TEST REPORT

Report Number. : 13171837-E4V3

Applicant	:	Samsung Electronics Co., Ltd. 129 Samsung-Ro, Yeongtong-Gu, Suwon-Si, Gyeonggi-Do, 16677, Korea
Model	:	SM-A515U, SM-A515U1, SM-A515W, and SM-S515DL
FCC ID	:	A3LSMA515U
ISED	:	649E-SMA515W
EUT Description	:	GSM/CDMA/WCDMA/LTE Phablet with BT/BLE, DTS/UNII a/b/g/n/ac, NFC and ANT+
Test Standard(s)	:	FCC 47 CFR PART 15 SUBPART C ISED RSS-247 ISSUE 2 ISED RSS-GEN ISSUE 5

Date Of Issue:
March 4, 2020

Prepared by:
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NVLAP TESTING ilac-MRA
NVLAP Lab code: 200065-0

REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	1/29/2020	Initial Issue	
V2	2/27/2020	Updated Section 2 TEST METHODOLOGY Updated Section 8.4 OUTPUT POWER, Section 8.4.2	Glenn Escano
V3	3/4/2020	Updated 5.2, 5.5, and 8.6	Steven Tran

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1. ATTESTATION OF TEST RESULTS

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

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

MODEL: SM-A515U, SM-A515U1, SM-A515W, and SM-S515DL

SERIAL NUMBER: Radiated: R38MB0B5P8X
Conducted: R38MB0B5QVN

DATE TESTED: DECEMBER 27, 2019 – JANUARY 24, 2020

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart C	Complies
ISED RSS-247 Issue 2	Complies
ISED RSS-GEN Issue 5	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.

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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, KDB 558074 D01 15.247 Meas Guidance v05r02, KDB 414788 D01 Radiated Test Site v01r01, RSS-GEN Issue 5, and RSS-247 Issue 2.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 and 47266 Benicia Street, and 47658 Kato Road, 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	47658 Kato Rd
☐ Chamber A	☐ Chamber D	☒ Chamber I
☐ Chamber B	☐ Chamber E	☒ Chamber J
☐ Chamber C	☐ Chamber F	☒ Chamber K
	☐ Chamber G	☐ Chamber L
	☐ Chamber H	☐ Chamber M

The above test sites and facilities are covered under FCC Test Firm Registration # 208313. Chambers above are covered under Industry Canada company address and respective code: 2324A.

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0

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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

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 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 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 dBuV + 0 dB +10.1 dB+ 0 dB = 46.6 dBuV

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Worst Case Conducted Disturbance, 9KHz to 0.15 MHz	3.39 dB
Worst Case Conducted Disturbance, 0.15 to 30 MHz	3.07 dB
Worst Case Radiated Disturbance, 9KHz to 30 MHz	2.52 dB
Worst Case Radiated Disturbance, 30 to 1000 MHz	4.88 dB
Worst Case Radiated Disturbance, 1000 to 18000 MHz	4.24 dB
Worst Case Radiated Disturbance, 18000 to 26000 MHz	4.37 dB
Worst Case Radiated Disturbance, 26000 to 40000 MHz	5.17 dB

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

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5. EQUIPMENT UNDER TEST

5.1. EUT DESCRIPTION

The EUT is a GSM/CDMA/WCDMA/LTE Phablet with BT/BLE, DTS/UNII a/b/g/n/ac, NFC and ANT+.
The model SM-A515U was used for final testing and is representative of the test results in this report.

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)
1Tx			
2412 - 2472	802.11b	19.27	84.53
2412 - 2472	802.11g	17.74	59.43
2412 - 2472	802.11n HT20	17.57	57.15

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an FPCB antenna, with a maximum gain of -1.1 dBi.
Note: Antenna 1 = Chain 0.

5.4. SOFTWARE

The test utility software used during testing was A515U.001.

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5.5. 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

All radios that can be transmitted simultaneously have been evaluated for radiated for all possible combinations of transmission and found to be in compliance.

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5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
AC Adapter	Samsung	EP-TA200	R37KBKL03C1DK3	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

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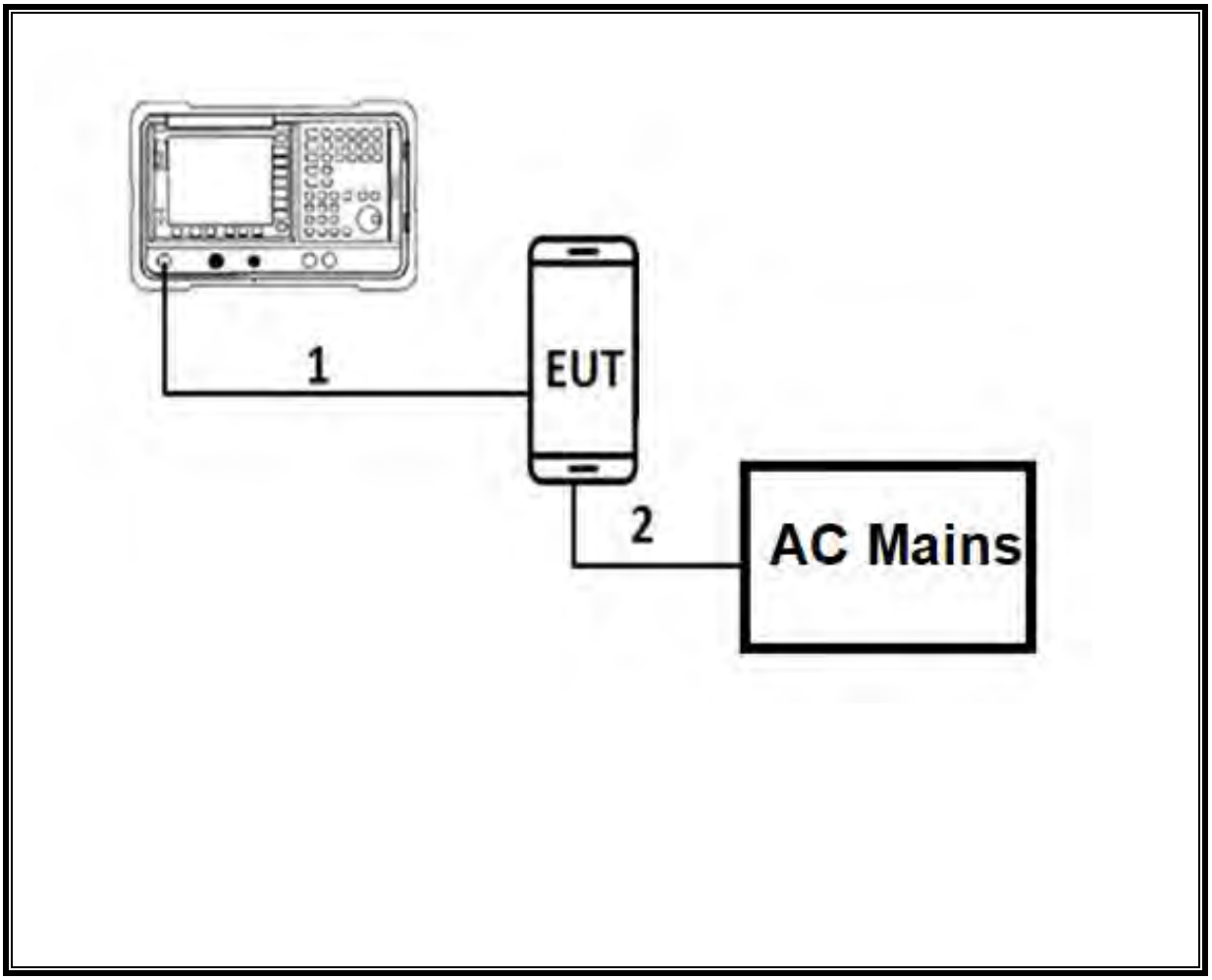
CONDUCTED TEST SETUP DIAGRAM



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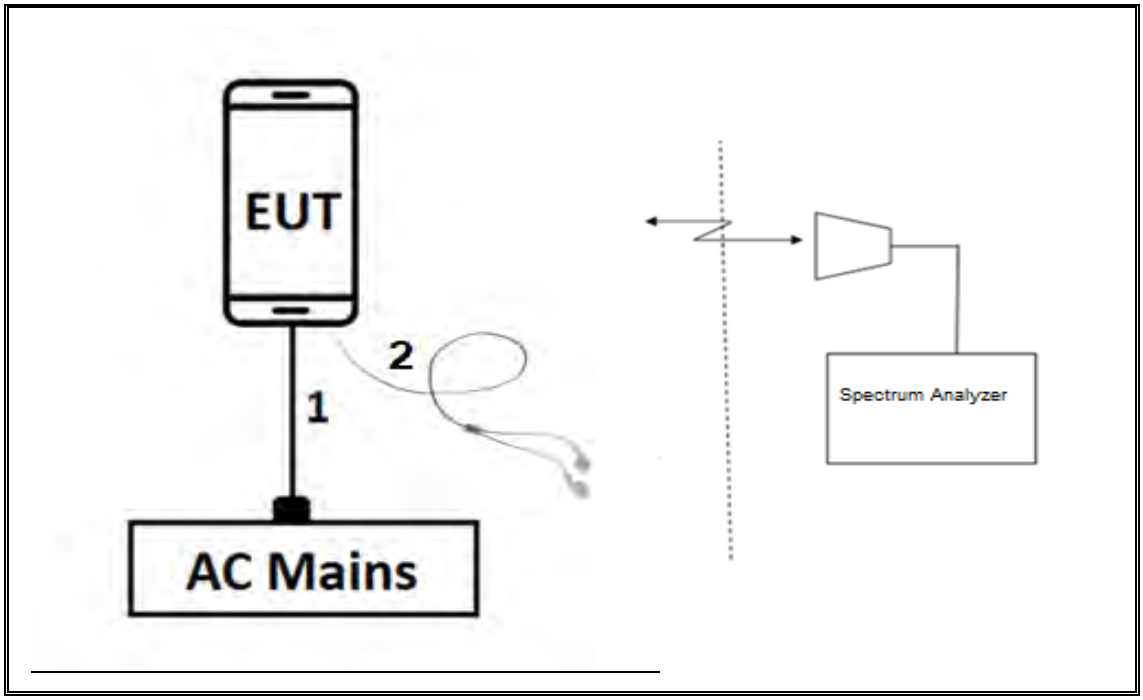
RADIATED AND AC LINE CONDUCTED EMISSIONS SETUP DIAGRAM



TEST SETUP

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

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6. MEASUREMENT METHOD

On Time and Duty Cycle: ANSI C63.10-2013 Section 11.6.

6 dB BW: ANSI C63.10-2013 Section 11.8.1. Option 1.

Output Power: ANSI C63.10-2013 Section 11.9.2.3.2 Method AVGPM-G (Measurement using a gated RF average-reading power meter).

Power Spectral Density: ANSI C63.10-2013 Section 11.10.3 Method AVGPSD-1.

Radiated emissions non-restricted frequency bands: ANSI C63.10-2013 Section 11.11.

Radiated emissions restricted frequency bands: ANSI C63.10-2013 Section 11.12.1.

Conducted emissions in restricted frequency bands: ANSI C63.10-2013 Section 11.12.2.

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

Band-edge: ANSI C63.10 Subclause -11.13.3.2 Integration method -Peak detection

Band-edge: ANSI C63.10 Subclause -11.13.3.3 Integration method -Trace averaging with continuous transmission at full power

AC Power Line Conducted Emissions: ANSI C63.10-2013, Section 6.2.

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7. 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**
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	PRE0179376	02/14/2020
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	T862	06/05/2020
RF Amplifier, 1-18GHz	MITEQ	AFS42-00101800-25-S-42	171460	08/24/2020
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	PRE0179367	05/16/2020
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	T344	05/07/2020
Amplifier, 1 to 18GHz, 35dB	AMPLICAL	AMP1G18-35	T1571	05/28/2020
Antenna, Broadband Hybrid, 30MHz to 2000MHz	Sunol Sciences Corp.	JB3	T899	08/23/2020
Amplifier, 9KHz to 1GHz, 32dB	SONOMA INSTRUMENT	310	PRE0180174	06/01/2020
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	PRE0179372	02/16/2020
Antenna	ETS-Lindgren	3117	EMC4294	06/14/2020
Amplifier, 1 to 18GHz, 35dB	AMPLICAL	AMP1G18-35	T1569	06/04/2020
Antenna Horn, 18 to 26.5GHz	ARA	MWH-1826/B	T447	08/13/2020
Pre-Amp 1-26.5 GHz	AMPLICAL	AMP18G26.5-60	PRE0181238	05/01/2020
Power Meter, P-series single channel	Agilent (Keysight) Technologies	N1911A	T229	01/31/2020
Power Sensor, P-series, 50MHz to 18GHz, Wideband	Agilent (Keysight) Technologies	N1921A	T413	02/22/2020
Filter, HPF 3.0GHz	MICRO-TRONICS	HPM17543	T897	06/04/2020
Antenna, Passive Loop 30Hz - 1MHz	ELECTRO METRICS	EM-6871	PRE0179465	05/31/2020
Antenna, Passive Loop 100KHz - 30MHz	ELECTRO METRICS	EM-6872	PRE0179467	05/31/2020
AC Line Conducted				
EMI Receiver	Rohde & Schwarz	ESR	T1436	02/14/2020
LISN for Conducted Emissions CISPR-16	FCC INC.	FCC LISN 50/250	T1310	01/24/2020
UL AUTOMATION SOFTWARE				
Radiated Software	UL	UL EMC	Ver 9.5, Sep 24, 2019	
Antenna Port Software	UL	UL RF	Ver 2020.1.8	
AC Line Conducted Software	UL	UL EMC	Ver 9.5, May 26, 2015	

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8. ANTENNA PORT TEST RESULTS

8.1. 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	8.624	8.734	0.987	98.74%	0.00	0.010
802.11g 1TX	1.420	1.547	0.918	91.76%	0.37	0.704
802.11n HT20 1TX	1.328	1.456	0.912	91.24%	0.40	0.753

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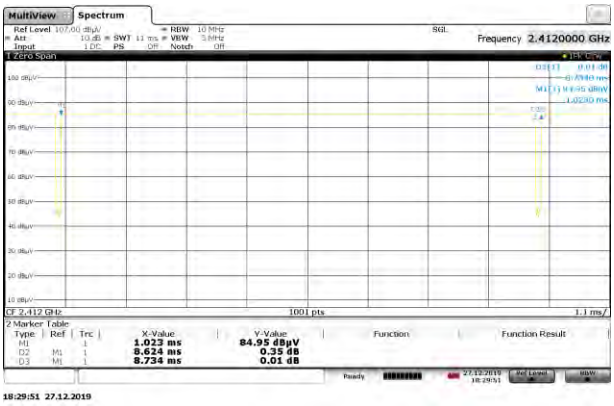
DUTY CYCLE PLOTS



DUTY CYCLE 802.11b MODE

DUTY CYCLE 802.11g MODE

DUTY CYCLE 802.11n HT20

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8.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

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8.2.1. 802.11b MODE

1TX Antenna 1 MODE

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low 1	2412	15.8749
Mid 6	2437	15.8984
High 11	2462	15.7040
High 12	2467	15.8326
High 13	2472	15.5243

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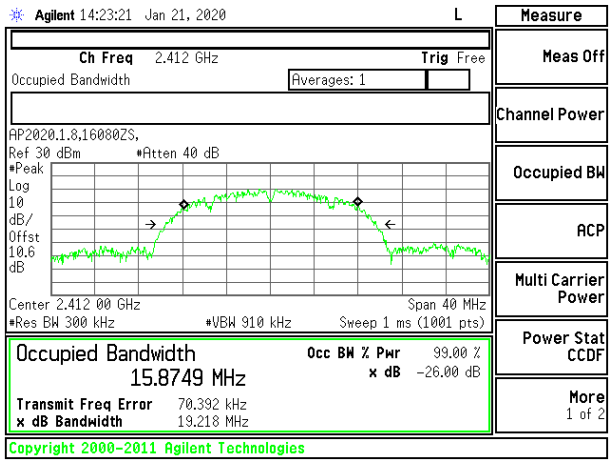
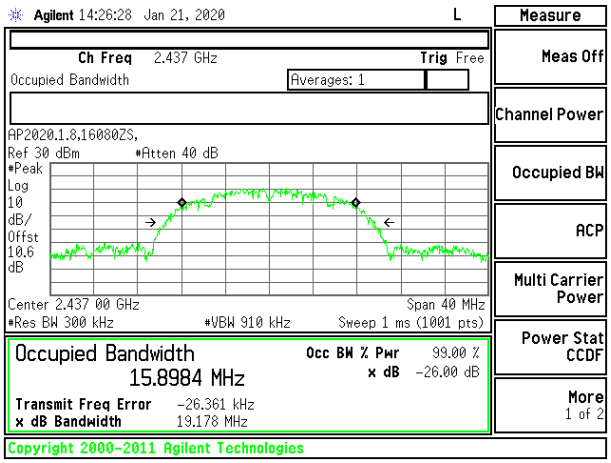
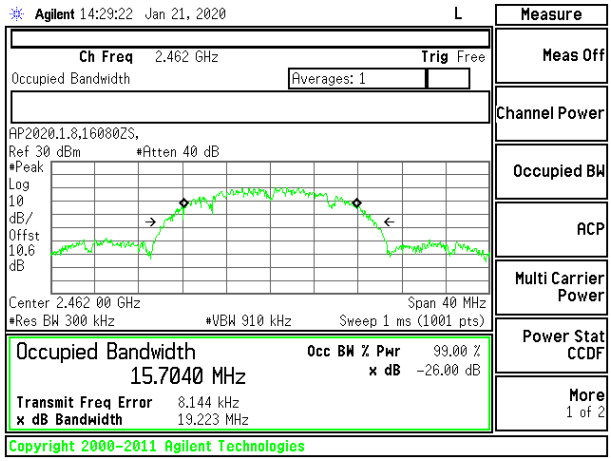


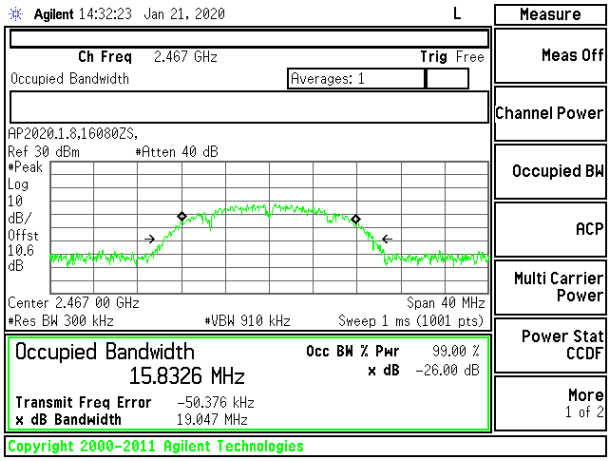
LOW CHANNEL 1



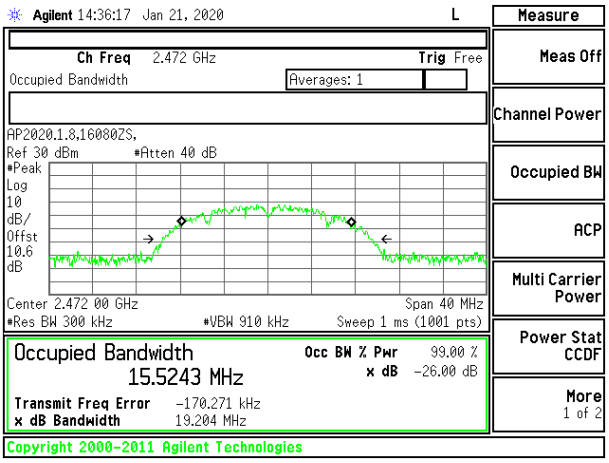
MID CHANNEL 6



HIGH CHANNEL 11



HIGH CHANNEL 12



HIGH CHANNEL 13

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8.2.2. 802.11g MODE

1TX Antenna 1 MODE

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low 1	2412	16.4782
Mid 6	2437	16.3748
High 11	2462	16.3669
High 12	2467	16.3573
High 13	2472	16.3999

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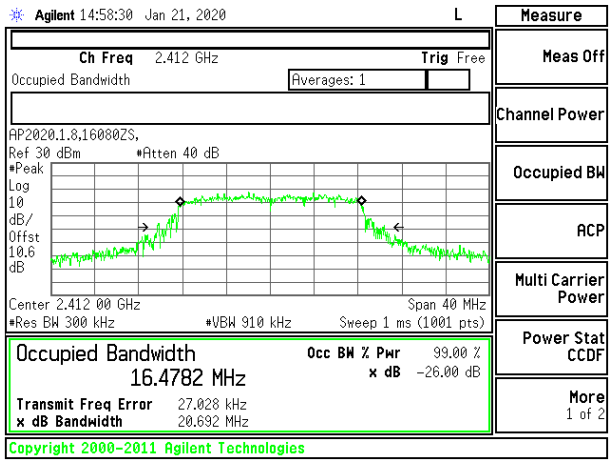
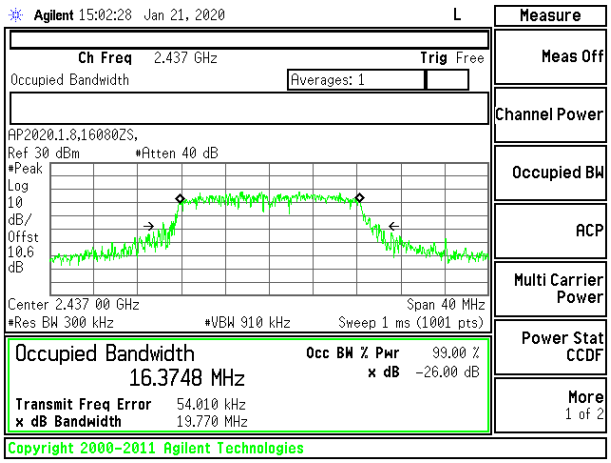
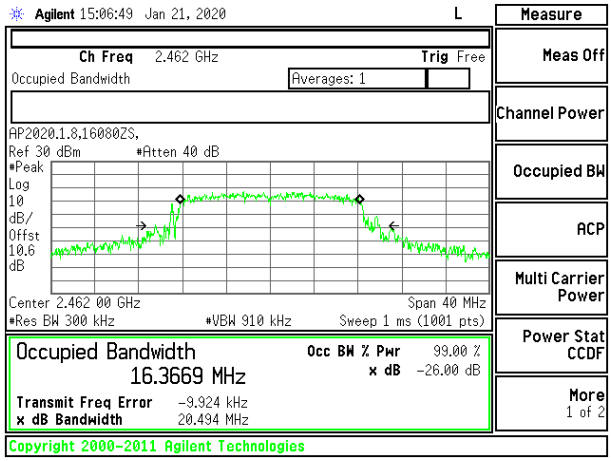


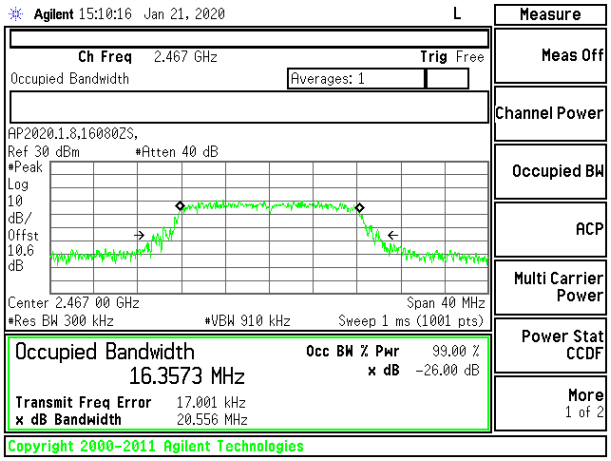
LOW CHANNEL 1



MID CHANNEL 6



HIGH CHANNEL 11



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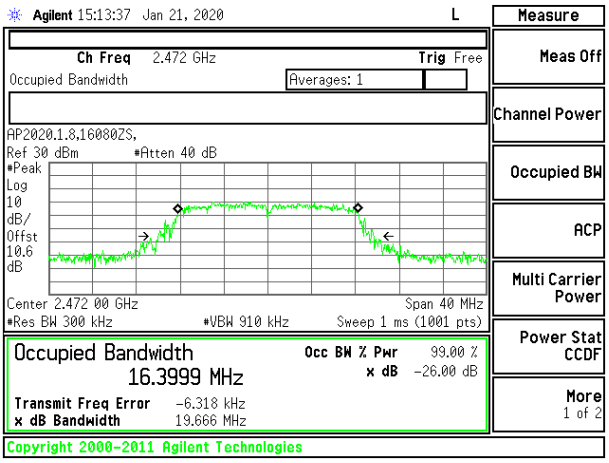

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8.2.3. 802.11n HT20 MODE

1TX Antenna 1 MODE

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low 1	2412	17.6077
Mid 6	2437	17.6027
High 11	2462	17.5175
High 12	2467	17.5896
High 13	2472	17.5075

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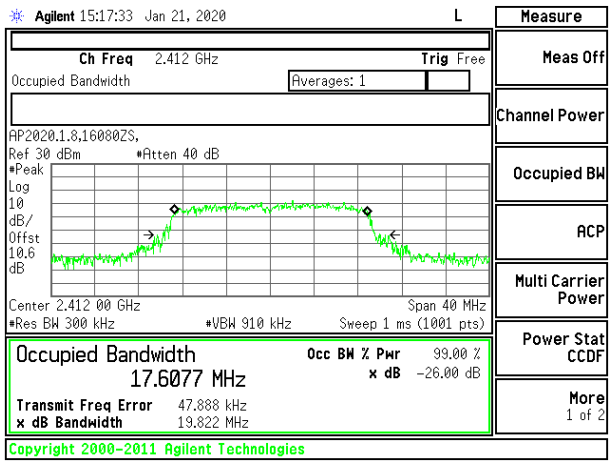

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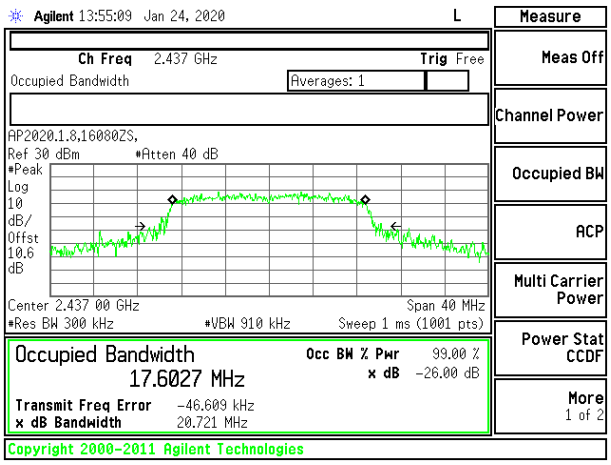
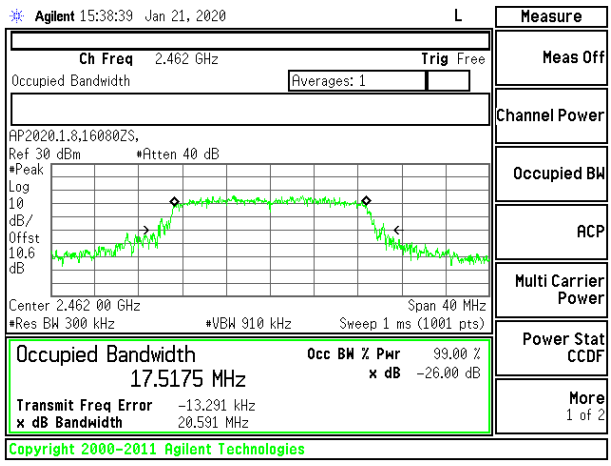


MID CHANNEL 6



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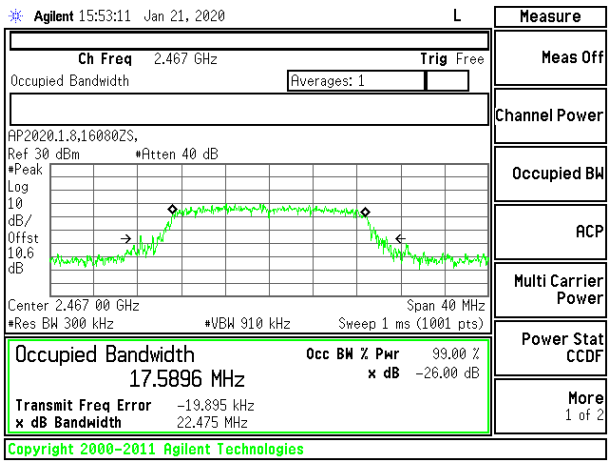

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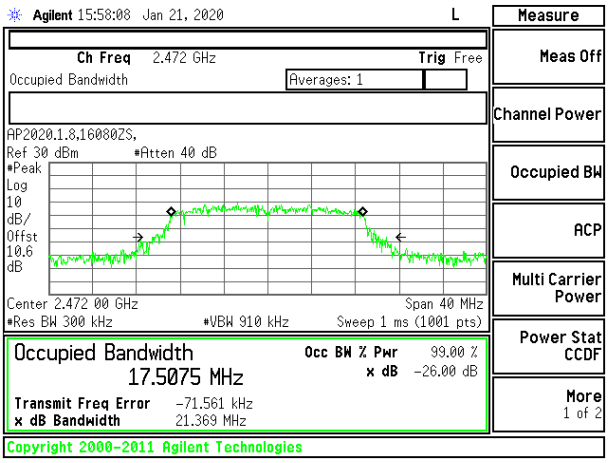

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8.3. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

RSS-247 5.2 (a)

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

RESULTS

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8.3.1. 802.11b MODE

1TX Antenna 1 MODE

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low 1	2412	9.24	0.5
Mid 6	2437	9.96	0.5
High 11	2462	9.84	0.5
High 12	2467	9.88	0.5
High 13	2472	9.84	0.5

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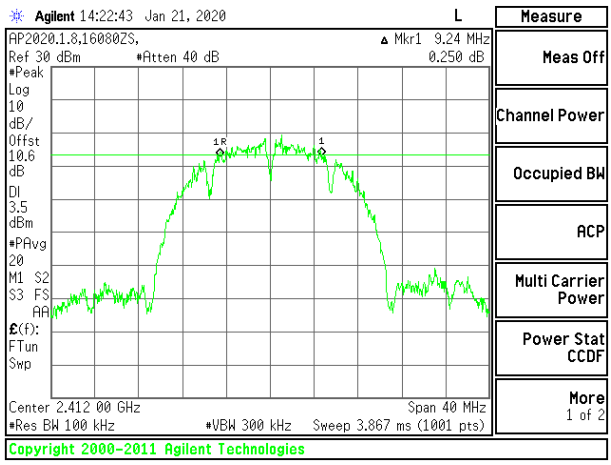

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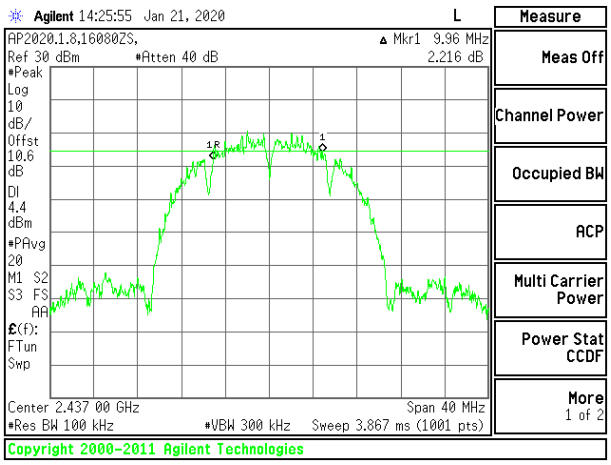
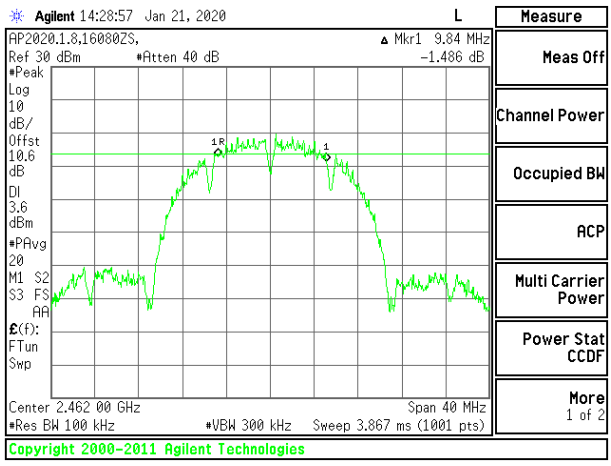


MID CHANNEL 6



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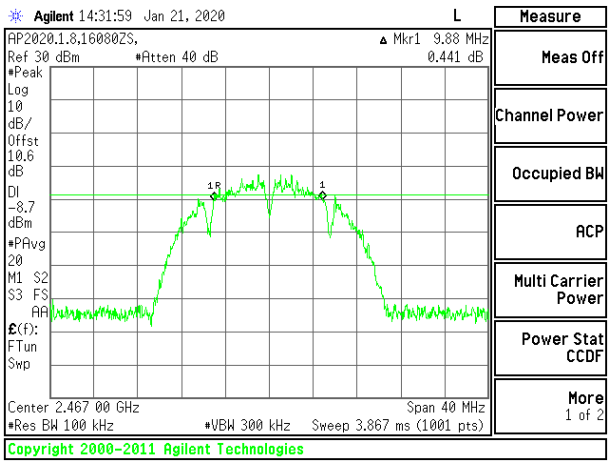
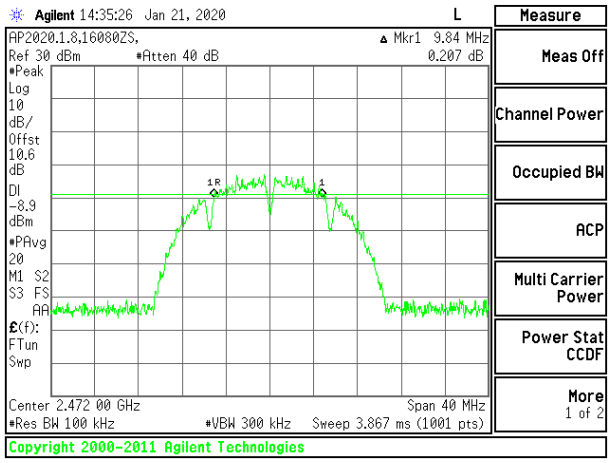


HIGH CHANNEL 12



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8.3.2. 802.11g MODE

1TX Antenna 1 MODE

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low 1	2412	16.3600	0.5
Mid 6	2437	16.4000	0.5
High 11	2462	15.4800	0.5
High 12	2467	15.2800	0.5
High 13	2472	16.2800	0.5

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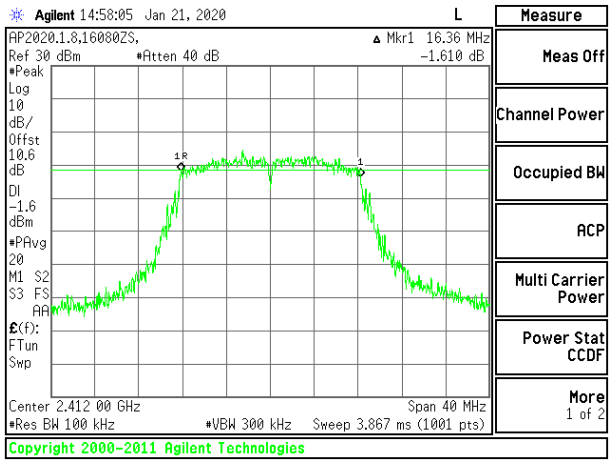
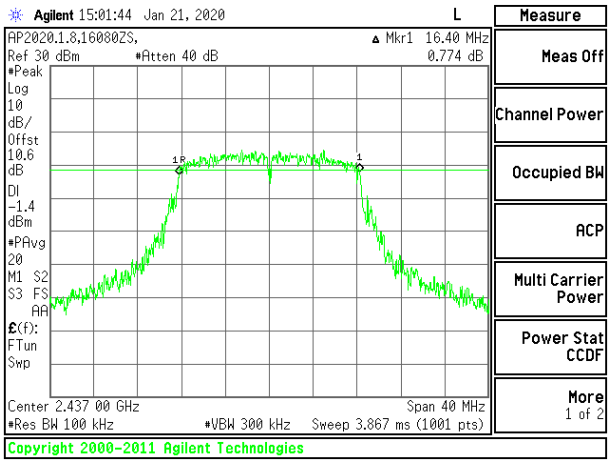
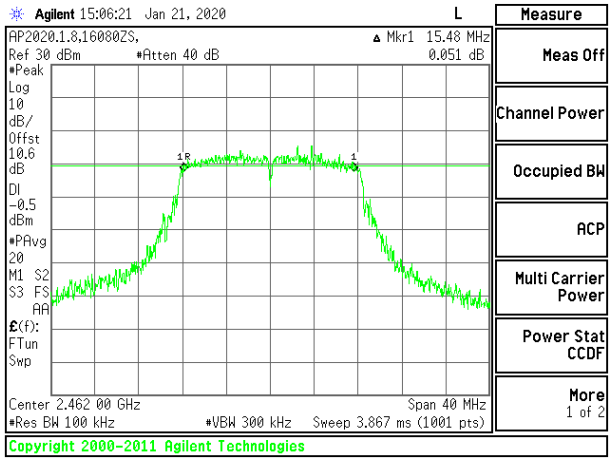


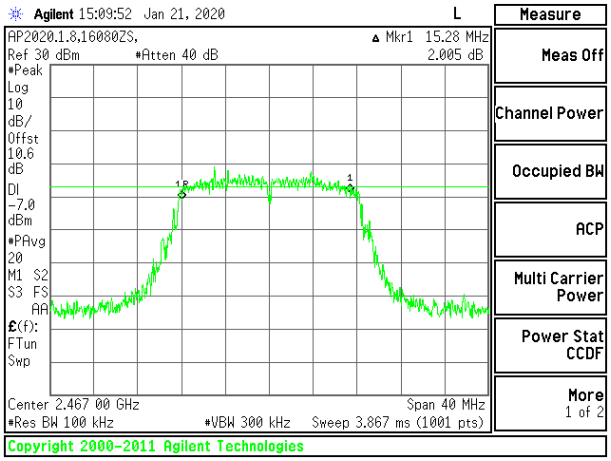
LOW CHANNEL 1



MID CHANNEL 6



HIGH CHANNEL 11



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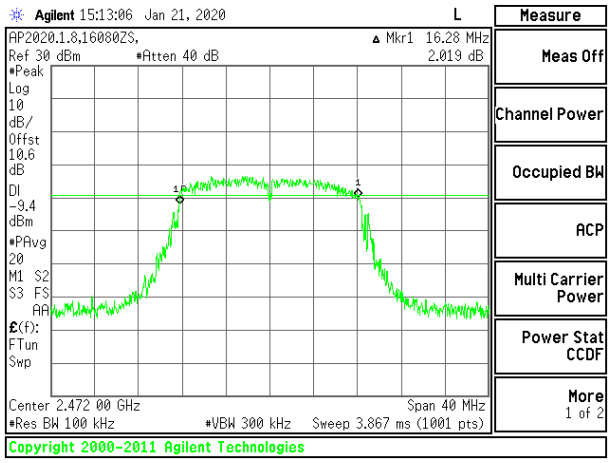

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8.3.3. 802.11n HT20 MODE

1TX Antenna 1 MODE

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low 1	2412	17.4000	0.5
Mid 6	2437	17.0800	0.5
High 11	2462	17.6800	0.5
High 12	2467	17.4400	0.5
High 13	2472	16.6400	0.5

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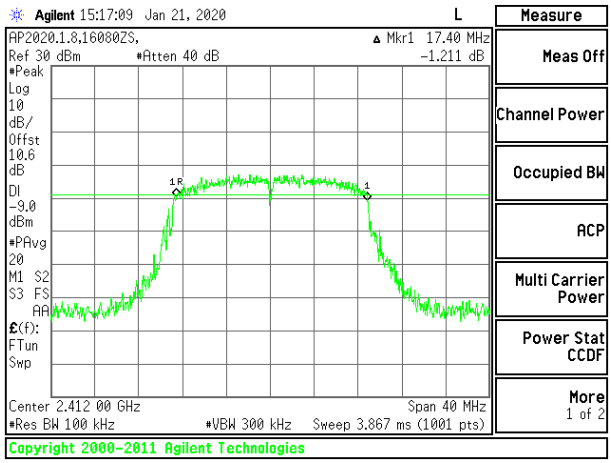
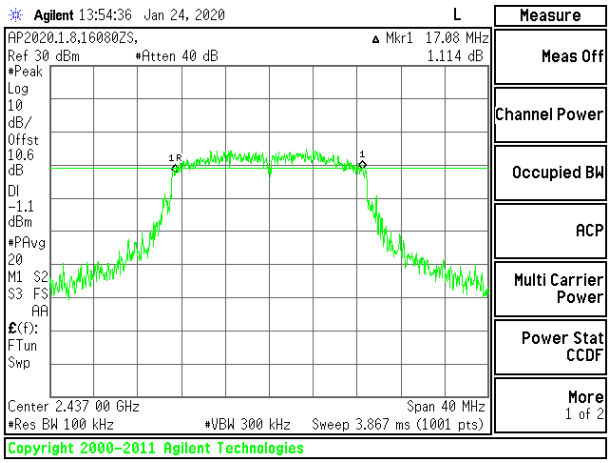


LOW CHANNEL 1



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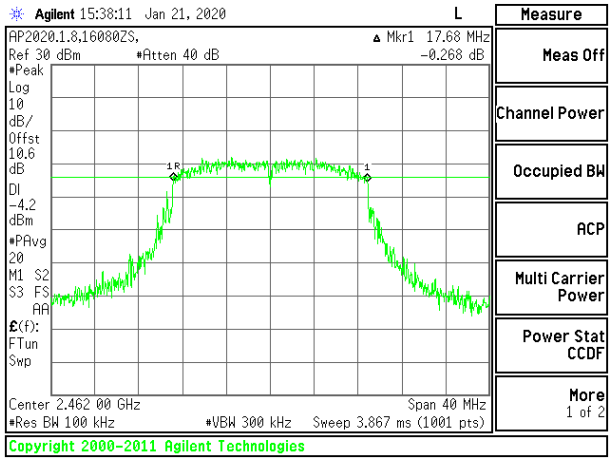
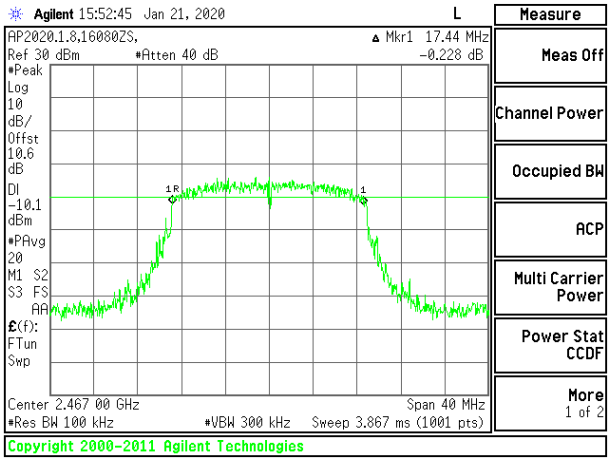


HIGH CHANNEL 11



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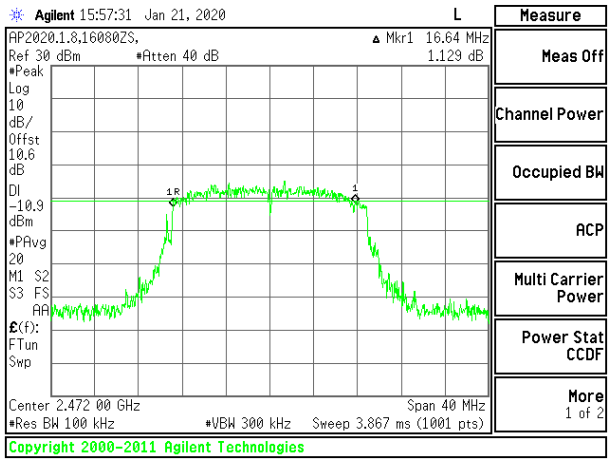

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8.4. OUTPUT POWER

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.

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RESULTS

Tested By:	19497 AF
Date:	1/23/2020

8.4.1. 802.11b MODE

1TX Chain 0 MODE

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	-1.10	30.00	30	36	30.00
Mid 6	2437	-1.10	30.00	30	36	30.00
High 11	2462	-1.10	30.00	30	36	30.00
High 12	2467	-1.10	30.00	30	36	30.00
High 13	2472	-1.10	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	18.54	18.54	30.00	-11.46
Mid 6	2437	19.27	19.27	30.00	-10.73
High 11	2462	19.05	19.05	30.00	-10.95
High 12	2467	7.21	7.21	30.00	-22.79
High 13	2472	6.85	6.85	30.00	-23.15

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8.4.2. 802.11g MODE

1TX Chain 0 MODE

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC/ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	-1.10	30.00	36	30.00
Mid 6	2437	-1.10	30.00	36	30.00
High 11	2462	-1.10	30.00	36	30.00
High 12	2467	-1.10	30.00	36	30.00
High 13	2472	-1.10	30.00	36	30.00

Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	17.31	17.31	30.00	-12.69
Mid 6	2437	17.74	17.74	30.00	-12.26
High 11	2462	17.36	17.36	30.00	-12.64
High 12	2467	9.54	9.54	30.00	-20.46
High 13	2472	5.72	5.72	30.00	-24.28

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8.4.3. 802.11n HT20 MODE

1TX Chain 0 MODE

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC/ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	-1.10	30.00	36	30.00
Mid 6	2437	-1.10	30.00	36	30.00
High 11	2462	-1.10	30.00	36	30.00
High 12	2467	-1.10	30.00	36	30.00
High 13	2472	-1.10	30.00	36	30.00

Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	16.91	16.91	30.00	-13.09
Mid 6	2437	17.57	17.57	30.00	-12.43
High 11	2462	17.53	17.53	30.00	-12.47
High 12	2467	9.21	9.21	30.00	-20.79
High 13	2472	6.26	6.26	30.00	-23.74

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8.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

RSS-247 (5.2) (b)

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

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8.5.1. 802.11b MODE

1TX Antenna 1 MODE

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

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low 1	2412	-3.99	-3.99	8.0	-12.0
Mid 6	2437	-3.35	-3.35	8.0	-11.4
High 11	2462	-3.47	-3.47	8.0	-11.5
High 12	2467	-15.59	-15.59	8.0	-23.6
High 13	2472	-15.74	-15.74	8.0	-23.7

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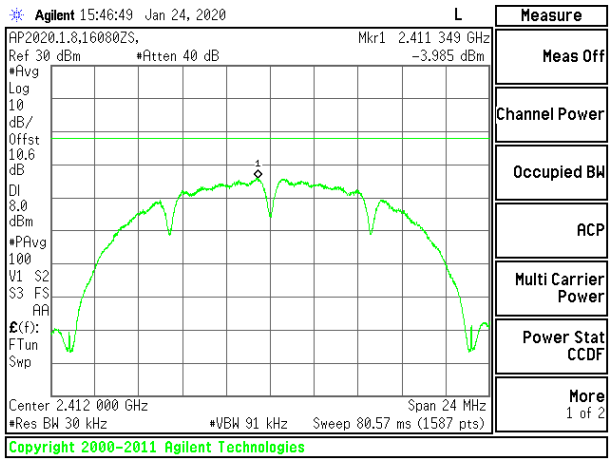
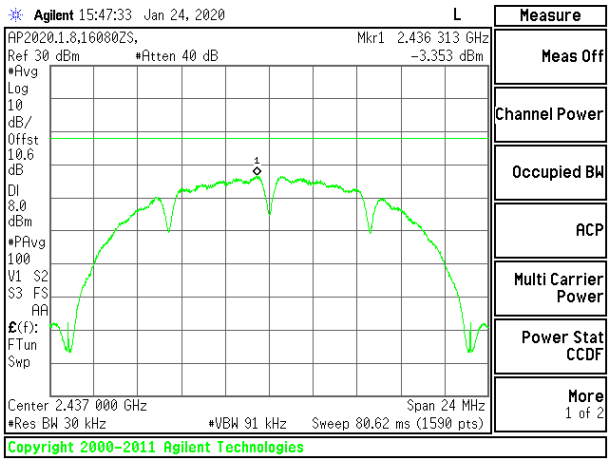
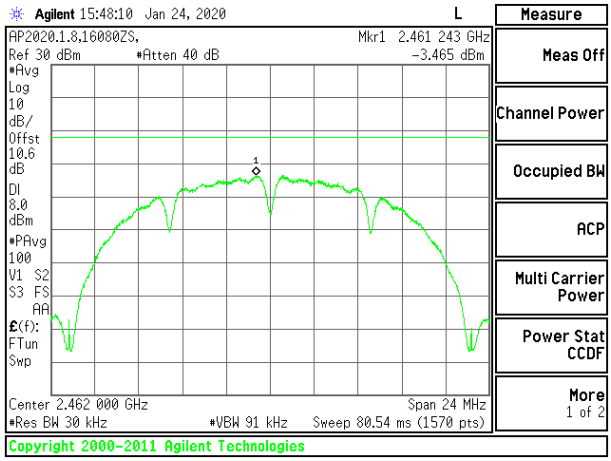


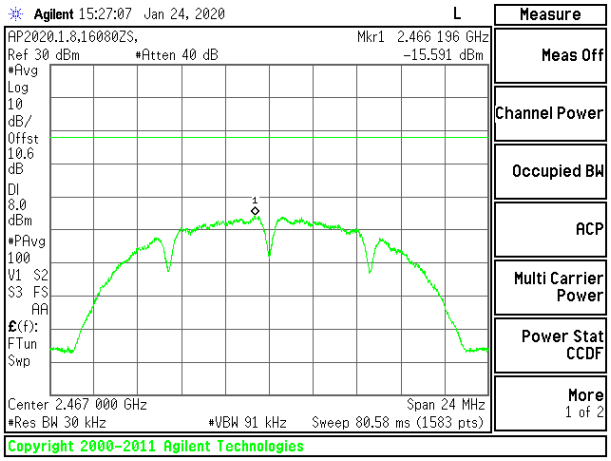
LOW CHANNEL 1



MID CHANNEL 6



HIGH CHANNEL 11



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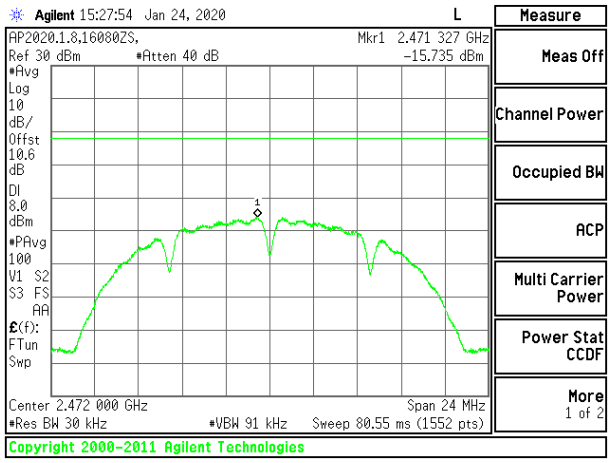

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8.5.2. 802.11g MODE

1TX Antenna 1 MODE

Duty Cycle CF (dB)	0.37	Included in Calculations of Corr'd PSD

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low 1	2412	-6.86	-6.49	8.0	-14.5
Mid 6	2437	-6.41	-6.04	8.0	-14.0
High 11	2462	-6.89	-6.52	8.0	-14.5
High 12	2467	-15.28	-14.91	8.0	-22.9
High 13	2472	-15.86	-15.49	8.0	-23.5

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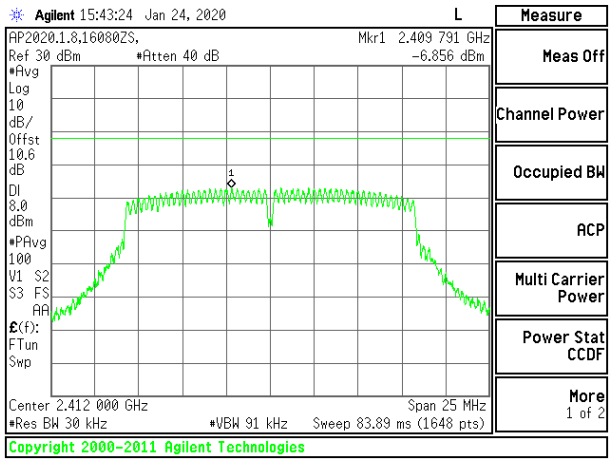
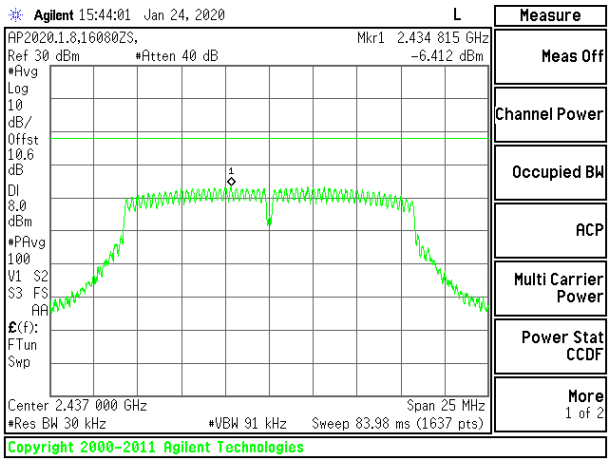
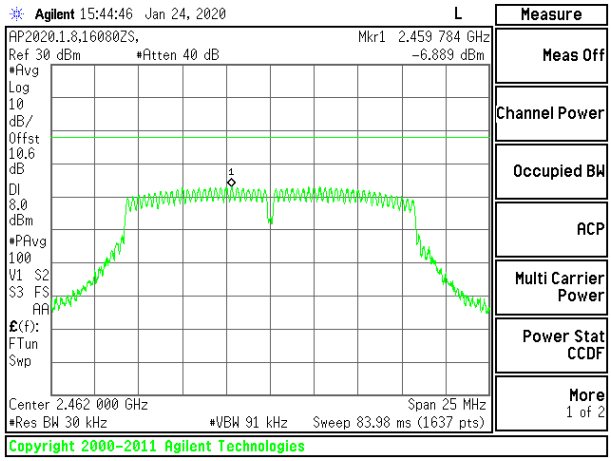


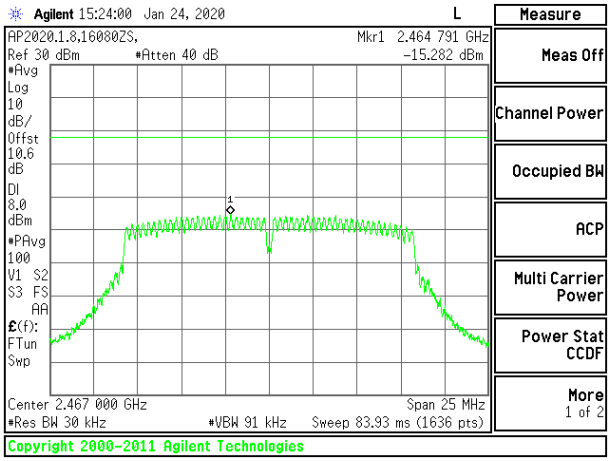
LOW CHANNEL 1



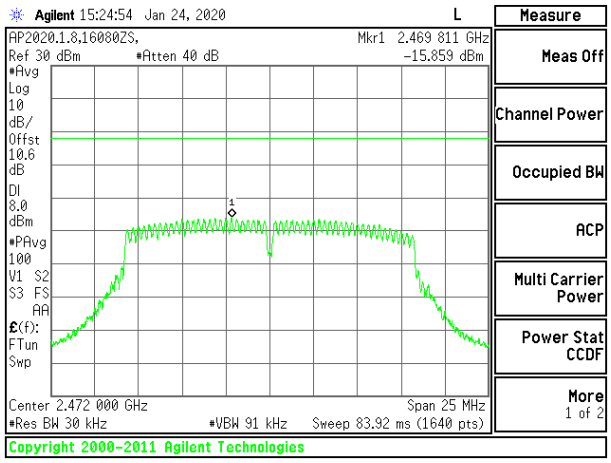
MID CHANNEL 6



HIGH CHANNEL 11



HIGH CHANNEL 12



HIGH CHANNEL 13

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8.5.3. 802.11n HT20 MODE

1TX Antenna 1 MODE

Duty Cycle CF (dB)	0.40	Included in Calculations of Corr'd PSD

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm/ 3kHz)	Total Corr'd PSD (dBm/ 3kHz)	Limit (dBm/ 3kHz)	Margin (dB)
Low 1	2412	-6.91	-6.51	8.0	-14.5
Mid 6	2437	-6.48	-6.08	8.0	-14.1
High 11	2462	-6.95	-6.55	8.0	-14.5
High 12	2467	-15.72	-15.32	8.0	-23.3
High 13	2472	-17.95	-17.55	8.0	-25.5

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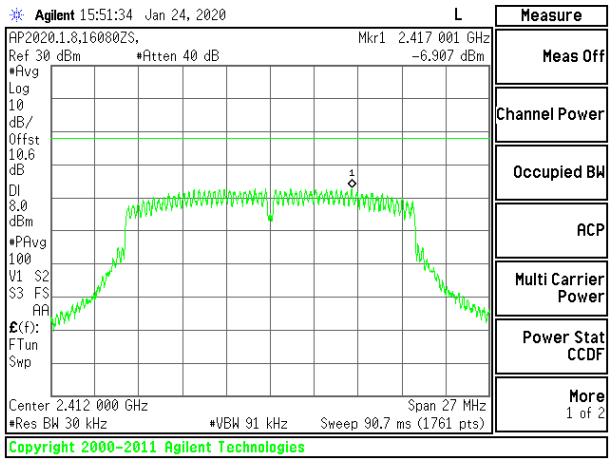
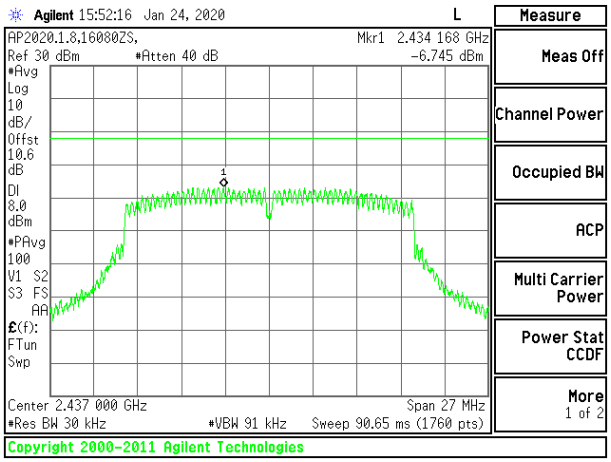
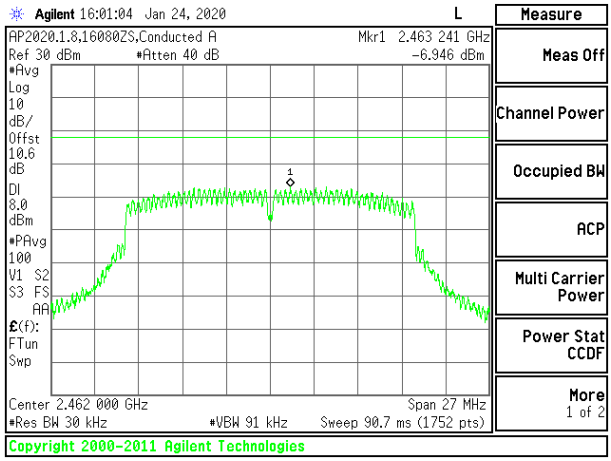


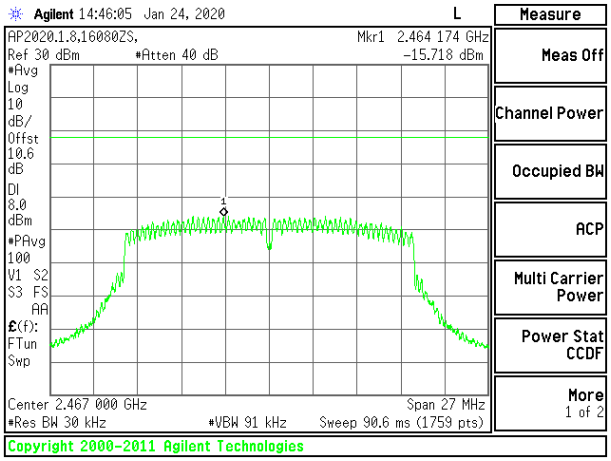
LOW CHANNEL 1



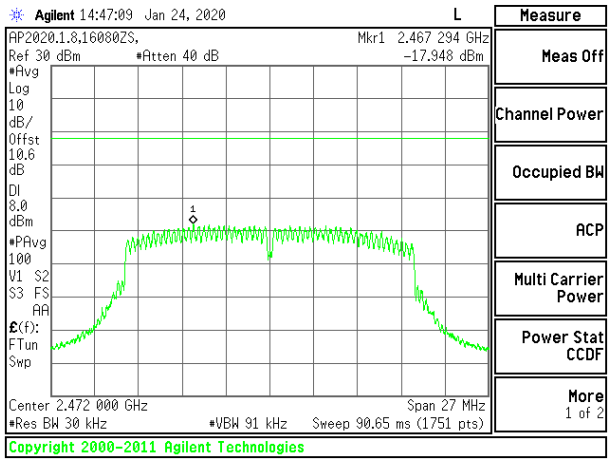
MID CHANNEL 6



HIGH CHANNEL 11



HIGH CHANNEL 12



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8.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

RSS-247 5.5
s
Output power was measured based on the use of peak measurement, therefore the required attenuation is 30 dB.

RESULTS

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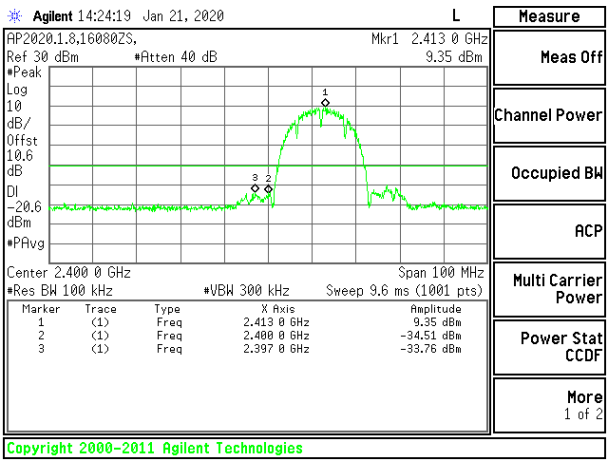
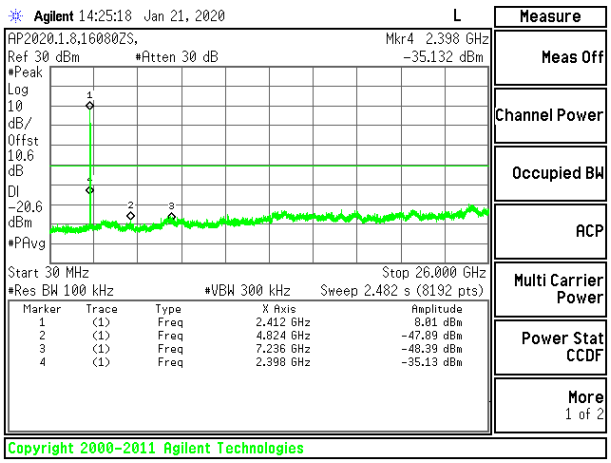
8.6.1. 802.11b MODE

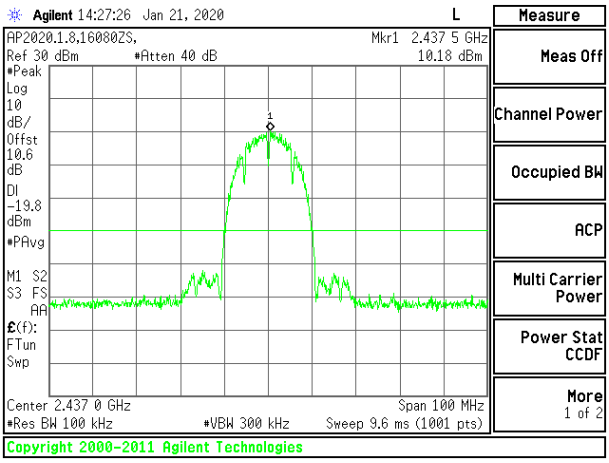
1TX Antenna 1 MODE



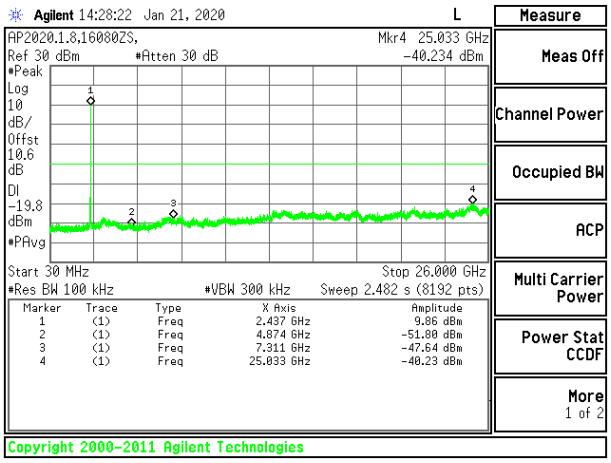
LOW CHANNEL 1 BANDEDGE



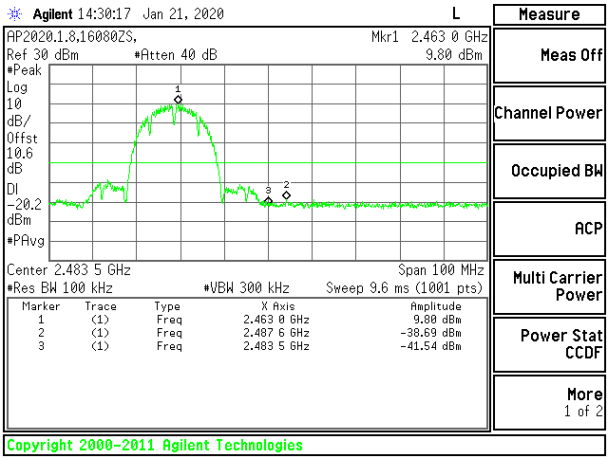
OUT-OF-BAND LOW CHANNEL 1



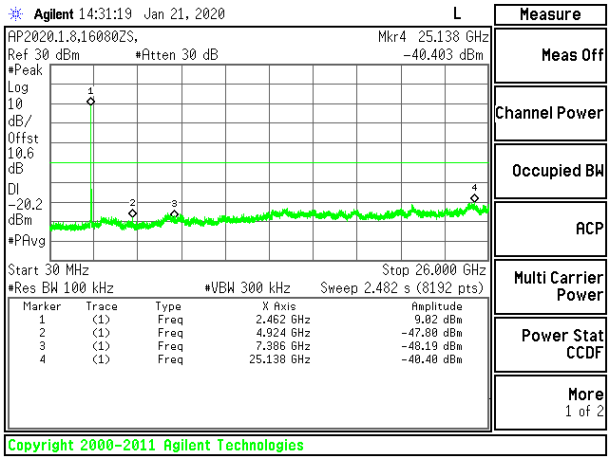
IN-BAND REFERNCE LEVEL



OUT-OF-BAND MID CHANNEL



HIGH CHANNEL 11 BANDEDGE



OUT-OF-BAND HIGH CHANNEL 11

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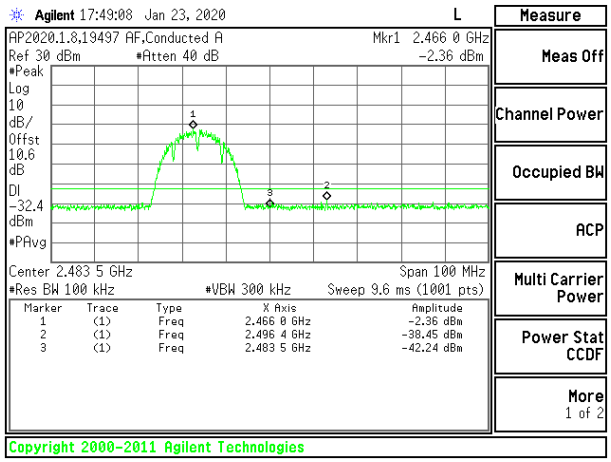
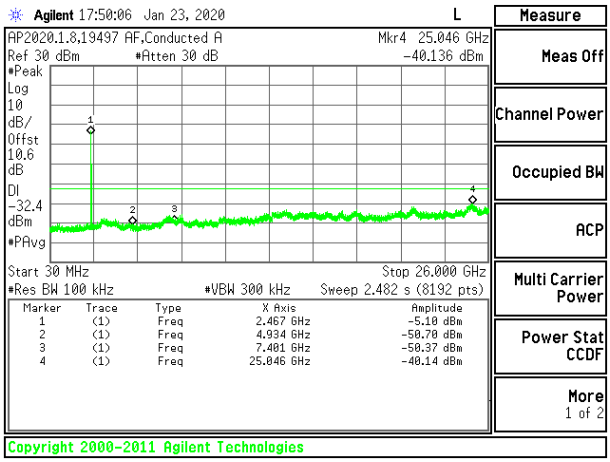
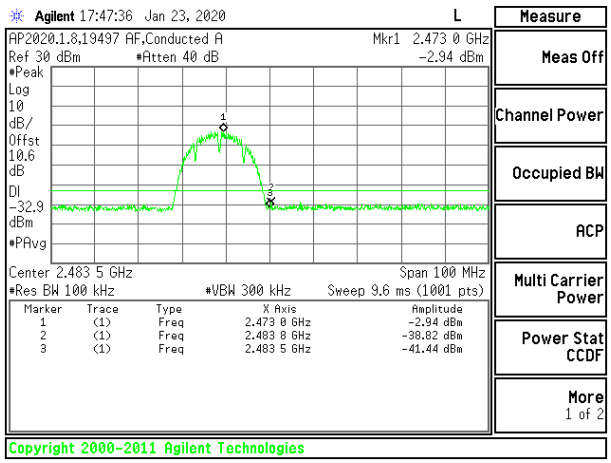


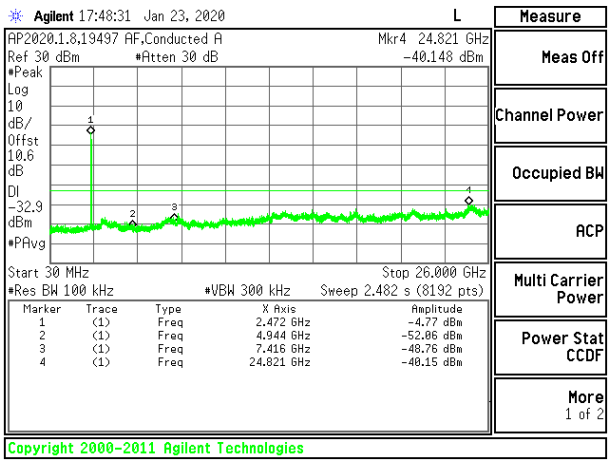
HIGH CHANNEL 12 BANDEDGE



OUT-OF-BAND HIGH CHANNEL 12



HIGH CHANNEL 13 BANDEDGE



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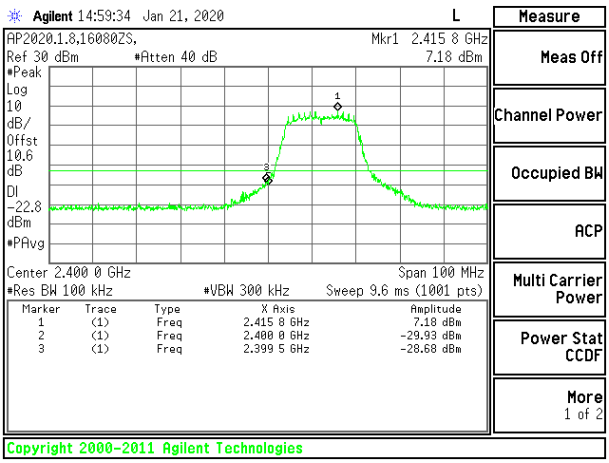
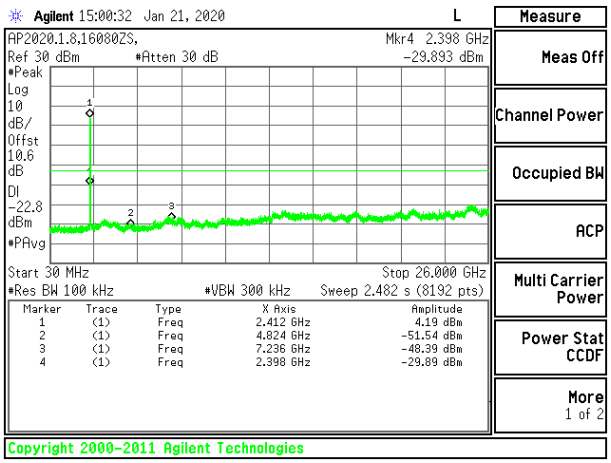
8.6.2. 802.11g MODE

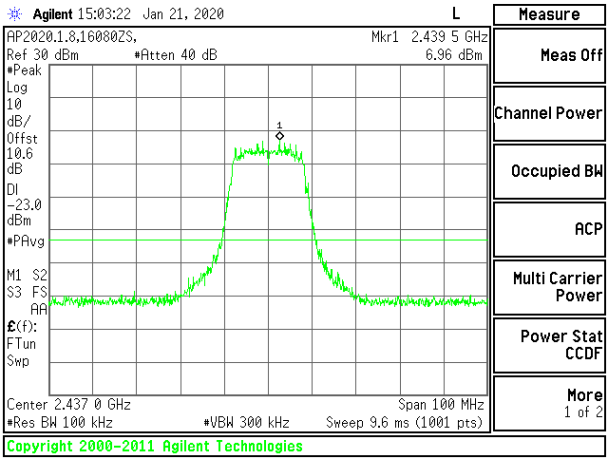
1TX Antenna 1 MODE



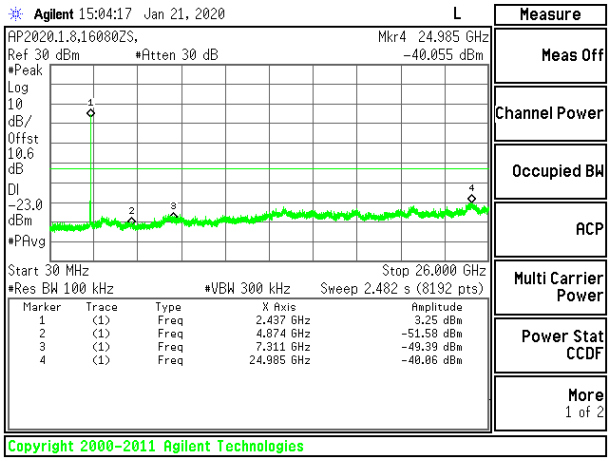
LOW CHANNEL 1 BANDEDGE



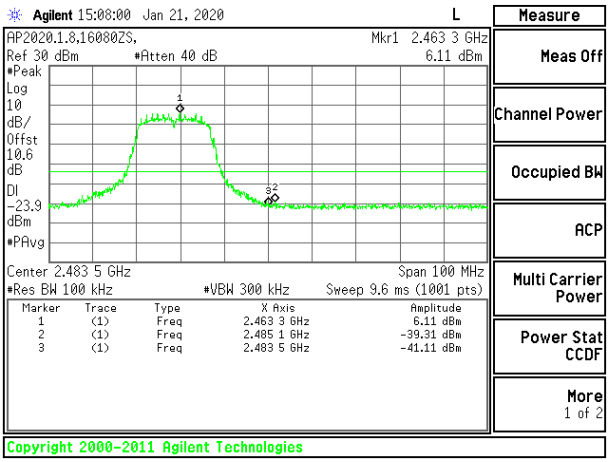
OUT-OF-BAND LOW CHANNEL 1



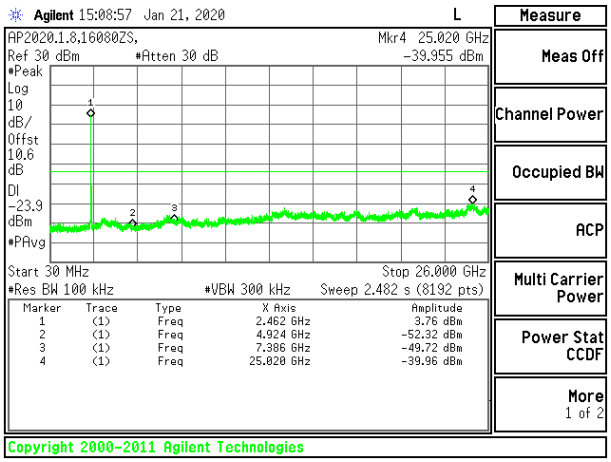
IN-BAND REFERNCE LEVEL



OUT-OF-BAND MID CHANNEL



HIGH CHANNEL 11 BANDEDGE



OUT-OF-BAND HIGH CHANNEL 11

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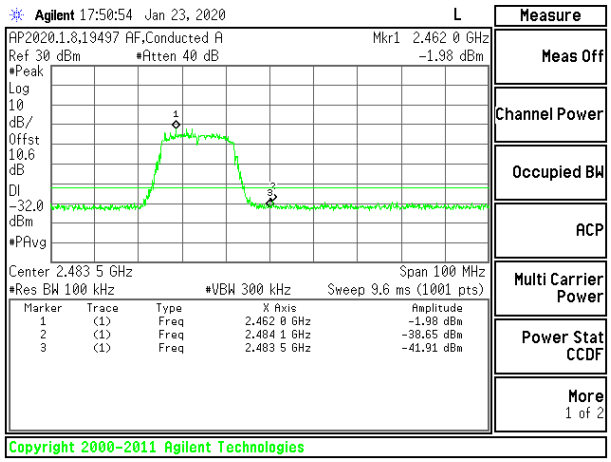
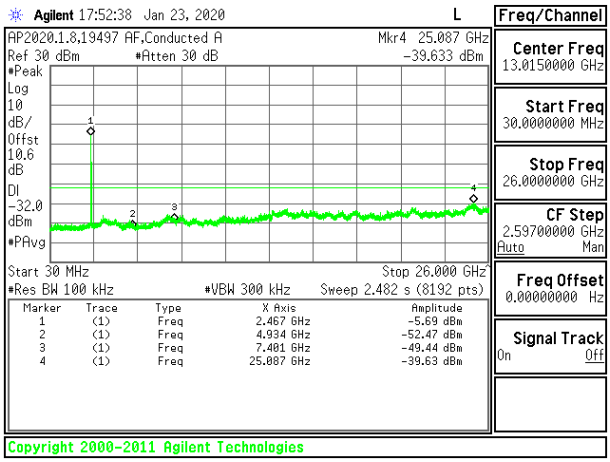
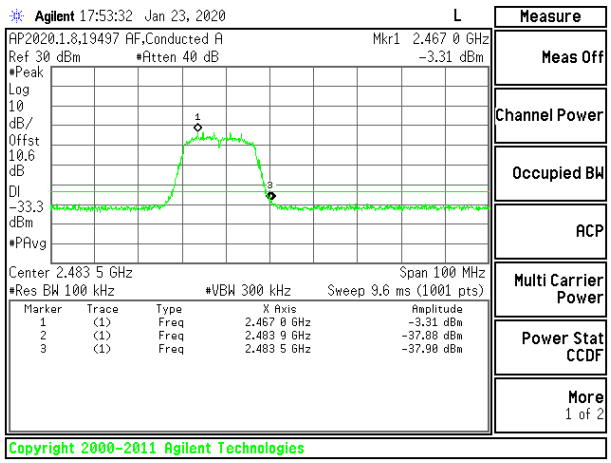


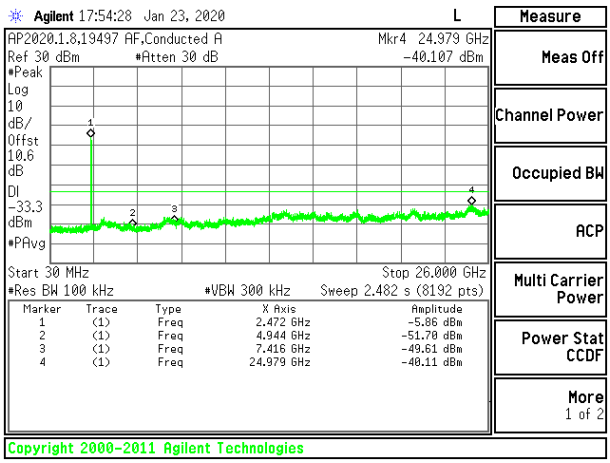
HIGH CHANNEL 12 BANDEDGE



OUT-OF-BAND HIGH CHANNEL 12



HIGH CHANNEL 13 BANDEDGE



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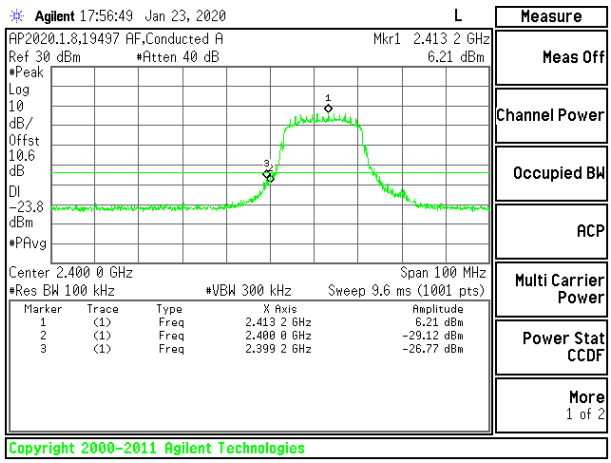
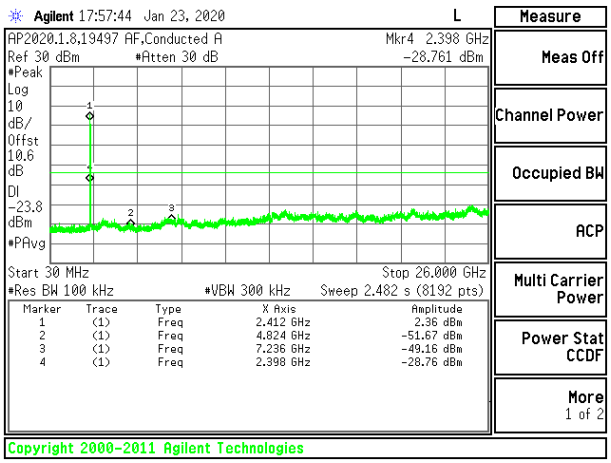
8.6.3. 802.11n HT20 MODE

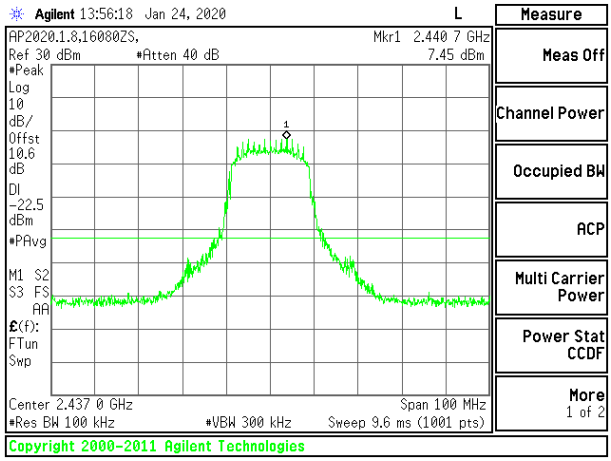
1TX Antenna 1 MODE



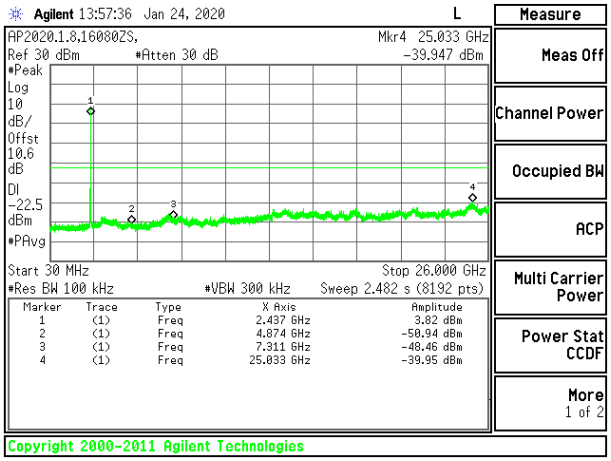
LOW CHANNEL 1 BANDEDGE



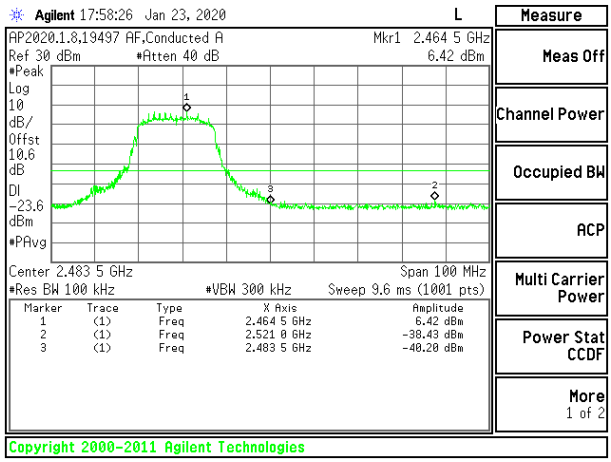
OUT-OF-BAND LOW CHANNEL 1



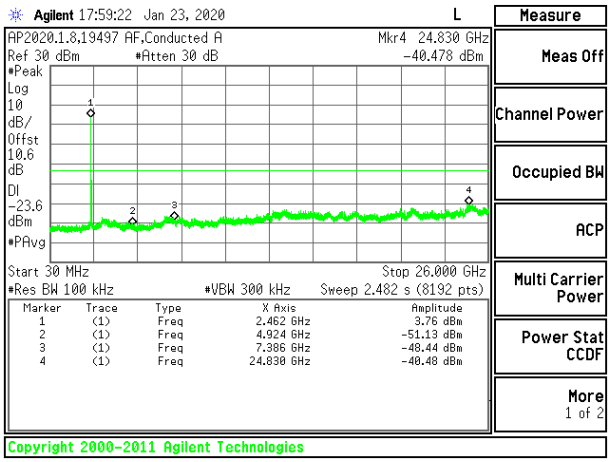
IN-BAND REFERNCE LEVEL



OUT-OF-BAND MID CHANNEL



HIGH CHANNEL 11 BANDEDGE



OUT-OF-BAND HIGH CHANNEL 11

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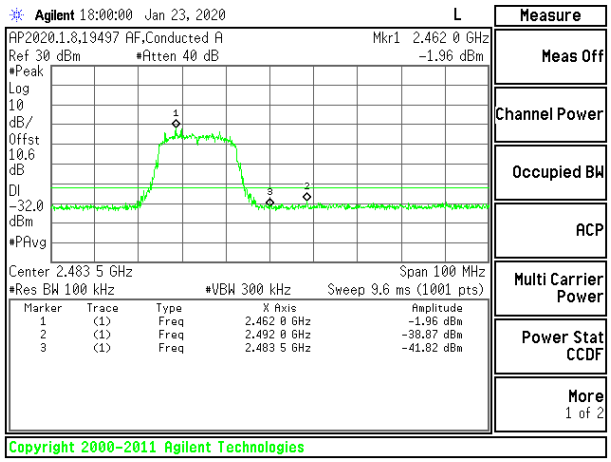
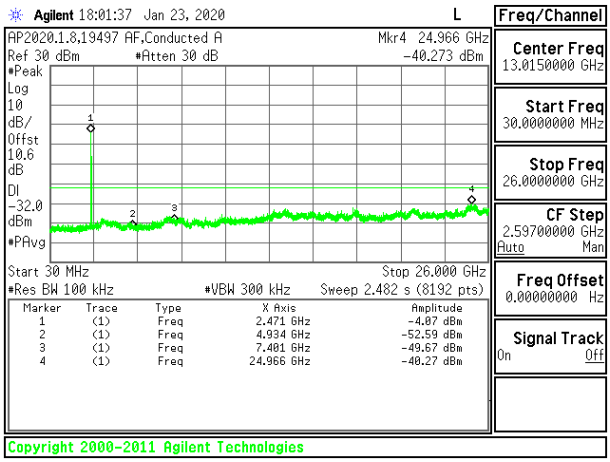
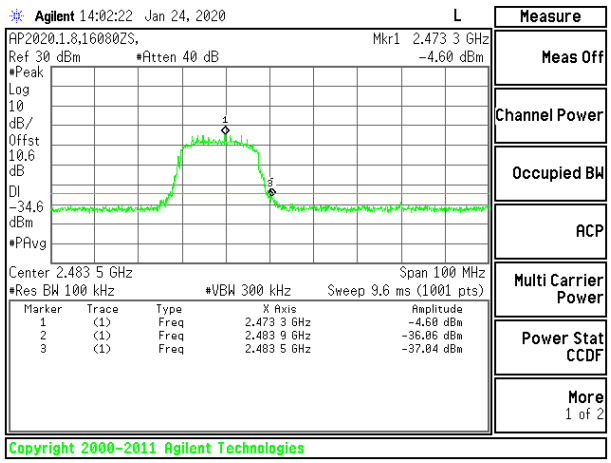


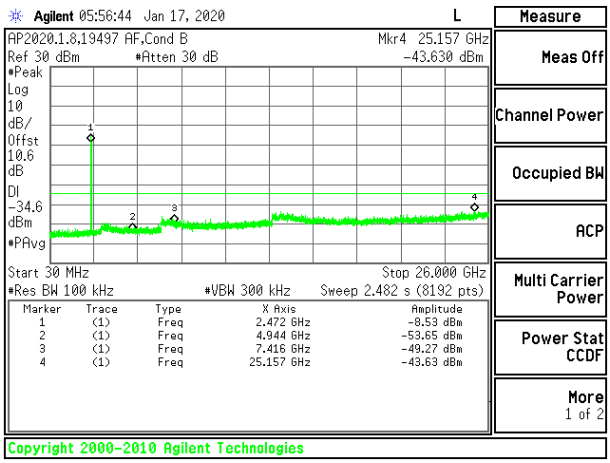
HIGH CHANNEL 12 BANDEDGE



OUT-OF-BAND HIGH CHANNEL 12



HIGH CHANNEL 13 BANDEDGE



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9. RADIATED TEST RESULTS

LIMITS

FCC §15.205 and §15.209

RSS-GEN, Section 8.9 and 8.10

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.

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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.

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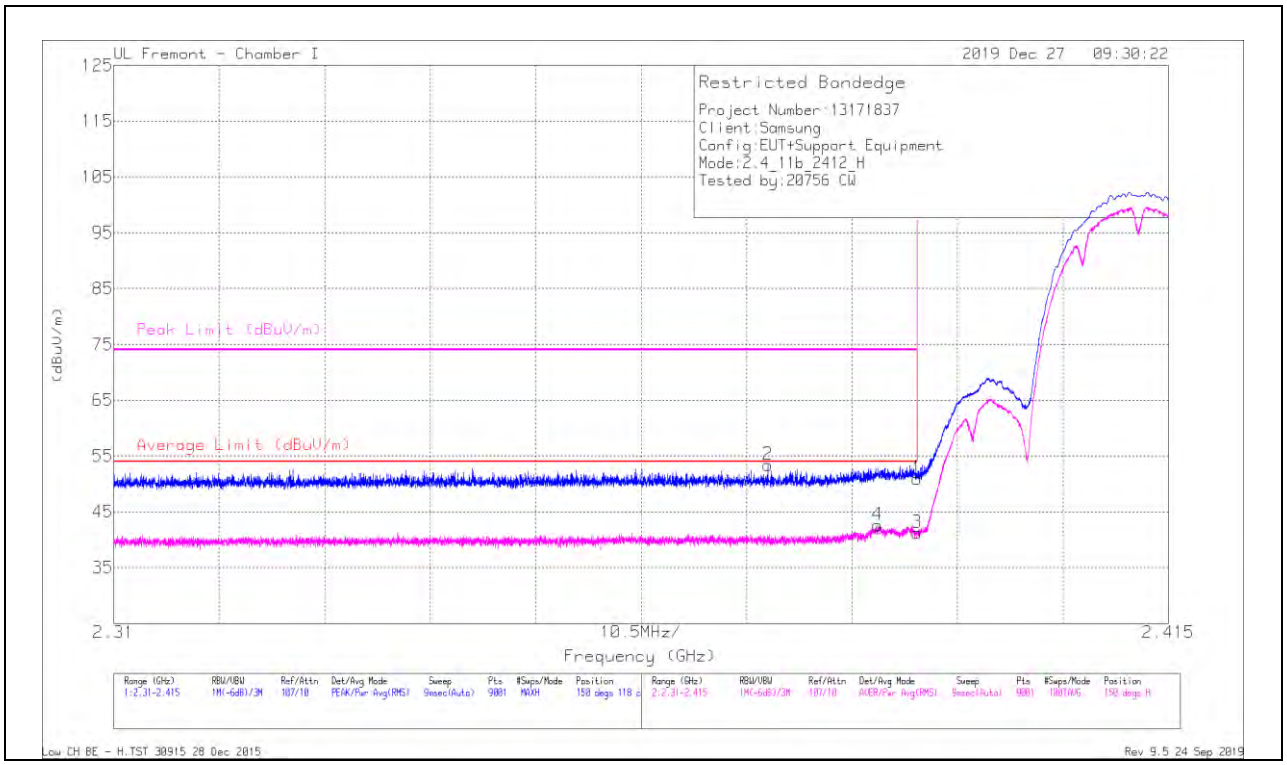
9.1. TRANSMITTER ABOVE 1 GHz

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

1TX Antenna 1 MODE

BANDEDGE (LOW CHANNEL, CH 1)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/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	2.38999	38.77	Pk	31.9	-19.7	50.97	-	-	74	-23.03	150	118	H
2	2.37511	41.05	Pk	31.9	-19.6	53.35	-	-	74	-20.65	150	118	H
3	2.38999	29.03	RMS	31.9	-19.7	41.23	54	-12.77	-	-	150	118	H
4	2.38603	30.3	RMS	31.9	-19.6	42.6	54	-11.4	-	-	150	118	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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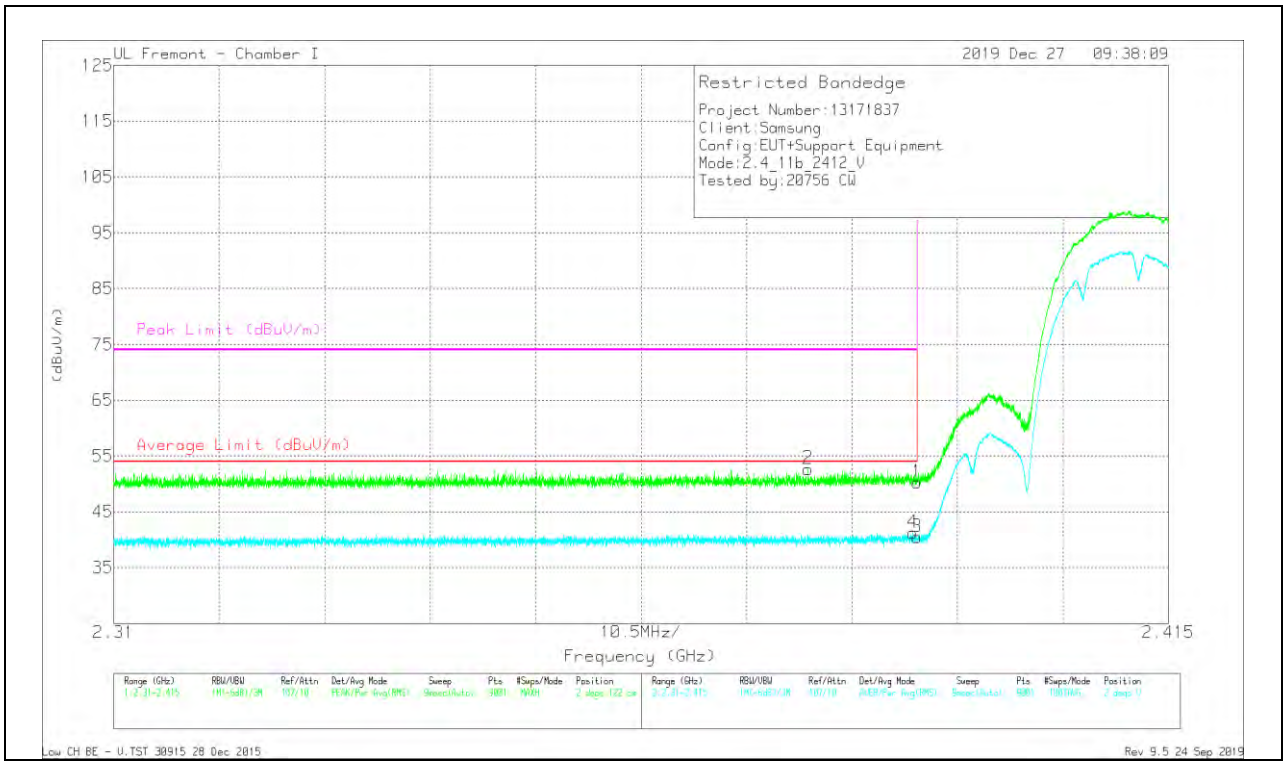
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Flt r/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	2.38999	38.06	Pk	31.9	-19.7	50.26	-	-	74	-23.74	2	122	V
2	2.37914	40.41	Pk	31.9	-19.6	52.71	-	-	74	-21.29	2	122	V
3	2.38999	28.25	RMS	31.9	-19.7	40.45	54	-13.55	-	-	2	122	V
4	2.38953	28.99	RMS	31.9	-19.7	41.19	54	-12.81	-	-	2	122	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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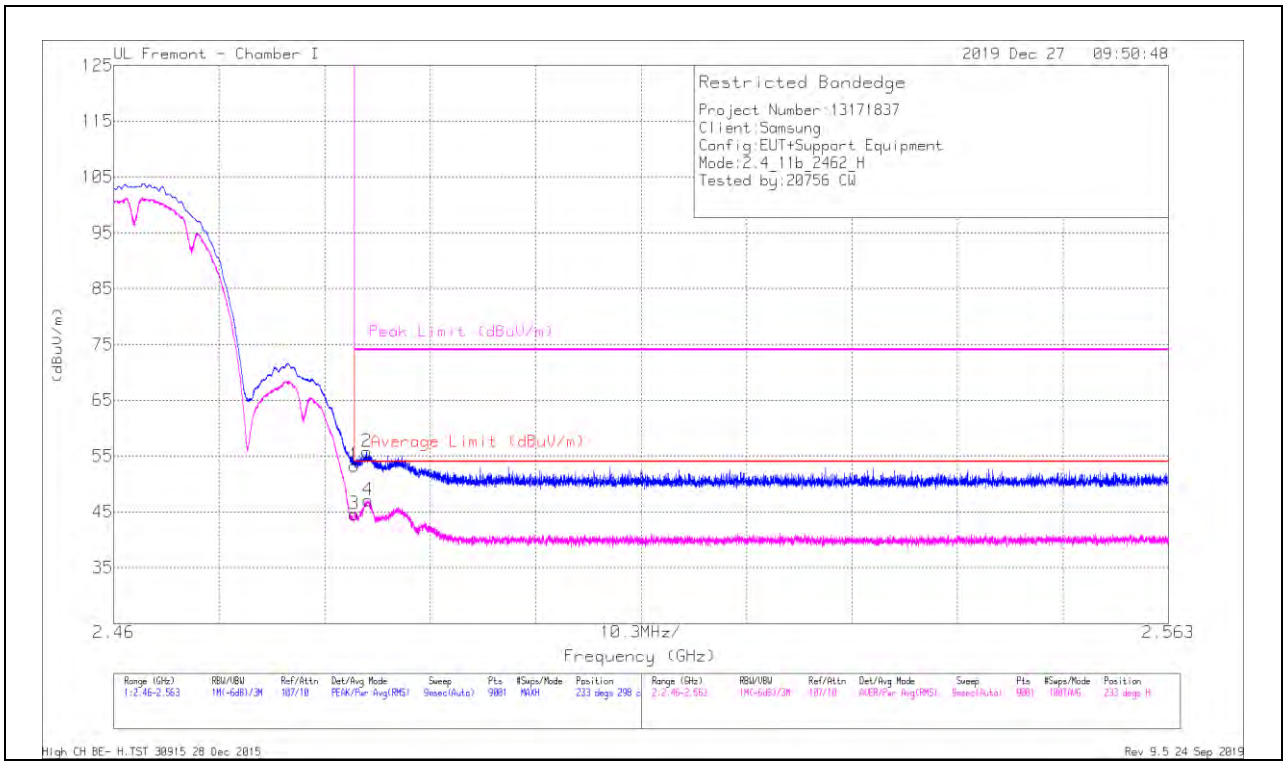
BANDEDGE (HIGH CHANNEL, CH 11)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Flt r/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	2.48351	40.91	Pk	32.4	-20	53.31	-	-	74	-20.69	233	298	H
2	2.48471	43.36	Pk	32.4	-20	55.76	-	-	74	-18.24	233	298	H
3	2.48351	32.21	RMS	32.4	-20	44.61	54	-9.39	-	-	233	298	H
4	2.48483	34.62	RMS	32.4	-20	47.02	54	-6.98	-	-	233	298	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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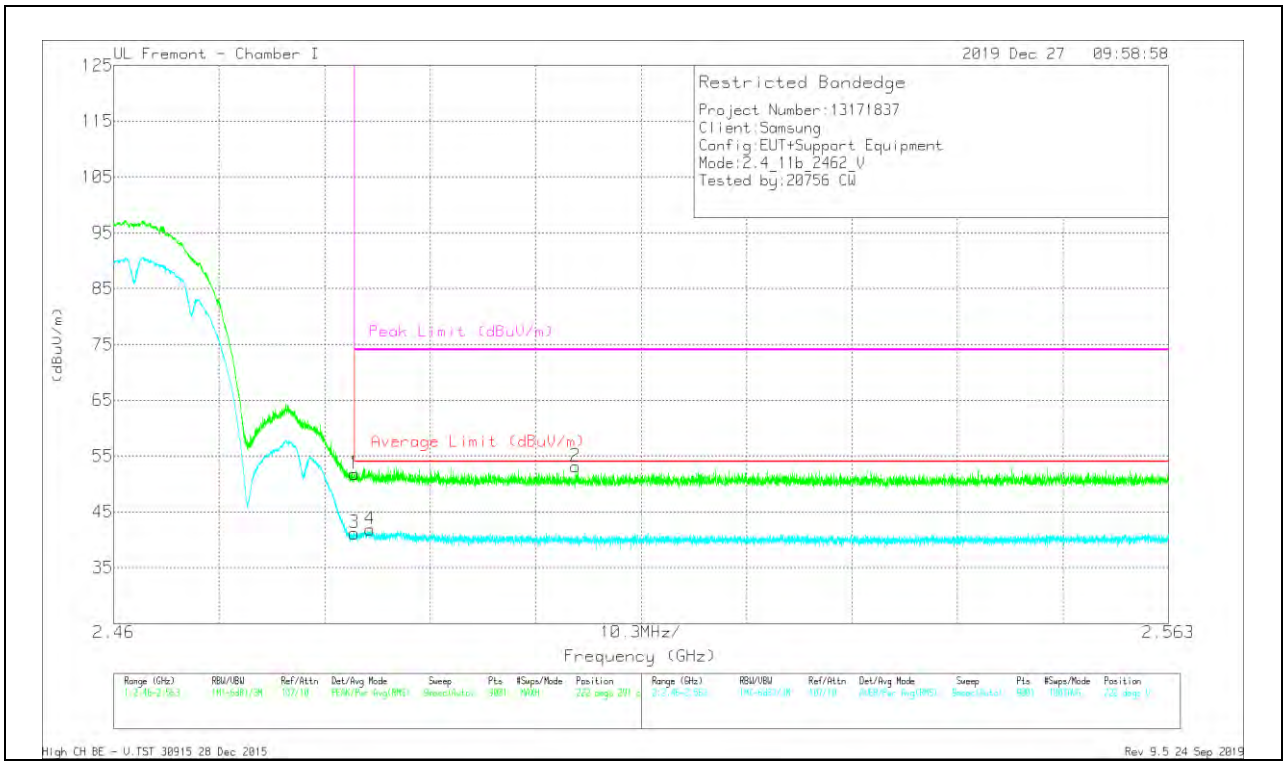
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Filt r/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	2.48351	39.39	Pk	32.4	-20	51.79	-	-	74	-22.21	222	291	V
2	2.50512	41	Pk	32.3	-20.1	53.2	-	-	74	-20.8	222	291	V
3	2.48351	28.77	RMS	32.4	-20	41.17	54	-12.83	-	-	222	291	V
4	2.48501	29.46	RMS	32.4	-20	41.86	54	-12.14	-	-	222	291	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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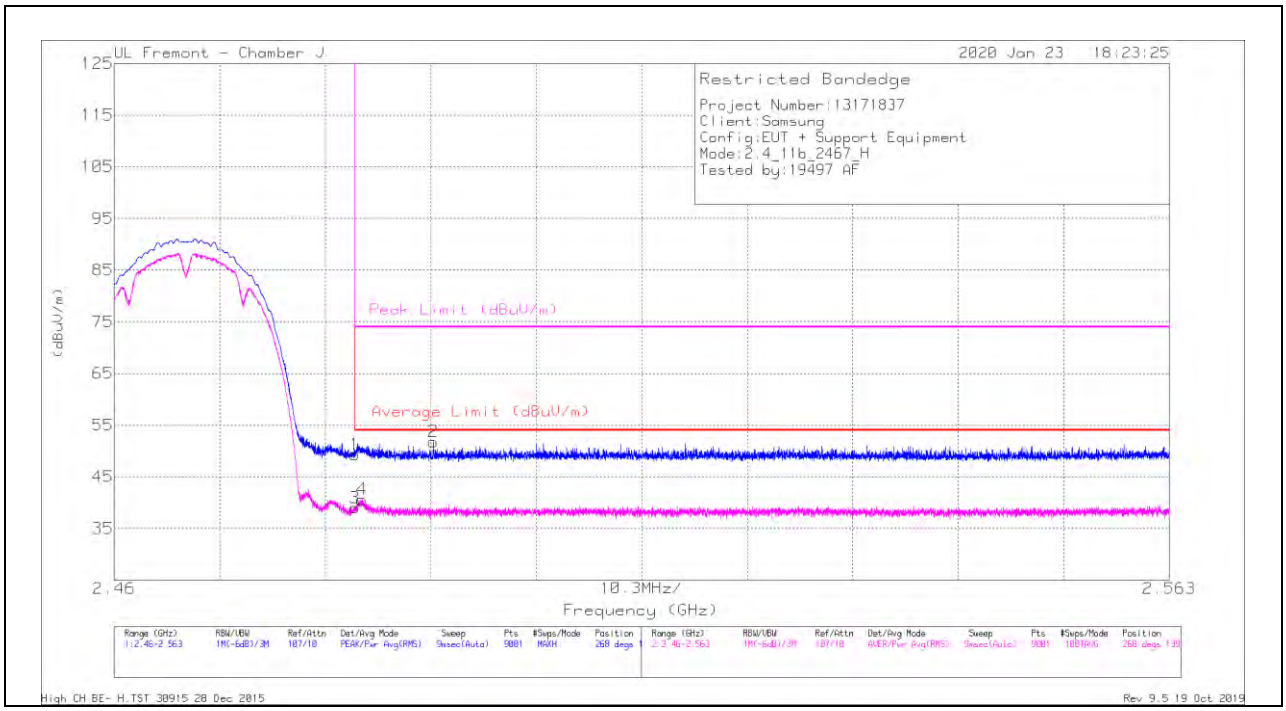
BANDEDGE (HIGH CHANNEL, CH 12)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr/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	* 2.48351	42.51	Pk	32.3	-25.5	49.31	-	-	74	-24.69	268	139	H
2	* 2.49115	44.97	Pk	32.3	-25.5	51.77	-	-	74	-22.23	268	139	H
3	* 2.48351	32.17	RMS	32.3	-25.5	38.97	54	-15.03	-	-	268	139	H
4	* 2.48419	33.79	RMS	32.3	-25.5	40.59	54	-13.41	-	-	268	139	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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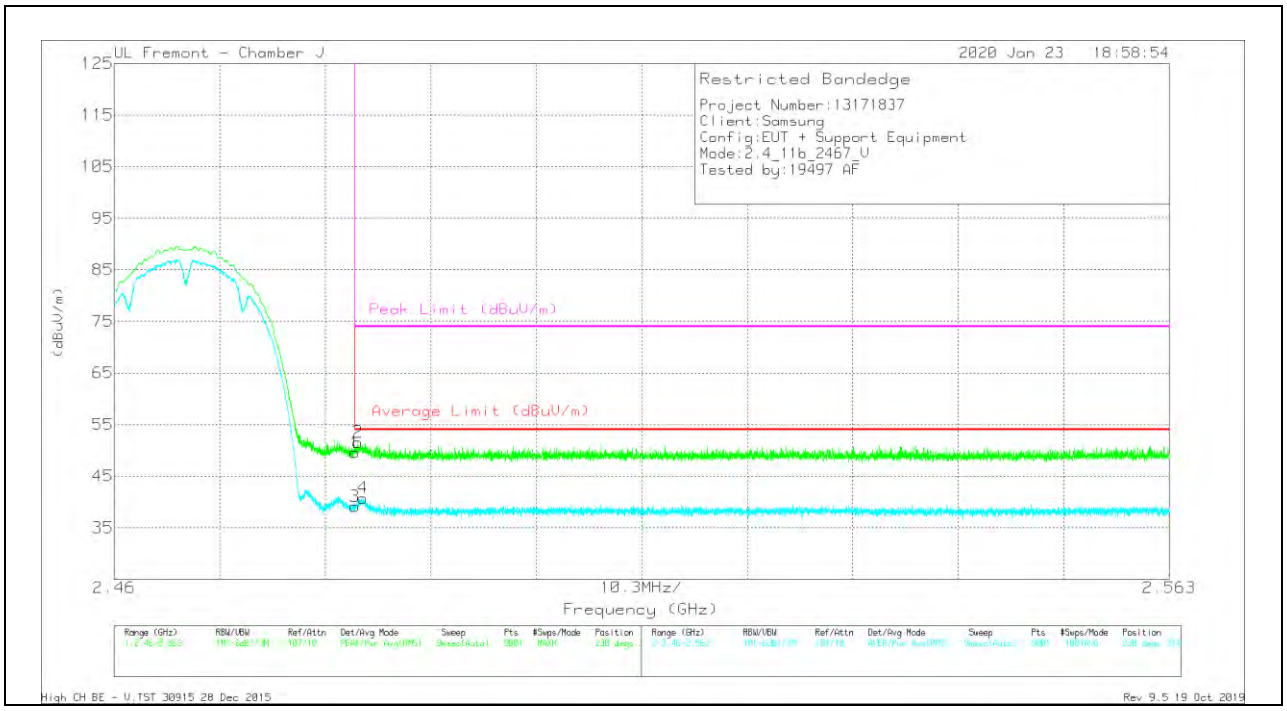
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (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	* 2.48351	42.77	Pk	32.3	-25.5	49.57	-	-	74	-24.43	230	374	V
2	* 2.48378	44.75	Pk	32.3	-25.5	51.55	-	-	74	-22.45	230	374	V
3	* 2.48351	32.3	RMS	32.3	-25.5	39.1	54	-14.9	-	-	230	374	V
4	* 2.48427	33.96	RMS	32.3	-25.5	40.76	54	-13.24	-	-	230	374	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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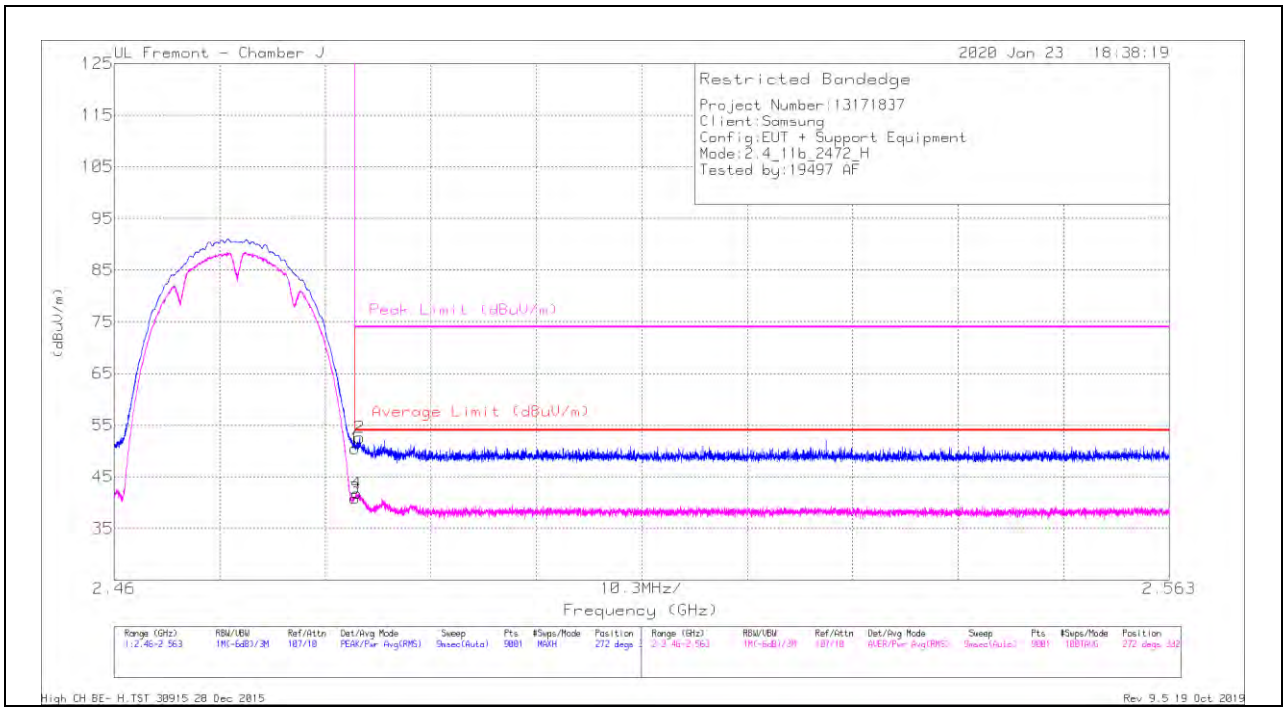
BANDEDGE (HIGH CHANNEL, CH 13)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr/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	* 2.48351	43.64	Pk	32.3	-25.5	50.44	-	-	74	-23.56	272	332	H
2	* 2.48395	45.79	Pk	32.3	-25.5	52.59	-	-	74	-21.41	272	332	H
3	* 2.48351	34.01	RMS	32.3	-25.5	40.81	54	-13.19	-	-	272	332	H
4	* 2.48367	34.99	RMS	32.3	-25.5	41.79	54	-12.21	-	-	272	332	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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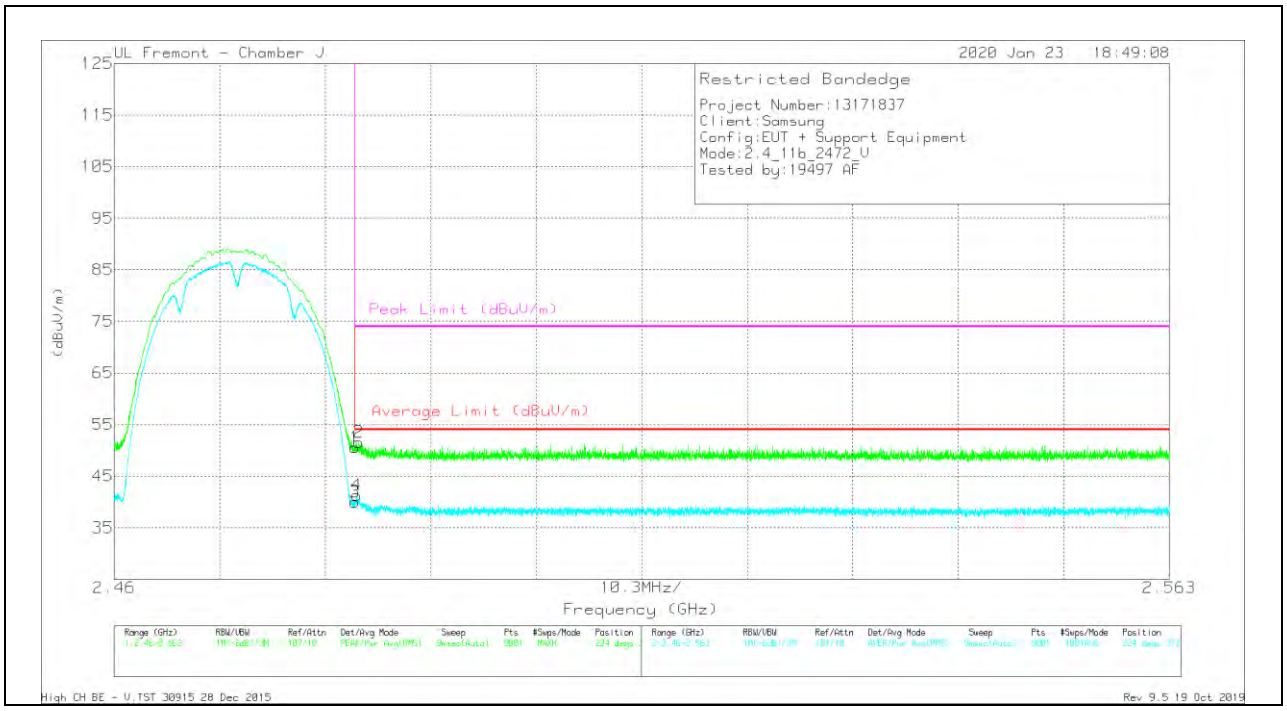
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr/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	* 2.48351	43.75	Pk	32.3	-25.5	50.55	-	-	74	-23.45	224	372	V
2	* 2.48385	44.75	Pk	32.3	-25.5	51.55	-	-	74	-22.45	224	372	V
3	* 2.48351	33.2	RMS	32.3	-25.5	40	54	-14	-	-	224	372	V
4	* 2.48369	34.48	RMS	32.3	-25.5	41.28	54	-12.72	-	-	224	372	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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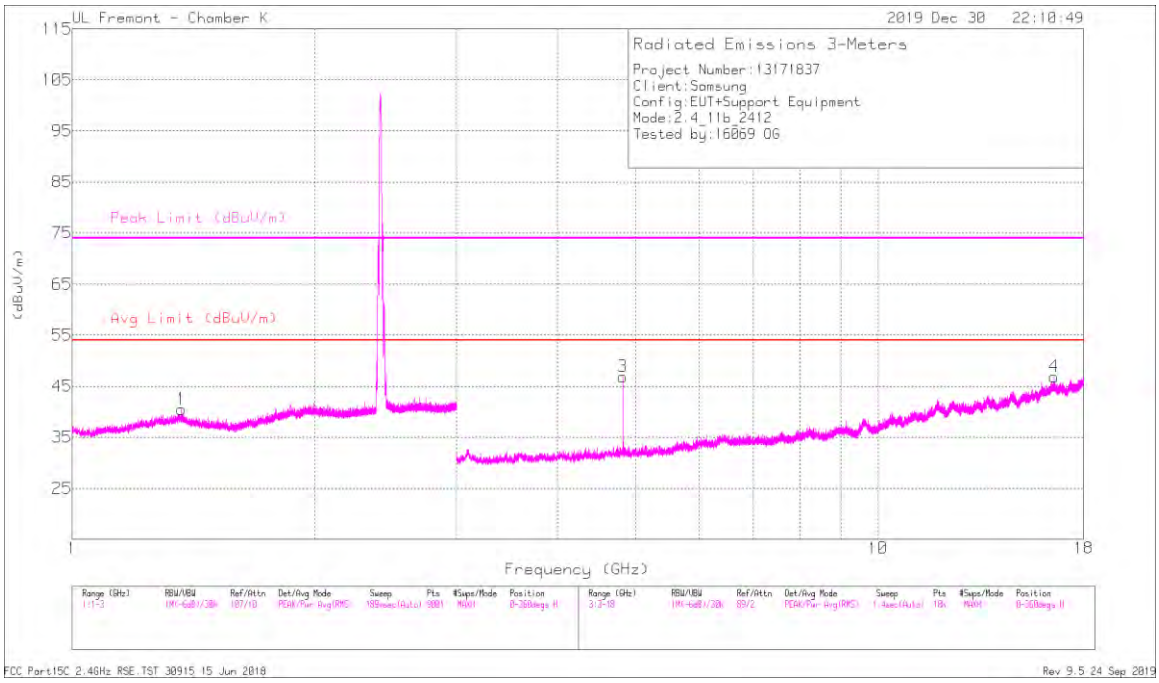
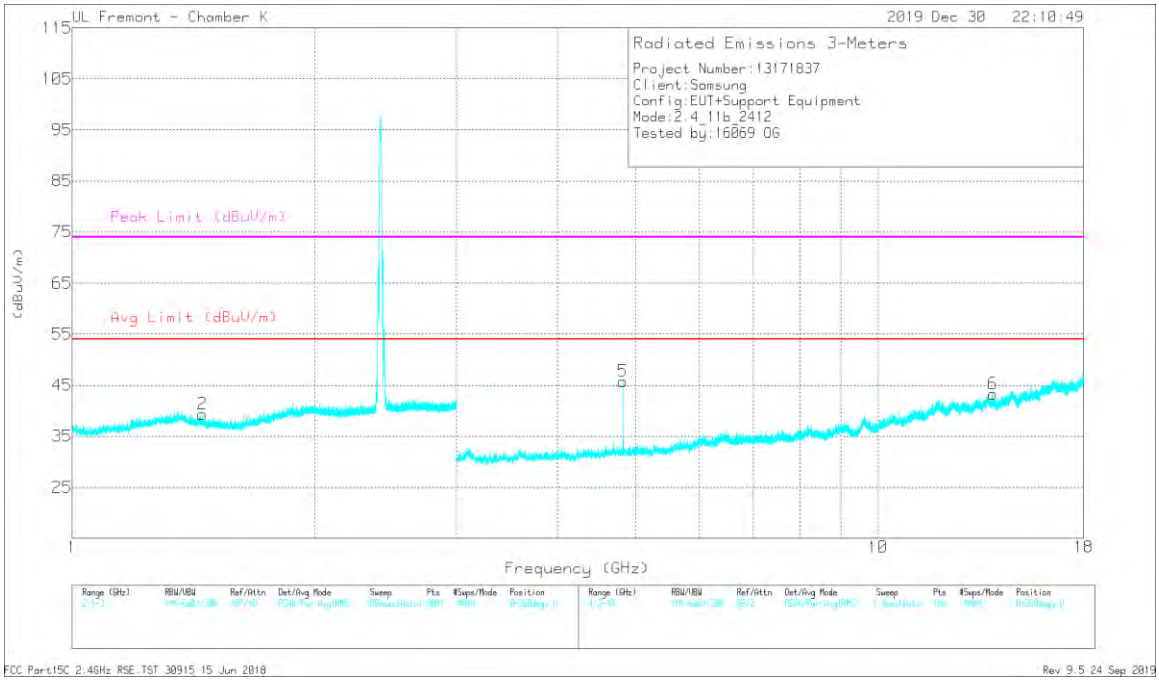
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, CH 1 RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cbl/Fltr/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	* 1.36745	29.02	PK2	29.6	-23.8	34.82	-	-	74	-39.18	135	103	H
1	* 1.36633	31.01	MAv1	29.6	-23.8	36.81	54	-17.19	-	-	135	103	H
2	* 1.45287	40.69	PK2	28.4	-23.7	45.39	-	-	74	-28.61	28	138	V
2	* 1.45015	31.65	MAv1	28.4	-23.8	36.25	54	-17.75	-	-	28	138	V
3	* 4.82398	44.8	PK2	34.2	-30.4	48.6	-	-	74	-25.4	193	96	H
3	* 4.824	42.4	MAv1	34.2	-30.4	46.2	54	-7.8	-	-	193	96	H
4	16.55395	28.64	PK2	40.9	-16.6	52.94	-	-	-	-	181	242	H
5	* 4.82401	44.28	PK2	34.2	-30.4	48.08	-	-	74	-25.92	38	105	V
5	* 4.824	41.9	MAv1	34.2	-30.4	45.7	54	-8.3	-	-	38	105	V
6	13.8851	31.58	PK2	38.7	-19	51.28	-	-	-	-	134	260	V

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

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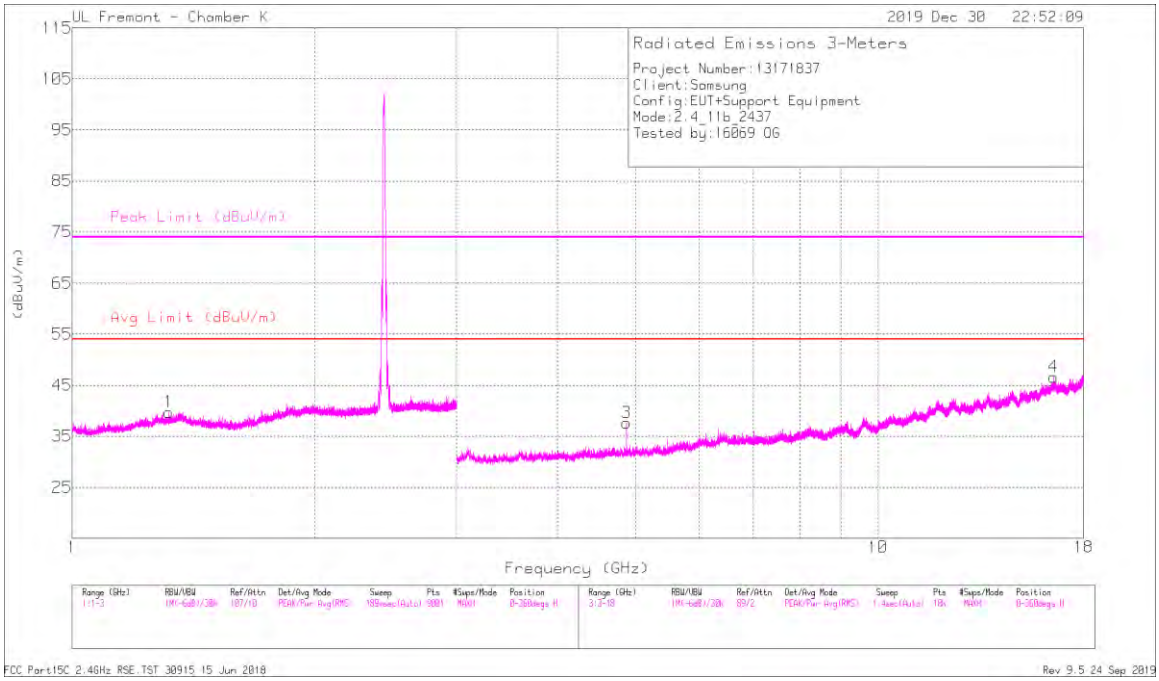
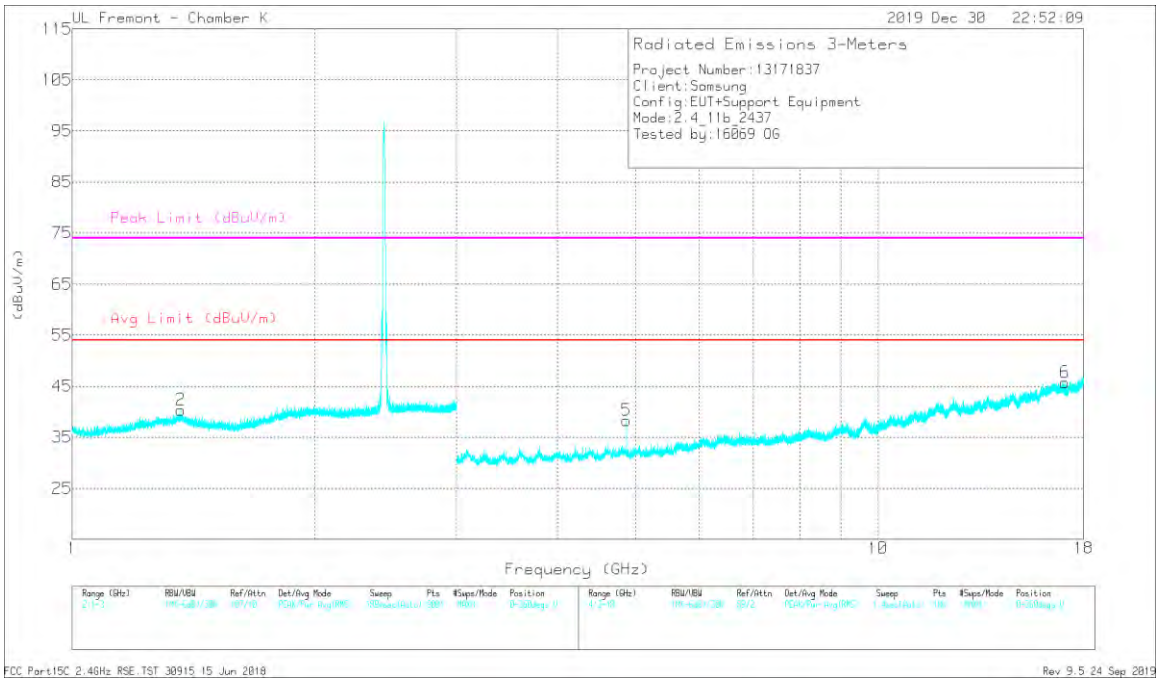
MID CHANNEL, CH 6 RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cbl/Fltr/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	* 1.31597	41.52	PK2	29	-23.8	46.72	-	-	74	-27.28	193	357	H
1	* 1.31687	30.73	MAv1	29	-23.9	35.83	54	-18.17	-	-	193	357	H
2	* 1.36442	41.51	PK2	29.6	-23.8	47.31	-	-	74	-26.69	116	157	V
2	* 1.36622	31.52	MAv1	29.6	-23.8	37.32	54	-16.68	-	-	116	157	V
3	* 4.87413	39.59	PK2	34.2	-30.5	43.29	-	-	74	-30.71	198	133	H
3	* 4.874	32.84	MAv1	34.2	-30.5	36.54	54	-17.46	-	-	198	133	H
4	16.52375	28.12	PK2	40.9	-16.7	52.32	-	-	-	-	329	114	H
5	* 4.87401	39.45	PK2	34.2	-30.5	43.15	-	-	74	-30.85	234	115	V
5	* 4.87397	33.5	MAv1	34.2	-30.5	37.2	54	-16.8	-	-	234	115	V
6	17.05799	29.41	PK2	40.5	-16.7	53.21	-	-	-	-	317	101	V

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

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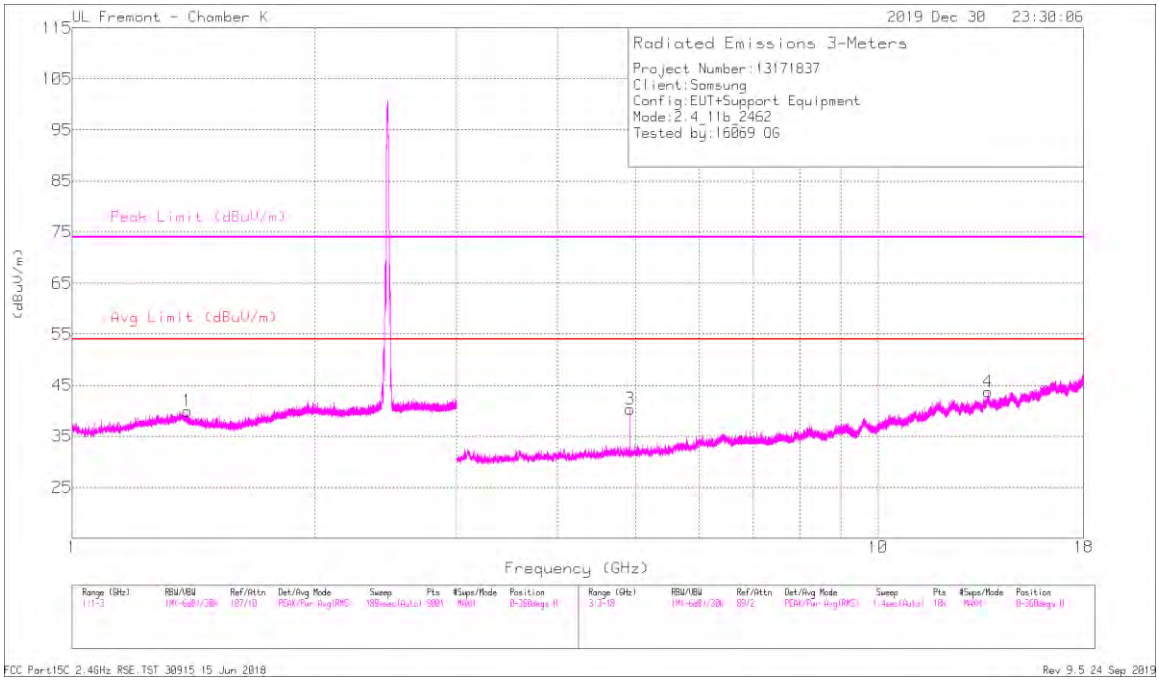
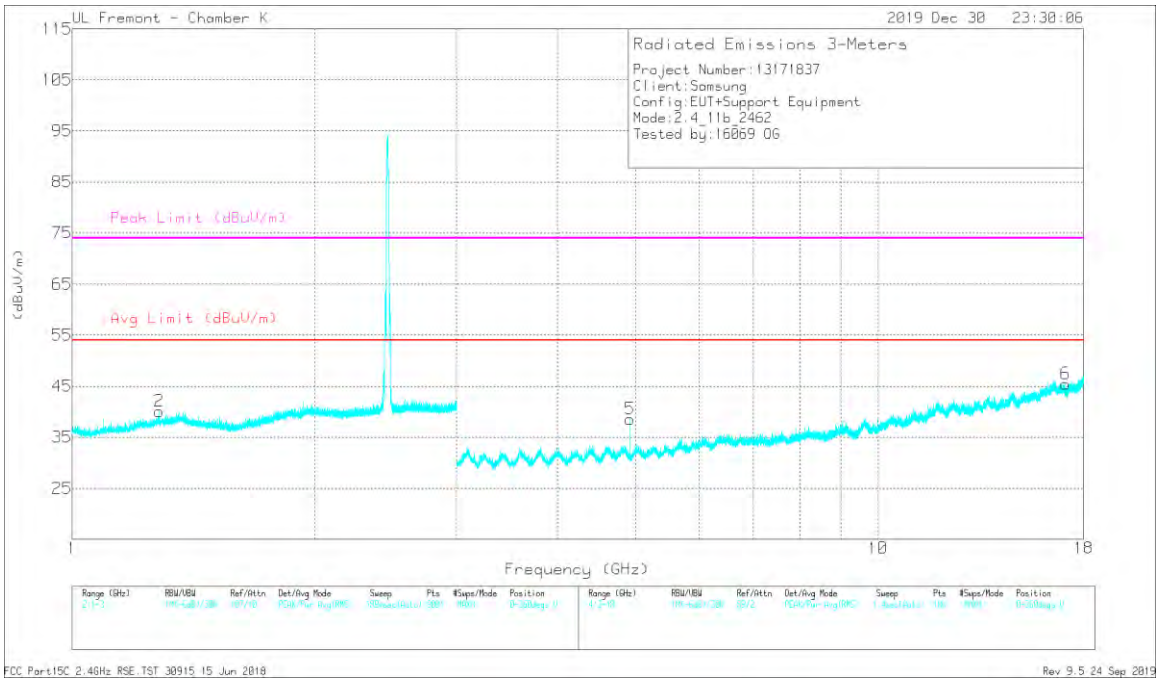
HIGH CHANNEL, CH 11 RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cbl/Fltr/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	* 1.38906	41.49	PK2	29	-23.8	46.69	-	-	74	-27.31	107	261	H
1	* 1.38711	31.44	MAv1	29.1	-23.8	36.74	54	-17.26	-	-	107	261	H
2	* 1.28247	41.44	PK2	29.3	-24	46.74	-	-	74	-27.26	32	214	V
2	* 1.28355	30.78	MAv1	29.3	-24	36.08	54	-17.92	-	-	32	214	V
3	* 4.92397	40.41	PK2	34.1	-30.6	43.91	-	-	74	-30.09	198	118	H
3	* 4.92402	35.58	MAv1	34.1	-30.6	39.08	54	-14.92	-	-	198	118	H
4	13.70359	31.08	PK2	38.7	-18.6	51.18	-	-	-	-	18	257	H
5	* 4.92392	40.87	PK2	34.1	-30.6	44.37	-	-	74	-29.63	275	115	V
5	* 4.924	35.21	MAv1	34.1	-30.6	38.71	54	-15.29	-	-	275	115	V
6	17.0944	28.55	PK2	40.4	-16.8	52.15	-	-	-	-	343	159	V

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

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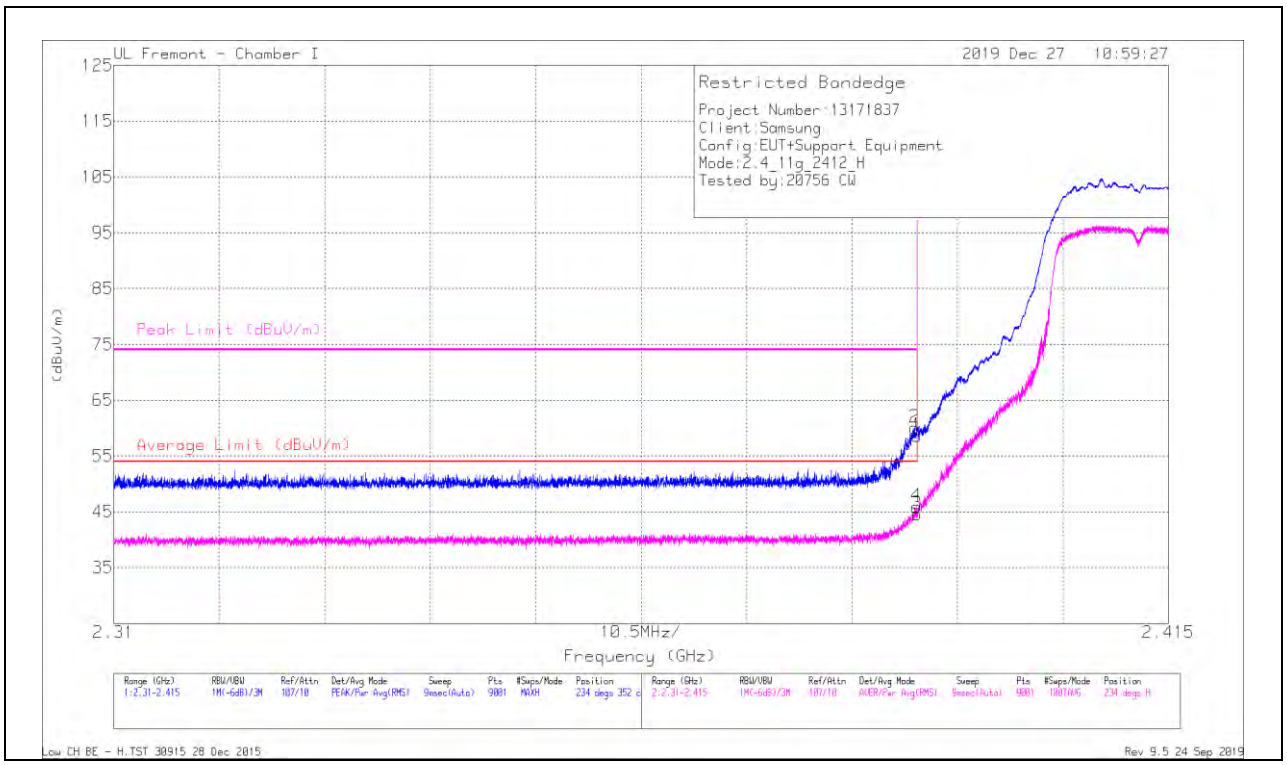
9.1.2. TX ABOVE 1 GHz 802.11g MODE IN THE 2.4 GHz BAND

1TX Antenna 1 MODE

BANDEDGE (LOW CHANNEL, CH 1)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AFT862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.38999	46.37	Pk	31.9	-19.7	0	58.57	-	-	74	-15.43	234	352	H
2	2.38971	47.86	Pk	31.9	-19.7	0	60.06	-	-	74	-13.94	234	352	H
3	2.38999	31.99	RMS	31.9	-19.7	.37	44.56	54	-9.44	-	-	234	352	H
4	2.38991	33.39	RMS	31.9	-19.7	.37	45.96	54	-8.04	-	-	234	352	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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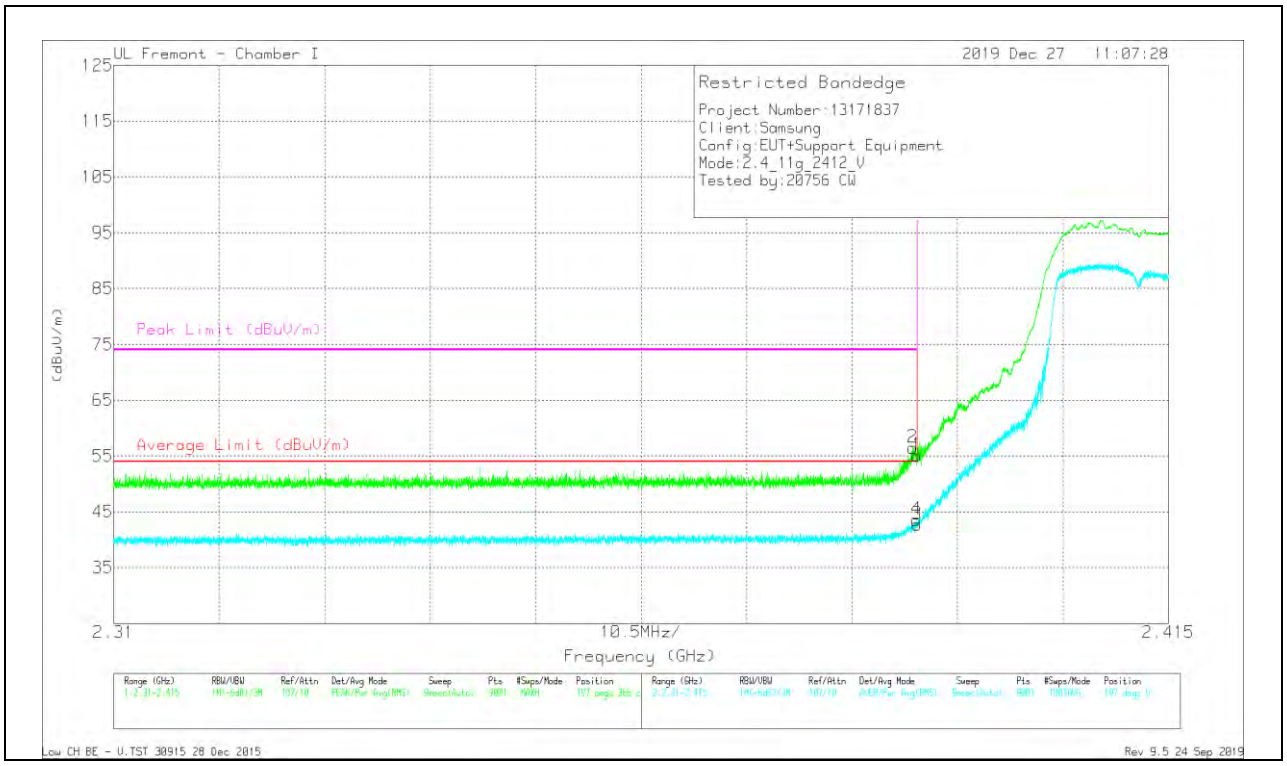
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.38999	42.92	Pk	31.9	-19.7	0	55.12	-	-	74	-18.88	197	366	V
2	2.38956	44.34	Pk	31.9	-19.7	0	56.54	-	-	74	-17.46	197	366	V
3	2.38999	30.14	RMS	31.9	-19.7	.37	42.71	54	-11.29	-	-	197	366	V
4	2.38992	31.01	RMS	31.9	-19.7	.37	43.58	54	-10.42	-	-	197	366	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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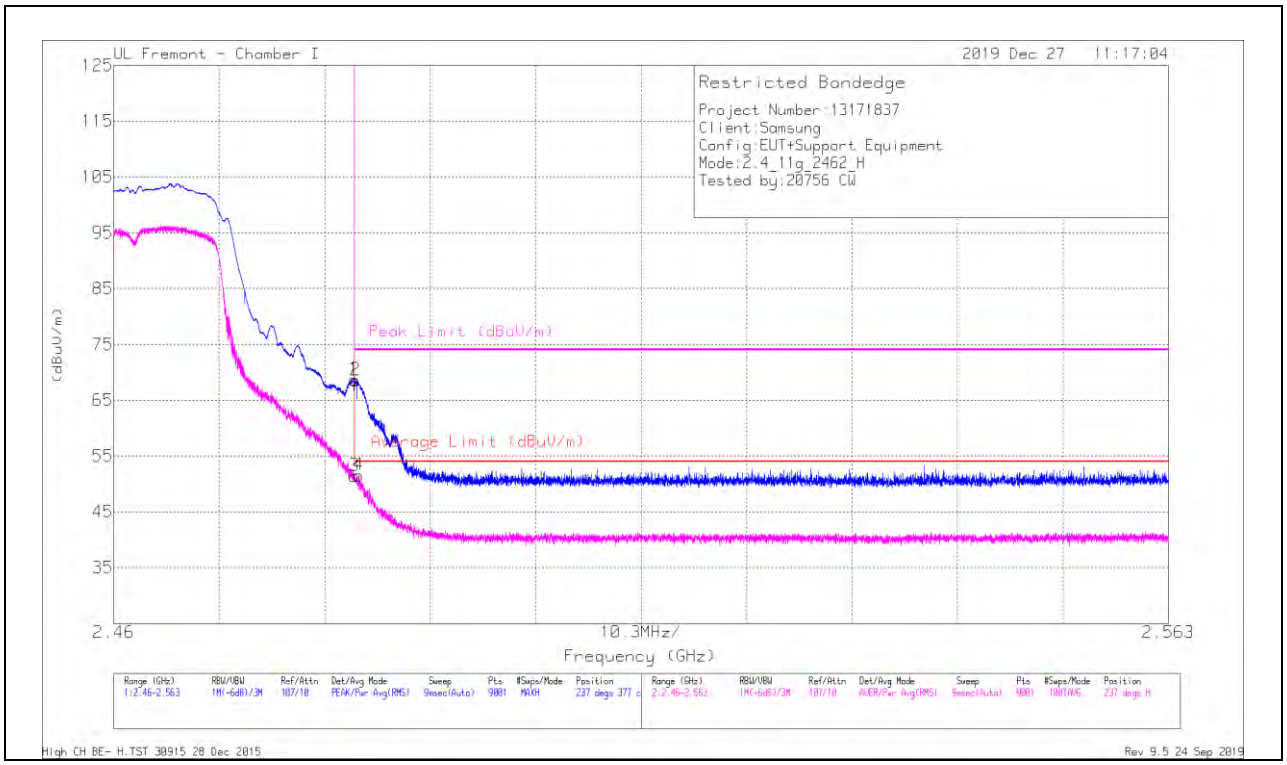
BANDEDGE (HIGH CHANNEL, CH 11)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.48351	56.21	Pk	32.4	-20	0	68.61	-	-	74	-5.39	237	377	H
2	2.4836	56.17	Pk	32.4	-20	0	68.57	-	-	74	-5.43	237	377	H
3	2.48351	38.6	RMS	32.4	-20	.37	51.37	54	-2.63	-	-	237	377	H
4	2.48391	38.78	RMS	32.4	-20	.37	51.55	54	-2.45	-	-	237	377	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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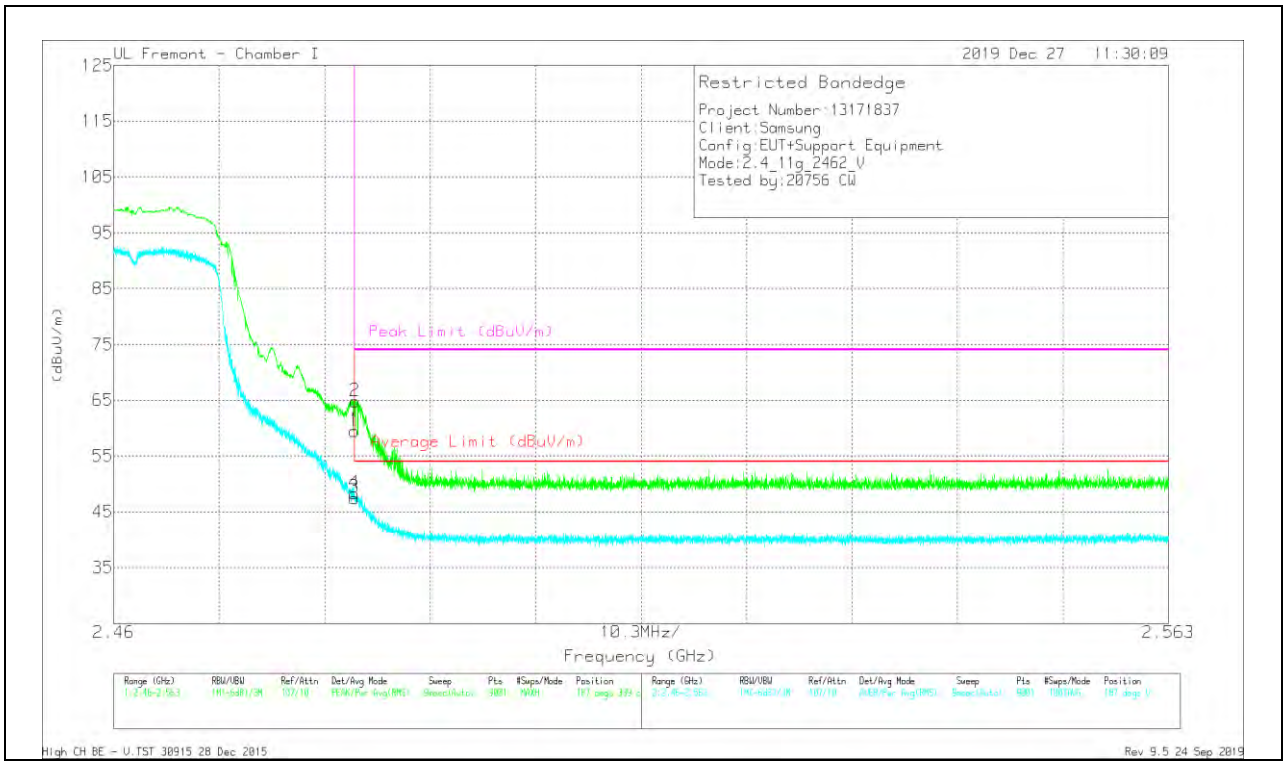
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.48351	47.03	Pk	32.4	-20	0	59.43	-	-	74	-14.57	187	339	V
2	2.48356	52.46	Pk	32.4	-20	0	64.86	-	-	74	-9.14	187	339	V
3	2.48351	34.73	RMS	32.4	-20	.37	47.5	54	-6.5	-	-	187	339	V
4	2.48352	35.51	RMS	32.4	-20	.37	48.28	54	-5.72	-	-	187	339	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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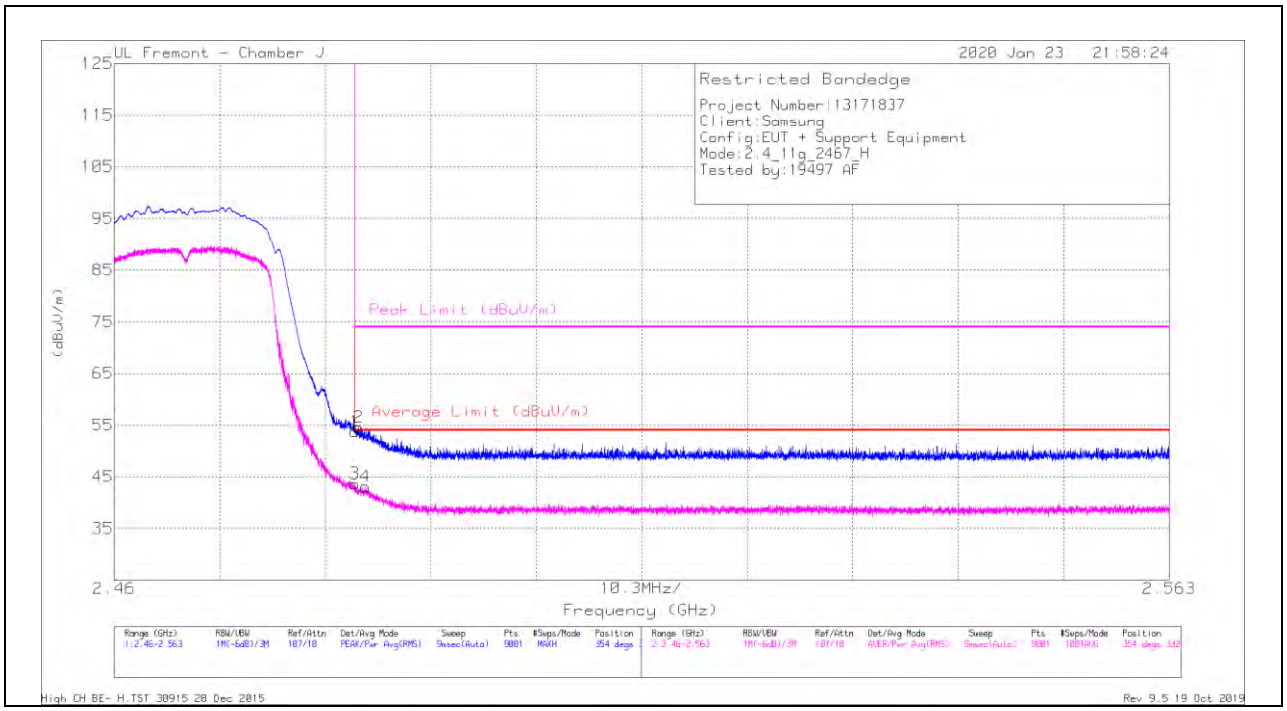
BANDEDGE (HIGH CHANNEL, CH 12)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	46.91	Pk	32.3	-25.5	0	53.71	-	-	74	-20.29	354	332	H
2	* 2.48387	47.74	Pk	32.3	-25.5	0	54.54	-	-	74	-19.46	354	332	H
3	* 2.48351	36.49	RMS	32.3	-25.5	.37	43.66	54	-10.34	-	-	354	332	H
4	* 2.48455	35.91	RMS	32.3	-25.5	.37	43.08	54	-10.92	-	-	354	332	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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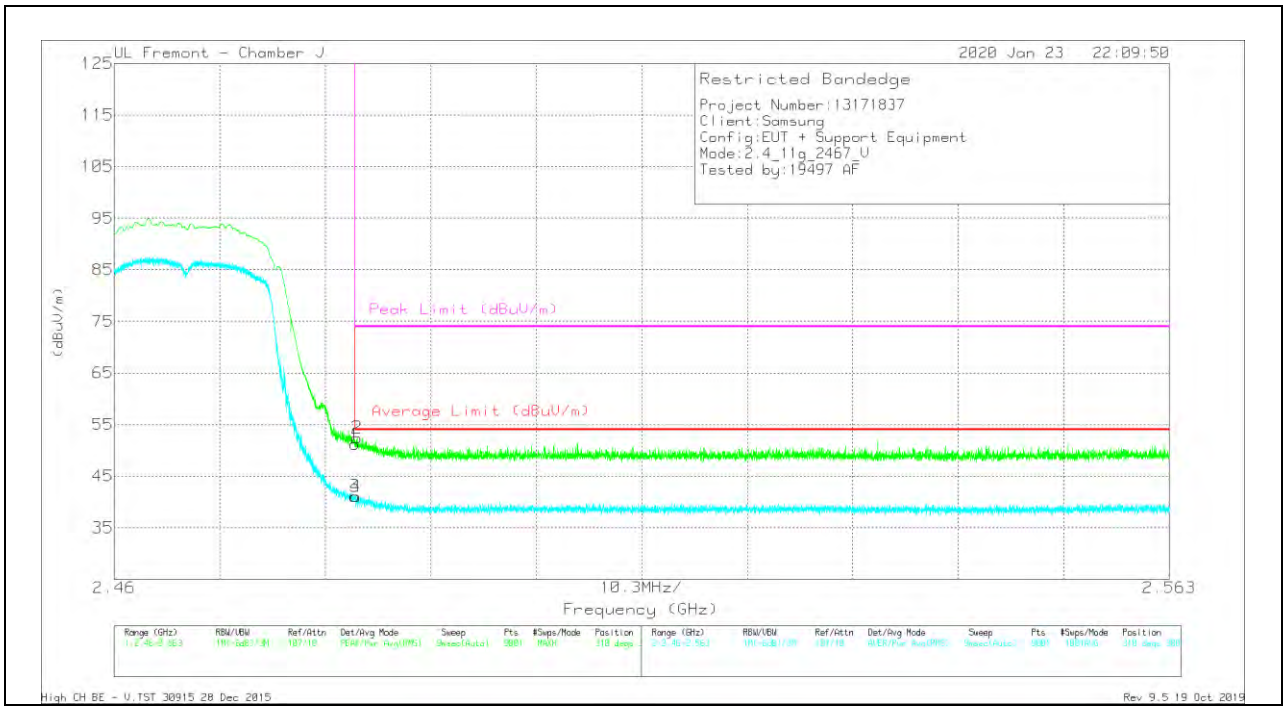
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	44.34	Pk	32.3	-25.5	0	51.14	-	-	74	-22.86	310	380	V
2	* 2.4837	45.62	Pk	32.3	-25.5	0	52.42	-	-	74	-21.58	310	380	V
3	* 2.48351	33.92	RMS	32.3	-25.5	.37	41.09	54	-12.91	-	-	310	380	V
4	* 2.48359	33.89	RMS	32.3	-25.5	.37	41.06	54	-12.94	-	-	310	380	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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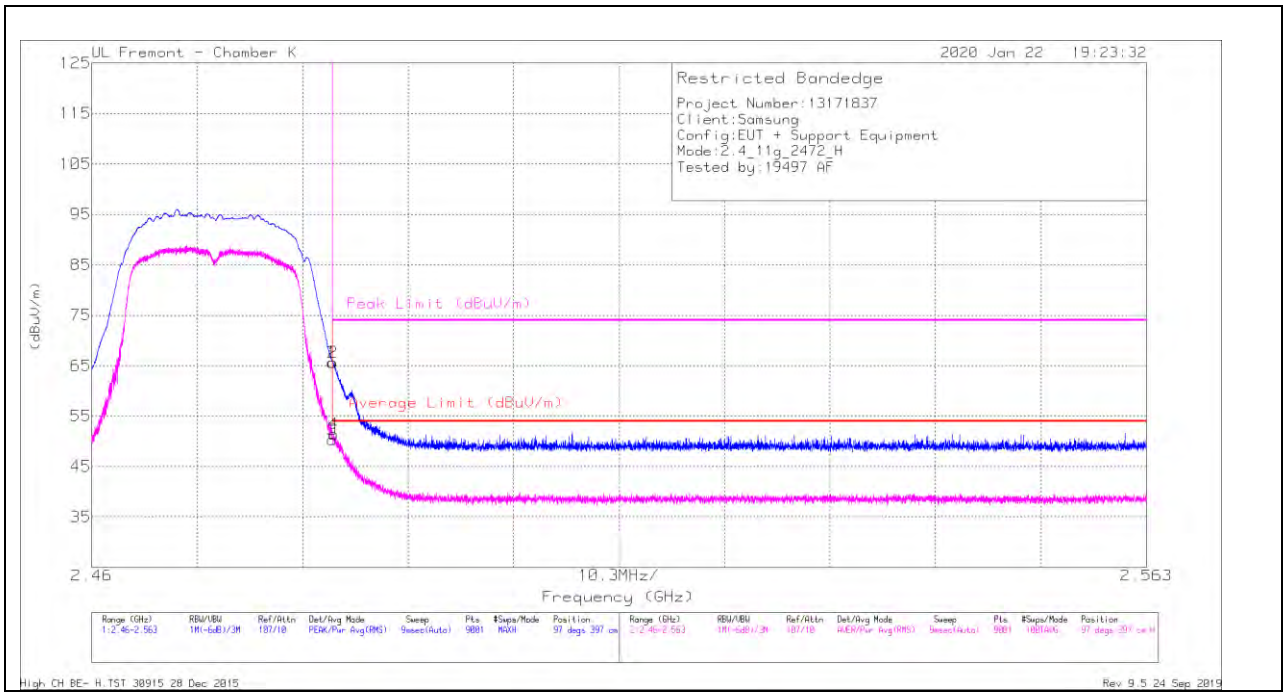
BANDEDGE (HIGH CHANNEL, CH 13)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	57.95	Pk	32.5	-24.8	0	65.65	-	-	74	-8.35	97	397	H
2	* 2.48355	57.93	Pk	32.5	-24.8	0	65.63	-	-	74	-8.37	97	397	H
3	* 2.48351	42.18	RMS	32.5	-24.8	.4	50.28	54	-3.72	-	-	97	397	H
4	* 2.48362	43.3	RMS	32.5	-24.8	.4	51.4	54	-2.6	-	-	97	397	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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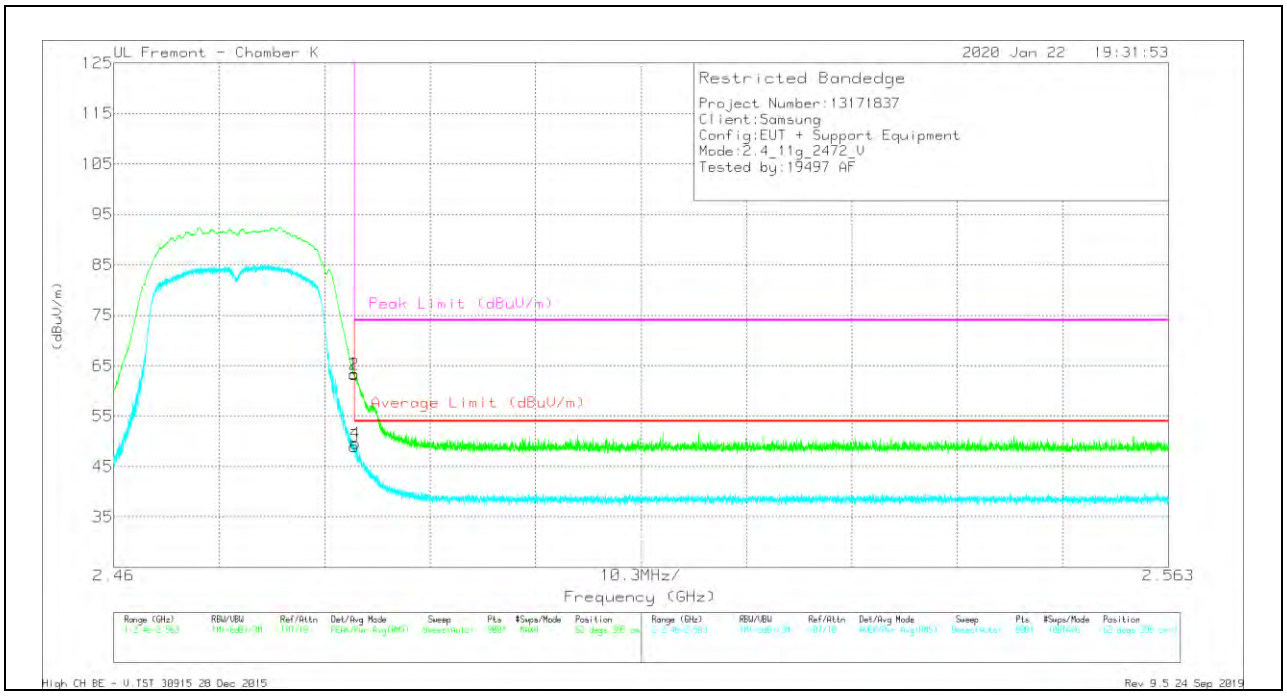
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	55.72	Pk	32.5	-24.8	0	63.42	-	-	74	-10.58	62	395	V
2	* 2.48353	55.61	Pk	32.5	-24.8	0	63.31	-	-	74	-10.69	62	395	V
3	* 2.48351	40.93	RMS	32.5	-24.8	.4	49.03	54	-4.97	-	-	62	395	V
4	* 2.48362	41.47	RMS	32.5	-24.8	.4	49.57	54	-4.43	-	-	62	395	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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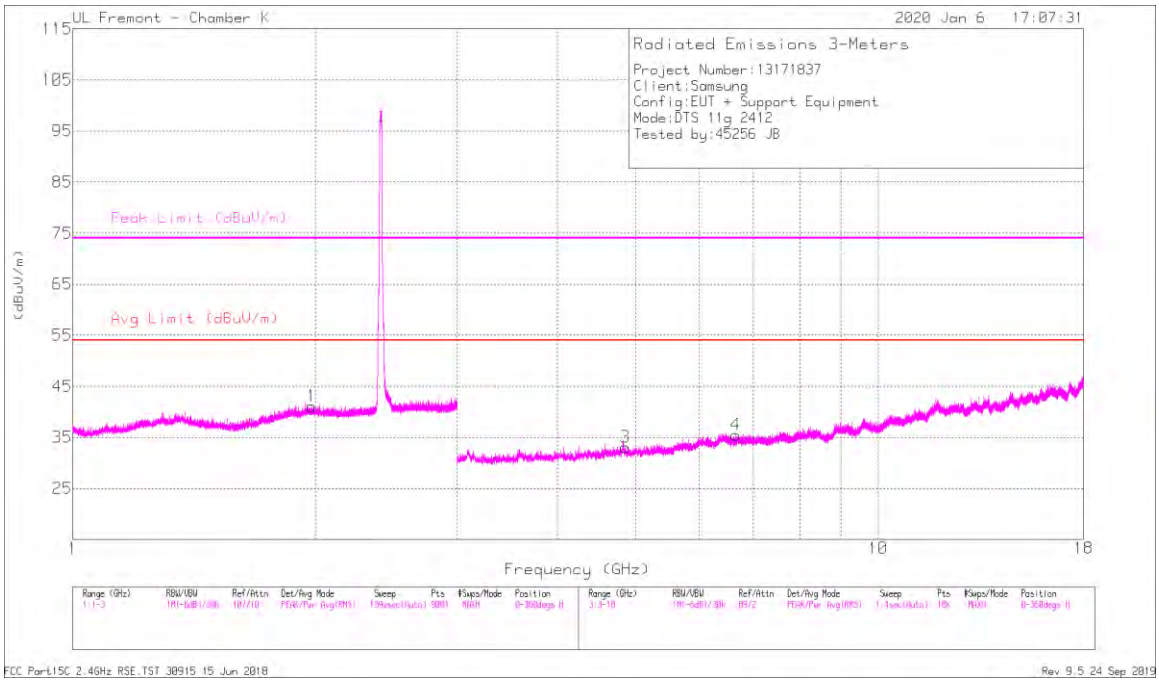
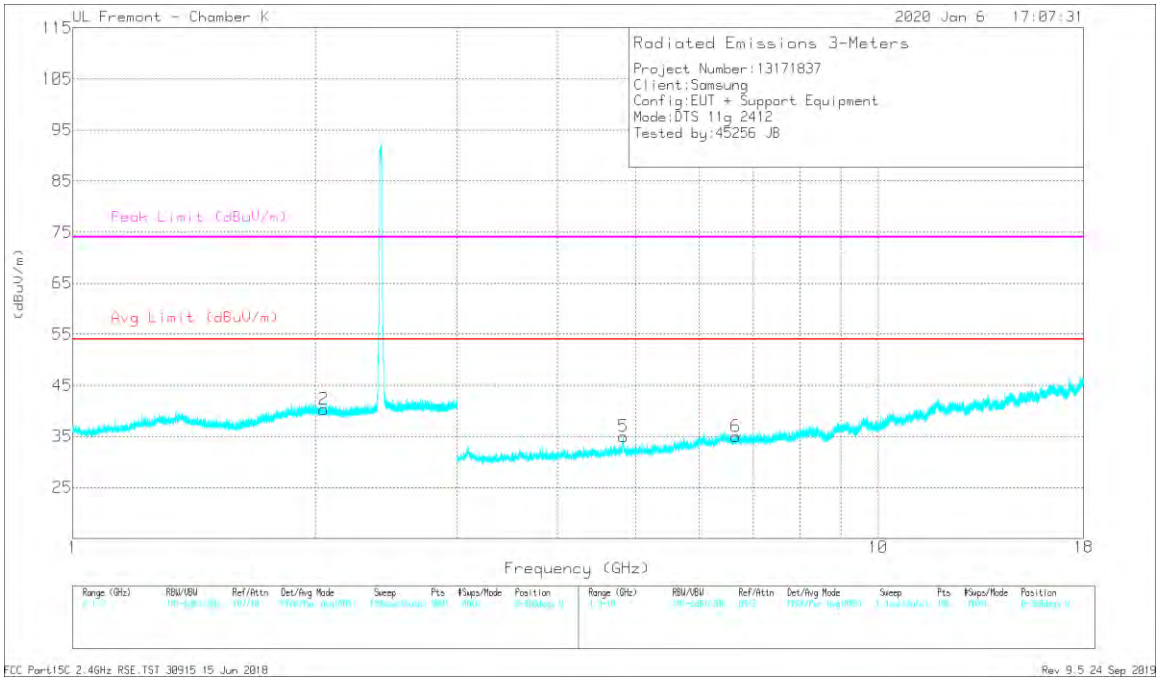
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, CH 1 RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cbl/Fltr/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
* 4.8596	36.93	PK2	34.2	-30.5	0	40.63	-	-	74	-33.37	35	302	H
* 4.85893	26.83	MAv1	34.2	-30.5	.37	30.86	54	-23.1	-	-	35	302	H
* 4.82832	40.58	PK2	34.2	-30.4	0	44.38	-	-	74	-29.62	82	126	V
* 4.82854	29.11	MAv1	34.2	-30.4	.37	33.24	54	-20.72	-	-	82	126	V

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

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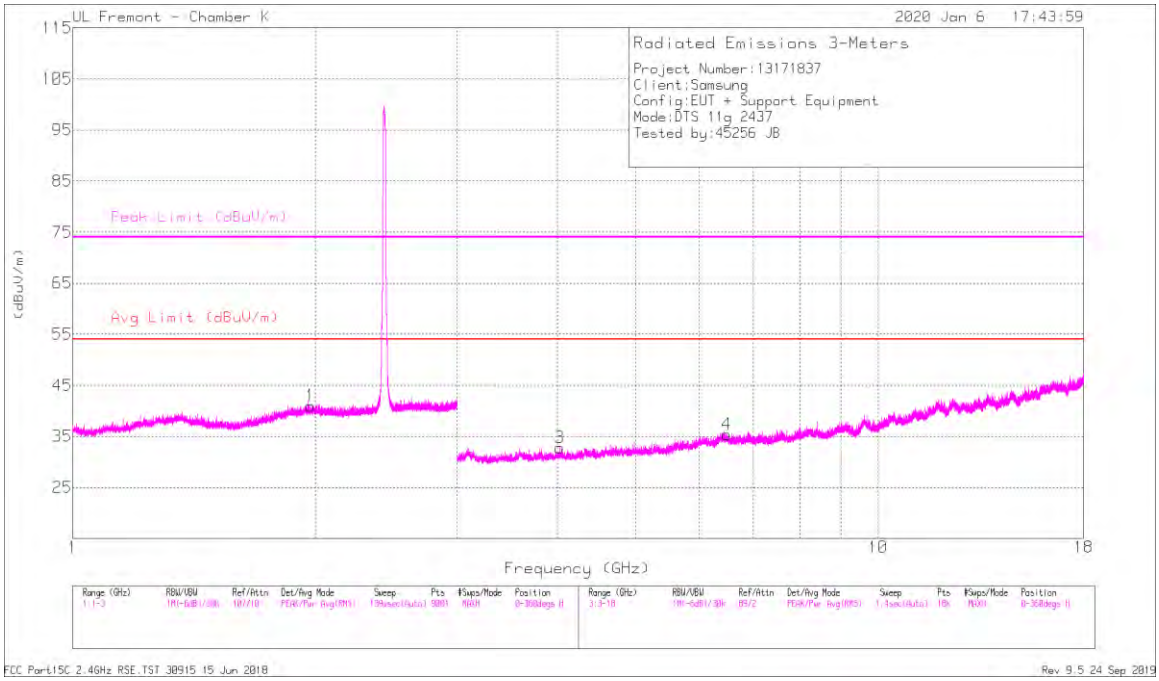
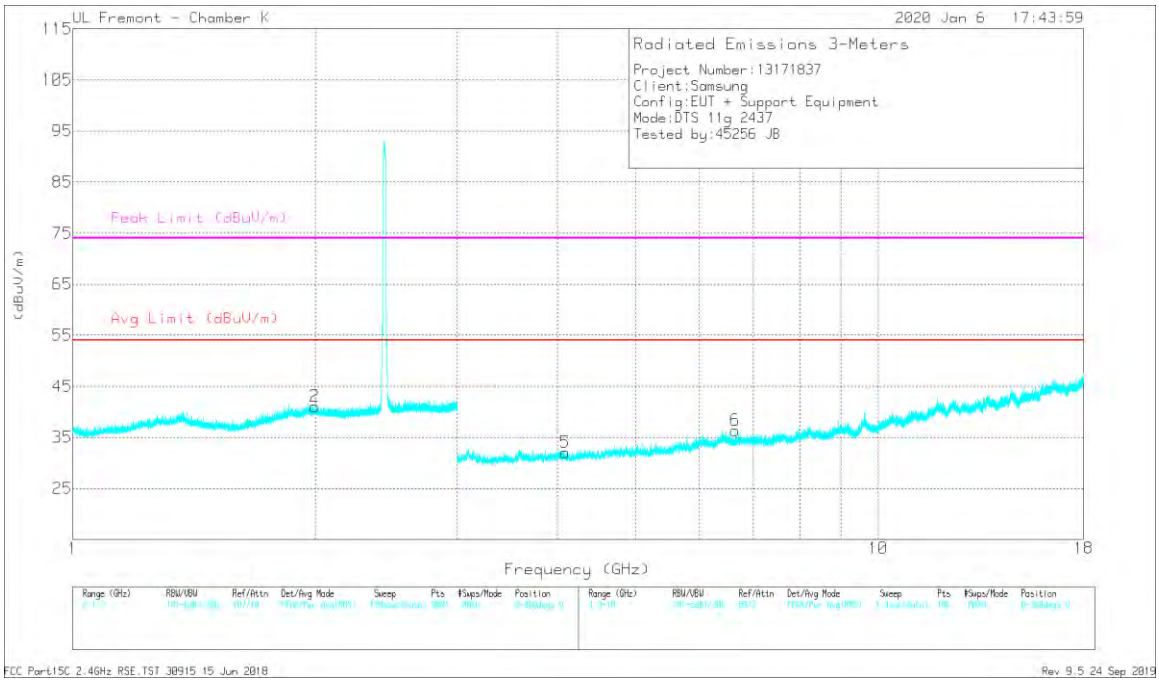
MID CHANNEL, CH 6 RESULTS



HORIZONTAL



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RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cbl/Fltr/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
* 4.0261	38.41	PK2	33.4	-31.3	0	40.51	-	-	74	-33.49	142	357	H
* 4.02731	28.1	MAv1	33.4	-31.3	.37	30.57	54	-23.43	-	-	142	357	H
* 4.08806	36.91	PK2	33.5	-30.8	0	39.61	-	-	74	-34.39	118	373	V
* 4.08933	27.04	MAv1	33.5	-30.8	.37	30.11	54	-23.89	-	-	118	373	V

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

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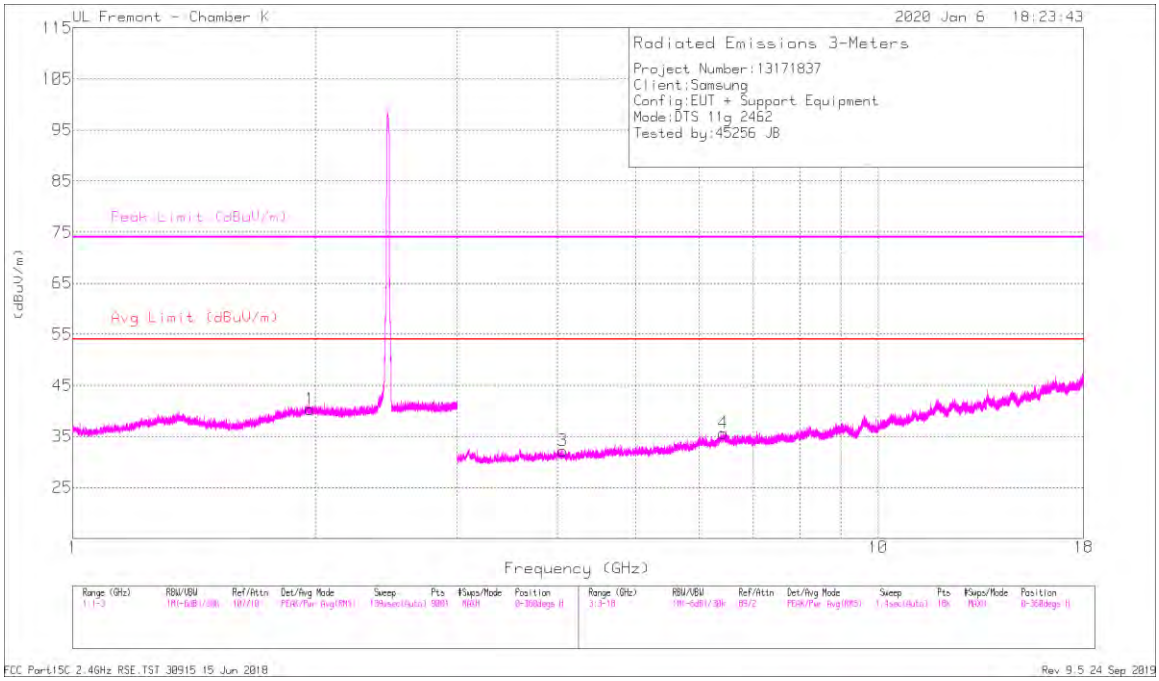
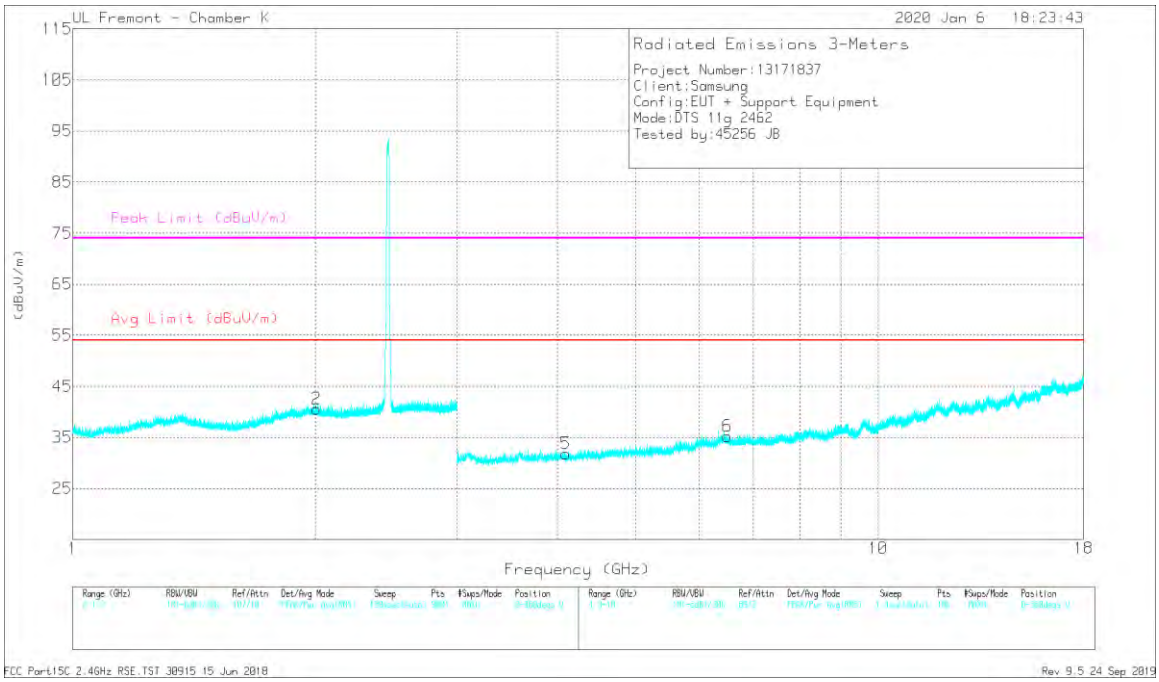
HIGH CHANNEL, CH 11 RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cbl/Fltr/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
* 4.06405	37.62	PK2	33.4	-30.8	0	40.22	-	-	74	-33.78	233	382	H
* 4.06098	27.43	MAv1	33.4	-30.8	.37	30.4	54	-23.6	-	-	233	382	H

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

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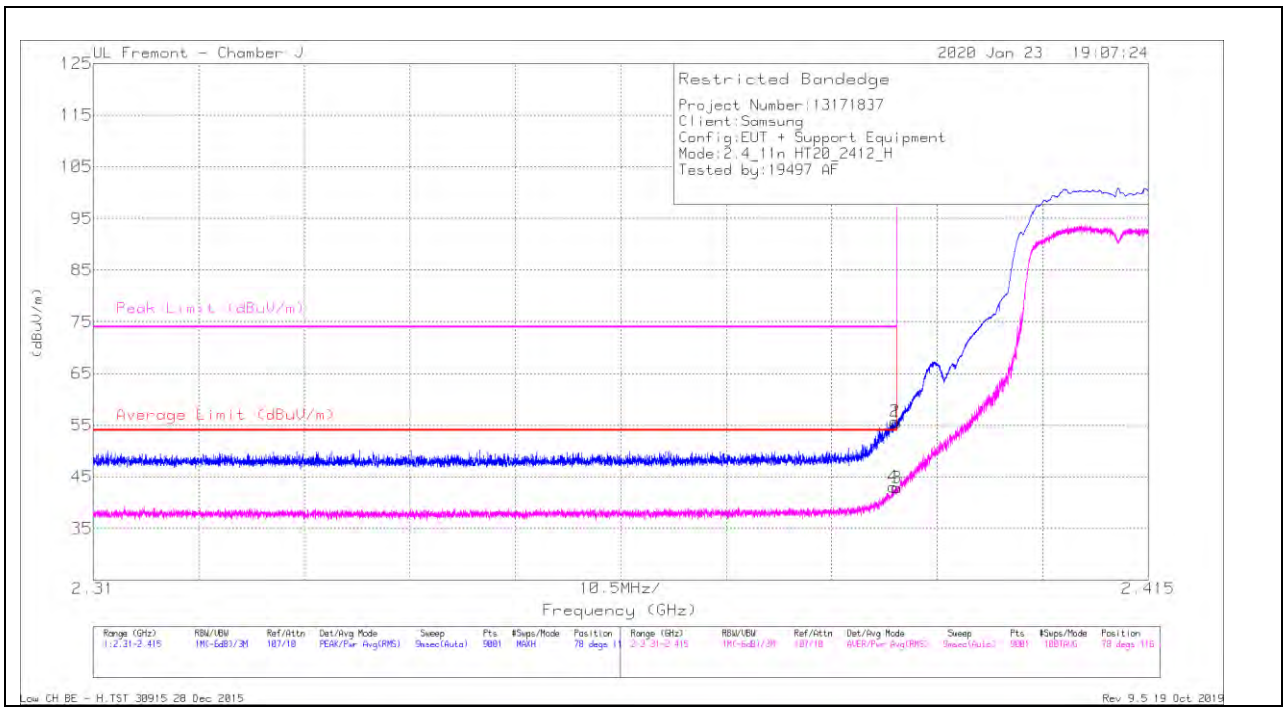
9.1.3. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 2.4 GHz BAND

1TX Antenna 1 MODE

BANDEDGE (LOW CHANNEL, CH 1)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	49.09	Pk	31.9	-25.5	0	55.49	-	-	74	-18.51	78	116	H
2	* 2.38979	49.33	Pk	31.9	-25.5	0	55.73	-	-	74	-18.27	78	116	H
3	* 2.38999	36.08	RMS	31.9	-25.5	.4	42.88	54	-11.12	-	-	78	116	H
4	* 2.3896	36.23	RMS	31.9	-25.5	.4	43.03	54	-10.97	-	-	78	116	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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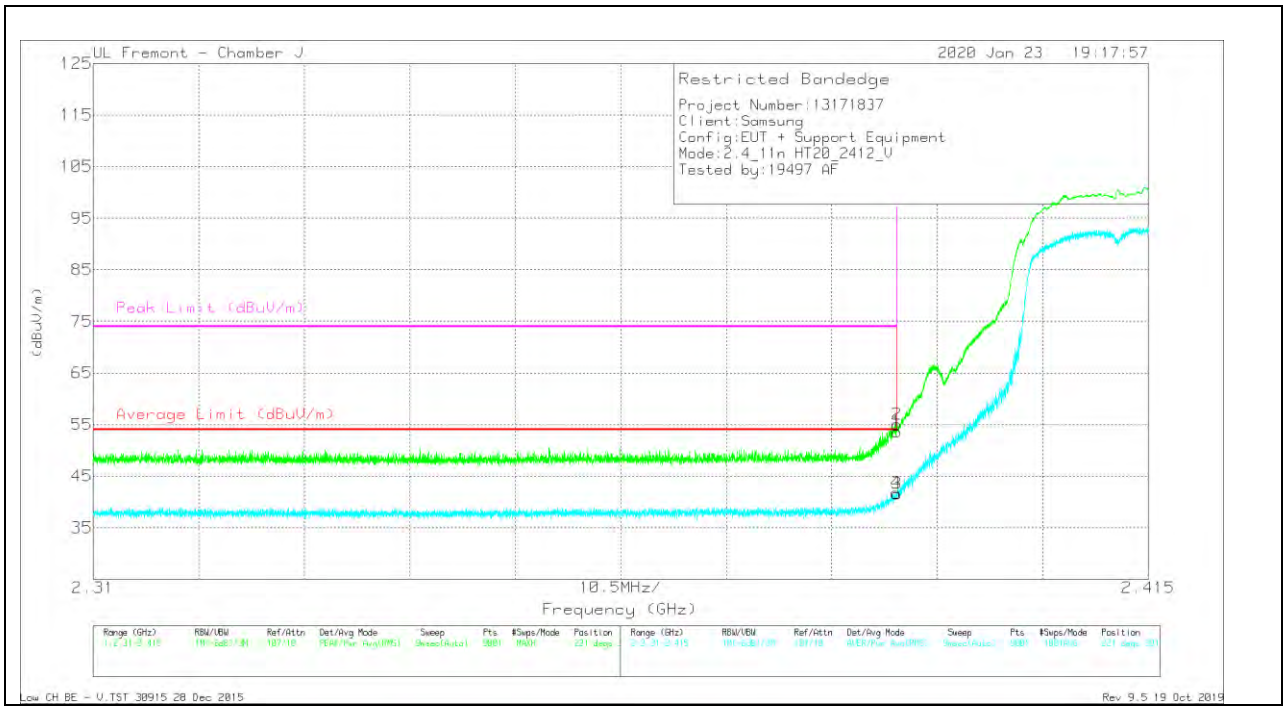
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	47.22	Pk	31.9	-25.5	0	53.62	-	-	74	-20.38	221	391	V
2	* 2.38998	48.66	Pk	31.9	-25.5	0	55.06	-	-	74	-18.94	221	391	V
3	* 2.38999	34.8	RMS	31.9	-25.5	.4	41.6	54	-12.4	-	-	221	391	V
4	* 2.38991	34.95	RMS	31.9	-25.5	.4	41.75	54	-12.25	-	-	221	391	V

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

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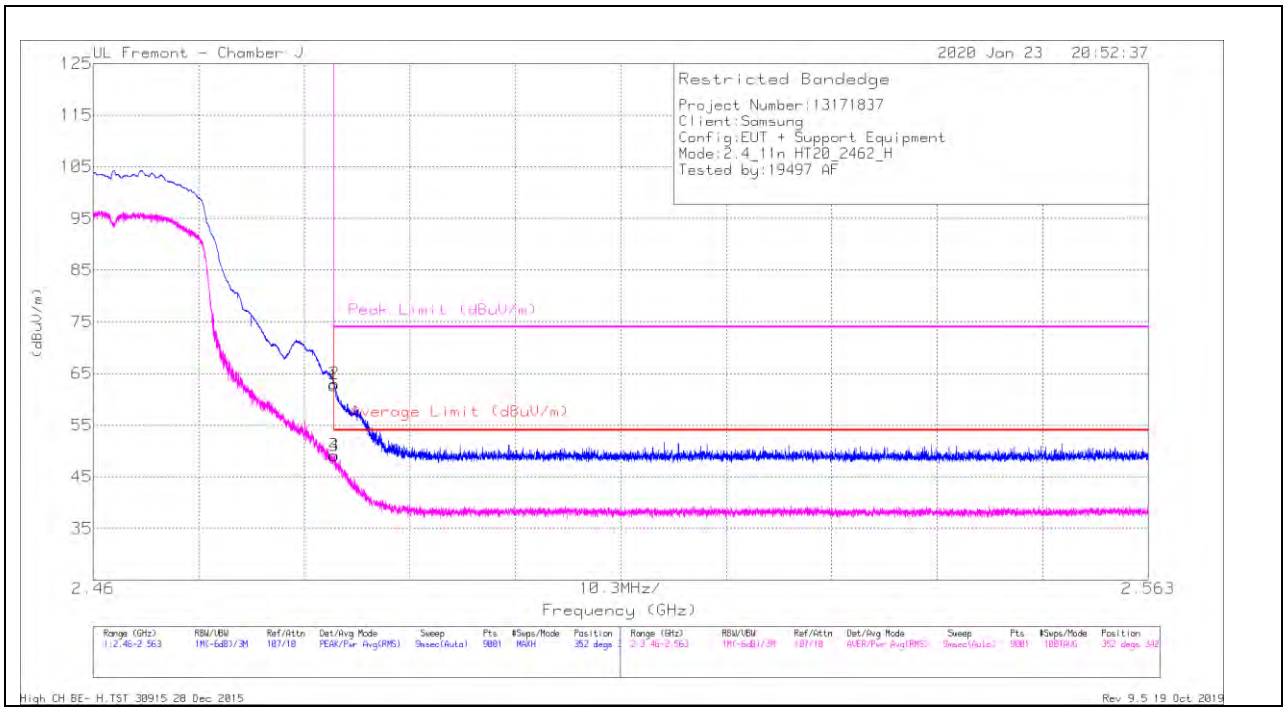
BANDEDGE (HIGH CHANNEL, CH 11)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	55.91	Pk	32.3	-25.5	0	62.71	-	-	74	-11.29	352	342	H
2	* 2.48355	56.22	Pk	32.3	-25.5	0	63.02	-	-	74	-10.98	352	342	H
3	* 2.48351	42.32	RMS	32.3	-25.5	.4	49.11	54	-4.89	-	-	352	342	H
4	* 2.48354	42.3	RMS	32.3	-25.5	.4	49	54	-4.91	-	-	352	342	H

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

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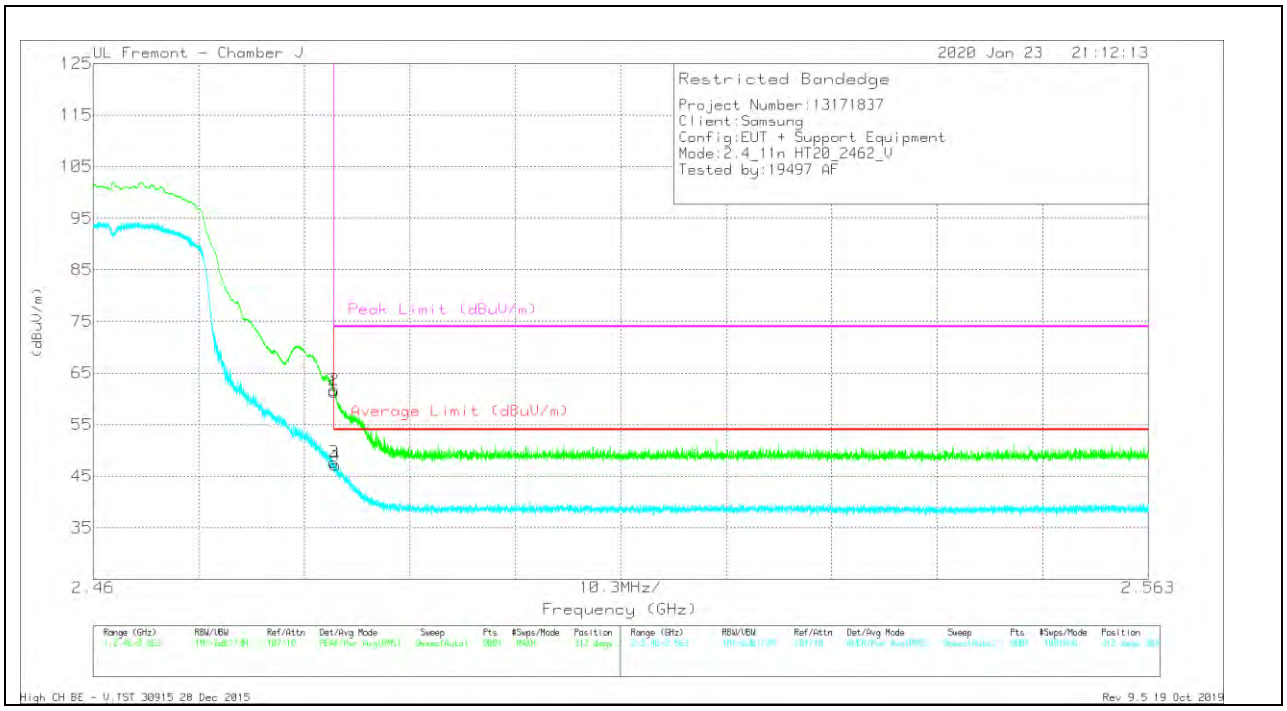
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	54.56	Pk	32.3	-25.5	0	61.36	-	-	74	-12.64	312	384	V
2	* 2.48352	54.93	Pk	32.3	-25.5	0	61.73	-	-	74	-12.27	312	384	V
3	* 2.48351	40.47	RMS	32.3	-25.5	.4	47.67	54	-6.33	-	-	312	384	V
4	* 2.48364	39.95	RMS	32.3	-25.5	.4	47.15	54	-6.85	-	-	312	384	V

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

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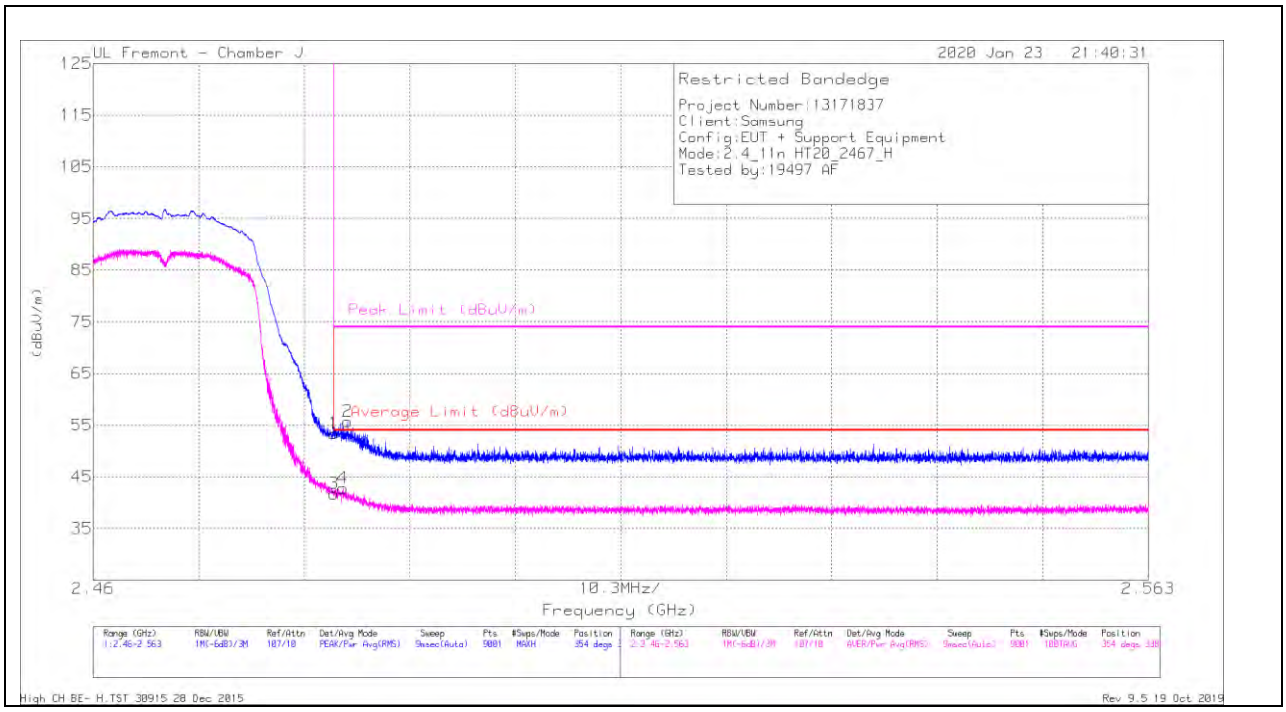
BANDEDGE (HIGH CHANNEL, CH 12)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	46.6	Pk	32.3	-25.5	0	53.4	-	-	74	-20.6	354	338	H
2	* 2.48484	48.92	Pk	32.3	-25.5	0	55.72	-	-	74	-18.28	354	338	H
3	* 2.48351	34.56	RMS	32.3	-25.5	.4	41.76	54	-12.24	-	-	354	338	H
4	* 2.48438	35.6	RMS	32.3	-25.5	.4	42.8	54	-11.2	-	-	354	338	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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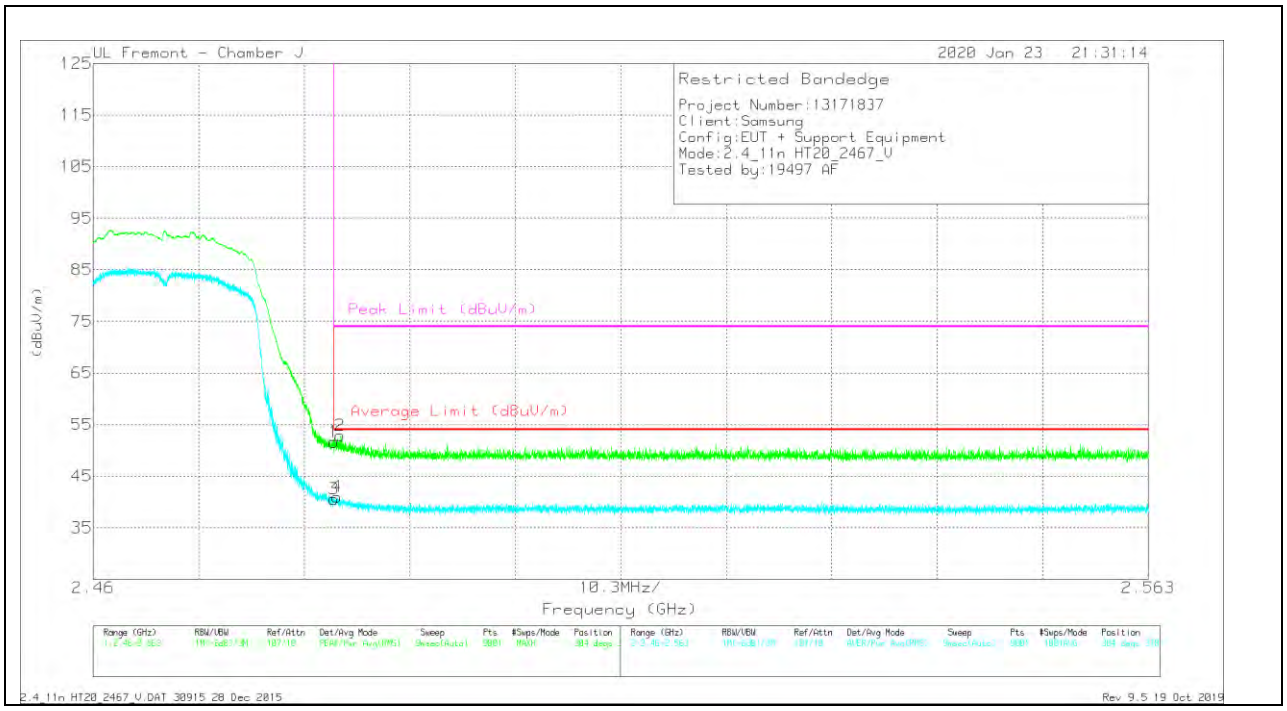
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	44.82	Pk	32.3	-25.5	0	51.62	-	-	74	-22.38	304	378	V
2	* 2.48411	46.08	Pk	32.3	-25.5	0	52.88	-	-	74	-21.12	304	378	V
3	* 2.48351	33.34	RMS	32.3	-25.5	.4	40.54	54	-13.46	-	-	304	378	V
4	* 2.4838	33.8	RMS	32.3	-25.5	.4	41	54	-13	-	-	304	378	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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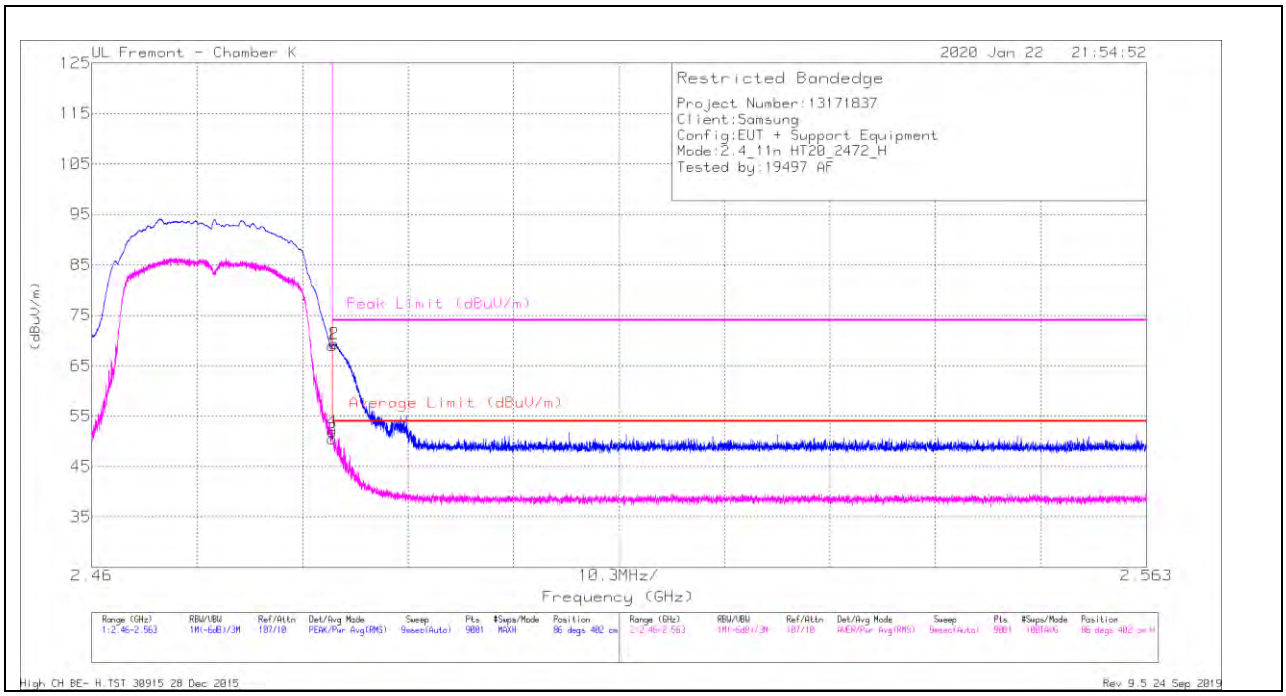
BANDEDGE (HIGH CHANNEL, CH 13)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	61.34	Pk	32.5	-24.8	0	69.04	-	-	74	-4.96	86	402	H
2	* 2.48368	61.65	Pk	32.5	-24.8	0	69.35	-	-	74	-4.65	86	402	H
3	* 2.48351	42.32	RMS	32.5	-24.8	.4	50.42	54	-3.58	-	-	86	402	H
4	* 2.48352	43.87	RMS	32.5	-24.8	.4	51.97	54	-2.03	-	-	86	402	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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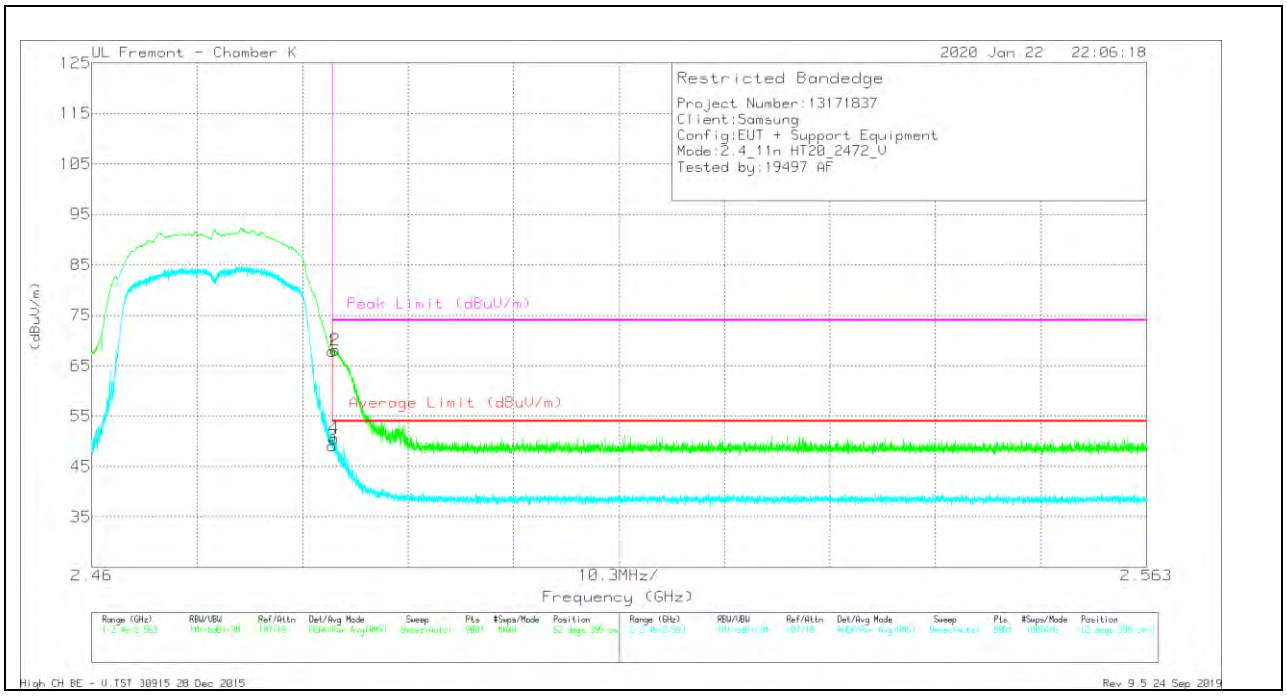
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	60.2	Pk	32.5	-24.8	0	67.9	-	-	74	-6.1	62	399	V
2	* 2.48378	60.45	Pk	32.5	-24.8	0	68.15	-	-	74	-5.85	62	399	V
3	* 2.48351	41	RMS	32.5	-24.8	.4	49.1	54	-4.9	-	-	62	399	V
4	* 2.48365	42.5	RMS	32.5	-24.8	.4	50.6	54	-3.4	-	-	62	399	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

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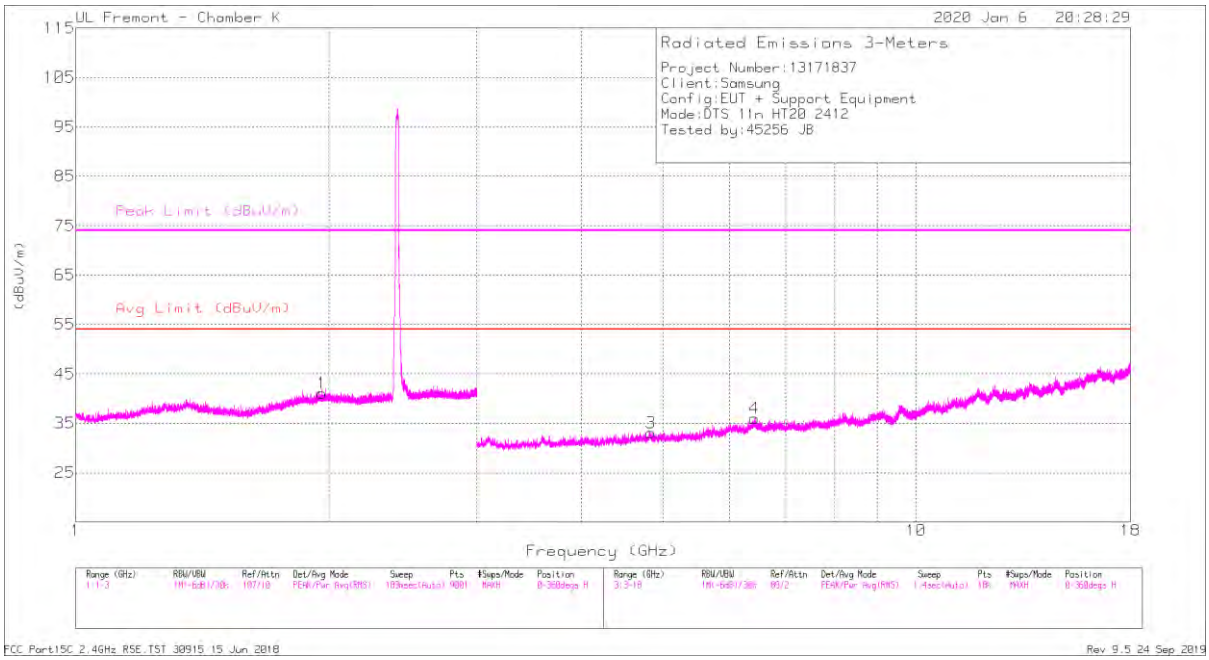
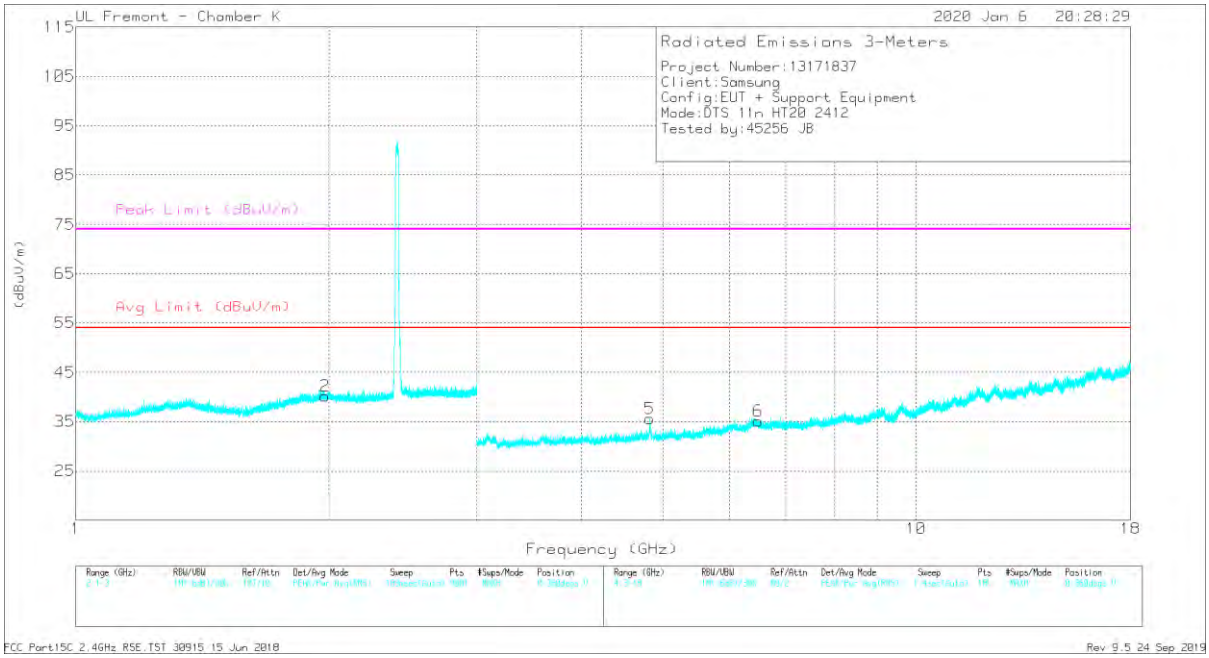
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, CH 1 RESULTS



HORIZONTAL



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RADIATED EMISSIONS

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* 4.8338	36.88	PK2	34.2	-30.3	0	40.78	-	-	74	-33.22	278	114	H
* 4.8333	27.31	MAv1	34.2	-30.3	.4	31.61	54	-22.39	-	-	278	114	H
* 4.82377	39.88	PK2	34.2	-30.4	0	43.68	-	-	74	-30.32	101	251	V
* 4.82336	28.73	MAv1	34.2	-30.4	.4	32.93	54	-21.07	-	-	101	251	V

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

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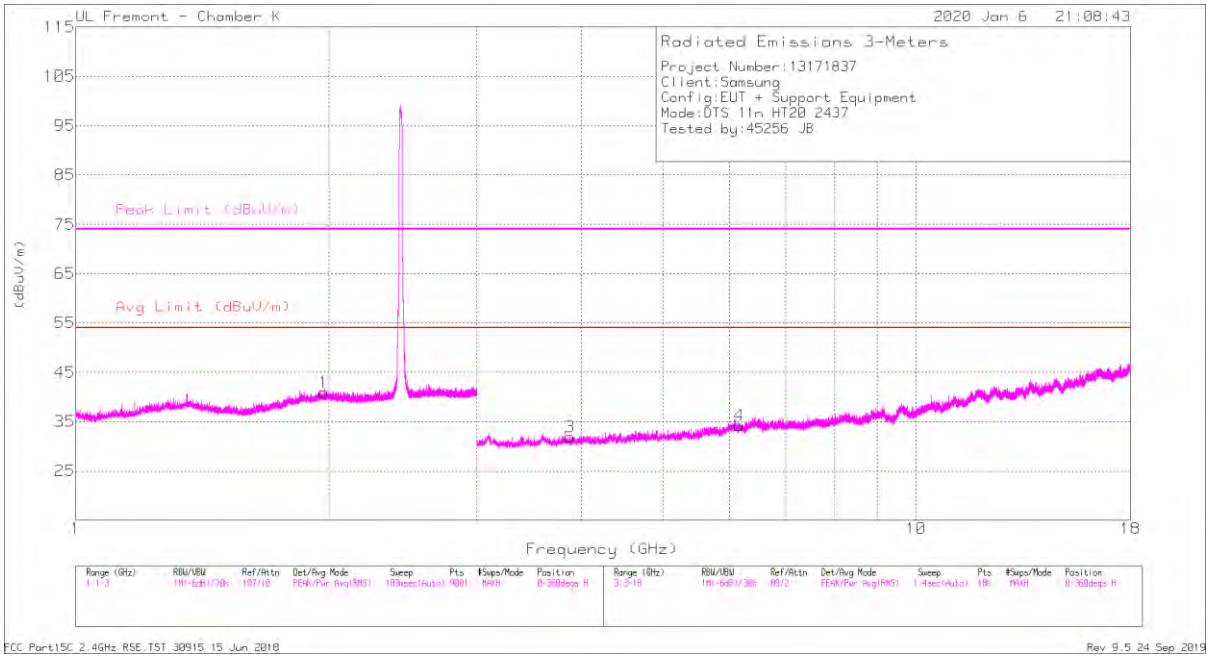
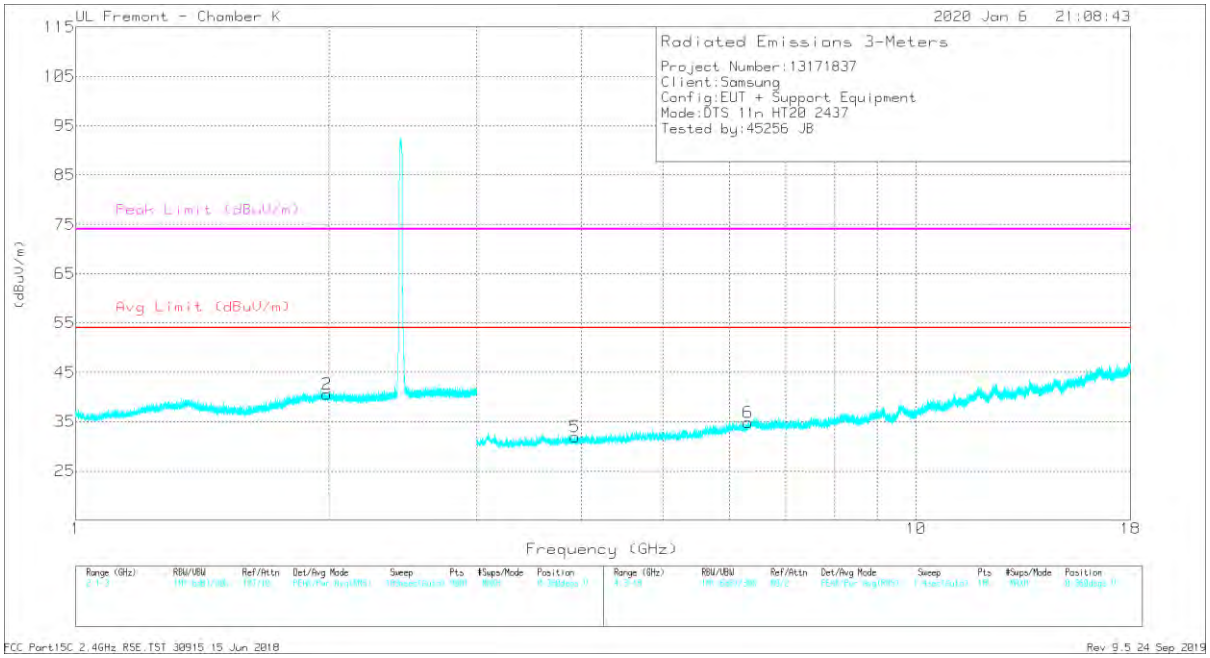
MID CHANNEL, CH 6 RESULTS



HORIZONTAL



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RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cbl/Fltr/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
* 3.87923	38.64	PK2	33.4	-31.7	0	40.34	-	-	74	-33.66	324	113	H
* 3.87934	28.1	MAv1	33.4	-31.7	.4	30.20	54	-23.8	-	-	324	113	H
* 3.9269	37.9	PK2	33.3	-31.7	0	39.5	-	-	74	-34.5	124	231	V
* 3.92822	27.5	MAv1	33.4	-31.7	.4	29.60	54	-24.4	-	-	124	231	V

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

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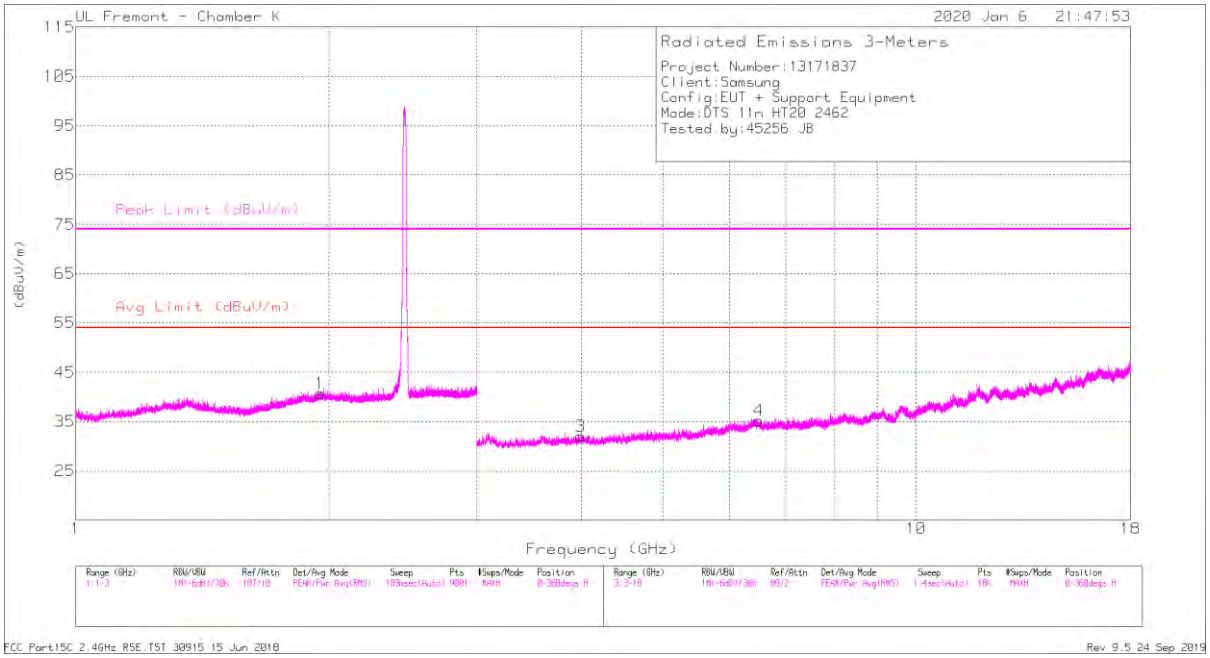
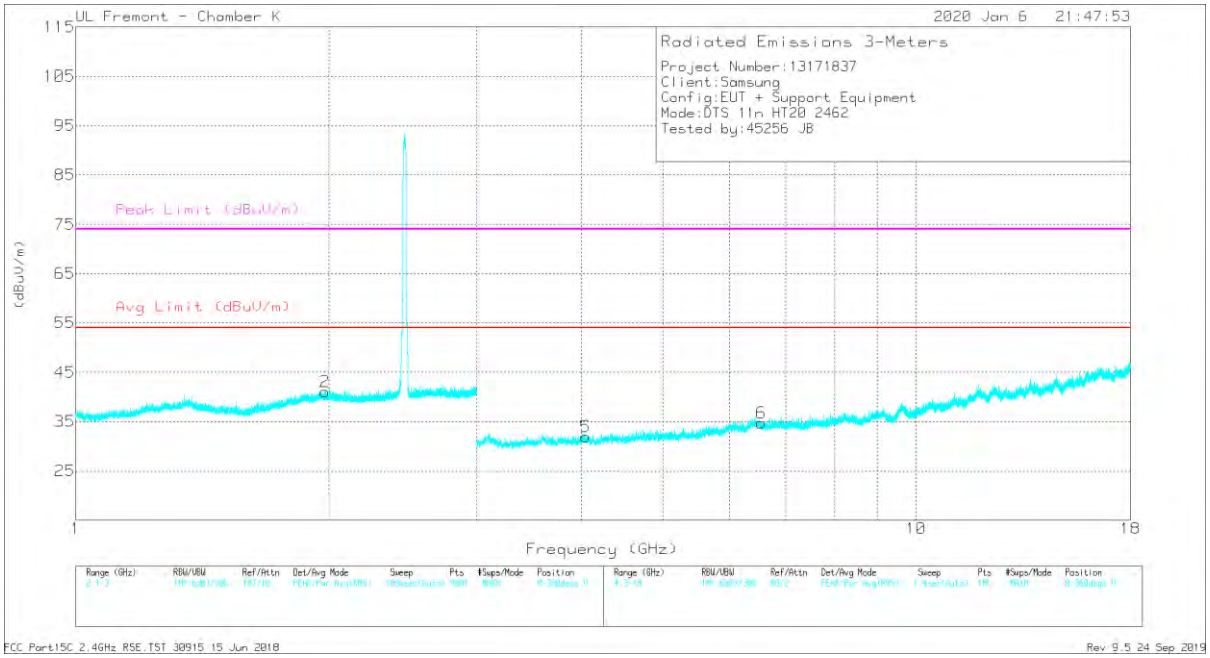
HIGH CHANNEL, CH 11 RESULTS



HORIZONTAL



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RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cbl/Fltr/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
* 3.99034	38.34	PK2	33.3	-31.6	0	40.04	-	-	74	-33.96	282	214	H
* 3.98639	27.14	MAv1	33.3	-31.5	.4	29.34	54	-24.66	-	-	282	214	H
* 4.05121	36.97	PK2	33.4	-30.9	0	39.47	-	-	74	-34.53	172	104	V
* 4.05137	27.01	MAv1	33.4	-30.9	.4	29.91	54	-24.09	-	-	172	104	V

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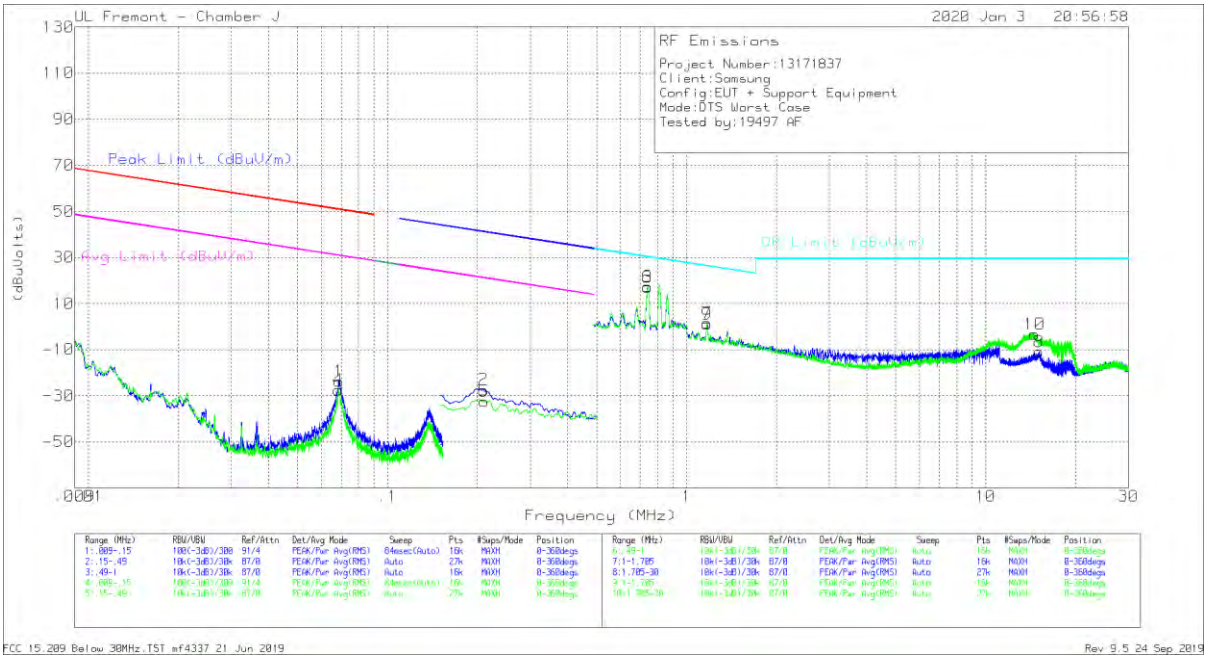
9.2. WORST CASE BELOW 30MHz

SPURIOUS EMISSIONS BELOW 30 MHz (WORST-CASE CONFIGURATION)



ANTENNA- TWO ORIENTATIONS FACE ON/FACE OFF

Below 30MHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuVolts)	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	.06864	29.21	Pk	55.8	-28.6	-80	-23.59	50.85	-74.44	30.85	-54.44	-	-	-	-	0-360
2	.20909	25.14	Pk	56.1	-28.6	-80	-27.36	-	-	-	-	41.21	-68.57	21.21	-48.57	0-360
4	.06843	25.29	Pk	55.8	-28.6	-80	-27.51	50.88	-78.39	30.88	-58.39	-	-	-	-	0-360
5	.21016	19.99	Pk	56.1	-28.6	-80	-32.51	-	-	-	-	41.17	-73.68	21.17	-53.68	0-360

Pk - Peak detector

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuVolts)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
3	.74077	29.55	Pk	56.1	-28.5	-40	17.15	30.22	-13.07	0-360
6	.74077	29.93	Pk	56.1	-28.5	-40	17.53	30.22	-12.69	0-360
7	1.17043	24	Pk	45.9	-28.4	-40	1.5	26.26	-24.76	0-360
8	15.03451	22.89	Pk	34.1	-27.9	-40	-10.91	29.5	-40.41	0-360
9	1.16955	23.48	Pk	45.9	-28.4	-40	.98	26.26	-25.28	0-360
10	14.57025	30.47	Pk	34.1	-27.9	-40	-3.33	29.5	-32.83	0-360

Pk - Peak detector

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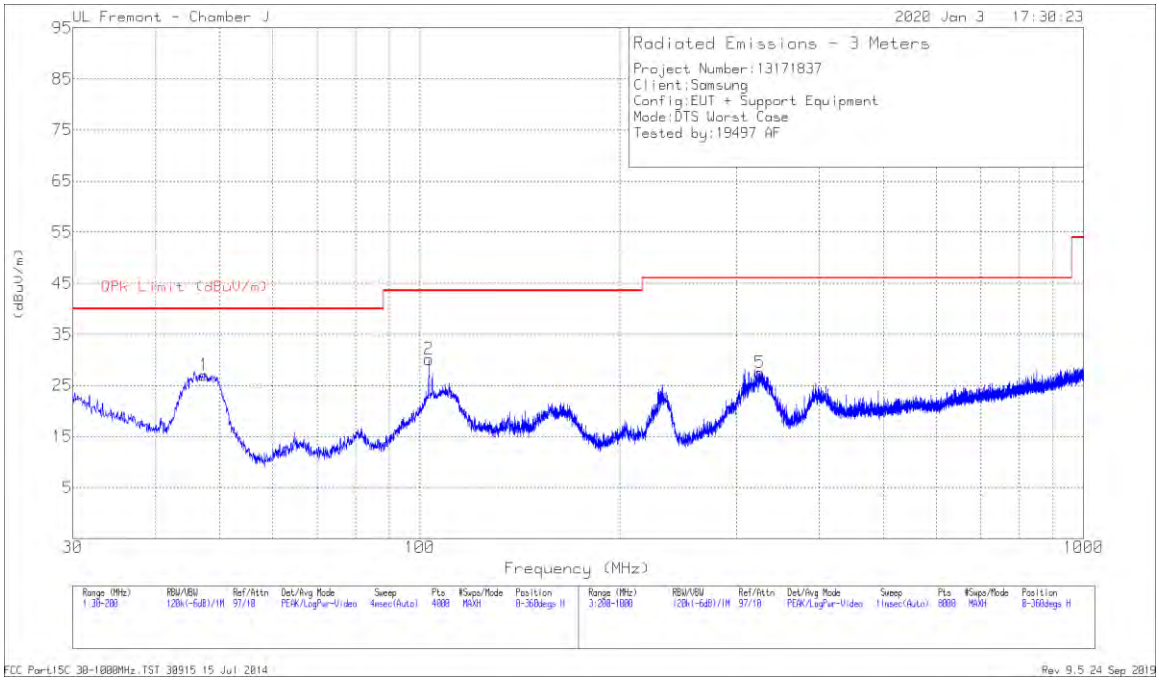
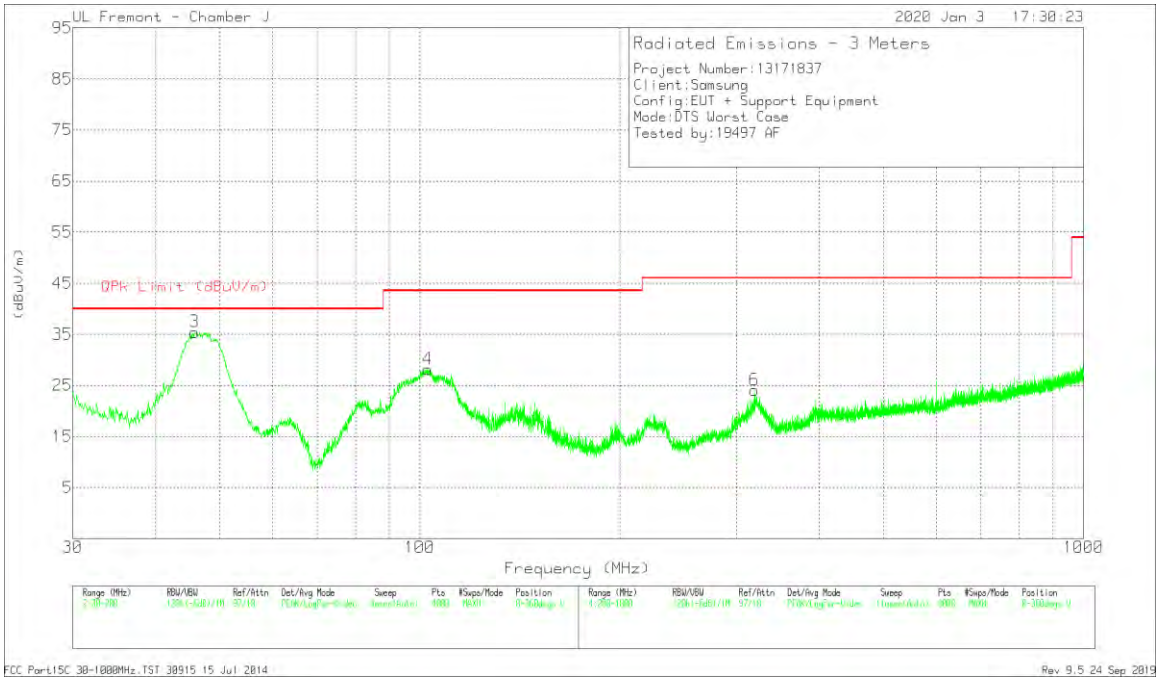
9.3. WORST CASE BELOW 1 GHz



HORIZONTAL



VERTICAL

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Below 1GHz DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T899 (dB/m)	Amp Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	47.3445	43.64	Pk	14.8	-31.4	27.04	40	-12.96	0-360	398	H
2	103.2465	44.01	Pk	17.1	-31	30.11	43.52	-13.41	0-360	298	H
3	45.6546	47.11	Pk	15.9	-31.4	31.61	40	-8.39	105	338	V
	45.6546	42.33	Qp	15.9	-31.4	26.83	40	-13.17	105	338	V
4	102.7788	42.3	Pk	16.9	-31	28.2	43.52	-15.32	0-360	101	V
5	* 325.3163	37.7	Pk	19.8	-30	27.5	46.02	-18.52	0-360	101	H
6	319.0155	34.3	Pk	19.8	-30	24.1	46.02	-21.92	0-360	101	V

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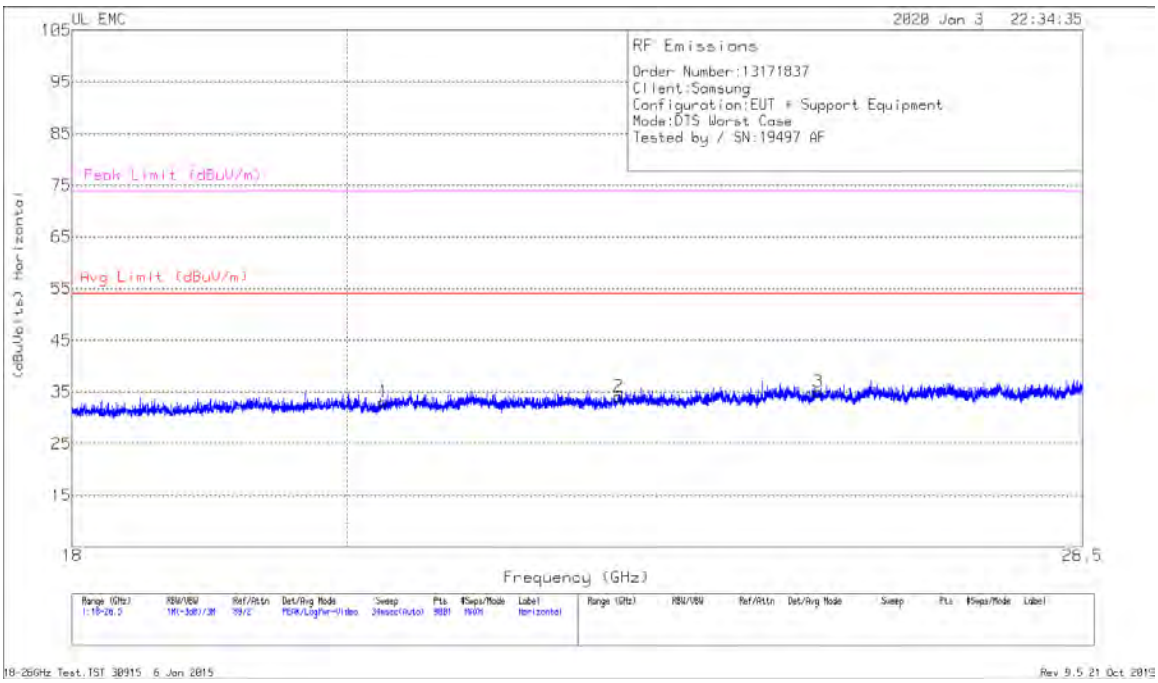
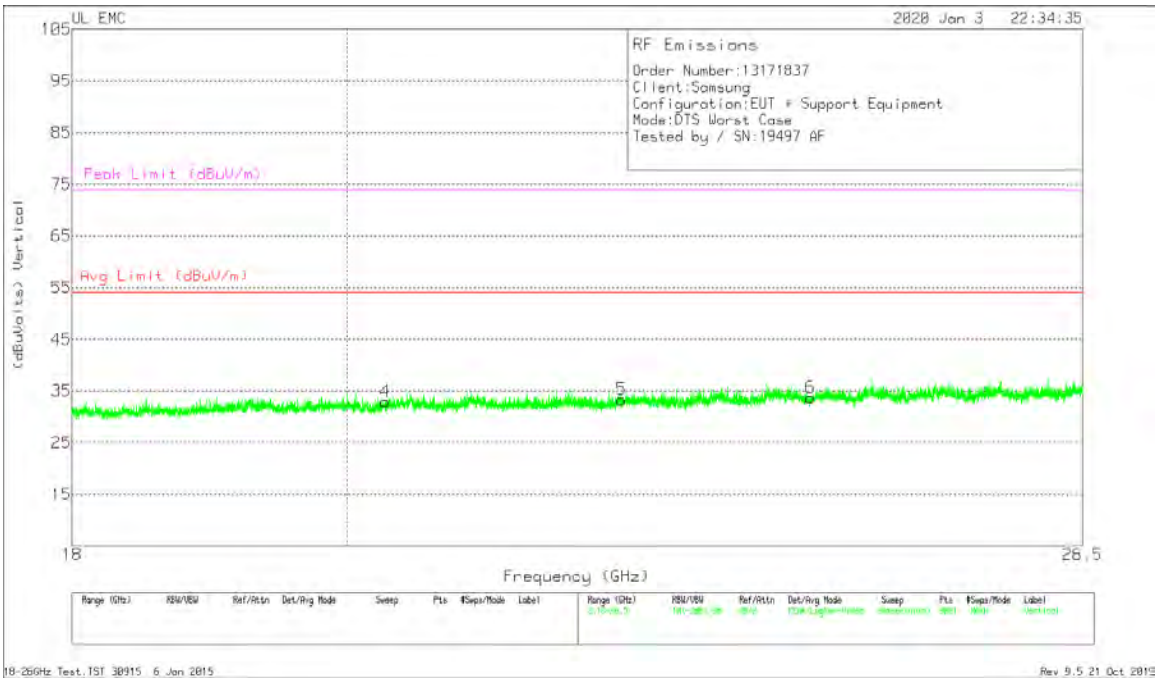
9.4. WORST CASE 18-26 GHz



HORIZONTAL



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18 – 26GHz DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T447 AF (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuVolts)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	20.27989	66.77	Pk	32.9	-57.1	-9.5	33.07	54	-20.93	74	-40.93
2	22.18861	67.66	Pk	33.5	-57.5	-9.5	34.16	54	-19.84	74	-39.84
3	23.95	67.07	Pk	34.3	-56.8	-9.5	35.07	54	-18.93	74	-38.93
4	20.29217	66.72	Pk	32.9	-57.2	-9.5	32.92	54	-21.08	74	-41.08
5	22.21316	66.9	Pk	33.5	-57.6	-9.5	33.3	54	-20.7	74	-40.7
6	23.87916	65.79	Pk	34.3	-56.9	-9.5	33.69	54	-20.31	74	-40.31

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10. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 8.8

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

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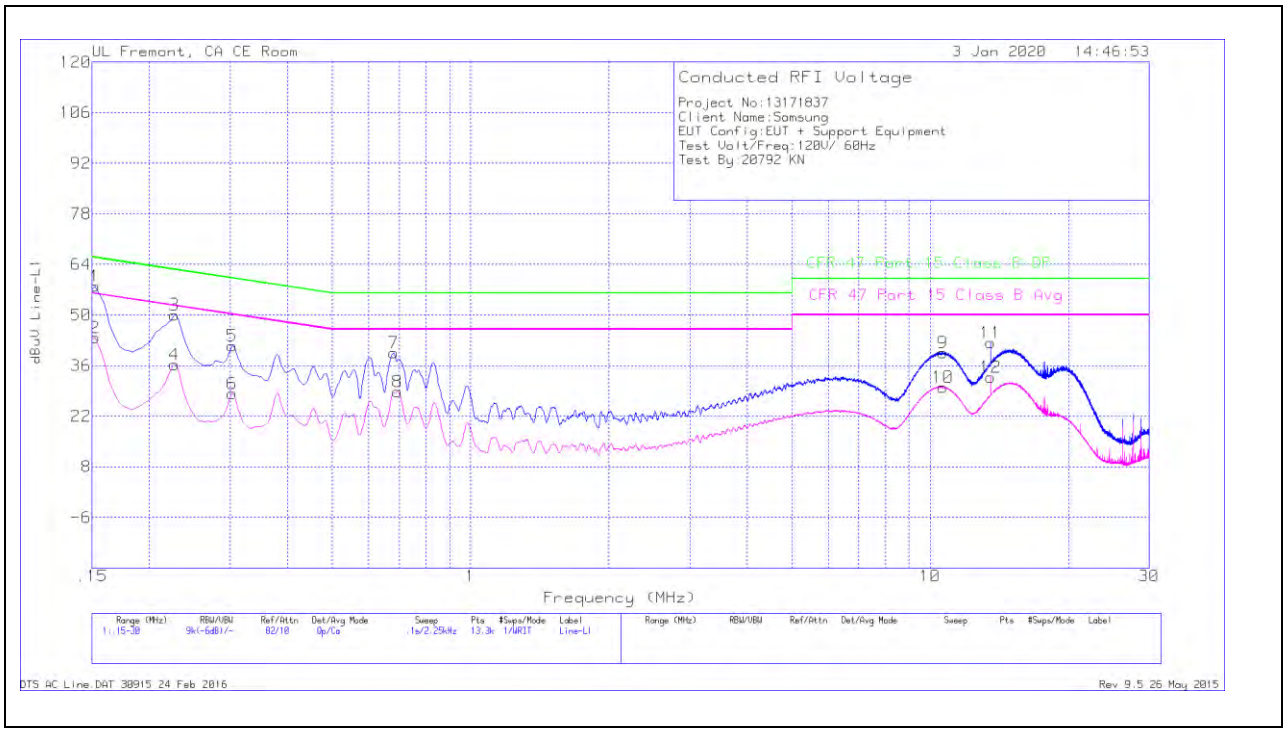
10.1.1. AC Power Line Host

LINE 1 RESULTS



Trace Markers

Range 1: Line-L1 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN L1	LC Cables C1&C3	Limiter (dB)	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR) Margin (dB)
1	.15225	47.83	Qp	.1	0	10.1	58.03	65.88	-7.85	-	-
2	.15225	33.5	Ca	.1	0	10.1	43.7	-	-	55.88	-12.18
3	.2265	39.98	Qp	0	0	10.1	50.08	62.58	-12.5	-	-
4	.2265	26.18	Ca	0	0	10.1	36.28	-	-	52.58	-16.3
5	.303	31.32	Qp	0	0	10.1	41.42	60.16	-18.74	-	-
6	.303	18.13	Ca	0	0	10.1	28.23	-	-	50.16	-21.93
7	.681	29.39	Qp	0	0	10.1	39.49	56	-16.51	-	-
8	.6945	18.62	Ca	0	0	10.1	28.72	-	-	46	-17.28
9	10.671	29.16	Qp	0	.2	10.2	39.56	60	-20.44	-	-
10	10.653	19.67	Ca	0	.2	10.2	30.07	-	-	50	-19.93
11	13.56	31.8	Qp	.1	.2	10.2	42.3	60	-17.7	-	-
12	13.56	22.25	Ca	.1	.2	10.2	32.75	-	-	50	-17.25

Qp - Quasi-Peak detector
Ca - CISPR average detection
NOTE: Markers 11 and 12, 13.56MHz is an external NFC signal unrelated to the EUT.

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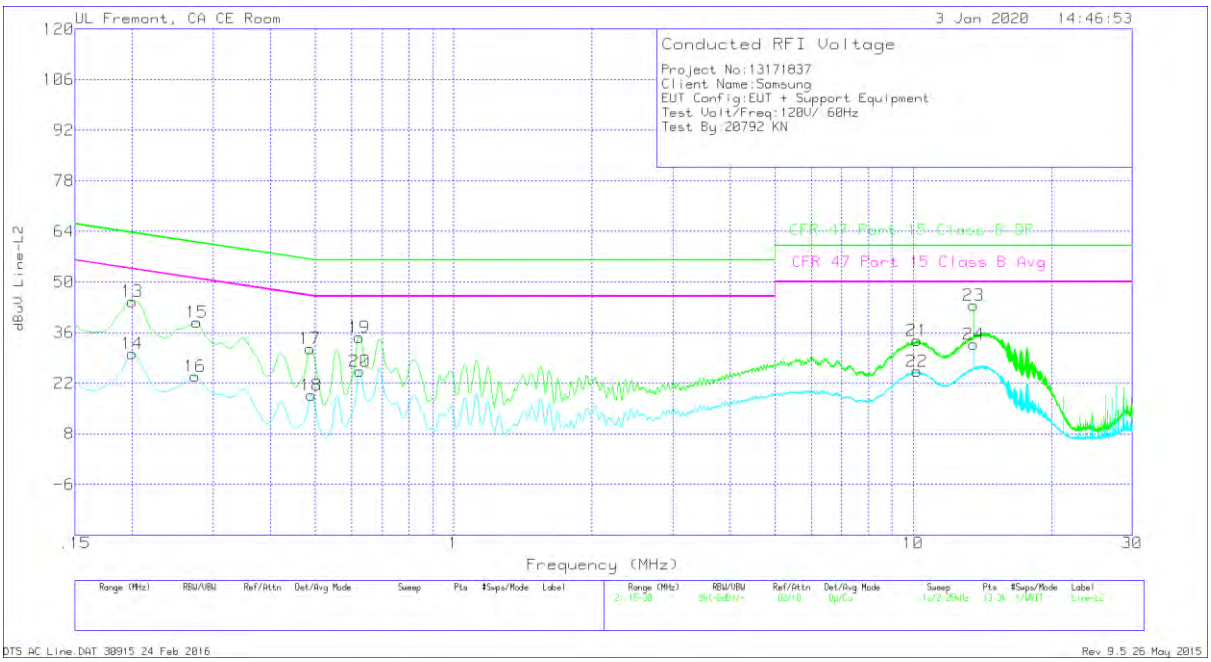
LINE 2 RESULTS



Trace Markers

Range 2: Line-L2 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN L2	LC Cables C2&C3	Limiter (dB)	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR) Margin (dB)
13	.1995	34.59	Qp	0	0	10.1	44.69	63.63	-18.94	-	-
14	.1995	20.11	Ca	0	0	10.1	30.21	-	-	53.63	-23.42
15	.276	28.8	Qp	0	0	10.1	38.9	60.94	-22.04	-	-
16	.27375	13.88	Ca	0	0	10.1	23.98	-	-	51	-27.02
17	.4875	21.55	Qp	0	0	10.1	31.65	56.21	-24.56	-	-
18	.48975	8.63	Ca	0	0	10.1	18.73	-	-	46.17	-27.44
19	.6225	24.63	Qp	0	0	10.1	34.73	56	-21.27	-	-
20	.62475	15.29	Ca	0	0	10.1	25.39	-	-	46	-20.61
21	10.212	23.5	Qp	0	.2	10.2	33.9	60	-26.1	-	-
22	10.20863	14.84	Ca	0	.2	10.2	25.24	-	-	50	-24.76
23	13.56	33.14	Qp	.1	.2	10.2	43.64	60	-16.36	-	-
24	13.56	22.25	Ca	.1	.2	10.2	32.75	-	-	50	-17.25

Qp - Quasi-Peak detector
Ca - CISPR average detection
NOTE: Markers 23 and 24, 13.56MHz is an external NFC signal unrelated to the EUT.

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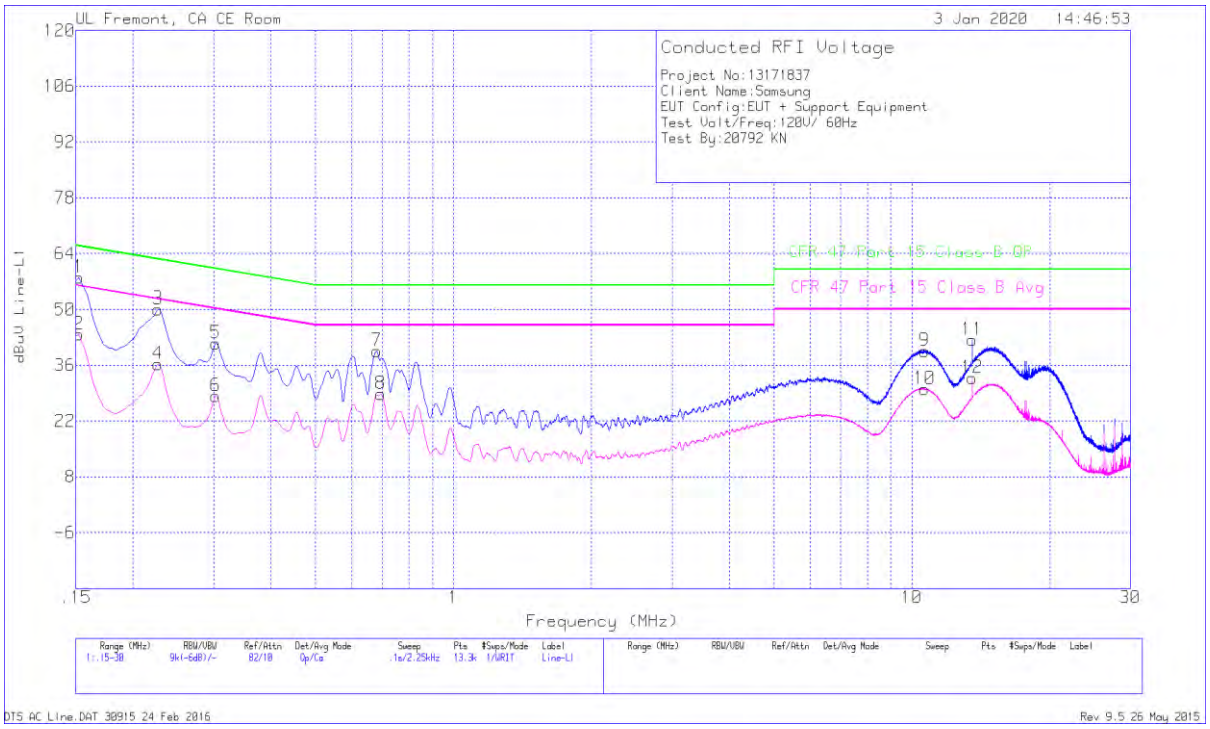
10.1.2. AC Power Line Norm

LINE 1 RESULTS



Trace Markers

Range 1: Line-L1 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN L1	LC Cables C1&C3	Limiter (dB)	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR) Margin (dB)
1	.15225	47.83	Qp	.1	0	10.1	58.03	65.88	-7.85	-	-
2	.15225	33.5	Ca	.1	0	10.1	43.7	-	-	55.88	-12.18
3	.2265	39.98	Qp	0	0	10.1	50.08	62.58	-12.5	-	-
4	.2265	26.18	Ca	0	0	10.1	36.28	-	-	52.58	-16.3
5	.303	31.32	Qp	0	0	10.1	41.42	60.16	-18.74	-	-
6	.303	18.13	Ca	0	0	10.1	28.23	-	-	50.16	-21.93
7	.681	29.39	Qp	0	0	10.1	39.49	56	-16.51	-	-
8	.6945	18.62	Ca	0	0	10.1	28.72	-	-	46	-17.28
9	10.671	29.16	Qp	0	.2	10.2	39.56	60	-20.44	-	-
10	10.653	19.67	Ca	0	.2	10.2	30.07	-	-	50	-19.93
11	13.56	31.8	Qp	.1	.2	10.2	42.3	60	-17.7	-	-
12	13.56	22.25	Ca	.1	.2	10.2	32.75	-	-	50	-17.25

Qp - Quasi-Peak detector
Ca - CISPR average detection
NOTE: Markers 11 and 12, 13.56MHz is an external NFC signal unrelated to the EUT.

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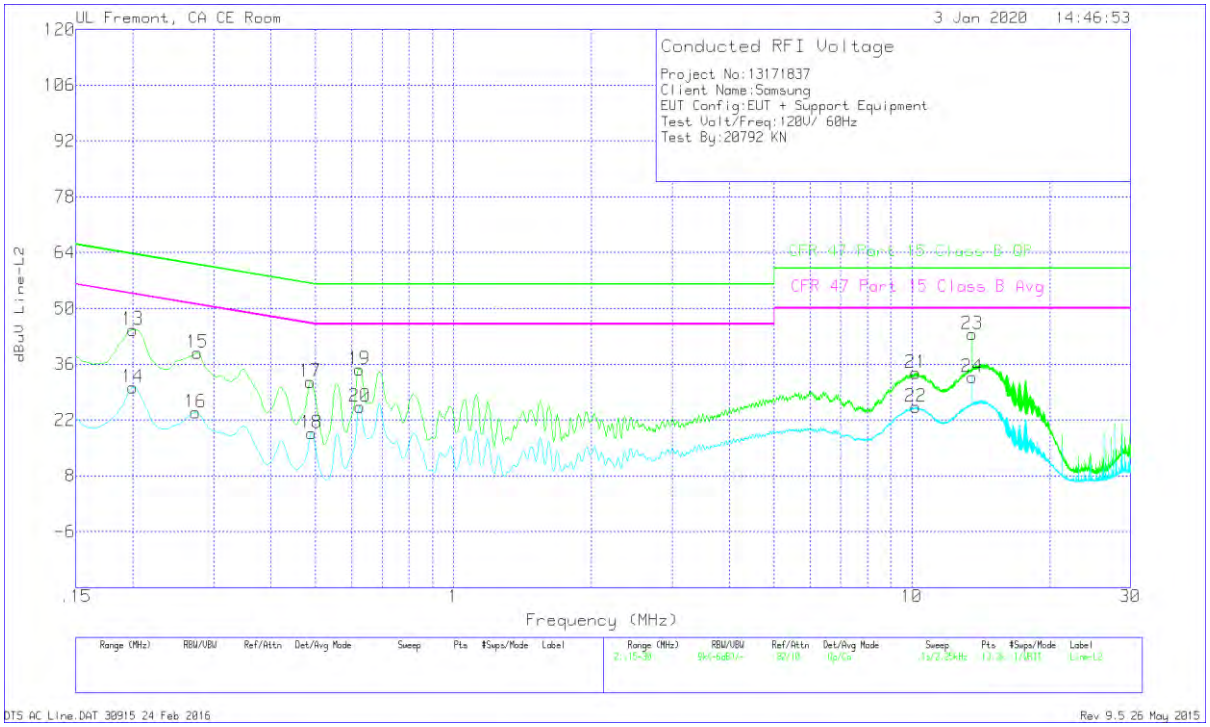
LINE 2 RESULTS



Trace Markers

Range 2: Line-L2 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN L2	LC Cables C2&C3	Limiter (dB)	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR) Margin (dB)
13	.1995	34.59	Qp	0	0	10.1	44.69	63.63	-18.94	-	-
14	.1995	20.11	Ca	0	0	10.1	30.21	-	-	53.63	-23.42
15	.276	28.8	Qp	0	0	10.1	38.9	60.94	-22.04	-	-
16	.27375	13.88	Ca	0	0	10.1	23.98	-	-	51	-27.02
17	.4875	21.55	Qp	0	0	10.1	31.65	56.21	-24.56	-	-
18	.48975	8.63	Ca	0	0	10.1	18.73	-	-	46.17	-27.44
19	.6225	24.63	Qp	0	0	10.1	34.73	56	-21.27	-	-
20	.62475	15.29	Ca	0	0	10.1	25.39	-	-	46	-20.61
21	10.212	23.5	Qp	0	.2	10.2	33.9	60	-26.1	-	-
22	10.20863	14.84	Ca	0	.2	10.2	25.24	-	-	50	-24.76
23	13.56	33.14	Qp	.1	.2	10.2	43.64	60	-16.36	-	-
24	13.56	22.25	Ca	.1	.2	10.2	32.75	-	-	50	-17.25

Qp - Quasi-Peak detector

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