



TEST REPORT

Report Number. : 13079858-E2V3

Applicant : SRAM LLC
1000 W Fulton Market 4th Floor
Chicago, IL 60607, United States

Models : 00601 and 00610

FCC ID : C9O-AIRFB2

ISED : 10161A-AIRFB2

EUT Description : Front and Rear AirWiz with BLE and ANT+ Radios

Test Standard(s) : FCC 47 CFR PART 15 SUBPART C
ISED RSS-210 ISSUE 10
ISED RSS-GEN ISSUE 5 + A1

Date of Issue:

April 21, 2021

Prepared by:

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REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	11/9/2020	Initial Issue	---
V2	1/25/2021	Updated Section 9.2, Updated Section 3	Kiya Kedida
V3	4/21/2021	Added Additional Model #00610. Updated Sections, 1, 5.3, 5.5, 7 and 11. Added Section 10 Spot Check Data	Kiya Kedida

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: SRAM LLC
1000 W Fulton Market 4th Floor
Chicago, IL 60607, United States

EUT DESCRIPTION: Front and Rear AirWiz with BLE and ANT+ Radios

MODELS: 00601 and 00610

SERIAL NUMBER: Conducted: QuarqLYR27832
Radiated: QuarqLYS27832, QuarqPYQ27483

DATE TESTED: OCTOBER 23, 2020 – APRIL 8, 2021

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	Complies
ISED RSS-210 Issue 10	Complies
ISED RSS-GEN Issue 5 + A1	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.

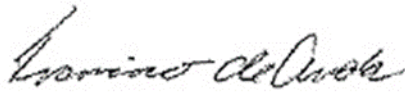
The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. 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.

This report contains data provided by the customer, which can impact the validity of results. UL Verification Services Inc. is only responsible for the validity of results after the integration of the data provided by the customer.

Approved & Released For
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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, ISED RSS-GEN Issue 5 + A1 and ISED RSS-210 Issue 10.

3. 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
☐	Building 1: 47173 Benicia Street, Fremont, California 94538, USA	US0104	2324A	208313
☐	Building 2: 47266 Benicia Street, Fremont, California 94538, USA	US0104	22541	208313
☒	Building 4: 47658 Kato Rd, Fremont, California 94538, USA	US0104	2324B	208313

4. DECISION RULES AND MEASUREMENT UNCERTAINTY

4.1. 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.

4.2. 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.)

4.3. 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	3.4 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%.

4.4. 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.
 $36.5 \text{ dBuV} + 0 \text{ dB} + 10.1 \text{ dB} + 0 \text{ dB} = 46.6 \text{ dBuV}$

5. EQUIPMENT UNDER TEST

5.1. EUT DESCRIPTION

The EUT will measure suspension air pressure and display it an app for bicycle use. Includes BLE and ANT+ Radios.

5.2. MAXIMUM FUNDAMENTAL FIELD STRENGTH

The transmitter has a maximum fundamental field strength as follows:

Frequency Range (MHz)	Mode	Peak E-field Strength (dBuV/m)	Avg E-field Strength (dBuV/m)	Distance (m)
2405 - 2475	ANT+	104.09	90.11	3.00

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The antenna gain(s) and type, as provided by the manufacturer, are as follows:

The radio utilizes a ceramic chip antenna, with a maximum gain of 2.20 dBi.

5.4. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was version B-1.0.

The test utility software used during testing was nRF Connect version 3.3.0.

5.5. WORST-CASE CONFIGURATION AND MODE

According to the manufacturer, the AirWiz rear suspension model (00610) contains an identical PCBA and firmware to the AirWiz front suspension model (00601). They share the same chipset, same power and same antenna performance including antenna gain. The only differences between the two devices Front AirWiz model (00601) and Rear AirWiz model (00610) is outer enclosure. The AirWiz Front suspension model (00601) was set for full test. Spot check verification has been done on the AirWiz rear suspension model (00610) for radiated harmonic spurious and radiated band-edge.

Radiated emissions below 1GHz and above 18GHz 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 two orthogonal orientations Horizontal, and Vertical, it was determined that Horizontal orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in Horizontal orientation.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List			
Description	Manufacturer	Model	Serial Number
Laptop	Lenovo	T450s	PC044FTD
AC/DC Adapter	Lenovo	ADLX45NCC2A	N/A
USB Dongle	Segger	E204460	680435024
DC Power Supply	Kenwood Corporation	PA36-3A	7060074
DC Power Supply	TDK.Lambda	ZUP36-6U	LOC-738A019-0007

I/O CABLES (CONDUCTED EMISSIONS)

I/O CABLE LIST						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	AC	1	AC	Unshielded	1.5	AC Main to DC Supply, to Analyzer
2	DC	1	DC	Unshielded	0.5	Power Supply to EUT
3	Antenna Port	1	SMA	Unshielded	0.1	EUT to Analyzer

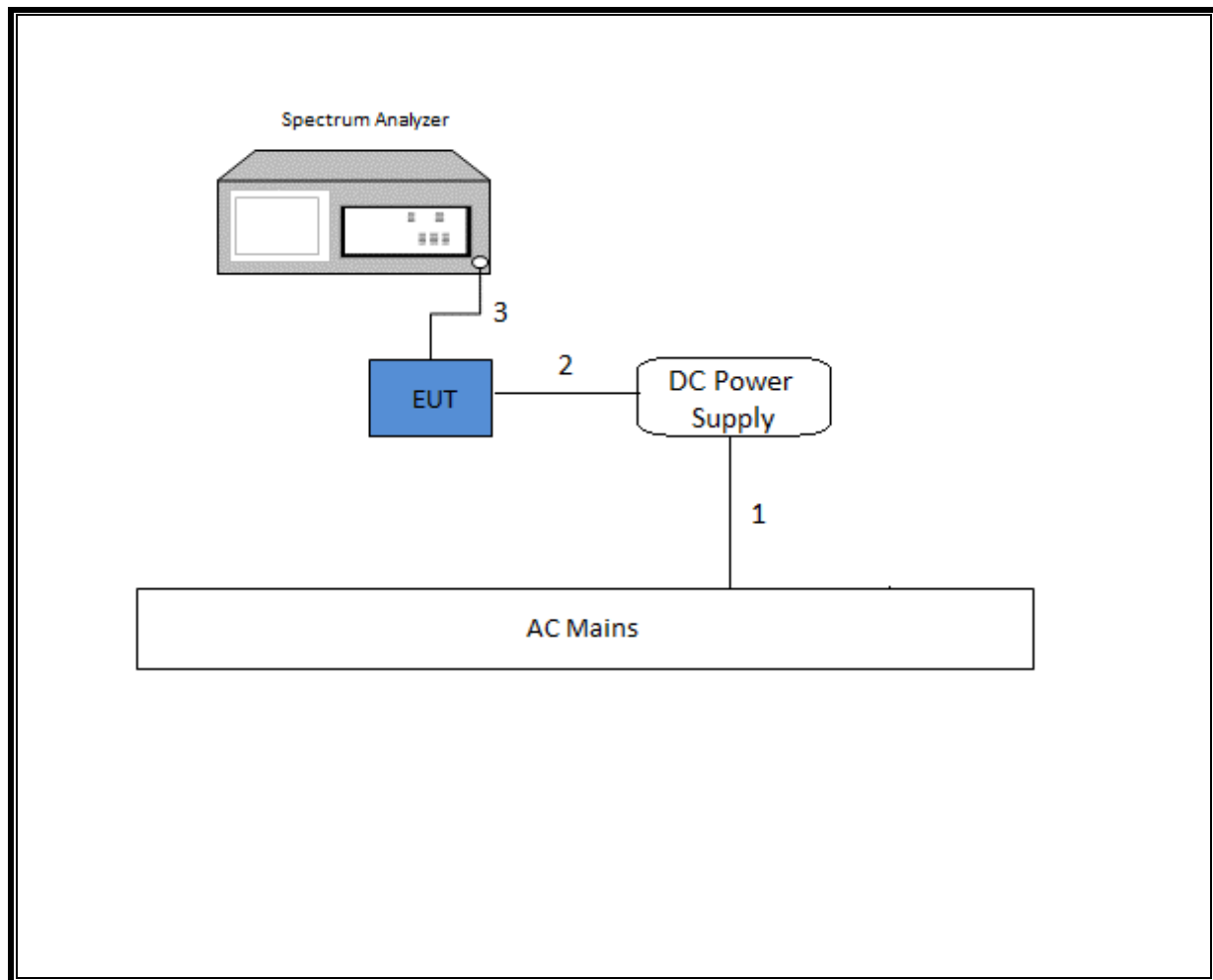
I/O CABLES (RADIATED EMISSIONS)

I/O CABLE LIST						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	AC	1	AC	Unshielded	1.5	AC Main to DC Supply
2	DC	1	DC	Unshielded	0.5	Power Supply to EUT

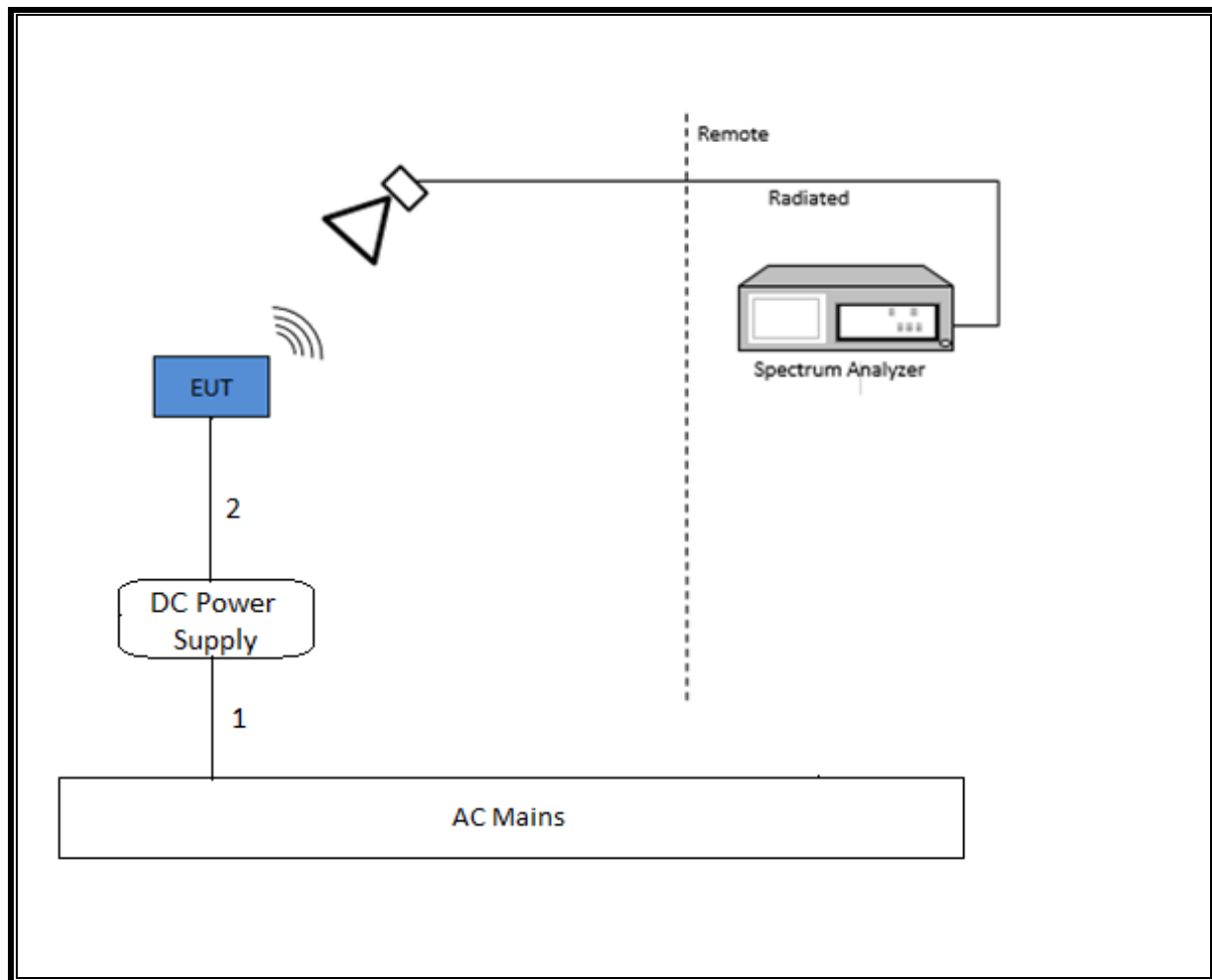
TEST SETUP

For the purposes of testing, the EUT is connected to a 3V DC Power supply for radiated emissions above 1GHz. The EUT is normally powered by a CR2032 battery at 3V. The laptop and USB dongle were used for set up purposes and were removed during testing.

SETUP DIAGRAM FOR CONDUCTED TESTS



SETUP DIAGRAM FOR RADIATED TESTS



6. MEASUREMENT METHOD

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

Occupied BW (20dB): ANSI C63.10-2013 Section 6.9.2

Radiated Spurious Emissions 30-1000MHz: ANSI C63.10-2013 Section 6.3 and 6.5

Radiated Spurious Emissions above 1GHz: ANSI C63.10-2013 Section 6.3 and 6.6

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

Radiated Band-edge: ANSI C63.10-2013 Section 6.10.5

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	4/3/2021
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	T863	8/31/2021
Amplifier, 100MHz-18GHz	AMPLICAL	AMP0.1G18-47-20	PRE0197319	5/4/2021
Antenna, BroadBand Hybrid, 30MHz to 3GHz	Sunol Sciences Corp.	JB3	T477	9/24/2021
Amplifier, 9KHz to 1GHz, 32dB	SONOMA INSTRUMENT	310	175953	1/23/2021
Filter, HPF 3.0GHz	MICRO-TRONICS	HPM17543	175973	5/4/2021
Antenna, Passive Loop 30Hz - 1MHz	ELECTRO METRICS	EM-6871	PRE0179466	5/27/2021
Antenna, Passive Loop 100KHz - 30MHz	ELECTRO METRICS	EM-6872	PRE0179468	5/27/2021
Antenna, Horn 18 to 26.5GHz	ARA	MWH-1826/B	T447	9/20/2021
Rf Amplifier, 18-26.5GHz, 60dB gain	AMPLICAL	AMP18G26.5-60	PRE0181238	6/7/2021
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight Technologies Inc	N9030A	T341	7/29/2021
Power Meter, P-series single channel	Keysight Technologies Inc	N1911A	T1268	1/22/2021
Power Sensor, P - series, 50MHz to 18GHz, Wideband	Keysight Technologies Inc	N1921A	T413	2/26/2021
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	PRE0179367	2/21/2022
Amplifier, 9KHz to 1GHz, 32dB	SONOMA INSTRUMENT	310	175953	1/21/2022
UL AUTOMATION SOFTWARE				
Radiated Software	UL	UL EMC	Ver 9.5, March 30, 2020	
Radiated Software	UL	UL EMC	Rev 9.5, April 30, 2020	
Antenna Port Software	UL	UL RF	Ver 2020.9.18	

NOTES:

1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.

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

Note: DCCF based on manufacturer's declared duty cycle of 20%, $20\log(0.2) = -13.98\text{dB}$.

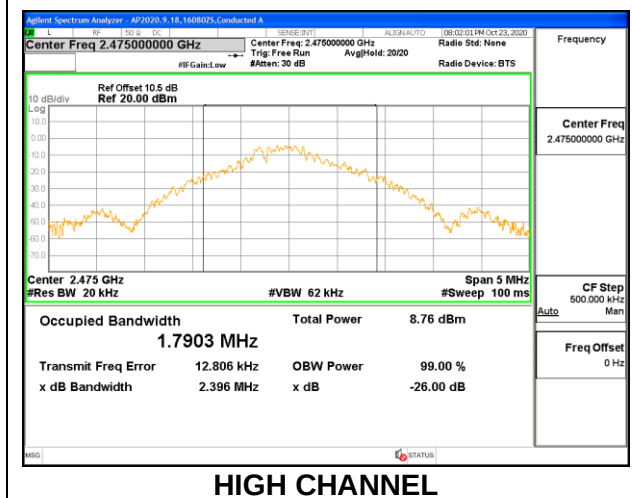
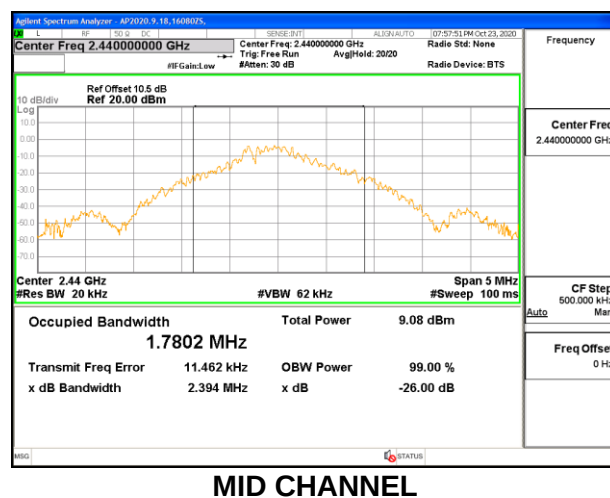
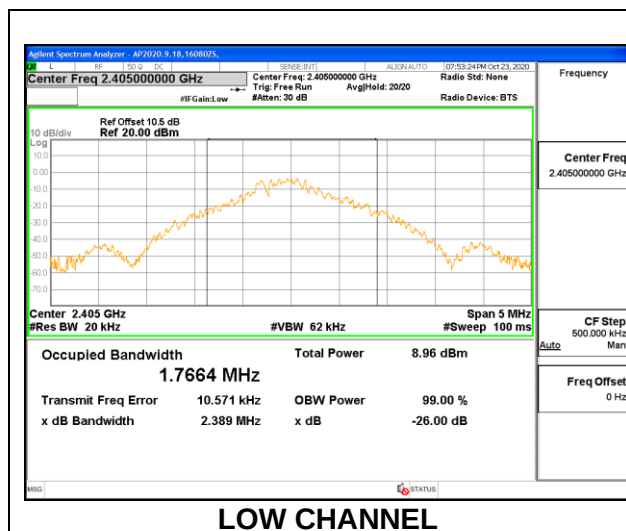
8.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2405	1.7664
Middle	2440	1.7802
High	2475	1.7903



8.3. 20 dB BANDWIDTH

LIMITS

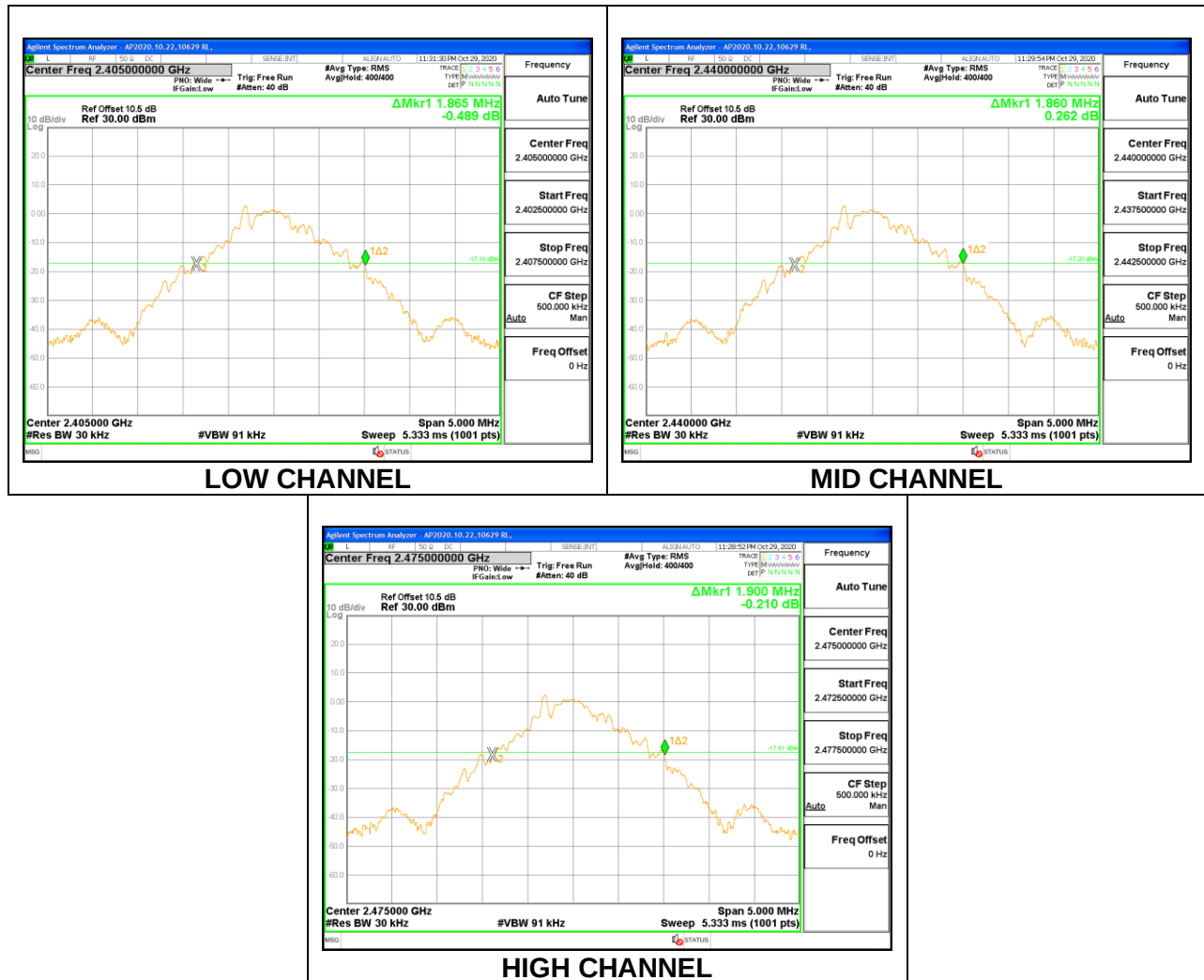
None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The RBW is set to 1% to 5% of the 20 dB bandwidth. The VBW is set to approximately three times RBW. The sweep time is coupled

RESULTS

Channel	Frequency (MHz)	20 dB Bandwidth (MHz)	Frequency Edge (MHz)	Limit (MHz)	Margin (MHz)
Low	2405	1.865	2404.068	2400	-4.068
Middle	2440	1.860	N/A	N/A	N/A
High	2475	1.900	2475.950	2483.5	-7.550



9. RADIATED TEST RESULTS

9.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.249

FCC §15.205 and §15.209

ISED RSS-GEN, Section 8.9 and 8.10

Operation within the bands 902–928 MHz, 2400–2483.5 MHz, 5725–5875 MHz, and 24.0–24.25 GHz.

(a) Except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental frequency	Field strength of fundamental (millivolts/ meter)	Field strength of harmonics (microvolts/ meter)
902–928 MHz	50	500
2400–2483.5 MHz	50	500
5725–5875 MHz	50	500
24.0–24.25 GHz	250	2500

(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in § 15.209, whichever is the lesser attenuation.

(e) As shown in Sec. 15.35(b), for frequencies above 1000 MHz, the field strength limits in paragraphs (a) and (b) of this section are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

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 1 MHz resolution bandwidth with 1/T (10 kHz) video bandwidth with peak detector 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.

9.2. FUNDAMENTAL FREQUENCY RADIATED EMISSION

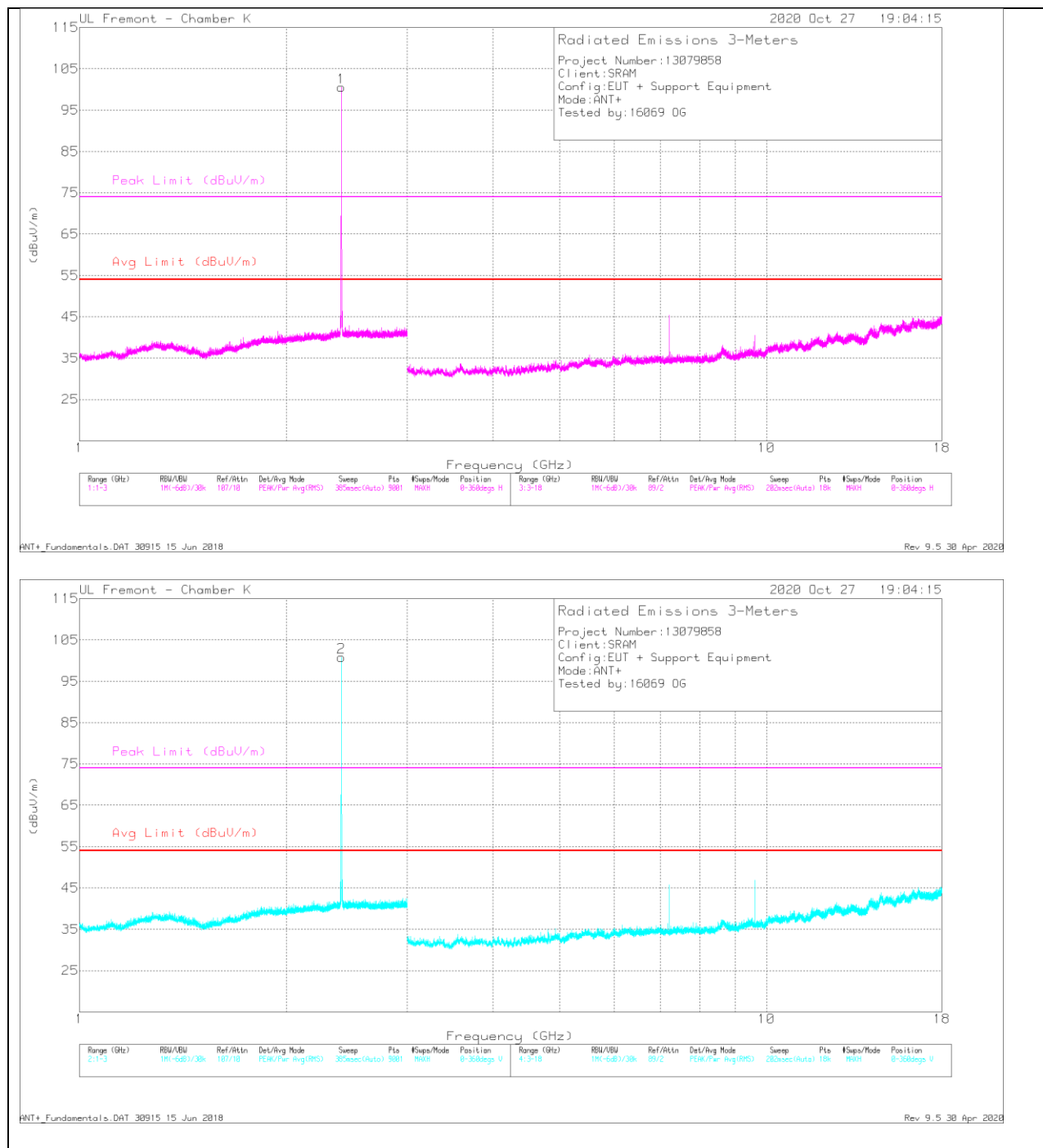
Tested By:	16069 OG
Date:	10/27/2020

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2.405	103.5	Pk	32.4	-34.9	0	101.00	-	-	114	-13.00	160	258	H
	103.5	AVG	32.4	-34.9	-13.98	87.02	94	-6.98	-	-	160	258	H
	104.09	Pk	32.4	-34.9	0	101.59	-	-	114	-12.41	118	98	V
	104.09	AVG	32.4	-34.9	-13.98	87.61	94	-6.39	-	-	118	98	V
2.440	106.49	Pk	32.4	-34.8	0	104.09	-	-	114	-9.91	182	137	H
	106.49	AVG	32.4	-34.8	-13.98	90.11	94	-3.89	-	-	182	137	H
	105.5	Pk	32.4	-34.8	0	103.10	-	-	114	-10.90	124	128	V
	105.5	AVG	32.4	-34.8	-13.98	89.12	94	-4.88	-	-	124	128	V
2.475	105.66	Pk	32.4	-34.7	0	103.36	-	-	114	-10.64	184	125	H
	105.66	AVG	32.4	-34.7	-13.98	89.38	94	-4.62	-	-	184	125	H
	103.91	Pk	32.4	-34.7	0	101.61	-	-	114	-12.39	198	287	V
	103.91	AVG	32.4	-34.7	-13.98	87.63	94	-6.37	-	-	198	287	V

PK - Peak detector

AVG = Peak Reading + Duty Cycle Correction Factor

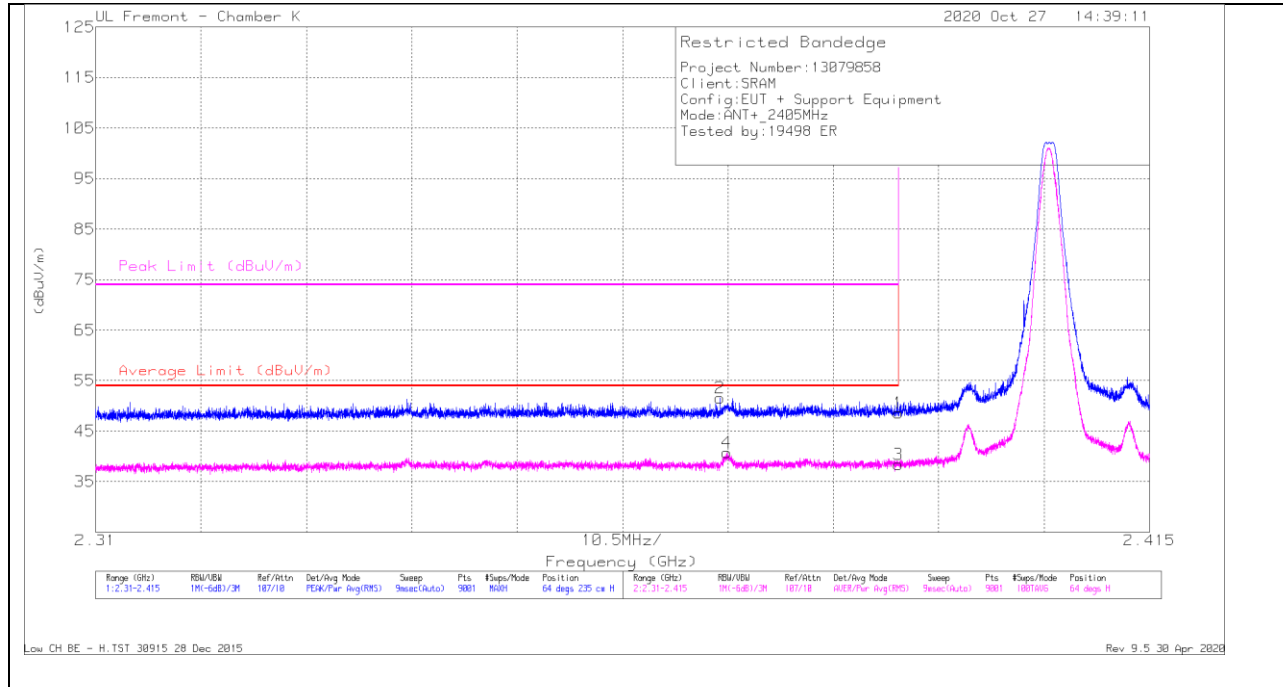
Duty Cycle Correction Factor = -13.98 dB



9.3. TRANSMITTER ABOVE 1 GHz

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



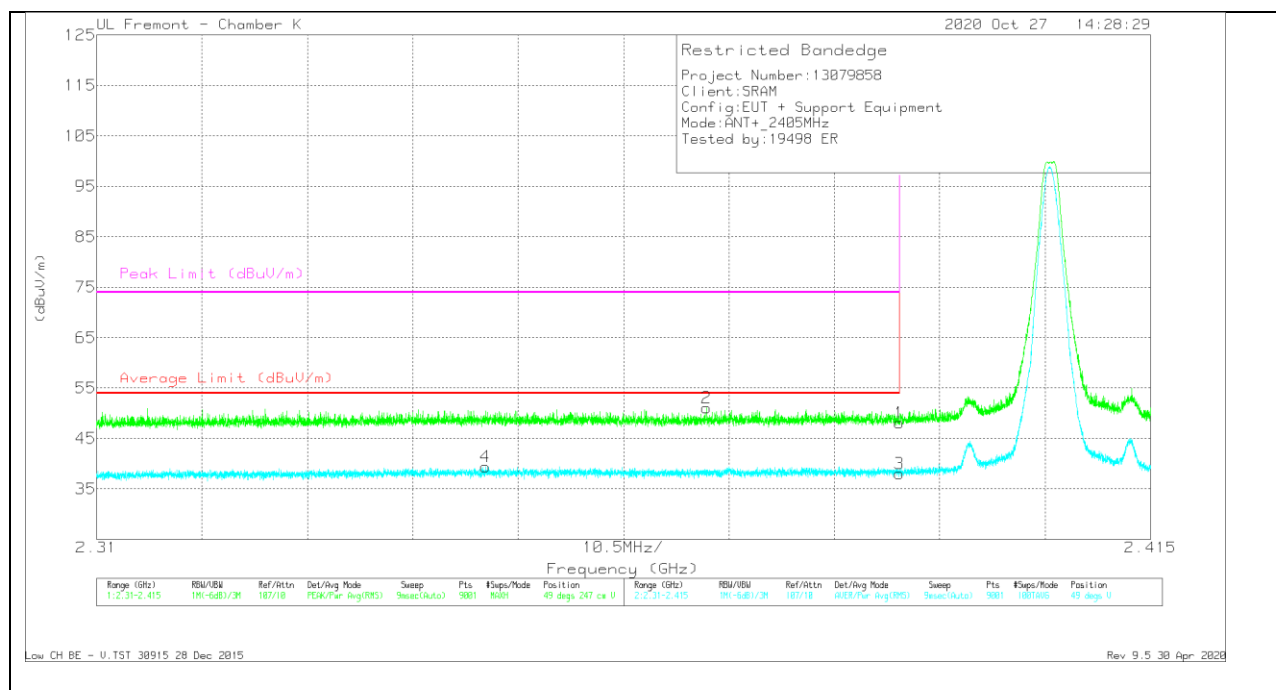
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 2.38999	51.2	Pk	32.4	-35	0	48.6	-	-	74	-25.4	64	235	H
2	* 2.3722	54.27	Pk	32.4	-35.1	0	51.57	-	-	74	-19.31	64	235	H
3	* 2.38999	51.2	AVG	32.4	-35	-13.98	34.62	54	-19.38	-	-	64	235	H
4	* 2.3722	54.27	AVG	32.4	-35.1	-13.98	37.59	54	-16.41	-	-	64	235	H

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

PK - RB=1MHz VB=3 x RB, Peak
AVG = Peak Reading + Duty Cycle Correction Factor
Duty Cycle Correction Factor = -13.98 dB

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 2.38999	50.7	Pk	32.4	-35	0	48.1	-	-	74	-25.9	49	247	V
2	* 2.37076	53.74	Pk	32.4	-35.1	0	51.04	-	-	74	-19.31	49	247	V
3	* 2.38999	50.7	AVG	32.4	-35	-13.98	34.12	54	-19.88	-	-	49	247	V
4	* 2.37076	53.74	AVG	32.4	-35.1	-13.98	37.06	54	-16.94	-	-	49	247	V

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

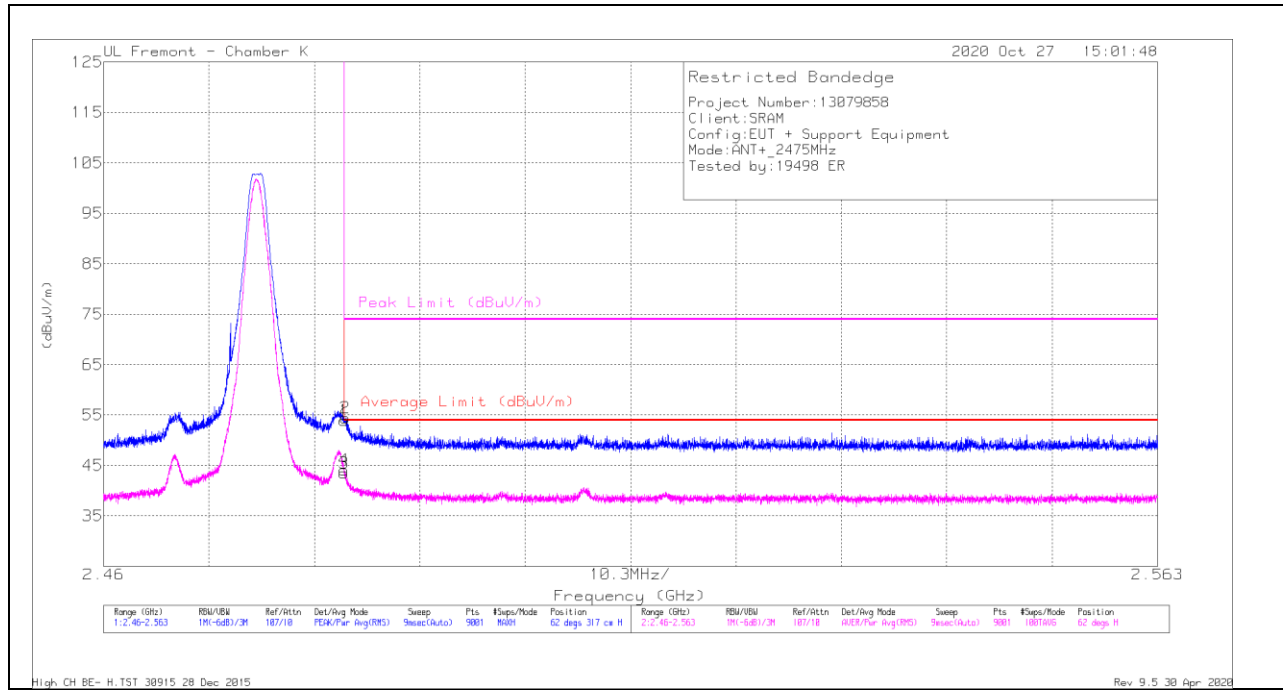
PK - RB=1MHz VB=3 x RB, Peak

AVG = Peak Reading + Duty Cycle Correction Factor

Duty Cycle Correction Factor = -13.98 dB

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



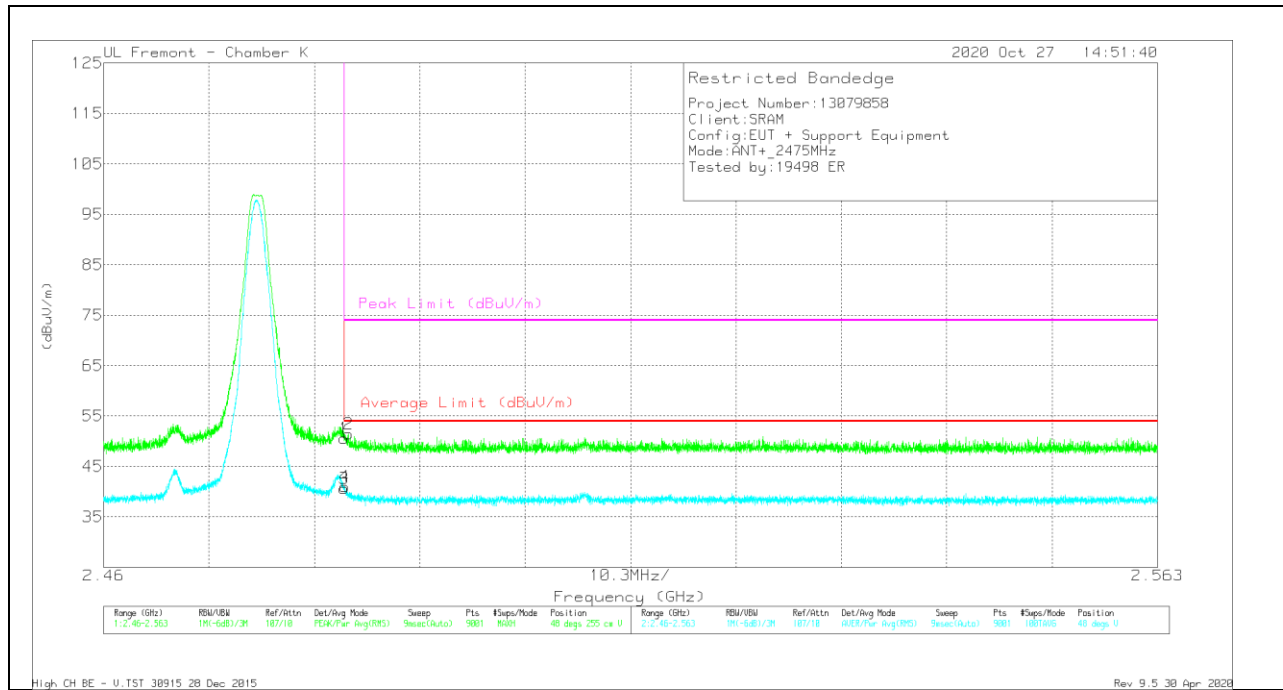
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 2.48351	55.99	Pk	32.5	-34.6	0	53.89	-	-	74	-20.11	62	317	H
2	* 2.48361	56.53	Pk	32.5	-34.6	0	54.43	-	-	74	-19.31	62	317	H
3	* 2.48351	55.99	AVG	32.5	-34.6	-13.98	39.91	54	-14.09	-	-	62	317	H
4	* 2.48361	56.53	AVG	32.5	-34.6	-13.98	40.45	54	-13.55	-	-	62	317	H

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

PK - RB=1MHz VB=3 x RB, Peak
AVG = Peak Reading + Duty Cycle Correction Factor
Duty Cycle Correction Factor = -13.98 dB

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 2.48351	52.74	Pk	32.5	-34.6	0	50.64	-	-	74	-23.36	48	255	V
2	* 2.48394	53.57	Pk	32.5	-34.6	0	51.47	-	-	74	-19.31	48	255	V
3	* 2.48351	52.74	AVG	32.5	-34.6	-13.98	36.66	54	-17.34	-	-	48	255	V
4	* 2.48394	53.57	AVG	32.5	-34.6	-13.98	37.49	54	-16.51	-	-	48	255	V

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

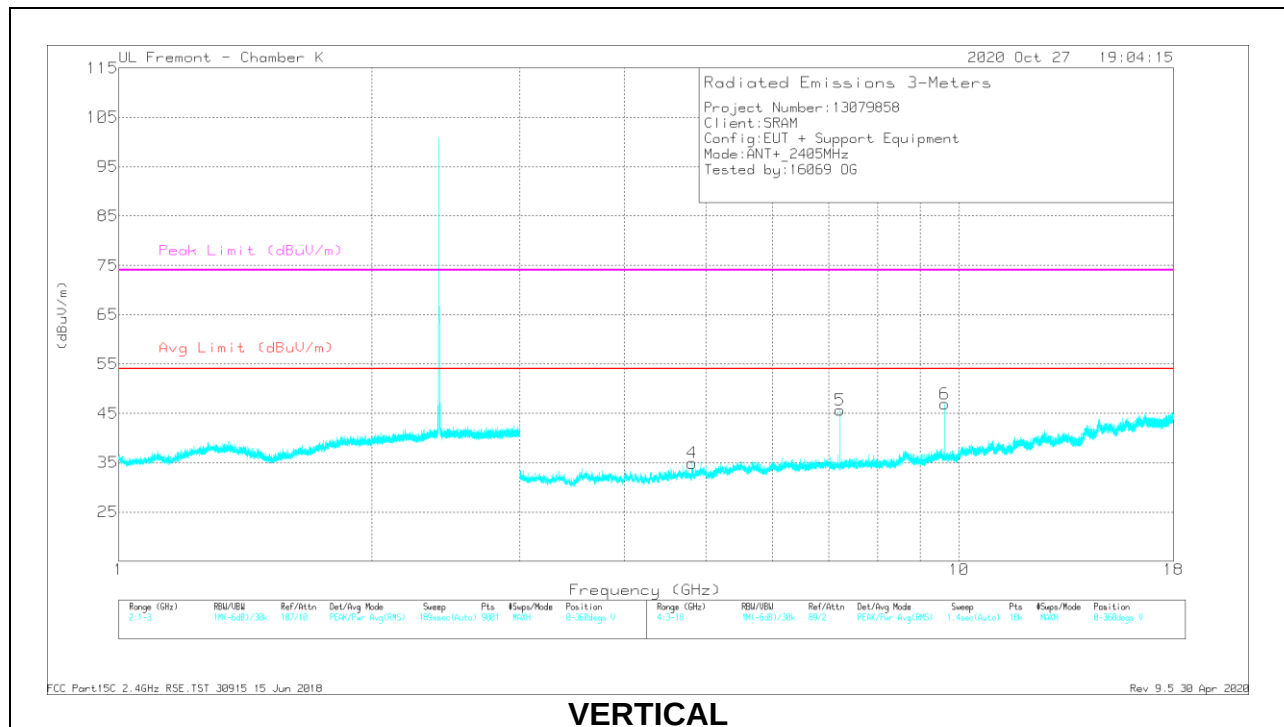
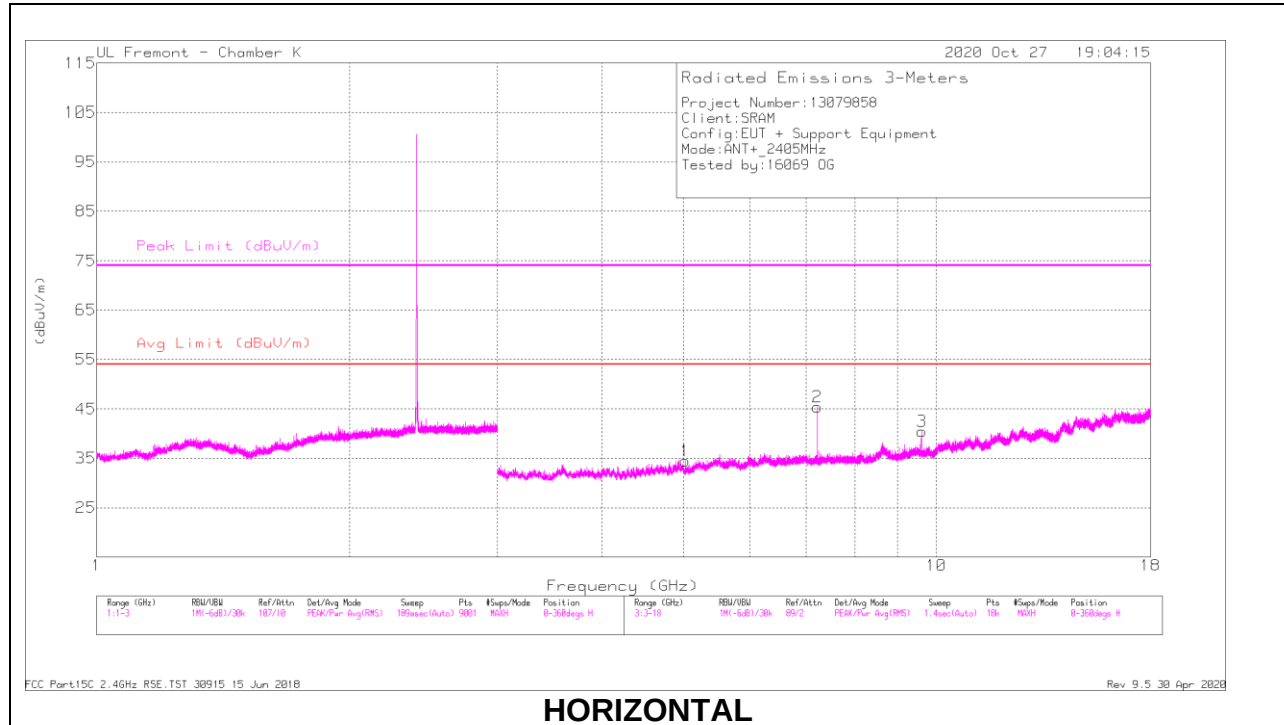
PK - RB=1MHz VB=3 x RB, Peak

AVG = Peak Reading + Duty Cycle Correction Factor

Duty Cycle Correction Factor = -13.98 dB

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.02153	46.91	PK	34.2	-40.6	0	40.51	-	-	74	-33.49	71	284	H
	* 5.02153	46.91	AVG	34.2	-40.6	-13.98	26.53	54	-27.47	-	-	71	284	
2	7.21402	54.13	PK	36.1	-38.7	0	51.53	-	-	74	-22.47	184	143	H
3	9.62132	47.25	PK	36.8	-36.8	0	47.25	-	-	-	-	204	223	H
4	* 4.80938	48.96	PK	34.3	-40.7	0	42.56	-	-	74	-31.44	129	218	V
	* 4.80938	48.96	AVG	34.3	-40.7	-13.98	28.58	51	-25.42	-	-	129	218	
5	7.21403	52.72	PK	36.1	-38.7	0	50.12	-	-	74	-23.88	188	97	V
6	9.61872	50.34	PK	36.8	-36.8	0	50.34	-	-	74	-23.66	180	227	V

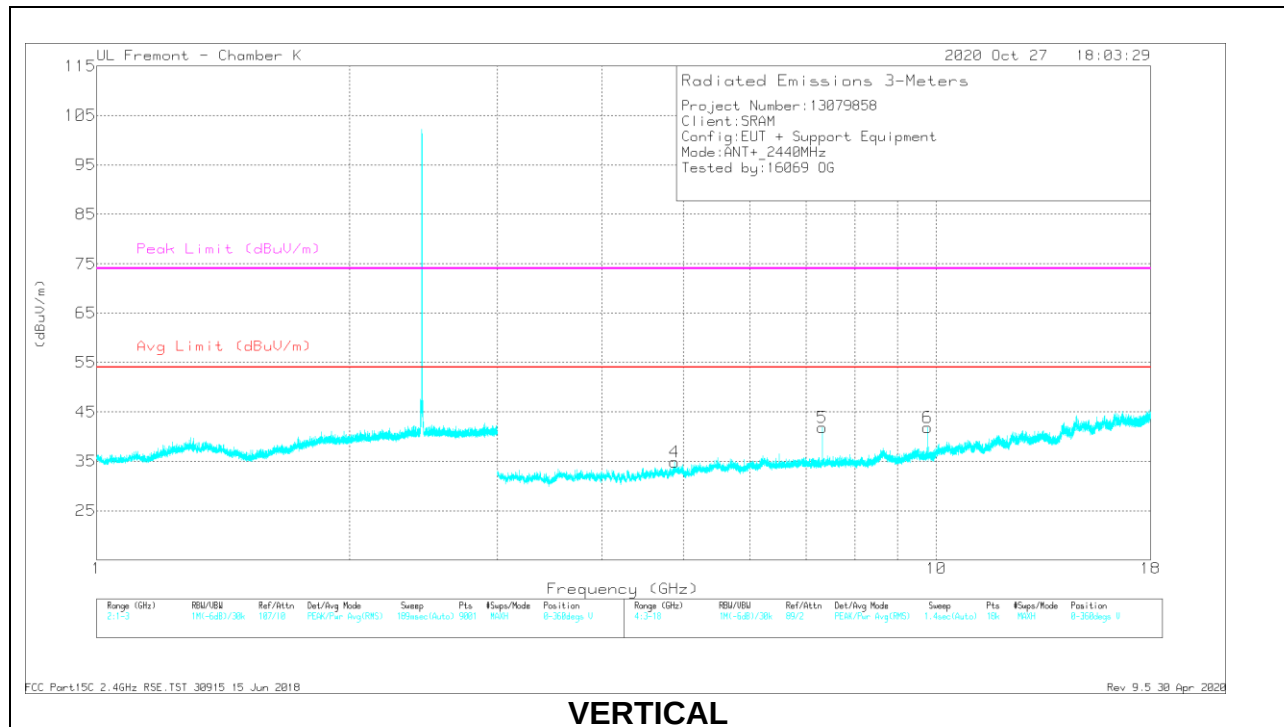
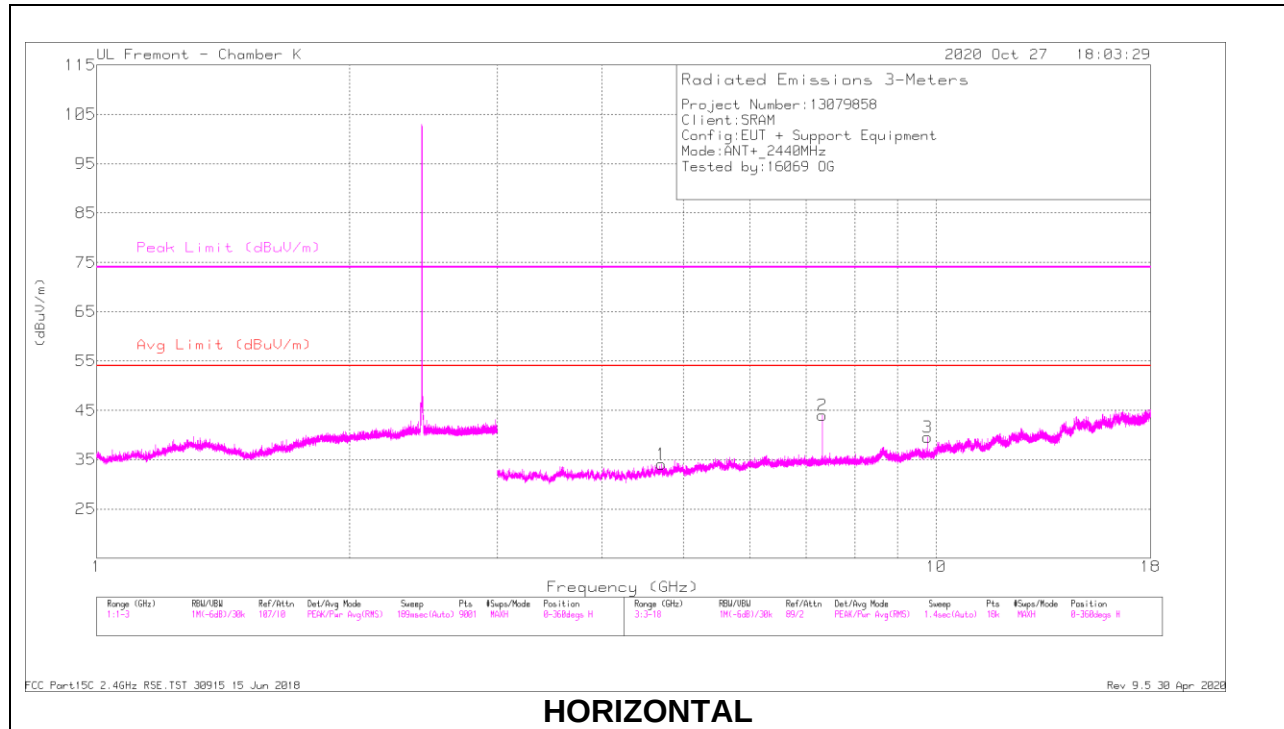
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK - RB=1MHz VB=3 x RB, Peak

AVG = Peak Reading + Duty Cycle Correction Factor

Duty Cycle Correction Factor = -13.98 dB

MID CHANNEL RESULTS



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 4.70363	49.3	PK	34.3	-41.3	0	42.3	-	-	74	-31.7	309	351	H
	* 4.70363	49.3	AVG	34.3	-41.3	-13.98	28.32	54	-25.68	-	-	309	351	H
2	* 7.31901	51.65	PK	36	-38.2	0	49.45	-	-	74	-24.55	172	118	H
	* 7.31901	51.65	AVG	36	-38.2	-13.98	35.47	54	-18.53	-	-	172	118	H
3	9.75862	47.51	PK	37	-36.7	0	47.81	-	-	74	-26.19	230	221	H
4	* 4.8796	48.5	PK	34.4	-40.6	0	42.3	-	-	74	-31.7	216	99	V
	* 4.8796	48.5	AVG	34.4	-40.6	-13.98	28.32	54	-25.68	-	-	216	99	V
5	* 7.31908	51.95	PK	36	-38.2	0	49.75	-	-	74	-24.25	191	112	V
	* 7.31908	51.95	AVG	36	-38.2	-13.98	35.77	54	-18.23	-	-	191	112	V
6	9.76006	48.58	PK	37	-36.7	0	48.88	-	-	74	-25.12	182	219	V

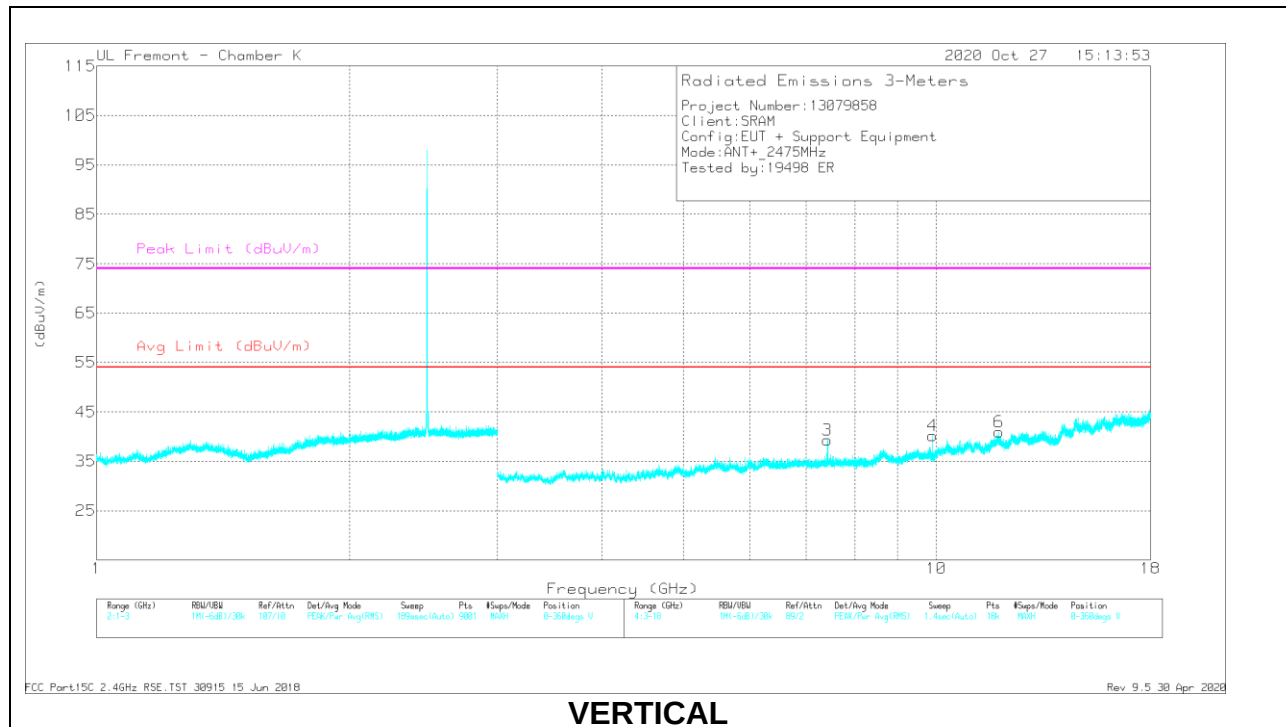
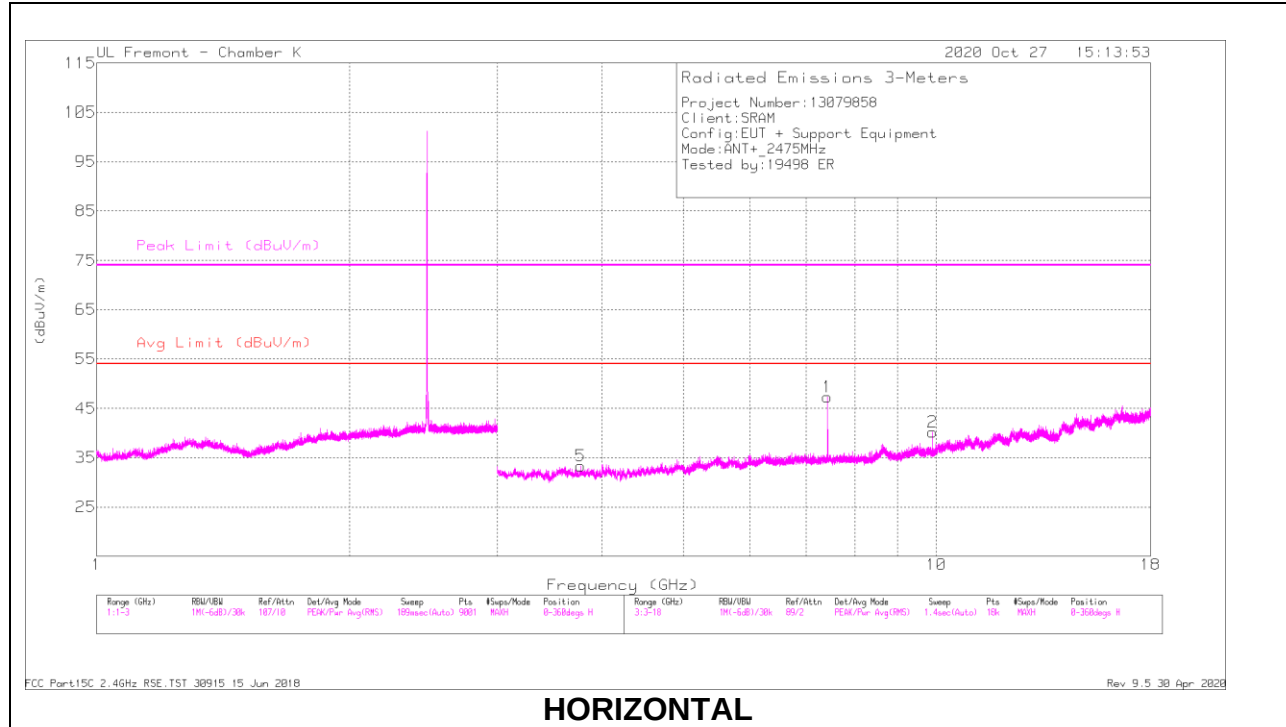
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK - RB=1MHz VB=3 x RB, Peak

AVG = Peak Reading + Duty Cycle Correction Factor

Duty Cycle Correction Factor = -13.98 dB

HIGH CHANNEL RESULTS



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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
5	* 3.77674	50.82	PK	33.6	-41.9	0	42.52	-	-	74	-31.48	124	397	H
	* 3.77674	50.82	AVG	33.6	-41.9	-13.98	25.54	54	-25.46	-	-	124	397	H
1	* 7.42396	52.58	PK	36.1	-38.1	0	50.58	-	-	74	-23.42	331	98	H
	* 7.42396	52.58	AVG	36.1	-38.1	-13.98	36.6	54	-17.4	-	-	331	98	H
2	9.90116	48.28	PK	37.1	-36.3	0	49.08	-	-	74	-24.92	323	116	H
3	* 7.42606	52.77	PK	36	-38.1	0	50.67	-	-	74	-23.33	57	212	V
	* 7.42606	52.77	AVG	36	-38.1	-13.98	36.69	54	-17.31	-	-	57	212	V
6	* 11.8755	43.91	PK	38.7	-35.3	0	47.31	-	-	74	-26.69	31	179	V
	* 11.8755	43.91	AVG	38.7	-35.3	-13.98	33.33	54	-20.67	-	-	31	179	V
4	9.89882	47.69	PK	37.1	-36.3	0	48.49	-	-	74	-25.51	0	282	V

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

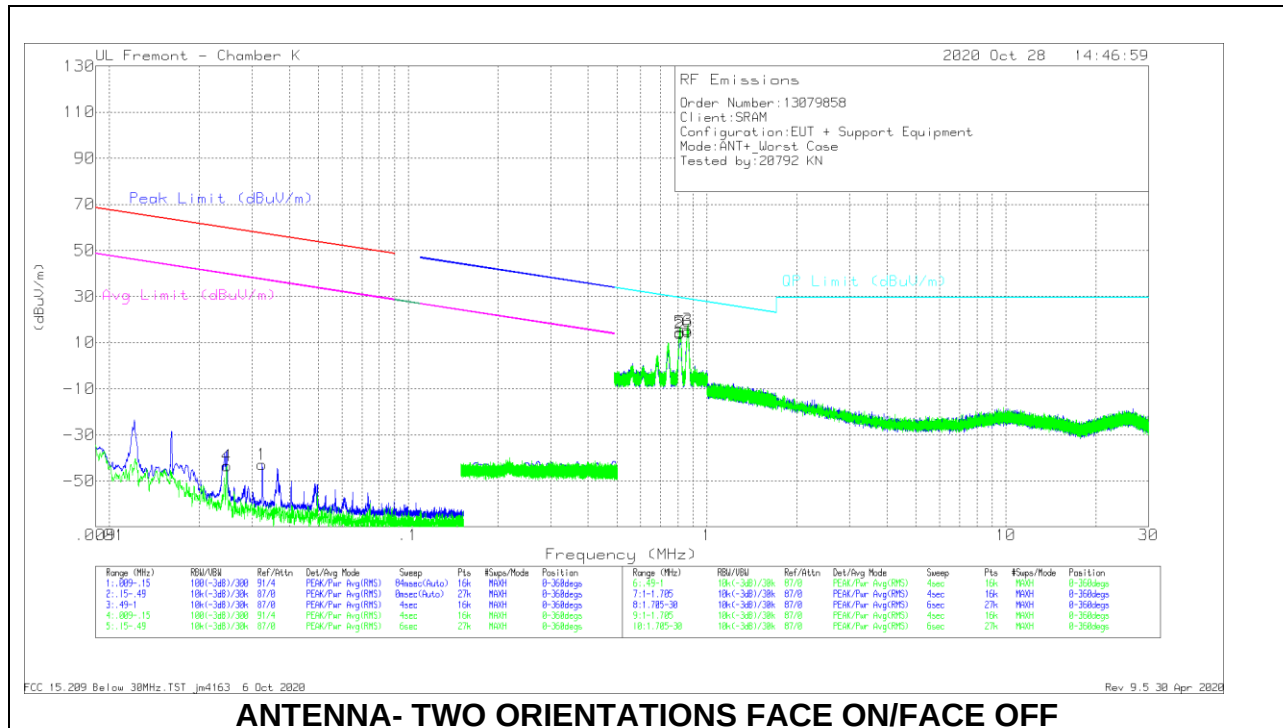
PK - RB=1MHz VB=3 x RB, Peak

AVG = Peak Reading + Duty Cycle Correction Factor

Duty Cycle Correction Factor = -13.98 dB

9.4. WORST CASE BELOW 30MHz

SPURIOUS EMISSIONS 9 kHz TO 30 MHz (WORST-CASE CONFIGURATION)



ANTENNA- TWO ORIENTATIONS FACE ON/FACE OFF

Below 30MHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (E ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	.03247	11.81	Pk	57.5	-32.2	-80	-42.89	57.35	-100.24	37.35	-80.24	-	-	0-360
4	.02472	10.27	Pk	58.3	-32.1	-80	-43.53	59.72	-103.25	39.72	-83.25	-	-	0-360

Pk - Peak detector

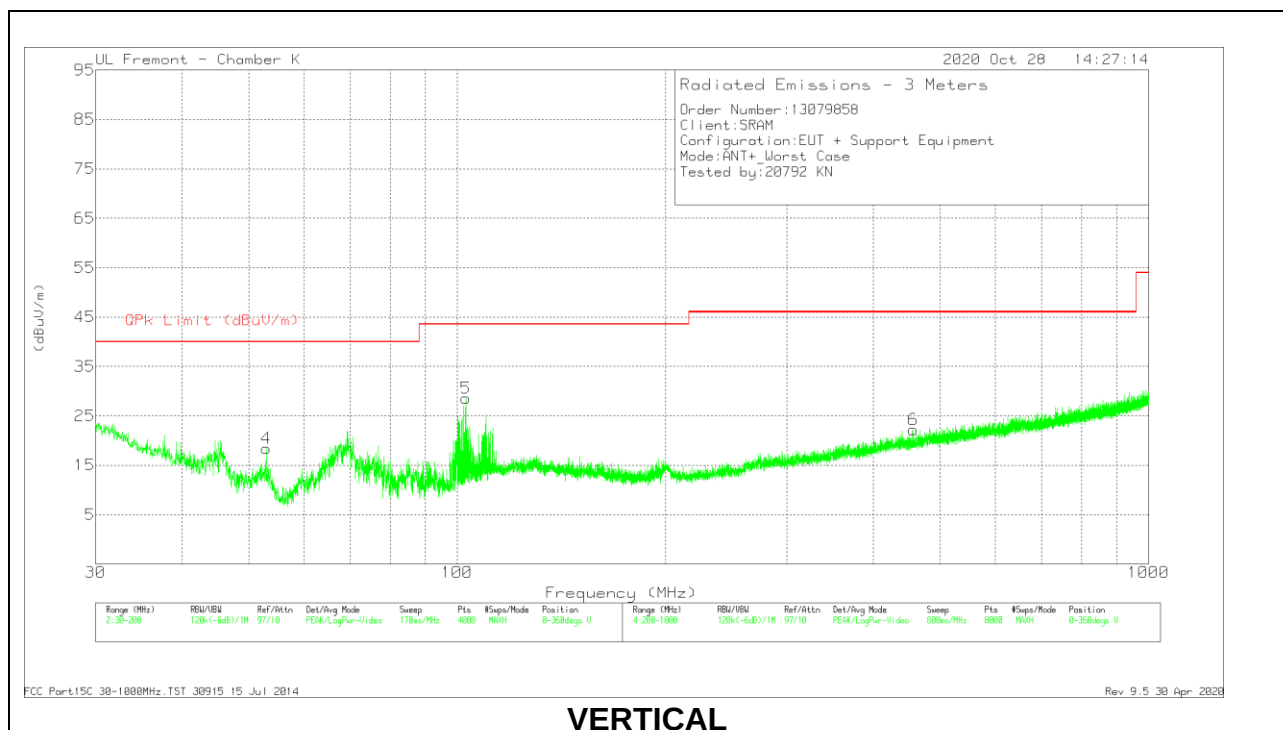
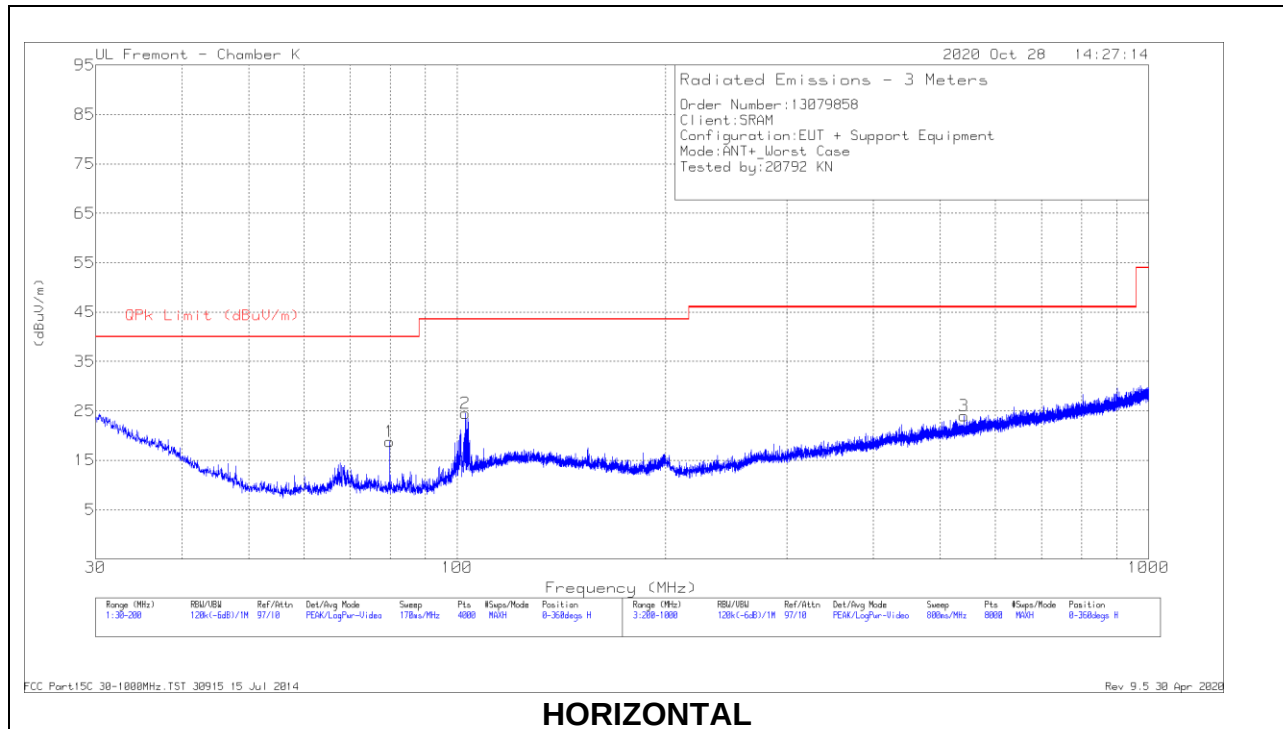
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (E ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
2	.81141	30.33	Pk	56	-32.2	-40	14.13	-	-	-	-	29.43	-15.3	0-360
3	.86139	31.78	Pk	56	-32.2	-40	15.58	-	-	-	-	28.91	-13.33	0-360
5	.8109	30.87	Pk	56	-32.2	-40	14.67	-	-	-	-	29.44	-14.77	0-360
6	.86245	31.13	Pk	56	-32.2	-40	14.93	-	-	-	-	28.9	-13.97	0-360

Pk - Peak detector

Note: The Limits in CRF 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.

9.5. WORST CASE BELOW 1 GHz

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



Below 1GHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF 81560 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	79.9079	35.98	Pk	13.8	-31	18.78	40	-21.22	0-360	201	H
2	102.7363	38.56	Pk	16.9	-30.9	24.56	43.52	-18.96	0-360	401	H
4	52.9559	35.86	Pk	13.8	-31.3	18.36	40	-21.64	0-360	95	V
5	103.0339	42.45	Pk	17	-30.9	28.55	43.52	-17.97	360	294	V
	102.8248	21.68	Qp	17	-30.9	7.78	43.52	-35.74	360	294	V
3	540.5443	28.6	Pk	24.5	-29.1	24	46.02	-22.02	0-360	201	H
6	456.6334	28.32	Pk	23.1	-29.2	22.22	46.02	-23.8	0-360	201	V

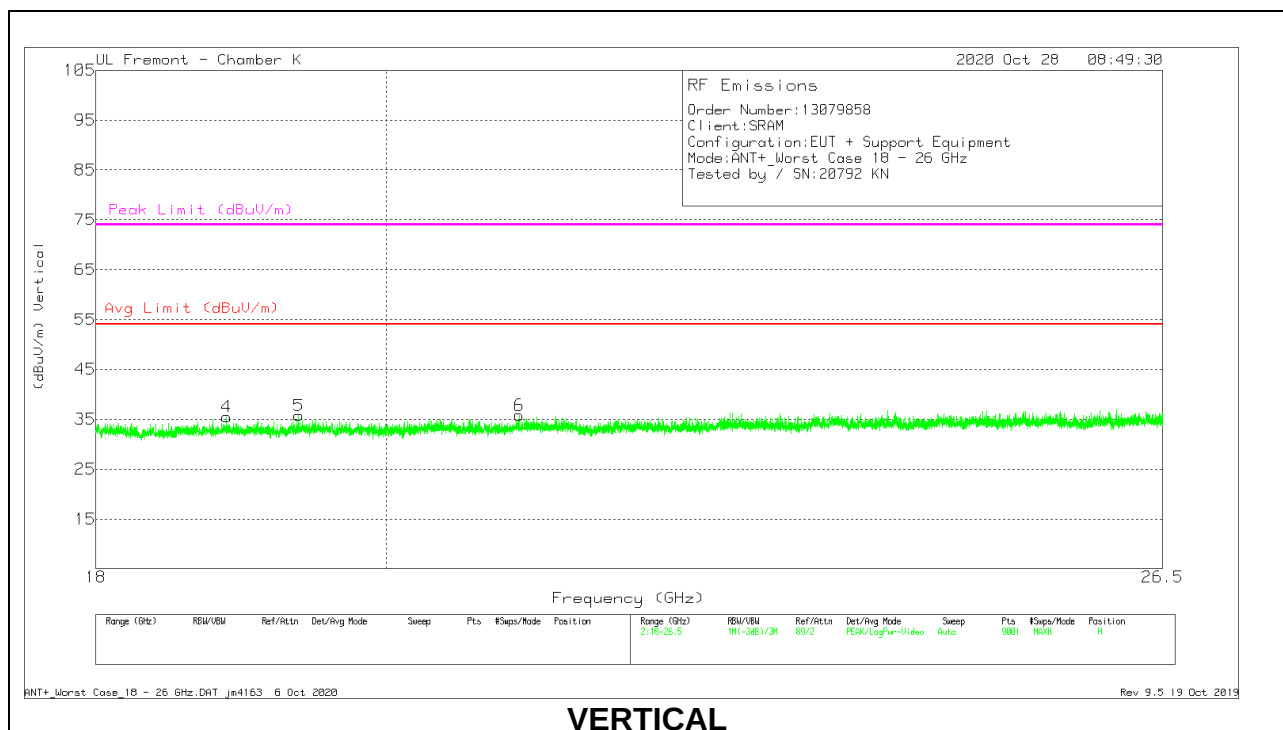
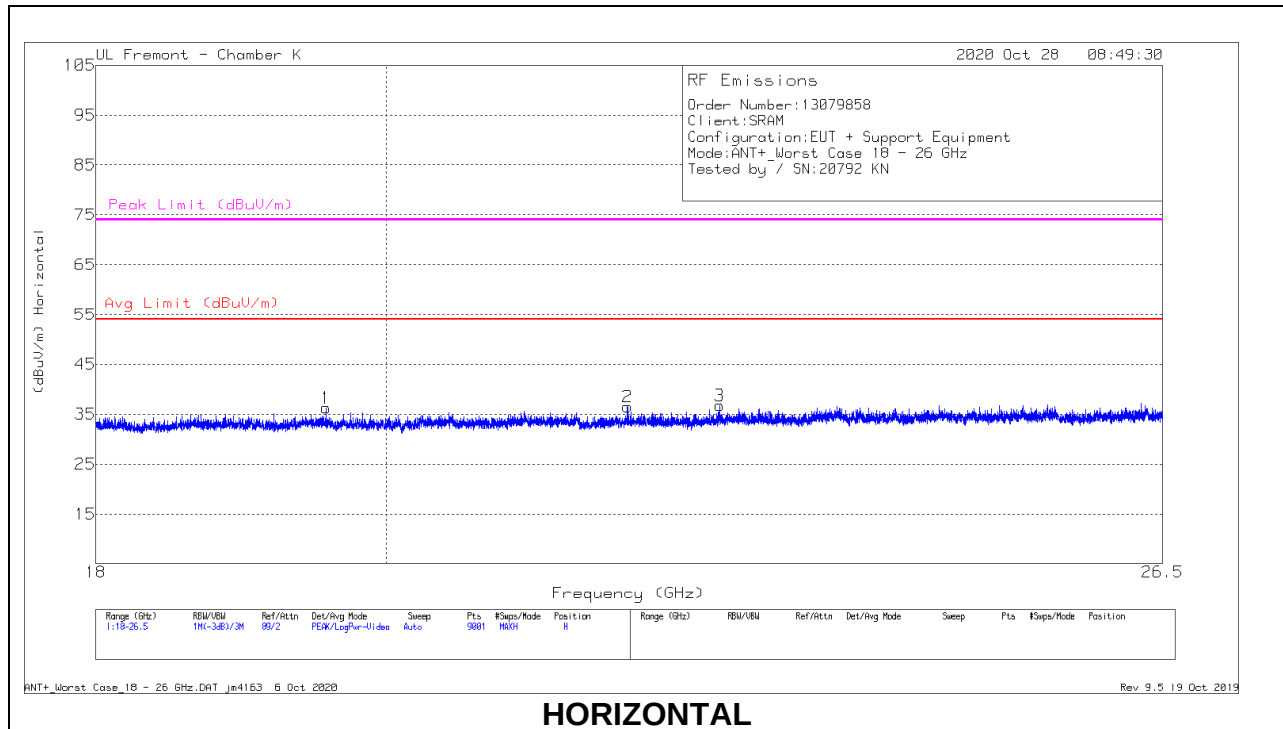
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

Qp - Quasi-Peak detector

9.6. WORST CASE 18-26 GHz

SPURIOUS EMISSIONS 18-26 GHz (WORST-CASE CONFIGURATION)



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	19.56683	69.87	Pk	32.8	-56.9	-9.5	36.27	54	-17.73	74	-37.73
2	21.825	70.19	Pk	33.3	-57.5	-9.5	36.49	54	-17.51	74	-37.51
3	22.56828	70.15	Pk	33.6	-57.5	-9.5	36.75	54	-17.25	74	-37.25
4	18.87361	70.69	Pk	32.4	-58.1	-9.5	35.49	54	-18.51	74	-38.51
5	19.37322	69.65	Pk	32.7	-57.1	-9.5	35.75	54	-18.25	74	-38.25
6	20.98633	69.26	Pk	33.3	-57.3	-9.5	35.76	54	-18.24	74	-38.24

Pk - Peak detector

10. SPOT CHECK DATA (Model 00610)

10.1. FUNDAMENTAL FREQUENCY RADIATED EMISSION

Tested By:	23529 QL
Date:	4/1/2021

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2.405	106.23	Pk	32.4	-34.9	0	103.73	-	-	114	-10.27	347	168	H
	106.23	AVG	32.4	-34.9	-13.98	89.75	94	-4.25	-	-	347	168	H
	105.84	Pk	32.4	-34.9	0	103.34	-	-	114	-10.66	71	172	V
	105.84	AVG	32.4	-34.9	-13.98	89.36	94	-4.64	-	-	71	172	V
2.440	104.88	Pk	32.4	-34.8	0	102.48	-	-	114	-11.52	347	143	H
	104.88	AVG	32.4	-34.8	-13.98	88.5	94	-5.5	-	-	347	143	H
	104.5	Pk	32.4	-34.8	0	102.1	-	-	114	-11.9	69	146	V
	104.5	AVG	32.4	-34.8	-13.98	88.12	94	-5.88	-	-	69	146	V
2.475	102.31	Pk	32.4	-34.7	0	100.01	-	-	114	-13.99	347	115	H
	102.31	AVG	32.4	-34.7	-13.98	86.03	94	-7.97	-	-	347	115	H
	101.25	Pk	32.4	-34.7	0	98.95	-	-	114	-15.05	68	143	V
	101.25	AVG	32.4	-34.7	-13.98	84.97	94	-9.03	-	-	68	143	V

PK - Peak detector

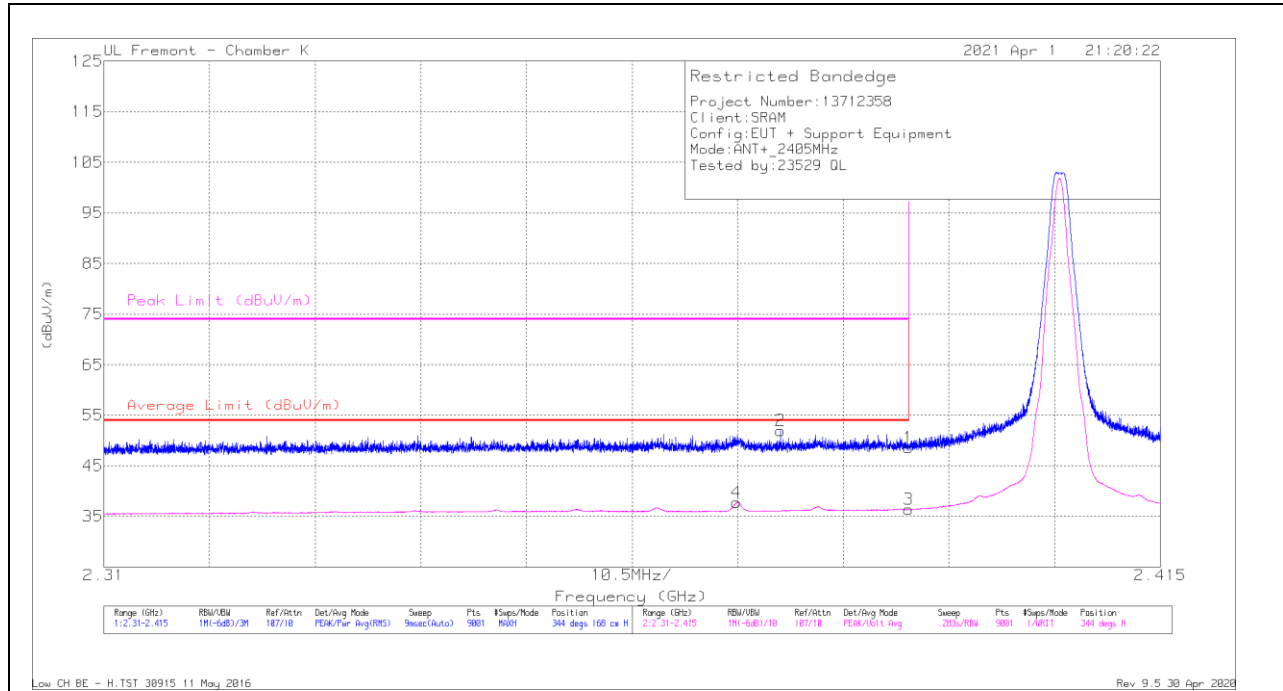
AVG = Peak Reading + Duty Cycle Correction Factor

Duty Cycle Correction Factor = -13.98 dB

10.2. TRANSMITTER ABOVE 1 GHz

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AFT863 (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	* 2.38999	51.19	PK	32.4	-35	0	48.59	-	-	74	-25.41	344	168	H
2	* 2.37727	54.66	PK	32.4	-35.1	0	51.96	-	-	74	-22.04	344	168	H
3	* 2.38999	51.19	AVG	32.4	-35	-13.98	34.61	54	-19.39	-	-	344	168	H
4	* 2.37727	54.66	AVG	32.4	-35.1	-13.98	37.98	54	-16.02	-	-	344	168	H

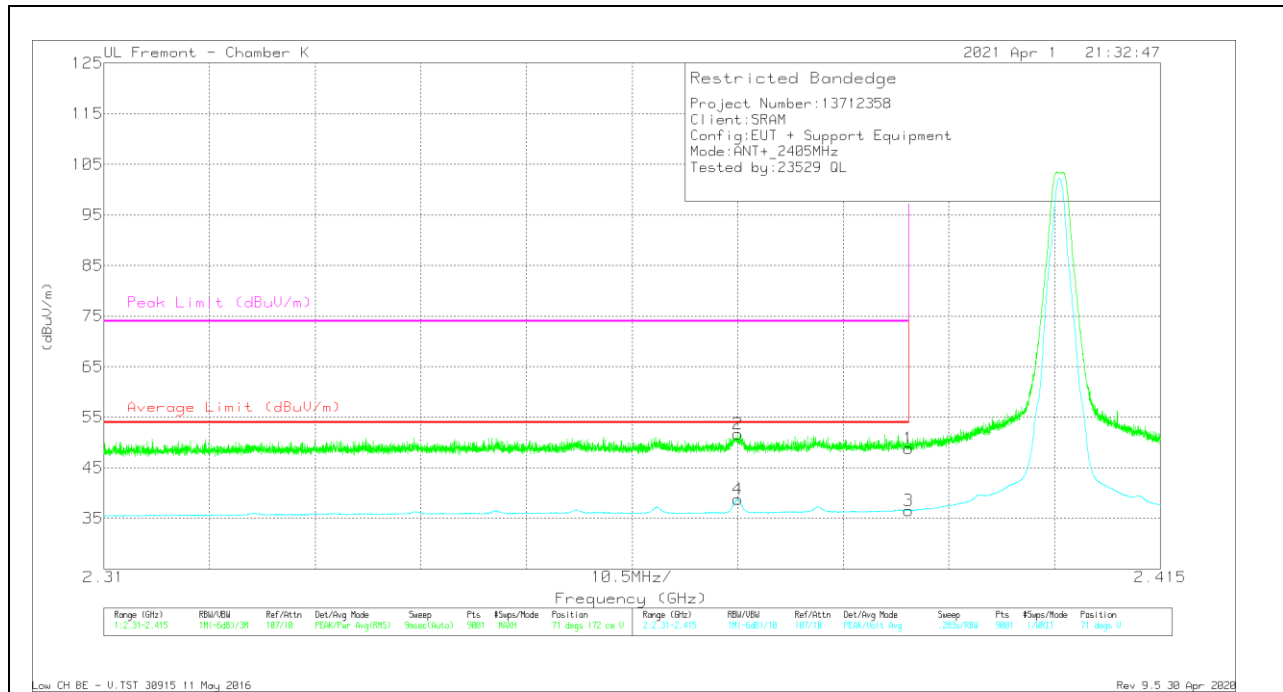
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK - RB=1MHz VB=3 x RB, Peak

AVG = Peak Reading + Duty Cycle Correction Factor

Duty Cycle Correction Factor = -13.98 dB

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 2.38999	51.49	PK	32.4	-35	0	48.89	-	-	74	-25.11	71	172	V
2	* 2.37299	54.46	PK	32.4	-35.1	0	51.76	-	-	74	-22.24	71	172	V
3	* 2.38999	51.49	AVG	32.4	-35	-13.98	34.91	54	-19.09	-	-	71	172	V
4	* 2.37299	54.46	AVG	32.4	-35.1	-13.98	37.78	54	-16.22	-	-	71	172	V

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

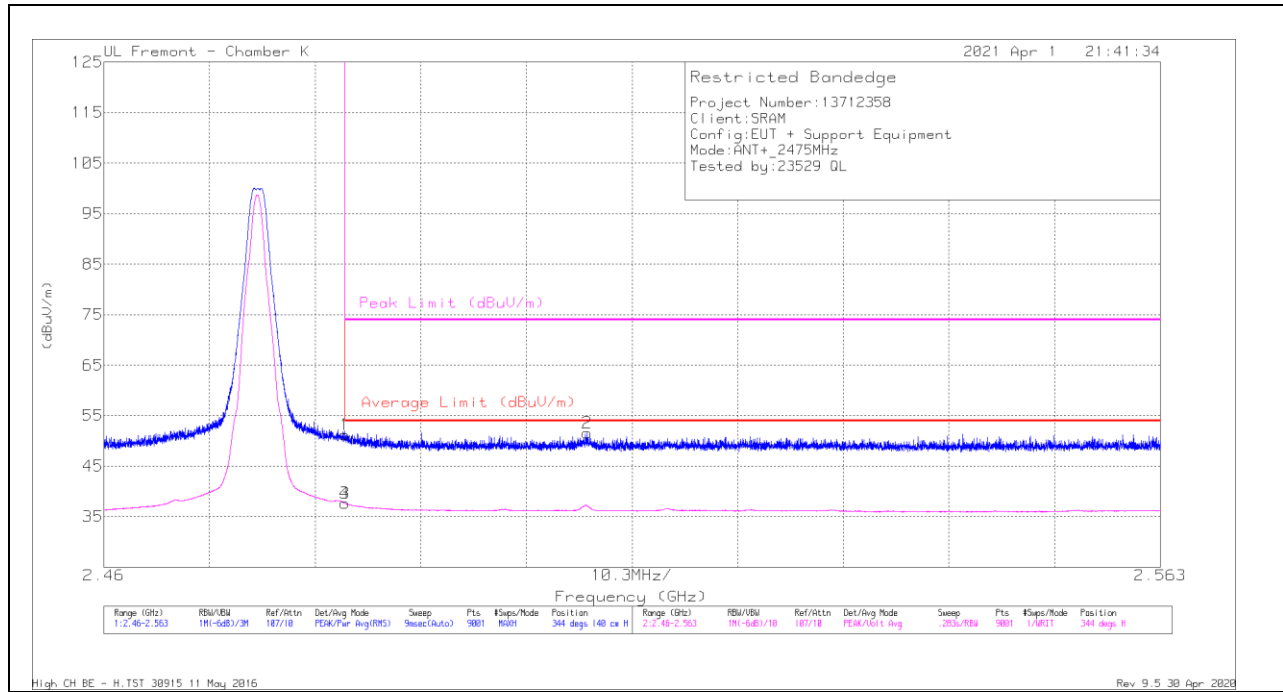
PK - RB=1MHz VB=3 x RB, Peak

AVG = Peak Reading + Duty Cycle Correction Factor

Duty Cycle Correction Factor = -13.98 dB

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Ftr/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	53.34	Pk	32.5	-34.6	0	51.24	-	-	74	-22.76	344	140	H
2	2.50715	53.61	Pk	32.6	-34.6	0	51.61	-	-	74	-22.39	344	140	H
3	* 2.48351	53.34	AVG	32.5	-34.6	-13.98	37.26	54	-16.74	-	-	344	140	H
4	2.50715	53.61	AVG	32.6	-34.6	-13.98	37.63	54	-16.37	-	-	344	140	H

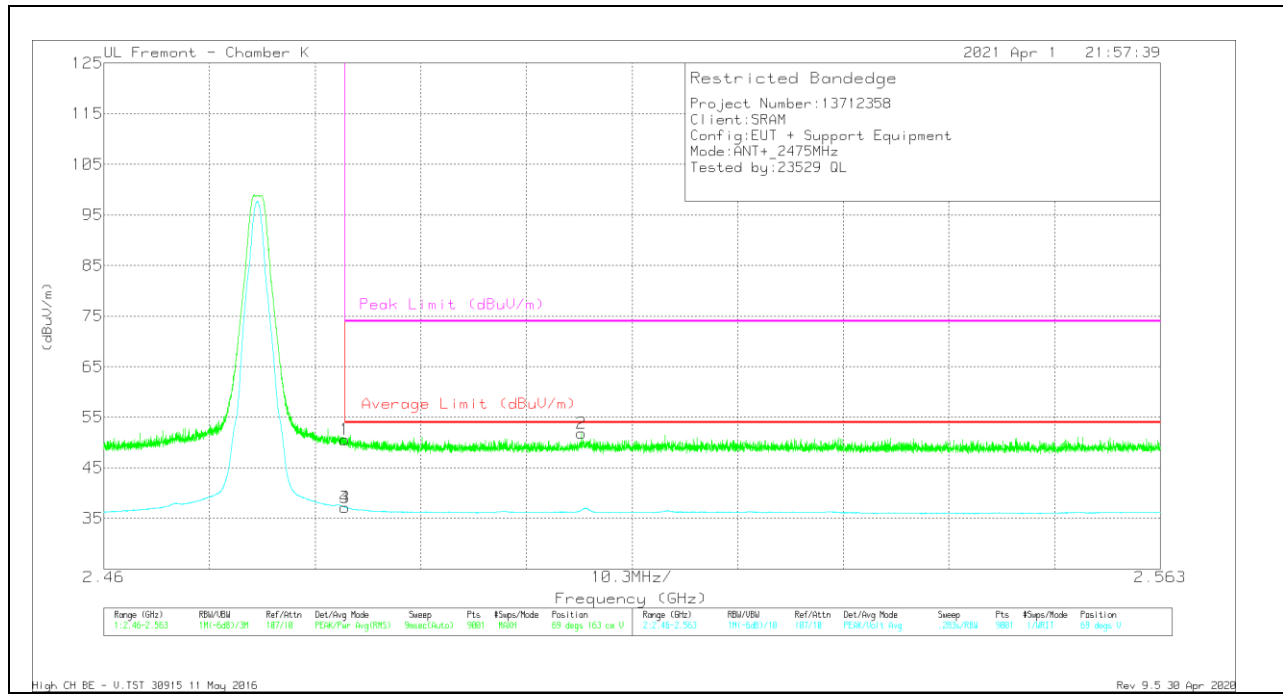
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK - RB=1MHz VB=3 x RB, Peak

AVG = Peak Reading + Duty Cycle Correction Factor

Duty Cycle Correction Factor = -13.98 dB

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cb/Filt/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	52.71	PK	32.5	-34.6	0	50.61	-	-	74	-23.39	69	163	V
2	2.50657	53.84	PK	32.6	-34.6	0	51.84	-	-	74	-22.16	69	163	V
3	* 2.48351	52.71	AVG	32.5	-34.6	-13.98	36.63	54	-17.37	-	-	69	163	V
4	2.50657	53.84	AVG	32.5	-34.6	-13.98	37.86	54	-16.14	-	-	69	163	V

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

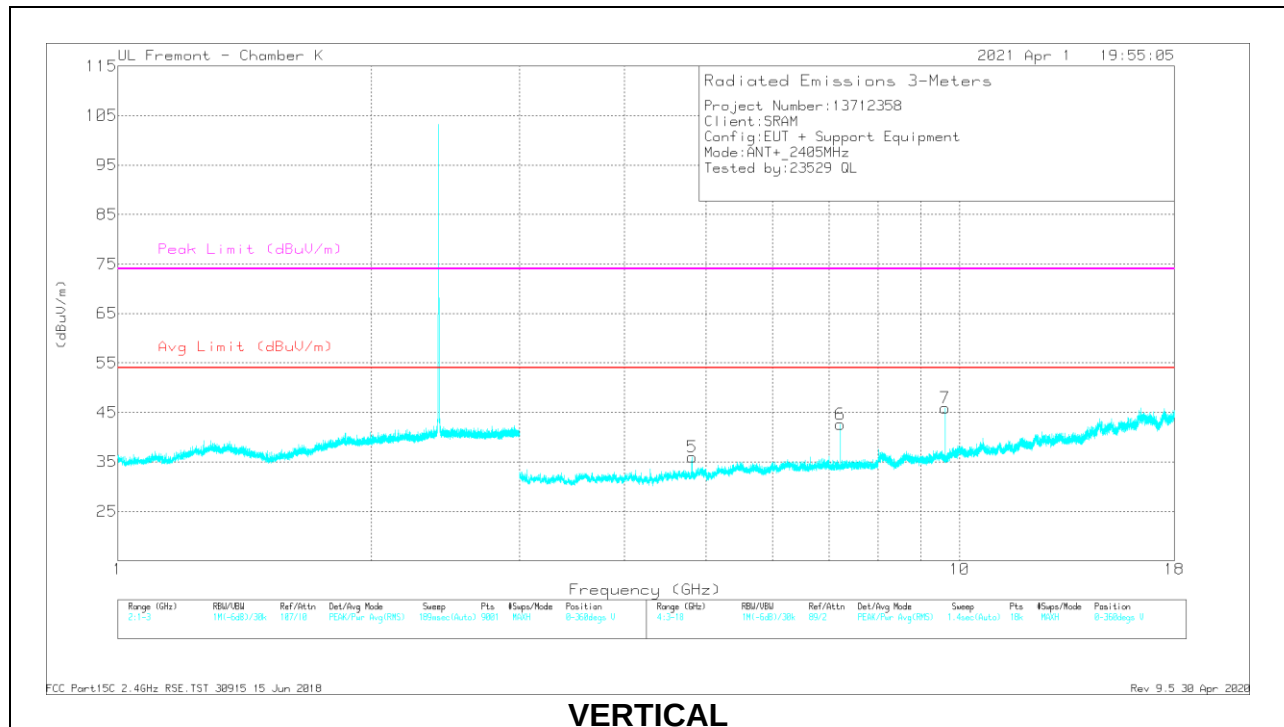
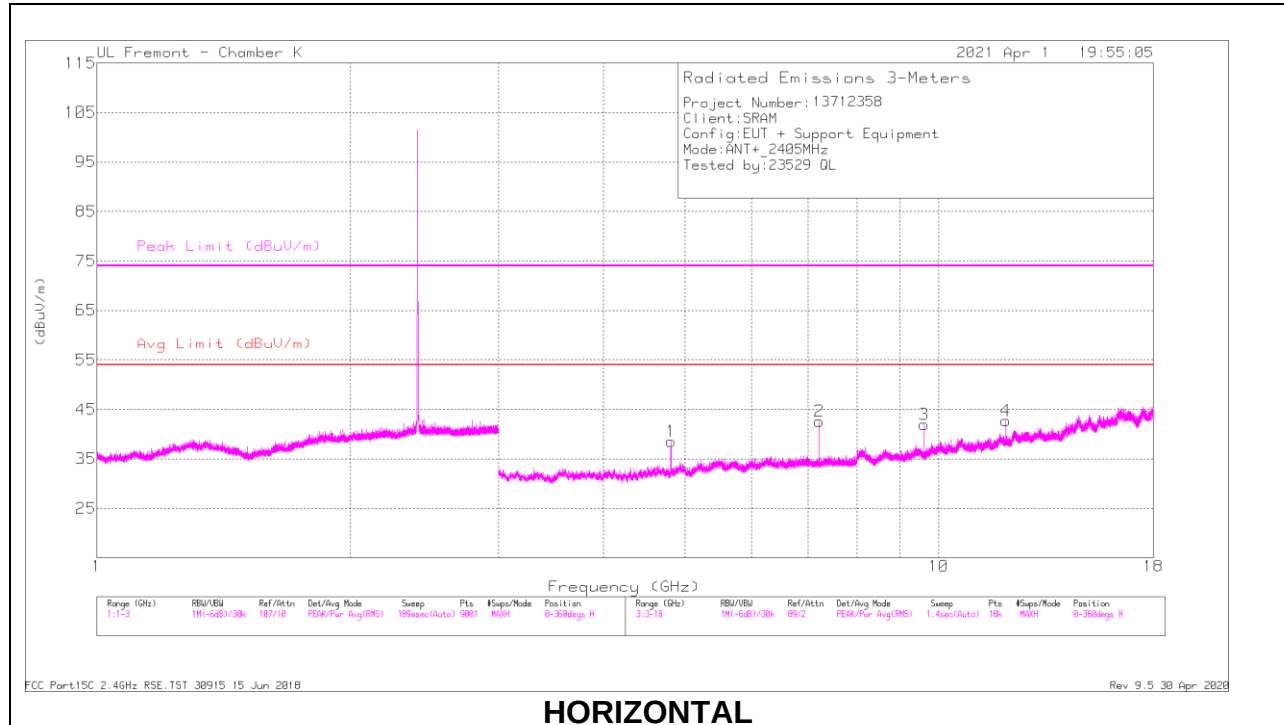
PK - RB=1MHz VB=3 x RB, Peak

AVG = Peak Reading + Duty Cycle Correction Factor

Duty Cycle Correction Factor = -13.98 dB

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.80944	52.18	PK	34.3	-40.7	0	45.78	-	-	74	-28.22	148	240	H
	* 4.80944	52.18	AVG	34.3	-40.7	-13.98	31.8	54	-22.2	-	-	148	240	H
2	7.21422	53.01	PK	36.1	-38.6	0	50.51	-	-	-	-	172	210	H
3	9.6187	41.91	PK	36.8	-36.8	0	41.91	-	-	-	-	0-360	200	H
4	* 12.02357	45.77	PK	38.9	-34.9	0	49.77	-	-	74	-24.23	214	189	H
	* 12.02357	45.77	AVG	38.9	-34.9	-13.98	35.79	54	-18.21	-	-	214	189	H
5	* 4.80952	49.64	PK	34.3	-40.7	0	43.24	-	-	74	-30.76	176	251	V
	* 4.80952	49.64	AVG	34.3	-40.7	-13.98	29.26	54	-24.74	-	-	176	251	V
6	7.21603	53.35	PK	36.1	-38.6	0	50.85	-	-	-	-	172	197	V
7	9.62124	52.93	PK	36.8	-36.8	0	52.93	-	-	-	-	166	201	V

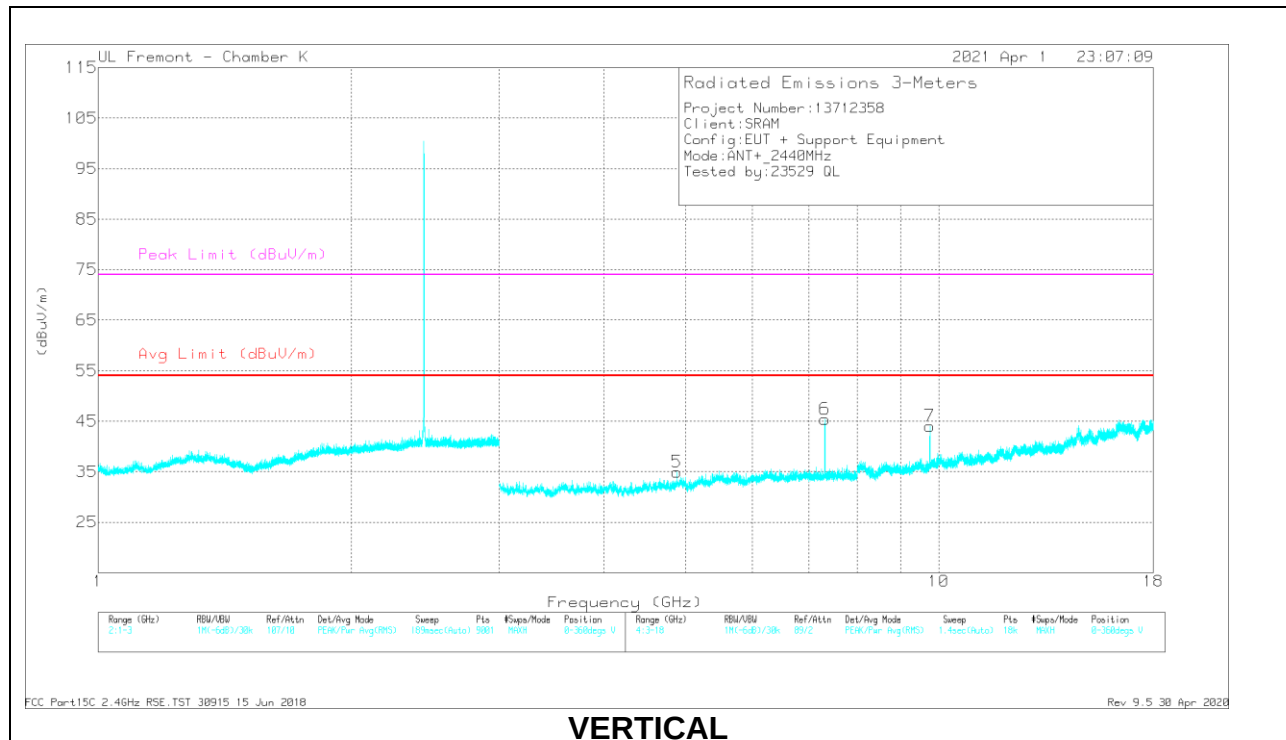
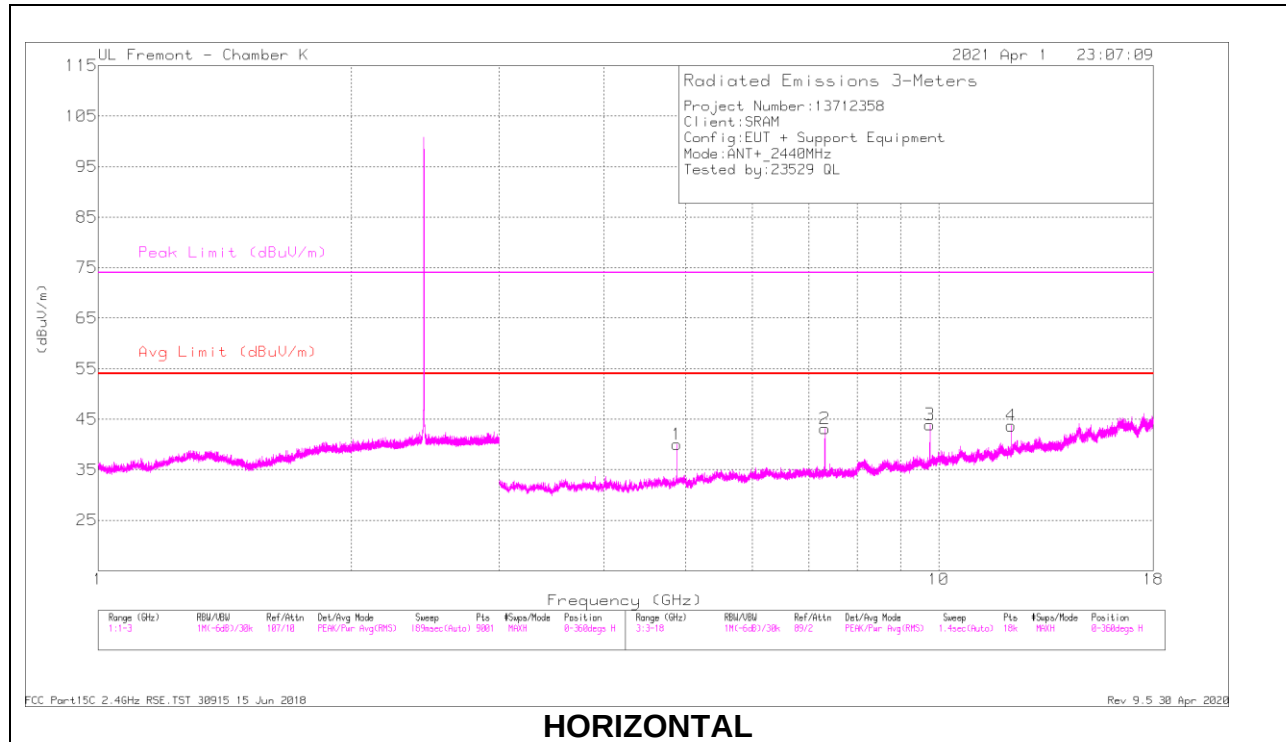
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK - RB=1MHz VB=3 x RB, Peak

AVG = Peak Reading + Duty Cycle Correction Factor

Duty Cycle Correction Factor = -13.98 dB

MID CHANNEL RESULTS



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 4.87944	52.15	PK	34.4	-40.6	0	45.95	-	-	74	-28.05	146	212	H
	* 4.87944	52.15	AVG	34.4	-40.6	-13.98	31.97	54	-22.03	-	-	146	212	H
2	* 7.32102	52.72	PK	36	-38.2	0	50.52	-	-	74	-23.48	172	204	H
	* 7.32102	52.72	AVG	36	-38.2	-13.98	36.54	54	-17.46	-	-	172	204	H
3	9.75871	43.59	PK	37	-36.7	0	43.89	-	-	-	-	0-360	199	H
4	* 12.19853	44.78	PK	39.2	-35	0	48.98	-	-	74	-25.02	218	204	H
	* 12.19853	44.78	AVG	39.2	-35	-13.98	35	54	-19	-	-	218	204	H
5	* 4.87931	51.08	PK	34.4	-40.6	0	44.88	-	-	74	-29.12	180	203	V
	* 4.87931	51.08	AVG	34.4	-40.6	-13.98	30.9	54	-23.1	-	-	180	203	V
6	* 7.31902	55.41	PK	36	-38.2	0	53.21	-	-	74	-20.79	173	178	V
	* 7.31902	55.41	AVG	36	-38.2	-13.98	39.23	54	-14.77	-	-	173	178	V
7	9.7587	52.47	PK	37	-36.7	0	52.77	-	-	-	-	174	188	V

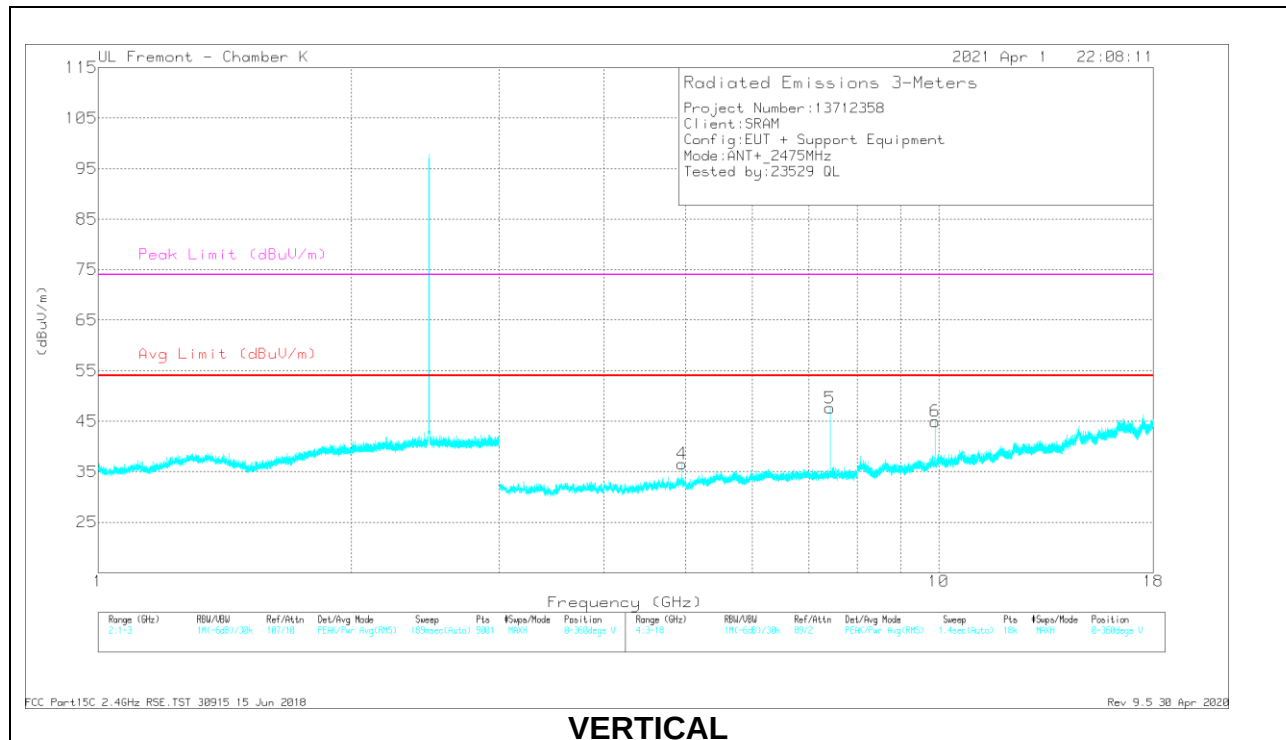
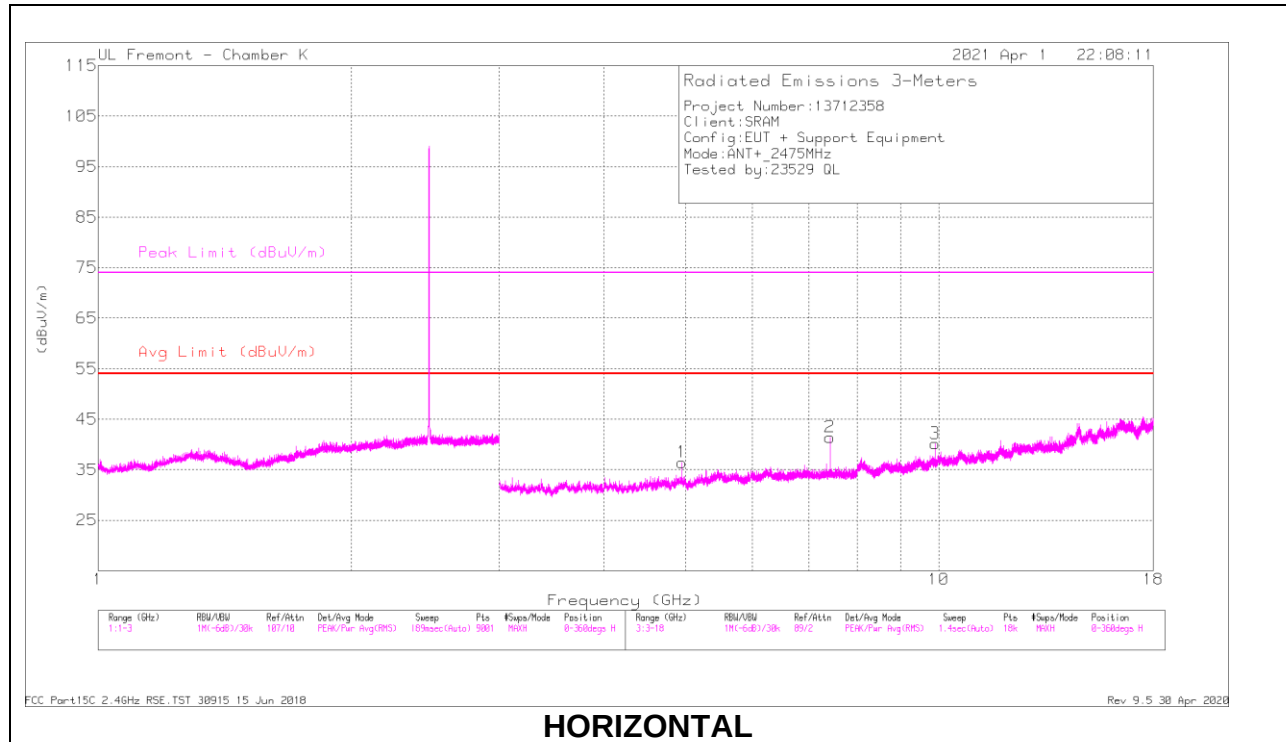
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK - RB=1MHz VB=3 x RB, Peak

AVG = Peak Reading + Duty Cycle Correction Factor

Duty Cycle Correction Factor = -13.98 dB

HIGH CHANNEL RESULTS



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.9493	51.78	PK	34.3	-40.7	0	45.38	-	-	74	-28.62	144	189	H
	* 4.9493	51.78	AVG	34.3	-40.7	-13.98	31.4	54	-22.6	-	-	144	189	H
2	* 7.42395	52.34	PK	36.1	-38.1	0	50.34	-	-	74	-23.66	175	182	H
	* 7.42395	52.34	AVG	36.1	-38.1	-13.98	36.36	54	-17.64	-	-	175	182	H
3	9.89872	48.63	PK	37.1	-36.3	0	49.43	-	-	-	-	163	212	H
4	* 4.94933	51.35	PK	34.3	-40.7	0	44.95	-	-	74	-29.05	179	234	V
	* 4.94933	51.35	AVG	34.3	-40.7	-13.98	30.97	54	-23.03	-	-	179	234	V
5	* 7.42408	57.38	PK	36.1	-38.1	0	55.38	-	-	74	-18.62	175	191	V
	* 7.42408	57.38	AVG	36.1	-38.1	-13.98	41.4	54	-12.6	-	-	175	191	V
6	9.90155	51.62	PK	37.1	-36.3	0	52.42	-	-	-	-	175	180	V

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

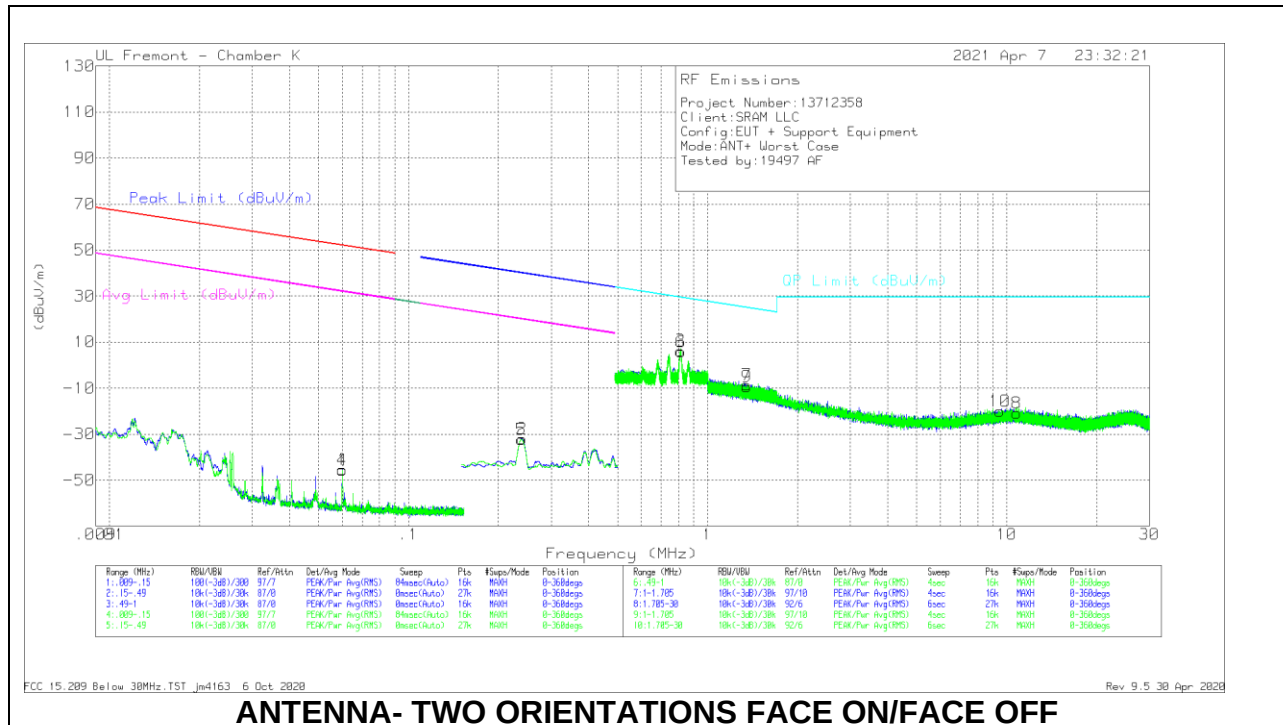
PK - RB=1MHz VB=3 x RB, Peak

AVG = Peak Reading + Duty Cycle Correction Factor

Duty Cycle Correction Factor = -13.98 dB

10.3. WORST CASE BELOW 30MHz

SPURIOUS EMISSIONS 9 kHz TO 30 MHz (WORST-CASE CONFIGURATION)



ANTENNA- TWO ORIENTATIONS FACE ON/FACE OFF

Below 30MHz Data

Marker	Frequency (MHz)	Meter Reading (dBUV)	Det	Loop Antenna (E 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	.06008	10.69	Pk	56.2	-32.3	-80	-45.41	52.01	-97.42	32.01	-77.42	-	-	-	-	0-360
2	.23988	23.82	Pk	56.3	-32.2	-80	-32.08	-	-	-	-	40.02	-72.1	20.02	-52.1	0-360
4	.06011	10.47	Pk	56.2	-32.3	-80	-45.63	52.01	-97.64	32.01	-77.64	-	-	-	-	0-360
5	.23817	23.57	Pk	56.3	-32.2	-80	-32.33	-	-	-	-	40.08	-72.41	20.08	-52.41	0-360

Pk - Peak detector

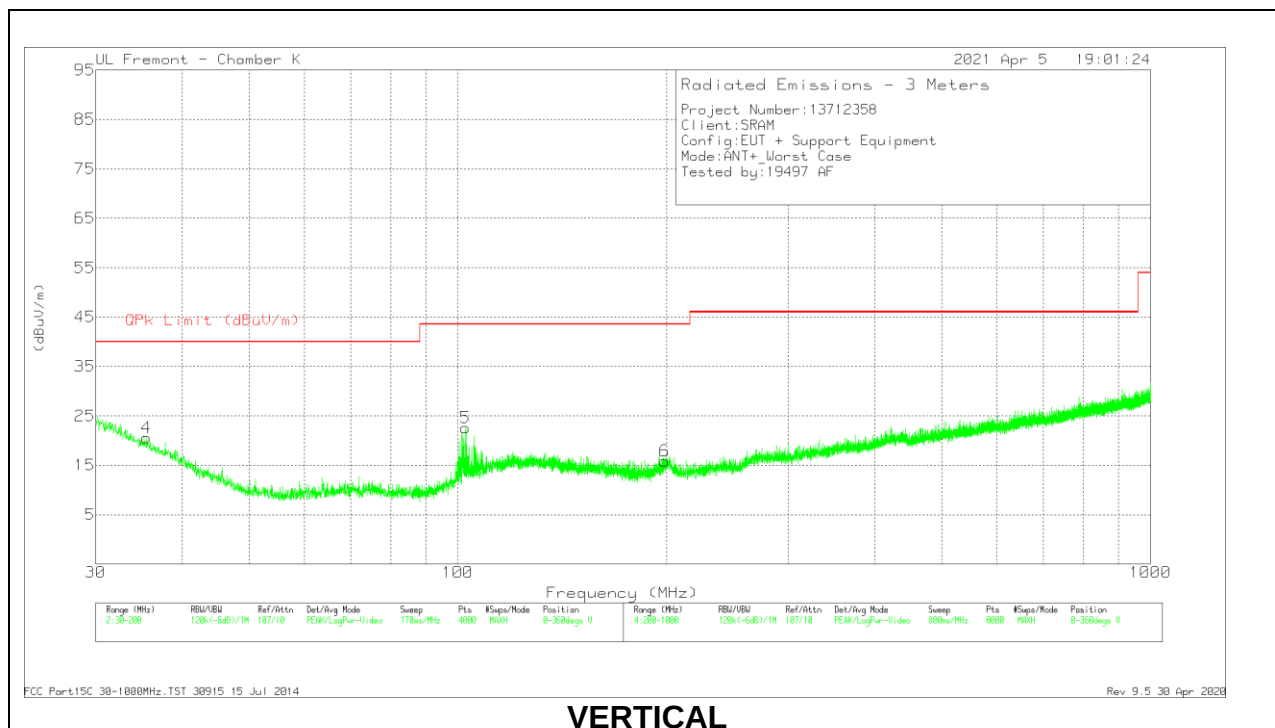
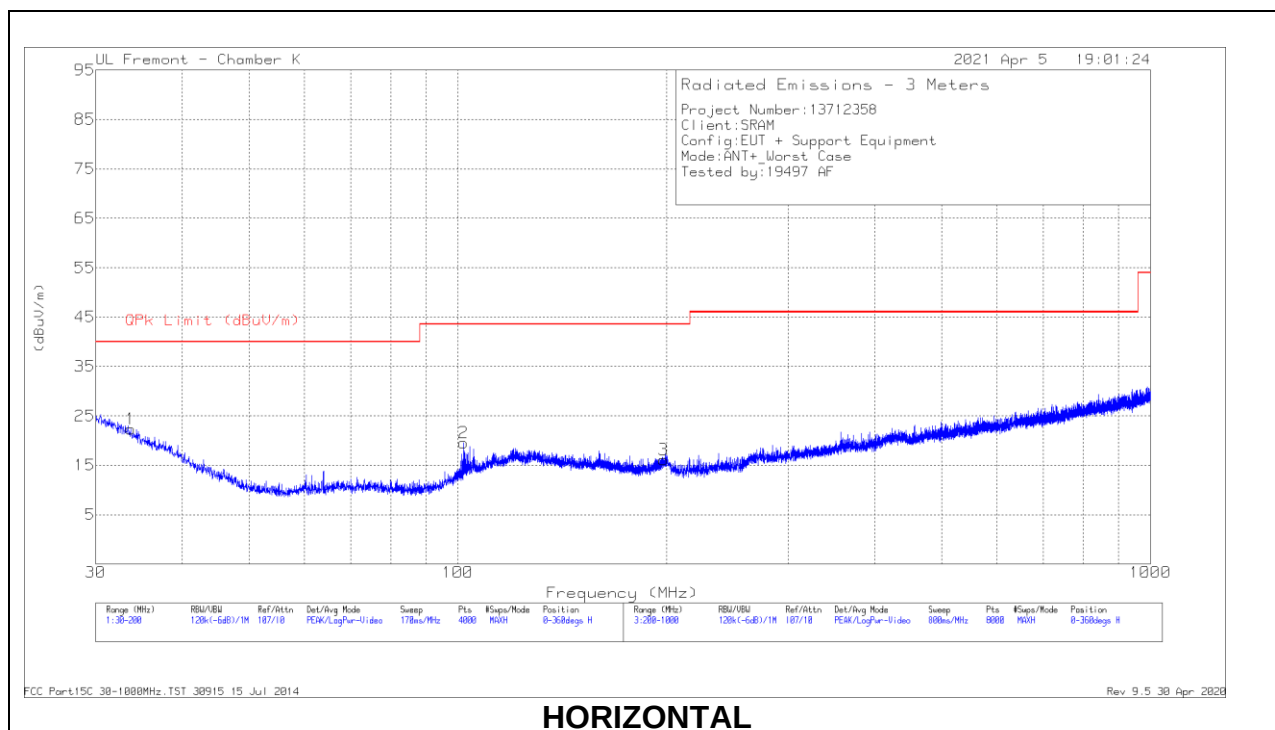
Marker	Frequency (MHz)	Meter Reading (dBUV)	Det	Loop Antenna (E ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB)	Corrected Reading (dBUV/m)	QP Limit (dBUV/m)	Margin (dB)	Azimuth (Degs)
3	.81165	22.15	Pk	56.3	-32.2	-40	6.25	29.43	-23.18	0-360
6	.81419	21.76	Pk	56.3	-32.2	-40	5.86	29.4	-23.54	0-360
7	1.35191	18.59	Pk	45	-32.1	-40	-8.51	25.01	-33.52	0-360
8	10.81526	16.42	Pk	34.6	-31.8	-40	-20.78	29.5	-50.28	0-360
9	1.35138	17.78	Pk	45	-32.1	-40	-9.32	25.01	-34.33	0-360
10	9.46334	17.36	Pk	34.4	-31.9	-40	-20.14	29.5	-49.64	0-360

Pk - Peak detector

Note: The Limits in CRF 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 dBAu/m, which has the same margin, W dB, to the corresponding RSS-Gen Table 6 limit as it has to 15.209(a) limit.

10.4. WORST CASE BELOW 1 GHz

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



Below 1GHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF 81560 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	33.6839	30.38	Pk	25.2	-31.5	24.08	40	-15.92	175	335	H
	33.6839	21.26	Qp	25.2	-31.5	14.96	40	-25.04	175	335	H
2	101.9711	33.61	Pk	16.8	-30.9	19.51	43.52	-24.01	0-360	200	H
3	198.301	27.62	Pk	18.8	-30.3	16.12	43.52	-27.4	0-360	200	H
4	35.5264	28.28	Pk	23.8	-31.5	20.58	40	-19.42	0-360	100	V
5	102.5663	36.56	Pk	16.9	-30.9	22.56	43.52	-20.96	0-360	100	V
6	199.0662	27.26	Pk	18.9	-30.3	15.86	43.52	-27.66	0-360	100	V

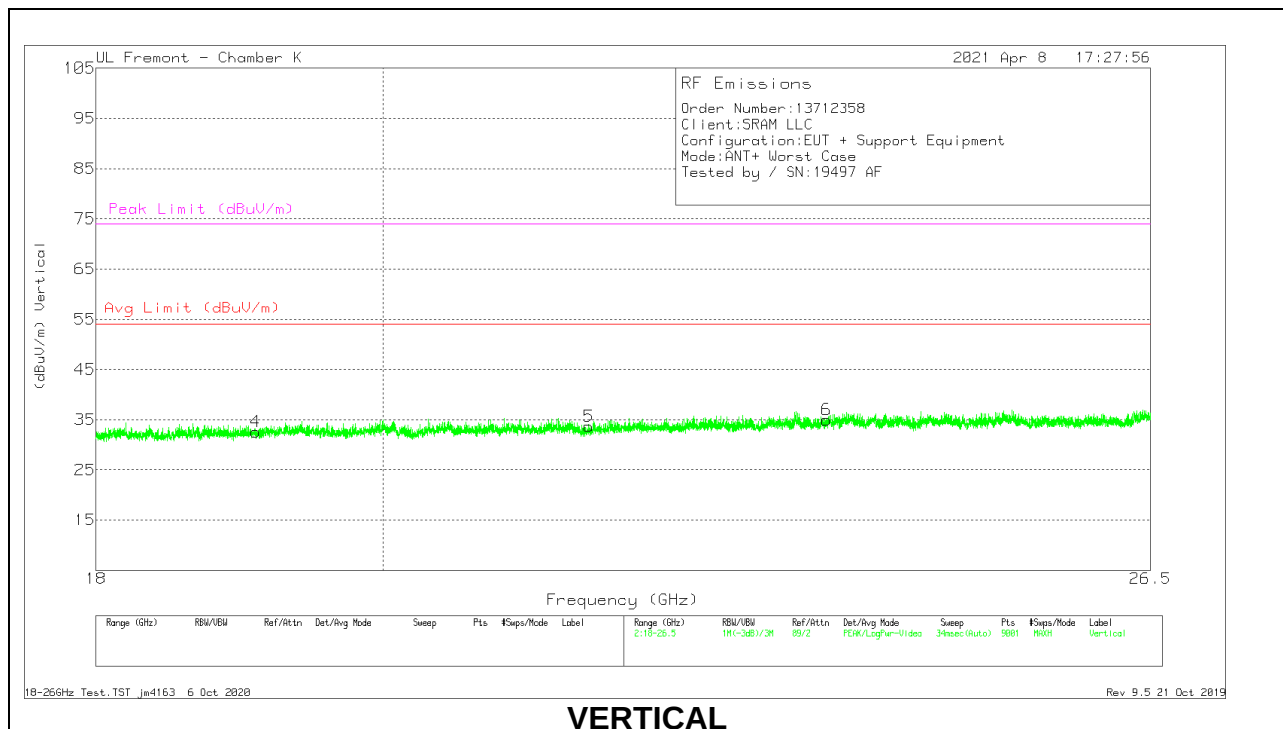
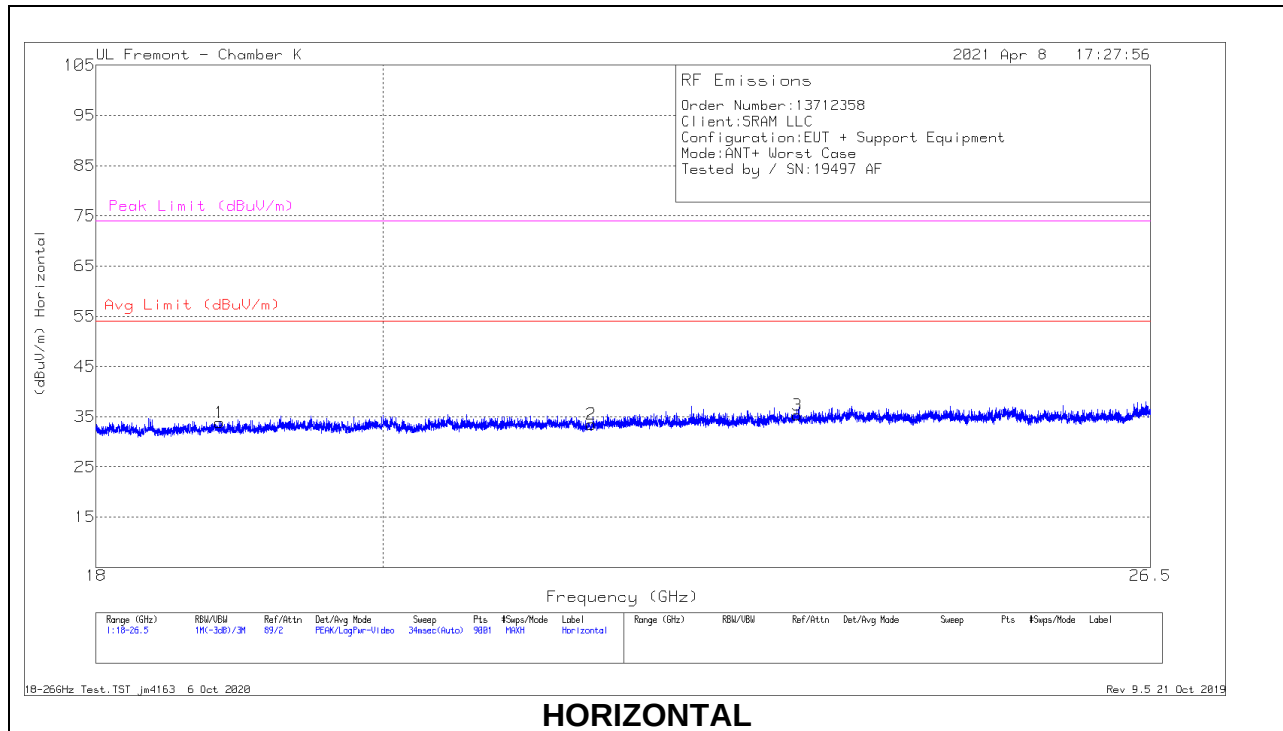
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

Qp - Quasi-Peak detector

10.5. WORST CASE 18-26 GHz

SPURIOUS EMISSIONS 18-26 GHz (WORST-CASE CONFIGURATION)



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	18.833	69.16	Pk	32.4	-58.2	-9.5	33.86	54	-20.14	74	-40.14
2	21.58605	67.17	Pk	33.2	-57.4	-9.5	33.47	54	-20.53	74	-40.53
3	23.27944	68.01	Pk	33.9	-57.1	-9.5	35.31	54	-18.69	74	-38.69
4	19.08611	67.09	Pk	32.6	-57.6	-9.5	32.59	54	-21.41	74	-41.41
5	21.56433	67.16	Pk	33.2	-57.2	-9.5	33.66	54	-20.34	74	-40.34
6	23.52972	67.38	Pk	34.2	-57.1	-9.5	34.98	54	-19.02	74	-39.02

Pk - Peak detector