



# TEST REPORT

**Report Number:** R14176151-E2V3

**Applicant :** Sony Corporation  
1-7-1 Konan Minato-ku  
Tokyo, 108-0076, Japan

**FCC ID :** PY7-34424G

**EUT Description :** GSM/WCDMA/LTE Phone with BT, DTS/UNII a/b/g/n/ac/ax, GPS,  
WPT & NFC

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

**Date Of Issue:**

2022-04-29

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## REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	2022-04-20	Initial Issue	Brian Kiewra
V2	2022-04-26	Revisions made to Section 7.3	Brian Kiewra
V3	2022-04-29	Header numbering correction in section 9. Editorial revisions	Brian Kiewra

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# 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** Sony Corporation  
1-7-1 Konan Minato-ku  
Tokyo, 108-0076, Japan

**EUT DESCRIPTION:** GSM/WCDMA/LTE Phone with BT, DTS/UNII a/b/g/n/ac/ax, GPS, WPT & NFC

**SERIAL NUMBER:** QV77005CC2, QV770014C2

**SAMPLE RECEIPT DATE:** 2022-02-28

**DATE TESTED:** 2022-03-28 to 2022-03-30

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C and E	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 a2La, NIST, or any agency of the U.S. government.

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## 2. TEST RESULTS SUMMARY

This report contains data provided by the applicant which can impact the validity of results. UL LLC is only responsible for the validity of results after the integration of the data provided by the customer.

FCC Clause	Requirement	Result	Comment
See Comment	Duty Cycle	Not performed	Radiated spot checks performed to justify data reuse.
See Comment	20/26dB BW		
15.247 (a) (2) 15.407 (e)	6dB BW		
15.247 (a)(1)	Hopping Frequency Separation		
15.247 (a)(1)(iii)	Number of Hopping Channels		
15.247 (a)(1)(iii)	Average Time of Occupancy		
See Comment	Average Power		
15.247 (d)	Conducted Spurious Emissions		
15.247 (b) (1,3) 15.407(a)(1-3)(h)(1)	Output Power		
15.247 (e) 15.407 (a) (1-3)	PSD		
15.207	AC Mains Conducted Emissions		
15.209, 15.205, 15.225 (d), 15.407(b)	Radiated Emissions	See Comment	Radiated spot checks performed on worst-case channels only to justify data reuse.

## 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 and KDB 484596 D01 Referencing Test Data v01.

## 4. FACILITIES AND ACCREDITATION

UL LLC is accredited by A2LA, certification # 0751.06, for all testing performed within the scope of this report. Testing was performed at the locations noted below.

	Address	ISED CABID	ISED Company Number	FCC Registration
<input type="checkbox"/>	Building: 12 Laboratory Dr RTP, NC 27709, U.S.A	US0067	2180C	825374
<input checked="" type="checkbox"/>	Building: 2800 Perimeter Park Dr. Suite B Morrisville, NC 27560, U.S.A		27265	

## 5. DECISION RULES AND MEASUREMENT UNCERTAINTY

### 5.1. METROLOGICAL TRACEABILITY

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

### 5.2. DECISION RULES

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

### 5.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	$U_{Lab}$
All emissions, radiated	6.01 dB

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

### 5.4. SAMPLE CALCULATION

#### RADIATED EMISSIONS

Where relevant, the following sample calculation is provided:

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

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

## 6. EQUIPMENT UNDER TEST

### 6.1. DESCRIPTION OF EUT

The EUT is a GSM/WCDMA/LTE PHONE with BT, DTS/UNII a/b/g/n/ac & NFC.

## 7. REUSE OF TEST DATA

### 7.1. INTRODUCTION

According to the manufacturer, FCC ID: PY7-83262V and FCC ID: PY7-34424G unlicensed radios (WLAN/BT/BLE) are electrically identical. The FCC ID: PY7-83262V test data shall remain representative of FCC ID: PY7-34424G so, FCC ID: PY7-34424G leverages test data from FCC ID: PY7-83262V.

Manufacturer has also declared that DFS mechanism and software is identical to the lead device (PY7-83262V) and is to be reused.

The applicant takes full responsibility that the test data as referenced in this section represents compliance for this FCC ID.

### 7.2. DEVICES DIFFERENCES

Difference between PY7-83262V and PY7-34424G :

Sony Corporation hereby declares that the hardware of WLAN 2.4GHz , WLAN 5GHz, Bluetooth, GPS and WPT is identical among PY7-83262V and PY7-34424G. The change is related only to the cellular radio. Therefore the following report/data of PY7-83262V may represent for PY7-34424G.

### 7.3. REFERENCE DETAIL

Equipment Class	Reference FCC ID	Report Title/Section
DSS (BT)	PY7-83262V	R14176139-E2V2 FCC Report BT_Final/All Sections
DTS (BLE)	PY7-83262V	R14176139-E3V4 FCC Report BLE_Final/All Sections
DTS (WLAN)	PY7-83262V	R14176139-E4aV2 FCC Report DTS non-ax WLAN_Final/All Sections R14176139-E4bV2 FCC Report DTS ax WLAN_Final/All Sections
UNII (WLAN)	PY7-83262V	R14176139-E5aV3 FCC Report UNII 5.2_5.3 non-ax WLAN_Final/All Sections R14176139-E5bV3 FCC Report UNII 5.2_5.3 ax WLAN_Final/All Sections R14176139-E5cV2 FCC Report UNII 5.6 non-ax WLAN_Final/All Sections R14176139-E5eV2 FCC Report UNII 5.8 non-ax WLAN_Final/All Sections
DFS	PY7-83262V	R14176139-E6V3 FCC Report UNII DFS WLAN_Final/All Sections
WPT	PY7-83262V	R14176139-E7V1 FCC Report WPT_Final/All Sections

### 7.4. SPOT CHECK VERIFICATION RESULTS SUMMARY

Spot check verification has been done on device PY7-34424G for radiated harmonic spurious. The data from the application has been verified through appropriate spot checks to demonstrate compliance for this device as shown in the summary.

PY7-34424G SPOT CHECK RESULTS									
Technology	Test Item	Channel	Measured Frequency (MHz)	PY7-83262V		PY7-34424G		Delta (dB) <+3dB	
				PK Reading (dBuV/m)	AV Reading (dBuV/m)	PK Reading (dBuV/m)	AV Reading (dBuV/m)	PK	AV
BT	RBE	0	2389	48.75	36.68	49.59	36.9	0.84	0.22
	RSE	39	2893	48.85	34.63	48.61	34.83	-0.24	0.20
BLE	RBE	39	2483	50.79	41.19	51.07	42.06	0.28	0.87
	RSE	39	9050	46.04	-	46.37	-	0.33	-
			Note: Markers were all noise floor. Above PK values were >6dB below AV limit, therefore AV measurements not required.						
2.4GHz WLAN	RBE	11	2483	51.22	39.56	51.57	38.64	0.35	-0.92
	RSE	11	9081	47.93	-	45.69	-	-2.24	-
			Note: Markers were all noise floor. Above PK values were >6dB below AV limit, therefore AV measurements not required.						
5GHz WLAN	RBE	38	5150	56.7	44.79	57.71	45.37	1.01	0.58
	RBE	102	5459	55.27	44.09	55.65	44.31	0.38	0.22
	RBE	149	5625	-33.14	-	-37.31	-	-4.17	-
	RBE	50	5395	69.44	46.39	63.2	46.02	-6.24	-0.37
WPT	RSE	110kHz	0.331	-19.5	-	-20.66	-	-1.16	-
			45.76	31.25	-	27.31	-	-3.94	-



## 8. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville – Chamber 4)

Equipment ID	Description	Manufacturer/Brand	Model Number	Last Cal.	Next Cal.
<b>0.009-30MHz</b>					
AT0079	Active Loop Antenna	ETS-Lindgren	6502	2021-08-19	2022-08-19
<b>1-18 GHz</b>					
AT0069	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2021-06-29	2022-06-29
<b>Gain-Loss Chains</b>					
C4-SAC01	Gain-loss string: 0.009-30MHz	Various	Various	2021-05-07	2022-05-07
C4-SAC03	Gain-loss string: 1-18GHz	Various	Various	2021-05-07	2022-05-07
<b>Receiver &amp; Software</b>					
206496	Spectrum Analyzer	Rohde & Schwarz	ESW44	2022-02-15	2023-02-15
SOFTEMI	EMI Software	UL	Version 9.5 (18 Oct 2021)		
<b>Additional Equipment used</b>					
210642	Environmental Meter	Fisher Scientific	210701942	2021-8-16	2023-08-16

Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville – Chamber 1)

Equipment ID	Description	Manufacturer/Brand	Model Number	Last Cal.	Next Cal.
<b>30-1000 MHz</b>					
AT0066	Hybrid Broadband Antenna	Sunol Sciences Corp.	JB1	2022-03-01	2023-03-01
<b>Gain-Loss Chains</b>					
C1-SAC01	Gain-loss string: 0.009-30MHz	Various	Various	2021-07-20	2022-07-20
C1-SAC02	Gain-loss string: 25-1000MHz	Various	Various	2021-07-20	2022-07-20
C1-SAC03	Gain-loss string: 1-18GHz	Various	Various	2021-07-20	2022-07-20
C1-SAC04	Gain-loss string: 18-40GHz	Various	Various	2021-07-20	2022-07-20
<b>Receiver &amp; Software</b>					
197954	Spectrum Analyzer	Rohde & Schwarz	ESW44	2021-03-30	2022-03-30
SOFTEMI	EMI Software	UL	Version 9.5 (18 Oct 2021)		
<b>Additional Equipment used</b>					
s/n 181474341	Environmental Meter	Fisher Scientific	15-077-963	2021-09-27	2022-09-27

## 9. SPOT CHECK DATA

### LIMITS

FCC §15.205 and §15.209

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
0.009-0.490	2400/F(kHz) @ 300 m	-
0.490-1.705	24000/F(kHz) @ 30 m	-
1.705 - 30	30 @ 30m	-
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

### TEST PROCEDURE

The EUT is placed on a non-conducting table 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 above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T (360Hz) video bandwidth with peak detector for BT average measurements, RMS detection for BLE measurements, and linear voltage detection for WLAN measurements.

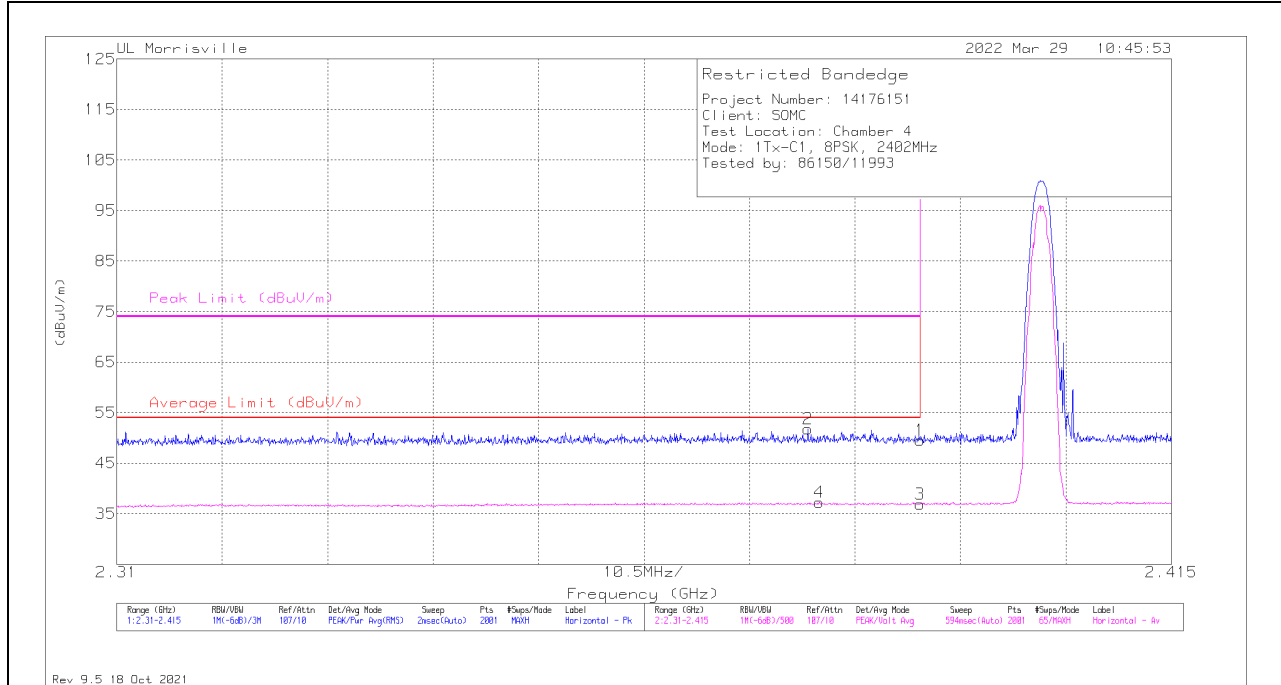
The spectrum from 1 GHz to 18 GHz is investigated with the transmitter set to worst case mode.

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.

## 9.1. BLUETOOTH

### BANDEDGE (LOW CHANNEL - CHAIN 1, 8PSK)

#### HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 (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	* ** 2.38996	31.49	Pk	31.9	-13.8	49.59	-	-	74	-24.41	8	339	H
2	* ** 2.37883	33.73	Pk	31.9	-13.9	51.73	-	-	74	-22.27	8	339	H
3	* ** 2.38996	18.8	V1TV	31.9	-13.8	36.9	54	-17.1	-	-	8	339	H
4	* ** 2.37993	19.29	V1TV	31.9	-13.9	37.29	54	-16.71	-	-	8	339	H

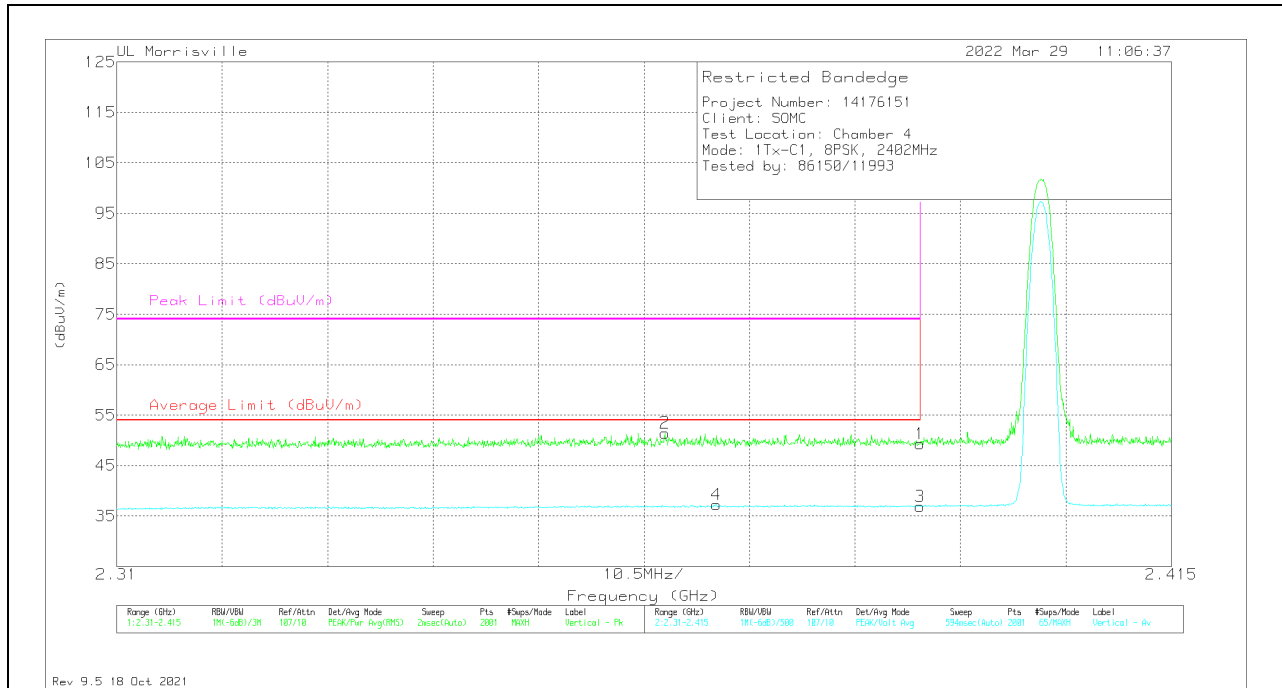
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

V1TV - VB=1/Ton, Linear Voltage Average where: Ton is packet duration

### VERTICAL RESULT

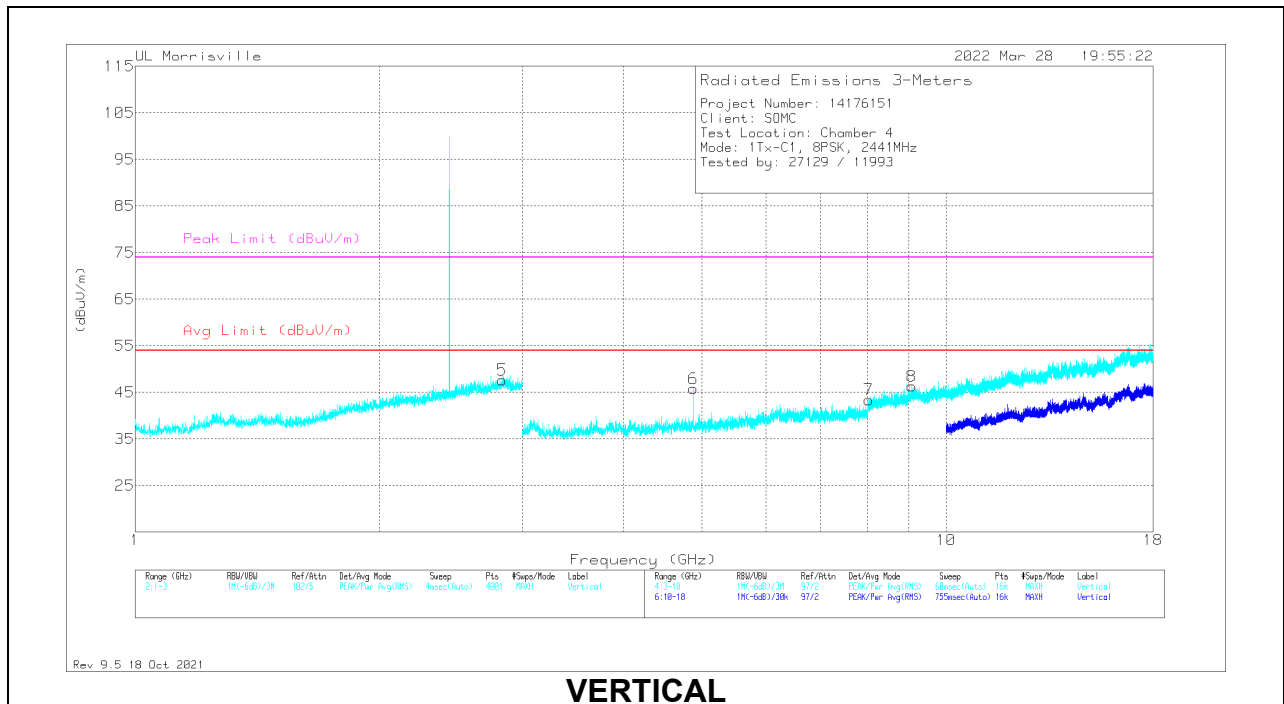
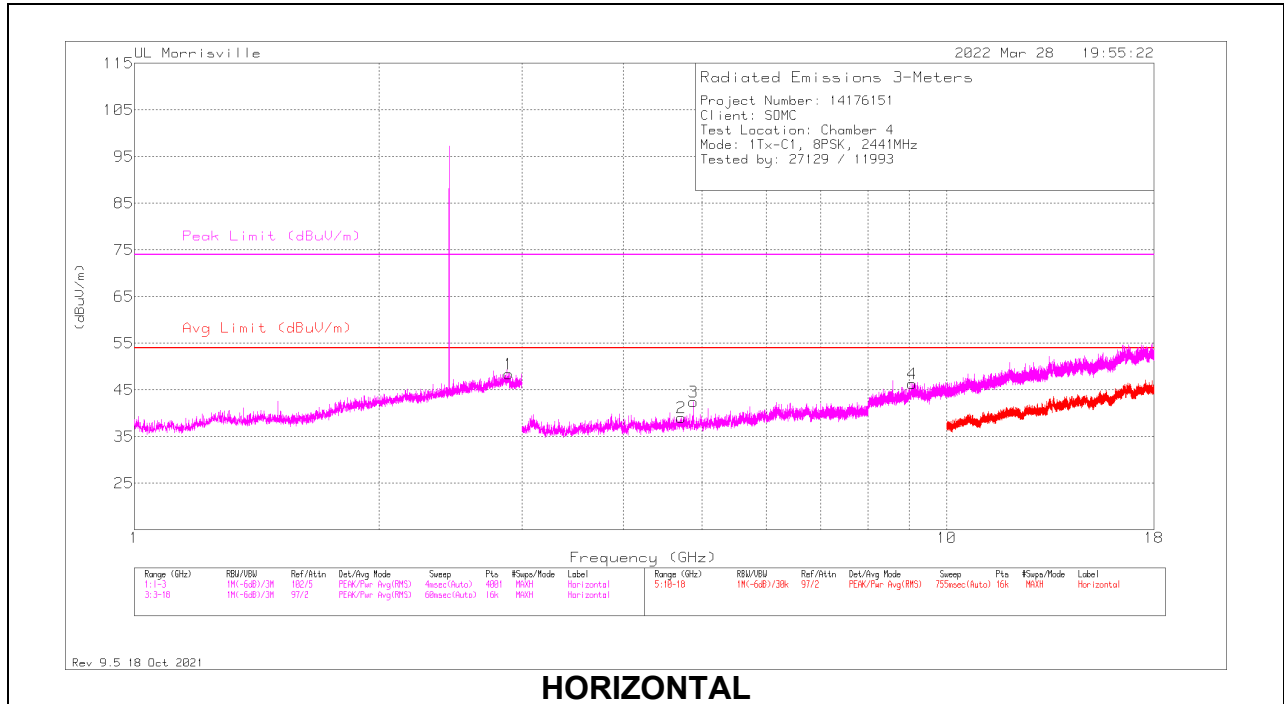


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 2.38996	31.25	Pk	31.9	-13.8	49.35	-	-	74	-24.65	49	113	V
2	*** 2.3646	33.57	Pk	31.8	-13.9	51.47	-	-	74	-22.53	49	113	V
3	*** 2.38996	18.8	V1TV	31.9	-13.8	36.9	54	-17.1	-	-	49	113	V
4	*** 2.36969	19.29	V1TV	31.9	-13.9	37.29	54	-16.71	-	-	49	113	V

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 \*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band  
 Pk - Peak detector  
 V1TV - VB=1/Ton, Linear Voltage Average where: Ton is packet duration

# HARMONICS AND SPURIOUS EMISSIONS

## MID CHANNEL – CHAIN 1, 8PSK



**RADIATED EMISSIONS**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 (dB/m)	Amp/Cbl/Fitr/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	* ** 2.8928	29.01	PK2	32.4	-12.8	48.61	-	-	74	-25.39	87	279	H
	* ** 2.89361	15.23	V1TV	32.4	-12.8	34.83	54	-19.17	-	-	87	279	H
5	* ** 2.8355	28.21	Pk	32.5	-13	47.71	54	-6.29	74	-26.29	0-360	200	V
2	* ** 4.71188	37.24	Pk	34	-32.2	39.04	54	-14.96	74	-34.96	0-360	100	H
3	* ** 4.88156	40.69	Pk	34	-32.2	42.49	54	-11.51	74	-31.51	0-360	100	H
4	* ** 9.07406	35.54	Pk	36.2	-25.4	46.34	54	-7.66	74	-27.66	0-360	100	H
6	* ** 4.88156	44.05	Pk	34	-32.2	45.85	54	-8.15	74	-28.15	0-360	200	V
7	* ** 8.02875	36.33	Pk	35.6	-28.5	43.43	54	-10.57	74	-30.57	0-360	200	V
8	* ** 9.07406	35.54	Pk	36.2	-25.4	46.34	54	-7.66	74	-27.66	0-360	200	V

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

\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

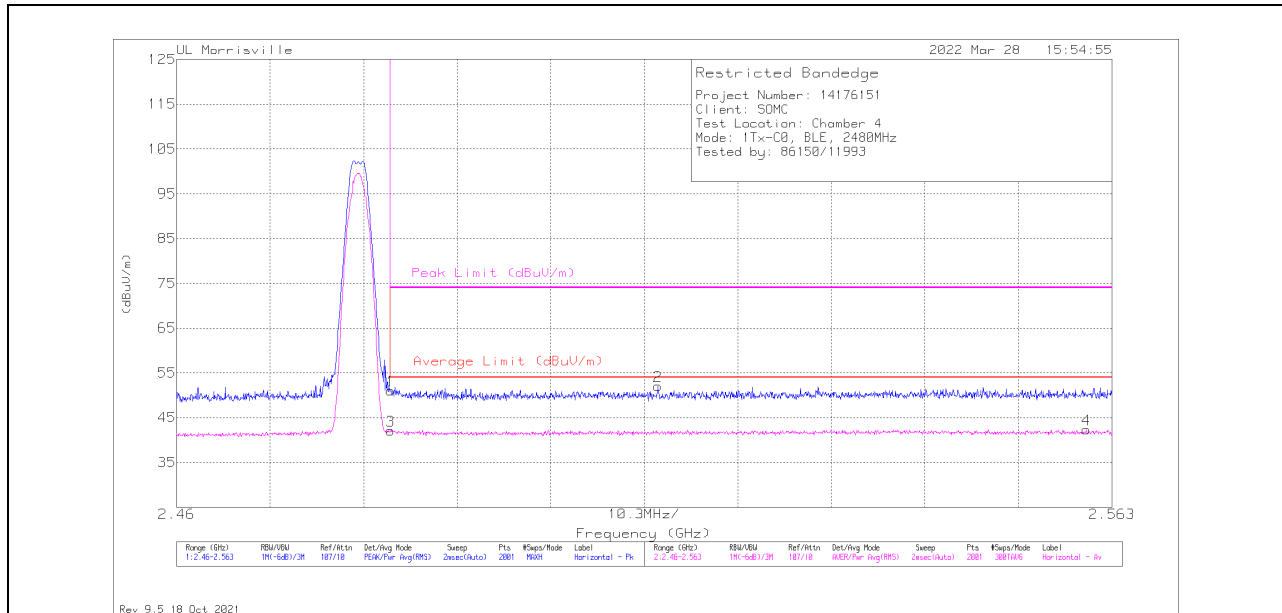
PK2 - Maximum Peak

V1TV - VB=1/Ton, Linear Voltage Average where: Ton is packet duration

## 9.2. BLE

### BANDEDGE (HIGH CHANNEL – CHAIN 0, 2Mbps)

#### HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 (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	* ** 2.48354	32.57	Pk	32.2	-13.7	0	51.07	-	-	74	-22.93	235	163	H
2	** 2.51299	33.42	Pk	32.3	-13.7	0	52.02	-	-	74	-21.98	235	163	H
3	* ** 2.48354	21.14	RMS	32.2	-13.7	2.42	42.06	54	-11.94	-	-	235	163	H
4	** 2.56017	21.2	RMS	32.2	-13.5	2.42	42.32	54	-11.68	-	-	235	163	H

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

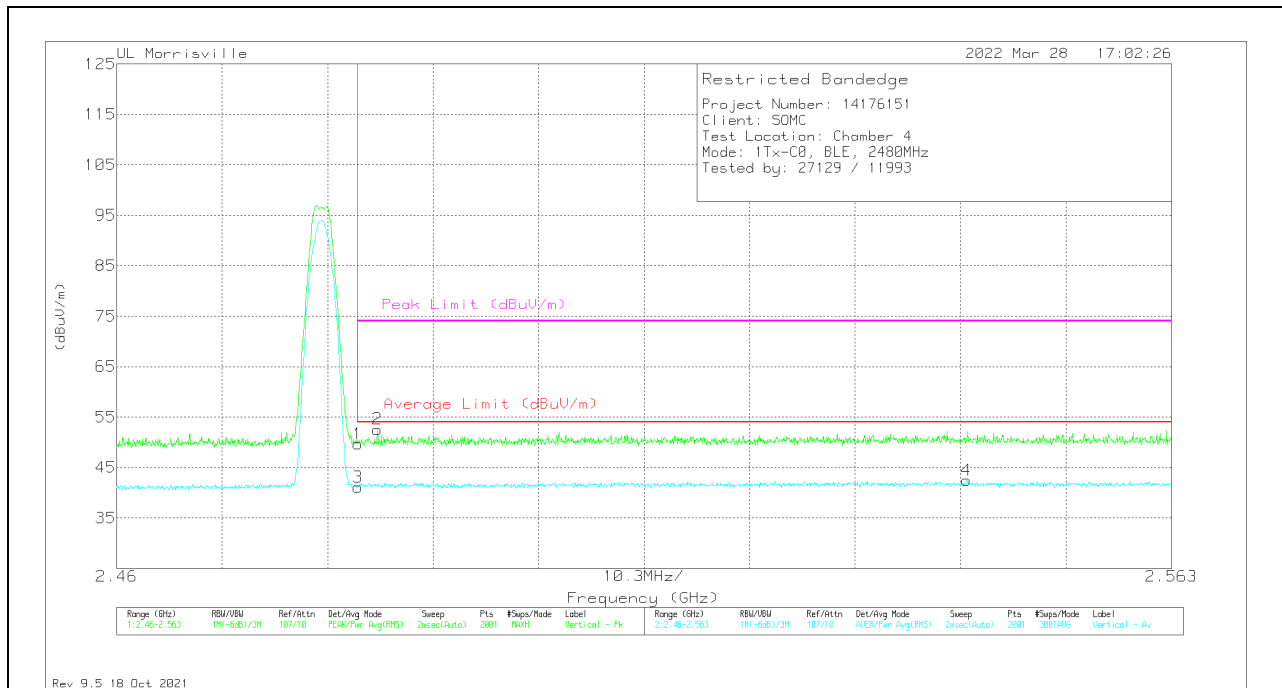
\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

RMS - RMS detection



### VERTICAL RESULT

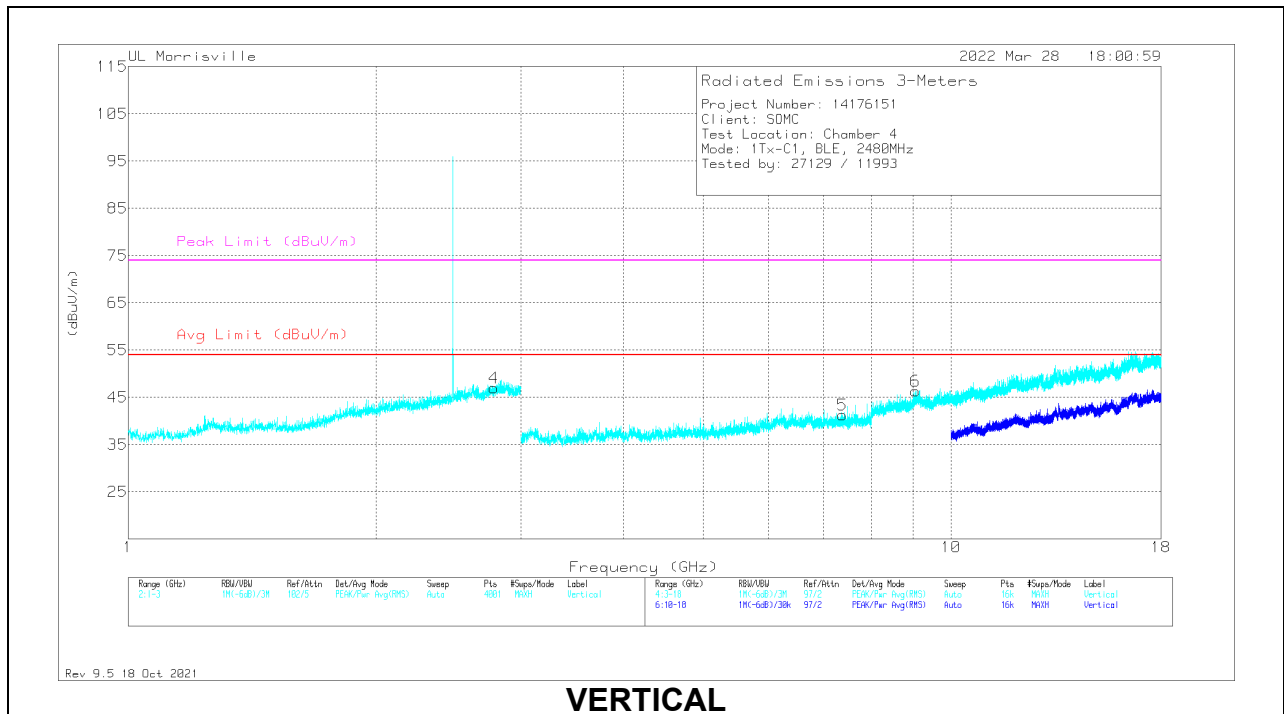
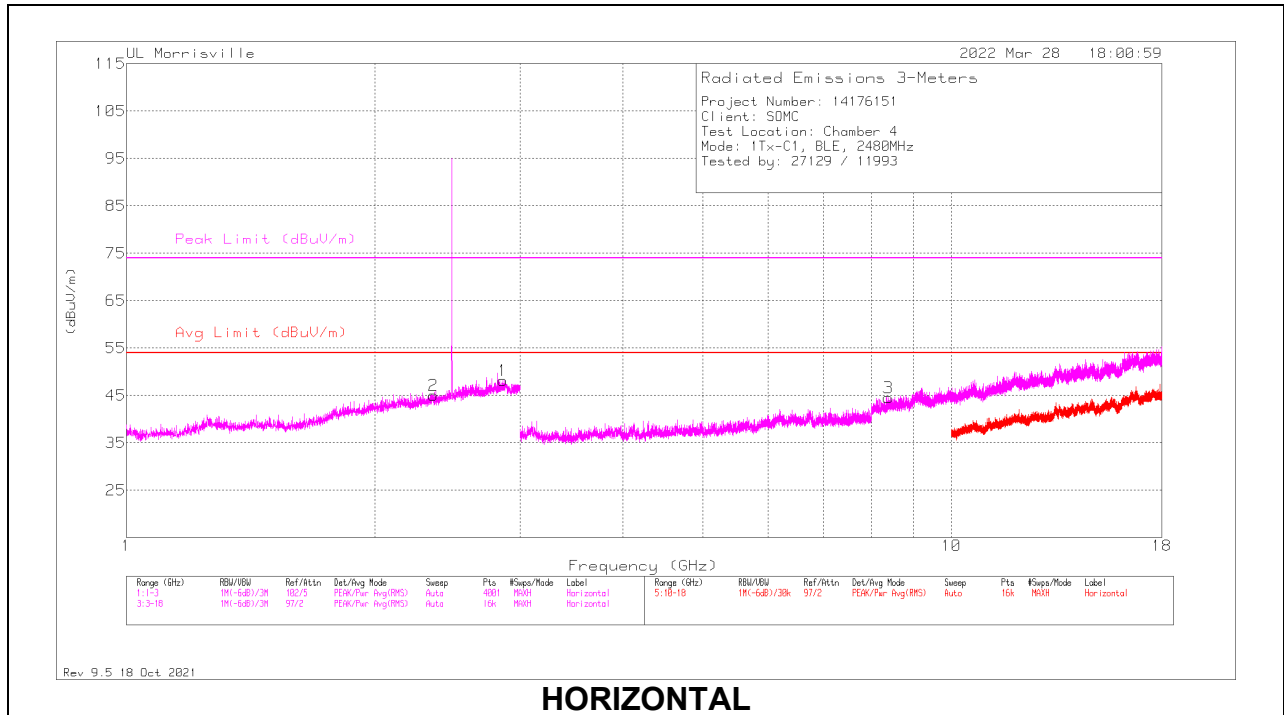


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.48354	31.15	Pk	32.2	-13.7	0	49.65	-	-	74	-24.35	325	290	V
2	* ** 2.48544	34.09	Pk	32.2	-13.7	0	52.59	-	-	74	-21.41	325	290	V
3	* ** 2.48354	20.22	RMS	32.2	-13.7	2.42	41.14	54	-12.86	-	-	325	290	V
4	** 2.54297	21.26	RMS	32.4	-13.6	2.42	42.48	54	-11.52	-	-	325	290	V

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 \*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band  
 Pk - Peak detector  
 RMS - RMS detection

# HARMONICS AND SPURIOUS EMISSIONS

## HIGH CHANNEL – CHAIN 1, 125Kbps



**RADIATED EMISSIONS**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 (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	*** 2.86484	24.63	PK2	32.4	-12.8	0	44.23	-	-	74	-29.77	76	113	H
	*** 2.86484	23.98	ADR	32.4	-12.8	0.11	43.69	54	-10.31	-	-	76	113	H
2	** 2.356	27.21	Pk	31.8	-13.9	0	45.11	54	-8.89	74	-28.89	0-360	100	H
4	*** 2.7835	27.85	Pk	32.3	-13.1	0	47.05	54	-6.95	74	-26.95	0-360	200	V
3	*** 8.38875	36.46	Pk	35.7	-27.6	0	44.56	54	-9.44	74	-29.44	0-360	100	H
5	*** 7.38	34.76	Pk	35.4	-28.9	0	41.26	54	-12.74	74	-32.74	0-360	200	V
6	*** 9.04969	35.77	Pk	36.1	-25.5	0	46.37	54	-7.63	74	-27.63	0-360	200	V

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

\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

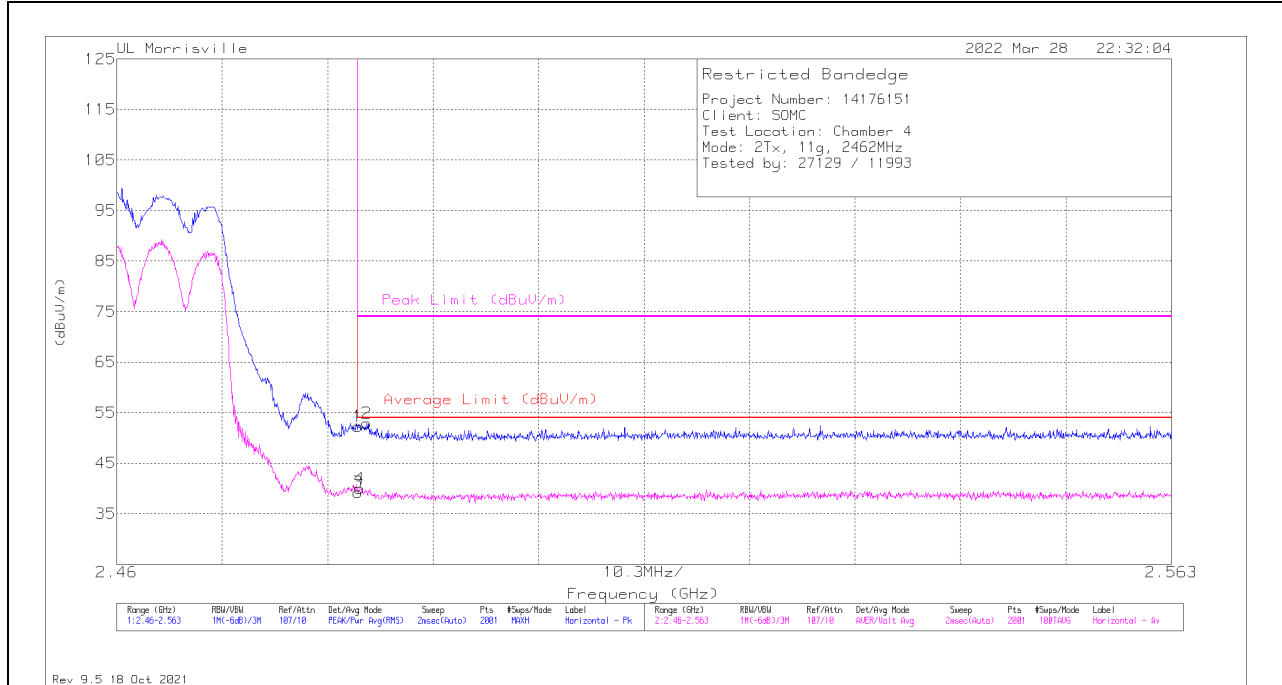
PK2 - Maximum Peak

ADR - RMS average

### 9.3. 2.4GHz WLAN

#### BANDEDGE (HIGH CHANNEL – 2TX, 802.11g)

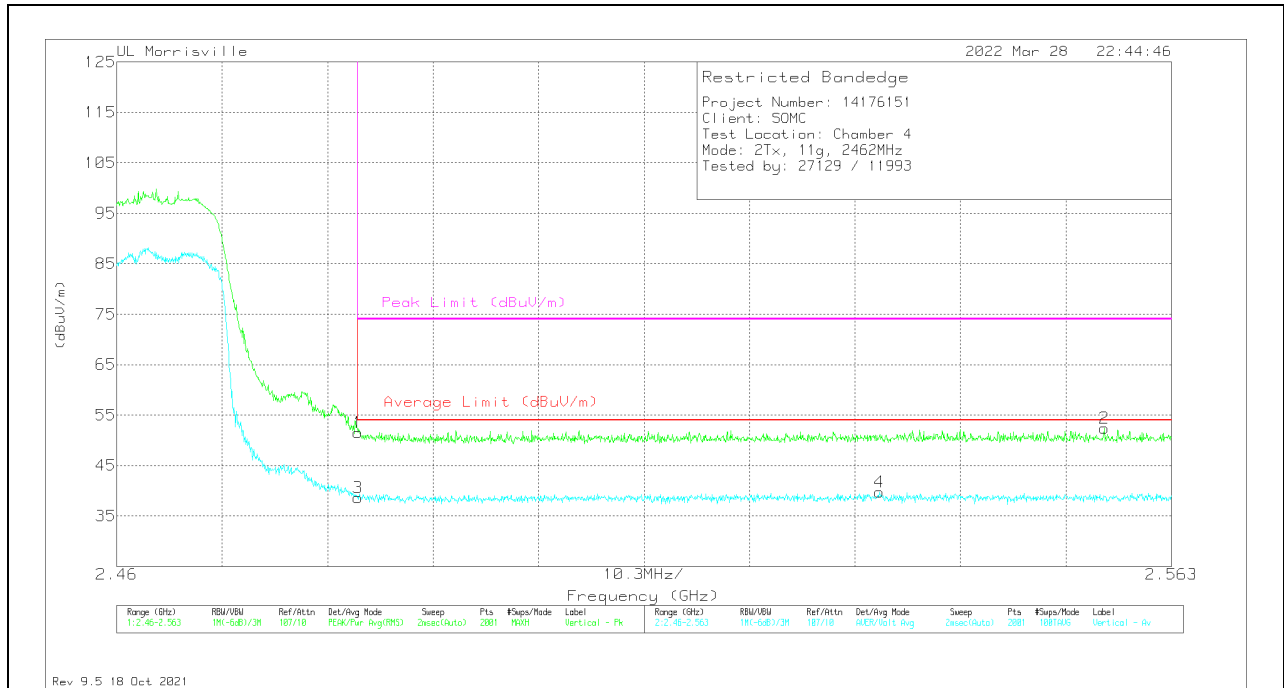
#### HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 (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	* ** 2.48354	33.83	Pk	32.2	-13.7	52.33	-	-	74	-21.67	51	123	H
2	* ** 2.48441	34.36	Pk	32.2	-13.7	52.86	-	-	74	-21.14	51	123	H
3	* ** 2.48354	20.77	ADV	32.2	-13.7	39.27	54	-14.73	-	-	51	123	H
4	* ** 2.48374	21.5	ADV	32.2	-13.7	40	54	-14	-	-	51	123	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	AT0069 (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	* ** 2.48354	33.07	Pk	32.2	-13.7	51.57	-	-	74	-22.43	53	233	V
2	** 2.55646	33.66	Pk	32.2	-13.5	52.36	-	-	74	-21.64	53	233	V
3	* ** 2.48354	20.14	ADV	32.2	-13.7	38.64	54	-15.36	-	-	53	233	V
4	** 2.53447	21.07	ADV	32.4	-13.7	39.77	54	-14.23	-	-	53	233	V

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

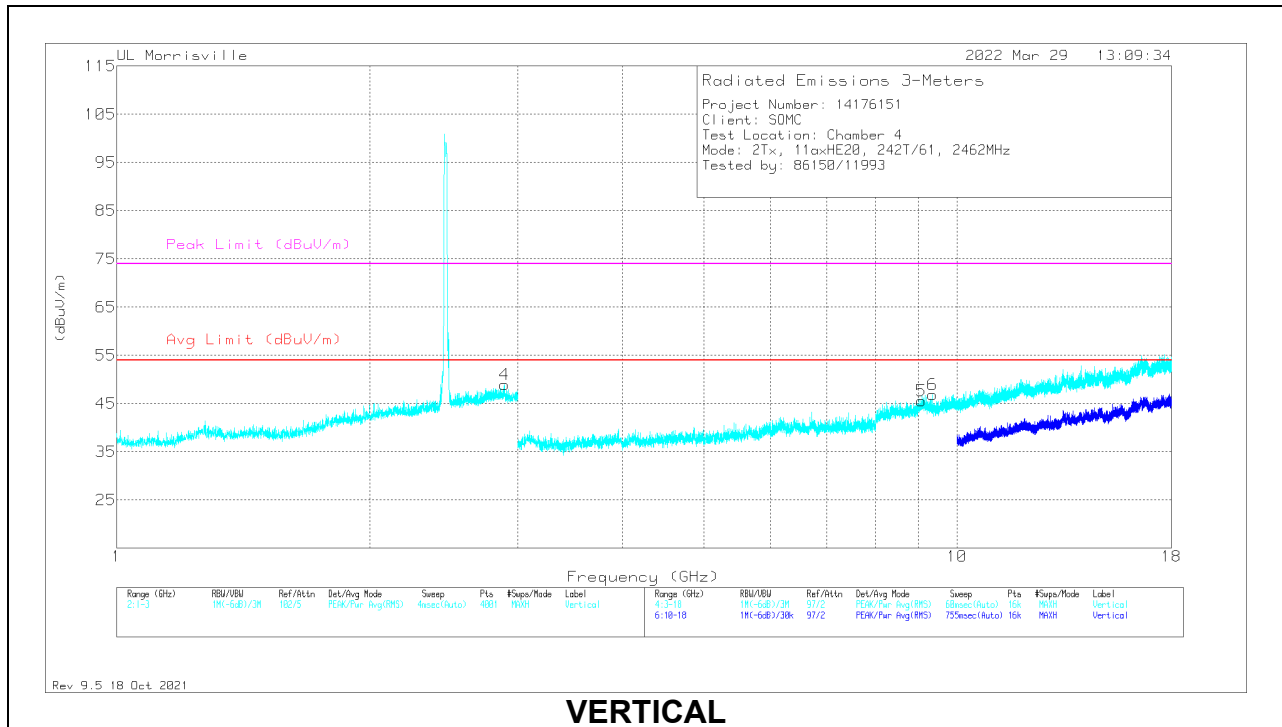
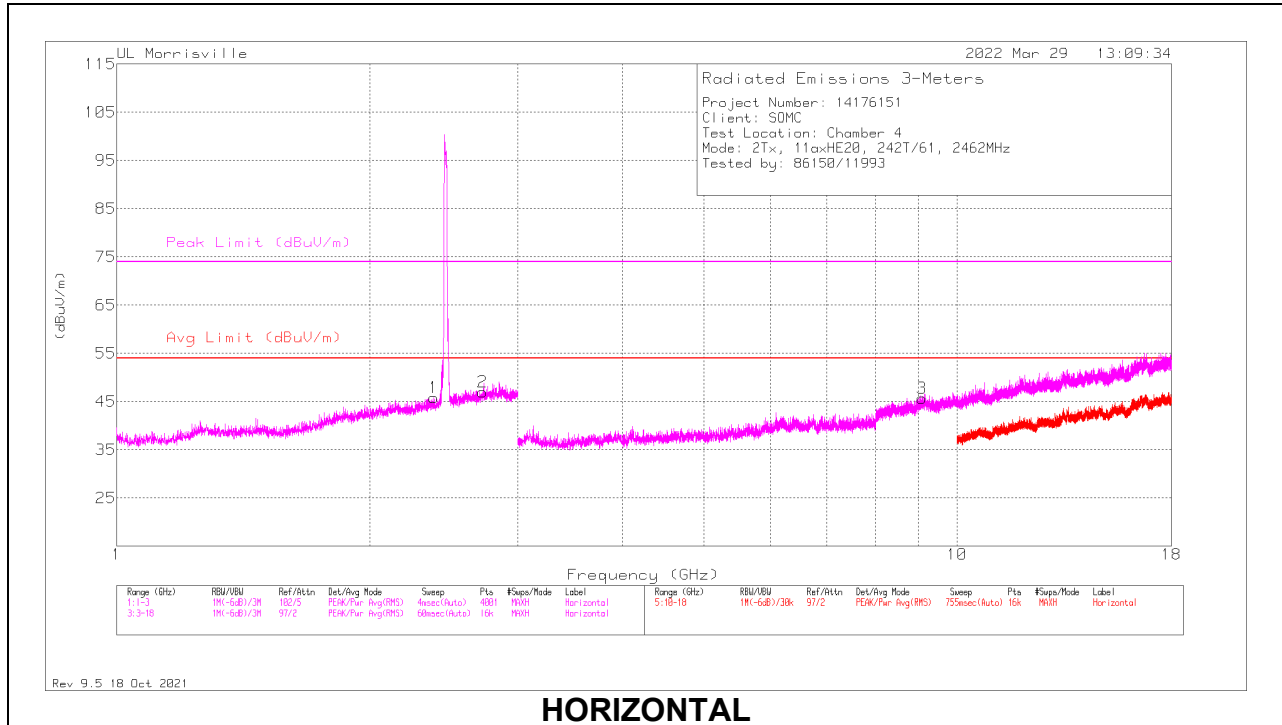
\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

### HARMONICS AND SPURIOUS EMISSIONS

#### HIGH CHANNEL 2TX, 802.11ax HE20 242T/RU61



**RADIATED EMISSIONS**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 2.3825	27.73	Pk	31.9	-13.8	0	45.83	54	-8.17	74	-28.17	0-360	100	H
2	*** 2.724	28.27	Pk	32	-13.3	0	46.97	54	-7.03	74	-27.03	0-360	100	H
4	*** 2.89842	29.13	PK2	32.3	-12.8	0	48.63	-	-	74	-25.37	18	400	V
	*** 2.89742	17.39	ADV	32.3	-12.8	0	36.89	54	-17.11	-	-	18	400	V
3	*** 9.08063	35.09	Pk	36.2	-25.6	0	45.69	54	-8.31	74	-28.31	0-360	100	H
5	*** 9.06656	34.84	Pk	36.2	-25.5	0	45.54	54	-8.46	74	-28.46	0-360	200	V
6	*** 9.35625	36.12	Pk	36.5	-25.8	0	46.82	54	-7.18	74	-27.18	0-360	200	V

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

\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

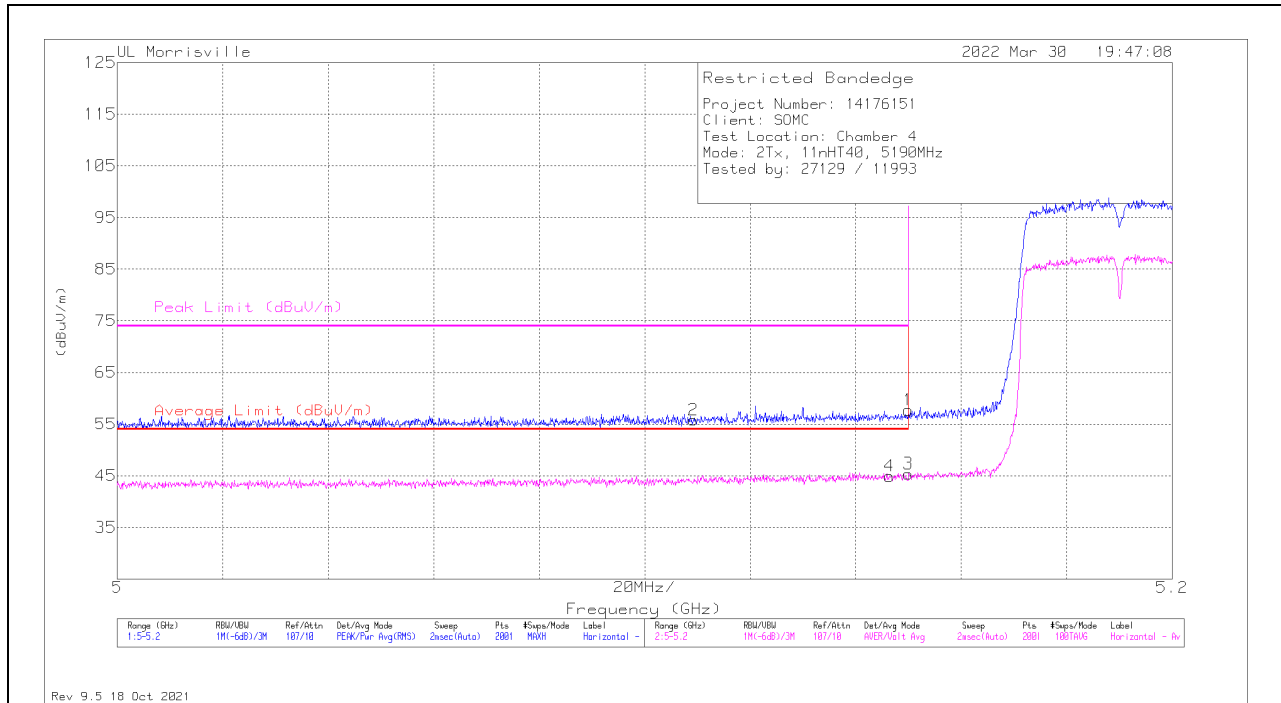
PK2 - Maximum Peak

ADV - Linear Voltage Average

### 9.4. 5GHz WLAN

#### BANDEDGE (5.2 BAND LOW CHANNEL – 2TX, 802.11n HT40)

#### HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 (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	*** 5.15	34.01	Pk	34	-10.3	57.71	-	-	74	-16.29	353	100	H
2	*** 5.1092	32.17	Pk	33.9	-10.3	55.77	-	-	74	-18.23	353	100	H
3	*** 5.15	21.67	ADV	34	-10.3	45.37	54	-8.63	-	-	353	100	H
4	*** 5.1464	21.22	ADV	34	-10.3	44.92	54	-9.08	-	-	353	100	H

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

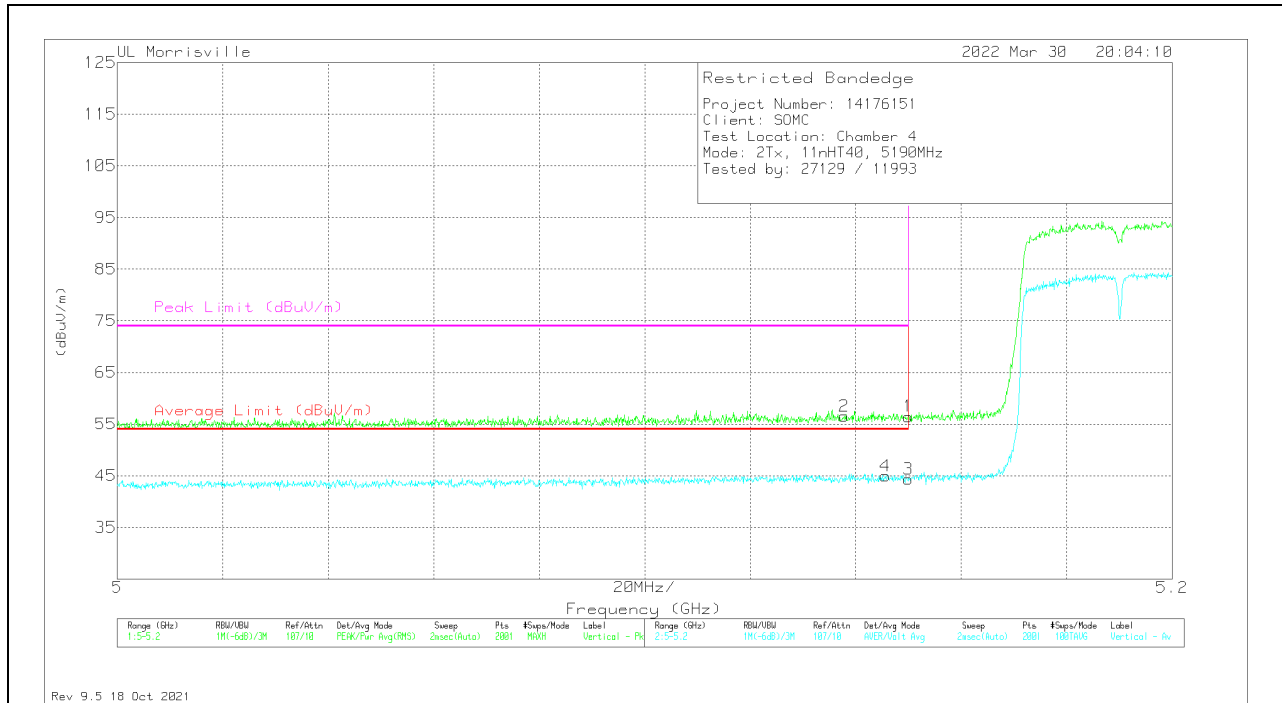
\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average



### VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 (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	*** 5.15	32.77	Pk	34	-10.3	56.47	-	-	74	-17.53	24	369	V
2	*** 5.1378	32.71	Pk	34	-10.2	56.51	-	-	74	-17.49	24	369	V
3	** 5.15	20.62	ADV	34	-10.3	44.32	54	-9.68	-	-	24	369	V
4	*** 5.1456	21.24	ADV	34	-10.3	44.94	54	-9.06	-	-	24	369	V

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

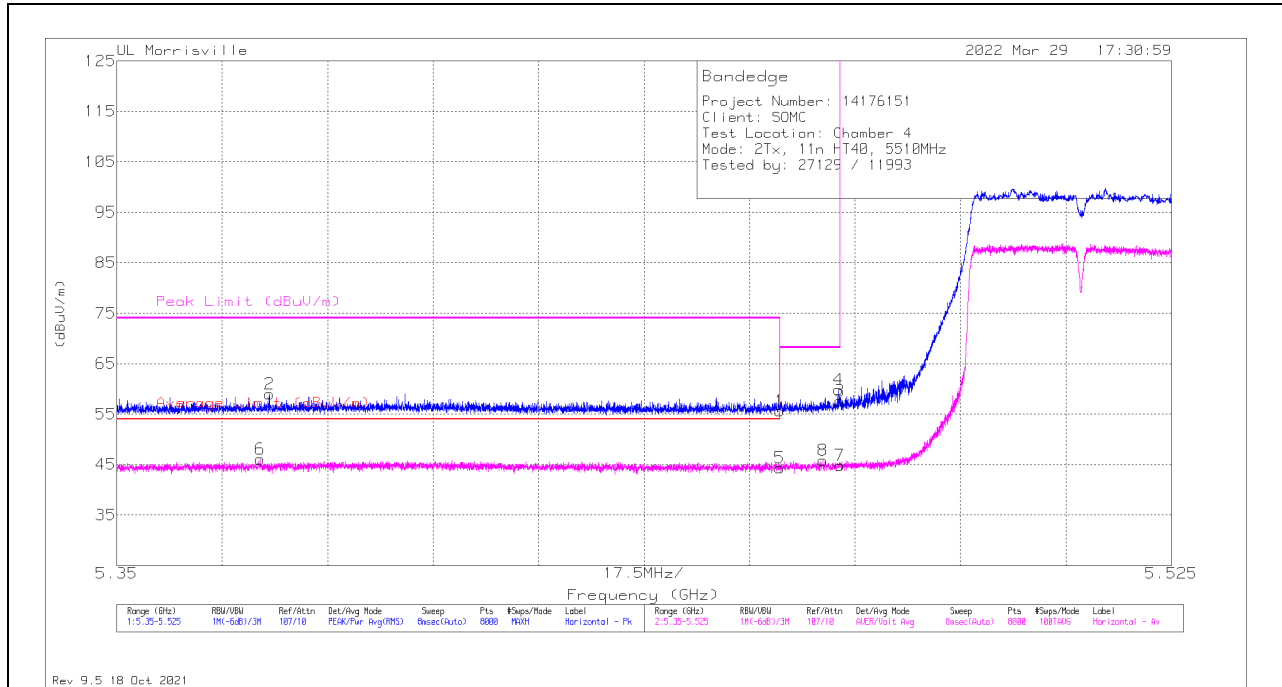
\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

**BANDEDGE (5.6 BAND LOW CHANNEL – 2TX, 802.11nHT40)**

**HORIZONTAL RESULT**



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 (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	*** 5.45998	30.95	Pk	34.4	-9.7	55.65	-	-	74	-18.35	336	100	H
2	*** 5.37531	34.76	Pk	34.3	-10.1	58.96	-	-	74	-15.04	336	100	H
5	*** 5.45998	19.61	ADV	34.4	-9.7	44.31	54	-9.69	-	-	336	100	H
6	*** 5.37383	21.89	ADV	34.3	-10.1	46.09	54	-7.91	-	-	336	100	H
8	5.46716	21.1	ADV	34.4	-9.7	45.8	-	-	-	-	336	100	H
4	5.46983	35.14	Pk	34.4	-9.7	59.84	-	-	68.2	-8.36	336	100	H
3	5.46998	32.93	Pk	34.4	-9.7	57.63	-	-	68.2	-10.57	336	100	H
7	5.46998	20.15	ADV	34.4	-9.7	44.85	-	-	-	-	336	100	H

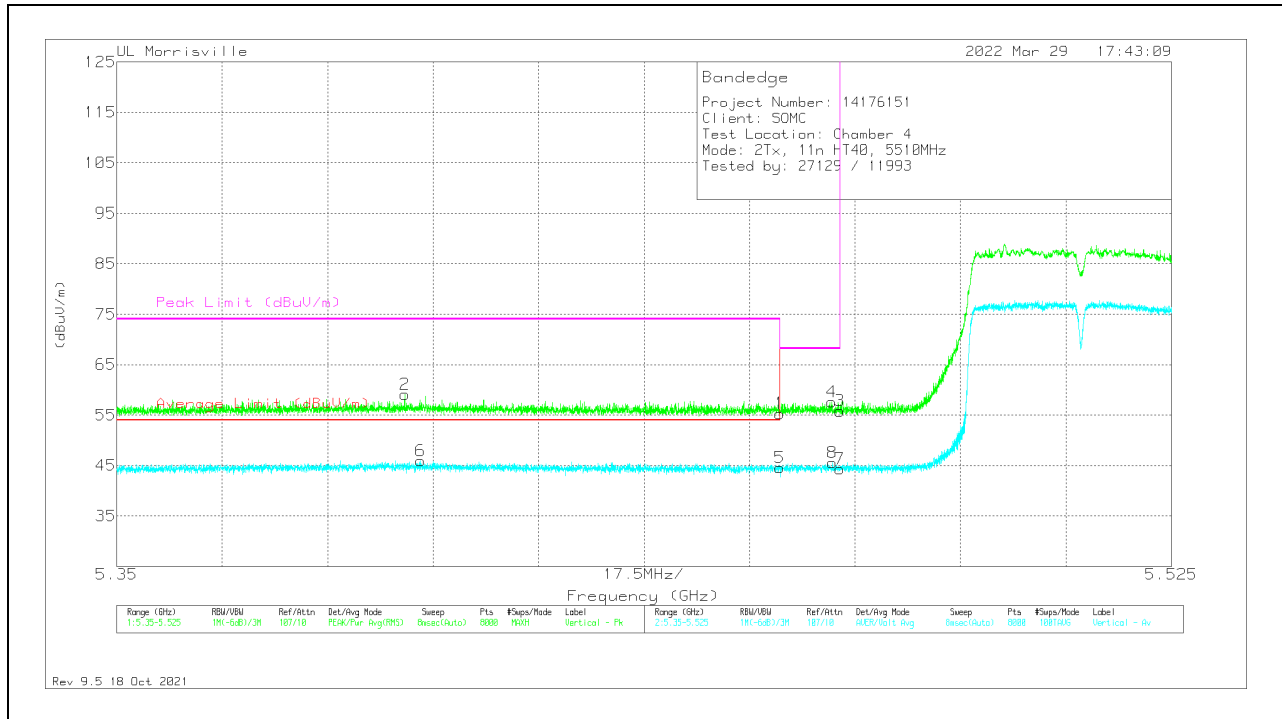
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

### VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 (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	* ** 5.45998	30.62	Pk	34.4	-9.7	55.32	-	-	74	-18.68	336	110	V
2	* ** 5.39778	34.55	Pk	34.3	-9.8	59.05	-	-	74	-14.95	336	110	V
5	* ** 5.45998	19.88	ADV	34.4	-9.7	44.58	54	-9.42	-	-	336	110	V
6	* ** 5.40039	21.31	ADV	34.4	-9.8	45.91	54	-8.09	-	-	336	110	V
4	5.4686	32.88	Pk	34.4	-9.7	57.58	-	-	68.2	-10.62	336	110	V
8	5.46875	20.83	ADV	34.4	-9.7	45.53	-	-	-	-	336	110	V
3	5.46998	31.12	Pk	34.4	-9.7	55.82	-	-	68.2	-12.38	336	110	V
7	5.46998	19.59	ADV	34.4	-9.7	44.29	-	-	-	-	336	110	V

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

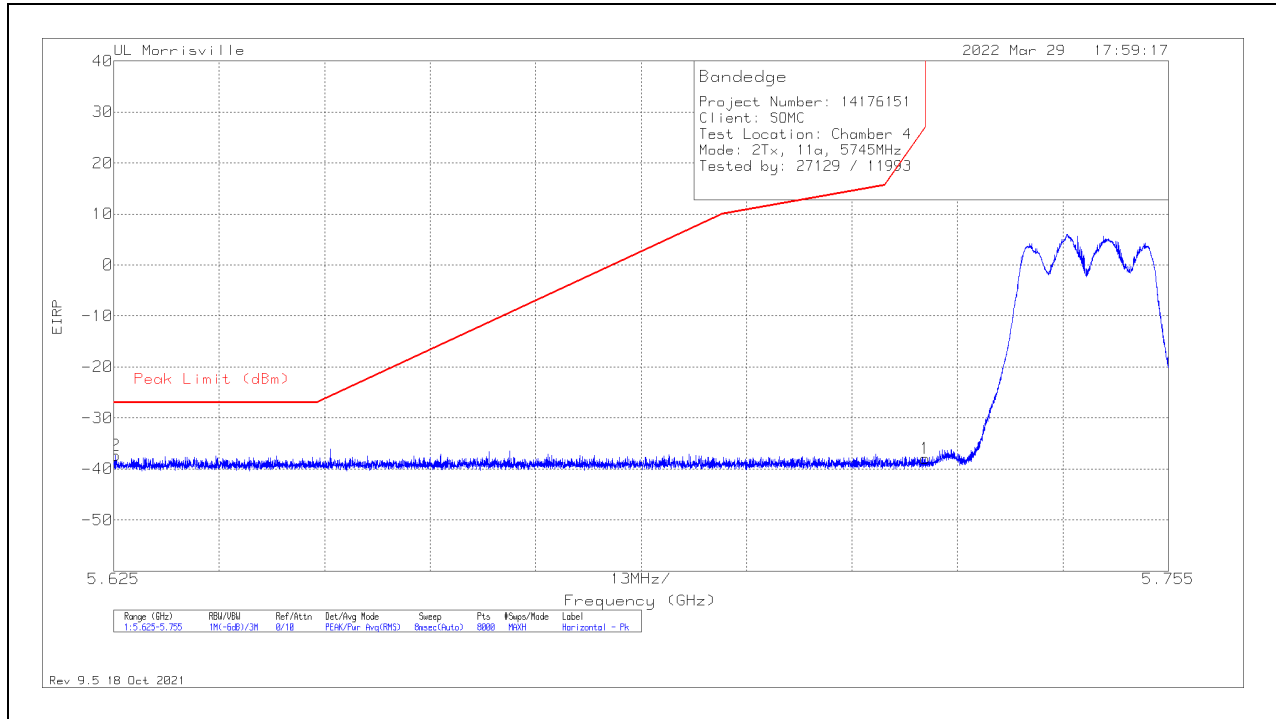
\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

**BANDEDGE (5.8 BAND LOW CHANNEL – 2TX, 802.11a)**

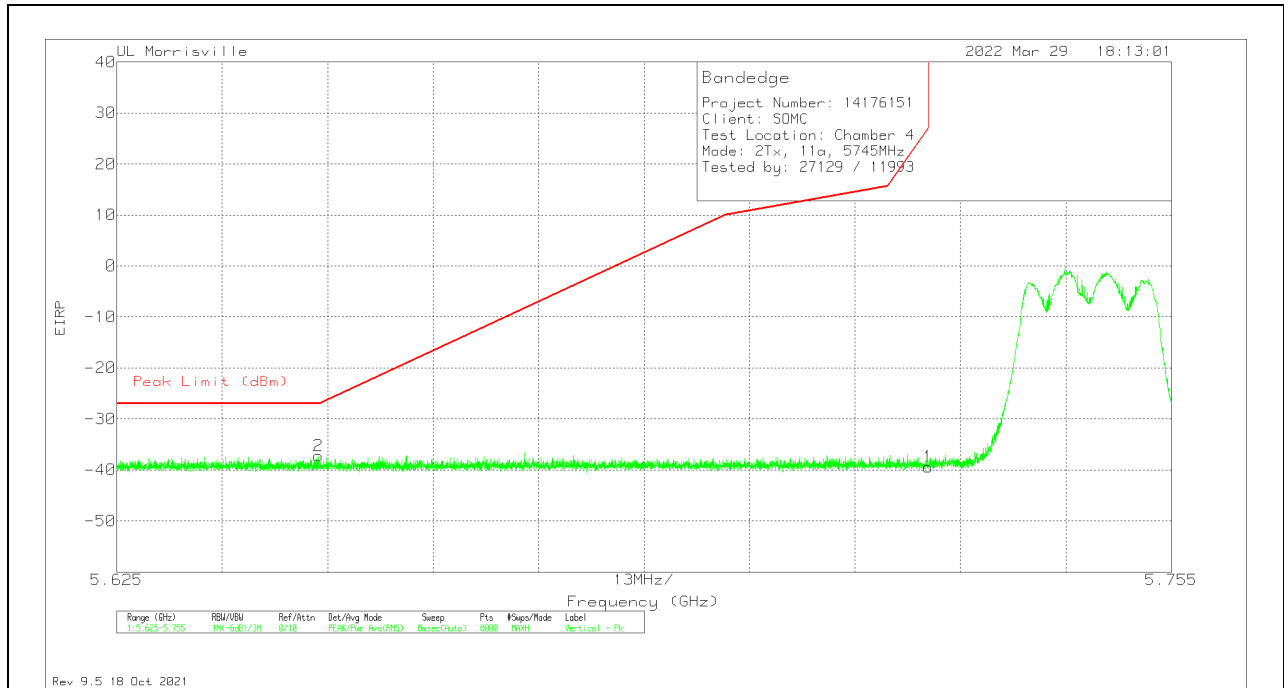
**HORIZONTAL RESULT**



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0069 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.6252	-74.01	Pk	34.4	-9.5	11.8	-37.31	-27	-10.31	332	100	H
1	5.725	-74.9	Pk	34.5	-9.4	11.8	-38	27	-65	332	100	H

Pk - Peak detector

### VERTICAL RESULT

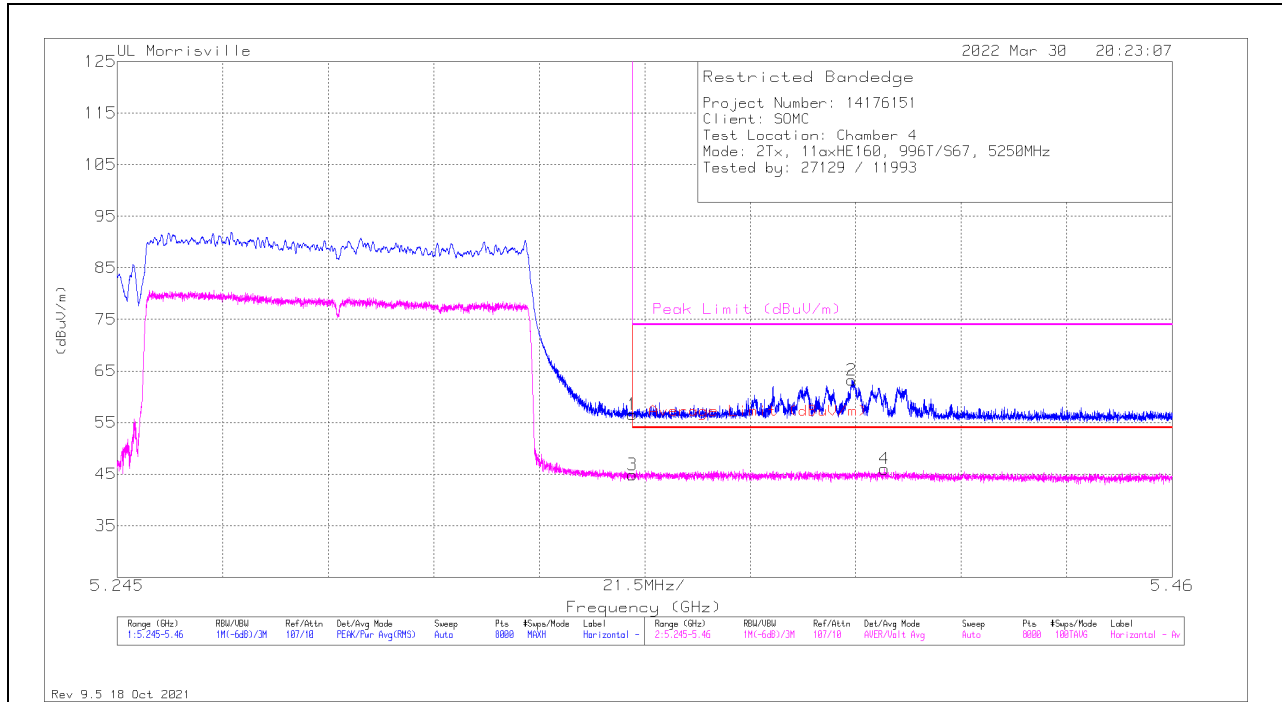


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0069 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.6499	-74.07	Pk	34.5	-9.5	11.8	-37.27	-27	-10.27	28	316	V
1	5.725	-76.27	Pk	34.5	-9.4	11.8	-39.37	27	-66.37	28	316	V

Pk - Peak detector

**BANDEDGE (5.2 BAND HIGH CHANNEL – 2TX, 802.11ax HE160 996T/RUS67)**

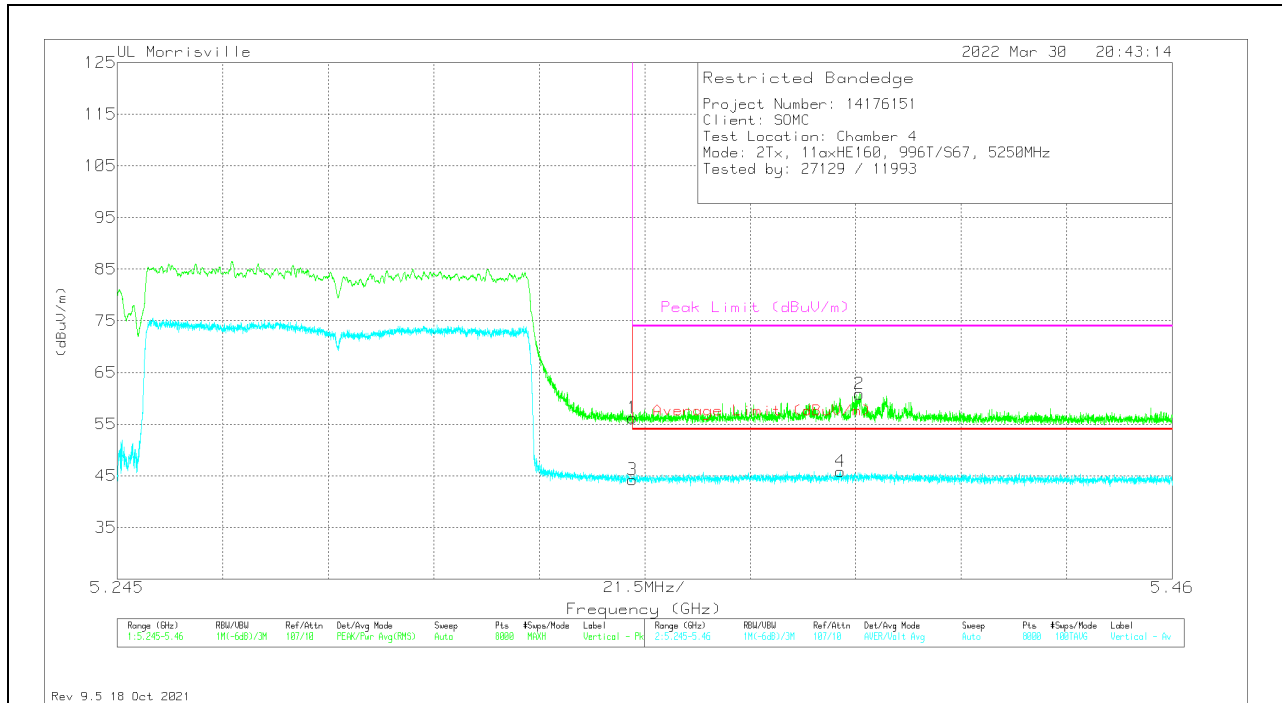
**HORIZONTAL RESULT**



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0069 (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	*** 5.35001	32.44	Pk	34.2	-10.1	56.54	-	-	74	-17.46	345	236	H
2	*** 5.39471	38.8	Pk	34.3	-9.9	63.2	-	-	74	-10.8	345	236	H
3	*** 5.35001	20.77	ADV	34.2	-10.1	44.87	54	-9.13	-	-	345	236	H
4	*** 5.40138	21.42	ADV	34.4	-9.8	46.02	54	-7.98	-	-	345	236	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	AT0069 (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	*** 5.35001	32.1	Pk	34.2	-10.1	56.2	-	-	74	-17.8	9	210	V
2	*** 5.39619	36.37	Pk	34.3	-9.8	60.87	-	-	74	-13.13	9	210	V
3	*** 5.35001	20.14	ADV	34.2	-10.1	44.24	54	-9.76	-	-	9	210	V
4	*** 5.3924	21.45	ADV	34.3	-9.9	45.85	54	-8.15	-	-	9	210	V

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

\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

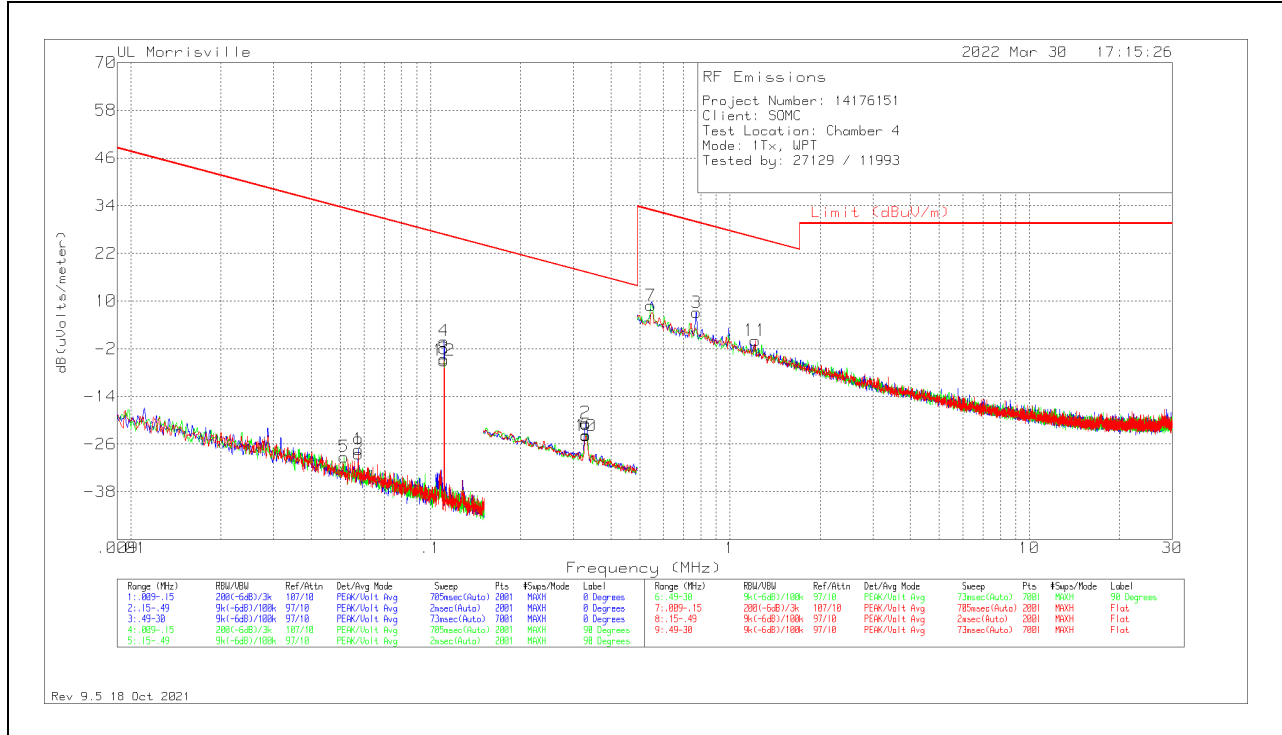
Pk - Peak detector

ADV - Linear Voltage Average

### 9.5. WPT

## HARMONICS AND SPURIOUS EMISSIONS – CONFIG 1

### 0.009 to 30MHz



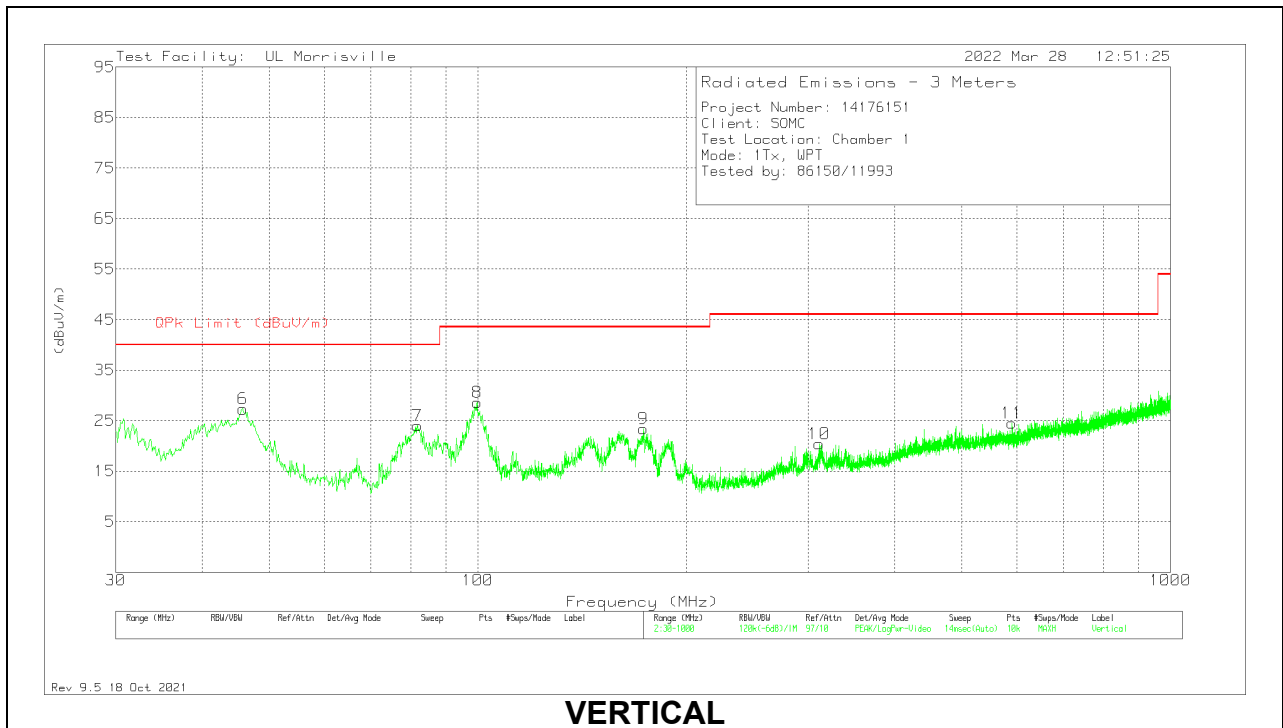
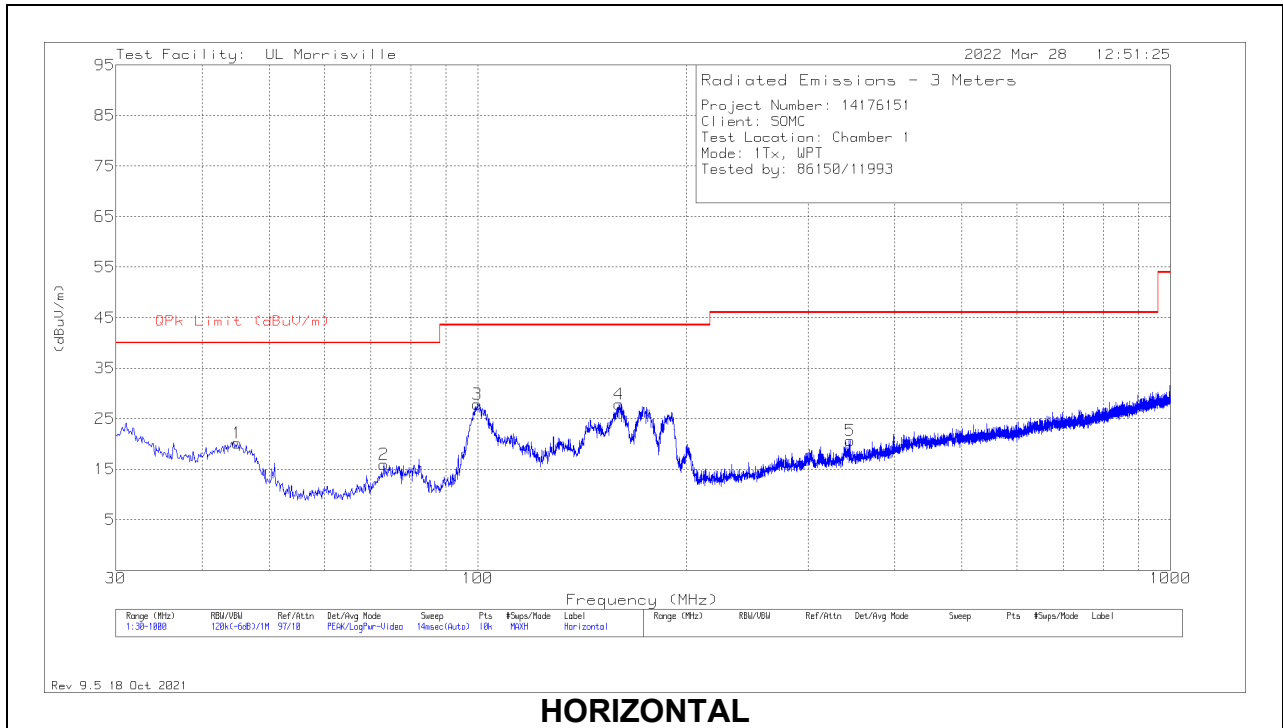
## RADIATED EMISSIONS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AT0079 (dB/m)	Cbl (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Loop Angle
5	.05139	38.92	Pk	11.8	.1	-80	-29.18	33.39	-62.57	0-360	90 degs
1	.05742	40.9	Pk	11.7	.1	-80	-27.3	32.42	-59.72	0-360	0 degs
9	.05742	39.8	Pk	11.7	.1	-80	-28.4	32.42	-60.82	0-360	Flat
12	.1115	28.93	Pk	11.4	.1	-80	-39.57	26.66	-66.23	72	Flat
	.1115	20.84	Av	11.4	.1	-80	-47.66	26.66	-74.32	72	Flat
4	.11138	30.52	Pk	11.4	.1	-80	-37.98	26.67	-64.65	261	0 degs
	.11138	23.38	Av	11.4	.1	-80	-45.12	26.67	-71.79	261	0 degs
8	.11036	64.08	Pk	11.4	.1	-80	-4.42	26.75	-31.17	153	90 degs
	.11036	63.89	Av	11.4	.1	-80	-4.61	26.75	-31.36	153	90 degs
2	.32969	48.04	Pk	11.2	.1	-80	-20.66	17.24	-37.9	0-360	0 degs
6	.33054	45.05	Pk	11.2	.1	-80	-23.65	17.22	-40.87	0-360	90 degs
10	.33063	44.82	Pk	11.2	.1	-80	-23.88	17.22	-41.1	0-360	Flat
7	.54481	37.47	Pk	11.2	.2	-40	8.87	32.88	-24.01	0-360	90 degs
3	.77247	35.61	Pk	11.3	.2	-40	7.11	29.85	-22.74	0-360	0 degs
11	1.21515	28.57	Pk	11.3	.2	-40	.07	25.91	-25.84	0-360	Flat

Pk - Peak detector



**30 to 1000MHz**



**RADIATED EMISSIONS**

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AT0066 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	44.938	35.08	Pk	16.2	-31.1	20.18	40	-19.82	0-360	300	H
6	45.7625	42.81	Pk	15.7	-31.2	27.31	40	-12.69	0-360	100	V
2	73.165	32.57	Pk	14.2	-30.8	15.97	40	-24.03	0-360	200	H
7	81.798	41.2	Pk	13.3	-30.5	24	40	-16	0-360	100	V
8	99.743	42.88	Pk	16.1	-30.4	28.58	43.52	-14.94	0-360	100	V
3	99.84	42.1	Pk	16.2	-30.4	27.9	43.52	-15.62	0-360	300	H
4	159.98	39.63	Pk	18	-29.8	27.83	43.52	-15.69	0-360	300	H
9	173.463	35.44	Pk	17.4	-29.5	23.34	43.52	-20.18	0-360	100	V
10	311.009	29.13	Pk	19.7	-28.4	20.43	46.02	-25.59	0-360	100	V
5	344.474	28.85	Pk	19.9	-28.1	20.65	46.02	-25.37	0-360	100	H
11	590.757	27.31	Pk	24.1	-26.9	24.51	46.02	-21.51	0-360	100	V

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

\*\* - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

## 10. SETUP PHOTOS

Refer to R14176151-EP2V1 for setup photos.

**END OF REPORT**