

TEST REPORT

Report Number: R14639470-E2

Applicant : Sony Corporation
1-7-1 Konan Minato-ku
Tokyo, 108-0075, Japan

FCC ID : PY7-03571V

EUT Description : GSM/WCDMA/LTE/5G 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:

2023-03-27

Prepared by:

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REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	2023-03-20	Initial Issue	Charles Moody
V2	2023-03-27	Updated Setup Photo Exhibit Reference and Section 7.4 Data	Charles Moody

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Sony Corporation
1-7-1 Konan Minato-ku
Tokyo, 108-0075, Japan

EUT DESCRIPTION: GSM/WCDMA/LTE/5G Phone with BT, DTS/UNII a/b/g/n/ac/ax,
GPS, WPT & NFC

SERIAL NUMBER: QV7700LDFR, QV7700DUFR, QV77009EFR

SAMPLE RECEIPT DATE: 2023-02-06 TO 2023-02-27

DATE TESTED: 2023-03-07 TO 2023-03-15

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C and E	Refer to Section 2

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
UL LLC By:



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Project Engineer
Consumer Technology Division
UL LLC

Prepared By:



Charles Moody
Engineer
Consumer Technology Division
UL LLC

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		
15.225 (e)	Frequency Stability		
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 5G PHONE with BT, DTS/UNII a/b/g/n/ac/ax, GPS, WPT & NFC.

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
5.0 WLAN	Y
BLE	Y
BT Chain 0	Y
BT Chain 1	X
WPT	X
NFC	Z

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	2462	HE20 242T/RU61	MCS0	MIMO
	RSE	2437	11b	1Mbps	MIMO
5 WLAN (UNII)	5.2 Band Edge	5250	HE160 2x996T/RU68 Low Edge	MCS0	MIMO
	5.3 Band Edge	5250	HE160 2x996T/RU68 High Edge	MCS0	MIMO
	5.6 Band Edge	5500	HE20 52T/RU37	MCS0	MIMO
	5.8 Band Edge	5775	HE80 996T/RU67 High Edge	MCS0	MIMO
	RSE	5500	HE20 52T/RU37	MCS0	MIMO
BLE	Band Edge	2480	BLE (GFSK)	2 Mbps	0
	RSE	2480	BLE (GFSK)	500 kbps	0
BT	Band Edge	2480	GFSK/DH-5	1 Mbps	1
	RSE	2402	GFSK/DH-5	1 Mbps	0

The worst-case scenario for WPT is as follows:

The EUT emissions should be measured from 9kHz to 30MHz in its X orientation. The two devices shall be parallel, with coils off centered, and no separation distance between the two devices. Additionally, a state of 5% charged was the worst-case mode of operation and testing was therefore performed with the battery at 5%.

The worst-case scenario for NFC is as follows:

The EUT emissions should be measured from 9kHz to 1000MHz in its Z orientation. The device shall be in Type B mode at 106Kbps to serve as a worst-case orientation.

6.3. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adaptor	Sony	XQZ-UC1	1821W34209742	NA
Headphones	Sony	MDR-EX15AP	NA	NA

I/O CABLES

I/O Cable List						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	USB-C	1	USB-C	Shielded	<3m	XQZ-UB1
2	3.5mm	2	Aux	Shielded	<3m	Headphones – Used for port population

Refer to R14639470-EP3 for setup diagrams.

7. REUSE OF TEST DATA

7.1. INTRODUCTION

According to the manufacturer, FCC ID: PY7-12907W and FCC ID: PY7-03571V unlicensed radios (WLAN/BT/BLE/WPT/NFC) are electrically identical. The FCC ID: PY7-12907W test data shall remain representative of FCC ID: PY7-03571V so, FCC ID: PY7-03571V leverages test data from FCC ID: PY7-12907W.

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 PY7-12907W and PY7-03571V:

Sony Corporation hereby declares that the hardware of WLAN 2.4GHz, WLAN 5GHz, Bluetooth, GPS, WPT, and NFC is identical among PY7-12907W and PY7-03571V. The change is related to the cellular radio. Therefore, the following report/data of PY7-12907W may represent for PY7-03571V.

7.3. REFERENCE DETAIL

Equipment Class	Reference FCC ID	Report Title/Section
DSS (BT)	PY7-12907W	R14634918-E2 FCC BT REPORT - FINAL / All sections
DTS (BLE)	PY7-12907W	R14634918-E3 FCC BLE REPORT - FINAL / All sections
DTS (WLAN)	PY7-12907W	R14634918-E4a FCC DTS non-ax WLAN REPORT - FINAL / All sections R14634918-E4b FCC DTS ax WLAN REPORT - FINAL / All sections
NII (WLAN)	PY7-12907W	R14634918-E5a FCC UNII 5.2-5.3GHz non-11ax WLAN REPORT- FINAL / All sections R14634918-E5b FCC UNII 5.2-5.3GHz 11ax WLAN REPORT- FINAL / All sections R14634918-E6a FCC UNII 5.6GHz non-11ax WLAN REPORT- FINAL / All sections R14634918-E6b FCC UNII 5.6GHz 11ax WLAN REPORT- FINAL / All sections R14634918-E7a FCC UNII 5.8GHz non-11ax WLAN REPORT- FINAL / All sections R14634918-E7b FCC UNII 5.8GHz 11ax WLAN REPORT- FINAL / All sections
DCD (WPT)	PY7-12907W	R14634918-E8 FCC WPT REPORT - FINAL / All sections
DXX (NFC)	PY7-12907W	R14634918-E10 FCC NFC REPORT - FINAL / All sections

7.4. SPOT CHECK VERIFICATION RESULTS SUMMARY

Spot check verification has been done on device PY7-03571V 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.

PY7-03571V SPOT CHECK RESULTS									
Technology	Test Item	Channel	Measured Frequency (MHz)	PY7-12907W		PY7-03571V		Delta (dB) <+3dB	
				PK Reading (dBuV/m)	AV Reading (dBuV/m)	PK Reading (dBuV/m)	AV Reading (dBuV/m)	PK	AV
BT (GFSK)	RBE	79	2534	52.07	38.76	41.21	28.19	-10.86	-10.57
	RSE	0	9137	49.52	35.28	50.05	35.64	0.53	0.36
BLE (GFSK)	RBE	39	2483	62.06	47.40	61.99	39.60	-0.07	-7.80
	RSE	39	9128	48.82	37.59	49.66	37.84	0.84	0.25
2.4GHz WLAN (HE20)	RBE	11	2483	50.15	37.81	52.20	40.43	2.05	2.62
2.4GHz WLAN (11b)	RSE	6	9388	47.86	35.22	47.36	34.76	-0.50	-0.46
5GHz WLAN (HE160)	RBE	50	5147	58.45	40.09	61.04	46.75	2.59	**6.66
	**Note: This measurement is the result of a higher noise floor and not signal emissions.								
5GHz WLAN (HE20)	RBE	50	5407	61.71	42.73	59.89	41.44	-1.29	-2.32
	RSE	100	5440	52.02	39.85	51.18	39.43	-0.84	-0.42
5GHz WLAN (HE80)	RBE	155	5404	51.01	38.63	53.64	40.38	2.63	1.75
			5937	-41.99 (EIRP)	-	-45.46 (EIRP)	-	-3.47	-
Note: No AV limit for above scan, therefore no AV measurements just PK.									
WPT	RSE	111.5 kHz	0.5532	13.48	-	3.47	-	-10.01	-
NFC	RSE	13.56	0.51108	7.43	-	9.93	-	2.5	
			40.67	30.46	-	30.98	-	0.52	-

8. TEST AND MEASUREMENT EQUIPMENT

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

Equip. ID	Description	Manufacturer/Brand	Model Number	Last Cal.	Next Cal.
	30-1000 MHz				
90629 (AT0075)	Hybrid Broadband Antenna	Sunol Sciences Corp.	JB3	2023-01-06	2024-01-06
	1-18 GHz				
AT0067	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2022-05-24	2023-05-24
	Gain-Loss Chains				
207639	Gain-loss string: 25-1000MHz	Various	Various	2022-05-20	2023-05-20
207640	Gain-loss string: 1-18GHz	Various	Various	2022-05-20	2023-05-20
	Receiver & Software				
197954	Spectrum Analyzer	Rohde & Schwarz	ESW44	2023-02-02	2024-02-02
SOFTEMI	EMI Software	UL	Version 9.5 (18 Oct 2021)		
	Additional Equipment used				
210642	Environmental Meter	Fisher Scientific	15-077-963 (s/n 210701692)	2021-08-16	2023-08-16

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

Equip. ID	Description	Manufacturer/Brand	Model Number	Last Cal.	Next Cal.
	0.009-30MHz				
135144	Active Loop Antenna	ETS-Lindgren	6502	2023-01-17	2024-01-17
	30-1000 MHz				
AT0074	Hybrid Broadband Antenna	Sunol Sciences Corp.	JB3	2022-09-07	2023-09-07
	1-18 GHz				
206211	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2022-03-21	2023-03-21
	Gain-Loss Chains				
91975	Gain-loss string: 0.009-30MHz	Various	Various	2022-05-10	2023-05-10
91978	Gain-loss string: 25-1000MHz	Various	Various	2022-05-10	2023-05-10
91977	Gain-loss string: 1-18GHz	Various	Various	2022-05-10	2023-05-10
	Receiver & Software				
197955	Spectrum Analyzer	Rohde & Schwarz	ESW44	2022-03-08	2023-03-31
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

9. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

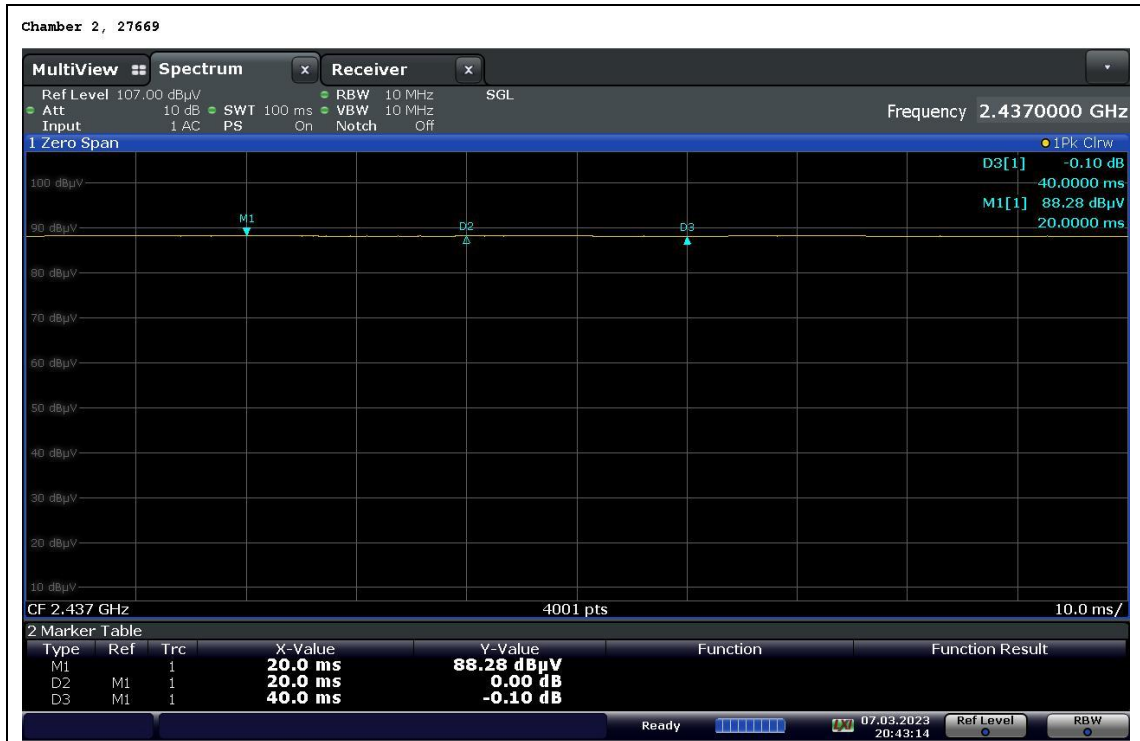
PROCEDURE

KDB 558074 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						
802.11b 1Mbps	100.0000	100.0000	1.000	100.00%	0.00	0.010
802.11ax HE20, 242T/RU61	0.9075	0.9850	0.921	92.13%	0.71	1.102
5 WLAN UNII						
802.11ax HE20, 52T/RU37	1.2661	1.3457	0.941	94.09%	0.53	0.790
802.11ax HE80, 996T/RU67	0.3847	0.4246	0.906	90.60%	0.86	2.599
802.11ax HE160, 2x996T/RU68	0.3820	0.4210	0.907	90.74%	0.84	2.618
BLE						
GFSK 500Kbps	4.5600	5.0200	0.908	90.84%	0.83	0.219
GFSK 2Mbps	1.0713	1.8738	0.572	57.17%	4.86	0.933
BT						
GFSK (DH-5) 1Mbps	2.8775	3.7475	0.768	76.78%	2.29	0.348

DUTY CYCLE PLOTS



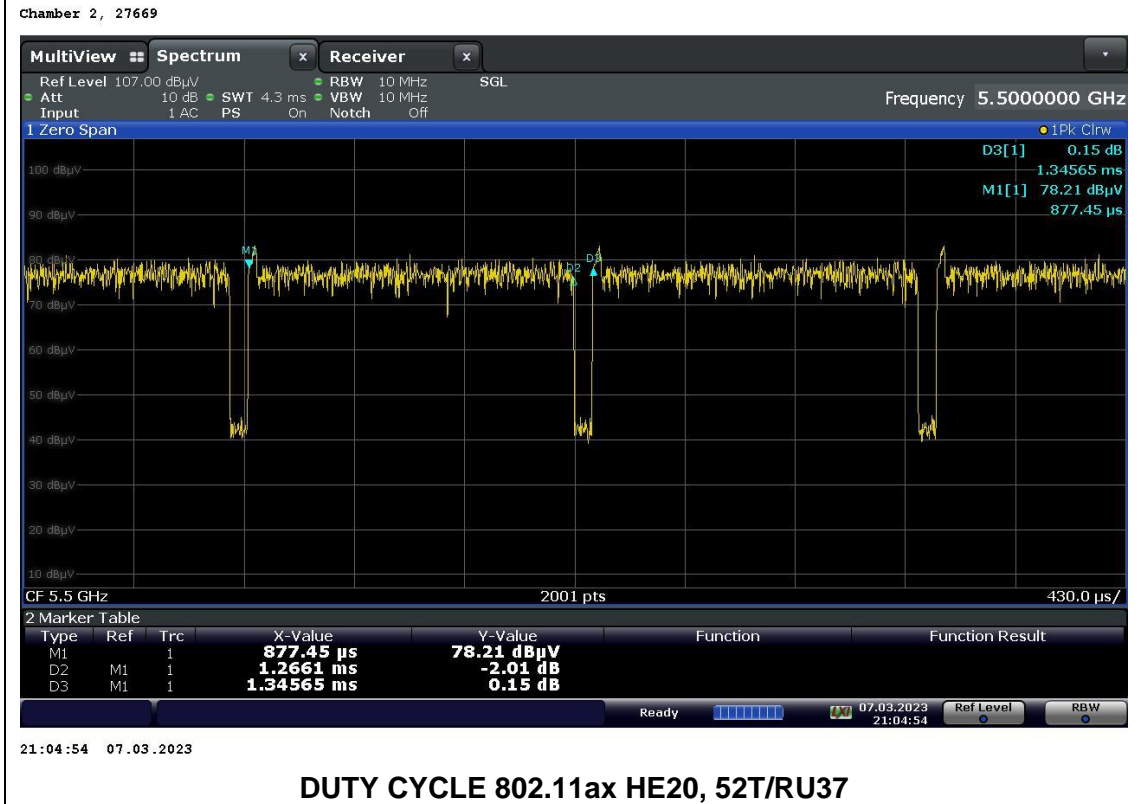
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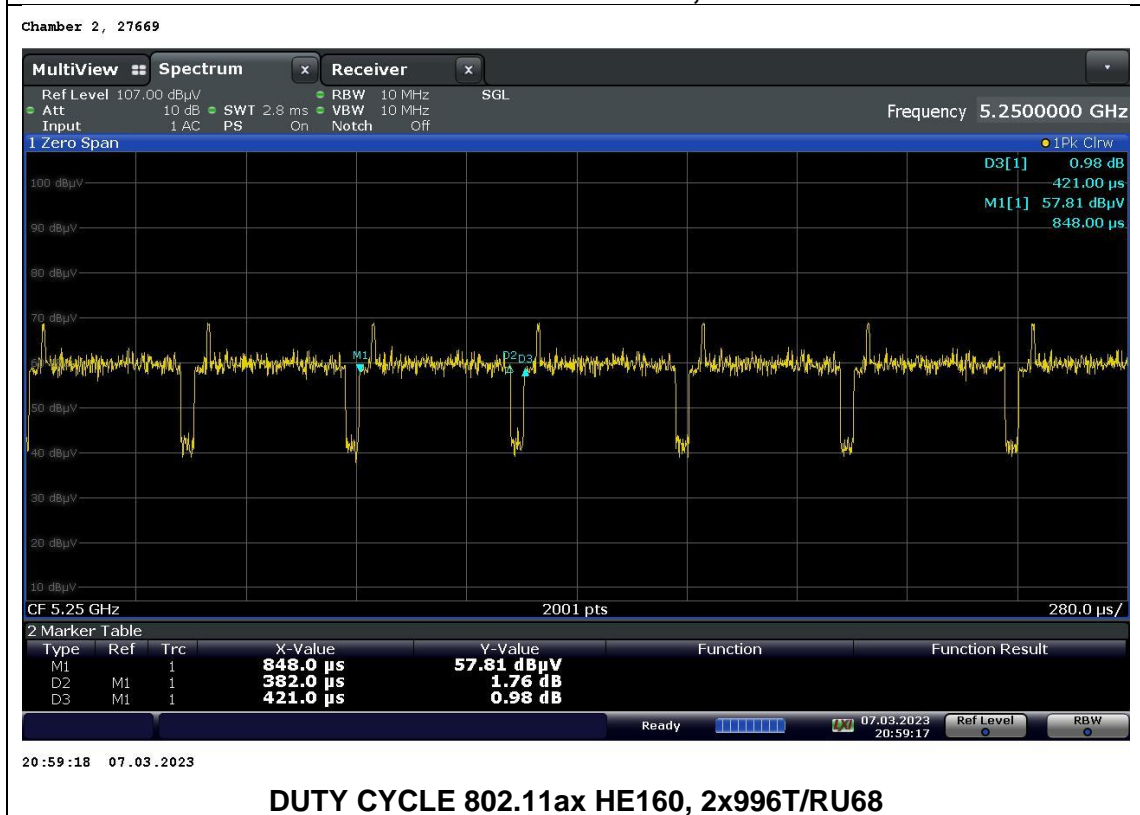
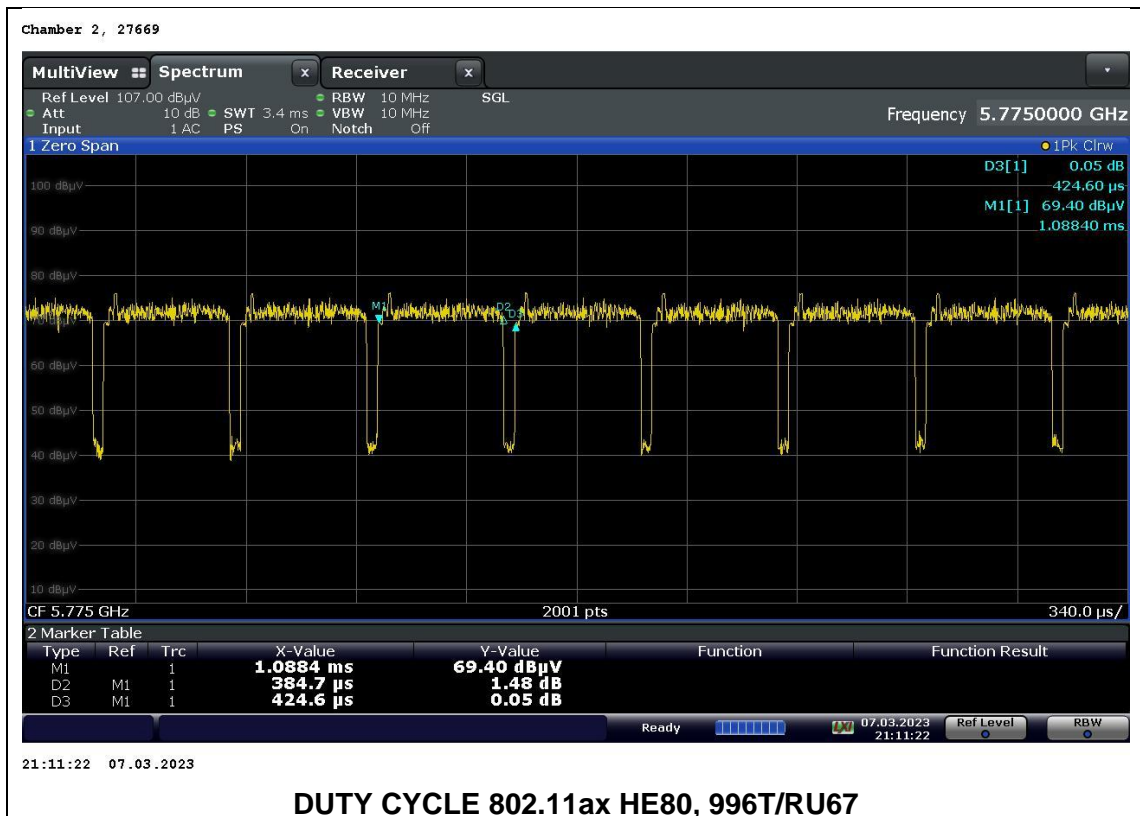
DUTY CYCLE 802.11b, 1Mbps



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DUTY CYCLE 802.11ax HE20, 242T/RU61

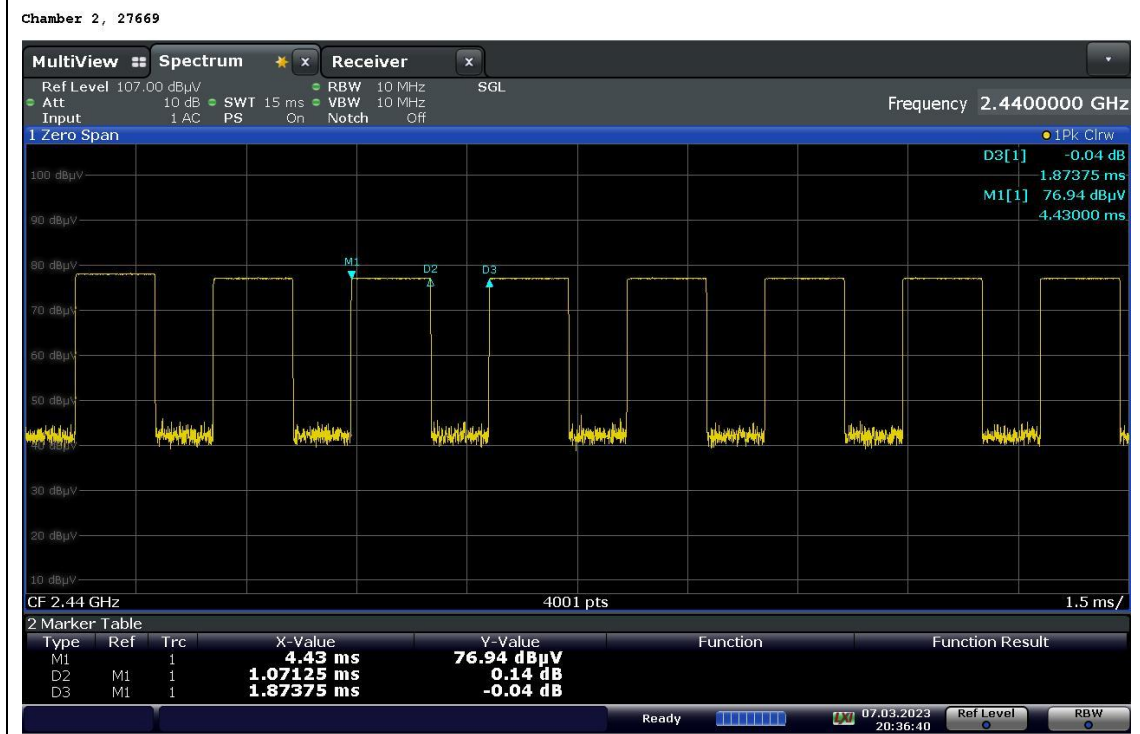






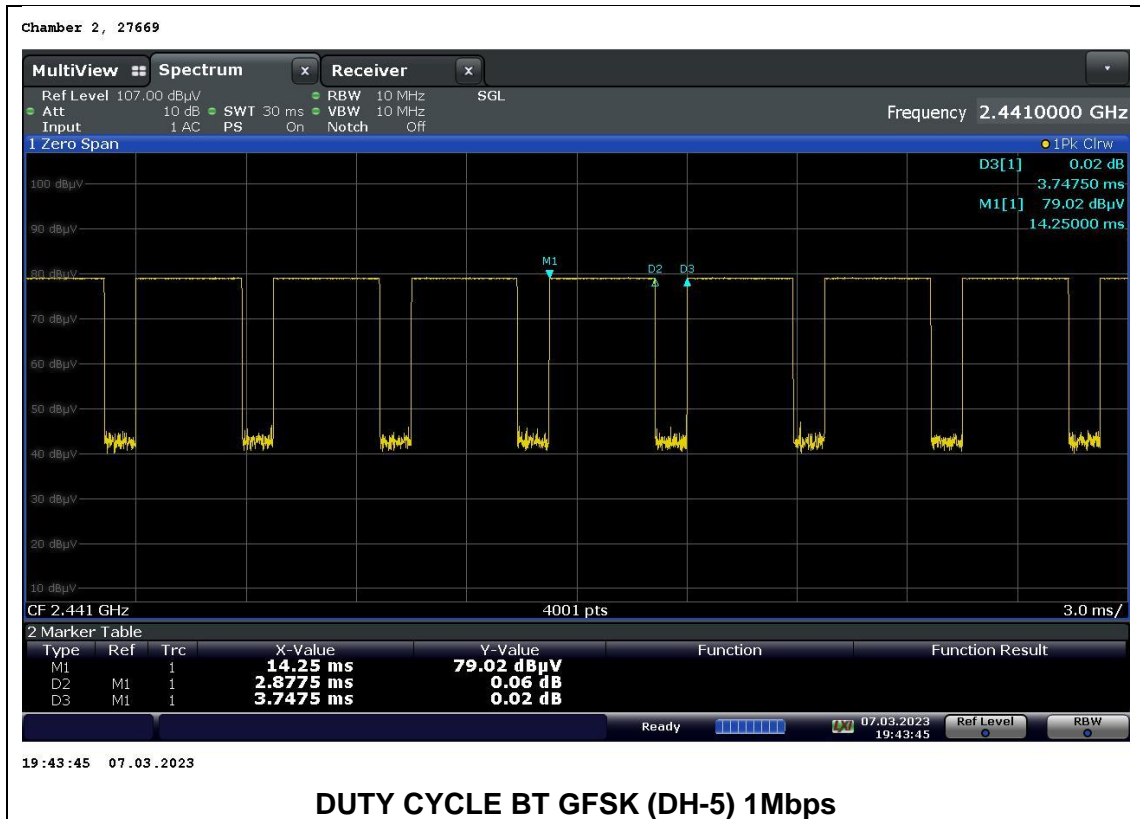
20:21:56 07.03.2023

DUTY CYCLE BLE GFSK, 500Kbps



20:36:41 07.03.2023

DUTY CYCLE BLE GFSK, 2Mbps



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 1 MHz resolution bandwidth with a minimum of 1/T video bandwidth with peak detector for BT average measurements, linear voltage averaging for BLE measurements, and linear voltage average detection for WLAN measurements.

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

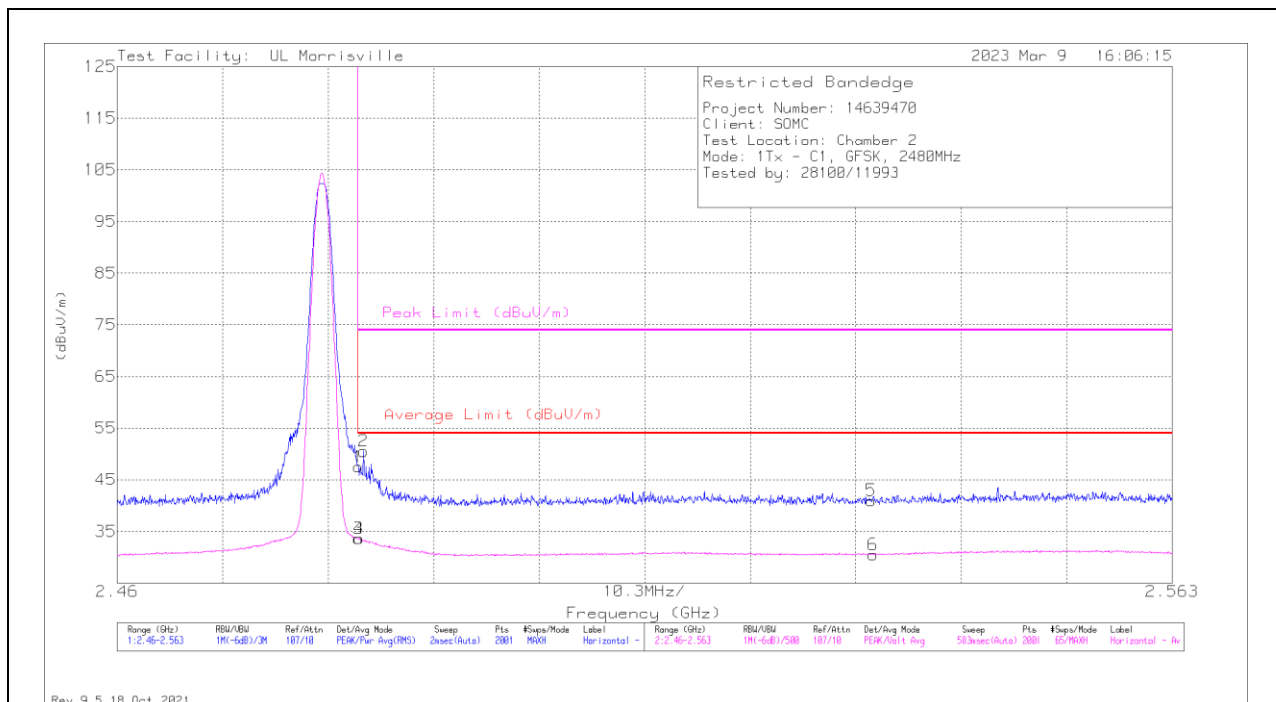
The spectrum from 1 GHz to 18 GHz is investigated with the transmitter set to worst case mode.

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. BLUETOOTH

BANDEDGE (HIGH CHANNEL - CHAIN 1, GFSK)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (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	*** 2.48354	39.3	Pk	32.5	-24.3	47.5	-	-	74	-26.5	90	159	H
2	*** 2.48405	42.43	Pk	32.5	-24.4	50.53	-	-	74	-23.47	90	159	H
5	** 2.53359	33.26	Pk	32.6	-24.9	40.96	-	-	74	-33.04	90	159	H
3	*** 2.48354	23.13	V1TV	32.5	-24.3	31.33	54	-22.67	-	-	90	159	H
4	*** 2.48359	23.13	V1TV	32.5	-24.3	31.33	54	-22.67	-	-	90	159	H
6	** 2.5338	20.49	V1TV	32.6	-24.9	28.19	54	-25.81	-	-	90	159	H

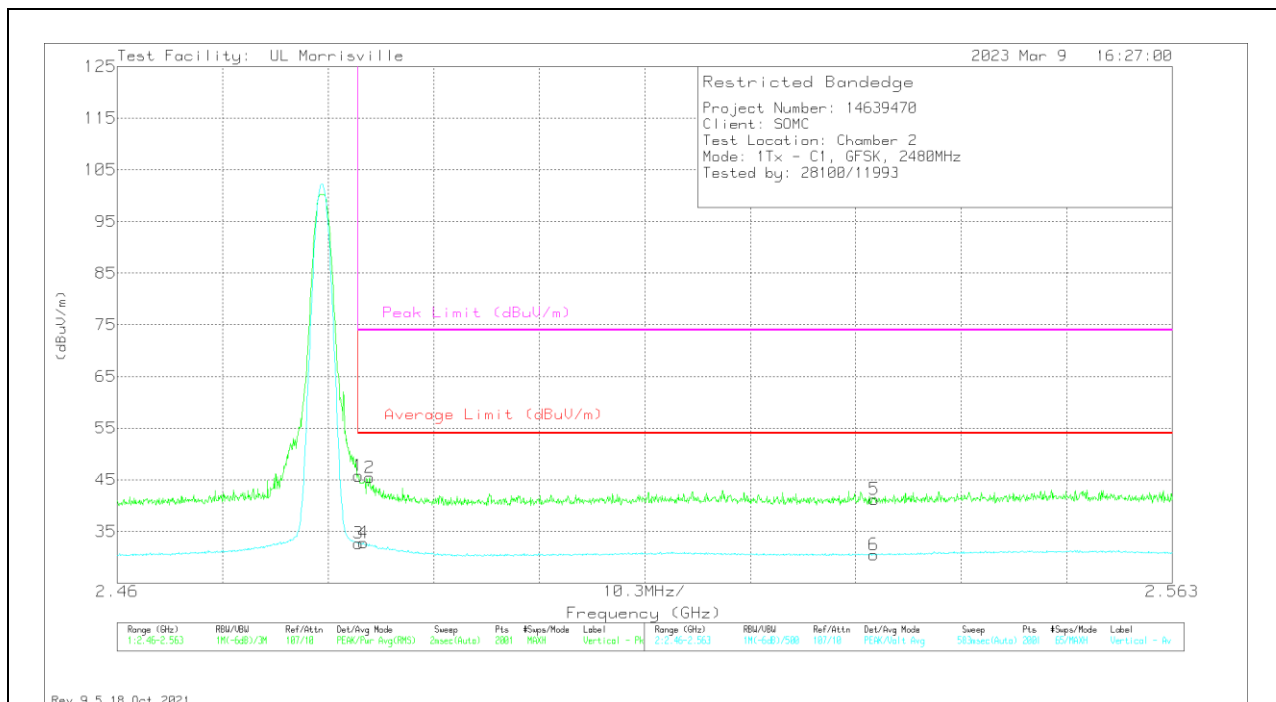
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - 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

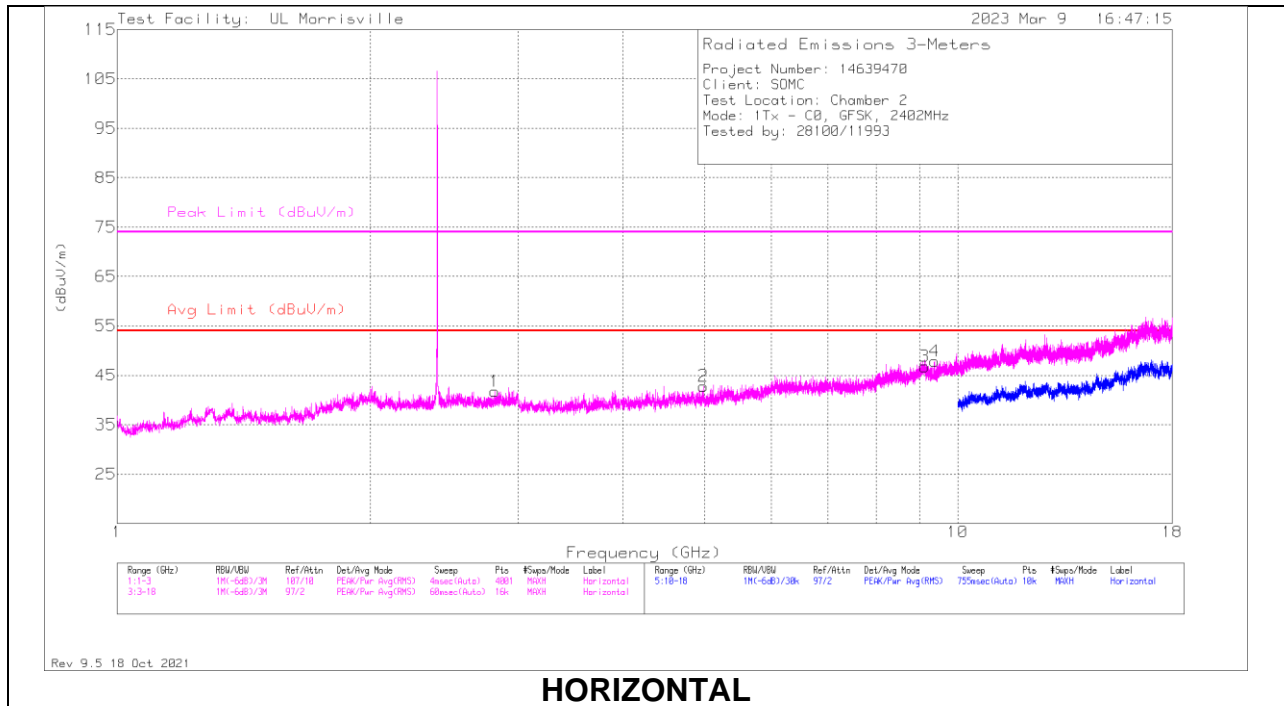


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 2.48354	37.57	Pk	32.5	-24.3	45.77	-	-	74	-28.23	30	101	V
2	*** 2.48467	37.32	Pk	32.5	-24.4	45.42	-	-	74	-28.58	30	101	V
5	** 2.5339	33.51	Pk	32.6	-24.9	41.21	-	-	74	-32.79	30	101	V
3	*** 2.48354	22.22	V1TV	32.5	-24.3	30.42	54	-23.58	-	-	30	101	V
4	*** 2.48405	22.42	V1TV	32.5	-24.4	30.52	54	-23.48	-	-	30	101	V
6	** 2.53385	20.49	V1TV	32.6	-24.9	28.19	54	-25.81	-	-	30	101	V

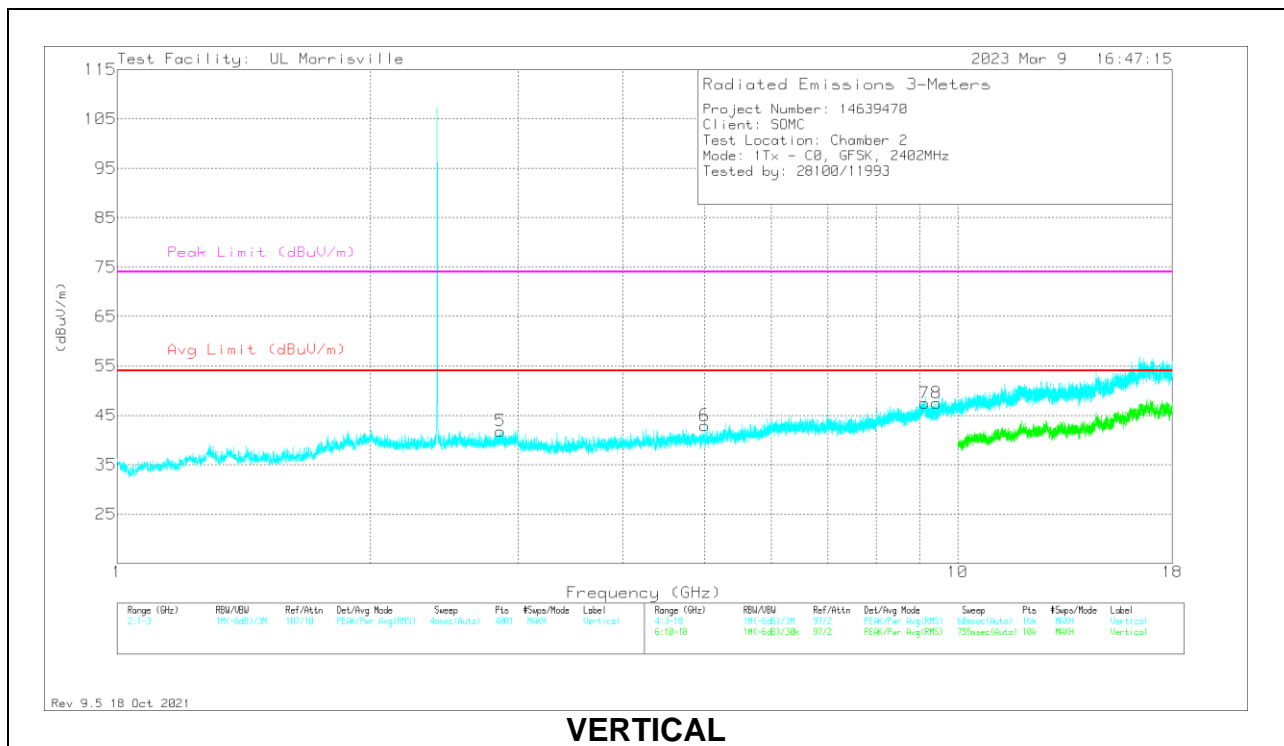
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 V1TV - VB=1/Ton, Linear Voltage Average where: Ton is packet duration

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL – CHAIN 0, GFSK



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarit y
1	* ** 2.8145	34.92	Pk	32.6	-25.8	41.72	54	-12.28	74	-32.28	0-360	101	H
5	* ** 2.859	35	Pk	32.6	-25.8	41.8	54	-12.2	74	-32.2	0-360	101	V
2	* ** 4.98094	39.18	Pk	34.1	-30.5	42.78	54	-11.22	74	-31.22	0-360	200	H
3	* ** 9.13776	38.65	PK2	36.3	-24.9	50.05	-	-	74	-23.95	172	357	H
	* ** 9.13821	24.24	V1TV	36.3	-24.9	35.64	54	-18.36	-	-	172	357	H
4	* ** 9.39188	37.04	Pk	36.6	-25.8	47.84	54	-6.16	74	-26.16	0-360	200	H
6	* ** 4.99875	39.6	Pk	34.1	-30.8	42.9	54	-11.1	74	-31.1	0-360	101	V
7	* ** 9.13812	38.2	PK2	36.3	-24.9	49.6	-	-	74	-24.4	150	323	V
	* ** 9.13829	24.17	V1TV	36.3	-24.9	35.57	54	-18.43	-	-	150	323	V
8	* ** 9.43969	36.58	Pk	36.6	-25.7	47.48	54	-6.52	74	-26.52	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

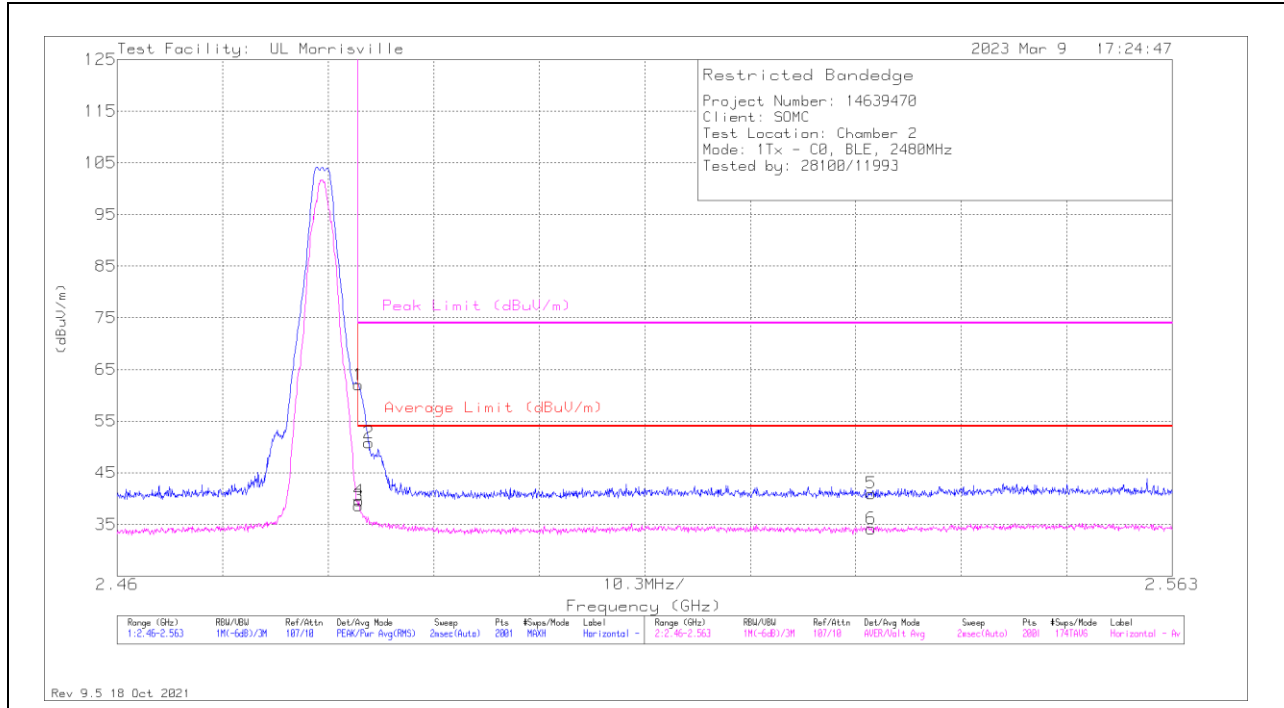
PK2 - Maximum Peak

V1TV - VB=1/Ton, Linear Voltage Average where: Ton is packet duration. VBW is set to 0.348kHz

10.2. BLE

BANDEDGE (HIGH CHANNEL – CHAIN 0, 2Mbps)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (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	*** 2.48354	53.79	Pk	32.5	-24.3	0	61.99	-	-	74	-12.01	350	267	H
2	*** 2.48457	42.71	Pk	32.5	-24.4	0	50.81	-	-	74	-23.19	350	267	H
5	** 2.53359	33.3	Pk	32.6	-24.9	0	41	-	-	74	-33	350	267	H
3	*** 2.48354	25.56	ADV	32.5	-24.3	4.86	38.62	54	-15.38	-	-	350	267	H
4	*** 2.48359	26.54	ADV	32.5	-24.3	4.86	39.6	54	-14.4	-	-	350	267	H
6	** 2.53359	21.64	ADV	32.6	-24.9	4.86	34.2	54	-19.8	-	-	350	267	H

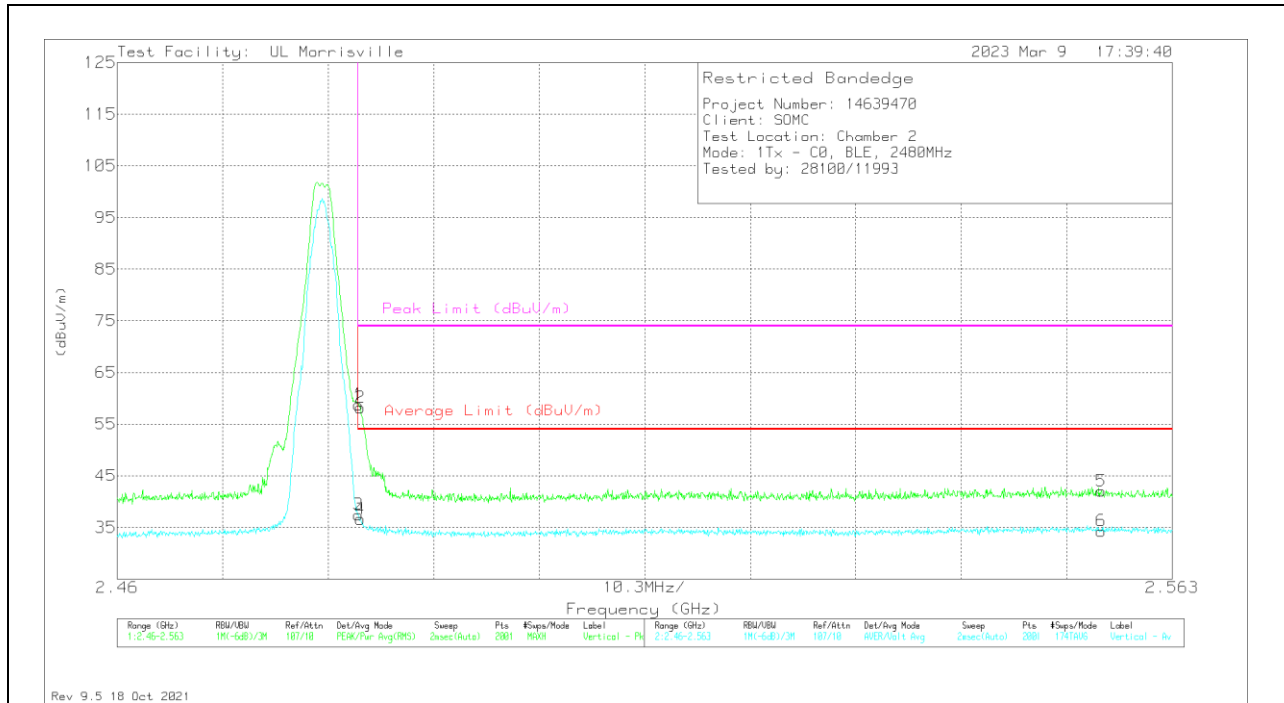
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - 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)	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	*** 2.48354	50.55	Pk	32.5	-24.3	0	58.75	-	-	74	-15.25	154	311	V
2	*** 2.48374	50	Pk	32.5	-24.3	0	58.2	-	-	74	-15.8	154	311	V
5	** 2.55605	34.11	Pk	32.6	-24.7	0	42.01	-	-	74	-31.99	154	311	V
3	*** 2.48354	24.4	ADV	32.5	-24.3	4.86	37.46	54	-16.54	-	-	154	311	V
4	*** 2.48374	23.58	ADV	32.5	-24.3	4.86	36.64	54	-17.36	-	-	154	311	V
6	** 2.55605	21.54	ADV	32.6	-24.7	4.86	34.3	54	-19.7	-	-	154	311	V

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

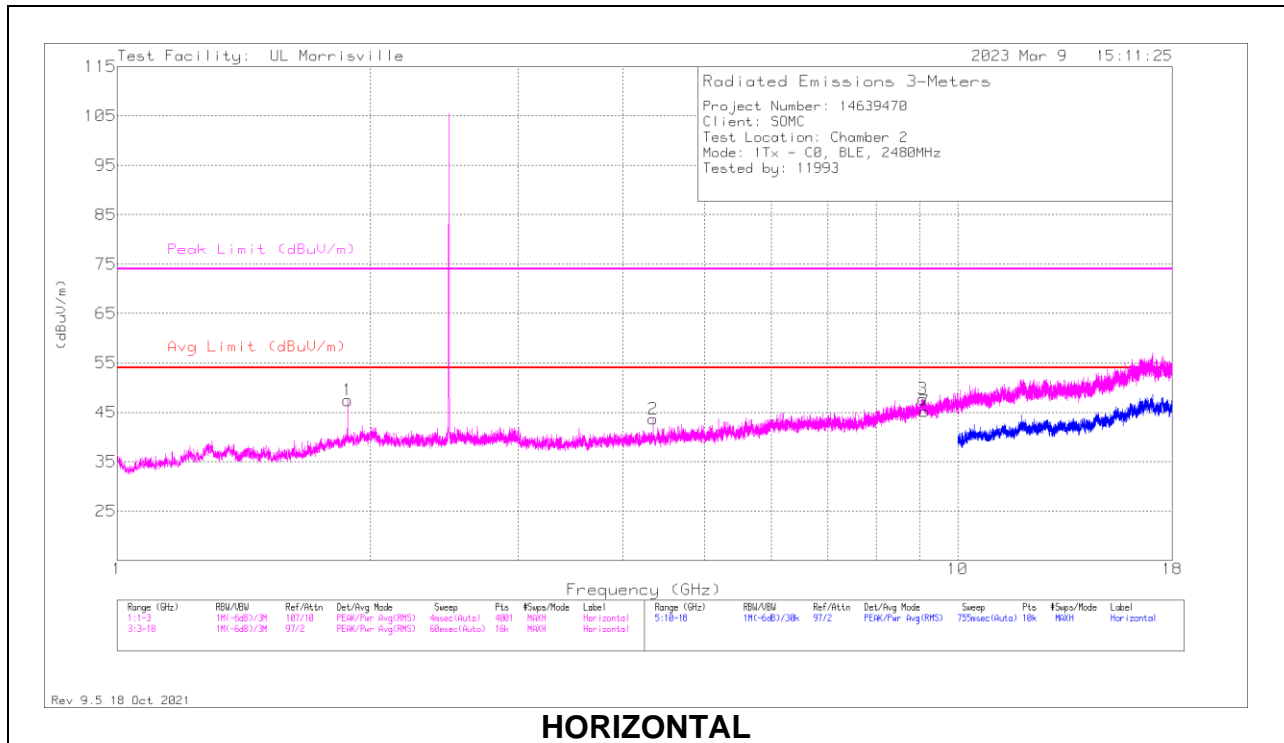
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

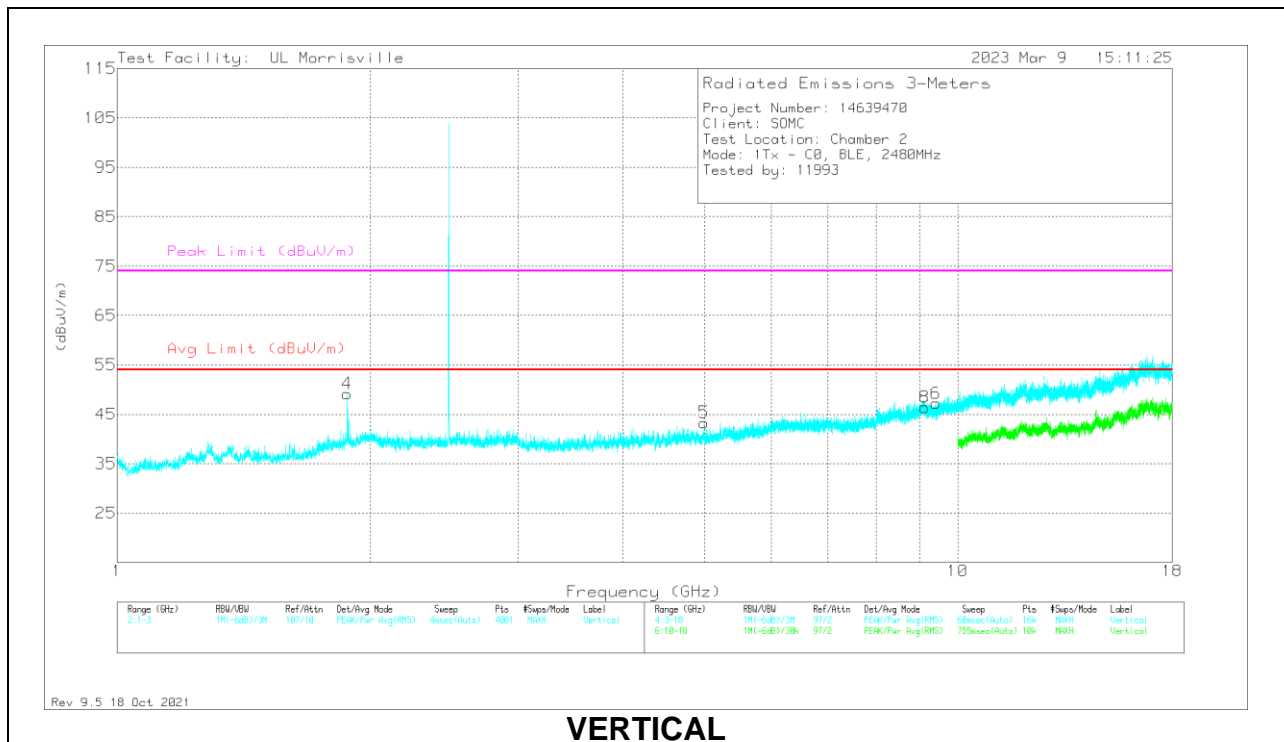
ADV - Linear Voltage Average

HARMONICS AND SPURIOUS EMISSIONS

HIGH CHANNEL – CHAIN 0, 500Kbps



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (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
4	** 1.87907	46.07	PK2	31.4	-22.4	0	55.07	-	-	74	-18.93	75	157	V
	** 1.87892	21.48	ADV	31.4	-22.4	.83	31.31	54	-22.69	-	-	75	157	V
2	*** 4.33969	41.23	Pk	33.7	-31.3	0	43.63	54	-10.37	74	-30.37	0-360	200	H
3	*** 9.08813	36.68	Pk	36.3	-25.3	0	47.68	54	-6.32	74	-26.32	0-360	200	H
7	** 9.13146	38.19	PK2	36.3	-25.1	0	49.39	-	-	74	-24.61	68	254	H
	** 9.13198	25.98	ADV	36.3	-25.1	.83	38.01	54	-15.99	-	-	68	254	H
5	*** 4.99219	39.91	Pk	34.1	-30.7	0	43.31	54	-10.69	74	-30.69	0-360	200	V
6	*** 9.42656	36.71	Pk	36.6	-26.1	0	47.21	54	-6.79	74	-26.79	0-360	200	V
8	*** 9.12655	38.56	PK2	36.3	-25.2	0	49.66	-	-	74	-24.34	332	243	V
	*** 9.12603	25.91	ADV	36.3	-25.2	.83	37.84	54	-16.16	-	-	332	243	V
1	1.8805	38.53	Pk	31.4	-22.5	0	47.43	54	-6.57	74	-26.57	0-360	101	H

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

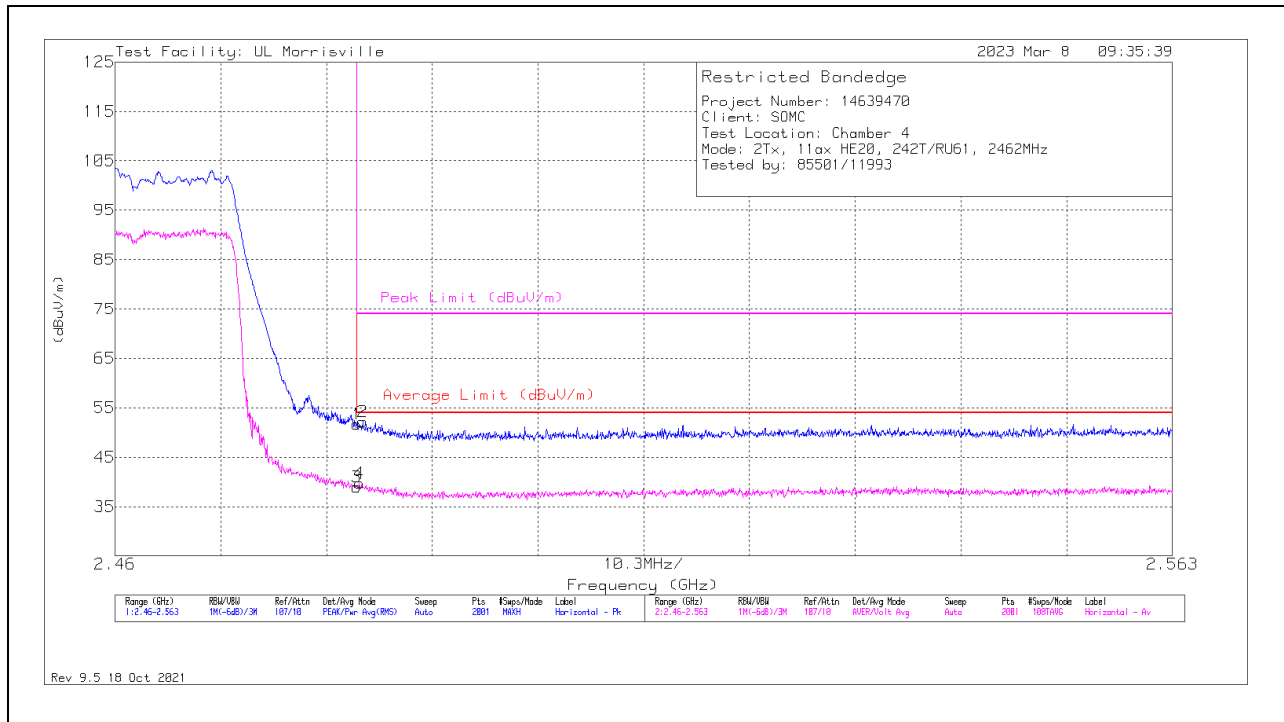
PK2 - Maximum Peak

ADV - Linear Voltage Average

10.3. 2.4GHz WLAN

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

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (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	* ** 2.48354	32.79	Pk	32.6	-13.7	0	51.69	-	-	74	-22.31	150	101	H
2	* ** 2.4841	33.3	Pk	32.6	-13.7	0	52.2	-	-	74	-21.8	150	101	H
3	* ** 2.48354	20.14	ADV	32.6	-13.7	0.71	39.75	54	-14.25	-	-	150	100	H
4	* ** 2.48379	20.82	ADV	32.6	-13.7	0.71	40.43	54	-13.57	-	-	150	100	H

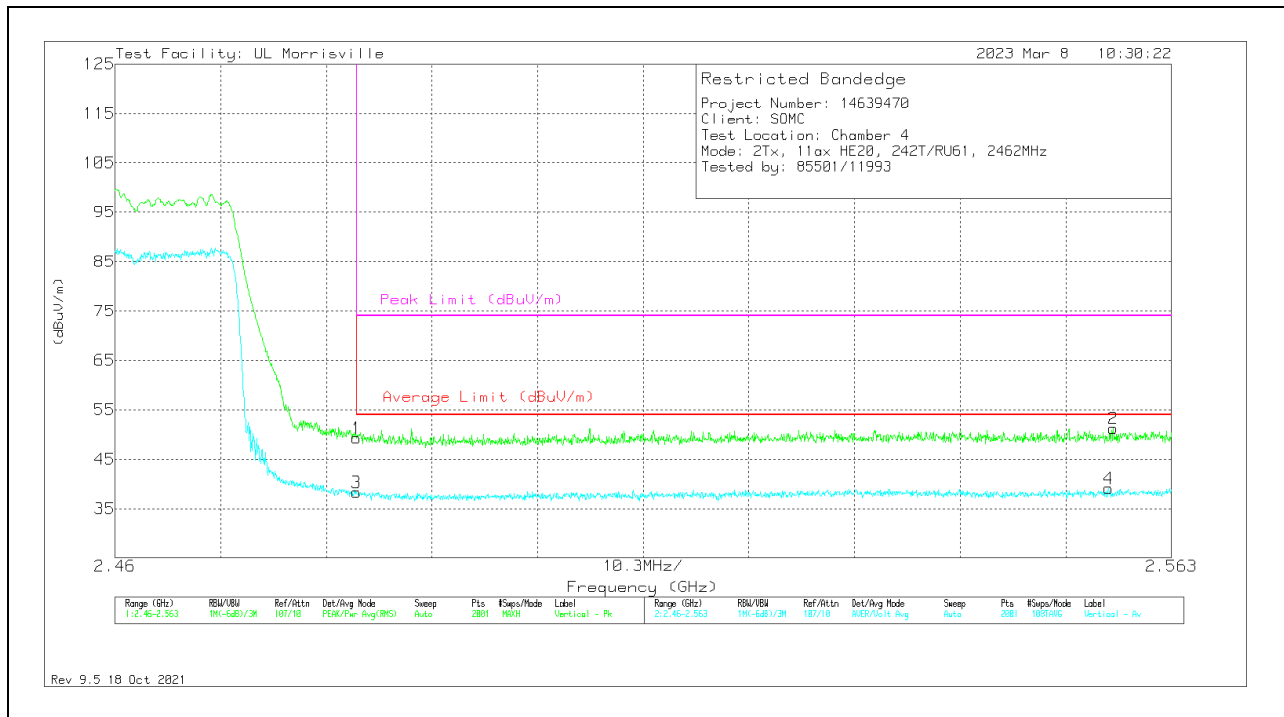
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (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	* ** 2.48354	30.34	Pk	32.6	-13.7	0	49.24	-	-	74	-24.76	180	320	V
2	** 2.55734	31.86	Pk	32.7	-13.3	0	51.26	-	-	74	-22.74	180	320	V
3	* ** 2.48354	19.39	ADV	32.6	-13.7	0.71	39	54	-15	-	-	180	320	V
4	** 2.55687	19.66	ADV	32.7	-13.3	0.71	39.77	54	-14.23	-	-	180	320	V

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

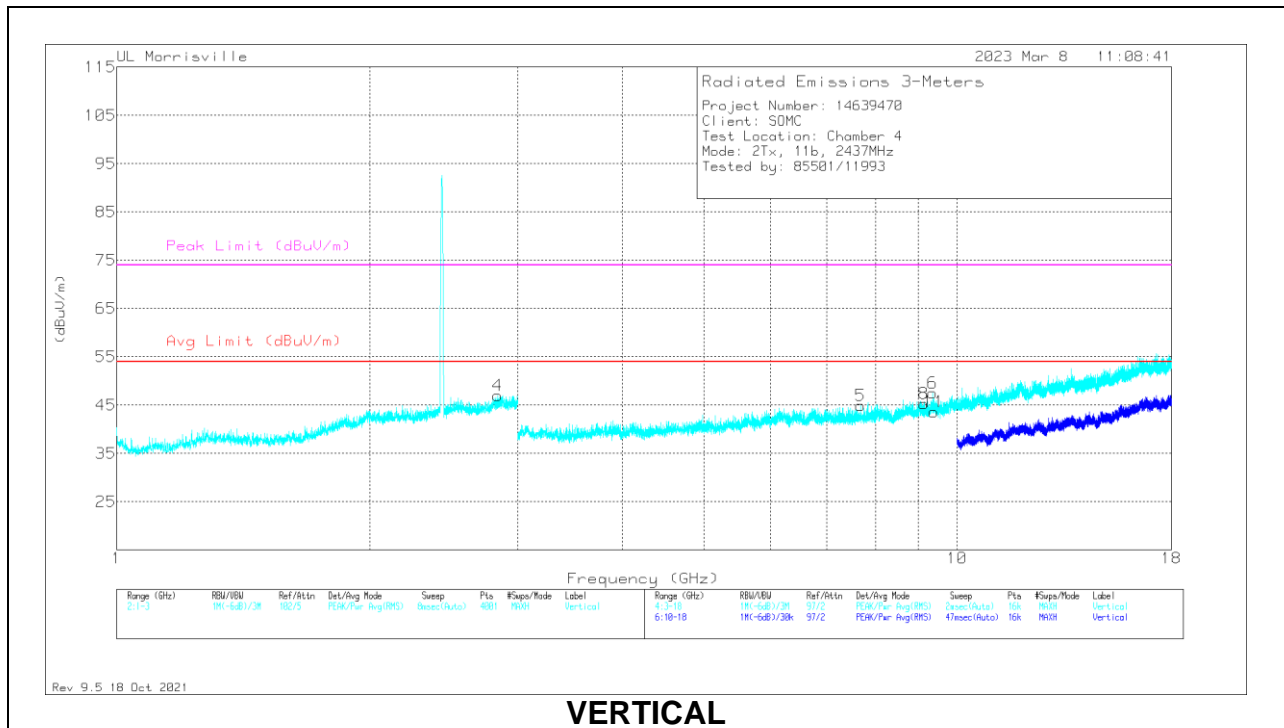
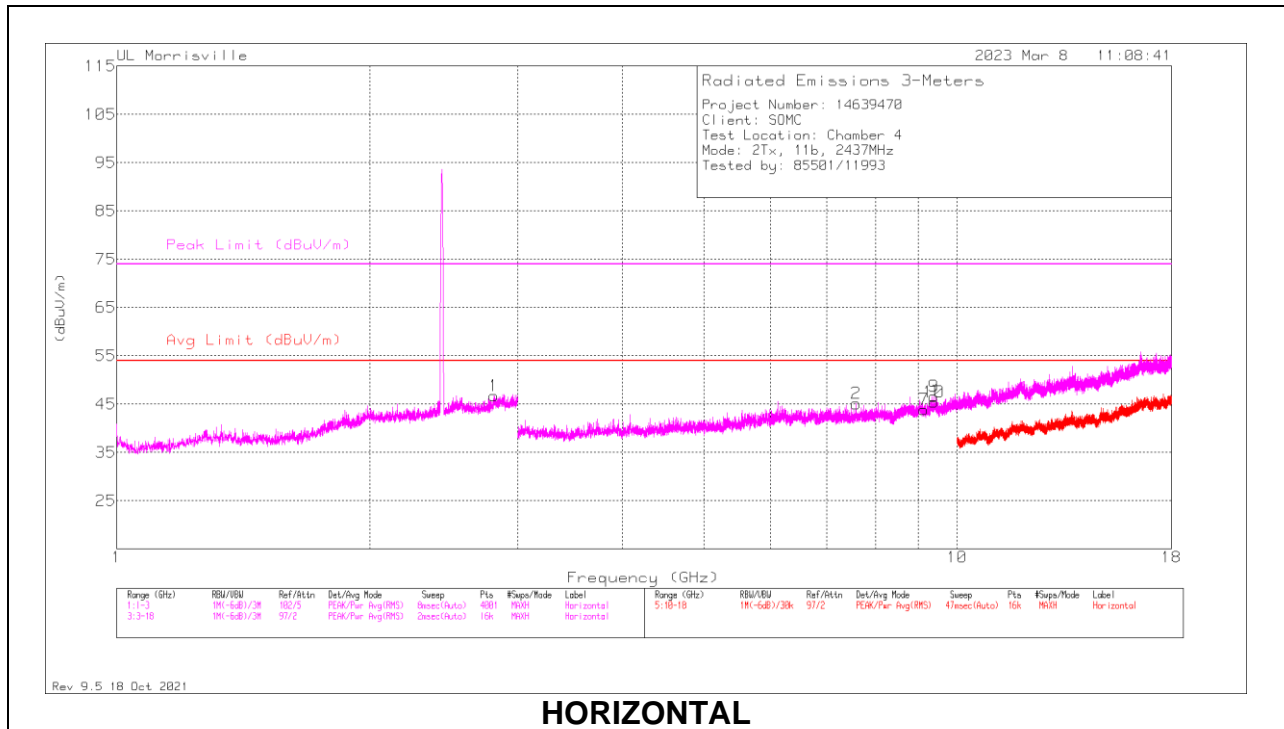
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL 2TX, 802.11b, 1Mbps



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 2.8095	26.94	Pk	32.6	-12.8	46.74	54	-7.26	74	-27.26	0-360	100	H
4	*** 2.839	27.18	Pk	32.6	-12.8	46.98	54	-7.02	74	-27.02	0-360	200	V
2	*** 7.58625	37.32	Pk	35.7	-27.9	45.12	54	-8.88	74	-28.88	0-360	100	H
3	*** 9.3825	35.5	Pk	36.5	-25.4	46.6	54	-7.4	74	-27.4	0-360	100	H
7	*** 9.13688	33.32	Pk	36.2	-25.6	43.92	54	-10.08	74	-30.08	0-360	100	H
9	*** 9.3825	35.5	Pk	36.5	-25.4	46.6	54	-7.4	74	-27.4	0-360	100	H
10	*** 9.3884	36.36	PK2	36.5	-25.5	47.36	-	-	74	-26.64	273	296	H
	*** 9.39024	23.77	ADV	36.5	-25.6	34.67	54	-19.33	-	-	273	296	H
5	*** 7.67531	36.99	Pk	35.7	-27.8	44.89	54	-9.11	74	-29.11	0-360	200	V
6	*** 9.35813	36.56	Pk	36.4	-25.5	47.46	54	-6.54	74	-26.54	0-360	200	V
8	*** 9.13688	34.72	Pk	36.2	-25.6	45.32	54	-8.68	74	-28.68	0-360	200	V
11	*** 9.38944	36.33	PK2	36.5	-25.5	47.33	-	-	74	-26.67	210	178	V
	*** 9.39013	23.86	ADV	36.5	-25.6	34.76	54	-19.24	-	-	210	178	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

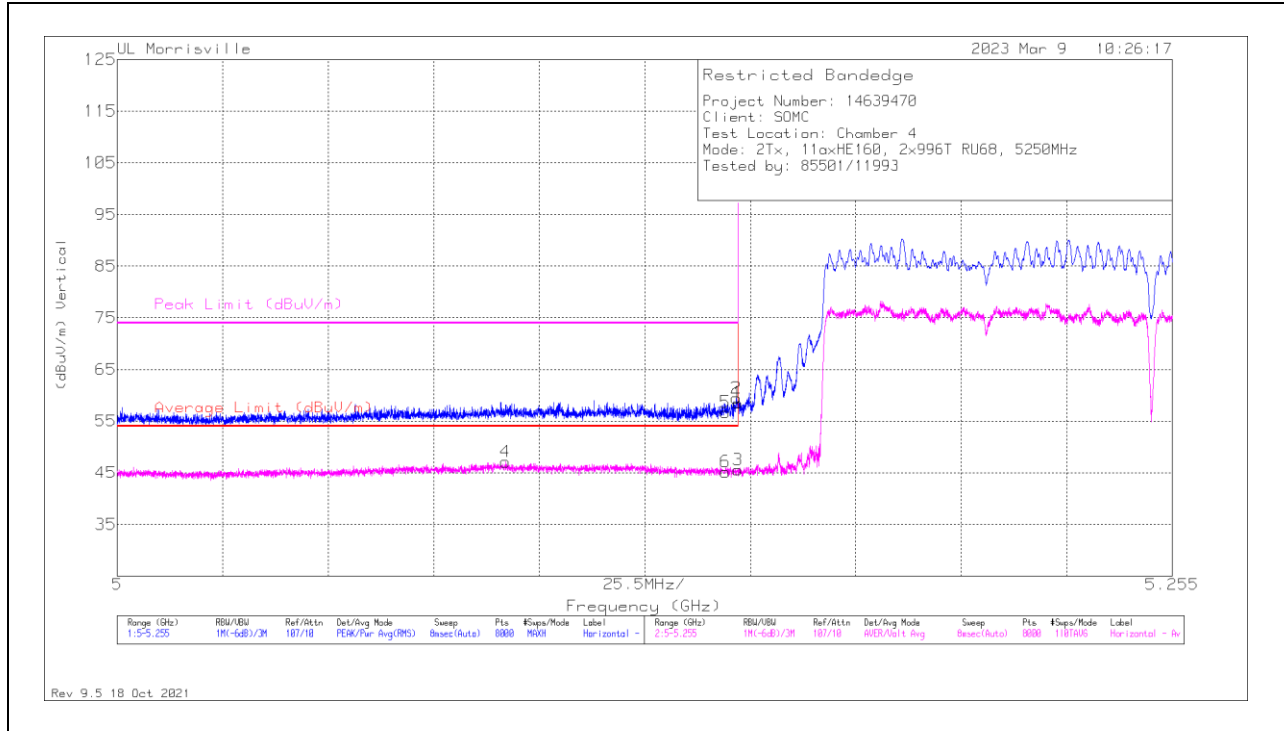
PK2 - Maximum Peak

ADV - Linear Voltage Average

10.4. 5GHz WLAN

BANDEDGE (5.2 BAND LOW CHANNEL – 2TX, 802.11ax HE160, 2x996T/RU68)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (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	*** 5.14999	34.42	Pk	34.2	-10.1	0	58.52	-	-	74	-15.48	48	107	H
2	*** 5.14964	35.33	Pk	34.2	-10.1	0	59.43	-	-	74	-14.57	48	107	H
5	*** 5.14597	35.53	PK2	34.2	-10.1	0	59.63	-	-	74	-14.37	48	107	H
	*** 5.14668	21.57	ADV	34.2	-10.1	.84	46.51	54	-7.49	-	-	48	107	H
3	*** 5.14999	20.62	ADV	34.2	-10.1	.84	45.56	54	-8.44	-	-	48	107	H
4	*** 5.09379	22.18	ADV	34.1	-10	.84	47.12	54	-6.88	-	-	48	107	H
6	*** 5.14789	35.69	PK2	34.2	-10.1	0	59.79	-	-	74	-14.21	48	107	H
	*** 5.14691	21.72	ADV	34.2	-10.1	.84	46.66	54	-7.34	-	-	48	107	H

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

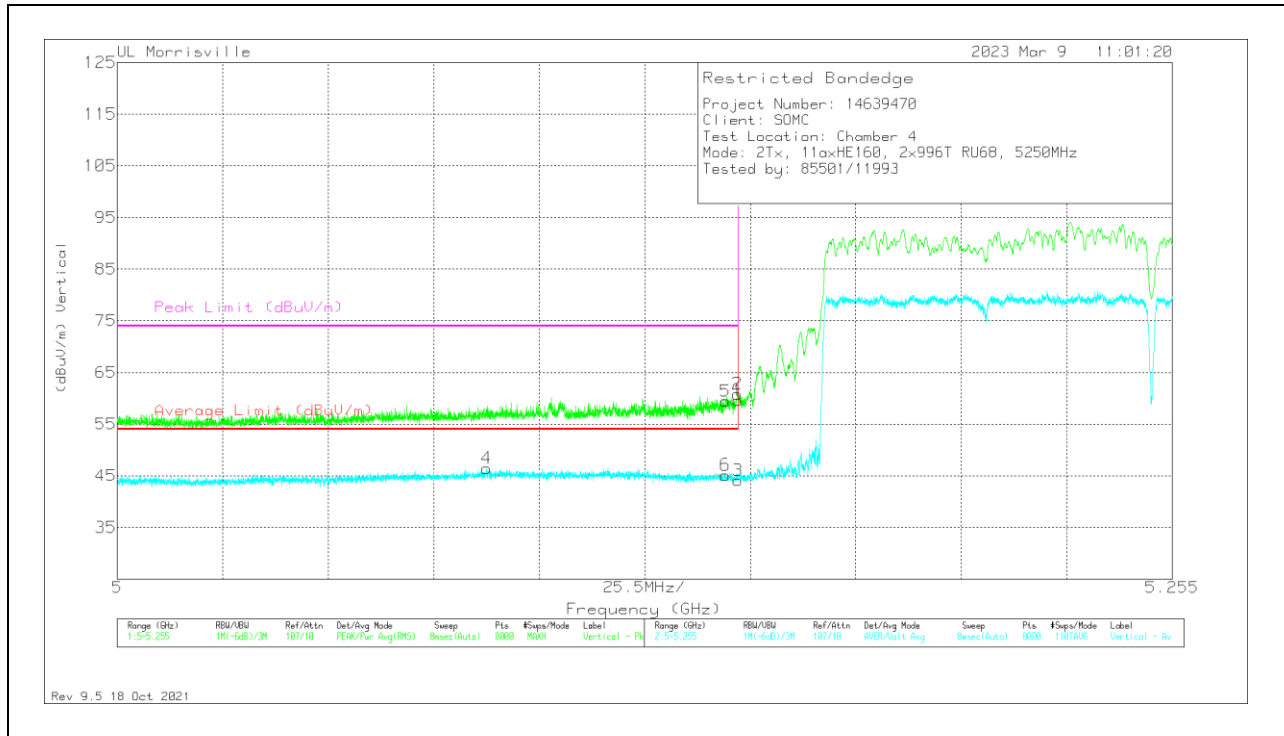
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

PK2 - Maximum Peak

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (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	*** 5.14999	35.45	Pk	34.2	-10.1	0	59.55	-	-	74	-14.45	311	111	V
2	*** 5.14993	36.74	Pk	34.2	-10.1	0	60.84	-	-	74	-13.16	311	111	V
5	*** 5.1489	36.94	PK2	34.2	-10.1	0	61.04	-	-	74	-12.96	311	111	V
	*** 5.14713	21.81	ADV	34.2	-10.1	0.84	46.75	54	-7.25	-	-	311	111	V
3	*** 5.14999	19.99	ADV	34.2	-10.1	0.84	44.93	54	-9.07	-	-	311	111	V
4	*** 5.08933	22.44	ADV	34.1	-10.1	0.84	47.28	54	-6.72	-	-	311	111	V
6	*** 5.14505	36.87	PK2	34.2	-10.1	0	60.97	-	-	74	-13.03	311	111	V
	*** 5.14609	21.79	ADV	34.2	-10.1	0.84	46.73	54	-7.27	-	-	311	111	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

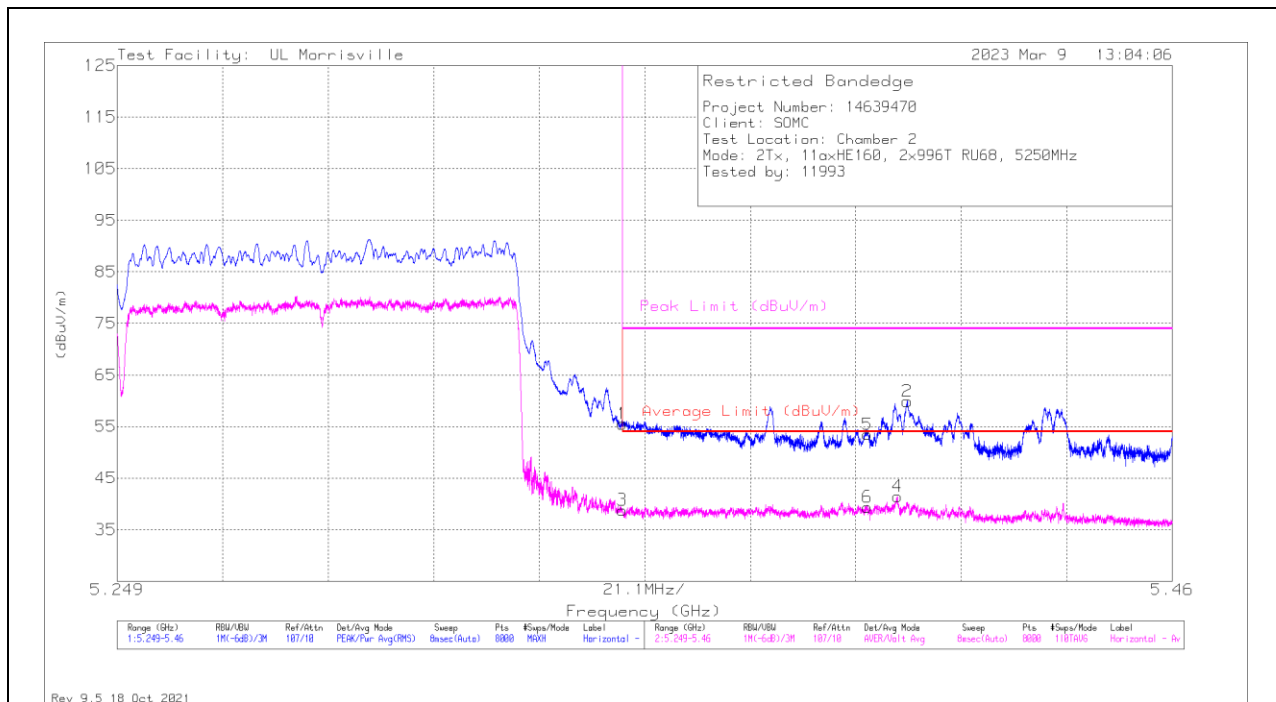
Pk - Peak detector

ADV - Linear Voltage Average

PK2 - Maximum Peak

BANDEDGE (5.3 BAND HIGH CHANNEL – 2TX, 802.11ax HE160, 2x996T/RU68)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (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	*** 5.35	43.82	Pk	34.4	-22.7	0	55.52	-	-	74	-18.48	346	104	H
2	*** 5.407	48.99	Pk	34.4	-23.5	0	59.89	-	-	74	-14.11	346	104	H
5	*** 5.39904	42.38	Pk	34.4	-23.3	0	53.48	-	-	74	-20.52	346	104	H
3	*** 5.35	26.25	ADV	34.4	-22.7	.84	38.79	54	-15.21	-	-	346	103	H
4	*** 5.40503	29.6	ADV	34.4	-23.4	.84	41.44	54	-12.56	-	-	346	103	H
6	*** 5.39904	27.43	ADV	34.4	-23.3	.84	39.37	54	-14.63	-	-	346	103	H

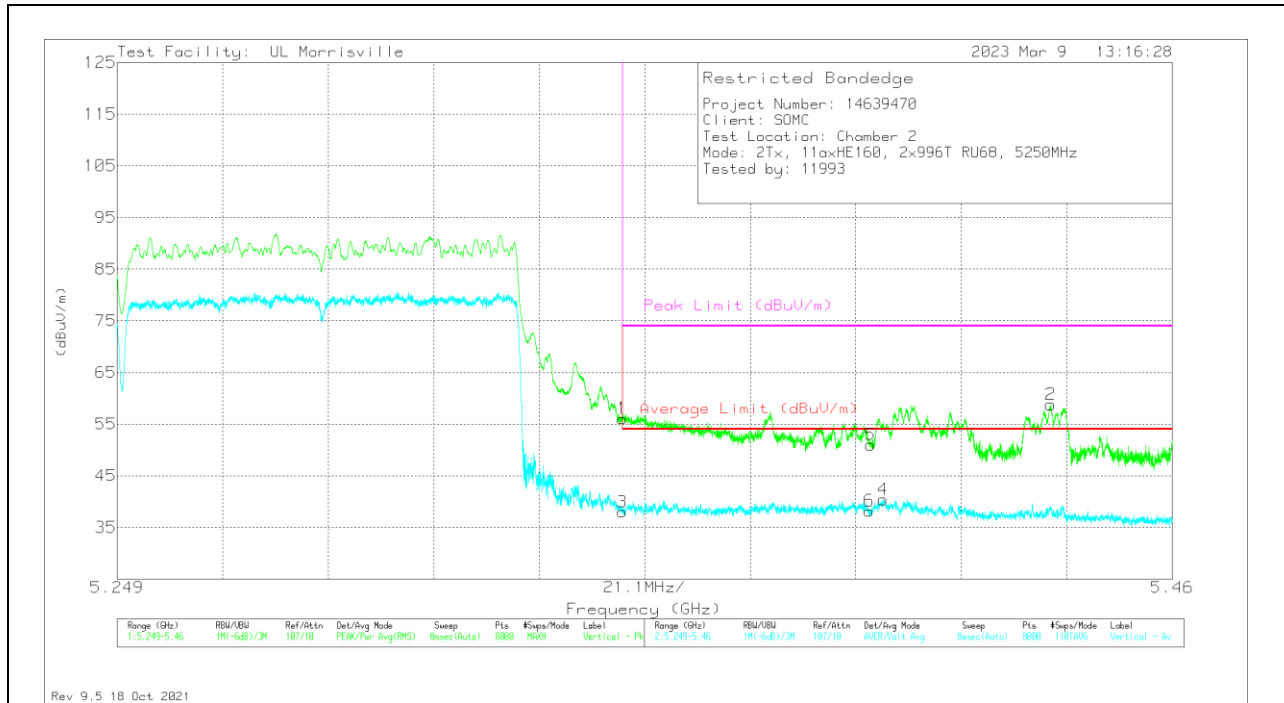
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - 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)	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	*** 5.35	44.39	Pk	34.4	-22.7	0	56.09	-	-	74	-17.91	331	126	V
2	*** 5.43568	47.9	Pk	34.4	-23.5	0	58.8	-	-	74	-15.2	331	126	V
5	*** 5.39967	39.91	Pk	34.4	-23.3	0	51.01	-	-	74	-22.99	331	126	V
3	*** 5.35	25.45	ADV	34.4	-22.7	.84	37.99	54	-16.01	-	-	331	126	V
4	*** 5.40215	28.47	ADV	34.4	-23.3	.84	40.41	54	-13.59	-	-	331	126	V
6	*** 5.39941	26.24	ADV	34.4	-23.3	.84	38.18	54	-15.82	-	-	331	126	V

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

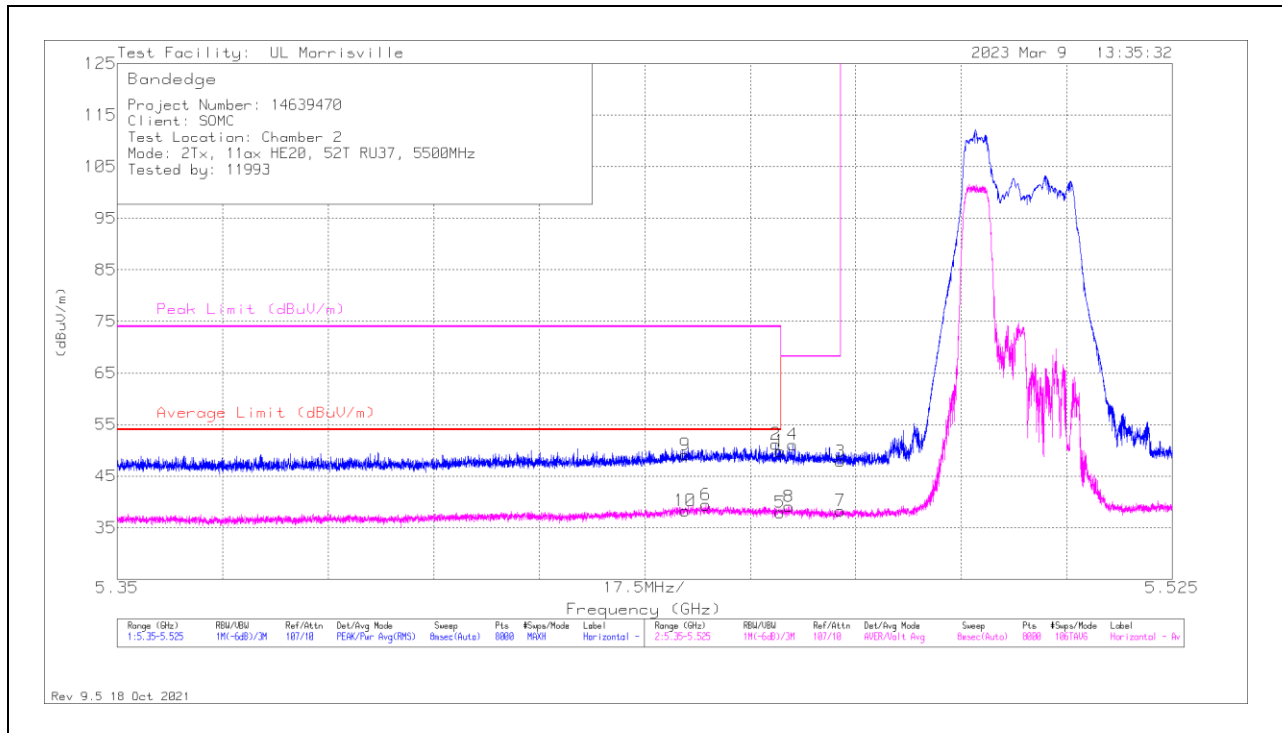
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

BANDEDGE (5.6 BAND LOW CHANNEL – 2TX, 802.11ax HE20 52T/RU37)

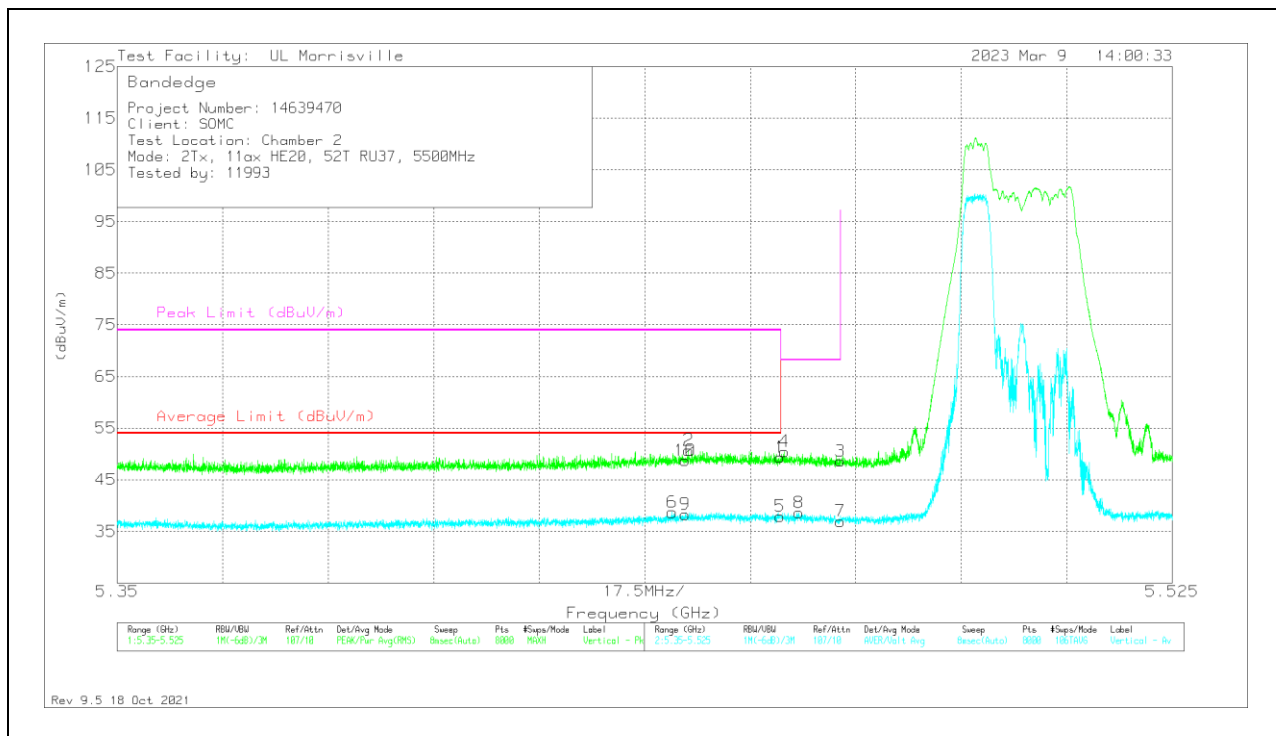
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (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	*** 5.45998	38.78	Pk	34.4	-23.3	0	49.88	-	-	74	-24.12	344	101	H
2	*** 5.45922	40.08	Pk	34.4	-23.3	0	51.18	-	-	74	-22.82	344	101	H
9	*** 5.44418	38.11	Pk	34.4	-23.4	0	49.11	-	-	74	-24.89	344	101	H
5	*** 5.45998	26.35	ADV	34.4	-23.3	.53	37.98	54	-16.02	-	-	344	101	H
6	*** 5.44762	27.9	ADV	34.4	-23.4	.53	39.43	54	-14.57	-	-	344	101	H
10	*** 5.44421	26.76	ADV	34.4	-23.4	.53	38.29	54	-15.71	-	-	344	101	H
8	5.46142	27.58	ADV	34.4	-23.4	.53	39.11	-	-	-	-	344	101	H
4	5.46202	40.1	Pk	34.4	-23.4	0	51.1	-	-	68.2	-17.1	344	101	H
3	5.46998	37.06	Pk	34.4	-23.6	0	47.86	-	-	68.2	-20.34	344	101	H
7	5.46998	26.94	ADV	34.4	-23.6	.53	38.27	-	-	-	-	344	101	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)	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	*** 5.45998	38.24	Pk	34.4	-23.3	0	49.34	-	-	74	-24.66	330	101	V
2	*** 5.44478	39.69	Pk	34.4	-23.4	0	50.69	-	-	74	-23.31	330	101	V
10	*** 5.44421	37.73	Pk	34.4	-23.4	0	48.73	-	-	74	-25.27	330	101	V
5	*** 5.45998	26.27	ADV	34.4	-23.3	.53	37.9	54	-16.1	-	-	330	101	V
6	*** 5.44206	27.17	ADV	34.4	-23.4	.53	38.7	54	-15.3	-	-	330	101	V
9	*** 5.44421	26.77	ADV	34.4	-23.4	.53	38.3	54	-15.7	-	-	330	101	V
4	5.46068	39.45	Pk	34.4	-23.4	0	50.45	-	-	68.2	-17.75	330	101	V
8	5.46307	27.07	ADV	34.4	-23.4	.53	38.6	-	-	-	-	330	101	V
3	5.46998	37.81	Pk	34.4	-23.6	0	48.61	-	-	68.2	-19.59	330	101	V
7	5.46998	25.65	ADV	34.4	-23.6	.53	36.98	-	-	-	-	330	101	V

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

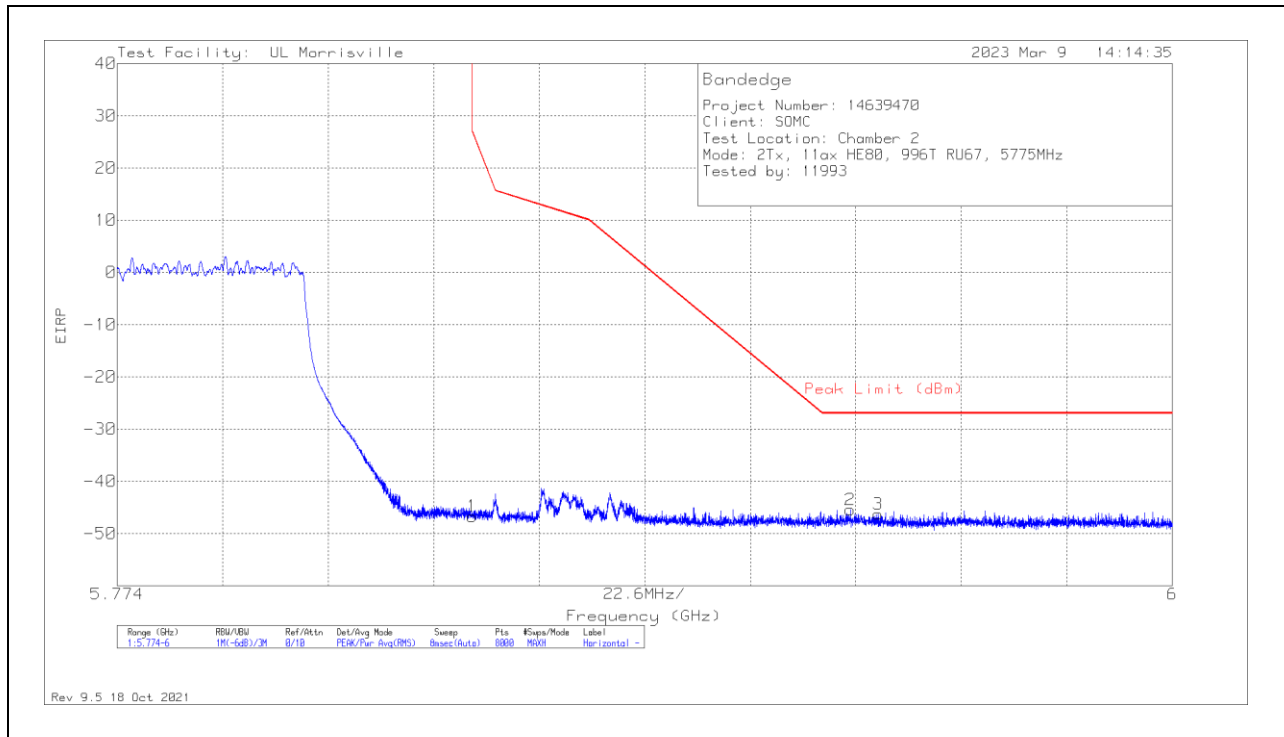
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

BANDEDGE (5.8 BAND HIGH CHANNEL – 2TX, 802.11ax HE80 996T/RU67)

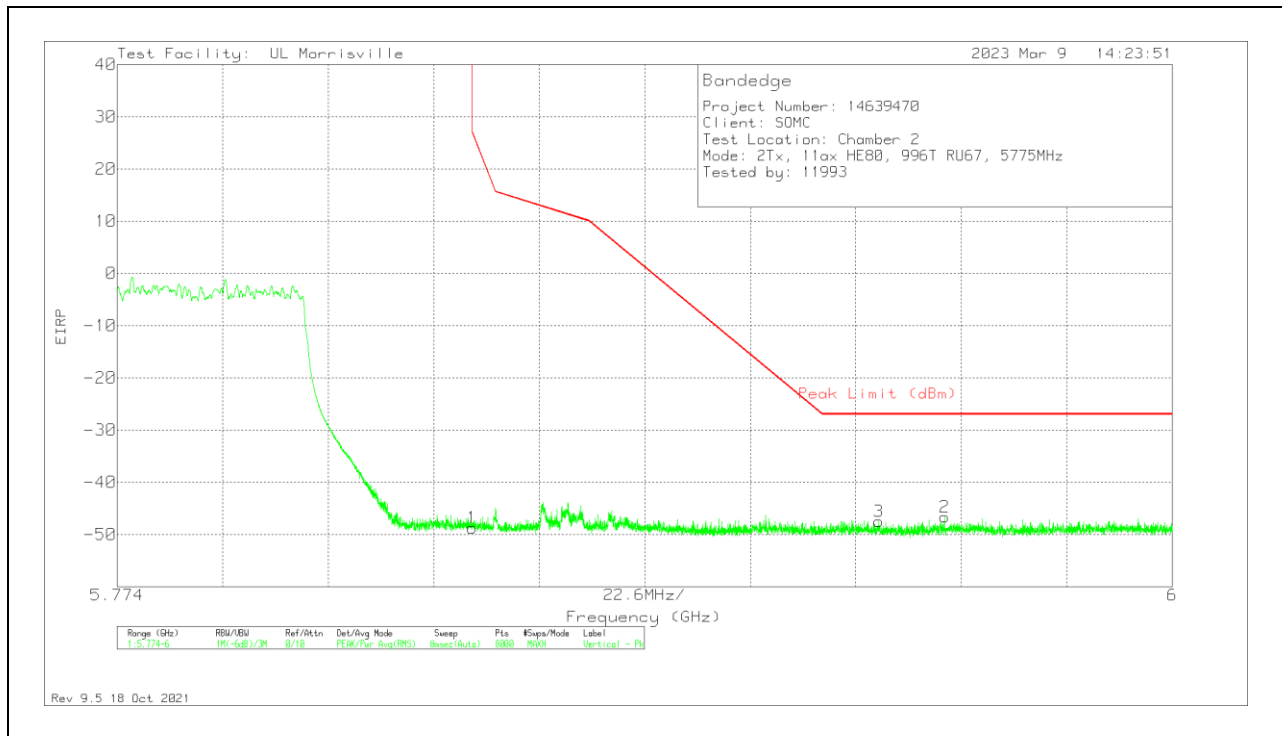
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-70.53	Pk	34.9	-22.9	11.8	-46.73	26.99	-73.72	339	104	H
2	5.93101	-69.46	Pk	35	-22.8	11.8	-45.46	-27	-18.46	339	104	H
3	5.93703	-70.29	Pk	35	-22.8	11.8	-46.29	-27	-19.29	339	104	H

Pk - Peak detector

VERTICAL RESULT

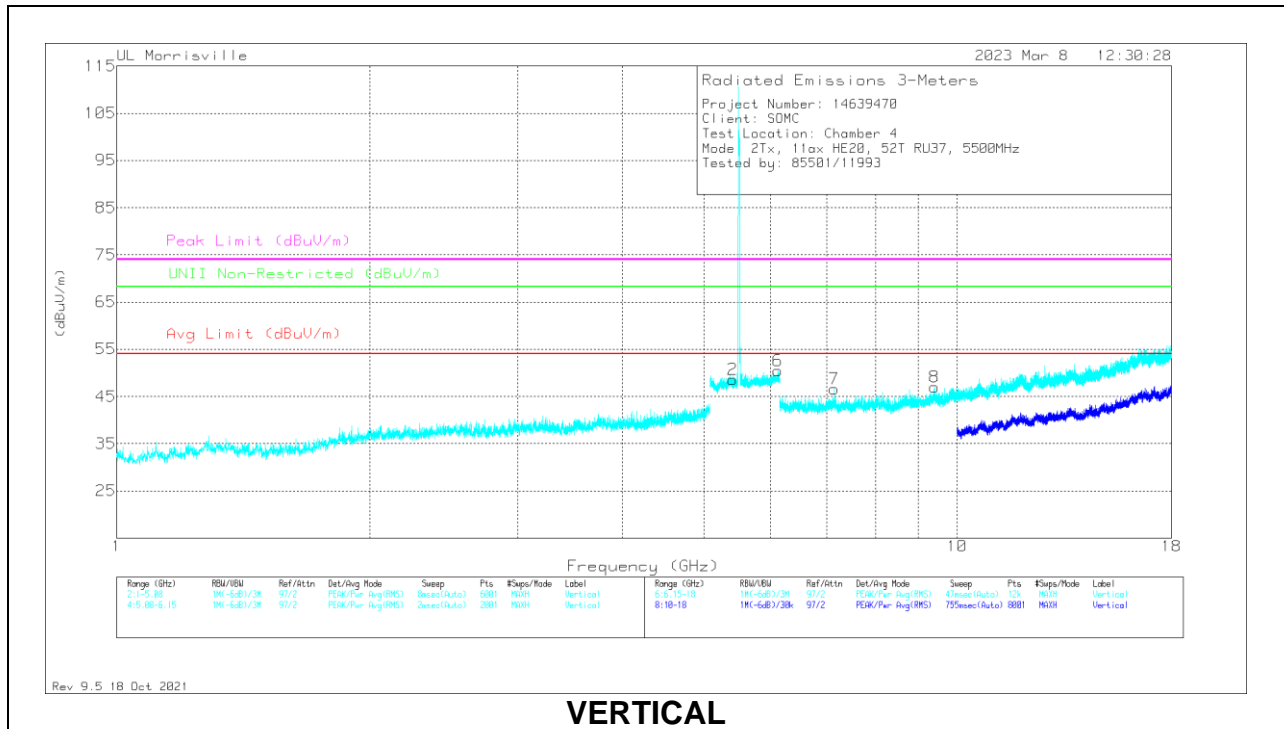
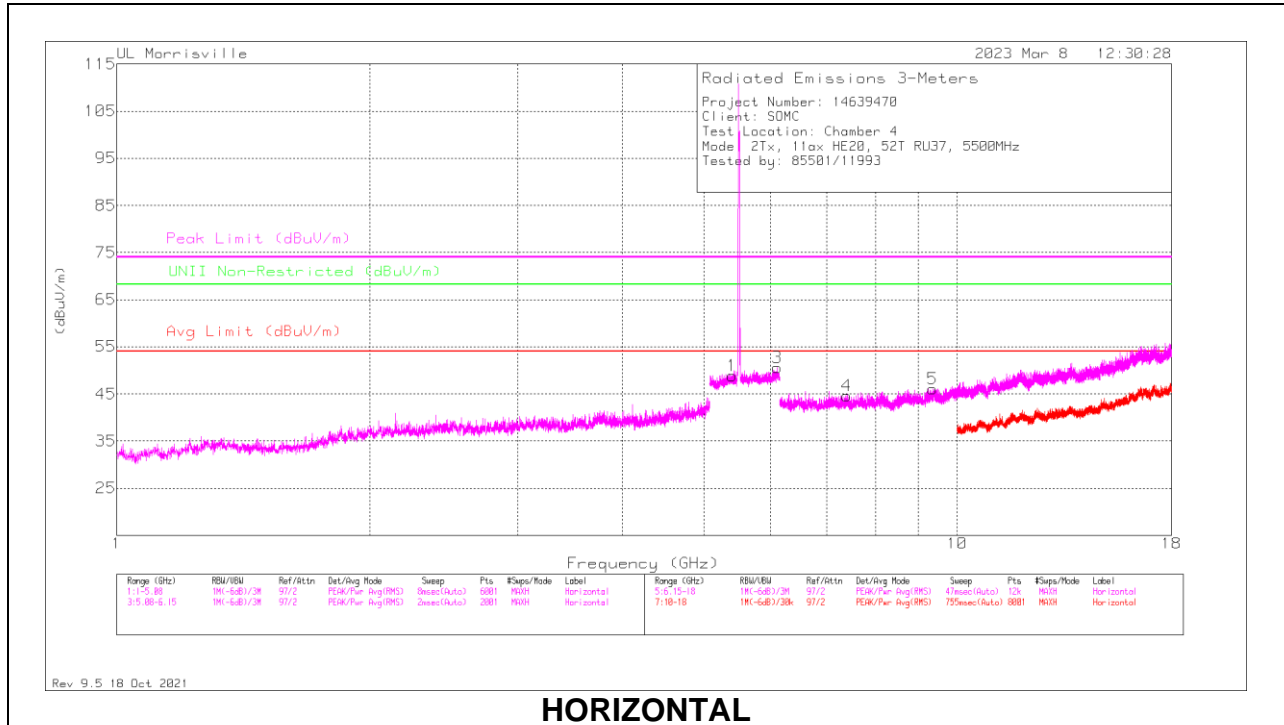


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-72.53	Pk	34.9	-22.9	11.8	-48.73	26.99	-75.72	334	105	V
3	5.93708	-71.5	Pk	35	-22.8	11.8	-47.5	-27	-20.5	334	105	V
2	5.95127	-70.87	Pk	35	-22.6	11.8	-46.67	-27	-19.67	334	105	V

Pk - Peak detector

HARMONICS AND SPURIOUS EMISSIONS

5.6 BAND LOW CHANNEL 2TX, 802.11ax HE20 52T/RU37



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (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)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 5.40546	28.74	PK2	34.6	-9.7	0	53.64	-	-	74	-20.36	-	-	325	119	H
	** 5.4058	14.95	ADV	34.6	-9.7	.53	40.38	54	-13.62	-	-	-	-	325	119	H
2	*** 5.4049	26.18	PK2	34.6	-9.7	0	51.08	-	-	74	-22.92	-	-	51	109	V
	*** 5.40355	13.46	ADV	34.6	-9.6	.53	38.99	54	-15.01	-	-	-	-	51	109	V
4	*** 7.39425	36.45	Pk	35.6	-27.5	0	44.55	54	-9.45	74	-29.45	-	-	0-360	100	H
5	*** 9.35049	35.93	Pk	36.4	-26.2	0	46.13	54	-7.87	74	-27.87	-	-	0-360	100	H
8	*** 9.40579	36.23	Pk	36.5	-25.7	0	47.03	54	-6.97	74	-26.97	-	-	0-360	200	V
3	6.10659	25.22	PK2	35.4	-8.8	0	51.82	-	-	74	-22.18	68.2	-16.38	82	108	H
	6.10682	11.98	ADV	35.4	-8.8	.53	39.11	54	-14.89	-	-	-	-	82	108	H
6	6.12344	24.72	PK2	35.4	-8.7	0	51.42	-	-	74	-22.58	68.2	-16.78	255	113	V
	6.12325	11.73	ADV	35.4	-8.7	.53	38.96	54	-15.04	-	-	-	-	255	113	V
7	7.14145	38.33	Pk	35.7	-27.4	0	46.63	54	-7.37	74	-27.37	68.2	-21.57	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

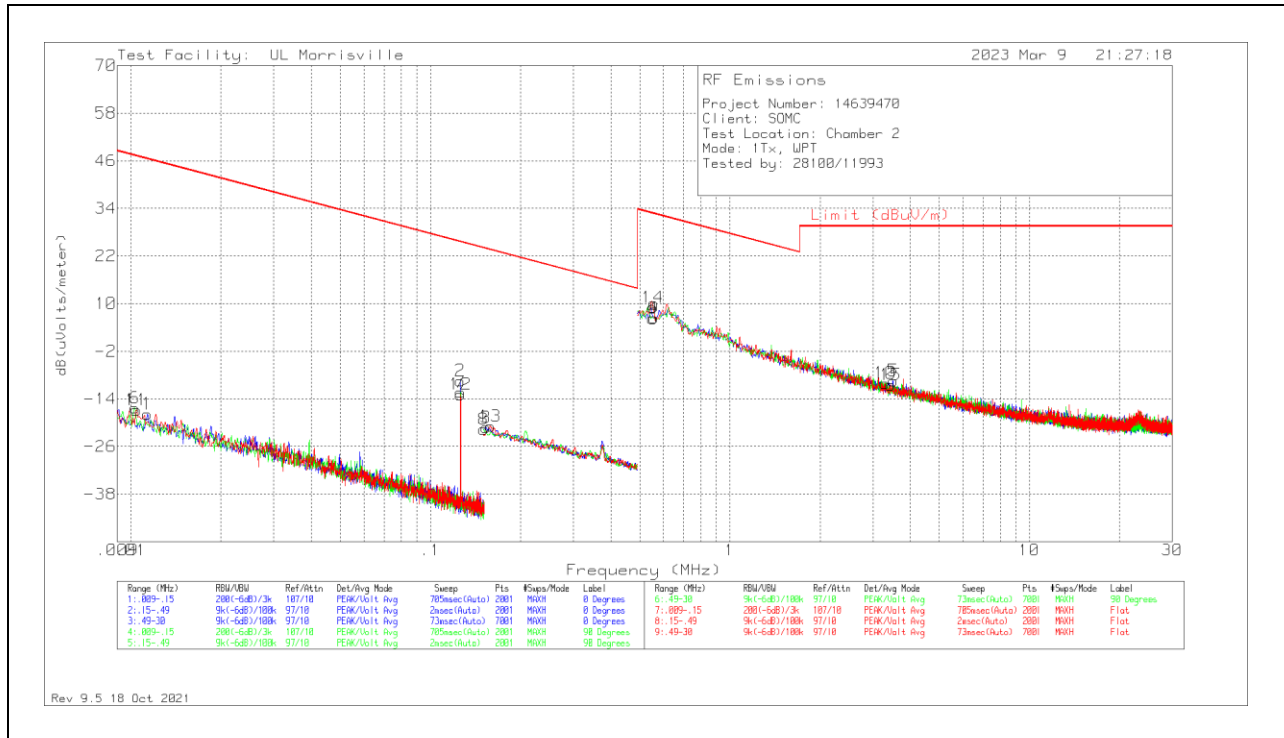
ADV - Linear Voltage Average

10.5. WPT

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 $40 \cdot \log(\text{test distance} / \text{specification distance})$.

HARMONICS AND SPURIOUS EMISSIONS – CONFIG 1

0.009 to 30MHz



RADIATED EMISSIONS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dB/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	QP/AV Limit (dBuV/m)	PK Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Loop Angle
6	.01028	44.42	Pk	19.2	.1	-80	-16.28	47.37	-	-63.65	0-360	90 degs
11	.01042	43.98	Pk	19.1	.1	-80	-16.82	47.25	-	-64.07	0-360	Flat
1	.01134	43.37	Pk	18.7	.1	-80	-17.83	46.51	66.51	-64.34	0-360	0 degs
2	.12554	54.9	Qp	12.2	.1	-80	-12.8	25.63	45.63	-38.43	92	0 degs
12	.12586	23.7	Qp	12.2	.1	-80	-44	25.61	45.61	-69.61	177	Flat
7	.12626	23.77	Qp	12.2	.1	-80	-43.93	25.58	45.58	-69.51	40	90 degs
8	.15051	46.01	Pk	12.2	.1	-80	-21.69	24.05	44.05	-45.74	0-360	90 degs
3	.15323	46.49	Pk	12.2	.1	-80	-21.21	23.9	43.9	-45.11	0-360	0 degs
13	.15833	46.8	Pk	12.2	.1	-80	-20.9	23.61	43.61	-44.51	0-360	Flat
4	.54152	31.04	Qp	12.2	.1	-40	3.34	32.93	-	-29.59	172	0 degs
14	.53853	31.08	Qp	12.2	.1	-40	3.38	32.98	-	-29.6	0	Flat
9	.55271	31.17	Qp	12.2	.1	-40	3.47	32.75	-	-29.28	292	90 degs
10	3.30207	17.45	Pk	12.2	.3	-40	-10.05	29.54	-	-39.59	0-360	90 degs
15	3.44542	17.01	Pk	12.2	.3	-40	-10.49	29.54	-	-40.03	0-360	Flat
5	3.50444	18.18	Pk	12.1	.3	-40	-9.42	29.54	-	-38.96	0-360	0 degs

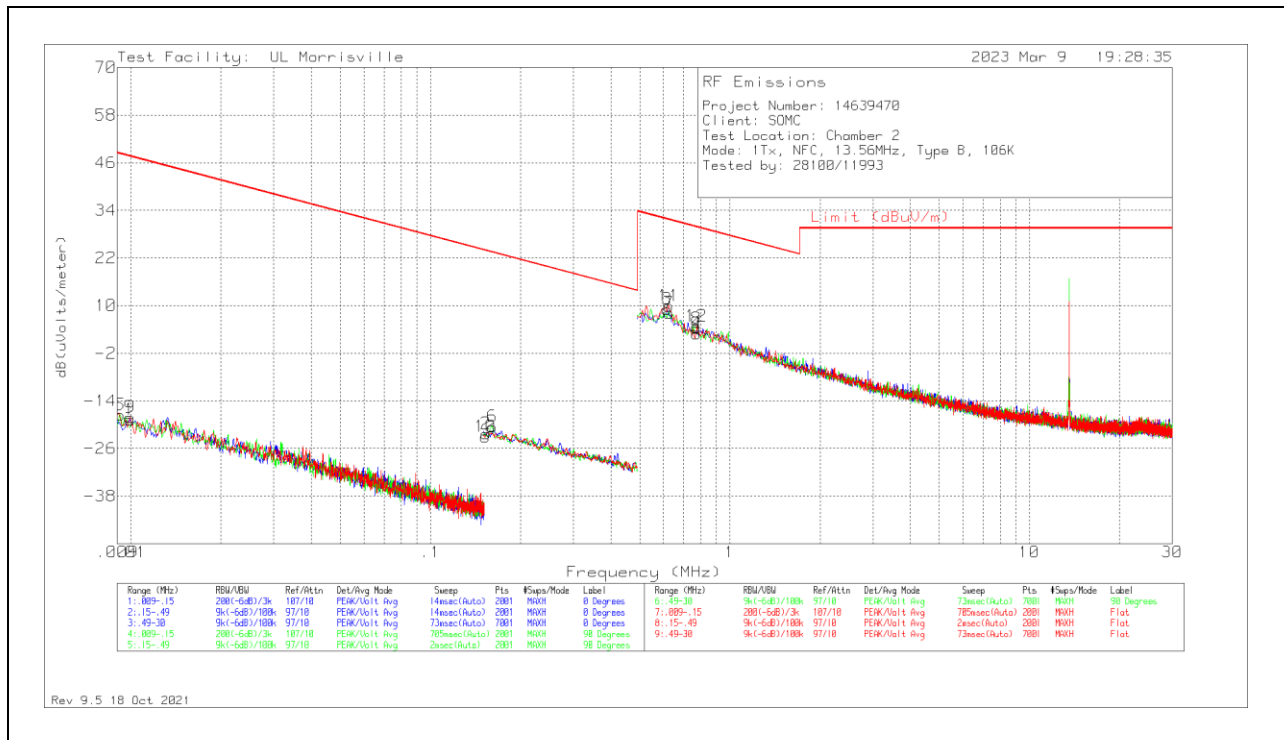
Pk - Peak detector
 Qp - Quasi-Peak detector

10.6. NFC

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 $40 \cdot \log(\text{test distance} / \text{specification distance})$.

HARMONICS AND SPURIOUS EMISSIONS – TYPE B, 106Kbps

0.009 to 30MHz



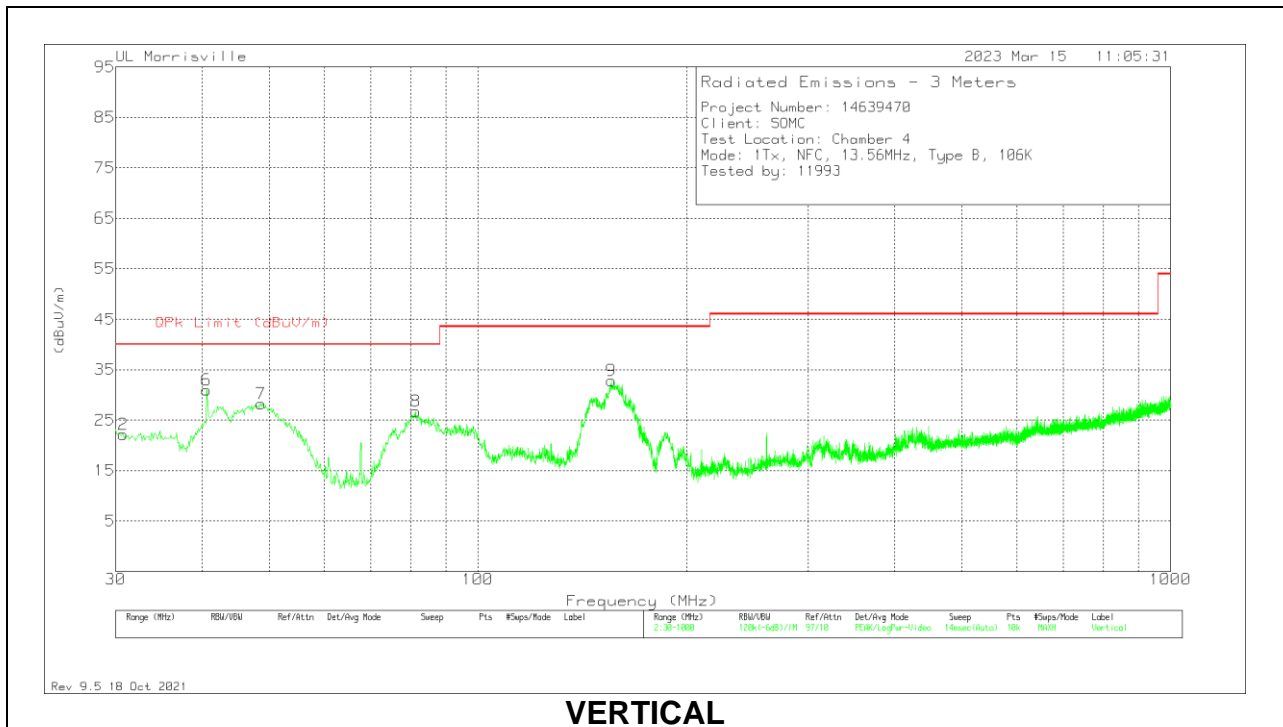
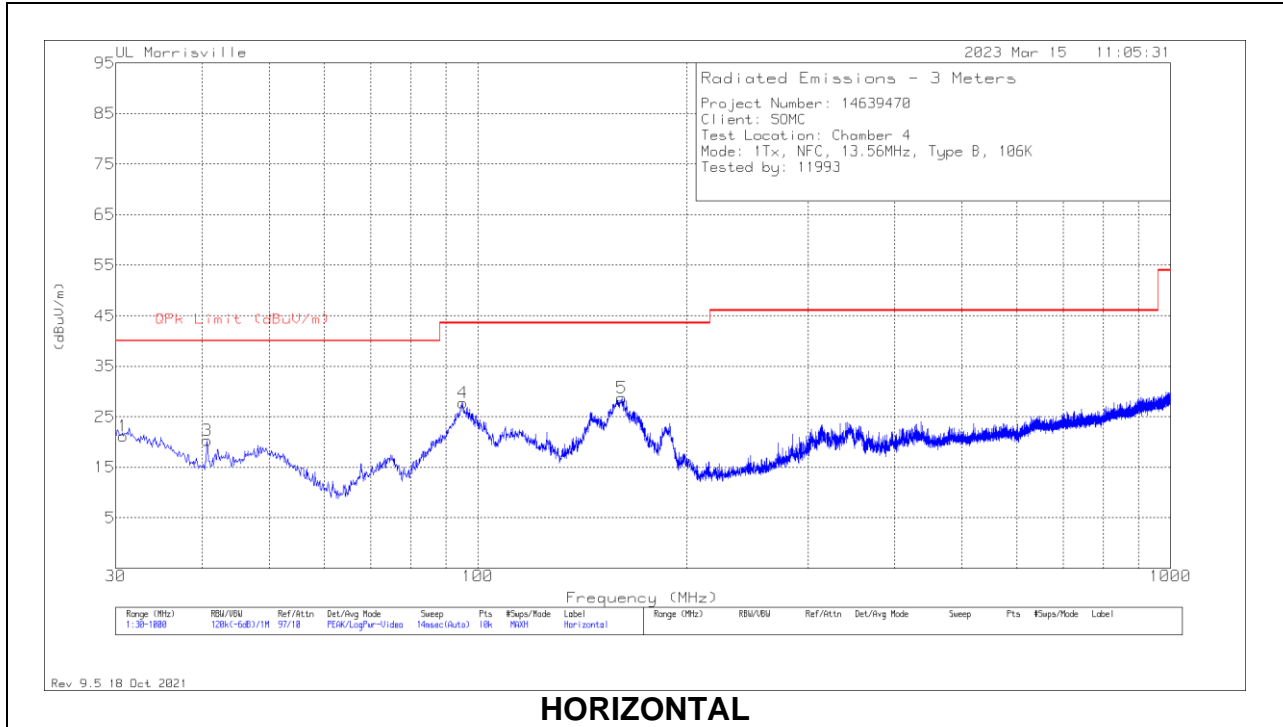
RADIATED EMISSIONS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dB/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	QP/AV Limit (dBuV/m)	PK Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Loop Angle
5	.00921	42.47	Pk	19.9	.1	-80	-17.53	48.32	68.32	-65.85	0-360	90 degs
1	.00992	41.79	Pk	19.4	.1	-80	-18.71	47.67	67.67	-66.38	0-360	0 degs
9	.00992	42.37	Pk	19.4	.1	-80	-18.13	47.67	67.67	-65.8	0-360	Flat
10	.15255	44.7	Pk	12.2	.1	-80	-23	23.94	43.94	-46.94	0-360	Flat
2	.15332	45.42	Pk	12.2	.1	-80	-22.28	23.89	43.89	-46.17	0-360	0 degs
6	.16071	47.22	Pk	12.2	.1	-80	-20.48	23.48	43.48	-43.96	0-360	90 degs
3	.61648	36.72	Pk	12.2	.2	-40	9.12	31.81	-	-22.69	0-360	0 degs
7	.62491	35.8	Pk	12.2	.2	-40	8.2	31.69	-	-23.49	0-360	90 degs
11	.62491	37.53	Pk	12.2	.2	-40	9.93	31.69	-	-21.76	0-360	Flat
4	.76229	27.45	Qp	12.2	.2	-40	-15	29.96	-	-30.11	201	0 degs
8	.78398	27.08	Qp	12.2	.2	-40	-52	29.72	-	-30.24	292	90 degs
12	.78351	27.2	Qp	12.2	.2	-40	-4	29.72	-	-30.12	109	Flat

Pk - Peak detector

Qp - Quasi-Peak detector

30 to 1000MHz



RADIATED EMISSIONS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90629 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	30.776	26.41	Pk	26.5	-31.7	21.21	40	-18.79	0-360	300	H
2	30.776	27.41	Pk	26.5	-31.7	22.21	40	-17.79	0-360	200	V
6	40.573	43.28	Pk	19.3	-31.6	30.98	40	-9.02	0-360	100	V
3	40.67	32.73	Pk	19.2	-31.6	20.33	40	-19.67	0-360	300	H
7	48.624	45.15	Pk	14.6	-31.5	28.25	40	-11.75	0-360	100	V
8	81.313	43.05	Pk	14.6	-30.9	26.75	40	-13.25	0-360	100	V
4	95.184	42.91	Pk	15.6	-30.8	27.71	43.52	-15.81	0-360	100	H
9	155.809	44.46	Pk	18.6	-30.2	32.86	43.52	-10.66	0-360	100	V
5	161.338	40.45	Pk	18.5	-30.2	28.75	43.52	-14.77	0-360	100	H

Pk - Peak detector

11. SETUP PHOTOS

Refer to R14639470-EP3 for setup photos.

END OF REPORT