK	32	-22.4	0	59.83	-	-	74	-14.17	200	321	H
2	* 2.39	51.29	PK	32	-22.4	0	60.89	-	-	74	-13.11	200	321	H
3	* 2.39	35.56	RMS	32	-22.4	.31	45.47	54	-8.53	-	-	200	321	H
4	* 2.39	35.7	RMS	32	-22.4	.31	45.61	54	-8.39	-	-	200	321	H

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

Pk - Peak detector

RMS - RMS detection



Trace Markers

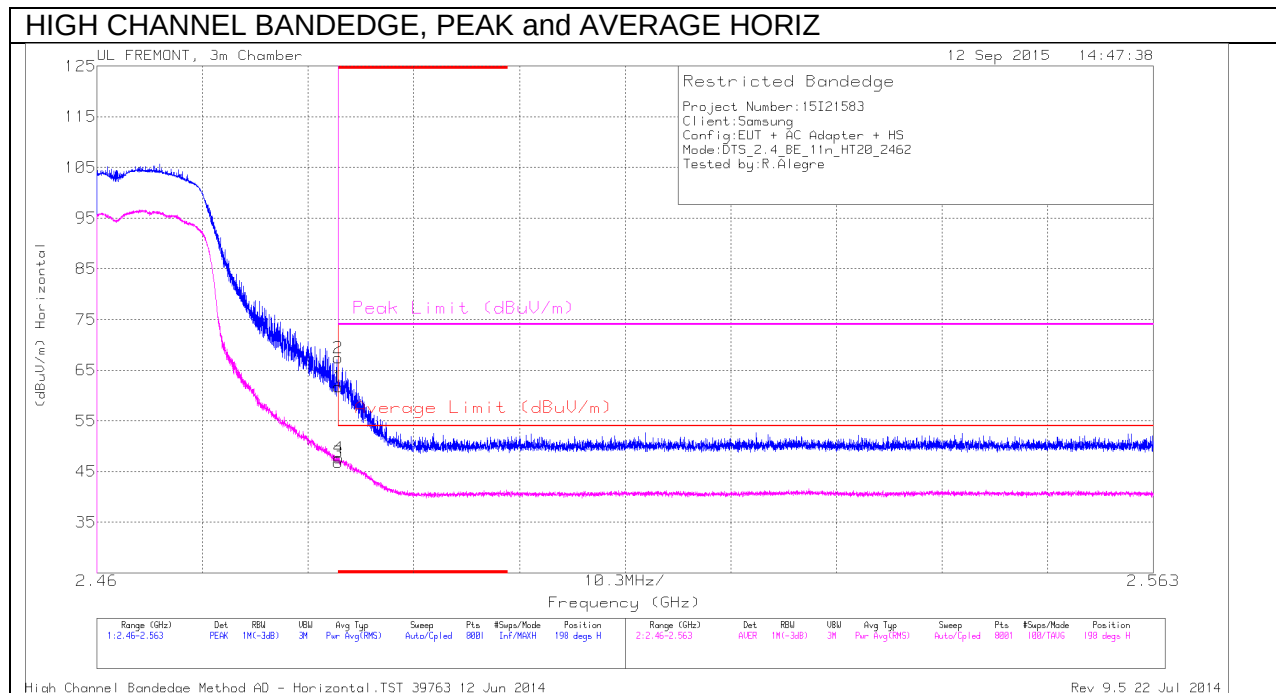
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb/Filter/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	44.97	PK	32	-22.4	0	54.57	-	-	74	-19.43	176	320	V
2	* 2.39	47.98	PK	32	-22.4	0	57.58	-	-	74	-16.42	176	320	V
3	* 2.39	33.32	RMS	32	-22.4	.31	43.23	54	-10.77	-	-	176	320	V
4	* 2.39	33.83	RMS	32	-22.4	.31	43.74	54	-10.26	-	-	176	320	V

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

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)



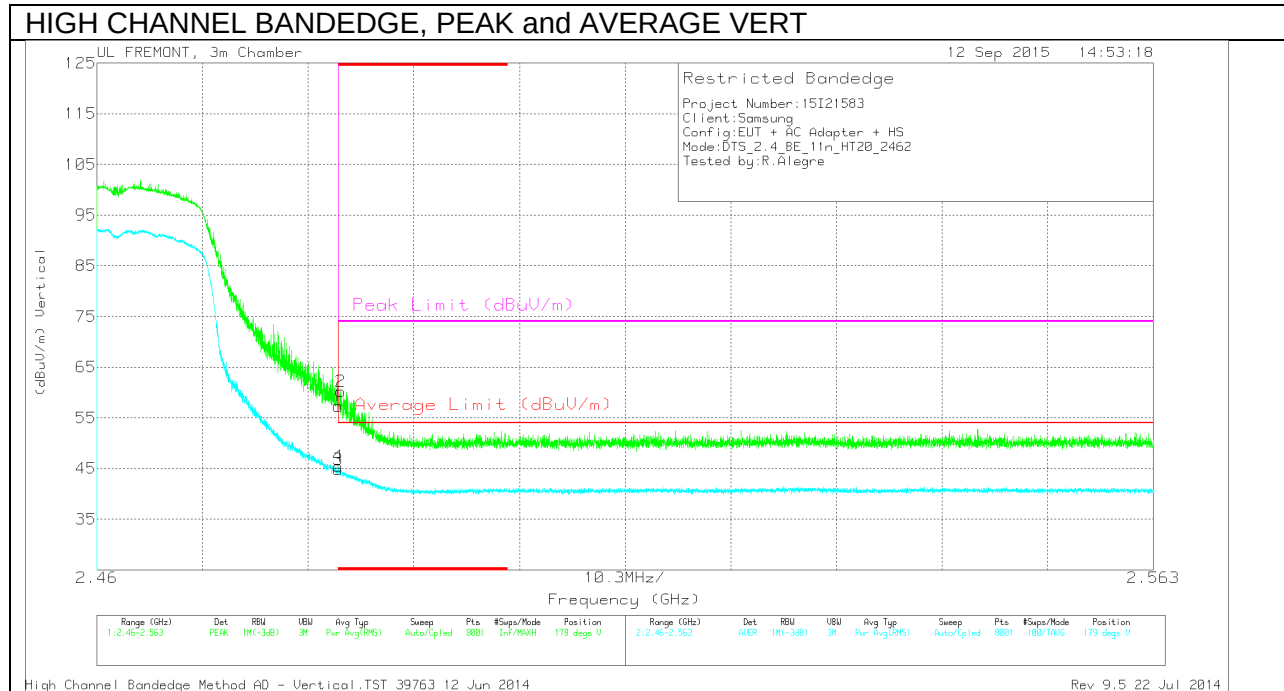
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Filtr/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	51.46	PK	32.3	-22.1	0	61.66	-	-	74	-12.34	198	313	H
2	* 2.484	57.28	PK	32.3	-22.1	0	67.48	-	-	74	-6.52	198	313	H
3	* 2.484	36.32	RMS	32.3	-22.1	.31	46.83	54	-7.17	-	-	198	313	H
4	* 2.484	37.17	RMS	32.3	-22.1	.31	47.68	54	-6.32	-	-	198	313	H

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

Pk - Peak detector

RMS - RMS detection



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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	47.11	PK	32.3	-22.1	0	57.31	-	-	74	-16.69	179	308	V
2	* 2.484	50.08	PK	32.3	-22.1	0	60.28	-	-	74	-13.72	179	308	V
3	* 2.484	34.37	RMS	32.3	-22.1	.31	44.88	54	-9.12	-	-	179	308	V
4	* 2.484	34.99	RMS	32.3	-22.1	.31	45.5	54	-8.5	-	-	179	308	V

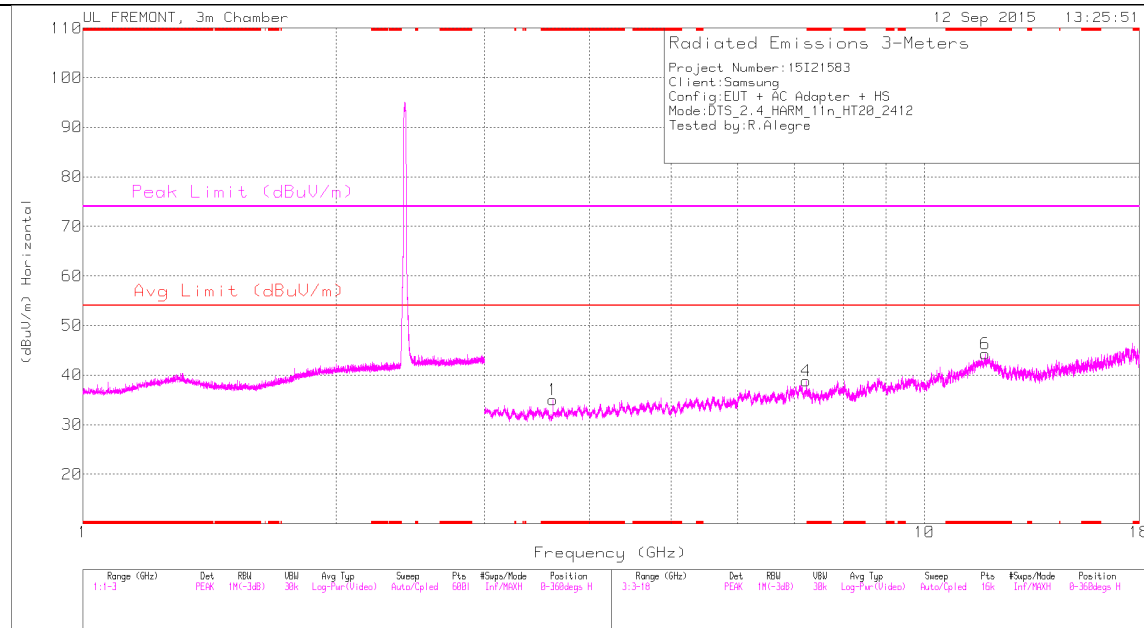
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL

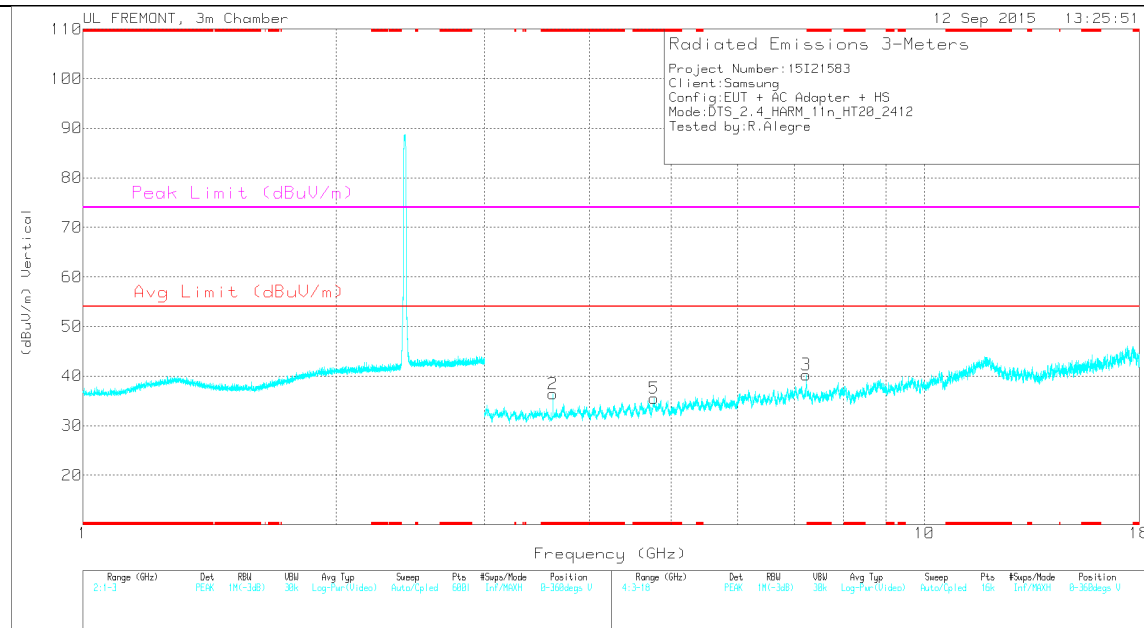


FCC Part15 Subpart C 2400MHz Spurious Emissions with Average Scan.TST 39763 12 Jun 2014

Rev. 9.5 22 Jul 2014

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



FCC Part15 Subpart C 2400MHz Spurious Emissions with Average Scan.TST 39763 12 Jun 2014

Rev. 9.5 22 Jul 2014

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

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.618	32.96	PK	32.8	-30.7	0	35.06	-	-	74	-38.94	0-360	200	H
6	* 11.808	27.79	PK	39	-22.5	0	44.29	-	-	74	-29.71	0-360	100	H
2	* 3.618	34.3	PK	32.8	-30.7	0	36.4	-	-	74	-37.6	0-360	100	V
5	* 4.773	31.46	PK	34	-29.9	0	35.56	-	-	74	-38.44	0-360	100	V
4	7.235	32.11	PK	35.6	-28.9	0	38.81	-	-	-	-	0-360	100	H
3	7.235	33.58	PK	35.6	-28.9	0	40.28	-	-	-	-	0-360	100	V

PK - Peak detector

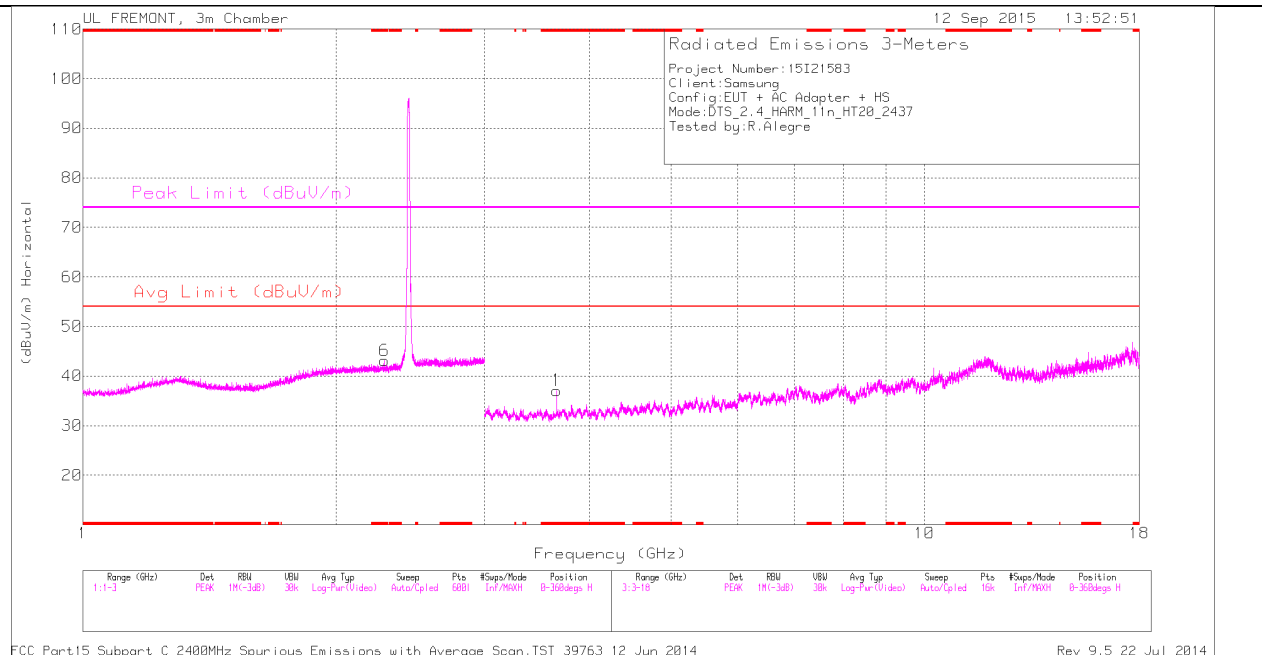
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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)	Azimuth (Degs)	Height (cm)	Polarity
* 3.618	41.3	PK2	32.8	-30.7	0	43.4	-	-	74	-30.6	94	125	H
* 3.618	32.71	MAV1	32.8	-30.7	.31	35.12	54	-18.88	-	-	94	125	H
* 11.807	36.88	PK2	39	-22.5	0	53.38	-	-	74	-20.62	109	200	H
* 11.807	25.52	MAV1	39	-22.5	.31	42.33	54	-11.67	-	-	109	200	H
* 3.618	42.12	PK2	32.8	-30.7	0	44.22	-	-	74	-29.78	298	100	V
* 3.618	33.71	MAV1	32.8	-30.7	.31	36.12	54	-17.88	-	-	298	100	V
* 4.773	40.91	PK2	34	-29.9	0	45.01	-	-	74	-28.99	264	195	V
* 4.773	29.18	MAV1	34	-29.9	.31	33.59	54	-20.41	-	-	264	195	V
7.236	40.28	PK2	35.6	-28.8	0	47.08	-	-	74	-26.92	309	205	V
7.237	41.66	PK2	35.6	-28.8	0	48.46	-	-	74	-25.24	0	134	H
7.237	28.28	MAV1	35.6	-28.8	.31	35.39	54	-18.61	-	-	0	134	H
7.237	28	MAV1	35.6	-28.8	.31	35.11	54	-18.89	-	-	309	205	V

PK2 - KDB558074 Method: Maximum Peak

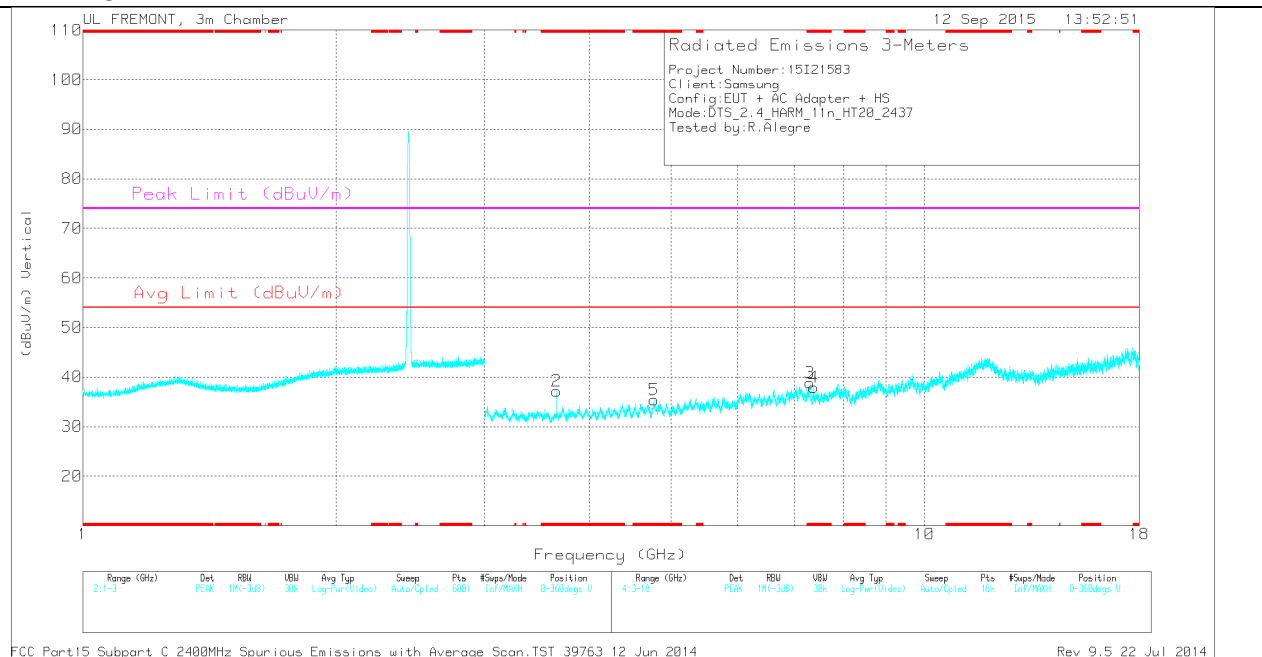
MAV1 - KDB558074 Option 1 Maximum RMS Average

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 T119 (dB/m)	Amp/Cb1/F1tr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6	* 2.281	33.96	PK	31.6	-22.4	0	43.16	-	-	74	-30.84	0-360	200	H
1	* 3.655	34.41	PK	32.9	-30.2	0	37.11	-	-	74	-36.89	0-360	100	H
2	* 3.655	34.42	PK	32.9	-30.2	0	37.12	-	-	74	-36.88	0-360	100	V
3	* 7.31	30.57	PK	35.6	-27.4	0	38.77	-	-	74	-35.23	0-360	100	V
4	* 7.39	29.52	PK	35.6	-27.2	0	37.92	-	-	74	-36.08	0-360	200	V
5	* 4.773	31.34	PK	34	-29.9	0	35.44	-	-	74	-38.56	0-360	100	V

Pk - Peak detector

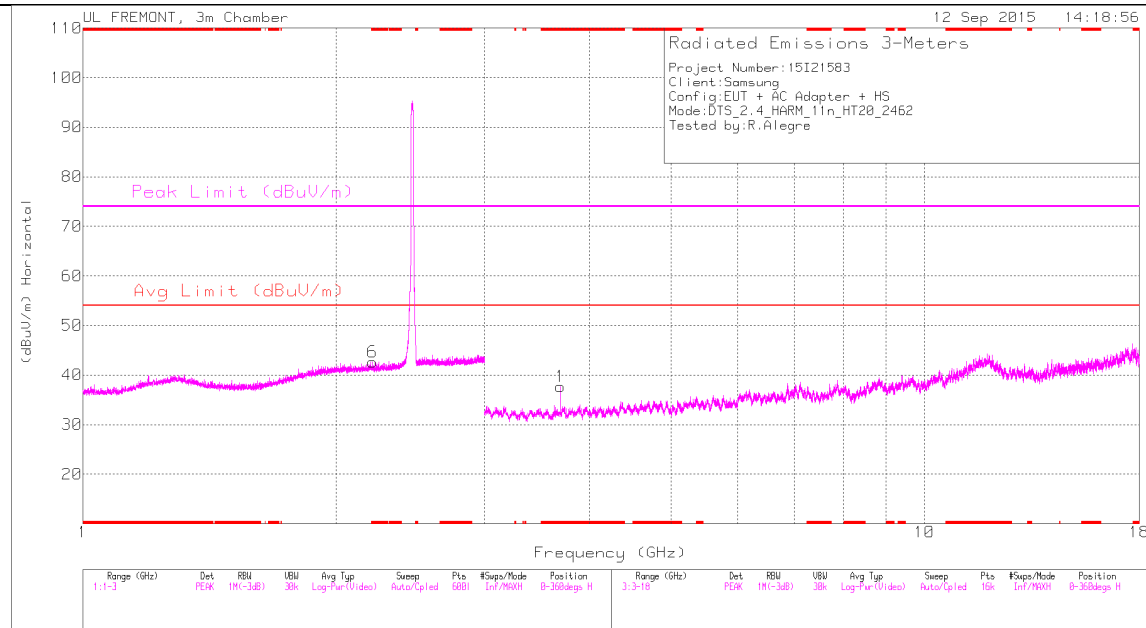
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb1/F1tr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.282	42.35	PK2	31.6	-22.3	0	51.65	-	-	74	-22.35	360	200	H
* 2.283	30.79	MAV1	31.6	-22.3	.31	40.4	54	-13.6	-	-	360	200	H
* 3.656	42.41	PK2	32.9	-30.2	0	45.11	-	-	74	-28.89	68	100	H
* 3.656	33.95	MAV1	32.9	-30.2	.31	36.96	54	-17.04	-	-	68	100	H
* 3.655	42.04	PK2	32.9	-30.2	0	44.74	-	-	74	-29.26	313	101	V
* 3.656	33.77	MAV1	32.9	-30.2	.31	36.78	54	-17.22	-	-	313	101	V
* 7.311	38.87	PK2	35.6	-27.4	0	47.07	-	-	74	-26.93	325	192	V
* 7.311	27.42	MAV1	35.6	-27.4	.31	35.93	54	-18.07	-	-	325	192	V
* 7.391	38.13	PK2	35.6	-27.2	0	46.53	-	-	74	-27.47	335	200	V
* 7.39	26.69	MAV1	35.6	-27.2	.31	35.4	54	-18.6	-	-	335	200	V
* 4.773	41.45	PK2	34	-29.9	0	45.55	-	-	74	-28.45	350	225	V
* 4.772	29.25	MAV1	34	-29.9	.31	33.66	54	-20.34	-	-	350	225	V

PK2 - KDB558074 Method: Maximum Peak

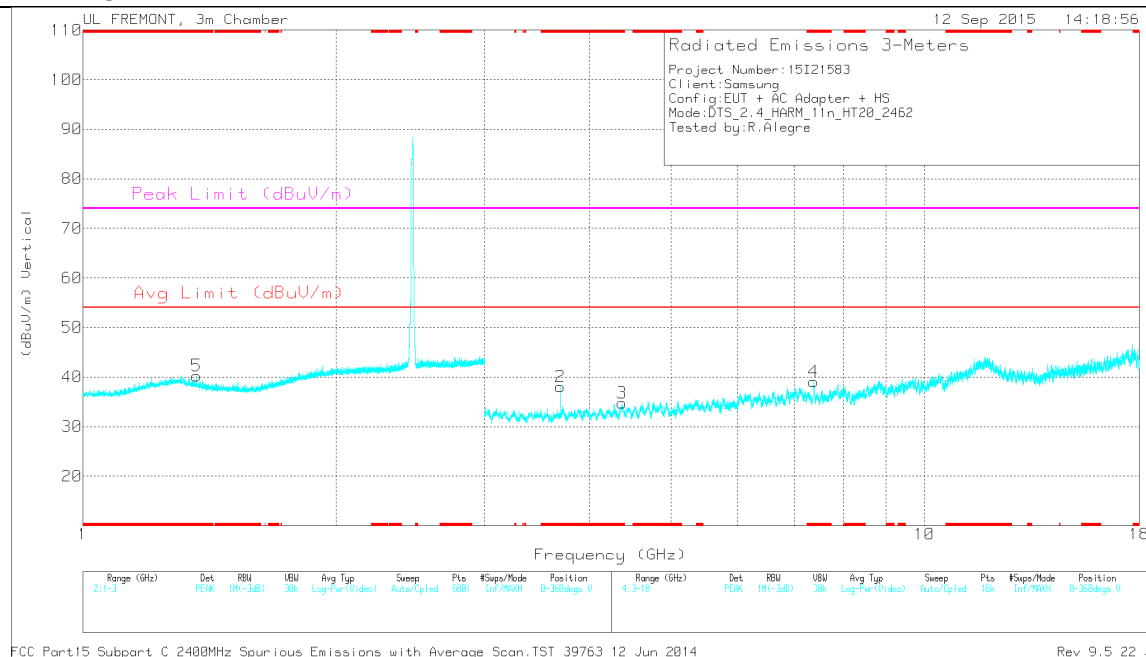
MAV1 - KDB558074 Option 1 Maximum RMS Average

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.

HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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)	Azimuth (Degs)	Height (cm)	Polarity
6	* 2.209	33.55	PK	31.4	-22.3	0	42.65	-	-	74	-31.35	0-360	200	H
5	* 1.365	34.28	PK	29.1	-23.1	0	40.28	-	-	74	-33.72	0-360	100	V
1	* 3.693	34.93	PK	33	-30.2	0	37.73	-	-	74	-36.27	0-360	100	H
2	* 3.693	35.28	PK	33	-30.2	0	38.08	-	-	74	-35.92	0-360	100	V
3	* 4.369	30.45	PK	33.6	-29.3	0	34.75	-	-	74	-39.25	0-360	100	V
4	* 7.385	30.59	PK	35.6	-27.1	0	39.09	-	-	74	-34.91	0-360	100	V

PK - Peak detector

Radiated Emissions

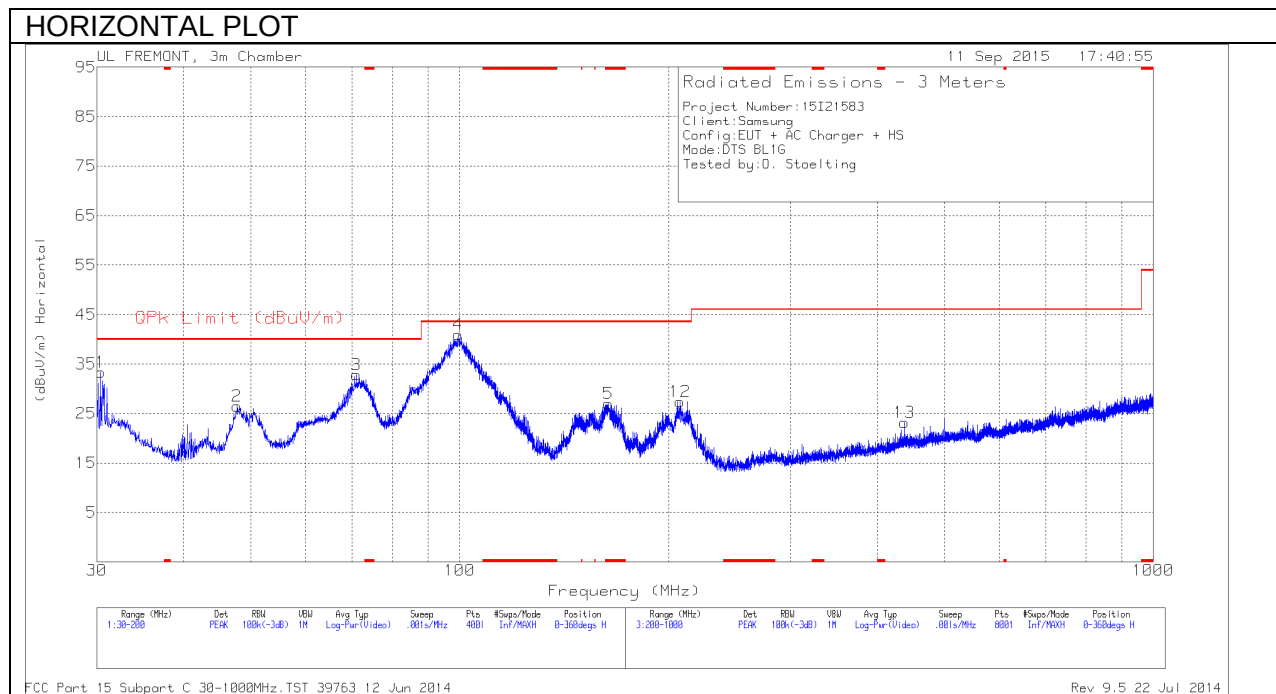
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Filtr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.21	42.11	PK2	31.4	-22.3	0	51.21	-	-	74	-22.79	347	200	H
* 2.209	30.68	MAV1	31.4	-22.3	.31	40.09	54	-13.91	-	-	347	200	H
* 1.366	42.92	PK2	29	-23.1	0	48.82	-	-	74	-25.18	345	210	V
* 1.366	31.06	MAV1	29	-23.1	.31	37.27	54	-16.73	-	-	345	210	V
* 3.693	42.63	PK2	33	-30.2	0	45.43	-	-	74	-28.57	94	101	H
* 3.693	35.06	MAV1	33	-30.2	.31	38.17	54	-15.83	-	-	94	101	H
* 3.693	41.75	PK2	33	-30.2	0	44.55	-	-	74	-29.45	305	115	V
* 3.693	34.24	MAV1	33	-30.2	.31	37.35	54	-16.65	-	-	305	115	V
* 4.37	40.19	PK2	33.6	-29.3	0	44.49	-	-	74	-29.51	292	202	V
* 4.37	28.63	MAV1	33.6	-29.3	.31	33.24	54	-20.76	-	-	292	202	V
* 7.386	38.37	PK2	35.6	-27.1	0	46.87	-	-	74	-27.13	306	112	V
* 7.385	26.73	MAV1	35.6	-27.1	.31	35.54	54	-18.46	-	-	306	112	V

PK2 - KDB558074 Method: Maximum Peak

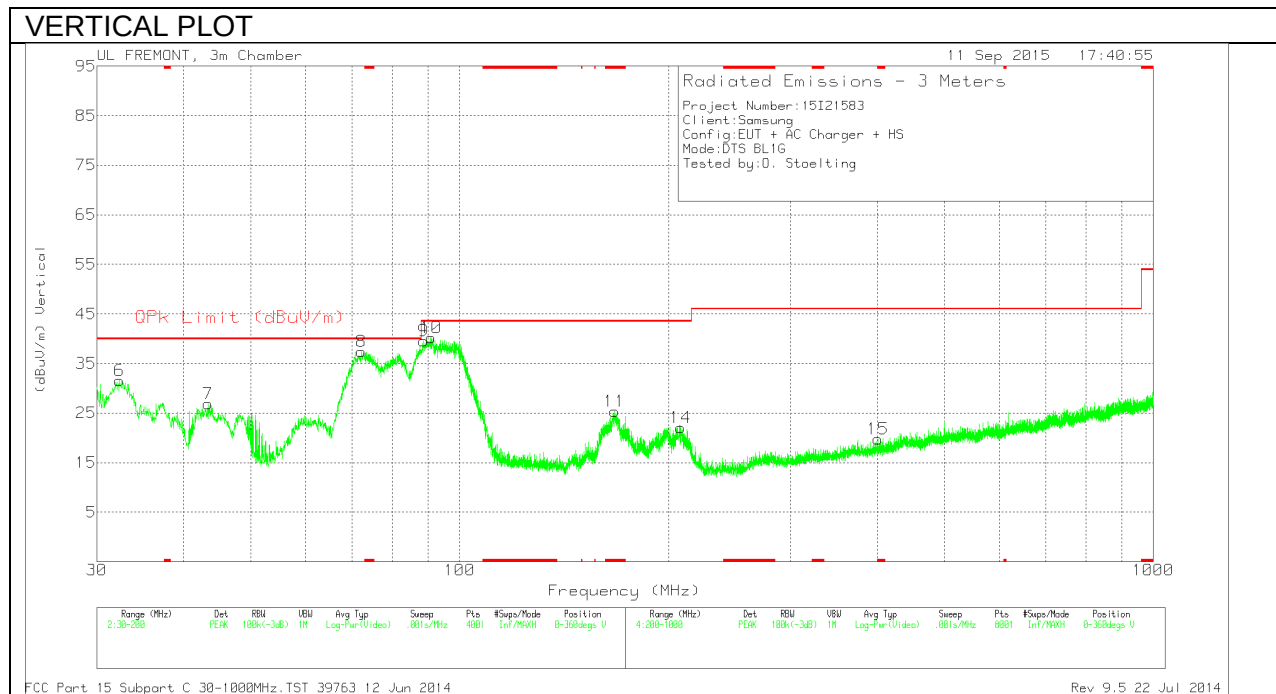
MAV1 - KDB558074 Option 1 Maximum RMS Average

10.3. WORST-CASE BELOW 1 GHz

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



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



Below 1G Data

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T185 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	* 163.8325	40.72	PK	11.9	-25.6	27.02	43.52	-16.5	0-360	200	H
15	* 401.05	29.11	PK	15.5	-24.8	19.81	46.02	-26.21	0-360	300	V
1	30.3825	39	PK	21.5	-27.2	33.3	40	-6.7	0-360	100	H
6	32.3375	38.53	PK	20.1	-27.1	31.53	40	-8.47	0-360	100	V
7	43.43	42.14	PK	11.7	-27	26.84	40	-13.16	0-360	100	V
2	47.765	44.43	PK	9.1	-27	26.53	40	-13.47	0-360	400	H
3	70.97	51.08	PK	8.4	-26.7	32.78	40	-7.22	0-360	300	H
8	72.245	55.74	PK	8.4	-26.7	37.44	40	-2.56	0-360	100	V
9	88.65	58.47	PK	7.6	-26.5	39.57	43.52	-3.95	0-360	100	V
10	90.9025	58.71	PK	7.9	-26.4	40.21	43.52	-3.31	0-360	100	V
4	99.615	57.68	PK	9.6	-26.3	40.98	43.52	-2.54	0-360	200	H
11	167.445	39.21	PK	11.7	-25.6	25.31	43.52	-18.21	0-360	100	V
12	207.9	41.58	PK	10.9	-25.1	27.38	43.52	-16.14	0-360	100	H
14	208.4	36.3	PK	10.8	-25.1	22	43.52	-21.52	0-360	100	V
13	437.9	31.27	PK	16.8	-24.9	23.17	46.02	-22.85	0-360	200	H

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

11. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

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

* Decreases with the logarithm of the frequency.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.

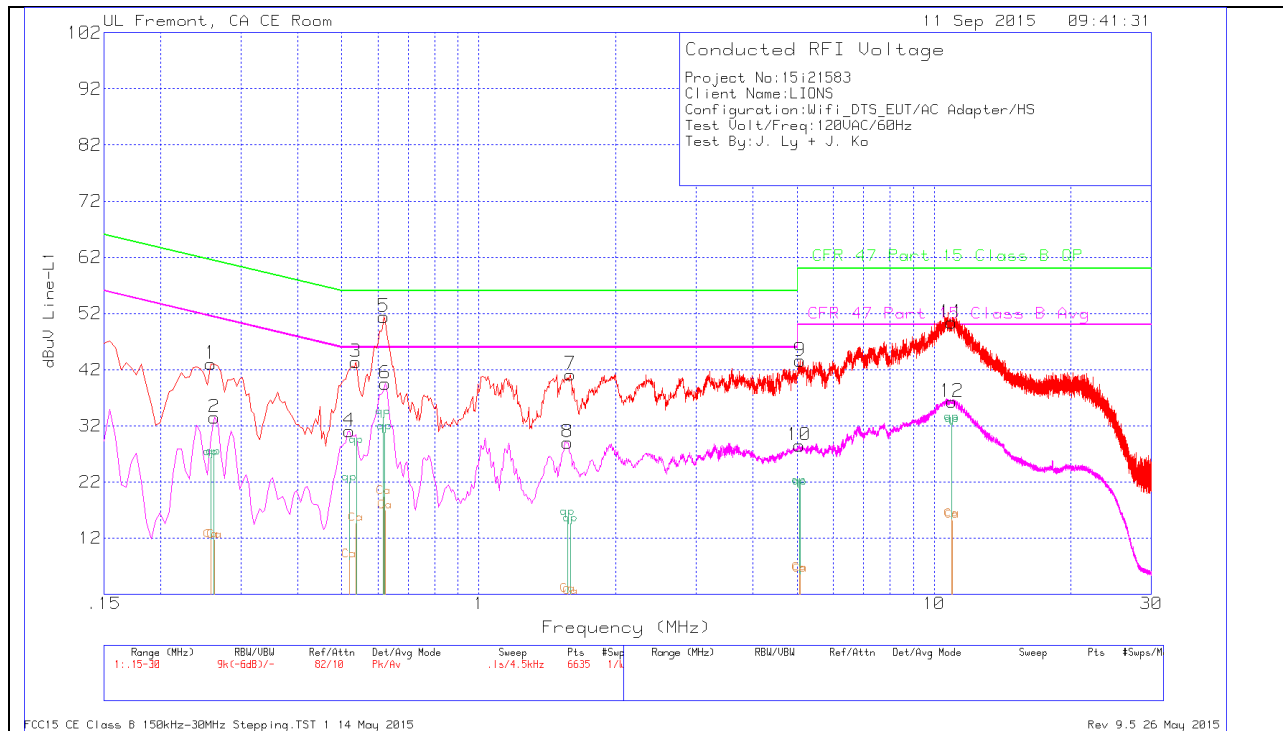
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

6 WORST EMISSIONS

LINE 1 PLOT



LINE 1 RESULTS

Trace Markers

Ca - CISPR average detection

Range 1: Line-L1 .15 - 30MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L1	LC Cables 1&3	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	Margin (dB)	CFR 47 Part 15 Class B Avg	Margin (dB)
.25778	10.92	Ca	.7	0	11.62	-	-	51.5	-39.88
.26138	10.88	Ca	.7	0	11.58	-	-	51.39	-39.81
.53813	14.27	Ca	.3	0	14.57	-	-	46	-31.43
.52013	7.78	Ca	.3	0	8.08	-	-	46	-37.92
.61688	19.06	Ca	.3	0	19.36	-	-	46	-26.64
.62138	16.54	Ca	.3	0	16.84	-	-	46	-29.16
1.58978	1.19	Ca	.2	.1	1.49	-	-	46	-44.51
1.56638	1.67	Ca	.2	.1	1.97	-	-	46	-44.03
5.07188	5.19	Ca	.2	.1	5.49	-	-	50	-44.51
5.05568	5.42	Ca	.2	.1	5.72	-	-	50	-44.28
10.9363	14.94	Ca	.2	.2	15.34	-	-	50	-34.66
10.9489	14.68	Ca	.2	.2	15.08	-	-	50	-34.92

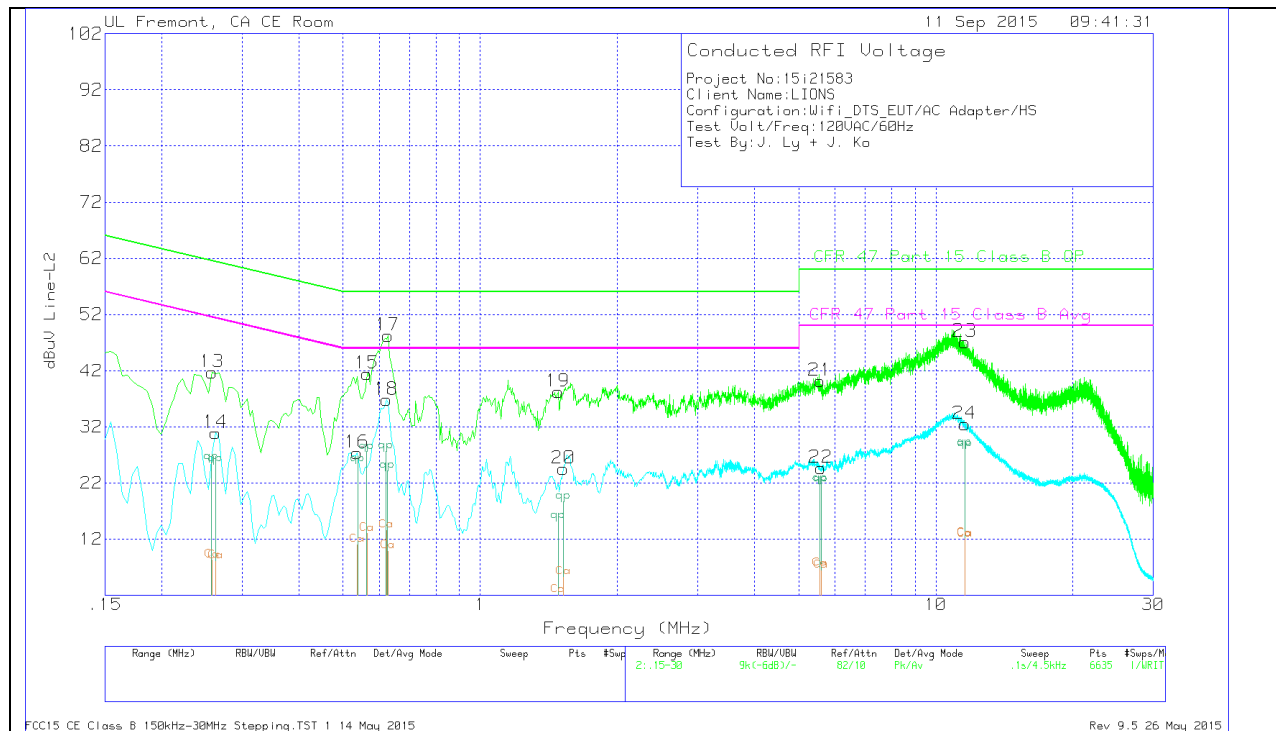
Quasi-Peak Emissions

Range 1: Line-L1 .15 - 30MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L1	LC Cables 1&3	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	Margin (dB)	CFR 47 Part 15 Class B Avg	Margin (dB)
.25778	25.61	Qp	.7	0	26.31	61.5	-35.19	-	-
.26138	25.64	Qp	.7	0	26.34	61.39	-35.05	-	-
.53813	28.18	Qp	.3	0	28.48	56	-27.52	-	-
.52013	21.53	Qp	.3	0	21.83	56	-34.17	-	-
.61688	33.21	Qp	.3	0	33.51	56	-22.49	-	-
.62138	30.54	Qp	.3	0	30.84	56	-25.16	-	-
1.58978	14.22	Qp	.2	.1	14.52	56	-41.48	-	-
1.56638	15.39	Qp	.2	.1	15.69	56	-40.31	-	-
5.07188	20.73	Qp	.2	.1	21.03	60	-38.97	-	-
5.05568	20.93	Qp	.2	.1	21.23	60	-38.77	-	-
10.9363	32.14	Qp	.2	.2	32.54	60	-27.46	-	-
10.9489	31.8	Qp	.2	.2	32.2	60	-27.8	-	-

Qp - Quasi-Peak detector

LINE 2 PLOT



LINE 2 RESULTS

Trace Markers

Ca - CISPR average detection

Range 2: Line-L2 .15 - 30MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L2	LC Cables 2&3	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	Margin (dB)	CFR 47 Part 15 Class B Avg	Margin (dB)
.25688	7.56	Ca	.7	0	8.26	-	-	51.53	-43.27
.26228	7.39	Ca	.7	0	8.09	-	-	51.36	-43.27
.56378	12.67	Ca	.3	0	12.97	-	-	46	-33.03
.53813	10.67	Ca	.3	0	10.97	-	-	46	-35.03
.62588	9.59	Ca	.3	0	9.89	-	-	46	-36.11
.62138	13.26	Ca	.3	0	13.56	-	-	46	-32.44
1.48268	1.72	Ca	.2	.1	2.02	-	-	46	-43.98
1.52318	4.92	Ca	.2	.1	5.22	-	-	46	-40.78
5.57228	6.44	Ca	.2	.1	6.74	-	-	50	-43.26
5.59388	6.07	Ca	.2	.1	6.37	-	-	50	-43.63
11.5856	11.58	Ca	.2	.2	11.98	-	-	50	-38.02
11.5708	11.69	Ca	.2	.2	12.09	-	-	50	-37.91

Quasi-Peak Emissions

Range 2: Line-L2 .15 - 30MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L2	LC Cables 2&3	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	Margin (dB)	CFR 47 Part 15 Class B Avg	Margin (dB)
.25688	25	Qp	.7	0	25.7	61.53	-35.83	-	-
.26228	24.62	Qp	.7	0	25.32	61.36	-36.04	-	-
.56378	27.29	Qp	.3	0	27.59	56	-28.41	-	-
.53813	25.1	Qp	.3	0	25.4	56	-30.6	-	-
.62588	23.87	Qp	.3	0	24.17	56	-31.83	-	-
.62138	27.39	Qp	.3	0	27.69	56	-28.31	-	-
1.48268	14.96	Qp	.2	.1	15.26	56	-40.74	-	-
1.52318	18.42	Qp	.2	.1	18.72	56	-37.28	-	-
5.57228	21.59	Qp	.2	.1	21.89	60	-38.11	-	-
5.59388	21.52	Qp	.2	.1	21.82	60	-38.18	-	-
11.5856	27.69	Qp	.2	.2	28.09	60	-31.91	-	-
11.5708	27.9	Qp	.2	.2	28.3	60	-31.7	-	-

Qp - Quasi-Peak detector