



TEST REPORT

Report Number. : R13470920-E1

Applicant : Resideo
2 Corporate Center Drive
Melville, NY 11749-3265, USA

Model : PROWIFI

FCC ID : CFS8DLPROWIFI

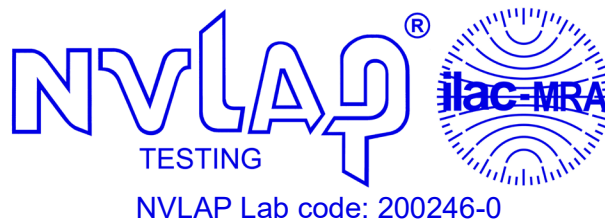
IC : 573F-PROWIFI

EUT Description : Radio module

Test Standard(s) : FCC 47 CFR PART 15 SUBPART C 2020
ISED RSS-247 ISSUE 2 2017
ISED RSS-GEN ISSUE 5+Amendment 1 2019

Date Of Issue:
2021-01-21

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REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	2020-12-10	Initial Issue	Cristian Melara
V2	2020-12-21	Removed power section, updated antenna gains for both antennas,	Cristian Melara
V3	2020-12-30	Added new 802.11b mode data at higher power setting	Mike Antola
V4	2021-01-21	Added CABID number	Mike Antola

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Resideo
2 Corporate Center Drive
Melville, NY 11749-3265, U.S.A

EUT DESCRIPTION: Radio module

MODEL: PROWIFI

SERIAL NUMBER: MEL-992, MEL-1010

DATE TESTED: 2020-10-05 to 2020-12-23

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C 2020	Complies
ISED RSS-247 Issue 2 2017	Complies
ISED RSS-GEN Issue 5 + Amendment 1 2019	Complies

UL LLC 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 LLC and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL LLC 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, or any agency of the U.S. government.

Approved & Released For
UL LLC By:



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Consumer Technology Division
UL LLC

Prepared By:



Cristian Melara
Engineer
Consumer Technology Division
UL LLC

2. TEST RESULTS SUMMARY

FCC Clause	ISED Clause	Requirement	Result	Comment
See Comment		Duty Cycle	Reporting purposes only	ANSI C63.10 Section 11.6.
-	RSS-GEN 6.7	99% OBW	Not performed in this report.	Refer to CFS8DLWFZW WiFi/Z-Wave Module test report
15.247 (a) (2)	RSS-247 5.2 (a)	6dB BW		
See comment		Output Power	Not performed in this report	None.
See Comment		Average power	Not performed in this report	None.
15.247 (e)	RSS-247 5.2 (b)	PSD	Not performed in this report.	Refer to CFS8DLWFZW WiFi/Z-Wave Module test report
15.247 (d)	RSS-247 5.5	Conducted Spurious Emissions		
15.209, 15.205	RSS-GEN 8.9, 8.10	Radiated Emissions	Compliant	None.
15.207	RSS-Gen 8.8	AC Mains Conducted Emissions	Compliant	None.

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10-2013, KDB 558074 D01 15.247 Meas Guidance v05r02, KDB 414788 D01 Radiated Test Site v01r01, KDB 662911 D01 v02r01, RSS-GEN Issue 5+Amendment 1, and RSS-247 Issue 2.

4. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 12 Laboratory Drive, Research Triangle Park, NC 27709, USA and 2800 Perimeter Park Dr., Suite B, Morrisville, NC 27560, USA. 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.

12 Laboratory Dr.	2800 Perimeter Park Dr.
IC Company Number: 2180C; CABID: US0067	
<input type="checkbox"/> Chamber A RTP	<input checked="" type="checkbox"/> North Chamber
<input type="checkbox"/> Chamber C RTP	<input checked="" type="checkbox"/> South Chamber

The above test sites and facilities are covered under FCC Test Firm Registration # 703469. Chambers above are covered under Industry Canada company address and respective code.

UL LLC (RTP) is accredited by NVLAP, Laboratory Code 200246-0

5. DECISION RULES AND MEASUREMENT UNCERTAINTY

5.1. METROLOGICAL TRACEABILITY

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

5.2. DECISION RULES

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

5.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Radio Frequency (Spectrum Analyzer)	141.2 Hz
Occupied Channel Bandwidth	2.00%
RF output power, conducted	1.3 dB (PK) 0.45 dB (AV)
Power Spectral Density, conducted	2.47 dB
Unwanted Emissions, conducted	1.94 dB
All emissions, radiated	4.88 dB
Conducted Emissions (0.150-30MHz) - LISN	3.07 dB
Temperature	2.26°C
Humidity	6.79%
DC Supply voltages	1.70%
Time	3.39%

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

5.4. SAMPLE CALCULATION

RADIATED EMISSIONS

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable

Loss (dB) – Preamp Gain (dB)

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

MAINS CONDUCTED EMISSIONS

Where relevant, the following sample calculation is provided:

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

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

6. EQUIPMENT UNDER TEST

6.1. EUT DESCRIPTION

The EUT is a 2.4GHz WIFI radio module. The EUT has two PCB trace antennas for diversity that use modes 802.11b and 802.11g, along with MIMO for 802.11HT20 mode only.

6.2. MAXIMUM OUTPUT POWER

Output power was configured using a test utility to be no more than -0.5dB lower than the original reported power for the purposes of validating radiated emissions.

6.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes two integral trace antennas for diversity for modes b/g and MIMO for mode 11nHT20 with a gain of 1.67 dBi for antenna 1 and 1.02dBi for antenna 2. The worse-case antenna gain for this variation of the module is lower than the originally certified module. The original modules conducted data remains valid for this new application.

6.4. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was v1.29

6.5. WORST-CASE CONFIGURATION AND MODE

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 and on each antenna.

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

Duty cycle and power was run on each antenna. For the remaining tests they were performed on the antenna with the highest output power.

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 were:

802.11b mode: 11 Mbps
802.11g mode: 54 Mbps
802.11n HT20mode: MCS0

6.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC/DC Adapter	Honeywell	ADS-25STA-12	300-10260D6J6023342	N/A

I/O CABLES

I/O Cable List						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	Mains	1	Barrel	Main	<3m	Provides DC power from Mains

TEST SETUP

Test software exercised the radio card of the EUT.

SETUP DIAGRAM

Please refer to R13470920-EP1 for setup diagrams

7. MEASUREMENT METHOD

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

Output Power: ANSI C63.10 Subclause -11.9.1.3 Method PKPM1 Peak-reading power meter
Output Power: ANSI C63.10 Subclause -11.9.2.3.2 Method AVGPM-G (Measurement using a gated RF average-reading power meter)

Emissions in non-restricted frequency bands: ANSI C63.10 Subclause -11.11

Emissions in restricted frequency bands: ANSI C63.10 Subclause -11.12.1 and 6.10.5

General Radiated Emissions: ANSI C63.10:2013 Sections 6.3 – 6.6

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

8. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville - South Chamber)

Equip. ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
	1-18 GHz				
AT0067	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2020-04-28	2021-04-28
SOFTEMI	EMI Software	UL	Version 9.5 (2019-06-12)	NA	NA
	Gain-Loss Chains				
S-SAC03	Gain-loss string: 1-18GHz	Various	Various	2020-05-15	2021-05-15
	Additional Equipment used				
s/n 200037635	Environmental Meter	Fisher Scientific	06-662-4	2020-01-22	2022-01-22

Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville - North Chamber)

Equip. ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
	0.009-30MHz	(Loop Ant.)			
AT0059	Active Loop Antenna	EMCO	6502	2020-08-06	2021-08-06
	30-1000 MHz				
AT0074	Hybrid Broadband Antenna	Sunol Sciences Corp.	JB3	2020-07-27	2021-07-27
	1-18 GHz				
AT0072	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2020-04-27	2021-04-27
	18-40 GHz				
AT0076	Horn Antenna, 18-26.5GHz	ARA	MWH-1826/B	2019-11-07	2020-11-07
	Gain-Loss Chains				
N-SAC01	Gain-loss string: 0.009-30MHz	Various	Various	2020-07-29	2021-07-29
N-SAC02	Gain-loss string: 25-1000MHz	Various	Various	2020-07-29	2021-07-29
N-SAC03	Gain-loss string: 1-18GHz	Various	Various	2020-07-28	2021-07-28
N-SAC04	Gain-loss string: 18-40GHz	Various	Various	2020-07-31	2021-07-31
	Receiver & Software				
SOFTEMI	EMI Software	UL	Version 9.5 (2019-06-15)	NA	NA
	Additional Equipment used				
s/n 200037610	Environmental Meter	Fisher Scientific	06-662-4	2020-01-22	2022-01-22

Test Equipment Used - Line-Conducted Emissions – Voltage (Morrisville – Conducted 1)

Equip. ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
CBL087	Coax cable, RG223, N-male to BNC-male, 20-ft.	Pasternack	PE3W06143-240	2020-03-26	2021-03-26
HI0091	Environmental Meter	Fisher Scientific	14-650-118	2020-06-26	2021-06-26
LISN003	LISN, 50-ohm/50-uH, 2-conductor, 25A	Fischer Custom Com.	FCC-LISN-50-25-2-01-550V	2020-08-18	2021-08-18
75141	EMI Test Receiver 9kHz-7GHz	Rohde & Schwarz	ESCI 7	2020-08-18	2021-08-18
ATA222	Transient Limiter, 0.009-100MHz	Electro-Metrics	EM-7600	2020-03-26	2021-03-26
PS215	AC Power Source	Elgar	CW2501M (s/n 1523A02397)	NA	NA
SOFTEMI	EMI Software	UL	Version 9.5 (2015-08-20)	NA	NA
	Miscellaneous (if needed)				
CDECABLE001	ANSI C63.4 1m extension cable.	UL	Per Annex B of ANSI C63.4	2020-08-08	2021-08-08

Test Equipment Used - Wireless Conducted Measurement Equipment (Morrisville - Conducted 2)

Equip. ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
SA007 (PRE0126407)	Spectrum Analyzer	Keysight Technologies	N9030A	2020-06-10	2021-06-10
PWM001 (PRE0136343)	RF Power Meter	Keysight Technologies	N1912A	2020-07-17	2021-07-17
PWS001 (PRE0137347)	Peak and Avg Power Sensor, 50MHz to 18GHz	Keysight Technologies	N1921A	2020-05-27	2021-05-27
HI0090 (PRE0191271)	Environmental Meter	Fisher Scientific	15-077-963	2020-06-26	2021-06-26

9. ON TIME AND DUTY CYCLE

9.1. ON TIME AND DUTY CYCLE RESULTS

LIMITS

None; for reporting purposes only.

PROCEDURE

KDB 789033 Zero-Span Spectrum Analyzer Method.

ON TIME AND DUTY CYCLE RESULTS

Chain 0

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor Conducted (dB)	Duty Cycle Correction Factor Radiated (dB)	1/B Minimum VBW (kHz)
2.4GHz Band							
802.11b 1Tx	100.400	100.400	1.000	100.00%	0.00	0.00	0.010
802.11g 1Tx	100.400	100.400	1.000	100.00%	0.00	0.00	0.010

Chain 1

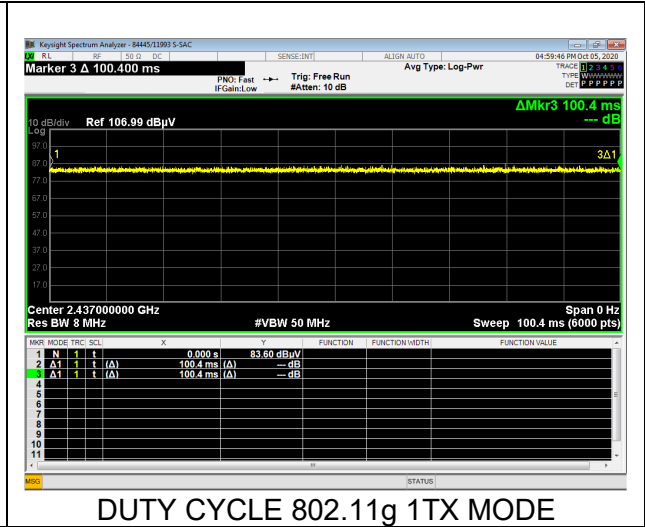
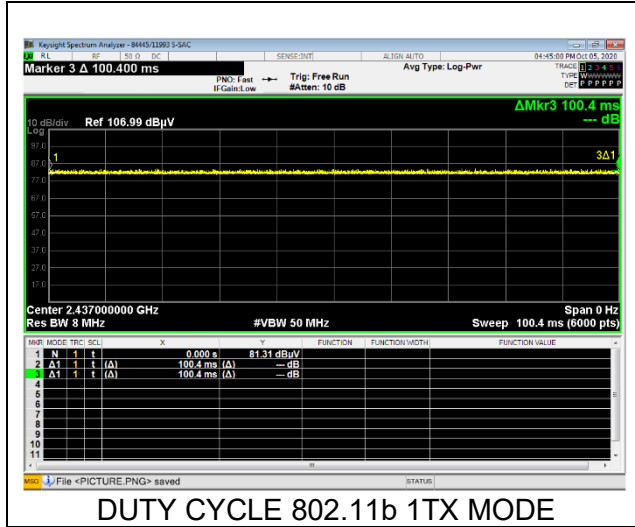
Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor Conducted (dB)	Duty Cycle Correction Factor Radiated (dB)	1/B Minimum VBW (kHz)
2.4GHz Band							
802.11b 1Tx	100.400	100.400	1.000	100.00%	0.00	0.00	0.010
802.11g 1Tx	100.400	100.400	1.000	100.00%	0.00	0.00	0.010

MIMO Transmission

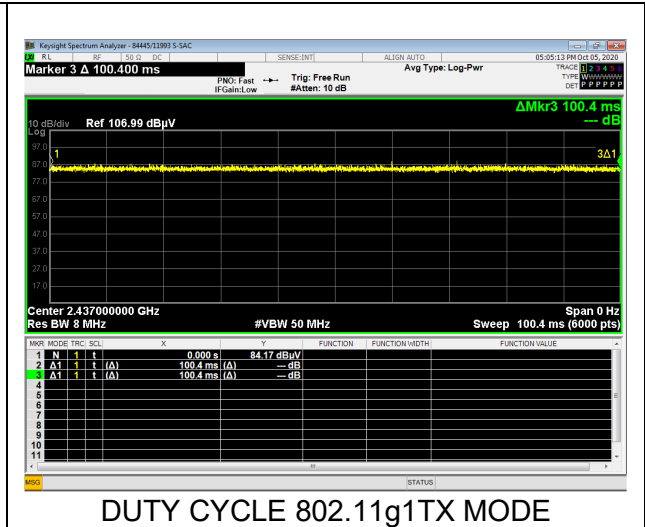
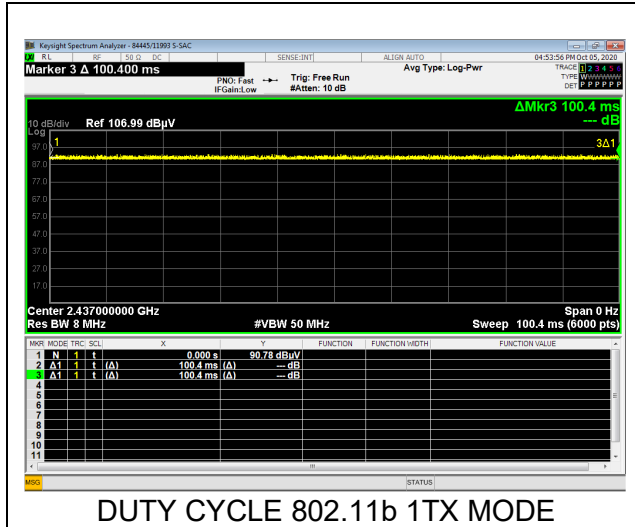
Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor Conducted (dB)	Duty Cycle Correction Factor Radiated (dB)	1/B Minimum VBW (kHz)
2.4GHz Band							
802.11nHT20 2Tx	100.400	100.400	1.000	100.00%	0.00	0.00	0.010

DUTY CYCLE PLOTS

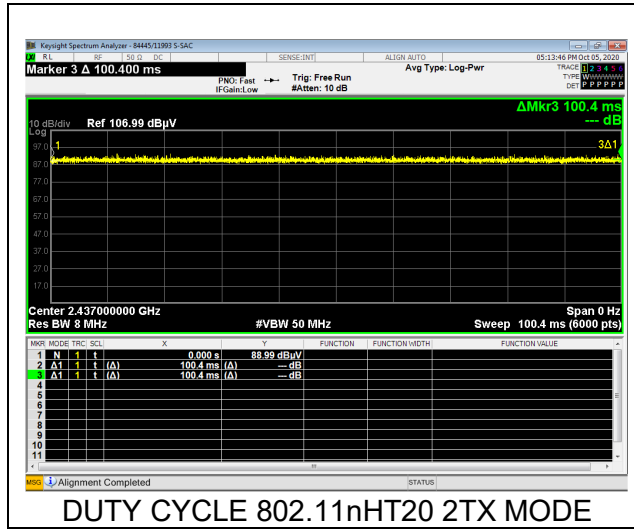
Chain 0



Chain 1



MIMO



10. 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 in the 30-1000MHz range, 9kHz for peak and/or quasi-peak detection measurements in the 0.15-30MHz range and 200Hz for peak and/or quasi-peak detection measurements in the 9 to 150kHz range. 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. For average measurements above 1GHz, the resolution bandwidth and video bandwidth are set as described in ANSI C63.10:2013 for the applicable measurement. The particular averaging method used for this test program was voltage averaging.

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.

3D antenna use - For below 30MHz testing, investigation was done on three antenna orientations (parallel, perpendicular, and ground-parallel).

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.

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

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

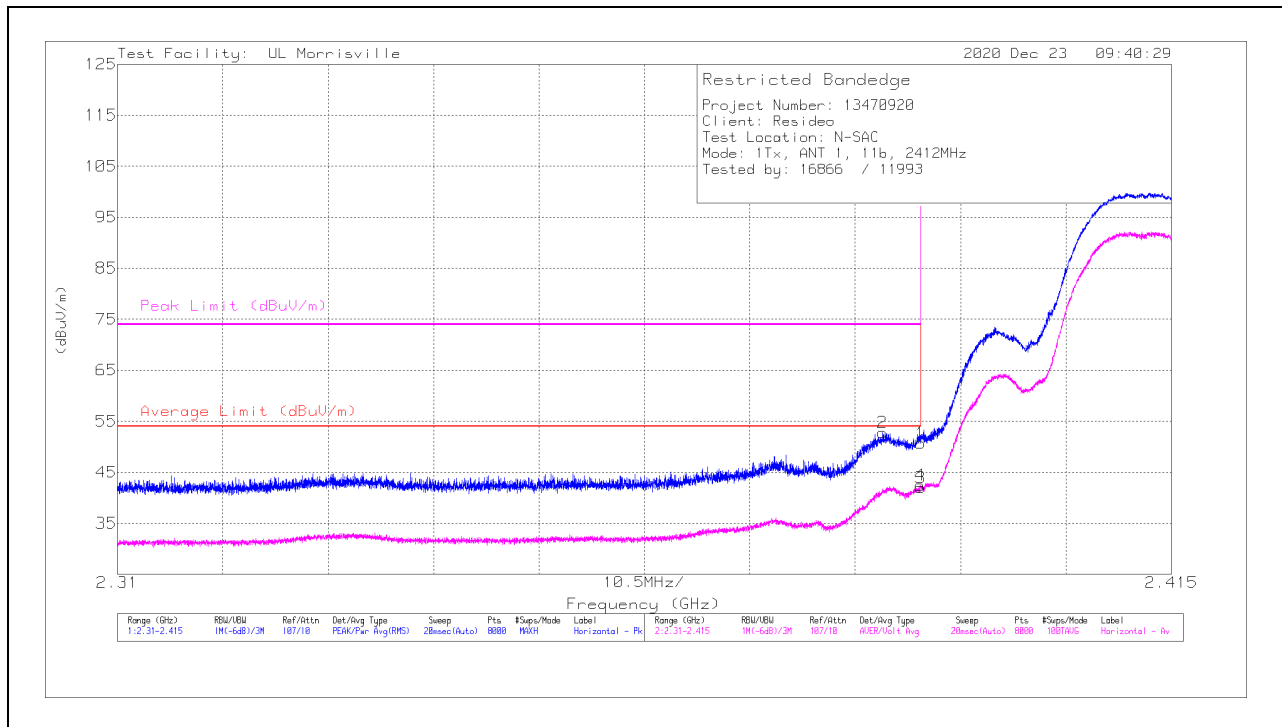
10.1. TRANSMITTER ABOVE 1 GHz

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

1TX Chain 0 MODE

BANDEDGE (LOW CHANNEL, CH 1)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 2.39	43.31	Pk	31.8	-24.4	50.71	-	-	74	-23.29	204	177	H
2	*** 2.38624	45.37	Pk	31.8	-24.4	52.77	-	-	74	-21.23	204	177	H
3	*** 2.39	34.6	ADV	31.8	-24.4	42	54	-12	-	-	204	177	H
4	*** 2.38994	35.03	ADV	31.8	-24.4	42.43	54	-11.57	-	-	204	177	H

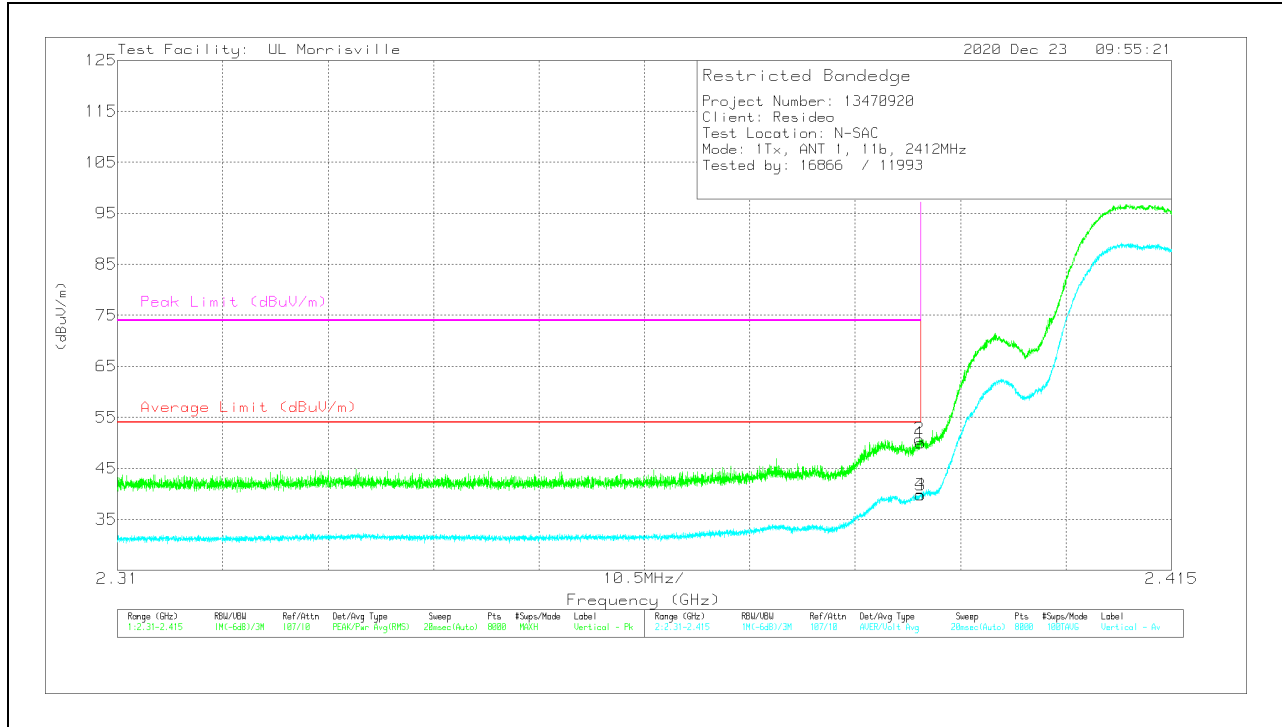
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT

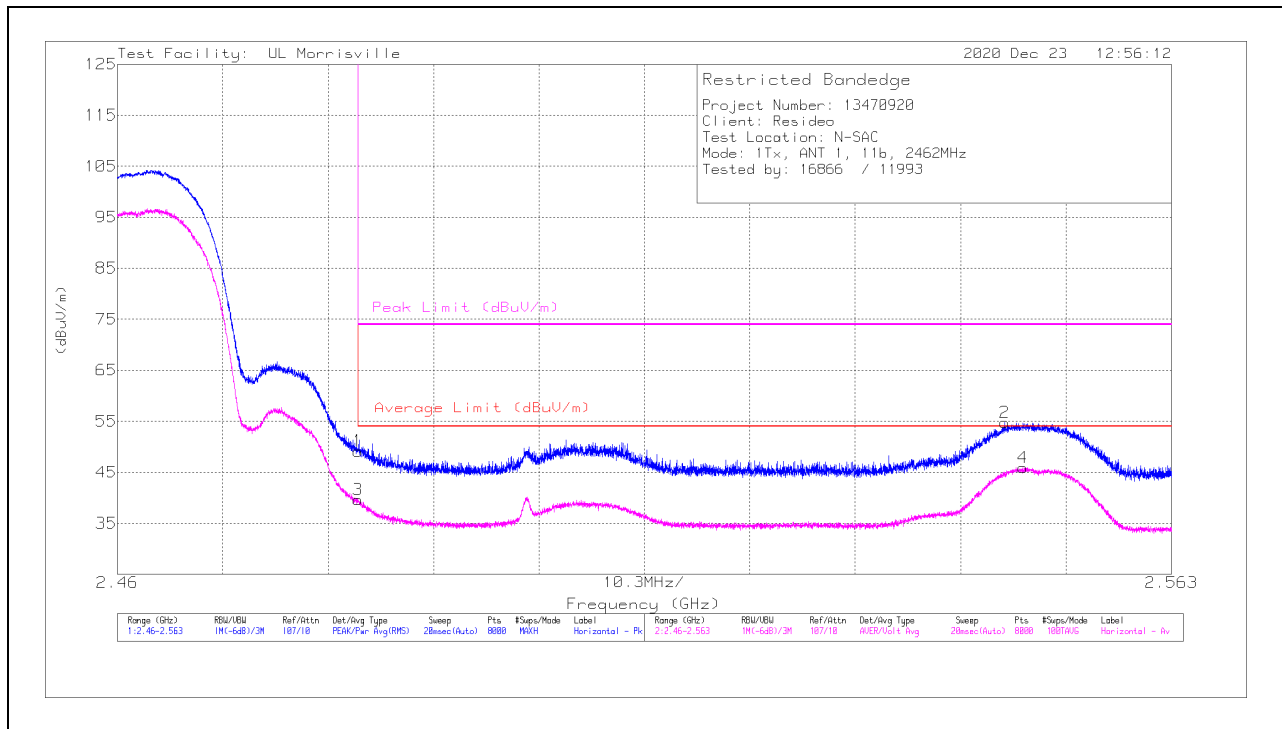


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.39	42.59	Pk	31.8	-24.4	49.99	-	-	74	-24.01	143	361	V
2	** * 2.38988	43.37	Pk	31.8	-24.4	50.77	-	-	74	-23.23	143	361	V
3	* ** 2.39	32.35	ADV	31.8	-24.4	39.75	54	-14.25	-	-	143	361	V
4	* ** 2.38994	32.44	ADV	31.8	-24.4	39.84	54	-14.16	-	-	143	361	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

BANDEDGE (HIGH CHANNEL, CH 11)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 2.4835	41.06	Pk	32.4	-24.3	49.16	-	-	74	-24.84	83	113	H
2	** 2.54669	46.57	Pk	32.4	-24.2	54.77	-	-	74	-19.23	83	113	H
3	*** 2.4835	31.56	ADV	32.4	-24.3	39.66	54	-14.34	-	-	83	113	H
4	** 2.54849	37.84	ADV	32.3	-24.2	45.94	54	-8.06	-	-	83	113	H

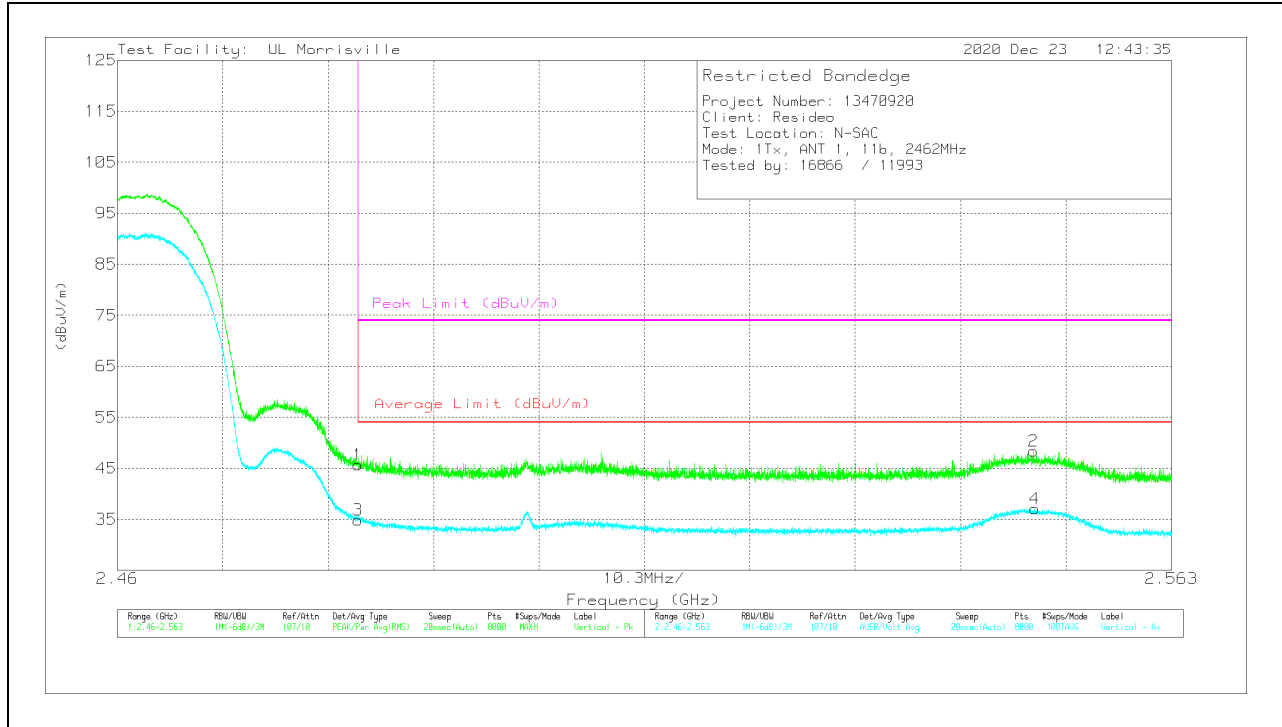
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT

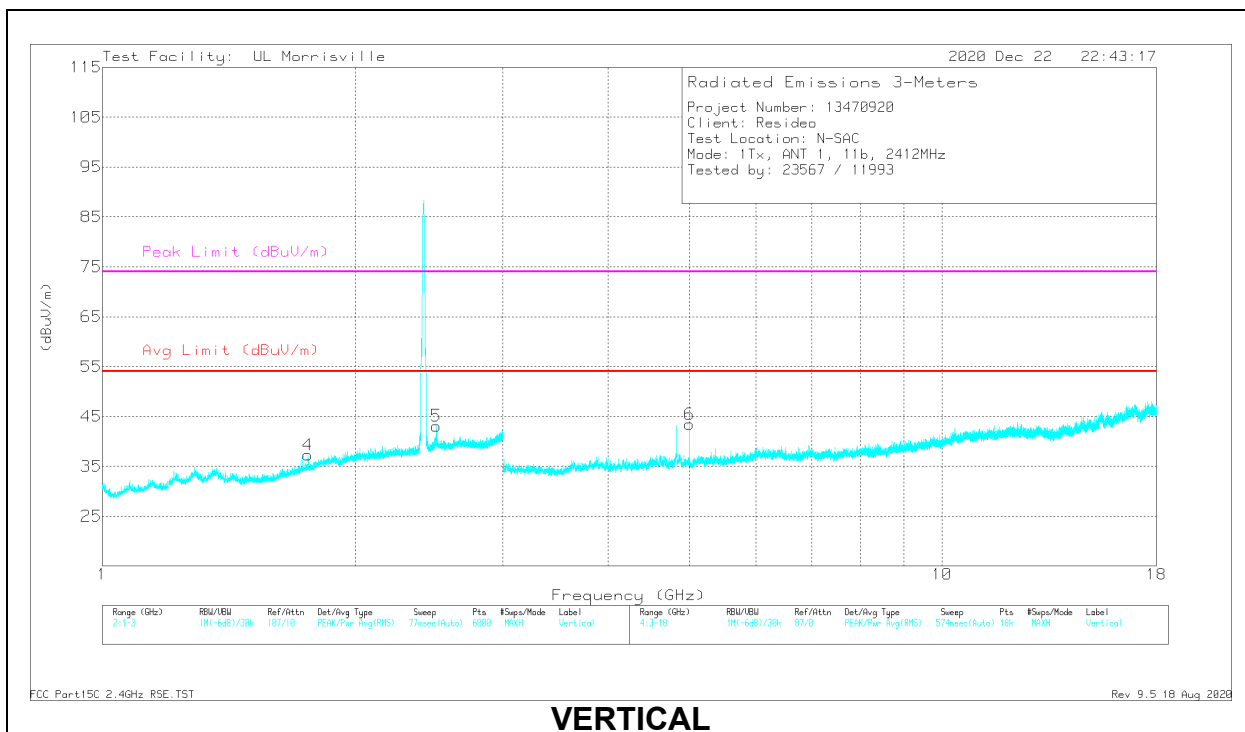
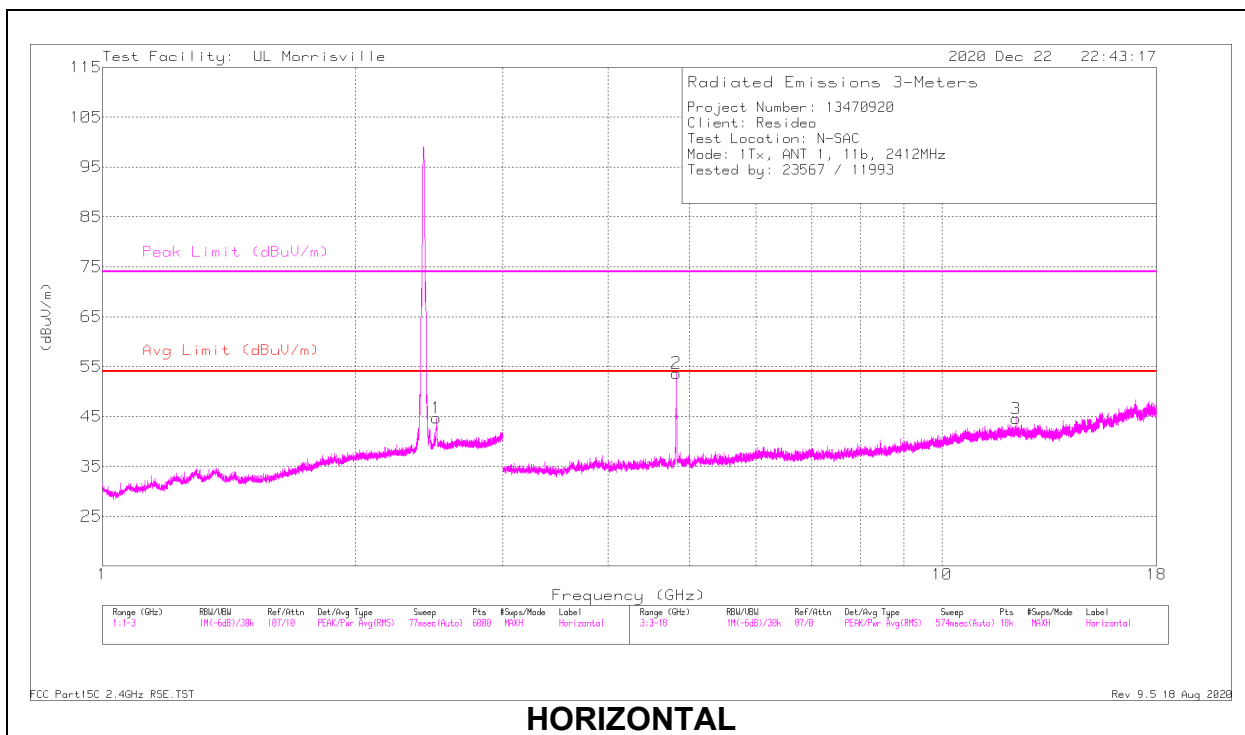


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.4835	37.59	Pk	32.4	-24.3	45.69	-	-	74	-28.31	282	129	V
2	** 2.54951	40.26	Pk	32.3	-24.2	48.36	-	-	74	-25.64	282	129	V
3	* ** 2.4835	26.73	ADV	32.4	-24.3	34.83	54	-19.17	-	-	282	129	V
4	** 2.54962	28.98	ADV	32.3	-24.2	37.08	54	-16.92	-	-	282	129	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, CH 1 RESULTS



RADIATED EMISSIONS

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 2.4999	41.65	PK2	32.5	-24.3	49.85	-	-	74	-24.15	148	187	H
	*** 2.5	33.33	ADV	32.5	-24.3	41.53	54	-12.47	-	-	148	187	H
4	** 1.75685	36.27	PK2	29.6	-24.4	41.47	-	-	74	-32.53	337	354	V
	** 1.75511	23.5	ADV	29.6	-24.4	28.7	54	-25.3	-	-	337	354	V
5	*** 2.49965	38.45	PK2	32.5	-24.3	46.65	-	-	74	-27.35	271	395	V
	*** 2.5	28.48	ADV	32.5	-24.3	36.68	54	-17.32	-	-	271	395	V
2	*** 4.82396	52.52	PK2	34.2	-31.4	55.32	-	-	74	-18.68	140	225	H
	*** 4.82388	41.19	ADV	34.2	-31.4	43.99	54	-10.01	-	-	140	225	H
3	*** 12.24666	36.88	PK2	38.9	-26	49.78	-	-	74	-24.22	38	162	H
	*** 12.24603	23.53	ADV	38.9	-26	36.43	54	-17.57	-	-	38	162	H
6	*** 4.99995	46.48	PK2	34.1	-32.6	47.98	-	-	74	-26.02	258	103	V
	*** 4.99999	40.07	ADV	34.1	-32.6	41.57	54	-12.43	-	-	258	103	V
1	*** 2.4999	41.65	PK2	32.5	-24.3	49.85	-	-	74	-24.15	148	187	H

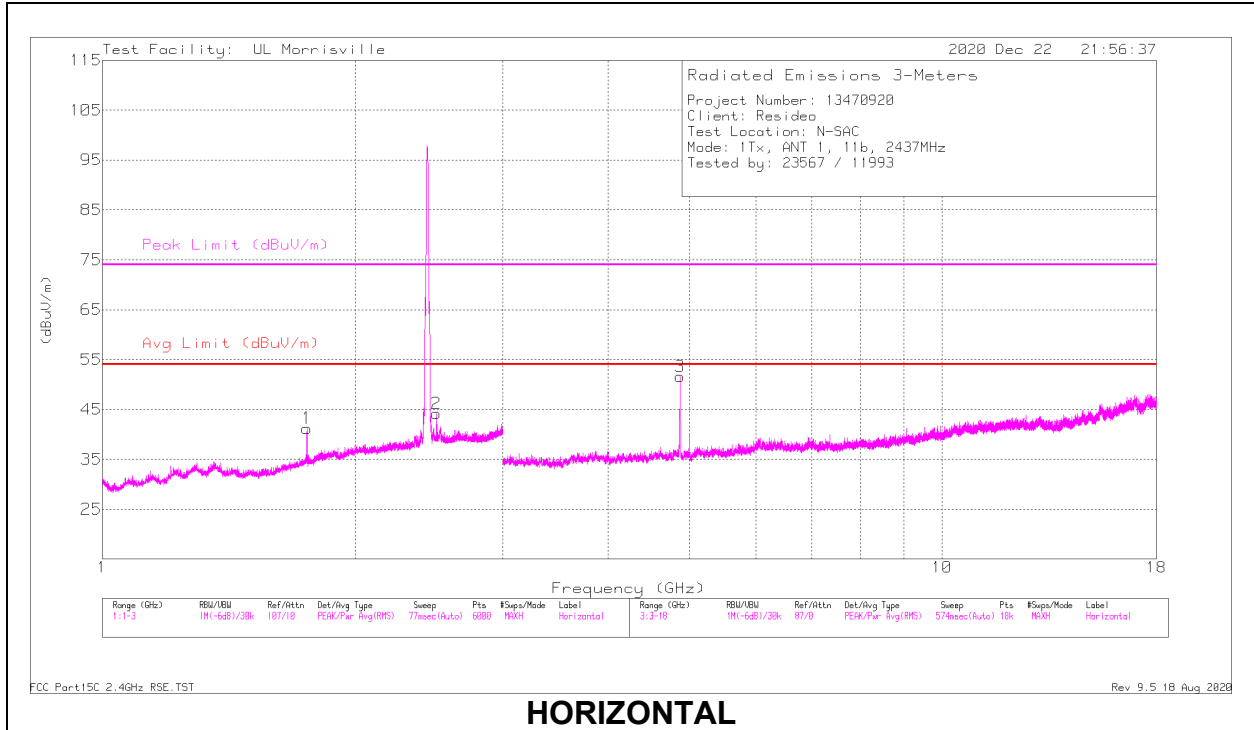
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

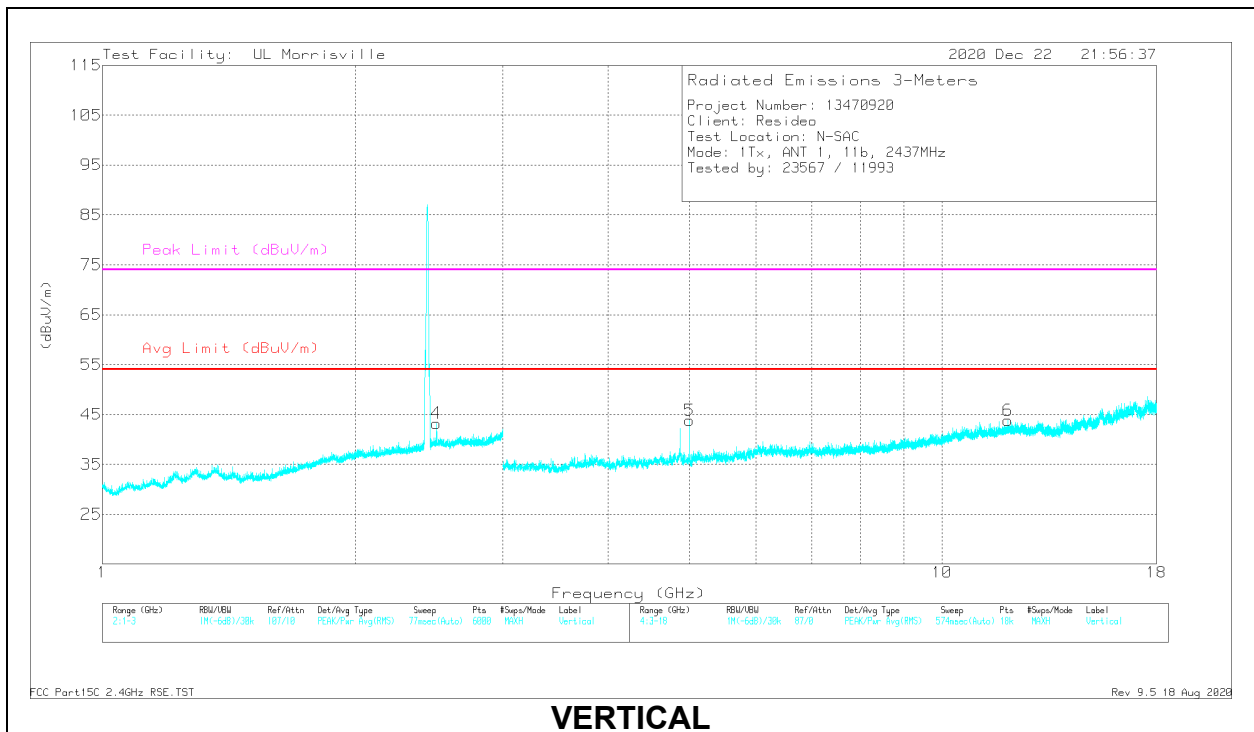
PK2 Maximum Peak

ADV - Linear Voltage Average

MID CHANNEL, CH 6 RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	** 1.75381	38.5	PK2	29.6	-24.4	43.7	-	-	74	-30.3	71	309	H
	** 1.75239	23.54	ADV	29.6	-24.4	28.74	54	-25.26	-	-	71	309	H
2	*** 2.49993	39.37	PK2	32.5	-24.3	47.57	-	-	74	-26.43	153	394	H
	*** 2.49997	29.92	ADV	32.5	-24.3	38.12	54	-15.88	-	-	153	394	H
4	*** 2.4997	39	PK2	32.5	-24.3	47.2	-	-	74	-26.8	261	352	V
	*** 2.49998	29.77	ADV	32.5	-24.3	37.97	54	-16.03	-	-	261	352	V
3	*** 4.87399	52.59	PK2	34.1	-31.3	55.39	-	-	74	-18.61	153	280	H
	*** 4.87397	40.91	ADV	34.1	-31.3	43.71	54	-10.29	-	-	153	280	H
5	*** 5.00012	46.95	PK2	34.1	-32.6	48.45	-	-	74	-25.55	242	109	V
	*** 4.99995	40.78	ADV	34.1	-32.6	42.28	54	-11.72	-	-	242	109	V
6	*** 11.96951	37.12	PK2	38.7	-25.7	50.12	-	-	74	-23.88	38	210	V
	*** 11.97015	23.63	ADV	38.7	-25.7	36.63	54	-17.37	-	-	38	210	V

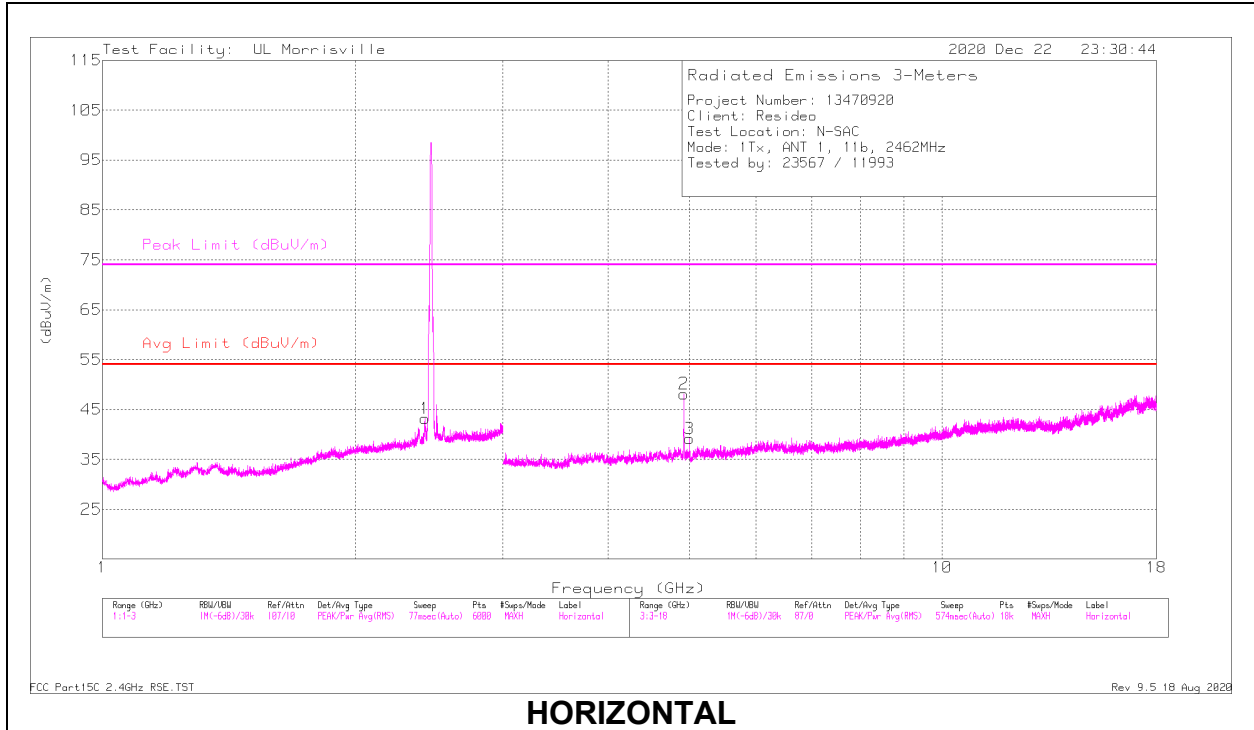
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

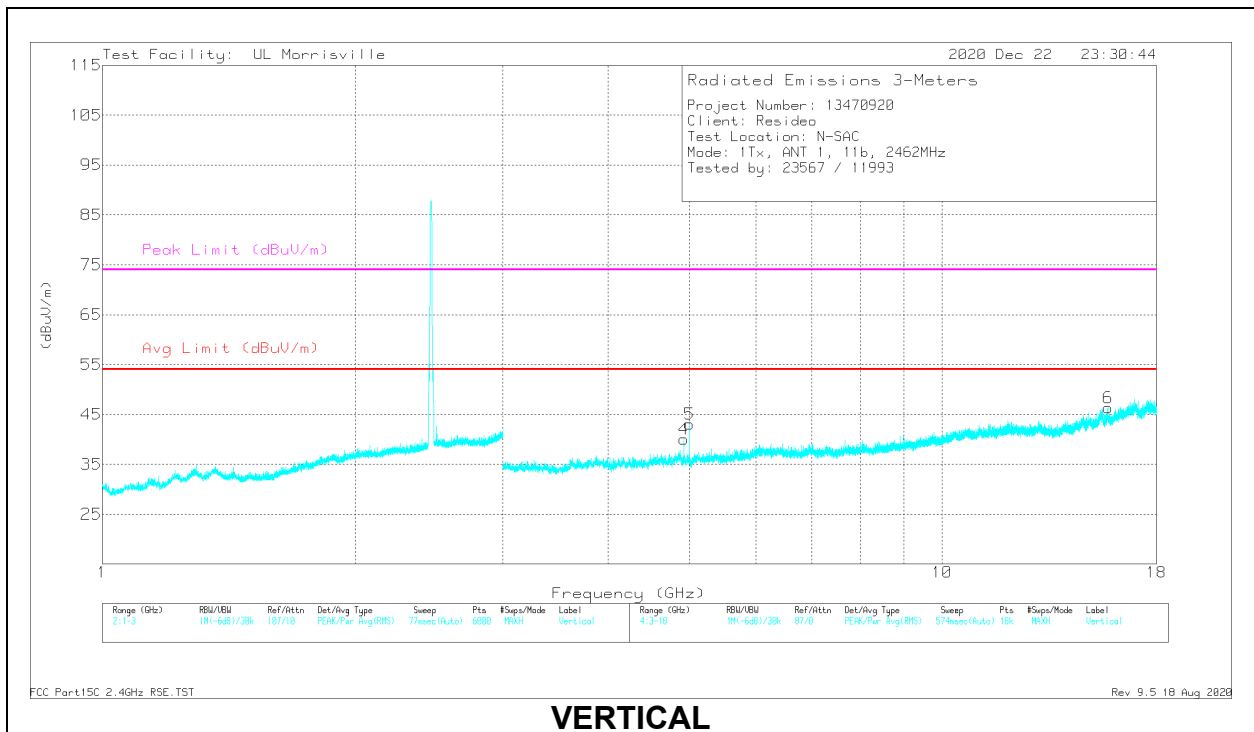
PK2 - Maximum Peak

ADV - Linear Voltage Average

HIGH CHANNEL, CH 11 RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	*** 4.92395	49.8	PK2	34	-31.9	51.9	-	-	74	-22.1	157	149	H
	*** 4.92407	38.62	ADV	34	-31.9	40.72	54	-13.28	-	-	157	149	H
3	*** 4.99982	44.85	PK2	34.1	-32.6	46.35	-	-	74	-27.65	319	102	H
	*** 4.99997	35.76	ADV	34.1	-32.6	37.26	54	-16.74	-	-	319	102	H
4	*** 4.92394	43.79	PK2	34	-31.9	45.89	-	-	74	-28.11	62	323	V
	*** 4.9241	30.66	ADV	34	-31.9	32.76	54	-21.24	-	-	62	323	V
5	*** 5.00012	46.69	PK2	34.1	-32.6	48.19	-	-	74	-25.81	258	101	V
	*** 4.99998	40.26	ADV	34.1	-32.6	41.76	54	-12.24	-	-	258	101	V
6	*** 15.76266	36.62	PK2	40	-24.6	52.02	-	-	74	-21.98	21	335	V
	*** 15.76322	23.56	ADV	40.1	-24.7	38.96	54	-15.04	-	-	21	335	V
1	2.42224	35.7	Pk	31.9	-24.4	43.2	-	-	-	-	0-360	101	H
2	*** 4.92395	49.8	PK2	34	-31.9	51.9	-	-	74	-22.1	157	149	H

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2 - Maximum Peak

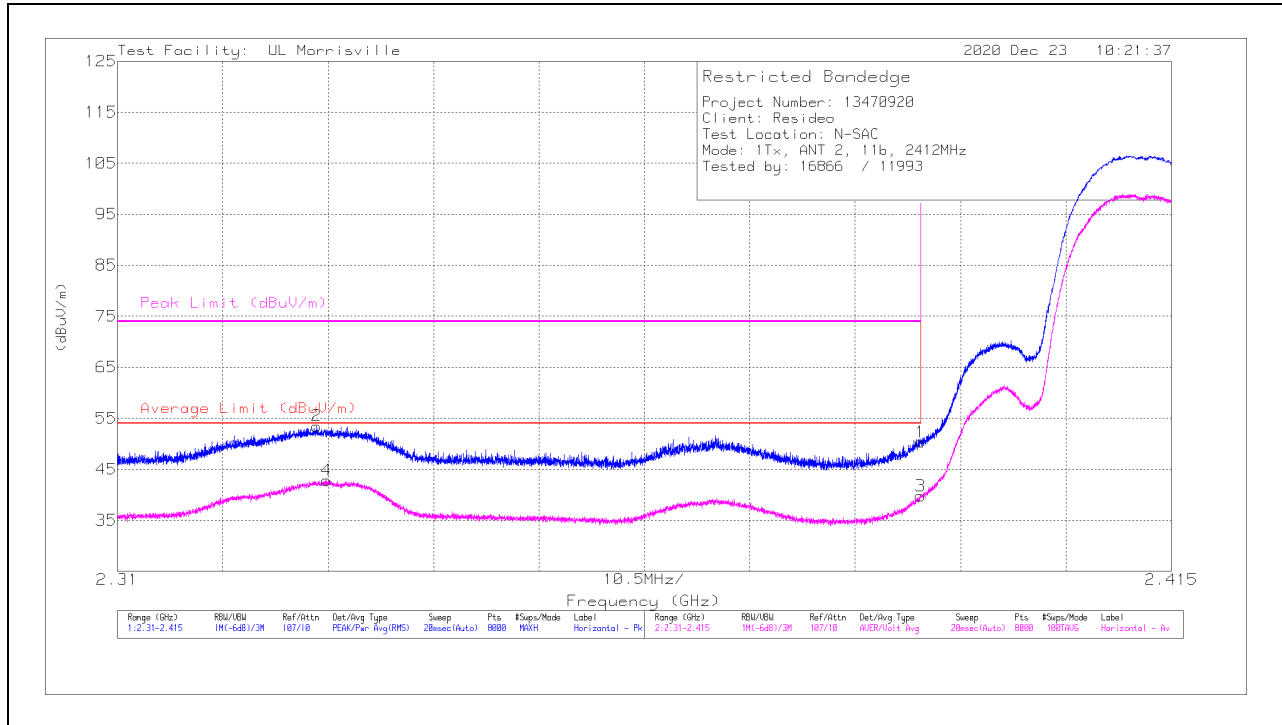
ADV - Linear Voltage Average

Pk – Peak detector

1TX Chain 1 MODE

BANDEDGE (LOW CHANNEL, CH 1)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.39	42.91	Pk	31.8	-24.4	50.31	-	-	74	-23.69	321	130	H
2	* ** 2.32986	46.18	Pk	31.7	-24.4	53.48	-	-	74	-20.52	321	130	H
3	* ** 2.39	32.37	ADV	31.8	-24.4	39.77	54	-14.23	-	-	321	130	H
4	* ** 2.33086	35.56	ADV	31.7	-24.4	42.86	54	-11.14	-	-	321	130	H

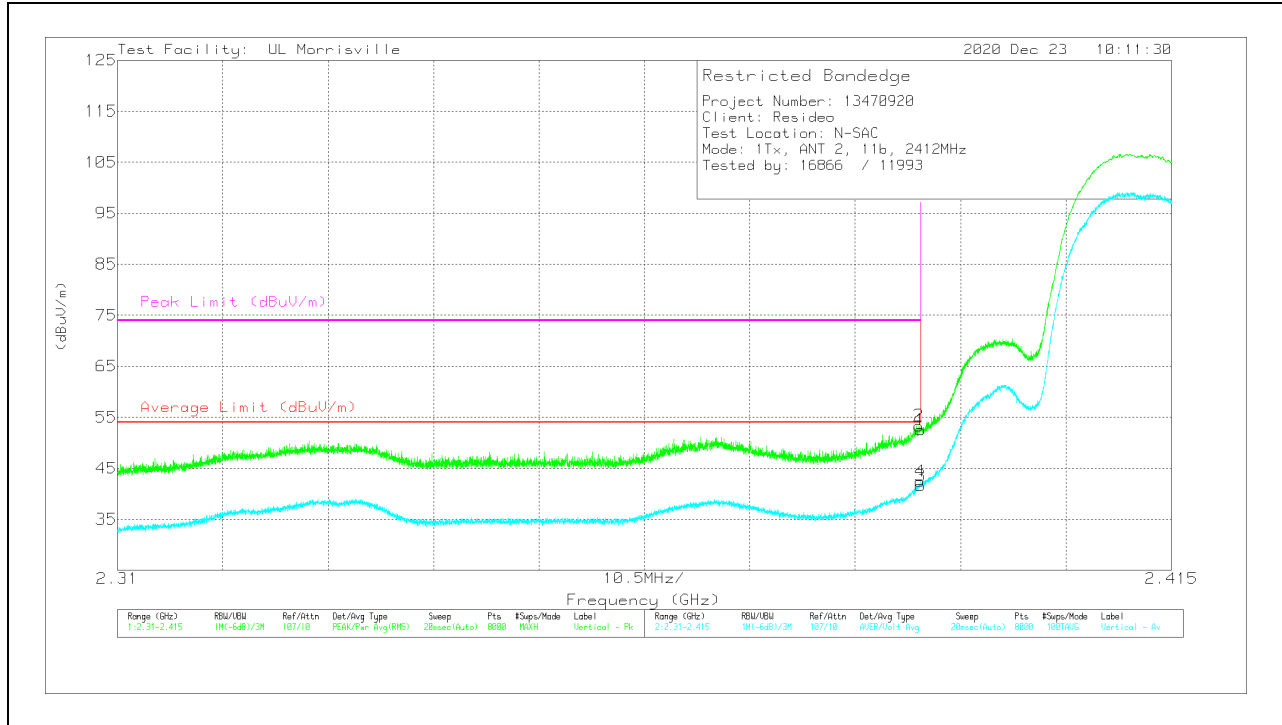
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT

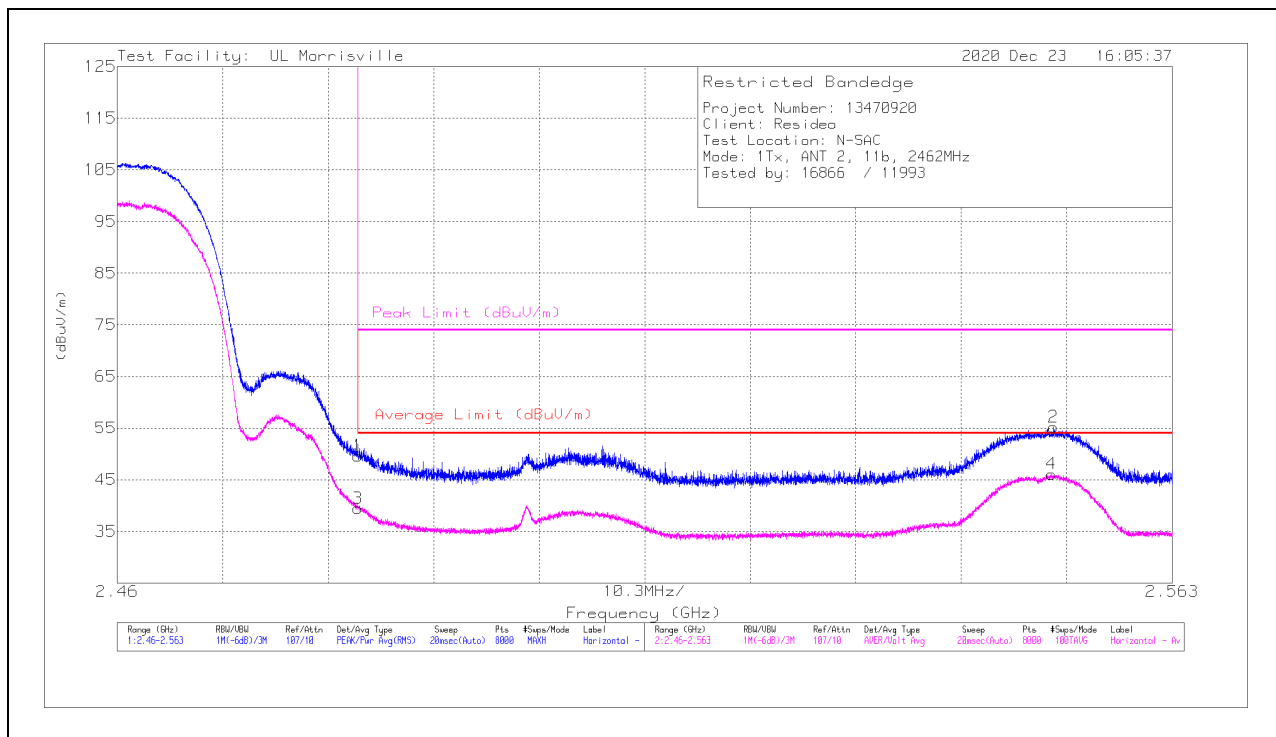


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.39	45.12	Pk	31.8	-24.4	52.52	-	-	74	-21.48	159	326	V
2	* ** 2.38986	45.94	Pk	31.8	-24.4	53.34	-	-	74	-20.66	159	326	V
3	* ** 2.39	34.2	ADV	31.8	-24.4	41.6	54	-12.4	-	-	159	326	V
4	* ** 2.38994	35.06	ADV	31.8	-24.4	42.46	54	-11.54	-	-	159	326	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

BANDEDGE (HIGH CHANNEL, CH 11)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB(m)	Amp/Cbl/Ftr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.4835	41.53	Pk	32.4	-24.3	49.63	-	-	74	-24.37	92	153	H
2	** 2.5514	47.1	Pk	32.3	-24.2	55.2	-	-	74	-18.8	92	153	H
3	* ** 2.4835	31.36	ADV	32.4	-24.3	39.46	54	-14.54	-	-	92	153	H
4	** 2.55122	38.01	ADV	32.3	-24.2	46.11	54	-7.89	-	-	92	153	H

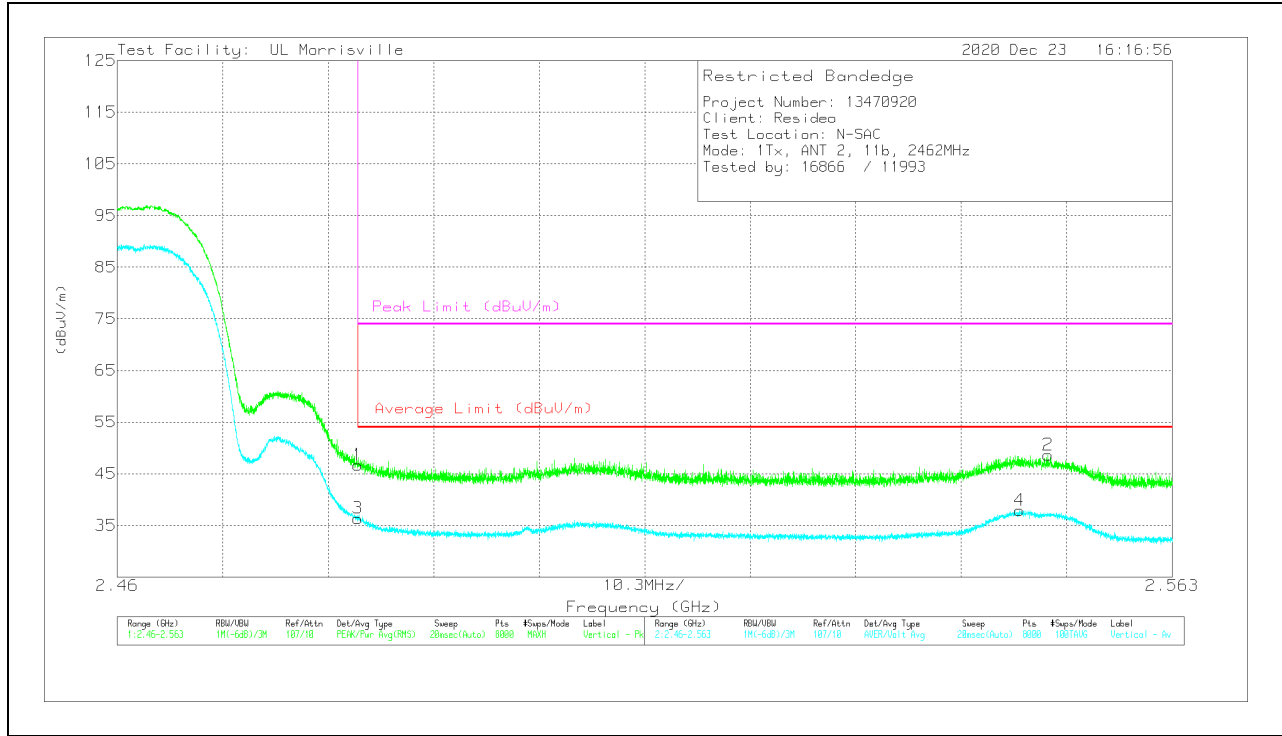
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB/m	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.4835	38.58	Pk	32.4	-24.3	46.68	-	-	74	-27.32	235	275	V
2	** 2.55087	40.56	Pk	32.3	-24.2	48.66	-	-	74	-25.34	235	275	V
3	* ** 2.4835	28.27	ADV	32.4	-24.3	36.37	54	-17.63	-	-	235	275	V
4	** 2.5481	29.72	ADV	32.4	-24.2	37.92	54	-16.08	-	-	235	275	V

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

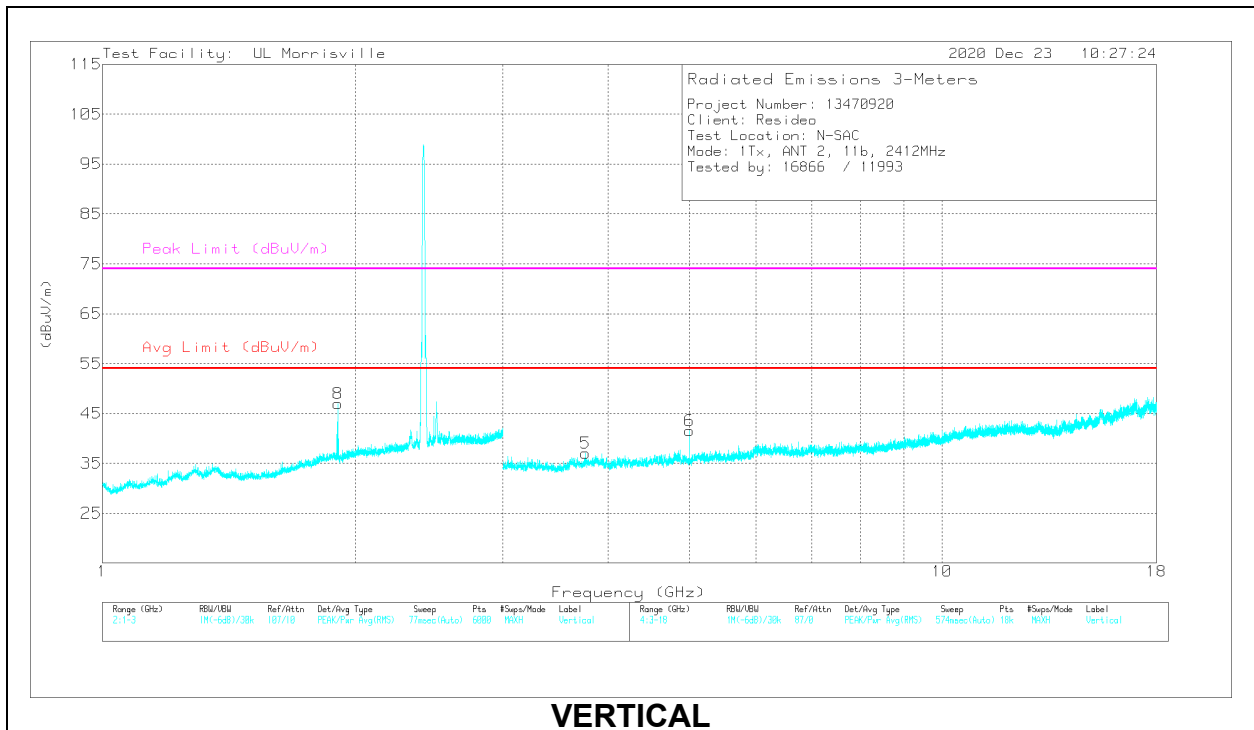
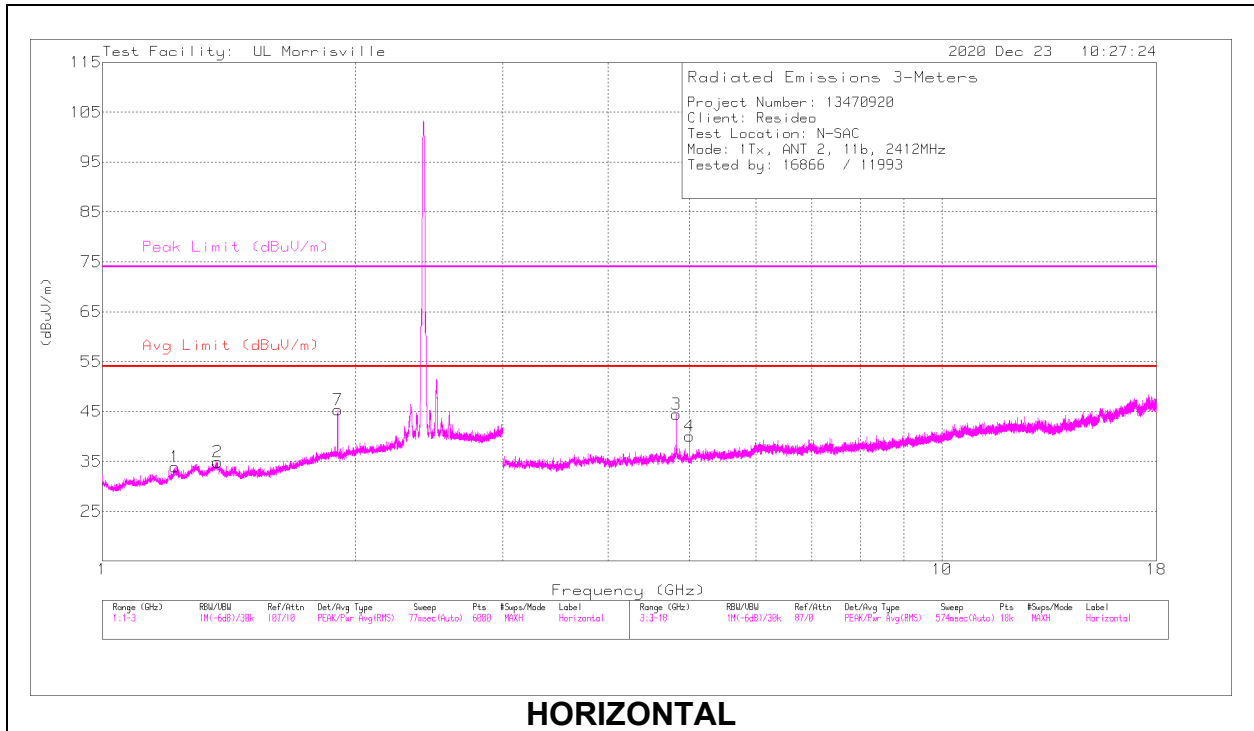
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, CH 1 RESULTS



RADIATED EMISSIONS

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 1.21709	36.52	PK2	28.8	-26	39.32	-	-	74	-34.68	142	359	H
	*** 1.21851	23.97	ADV	28.8	-26	26.77	54	-27.23	-	-	142	359	H
2	*** 1.36981	36.91	PK2	29.5	-25.4	41.01	-	-	74	-32.99	45	224	H
	*** 1.36884	23.77	ADV	29.5	-25.3	27.97	54	-26.03	-	-	45	224	H
3	*** 4.82423	45.36	PK2	34.2	-31.4	48.16	-	-	74	-25.84	0	103	H
	*** 4.82394	32.72	ADV	34.2	-31.4	35.52	54	-18.48	-	-	0	103	H
4	*** 4.99981	45.69	PK2	34.1	-32.6	47.19	-	-	74	-26.81	285	116	H
	*** 4.99988	38.56	ADV	34.1	-32.6	40.06	54	-13.94	-	-	285	116	H
5	*** 3.76148	41.65	PK2	33.5	-32.9	42.25	-	-	74	-31.75	344	144	V
	*** 3.76297	29.03	ADV	33.5	-32.9	29.63	54	-24.37	-	-	344	144	V
6	*** 4.99995	45.05	PK2	34.1	-32.6	46.55	-	-	74	-27.45	320	104	V
	*** 4.99996	38.67	ADV	34.1	-32.6	40.17	54	-13.83	-	-	320	104	V

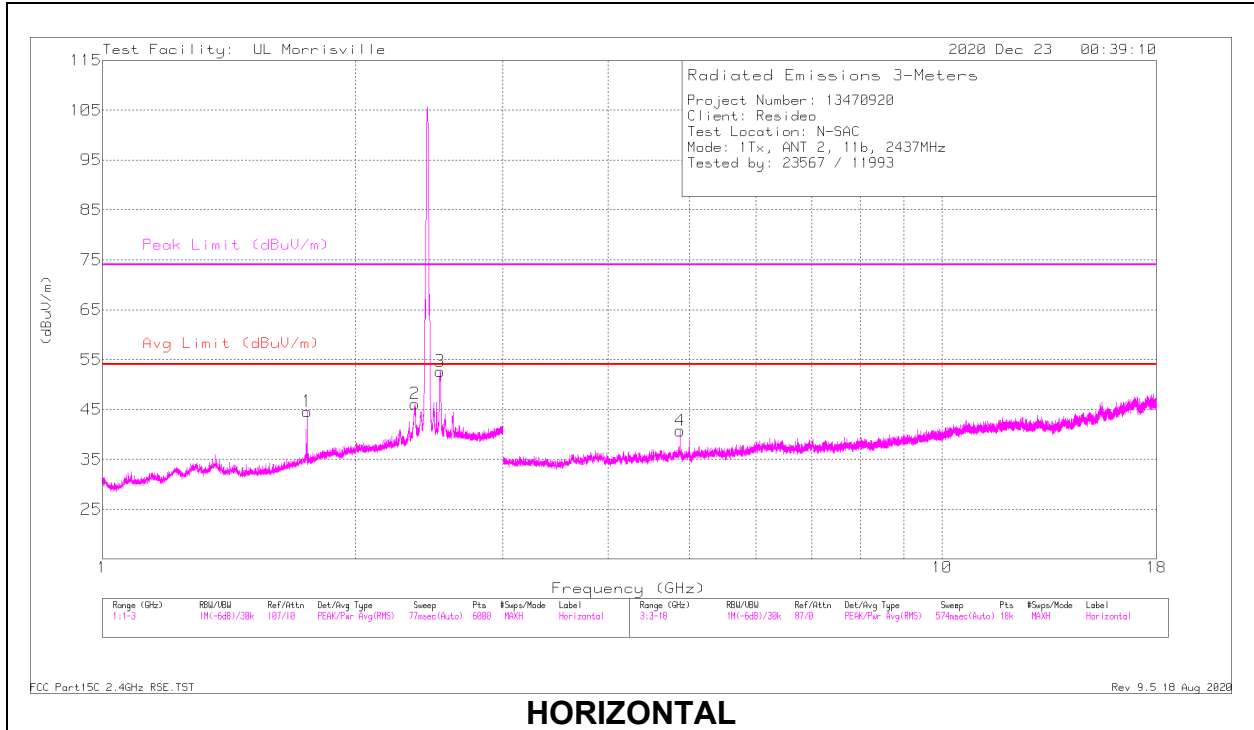
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

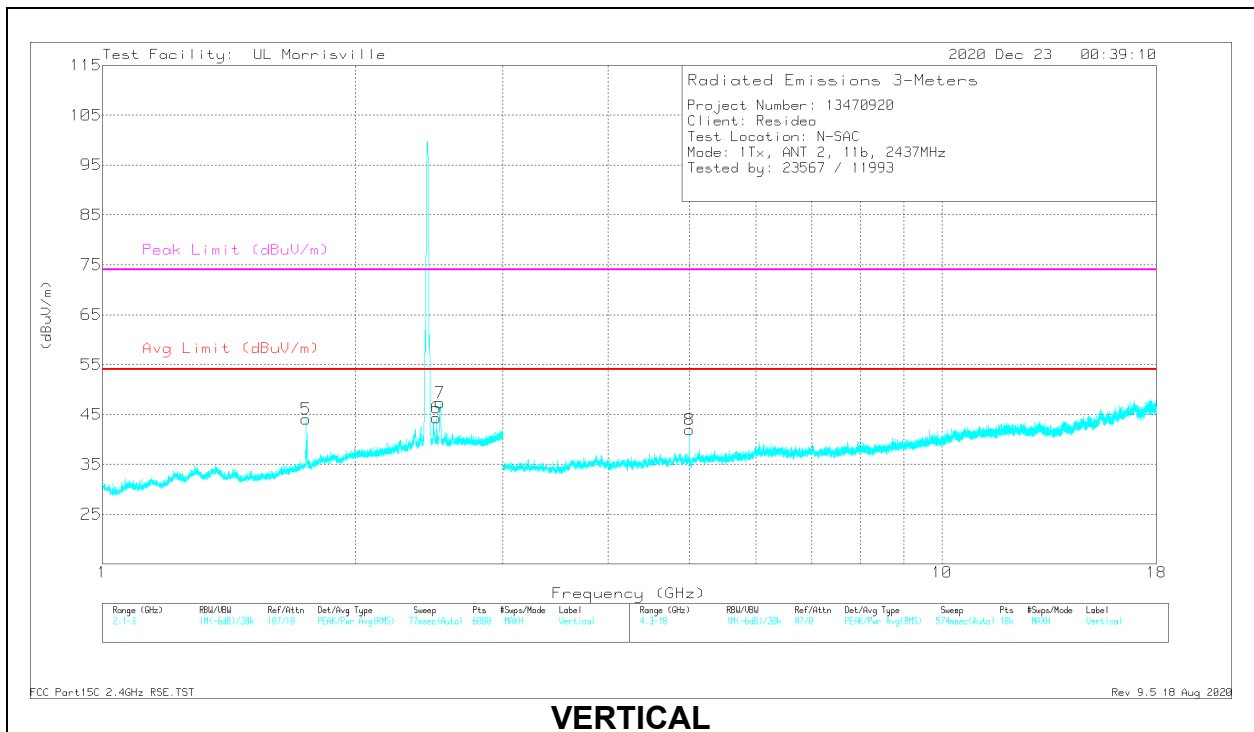
PK2 - Maximum Peak

ADV - Linear Voltage Average

MID CHANNEL, CH 6 RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	** 1.75294	36.77	PK2	29.6	-24.4	41.97	-	-	74	-32.03	324	114	H
	** 1.75479	23.68	ADV	29.6	-24.4	28.88	54	-25.12	-	-	324	114	H
2	*** 2.35615	45.14	PK2	31.7	-24.4	52.44	-	-	74	-21.56	108	114	H
	*** 2.3584	33.29	ADV	31.7	-24.4	40.59	54	-13.41	-	-	108	114	H
3	** 2.52346	50.78	PK2	32.5	-24.3	58.98	-	-	74	-15.02	150	118	H
	** 2.52443	41.32	ADV	32.5	-24.3	49.52	54	-4.48	-	-	150	118	H
5	** 1.74653	37.82	PK2	29.6	-24.3	43.12	-	-	74	-30.88	56	354	V
	** 1.74616	23.63	ADV	29.5	-24.3	28.83	54	-25.17	-	-	56	354	V
6	** 2.49998	40.23	PK2	32.5	-24.3	48.43	-	-	74	-25.57	268	114	V
	*** 2.49998	31.39	ADV	32.5	-24.3	39.59	54	-14.41	-	-	268	114	V
7	** 2.52626	46.5	PK2	32.5	-24.3	54.7	-	-	74	-19.3	214	319	V
	** 2.52422	36.36	ADV	32.5	-24.3	44.56	54	-9.44	-	-	214	319	V
4	*** 4.87381	43.9	PK2	34.1	-31.3	46.7	-	-	74	-27.3	259	101	H
	*** 4.87401	31.06	ADV	34.1	-31.3	33.86	54	-20.14	-	-	259	101	H
8	*** 4.99992	46.57	PK2	34.1	-32.6	48.07	-	-	74	-25.93	259	103	V
	*** 4.99997	40.15	ADV	34.1	-32.6	41.65	54	-12.35	-	-	259	103	V

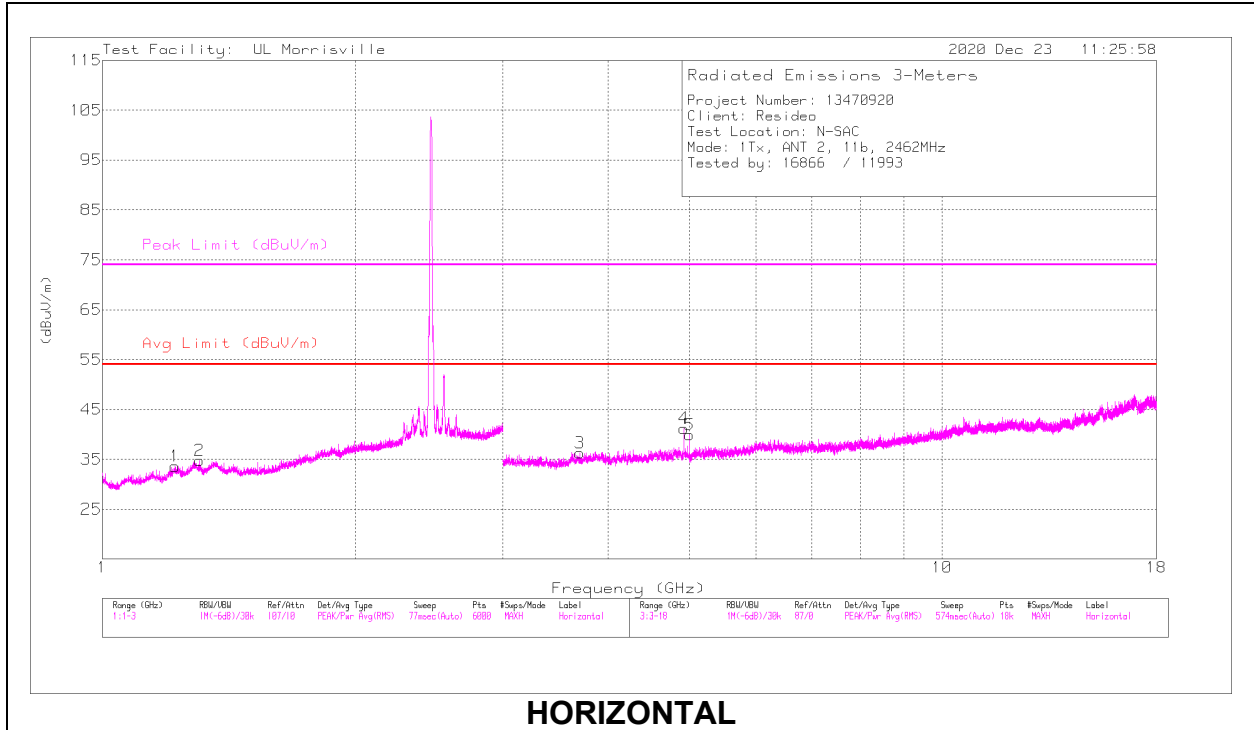
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

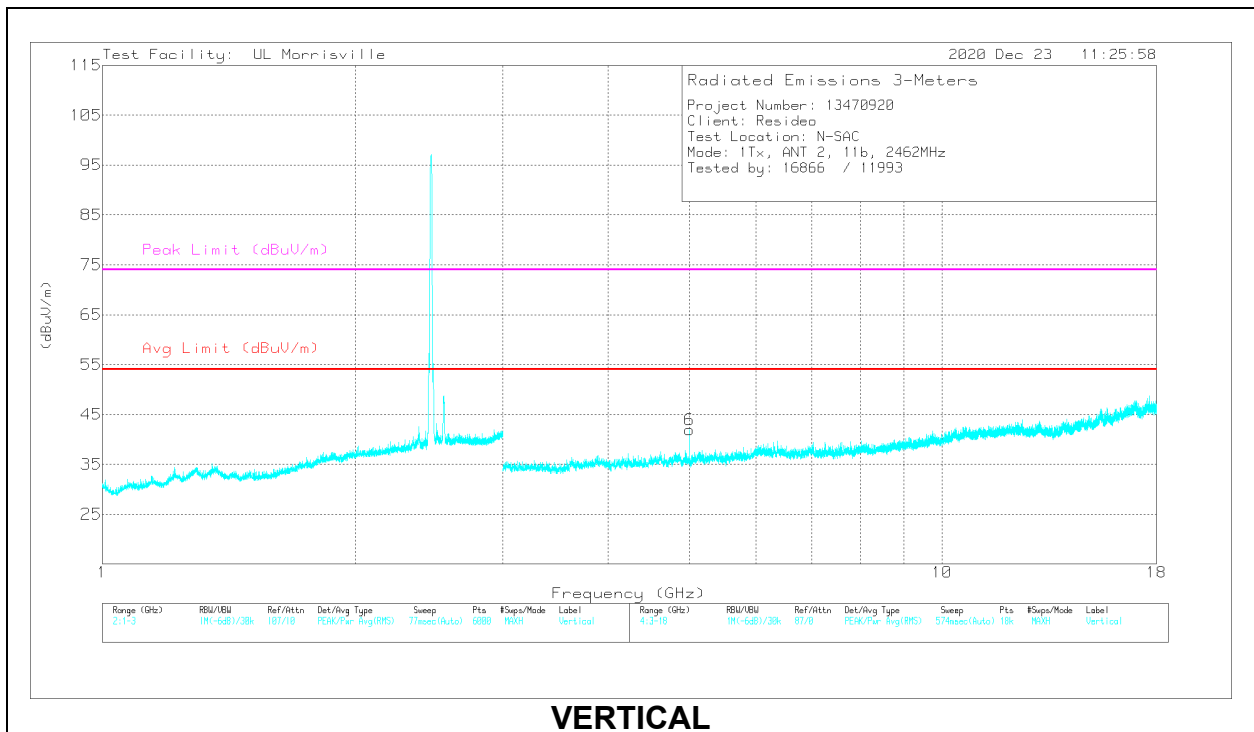
PK2 - Maximum Peak

ADV - Linear Voltage Average

HIGH CHANNEL, CH 11 RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB(/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 1.22169	36.85	PK2	28.8	-26	39.65	-	-	74	-34.35	207	179	H
	* ** 1.21878	23.95	ADV	28.8	-26	26.75	54	-27.25	-	-	207	179	H
2	* ** 1.30306	36.66	PK2	29.1	-25.6	40.16	-	-	74	-33.84	279	241	H
	* ** 1.30325	23.64	ADV	29.1	-25.6	27.14	54	-26.86	-	-	279	241	H
3	* ** 3.7038	40.68	PK2	33.1	-32	41.78	-	-	74	-32.22	117	205	H
	* ** 3.70514	28.38	ADV	33.1	-32.1	29.38	54	-24.62	-	-	117	205	H
5	* ** 4.92436	43	PK2	34	-31.9	45.1	-	-	74	-28.9	0	126	H
	* ** 4.92388	30.54	ADV	34	-31.8	32.74	54	-21.26	-	-	0	126	H
6	* ** 4.99984	45.22	PK2	34.1	-32.6	46.72	-	-	74	-27.28	287	119	H
	* ** 4.99996	38.78	ADV	34.1	-32.6	40.28	54	-13.72	-	-	287	119	H
4	* ** 5.00002	45.62	PK2	34.1	-32.6	47.12	-	-	74	-26.88	352	121	V
	* ** 4.99995	39.15	ADV	34.1	-32.6	40.65	54	-13.35	-	-	352	121	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2 - Maximum Peak

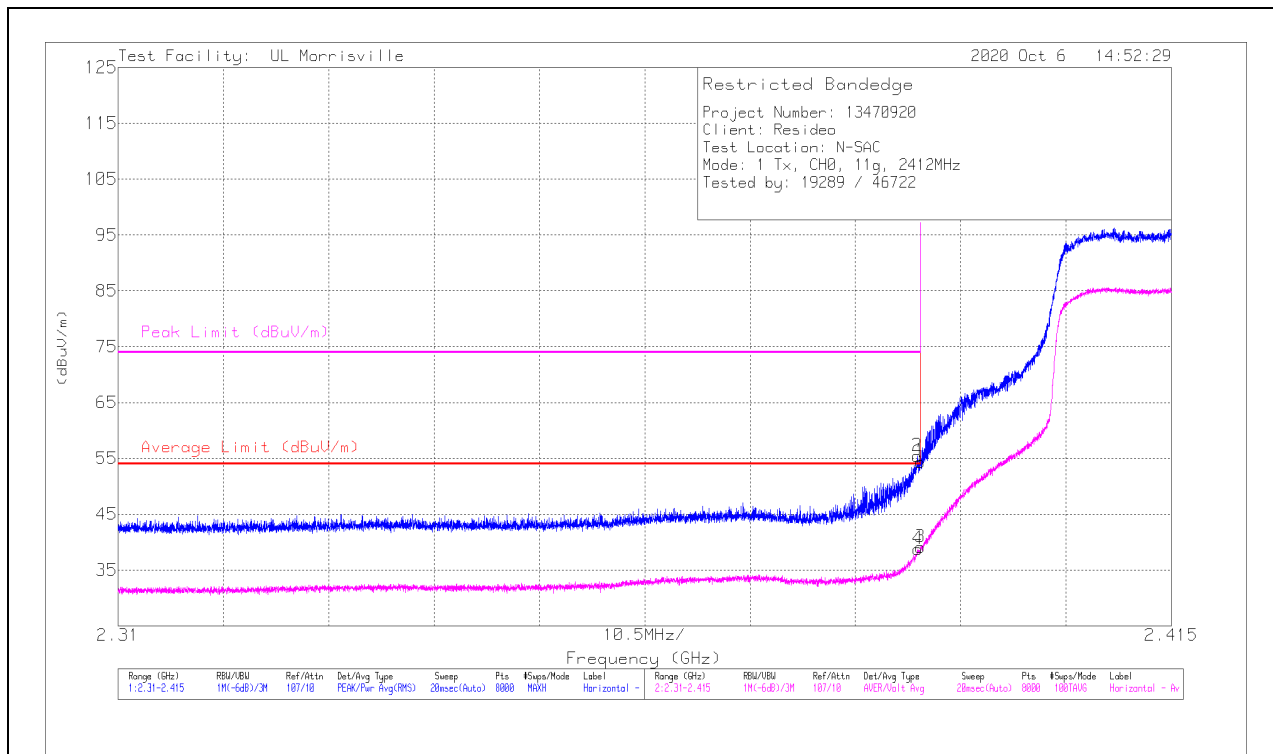
ADV - Linear Voltage Average

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

1TX Chain 0 MODE

BANDEDGE (LOW CHANNEL, CH 1)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB(/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 2.39	46.96	Pk	31.8	-24.4	54.36	-	-	74	-19.64	88	119	H
2	** 2.38968	48.02	Pk	31.8	-24.4	55.42	-	-	74	-18.58	88	119	H
3	** 2.39	31.7	ADV	31.8	-24.4	39.1	54	-14.9	-	-	88	119	H
4	*** 2.38973	31.37	ADV	31.8	-24.4	38.77	54	-15.23	-	-	88	119	H

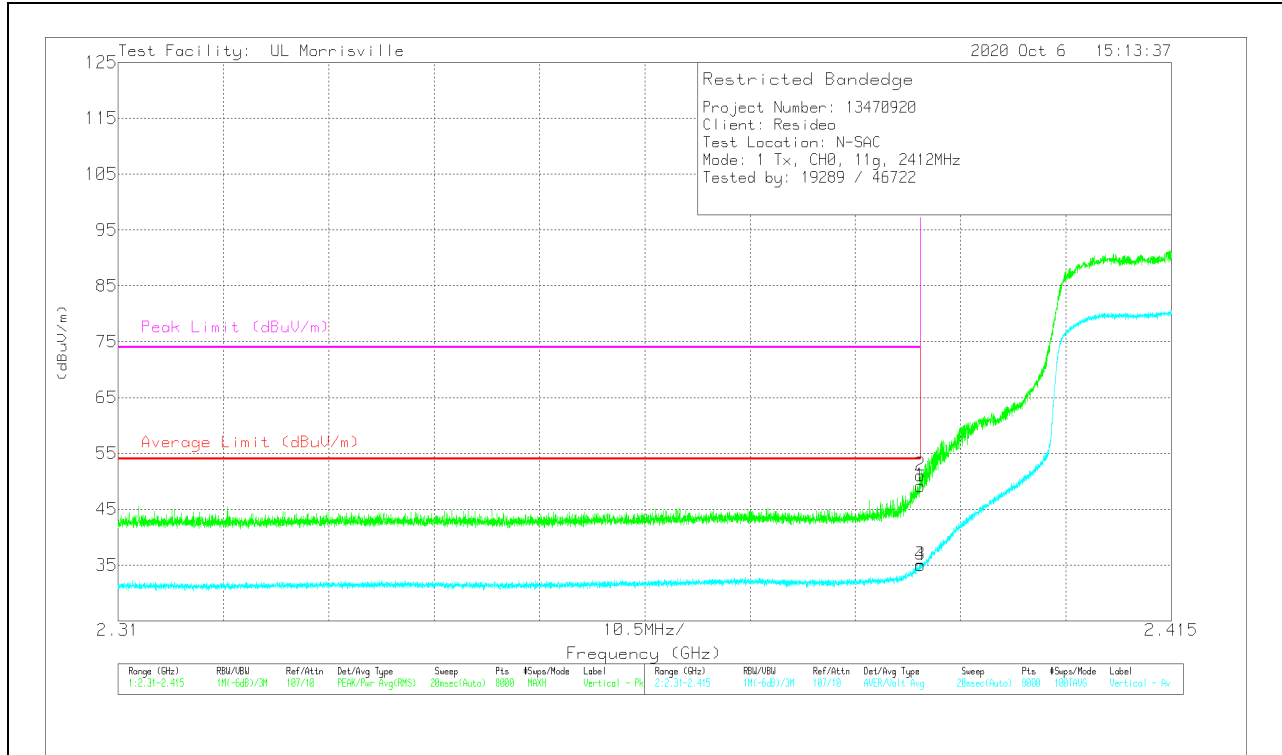
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB(m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.39	41.79	Pk	31.8	-24.4	49.19	-	-	74	-24.81	31	385	V
2	* ** 2.38997	43.66	Pk	31.8	-24.4	51.06	-	-	74	-22.94	31	385	V
3	* ** 2.39	27.65	ADV	31.8	-24.4	35.05	54	-18.95	-	-	31	385	V
4	* ** 2.38996	27.55	ADV	31.8	-24.4	34.95	54	-19.05	-	-	31	385	V

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

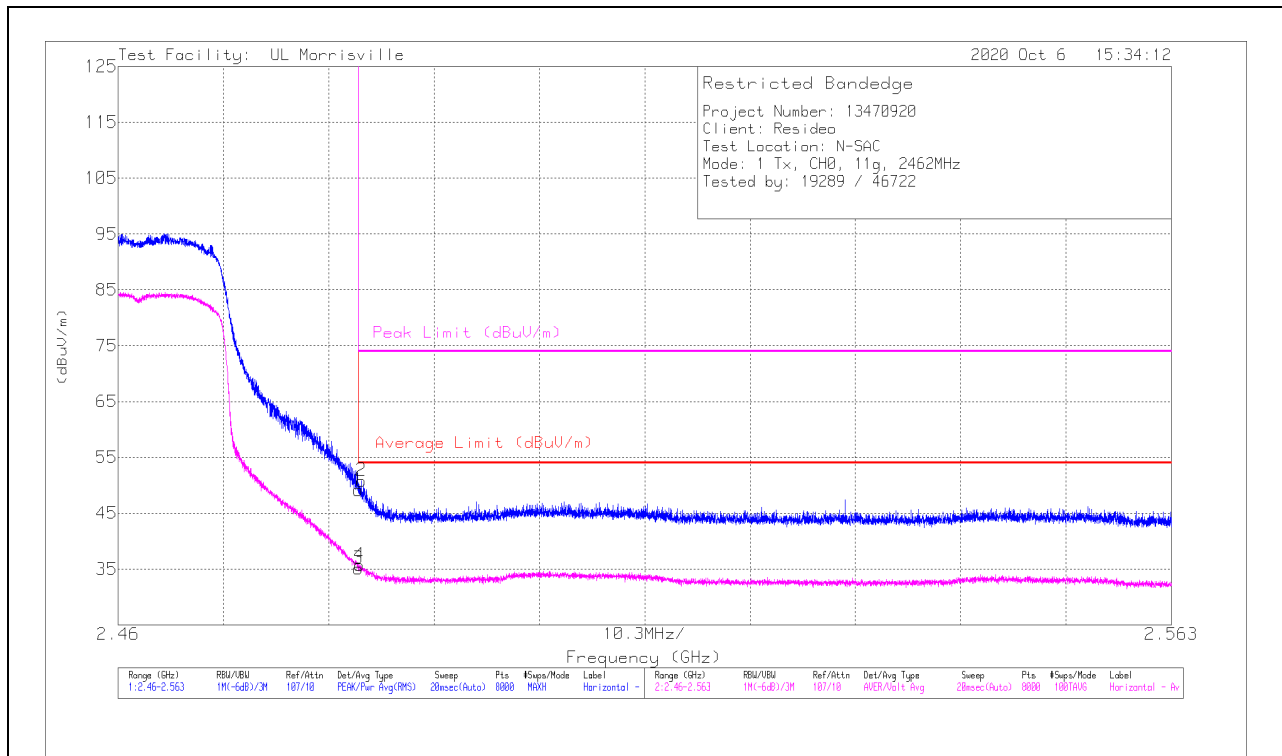
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

BANDEDGE (HIGH CHANNEL, CH 11)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB(m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.4835	41.09	Pk	32.4	-24.3	49.19	-	-	74	-24.81	92	269	H
2	* ** 2.48378	42.71	Pk	32.4	-24.3	50.81	-	-	74	-23.19	92	269	H
3	* ** 2.4835	26.98	ADV	32.4	-24.3	35.08	54	-18.92	-	-	92	269	H
4	* ** 2.48363	27.58	ADV	32.4	-24.3	35.68	54	-18.32	-	-	92	269	H

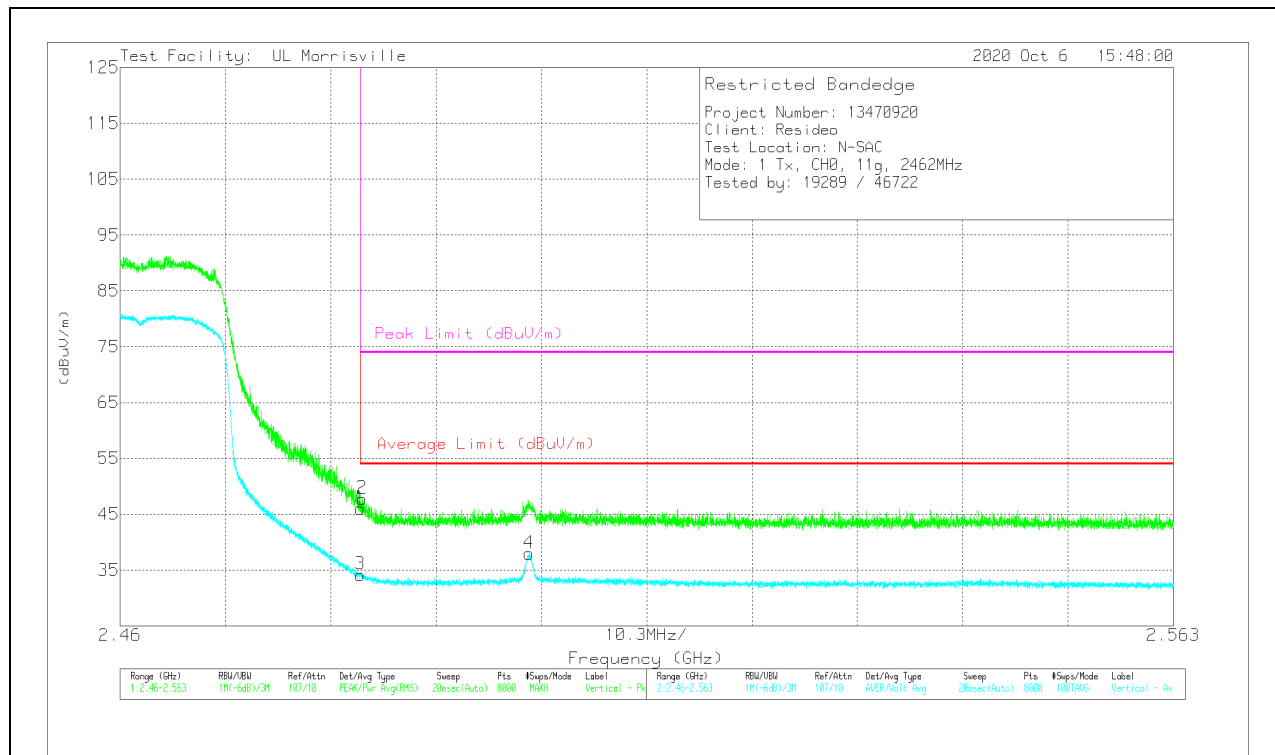
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT

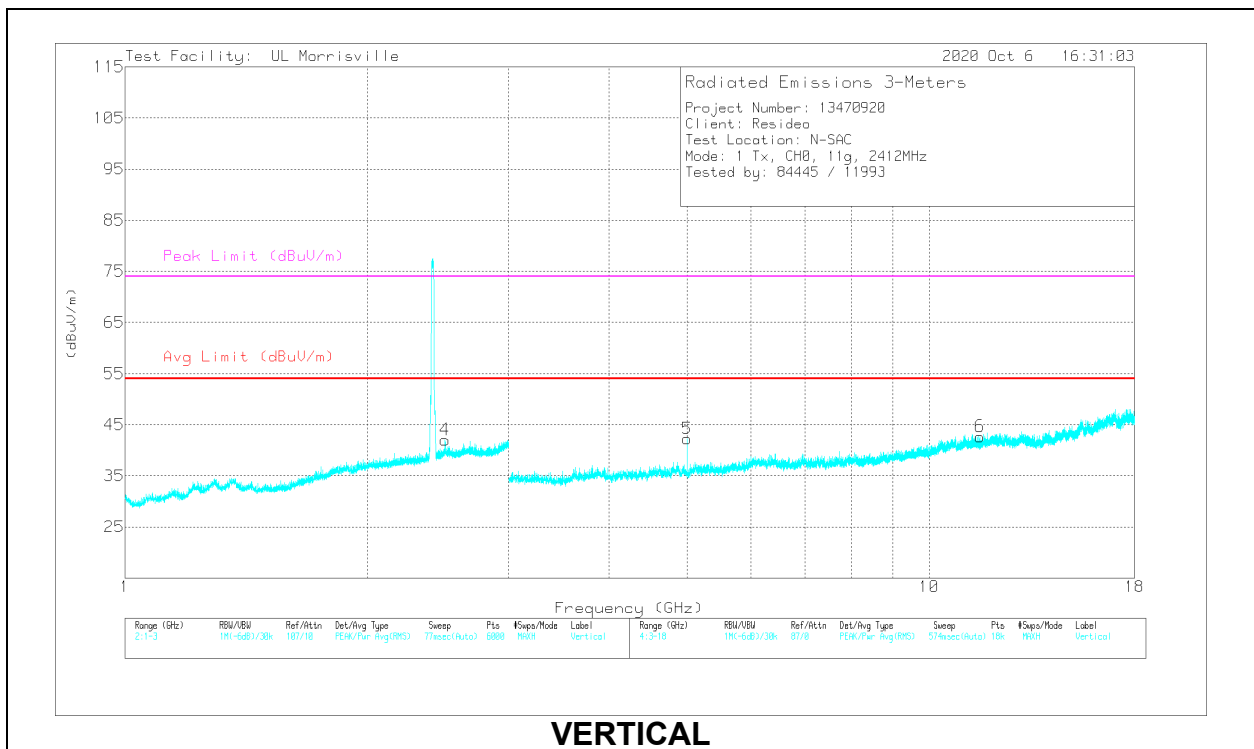
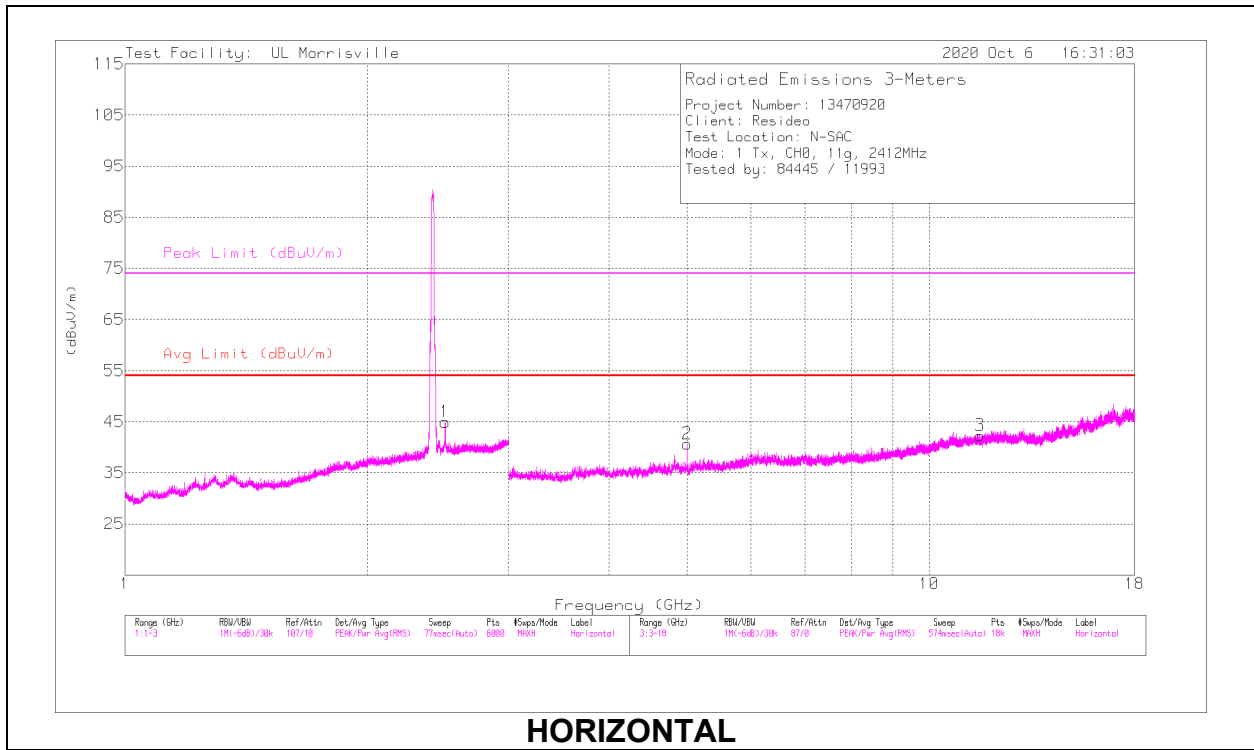


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB(m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.4835	37.9	Pk	32.4	-24.3	46	-	-	74	-28	16	332	V
2	* ** 2.48366	39.7	Pk	32.4	-24.3	47.8	-	-	74	-26.2	16	332	V
3	* ** 2.4835	26.07	ADV	32.4	-24.3	34.17	54	-19.83	-	-	16	332	V
4	* ** 2.49998	29.78	ADV	32.5	-24.3	37.98	54	-16.02	-	-	16	332	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, CH 1 RESULTS



RADIATED EMISSIONS

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB/(m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 2.49995	42.12	PK2	32.5	-24.3	50.32	-	-	74	-23.68	155	118	H
	*** 2.49997	35.29	ADV	32.5	-24.3	43.49	54	-10.51	-	-	155	118	H
4	*** 2.49987	39.52	PK2	32.5	-24.3	47.72	-	-	74	-26.28	47	272	V
	*** 2.49997	30.09	ADV	32.5	-24.3	38.29	54	-15.71	-	-	47	272	V
2	*** 5.00012	45.13	PK2	34.1	-32.6	46.63	-	-	74	-27.37	197	271	H
	*** 4.99994	36.34	ADV	34.1	-32.6	37.84	54	-16.16	-	-	197	271	H
3	*** 11.5599	36.74	PK2	38.2	-26	48.94	-	-	74	-25.06	186	165	H
	*** 11.5605	23.4	ADV	38.2	-26	35.6	54	-18.4	-	-	186	165	H
5	*** 5.00008	45.05	PK2	34.1	-32.6	46.55	-	-	74	-27.45	56	116	V
	*** 4.99998	37.72	ADV	34.1	-32.6	39.22	54	-14.78	-	-	56	116	V
6	*** 11.56688	36.74	PK2	38.2	-26.1	48.84	-	-	74	-25.16	37	394	V
	*** 11.56633	23.47	ADV	38.2	-26.1	35.57	54	-18.43	-	-	37	394	V

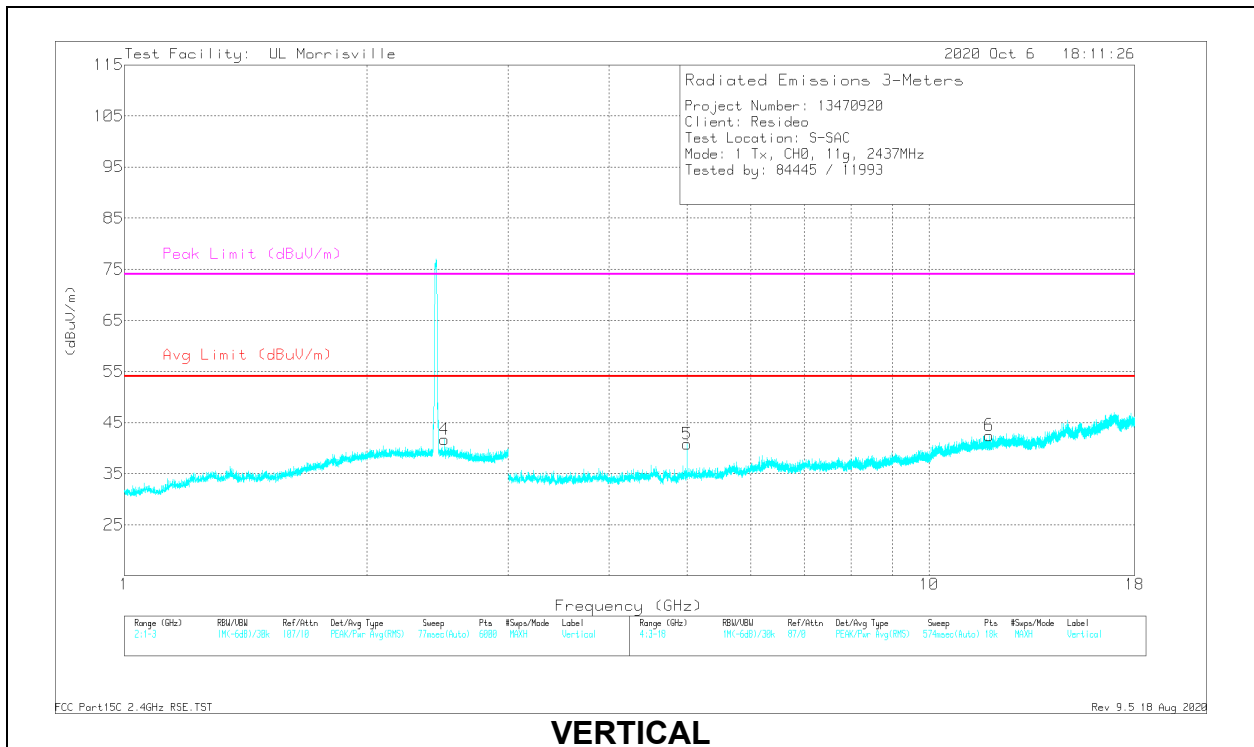
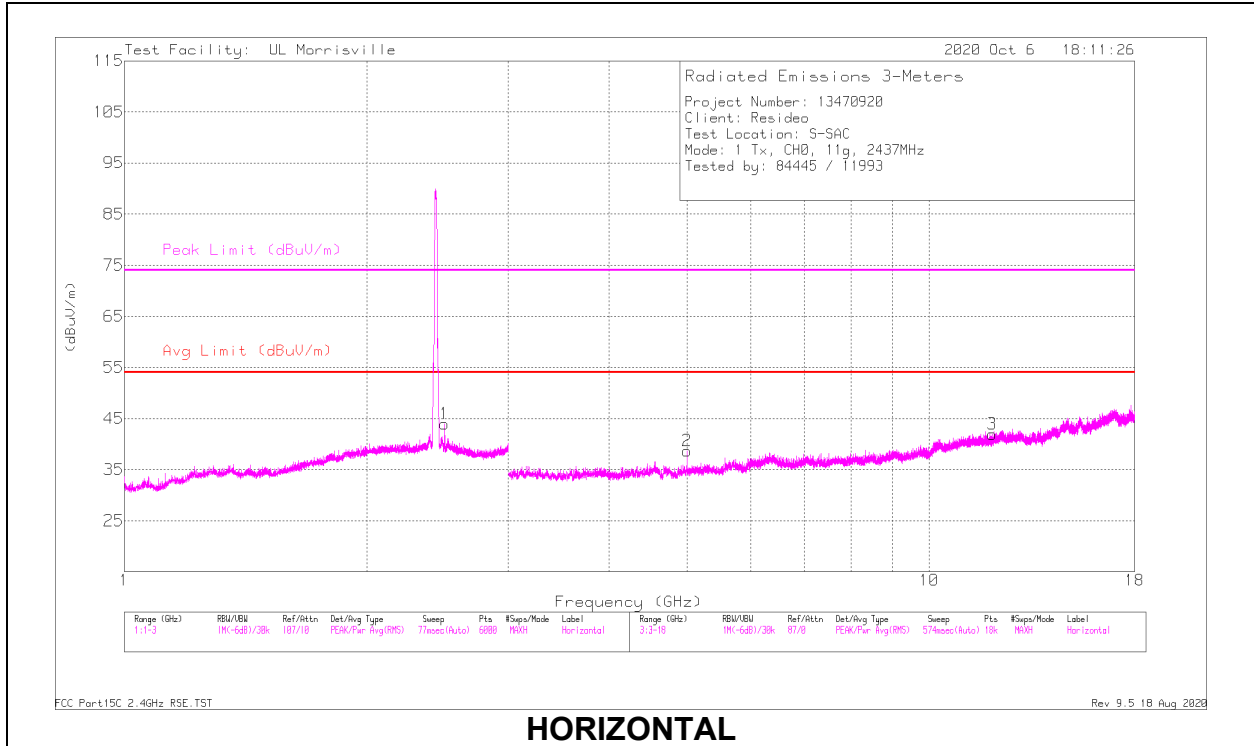
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2 - Maximum Peak

ADV - Linear Voltage Average

MID CHANNEL, CH 6 RESULTS



RADIATED EMISSIONS

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.49984	40.84	PK2	32.4	-24.6	48.64	-	-	74	-25.36	33	110	H
	* ** 2.5	34.16	ADV	32.4	-24.6	41.96	54	-12.04	-	-	33	110	H
4	* ** 2.49985	39.48	PK2	32.4	-24.6	47.28	-	-	74	-26.72	330	117	V
	* ** 2.49997	30.2	ADV	32.4	-24.6	38	54	-16	-	-	330	117	V
2	* ** 4.99993	42.97	PK2	33.9	-31.2	45.67	-	-	74	-28.33	27	120	H
	* ** 4.99999	35.89	ADV	33.9	-31.2	38.59	54	-15.41	-	-	27	120	H
3	* ** 11.98612	33.78	PK2	38.7	-24.1	48.38	-	-	74	-25.62	153	201	H
	* ** 11.98683	20.62	ADV	38.7	-24.1	35.22	54	-18.78	-	-	153	201	H
5	* ** 5.00004	43.86	PK2	33.9	-31.2	46.56	-	-	74	-27.44	329	104	V
	* ** 4.99998	36.96	ADV	33.9	-31.2	39.66	54	-14.34	-	-	329	104	V
6	* ** 11.86827	34.51	PK2	38.6	-24.6	48.51	-	-	74	-25.49	3	220	V
	* ** 11.86868	20.9	ADV	38.6	-24.6	34.9	54	-19.1	-	-	3	220	V

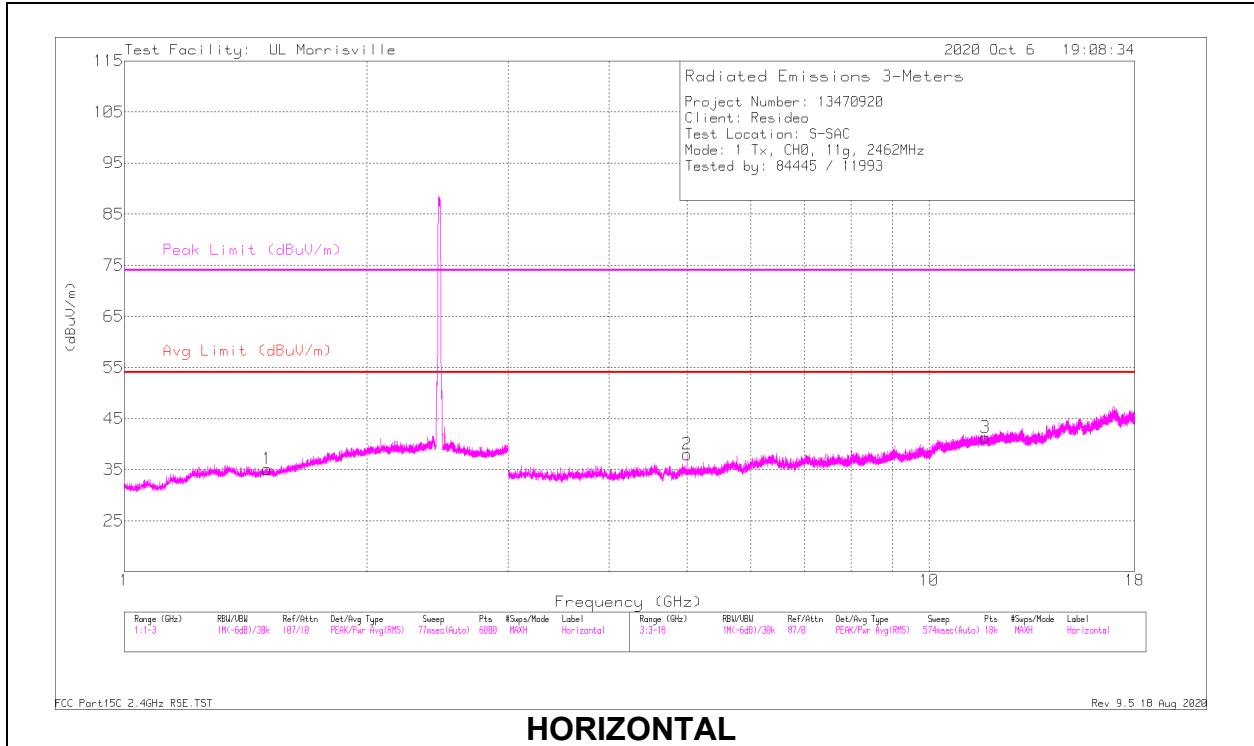
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

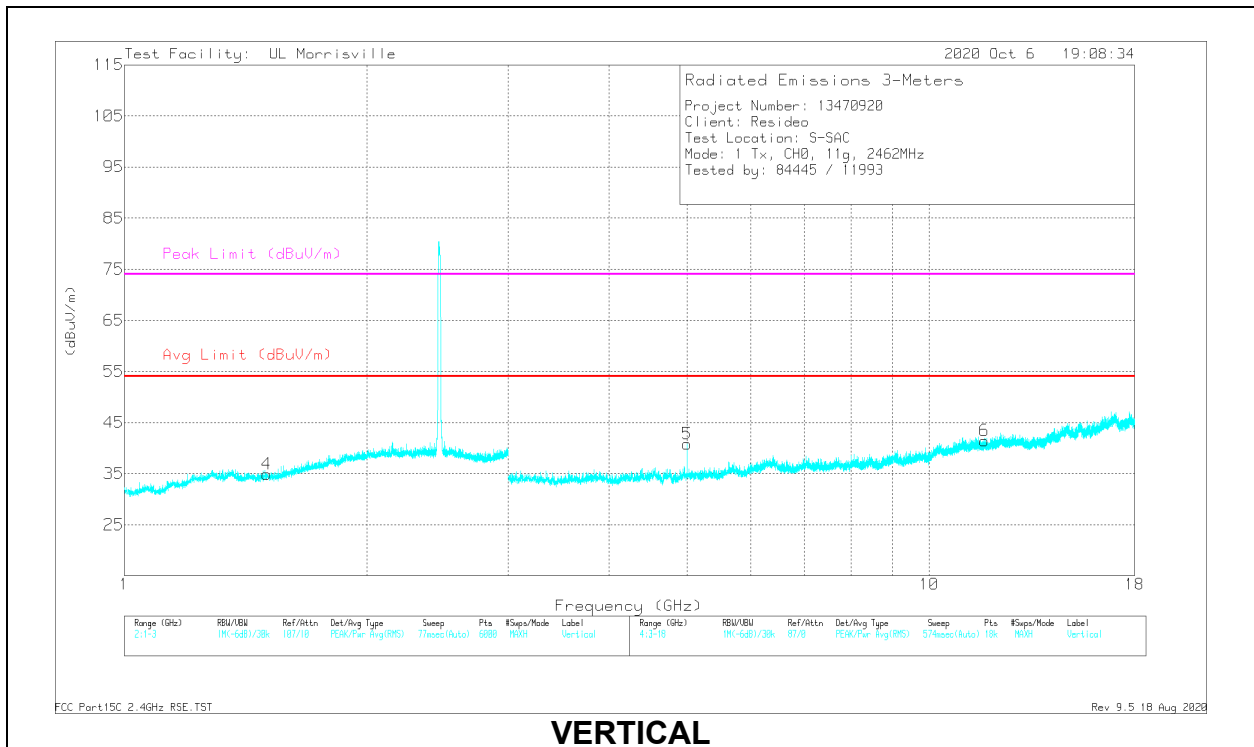
PK2 - Maximum Peak

ADV - Linear Voltage Average

HIGH CHANNEL, CH 11 RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

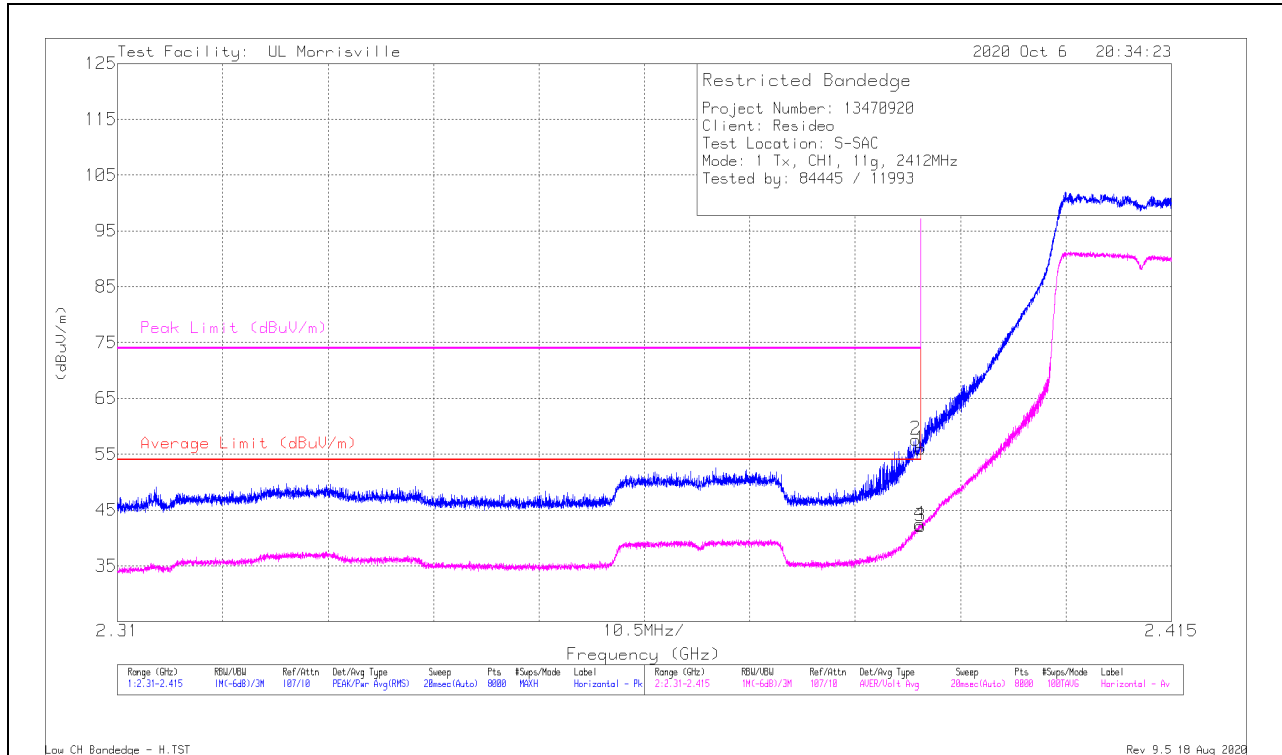
Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 1.5044	36.03	PK2	28	-22.4	41.63	-	-	74	-32.37	191	391	H
	* ** 1.50456	22.85	ADV	28	-22.4	28.45	54	-25.55	-	-	191	391	H
4	* ** 1.50283	35.68	PK2	28	-22.4	41.28	-	-	74	-32.72	313	202	V
	* ** 1.50257	22.82	ADV	28	-22.4	28.42	54	-25.58	-	-	313	202	V
2	* ** 4.99993	42.64	PK2	33.9	-31.2	45.34	-	-	74	-28.66	17	121	H
	* ** 4.99996	33.84	ADV	33.9	-31.2	36.54	54	-17.46	-	-	17	121	H
3	* ** 11.74343	34.14	PK2	38.5	-24.2	48.44	-	-	74	-25.56	41	108	H
	* ** 11.74389	20.83	ADV	38.5	-24.2	35.13	54	-18.87	-	-	41	108	H
5	* ** 4.99998	43.38	PK2	33.9	-31.2	46.08	-	-	74	-27.92	326	101	V
	* ** 4.99999	36.3	ADV	33.9	-31.2	39	54	-15	-	-	326	101	V
6	* ** 11.71704	33.82	PK2	38.5	-24.1	48.22	-	-	74	-25.78	222	104	V
	* ** 11.71699	20.79	ADV	38.5	-24.1	35.19	54	-18.81	-	-	222	104	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 PK2 - Maximum Peak
 ADV - Linear Voltage Average

1TX Chain 1 MODE

BANDEDGE (LOW CHANNEL, CH 1)

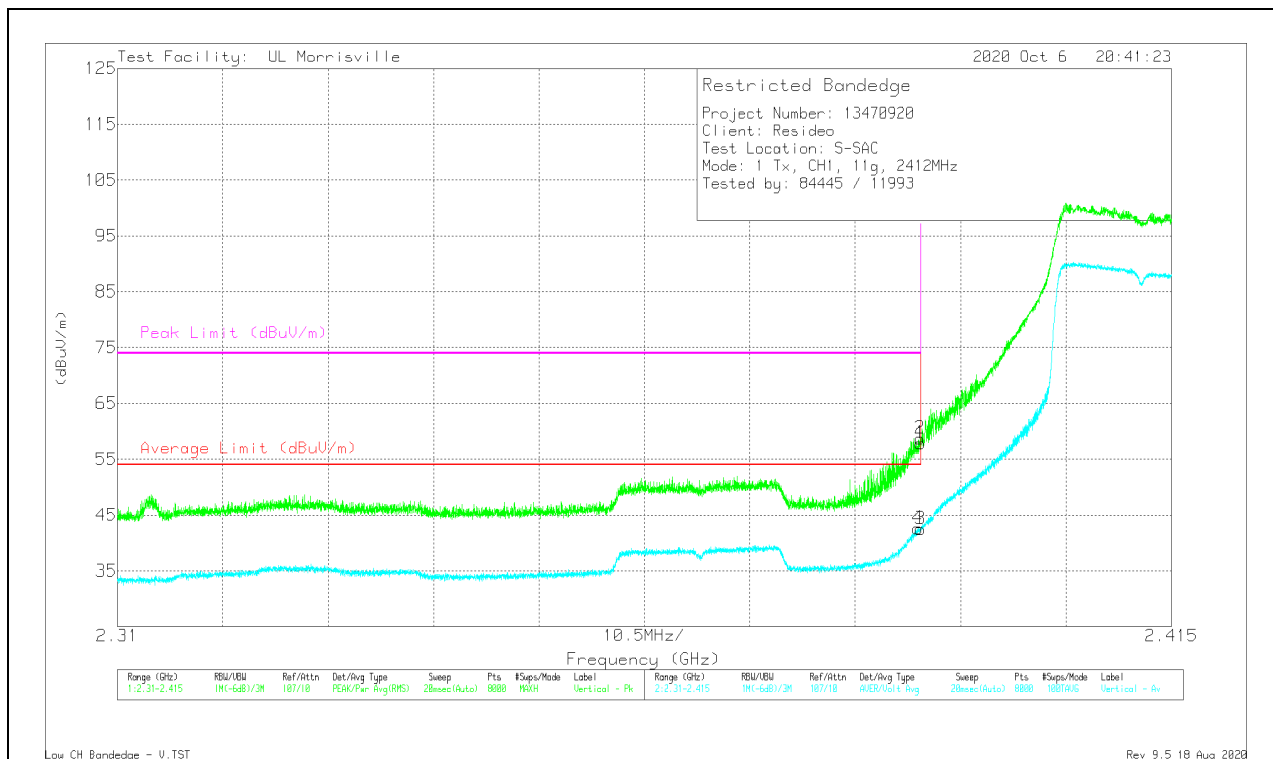
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* * * 2.39	47.87	Pk	32.1	-24	55.97	-	-	74	-18.03	177	195	H
2	* * * 2.38951	49.54	Pk	32.1	-24	57.64	-	-	74	-16.36	177	195	H
3	* * * 2.39	34.01	ADV	32.1	-24	42.11	54	-11.89	-	-	177	195	H
4	* * * 2.38993	34.33	ADV	32.1	-24	42.43	54	-11.57	-	-	177	195	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

VERTICAL RESULT

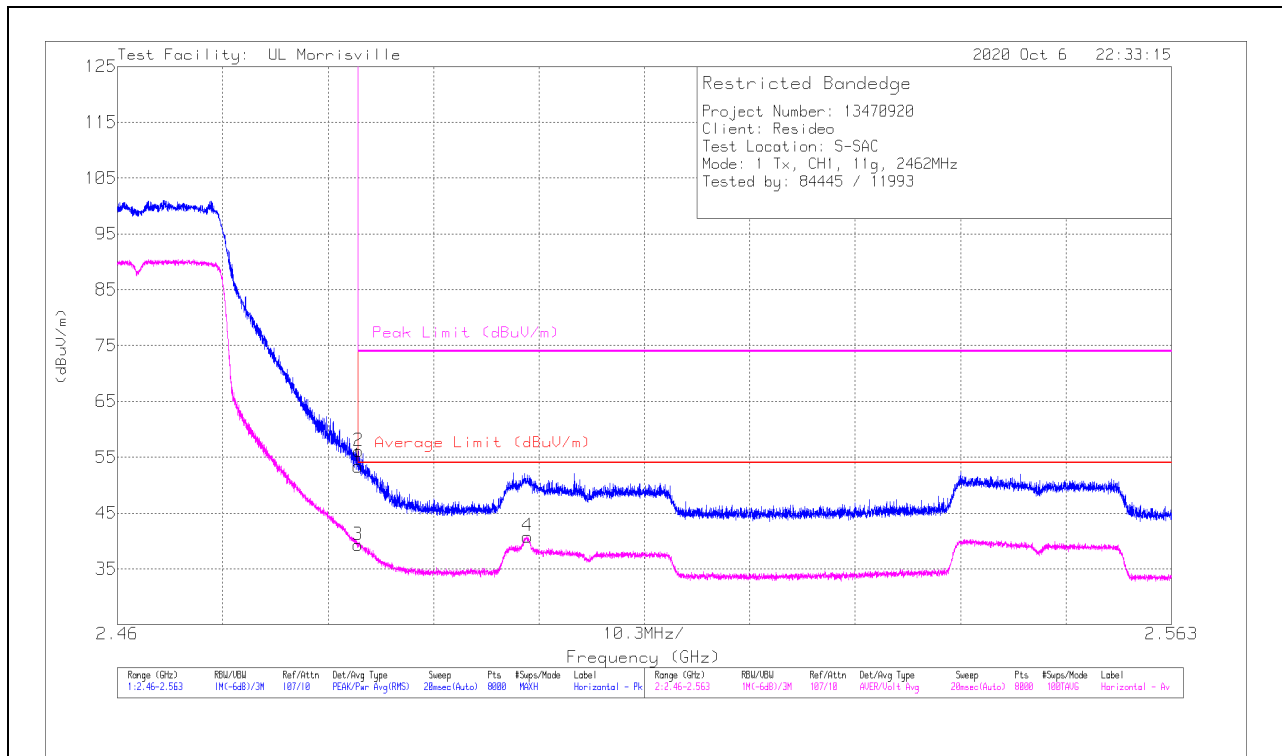


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* * * 2.39	49.74	Pk	32.1	-24	57.84	-	-	74	-16.16	148	364	V
2	* * * 2.38998	50.63	Pk	32.1	-24	58.73	-	-	74	-15.27	148	364	V
3	* * * 2.39	34.34	ADV	32.1	-24	42.44	54	-11.56	-	-	148	364	V
4	* * * 2.38975	34.53	ADV	32.1	-24	42.63	54	-11.37	-	-	148	364	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

BANDEDGE (HIGH CHANNEL, CH 11)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.4835	45.36	Pk	32.4	-24.4	53.36	-	-	74	-20.64	61	121	H
2	* ** 2.48358	48.09	Pk	32.4	-24.4	56.09	-	-	74	-17.91	61	121	H
3	* ** 2.4835	31.29	ADV	32.4	-24.4	39.29	54	-14.71	-	-	61	121	H
4	** 2.50007	33.02	ADV	32.4	-24.6	40.82	54	-13.18	-	-	61	121	H

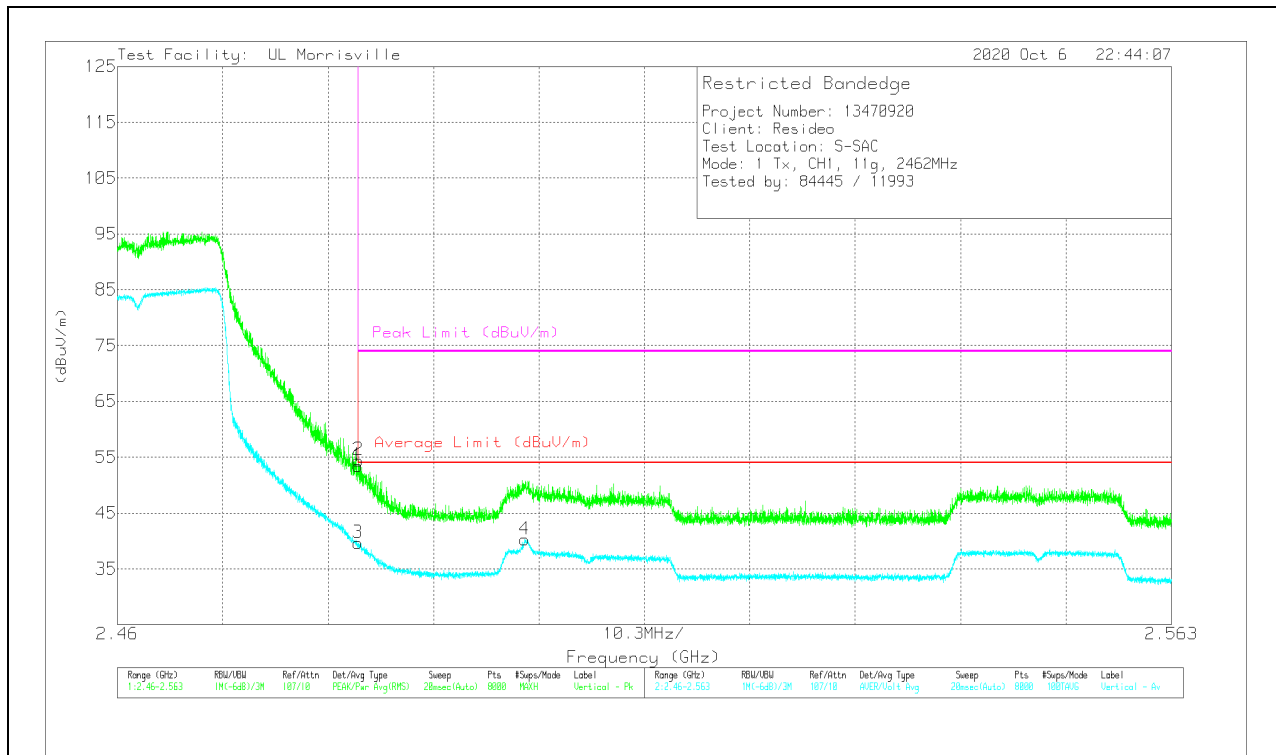
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT

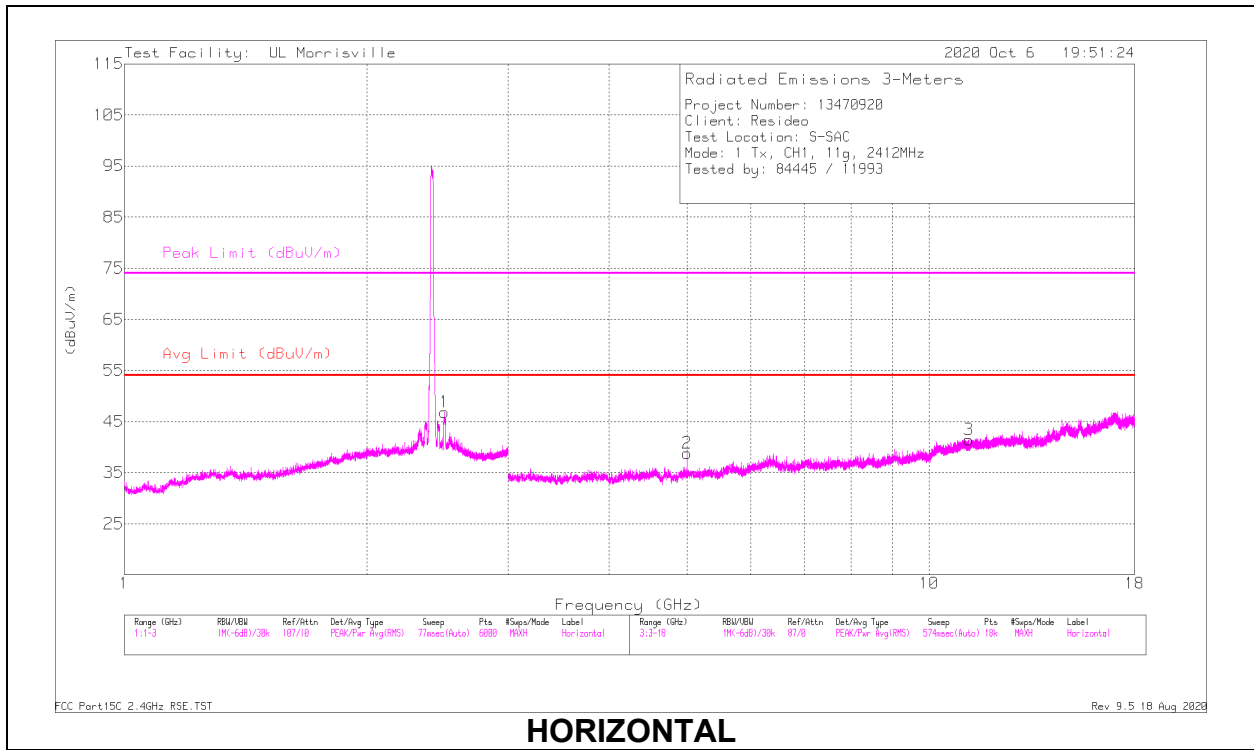


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 2.4835	45.45	Pk	32.4	-24.4	53.45	-	-	74	-20.55	98	285	V
2	*** 2.48354	46.46	Pk	32.4	-24.4	54.46	-	-	74	-19.54	98	285	V
3	*** 2.4835	31.64	ADV	32.4	-24.4	39.64	54	-14.36	-	-	98	285	V
4	*** 2.4998	32.45	ADV	32.4	-24.6	40.25	54	-13.75	-	-	98	285	V

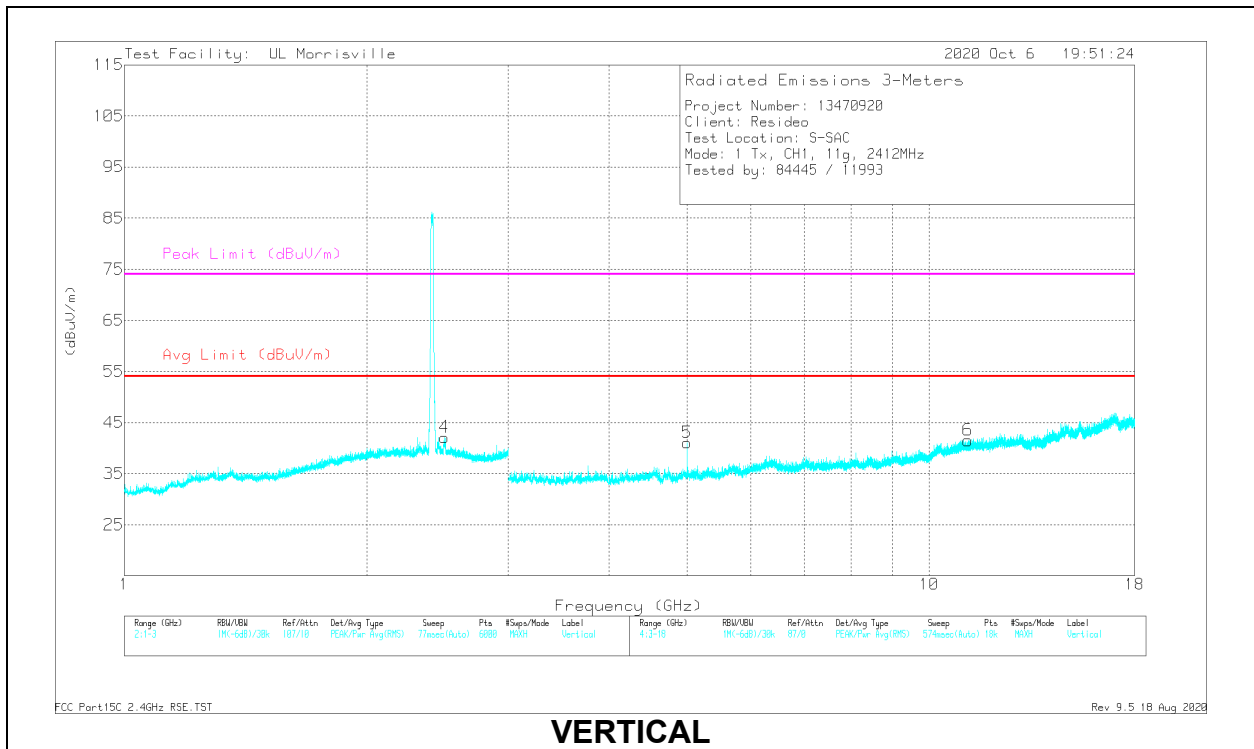
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, CH 1 RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.4986	45.92	PK2	32.4	-24.6	53.72	-	-	74	-20.28	227	261	H
	* ** 2.4997	33.54	ADV	32.4	-24.6	41.34	54	-12.66	-	-	227	261	H
4	* ** 2.49289	43.63	PK2	32.4	-24.6	51.43	-	-	74	-22.57	107	372	V
	* ** 2.49985	31.75	ADV	32.4	-24.6	39.55	54	-14.45	-	-	107	372	V
2	* ** 4.99968	42.47	PK2	33.9	-31.2	45.17	-	-	74	-28.83	36	121	H
	* ** 4.99997	34.9	ADV	33.9	-31.2	37.6	54	-16.4	-	-	36	121	H
3	* ** 11.20062	33.71	PK2	38.1	-24	47.81	-	-	74	-26.19	322	157	H
	* ** 11.20056	20.56	ADV	38.1	-24	34.66	54	-19.34	-	-	322	157	H
5	* ** 4.9999	43.33	PK2	33.9	-31.2	46.03	-	-	74	-27.97	325	101	V
	* ** 4.99995	36.07	ADV	33.9	-31.2	38.77	54	-15.23	-	-	325	101	V
6	* ** 11.17213	33.82	PK2	38.1	-24.2	47.72	-	-	74	-26.28	6	273	V
	* ** 11.17156	20.73	ADV	38.1	-24.2	34.63	54	-19.37	-	-	6	273	V

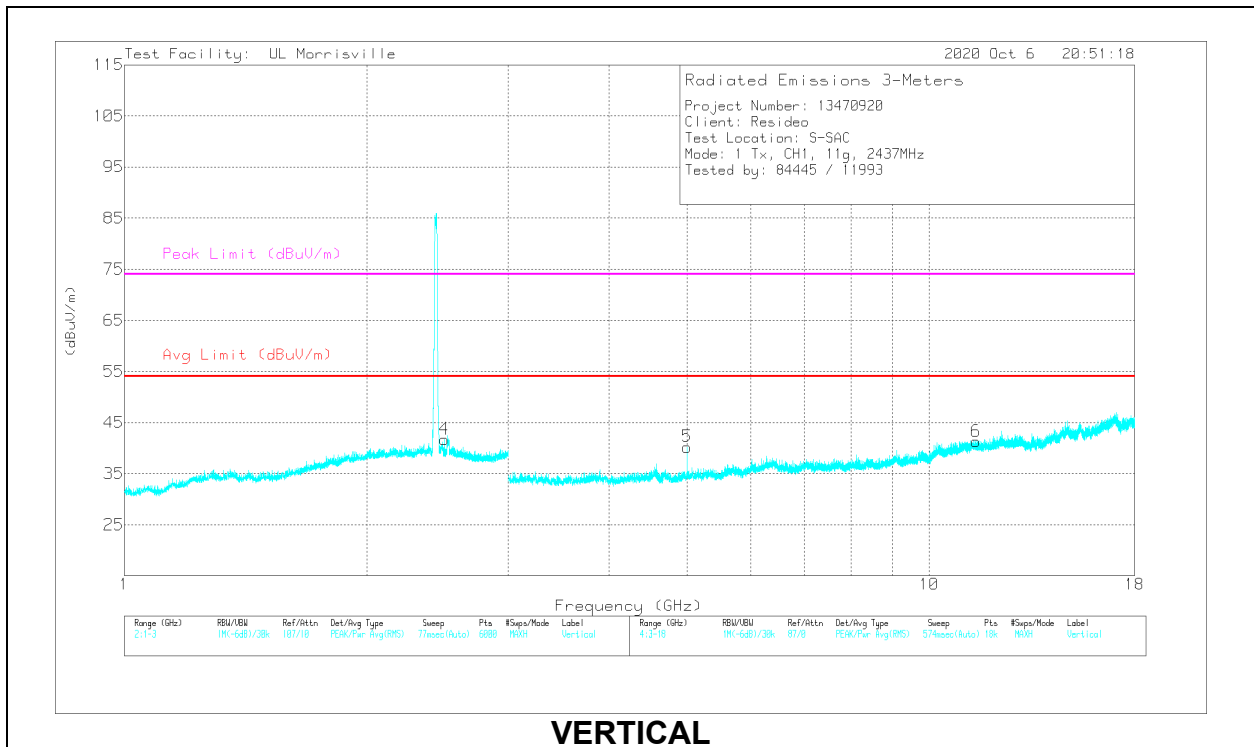
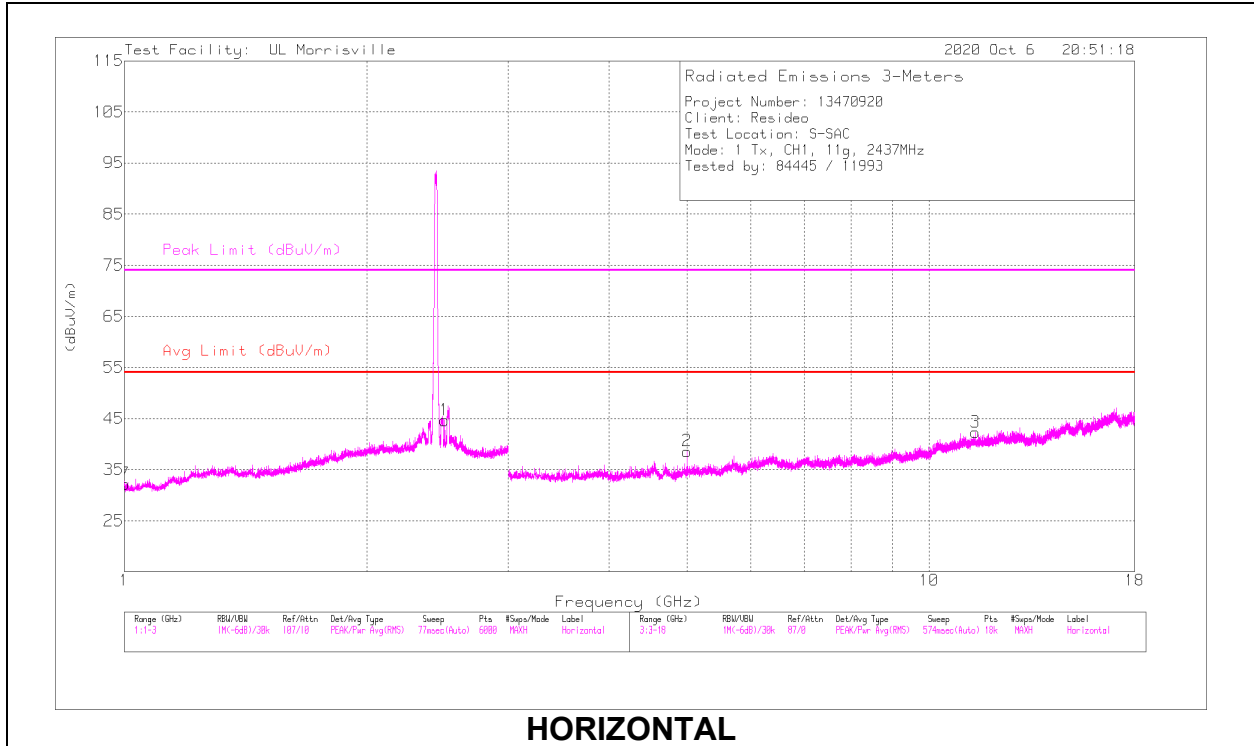
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2 - Maximum Peak

ADV - Linear Voltage Average

MID CHANNEL, CH 6 RESULTS



RADIATED EMISSIONS

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.48358	43.49	PK2	32.4	-24.4	51.49	-	-	74	-22.51	44	115	H
	* ** 2.49993	34.05	ADV	32.4	-24.6	41.85	54	-12.15	-	-	44	115	H
4	* ** 2.49984	39.27	PK2	32.4	-24.6	47.07	-	-	74	-26.93	319	349	V
	* ** 2.49995	30.74	ADV	32.4	-24.6	38.54	54	-15.46	-	-	319	349	V
2	* ** 5.00039	43.01	PK2	33.9	-31.2	45.71	-	-	74	-28.29	27	116	H
	* ** 4.99994	35.32	ADV	33.9	-31.2	38.02	54	-15.98	-	-	27	116	H
3	* ** 11.41993	33.78	PK2	38.1	-24	47.88	-	-	74	-26.12	95	125	H
	* ** 11.42041	20.89	ADV	38.1	-24	34.99	54	-19.01	-	-	95	125	H
5	* ** 4.99972	43.68	PK2	33.9	-31.2	46.38	-	-	74	-27.62	329	102	V
	* ** 4.99996	36.82	ADV	33.9	-31.2	39.52	54	-14.48	-	-	329	102	V
6	* ** 11.43773	34.24	PK2	38.1	-24.2	48.14	-	-	74	-25.86	50	273	V
	* ** 11.43836	20.93	ADV	38.1	-24.2	34.83	54	-19.17	-	-	50	273	V

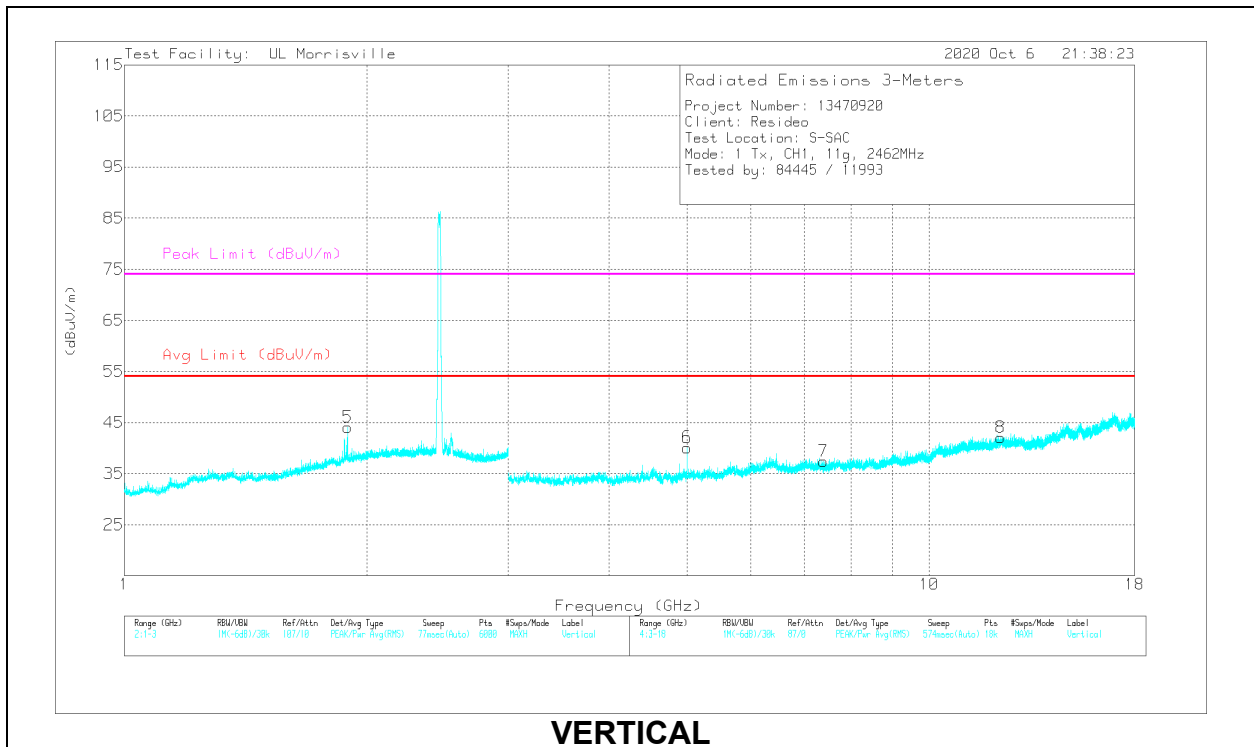
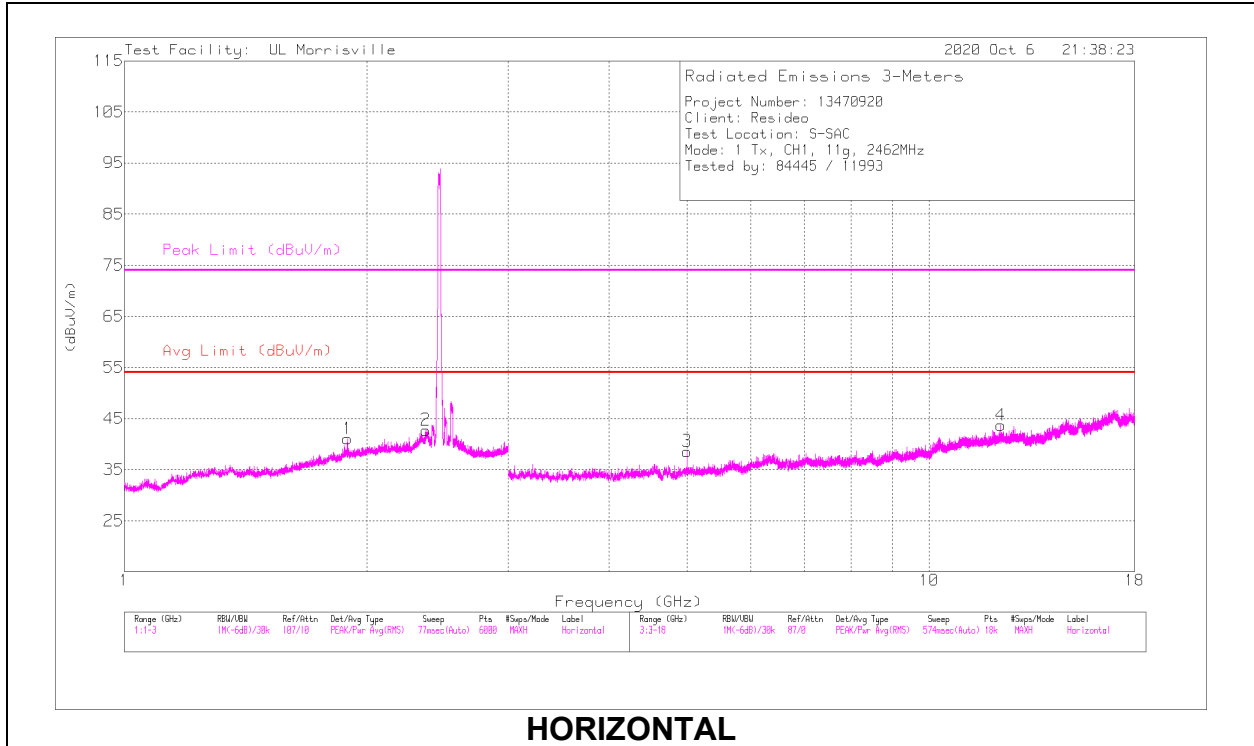
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2 - Maximum Peak

ADV - Linear Voltage Average

HIGH CHANNEL, CH 11 RESULTS



RADIATED EMISSIONS

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	** 1.89167	36.35	PK2	31.2	-22.3	45.25	-	-	74	-28.75	291	398	H
	** 1.89091	22.8	ADV	31.2	-22.3	31.7	54	-22.3	-	-	291	398	H
2	*** 2.36812	41.43	PK2	32.2	-23.9	49.73	-	-	74	-24.27	184	174	H
	*** 2.36865	27.96	ADV	32.2	-23.8	36.36	54	-17.64	-	-	184	174	H
5	** 1.8932	36.05	PK2	31.2	-22.4	44.85	-	-	74	-29.15	339	277	V
	** 1.89342	22.8	ADV	31.2	-22.3	31.7	54	-22.3	-	-	339	277	V
3	*** 4.99978	43.24	PK2	33.9	-31.2	45.94	-	-	74	-28.06	334	113	H
	*** 5.00002	33.73	ADV	33.9	-31.2	36.43	54	-17.57	-	-	334	113	H
4	*** 12.27866	35.04	PK2	38.8	-24.1	49.74	-	-	74	-24.26	213	282	H
	*** 12.2782	21.14	ADV	38.8	-24.1	35.84	54	-18.16	-	-	213	282	H
6	*** 4.99998	43.21	PK2	33.9	-31.2	45.91	-	-	74	-28.09	324	105	V
	*** 4.99998	36.13	ADV	33.9	-31.2	38.83	54	-15.17	-	-	324	105	V
7	*** 7.38699	35.95	PK2	35.6	-27.5	44.05	-	-	74	-29.95	356	366	V
	*** 7.38727	22.37	ADV	35.6	-27.5	30.47	54	-23.53	-	-	356	366	V
8	** 12.27032	33.91	PK2	38.8	-24.1	48.61	-	-	74	-25.39	170	207	V
	** 12.27218	21.05	ADV	38.8	-24.1	35.75	54	-18.25	-	-	170	207	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2 - Maximum Peak

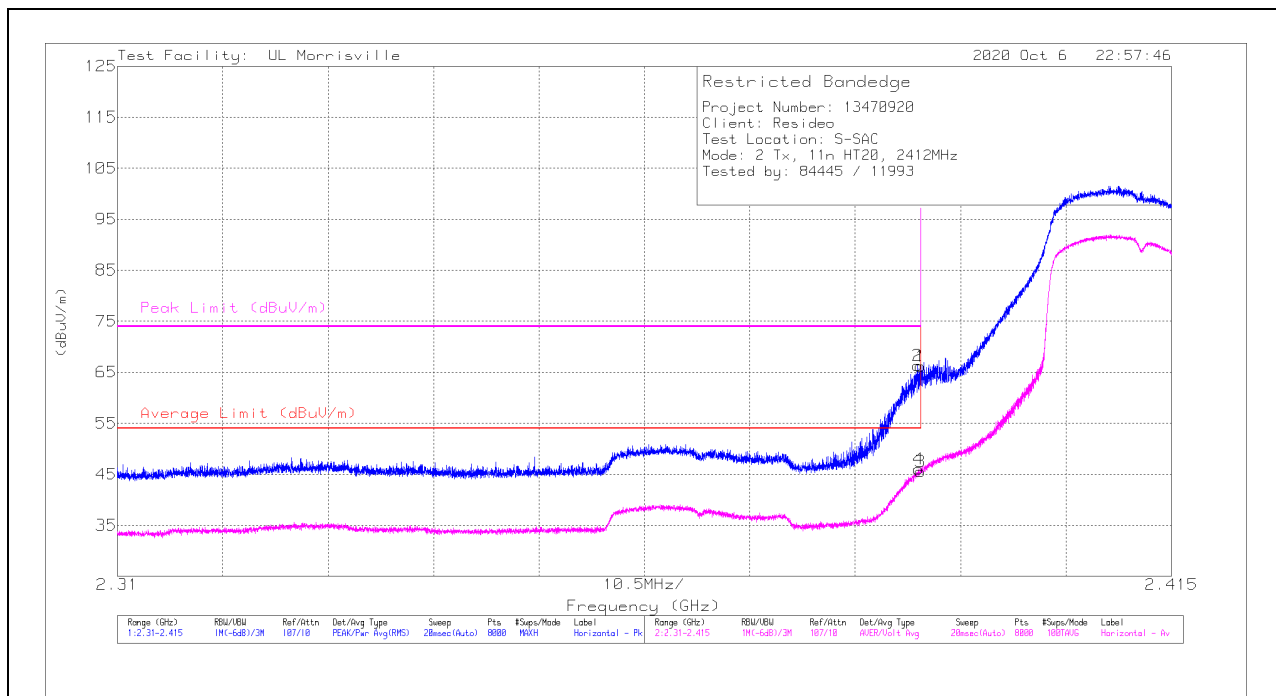
ADV - Linear Voltage Average

10.1.3. TX ABOVE 1 GHz 802.11nHT20 MODE IN THE 2.4GHZ BAND

2TX MIMO MODE

BANDEDGE (LOW CHANNEL, CH 1)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.39	58.08	Pk	32.1	-24	66.18	-	-	74	-7.82	179	280	H
2	* ** 2.38969	58.21	Pk	32.1	-24	66.31	-	-	74	-7.69	179	280	H
3	* ** 2.39	37.48	ADV	32.1	-24	45.58	54	-8.42	-	-	179	280	H
4	* ** 2.38981	37.93	ADV	32.1	-24	46.03	54	-7.97	-	-	179	280	H

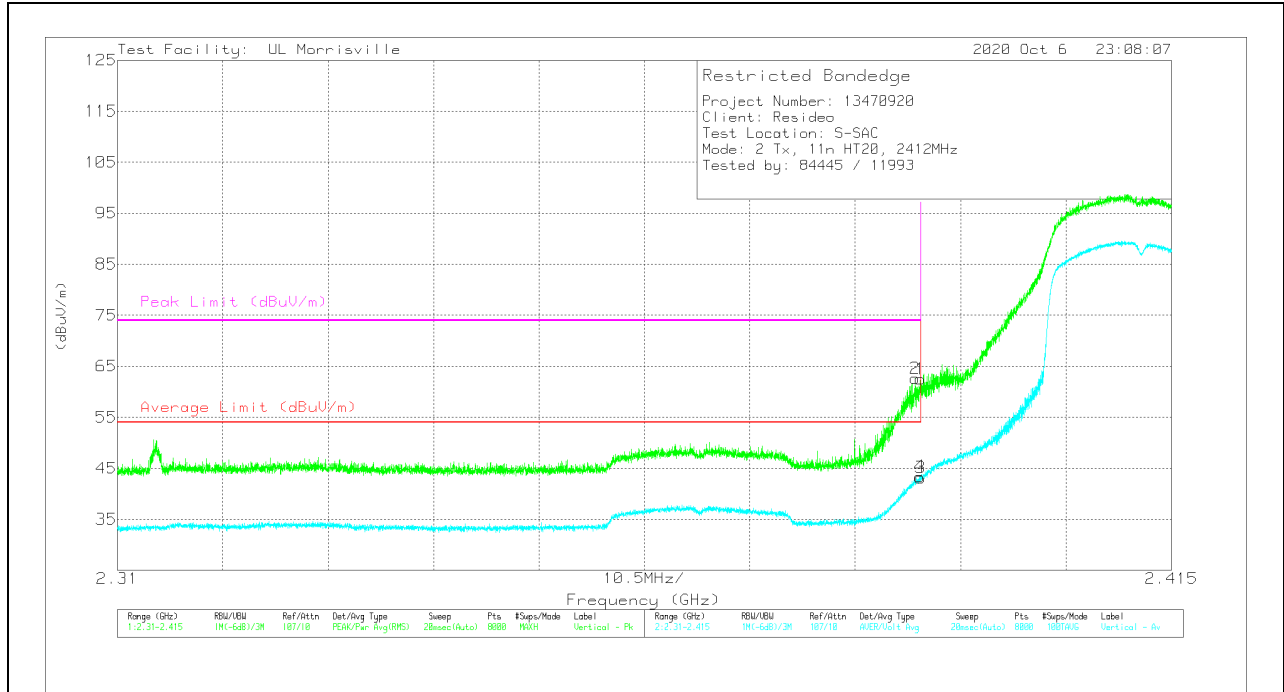
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT

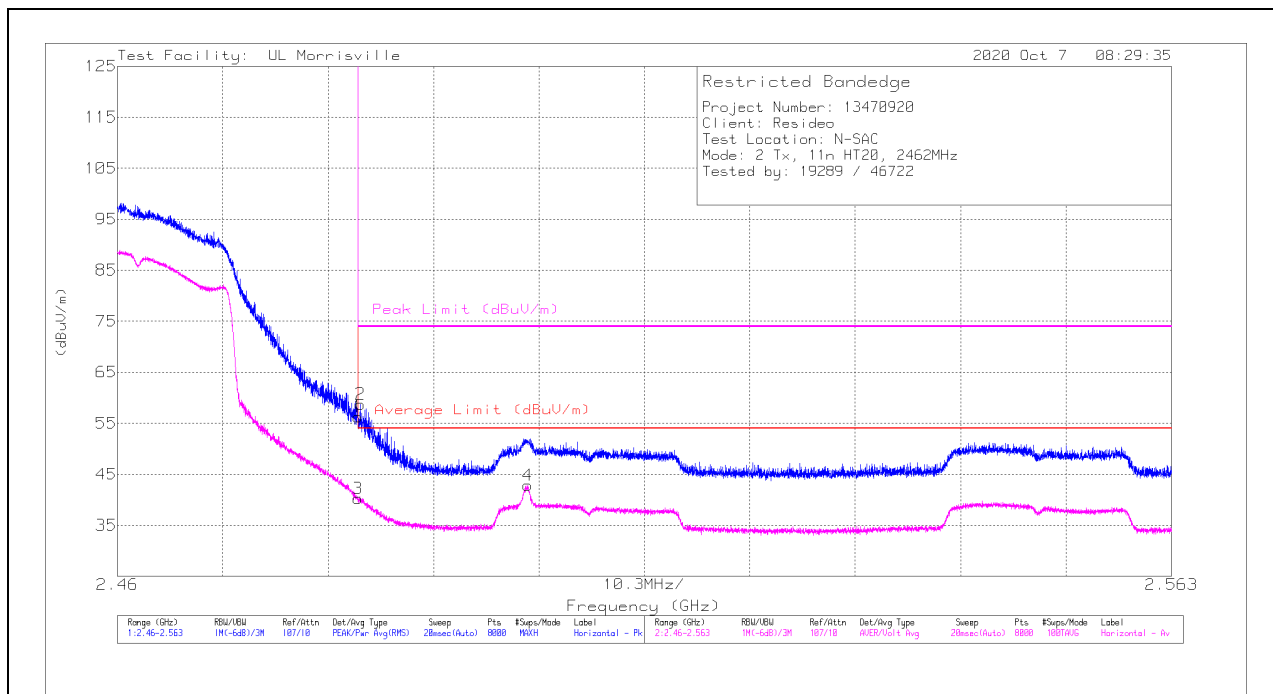


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.39	54.43	Pk	32.1	-24	62.53	-	-	74	-11.47	110	359	V
2	* ** 2.38946	54.54	Pk	32.1	-24	62.64	-	-	74	-11.36	110	359	V
3	* ** 2.39	35.06	ADV	32.1	-24	43.16	54	-10.84	-	-	110	359	V
4	* ** 2.38993	35.27	ADV	32.1	-24	43.37	54	-10.63	-	-	110	359	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

BANDEDGE (HIGH CHANNEL, CH 11)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB/(m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.4835	48.19	Pk	32.4	-24.3	56.29	-	-	74	-17.71	160	215	H
2	* ** 2.48376	50.64	Pk	32.4	-24.3	58.74	-	-	74	-15.26	160	215	H
3	* ** 2.4835	32.15	ADV	32.4	-24.3	40.25	54	-13.75	-	-	160	215	H
4	** 2.50009	34.67	ADV	32.5	-24.3	42.87	54	-11.13	-	-	160	215	H

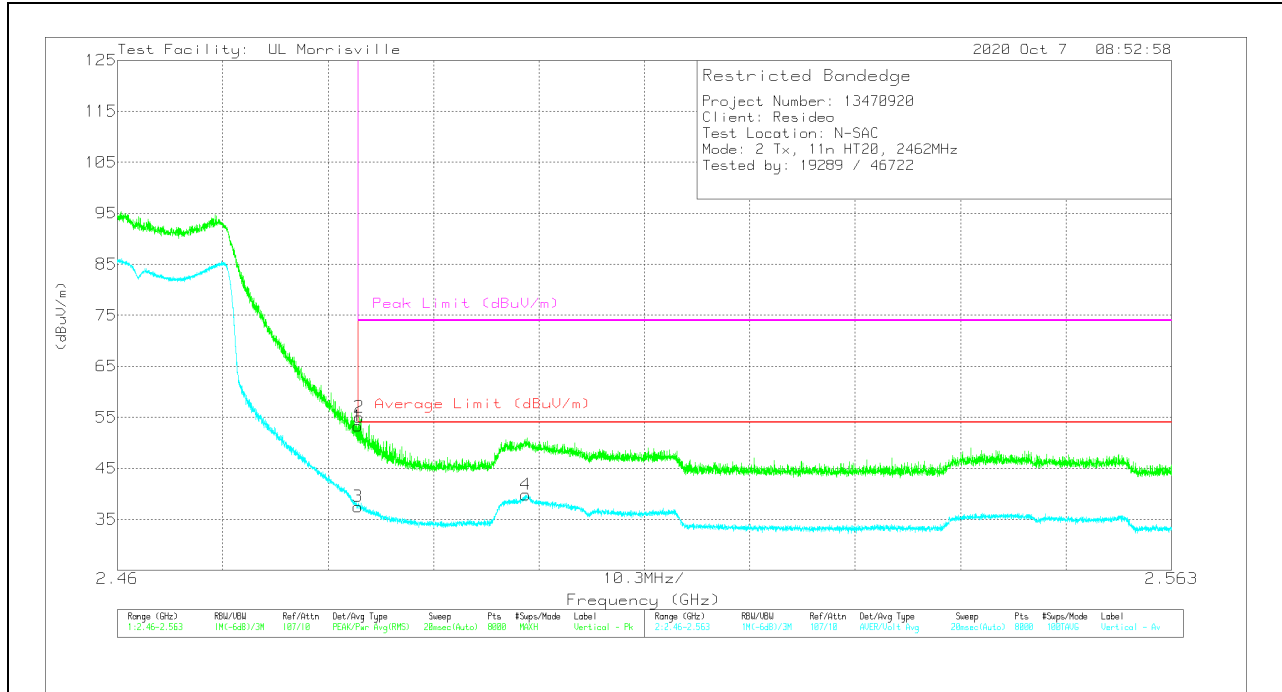
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT

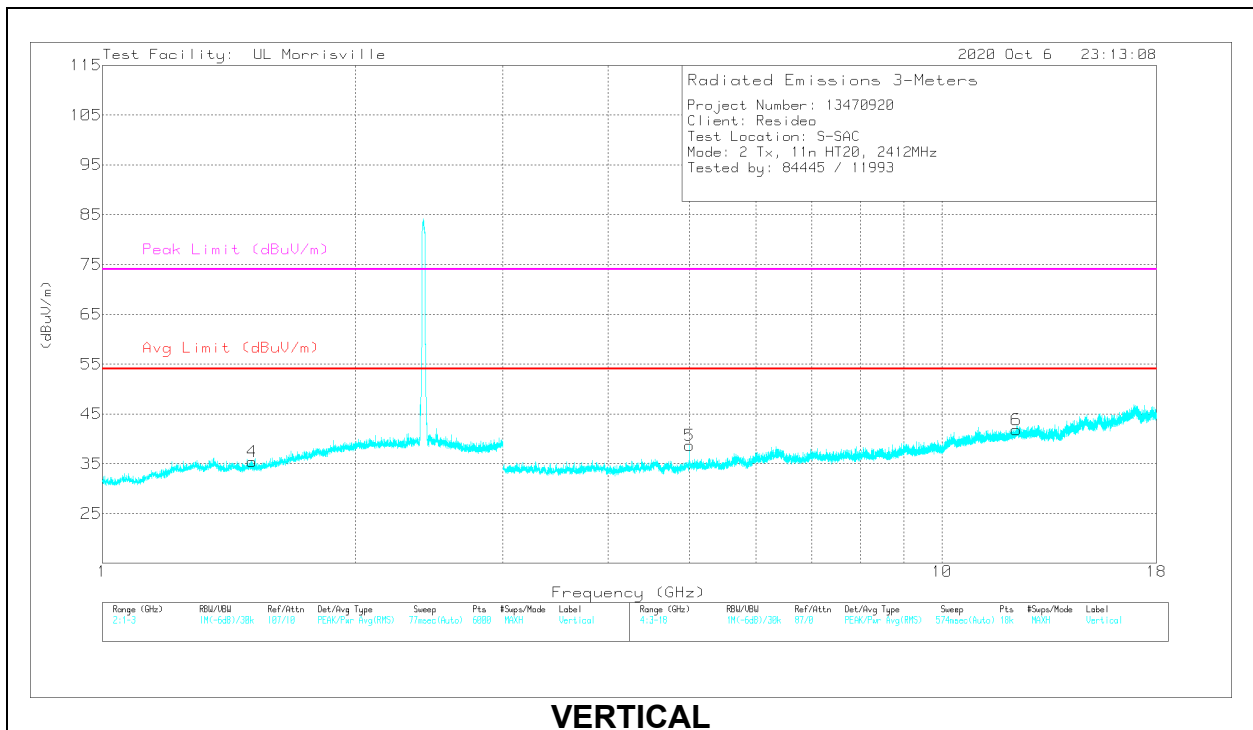
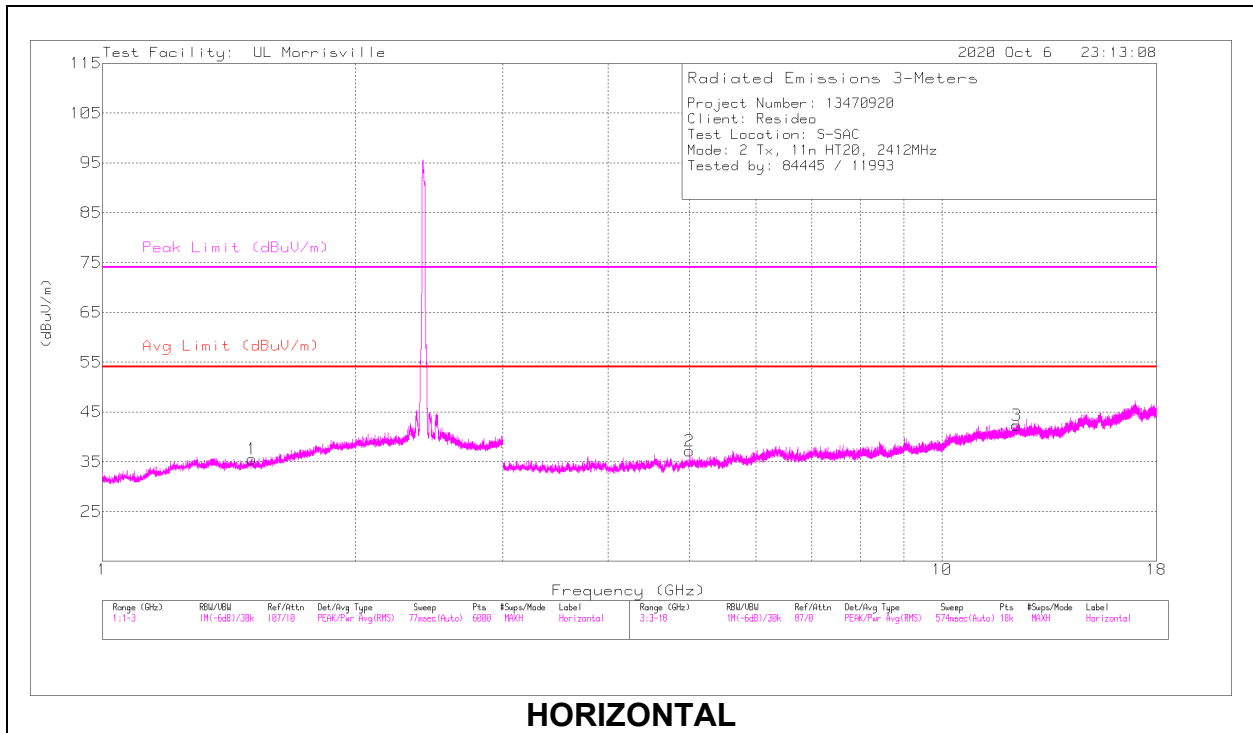


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB(m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 2.4835	45.19	Pk	32.4	-24.3	53.29	-	-	74	-20.71	18	364	V
2	*** 2.48363	46.95	Pk	32.4	-24.3	55.05	-	-	74	-18.95	18	364	V
3	*** 2.4835	29.4	ADV	32.4	-24.3	37.5	54	-16.5	-	-	18	364	V
4	*** 2.49989	31.64	ADV	32.5	-24.3	39.84	54	-14.16	-	-	18	364	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, CH 1 RESULTS



RADIATED EMISSIONS

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 1.50838	36.59	PK2	28	-22.4	42.19	-	-	74	-31.81	2	376	H
	* ** 1.50785	22.72	ADV	28	-22.4	28.32	54	-25.68	-	-	2	376	H
4	* ** 1.50748	35.78	PK2	28	-22.4	41.38	-	-	74	-32.62	290	265	V
	* ** 1.50751	22.68	ADV	28	-22.4	28.28	54	-25.72	-	-	290	265	V
2	* ** 4.99997	41.3	PK2	33.9	-31.2	44	-	-	74	-30	23	113	H
	* ** 4.99995	30.93	ADV	33.9	-31.2	33.63	54	-20.37	-	-	23	113	H
3	* ** 12.26652	34.39	PK2	38.8	-24.2	48.99	-	-	74	-25.01	319	399	H
	* ** 12.26765	21.03	ADV	38.8	-24.2	35.63	54	-18.37	-	-	319	399	H
5	* ** 5.00009	42.05	PK2	33.9	-31.2	44.75	-	-	74	-29.25	323	114	V
	* ** 5.00003	33.86	ADV	33.9	-31.2	36.56	54	-17.44	-	-	323	114	V
6	* ** 12.25749	33.92	PK2	38.8	-24.3	48.42	-	-	74	-25.58	39	129	V
	* ** 12.25801	21.01	ADV	38.8	-24.2	35.61	54	-18.39	-	-	39	129	V

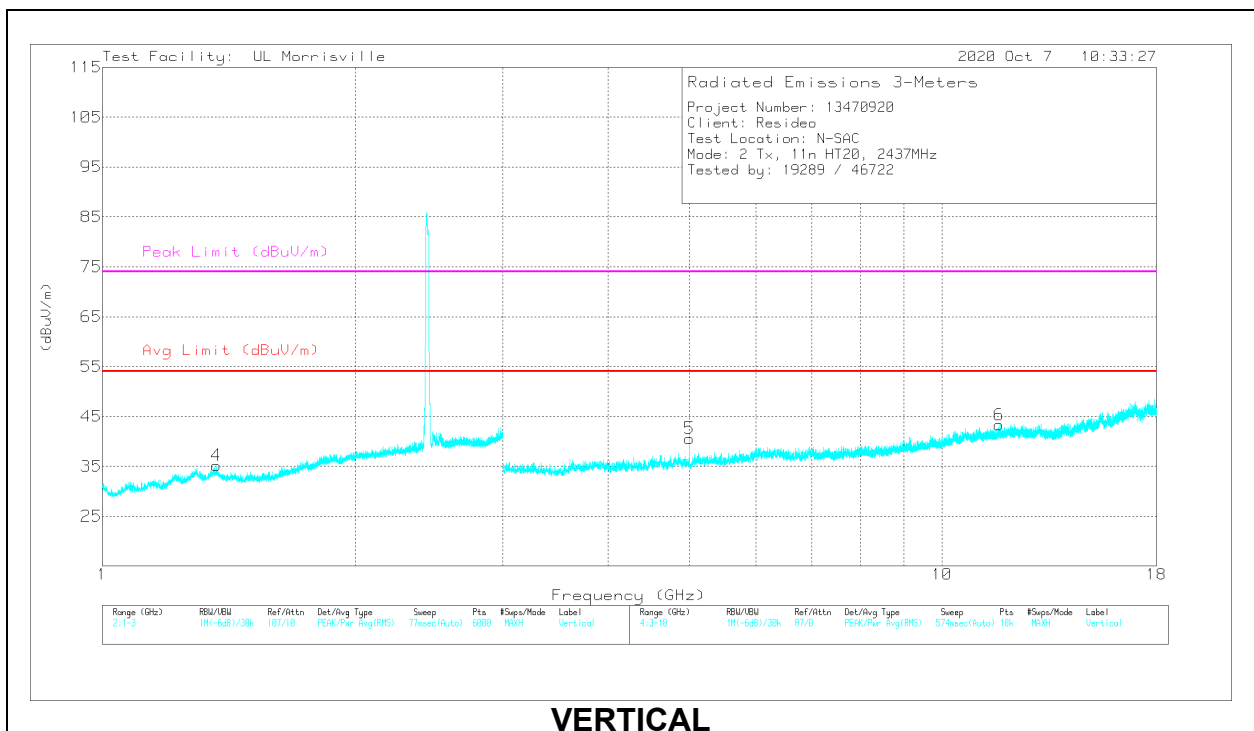
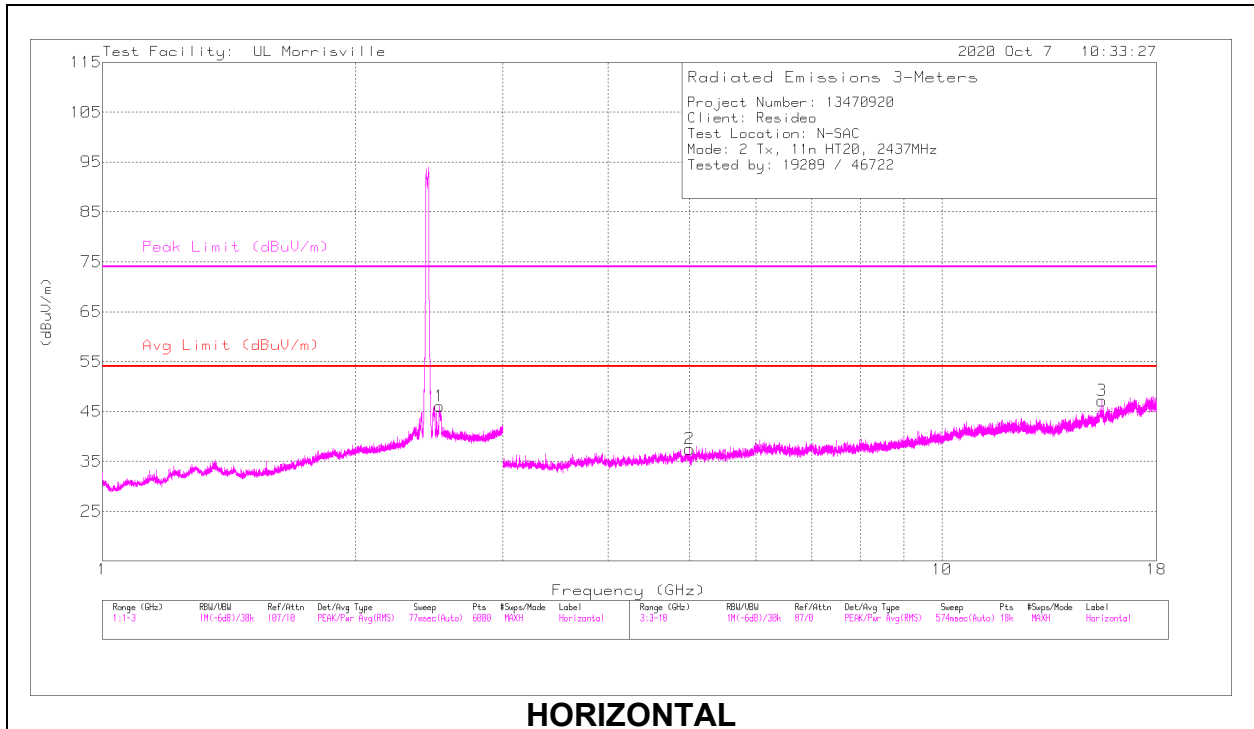
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2 - Maximum Peak

ADV - Linear Voltage Average

MID CHANNEL, CH 6 RESULTS



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB(/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	** 2.51896	45.17	PK2	32.5	-24.3	53.37	-	-	74	-20.63	150	206	H
	** 2.52061	32.92	ADV	32.5	-24.3	41.12	54	-12.88	-	-	150	206	H
4	*** 1.3643	37.09	PK2	29.4	-25.3	41.19	-	-	74	-32.81	253	289	V
	*** 1.36625	23.86	ADV	29.5	-25.3	28.06	54	-25.94	-	-	253	289	V
2	*** 4.9997	44	PK2	34.1	-32.6	45.5	-	-	74	-28.5	198	304	H
	*** 4.99994	35.13	ADV	34.1	-32.6	36.63	54	-17.37	-	-	198	304	H
3	*** 15.50861	35.62	PK2	40.2	-23.8	52.02	-	-	74	-21.98	63	232	H
	*** 15.50898	23.09	ADV	40.2	-23.8	39.49	54	-14.51	-	-	63	232	H
5	*** 4.99973	43.74	PK2	34.1	-32.6	45.24	-	-	74	-28.76	200	313	V
	*** 4.99999	35.25	ADV	34.1	-32.6	36.75	54	-17.25	-	-	200	313	V
6	*** 11.69651	35.72	PK2	38.3	-25.5	48.52	-	-	74	-25.48	276	126	V
	*** 11.6973	23.23	ADV	38.4	-25.5	36.13	54	-17.87	-	-	276	126	V

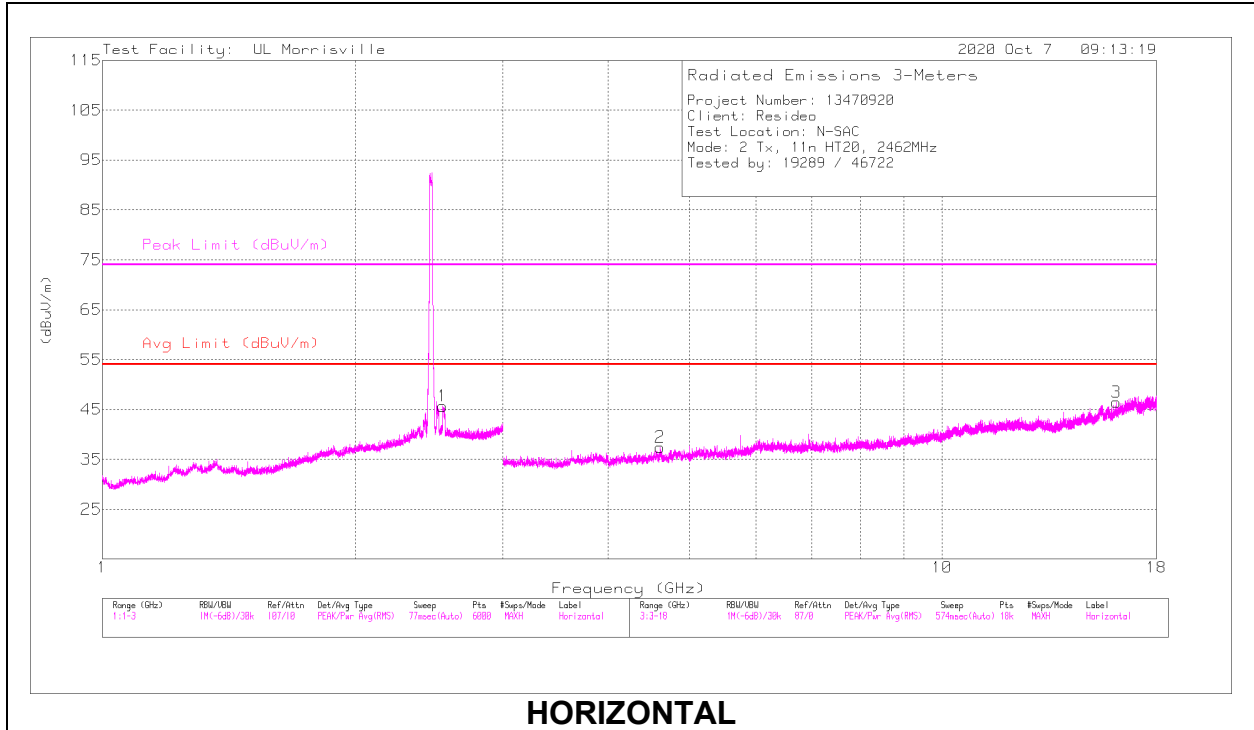
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

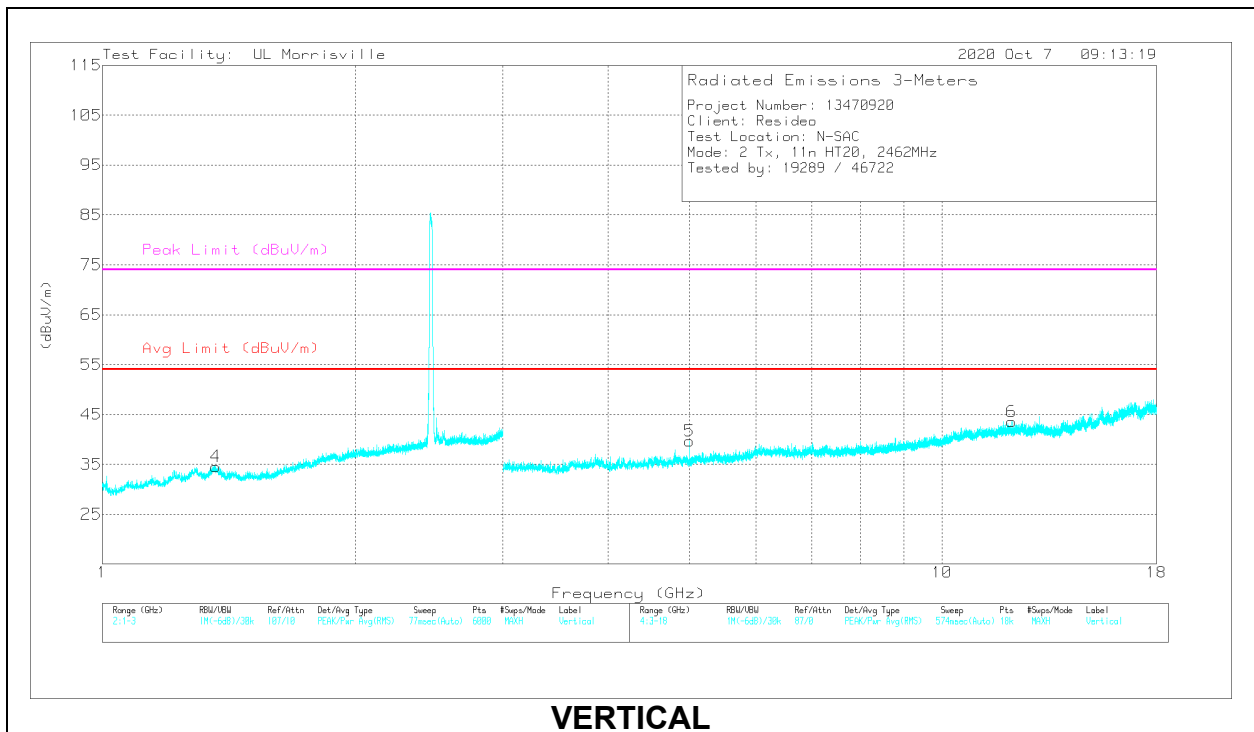
PK2 - Maximum Peak

ADV - Linear Voltage Average

HIGH CHANNEL, CH 11 RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 dB(m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	** 2.54422	45.63	PK2	32.4	-24.2	53.83	-	-	74	-20.17	152	182	H
	** 2.54424	33.65	ADV	32.4	-24.2	41.85	54	-12.15	-	-	152	182	H
4	*** 1.3673	37.08	PK2	29.5	-25.3	41.28	-	-	74	-32.72	218	262	V
	*** 1.36533	23.87	ADV	29.5	-25.3	28.07	54	-25.93	-	-	218	262	V
2	*** 4.61774	41.75	PK2	34.2	-32.4	43.55	-	-	74	-30.45	3	216	H
	*** 4.61787	29	ADV	34.2	-32.4	30.8	54	-23.2	-	-	3	216	H
3	*** 16.13057	36.36	PK2	40.7	-25.6	51.46	-	-	74	-22.54	262	333	H
	*** 16.12864	23.74	ADV	40.7	-25.6	38.84	54	-15.16	-	-	262	333	H
5	*** 4.99976	43.28	PK2	34.1	-32.6	44.78	-	-	74	-29.22	196	247	V
	*** 4.99994	34.33	ADV	34.1	-32.6	35.83	54	-18.17	-	-	196	247	V
6	*** 12.10631	36.07	PK2	38.8	-26	48.87	-	-	74	-25.13	261	169	V
	*** 12.10279	23.62	ADV	38.8	-26	36.42	54	-17.58	-	-	261	169	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2 - Maximum Peak

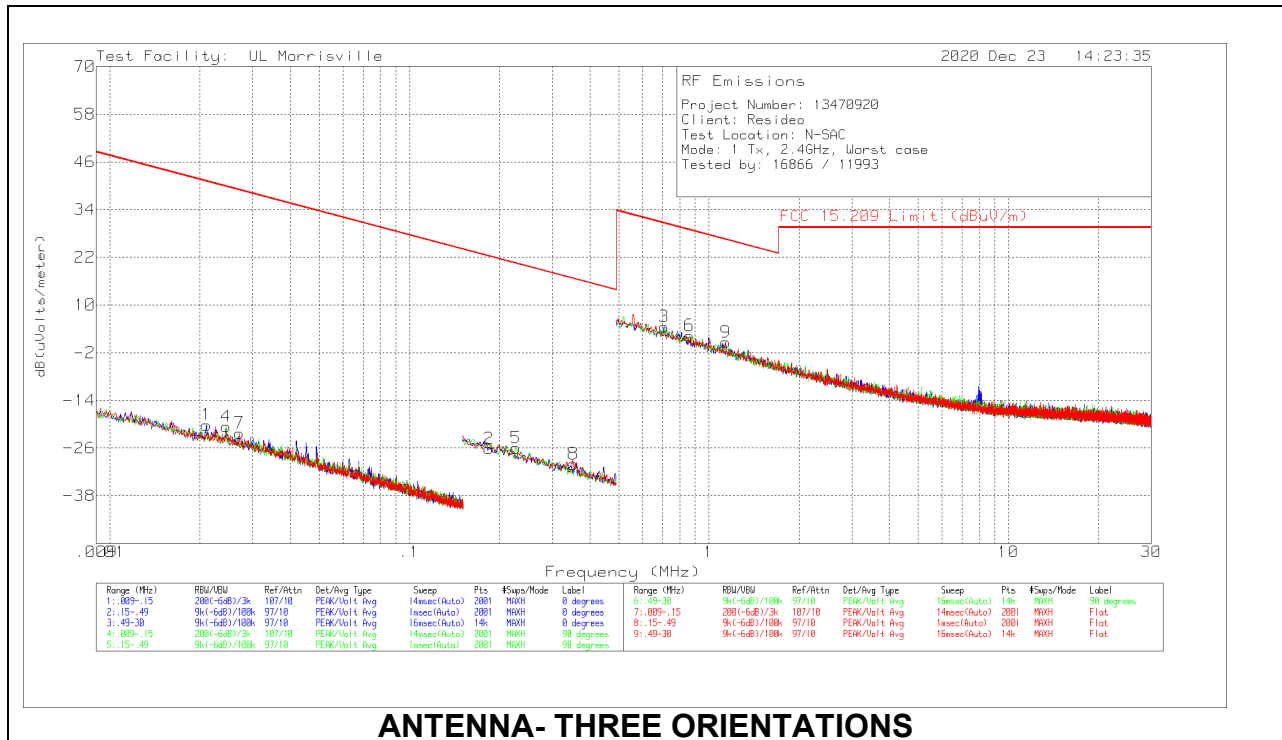
ADV - Linear Voltage Average

10.2. WORST CASE BELOW 30MHZ

SPURIOUS EMISSIONS BELOW 30 MHz (WORST-CASE CONFIGURATION)

Note: All measurements were made at a test distance of 3 m. The measured data was extrapolated from the test distance (3m) to the specification distance (300 m from 9-490 kHz and 30 m from 490 kHz – 30 MHz) to clearly show the relative levels of fundamental and spurious emissions and demonstrate compliance with the requirement that the level of any spurious emissions be below the level of the intentionally transmitted signal. The extrapolation factor for the limits were $40 \cdot \text{Log}(\text{test distance} / \text{specification distance})$.

The below 30 MHz limits in CFR 47, Part 15, Subpart C, paragraph 15.209 (a), are identical to those in RSS-GEN Section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377Ω . For example, the measurement frequency 21 kHz resulted in a level of -20.16 dBuV/m, which is equivalent to $-20.16 - 51.5 = -71.66$ dBuA/m, which has the same margin, -60.29 dB, to the corresponding RSS-GEN Table 6 limit as it has to be 15.209(a) limit.



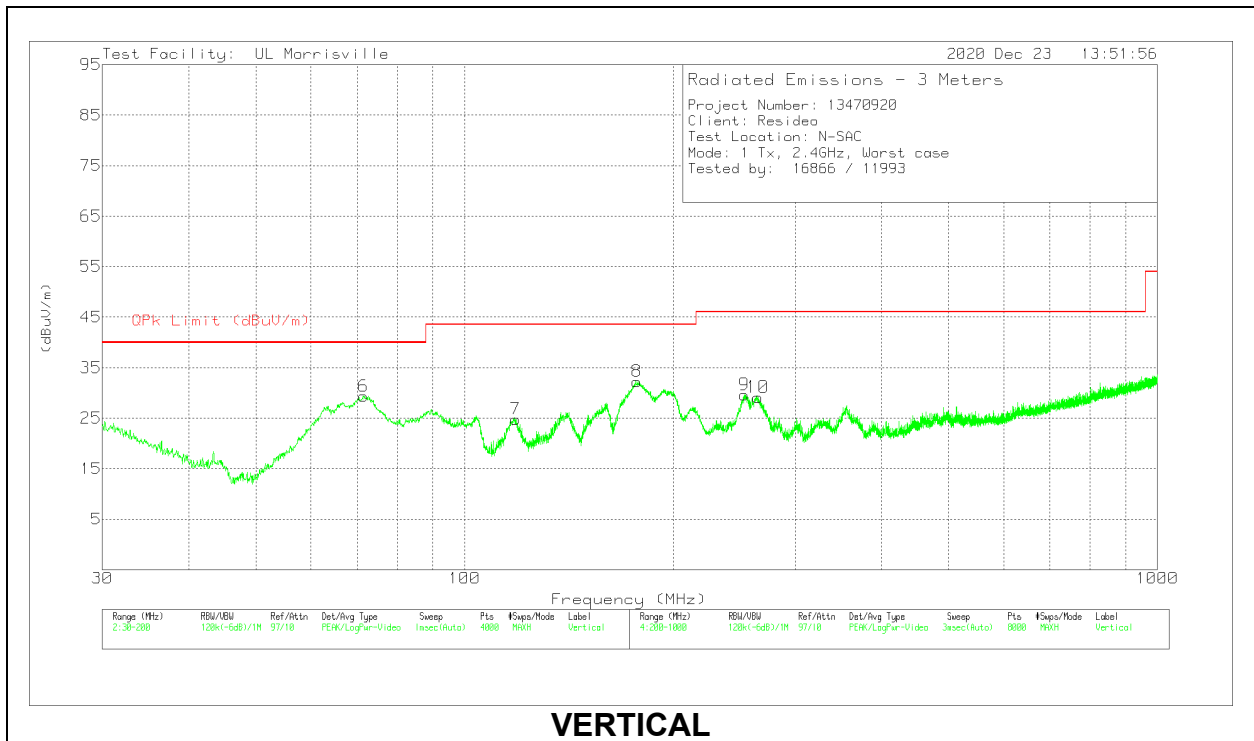
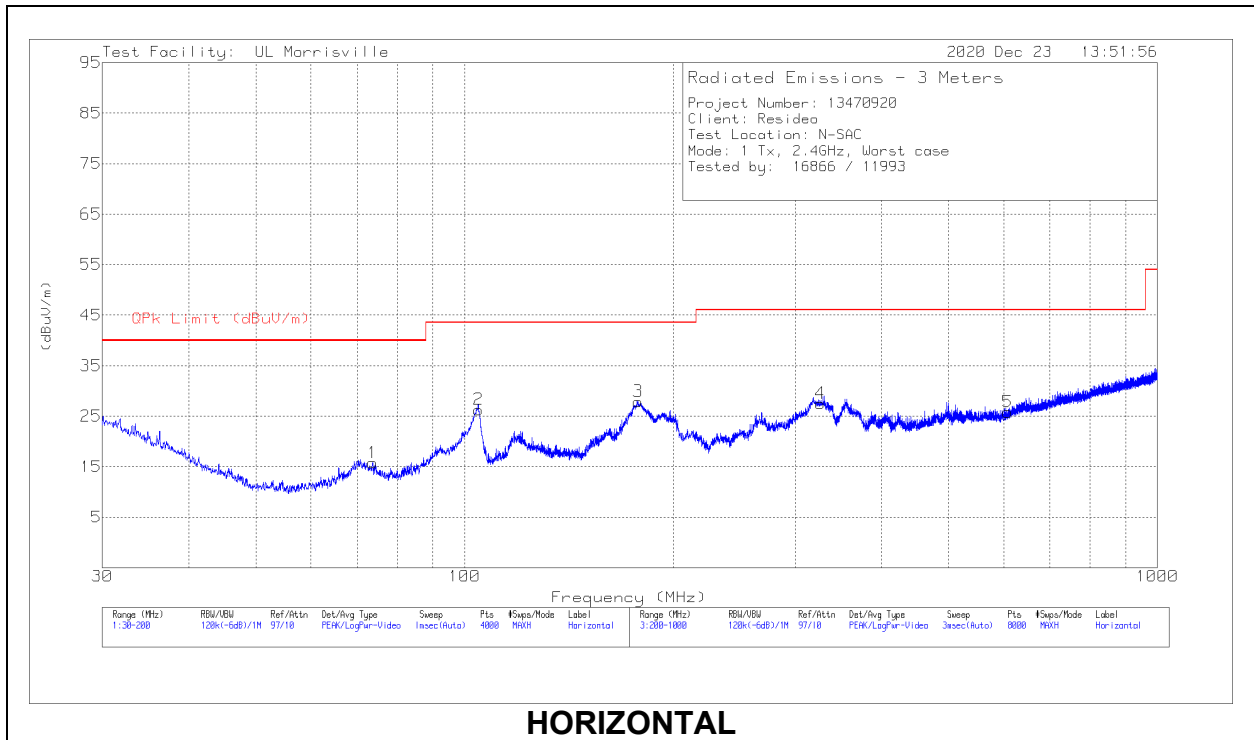
ANTENNA- THREE ORIENTATIONS

Below 30MHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AT0079 (dB/m)	Cbl (dB)	Dist. Corr. Factor (dB)	Corrected ReadingdB (uVolts/meter)	FCC 15.209 Avg/QP Limit (dBuV/m)	FCC 15.209 Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	.021	46.04	Pk	13.7	.1	-80	-20.16	41.16	61.16	-61.32	0-360
4	.02448	45.82	Pk	13.5	.1	-80	-20.58	39.83	59.83	-60.41	0-360
7	.02711	44.25	Pk	13.4	.1	-80	-22.25	38.94	58.94	-61.19	0-360
2	.18417	42.99	Pk	10.8	.1	-80	-26.11	22.3	42.3	-48.41	0-360
5	.2271	43.12	Pk	10.8	.1	-80	-25.98	20.48	40.48	-46.46	0-360
8	.35281	39.29	Pk	10.6	.1	-80	-30.01	16.65	36.65	-46.66	0-360
3	.70923	33.53	Pk	10.8	.2	-40	4.53	30.59	-	-26.06	0-360
6	.86101	31.18	Pk	10.9	.2	-40	2.28	28.9	-	-26.62	0-360
9	1.13716	29.45	Pk	11	.2	-40	.65	26.49	-	-25.84	0-360

Pk - Peak detector

10.3. WORST CASE BELOW 1 GHZ



Below 1GHz DATA

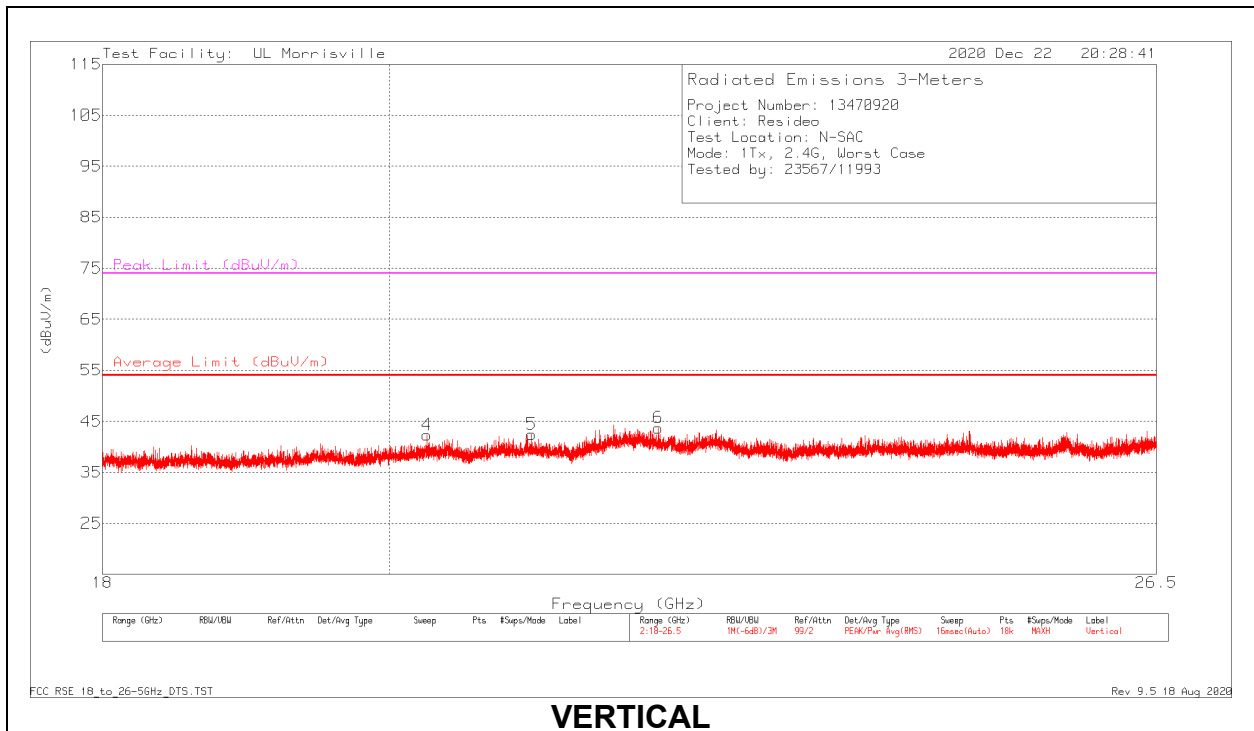
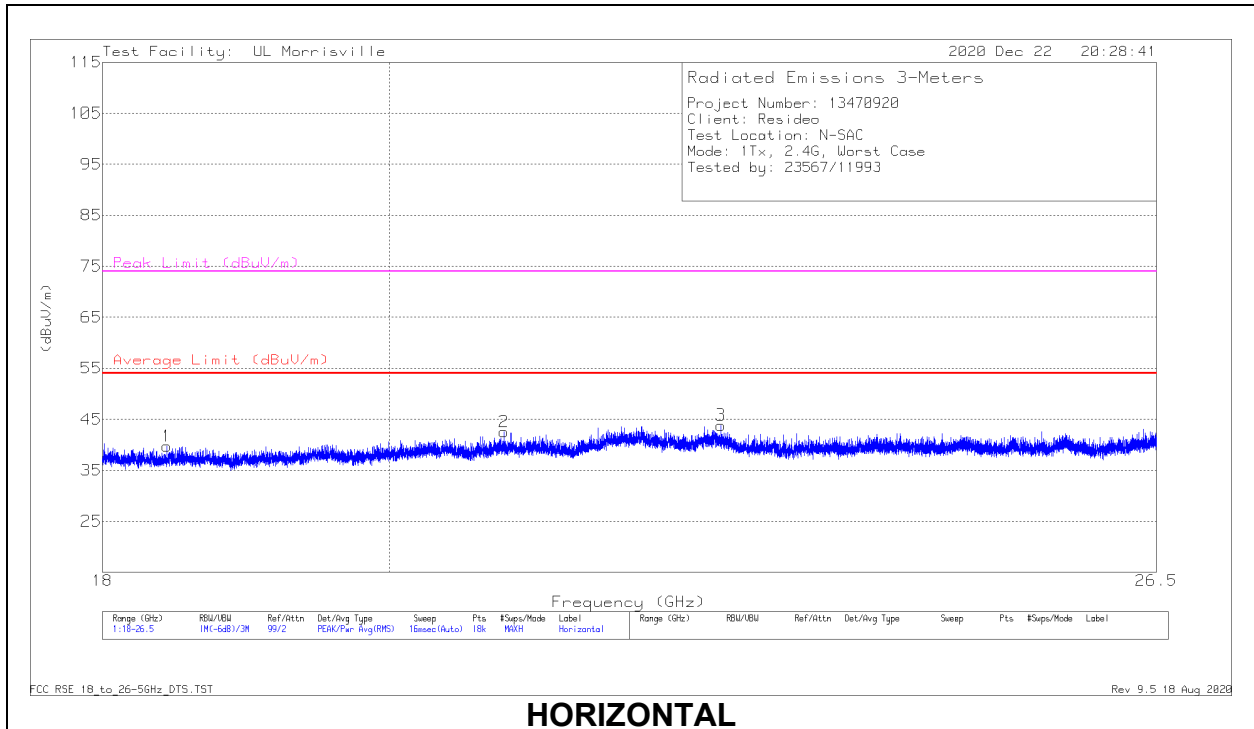
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AT0074 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 73.7013	32.47	Pk	14.1	-30.8	15.77	40	-24.23	0-360	399	H
7	* ** 118.5504	35.21	Pk	19.9	-30.3	24.81	43.52	-18.71	0-360	101	V
4	* ** 326.2164	35.91	Pk	20	-28.4	27.51	46.02	-18.51	0-360	101	H
5	* ** 608.053	27.73	Pk	24.7	-26.6	25.83	46.02	-20.19	0-360	300	H
9	* ** 253.507	40.92	Pk	17.6	-28.9	29.62	46.02	-16.4	0-360	99	V
10	* ** 265.2085	39.03	Pk	18.9	-28.8	29.13	46.02	-16.89	0-360	99	V
6	71.4482	45.95	Pk	14.2	-30.8	29.35	40	-10.65	0-360	101	V
2	104.8406	39	Pk	17.7	-30.4	26.3	43.52	-17.22	0-360	300	H
8	177.3431	44.27	Pk	17.5	-29.5	32.27	43.52	-11.25	0-360	101	V
3	178.0233	39.9	Pk	17.5	-29.5	27.9	43.52	-15.62	0-360	199	H

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

10.4. WORST CASE 18-26 GHZ



18 – 26GHz DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0076 AF (dB/m)	Amp/CBL (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 18.43116	46.95	Pk	33.2	-40.4	39.75	54	-14.25	74	-34.25	0-360	300	H
2	* ** 20.85852	49.28	Pk	34.1	-40.8	42.58	54	-11.42	74	-31.42	0-360	250	H
3	* ** 22.58647	48.64	Pk	36.2	-41	43.84	54	-10.16	74	-30.16	0-360	150	H
4	* ** 20.27576	49.15	Pk	33.9	-40.7	42.35	54	-11.65	74	-31.65	0-360	250	V
5	* ** 21.07056	49.38	Pk	34.2	-41.1	42.48	54	-11.52	74	-31.52	0-360	200	V
6	* ** 22.07361	47.92	Pk	36.8	-41	43.72	54	-10.28	74	-30.28	0-360	150	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

11. 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.

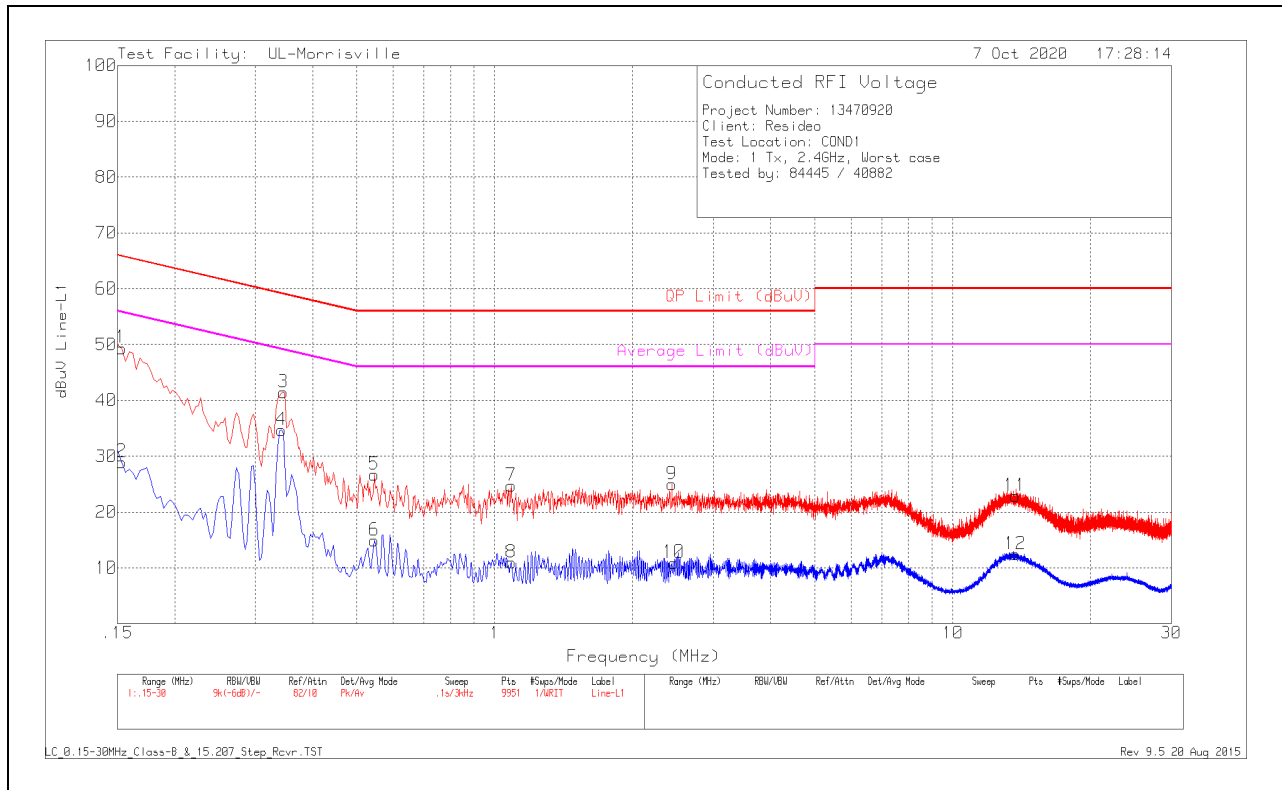
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

11.1.1. AC Power Line Norm

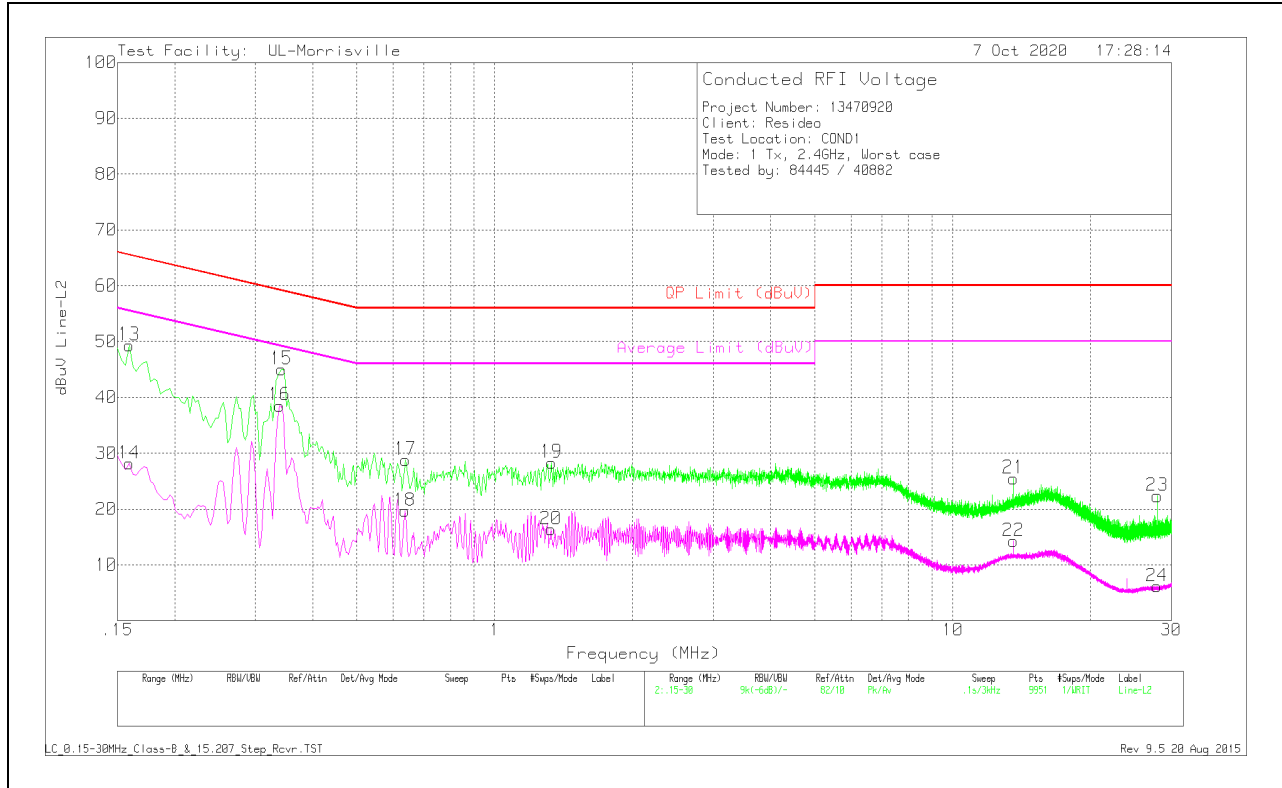
LINE 1 RESULTS



Range 1: Line-L1 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VCF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
1	.153	39.47	Pk	.2	9.7	49.37	65.84	-16.47	-	-
2	.153	19.05	Av	.2	9.7	28.95	-	-	55.84	-26.89
3	.345	31.64	Pk	.1	9.7	41.44	59.08	-17.64	-	-
4	.342	24.87	Av	.1	9.7	34.67	-	-	49.15	-14.48
5	.546	16.91	Pk	0	9.8	26.71	56	-29.29	-	-
6	.546	5.1	Av	0	9.8	14.9	-	-	46	-31.1
7	1.086	14.89	Pk	0	9.8	24.69	56	-31.31	-	-
8	1.086	1.16	Av	0	9.8	10.96	-	-	46	-35.04
9	2.436	15.17	Pk	0	9.8	24.97	56	-31.03	-	-
10	2.457	1.08	Av	0	9.8	10.88	-	-	46	-35.12
11	13.674	12.78	Pk	.1	10	22.88	60	-37.12	-	-
12	13.695	2.33	Av	.1	10	12.43	-	-	50	-37.57

Pk - Peak detector
 Av - Average detection

LINE 2 RESULTS



Range 2: Line-L2 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VCF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
13	.159	39.45	Pk	.2	9.7	49.35	65.52	-16.17	-	-
14	.159	18.23	Av	.2	9.7	28.13	-	-	55.52	-27.39
15	.342	35.24	Pk	.1	9.7	45.04	59.15	-14.11	-	-
16	.339	28.76	Av	.1	9.7	38.56	-	-	49.23	-10.67
17	.639	19.04	Pk	0	9.8	28.84	56	-27.16	-	-
18	.636	9.85	Av	0	9.8	19.65	-	-	46	-26.35
19	1.329	18.55	Pk	0	9.8	28.35	56	-27.65	-	-
20	1.326	6.59	Av	0	9.8	16.39	-	-	46	-29.61
21	13.56	15.42	Pk	.1	10	25.52	60	-34.48	-	-
22	13.56	4.15	Av	.1	10	14.25	-	-	50	-35.75
23	27.948	11.84	Pk	.3	10.2	22.34	60	-37.66	-	-
24	27.924	-4.37	Av	.3	10.2	6.13	-	-	50	-43.87

Pk - Peak detector
 Av - Average detection

12. SETUP PHOTOS

Please refer to R13470920-E1 for setup photos

END OF TEST REPORT