

TEST REPORT

Report Number: R14720543-E1

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

Model : SM-X710

FCC ID : A3LSMX710

IC : 649E-SMX710

EUT Description : BT/BLE Tablet + DTS/UNII a/b/g/n/ac/ax and WPT

Test Standard(s) : FCC 47 CFR PART 15 SUBPART C, E: 2023
ISED RSS-247 ISSUE 2: 2020
ISED RSS-GEN ISSUE 5 + A1 + A2: 2021

Date Of Issue:

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REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	2023-05-18	Initial Issue	Charles Moody

TABLE OF CONTENTS

REVISION HISTORY	2
TABLE OF CONTENTS	3
1. ATTESTATION OF TEST RESULTS.....	4
2. TEST RESULTS SUMMARY	5
3. TEST METHODOLOGY	5
4. FACILITIES AND ACCREDITATION.....	5
5. DECISION RULES AND MEASUREMENT UNCERTAINTY.....	6
5.1. METROLOGICAL TRACEABILITY	6
5.2. DECISION RULES	6
5.3. MEASUREMENT UNCERTAINTY	6
5.4. SAMPLE CALCULATION.....	6
6. EQUIPMENT UNDER TEST	7
6.1. DESCRIPTION OF EUT.....	7
6.2. WORST-CASE CONFIGURATION AND MODE.....	7
6.3. DESCRIPTION OF TEST SETUP.....	8
7. REUSE OF TEST DATA	9
7.1. INTRODUCTION	9
7.2. DEVICES DIFFERENCES	9
7.3. REFERENCE DETAIL.....	9
7.4. SPOT CHECK VERIFICATION RESULTS SUMMARY	10
8. TEST AND MEASUREMENT EQUIPMENT	11
9. ON TIME AND DUTY CYCLE	12
10. SPOT CHECK DATA.....	17
10.1. 2.4GHz WLAN	18
10.2. 5GHz WLAN	22
10.3. 6GHz WLAN	32
11. SETUP PHOTOS	36

1. ATTESTATION OF TEST RESULTS

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

EUT DESCRIPTION: BT/BLE Tablet + DTS/UNII a/b/g/n/ac/ax and WPT

MODEL: SM-X710

SERIAL NUMBER: R32W2005ASM

SAMPLE RECEIPT DATE: 2023-03-24

DATE TESTED: 2023-04-27 TO 2023-05-04

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
47 CFR Part 15 Subpart C, E: 2023	Complies
ISED RSS-247 Issue 2: 2020	Complies
ISED RSS-GEN Issue 5 + A1 + A2: 2021	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.

Approved & Released For
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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	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	Radiated spot checks performed to justify data reuse.
15.247 (a) (2)	RSS-247 5.2 (a)	6dB BW		
15.247 (b) (3)	RSS-247 5.4 (d)	Output Power		
15.247 (e)	RSS-247 5.2 (b)	PSD		
15.247 (d)	RSS-247 5.5	Conducted Spurious Emissions		
15.207	RSS-Gen 8.8	AC Mains Conducted Emissions	See Comment	Radiated spot checks performed on worst-case channels only to justify data reuse.
15.209, 15.205	RSS-GEN 8.9, 8.10	Radiated Emissions		

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC 47 CFR Part 2, FCC 47 CFR Part 15, ANSI C63.10-2013, KDB 558074 D01 15.247 Meas Guidance v05r02, KDB 414788 D01 Radiated Test Site v01r01, RSS-GEN Issue 5 + A1 + A2, and RSS-247 Issue 2

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
☐	Building: 12 Laboratory Dr RTP, NC 27709, U.S.A	US0067	2180C	825374
☒	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 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 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

6. EQUIPMENT UNDER TEST

6.1. DESCRIPTION OF EUT

The EUT is a BT/BLE Tablet + DTS/UNII a/b/g/n/ac/ax and WPT.

6.2. WORST-CASE CONFIGURATION AND MODE

Band edge and radiated emissions between 1GHz and 18 GHz were performed with the EUT set to transmit at the worst-case channels and data rates based on the reports of an electrically identical model (see section 7 for data reuse information).

The antenna of the EUT was investigated in three orthogonal orientations X/Y/Z. See the table below for WC Orientations.

Technology	Orientation
2.4 WLAN	Y
5 WLAN	X
6 WLAN	Y

The Worst-Case scenarios for 1-18GHz are as follows:

Technology	Test Type	Frequency (MHz)	Mode	Data Rate	Chain
2.4 WLAN (DTS)	Band Edge	2417	HE20 242T/RU61	MCS0	MIMO
	RSE	2412	11g	6Mbps	MIMO
5 WLAN (UNII)	5.2 Band Edge	5190	HE40 484T/RU65	MCS0	MIMO
	5.3 Band Edge	5290	11ac VHT80	MCS0	MIMO
	5.6 Band Edge	5500	HE20 242T/RU61	MCS0	MIMO
	5.8 Band Edge	5885	HE20 106T/RU54	MCS0	MIMO
	RSE	5500	HE20 106T/RU53	MCS0	MIMO
6 WLAN (UNII)	Band Edge	5955	HE20 26T/RU0	MCS0	MIMO
	RSE	6145	HE80 996T/RU67	MCS0	MIMO

6.3. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	Samsung	EP-TA800	R37TCCJ49LASEA	-

I/O CABLES

I/O Cable List						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	Charging	1	USB C to USB A	Shielded	<3m	Used to charge the device

TEST SETUP

The EUT is configured to the desired settings prior to testing, using the built-in application on the EUT.

SETUP DIAGRAMS

Refer to R14720543-EP1 for setup diagrams.

7. REUSE OF TEST DATA

7.1. INTRODUCTION

According to the manufacturer, FCC ID: A3LSMX710 and FCC ID: A3LSMX716B unlicensed radios (WLAN) are electrically identical. The FCC ID: A3LSMX716B test data shall remain representative of FCC ID: A3LSMX710 so, FCC ID: A3LSMX710 leverages test data from FCC ID: A3LSMX716B.

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 A3LSMX710 and A3LSMX716B:

Samsung Electronics Co., Ltd. hereby declares that the hardware of WLAN 2.4GHz, WLAN 5GHz, WLAN 6GHz, and Bluetooth is identical among A3LSMX716B and A3LSMX710. The hardware changes between the models are related to the cellular radio. The output power for Bluetooth is different between the two models. Therefore, the following WLAN reports for A3LSMX716B may be used to represent A3LSMX710.

7.3. REFERENCE DETAIL

Equipment Class	Reference FCC ID	Report Title/Section
DTS (WLAN)	A3LSMX716B	R14720550-E1a FCC ISED DTS 802.11 non-ax WLAN REPORT - FINAL / All sections R14720550-E1b FCC ISED DTS 802.11ax WLAN REPORT - FINAL / All sections
NII (WLAN)	A3LSMX716B	R14720550-E2a FCC ISED 5.2-5.9GHz WLAN WLAN REPORT - FINAL / All sections R14720550-E3 FCC ISED 6GHz WLAN WLAN REPORT - FINAL / All sections
6CD (WLAN)	A3LSMX716B	R14720550-E3 all sections Note: Contention Based Protocol testing performed on A3LSMX710

7.4. SPOT CHECK VERIFICATION RESULTS SUMMARY

Spot check verification has been done on device A3LSMX710 for radiated spurious. The data from the application has been verified through appropriate spot checks to demonstrate compliance for this device as shown in the summary.

A3LSMX710 SPOT CHECK RESULTS									
Technology	Test Item	Channel	Measured Frequency (MHz)	A3LSMX716B		A3LSMX710		Delta (dB) <+3dB	
				PK Reading (dBuV/m)	AV Reading (dBuV/m)	PK Reading (dBuV/m)	AV Reading (dBuV/m)	PK	AV
2.4GHz WLAN (HE20)	RBE	2	2390	71.18	46.51	70.58	46.75	-0.60	0.24
2.4GHz WLAN (11g)	RSE	1	1948	51.58	38.32	45.59	33.39	-5.99	-4.93
5GHz WLAN (HE40)	RBE	38	5140	71.74	47.19	61.32	40.14	-10.42	-7.05
5GHz WLAN (11ac VHT80)	RBE	58	5350	63.61	50.62	66.07	51.58	2.46	0.96
5GHz WLAN (HE20)	RBE	100	5470	65.91	39.50	65.89	38.69	-0.02	-0.81
	RSE	100	7692	52.29	40.18	53.18	42.41	0.89	2.23
	RBE	177	5895	4.78 (EIRP)	-8.24 (EIRP)	2.88 (EIRP)	-11.00 (EIRP)	-1.90	-2.76
6GHz WLAN (HE20)	RBE	1	5925	-38.6 (EIRP)	-49.16 (EIRP)	-37.79 (EIRP)	-48.76 (EIRP)	0.81	0.4
6GHz (HE80)	RSE	39	8193	53.25	49.4	51.13	47.28	-2.12	-2.12

8. TEST AND MEASUREMENT EQUIPMENT

Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville – Chamber 2)

Equip. ID	Description	Manufacturer/Brand	Model Number	Last Cal.	Next Cal.
	1-18 GHz				
88761	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2022-09-13	2023-09-13
	Gain-Loss Chains				
91977	Gain-loss string: 1-18GHz	Various	Various	2022-05-10	2023-05-31
	Receiver & Software				
197955	Spectrum Analyzer	Rohde & Schwarz	ESW44	2023-04-10	2024-04-10
SOFTEMI	EMI Software	UL	Version 9.5 (18 Oct 2021)		
	Additional Equipment used				
200540	Environmental Meter	Fisher Scientific	15-077-963 s/n 181474409	2022-10-05	2023-10-05

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

Equip. ID	Description	Manufacturer/Brand	Model Number	Last Cal.	Next Cal.
	1-18 GHz				
86408	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2022-05-24	2023-05-24
	Gain-Loss Chains				
207640	Gain-loss string: 1-18GHz	Various	Various	2022-05-20	2023-05-31
	Receiver & Software				
206496	Spectrum Analyzer	Rohde & Schwarz	ESW44	2023-03-24	2024-03-24
SOFTEMI	EMI Software	UL	Version 9.5 (18 Oct 2021)		
	Additional Equipment used				
21642	Environmental Meter	Fisher Scientific	15-077-963 (s/n 210701692)	2021-08-16	2023-08-16

9. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

PROCEDURE

KDB 558074 D01 Zero-Span Spectrum Analyzer Method.
KDB 789033 Zero-Span Spectrum Analyzer Method.

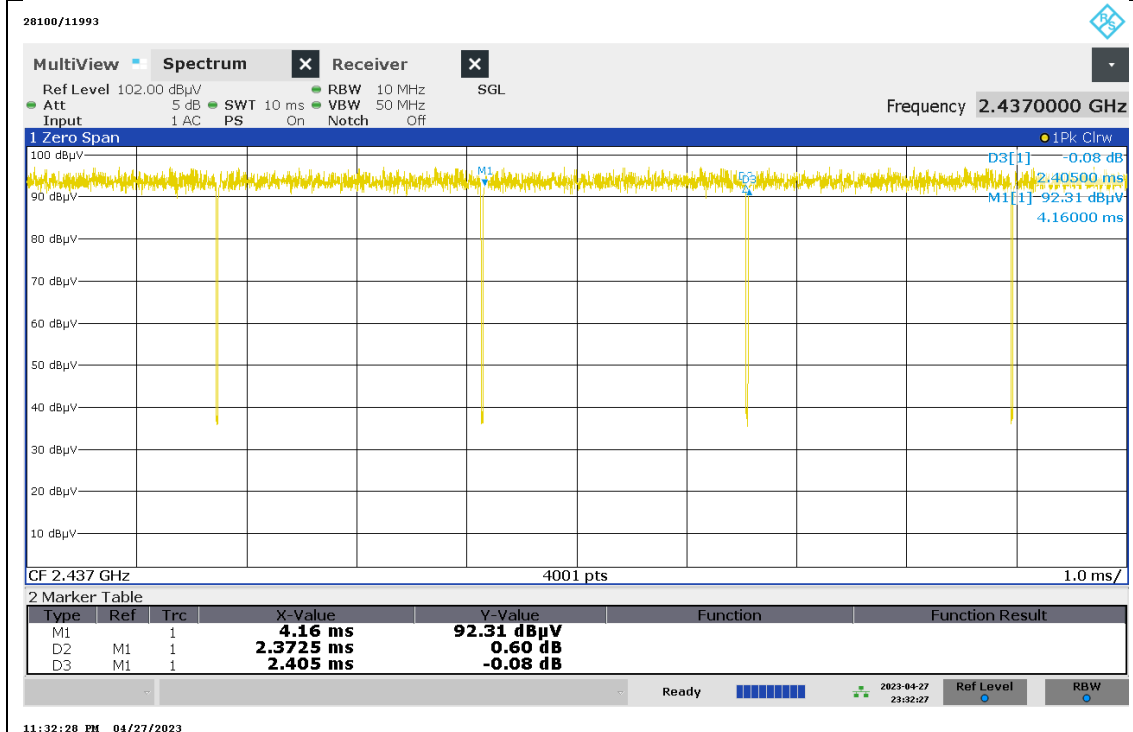
ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
2.4 WLAN DTS						
802.11g 6Mbps	1.4525	1.5700	0.925	92.52%	0.68	0.688
802.11ax HE20	2.3725	2.4050	0.986	98.65%	0.00	0.010
5 WLAN UNII						
802.11ax HE20	2.4343	2.4535	0.992	99.22%	0.00	0.010
802.11ax HE40	2.3725	2.4125	0.983	98.34%	0.00	0.010
802.11ac VHT80	3.6043	3.7363	0.965	96.47%	0.31	0.277
6WLAN UNII						
802.11ax HE20	2.5943	2.6131	0.993	99.28%	0.00	0.010
802.11ax HE80	2.4175	2.4357	0.992	99.25%	0.00	0.010

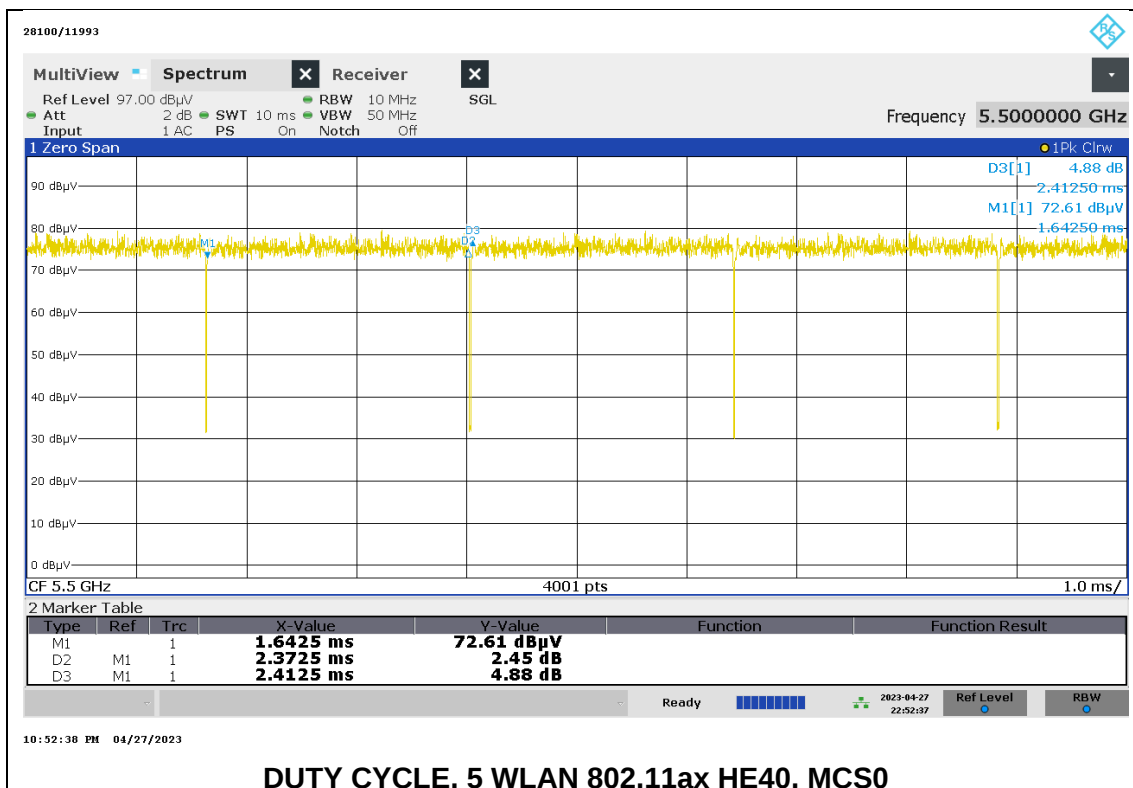
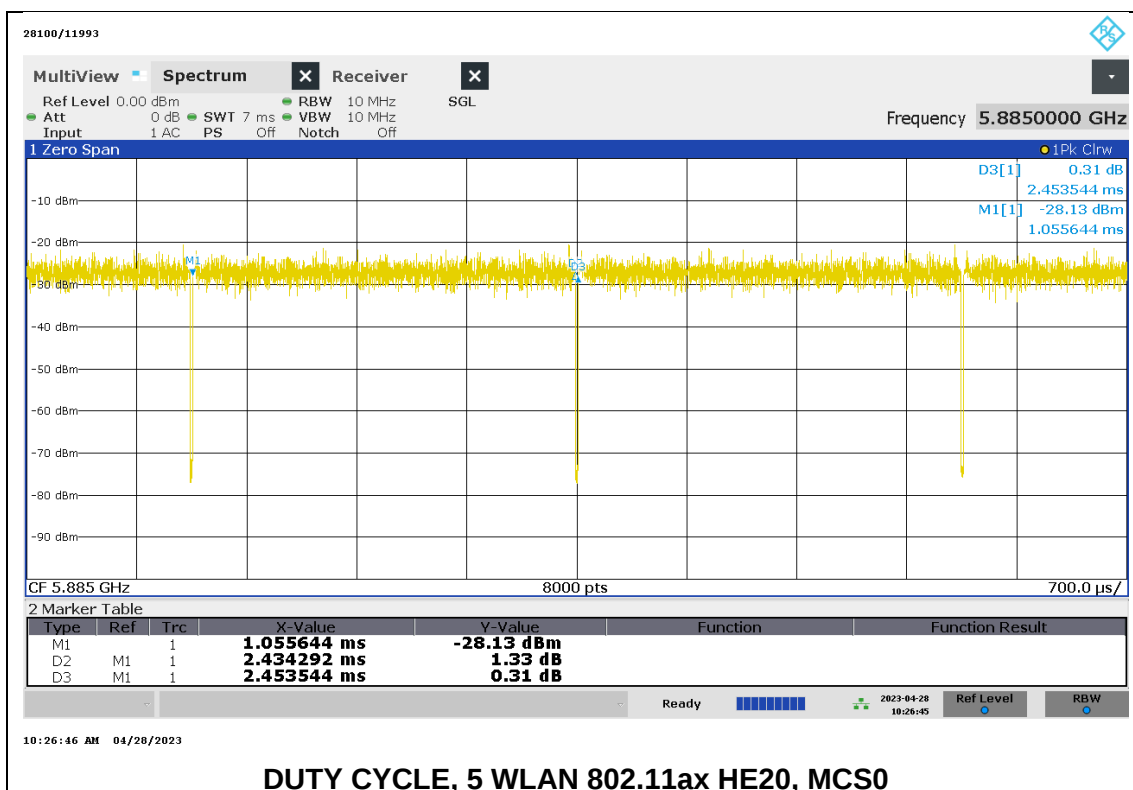
DUTY CYCLE PLOTS

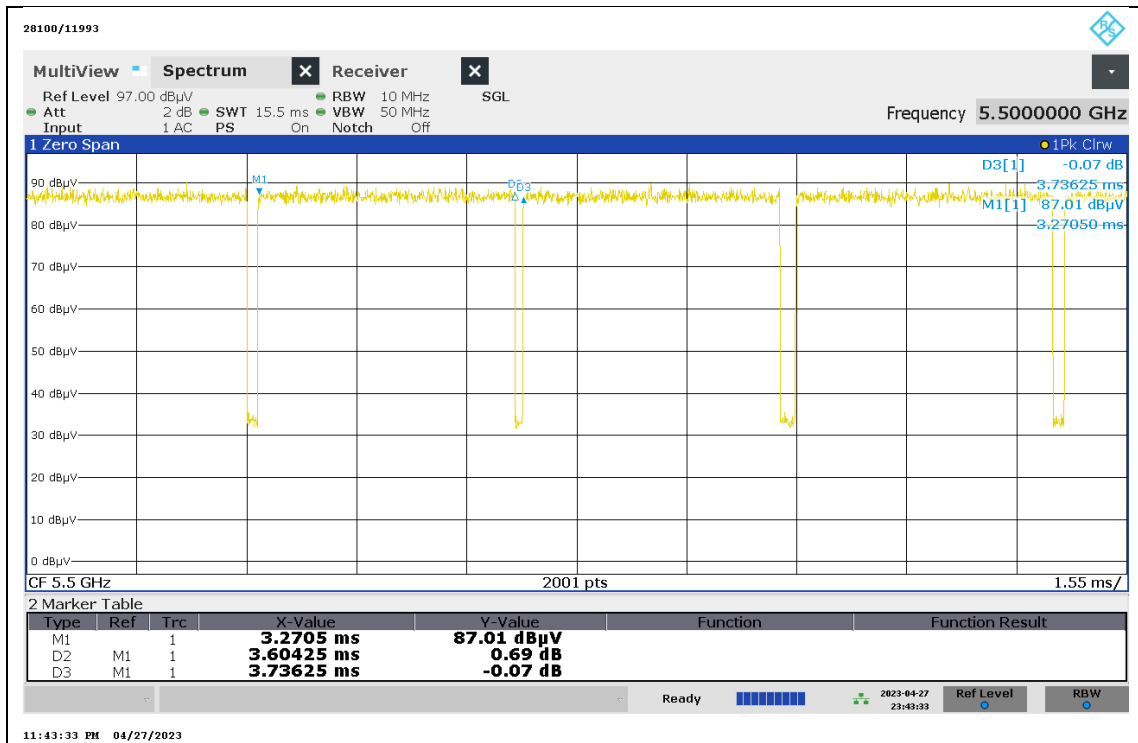


DUTY CYCLE, 2.4 WLAN 802.11g, 6Mbps

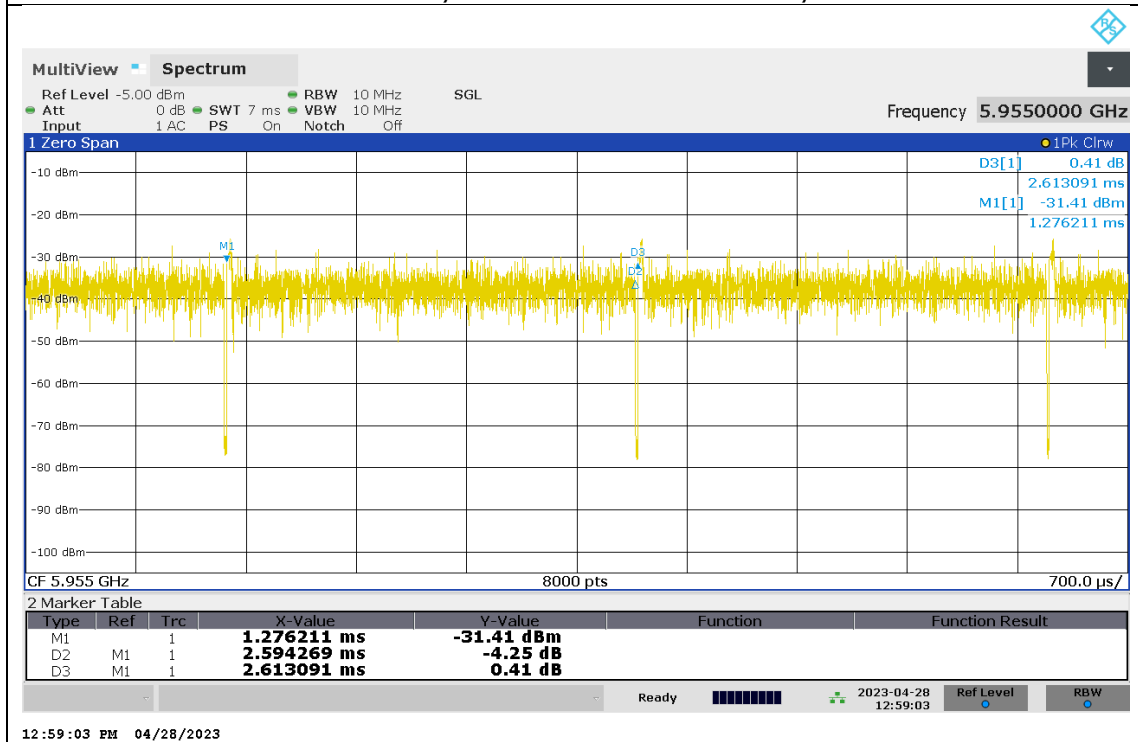


DUTY CYCLE, 2.4 WLAN 802.11ax HE20, MCS0

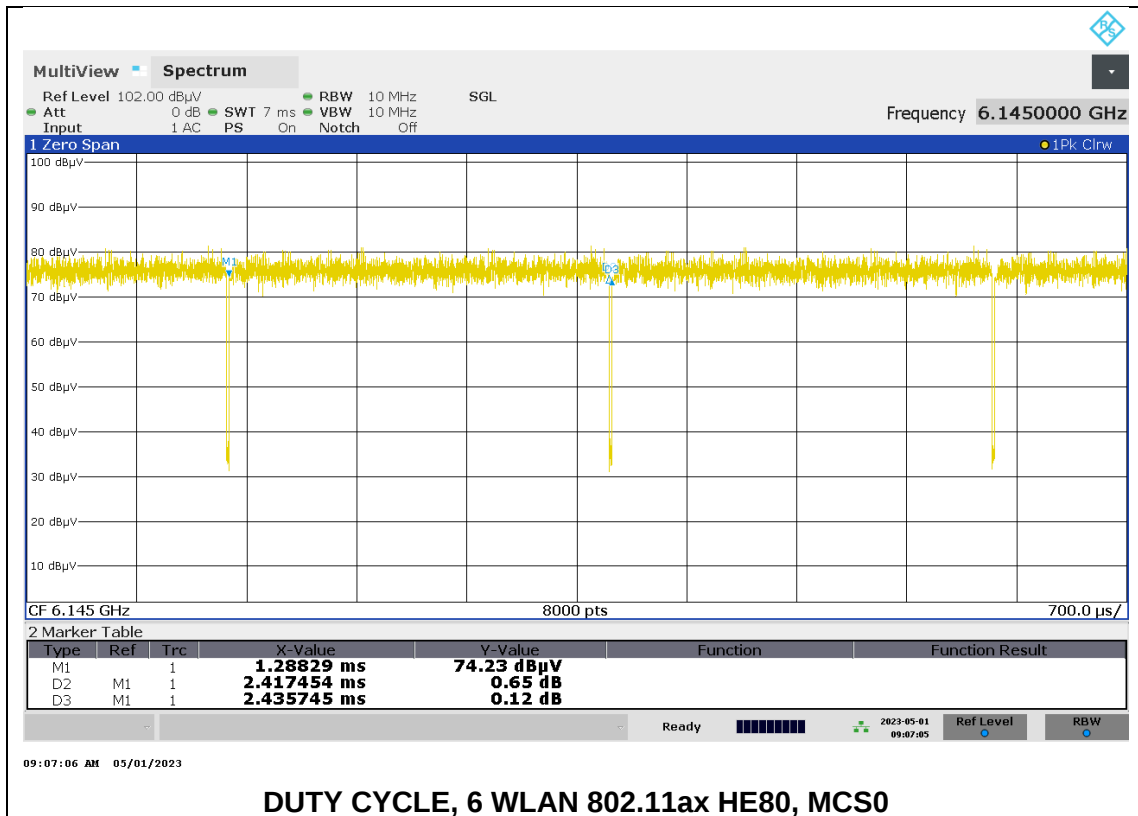




DUTY CYCLE, 5 WLAN 802.11ac VHT80, MCS0



DUTY CYCLE, 6 WLAN 802.11ax HE20, MCS0



10. 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 and at 80 cm above the ground plane for measurements below 1 GHz. 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 linear voltage average detection for WLAN measurements.

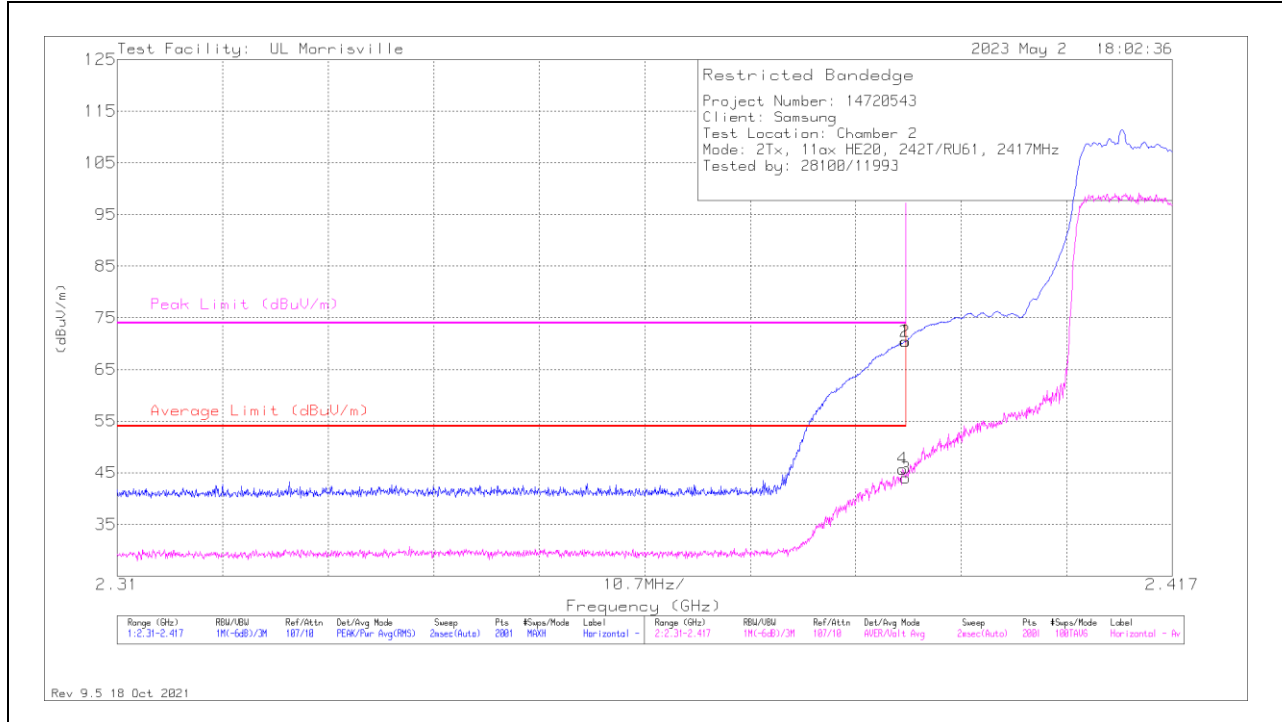
The spectrum from 1 GHz to 18 GHz is investigated with the transmitter set to worst case mode.

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.

10.1. 2.4GHz WLAN

BANDEDGE (LOW CHANNEL – 2TX, 802.11ax HE20 242T/RU61)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	88761 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.38998	62.44	Pk	31.8	-23.8	70.44	-	-	74	-3.56	149	247	H
2	* ** 2.38993	62.42	Pk	31.8	-23.8	70.42	-	-	74	-3.58	149	247	H
3	* ** 2.38998	35.96	ADV	31.8	-23.8	43.96	54	-10.04	-	-	149	247	H
4	* ** 2.38966	37.74	ADV	31.8	-23.8	45.74	54	-8.26	-	-	149	247	H

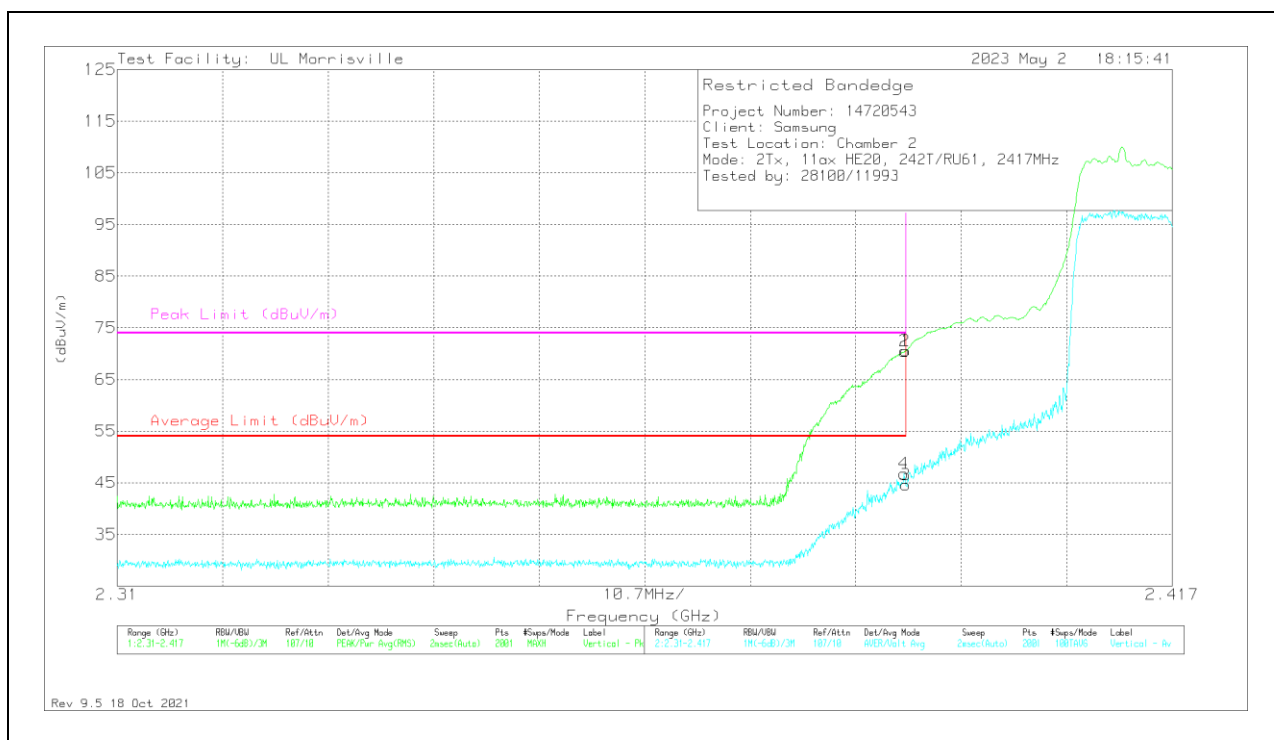
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	88761 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 2.38998	62.58	Pk	31.8	-23.8	70.58	-	-	74	-3.42	126	113	V
2	*** 2.38988	62.49	Pk	31.8	-23.8	70.49	-	-	74	-3.51	126	113	V
3	*** 2.38998	36.58	ADV	31.8	-23.8	44.58	54	-9.42	-	-	126	113	V
4	*** 2.38977	38.75	ADV	31.8	-23.8	46.75	54	-7.25	-	-	126	113	V

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

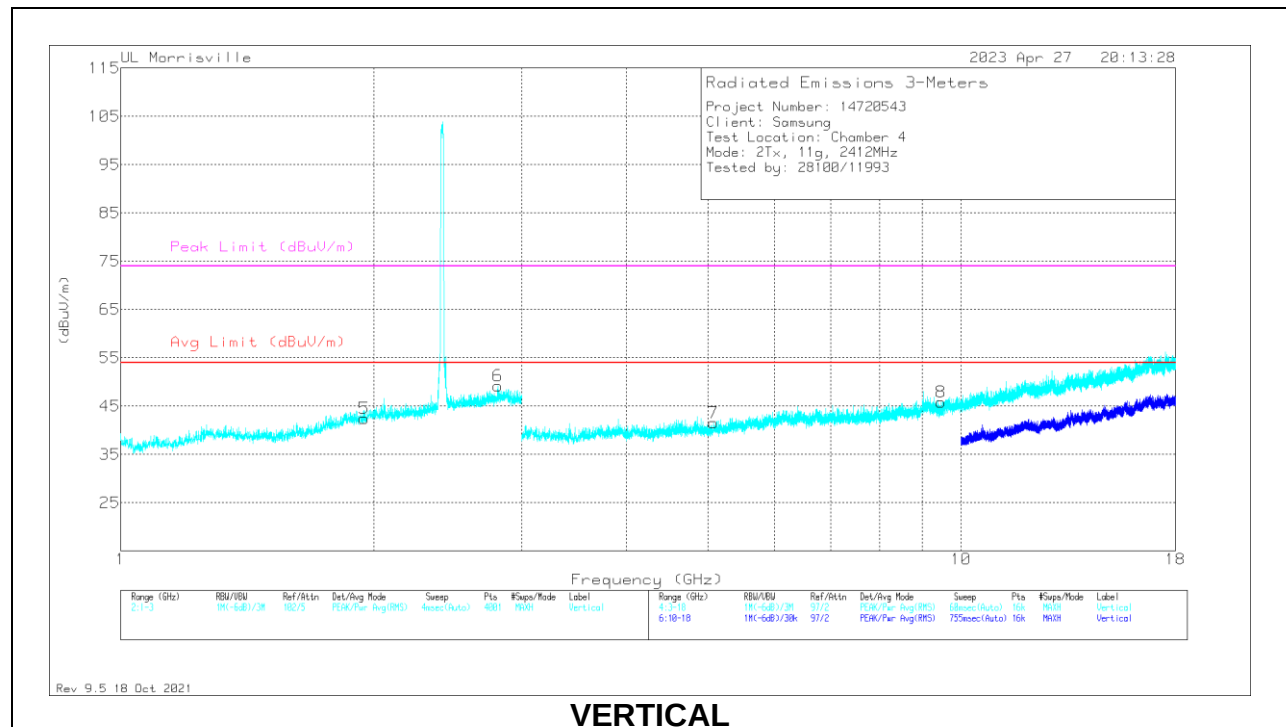
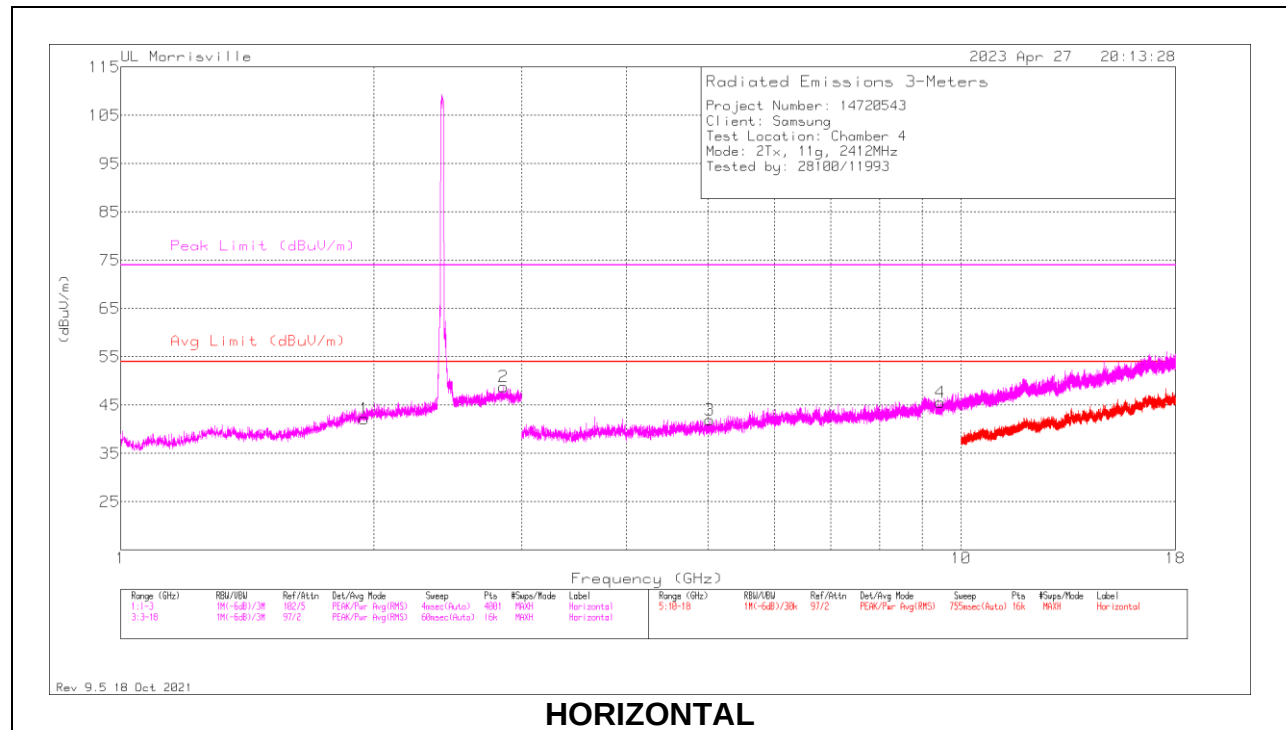
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL 2TX, 802.11g, 6Mbps



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	86408 (dB/m)	Gain/Loss (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	** 1.94934	28.59	PK2	31.3	-14.3	0	45.59	-	-	74	-28.41	283	141	H
	** 1.94951	15.71	ADV	31.3	-14.3	.68	33.39	54	-20.61	-	-	283	141	H
2	*** 2.85312	29.32	PK2	32.6	-12.8	0	49.12	-	-	74	-24.88	322	147	H
	*** 2.85396	16.78	ADV	32.6	-12.8	.68	37.26	54	-16.74	-	-	322	147	H
5	** 1.95012	27.88	PK2	31.3	-14.3	0	44.88	-	-	74	-29.12	43	226	V
	** 1.94998	15.7	ADV	31.3	-14.3	.68	33.38	54	-20.62	-	-	43	226	V
6	*** 2.81407	28.93	PK2	32.6	-12.6	0	48.93	-	-	74	-25.07	79	297	V
	*** 2.81288	16.66	ADV	32.6	-12.6	.68	37.34	54	-16.66	-	-	79	297	V
3	*** 5.02406	40.23	Pk	34	-32.3	0	41.93	54	-12.07	74	-32.07	0-360	100	H
4	*** 9.44625	35.03	Pk	36.5	-26	0	45.53	54	-8.47	74	-28.47	0-360	100	H
7	*** 5.0775	39.75	Pk	34.1	-32.3	0	41.55	54	-12.45	74	-32.45	0-360	200	V
8	*** 9.47156	35.36	Pk	36.5	-26	0	45.86	54	-8.14	74	-28.14	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

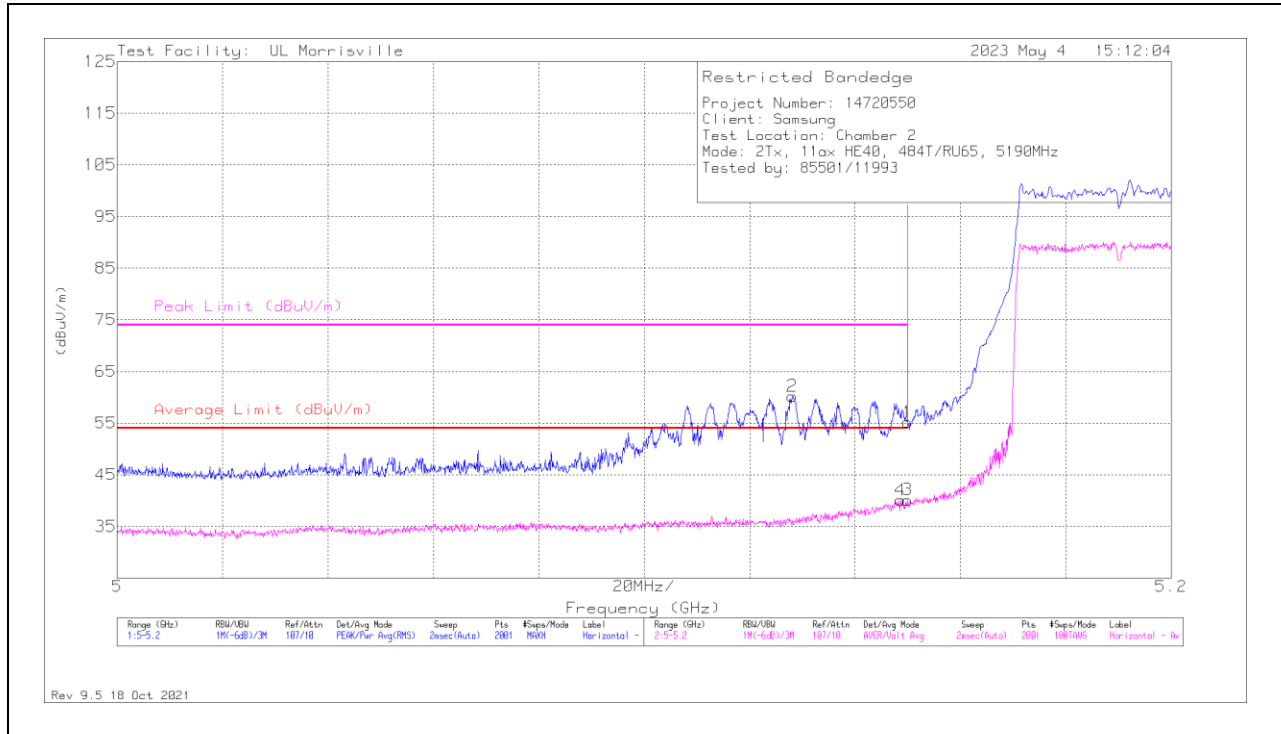
PK2 - Maximum Peak

ADV - Linear Voltage Average

10.2. 5GHz WLAN

BANDEDGE (5.2 BAND LOW CHANNEL – 2TX, 802.11ax HE40, 484T/RU65)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	88761 (dB/m)	Gain/Loss (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	43.67	Pk	34.1	-22.6	55.17	-	-	74	-18.83	331	111	H
2	*** 5.1281	48.59	Pk	34.1	-22.5	60.19	-	-	74	-13.81	331	111	H
3	*** 5.15	28.64	ADV	34.1	-22.6	40.14	54	-13.86	-	-	331	111	H
4	*** 5.1486	28.59	ADV	34.1	-22.6	40.09	54	-13.91	-	-	331	111	H

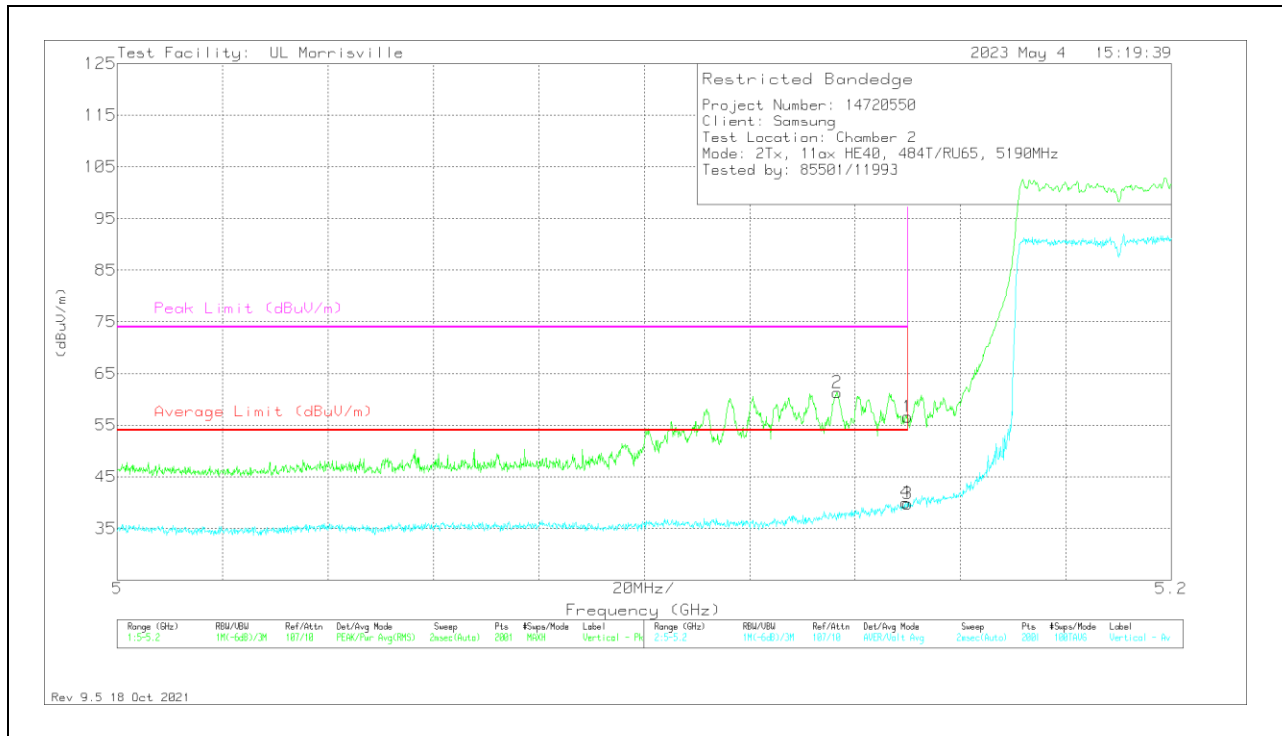
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	88761 (dB/m)	Gain/Loss (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	45.12	Pk	34.1	-22.6	56.62	-	-	74	-17.38	230	246	V
2	* ** 5.1366	49.52	Pk	34.1	-22.3	61.32	-	-	74	-12.68	230	246	V
3	* ** 5.15	28.3	ADV	34.1	-22.6	39.8	54	-14.2	-	-	230	245	V
4	* ** 5.1496	28.52	ADV	34.1	-22.6	40.02	54	-13.98	-	-	230	245	V

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

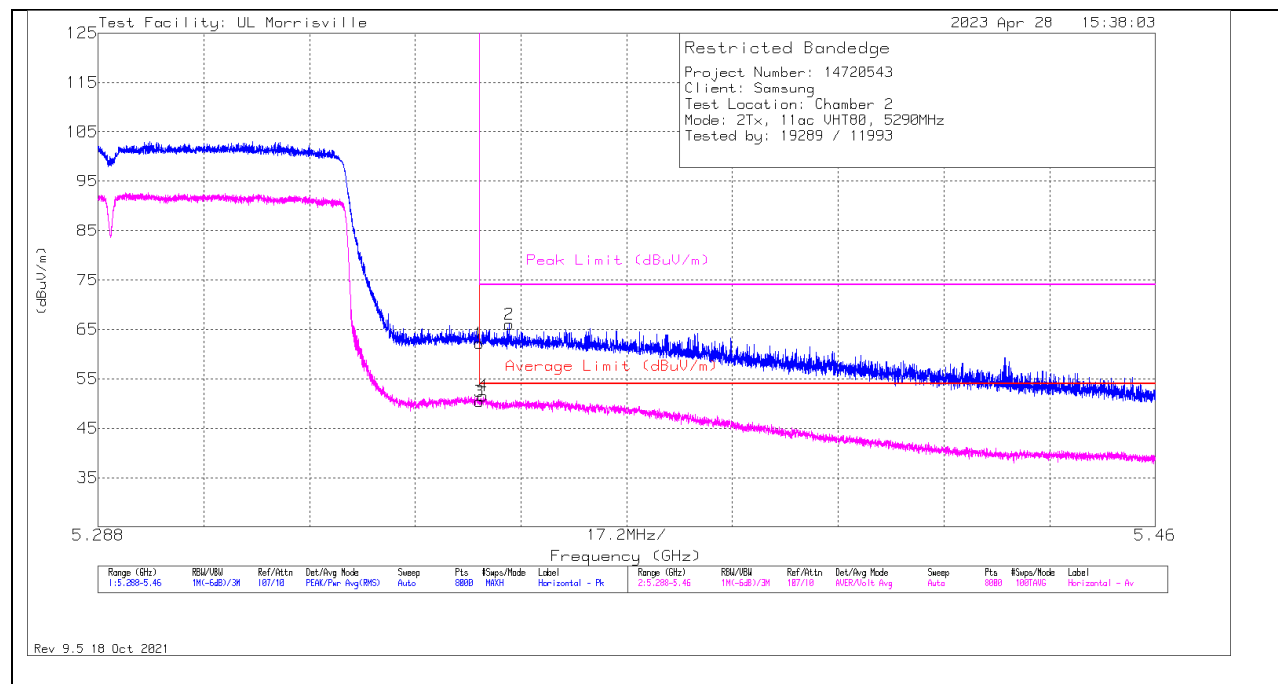
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

BANDEGE (5.3 BAND HIGH CHANNEL – 2TX, 802.11ac VHT80)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	88761 (dB/m)	Gain/Loss (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	* ** 5.35001	50.58	Pk	34.3	-22.7	0	62.18	-	-	74	-11.82	264	176	H
3	* ** 5.35001	38.58	ADV	34.3	-22.7	.31	50.49	54	-3.51	-	-	264	176	V
4	* ** 5.35062	39.67	ADV	34.3	-22.7	.31	51.58	54	-2.42	-	-	264	176	V
2	* ** 5.3549	54.57	Pk	34.3	-22.8	0	66.07	-	-	74	-7.93	264	176	H

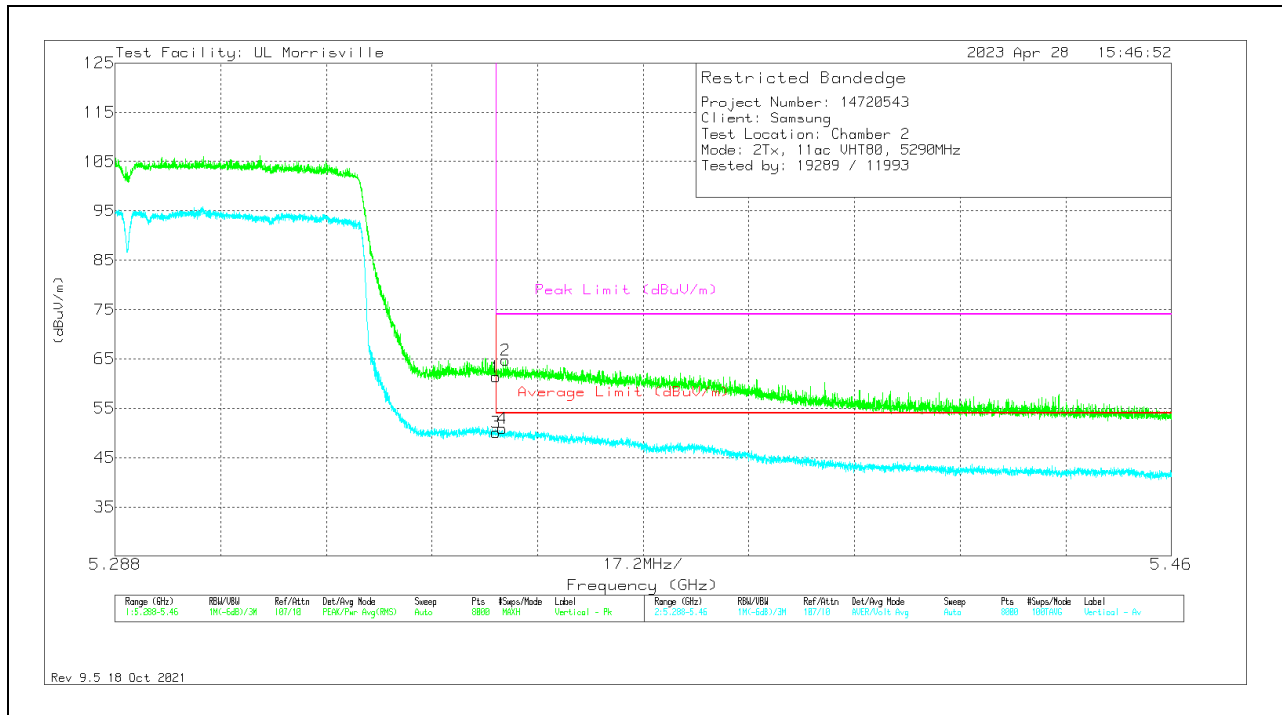
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	88761 (dB/m)	Gain/Loss (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	* ** 5.35001	49.73	Pk	34.3	-22.7	0	61.33	-	-	74	-12.67	199	237	V
3	* ** 5.35001	38.18	ADV	34.3	-22.7	.31	50.09	54	-3.91	-	-	199	237	V
4	* ** 5.35107	38.96	ADV	34.3	-22.7	.31	50.87	54	-3.13	-	-	199	237	V
2	* ** 5.35158	53.14	Pk	34.3	-22.7	0	64.74	-	-	74	-9.26	199	237	V

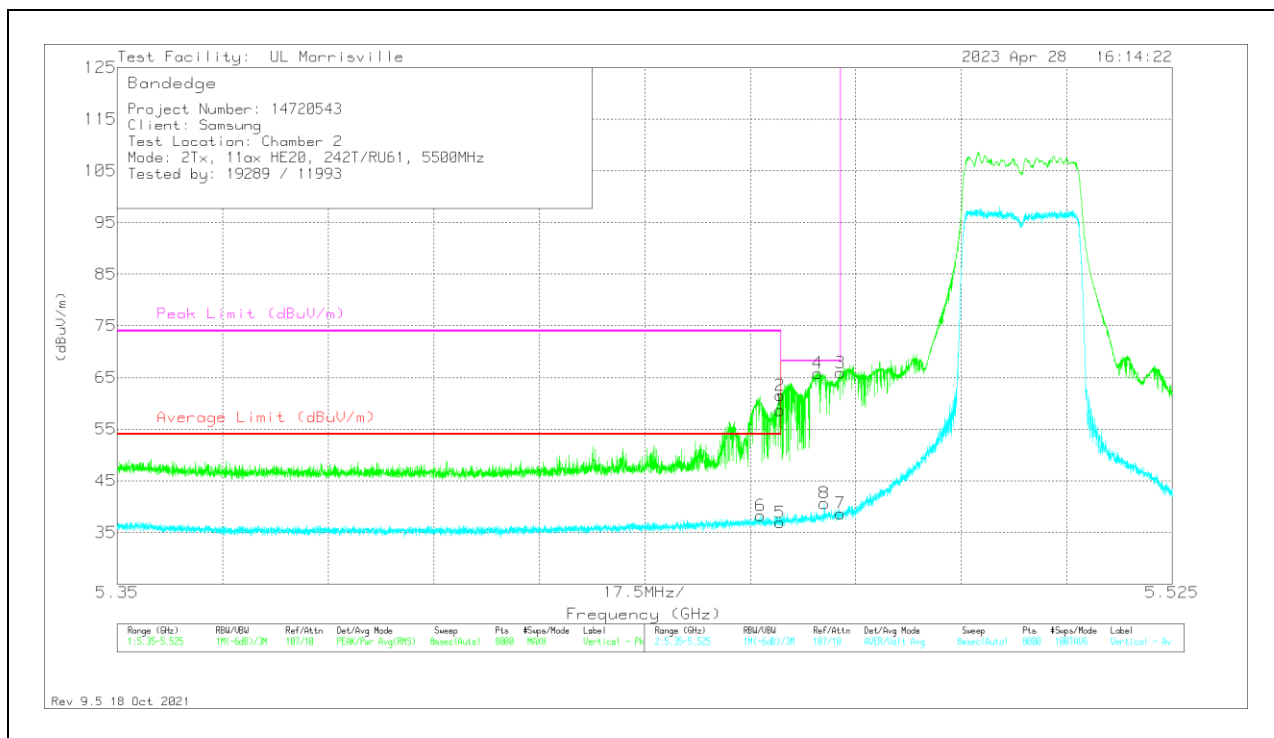
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	88761 (dB/m)	Gain/Loss (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	47.48	Pk	34.5	-23.3	58.68	-	-	74	-15.32	205	284	V
2	*** 5.45994	50.31	Pk	34.5	-23.3	61.51	-	-	74	-12.49	205	284	V
5	*** 5.45998	25.72	ADV	34.5	-23.3	36.92	54	-17.08	-	-	205	284	V
6	*** 5.45674	27.04	ADV	34.5	-23.3	38.24	54	-15.76	-	-	205	284	V
4	5.46622	54.81	Pk	34.5	-23.5	65.81	-	-	68.2	-2.39	205	284	V
8	5.46729	29.64	ADV	34.5	-23.5	40.64	-	-	-	-	205	284	V
3	5.46998	54.99	Pk	34.5	-23.6	65.89	-	-	68.2	-2.31	205	284	V
7	5.46998	27.79	ADV	34.5	-23.6	38.69	-	-	-	-	205	284	V

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

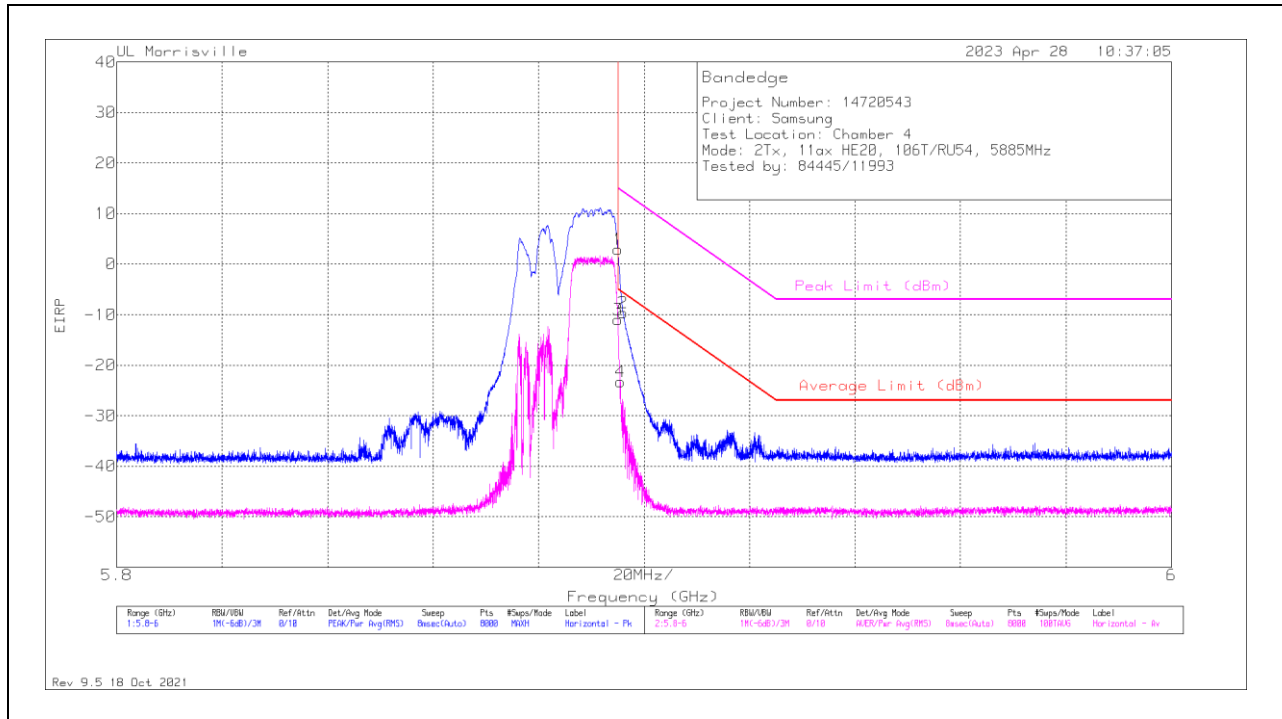
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

BANDEDGE (5.8 BAND HIGH CHANNEL – 2TX, 802.11ax HE20 106T/RU54)

HORIZONTAL RESULT

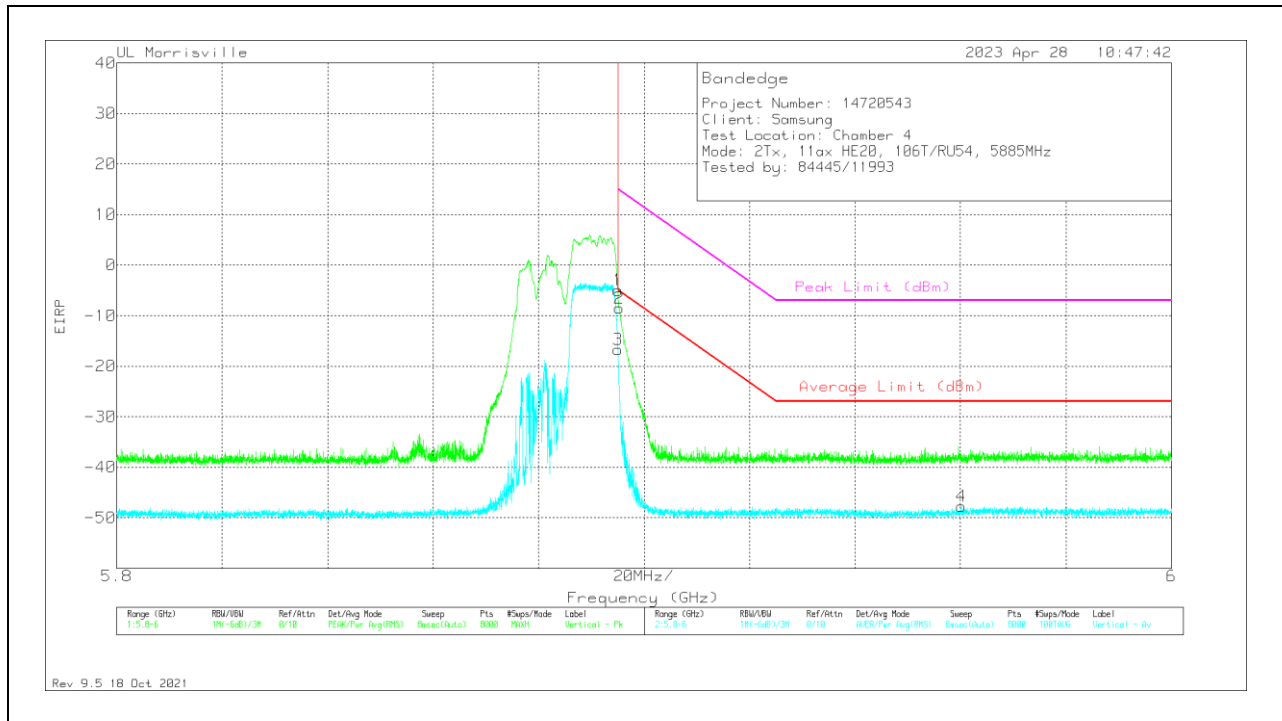


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	86408 (dB/m)	Gain/Loss (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Average Limit (dBm)	RMS Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.89501	-34.92	Pk	35.1	-9.1	11.8	2.88	14.99	-12.11	-	-	94	118	H
2	5.89601	-47.47	Pk	35.1	-9.1	11.8	-9.67	14.26	-23.93	-	-	94	118	H
3	5.89501	-48.8	RMS	35.1	-9.1	11.8	-11	-	-	-5.01	-5.99	94	118	H
4	5.89551	-61.04	RMS	35.1	-9.1	11.8	-23.24	-	-	-5.38	-17.86	94	118	H

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

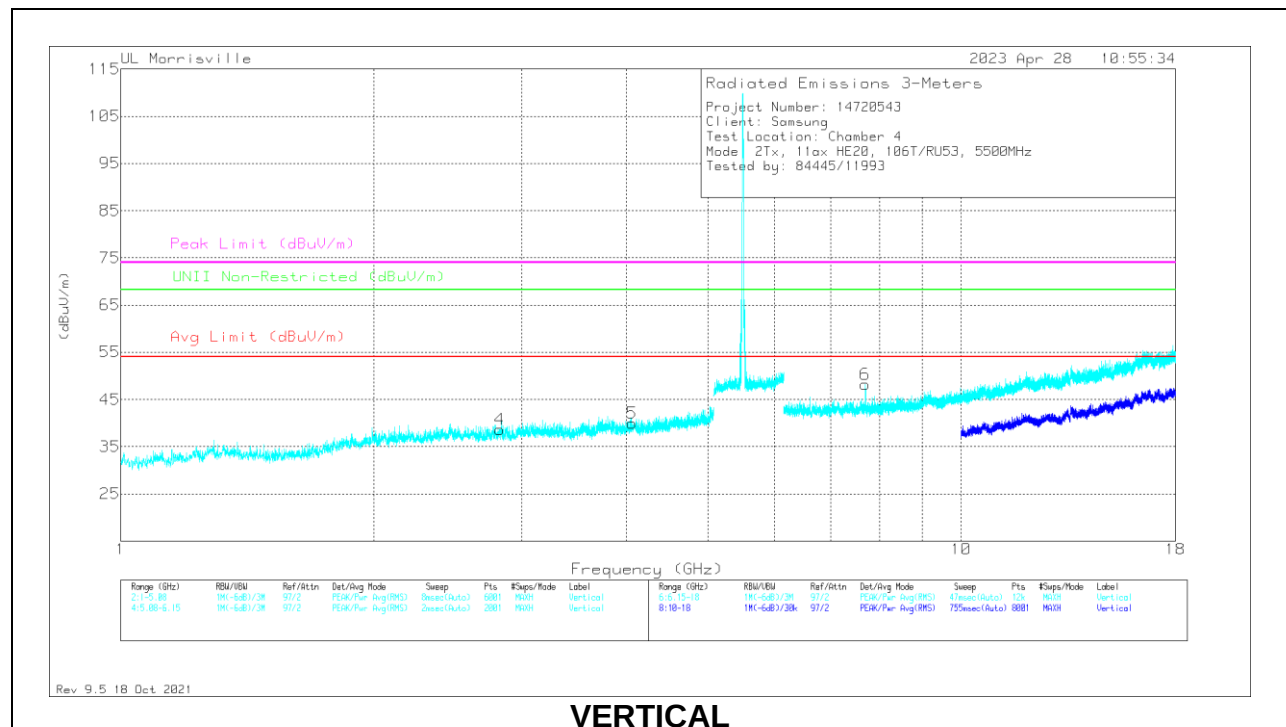
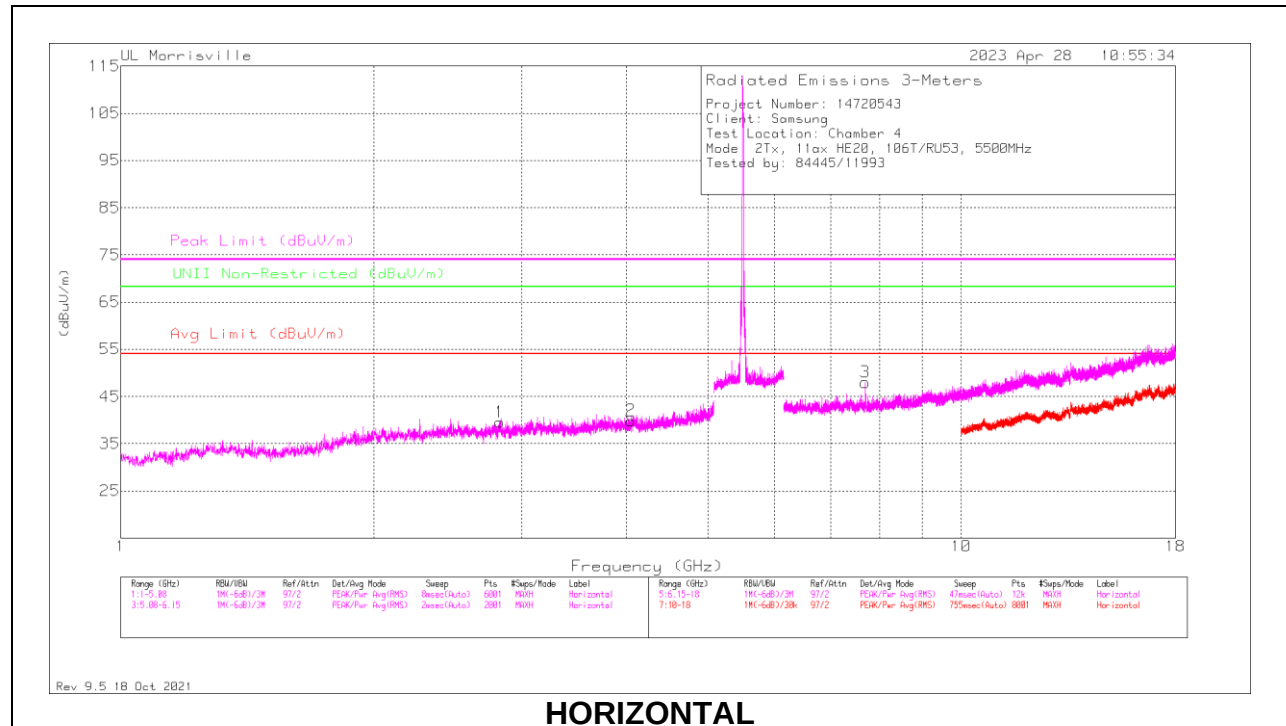


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	86408 (dB/m)	Gain/Loss (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Average Limit (dBm)	RMS Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.89501	-42.77	Pk	35.1	-9.1	11.8	-4.97	14.99	-19.96	-	-	356	281	V
2	5.89526	-46.36	Pk	35.1	-9.1	11.8	-8.56	14.81	-23.37	-	-	356	281	V
3	5.89501	-54.5	RMS	35.1	-9.1	11.8	-16.7	-	-	-5.01	-11.69	356	281	V
4	5.96014	-85.56	RMS	35.1	-9.1	11.8	-47.76	-	-	-27	-20.76	356	281	V

Pk - Peak detector
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

5.6 BAND LOW CHANNEL 2TX, 802.11ax HE20 106T/RU53



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	86408 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.82376	42.22	Pk	32.6	-35.3	39.52	54	-14.48	74	-34.48	-	-	0-360	100	H
2	* ** 4.04504	39.29	Pk	33.4	-32.8	39.89	54	-14.11	74	-34.11	-	-	0-360	100	H
4	* ** 2.82512	41.29	Pk	32.6	-35.3	38.59	54	-15.41	74	-35.41	-	-	0-360	200	V
5	* ** 4.05796	39.32	Pk	33.4	-32.8	39.92	54	-14.08	74	-34.08	-	-	0-360	200	V
3	* ** 7.69412	43.37	PK2	35.7	-27.9	51.17	-	-	74	-22.83	-	-	323	132	H
	* ** 7.69347	32.42	ADV	35.7	-27.9	40.22	54	-13.78	-	-	-	-	323	132	H
6	* ** 7.692	45.38	PK2	35.7	-27.9	53.18	-	-	74	-20.82	-	-	187	217	V
	* ** 7.69372	34.61	ADV	35.7	-27.9	42.41	54	-11.59	-	-	-	-	187	217	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

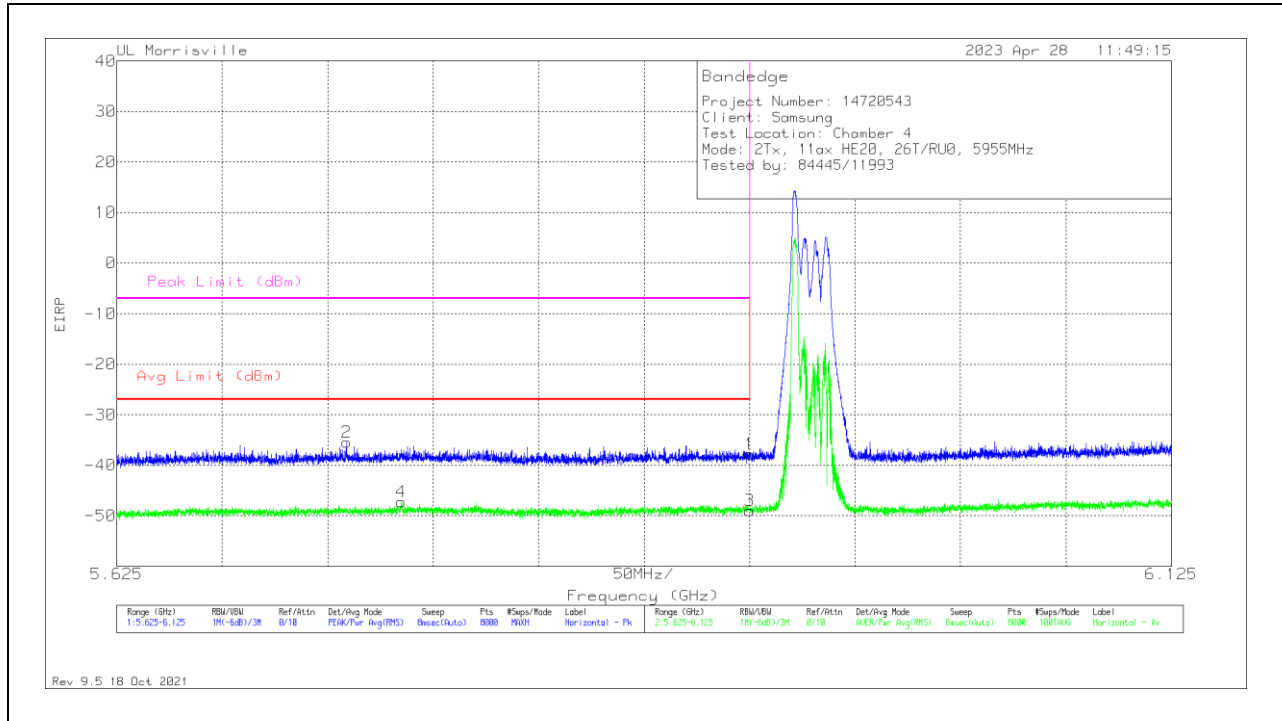
PK2 - Maximum Peak

ADV - Linear Voltage Average

10.3. 6GHz WLAN

BANDEDGE (LOW CHANNEL – 2TX, 802.11ax HE20 26T/RU0)

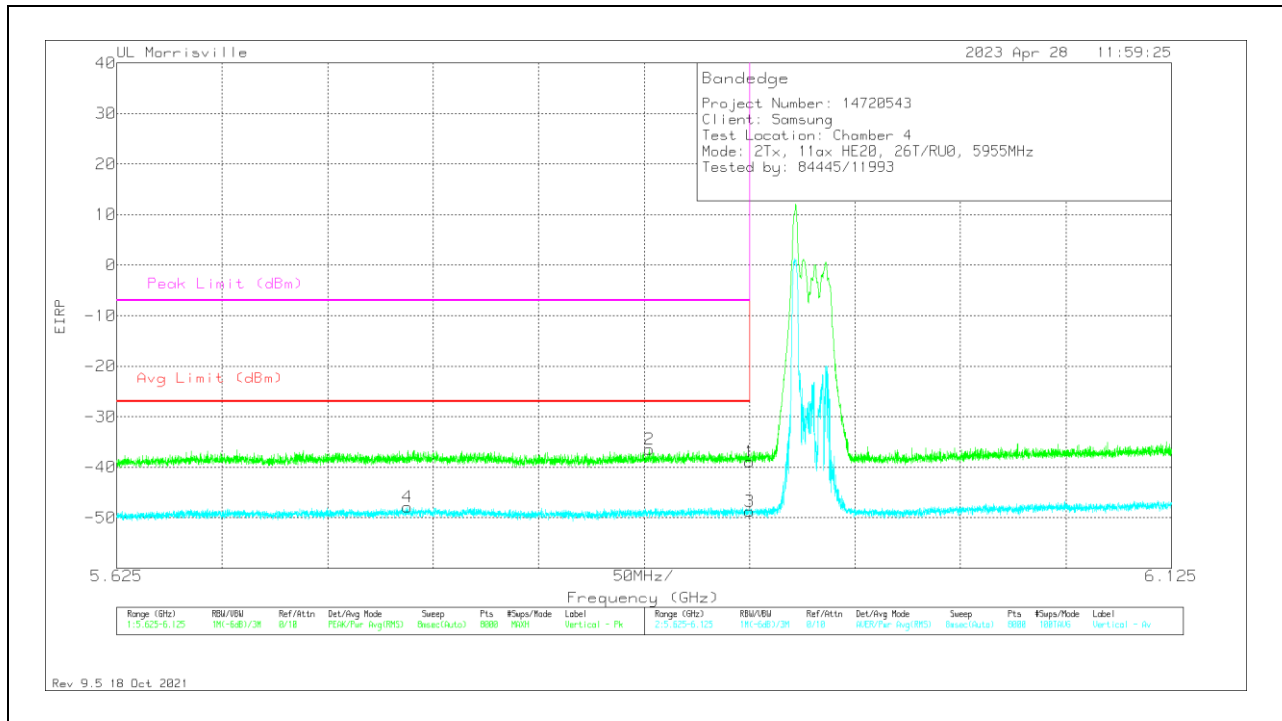
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	86408 (dB/m)	Gain/Loss (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Avg Limit (dBm)	RMS Margin (dB)	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.92498	-75.79	Pk	35.1	-8.9	11.8	-37.79	-	-	-7	-30.79	137	230	H
2	5.73389	-72.99	Pk	34.8	-9.1	11.8	-35.49	-	-	-7	-28.49	137	230	H
3	5.92498	-86.96	RMS	35.1	-8.9	11.8	-48.96	-27	-21.96	-	-	137	230	H
4	5.75995	-84.65	RMS	34.8	-9.2	11.8	-47.25	-27	-20.25	-	-	137	230	H

Pk - Peak detector
RMS - RMS detection

VERTICAL RESULT

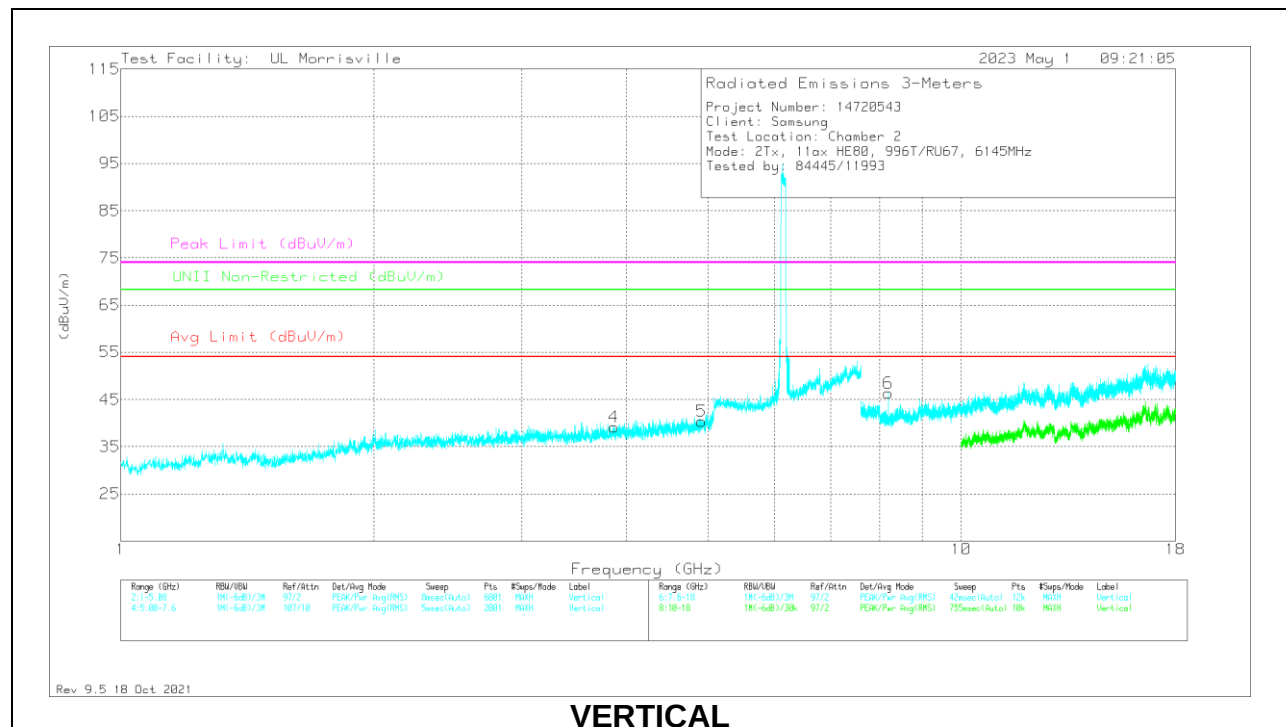
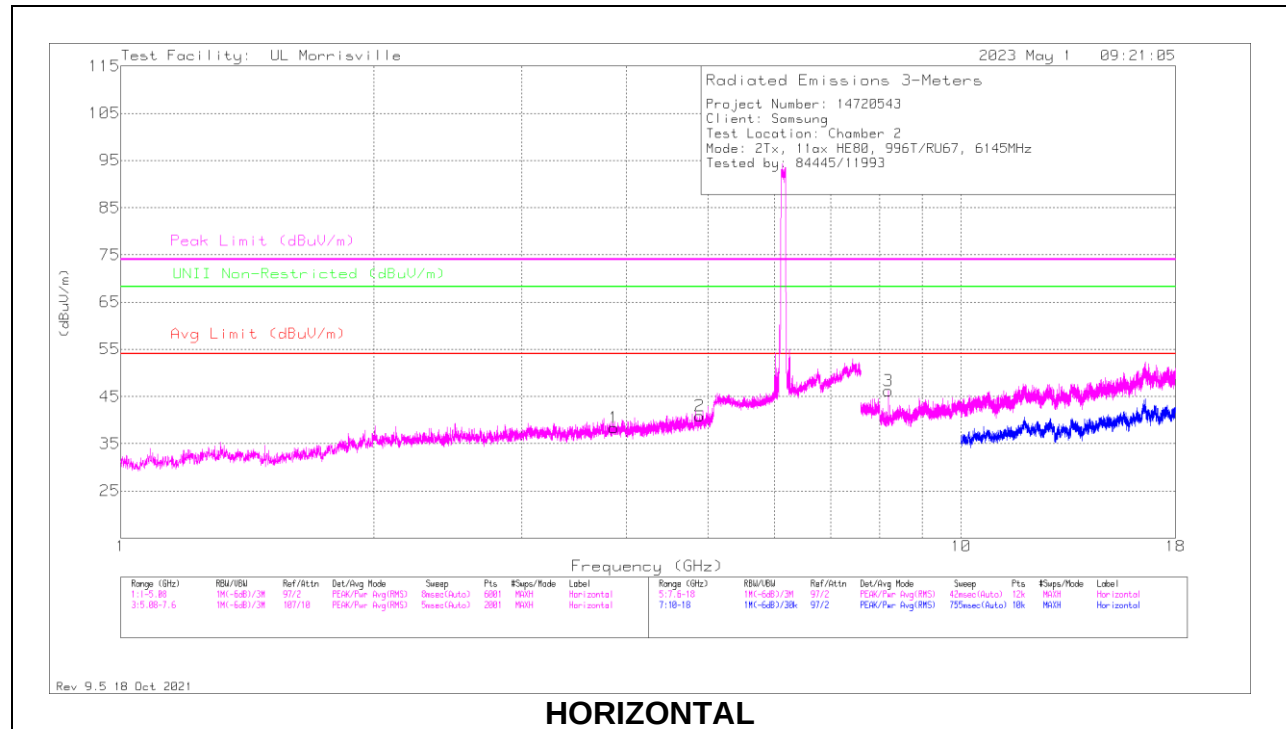


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	86408 (dB/m)	Gain/Loss (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Avg Limit (dBm)	RMS Margin (dB)	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.92498	-76.88	Pk	35.1	-8.9	11.8	-38.88	-	-	-7	-31.88	129	107	V
2	5.87759	-74.28	Pk	35	-9	11.8	-36.48	-	-	-7	-29.48	129	107	V
3	5.92498	-86.76	RMS	35.1	-8.9	11.8	-48.76	-27	-21.76	-	-	129	107	V
4	5.76277	-85.4	RMS	34.8	-9.1	11.8	-47.9	-27	-20.9	-	-	129	107	V

Pk - Peak detector
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL 2TX, 802.11ax HE80 996T/RU67



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	88761 (dB/m)	Gain/Loss (dB)	Filter (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 3.86008	36.99	Pk	33.4	-32	0	38.39	54	-15.61	74	-35.61	-	-	0-360	200	H
2	* ** 4.88756	36.94	Pk	34	-30.1	0	40.84	54	-13.16	74	-33.16	-	-	0-360	200	H
4	* ** 3.86552	37.81	Pk	33.4	-32.1	0	39.11	54	-14.89	74	-34.89	-	-	0-360	200	V
5	* ** 4.91612	35.96	Pk	34	-29.6	0	40.36	54	-13.64	74	-33.64	-	-	0-360	101	V
3	* ** 8.19337	41.73	PK-U	35.7	-27.2	.9	51.13	-	-	74	-22.87	-	-	111	118	H
	* ** 8.19331	37.88	ADV	35.7	-27.2	.9	47.28	54	-6.72	-	-	-	-	111	118	H
6	* ** 8.19336	41.44	PK-U	35.7	-27.2	.9	50.84	-	-	74	-23.16	-	-	212	199	V
	* ** 8.19332	36.74	ADV	35.7	-27.2	.9	46.14	54	-7.86	-	-	-	-	212	199	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

PK-U - Maximum Peak

ADV - Linear Voltage Average

11. SETUP PHOTOS

Refer to R14720543-EP1 for setup photos.

END OF REPORT