



TEST REPORT

Report Number. : 13583138-E4V1

Applicant : Samsung Electronics Co., Ltd.
129 Samsung-Ro, Yeongtong-Gu,
Suwon-Si, Gyeonggi-Do, 16677, Korea

Model : SM-A526B/DS, SM-A526B

FCC ID : A3LSMA526B

EUT Description : GSM/WCDMA/LTE/5G Phablet with BT/BLE, DTS/UNII a/b/g/n/ac
and NFC

Test Standard(s) : FCC 47 CFR PART 15 SUBPART C

Date Of Issue:

January 26, 2021

Prepared by:

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NVLAP Lab code: 200065-0

REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	1/26/2021	Initial Issue	

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Samsung Electronics Co., Ltd.
129 Samsung-Ro, Yeongtong-Gu,
Suwon-Si

EUT DESCRIPTION: GSM/WCDMA/LTE/5G Phablet with BT/BLE, DTS/UNII a/b/g/n/ac
and NFC

MODEL: SM-A526B/DS, SM-A526B

SERIAL NUMBER: (Conducted Sample): R3CN90Q16EZ
(Radiated Sample): 49a9c185151d7ece

DATE TESTED: November 17, 2020 to December 17, 2020

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

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.

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 the U.S. government.

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2. TEST RESULTS SUMMARY

FCC Clause	Requirement	Result	Comment
See Comment	Duty Cycle	Reporting purposes only	ANSI C63.10 Section 11.6.
15.247 (a) (2)	6dB BW	Compliant	None.
15.247 (b) (3)	Output Power	Compliant	None.
15.247 (e)	PSD	Compliant	None.
15.247 (d)	Conducted Spurious Emissions	Compliant	None.
15.209, 15.205	Radiated Emissions	Compliant	None.
15.207	AC Mains Conducted Emissions	Compliant	None.

3. 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, KDB 558074 D01 15.247 Meas Guidance v05r02, and KDB 414788 D01 Radiated Test Site v01r01.

4. FACILITIES AND ACCREDITATION

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0, for all testing performed within the scope of this report. Testing was performed at the locations noted below.

	Address	ISED CABID	ISED Company Number	FCC Registration
<input type="checkbox"/>	Building 1: 47173 Benicia Street, Fremont, California 94538, USA	US0104	2324A	208313
<input type="checkbox"/>	Building 2: 47266 Benicia Street, Fremont, California 94538, USA	US0104	22541	208313
<input checked="" type="checkbox"/>	Building 4: 47658 Kato Rd, Fremont, California 94538, USA	US0104	2324B	208313

5. DECISION RULES AND MEASUREMENT UNCERTAINTY

5.1. METROLOGICAL TRACEABILITY

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, with a maximum time between calibrations of one year or the manufacturers' recommendation, whichever is less, and where applicable is traceable to recognized national standards.

5.2. DECISION RULES

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4:2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

5.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	U _{Lab}
Worst Case Conducted Disturbance, 9KHz to 0.15 MHz	3.78 dB
Worst Case Conducted Disturbance, 0.15 to 30 MHz	3.40 dB
Worst Case Radiated Disturbance, 9KHz to 30 MHz	2.84 dB
Worst Case Radiated Disturbance, 30 to 1000 MHz	4.84 dB
Worst Case Radiated Disturbance, 1000 to 18000 MHz	4.73 dB
Worst Case Radiated Disturbance, 18000 to 26000 MHz	4.51 dB
Worst Case Radiated Disturbance, 26000 to 40000 MHz	5.29 dB

Uncertainty figures are valid to a confidence level of 95%.

5.4. SAMPLE CALCULATION

RADIATED EMISSIONS

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)

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

MAINS CONDUCTED EMISSIONS

Where relevant, the following sample calculation is provided:

Final Voltage (dBuV) = Measured Voltage (dBuV) + Cable Loss (dB) + Limiter Factor (dB) + LISN Insertion Loss.

$$36.5 \text{ dBuV} + 0 \text{ dB} + 10.1 \text{ dB} + 0 \text{ dB} = 46.6 \text{ dBuV}$$

6. EQUIPMENT UNDER TEST

6.1. EUT DESCRIPTION

The EUT is a GSM/WCDMA/LTE/5G Phablet with BT/BLE, DTS/UNII a/b/g/n/ac and NFC. The model SM-A526B/DS was used for final testing and is representative of the test results in this report.

6.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

2.4GHz BAND

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
1Tx			
2412 - 2472	802.11b	19.99	99.77
2412 - 2472	802.11g	17.87	61.24
2412 - 2472	802.11n HT20	17.62	57.81

6.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an FIPA antenna, with a maximum gain of -2.56 dBi.

6.4. SOFTWARE AND FIRMWARE

The test utility software used during testing was A526B.001.

6.5. WORST-CASE CONFIGURATION AND MODE

Radiated emissions below 1GHz, above 18GHz, and power line conducted emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

Band edge and radiated emissions between 1GHz and 18GHz were performed with the EUT set to transmit at the highest power on low, middle and high channels.

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.

Worst-case data rates as provided by the client were:

802.11b mode: 1 Mbps

802.11g mode: 6 Mbps

802.11n HT20mode: MCS0

6.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	Samsung	EP-TA800	R37M8PH3JN2SE3	N/A
Earphone	Samsung	N/A	N/A	N/A

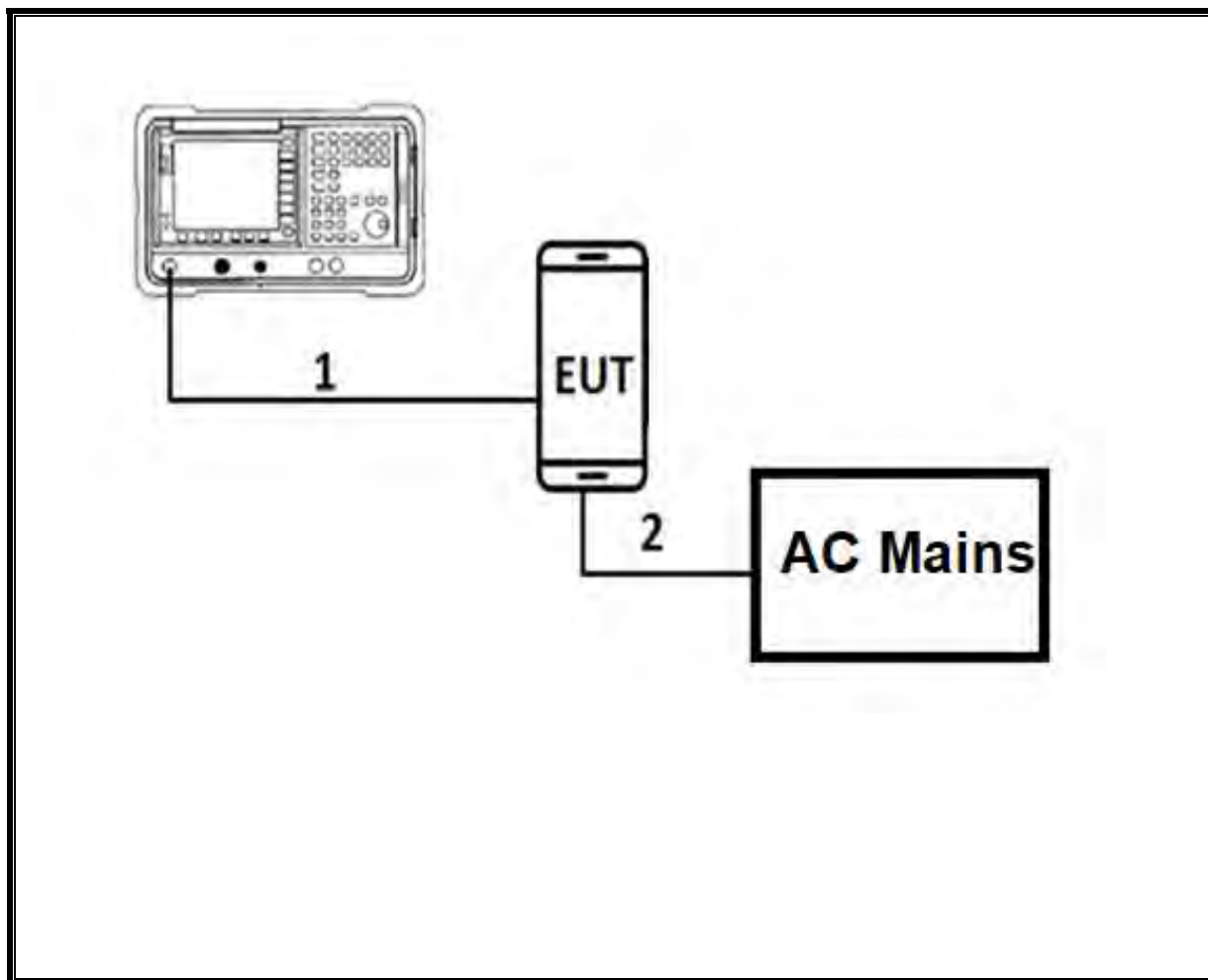
I/O CABLES (CONDUCTED TEST)

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	Antenna	1	RF	Shielded	0.2	To spectrum Analyzer
2	USB	1	USB	Un-shielded	1	EUT to AC Mains

I/O CABLES (RADIATED AND CONDUCTED EMISSIONS)

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	USB	1	USB	Shielded	1	N/A
2	Earphone	1	3.5mm	Un-shielded	1	N/A

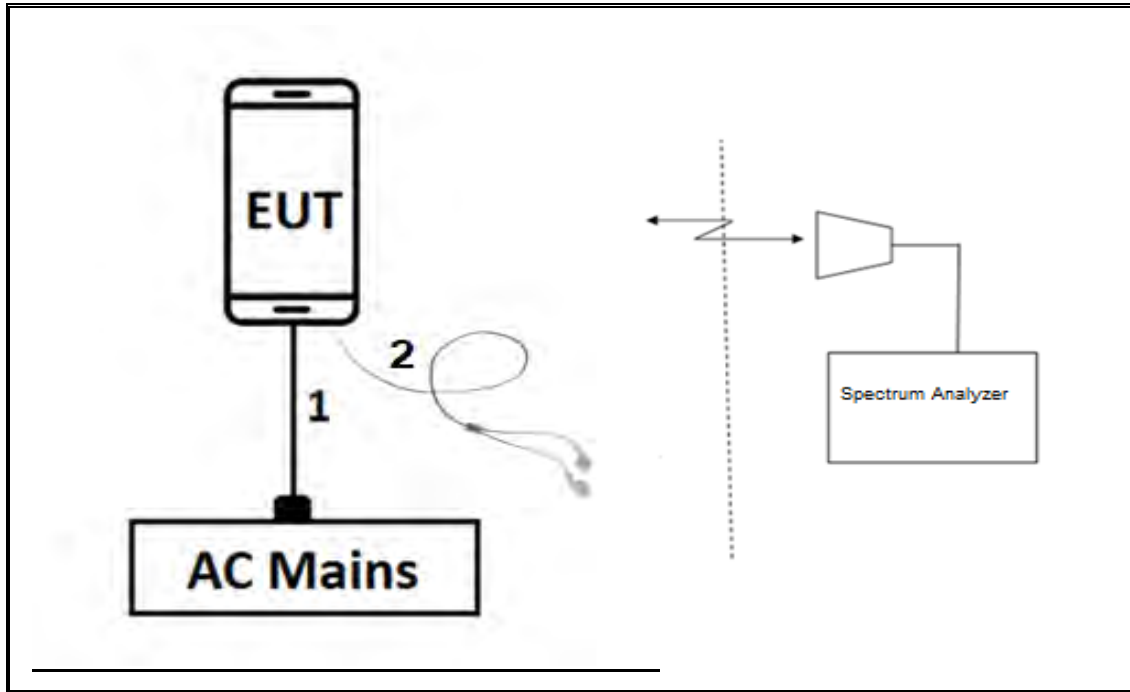
CONDUCTED TEST SETUP DIAGRAM



TEST SETUP

For conducted tests: the EUT was stand alone. The test software exercises the radio.

RADIATED AND AC LINE CONDUCTED EMISSIONS SETUP DIAGRAM



TEST SETUP

For radiated tests: EUT is connected to earphone. The test software exercises the radio.

7. MEASUREMENT METHOD

On Time and Duty Cycle: ANSI C63.10 Section 11.6.

6 dB BW: ANSI C63.10 Section 11.8.1

Occupied BW (99%): ANSI C63.10-2013 Section 6.9.3

Output Power: ANSI C63.10 Section 11.9.2.3.2 Method AVGPM-G (Measurement using a gated RF average-reading power meter)

PSD: ANSI C63.10 Section 11.10.2. Method PKPSD (peak PSD)

Radiated emissions non-restricted frequency bands: ANSI C63.10 Section -11.11

Radiated emissions restricted frequency bands: ANSI C63.10 Section -11.12.1

Conducted emissions in restricted frequency bands: ANSI C63.10 Section -11.12.2

Band-edge: ANSI C63.10 Section 6.10

Radiated Spurious Emissions Below 30MHz: ANSI C63.10-2013 Section 6.4

Radiated Spurious Emissions Below 30MHz: ANSI C63.10-2013 Section 6.4

AC Powerline conducted emissions: ANSI C63.10-2013, Section 6.2.

8. 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	ID Num	Cal Due	Last Cal
RF Amplifier, 1-18GHz	MITEQ	AFS42-00101800-25-S-42	171460	09/29/2021	09/29/2020
Amplifier 1-8GHz 30dB gain	L3 Narda	AMF-4D-01000800-30-29P	167494	09/29/2021	09/29/2020
Amplifier, 1 - 18GHz	MITEQ	AFS42-00101800-25-S-42	T1568	04/14/2021	04/14/2020
Amplifier, 1 to 18GHz, 35dB	AMPLICAL	AMP1G18-35	T1571	08/20/2021	08/20/2020
Amplifier, 1-7GHz, 24dB	AMPLICAL	AMP1G7-24-27	T1607	04/15/2021	04/15/2020
Amplifier, 1-7GHz, 24dB	AMPLICAL	AMP1G7-24-27	T1608	08/20/2021	08/20/2020
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	T344	05/26/2021	05/26/2020
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	T346	07/20/2021	07/20/2020
Antenna, Horn Double Ridge Guide 700MHz to 18GHz	A.H. Systems, Inc.	SAS-571	T963	01/25/2021	01/25/2020
Wideband Power Sensor	Keysight	N1921A	T1223	04/10/2021	04/10/2020
P-Series Power Meter	Keysight	N1911A	T1264	01/21/2021	01/21/2020
Amplifier, 10KHz to 1GHz, 32dB	SONOMA INSTRUMENT	310N	T300	01/23/2021	01/23/2020
Antenna, Passive Loop 30Hz - 1MHz	ELECTRO METRICS	EM-6871	PRE0179465	07/27/2021	07/27/2020
Antenna, Passive Loop 100KHz - 30MHz	ELECTRO METRICS	EM-6872	PRE0179467	07/27/2021	07/27/2020
Antenna, Broadband Hybrid, 30MHz to 3GHz	Sunol Sciences Corp.	JB3	PRE0184971	02/05/2021	02/05/2020
Antenna, Horn 18 to 26.5GHz	ARA	MWH-1826/B	T447	09/24/2021	09/24/2020
Rf Amplifier, 18-26.5GHz, 60dB gain	AMPLICAL	AMP18G26.5-60	PRE0181238	06/07/2021	06/07/2020
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	PRE0179372	02/25/2021	02/25/2020
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	PRE0179522	02/20/2021	02/20/2020
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	PRE0179576	02/20/2021	02/20/2020
Spectrum Analyzer, PSA, 3Hz to 44GHz	Keysight Technologies Inc	E4446A	T146	01/29/2021	01/29/2020
AC Line Conducted					
Description	Manufacturer	Model	ID Num	Cal Due	Last Cal
LISN	Fischer Custom Communications, Inc	FCC-LISN-50/250-25-2-01-480V	PRE0186446	01/21/2021	01/21/2020
L.I.S.N	FCC INC.	FCC LISN 50/250	24	01/21/2021	01/21/2020
EMI TEST RECEIVER	Rohde & Schwarz	ESR	T1436	02/20/2021	02/20/2020
Transient Limiter	COM-POWER	LIT-930A	PRE0129246	01/23/2021	01/23/2020
Test Software List					
Description	Manufacturer	Model	Version		
Radiated Software	UL	UL EMC	Ver 9.5, June 15, 2019		
Antenna Port Software	UL	UL RF	2020.7.15		
AC Line Conducted Software	UL	UL EMC	Ver 9.5, May 26, 2015		

9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

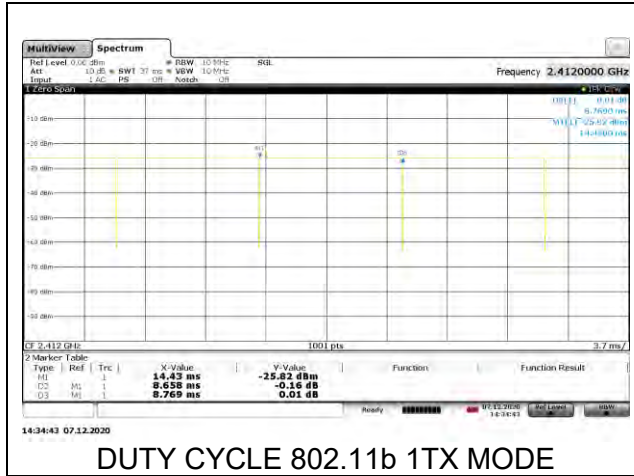
PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method.

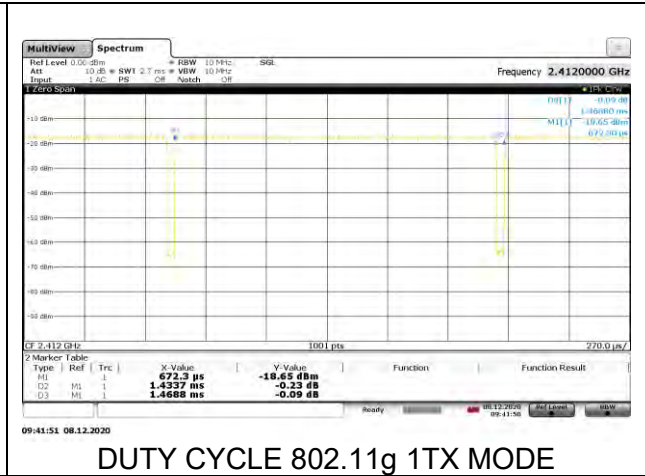
ON TIME AND DUTY CYCLE RESULTS

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 1TX	8.658	8.769	0.987	98.73%	0.00	0.010
802.11g 1TX	1.434	1.469	0.976	97.61%	0.11	0.697
802.11n HT20 1TX	1.340	1.376	0.974	97.38%	0.12	0.746

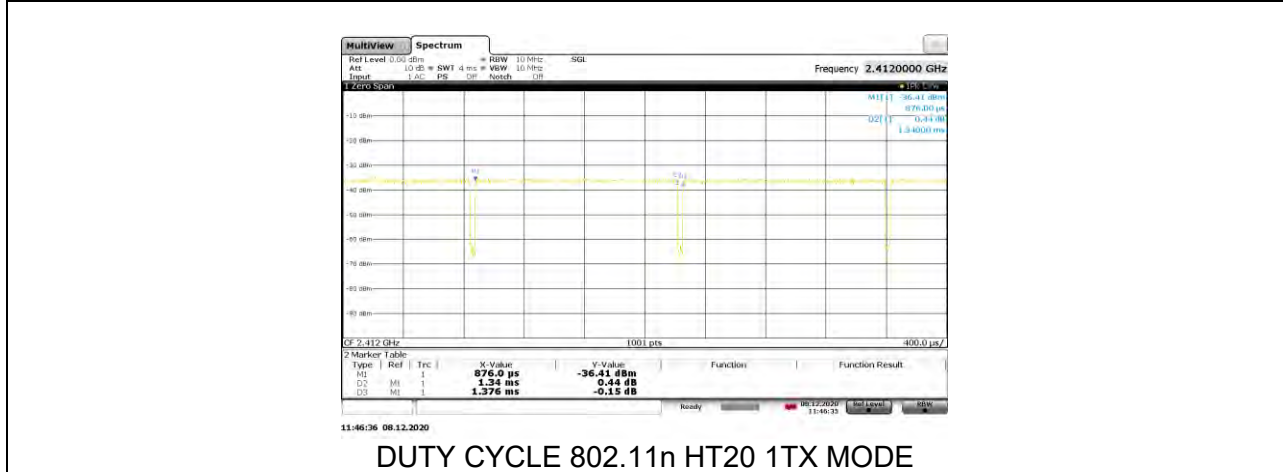
DUTY CYCLE PLOTS



DUTY CYCLE 802.11b 1TX MODE



DUTY CYCLE 802.11g 1TX MODE



DUTY CYCLE 802.11n HT20 1TX MODE

9.2. 6 dB BANDWIDTH

LIMITS

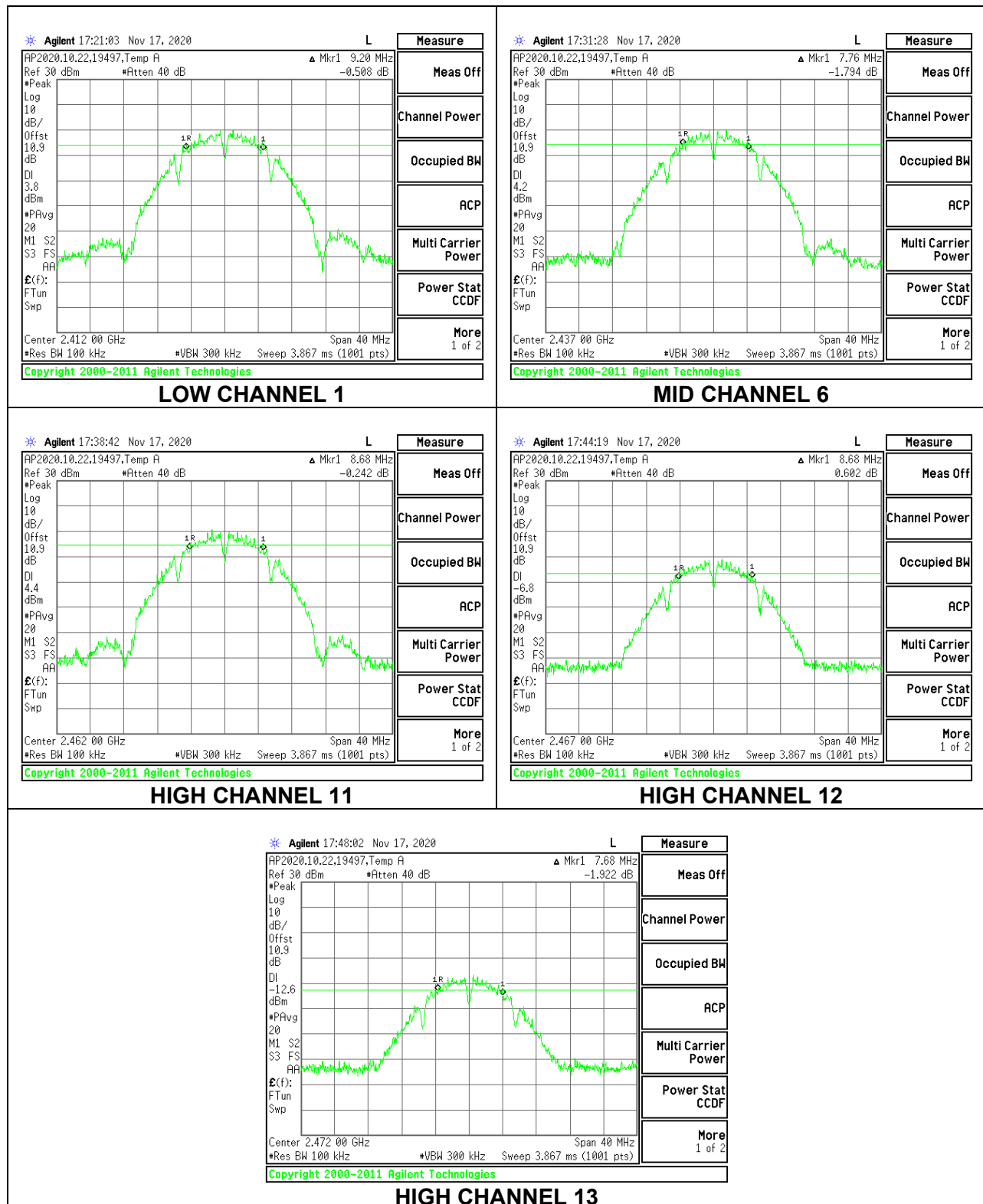
FCC §15.247 (a) (2)

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

RESULTS

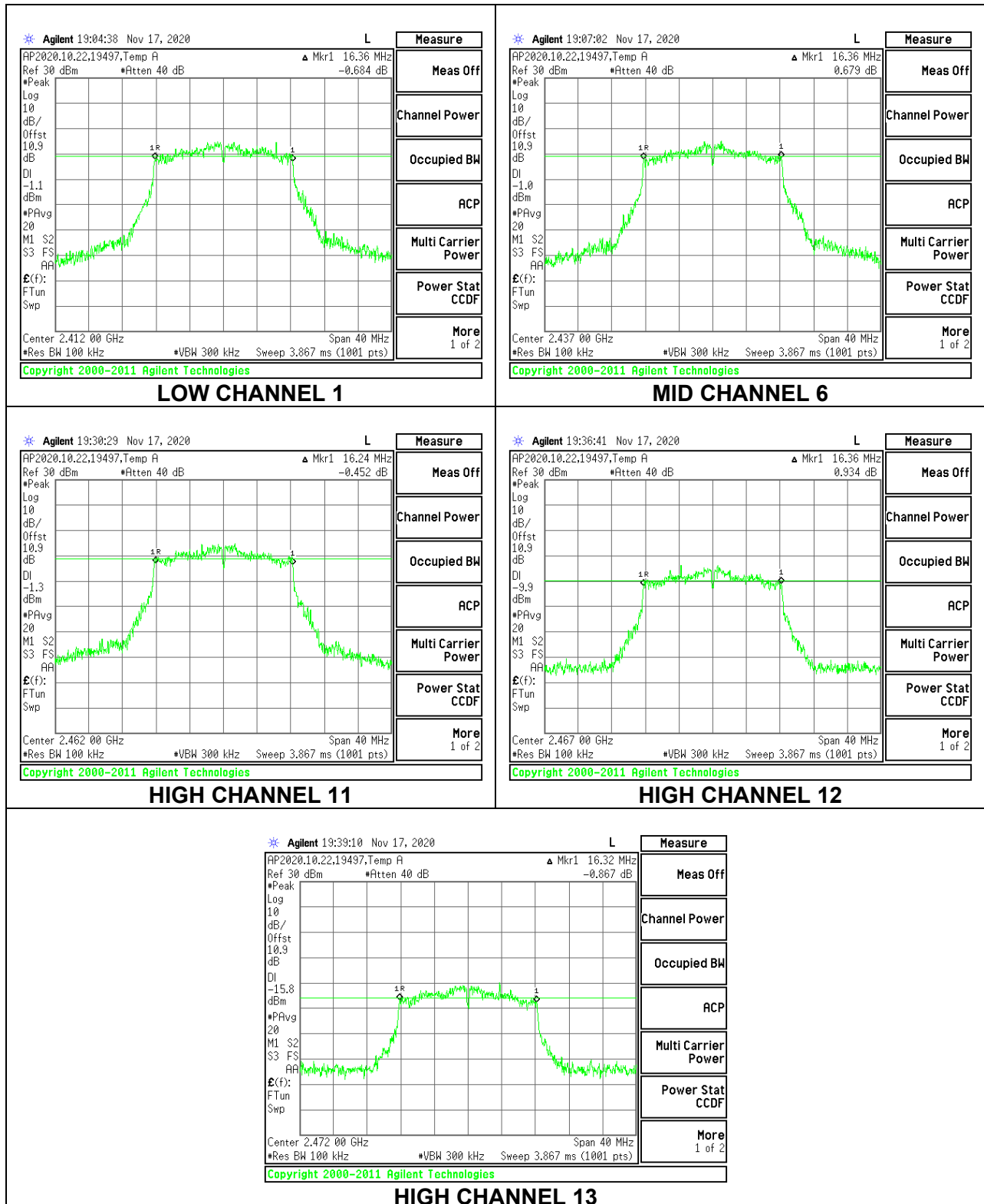
9.2.1. 802.11b MODE

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low 1	2412	9.20	0.5
Mid 6	2437	7.76	0.5
High 11	2462	8.68	0.5
High 12	2467	8.68	0.5
High 13	2472	7.68	0.5



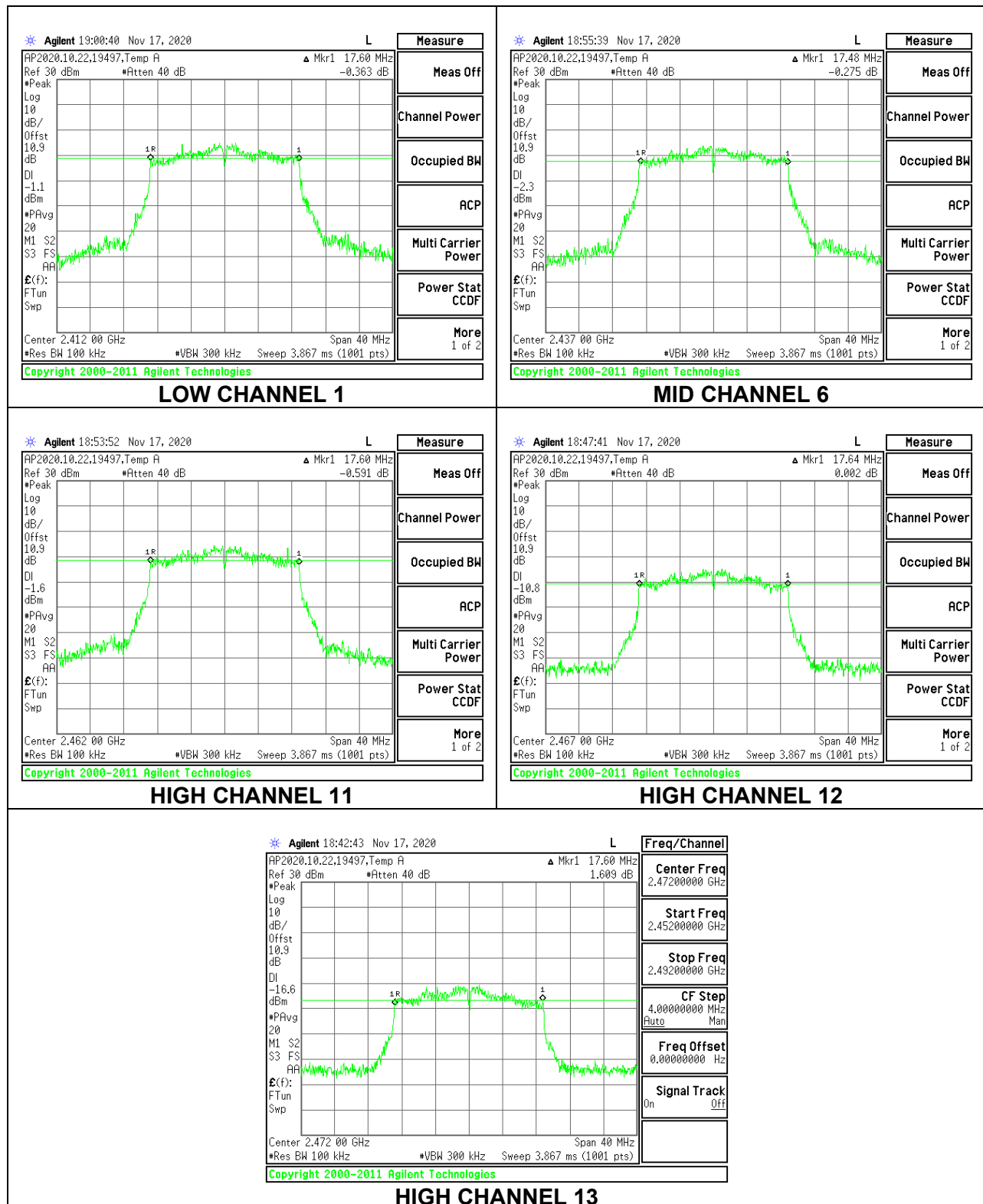
9.2.2. 802.11g MODE

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low 1	2412	16.36	0.5
Mid 6	2437	16.36	0.5
High 11	2462	16.24	0.5
High 12	2467	16.36	0.5
High 13	2472	16.32	0.5



9.2.3. 802.11n HT20 MODE

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low 1	2412	17.60	0.5
Mid 6	2437	17.48	0.5
High 11	2462	17.60	0.5
High 12	2467	17.64	0.5
High 13	2472	17.60	0.5



9.3. OUTPUT POWER

LIMITS

FCC §15.247 (b) (3)

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.

TEST PROCEDURE

The transmitter output is connected to a power meter. The cable assembly insertion loss was entered as an offset in the power meter to allow for a gated average reading of power.

DIRECTIONAL ANTENNA GAIN

For 1 TX:

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

RESULTS

9.3.1. 802.11b MODE

Test Engineer:	20792 KN
Test Date:	11/17/2020

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	-2.56	30.00	30	36	30.00
Mid 6	2437	-2.56	30.00	30	36	30.00
High 11	2462	-2.56	30.00	30	36	30.00
High 12	2467	-2.56	30.00	30	36	30.00
High 13	2472	-2.56	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	19.91	19.91	30.00	-10.09
Mid 6	2437	19.80	19.80	30.00	-10.20
High 11	2462	19.99	19.99	30.00	-10.01
High 12	2467	8.82	8.82	30.00	-21.18
High 13	2472	2.79	2.79	30.00	-27.21

9.3.2. 802.11g MODE

Test Engineer:	20792 KN
Test Date:	11/17/2020

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	-2.56	30.00	30	36	30.00
Mid 6	2437	-2.56	30.00	30	36	30.00
High 11	2462	-2.56	30.00	30	36	30.00
High 12	2467	-2.56	30.00	30	36	30.00
High 13	2472	-2.56	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	17.87	17.87	30.00	-12.13
Mid 6	2437	17.76	17.76	30.00	-12.24
High 11	2462	17.74	17.74	30.00	-12.26
High 12	2467	8.80	8.80	30.00	-21.20
High 13	2472	2.52	2.52	30.00	-27.48

9.3.3. 802.11n HT20 MODE

Test Engineer:	20792 KN
Test Date:	11/17/2020

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	-2.56	30.00	30	36	30.00
Mid 6	2437	-2.56	30.00	30	36	30.00
High 11	2462	-2.56	30.00	30	36	30.00
High 12	2467	-2.56	30.00	30	36	30.00
High 13	2472	-2.56	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	17.57	17.57	30.00	-12.43
Mid 6	2437	17.40	17.40	30.00	-12.60
High 11	2462	17.62	17.62	30.00	-12.38
High 12	2467	8.57	8.57	30.00	-21.43
High 13	2472	2.42	2.42	30.00	-27.58

9.4. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

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.

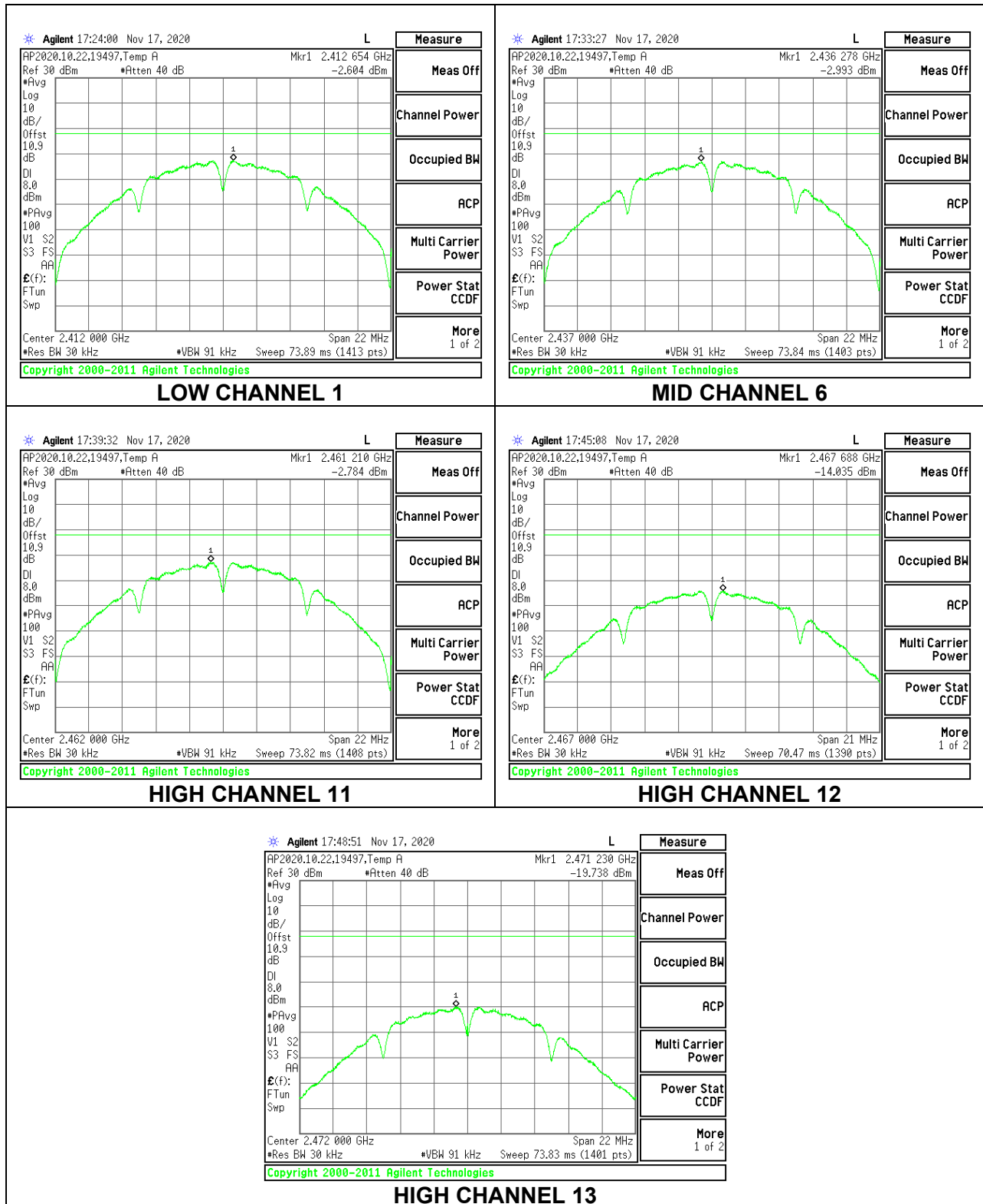
RESULTS

9.4.1. 802.11b MODE

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
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PSD Results

Channel	Frequency (MHz)	Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low 1	2412	-2.604	-2.60	8.0	-10.6
Mid 6	2437	-2.993	-2.99	8.0	-11.0
High 11	2462	-2.784	-2.78	8.0	-10.8
High 12	2467	-14.035	-14.04	8.0	-22.0
High 13	2472	-19.738	-19.74	8.0	-27.7

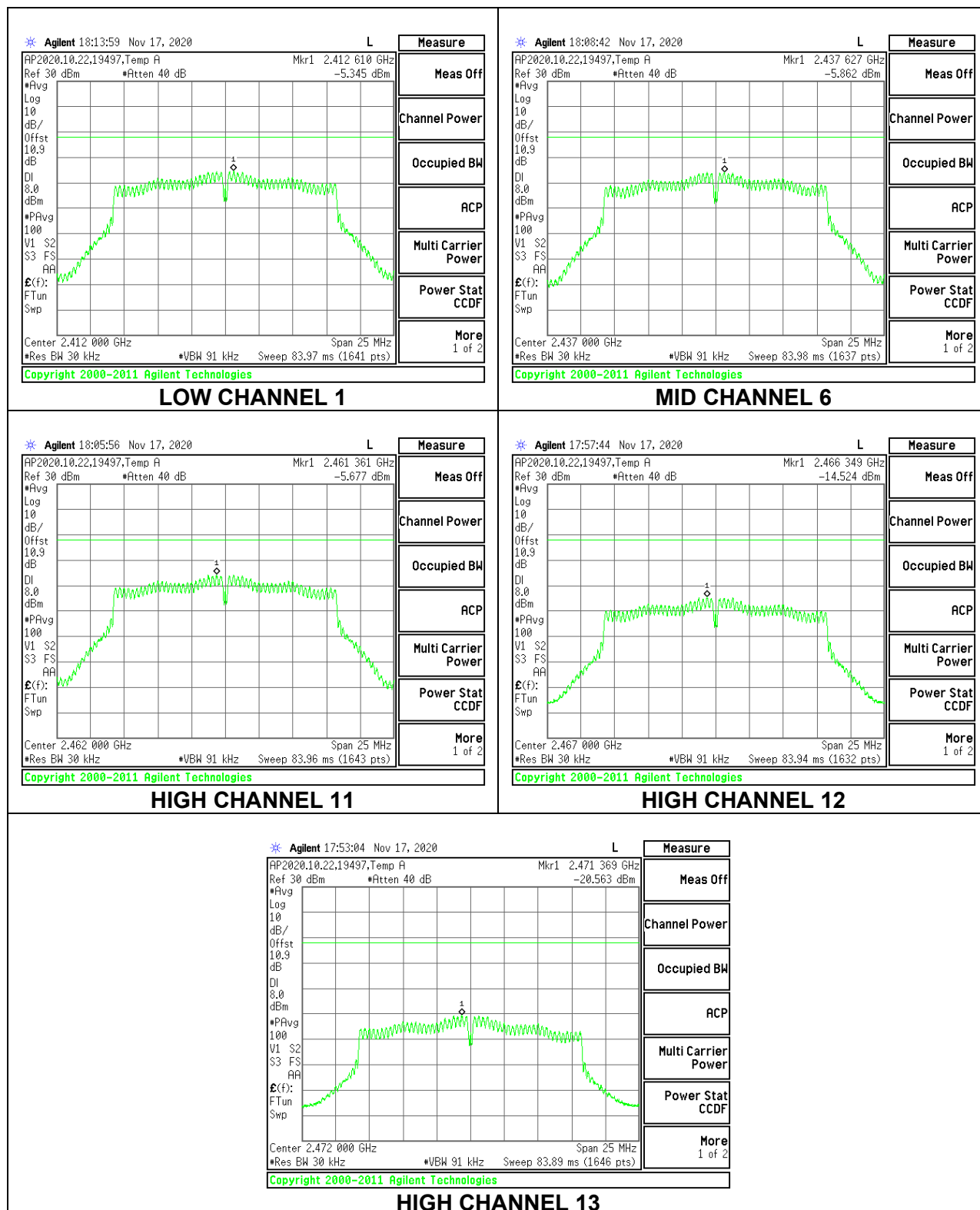


9.4.2. 802.11g MODE

Duty Cycle CF (dB)	0.11	Included in Calculations of Corr'd PSD
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PSD Results

Channel	Frequency (MHz)	Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low 1	2412	-5.345	-5.24	8.0	-13.2
Mid 6	2437	-5.862	-5.75	8.0	-13.8
High 11	2462	-5.677	-5.57	8.0	-13.6
High 12	2467	-14.524	-14.41	8.0	-22.4
High 13	2472	-20.563	-20.45	8.0	-28.5

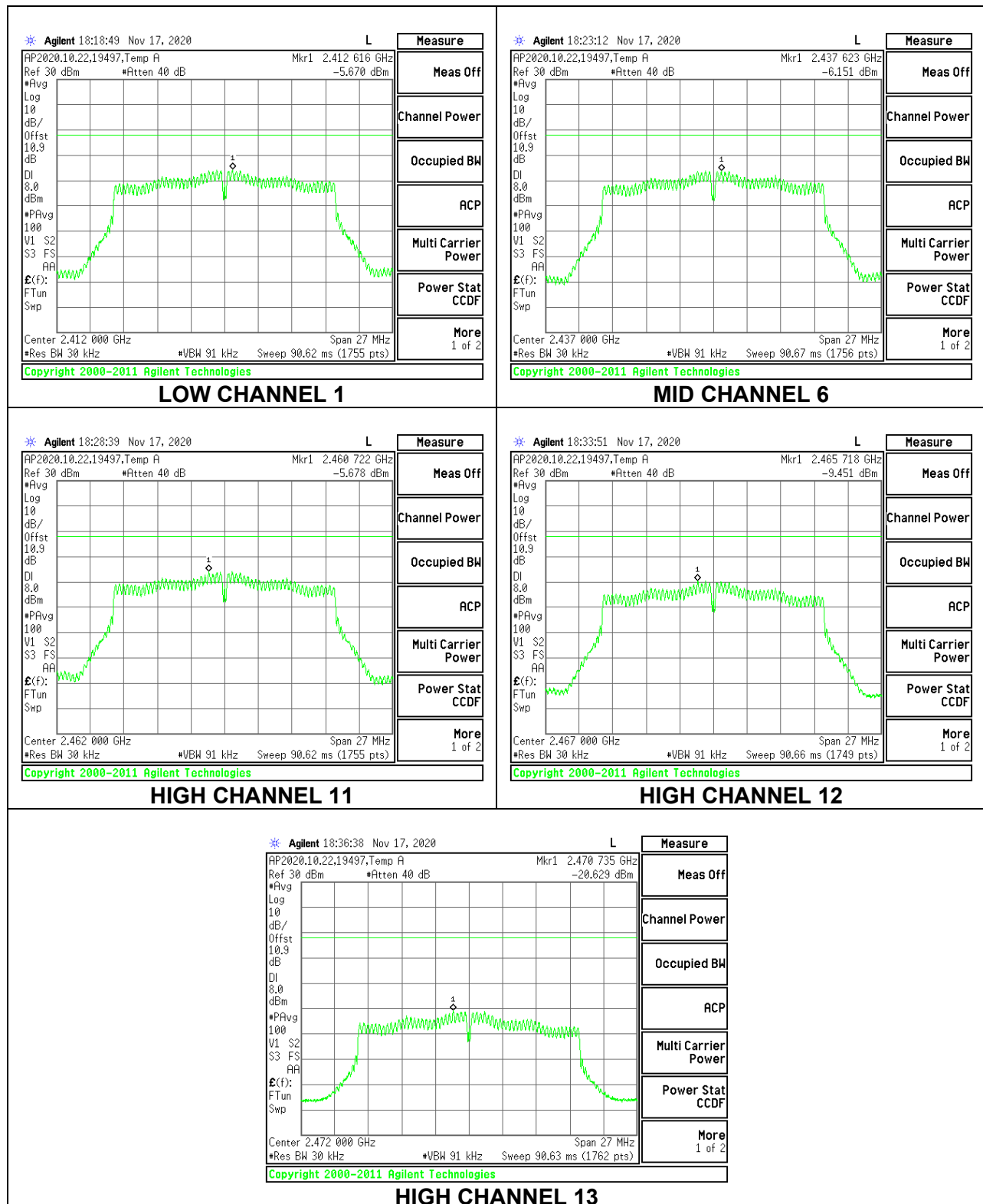


9.4.3. 802.11n HT20 MODE

Duty Cycle CF (dB)	0.12	Included in Calculations of Corr'd PSD
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PSD Results

Channel	Frequency (MHz)	Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low 1	2412	-5.670	-5.55	8.0	-13.6
Mid 6	2437	-6.151	-6.03	8.0	-14.0
High 11	2462	-5.678	-5.56	8.0	-13.6
High 12	2467	-9.451	-9.33	8.0	-17.3
High 13	2472	-20.629	-20.51	8.0	-28.5



9.5. CONDUCTED SPURIOUS EMISSIONS

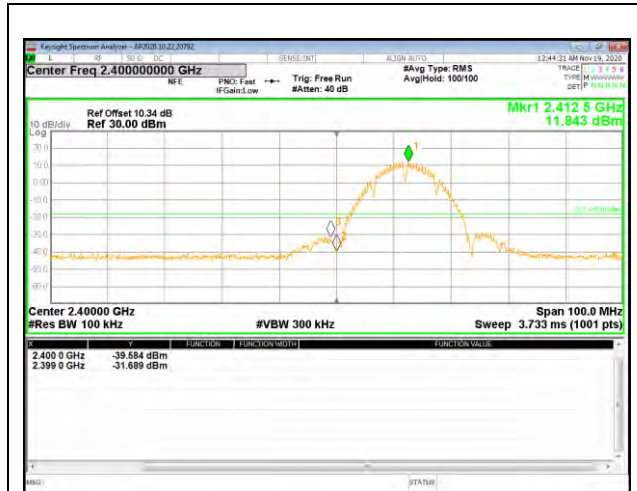
LIMITS

FCC §15.247 (d)

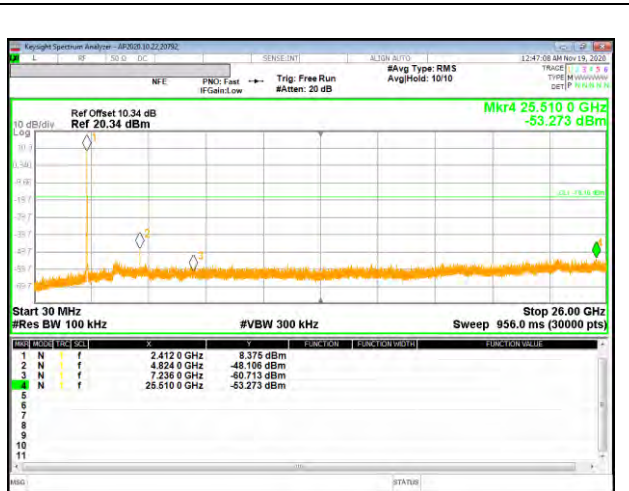
Output power was measured based on the use of a RMS averaging measurement, spurious emissions are required to be 30dBc.

RESULTS

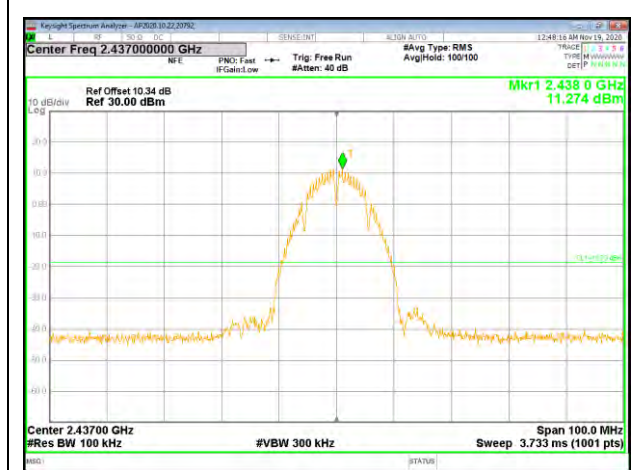
9.5.1. 802.11b MODE



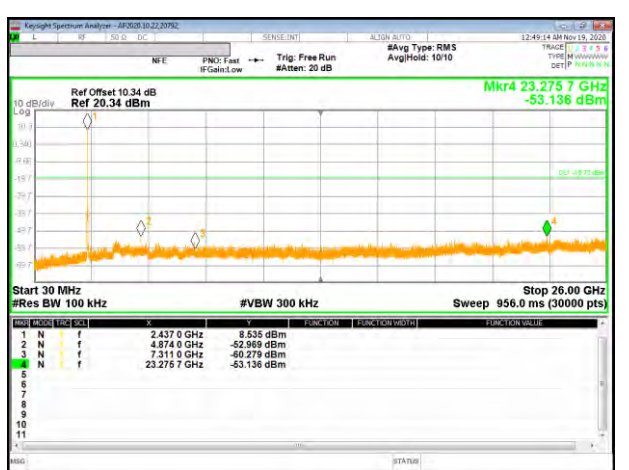
LOW CHANNEL 1 BANDEDGE



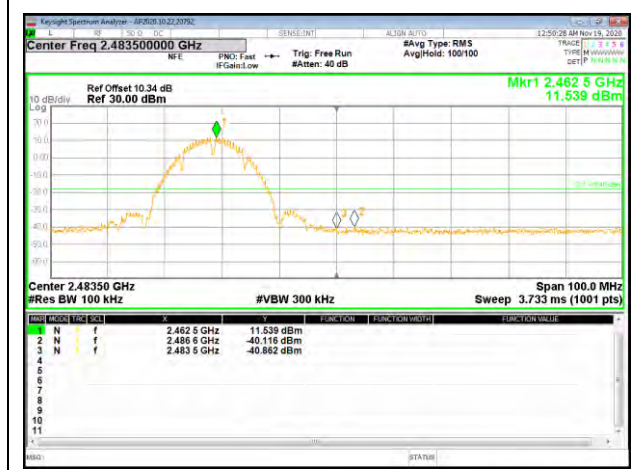
OUT-OF-BAND LOW CHANNEL 1



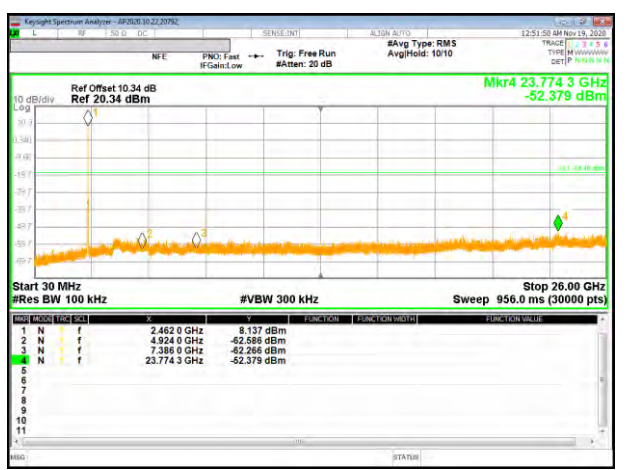
IN-BAND REFERENCE LEVEL



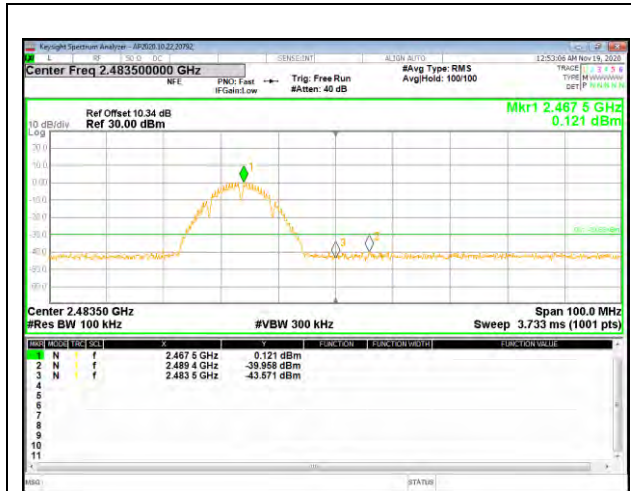
OUT-OF-BAND MID CHANNEL



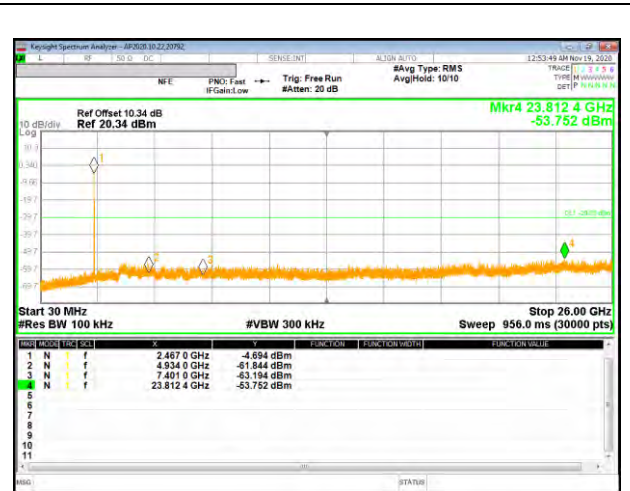
HIGH CHANNEL 11 BANDEDGE



OUT-OF-BAND HIGH CHANNEL 11



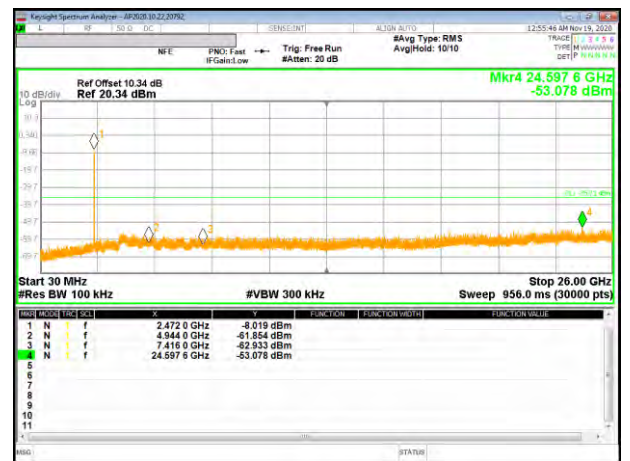
HIGH CHANNEL 12 BANDEDGE



OUT-OF-BAND HIGH CHANNEL 12



HIGH CHANNEL 13 BANDEDGE

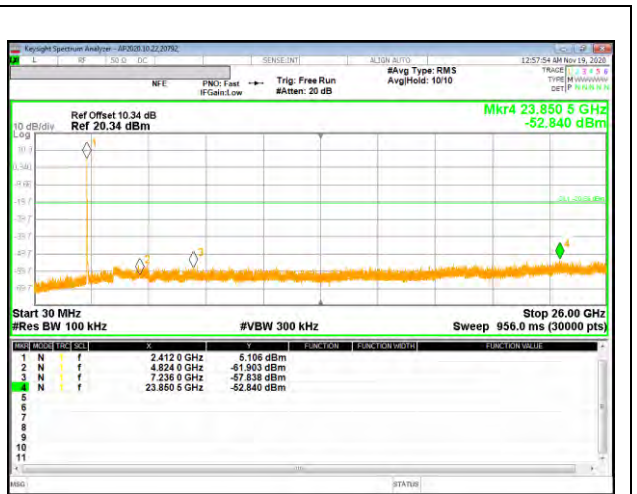


OUT-OF-BAND HIGH CHANNEL 13

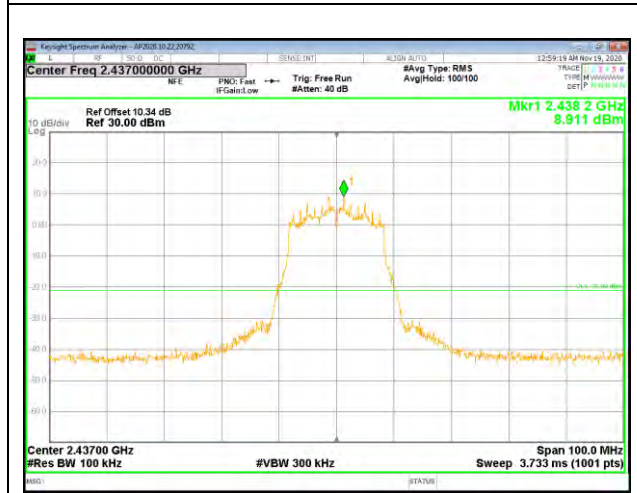
9.5.2. 802.11g MODE



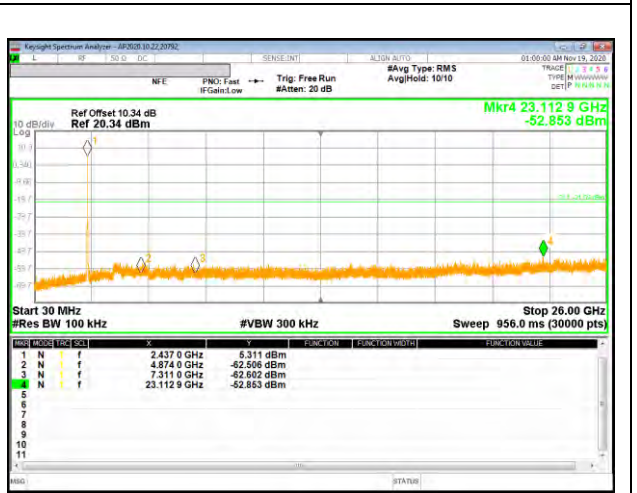
LOW CHANNEL 1 BANDEDGE



OUT-OF-BAND LOW CHANNEL 1



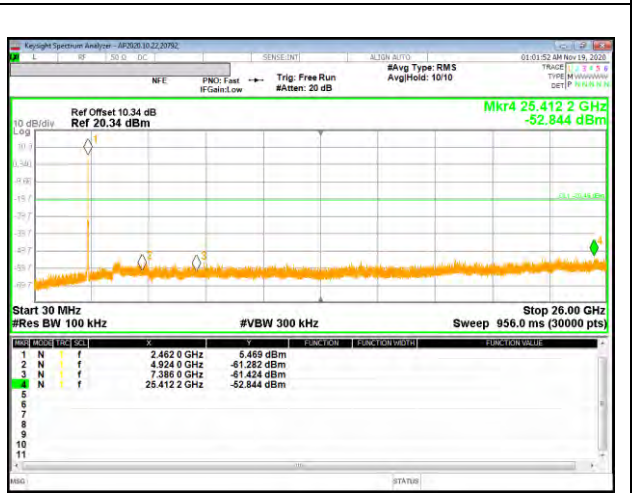
IN-BAND REFERENCE LEVEL



OUT-OF-BAND MID CHANNEL



HIGH CHANNEL 11 BANDEDGE



OUT-OF-BAND HIGH CHANNEL 11



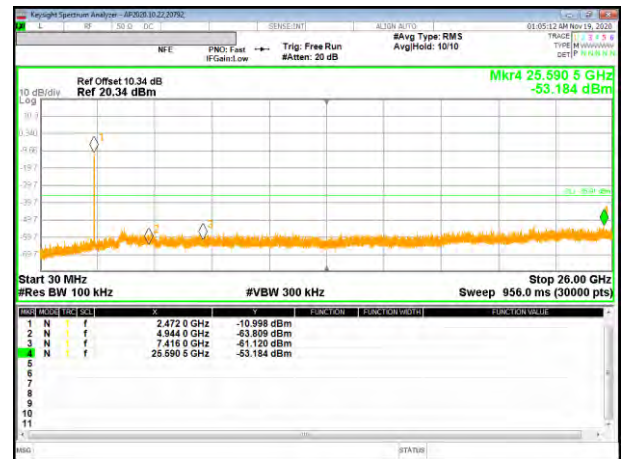
HIGH CHANNEL 12 BANDEDGE



OUT-OF-BAND HIGH CHANNEL 12

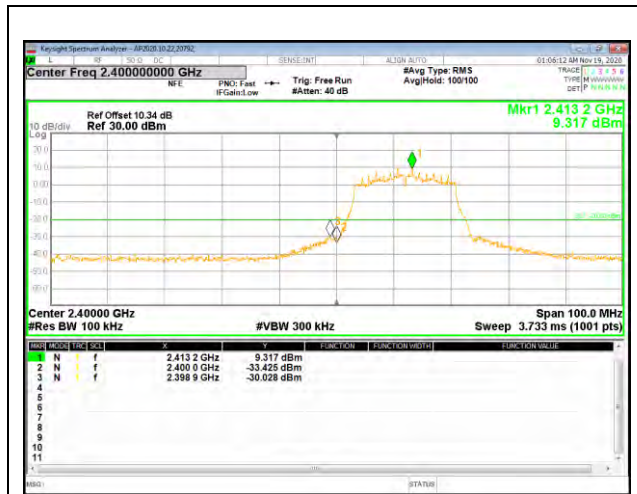


HIGH CHANNEL 13 BANDEDGE

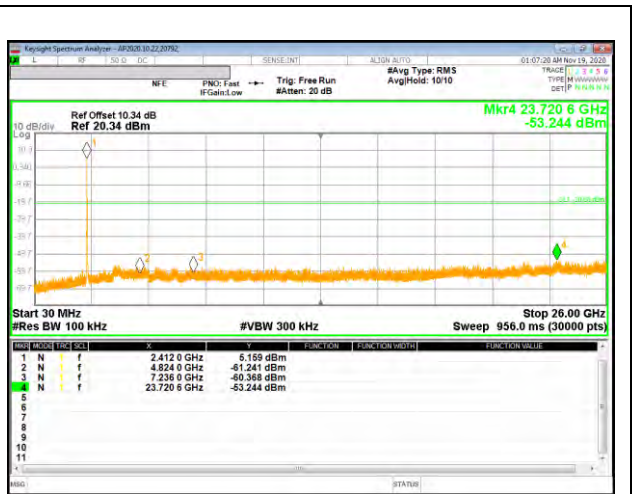


OUT-OF-BAND HIGH CHANNEL 13

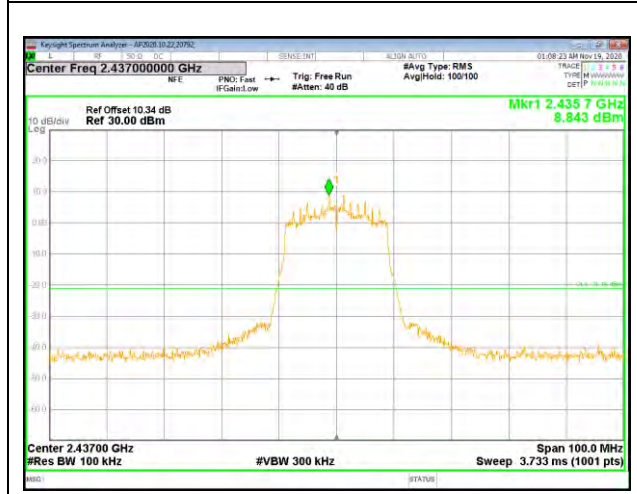
9.5.3. 802.11n HT20 MODE



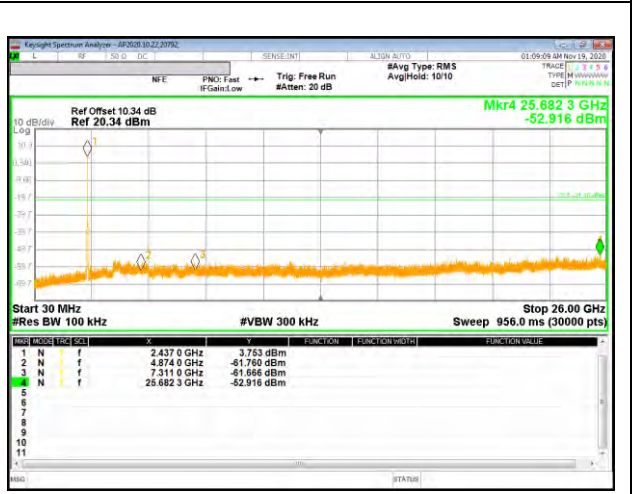
LOW CHANNEL 1 BANDEDGE



OUT-OF-BAND LOW CHANNEL 1



IN-BAND REFERENCE LEVEL



OUT-OF-BAND MID CHANNEL



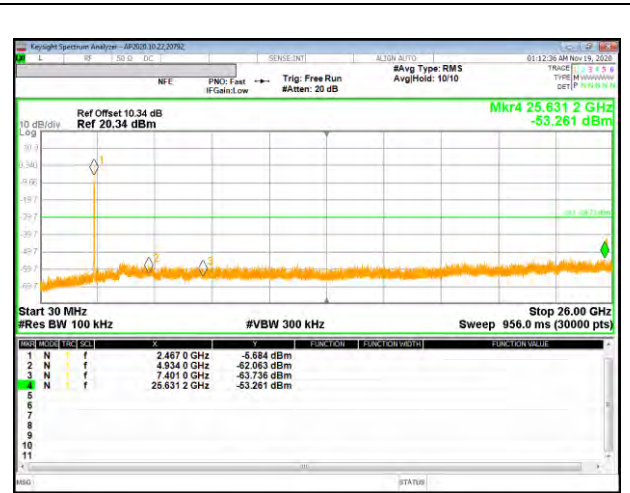
HIGH CHANNEL 11 BANDEDGE



OUT-OF-BAND HIGH CHANNEL 11



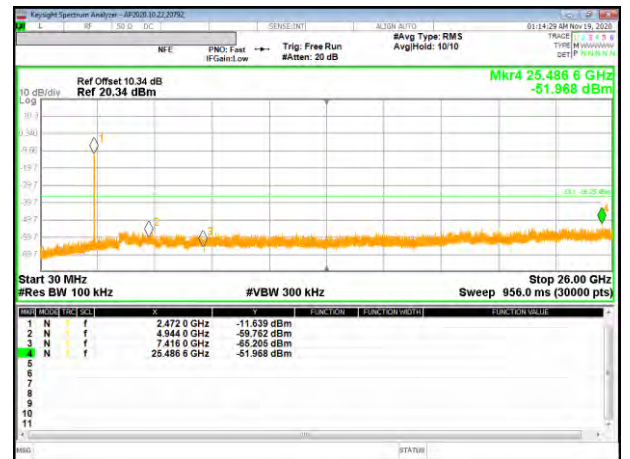
HIGH CHANNEL 12 BANDEDGE



OUT-OF-BAND HIGH CHANNEL 12



HIGH CHANNEL 13 BANDEDGE



OUT-OF-BAND HIGH CHANNEL 13

10. RADIATED TEST RESULTS

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
0.009-0.490	2400/F(kHz) @ 300 m	-
0.490-1.705	24000/F(kHz) @ 30 m	-
1.705 - 30	30 @ 30m	-
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

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 pre-scans above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 KHz for peak measurements.

For final measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and as applicable for average measurements.

The spectrum from 1 GHz to 18 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band. Below 1GHz and above 18GHz emissions, the channel with the highest output power was tested.

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.

2D antenna use - For below 30MHz testing, investigation was done on three antenna orientations (parallel, perpendicular, and ground-parallel), parallel and perpendicular are the worst orientations, therefore testing was performed on these two orientations only.

KDB 414788 Open Field Site(OFS) and Chamber Correlation Justification

Base on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

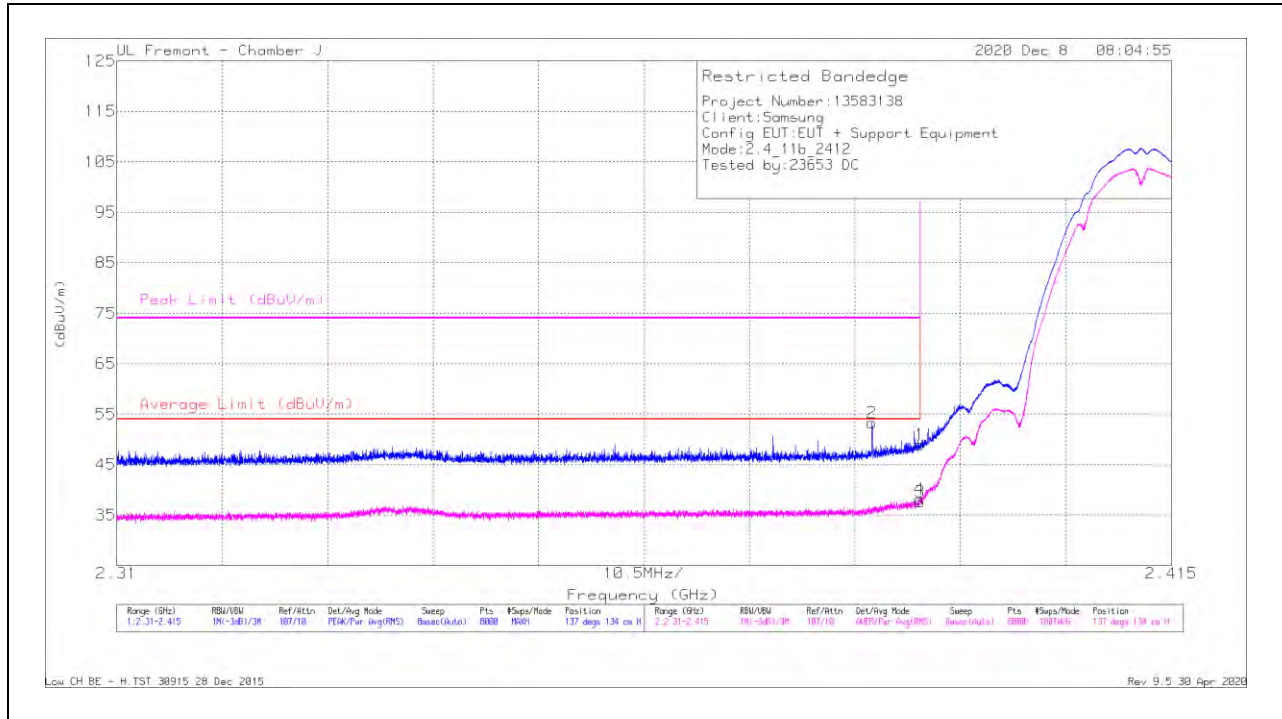
OFS and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

10.1. TRANSMITTER ABOVE 1 GHz

10.1.1. TX ABOVE 1 GHz 802.11b MODE IN THE 2.4 GHz BAND

BANDEDGE (LOW CHANNEL, CH 1)

HORIZONTAL RESULT



Trace Markers

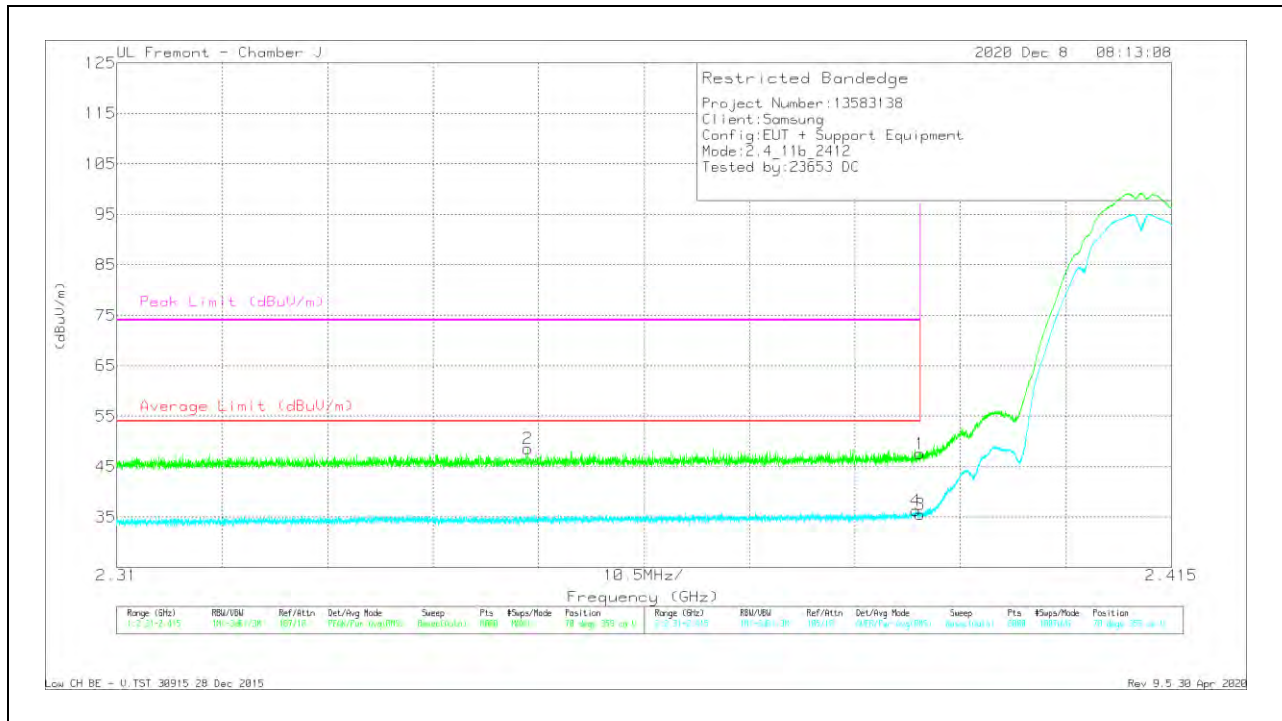
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	34.1	Pk	29	-14.2	48.9	-	-	74	-25.1	137	134	H
2	* 2.3852	38.48	Pk	29	-14.2	53.28	-	-	74	-20.72	137	134	H
3	* 2.39	22.87	RMS	29	-14.2	37.67	54	-16.33	-	-	137	134	H
4	* 2.38992	23.36	RMS	29	-14.2	38.16	54	-15.84	-	-	137	134	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk – Peak detector

RMS – RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/Filtr/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	32.73	Pk	29	-14.2	47.53	-	-	74	-26.47	70	359	V
2	* 2.35092	34.09	Pk	28.9	-14.4	48.59	-	-	74	-25.41	70	359	V
3	* 2.39	20.76	RMS	29	-14.2	35.56	54	-18.44	-	-	70	359	V
4	* 2.38955	21.51	RMS	29	-14.2	36.31	54	-17.69	-	-	70	359	V

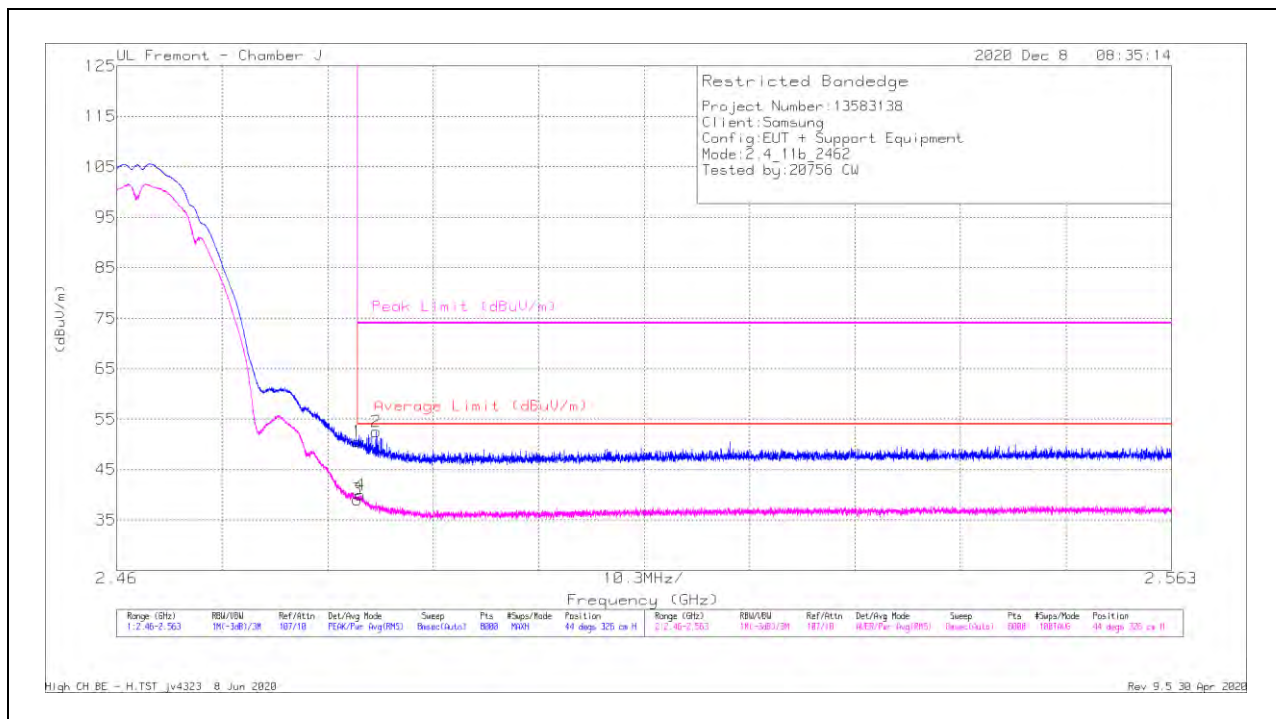
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL, CH 11)

HORIZONTAL RESULT



Trace Markers

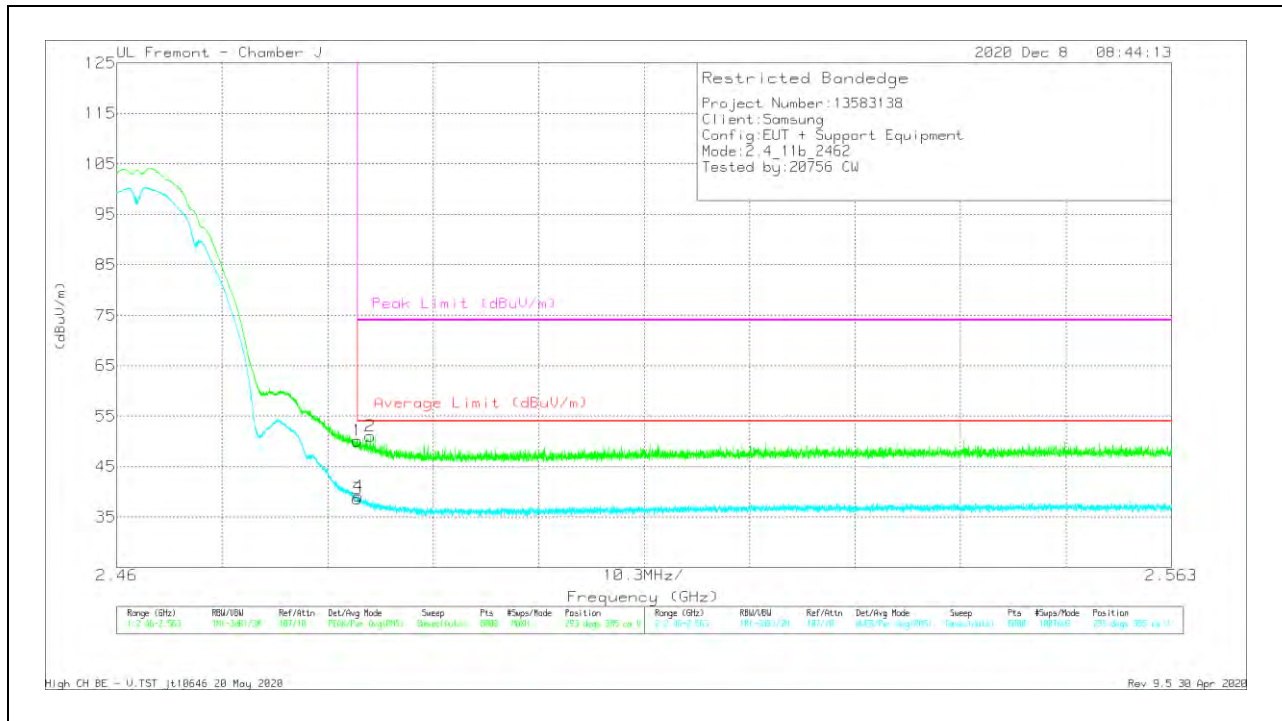
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	35.28	Pk	29.5	-14.2	50.58	-	-	74	-23.42	44	326	H
2	* 2.48532	37.18	Pk	29.5	-14.2	52.48	-	-	74	-21.52	44	326	H
3	* 2.4835	23.76	RMS	29.5	-14.2	39.06	54	-14.94	-	-	44	326	H
4	* 2.48382	24.7	RMS	29.5	-14.2	40	54	-14	-	-	44	326	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/Filtr/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	* 2.4835	34.81	Pk	29.5	-14.2	50.11	-	-	74	-23.89	293	385	V
2	* 2.48475	35.69	Pk	29.5	-14.2	50.99	-	-	74	-23.01	293	385	V
3	* 2.4835	23.29	RMS	29.5	-14.2	38.59	54	-15.41	-	-	293	385	V
4	* 2.48362	23.8	RMS	29.5	-14.2	39.1	54	-14.9	-	-	293	385	V

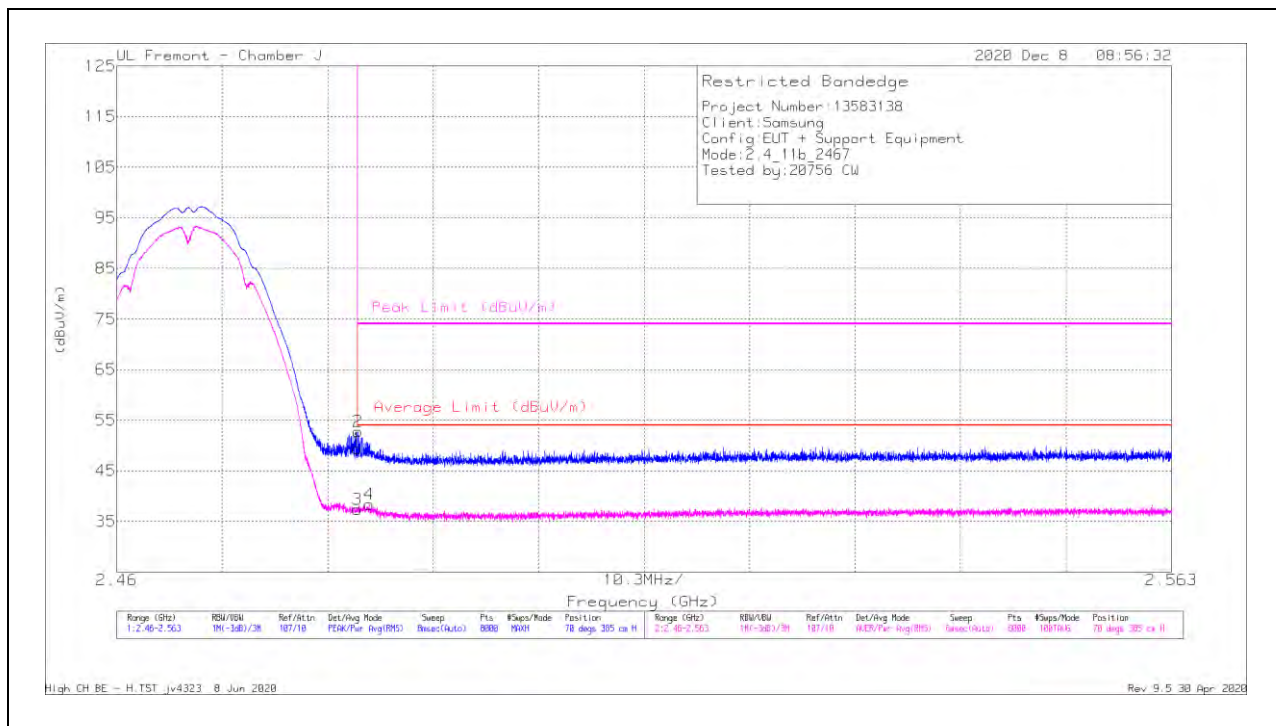
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL, CH 12)

HORIZONTAL RESULT



Trace Markers

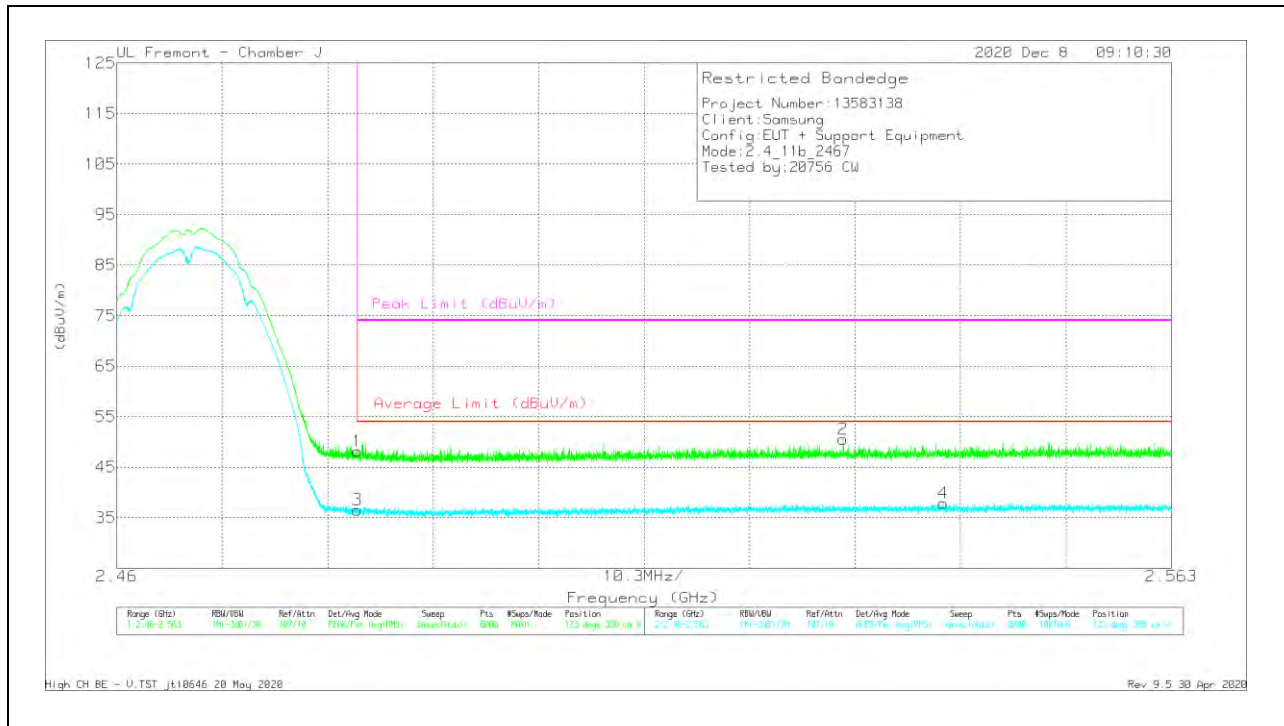
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	34.07	Pk	29.5	-14.2	49.37	-	-	74	-24.63	70	385	H
2	* 2.48358	37.52	Pk	29.5	-14.2	52.82	-	-	74	-21.18	70	385	H
3	* 2.4835	22.13	RMS	29.5	-14.2	37.43	54	-16.57	-	-	70	385	H
4	* 2.48466	23.03	RMS	29.5	-14.2	38.33	54	-15.67	-	-	70	385	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/Filtr/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	* 2.4835	32.9	Pk	29.5	-14.2	48.2	-	-	74	-25.8	123	388	V
2	2.53093	34.74	Pk	29.8	-14	50.54	-	-	74	-23.46	123	388	V
3	* 2.4835	21.27	RMS	29.5	-14.2	36.57	54	-17.43	-	-	123	388	V
4	2.5407	22.11	RMS	29.8	-14	37.91	54	-16.09	-	-	123	388	V

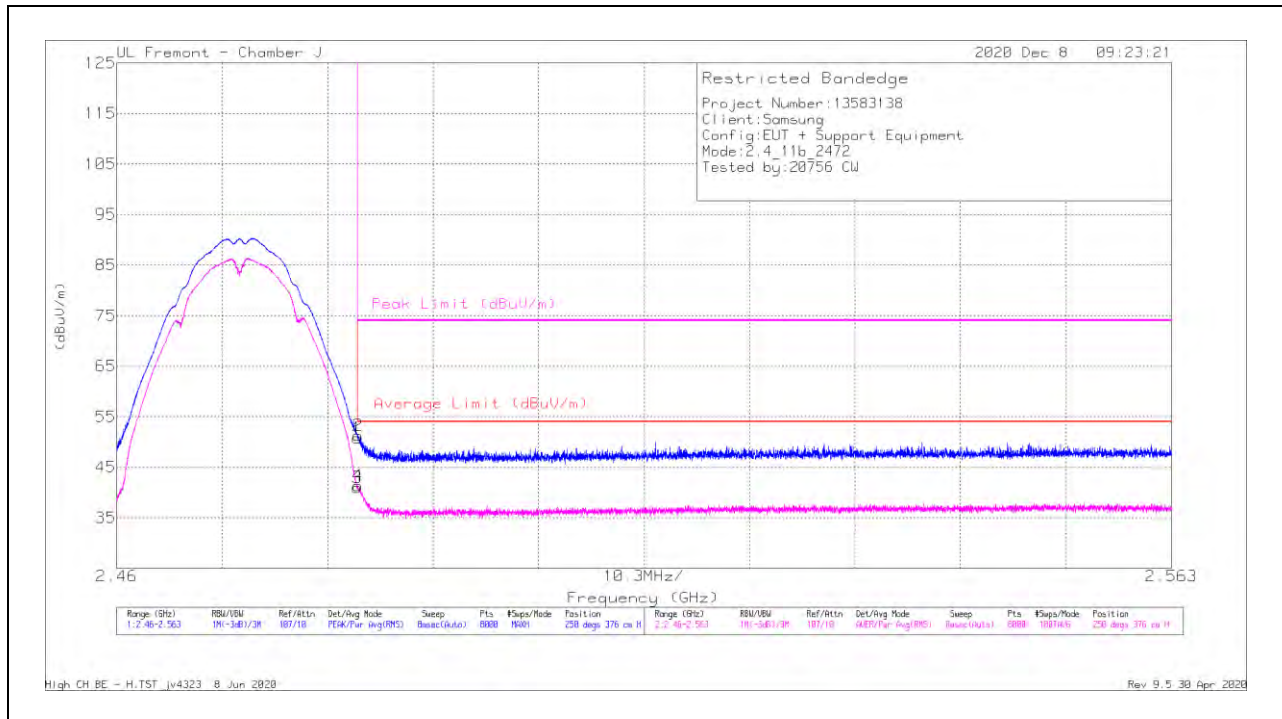
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL, CH 13)

HORIZONTAL RESULT



Trace Markers

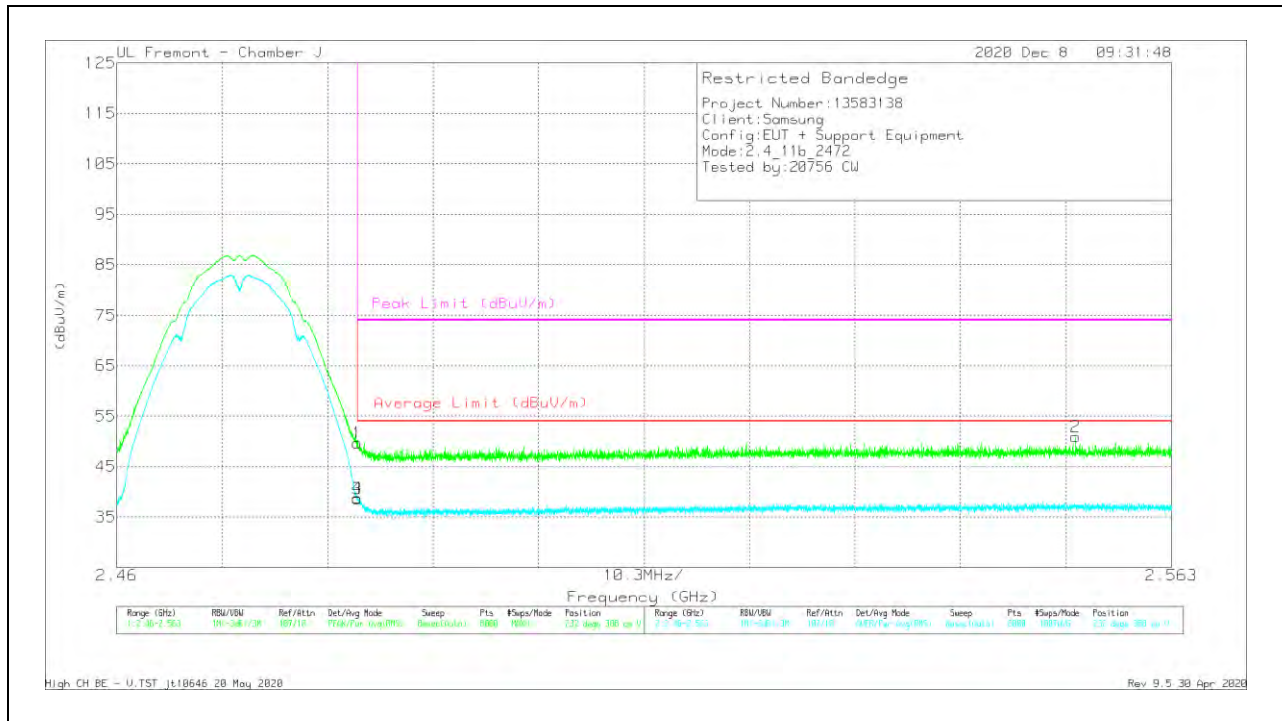
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	35.53	Pk	29.5	-14.2	50.83	-	-	74	-23.17	250	376	H
2	* 2.48354	35.94	Pk	29.5	-14.2	51.24	-	-	74	-22.76	250	376	H
3	* 2.4835	25.65	RMS	29.5	-14.2	40.95	54	-13.05	-	-	250	376	H
4	* 2.48356	26.09	RMS	29.5	-14.2	41.39	54	-12.61	-	-	250	376	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/Filtr/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	* 2.4835	34.4	Pk	29.5	-14.2	49.7	-	-	74	-24.3	232	388	V
2	2.55364	34.98	Pk	29.9	-14	50.88	-	-	74	-23.12	232	388	V
3	* 2.4835	23.34	RMS	29.5	-14.2	38.64	54	-15.36	-	-	232	388	V
4	* 2.48351	23.42	RMS	29.5	-14.2	38.72	54	-15.28	-	-	232	388	V

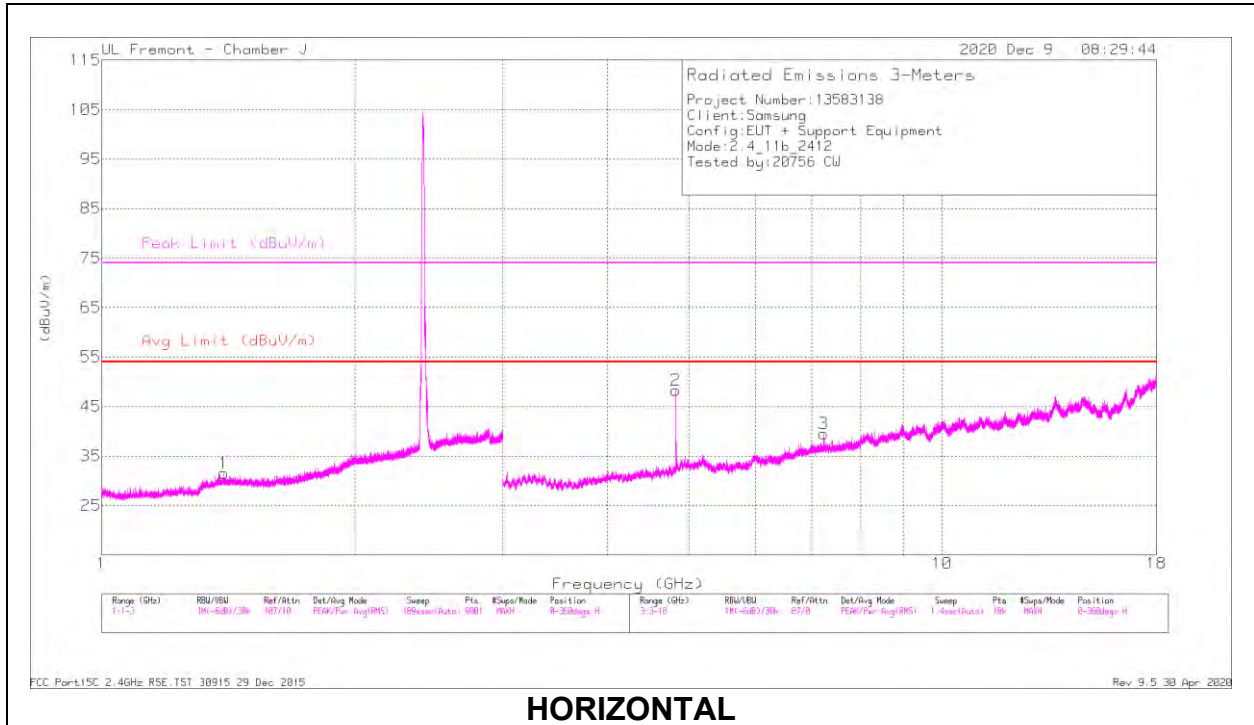
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

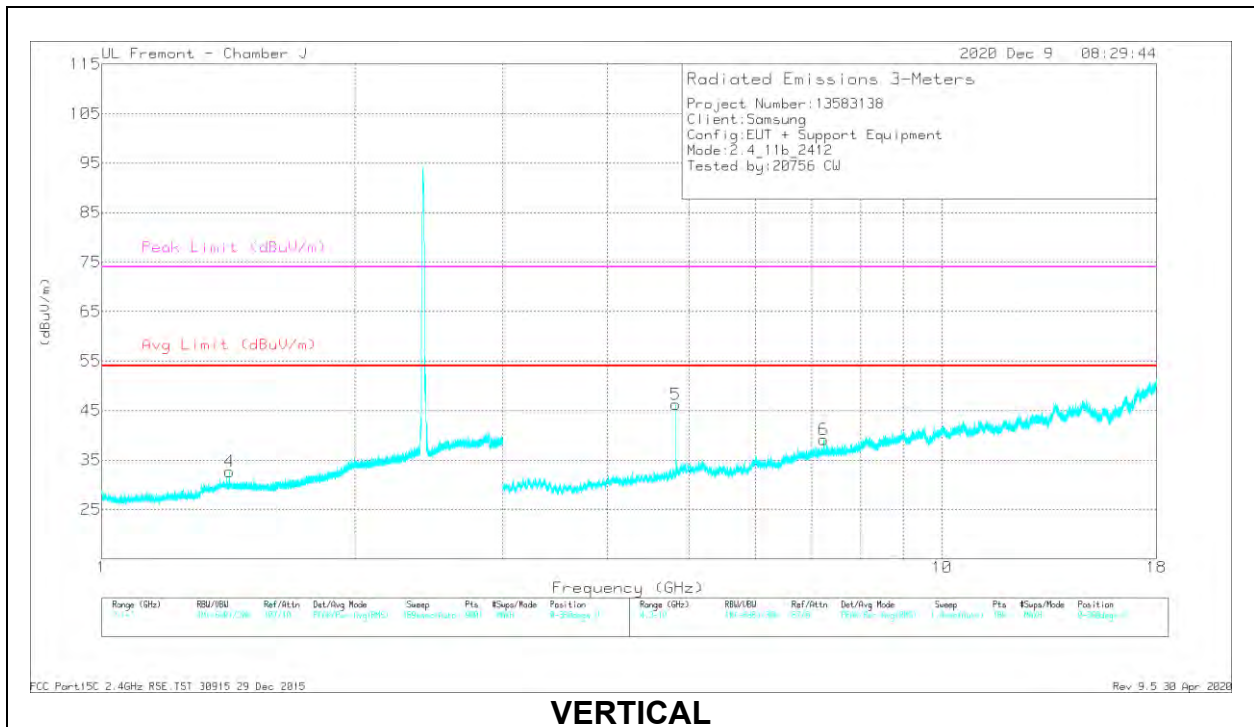
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, CH 1 RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

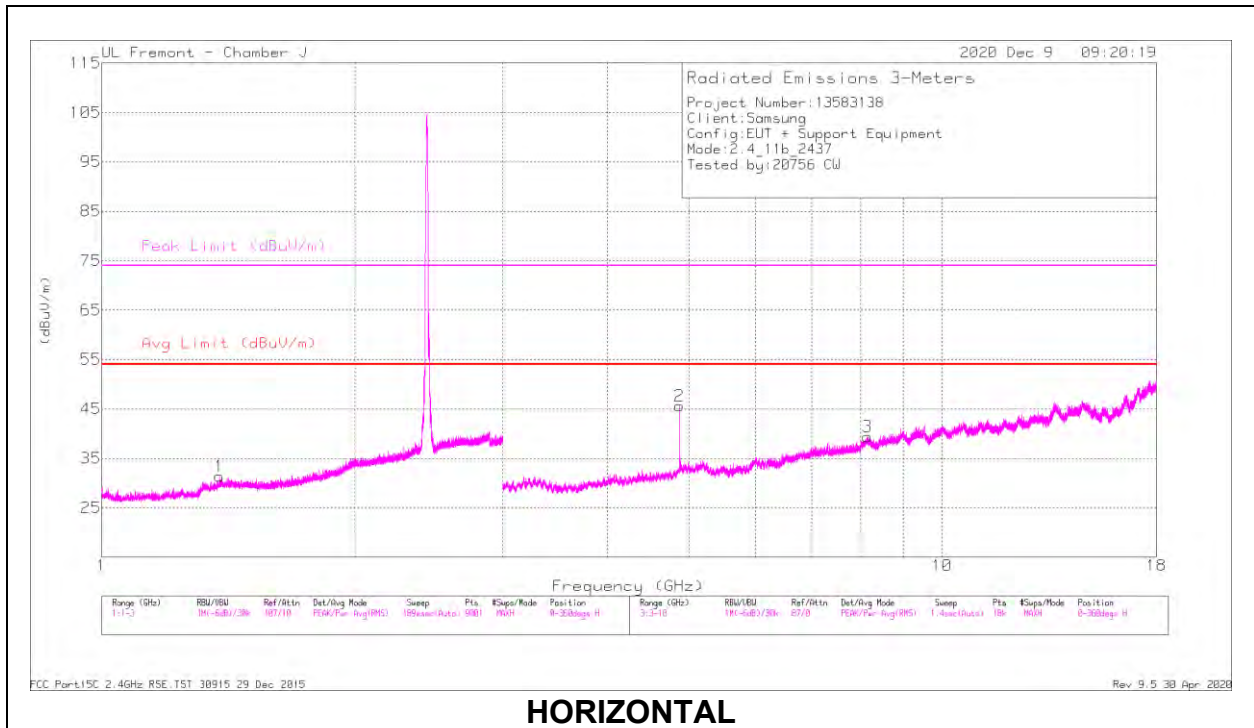
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.39963	27.82	PK2	25.8	-17	36.62	-	-	74	-37.38	37	366	H
	* 1.3988	17.04	MAv1	25.8	-17	25.84	54	-28.16	-	-	37	366	H
4	* 1.41837	28	PK2	25.6	-17	36.6	-	-	74	-37.4	162	325	V
	* 1.41881	17.3	MAv1	25.6	-17	25.9	54	-28.1	-	-	162	325	V
2	* 4.82394	47.48	PK2	33.3	-30.8	49.98	-	-	74	-24.02	254	147	H
	* 4.82397	45.43	MAv1	33.3	-30.8	47.93	54	-6.07	-	-	254	147	H
3	7.2343	35.09	PK2	37.1	-26.7	45.49	-	-	-	-	37	203	H
5	* 4.82397	44.6	PK2	33.3	-30.8	47.1	-	-	74	-26.9	43	101	V
	* 4.82397	41.71	MAv1	33.3	-30.8	44.21	54	-9.79	-	-	43	101	V
6	7.23572	35.42	PK2	37.1	-26.7	45.82	-	-	-	-	50	140	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

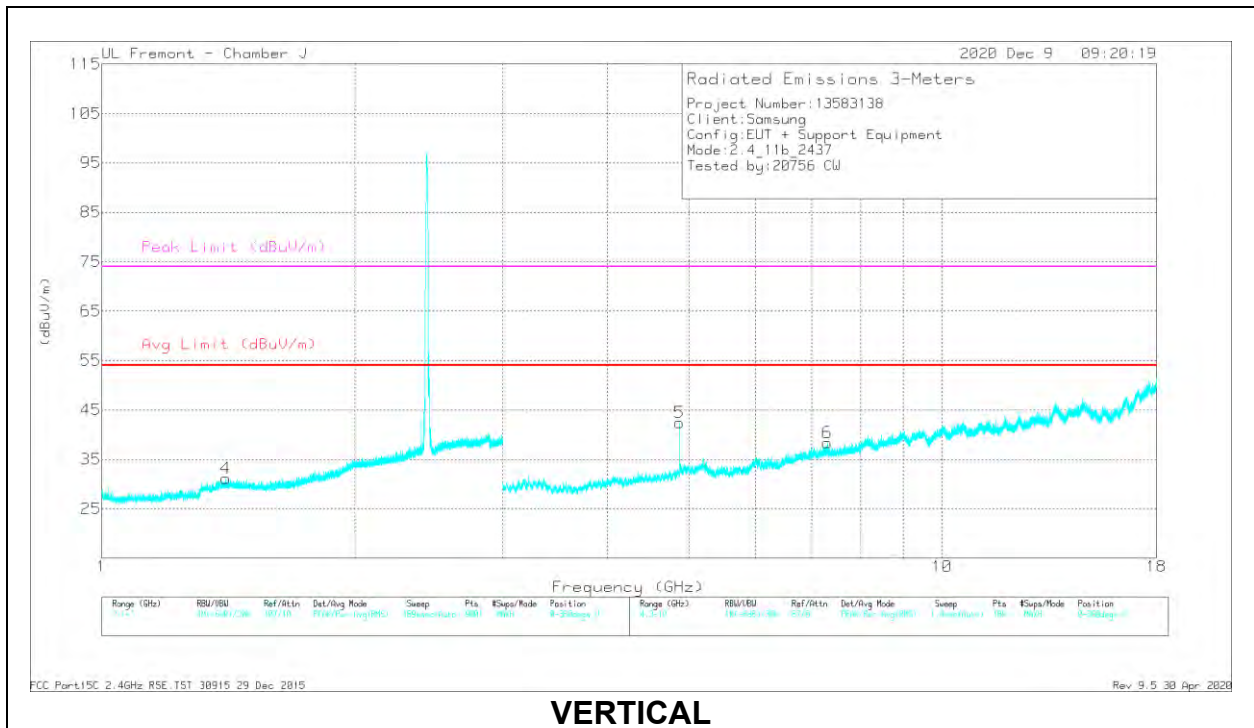
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL, CH 6 RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

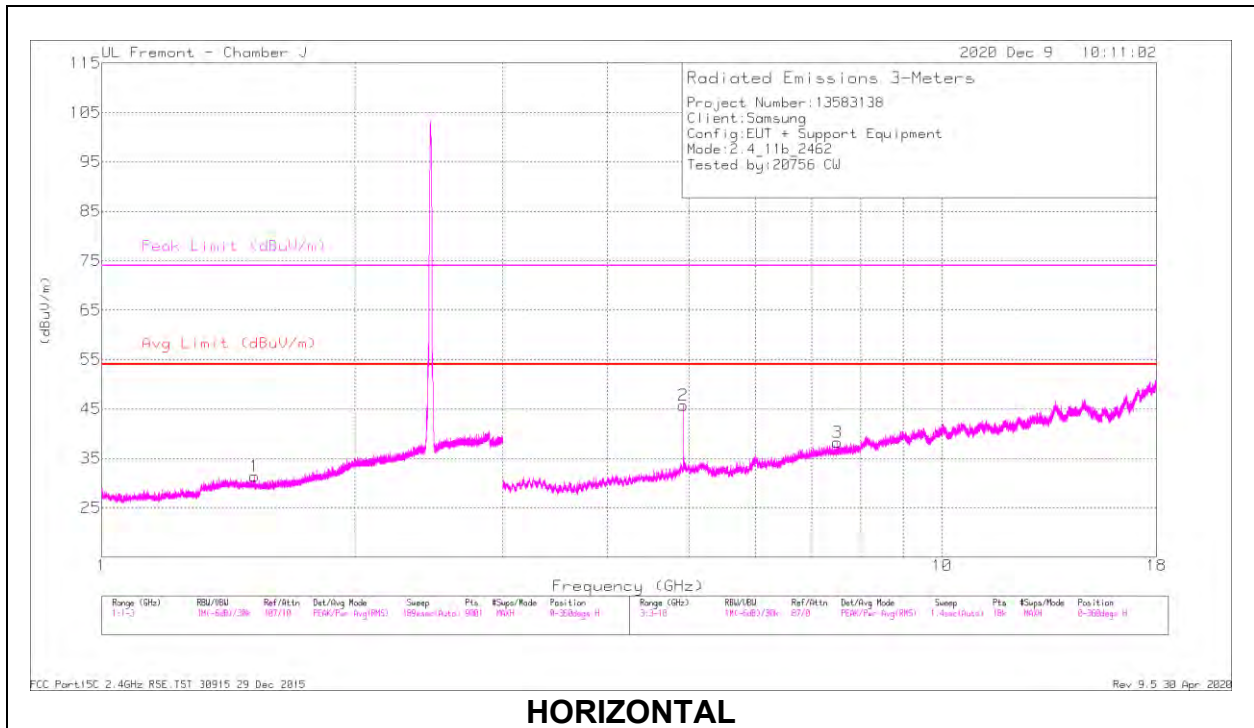
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.38038	27.92	PK2	25.7	-17.1	36.52	-	-	74	-37.48	41	347	H
	* 1.38042	17.11	MAV1	25.7	-17.1	25.71	54	-28.29	-	-	41	347	H
4	* 1.40575	29.11	PK2	25.8	-17	37.91	-	-	74	-36.09	113	323	V
	* 1.40282	16.82	MAV1	25.8	-17	25.62	54	-28.38	-	-	113	323	V
2	* 4.87402	44.89	PK2	33.6	-30.7	47.79	-	-	74	-26.21	253	101	H
	* 4.87397	41.93	MAV1	33.6	-30.7	44.83	54	-9.17	-	-	253	101	H
3	* 8.14923	35.1	PK2	37.6	-25.8	46.9	-	-	74	-27.1	50	388	H
	* 8.15177	24.04	MAV1	37.6	-25.8	35.84	54	-18.16	-	-	50	388	H
5	* 4.8739	43.73	PK2	33.6	-30.7	46.63	-	-	74	-27.37	43	101	V
	* 4.87397	38.36	MAV1	33.6	-30.7	41.26	54	-12.74	-	-	43	101	V
6	* 7.30939	36.07	PK2	37.1	-26.5	46.67	-	-	74	-27.33	236	101	V
	* 7.31224	25.77	MAV1	37.1	-26.6	36.27	54	-17.73	-	-	236	101	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

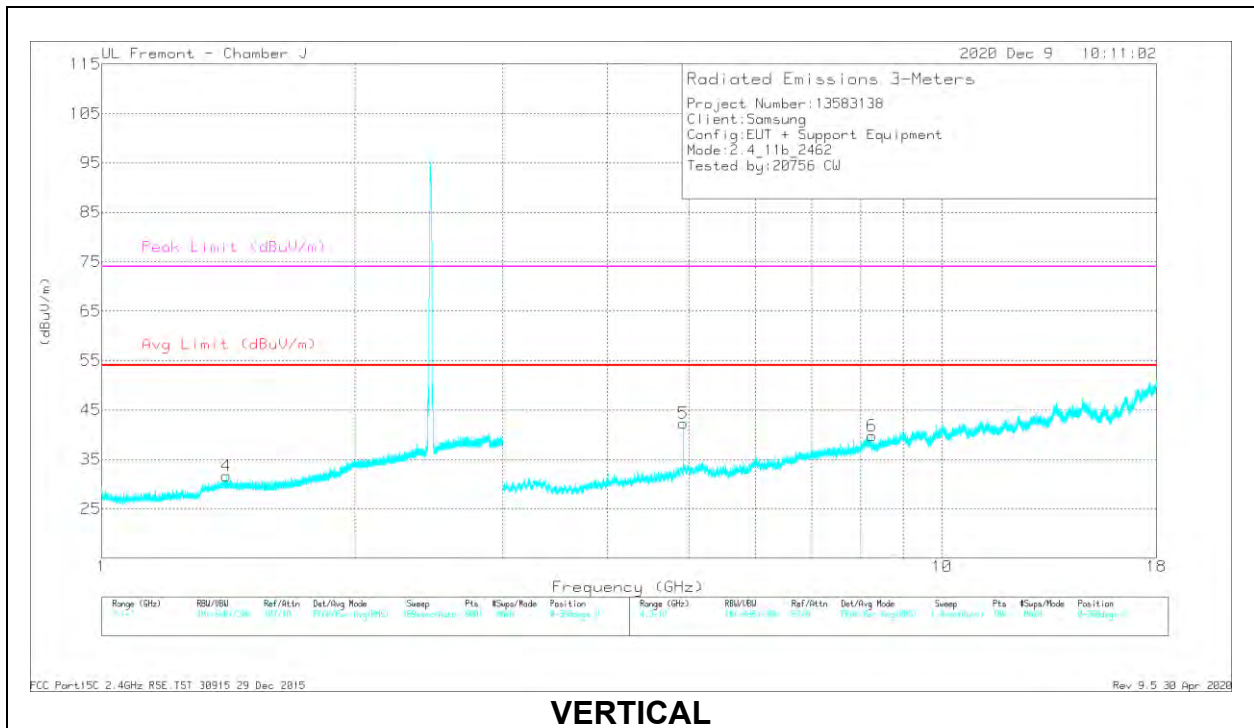
PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL, CH 11 RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/Filtr/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	* 1.52131	28.48	PK2	25.1	-16.7	36.88	-	-	74	-37.12	168	389	H
	* 1.52062	17.31	MAV1	25.1	-16.7	25.71	54	-28.29	-	-	168	389	H
4	* 1.4066	27.92	PK2	25.8	-17	36.72	-	-	74	-37.28	55	321	V
	* 1.409	16.84	MAV1	25.7	-17	25.54	54	-28.46	-	-	55	321	V
2	* 4.92402	44.69	PK2	33.7	-30.2	48.19	-	-	74	-25.81	256	137	H
	* 4.92398	41.09	MAV1	33.7	-30.2	44.59	54	-9.41	-	-	256	137	H
3	* 7.50642	34.28	PK2	37.1	-26.7	44.68	-	-	74	-29.32	224	197	H
	* 7.50395	23.56	MAV1	37	-26.7	33.86	54	-20.14	-	-	224	197	H
5	* 4.92396	43.6	PK2	33.7	-30.2	47.1	-	-	74	-26.9	257	360	V
	* 4.92397	39.32	MAV1	33.7	-30.2	42.82	54	-11.18	-	-	257	360	V
6	* 8.25185	34.17	PK2	37.7	-25.7	46.17	-	-	74	-27.83	275	174	V
	* 8.2494	23.26	MAV1	37.7	-25.7	35.26	54	-18.74	-	-	275	174	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

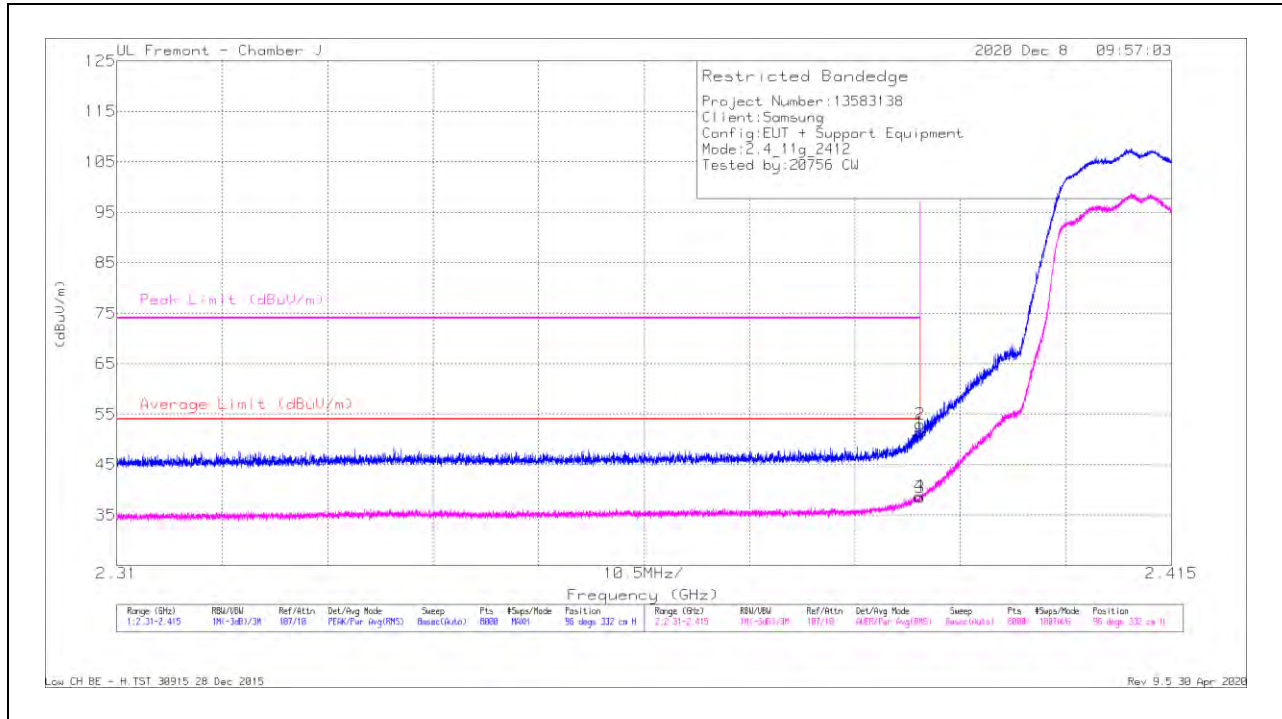
PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average

10.1.2. TX ABOVE 1 GHz 802.11g MODE IN THE 2.4 GHz BAND

BANDEDGE (LOW CHANNEL, CH 1)

HORIZONTAL RESULT



Trace Markers

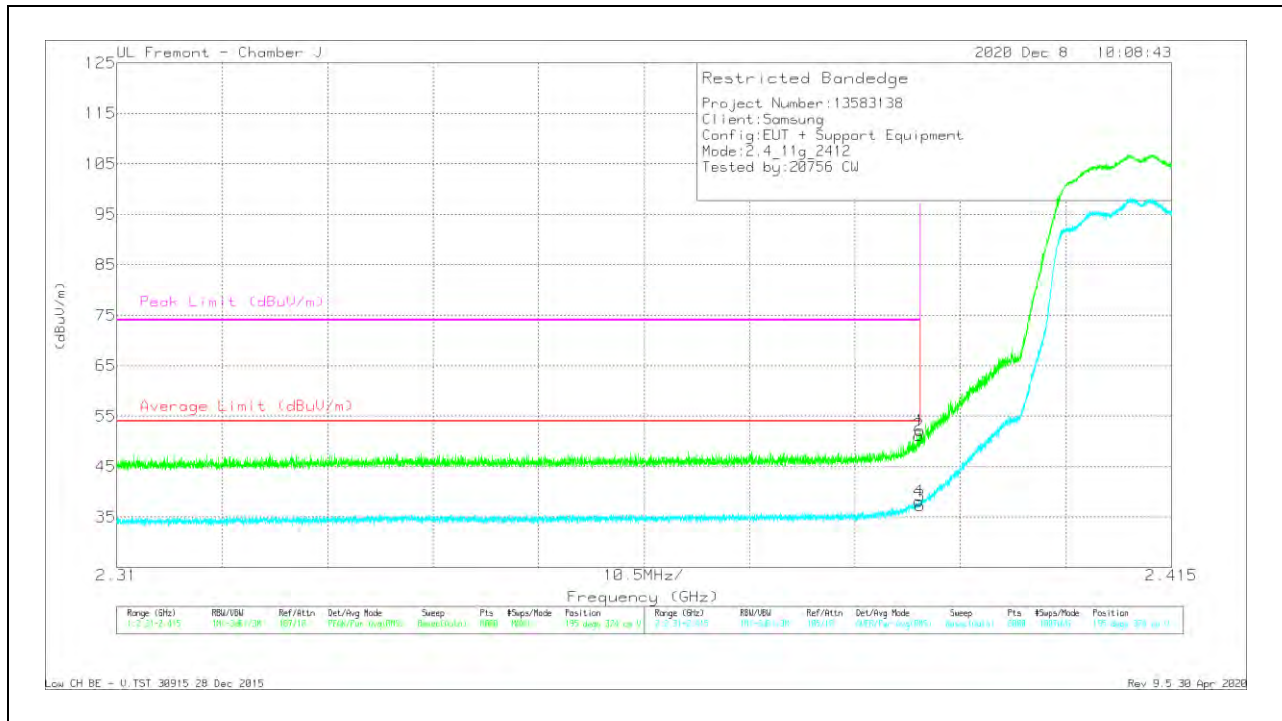
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	36.59	PK	29	-14.2	0	51.39	-	-	74	-22.61	96	332	H
2	* 2.38997	38.17	PK	29	-14.2	0	52.97	-	-	74	-21.03	96	332	H
3	* 2.39	23.57	RMS	29	-14.2	.11	38.48	54	-15.52	-	-	96	332	H
4	* 2.38993	23.8	RMS	29	-14.2	.11	38.71	54	-15.29	-	-	96	332	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (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	* 2.39	37.36	Pk	29	-14.2	0	52.16	-	-	74	-21.84	195	324	V
2	* 2.38983	36.42	Pk	29	-14.2	0	51.22	-	-	74	-22.78	195	324	V
3	* 2.39	22.35	RMS	29	-14.2	.11	37.26	54	-16.74	-	-	195	324	V
4	* 2.38984	23.19	RMS	29	-14.2	.11	38.1	54	-15.9	-	-	195	324	V

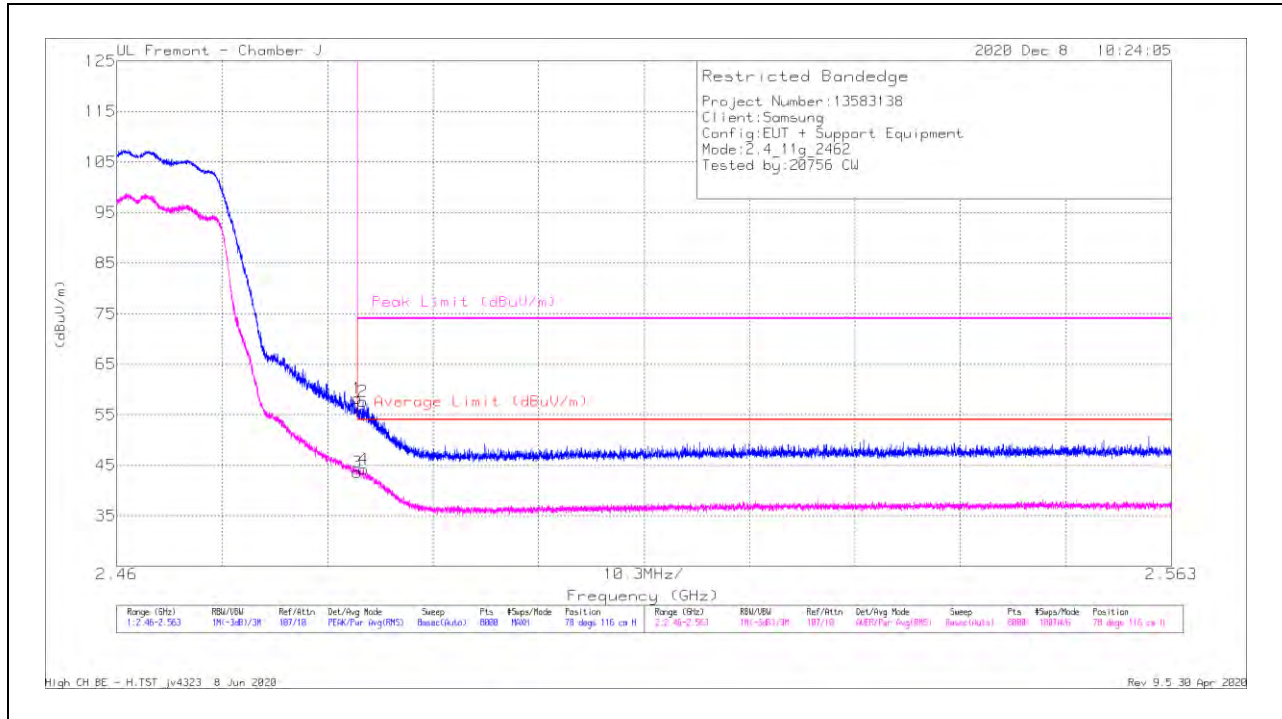
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

BANDEGE (HIGH CHANNEL, CH 11)

HORIZONTAL RESULT



Trace Markers

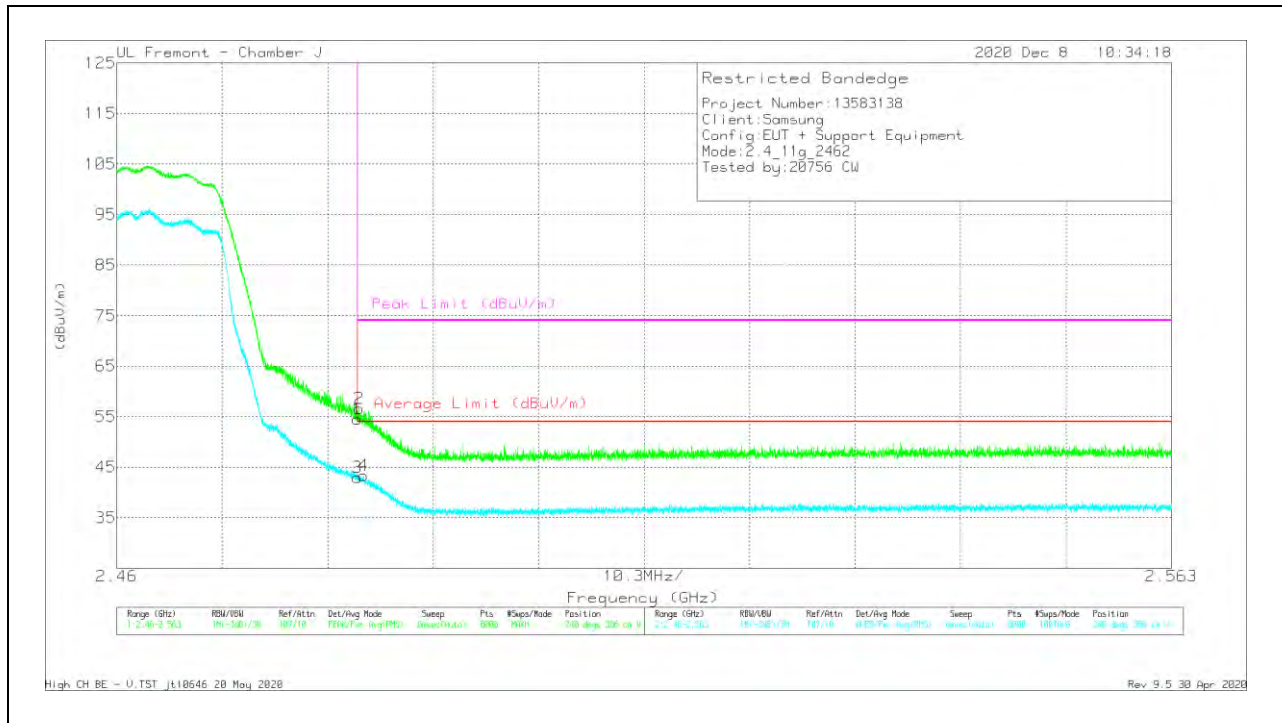
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	42.97	Pk	29.5	-14.2	0	58.27	-	-	74	-15.73	78	116	H
2	* 2.48407	42.32	Pk	29.5	-14.2	0	57.62	-	-	74	-16.38	78	116	H
3	* 2.4835	28.16	RMS	29.5	-14.2	.11	43.57	54	-10.43	-	-	78	116	H
4	* 2.48408	28.84	RMS	29.5	-14.2	.11	44.25	54	-9.75	-	-	78	116	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/CbI/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	* 2.4835	39.22	Pk	29.5	-14.2	0	54.52	-	-	74	-19.48	240	386	V
2	* 2.48371	41.31	Pk	29.5	-14.2	0	56.61	-	-	74	-17.39	240	386	V
3	* 2.4835	27.5	RMS	29.5	-14.2	.11	42.91	54	-11.09	-	-	240	386	V
4	* 2.48411	27.9	RMS	29.5	-14.2	.11	43.31	54	-10.69	-	-	240	386	V

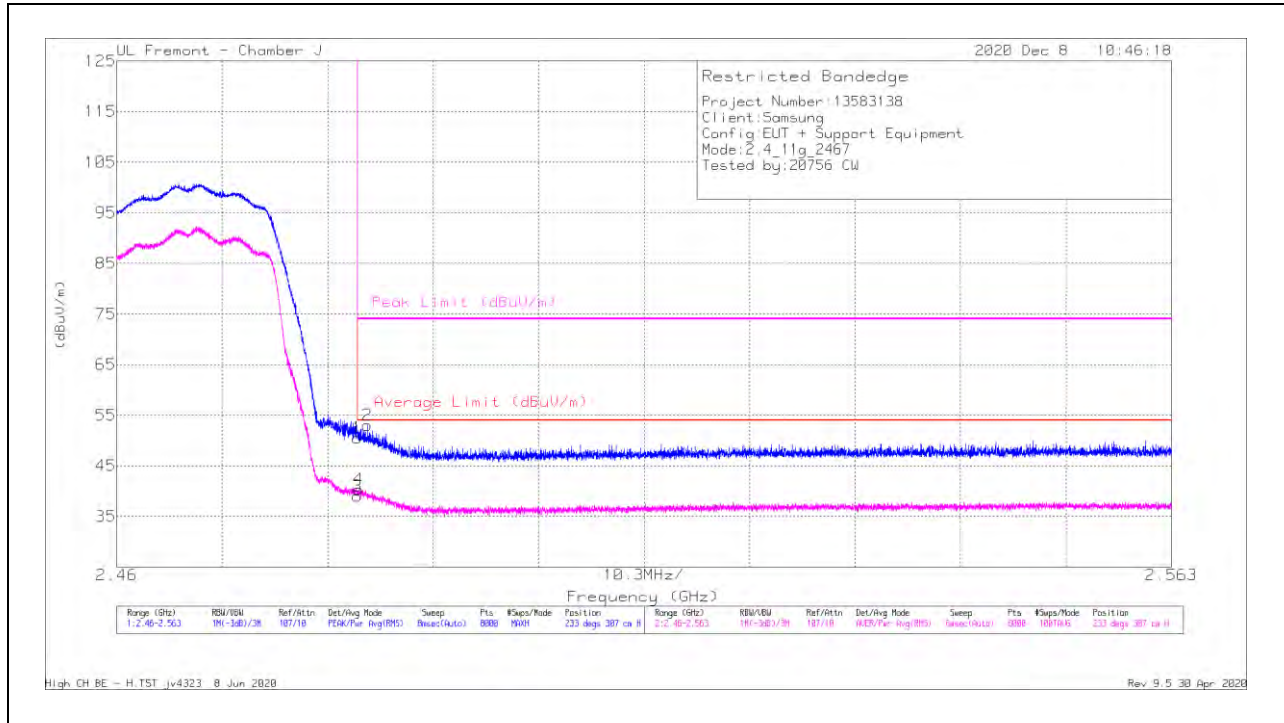
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL, CH 12)

HORIZONTAL RESULT



Trace Markers

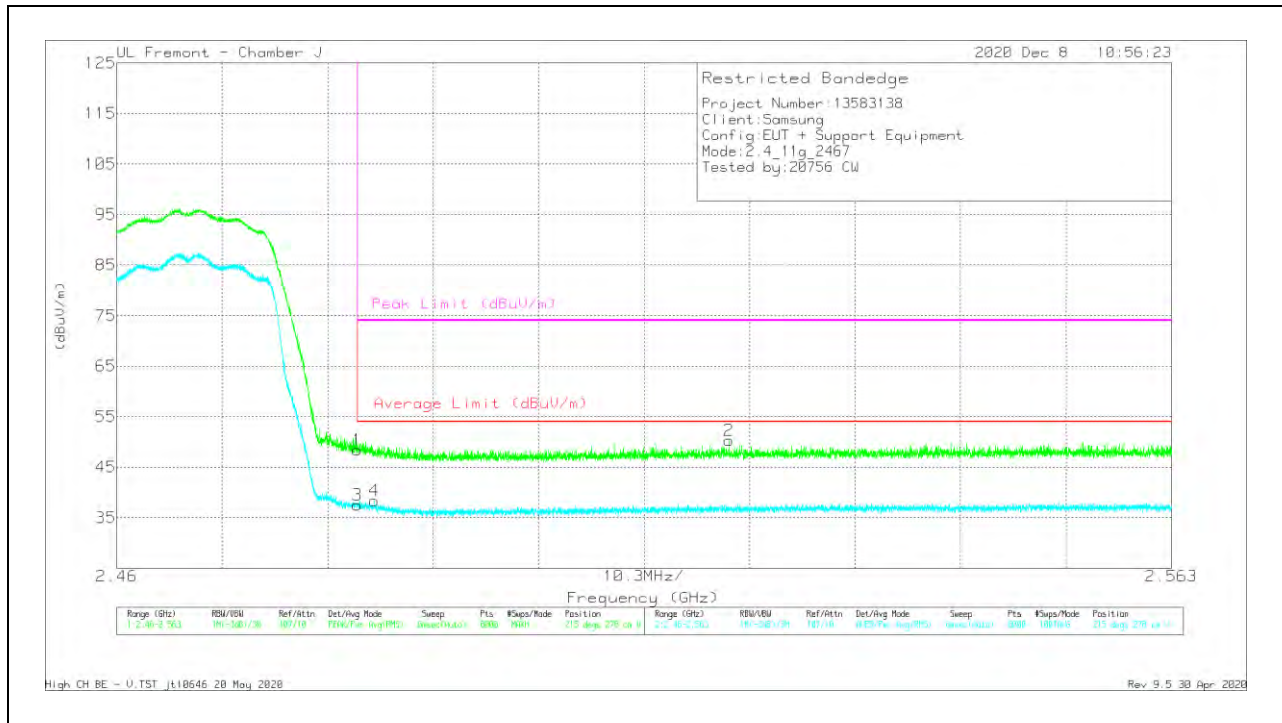
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cb/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	35.21	Pk	29.5	-14.2	0	50.51	-	-	74	-23.49	233	307	H
2	* 2.48447	37.71	Pk	29.5	-14.2	0	53.01	-	-	74	-20.99	233	307	H
3	* 2.4835	23.56	RMS	29.5	-14.2	.11	38.97	54	-15.03	-	-	233	307	H
4	* 2.48364	24.99	RMS	29.5	-14.2	.11	40.4	54	-13.6	-	-	233	307	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cb/Fitr/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	* 2.4835	33.16	Pk	29.5	-14.2	0	48.46	-	-	74	-25.54	215	278	V
2	2.51978	34.46	Pk	29.8	-14	0	50.26	-	-	74	-23.74	215	278	V
3	* 2.4835	22.16	RMS	29.5	-14.2	.11	37.57	54	-16.43	-	-	215	278	V
4	* 2.48516	22.92	RMS	29.5	-14.2	.11	38.33	54	-15.67	-	-	215	278	V

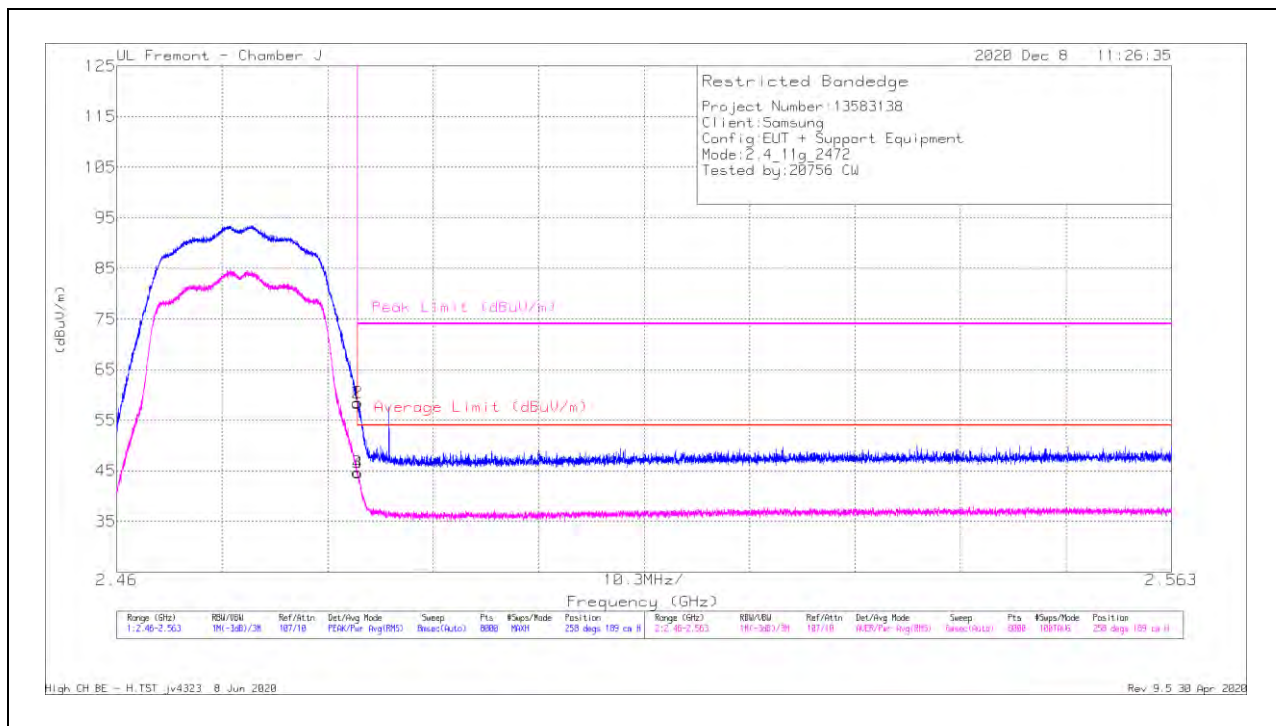
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL, CH 13)

HORIZONTAL RESULT



Trace Markers

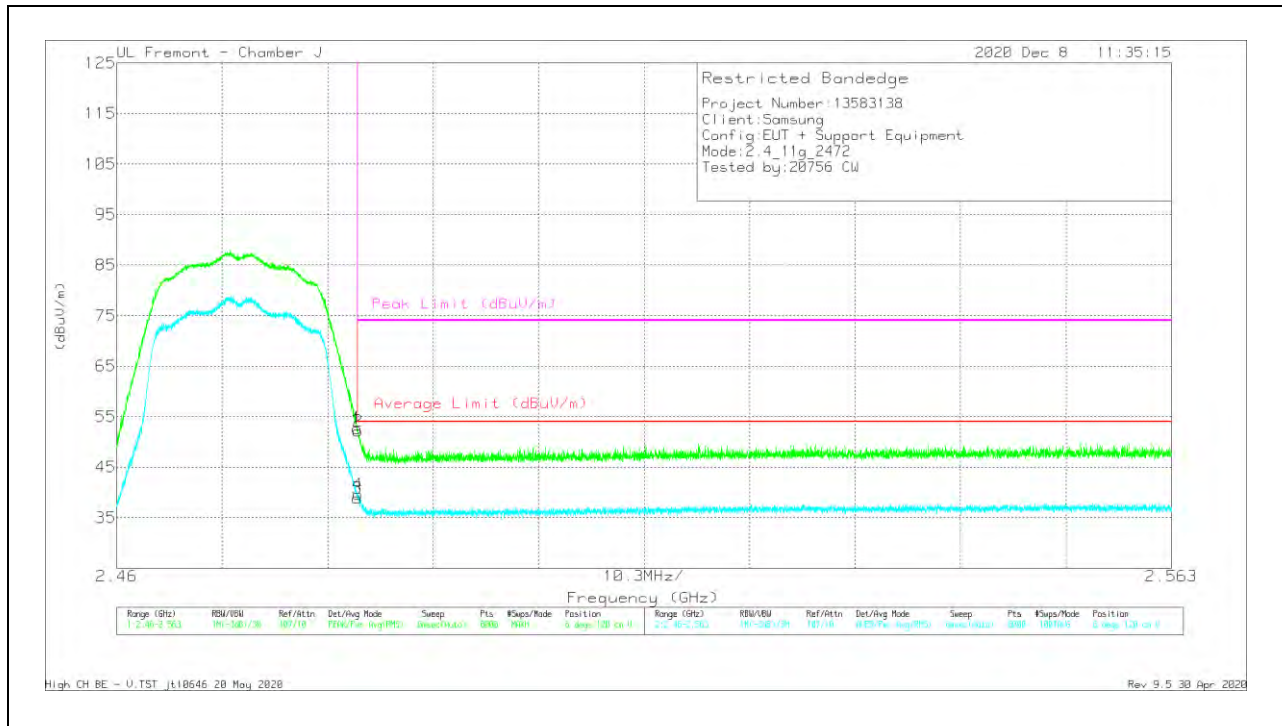
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cb/Fitr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	43.06	Pk	29.5	-14.2	0	58.36	-	-	74	-15.64	258	189	H
2	* 2.48353	43.13	Pk	29.5	-14.2	0	58.43	-	-	74	-15.57	258	189	H
3	* 2.4835	29.25	RMS	29.5	-14.2	.11	44.66	54	-9.34	-	-	258	189	H
4	* 2.48354	29.17	RMS	29.5	-14.2	.11	44.58	54	-9.42	-	-	258	189	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (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	* 2.4835	37.41	Pk	29.5	-14.2	0	52.71	-	-	74	-21.29	6	120	V
2	* 2.48358	36.83	Pk	29.5	-14.2	0	52.13	-	-	74	-21.87	6	120	V
3	* 2.4835	23.54	RMS	29.5	-14.2	.11	38.95	54	-15.05	-	-	6	120	V
4	* 2.48354	24.31	RMS	29.5	-14.2	.11	39.72	54	-14.28	-	-	6	120	V

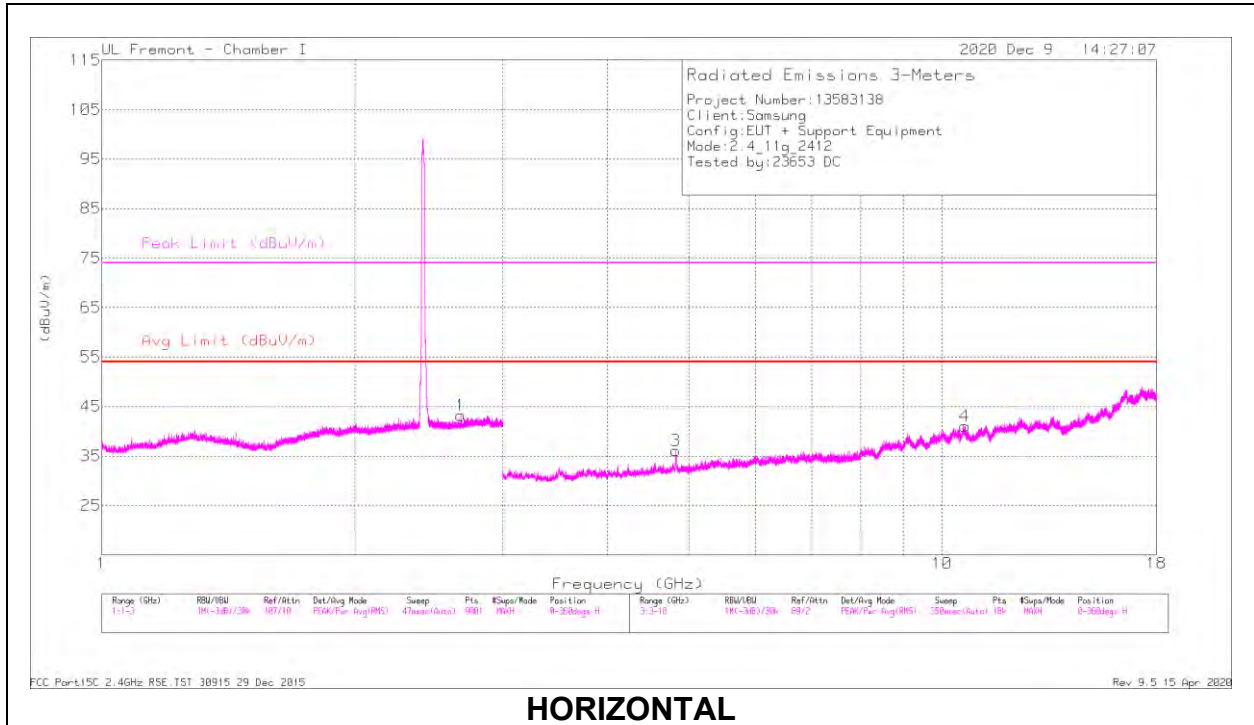
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

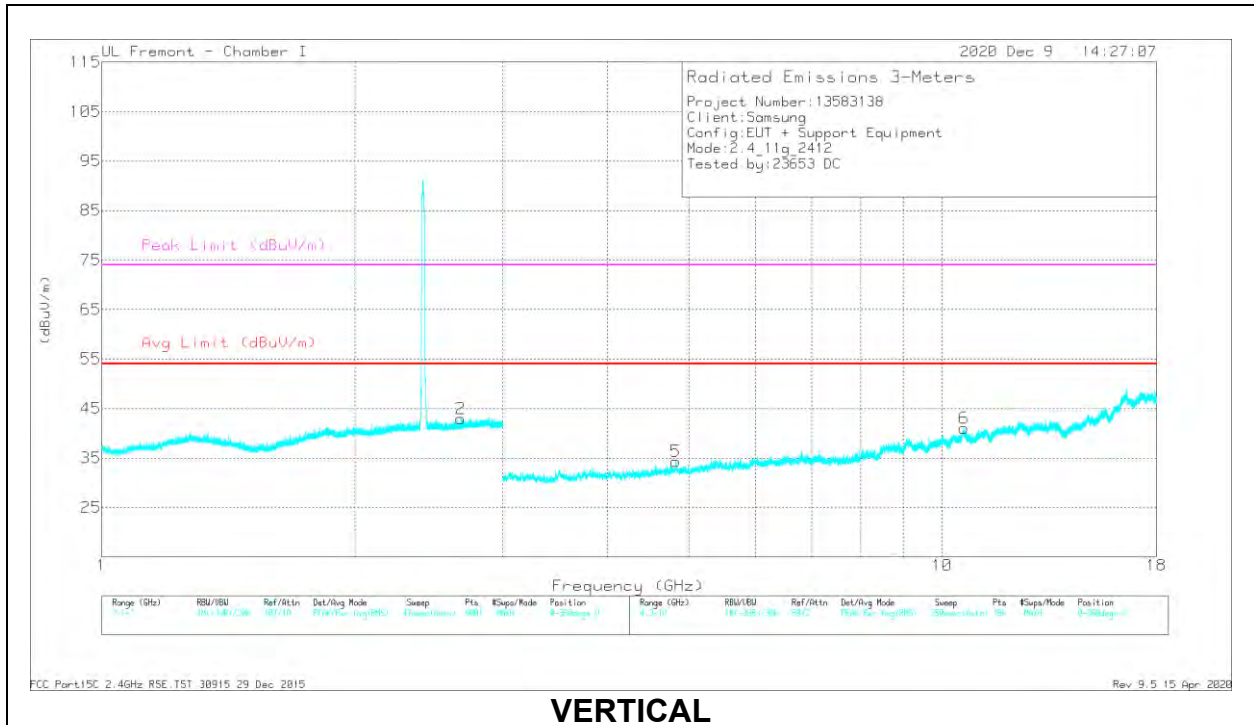
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, CH 1 RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

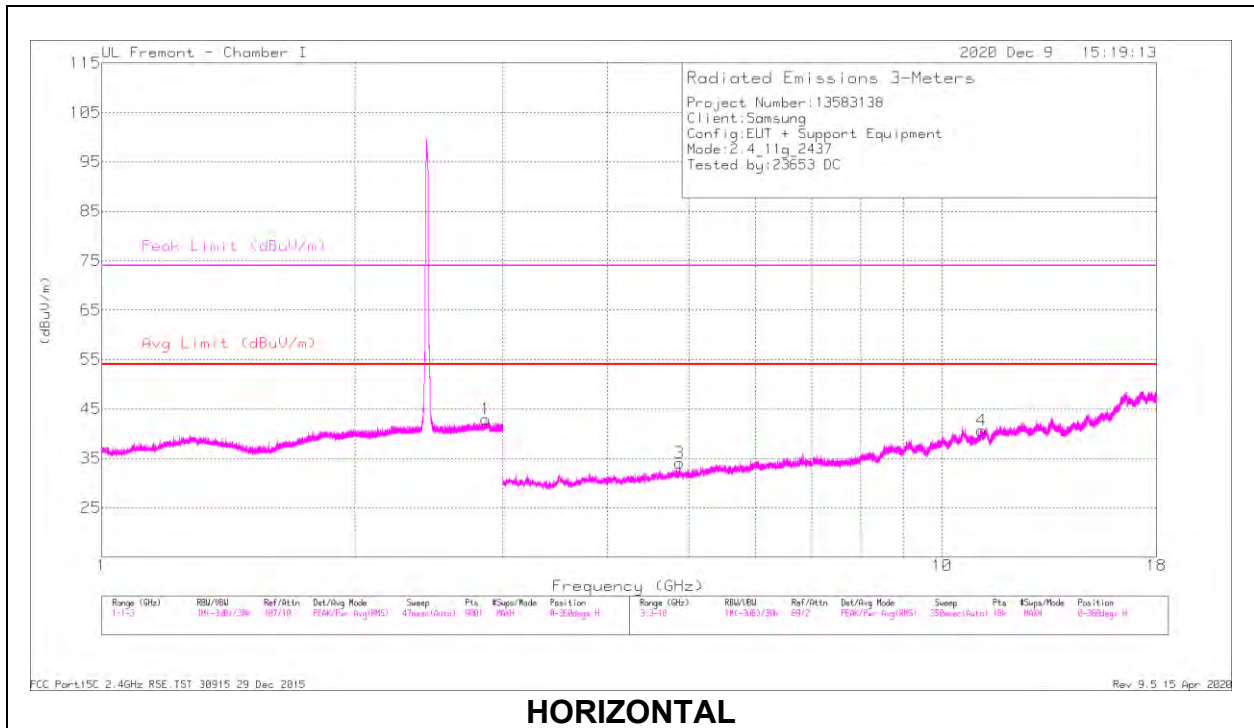
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.67911	38.07	PK2	32.3	-19.7	0	50.67	-	-	74	-23.33	213	174	H
	* 2.67872	27.55	MAv1	32.3	-19.7	.11	40.26	54	-13.74	-	-	213	174	H
2	* 2.67773	37.91	PK2	32.3	-19.7	0	50.51	-	-	74	-23.49	185	211	V
	* 2.67531	27.27	MAv1	32.3	-19.7	.11	39.98	54	-14.02	-	-	185	211	V
3	* 4.82411	36.53	PK2	34.2	-26.8	0	43.93	-	-	74	-30.07	149	172	H
	* 4.82432	25.82	MAv1	34.2	-26.8	.11	33.33	54	-20.67	-	-	149	172	H
4	* 10.65023	29.33	PK2	37.9	-19.5	0	47.73	-	-	74	-26.27	278	182	H
	* 10.65063	19.11	MAv1	37.9	-19.5	.11	37.62	54	-16.38	-	-	278	182	H
5	* 4.8232	32.84	PK2	34.2	-26.8	0	40.24	-	-	74	-33.76	262	213	V
	* 4.82662	22.75	MAv1	34.1	-26.8	.11	30.16	54	-23.84	-	-	262	213	V
6	* 10.63032	29.96	PK2	37.8	-19.7	0	48.06	-	-	74	-25.94	198	231	V
	* 10.63085	19.83	MAv1	37.8	-19.7	.11	38.04	54	-15.96	-	-	198	231	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

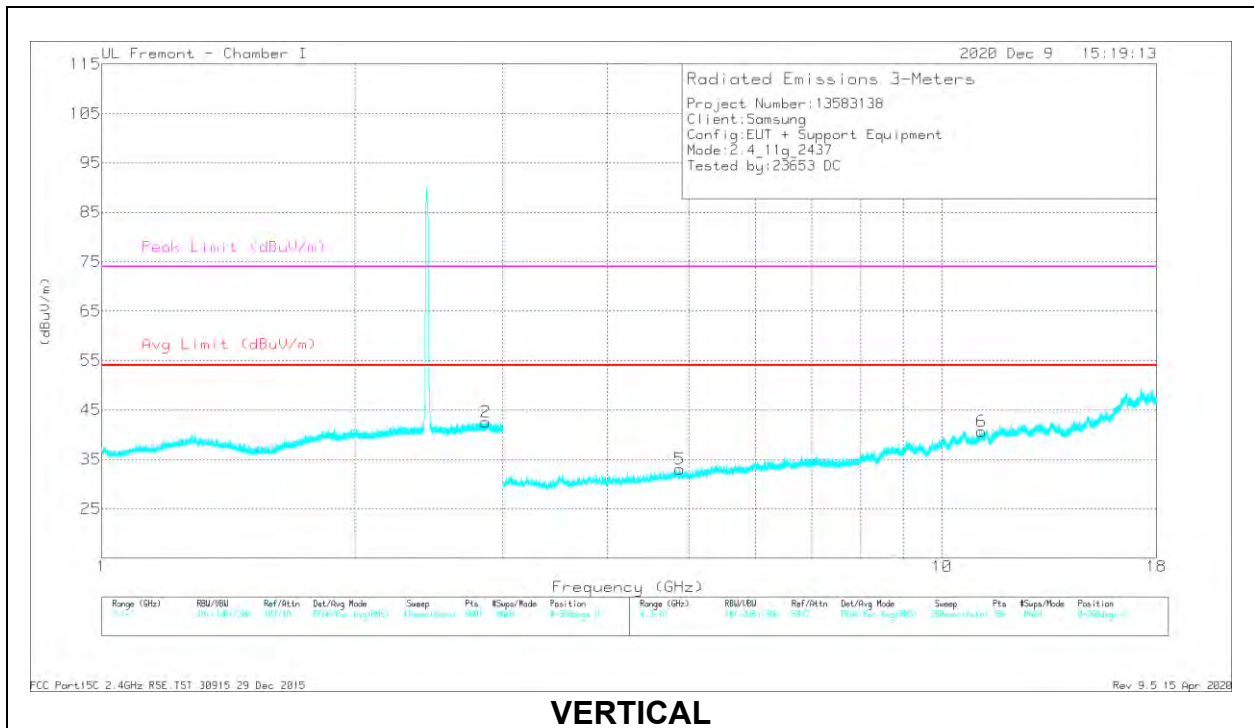
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL, CH 6 RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

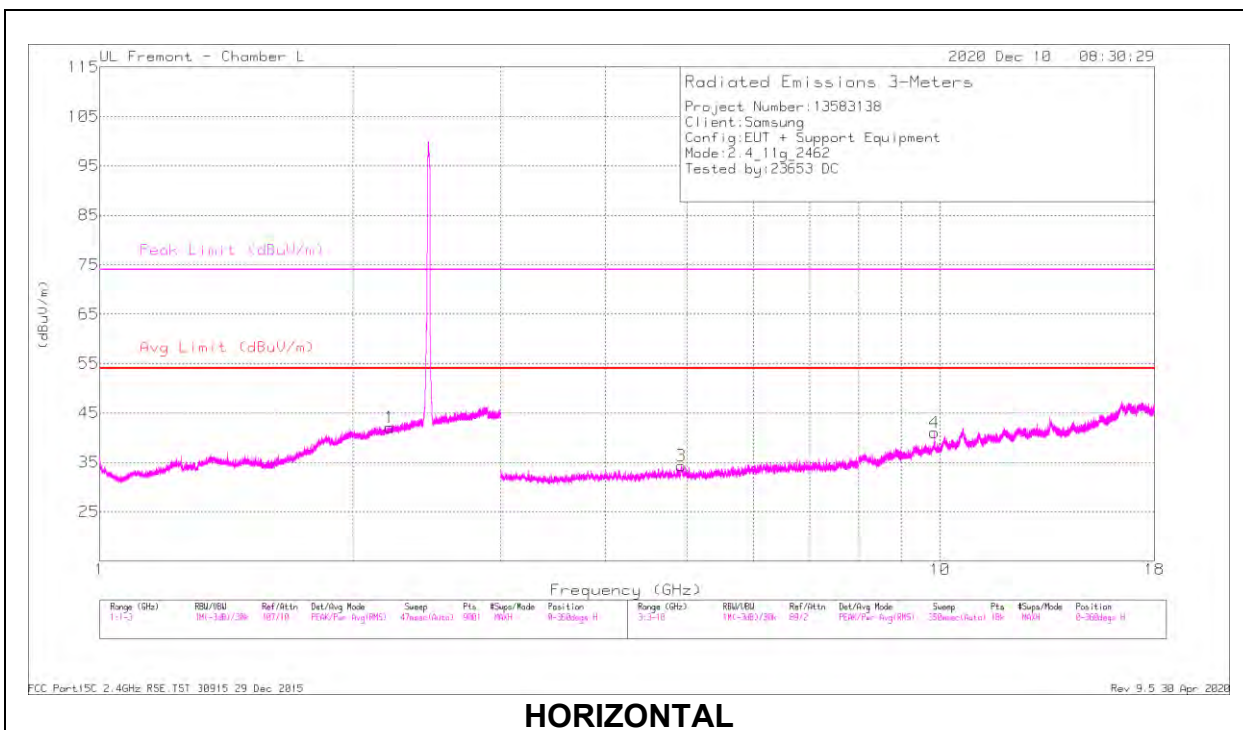
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.86902	36.54	PK2	32.4	-19.2	0	49.74	-	-	74	-24.26	215	127	H
	* 2.86873	26.16	MAv1	32.4	-19.2	.11	39.47	54	-14.53	-	-	215	127	H
2	* 2.86516	36.95	PK2	32.4	-19.2	0	50.15	-	-	74	-23.85	167	164	V
	* 2.86865	26.44	MAv1	32.4	-19.2	.11	39.75	54	-14.25	-	-	167	164	V
3	* 4.87061	33.97	PK2	34	-27	0	40.97	-	-	74	-33.03	256	180	H
	* 4.87369	23.7	MAv1	34	-27	.11	30.81	54	-23.19	-	-	256	180	H
4	* 11.13679	30.51	PK2	37.9	-20.6	0	47.81	-	-	74	-26.19	211	191	H
	* 11.13945	20.72	MAv1	37.9	-20.5	.11	38.23	54	-15.77	-	-	211	191	H
5	* 4.87481	33.71	PK2	34	-27	0	40.71	-	-	74	-33.29	310	143	V
	* 4.87603	23.61	MAv1	34	-27.1	.11	30.62	54	-23.38	-	-	310	143	V
6	* 11.14992	31	PK2	37.9	-20.3	0	48.6	-	-	74	-25.4	257	167	V
	* 11.14876	20.77	MAv1	37.9	-20.3	.11	38.48	54	-15.52	-	-	257	167	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

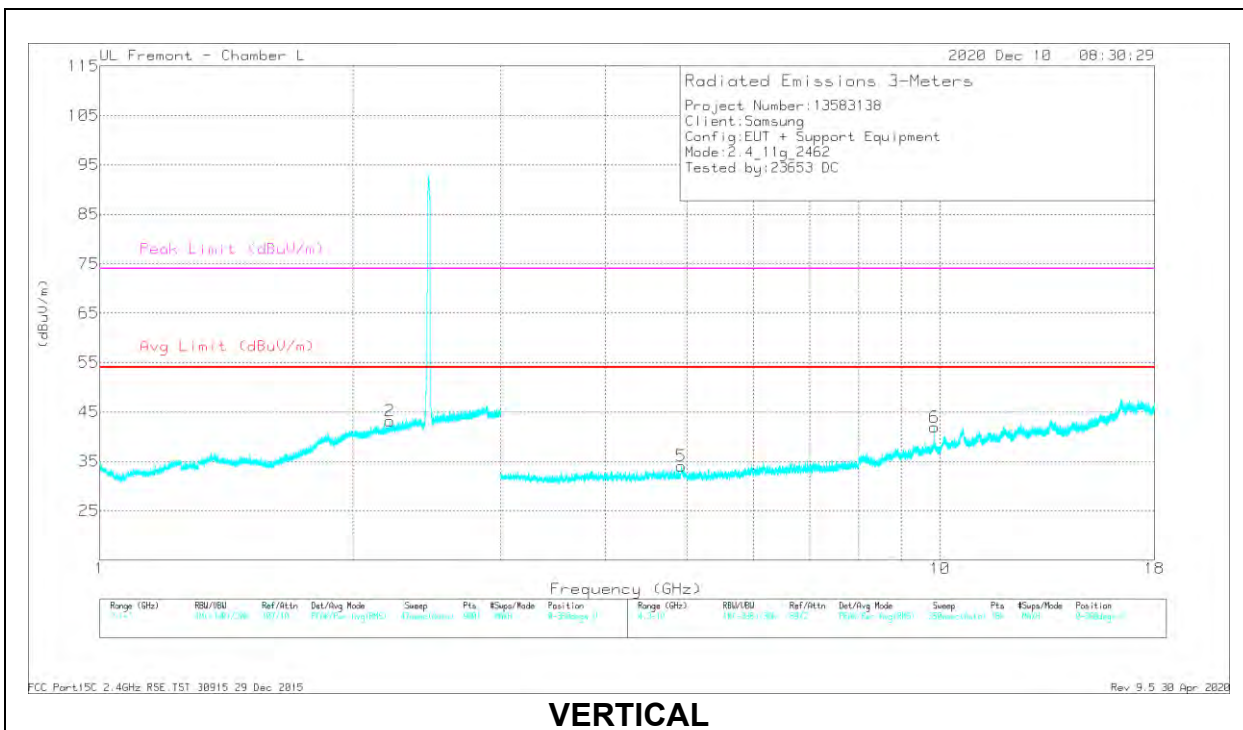
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL, CH 11 RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	* 2.216	30.78	PK2	31.7	-13.5	0	48.98	-	-	74	-25.02	261	155	H
	* 2.216	20.33	MAv1	31.7	-13.5	.11	38.64	54	-15.36	-	-	261	155	H
2	* 2.21461	30.71	PK2	31.7	-13.5	0	48.91	-	-	74	-25.09	146	185	V
	* 2.21534	20.4	MAv1	31.7	-13.5	.11	38.71	54	-15.29	-	-	146	185	V
3	* 4.92181	28.49	PK2	34.1	-26.3	0	36.29	-	-	74	-37.71	213	158	H
	* 4.92053	18.3	MAv1	34.1	-26.3	.11	26.21	54	-27.79	-	-	213	158	H
4	9.84798	29.54	PK2	37	-18.8	0	47.74	-	-	-	-	337	109	H
5	* 4.92489	32.39	PK2	34.1	-26.2	0	40.29	-	-	74	-33.71	284	256	V
	* 4.92448	22.3	MAv1	34.1	-26.2	.11	30.31	54	-23.69	-	-	284	256	V
6	9.84789	30.49	PK2	37	-18.8	0	48.69	-	-	-	-	179	102	V

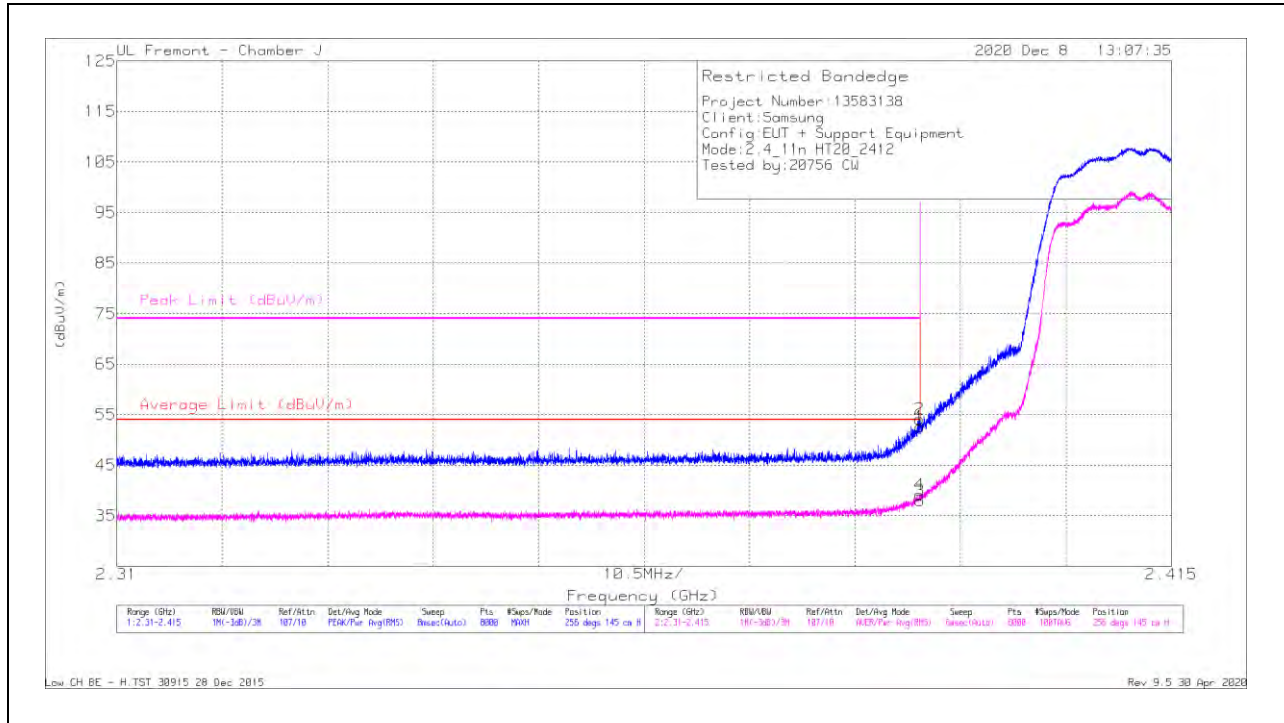
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

10.1.3. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 2.4 GHz BAND BANDEDGE (LOW CHANNEL, CH 1)

HORIZONTAL RESULT



Trace Markers

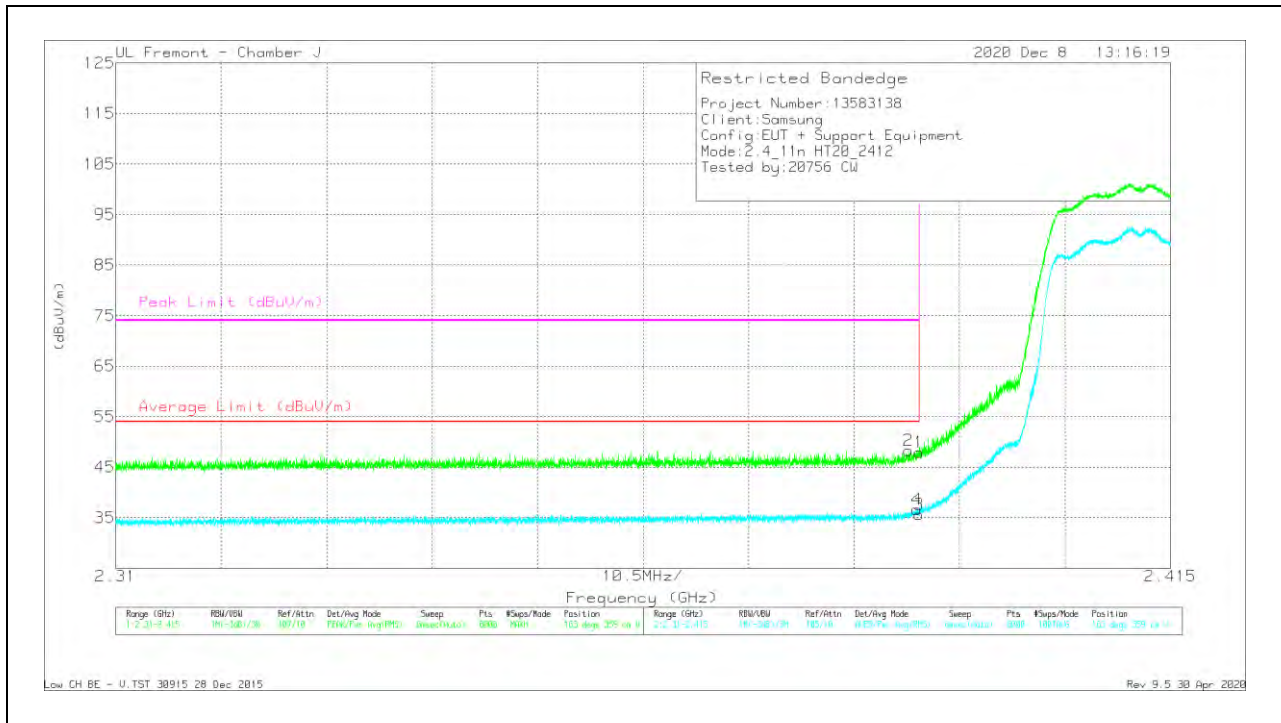
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	37.86	Pk	29	-14.2	0	52.66	-	-	74	-21.34	256	145	H
2	* 2.38994	39.38	Pk	29	-14.2	0	54.18	-	-	74	-19.82	256	145	H
3	* 2.39	23.13	RMS	29	-14.2	.12	38.05	54	-15.95	-	-	256	145	H
4	* 2.38993	24.18	RMS	29	-14.2	.12	39.1	54	-14.9	-	-	256	145	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (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	* 2.39	33.12	Pk	29	-14.2	0	47.92	-	-	74	-26.08	163	359	V
2	* 2.38891	33.53	Pk	29	-14.2	0	48.33	-	-	74	-25.67	163	359	V
3	* 2.39	20.74	RMS	29	-14.2	.12	35.66	54	-18.34	-	-	163	359	V
4	* 2.38976	21.71	RMS	29	-14.2	.12	36.63	54	-17.37	-	-	163	359	V

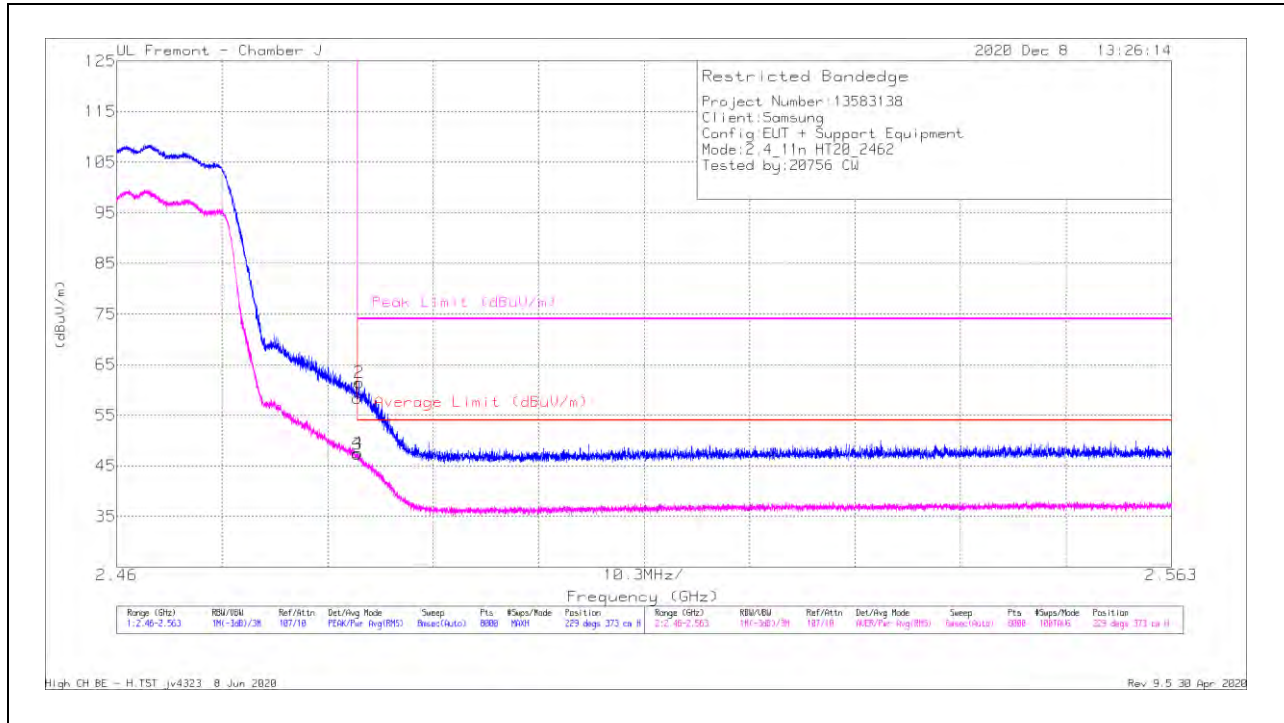
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL, CH 11)

HORIZONTAL RESULT



Trace Markers

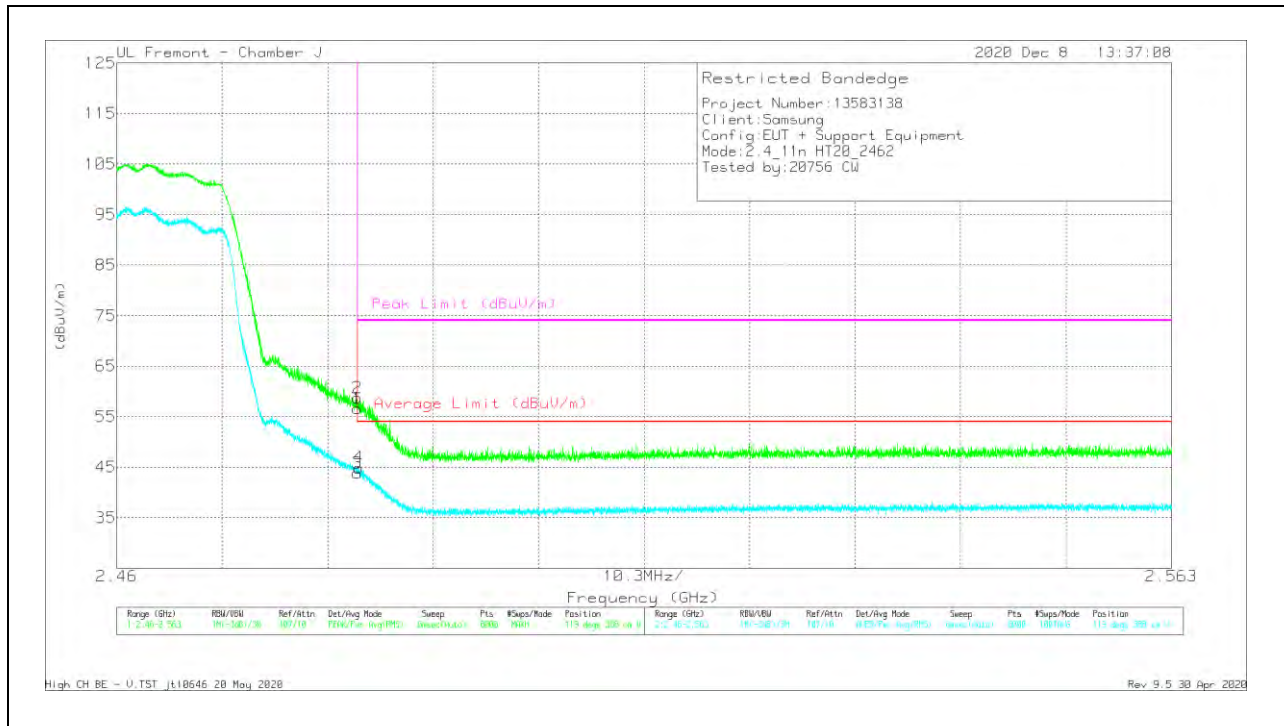
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	43.09	Pk	29.5	-14.2	0	58.39	-	-	74	-15.61	229	373	H
2	* 2.48367	46.18	Pk	29.5	-14.2	0	61.48	-	-	74	-12.52	229	373	H
3	* 2.4835	31.93	RMS	29.5	-14.2	.12	47.35	54	-6.65	-	-	229	373	H
4	* 2.48353	32.1	RMS	29.5	-14.2	.12	47.52	54	-6.48	-	-	229	373	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cb/Fitr/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	* 2.4835	41.34	Pk	29.5	-14.2	0	56.64	-	-	74	-17.36	119	388	V
2	* 2.48351	43.49	Pk	29.5	-14.2	0	58.79	-	-	74	-15.21	119	388	V
3	* 2.4835	28.44	RMS	29.5	-14.2	.12	43.86	54	-10.14	-	-	119	388	V
4	* 2.48362	29.47	RMS	29.5	-14.2	.12	44.89	54	-9.11	-	-	119	388	V

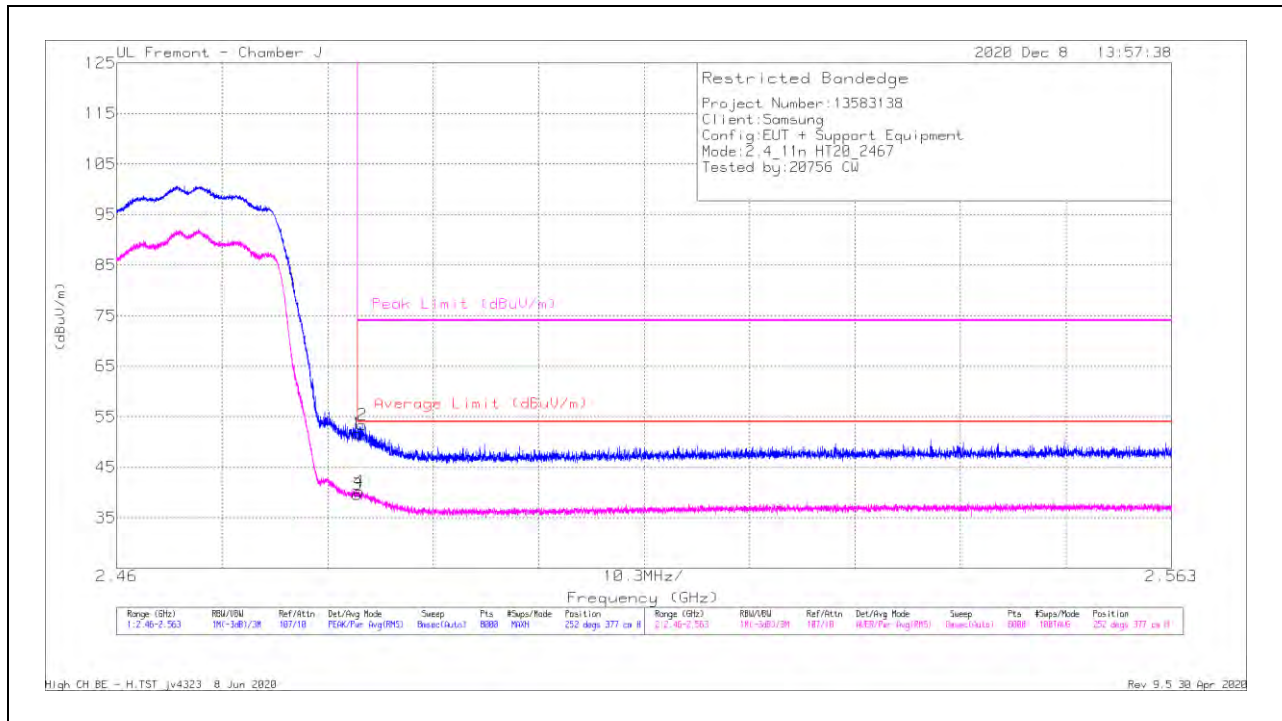
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL, CH 12)

HORIZONTAL RESULT



Trace Markers

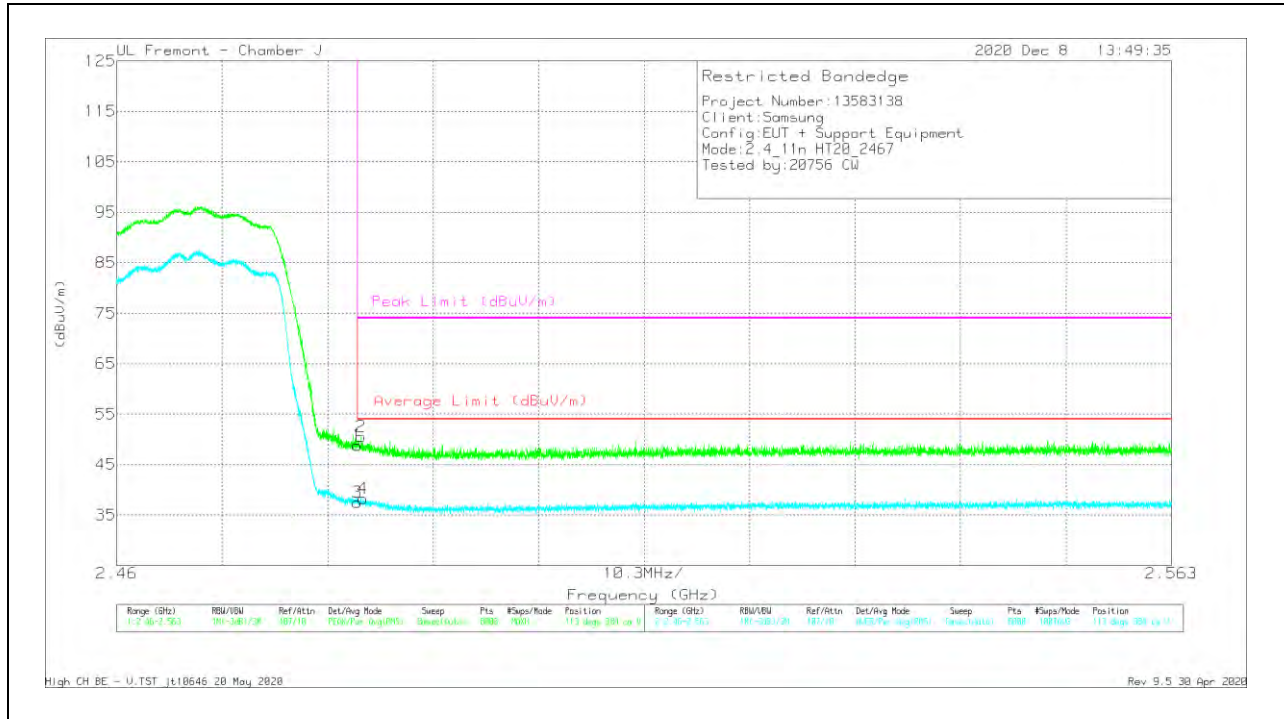
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	36.31	Pk	29.5	-14.2	0	51.61	-	-	74	-22.39	252	377	H
2	* 2.48396	38.04	Pk	29.5	-14.2	0	53.34	-	-	74	-20.66	252	377	H
3	* 2.4835	24.22	RMS	29.5	-14.2	.12	39.64	54	-14.36	-	-	252	377	H
4	* 2.48367	24.8	RMS	29.5	-14.2	.12	40.22	54	-13.78	-	-	252	377	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (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	* 2.4835	33.48	Pk	29.5	-14.2	0	48.78	-	-	74	-25.22	113	384	V
2	* 2.48385	35.22	Pk	29.5	-14.2	0	50.52	-	-	74	-23.48	113	384	V
3	* 2.4835	22.03	RMS	29.5	-14.2	.12	37.45	54	-16.55	-	-	113	384	V
4	* 2.48405	22.88	RMS	29.5	-14.2	.12	38.3	54	-15.7	-	-	113	384	V

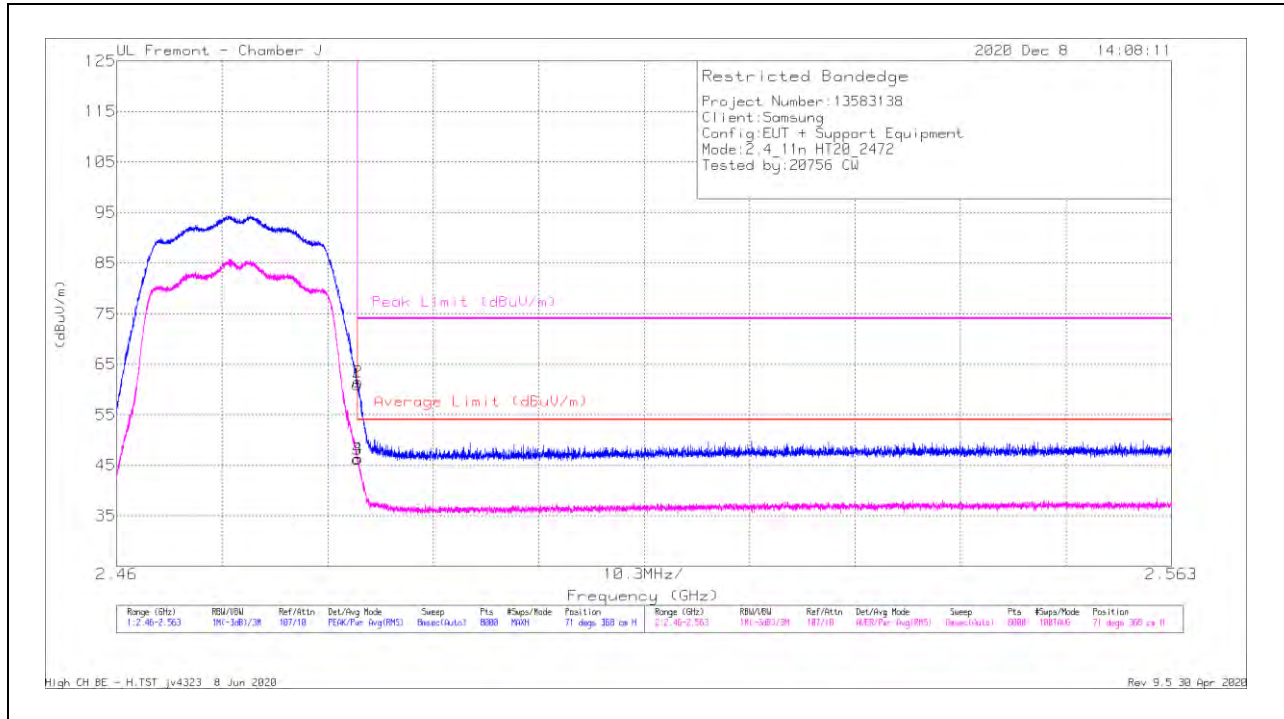
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL, CH 13)

HORIZONTAL RESULT



Trace Markers

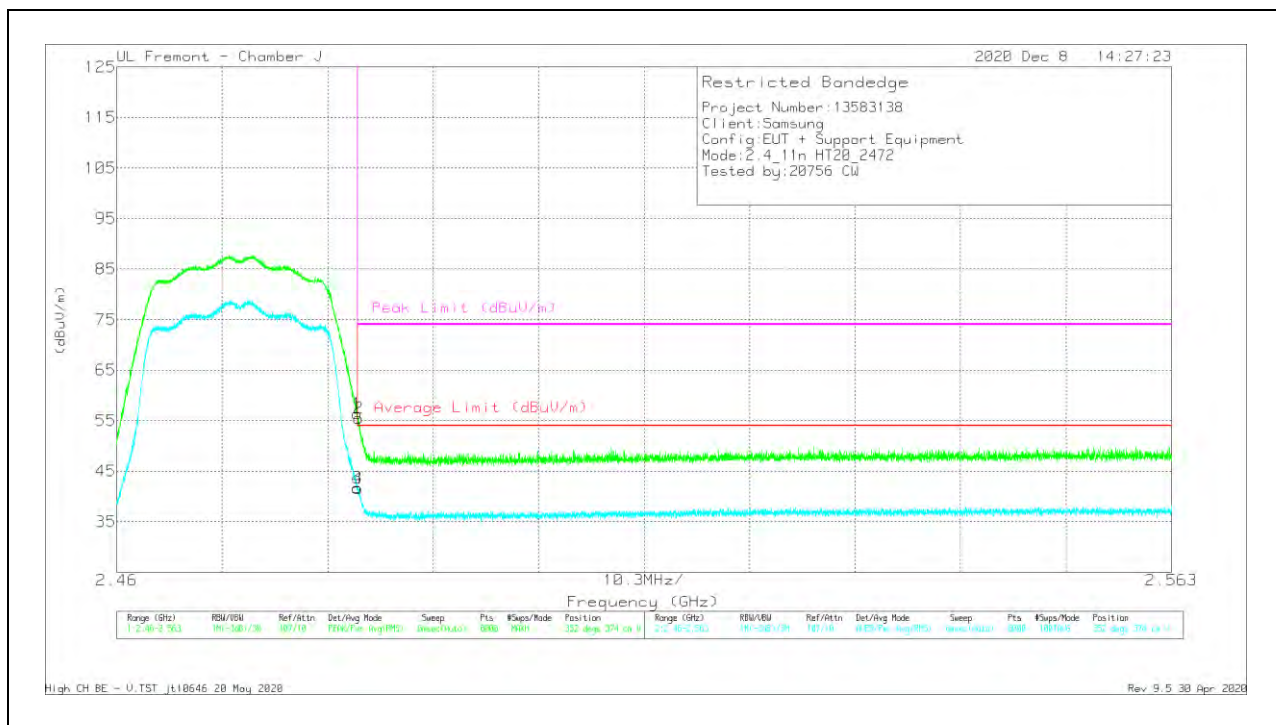
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	45.67	Pk	29.5	-14.2	0	60.97	-	-	74	-13.03	71	368	H
2	* 2.48356	46.15	Pk	29.5	-14.2	0	61.45	-	-	74	-12.55	71	368	H
3	* 2.4835	30.81	RMS	29.5	-14.2	.12	46.23	54	-7.77	-	-	71	368	H
4	* 2.48355	30.9	RMS	29.5	-14.2	.12	46.32	54	-7.68	-	-	71	368	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cb1/Fitr/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	* 2.4835	41.05	Pk	29.5	-14.2	0	56.35	-	-	74	-17.65	352	374	V
2	* 2.48364	40.26	Pk	29.5	-14.2	0	55.56	-	-	74	-18.44	352	374	V
3	* 2.4835	26.31	RMS	29.5	-14.2	.12	41.73	54	-12.27	-	-	352	374	V
4	* 2.48353	26.14	RMS	29.5	-14.2	.12	41.56	54	-12.44	-	-	352	374	V

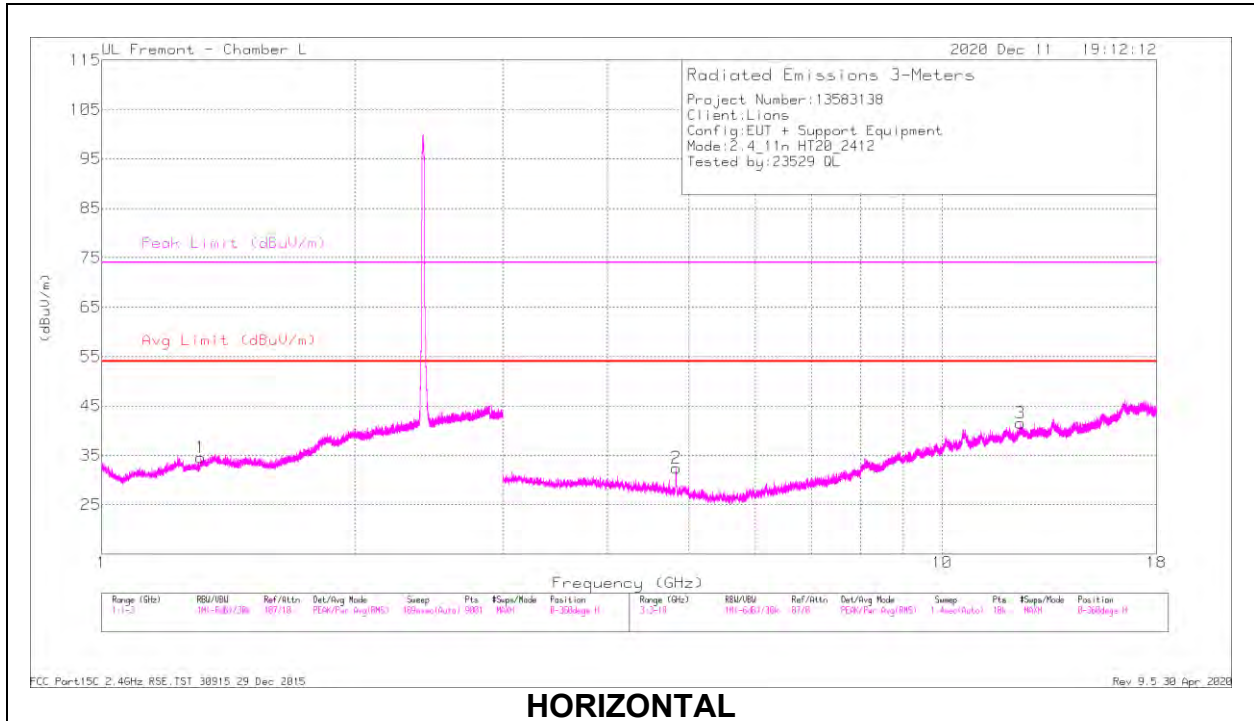
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

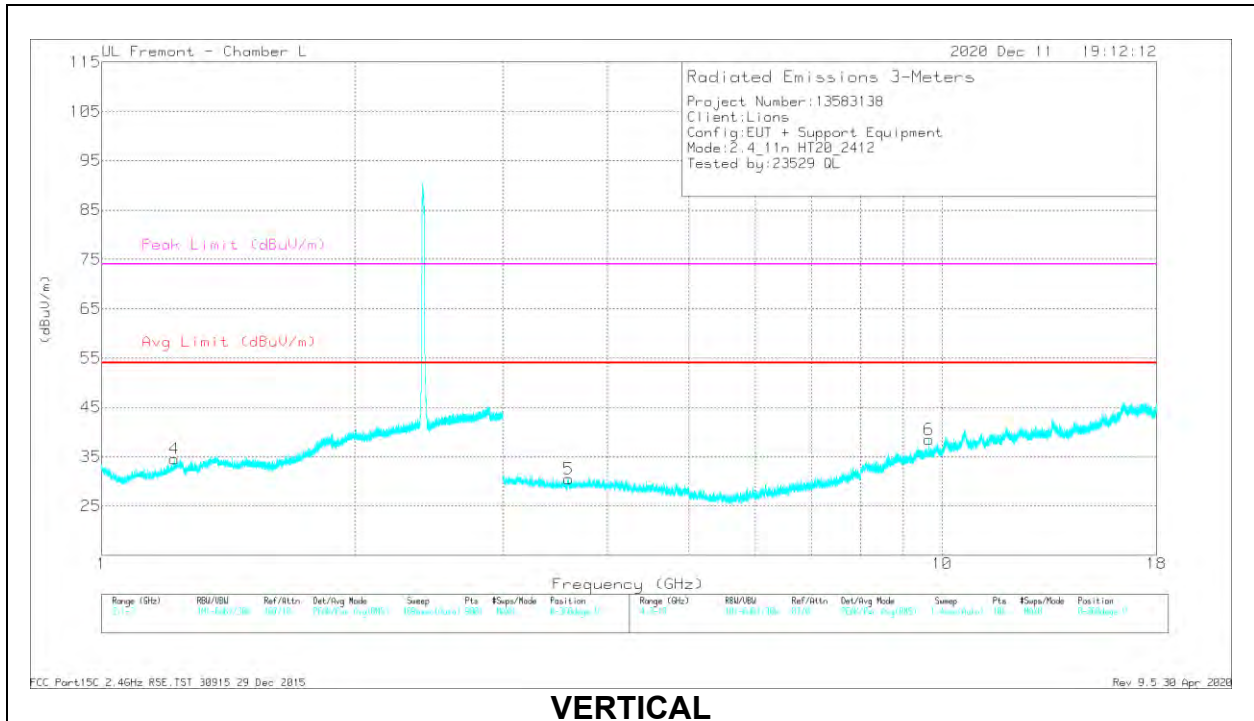
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, CH 1 RESULTS



HORIZONTAL



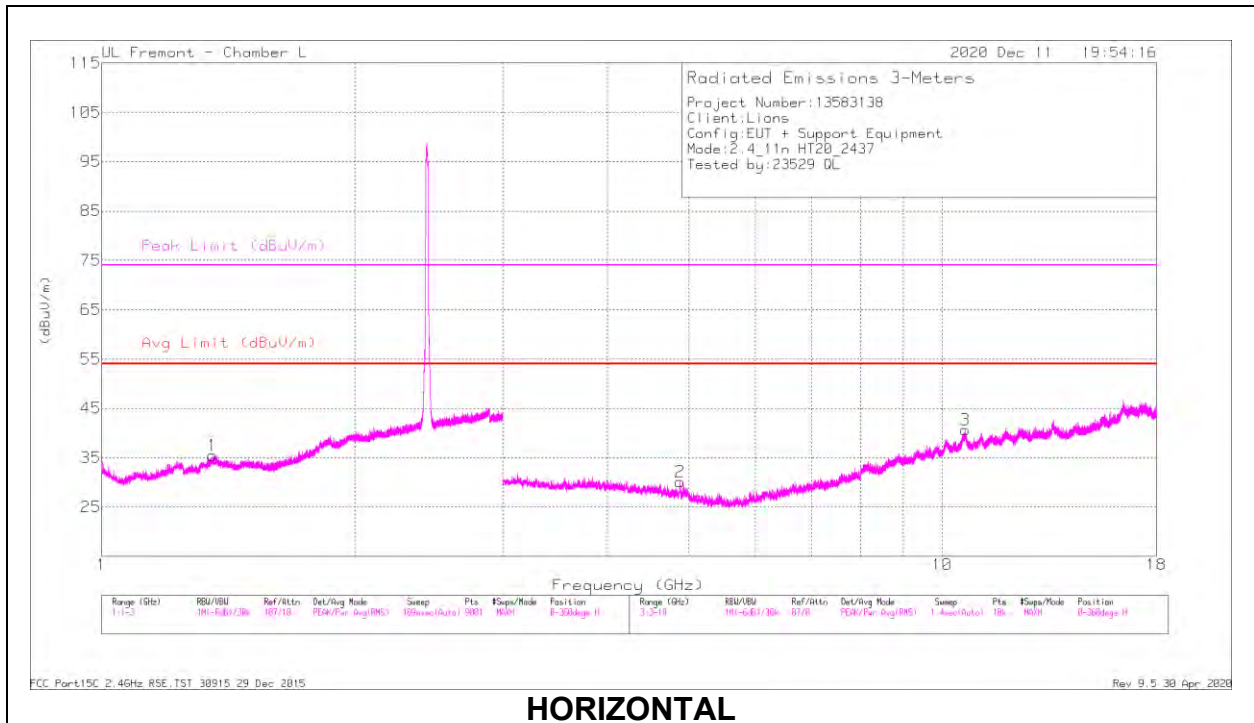
VERTICAL

RADIATED EMISSIONS

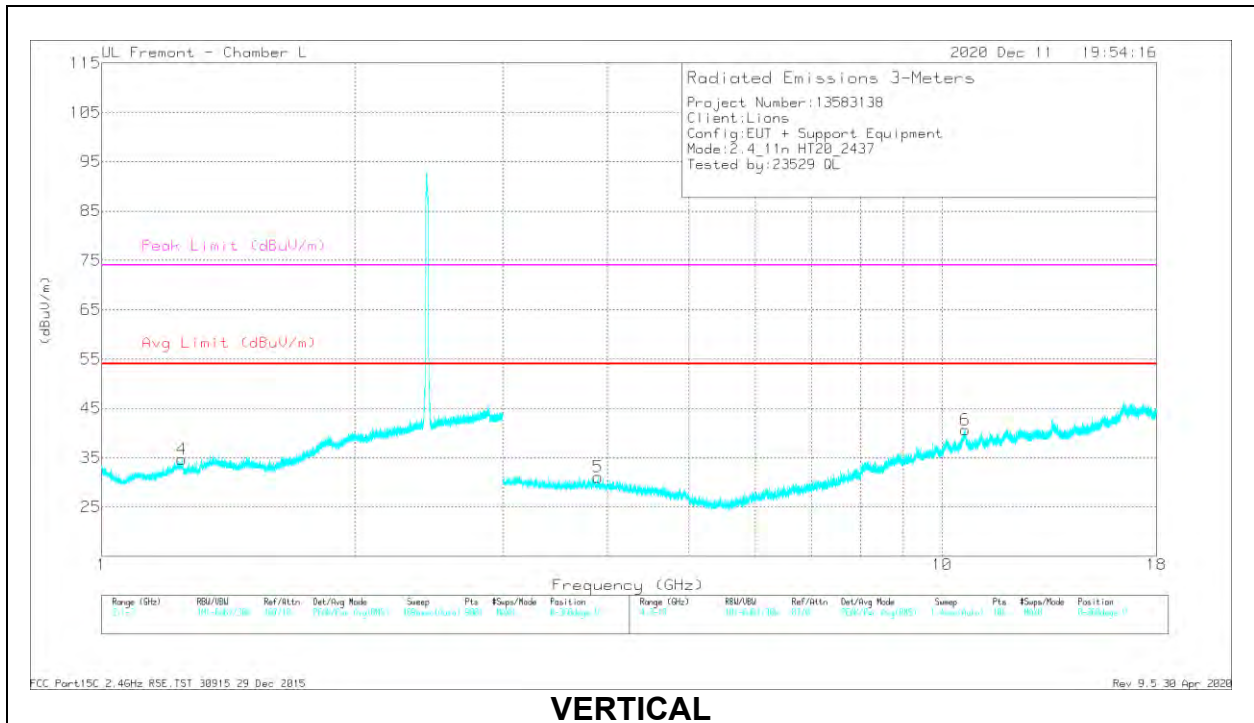
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.30906	28.89	PK2	28.8	-16.7	0	40.99	-	-	74	-33.01	36	165	H
	* 1.30904	16.9	MAv1	28.8	-16.7	.12	29.12	54	-24.88	-	-	36	165	H
4	* 1.22149	27.85	PK2	28.5	-16.8	0	39.55	-	-	74	-34.45	240	101	V
	* 1.22051	17.26	MAv1	28.5	-16.8	.12	29.08	54	-24.92	-	-	240	101	V
2	* 4.82522	34.4	PK2	34.2	-27.3	0	41.3	-	-	74	-32.7	14	398	H
	* 4.82685	22.88	MAv1	34.3	-27.3	.12	30	54	-24	-	-	14	398	H
3	* 12.40775	28.7	PK2	39	-19.1	0	48.6	-	-	74	-25.4	170	101	H
	* 12.40747	17.43	MAv1	39	-19.1	.12	37.45	54	-16.55	-	-	170	101	H
5	* 3.59282	33.51	PK2	33	-28.7	0	37.81	-	-	74	-36.19	184	141	V
	* 3.59271	22.65	MAv1	33	-28.7	.12	27.07	54	-26.93	-	-	184	141	V
6	9.64949	27.32	PK2	36.8	-19.4	0	44.72	-	-	-	-	323	226	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PK2 - KDB558074 Method: Maximum Peak
 MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL, CH 6 RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

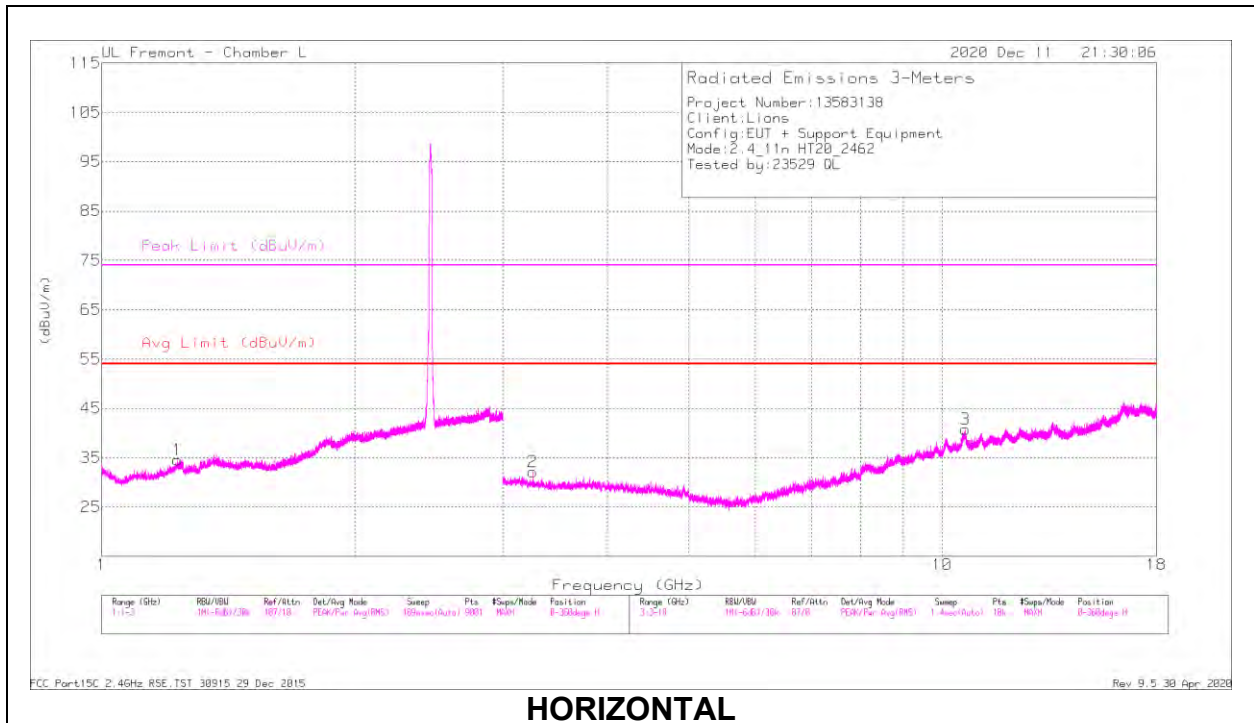
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.35488	28.52	PK2	29.3	-16.7	0	41.12	-	-	74	-32.88	62	132	H
	* 1.35616	17.41	MAV1	29.3	-16.6	.12	30.23	54	-23.77	-	-	62	132	H
4	* 1.24391	29.32	PK2	28.5	-16.7	0	41.12	-	-	74	-32.88	311	237	V
	* 1.2438	17.08	MAV1	28.5	-16.7	.12	29	54	-25	-	-	311	237	V
2	* 4.87632	29.81	PK2	34.2	-27.2	0	36.81	-	-	74	-37.19	20	223	H
	* 4.87703	19.24	MAV1	34.2	-27.2	.12	26.36	54	-27.64	-	-	20	223	H
3	* 10.66743	27.44	PK2	37.9	-17.6	0	47.74	-	-	74	-26.26	195	129	H
	* 10.66394	16.36	MAV1	37.9	-17.4	.12	36.98	54	-17.02	-	-	195	129	H
5	* 3.89171	33.43	PK2	33.5	-28	0	38.93	-	-	74	-35.07	285	377	V
	* 3.89538	22.13	MAV1	33.5	-28	.12	27.75	54	-26.25	-	-	285	377	V
6	* 10.6601	27.02	PK2	38	-17.3	0	47.72	-	-	74	-26.28	161	202	V
	* 10.66409	16.34	MAV1	37.9	-17.4	.12	36.96	54	-17.04	-	-	161	202	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

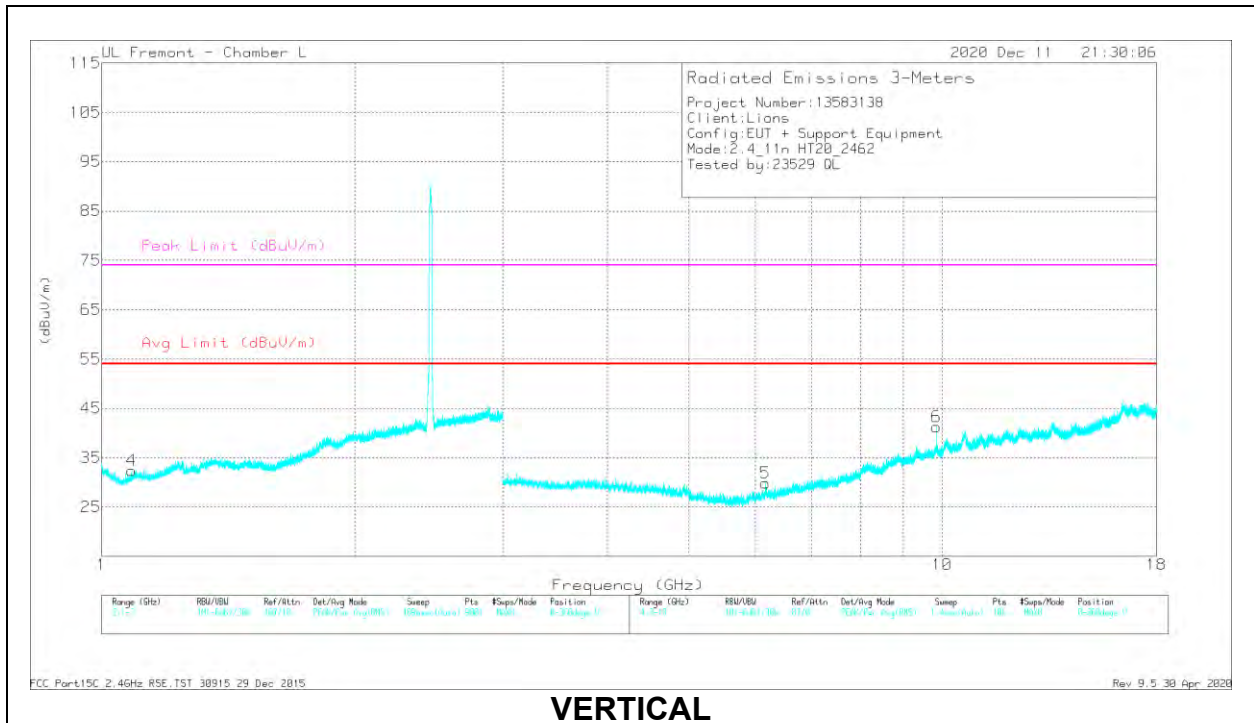
PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL, CH 11 RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	* 1.23311	29.04	PK2	28.6	-16.7	0	40.94	-	-	74	-33.06	222	225	H
	* 1.22954	17.34	MAv1	28.5	-16.7	.12	29.26	54	-24.74	-	-	222	225	H
4	* 1.0841	28.28	PK2	27.4	-17.8	0	37.88	-	-	74	-36.12	140	344	V
	* 1.08644	17.36	MAv1	27.4	-17.8	.12	27.08	54	-26.92	-	-	140	344	V
2	3.25976	33.69	PK2	32.8	-29.2	0	37.29	-	-	-	-	254	172	H
	3.25995	23.91	MAv1	32.8	-29.2	.12	27.63	-	-	-	-	254	172	H
3	* 10.66176	26.48	PK2	38	-17.3	0	47.18	-	-	74	-26.82	163	269	H
	* 10.66573	16.16	MAv1	37.9	-17.5	.12	36.68	54	-17.32	-	-	163	269	H
5	6.16609	30.49	PK2	35.8	-24.5	0	41.79	-	-	-	-	219	398	V
6	9.84783	28.39	PK2	37	-18.8	0	46.59	-	-	-	-	218	101	V

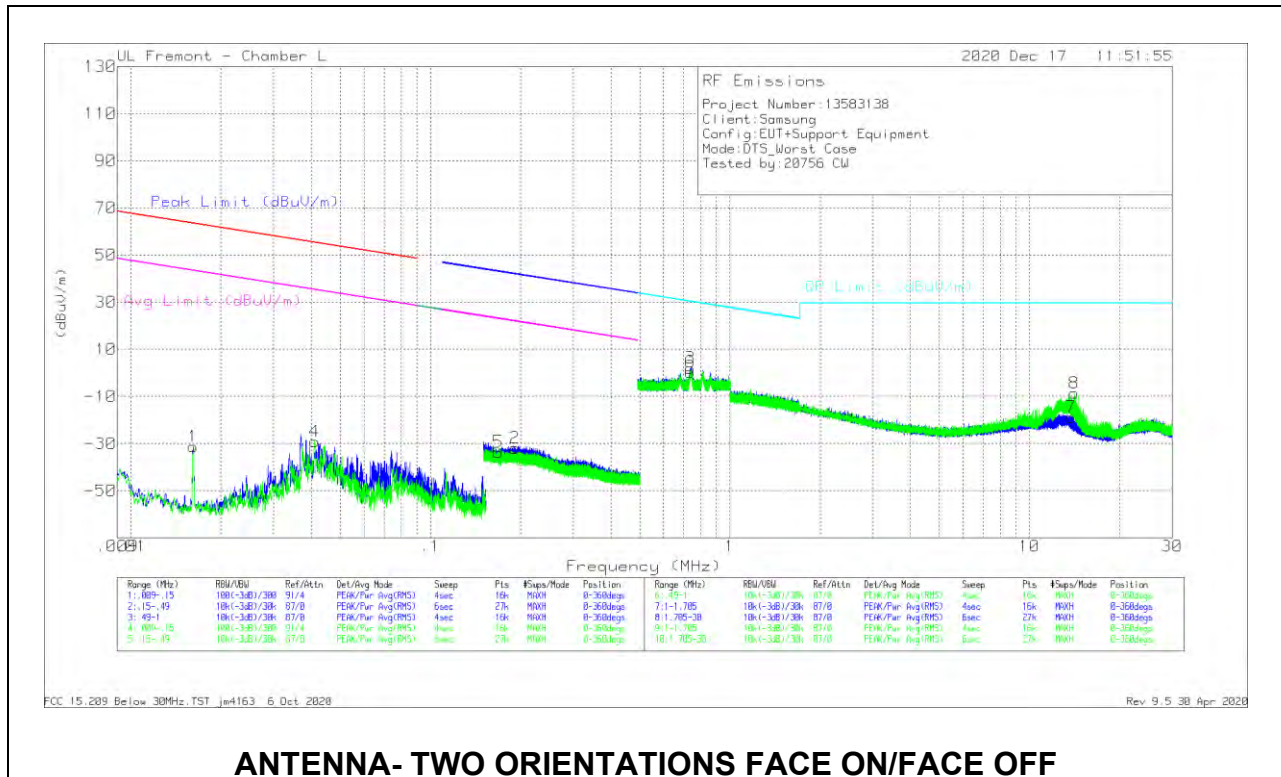
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

10.2. WORST CASE BELOW 30MHZ

SPURIOUS EMISSIONS BELOW 30 MHz (WORST-CASE CONFIGURATION)



ANTENNA- TWO ORIENTATIONS FACE ON/FACE OFF

Below 30MHz Data

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	.01614	21.76	Pk	59.3	-32.4	-80	-31.34	63.43	-94.77	43.43	-74.77	-	-	-	-	0-360
2	.1913	24.4	Pk	56	-32.3	-80	-31.9	-	-	-	-	41.98	-73.88	21.98	-53.88	0-360
4	.04108	26.25	Pk	57	-32.4	-80	-29.15	55.31	-84.46	35.31	-64.46	-	-	-	-	0-360
5	.16837	22.75	Pk	55.9	-32.3	-80	-33.65	-	-	-	-	43.1	-76.75	23.1	-56.75	0-360

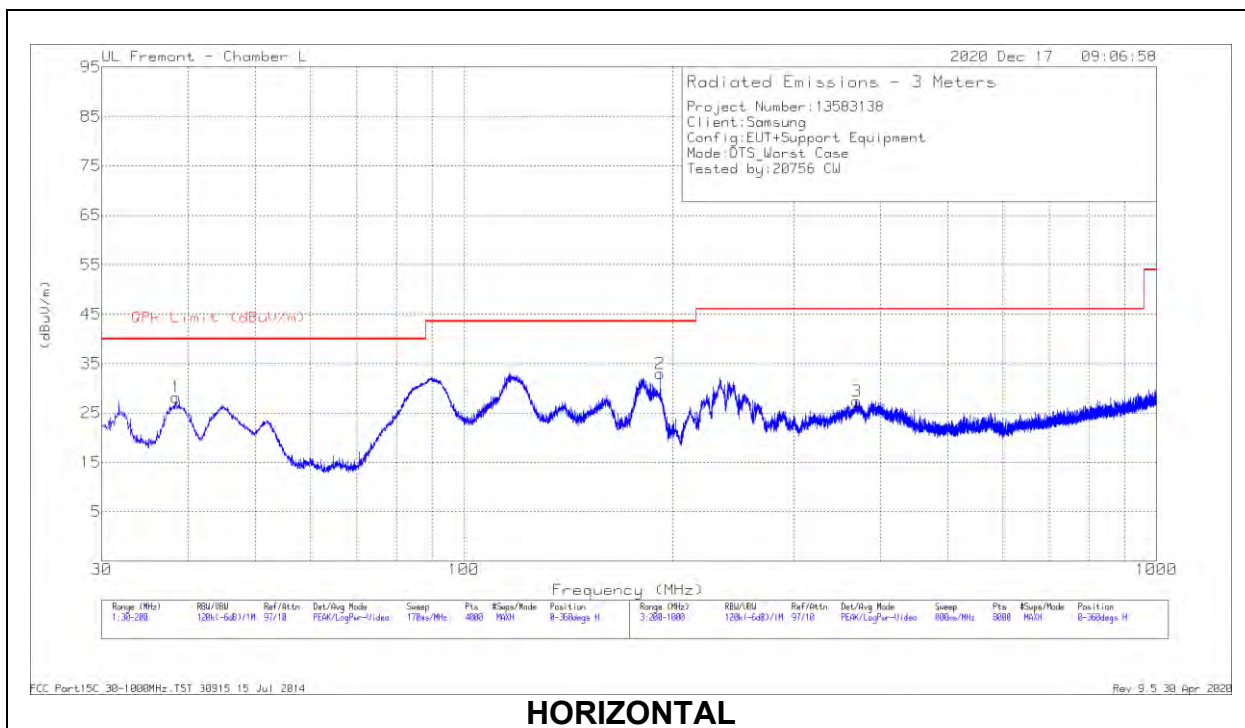
Pk - Peak detector

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (ACF)	Amp/Cbl (dB)	Dist Corr 300m (dB)	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
3	.73746	18.07	Pk	56.1	-32.2	-40	1.97	30.26	-28.29	0-360
6	.7372	16.48	Pk	56.1	-32.2	-40	.38	30.26	-29.88	0-360
7	13.75595	18.94	Pk	34.1	-31.9	-40	-18.86	29.5	-48.36	0-360
8	14.09341	29.15	Pk	34.1	-31.9	-40	-8.65	29.5	-38.15	0-360

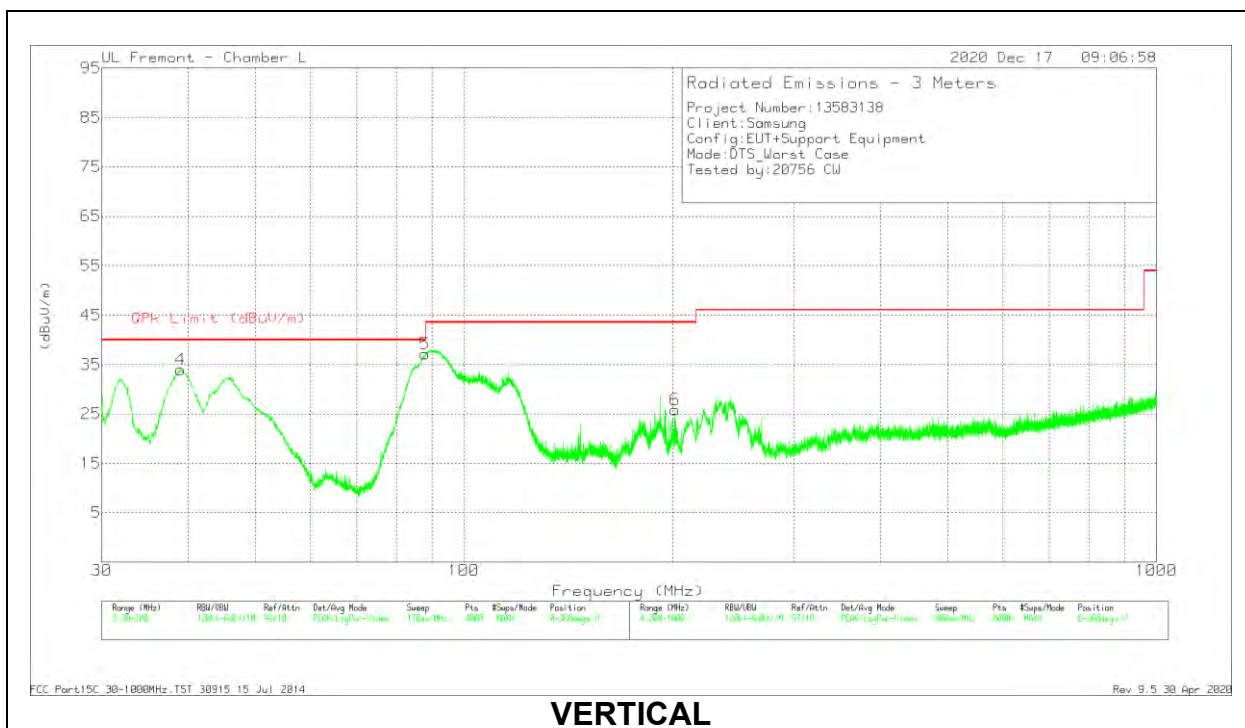
Pk - Peak detector

NOTE: The limits in CFR 47, Part 15, Subpart C, paragraph 15.209(a), are identical to those in RSS-Gen section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table), using the free space impedance of 377 Ohms. For example the measurement at frequency X kHz resulted in a level of Y dBuV/m, which is equivalent to $Y - 51.5 = Z$ dBuA/m, which has the same margin, W dB, to the corresponding RSS-Gen Table 6 limit as it has to 15.209(a) limit.

10.3. WORST CASE BELOW 1 GHZ



HORIZONTAL



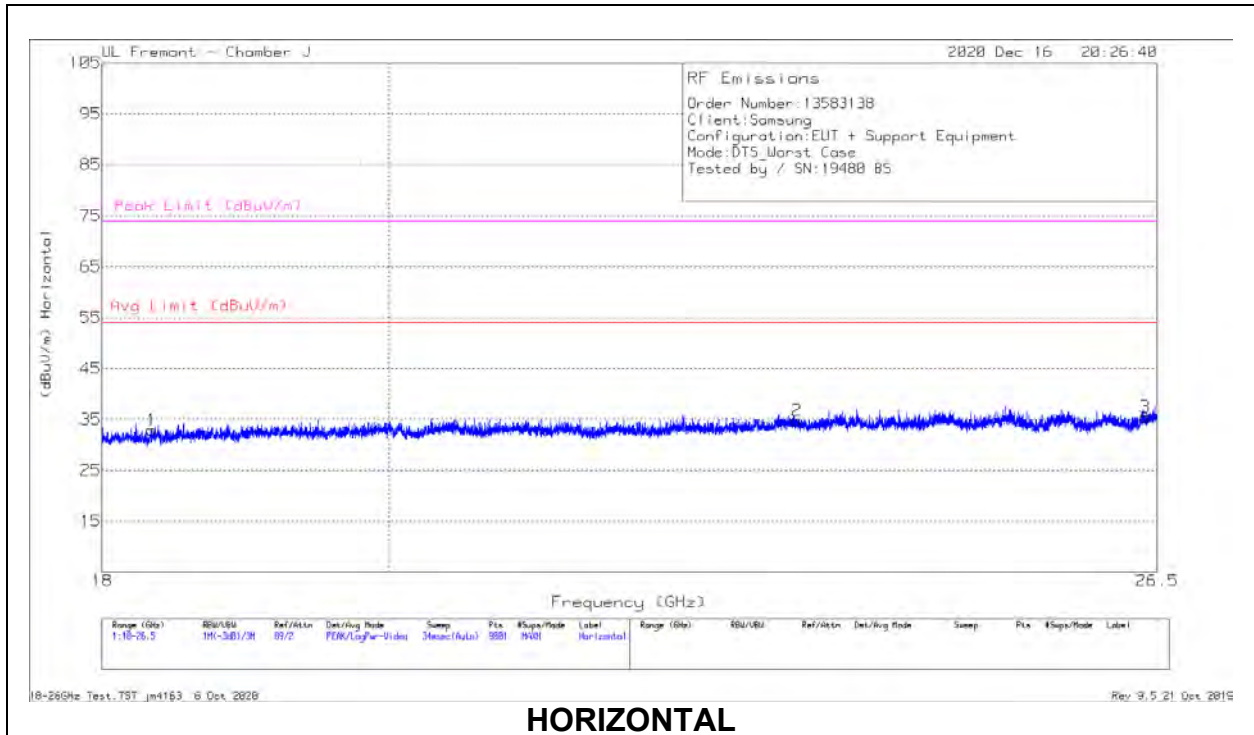
VERTICAL

Below 1GHz DATA

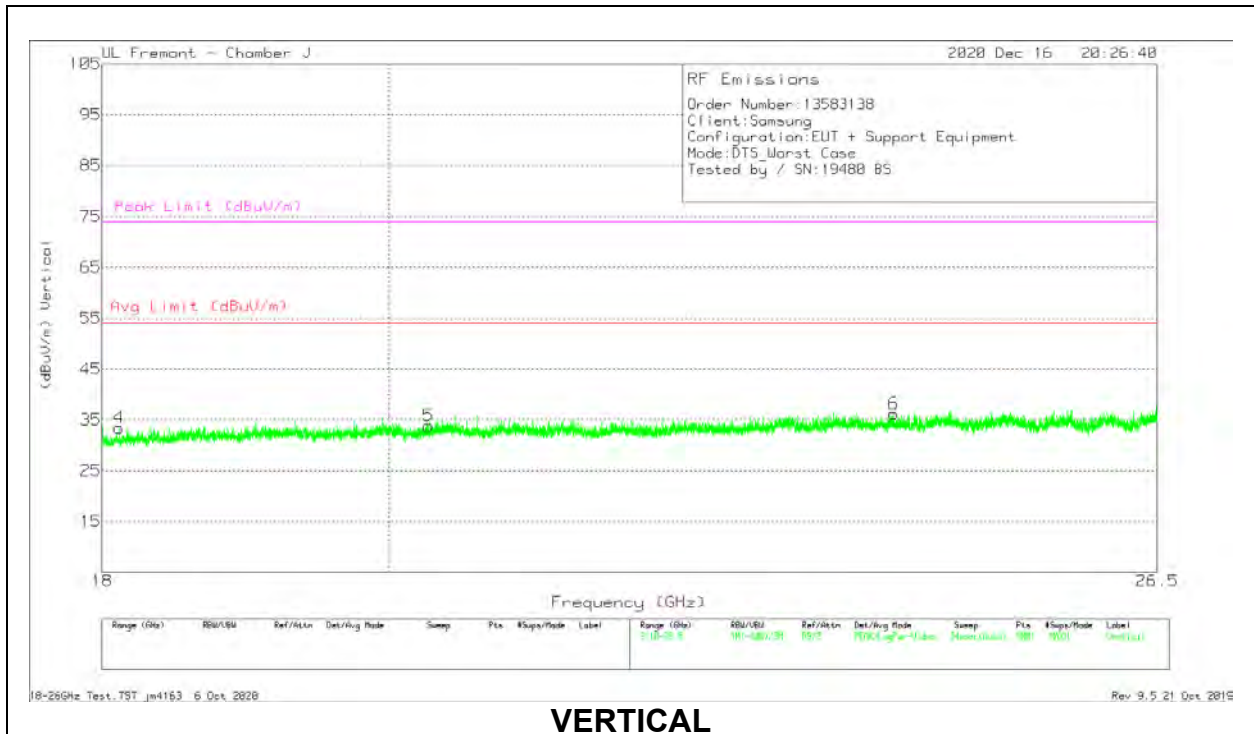
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF PRE0184971 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	38.4172	38.53	Pk	20.9	-31.3	28.13	40	-11.87	0-360	399	H
2	191.9244	46.19	Pk	17	-30.2	32.99	43.52	-10.53	0-360	199	H
4	38.9698	44.83	Pk	20.5	-31.3	34.03	40	-5.97	0-360	101	V
	39.0782	43.18	Qp	20.4	-31.3	32.28	40	-7.72	112	108	V
5	87.8575	54.8	Pk	13.3	-30.9	37.2	40	-2.8	0-360	101	V
	88.0973	53.1	Qp	13.3	-30.9	35.5	43.52	-8.02	58	104	V
3	369.322	35.84	Pk	20.7	-29.2	27.34	46.02	-18.68	0-360	101	H
6	201.7002	38.01	Pk	18	-30.1	25.91	43.52	-17.61	0-360	101	V

Pk - Peak detector
 Qp - Quasi-Peak detector

10.4. WORST CASE 18-26 GHZ



HORIZONTAL



VERTICAL

18 – 26GHz DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T447 AF (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	18.33056	69.72	Pk	32.3	-59.6	-9.5	32.92	54	-21.08	74	-41.08
2	23.22089	67.71	Pk	33.8	-57.2	-9.5	34.81	54	-19.19	74	-39.19
3	26.38194	65.14	Pk	34.6	-54.8	-9.5	35.44	54	-18.56	74	-38.56
4	18.11239	70.64	Pk	32.4	-60.1	-9.5	33.44	54	-20.56	74	-40.56
5	20.28839	67.66	Pk	32.9	-57.2	-9.5	33.86	54	-20.14	74	-40.14
6	24.0605	67.98	Pk	34.3	-56.6	-9.5	36.18	54	-17.82	74	-37.82

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.

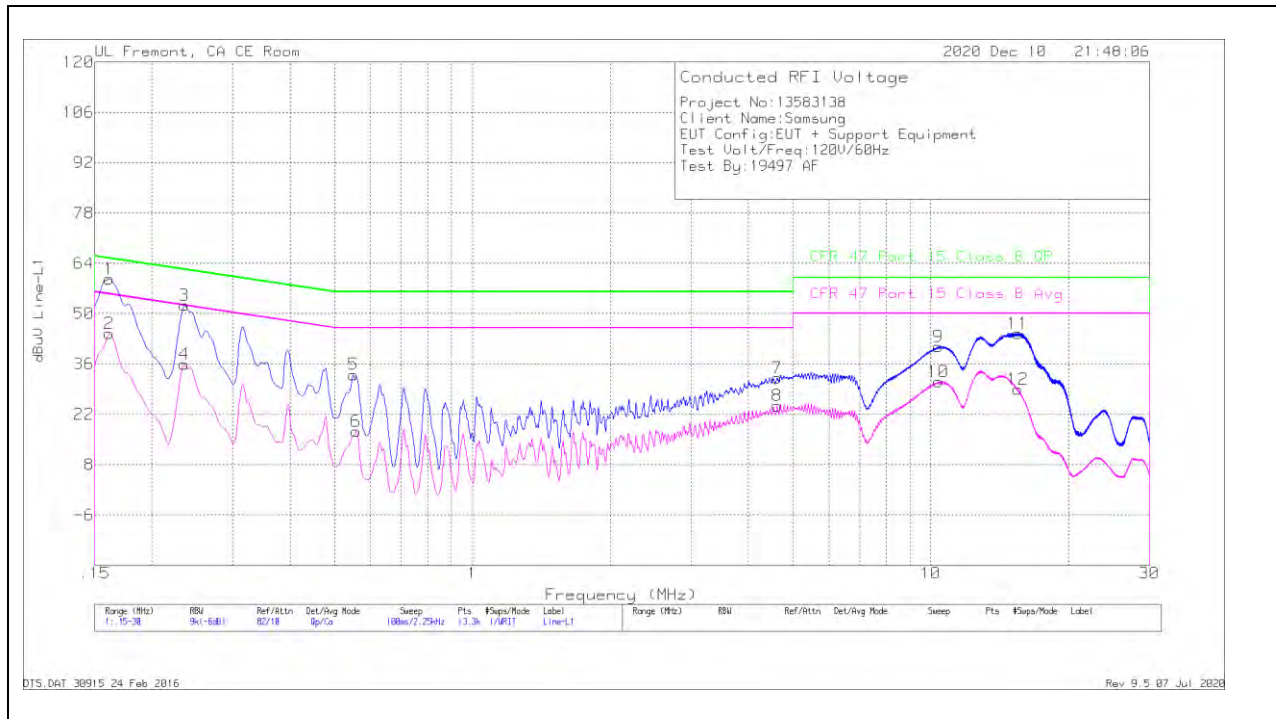
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

11.1.1. AC Power Line Norm

LINE 1 RESULTS



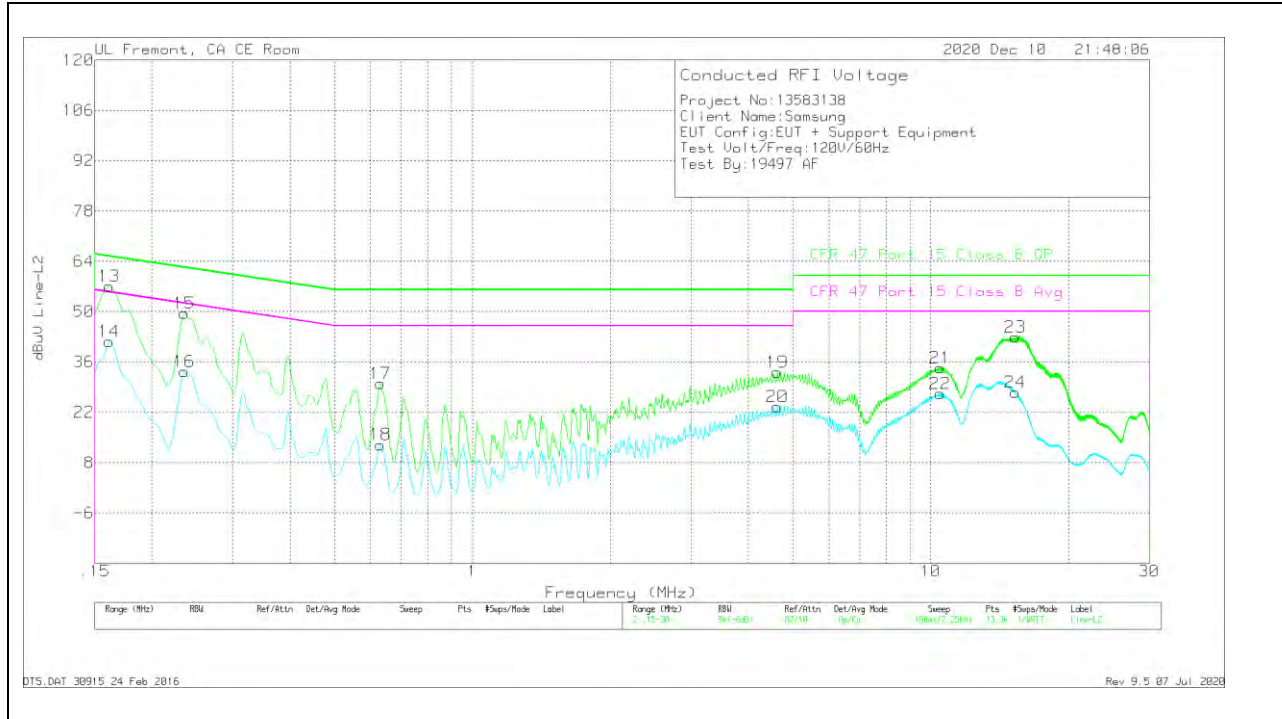
Trace Markers

Range 1: Line-L1 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	PRE018644 6 LISN L1	LC Cables C1&C3 dB	Limiter (dB)	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR)M argin (dB)
1	.16125	49.53	Qp	0	0	10.1	59.63	65.4	-5.77	-	-
2	.16125	34.35	Ca	0	0	10.1	44.45	-	-	55.4	-10.95
3	.2355	42.24	Qp	0	0	10.1	52.34	62.25	-9.91	-	-
4	.2355	25.8	Ca	0	0	10.1	35.9	-	-	52.25	-16.35
5	.5505	22.97	Qp	0	0	10.1	33.07	56	-22.93	-	-
6	.55725	7.17	Ca	0	0	10.1	17.27	-	-	46	-28.73
7	4.6185	21.74	Qp	0	.1	10.2	32.04	56	-23.96	-	-
8	4.6185	14.05	Ca	0	.1	10.2	24.35	-	-	46	-21.65
9	10.392	30.38	Qp	0	.2	10.2	40.78	60	-19.22	-	-
10	10.392	20.68	Ca	0	.2	10.2	31.08	-	-	50	-18.92
11	15.48375	33.93	Qp	0	.2	10.3	44.43	60	-15.57	-	-
12	15.47475	18.51	Ca	0	.2	10.3	29.01	-	-	50	-20.99

Qp - Quasi-Peak detector

Ca - CISPR average detection

LINE 2 RESULTS



Trace Markers

Range 2: Line-L2 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	PRE018644 6 LISN L2	LC Cables C2&C3 dB	Limiter (dB)	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR)M argin (dB)
13	.16125	46.91	Qp	0	0	10.1	57.01	65.4	-8.39	-	-
14	.16125	31.57	Ca	0	0	10.1	41.67	-	-	55.4	-13.73
15	.2355	39.47	Qp	0	0	10.1	49.57	62.25	-12.68	-	-
16	.2355	23.25	Ca	0	0	10.1	33.35	-	-	52.25	-18.9
17	.62925	19.92	Qp	0	0	10.1	30.02	56	-25.98	-	-
18	.62925	2.9	Ca	0	0	10.1	13	-	-	46	-33
19	4.62975	22.81	Qp	0	.1	10.2	33.11	56	-22.89	-	-
20	4.62975	13.31	Ca	0	.1	10.2	23.61	-	-	46	-22.39
21	10.491	23.94	Qp	0	.2	10.2	34.34	60	-25.66	-	-
22	10.491	16.76	Ca	0	.2	10.2	27.16	-	-	50	-22.84
23	15.28575	32.36	Qp	0	.2	10.3	42.86	60	-17.14	-	-
24	15.28575	17.07	Ca	0	.2	10.3	27.57	-	-	50	-22.43

Qp - Quasi-Peak detector

Ca - CISPR average detection